

October 13, 2020 FOR IMMEDIATE RELEASE NEWS RELEASE TSX: JAG

JAGUAR MINING REPORTS STRONG THIRD QUARTER PRODUCTION WITH 24,093 GOLD OUNCES

Continued Consecutive Quarter-Over-Quarter Increase in Production Exploration Program Advancing in the Iron Quadrangle

Toronto, October 13, 2020 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) today announced interim gold production results for the third quarter of 2020 ("Q3 2020"). The Company is pleased to announce that it continues to show consistent quarter-over-quarter operational improvement at the Pilar Gold Mine ("Pilar") and Turmalina Gold Mine ("Turmalina") located in Minas Gerais, Brazil. Financial results for Q3 2020 will be reported and filed on SEDAR on or before November 10, 2020. All figures are in US Dollars, unless otherwise expressed.

Vern Baker, CEO, commented: "We continue to see steady progress toward our goal of sustainable production of 25,000 ounces a quarter. Pilar has demonstrated strong performance with its second consecutive quarter with over 13,000 ounces of gold produced. Turmalina made a step forward in its quarterly production with 10,300 gold ounces produced, its highest production quarter in three years. Overall, gold production increased 25% in the third quarter compared to the same quarter in 2019 and steadily increased 3.0% compared to the second quarter production of 23,483 ounces, demonstrating an impressive sixth consecutive quarter of increased production. We believe Jaguar is making steady strides to build the foundation of a strong company. Our quarterly production of 24,093 gold ounces combined with 2,701 development meters and 18,054 meters of diamond drilling demonstrate a strong company performance on all key production aspects of our plan. I personally would like to thank all our team members for their continued commitment to Jaguar."

Q3 2020 Operating Highlights

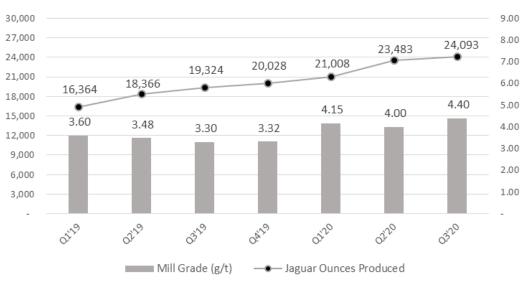
- Consolidated gold production increased 25% with 24,093 ounces compared to 19,324 ounces in Q3 2019, demonstrating the sixth consecutive quarter of increase in sustainable production. Grade also increased to 4.40 g/t compared to 3.30 g/t in Q3 2019;
- Pilar gold production increased 24% and set a new production record with 13,724 ounces compared to 11,044 ounces in Q3 2019;
- Turmalina gold production increased 25% with 10,370 ounces, compared to 8,280 ounces in Q3 2019;
- Total development metres increased 7% to 2,701 metres compared to 2,527 metres in Q3 2019. Primary development meters increased 36% to 2,068 metres compared to 1,516 metres in Q3 2019. Secondary development meters decreased 37% to 633 metres compared to 1,011 metres in Q3 2019;
- Total definition, infill and exploration drilling increased 130% to 18,054 metres compared to 7,841 metres in Q3 2019. The additional drilling is expected to allow Jaguar to continue expanding Mineral Resources in 2020;
- Strong treasury position as of September 30, 2020, with cash of \$39 million compared to cash of \$30 million on June 30, 2020, demonstrating significant generation of free cash flow.
 - During the quarter, the Company also paid a dividend of \$4.4 million, purchased \$0.5 million of shares through the Normal Course Issuer Bid program and paid down bank debt of \$0.6 million.

Vern continued; "As well as showing strong production numbers, our team has also begun investing strategically in our future. Both the Exploration Team and our Project Development Team began the next phase of growth at Jaguar. The exploration team has started surface diamond drilling to begin testing some of our many targets developed in and around our mining operations over the past few years. Drilling was done on our Faina deposit (on the Turmalina Property) to provide metallurgical samples to help our Project Team with planning. Drilling was initiated on our Zonal Basal exploration target, also near Turmalina, where we were on our eighth hole by the end of the quarter. Drilling was also initiated on the Pilarzinho property, near the Pilar Mine, and the third hole was in progress at month end. Project Development team efforts have begun by focusing on formerly active properties that we hold, and that have known gold occurrences on them. We also concluded an agreement for a JV with IAMGOLD on an additional group of properties in the Iron Quadrangle. The team has begun evaluating all available information on these properties, and started a drone operated geophysical survey over some very promising areas of the JV properties."

Quarterly Summary	Q3 2020			Q3 2019		
	Turmalina	Pilar	Total	Turmalina	Pilar	Total
Tonnes milled (t)	81.000	111.000	192.000	94.000	114.000	208.000
Average head grade (g/t)	4,40	4,39	4,40	3,05	3,50	3,30
Recovery %	90,2%	87,7%	88,8%	89,6%	86,3%	87,8%
Gold ounces						
Produced (oz)	10.370	13.724	24.093	8.280	11.044	19.324
Sold (oz)	10.462	12.473	22.935	7.399	10.018	17.417
Development						
Primary (m)	1.217	851	2.068	1.001	515	1.516
Secondary (m)	256	377	633	436	575	1.011
Definition, infill, and exploration						
drilling (m)	11.006	7.048	18.054	4.090	3.751	7.841

The table below summarizes Q3 2020 operating results compared to Q3 2019:

The following graph demonstrate Jaguar's consistent growth in production to sustainable levels:



Jaguar Ounces Produced & Head Grade (g/t)

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Vern also commented on the current issues surrounding the COVID-19 ("CV-19") pandemic and the Company's CV-19 Action Plan, which was initiated on March 14, 2020; "During the third quarter we had an increase in the number of CV-19 cases, but our people were able to adapt and adjust to minimize the impact. The majority of the cases occurred in August and were predominantly at the Turmalina Mine. In total, across the company (including third party employees) just under 3% had been confirmed with CV-19. As of September 30, 2020, all our people who had been confirmed with the virus had completed quarantine periods and returned to work. We continue to monitor our CV-19 Action Plan, which includes our first wave of relaxation of restrictions in October 2020. The first step is to allow employees to move between sites. This will provide additional flexibility and strengthen support for our operating teams."

Risks and Mitigating Factors

Jaguar is maintaining its social licenses to operate in all sites throughout Brazil and continues to deliver on its ethical and collaborative partnerships with employees, suppliers, local communities and unions. During this COVID-19 pandemic, the Company has formulated a formal COVID-19 Action Plan which has been adopted company-wide. The Action Plan is committed to sustainability while implementing increased health and safety initiatives with all stakeholders, emphasizing the protection of employees and their employment.

COVID-19 remains the largest question mark for all companies. At any time, state and federal government mandates may change and any mandate that would result in the shutdown of operations will affect the Company's production. As well, the pandemic may impact the availability of our workforce or supplies. Jaguar is not able to predict the consequences of the pandemic over the next several months and hence is unable to project the impact on production at the current time.

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), 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 17th 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 a prospective land position in the Iron Quadrangle of over 35,000 hectares plus over 27,000 hectares under JV with IAMGOLD.

About Jaguar Mining Inc.

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with two gold mining complexes and a large land package with significant upside exploration potential from mineral claims covering an area of approximately 102,000 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 Mine 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 care and maintenance since April 2018. Additional information is available on the Company's website at www.jaguarmining.com.

For further information, please contact:

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Forward-Looking Statements and Cautionary Notes

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). In addition, the Company's principal operations and mineral properties are located in Brazil and there are additional business and financial risks inherent in doing business in Brazil as compared to the United States or Canada. In Brazil, corruption represents a challenge requiring extra attention by those who conduct business there. Corruption does not only occur with the misuse of public, government or regulatory powers, it also can occur in a business's supplies, inputs and procurement functions (such as illicit rebates, kickbacks and dubious vendor relationships) as well as the inventory and product sales functions (such as inventory shrinkage or skimming). Employees as well as external parties (such as suppliers, distributors and contractors) have opportunities to commit theft, procurement fraud and other wrongs against the Company. While corruption, bribery and fraud and theft risks can never be fully eliminated, the Company reviews and implements controls to reduce the likelihood of these events occurring. The Company's present and future business operations face these risks. Accordingly, for all of the reasons above, readers should not place undue reliance on forwardlooking 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. 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.