

FOR IMMEDIATE RELEASE

TSX: JAG

JAGUAR MINING REPORTS FOURTH QUARTER PRODUCTION WITH 22,532 GOLD OUNCES

Turnaround Year with 23% Year-Over-Year Production Increase
Within Upper Half of the 2020 Production Guidance
Exploration Program Started at Corrego Brandão

Toronto, January 12, 2021 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) today announced Production results for the three months ("Q4 2020") and twelve months ended December 31, 2020 ("FY 2020"). All figures are in US Dollars, unless otherwise expressed.

FY 2020 Annual and Q4 2020 Operating Results Summary

- Annual consolidated gold production for 2020 increased 23% with 91,116 ounces compared to 2019 production of 74,083 ounces; in the upper half of the 2020 production guidance of 84,000 to 94,000 ounces of gold despite a tumultuous year dominated by the COVID-19 pandemic. Both mines saw significant improvement from 2019 production levels with Pilar up 25% and Turmalina up 20%. Q4 2020 consolidated gold production increased 12% to 22,532 ounces, compared to Q4 2019 production of 20,029 ounces.
- Annual consolidated tonnage for 2020 processed was 804,000 tonnes at 3.99 grams per tonne (g/t), an increase of 5% in tonnes and an increase of 17% in grade from 2019's 767,000 tonnes processed at 3.41 g/t. Q4 2020 consolidated tonnage processed was 228,000 tonnes at 3.50 g/t; increases of 7% from the fourth quarter of 2019 with 214,000 tonnes at 3.32 g/t.
- Annual 2020 development of 7,085 primary and 2,640 secondary metres for a total of 9,725 metres, which is
 an increase of 13% on FY 2019 total metres developed of 8,606. Q4 2020 primary metres of 1,871 metres and
 secondary metres of 667, totalling 2,538 metres which is an 11% increase on Q4 2019 development of 2,278
 metres. These development rates provide sustainable progress on the ramp and ore development.
- Diamond Drill metres for FY 2020 increased 96% to 68,397 metres from 34,899 metres in FY 2019. Q4 2020 metres were at 21,521 a 76% increase from Q4 2019 drilling of 12,197 metres.
- Treasury position as of December 31, 2020, with cash of \$39 million compared to cash of \$11 million on December 31, 2019 and \$39 million on September 30, 2020, demonstrating continued generation of free cash flow. During Q4 2020 the Company also,
 - Invested total capital expenditures of \$11 million (sustaining capital \$9 million and growth capital \$2 million),
 compared to \$9 million total capital expenditures in prior period in 2019;
 - Spent \$6.7M on returns to shareholders including a quarterly dividend of \$4.4 million and purchased \$2.3 million of shares through the Normal Course Issuer Bid program.

Vern Baker, President and CEO of Jaguar Mining stated: "The results for the year demonstrate an exceptional turn around for Jaguar implemented by our mining teams in Brazil. In 2021 we expect to make further strides and reach our target of 100,000 sustainable ounces produced per year. Year over year, Jaguar saw an increase of 23% in production ounces, made up of a 25% improvement at Pilar and a 20% improvement at Turmalina. This coincided with a year-over-year increase in primary metres developed by 30%, an increase in Diamond Drill metres by 96%, and reduction of lost time injuries by 70% while seeing an increase in man-hours of 20%. The quarterly results continue strong for Pilar, while Turmalina's fourth quarter gold production was below our expectations.

The Pilar Mine continued showing consistent performance with a quarterly production of 12,352 ounces which led to an annual production of 51,049 gold ounces. The primary development performance at Pilar was also strong with 837 metres completed for an annual total of 2,675 primary development metres showing a 25% increase over 2019. Diamond drilling at Pilar also increased for the quarter and the year with 10,316 metres in the quarter for an annual total of 29,840 metres an 108% increase over 2019. Additional investment in the future continued with projects at both the plant and mine designed to strengthen infrastructure in Q4.

The Turmalina Mine produced 10,180 gold ounces in Q4 for an annual total of 40,067 ounces for the year an increase of 20% over 2019. Turmalina's primary development was 1,034 metres for the quarter and reached 4,410 metres for the year, an increase of 34% year-over-year. Diamond drilling within the mine was 11,205 metres for the quarter leading to an annual total of 38,557 for an 88% increase over 2019. A number of projects to strengthen the mine and plant infrastructure were initiated in the fourth quarter.

Turmalina production was negatively impacted by COVID-19 Cases in both Q3 and Q4. The highest December rainfall in 9 years also impacted production due to grid power outages; and underground water pumping stoppages to control surface pond levels. Discussions with the power provider are ongoing to strengthen the mine 's access to consistent power. Turmalina has developed the working areas to sustain production at 50,000 ounces per year. Turmalina has also modified the mine design in Orebody C to reduce waste development; modified the mine plan in Orebody A to increase use of cemented paste backfill to improve stope sequencing and reliability; and increased the percentage of Orebody C production which is closer to surface. These changes provide the pathway to consistent production of 50,000 ounces per year.

Vern added, "Our exploration programs are moving ahead with the increased diamond drill metres in the undergrounds continuing to expand known mineralized areas. Exploration efforts have been growing through the year but have been hampered by the slow returns of assays from the outside laboratories. Samples from the Faina deposit are currently going through an extensive metallurgical program to help us develop our next steps on this deposit which is within 1 kilometres of our Turmalina workings. Work on the Zona Basal property continues with both oxide and sulphide intercepts being evaluated. We are pleased that the drilling of the Corrego Brandão (CB) exploration project was initiated in December. We believe that CB is an outstanding target and are excited about getting drilling started. We expect to be putting out exploration releases as assay results are received."

2021 Production Guidance

Our guidance for production performance for FY 2021 is 95,000-105,000 ounces. We expect the All-in-Sustaining-Costs for 2021 to be within the range of \$975 to \$1,125 per ounce, utilizing a foreign exchange rate of R\$5.2 for the Brazilian Real versus the US dollar.

Cash Position and Use of Funds

- Treasury position as of December 31, 2020, with cash of \$39 million compared to cash of \$39 million on September 30, 2020, and \$11M cash on December 31, 2019, demonstrating an year of continued generation of free cash flow.
- The Company also invested total capital expenditures of \$11 million (sustaining capital of \$9M and growth capital of \$2M, approximately) being the highest total capital spend in a quarter in the past 7 years.
 - In FY 2021, total capital (sustaining and growth) expenditures of \$11-13 million per quarter are expected to continue, with new projects including Pilar's new ventilation system, expenditures on the Caeté filter press, dry stack tailings project at Turmalina to extend life of the tailings, purchase of new mining

equipment, purchase of new diamond drill rigs to advance exploration activities, and capitalization of diamond drilling converting resources to reserves.

- During the quarter, the Company also spent \$7 million on financing activities including:
 - o A quarterly dividend of \$4.4 million,
 - o Purchase of \$2.3 million of shares through the Normal Course Issuer Bid program, and
 - Debt and interest payments of \$0.3 million.

Q4 2020 Detailed Operating Results

Quarterly Summary	Q4 2020			Q4 2019		
	Turmalina	Pilar	Total	Turmalina	Pilar	Total
Tonnes milled (t)	111,000	117,000	228,000	99,000	115,000	214,000
Average head grade (g/t)	3.27	3.73	3.50	3.44	3.21	3.32
Recovery %	87.4%	87.8%	87.6%	89.2%	86.7%	87.9%
Gold ounces						
Produced (oz)	10,180	12,352	22,532	9,773	10,256	20,029
Sold (oz)	10,059	13,248	23,306	10,063	10,997	21,060
Development						
Primary (m)	1,034	837	1,871	936	517	1,453
Secondary (m)	295	372	667	455	370	825
Definition, infill, and exploration						
drilling (m)	11,205	10,316	21,521	7,193	5,004	12,197

FY 2020 Detailed Operating Results

Quarterly Summary	FY 2020			FY 2019		
	Turmalina	Pilar	Total	Turmalina	Pilar	Total
Tonnes milled (t)	370,000	434,000	804,000	334,000	433,000	767,000
Average head grade (g/t)	3.78	4.16	3.99	3.46	3.37	3.41
Recovery %	88.9%	87.9%	88.3%	89.7%	86.7%	88.0%
Gold ounces						
Produced (oz)	40,067	51,049	91,116	33,401	40,682	74,083
Sold (oz)	40,210	51,642	91,852	33,467	40,429	73,896
Development						
Primary (m)	4,410	2,675	7,085	3,293	2,147	5,440
Secondary (m)	1,245	1,396	2,640	1,542	1,624	3,166
Definition, infill, and exploration						
drilling (m)	38,557	29,840	68,397	20,535	14,364	34,899

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

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 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. 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.