NEWS RELEASE

October 17, 2017 **TSX: JAG**
FOR IMMEDIATE RELEASE

Jaguar Mining Reports Third Quarter 2017 Operating Results, Reviews 2017 Outlook

Company Achieves Record Grade at Pilar, Lowers Cash Costs, Increases Operating Cash Flow and Reduces Higher Cost Brazilian Debt by $2M

Toronto, Canada, October 17, 2017 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX:JAG) today announced preliminary third quarter 2017 (“Q3 2017”) operating results for its core assets located in the Iron Quadrangle area of Minas Gerais, Brazil. All figures are in US Dollars unless otherwise expressed. Full Q3 2017 financial results are expected to be released on or around November 8, 2017.

Q3 2017 Highlights

- Consolidated gold production of 20,781 ounces, improved grade of 3.36 g/t Au and recovery of 90%. First 9 months consolidated production totalled 62,840 ounces.

- New record grade at Pilar Gold Mine (“Pilar”) of 3.77 g/t Au for the quarter as mining activity increases into the higher-grade BFII ore body, resulting in 9,674 ounces of gold produced in Q3 2017, an increase of 26% quarter over quarter. September gold grade for Pilar was 4.48 g/t Au. The higher average head grade and lower tonnage reduced consolidated Cash Operating Costs (“COC”) per ounce sold in Q3 2017.

- Turmalina Mine (“Turmalina”) gold production of 9,616 ounces, grading 3.10 g/t Au, declined compared to Q2 2017 gold production of 10,870 ounces grading 3.37 g/t Au, due to less overall tonnes mined and a delay in accessing the next in-line higher grade ore from Orebody A, resulting in higher contribution of material from lower grade Orebody C.

- Increasing grade at Roça Grande Mine (“Roça Grande”) of 2.89 g/t Au contributed to gold production of 1,491 ounces, which was 25% higher compared to Q2 2017. Improved performance and operational efficiencies, including optimization of working shifts from four to two per day, resulted in positive operational cash flows for Roça Grande.

  Definitions: g/t Au – grams per tonne gold

Improving Third Quarter Cash Operating Costs

- Improved consolidated COC per ounce sold to $819, an 11.4% reduction compared to $924 in Q1 2017, and a reduction of 4.4% compared to $857 in Q2 2017. The COC per ounce sold decreased significantly in September 2017 to $743.

- Lower unit costs are a result of a continued focus on profitable ounce production, waste reduction and solid progress made on company-wide cost reduction programs, despite a continuing impact of a strong Brazilian Real vs. the US Dollar. The Company estimates that the Q3 2017 operating cash flow will be between $5-6M with net free cash flow of between $1-2M.

- Preliminary cash balance of approximately $19.2M as of September 30, 2017, compared to a cash balance of $20.7 million at June 30, 2017. In addition to the regular repayment of financing obligations of $3.2M, the Company also made an additional debt repayment of $2M to reduce part of its higher cost Brazilian debt.

2017 Outlook

- The Company continues to focus on generating positive operating cash flow and improving COC per ounce sold. Further improvement in operating cash flow and net positive free cash flow is expected to be generated in the fourth quarter of 2017 ("Q4 2017").

- A re-forecast for 2017 has been completed resulting in lower estimated gold production for the full year. The reduction is mainly due to lower than anticipated production from Turmalina as a result of mining less higher-grade material from Orebody A than planned and an increase in lower grade ore from Orebody C. In the midst of lower production, the Company increased its focus on maximizing operating cash flow from all three mines in order to achieve its key milestones to support its current operations and contribute towards future growth plans.

- 2017 production is now expected to be between 87,000–92,000 ounces of gold, compared with approximately 95,000 ounces previously announced.

Rodney Lamond, President and CEO of Jaguar, commented: "Third quarter production was highlighted by strong operating performance at Pilar which has progressed extremely well throughout 2017, including posting a record quarterly grade of 3.77 g/t Au and decreasing cash costs compared to the second quarter of 2017. Overall consolidated grade improved over the second quarter by 5.7% to 3.36 g/t Au driven by higher grades at Pilar and Roça Grande, resulting in an increase of 5.1% in overall gold production quarter over quarter."

"Operationally, we have kept a sharp focus on reducing costs and delivering profitable ounces to provide us with the flexibility to reinvest capital in key near mine exploration growth projects. Cash operating costs per ounce continue to steadily improve and decreased 9% to $819 per ounce for Q3 2017 compared to $895 per ounce in the first half of 2017. The improvement is partially attributed to the strong results at Pilar, from mining the higher-grade BFII ore body, which also continues to perform at consistently higher production levels each month. Additionally, cost containment and cash flow monitoring efforts across all mine sites have contributed to the expected positive financial results for the third quarter of 2017."

"After completing a gold production re-forecast for 2017, we expect to improve production performance at Turmalina into Q4 2017 as the team is focused on achieving key milestones to support future production. Although we have deferred approximately 12,000 ounces of production we had previously forecasted in 2017 to 2018, we are pleased with these assets returning back to generating positive operating cash flows."

"Looking ahead, we have made excellent progress on our exploration growth projects with highly encouraging drill results that have increased our confidence in the resource upside of Pilar and its ability to have a very positive impact on the Company's future. We are also optimistic that the drill program commenced at Turmalina, now about 40% complete, may deliver similar exploration success and we look forward to reporting these drill results before year-end."

JAGUAR MINING INC.
First Canadian Place, 100 King Street West, 56th Floor, Toronto, Ontario, Canada M5X 1C9 T: 416-847-1854

Quarterly Operating Summary

Operating Summary	Q3 2017				Q3 2016				Q2 2017			
	Turmalina	Pilar	Roça Grande	Total	Turmalina	Pilar	Roça Grande	Total	Turmalina	Pilar	Roça Grande	Total
Tonnes milled (t)	107,000	88,000	18,000	**213,000**	128,000	78,000	25,000	**231,000**	112,000	85,000	19,000	**216,000**
Average head grade (g/t)	3.10	3.77	2.89	**3.36**	4.36	3.51	2.12	**3.83**	3.37	3.16	2.15	**3.18**
Recovery %	91%	90%	90%	**90%**	92%	91%	91%	**91%**	91%	90%	90%	**91%**
Gold ounces												
Produced (oz)	9,616	9,674	1,491	**20,781**	16,304	7,923	1,556	**25,783**	10,870	7,702	1,197	**19,769**
Sold (oz)	9,082	9,820	1,519	**20,421**	15,945	7,821	1,551	**25,317**	10,815	6,625	1,013	**18,453**
Financial Data												
Cash Operating Costs (per oz)	758	817	1,197	**819**	528	762	1249	**645**	695	1033	1439	**857**
Avg. Realized gold price ($/oz)				1,276				1,328				1,266
Avg. US$:BRL FX (US$1:BRL)				3.16				3.25				3.22
Development												
Primary (m)	443	471	18	**932**	605	741	7	**1,353**	504	218	102	**824**
Exploration (m)	11	-	-	**11**	-	22	-	**22**	56	-	-	**56**
Secondary (m)	337	518	67	**922**	623	284	275	**1,182**	292	577	120	**989**
Diamond drilling (m)	8,355	3,237	-	**11,592**	2,793	2,811	1,145	**6,749**	4,676	6,206	186	**11,068**

Update on Progress at Turmalina to End of September 2017

Management is focused on supporting current and future production targets at Turmalina by achieving certain key milestones including the following:

- Increasing the number of working areas in an effort to stabilize the mining cycles in order to have a consistent gold production.
- Increasing gold production from Orebody C while the mining cycle is normalized in Orebody A and until access to lower Orebody C containing higher grades can be established. Production from Orebody C is expected to continue to impact consolidated grade in the short term.
- Completing the review of the upper levels of the mine in Orebody A to identify areas of high-grade blocks that can be recovered. Several areas have already been identified and two mining blocks within these areas are expected to be recovered by year-end.
- Completed the newly designed paste-fill plant. Commissioning of the plant is expected to begin in the fourth quarter.

The completion of the key milestones outlined above is critical to ensuring the flexibility and consistency in the production plan at Turmalina and realizing the full potential of the higher grades in Orebody A.

Outlined below is the trailing consolidated COC summary for the past three quarters:

Consolidated Cost Summary	Q1 2017				Q2 2017				Q3 2017			
	Jan	Feb	Mar	**Q1**	Apr	May	June	**Q2**	Jul	Aug	Sep	**Q3**
Cash Operating Costs (per oz)	891	937	945	**924**	1,017	823	797	**857**	908	828	743	**819**

Third Quarter Cost Reduction and Operational Excellence Initiatives Highlights

- Renegotiated haulage costs for ore from Pilar to the Caeté Mill combined with a new, shorter access road are expected to decrease future operating costs of Pilar by approximately $20-25 per ounce of gold sold.

- Efficiency initiatives at Pilar and Turmalina are yielding tangible results. Operating improvements include initiatives such as management of ventilation shut-offs to reduce electrical consumption, increasing fan-drill efficiency by metres drilled per shift, tracking of full-load haul trucks, and increasing drill and blast efficiency of jumbo drills to achieve more break per metre drilled.

- Invested $1.2M and acquired a new 33 tonne haul truck, replacing two older trucks, which will improve equipment availability and lower cash operating costs.

Preliminary Cash Balance

Preliminary cash balance of approximately $19.2M as of September 30, 2017, compared to a cash balance of $20.7M at June 30, 2017. During the third quarter, the Company received $2M from Avanco for the first instalment of the Accelerated Earn-in Agreement signed for the Gurupi Project on September 18, 2017.

In addition to the regular repayment of financing obligations of $3.2M during the quarter, the Company used the initial proceed from the Gurupi Avanco transaction to make an additional debt repayment of $2M for part of the high cost Brazilian debt, thus reducing the future debt servicing and improving the working capital.

2017 Growth Exploration and Mineral Resources Highlights

Jaguar provided an update on its recent Exploration Growth Program (see news release dated September 20, 2017) and announced the acquisition of a new strategic land position (see news release dated June 21, 2017) located 4.5 km west of the Caeté Mill, increasing the total registered RG Mine concession by 1,000 hectares.

- Recent results from Pilar included drill results that continued to intersect high-grade visible gold mineralization down-plunge of current resources. Key intercepts included 15.9 g/t Au over 11.8 m (ETW 9.6 m), 25.3 g/t Au over 6.0 m (ETW 5.2 m) and 5.3 g/t Au over 49.3 m (ETW 38.7 m) and confirm the thick, high-grade intercepts from earlier holes, previously reported in August 2017, which included 10.8 g/t Au over 29.3 m (ETW 22.5 m). A further 3,200 m of infill diamond drilling at Pilar aimed at increasing drilling density in these areas for inclusion in updated Mineral Resource and Ore Reserve estimates for this operation are scheduled for release in early 2018. This drilling commenced with one rig in the last week of September 2017.

- At Turmalina, three diamond drill rigs commenced 11,355 m of growth exploration drilling in July 2017 which are targeting down-plunge extensions to the high-grade Orebody A at depth, and shallower extensions of Orebody C. Approximately 40% of the planned program has been completed to date including fourteen holes (eleven holes for Orebody A and three holes for Orebody C) with a combined meterage totalling 4,520 m.

  Definitions: ETW – estimated true width   m – metres

Qualified Person

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").

Quality Control

Jaguar continues to use a quality-control program that includes insertion of blanks and commercial standards in order to ensure best practice in sampling and analysis.

HQ, NQ, and BQ size drill core is sawn in half with a diamond saw. Samples are selected for analysis in standard intervals according to geological characteristics such as lithology and hydrothermal alteration contents. All diamond drill hole collars are accurately surveyed using a Total Stations instrument and down-hole deviations are surveyed using non-magnetic equipment with Icefield Tools' Gyro Path® NSG equipment

and SPT Stockholm Precision Tools with GyroMaster™ Solid State [North Seeker].
Mean grades are calculated using a variable lower grade cut-off (generally 0.5 g/t Au). No upper gold grade cut has been applied to the data. However, the requirement for assay top cutting will be assessed during future resource work.

Half of the sawed sample is forwarded to the analytical laboratory for analysis while the remaining half of the core is stored in a secure location. The drill core samples are transported in securely sealed bags and sent for physical preparation to the independent ALS Brasil (subsidiary of ALS Global) laboratory located in Vespasiano, Minas Gerais, Brazil. The analysis is conducted at ALS Global's respective facilities (fire assay is conducted by ALS Global in Lima, Peru and multi-elementary analysis are conducted by ALS Global in Vancouver, Canada). ALS has accreditation in global management system that meets all requirements of international standards ISO/IEC 17025:2005 and ISO 9001:2015. All major ALS geochemistry analytical laboratories are accredited to ISO/IEC 17025:2005 for specific analytical procedures.

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 black 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 192,000 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) which combined, produce more than 95,000 ounces of gold annually. The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012. Additional information is available on the Company's website at www.jaguarmining.com.

For further information please contact:

Rodney Lamond
President & Chief Executive Officer
Jaguar Mining Inc.
rodney.lamond@jaguarmining.com
416-847-1854

Hashim Ahmed
Chief Financial Officer
Jaguar Mining Inc.
hashim.ahmed@jaguarmining.com
416-847-1854

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 an 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 involve 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, 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. 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 above 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, 2017, is set out in the Company's second quarter 2017 Management Discussion and Analysis (MD&A) filed on SEDAR at www.sedar.com.*

JAGUAR MINING INC.
First Canadian Place, 100 King Street West, 56th Floor, Toronto, Ontario, Canada M5X 1C9   T: 416-847-1854