



PRESS RELEASE

October 11, 2016
For Immediate Release

2016-23
TSX: JAG

Jaguar Mining Reports Strong Gold Production of 71,201 Ounces for First Nine Months of 2016 Q3 2016 Consolidated Gold Production of 25,782 Ounces

Toronto, Canada, October 11, 2016 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) today announced that the Company achieved strong consolidated gold production of 25,782 ounces for the third quarter of 2016 ("Q3 2016") from processing 231,000 tonnes of ore at an average grade of 3.92 grams per tonne ("g/t") and achieved 91.3% recovery. Year-to-date ("YTD 2016") consolidated gold production to the end of September totaled 71,201 ounces. As a result, the Company is well positioned to meet or exceed the top end of its 2016 production guidance of 90,000 to 95,000 ounces.

Rodney Lamond, President and CEO of Jaguar Mining commented, *"To date, our operations have performed extremely well, with our improvement initiatives delivering increased production, average grade, and recoveries that are meeting or exceeding our targets. Q3 2016 marked the third consecutive quarter of increased quarter-over-quarter production led by the Turmalina mine, which, despite challenging ground conditions during the quarter, achieved its highest level of production since Q3 2013. This strong operational performance has now positioned us to meet or exceed the top end of our 2016 gold production guidance of 90,000 to 95,000 ounces. I am also very pleased with the continued progress being made at the Pilar mine, where our operations team has refocused their efforts on programs that will drive increased sustainable production and cash flow growth over the coming quarters."*

Q3 2016 Highlights (All figures are in US dollars unless otherwise indicated)

- Following strong Q3 2016 production and operating performance, the Company is on track to meet or exceed the top end of its 2016 gold production guidance of 90,000 to 95,000 ounces.
- Consolidated gold production for Q3 2016 increased 2% year-over-year to 25,782 ounces based on average consolidated mill head grade of 3.92 g/t (Q3 2015 – 3.90 g/t) and recovery of 91.3% (Q3 2015 – 89.9%).
- Turmalina led strong Q3 2016 results with 16,304 ounces of gold production, up 17% year-over-year, based on an average head grade of 4.36 g/t and recovery of 92%.
- Total primary development investment increased 17% year-over-year to 1,347 metres ("m") completed in Q3 2016. Secondary development increased 65% year-over-year to 1,182 m in Q3 2016.
- Total definition, infill, and exploration drilling of 6,749 m completed during Q3 2016 focused on key targets at Turmalina and Caeté. A total of 28,127 m of drilling was carried out in the first nine months of 2016.
- To support future growth, the Company continued its 2016 capital investment program, which includes investing in development and exploration activities at all mines, a newly designed paste-fill plant, and the rebuild of Mill #3, both at Turmalina. The paste-fill plant and Mill #3 are expected to be commissioned in Q4 2016.
- Despite a strengthening Brazilian Real, the Company's increased cost control measures ensured that it remains on track to achieve 2016 cost guidance.
- Preliminary cash balance of \$17.3 million after investing significant capital in development and exploration programs, \$0.4 million towards the convertible debentures interest, and repaying \$1.3 million for principal and interest towards other debt facilities in Q3 2016.

Q3 2016 Operating Summary

	Q3 2016			Q3 2015		
	Turmalina	Caeté	Total	Turmalina	Caeté	Total
Tonnes milled (t)	128,000	103,000	231,000	101,000	122,000	223,000
Recovery (%)	91.8	90.6	91.3	91.0	89.0	89.9
Average head grade (g/t)	4.36	3.17	3.92	4.77	3.17	3.90
Gold ounces						
Produced (oz)	16,304	9,479	25,782	13,994	11,241	25,235
Sold (oz)	15,945	9,371	25,316	13,485	10,921	24,406
Development						
Primary (m)	605	748	1,353	1,061	91	1,152
Exploration drift (m)	-	22	22	-	-	-
Secondary (m)	623	559	1,182	625	93	718
Definition, infill, and exploration drilling (m)	2,793	3,956	6,749	8,374	720	9,094

	YTD 2016			YTD 2015		
	Turmalina	Caeté	Total	Turmalina	Caeté	Total
Tonnes milled (t)	380,000	264,000	644,000	306,000	353,000	659,000
Recovery (%)	91.2	90.6	90.9	90.3	89.3	89.8
Average head grade (g/t)	4.25	3.13	3.86	4.08	3.11	3.53
Gold ounces						
Produced (oz)	47,158	24,043	71,201	36,210	31,043	67,253
Sold (oz)	47,615	24,552	72,167	36,291	31,527	67,818
Development						
Primary (m)	2,502	1,869	4,371	2,603	205	2,808
Exploration drift (m)	-	66	66	24	-	24
Secondary (m)	2,154	1,391	3,545	1,398	93	1,491
Definition, infill, and exploration drilling (m)	12,735	15,392	28,127	18,843	10,635	29,478

Q3 2016 Cash Balance

Preliminary cash balance was \$17.3 million as at September 30, 2016 compared to a cash balance of \$15.3 million as at December 31, 2015, while investing in capital activities and maintaining a stable working capital position. Full financial details and associated all-in sustaining and operating cash cost details will be released in November 2016.

Capital investments in Q3 2016 were primarily funded through operating cash flows, a trend expected to continue for the remaining part of 2016. In addition to the increase in capital expenditures, Jaguar also paid \$0.4 million of interest on the convertible debentures and \$1.3 million in other debt principal and interest payments during the third quarter. The strengthening of the Brazilian Real in Q3 2016 and the resulting foreign currency losses offset some of the gold price gains during the quarter.

Management Update

The Company is pleased to announce that it is strengthening its management team with the appointments of Mr. Robert (Bob) Gill as Vice President, Operations and Ms. Joanne C. Jobin as Vice President, Investor Relations.

Rodney Lamond, President and CEO of Jaguar Mining commented, *"I am pleased to announce the addition of Bob and Joanne to the Jaguar management team. Bob is a senior mining professional with a strong international background in design and mine operations, while Joanne brings to the Company broad experience with investor relations and marketing; her knowledge of the capital markets as well as her existing industry relationships will strengthen Jaguar's exposure within the investment community."*

Mr. Gill has over 30 years of expertise in the design and operation of international and domestic, open pit and underground, base metal and gold mines. Prior to joining Jaguar, he was with AMEC Americas Limited Mining Division in Vancouver where he held the position of Principal Engineer and Study Manager, where he managed prefeasibility studies and PEA's, including being the project manager on the Galore Creek prefeasibility study. He has worked at various operations and development projects in North and South America and consulted to mines around the world. Mr. Gill holds a Bachelors of Applied Science in Geotechnical Engineering from the University of British Columbia and completed the International Executive Program in Mining Leadership from Queen's University.

Ms. Jobin has over 25 years of Investor Relations and Corporate Communications experience and has been the Investor Relations consultant to Jaguar Mining since September 2014. She began her career in the fledgling investor relations industry in 1987 with Barrick Gold, where she worked to develop its early investor relations and marketing programs. Since then she has worked in the natural resources sector and managed the investor relations, corporate affairs and communications programs for a number of publicly traded companies, including J.P. Morgan & Co. (Canada), Canadian Tire Corporation, IAMGOLD Corporation, Noront Resources, Excellon Resources and Veris Gold. She co-founded The FIRM and founded IR.INC, international investor relations marketing companies focused on the natural resource sectors.

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 191,000 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 ("Mineração Turmalina Ltda" or "MTL") and the Caeté Gold Mine Complex ("Mineração Serras do Oeste Ltda" or "MSOL"), which combined produce more than 90,000 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
rodney.lamond@jaguarmining.com
416-628-9601

Joanne C. Jobin
Vice President, Investor Relations
joanne.jobin@jaguarmining.com
416-628-9601

Forward-Looking Statements

Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. 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. This news release contains forward-looking information regarding expected production, grades, tones milled, recovery rates, cash operating costs, and definition/delineation drilling, in addition to overall expenditures and results of operations for 2016. 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; and 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, the uncertainties with respect to the

price of gold, labor disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, procurement and delivery of parts and supplies to the operations, uncertainties inherent to capital markets in general 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. 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.