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Jaguar Exceeds 2016 Gold Production Guidance Company Positioned For Growth and Higher Production In 2017

Toronto, Canada, January 18, 2017 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) is pleased to report consolidated operating results for the three ("Q4 2016") and twelve months ended December 31, 2016 ("FY 2016"). All dollar amounts are in U.S. dollars unless otherwise stated.

FY 2016 Highlights

- Record gold recovery, improving grades, and higher throughput levels positioned the Company to exceed 2016 production guidance with strong annual gold production of 96,536 ounces.
- Turmalina Gold Mine ("Turmalina") delivered 25% higher gold production of 63,186 ounces based on record gold recovery of 91.5%, a 24% increase in ore milled, and improved head grade ("grade") of 4.28 grams per tonne ("g/t").
- Record gold recovery at Caeté Complex ("Caeté") of 90.7% and increasing grade with gold production of 33,350 ounces.
- Pilar delivered strong full year production of 27,878 ounces with improved grade of 3.35 g/t and record gold recovery of 90.8%. Increased mining development at Pilar is expected to result in production growth in 2017.
- Achieved key 2016 objectives in primary and secondary mine development, expansion, and production across assets.
- Milling capacity at Turmalina increased with the recommissioning of Mill #3 (announced January 5, 2017).
- Approved and began implementation in late 2016 of an exploration program of up to \$8 million to focus on brownfield exploration targets near core assets, the majority of which will be spent in 2017.
- 2017 guidance includes: estimated 10% higher production of 100,000 - 110,000 ounces of gold, cash operating costs of \$720 - \$755 per ounce sold, and all-in sustaining costs of \$900 - \$1,000 per ounce sold.
- Strong preliminary cash balance of approximately \$26.4 million as at December 31, 2016 compared to \$15.3 million as at December 31, 2015.

Q4 2016 Highlights

- Consolidated gold production of 25,335 ounces, up 9%, led by strong production at Turmalina of 16,027 ounces, up 11%.
- Record consolidated gold recovery of 91.7%, total ore milled of 237,000 tonnes, up 10%, and average grade of 3.60 g/t.
- Turmalina gold production increased 11%, the best quarterly production since Q3 2011, with record recovery of 92.5%, a 22% increase in ore milled, and average grade of 4.37 g/t.
- Caeté increased gold production to 9,308 ounces, up 7%, and achieved record quarterly gold recovery of 90.8%.

Rodney Lamond, President and Chief Executive Officer of Jaguar, commented, *"I am extremely pleased to report we exceeded our 2016 annual production guidance, producing 96,536 ounces of gold. We had a safe and strong finish to the year with higher production, improved grades, and record gold recoveries during the fourth quarter. Throughout the year, we focused on positioning our Company for the future and achieving our key objectives. The hard work of our employees and support groups contributed to a strong year as we successfully transformed our Company profile into a growth producer while delivering record performances."*

In 2016, we increased mine development and exploration which delivered sustainable growth across all of our operating mines. Our team continued to build confidence in our current geological models and mine plans, while also improving productivity in our primary assets to support growth. We successfully completed the recommissioning of Mill #3, a major milestone for Turmalina, which is expected to increase the daily processing capacity of the plant by 35% and reduce unit costs. Additionally, the Operational Excellence Program we commenced at Turmalina earlier in 2016 has paid off with initiatives to identify and eliminate waste and improve productivity, translating to tangible results, and future growth opportunities. We will be rolling out the same program at Pilar, with a view to increase productivity and lower unit costs there as well.

With all of the outstanding progress made this year, we expect 2017 to be the year we become a sustainable 100,000 plus ounce gold producer, targeting production between 100,000 - 110,000 ounces. As we continue to grow, we are also focused on increasing efficiencies and implementing technology to decrease costs. Looking forward, increasing our sustainable ounce profile in a safe way is our primary objective which will help us execute on a five-year target to become a 200,000 ounce gold producer, growing organically and opportunistically within our jurisdictions. We commence 2017 with a strengthened balance sheet, following the full conversion of convertible debentures to common shares last October, and we are well funded with a solid cash balance in our treasury. We expect to provide an update on the exploration growth pipeline

programs and report an updated Mineral Reserve and Mineral Resource statement within the first quarter of 2017. Finally, I would like to thank all of our employees and stakeholders for their support, dedication, and efforts during this transformational year.”

2016 Operating Results

The consolidated production for the quarter and year ended December 31, 2016 is as follows:

	Q4 2016			Q4 2015		
	Turmalina	Caeté	Total	Turmalina	Caeté	Total
Ore milled (tonnes)	122,000	115,000	237,000	100,000	116,000	216,000
Recovery (%)	92.5	90.8	91.7	91.3	89.8	90.5
Head grade (g/t)	4.37	2.79	3.60	4.79	2.59	3.90
Gold ounces						
Produced (oz)	16,027	9,308	25,335	14,449	8,720	23,169
Sold (oz)	16,024	9,086	25,110	15,527	8,889	24,416
Development						
Primary (m)	483	608	1,091	965	22	987
Secondary (m)	466	740	1,206	605	137	742
Definition, infill, and exploration drilling (m)	5,123	4,790	9,913	6,774	-	6,774

	FY 2016			FY 2015		
	Turmalina	Caeté	Total	Turmalina	Caeté	Total
Ore milled (tonnes)	502,000	379,000	881,000	406,000	469,000	875,000
Recovery (%)	91.5	90.7	91.1	90.6	89.4	90.0
Head grade (g/t)	4.28	3.02	3.77	4.25	2.98	3.62
Gold ounces						
Produced (oz)	63,186	33,350	96,536	50,659	39,762	90,421
Sold (oz)	63,639	33,639	97,277	51,818	41,169	92,987
Development						
Primary (m)	2,985	2,477	5,462	3,568	227	3,795
Secondary (m)	2,620	2,131	4,751	2,003	230	2,233
Definition, infill, and exploration drilling (m)	17,858	20,182	38,040	25,617	10,635	36,252

Details of the Company’s financial performance, including mine-by-mine analysis, capital and operating costs, will be included in its year-end and fourth quarter 2016 financial results expected to be released in March 2017.

Cash Balance

The preliminary cash balance as at December 31, 2016 was approximately \$26.4 million 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. During the fourth quarter, the Company entered into an agreement with Sprott Private Resource Lending (Collector) LP for a secured \$10.0 million loan facility to fund the Company’s accelerated growth exploration program.

Capital investments in 2016 were primarily funded through operating cash flows, a trend expected to continue into 2017. In addition to the increase in capital expenditures, Jaguar also paid \$1.9 million in other debt principal and interest payments during the year. The strengthening of the Brazilian Real during 2016 and the resulting foreign currency losses have had an impact on some of the gold price gains during the year.

2017 Guidance

The following is the Company's 2017 production and cost guidance:

	Turmalina		Caeté		Consolidated	
	Low	High	Low	High	Low	High
Gold production (ounces)	60,000	65,000	40,000	45,000	100,000	110,000
Percentage of total production (%)	60	59	40	41	100	100
Cash operating costs (per ounce sold) ¹	\$600	\$650	\$900	\$1,000	\$720	\$755
All-in sustaining costs (per ounce sold) ¹	\$800	\$850	\$1,020	\$1,180	\$900	\$1,000
Development						
Primary (m)	2,500	2,900	2,200	2,600	4,700	5,500
Secondary (m)	2,200	2,700	3,400	3,850	5,600	6,550
Definition, infill, and exploration drilling (m)	16,000	18,000	10,000	13,000	26,000	31,000
Growth exploration investment (core assets) (\$Ms)					\$7.5	\$8.0

1. Cash operating costs and all-in sustaining costs are non-GAAP financial performance measures with no standard definition under IFRS. Refer to Non-IFRS Financial Performance Measures below. 2017 cost guidance has been prepared on the basis of a foreign exchange rate of 3.5 Brazilian Reals vs. the US dollar.

The Iron Quadrangle

The Iron Quadrangle has been an area of mineral exploration for centuries, 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 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 Caeté Gold Mine Complex ("Mineracao Serras do Oeste Ltda" or "MSOL") 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.

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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 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, tonnes milled, recovery rates, cash operating costs, and definition/delineation drilling, in addition to overall expenditures and results of operations during 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.

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 September 30, 2016 is set out in the Company's third quarter 2016 MD&A filed on SEDAR at 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 September 30, 2016 is set out in the Company's third quarter 2016 MD&A filed on SEDAR at www.sedar.com.