PRESS RELEASE

April 12, 2016 — **2016-10**
For Immediate Release — **TSX-V: JAG**

Jaguar Reports Strong First Quarter Operating Results and Increase in Cash Position

Toronto, Canada, April 12, 2016 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX-V: JAG) today announced operational results for the first quarter of 2016 ("Q1 2016"). All figures are in US dollars unless otherwise expressed. Full financial results will be released on or before May 12, 2016.

First Quarter 2016 Highlights

- Consolidated gold production of 21,197 ounces in Q1 2016 versus 21,336 ounces in Q1 2015.
- Consolidated average head grade increased 15% to 3.78 g/t in Q1 2016 versus 3.28 g/t in Q1 2015.
- Gold recovery increased to 90.2% in Q1 2016 compared to 89.4% in Q1 2015.
- Turmalina produced 15,772 ounces of gold in Q1 2016, up 34%, with average grade of 4.29 g/t, up 19% compared to Q1 2015.
- Caeté gold production of 5,425 ounces decreased 43% quarter over quarter, reflecting a focus on restructuring mine plans. Pilar focused on increasing development to access newly defined reserves below current mining levels and Roça Grande ("RG") focused on definition drilling and development.
- Preliminary cash balance of approximately $18.0 million as at March 31, 2016, compared to a cash and gold bullion balance of $15.3 million at December 31, 2015. The quarter-end cash balance reflects payments totaling $1.9 million for interest on the convertible debentures and one-time severance payments.
- Consolidated Mineral Reserves, representing Southern Brazil operating mines, increased 34% to 357,000 ounces with a 9% increase in grade to 4.82 g/t Au as a result of a 310% increase in Mineral Reserves at the Pilar Mine (Caeté Gold Complex), announced April 7, 2016.

Rodney Lamond, President and Chief Executive Officer of Jaguar commented, *"We delivered strong operating results for the first quarter of 2016. A focus on near-term mine plans to drive positive physical results, and maintain a sustainable production profile, resulted in consolidated production of 21,197 ounces in Q1 2016 and a 15% increase in average grade to 3.78 g/t."*

"First quarter production was led by Turmalina which delivered a 34% improvement in production to 15,772 ounces and a 19% increase in average grade to 4.29 g/t as a result of mining higher grade stopes and reduced dilution. Very strong gold production from Turmalina offset lower gold production at Caeté as the operations, both the Pilar and RG mines, restructured the mine plans. Waste and ore development were prioritized at Pilar in an effort to access the recently announced higher grade mineralization while new definition drilling at RG was initiated in an effort to extend mine life. Production at Caeté was temporarily impacted by ore availability resulting in lower than expected production of 5,425 ounces, however during March, Caeté began to recover to near forecast performance levels."

"We achieved a solid increase in our cash balance to $18.0 million reflecting a quarter over quarter increase of 65% in primary development, a 33% increase in definition drilling, and $1.9 million in interest payments on the convertible debentures and one-time severance payments."

"During the first quarter, we also announced a significant increase in our consolidated Mineral Resources in particular at Pilar where Mineral Reserves have increased 310% as at December 31, 2015. We have established a solid base of resources from which to build from. Looking ahead, we are confident in our ability to achieve our current full year production guidance of 90,000 – 95,000 ounces."

Q1 2016 Operating Summary

	Q1 2016			Q1 2015		
	Turmalina	Caeté	Total	Turmalina	Caeté	Total
Tonnes milled (t)	128,000	68,000	196,000	111,000	115,000	226,000
Average head grade (g/t)	4.29	2.83	3.78	3.59	3.16	3.28
Recovery	90.5%	89.8%	90.2%	90.4%	88.5%	89.4%
Gold ounces						
Produced (oz)	15,772	5,425	21,197	11,796	9,540	21,336
Sold (oz)	16,635	6,246	22,881	13,196	11,032	24,228
Development						
Primary (m)	731	430	1,161	657	48	705
Secondary (m)	838	208	1,046	306	-	306
Definition drilling (m)	4,691	7,201	11,892	4,365	4,603	8,968
Average realized gold price US$/oz			$1,165			$1,187

Cash and Gold Bullion

Cash balance of $18.0 million as at March 31, 2016, which included $1.9 million in interest payments on the convertible debentures and one-time severance payments. This compares to a cash and bullion balance of $15.3 million at December 31, 2015.

2016 Guidance

Jaguar remains strongly focused on delivering positive and sustainable physical performance, profitability, and cost optimization. The Company has established the following consolidated production and cost guidance for 2016 and represents achievable results from operations:

2016 Guidance					Consolidated	
	Turmalina Complex		Caeté Complex		Low	High
Gold production (oz)	62,000	65,000	28,000	30,000	90,000	95,000
Cash operating costs (per ounce sold)[1]	600	650	925	975	700	750
All-in sustaining costs (per ounce sold)[1]	850	900	1,150	1,200	950	1,000
Recovery	90%	90%	90%	90%	90%	90%
Development						
Primary (m)	3,000	3,300	1,700	1,900	4,700	5,200
Secondary (m)	3,200	3,400	2,500	2,700	5,700	6,100
Definition drilling (m)	18,000	20,000	10,000	12,000	28,000	32,000

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. 2016 cost guidance has been prepared on the basis of a foreign exchange rate of 3.8 Brazilian Reais vs. the US dollar and a gold price of US$1,150 per ounce.

Qualified Person

Scientific and technical information contained in this press release has been reviewed and approved by Marcos Dias Alvim, BSc Geo., MAusIMM (CP), Project Manager, who is 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").

Mineral Reserves and Mineral Resources 2015 estimates for Southern Brazil (Turmalina, Pilar, and RG) were prepared by Jaguar under the supervision of Jason Cox, P.Eng., and Reno Pressacco, P.Geo. of Roscoe Postle Associates Inc. ("RPA"). RPA is an independent mining consultant and each of Messrs. Cox and Pressacco are Qualified Persons within the meaning of NI 43-101. The effective date of these estimates is December 31, 2015. An independent technical report documenting the Mineral Resource estimates prepared in accordance with NI 43-101 will be filed on SEDAR.

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 approximate 191,000 hectares. The Company's principal operating assets are located in 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 ("Mineracao 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:

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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 the development and operations of the Company's mines, and anticipated gold production. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, 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.

Neither the TSX Venture Exchange nor its Regulations Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Non-IFRS Measures

This press 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 year ended December 31, 2015 is set out in the Company's fourth quarter 2015 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 year ended December 31, 2015 is set out in the Company's fourth quarter 2015 MD&A filed on SEDAR at www.sedar.com.