

NEWS RELEASE

May 10, 2018 FOR IMMEDIATE RELEASE TSX: JAG

Jaguar Mining Reports Q1 2018 Financial Results; Increasing Cash Flow And On Track to Achieve Gold Production Guidance of 90,000–105,000 Ounces In 2018

Toronto, May 10, 2018 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) today announced financial results for the three months ended March 31, 2018 ("Q1 2018"). All figures are in US dollars, unless otherwise expressed. Detailed financial results for Q1 2018 are available on www.sedar.com.

Q1 2018 Financial Highlights

- Revenue of \$25.2 million with significantly lower cost of sales, increasing gross profit by over 300% to \$ 4.9 million.
- Consolidated cash operating costs ("COC") improved 13% to \$800 per ounce of gold sold compared to Q1 2017.
- Consolidated all in sustaining costs ("AISC") improved 3% to \$1,289 per ounce of gold sold.
- On track to achieve consolidated COC and AISC guidance in 2018.
- Increased operating cash flow over 2.5 times to \$5.0 million, including increased sustaining capital expenditures of \$6.7 million, up 11% year-over-year, focused on primary development and drilling.
- Adjusted earnings before interest, tax, depreciation and amortization ("EBITDA") of \$5.6 million compared to \$4.2 million for Q1 2017.
- Cash balance of \$14.3 million as of March 31, 2018, including \$3.0 million financing repayments, reducing total bank debt to approximately \$12.3 million at quarter end.

Rodney Lamond, President and Chief Executive Officer, Jaguar Mining commented, "Our continued focus on cost control, productivity and company-wide operational excellence programs has delivered strong operating cost performance in the first quarter, where we saw a significant increase in our operating cash flow. Lower consolidated cash operating costs improved 13% to \$800 per ounce sold, AISC improved 3% to \$1,289 per ounce sold, which puts us on track to achieve our 2018 cost guidance, especially when factoring significantly lower costs relative to suspended operations at our higher cost Roça Grande Mine.

"Our strategy over the last 24 months has been to deploy capital only towards high priority exploration projects and initiatives that will provide the best return and add to our large mineral resource base to grow our long-term sustainable gold production. We have seen the benefits of these investments. Pilar Gold Mine is continuing to grow its production base, and we expect to see increasing production at Turmalina Gold Mine by the second half of 2018."

"Moving forward, we continue to focus on mining quality ounces and delivering on our 2018 gold production and cost guidance, including higher production in the second half of this year. With lower unit costs and increasing production, at current gold prices, we are well positioned to see strong cash flow generation, which we will continue to prioritize towards investments in sustainable growth activities, development and reducing bank debt."

Q1 2018 FINANCIAL & OPERATING SUMMARY

| _(\$ thousands, except where indicated) | | For the three months ended March 31, | | |
|---|-----------|--------------------------------------|--|--|
| | 2018 | 2017 | | |
| Financial Data | | | | |
| Revenue | \$ 25,228 | \$ 29,192 | | |
| Operating costs | 15,399 | 21,508 | | |
| Depreciation | 4,885 | 6,576 | | |
| Gross profit | 4,944 | 1,108 | | |
| Net loss | (1,781) | (7,877) | | |
| Per share ("EPS") | (0.01) | (0.03) | | |
| EBITDA ¹ | 4,154 | 743 | | |
| Adjusted EBITDA ^{1,2} | 5,573 | 4,211 | | |
| Adjusted EBITDA per share ¹ | 0.02 | 0.01 | | |
| Cash operating costs (per ounce sold) ¹ | 800 | 924 | | |
| All-in sustaining costs (per ounce sold) ¹ | 1,289 | 1,323 | | |
| Average realized gold price (per ounce) ¹ | 1,311 | 1,215 | | |
| Cash generated from operating activities | 4,979 | 1,855 | | |
| Free cash flow ¹ | (1,688) | (4,177) | | |
| Free cash flow (per ounce sold) ¹ | (88) | (174) | | |
| Sustaining capital expenditures ¹ | 6,667 | 6,032 | | |
| Non-sustaining capital expenditures ¹ | 493 | 873 | | |
| Total capital expenditures | 7,160 | 6,905 | | |

¹ Average realized gold price, sustaining and non-sustaining capital expenditures, cash operating costs and all-in sustaining costs, adjusted operating cash flow, free cash flow, EBITDA and adjusted EBITDA, and adjusted EBITDA per share are non-IFRS financial performance measures with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

² Adjusted EBITDA excludes non-cash items such as impairment and write downs. For more details, refer to the Non-IFRS Performance Measures section of the MD&A.

| | | For the three months ended March 31, | | |
|---|--------|--------------------------------------|--|--|
| | 2018 | 2017 | | |
| Operating Data | | | | |
| Gold produced (ounces) | 18,865 | 22,292 | | |
| Gold sold (ounces) | 19,237 | 24,034 | | |
| Primary development (metres) | 1,069 | 910 | | |
| Secondary development (metres) | 447 | 1,382 | | |
| Definition, infill, and exploration drilling (metres) | 9,439 | 11,864 | | |

Cash Position, Working Capital and Foreign Exchange

- As at March 31, 2018, the Company had a cash position of \$14.3 million, compared to \$18.6 million as at December 31, 2017, primarily due to the decrease of 20%, or 4,797 ounces of gold sales.
- Cash outflow during the first quarter includes \$3.0 million for financing repayments, reducing total bank debt to approximately \$12.3 million at the end of Q1 2018.
- Working capital was \$11.0 million as at March 31, 2018, compared to \$14.1 million as at December 31, 2017, which includes short term receivable of \$4.5 million from the Accelerated Earn-in Agreement signed for the Gurupi Project on September 17, 2017. Working capital also includes \$4.4 million in short term loans from Brazilian banks, which are renewed every six months, and are expected to be rolled forward.

First Quarter 2018 - Operating Results Summary

- Consolidated gold production of 18,865 ounces (174,000 tonnes milled at 3.76 g/t) reflecting the expected slower start to the year; Q1 2018 production was lower than the 22,292 ounces (214,000 tonnes milled at 3.50 g/t) in Q1 2017.
- Pilar Gold Mine ("Pilar") production increased 13% to 9,553 ounces compared to Q1 2017, and 17% compared to Q4 2017 on average grade of 4.13 g/t, which increased 22% year-over-year. Pilar continues to deliver improved grade and tonnes milled. Pilar's lower cost per ounce production replaces the higher cost Roça Grande Mine ("RG") production, also improving operating cash flow.
- Turmalina Gold Mine ("Turmalina") production of 8,442 ounces was 34% lower year-over-year due to a focus on increasing primary waste development to facilitate increased ore production for the balance of 2018. This resulted in lower secondary ore development and lower tonnes milled for the quarter that reduced ore production, which was in line with the Company's projected annual mine plan. Production levels are expected to increase in Q2 2018 and significantly increase in the second half of 2018 as accelerated primary waste development advances.
- Turmalina primary waste development increased 77% during the quarter to 648 metres compared to 366 metres in Q1 2017 and 363 metres in Q4 2017. The focus in Q1 2018 going forward is to advance accelerated development at Turmalina. This will enable the team to access higher-grade mineralization in Level 11 at Orebody A and Level 4 at Orebody C. A new total of four production sublevels are expected to contribute to production in Q2 2018.
- Strengthened operations and project management teams to drive increased productivity and overall
 performance. Placed orders for new mining equipment to increase capacity and productivity at Turmalina and
 Pilar.

First Quarter 2018 - Projects Update

- Operational excellence programs continue to be adopted Company wide. A key focus has been to improve data collection processes to deliver real time data that facilitates timely analysis and decision making.
- Turmalina management changes have been completed and the focus is on operational efficiency, productivity and cost reduction on projects, including improving preventative maintenance and equipment availability.
- At Pilar and Turmalina, operational excellence teams are focused on increasing haulage tonnes moved in the mine and development metres utilizing equipment within the same shift to improve recovery and increase productivity.
- Restructured projects group to streamline the management of Growth and Capital Projects. Turmalina paste fill plant completed final commissioning tests and is expected to be operational in Q2 2018.

First Quarter 2018 - Exploration Highlights

- Growth exploration at Turmalina has focused on depth extension drilling of Orebody C below Level 4. Drilling completed to date includes approximately 4,826 metres (20 drill holes) representing approximately 53% completion of the 9,050 metres planned growth program.
- Additional exploration activities are focused on advancing key near mine targets including the Zona Basal Target at Turmalina, the Torre, Pacheca North and Pilarzinho Targets contiguous to the Pilar mining operation and at Pedra Branca in Ceará State.
- Subsequent to the temporary halt of mining activities at the RG Mine, exploration potential is being reviewed, aimed at prioritizing future activities targeting extensions to the known RG orebodies and the Company's highly prospective greater tenement package supported by the CCA Plant.

Year-End 2017 Pilar Gold Mine Mineral Reserves and Mineral Resources Highlights

- Total Measured Resources increased 277% to 317,000 ounces of gold, net of depletion, grading 4.47 g/t. Total Measured and Indicated ("M&I") Resources increased 10% to 532,000 ounces of gold, grading 4.37 g/t.
- Inferred Resources increased 104% to 433,000 ounces grading 5.69 g/t, reflecting successful growth exploration drilling campaign in 2017 targeting high-grade deeper extensions to the principle banded iron formation Orebodies (BA, BF, and BFII) below current mine production levels.
- Total Proven and Probable ("2P") Mineral Reserves of 125,000 ounces of gold, grading 3.99 g/t reflecting two-year replacement of mineral reserve depletion through production and addition of new mineral reserves, confirming over three years of future production at current production levels.

Interim Year-End 2017 Turmalina Gold Mine Mineral Resources Highlights

- M&I Resources of 420,000 ounces of gold reflect full replacement of 45,000 ounces of 2017 mining depletion for Orebodies A, B, and C. Measured Resources increased 8% to 265,000 ounces with a 6% increase in grade to 5.7 g/t.
- Inferred Resources increased 158% to 305,000 ounces of gold with a 14% increase in grade to 5.49 g/t, reflecting successful growth exploration drilling campaign in 2017 targeting high-grade deeper extensions to the principle orebodies A and C below current mine production levels.

2018 Guidance

- Pilar production guidance of 39,200–47,000 ounces reflects the Company's reforecast for increased mineral resources reported in March 2018 (see press release dated March 2, 2018). The Pilar production is expected to offset the temporary halted production ounces from Roça Grande.
- Roça Grande performance reflects production from January 1–March 21, 2018. Roça Grande temporarily on care and maintenance.
- Turmalina positioned and expected to deliver significantly higher production in second half of 2018.

| 2018 Production & Guidance cost | Turmalina | | MSOL | | | | Canaalidatad | |
|--|-----------|--------|--------|--------|-------------|-------|--------------|---------|
| | | | Pilar | | Roça Grande | | Consolidated | |
| | Low | High | Low | High | Low | High | Low | High |
| Gold production (oz.) | 50,000 | 57,000 | 39,200 | 47,000 | 800 | 1,000 | 90,000 | 105,000 |
| Cash Operating Cost ¹ (\$/oz. sold) | 675 | 775 | 650 | 800 | 1,000 | 1,100 | 660 | 800 |
| All-in sustaining Cost ¹ (\$/oz. sold) | 900 | 1,000 | 900 | 1,050 | 1,050 | 1,200 | 920 | 1,100 |
| Sustaining Capex (\$'000) | 12,000 | 15,000 | 9,000 | 12,000 | 100 | 500 | 21,000 | 28,000 |
| Development | | | | | | | | |
| Primary waste (metres) | 2,200 | 2,800 | 2,000 | 2,600 | N/A | N/A | 4,500 | 5,400 |
| Secondary ore (metres) | 1,800 | 2,100 | 1,000 | 1,150 | N/A | N/A | 3,000 | 3,500 |
| Definition, infill and exploration drilling (metres) | 18,000 | 25,000 | 14,000 | 20,000 | 200 | 300 | 32,000 | 45,000 |

^{1.} Cash Operating Cost and All-in Sustaining Cost are non-IFRS reporting measures.

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), 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 16th 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 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 64,000 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). 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 temporary 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 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 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). 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 below 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 March 31, 2018, is set out in the Company's first quarter 2018 Management Discussion and Analysis (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 March 31, 2018, is set out in the Company's first quarter 2018 MD&A filed on SEDAR at www.sedar.com.