



PRESS RELEASE

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Jaguar Mining Provides Q3 Update of Operations Q3 Gold Production and Revenue Increased 72% from Prior Year; Senior Personnel Changes Announced

Jaguar Mining Inc. (“Jaguar” or “the Company”) (JAG: TSX/NYSE Arca, JAG.NT: TSX) provided a summary today of its preliminary Q3 2008 operating performance. All figures are in U.S. dollars unless otherwise indicated.

Recent operating highlights include:

- In Q3 2008, the Company produced a record 34,935 oz of gold at an average cash operating cost of \$461/oz compared to 20,334 oz at an average cash operating cost of \$346/oz during the same period last year. Q3 2008 quarterly gold production increased 72% above the comparable quarter in 2007. Costs for Q3 2008 were higher with the inclusion of the Paciência operation, which entered the commissioning phase in the quarter, and the weaker U.S. dollar against the Brazilian real. Excluding the impact of Paciência, approximately 59% of the increase in average cash operating costs can be attributed to the weakness of the U.S. dollar. The average exchange rate in Q3 2008 was R\$1.67/US\$1.00 compared to R\$1.92/US\$1.00 in Q3 2007. The U.S. dollar has strengthened against the Brazilian real in the early part of Q4 2008. If the U.S. dollar continues to be strong against the real, it will be favorable for Jaguar’s future reported costs. At current exchange rates of between R\$2.00-2.10 to US\$1.00, Jaguar’s Q3 2008 cash operating costs would have ranged between \$359/oz to \$384/oz, 17-23% lower than the \$461/oz recorded.
- Q3 2008 gold sales rose to 29,926 oz at an average price of \$862/oz, nearly 38% above the comparable Q3 2007 gold sales of 21,546 oz at an average price of \$694/oz. Revenue in Q3 2008 increased 72% to \$25.8 million from \$15.0 million in Q3 2007;
- In Q3 2008, Turmalina produced 19,321 oz of gold at an average cash operating cost of \$358/oz compared to 13,502 oz at an average cash operating cost of \$280/oz in Q3 2007. Costs were higher due principally to the weaker U.S. dollar versus the Brazilian real.
- During Q3 2008, the following was achieved at Turmalina:
 - Ore production totaled 128,354 tonnes at an average grade of 5.20 g/t.
 - Ore processed through the mill totaled 128,041 tonnes at an average feed grade of 5.42 g/t.
 - The average plant recovery reached the design rate of 90%. Steps initiated by management to limit dilution within the mine, a factor which negatively impacted ore grades during the first half of this year, have brought results back on plan during the second half of Q3 2008.
 - Mine development achieved plan totaling 1,038 meters during Q3 2008.

- Two preliminary drill holes into the main ore body at Turmalina confirmed the mineralization extends to a depth of at least 900 meters (details below).
- In Q3 2008, Paciência produced 10,640 oz of gold at an average cash operating cost of \$523/oz. Commissioning operations at Paciência were initiated in Q3 2008 with the following results:
 - Ore production totaled 96,020 tonnes at an average grade of 3.32 g/t as expected from the development ore.
 - Ore processed through the mill totaled 130,766 tonnes with an average feed grade of 3.11 g/t.
 - Plant recovery was on plan at 92%.
 - Mine development totaled 866 meters during Q3 2008, slightly below plan.

Mine production and feed grades are increasing in-line with the production plan. Consistent with that plan, management believes operations during Q4 2008 will reach the commercial design rate.

- In Q3 2008, Sabará produced 4,974 oz of gold at an average cash operating cost of \$729/oz compared to 6,832 oz at an average cash operating cost of \$473/oz in the same period in 2007. Cash operating costs in the most recent quarter were primarily impacted by lower grades and exchange rates. The feed grade of ore processed in Q3 2008 averaged 1.52 g/t compared to 1.91 g/t in Q3 2007. Stripping operations from the higher grade Serra Paraíso mineralized zone were initiated in late-Q3 2008 and ore is now moving to the Sabará processing plant. Management currently plans to reduce mining operations in Zone A at Sabará in early 2009 in favor of higher grade ore from Serra Paraíso. While production from the Sabará Plant is expected to account for only approximately 15% of Jaguar's total 2008 production; due to its higher average operating cost, it currently increases the Company's overall average cash operating cost by \$42/oz. By replacing the higher cost production at Sabará with the lower cost production at Serra Paraíso, the Company expects to reduce average cash operating costs in 2009.

Daniel Titcomb, Jaguar's President and CEO stated, "Our operations in Brazil continue to meet our expectations. The commissioning phase at Paciência is coming to an end and we expect to declare that operation 'commercial' in short order. After modifying the mining sequence at Turmalina, while maintaining the sublevel stoping mining method, dilution has diminished significantly and run-of-mine grades are in-line with the mine plan. Our exploration teams continue to discover new mineralized zones near our mines and further out on strike. Our expansion projects are on-track, and, with Paciência's commissioning nearing completion, we have once again demonstrated our team's ability to develop new grassroots operations."

Expansion Update

Turmalina

The Company has initiated the first phase of a planned three-phase expansion program at the Turmalina processing plant. In the current expansion, Jaguar intends to increase gold production by 25% from its present design rate of approximately 80,000 oz/yr to 100,000 oz/yr. Detailed engineering is nearing completion and civil works are planned to begin in November. The expansion is expected to be completed in Q3 2009.

Caeté Project

Detailed engineering is underway for this new project and the construction crew is on-site and mobilized. Under Jaguar's current plan, the construction period on this initial 90,000-oz/yr facility will take approximately 12-14 months with a start date in Q4 2009. All major components for the project have been sourced, including the refurbished ball mills, which are in-country.

Exploration Update

At Turmalina, Jaguar has completed two drill holes into the main ore body to a depth of approximately 900 meters and is currently drilling a third to a depth of between 850 and 950 meters. Assay results from this program are expected to be available when the company releases its Q3 2008 financials on November 10, 2008.

Jaguar's exploration team has discovered un-mined high-grade ore zones in oxide caps in the vicinity at Turmalina, which could provide additional ore to the CIP processing circuit.

In addition to the exploration efforts at Turmalina, Jaguar continues with an on-going exploration program at its other underground mines - St. Isabel (Paciência), and Roça Grande and Pilar (Caeté Project).

Management Changes

Juvenil T. Felix has stepped down from his present roles as a director and the Chief Operating Officer of Jaguar. Under the terms of a consulting agreement entered into with Mr. Juvenil T. Felix, he has relinquished his role of Chief Operating Officer, which Mr. Lúcio Cardoso now has assumed. This two-year agreement with Mr. Felix will allow him to spend more time on personal matters and still provide his strategic guidance to the Company.

Mr. Cardoso, formerly the Vice President of Operations and one of the founding members of the Company, has been promoted to Chief Operating Officer and will report to Mr. Daniel Titcomb, President and Chief Executive Officer of Jaguar. Prior to his role with Jaguar, Mr. Cardoso was Operations Director for Anglo American's gold division in Brazil where he spent 20 years and worked with other highly experienced, key members of Jaguar's management team including Mr. Felix, Mr. Adriano Nascimento, Jaguar's Vice President of Exploration and Engineering and Mr. Jaime Duchini, the Company's Chief Geologist. Management is extremely confident that Mr. Cardoso's decades of experience in mining, including five years as Jaguar's VP of Operations, will enable him to assume the Chief Operating Officer position for Jaguar.

Commenting on the changes, Mr. Titcomb stated, "On behalf of the employees, management, directors and shareholders of Jaguar, I thank Mr. Felix for his leadership and significant contribution to the Company, which helped bring Jaguar to where it is today. We are very pleased he will continue to work with our organization in an advisory capacity. The agreement we have reached with Mr. Felix will provide access to his more than four decades of experience, support and strategic counsel which will help us continue the growth plan of the Company."

About Jaguar

Jaguar is one of the fastest growing gold producers in Brazil with operations in a prolific greenstone belt in the state of Minas Gerais. Jaguar's current plan is to reach approximately 700,000 oz of sustainable production by 2014. The Company is actively exploring and developing additional mineral resources at its 72,000 acre land base in Minas Gerais and on an additional 159,000 acres in the state of Ceará in the Northeast of Brazil through a joint venture. The Company has no gold hedges in place thereby providing the leverage to gold prices directly to its investors. Additional information is available on the Company's website at www.jaguarmining.com.

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Forward Looking Statements

This press release contains forward-looking statements, within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws, concerning the Company's expansion at Turmalina, start date of the Caeté Project, reduction of mining operations at Sabará Zone A, Paciência being operational, Mr. Felix's continued involvement with Jaguar and Mr. Cardoso's ability to help Jaguar continue to execute on its growth plans. These forward-looking statements can be identified by the use of the words "intends", "plans", "expects" and "will". Forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the actual results, or performance to be materially different from any future results or performance expressed or implied by the forward-looking statements.

These factors include whether any event or situation arises which would cause delays in the expansion of Turmalina, construction of the Caeté Project, reduction of mining operations at Sabará Zone A, Paciência being operational or any factor that could affect Mr. Felix to no longer work with the Company or any factor that could affect Mr. Cardoso's ability to help the Company execute on its growth plans. In addition, regardless of Mr. Cardoso's efforts and contributions to the Company, there are many factors that could affect the Company's ability to execute on its growth plans, including, but not limited to, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drilling results and other ecological data, fluctuating gold prices and monetary exchange rates, the possibility of project cost delays and overruns or unanticipated costs and expenses, uncertainties relating to the availability and costs of financing needed in the future, uncertainties related to production rates, timing of production and the cash and total costs of production, changes in applicable laws including laws related to mining development, environmental protection, and the protection of the health and safety of mine workers, the availability of labor and equipment, the possibility of labor strikes and work stoppages and changes in general economic conditions. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended.

These forward-looking statements represent our views as of the date of discussion. The Company anticipates that subsequent events and developments may cause the Company's views to change. The Company does not undertake to update any forward-looking statements, either written or oral, that may be made from time to time by or on behalf of the Company subsequent to the date of this discussion. For a discussion of important factors affecting the Company, including fluctuations in the price of gold and exchange rates, uncertainty in the calculation of mineral resources, competition, uncertainty concerning geological conditions and governmental regulations and assumptions underlying the Company's forward-looking statements, see the "CAUTIONARY NOTE" regarding forward-looking statements and "RISK FACTORS" in the Company's Annual Information Form for the year ended December 31, 2007 filed on System for Electronic Document Analysis and Retrieval and available at <http://www.sedar.com> and the Company's Annual Report on Form 40-F for the year ended December 31, 2007 filed with the United States Securities and Exchange Commission and available at www.edgar.com.

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