



PRESS RELEASE

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Jaguar Mining Declares Caeté Operation Commercial; Provides Q3 2010 Operations Overview

Jaguar Mining Inc. (“Jaguar” or “the Company”) (JAG: TSX/NYSE) provided a summary of its Q3 2010 operating performance, including an overview of its Caeté operation, which entered the commissioning phase in July of this year. As announced by the Company on October 19, 2010, Jaguar intends to release its Q3 2010 financial results after the market close on November 9 and hold a conference call the next morning. The Company will be attending and presenting at two financial conferences prior to the release of its Q3 results. Management has determined it is appropriate to provide a preliminary summary of its operations. Q3 2010 highlights are as follows:

Caeté

Commissioning of the gold recovery circuits were initiated during early-July with the start-up of the milling, flotation and carbon-in-pulp (“CIP”) circuits. Low-grade development ore averaging 2.85 grams per tonne was purposely used as feed for the operation during the commissioning phase. Every major component of the facility operated at or above design specifications, with the exception of a waste discharge pump system, which failed. The pump failure, which occurred during the initial phase of commissioning, limited production until it could be replaced in early-October. Management elected to continue feeding lower-grade ore into the plant. The average feed grade during the commissioning phase was maintained at 2.85 grams per tonne against a planned level of 3.05 grams per tonne. The two mines, which supply ore to the processing plant, operated near plan for both tonnage and grade. This ore was primarily added to the stockpile. Despite these start-up issues, the plant produced 8,500 ounces of gold, slightly below plan, at an initial cash operating cost of \$789 per ounce during Q3 2010.

Based on the plant’s overall performance, which included gold recoveries of 89% during the quarter and processed over 50,000 tonnes per month in both August and September, Jaguar’s

management has declared the facility “commercial”. After replacing the discharge pump system in early October, operations have been ramped-up to full design capacity.

Management currently anticipates the Caeté operation will produce on-plan between 16,000 and 17,500 ounces of gold in Q4 2010 based on an average feed grade of approximately 3.4 grams per tonne, which is expected to lower cash operating costs.

Turmalina

Turmalina produced 16,350 ounces of gold at a cash operating cost of \$903 per ounce in Q3 2010. Q3 cash operating costs continued to be impacted by significantly lower-than-planned ore grades, which averaged 2.78 grams per tonne. Elevated dilution in the higher levels of the mine in Ore Body A, where selective stoping is being phased-out, contributed to the lower run-of-mine (“ROM”) grades. As communicated by the Company in August 2010, steps to convert the mining method from selective stoping over to cut-and-fill in Ore body A were initiated in Q2 2010. During Q3, the Company advanced the underground development to fully implement cut-and-fill at level 4 and below. Jaguar’s management expects the changeover should be completed during Q1 2011, earlier than planned. With the cut-and-fill method yielding lower dilution, ROM grades are expected to continue to improve each month during the final quarter averaging approximately 3.39 grams per tonne. Management currently estimates the Turmalina operation will produce between 17,000 and 18,000 ounces of gold in Q4 2010.

Paciência

In Q3 2010, Paciência produced 16,526 ounces of gold at an average cash operating cost of \$704 per ounce. The average feed grade into the processing plant was 3.24 grams per tonne, slightly lower than planned. While the average ROM grade for the Santa Isabel Mine was 3.08 grams per tonne in Q3 2010, new measures implemented at the underground operations reduced dilution and yielded better ROM grades each month in Q3 2010, rising from 3.12 grams per tonne in July to 3.64 grams per tonne in September. In Q4 2010, with the new mining techniques implemented, the Paciência operation is expected to produce between 16,000 and 17,500 ounces at an average feed grade of 3.39 grams per tonne.

Consolidated Operations

During Q3 2010, Jaguar produced 41,376 ounces of gold at an average cash operating cost of \$797 per ounce. This was approximately 2,124 ounces below Jaguar’s estimated Q3 2010 production level, of which Caeté represented 70% of the shortfall. Cash operating costs were approximately \$100 per ounce higher than estimated due largely to lower ROM grades at Turmalina and at Caeté. As discussed above, feed grades at Caeté were purposely kept lower due to equipment issues. Exchange rates had only a slight impact on costs during the quarter.

Q4 2010 gold production is expected to range from 49,000 to 53,000 ounces, slightly lower than previously estimated.

Jaguar sold 38,861 ounces of gold at an average realized price of \$1,254 per ounce in Q3 2010. This produced a cash operating margin of \$457 per ounce for the quarter, approximately \$2 per ounce higher than planned.

Jaguar's cash and cash equivalents as of September 30, 2010, which includes short-term investments and restricted cash, totaled approximately \$51.6 million compared to \$65.4 million as of June 30, 2010.

Commenting on the Q3 operating performance, Daniel Titcomb, Jaguar's President and CEO stated, "We are pleased with the commissioning progress of our new Caeté operation and the fact the facility has attained commercial status. Moreover, after working closely with the operating management, I am confident Jaguar is well-positioned to reach its 2011 production target of 225,000 ounces. Where we have implemented cut-and-fill mining techniques at Turmalina, the results are positive, producing lower dilution. As we exit the higher elevations, where selective stoping is still being phased-out, the grade control issues should be resolved in early-2011 helping us to substantially lower our cash operating costs."

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 and has plans to develop the Gurupi Project in northern Brazil in the state of Maranhão. Jaguar is actively exploring and developing additional mineral resources at its approximate 575,000-acre land base in Brazil. Additional information is available on the Company's website at www.jaguarmining.com.

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Forward Looking Statements

Certain statements in this press release constitute "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and Canadian securities legislation. This press release contains forward-looking statements, including statements concerning expected average feed grades, production estimates for Q4 2010 and 2011, and lower cash operating costs at the Company's operations. Forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the actual timing of commissioning, production and results of operations to be materially different from any future results or performance expressed or implied by the Forward-Looking Statements. These factors include the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drilling results and other geological 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 labour and equipment, the possibility of labour 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 the Company's views as of the date hereof. Subsequent events and developments could 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 other than as required by law. 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, 2009 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, 2009 filed with the United States Securities and Exchange Commission and available at www.edgar.com.

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