

PRESS RELEASE

May 8, 2012 For Immediate Release 2012-09 JAG – TSX/NYSE

Jaguar Mining Announces Comprehensive Restructuring and Turnaround Plan; Operational Improvements and Aggressive Cost Cutting Measures are Under Way

Belo Horizonte, Brazil, May 8, 2012 - Jaguar Mining Inc. ("Jaguar" or the "Company") (JAG: TSX/NYSE) today announced the implementation of a comprehensive restructuring and turnaround plan to improve costs and efficiency at its operations in the state of Minas Gerais, Brazil. The plan incorporates objectives and initiatives identified by Jaguar's Office of the Chairman, its new Chief Operating Officer and a number of expert industry consultants who have been retained to assist with operational and cost improvements.

Highlights of the restructuring and turnaround plan include:

- Paciência operations placed on temporary care and maintenance for mine development catch-up
- Cost reduction and productivity improvements at the Turmalina and Caeté operations
- Focus on mining dilution reduction and development cost reduction at all operations
- Targeted 40 percent reduction in overhead and administrative costs across the Company

"Since making management changes in December, the Office of the Chairman has taken a hands-on approach to reviewing operations, identifying the problems and aggressively pursuing solutions," said Gary German, Chairman of Jaguar's Board of Directors. "Our reviews have confirmed that we have sound assets, including geological resources and processing facilities. However, our mine planning, engineering and mining methods require changes for us to maximize the value of these assets. We now have a very aggressive plan to make the necessary corrections and improvements to increase productivity and enhance profitability. We expect that full implementation will take 12 to 18 months to complete but cost improvements are expected to begin to be realized almost immediately."

All dollar amounts in this press release are in U.S. dollars.

Historical Background

In the fall of 2009 and the spring of 2010, the Board of Directors identified various operational challenges and directed management to implement changes to the development plans, including increased ramp development, increased definition drilling, mining method modifications and equipment changes at some of its operations. Some mining method changes at Turmalina were implemented and development advance and definition drilling efforts were accelerated at all operations.

However, during the first three quarters of 2011, the Board became increasingly dissatisfied with the pace of the necessary operational improvements, especially in the area of dilution control, mine planning, equipment selection and heading sizes. In the third and fourth quarters of 2011, this growing dissatisfaction ultimately led to much more direct and intensive Board supervision of management, the addition of another experienced mining executive to the Board, substantial changes to the Jaguar management team and the retention by the Board of outside mining consulting services as the Board intensified its efforts to accelerate the pace of operational improvements.

In December 2011, the former Chief Executive Officer departed from the Company and since that time, on an interim basis while the strategic review process was completed, the Office of the Chairman took over the direct duties of the Chief Executive Officer. In January 2012, Rogério Fernandes, a seasoned and experienced mining executive, was appointed by the board to succeed the former Chief Operating Officer who also left the Company at that time.

Paciência

The Paciência (CPA) operations have faced significant and increasing challenges for the past year. Recent reviews determined that a complete remediation plan would best be accomplished by placing the operations on a temporary care and maintenance program until the necessary design and structural changes have been implemented in the mines. The remediation plans for CPA include an adaptation of the narrow vein overhand stoping methods, a changeover to smaller scale equipment, smaller development headings, reduced stope dimensions and building the developed reserve inventory prior to restarting the plant. Implementation of the plan is expected to result in improved productivity per ounce, reduced mining dilution, reliable and predictable production forecasts, and significant reductions in cash costs per ounce when the mines return to production.

The capital expenditure required to implement the remediation plan at CPA is expected to be approximately \$15 million for capitalized development and equipment adjustments and will be funded from cash generated from operations or cash on hand, and may be partially offset by the sale of some existing equipment or by offsetting replacement capital requirements at Turmalina and Caeté since those operations can use some of the existing equipment at CPA.

Turmalina and Caeté

The operational reviews at the Turmalina (MTL) and Caeté (CCA) operations have determined that operational overheads can be reduced and productivity improved without impacting long-term production capability. Turmalina and Caeté will also transition to smaller ore and waste development headings, reduced stope dimensions and new ground control methodologies in order in improve head grade over historical results through reduced dilution. The changes in these operations will be implemented concurrently with continuing operations and are expected to reduce the cost per ounce and allow for increased and more predictable ounce production. No additional capital requirements beyond normal sustaining capital are expected at MTL and CCA.

Changes in Mining Methods

Historically, access to the ore bodies has been through large (5 meter by 5 meter) ramps, haulages and crosscuts to accommodate large (30 tonne) haulage trucks and large matching loading equipment in the stoping horizon using a modified bench cut and fill mining technique. These large excavations have led to the production of excessive quantities of development waste. Furthermore, the use of these large pieces of equipment has necessitated 5 meter by 5 meter drives along the ore horizon where the ore widths are typically two meters on average. Subsequent vertical drilling and retreat blast hole mining has also created ground instability and additional stoping dilution. With the change in operating philosophy, the size of excavations in the ore will be reduced to approximately 3 meters by 3.5 meters which the Company believes will reduce planned dilution in the ore body by more than 50%. In addition, all operations will be systematically converted to the overhand mechanized breast cut and fill method.

Significant additional benefits are expected including, but not limited to, reduced support costs, reduced ventilation costs, reduced development costs, reduced equipment costs and reduced milling costs on a per ounce basis.

Overhead and Administrative

In addition to the operational improvements, the Company is driving a significant reduction in general and administrative expense. "The current level of overhead both in our administrative offices and at the mines exceeds what we believe is required to effectively run our operations." Mr. German noted. The Company has minimized staffing and activity at its Concord office and has established a plan for a 40 percent reduction in total general and administrative expense. To date, a reduction of approximately \$20 million in annual administrative expense has been identified and is being implemented throughout the operations and the administrative offices. These cost savings largely will be achieved through reductions in administrative manpower and expense at our Concord and Belo Horizonte offices and at our operations. The Company expects this task to be fully completed in the third quarter of 2012.

Chief Executive Officer

With the conclusion of the strategic review process as announced today, the Board is now aggressively moving forward with a search process for a new Chief Executive Officer and expects to complete this process by the third quarter of this year.

Update on Gurupi

A detailed feasibility study for the Gurupi Project is due for submission to management and the Board in the third quarter of 2012. The Board anticipates that it will make a decision on the development plan, its timing and its financing plan following the receipt of that study.

Revised Guidance

Based on the planned implementation of the restructuring and turnaround plan, Jaguar is revising its outlook for both production and costs in 2012. The Company now expects 2012 gold production in the range of 120,000 to 130,000 ounces. On this new volume, operating cash costs are expected to be in the range of \$900 to \$1,000 per ounce as the planned benefits of the turnaround plan will not be fully realized until 2013. Looking to mid 2013 and beyond, the Company's revised preliminary annual targets for its Southern operations (excluding any Gurupi potential production) is 170,000 to 190,000 ounces at cash costs of \$700 to \$800 per ounce.

Conference Call

The Company will hold a conference call to discuss the outcome of the strategic review process and the plans for Jaguar moving forward today at 4:00 p.m. ET. The call can be accessed via telephone or webcast.

Conference Call Details:

From North America: 1-866-524-3160

International: 1-412-317-6760

Replay:

From North America: 1-877-344-7529

International: 1-412-317-0088

Replay ID: 10013471

Webcast: www.jaguarmining.com

About Jaguar

Jaguar is a junior gold producer in Brazil with operations in a prolific greenstone belt in the state of Minas Gerais and is developing the Gurupi Project in Northern Brazil in the state of Maranhão. The Company is actively exploring and developing additional mineral resources at its approximate 240,000-hectare 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. These Forward-Looking Statements include, but are not limited to, statements concerning: the specific operational changes that are anticipated by the restructuring and turnaround plan; the timeframe to implement the restructuring and turnaround plan; the benefits anticipated to result from the restructuring and turnaround plan, including operating cost reductions, improved productivity per ounce, reduced mining dilution, and improvements in the Company's ability to forecast production; the capital expenditures required to implement the restructuring and turnaround plan and the funding of such expenditures; the targeted 40% reduction in overhead and administrative costs and the means and timing to achieve such reduction; the timing of the search process for a new Chief Executive Officer; the timing for submission of a feasibility study for the Gurupi Project and the decisions of the Board in respect of the Gurupi Project; expected gold production and operating costs for 2012; and expected production targets and cast costs for the Company's Southern operations. Forward-Looking Statements can be identified by the use of words, such as "are expected", "is forecast", "is targeted", "approximately" 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. 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 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 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 Statements, there may be other factors that could 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 of this press release. 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 except 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, 2011 filed on System for Electronic Document Analysis and Retrieval on March 23, 2012 and available at http://www.sedar.com and the Company's Annual Report on Form 40-F for the year ended December 31, 2011 filed with the United States Securities and Exchange Commission on March 26, 2012 and available at www.sec.gov.

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