

PRESS RELEASE

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Jaguar Mining Provides Third Quarter 2011 Preliminary Update of Operations Sets New Quarterly Record for Revenue and Gold Ounces Sold

Third Quarter 2011 Highlights

- Record total of 41,390 ounces of gold sold
- Record total revenue of \$70.0 million
- Total gold production of 40,660 ounces
- Record preliminary cash operating margin of \$806 per ounce
- Record underground mine development of 6.55 km
- Underground infill drilling totaled 18,840 meters, an increase of 50 percent from the previous quarter

Concord, New Hampshire, October 18, 2011 - Jaguar Mining Inc. ("Jaguar" or "the Company") (JAG: TSX/NYSE) provided today a preliminary update on its Q3 2011 operating performance. All currency amounts are in U.S. dollars unless otherwise indicated.

Total Combined Operations

Jaguar set a new quarterly record of 41,390 ounces of gold sold during the quarter. Combined with strong gold prices, averaging \$1,692 per ounce, the Company also achieved a record \$70.0 million in total revenue. Jaguar's combined mine output for the third quarter 2011 totaled approximately 463,000 tonnes, yielding 40,660 recovered gold ounces.

Preliminary cash operating costs for the quarter were estimated at \$886 per ounce (subject to final end of quarter adjustments) compared to \$799 per ounce in the second quarter 2011. The vast majority of the cash cost increase is attributable to higher labor expense. Approximately half of the increase in labor expense for the quarter was the result of one-time payments for incentive/retention bonuses and unique, salary premiums as agreed in the June labor negotiations. Lower feed grades at the Paciência mining complex were also a factor in the higher average cash operating costs. Preliminary operating margin for the quarter is estimated at \$806 per gold ounce sold.

Commenting on the company's operational performance, Jaguar's President and CEO Daniel Titcomb stated, "We are continuing to make progress in our operations overall. We have completed most of the tasks we set forth last year in our turnaround plan, which enabled us to set a record for total ounces sold during the quarter. For the first nine months of the year, we have increased total gold production by

nearly 20 percent from 2010. We recognize, however, that we need to improve our operational consistency across all mines to achieve our longer term plans. This will continue to be our focus as we move forward."

Turmalina

Turmalina achieved a 6 percent increase in ore production and a 14 percent increase in mill throughput during the quarter compared to the second quarter 2011. Total gold ounces recovered increased slightly quarter over quarter.

Caeté

Caeté operated at full capacity and milled 170,647 tonnes of ore during the quarter. This was an increase of 6 percent compared to the second quarter of 2011. The operation improved its average feed grade from 2.69 g/t in the second quarter to 3.30 g/t in the third quarter. The combined improvement in tonnes milled and higher feed grade resulted in a 31 percent increase in total gold ounces recovered.

Paciência

Paciência achieved a 10 percent increase in total ore produced and a 3 percent increase in mill throughput during the quarter as compared to the second quarter 2011. Average feed grade declined during the quarter, however, resulting in a decrease of 30 percent in total gold ounces recovered. The reduced grade is attributable to the narrower sections of the ore bodies mined during the quarter at the Santa Isabel Mine, which are characterized by pinch and swell geology.

In late September, the #1 ball mill at the Paciência processing plant began to experience mechanical problems from excessive vibration in the pinion bearing housing. Initial attempts at provisional repairs were unsuccessful and continuing vibration caused the mill to be shut down in early October for repair and alignment of the drive components, motor and mill gear box. Concurrent with the initiation of the repairs to the #1 ball mill, the #2 mill began to experience similar mechanical issues. Several consulting groups and engineers were engaged to determine the cause of the mechanical failures and a remediation plan for both. Recommended changes and adaptations to the drive components of the mills are being implemented in phases and will cause periodic interruption of milling operations during the fourth quarter. The full re-design and repair of the drive components in both mills is expected to be completed in the first quarter of 2012.

Continued Investment in Development and Infill Drilling

During the quarter, Jaguar continued its investments and efforts to improve operational flexibility across all of its operations. Underground mine development reached a quarterly record of 6.55 km. The number of available stopes was increased from 34 to 43 and the number of operating faces increased from 74 to 91. Underground infill drilling increased by over 50 percent from the second quarter 2011 and reached a total of 18,840 meters. Continuing investment in new mine fleet acquisitions has increased equipment availability and is expected to boost productivity in the fourth quarter and beyond.

2011 Guidance Revised

Based on actual production during the first three quarters of the year, the current rate of production at the Company's mining operations and the mill issues at Paciência described above, Jaguar's management now expects 2011 full year production to be in the range of 155,000 to 163,000 ounces of gold at an average cash operating cost in the range of \$835 to \$845 per ounce.

Regarding the revision to 2011 guidance, Mr. Titcomb said, "We are disappointed to have to make the adjustments to our guidance. We believe our production targets of over 200,000 ounces annually from our three current operations are achievable in the near future, but we are clearly not there yet with the continuing mill issues at Paciência. We expect to see some improvement in the fourth quarter in our underground operations from the full deployment of equipment and higher availability rates from our overall fleet. This will be offset by limitations at the mills."

Q3 2011 Earnings Conference Call Details

The Company plans to release its Q3 2011 financial and operating results after the market close on November 9, 2011. The Company will hold a conference call the following morning at 10:00 AM EDT to discuss the results. Management will reference a presentation during the conference call, which will be posted on the Company's website.

Conference Call Details:

From North America: 888-702-7351 International: 213-416-2192

Replay:

From North America: 800-675-9924 International: 213-416-2185

Replay ID: 111011

Webcast: www.jaguarmining.com

About Jaguar Mining

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. Based on its development plans, Jaguar is one of the fastest growing gold producers in Brazil. The Company is actively exploring and developing additional mineral resources at its approximate 256,300-hectare land base in Brazil. Additional information is available on the Company's website at www.jaguarmining.com.

Media inquiries:

For Information

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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, such as its ability to improve operational consistency across all mines to achieve longer term plans as well as reach production between 155,000 to 163,000 ounces of gold at an average cash operating cost in the range of \$835 to \$845 per ounce in 2011. These forwardlooking statements can be identified by the use of the words "believes", "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 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 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 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, 2010 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, 2010 filed with the United States Securities and Exchange Commission and available at www.sec.gov.

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