

Jaguar Announces Completion of Gurupi Feasibility Study and Provides Update of Development and Operations

Jaguar Mining Inc. (“Jaguar” or the “Company”) (**JAG: TSX/NYSE**) today announced it has completed a feasibility study for its Gurupi Project in Northern Brazil, which incorporates alternate technologies, and is providing a summary of the project herein. The Company is also updating its development activities during Q4 2010, which it believes will help support its FY 2011-2015 outlook for gold production and cash operating costs. Information detailing the Company’s preliminary operating performance results for Q4 2010 and FY 2010 is also being provided. An updated corporate presentation has been made available, which can be found on the Company’s website at www.jaguarmining.com.

Gurupi Project Update and Overview

The Company has completed the feasibility study for the Gurupi project, and the related technical report will be filed on SEDAR today. At an assumed gold price of \$1,066 per ounce, the project is estimated to produce a pre-tax internal rate of return (“IRR”) of 29.1% with a net present value (“NPV”) of approximately \$337 million, at a discount rate of 6%. The feasibility study includes a technical review of an alternate processing scheme that provides certain potential advantages over traditional semi-autonomous grinding and carbon-in-pulp (“CIP”) treatment by incorporating high pressure grinding rolls (“HPGR”) and intensive concentration as an additional circuit at the front-end of the process. By incorporating these additional technologies, estimated annual cash operating costs are lower than the figures published in the Pre-Feasibility Study (May 2010), thereby further improving the project’s potential economic returns.

A summary of the Feasibility Study (2011) as filed is as follows:

Assumed Gold Price:	US\$1,066/oz
Average Mill Feed Grade:	1.10 g/t Au
ROM Total Tonnage:	63,756,700 tonnes
Mining Rate:	Approx. 5.0 million tonnes per year over the life-of-mine
Metallurgical Recovery:	85.6%
Total Gold Production:	1,932,920 gold ounces
Annual Average Production:	148,690 gold ounces
Mine Life:	13 years
Start Production:	2013
Capital Cost:	Pre-operational: \$278.0 million Life-of-mine: \$345.7 million
Average Cash Cost:	\$445 per ounce of gold
Average Total Cash Cost:	\$676 per ounce of gold
Assumed Exchange Rate:	R\$1.80 equals US\$1.00 through 2012 R\$1.90 equals US\$1.00 2013 through 2025
NPV @ 6%:	\$337.0 million

After-tax IRR:	29.1%
Cumulative Cash Flow:	\$639.3 million after tax
Payback:	3.5 years

A table of sensitivities is included in the feasibility study to illustrate the impact of key factors such as capital cost, operating expenses, gold prices, exchange rates and recovery rates on the NPV and IRR. As shown in the table of sensitivities, at current gold prices in excess of \$1,300 per ounce, the NPV @ 6% would be over \$550 million with an after-tax IRR of approximately 42%.

Based on an estimated 69,887,500 tonnes at an average grade of 1.12 grams per tonne, Gurupi contains total gold mineral resources of 2,518,170 ounces. The project has an additional 616,630 ounces of gold categorized as inferred resources, based on 18,676,700 tonnes at an average grade of 1.03 grams per tonne. As determined within the feasibility study, the Gurupi project has probable gold reserves of 2,327,930 ounces, based on 63,756,700 tonnes at an average grade of 1.14 grams per tonne. Gold reserves are included in the gold mineral resources as noted. The average waste-to-ore stripping ratio is estimated at 3.94.

The feasibility study was prepared for Jaguar by TechnoMine Services, LLC (“TechnoMine”) under the guidance of Ivan C. Machado, M.Sc., P.E., P.Eng., Principal of TechnoMine. Mr. Machado is a Qualified Person as such term is defined in NI 43-101. Actual operating costs, production and economic returns may differ materially from those anticipated by the feasibility study, and depend on a variety of factors, some of which are outside the control of the Company.

The Company is continuing with the work to enable the Gurupi project to receive an installation license. In addition to site preparation and other activities, the Company plans to conduct a 30,000 meter drill program on targets in close proximity to the main ore bodies identified in the feasibility study. Based on existing drill results from these nearby targets, management believes the mineral resource base for the project could increase. The basis is in-part tied to a study conducted by SRK Global (“SRK”), which recently completed an independent assessment of the Gurupi project. SRK’s team noted a significant area of potential gold mineralization not contained in the project’s current indicated mineral resource base. Management estimates the cost of this additional program will total approximately \$12 million. This effort will include infrastructure development, drilling, metallurgical testing and technical analysis.

At the conclusion of the work program, the Company will determine whether to proceed with construction as outlined in the recently completed feasibility study, or if warranted, to increase the scope and scale of the project based on the additional drilling results and other analyses. Jaguar expects to reach a final determination later in 2011.

Commenting on the Company’s accomplishments, Mr. Daniel R. Titcomb, Jaguar’s President and Chief Executive Officer stated, “The completion of the Gurupi feasibility study, which incorporates HPGR and intensive concentration systems, and reduces life-of-mine operating costs, produces an even more favorable valuation than presented in the pre-feasibility study completed in May 2010. The Gurupi feasibility study clearly demonstrates the project’s value to Jaguar’s stakeholders and we continue to advance the project on-schedule, which we believe will significantly improve our growth and cost profile. With further drilling on the recently identified mineralized zones near the planned open pits, we believe there is potential for additional upside from this project.”

Mr. Titcomb further added, “During the second half of 2010, we put forth a greater emphasis on underground development to overcome the technical issues which impacted production. As a result of the efforts we implemented, today we have greater development and flexibility to meet our production plan.”

Consolidated Underground Development

The Company’s primary focus during 2010 was to significantly increase underground development at each of its underground operating mines, which is essential to meeting forward goals. During Q4 2010, the Company intensified its underground development program at each of its operations in southern Brazil, which diverted some personnel and equipment resources away from primary ore production. For the year, total underground development at its four primary mines advanced 17.3 km, an increase of 29% over that achieved in 2009. An additional 1.5 km of development was achieved during 2010 at the Palmital mine, which supplies ore to the Paciência operation.

	<u>Turmalina</u>	<u>St. Isabel</u>	<u>Pilar</u>	<u>Caeté</u>
<u>Dec - 31 - 2009</u>				
Development added in year (Km)	5.1	5.5	1.6	1.2
Number of Stopes	7	6	3	-
Number of Faces	12	13	5	-
Est. Dilution Rate at year-end	30%	12%	15%	-
<u>Dec - 31 - 2010</u>				
Development added in year (Km)	5.9	5.5	3.3	2.5
Number of Stopes	10	9	5	4
Number of Faces	15	16	10	6
Est. Dilution Rate at year-end	16%	12%	16%	20%

Notes: Dilution is a volume metric estimation for 2010 with full reconciliation pending.
During 2009, Caeté was under development.

Consolidated underground development during Q4 2010 totaled 4.9 km, bringing the 2010 yearly total to 18.8 km, reflecting the Company’s business plan. To date, Jaguar has installed nearly 70 km of underground development at its southern operations. At the end of January 2011, the Company had a total of 47 working faces from 28 developed stopes in its primary four underground mines, compared to 30 working faces in 16 developed stopes at the end of Q3 2010.

Consolidated Operations, FY 2010 and Q4 2010

A discussion of the performance and initiatives at each of the Company’s main production centers (Turmalina, Paciência and Caeté) is provided below. Jaguar currently expects to release its Q4 and FY 2010 financial results on March 22, 2011.

For the full year 2010, Jaguar produced 137,866 ounces of gold (a decline of 11% from 155,102 ounces in 2009) at an average cash operating cost of \$732 per ounce, an increase of 57% from \$468 per ounce. The decline in production was principally due to the change in mining methods at Turmalina described below as well as the absence of any production from the Company’s

Sabar operation, which has been idle since late-2009. Per-ounce cash operating costs were higher than those recorded during 2009 principally due to a significantly stronger Brazilian real against the US dollar, as well as geo-mechanical issues encountered in Ore Body A at the Turmalina operation, which elevated dilution and significantly reduced feed grades into the processing plant. Costs were also higher due to start-up issues at the Company's new Caet Operation, where lower grade ore was utilized during the commissioning phase. During Q4 2010, Jaguar produced 34,681 ounces of gold at an average cash operating cost of \$762 per ounce.

A summary of production and cash operating costs for FY 2009 and estimated for FY 2010, by operation, is as follows:

2009 and 2010 Gold Production and Cash Operating Costs, By Operation (oz)				
	<i>Actual</i>		<i>Preliminary</i>	
Operation	2009	2009	2010	2010
	Production	Cash Operating Cost	Production	Cash Operating Cost
	(oz)	(\$/oz)	(oz)	(\$/oz)
Turmalina	82,071	\$424	59,481	\$774
Pacincia	66,671	\$502	59,287	\$670
Caet	-	-	19,099	\$792
Sabar	6,360	\$680	-	-
Total	155,102	\$468	137,866	\$732

Note: Preliminary 2010 cash operating costs based on R\$1.76 per \$1.00 exchange rate.

The 2009 exchange rate was R\$2.04 per \$1.00.

Totals may not add due to rounding.

In Q4 2010, Jaguar sold 34,134 ounces of gold at an average realized price of \$1,306 per ounce. This produced an average cash operating margin of \$544 per ounce.

For the 12 months ended December 31, 2010, the Company sold 140,530 ounces of gold at an average realized price of \$1,206, compared to 143,698 ounces at an average realized price of \$979 per ounce in 2009. This produced an average cash operating margin of \$474 per ounce in 2010, a decrease of \$37 per ounce or approximately 4% from an average cash operating margin of \$511 per ounce in 2009.

Details by Operation

Turmalina

During Q4 2010, Turmalina produced 10,275 ounces of gold at a cash operating cost of \$899 per ounce, a decline of 6,075 ounces from the 16,350 ounces produced in Q3 2010. Despite the decline in production, average cash operating costs declined slightly from Q3 2010 cash operating costs of \$912 per ounce. Q4 2010 cash operating costs were primarily impacted by lower-than-planned tonnage and lower ROM grades, which averaged 2.92 grams per tonne in Q4 2010 compared to 2.91 grams per tonne in Q3 2010. Tonnage into the mill during Q4 2010 of 142,765 tonnes was down 28% from 199,608 tonnes in Q3 2010, primarily as a consequence of the focus on forward development in the Ore Body A ore shoot as previously described. On an annual basis, in 2010 Turmalina produced 59,481 ounces of gold (a decline of 28% from 82,071 ounces in 2009) at a cash operating cost of \$774 per ounce (an increase of 83% from \$424 in 2009).

At the beginning of Q4, the Company appointed a new general manager at the Turmalina Operation and also installed a new mine superintendent. For the reasons described above, in Q4 2010 management elected to deploy additional personnel and equipment to enhance forward development in Ore Body A at the expense of producing and processing higher tonnage. In addition, for safety considerations, the backfilling of all open stopes previously mined using the selective stoping technique in Ore Body A was completed in Q4 2010. This backfilling exercise had previously delayed the mining of the high-grade temporary pillars that had been left in place in Ore Body A as natural structural supports for the mine. These pillars will be mined selectively throughout the year.

As previously communicated by the Company in August 2010, the Company initiated steps to convert the mining method at Turmalina from selective stoping to cut-and-fill in Ore Body A in Q2 2010. During Q4, the Company accelerated underground development, achieving over 1.7 km of new development, which represents the highest quarterly rate in the history of the Turmalina operation and was more than 25% higher than the rate of development achieved on a quarterly basis during the first half of 2010. Management continues to believe the conversion in mining methods should be principally completed during Q1 2011. Test mining in the panels now being developed in Ore Body A has also demonstrated a significant improvement in controlling dilution, with dilution in these tests averaging approximately 16% compared to ranges over 50% at time using selective sub-level stoping at the deeper elevations.

As of the end of January, the Company was producing ore from 15 faces in 10 developed stopes, one-third of which are in Ore Body A. By comparison, throughout much of Q4 2010, there were virtually no working faces or stopes in production in this ore shoot, as the effort was focused on forward mine development.

Paciência

In Q4 2010, Paciência produced 13,808 ounces of gold at an average cash operating cost of \$628 per ounce, compared to production of 16,526 ounces at a cash operating cost of \$695 per ounce in Q3 2010. The primary reason for the decline in Paciência gold output from the prior quarter was tied to the Company's decision to cease ore shipments from the Pilar mine to the Paciência CIP plant in the fourth quarter and instead to divert the tonnage to the new Caeté regional processing plant, which completed its commissioning phase in Q3 2010. Cash operating costs in Q4 2010 declined at the Paciência plant by \$67 per ounce or by approximately 10% from those recorded in Q3 2010. On an annual basis, in 2010 Paciência produced 59,287 ounces of gold (a decline of 10% from 66,671 ounces in 2009) at an average cash operating cost of \$670 per ounce from \$502 in 2009. The year-on-year decline in production principally resulted from a slight decline in feed grades as well as the Company's decision to re-direct ore from Pilar to the new Caeté processing plant during November.

The average feed grade into the Paciência processing during Q4 2010 plant was 3.57 grams per tonne, the highest of any quarter in 2010 and produced the lowest cash operating costs recorded of any quarter during the year. The average ROM grade from the Santa Isabel Mine was 3.69 grams per tonne in Q4 2010 compared to an average of 2.97 grams per tonne during the first nine months of 2010, a significant improvement.

Combined underground development for the mines now supplying the Paciência CIP plant totaled 1.5 km during Q4 2010. Efforts to bring the new Ouro Fino mine into production in 2011 continued on plan with completion of the ramp into the mineralization in Q4.

In addition to these Q4 development efforts, a portion of the Company's new mining equipment package, which includes the use of a fleet of smaller equipment to access the narrower sections of high grade zones in order to better control dilution in the St. Isabel mine, has been received and deployed. All of the new equipment is expected to be received and integrated into mining operations during the first half of 2011. Management believes this additional equipment, along with the existing in-place development at St. Isabel, and the added tonnage from Ouro Fino, should largely offset the shifting of the tonnage from Pilar in meeting Paciência's forward production targets.

The St. Isabel mine has 16 working faces in nine developed stopes, at the end of January, 2011, approximately 50% greater than the number that were fully developed at the end of Q3 2010.

Caeté

The Caeté facility completed its first full quarter of operations in Q4 2010 and produced 10,599 ounces of gold at an average cash operating cost of \$804 per ounce during the quarter. Operations at the CIP processing plant were curtailed in October in order to replace the waste discharge pump system, which failed during the plant's commissioning phase. Tonnage into the mill during Q4 totaled 147,344 tonnes at an average feed grade of 2.84 grams per tonne. Feed grades during Q4 continued to be influenced by the large stockpile of low-grade development grade ore, which is from the adjacent Roça Grande mine.

During Q4 2010, underground development at the Pilar and Roça Grande mines totaled 1.6 km. For the full year, a total of 5.9 km of underground development was installed at these two mines.

Combined, the Pilar and Roça Grande mines at the end of January 2011 has 16 working faces in nine developed stopes, compared to 10 faces in 5 stopes at the end of Q3 2010.

2011-2015 Outlook

The Company estimates its 2011 gold production will total between 195,000 and 205,000 ounces. Production is expected to be lowest in Q1 and then increase in the second half of 2011. Average cash operating costs for 2011 are estimated to be between \$660 and \$700 per ounce, with costs at the high end of the range in Q1 and then lower throughout the year as quarterly production increases. This cost estimate is based on an assumed exchange rate of R\$1.70 per \$1.00.

The Company estimates that with the contribution of the Gurupi Project, gold production is expected to range between 435,000 and 460,000 ounces by 2014 and consolidated cash operating costs by 2014 could be reduced by approximately \$100 per ounce from those estimated for 2011. For information concerning annual production, cash operating and our assumptions, please see the Company's updated corporate presentation, which is available on its website at 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. 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 575,000-acre land base in Brazil. Additional information is available on the Company's website at www.jaguarmining.com.

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Non-GAAP Performance Measures

The Company has included the non-GAAP performance measures discussed below in this press release. These non-GAAP performance measures do not have any standardized meaning prescribed by Canadian GAAP ("GAAP") and, therefore, may not be comparable to similar measures presented by other companies. The Company believes that, in addition to conventional measures prepared in accordance with GAAP, these non-GAAP measures provide certain investors with additional information that will better enable them to evaluate the Company's performance. Accordingly, these non-GAAP measures are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared with GAAP.

The Company has included cash operating cost per ounce processed because it believes these figures are a useful indicator of a mine's performance as they provide: (i) a measure of the mine's cash margin per ounce, by comparison of the cash operating costs per ounce to the price of gold; (ii) the trend in costs as the mine matures; and, (iii) an internal benchmark of performance to allow for comparison against other mines.

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 gold production estimates, projected cash operating costs and future financing alternatives. 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.