



NEWS RELEASE

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Jaguar Mining Reports Turmalina Gold Mine 2016 Year-End Mineral Reserves and Mineral Resources Increases Total Measured & Indicated Resources by 22% to 540,000 Ounces

Toronto, Canada, March 30, 2017 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX:JAG) is pleased to announce an updated Mineral Reserves and Mineral Resources estimate for the Turmalina Gold Complex, consisting of the Turmalina Gold Mine ("Turmalina") and a process mill, as of December 31, 2016, prepared in accordance with National Instrument 43-101 ("NI 43-101"). In addition, the Company continued to advance its US\$8 million accelerated growth exploration program to increase mineral resources at its core assets located in the Iron Quadrangle, Minas Gerais, Brazil. Updated Mineral Reserves and Mineral Resources estimates are being prepared in accordance with NI 43-101 for the Caeté Gold Complex, consisting of the Pilar Gold Mine ("Pilar" or "Pilar Mine"), the Roça Grande Gold Mine ("RG" or "RG Mine"), and the process mill are expected to be released during the Company's fiscal second quarter.

Year-End 2016 Turmalina Gold Mine Mineral Reserves and Mineral Resources Highlights

- Total Measured and Indicated ("M&I") Mineral Resources increased 22% to 540,000 ounces of gold, after depletion of 2016 production, with a grade of 4.93 g/t Au. This follows a successful exploration drilling campaign during 2016 which focused on upgrading the Inferred Resources category at Orebodies A and C to M&I Mineral Resources.
- Achieved strong growth in M&I Mineral Resources for Orebody A and C with gold ounces up 22% to 235,000 ounces at Orebody A and up 82% to 129,000 ounces at Orebody C.
- Total Proven and Probable ("2P") Mineral Reserves declined by 8% to a total of 171,000 ounces of gold, after depletion, with grade of 4.69 g/t Au. Slightly lower Mineral Reserves reflects tighter controls on inclusion of incremental mineralization and changes in dilution methodology.
- Orebody C 2P Mineral Reserves increased 167% during 2016 to 80,000 ounces of gold reflecting the newly discovered high-grade core within the larger mineralized intersections. Grade increased 12.0% to 4.10 g/t Au.
- Within the large true-width mineralized intersections of Orebody C, several high-grade intervals have been discovered, not previously seen in the upper levels of the orebody, also suggests the potential for continuation of the mineralization at depth.
- Compared to 2015, 2P Mineral Reserves decreased at Orebody A, however the 2017 drilling campaign will focus on upgrading the recent increased M&I Mineral Resources to 2P Mineral Reserves.

Rodney Lamond, President and CEO of Jaguar Mining stated, *"We achieved solid growth in total M&I Mineral Resources at our Turmalina operations as a result of a successful drilling program at Orebody A and C during 2016. The drilling program at Orebody A and C focused on converting a significant amount of Inferred Resources into M&I Mineral Resources category resulting in a 22% increase in total M&I Mineral Resources to 540,000 ounces of gold. We are also encouraged with the strong results at Orebody C which saw a 167% increase in 2P Mineral Reserves to 80,000 ounces of gold. Additionally, recent drill results announced in February 2017, confirmed the discovery of several high-grade intervals at Orebody C that had not been previously identified in the upper levels of the orebody. This suggests a potential increase in mineralization at depth. These newly defined areas may be used to increase Turmalina's overall throughput, and is expected to positively impact unitary costs in the future."*

"At Pilar, we are working on delivering new wireframe models to better reflect the geology and lithology, which will improve the accuracy of the Mineral Resource estimate. We expect to deliver an update on Mineral Reserves and Mineral Resources for Pilar in the second quarter of 2017. This will include drilling from the current ongoing campaign and any material information from current deep drilling."

"Our current US\$8 million accelerated growth exploration program is focused on increasing mineral resources at core assets and the potential discovery of new resources near our existing operations. The program is expected to complete approximately 31,000 metres of diamond drilling, including approximately 15,000 metres of drilling along the down-plunge continuities of Orebodies A, B and C at Turmalina and Orebodies BFII and BF at Pilar. We look forward to delivering positive results from these exploration programs during 2017."

Definitions

g/t Au - grams per tonne gold
M&I – Measured and Indicated
ETW – Estimated True Width

m – metres
t – tonnes

oz – ounces
2P – Proven and Probable

Table 1. Comparison of 2015 and 2016 Turmalina Mine Mineral Reserves and Mineral Resources

	December 31, 2016			December 31, 2015			2016 vs. 2015 % Change		
	Tonnes	Grade	Gold oz	Tonnes	Grade	Gold oz	Tonnes	Grade	Gold oz
	(000's)	(g/t)	(000's)	(000's)	(g/t)	(000's)			
Proven & Probable Mineral Reserves									
Orebody A	526	5.41	91	827	5.82	155	-36%	-7%	-41%
Orebody C	607	4.10	80	253	3.66	30	140%	12%	167%
Total 2P	1,133	4.69	171	1,080	5.31	185	5%	-12%	-8%
M & I Resources									
Orebody A	1,163	6.28	235	855	7.01	193	36%	-10%	22%
Orebody B	496	3.51	56	511	3.56	58	-3%	-1%	-3%
Orebody C	1,078	3.72	129	702	3.14	71	54%	18%	82%
Faina	261	6.87	58	261	6.87	58	-	-	-
Pontal	410	4.72	62	410	4.72	62	-	-	-
Total M&I Resources	3,408	4.93	540	2,739	5.01	442	24%	-2%	22%
Inferred Resources	2,437	6.37	499	3,057	6.30	619			

- Consolidated M&I Mineral Resources increased 22% to 540,000 ounces of gold after depletion, while tonnes increased to 24% and grade was 4.93g/t Au representing a 2% reduction.
 - The Company completed a successful exploration drilling campaign to upgrade Inferred Resources at Orebody A and C to the M&I Mineral Resources category in 2016, giving increased confidence in Jaguar's understanding of the deposit.
- Consolidated 2P Mineral Reserves reduced 8% to 171,000 ounces of gold after depletion, and grade reduced to 4.69 g/t Au, which represents the replacement of over 75% of the ounces mined in 2016.
- M&I Mineral Resources for Orebody A tonnes and ounces increased by 36% and 22% respectively.
- 2P Mineral Reserves for Orebody C, which is closer to the surface, increased ounces and tonnes by 167% and 140% respectively.
 - 2P Mineral Reserves grade at Orebody C increased by 12% to 4.10 g/t Au, which is indicative of an increase in grade at depth within Orebody C
- 2P Mineral Reserves for Orebody A ounces were lower compared to 2016, however, the 22% increase in M&I ounces will be the priority in 2017 for the overall Mineral Reserves upgrade.
- 2017 deep drilling programs for Orebodies, A, B, and C along the down-dip projections will focus on expanding the resource at depth. A calibre of drill now being used in the new hanging wall drift, being developed in Orebody A at Level 12 for the drilling program will allow down dip drilling of the Orebodies A and B from Level 10 to Level 16.

Update on Growth Exploration Pipeline

In 2016, the Company announced an accelerated growth exploration pipeline of up to US\$10 million. To date, approximately US\$6.0 million has been allocated towards Jaguar's core assets, Turmalina and Pilar, to focus on increasing identified Mineral Resources. US\$2.0 million has been dedicated to the discovery of new resources at the high priority Pacheca and Cubas targets near Pilar Mine and other advanced targets in and around the core assets.

The growth exploration program is expected to complete approximately 31,000 metres of diamond drilling, including approximately 15,000 metres of drilling down-plunge continuities of Orebodies A, B and C at Turmalina and Orebodies BFII and BF at Pilar. It is expected that approximately 8,500 metres of surface diamond drilling will test the Pacheca and Cubas targets near Pilar as well as other advanced targets in and around the Company's operating assets.

Turmalina Mine

As recently reported (refer to news release dated February 8, 2017) Jaguar has continued drilling the down-plunge extensions of Orebodies A and C at Turmalina to assess the growth potential for Measured and Indicated Mineral Resources. In addition, drilling has focused on providing increased definition and confidence in the near-term mine operation within the Indicated Mineral Resources.

Recent drill intercepts at Orebody A continue to confirm the presence of high-grade ore at depth beyond the current workings. Most importantly, reduced widths in the northwest (A-NW) section of Orebody A appear to be offset by the widening and a grade increase at depth in the southeast (A-SE) section, which previously had not been identified within the upper levels of Orebody A.

Recent drill intercepts at Orebody C below the known resource confirm the extension of the gold mineralization in the southeast section of the orebody. The Orebody C-SE down-plunge extension below the known resources, demonstrated stronger, high-grade ore mineralization. Within the confirmed thick mineralized intersections, several high-grade intervals were discovered that had not been previously identified in the upper levels of the orebody, suggesting a potential increase in mineralization at depth. The newly defined areas may be used to increase Turmalina's overall throughput, and is expected to positively impact unitary costs in the future.

The development of the new growth exploration drilling horizon positioned in the hanging wall of Turmalina at Level 10 is underway and deep drilling is expected to take place starting in the second quarter. An estimated 4,800 m of deep diamond drilling will be performed after the development of the 180 m long exploration drive is completed. The calibre of drill that will be utilized in the hanging wall drift, will now allow the proposed drilling to reach Levels 12 to 16. The goal of the proposed drilling from this exploration drive is to locate and delineate additional Mineral Resources at these deeper levels, and to test the down-plunge continuity up to Level 16, up to 400 vertical m below the current development and 300 m below the current Inferred Resources.

The hanging wall drift being developed for the deep drilling platform is also expected to cross Orebody B below Level 10, at -100 m. Orebody B will be evaluated as part of the 2017 drilling program. Drilling in 2016 showed that the Orebody B target has the potential of increased grade at depth and depending on additional drilling and sampling, results may be added to the overall Mineral Reserves upgrade in 2017. Orebody B currently has an average mineral resource gold grade of 3.51 g/t Au. Should Orebody B prove viable for additional mining of higher-grade ore, Turmalina would then have the flexibility to mine from three different orebodies.

Pilar Mine

At Pilar, the drill program results announced on September 26, 2016, disclosed multiple high-grade drill intercepts from Pilar including at the BFII, BF, BA, LFW, LHW, C, and SW orebodies. The underground resource definition-drilling program was designed to test the current resource envelope, and to test the down-plunge extensions of the Pilar orebodies. The drill program targeted, in particular, the newly discovered BFII Orebody, as previously outlined in the "Technical Report on the Roça Grande and Pilar Operations, Minas Gerais State, Brazil", a copy of which is available on the Company's SEDAR profile at www.sedar.com.

At Pilar, development of the new exploration drive in the hanging wall of the mine at Level 7 is now complete and deep underground drilling has commenced. The calibre of drill also being utilized in Pilar's hanging wall drift, will now allow the proposed drilling to reach Levels 11 to 16, up to 350 vertical m below current development and 250 m below the current Inferred Resources. The proposed diamond drilling program at Pilar comprises approximately 5,100 m that will test the down-plunge extension and continuity of ore bodies BFII, BF, and BA.

Pacheca Exploration Target

At the Pacheca target, classified as ancient Portuguese workings from the 1800s, and located approximately 4-5 kilometres from Pilar, seven holes totalling 1,630 m have been completed. Significant drill results include:

- FPCH001: 0.34 g/t Au over 9.7 m (*ETW – 8.00 m);
 - including, 1.06 g/t Au over 6.05 m (*ETW – 5.00 m); and 0.5 g/t Au over 5.00 m (*ETW – 4.01 m)
- FPCH002: 2.7 g/t Au over 0.4 m (*ETW – 0.4 m); and 0.52 g/t Au over 7.15 m (*ETW – 6.00 m)

**ETW are based on preliminary geological interpretations and are subject to change.*

Results are currently being examined to understand the direction and continuity of the target mineralization. The Company is awaiting assays from two additional drill holes and further geological mapping, planning and a geophysical survey is being planned for the near future. Additional drilling will be results-driven and based on interpretation of the form and location of the target mineralization.

Cubas Exploration Target

At the Cubas Induced Polarization ("IP") anomaly target, located 1.5 kilometres from the Pilar Mine, three deep drill holes (1,950 m) have been completed. One of the holes intercepted 33 m of massive sulphide mineralization which is associated with a hydrothermal alteration halo that is believed to be responsible for generating the strong IP anomaly target. It is also believed that this is a strong indicator for potential gold mineralization in and around the Cubas target. The information is currently being analyzed and future work will be carried out based on interpretation of the target.

Figure #1

Location Map of Operating Assets in Southern Brazil

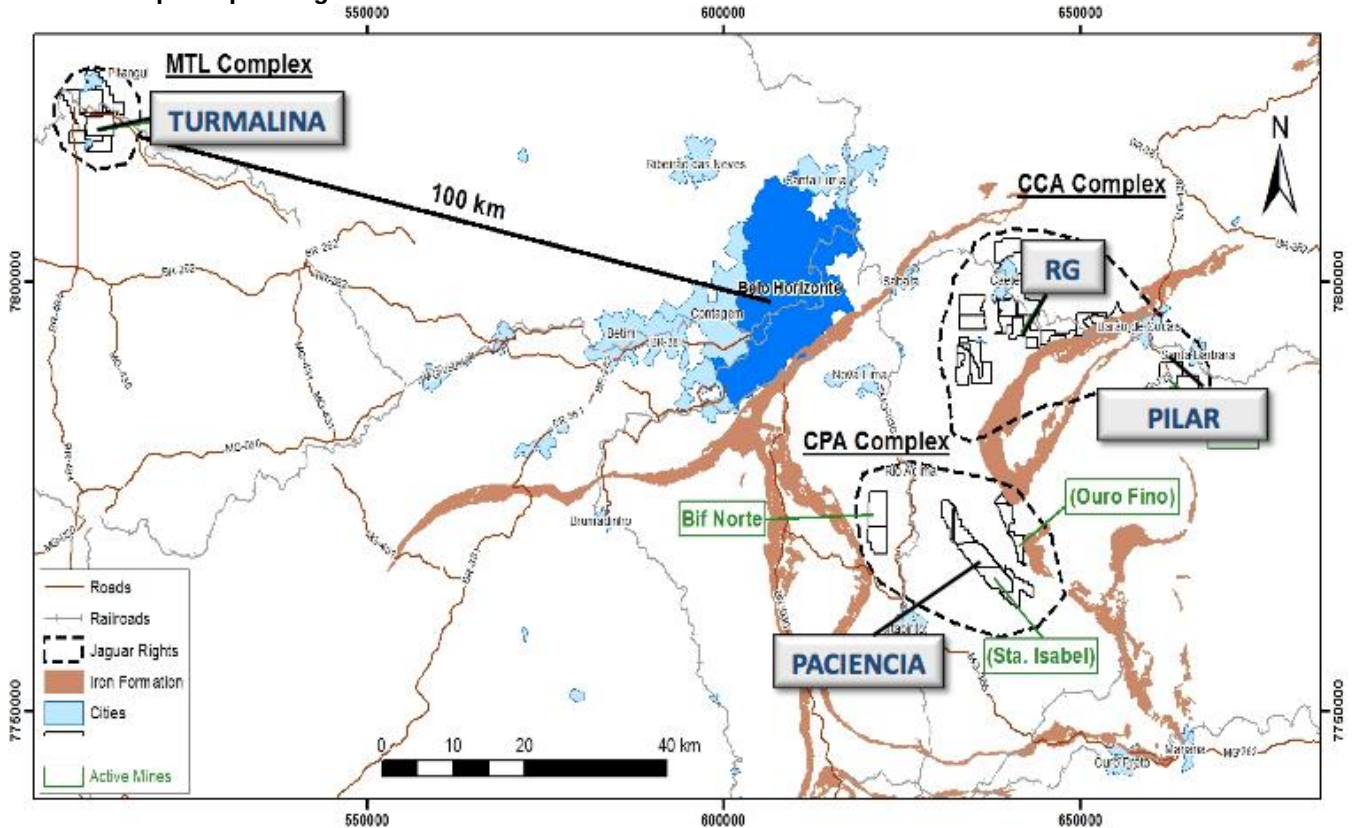


TABLE 1 SUMMARY OF TOTAL MINERAL RESOURCES – DECEMBER 31, 2016
Jaguar Mining Inc. – Turmalina Mine Complex

Category	Tonnes (000)	Grade (g/t Au)	Contained Oz Au (000)
Turmalina			
Measured	1,430	5.36	246
Indicated	1,307	4.12	174
Sub-total M&I	2,737	4.77	420
Inferred	765	4.81	118
Faina			
Measured	72	7.39	17
Indicated	189	6.66	42
Sub-total M&I	261	6.87	58
Inferred	1,542	7.26	360
Pontal			
Measured	251	5.00	40
Indicated	159	4.28	22
Sub-total M&I	410	4.72	62
Inferred	130	5.03	21
Total Turmalina, Faina, and Pontal			
Measured	1,753	5.38	303
Indicated	1,655	4.47	238
Sub-total M&I	3,408	4.93	540
Inferred	2,437	6.37	499

Notes for Table 1:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources include the Turmalina Mine, Faina deposit, and Pontal deposit.
3. Mineral Resources are estimated at a cut-off grade of 2.10 g/t Au at Turmalina, 3.8 g/t Au at Faina, and 2.9 g/t Au at Pontal.
4. Mineral Resources at the Turmalina Mine include all drill hole and channel sample data and mining excavations as of December 31, 2016.
5. Mineral Resources at the Faina and Pontal deposits remain unchanged from those stated as at December 31, 2015.
6. Mineral Resources are estimated using a long-term gold price of US\$1,500 for the Turmalina Mine and US\$1,400 per ounce for the Faina and Pontal deposits.
7. Mineral Resources are estimated using an average long-term foreign exchange rate of 3.49 Brazilian Reals: 1 US Dollar for Turmalina and 2.5 Brazilian Reals: 1 US Dollar for Faina and Pontal.
8. A minimum mining width of approximately 2 m was used.
9. Bulk density is 2.83 t/m³ for Orebodies A and B and 2.97 t/m³ for Orebody C at the Turmalina Mine.
10. Gold grades are estimated by the inverse distance cubed interpolation algorithm using capped composite samples.
11. Mineral Resources are inclusive of Mineral Reserves.
12. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
13. Numbers may not add due to rounding.

TABLE 2 MINERAL RESERVE ESTIMATE – DECEMBER 31, 2016
Jaguar Mining Inc. – Turmalina Mine

Orebody	Classification	Tonnes (000)	Grade (g/t Au)	Contained Au Ounces (000)
A	Proven	330	5.86	62
A	Probable	196	4.66	29
C	Proven	24	3.47	3
C	Probable	583	4.12	77
Total	Proven & Probable	1,133	4.69	171

Notes for Table 2:

1. CIM definitions were followed for Mineral Reserves.
2. Mineral Reserves were estimated at a break-even cut-off grade of 2.5 g/t Au. Some stopes were included using an incremental cut-off grade of 1.2 g/t Au.
3. Mineral Reserves are estimated using an average long-term gold price of US\$1,250 per ounce, and a US\$/BRL exchange rate of 3.49.
4. A minimum mining width of 3 m was used.
5. Bulk density is 2.7 t/m³.
6. Numbers may not add due to rounding.

Qualified Person

Mineral Reserves and Mineral Resources 2016 estimates for Turmalina Gold Mine were prepared by Jaguar Mining under the supervision of Jason Cox, P.Eng., and Reno Pressacco, P.Geo. of Roscoe Postle Associates Inc. ("RPA"). RPA is an independent mining consultant and each of Messrs. Cox and Pressacco are Qualified Persons within the meaning of NI 43-101. The effective date of these estimates is December 31, 2016. An independent technical report documenting the Mineral Resource estimates prepared in accordance with NI 43-101 will be filed on SEDAR.

Scientific and technical information contained in this press release has been reviewed and approved by Geraldo Guimarães Vieira dos Santos, BSc Geo., MAIG-3946 (CP), Geology Manager, who is an employee of Jaguar Mining Inc., and is a "qualified person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

Quality Control

Jaguar Mining has implemented a quality-control program that includes insertion of blanks, commercial standards, and duplicate core samples in order to ensure best practice in sampling and analysis.

NQ and BQ size drill core is sawn in half with a diamond saw. Samples are selected for analysis in standard intervals according to geological characteristics such as lithology and hydrothermal alteration contents. All diamond drill hole collars are accurately surveyed using a Total Stations instrument and down hole deviations are surveyed using optical Reflex Maribor.

Mean grades are calculated using a variable lower grade cut-off (generally 2 g/t Au). No top cutting has been applied to the data. However, the requirement for assay top cutting will be assessed during future resource work.

Half of the sawed sample is forwarded to the analytical laboratory for analysis while the remaining half of the core is stored in a secure location. The drill core samples are transported in securely sealed bags to the Jaguar in-house laboratory located at the Caeté Mine Complex in Minas Gerais. Some samples are also sent for check assaying to the independent SGS Geosol Laboratory located in Vespasiano, Minas Gerais. The preparation and analysis are all conducted at the respective facilities. The Caeté Mine Complex laboratory does not carry an ISO certification. The SGS Geosol Laboratory is ISO 9001 accredited. As part of in-house QA/QC, the Caeté Mine Complex laboratory inserts certified gold standards, blanks, and pulp duplicate samples.

For a complete description of Jaguar's sample preparation, analytical methods, and QA/QC procedures, please refer to the Turmalina Technical Report filed on Jaguar's profile at www.sedar.com please refer to the Turmalina Technical Report that will be filed on Jaguar's SEDAR profile within 45 days from the date of this news release.

The Iron Quadrangle

The Iron Quadrangle has been an area of mineral exploration dating back to the 16th century. The discovery in 1699-1701 of black gold contaminated with iron and platinum-group metals in the southeastern corner of the Iron Quadrangle gave rise to the name of the town Ouro Preto (Black Gold). The Iron Quadrangle contains world-class multi-million ounce gold deposits such as Morro Velho, Cuiabá, and São Bento. Jaguar holds the second largest gold land position in the Iron Quadrangle with just over 25,000 hectares.

About Jaguar Mining Inc.

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes, and a large land package with significant upside exploration potential from mineral claims covering an area of approximately 191,000 hectares. The Company's principal operating assets are located in the Iron Quadrangle, a prolific greenstone belt in the state of Minas Gerais and include the Turmalina Gold Mine Complex ("Mineração Turmalina Ltda" or "MTL") and Caeté Gold Mine Complex ("Mineração Serras do Oeste Ltda" or "MSOL") which combined produce more than 95,000 ounces of gold annually. The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012. Additional information is available on the Company's website at www.jaguarmining.com.

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FORWARD-LOOKING STATEMENTS

Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements and information are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking information made in this news release are qualified by the cautionary statements below and those made in our other filings with the securities regulators in Canada. Forward-looking information contained in forward-looking statements can be identified by the use of words such as "are expected", "is forecast", "is targeted", "approximately", "plans", "anticipates", "projects", "anticipates", "continue", "estimate", "believe" 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. All statements, other than statements of historical fact, may be considered to be or include forward looking information. This news release contains forward-looking information regarding potential and, among other things, expected production, statistics, ore grades, tonnes milled, recovery rates, cash operating costs, and definition/delineation drilling at the Turmalina Gold Mine., the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects and new deposits, success of exploration, development and mining activities, currency fluctuations, capital requirements, project studies, mine life extensions, and continuous improvement initiatives. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the estimated timeline and for the development of the drill program at the Turmalina Gold Mine its mineral properties; the supply and demand for, and the level and volatility of the price of, gold; the accuracy of reserve and resource estimates and the assumptions on which the reserve and resource estimates are based; the receipt of necessary permits; market competition; ongoing relations with employees and impacted communities; and political and legal developments in any jurisdiction in which the Company operates being consistent with its current expectations including, without limitation, the impact of any potential power rationing, tailings facility regulation, exploration and mine operating licenses and permits being obtained and renewed and/or there being adverse amendments to mining or other laws in Brazil and any changes to general business and economic conditions. Forward-looking information involve a number of known and unknown risks and uncertainties, including among others: the risk of Jaguar not meeting the forecast plans regarding its operations and financial performance, the; uncertainties with respect to the price of gold, labor disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, weather delays and increased costs or production delays due to natural disasters, power disruptions, procurement and delivery of parts and supplies to the operations; uncertainties inherent to capital markets in general (including the sometimes volatile valuation of securities and an uncertain ability to raise new capital) and other risks inherent to the gold exploration, development and production industry, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company and described herein. In addition, there are risks and hazards associated with the business of gold exploration, development, mining and production, including environmental hazards, tailings dam failures, industrial accidents and workplace safety problems, unusual or unexpected geological formations, pressures, cave-ins, flooding, chemical spills, and gold bullion thefts and losses (and the risk of inadequate insurance, or the inability to obtain insurance, to cover these risks). Accordingly, readers should not place undue reliance on forward-looking information.