

# **NEWS RELEASE**

July 13, 2016 FOR IMMEDIATE RELEASE: 2016-18 TSX-V: JAG

# Jaguar Mining Intercepts High-Grade Gold Mineralization And Confirms Downward Extension at Depth at Turmalina Gold Mine

Jaguar Achieves Major Milestone of Over 1.1 Million Ounces of Gold Production

**Toronto, Canada, July 13, 2016 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX-V: JAG)** today announced multiple high-grade drill intercepts generated from 46 infill drill holes (7,310 metres from a total of a 7,842 metre program) designed to test the current indicated and inferred resource envelope of Orebody A at Turmalina Gold Mine ("Turmalina"). The 46 drill holes do not include four additional holes (532 metres) that are pending assay results.

# **Drilling Highlights and Key Intercepts**

- Drill intercepts completed confirm the continuation of high-grade gold mineralization down-plunge of Orebody A, 170 metres below current production workings, while also increasing confidence in the geological model of Orebody A through increased drill density.
- Drill results provide the potential to upgrade current inferred resources to a higher category and include the following key intercepts:
- Drill hole FTS1299 intercepted 21.66 grams per tonne gold ("g/t Au") over 8.48 metres (ETW 7.1m)
- Drill hole FTS1298 intercepted 18.26 g/t Au over 8.39 metres (ETW 5.9m)
- Drill hole FTS1268 intercepted 12.87g/t Au over 20.70 metres (ETW 17.5m), including 29.48 g/t gold over 6.64 metres (ETW 5.6m) and 22.24 g/t Au over 2.94 metres (ETW 2.5m)
- Turmalina Gold Complex has achieved over 500,000 ounces of gold production since its commissioning in 2007. Orebody A is the main contributor to gold production at Turmalina. Orebody A has been outlined along a strike length of approximately 250 m to 300 m and remains open at depth below the current drilling program.

ETW - Estimated true width

Rodney Lamond, President and Chief Executive Officer of Jaguar, stated: "These drilling results are highly significant as they represent the first phase of infill drilling programs focused on increasing the geological confidence of Orebody A at Turmalina. Drilling results confirm that the high-grade mineralization recently mined from Orebody A continues 170 metres below the current working production levels, with grades persisting at depth. In addition, these results also reinforce the excellent potential to expand Orebody A down-plunge, as well as potentially increasing mineral resources as we work towards upgrading current inferred resources to a higher category. We are continuing with our infill drilling programs on Orebody A as a priority target given the excellent grades and widths we have encountered. In addition to this program, we are initiating a deep drilling program on Orebody C, expected to commence during Q3 2016, in an effort to identify higher grade mineralized ore shoots within Orebody C to augment the main production from Orebody A."

## **Turmalina Gold Deposit**

The Pitangui area, where the Turmalina Mine is located, is underlain by rocks of Archaean and Proterozoic age. Archaean units include a granitic basement, overlain by the Pitangui Group, a sequence of ultramafic to intermediate volcanic flows and pyroclastics and associated sediments. The Turmalina deposit is hosted by

chlorite-amphibole schist and biotite schist units within the Pitangui Group. All units have been metamorphosed to the amphibolite grade.

The mineralization at the Turmalina Mine is typically epigenetic and consists of a number of tabular bodies that are spatially related to a BIF. These tabular bodies are grouped together according to spatial configuration and gold content into Orebodies A, B, and C. Gold can occur within the BIF itself, but can equally occur in the other host lithologies.

Figures 1 and 2 below illustrate the spatial distribution of the known targets at Turmalina. Figure 3 illustrates a detailed longitudinal section of Turmalina.

Gold mineralization occurs in fine grains associated with sulphides in sheared schists (Orebody A) and BIF sequences (Orebody C). Gold particles average 10  $\mu$ m to 20  $\mu$ m and are mostly associated with arsenopyrite, quartz, and micas (sericite and biotite).

The main production of the mine comes from Orebody A, which is a steeply east dipping tabular deposit, that is located in a biotite schist host rock with a steep southeasterly plunge. The mineralization in this deposit has been outlined along a strike length of approximately 250 m to 300 m and to depths of 700 m to 750 m below surface.

Orebody C is a series of 14 lenses that are located to the west in the structural footwall of Orebody A and are generally of lower grade than Orebody A. They strike northwest and dip steeply to the northeast. A minor amount of production has been achieved from these lenses to date. The mineralization in this deposit has been outlined along a strike length of approximately 800 m to 850 m and to depths of 400 m to 450 m below surface.

## Orebody A and C Drill Program

The Company has continued drilling for down-plunge extensions of Orebody A 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 resource.

The development of a new exploration drilling horizon in the hanging wall of the structure is currently being reviewed and considered to drill the Orebody A down-plunge continuity below the current inferred resource envelope.

Additional deep exploration drilling is also planned to test the promising Orebody C SE down-plunge extension below the known resources, in order to gradually increase total Turmalina throughput.

The assessment of the historical geological information and the rational use of state-of-the-art 3-D software are strongly contributing to the understanding of the gold emplacement and consequent target generation of new resource identification.

A schematic geological cross section (Figure 2) below illustrates the structural positions of the Orebody A and C areas with respect to Orebody B, Faina, and Pontal.

## Significant Gold Production Milestones Achieved

In 2007, the Turmalina Gold Complex commenced mining operations and has since maintained a consistent production level, achieving more than 500,000 ounces of gold produced to date. Combining total gold production from Turmalina with total gold production from the Company's other gold assets, Jaguar has exceeded a major milestone producing more than 1.1 million ounces of gold production as at Q2 2016 in one of the most prolific gold camps in South America, the Iron Quadrangle in the state of Minas Gerais, Brazil.

Rodney Lamond, President and Chief Executive Officer of Jaguar, commented: "I am extremely proud of all of our employees and support groups who together achieved a remarkable gold production milestone of 1.1 million ounces which reflects the gold production capability of our gold mines in Brazil. We continue to be well-positioned for future growth and to deliver on our goals in a safe and responsible operating environment."

With the recent success of key exploration programs and a cash balance of US\$17.5 million as at June 30, 2016, the Company remains committed to investing in exploration programs that will support the replacement of depleted resources. Additionally, the Company will focus its exploration efforts on areas that will contribute to the growth of its sustainable production profile from its core producing assets: Turmalina, Pilar, and Roça Grande.

# **Drill Intercepts**

The highlighted drilling intercepts contained in this news release (Table #1) are down-plunge of current underground workings at Orebody A. Table #1 comprises intersections drilled between January 2016 and June 2016, and are contained within the current inferred resource envelope, as detailed in the "Technical Report On The Turmalina Mine, Minas Gerais State, Brazil", released and filed on SEDAR on May 24, 2016 ("The Turmalina Technical Report"). With these results, the Company is expecting to replace the reserves being depleted in 2016 and confirming the down-plunge continuity and strength in grade and tonnage of the mineralization.

The impact of these intercepts was not incorporated into the reserve/resource model update that was disclosed in a news release on April 7, 2016. The effect of incorporating the new drill data into the reserve/resource model will only be ascertained and quantifiable once a reserve and resource model update is conducted, later in the year, as additional data is gathered.

## **Qualified Person**

Scientific and technical information contained in this press release has been reviewed and approved by Marcos Dias Alvim, BSc Geo., MAusIMM (CP), Project Development 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 upper gold grade cut 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, either at the Roça Grande Mine Laboratory in Caeté, Minas Gerais or at the SGS Geosol Laboratory in Vespasiano, Minas Gerais. 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.

## **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 approximate 191,000 hectares. The Company's principal operating assets are located in 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 ("Mineracao Serras do Oeste Ltda" or "MSOL") which combined produce more than 90,000 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.

## For Further Information Please Contact:

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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 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. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the availability of financing for exploration, development and production activities; 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; ongoing relations with employees and impacted communities; and general business and economic conditions. Forward-looking information involve a number of known and unknown risks and uncertainties, including among others 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, procurement and delivery of parts and supplies to the operations, uncertainties inherent to capital markets in general 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. Accordingly, readers should not place undue reliance on forward-looking information.

For additional information with respect to these and other factors and assumptions underlying the forward-looking information made in this news release, see the Company's most recent annual information form and management's discussion and analysis, as well as other public disclosure documents that can be accessed under the issuer profile of "Jaguar Mining Inc." on SEDAR at www.sedar.com. The forward-looking information set forth herein reflects the Company's reasonable expectations as at the date of this news release and is subject to change after such date. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. The forward-looking information contained in this news release is expressly qualified by this cautionary statement.

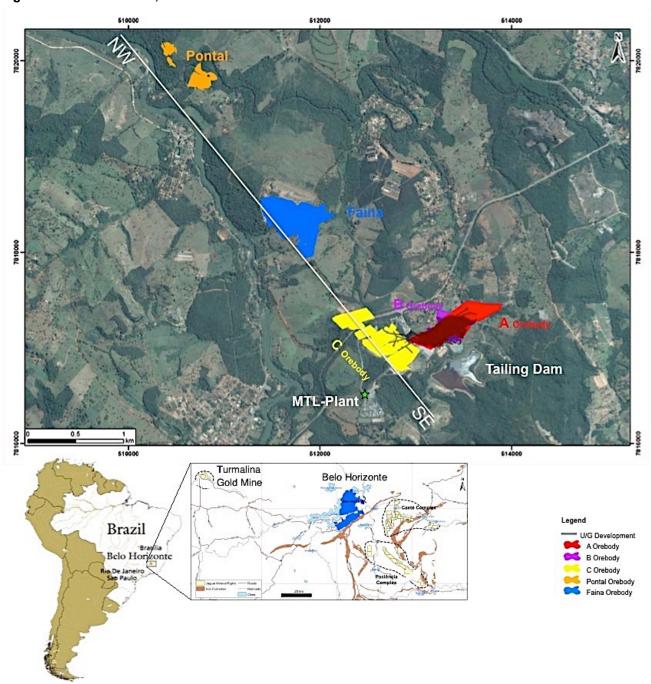
Neither the TSX Venture Exchange nor its Regulations Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Table #1 - Drill Results

			Turmalina Gold Drill Result			
Hole ID	Date	From (m)	To (m)	Downhole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)
FTS1260	12-01-16	112.0	125.9	13.9	5.5	10.24
ncluding	12-01-16	112.0	120.5	8.5	3.4	15.50
FTS1261	06-01-16	73.3	77.1	3.7	2.6	2.75
FTS1262	15-02-16	205.7	227.2	21.5	9.0	4.10
ncluding	15-02-16	205.7	220.7	15.0	6.2	4.56
FTS1263	01-02-16	254.5	258.2	3.7	3.0	3.00
FTS1264	06-01-16	84.1	101.0	16.9	10.5	5.37
FTS1265	01-01-16	123.6	134.0	10.5	6.9	6.84
FTS1266	21-01-16	120.9	131.2	10.3	6.9	5.45
FTS1267	19-01-16	113.0	115.8	2.9	2.1	10.96
FTS1268 ncluding	21-01-16 21-01-16	141.7 141.7	162.4 148.3	20.7 6.6	17.6 5.6	12.87 29.48
ncluding	21-01-16	158.6	161.5	2.9	2.5	22.24
FTS1269	24-02-16	112.7	125.0	12.3	6.2	7.62
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FTS1270	12-01-16	90.3	106.7	16.4	7.2	7.08
FTS1271	21-01-16	110.3	120.3	10.0	5.0	4.16
FTS1272	20-01-16	91.6	99.1	7.5	5.0	11.17
FTS1273	18-02-16	98.5	102.1	3.7	2.8	5.69
FTS1274	02-02-16	83.6	84.6	1.0	1.0	1.12
FTS1275			03-02-16		Exploration drill hole to investigate granite / volcanosedimentary rocks contacts	
FTS1276			10-02-16		Exploration drill hole to investigate granite / volcanosedimentary rocks contacts	
FTS1278	19-02-16	90.7	95.6	4.9	3.5	1.73
FTS1279	25-02-16	97.8	98.8	1.0	0.5	0.68
FTS1280	22-02-16	168.6	176.1	7.4	6.0	3.04
FTS1281	21-02-16	127.9	133.4	5.5	3.5	7.53
	26-02-16	118.8	124.4	5.6	5.0	7.46
FTS1282	20.02.46	89.4	102.8	13.4	12.0	15.29
FTS1282 FTS1284	30-03-16					
	31-03-16	86.9	101.6	14.7	8.0	2.73
FTS1284		86.9 133.5	101.6 144.1	14.7	6.4	2.73 8.30

Hole ID	Date	From (m)	To (m)	Downhole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)
FTS1288	10-03-16	118.1	123.7	5.6	4.2	4.84
FTS1289	04-04-16	111.2	113.1	1.9	1.8	6.07
FTS1290	01-04-16	93.5	96.9	3.5	3.2	7.76
FTS1291	29-04-16	104.9	107.6	2.8	2.0	1.87
FTS1292	01-04-16	96.9	116.7	19.8	14.8	5.58
Including	01-04-16	96.9	102.4	5.5	4.1	14.30
FTS1293	06-02-16	75.6	89.5	13.9	12.2	12.17
FTS1294	15-05-16	81.8	87.3	5.5	3.5	10.87
FTS1295	19-05-16	81.1	97.7	16.6	10.4	10.24
FTS1296	23-05-16	91.1	100.5	9.4	5.6	4.74
FTS1297	06-01-16	87.5	101.0	13.5	10.7	7.71
FTS1298	13-06-16	100.7	109.0	8.4	5.9	18.26
FTS1299	13-06-16	91.6	100.1	8.5	7.1	21.66
FTS1300	26-05-16	146.3	152.6	6.3	3.4	5.44
FTS1301	29-05-16	131.3	137.9	6.6	3.0	5.33
FTS1302	30-05-16	119.3	126.6	7.4	3.2	5.77
FTS1303	30-05-16	99.6	100.5	1.0	0.5	0.71
FTS1304	29-04-16	107.1	108.9	1.8	1.6	8.42
FTS1305	27-06-16	118.7	131.7	13.0	5.0	5.65
FTS1309	21-06-16	102.0	106.6	4.6	2.1	2.92
FTS1310	23-06-16	144.2	150.8	6.5	3.1	6.27

Figure 1 – Location Plan, Turmalina Gold Mine



SE NW Orebody C Orebody B Orebody A Faina **Pontal** 2<sup>nd</sup> Half planned / Exploration DDH , Legend Released In-Fill A Oredody DDH Area B Oredody C Oredody 2<sup>nd</sup> Half Planned In-Fill/Exploration DDH Pontal Oredody Faina Oredody

Figure 2 - Longitudinal Section from the Hanging Wall, Turmalina Gold Mine



