



ASX/Media Release – 28 December 2017

## Spectacular Grades Continue from Pilot Hammer Mill

### **'Back to Basics' approach on track**

- Orinoco's 'Back to Basics' approach to milling delivers further high-grade samples.
- 4 samples returned 38.8 g/t, 41.8 g/t, 26.6 g/t and 40.4 g/t from the pilot mill.
- This follows the reported 11 samples that graded between 30-149 g/t.
- All 15 samples of 1 tonne each came from 15 different parts of the mine.
- The average grade from the 15 samples is so far 48.6 g/t.
- Commissioning of the much larger hammer mill is on track for January.
- New Toro LHD expected to arrive mid-January to improve underground haulage.
- Study now underway to open up the neighbouring 'Cuca' zone.
- Aggressive ramp-up in production expected in 1<sup>st</sup> quarter 2018.

Orinoco Gold Limited (ASX: OGX) (**Orinoco** or the **Company**) is pleased to announce the continued success of its 'Back to Basics' approach with 4 new one tonne samples grading an average of 38.9 g/t. This takes the 15 samples milled so far through the pilot hammer mill to an average 48.6 g/t and is encouragingly sourced from 15 different parts of the Mestre and Central Zones of Cascavel. The cleaning of the gold is conducted in the gold room, over a gold table prior to smelting see (Image 6).

COO Richard Crew commented "This 'Back to Basics' approach is an important step in showing Cascavel's true potential as one of the higher grading gold mines in Latin America. We are excited to take this pilot operation to a much larger scale hammer mill in January. Work has also recommenced on the Northern zone of the orebody that was thought to be low grade, but could also show similar turnaround results that Mestre and Central have shown through the hammer mill. At the same time we are working with our Exploration team lead by Marcelo de Carvalho to consider the best option to fast track mining at Cuca that sits 20 metres below the Mestre".

### **Back to Basics**

Whilst the potential of Cascavel has always been exciting, the delivery of ounces has been elusive. Numerous independent experts have visited site over the last 12 months attempting to crack the code as to why visible high grades in the Mestre and Central zones have been unable to translate into low cost ounces. In hindsight, OGX's new management team believes it has been a combination of excessive dilution during mining together with low recoveries from its existing gravity recovery plant that has continued to struggle to recover the finer gold component of the ore.

As part of our 'Back to Basics' approach management is returning to more traditional routes of milling its ore. Tests between the dates of 21/11/17 and 13/12/17 through a small 200kg per hour pilot hammer mill were announced on the ASX on the 18<sup>th</sup> of December and illustrated in Table 1. These initial results show that the recovery and grade can dramatically improve when it is not processed in the current gravity recovery plant. During this period,

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### **ASX Code**

**OGX**  
(Ordinary Shares)  
**OGXOC & OGXOD**  
(Listed Options)

### **Issued Capital**

783,295,119 Ordinary Shares  
254,041,676 Options

the small hammer mill achieved recoveries of over 90% and grades ranging between 30-149 grams per tonne of gold (Dore) from eleven one tonne samples taken from the eleven different areas of the mine and detailed in (Table 1).

**Table 1 First batch of Hammer mill tests**

Date	21/11/17	22/11/17	23/11/17	24/11/17	29/11/17	30/11/17	1/12/17	4/12/17	11/12/17	12/12/17	13/12/17	Totals
Location	RC	MD	MS4	RC2F	RCS1	RC4S	MLO	ML1	ML4S	RC3F	ML4N	
Tonnes processed	0,75	1	1	1	1	1	1	1	1	1	1	<b>10,75</b>
Au (Dore) recovered Grams	30,33	41,06	43,00	33,21	40,08	33,24	42,73	39,37	149,09	38,26	91,02	<b>581,39</b>
Au (Dore) recovered oz's	0,98	1,32	1,38	1,07	1,29	1,07	1,37	1,27	4,79	1,23	2,93	<b>18,69</b>

Encouragingly the second batch of results taken between the dates of 18/12/17 and 21/12/17 show the grades are consistently as high see (Image 2). Importantly the MSM batch see (Table 2 and Image 1), was a blend of both stope and development ore. This same batch was processed in a much larger quantity of 100 tonnes through the gravity plant on December 22, and achieved a grade of only 2 g/t. Owing to the large differences in grade we have decided to re-process several bulk samples of previously processed material (tailings) through the trial hammer mill which gives a much finer grind than the current comminution circuit to ascertain the potential gold content.

**Table 2; Second batch of Hammer mill tests**

Date	18/12/2017	19/12/2017	20/12/2017	21/12/2017	Totals
Location	RCS1	RCF	MSM	RC5S	
Tonnes processed	1	1	1	0,8	<b>3,8</b>
Au (Dore) recovered Grams	38,83	41,78	26,64	40,43	<b>147,68</b>
Au (Dore) recovered oz's	1,25	1,34	0,86	1,30	<b>4,75</b>



**Image 1; MSM 26,64 grams recovered**



**Image 2; RCS1, RCF and RC5S 121,04 grams recovered**

It is encouraging about these 15 one tonne samples were mined from 15 different parts of the Mestre and Central Zones. See (figure 1).



**Figure 1. Locations of processed samples**

These grades do not come as a surprise to us, because we know the ore veins display visible gold. Images 3, 4 and 5 illustrate the types of rock with visible gold that are mined on a regular basis.



**Image 3; Ore mined from Rampa central**



**Image 4; Ore mined from Mestre Nivel 0**

Although it is still too early to determine if a much larger 25-30 tonne per hour hammer mill will show similar recoveries as the 200kg per hour pilot plant, the success of these mills in South America suggests that results should still be considerably better than that of the current gravity plant configuration.

## New Sources of feed

As part of Orinoco's 'Back to Basics' approach, mining has re-commenced on the Northern zone of the mine. In 2016, considerable development was undertaken to at the Northern zone, but at the time, the grades and recoveries through the gravity plant were considered very disappointing and mining ceased there. Mining has restarted and management plan to announce another 5-10 one tonne fresh samples from the Northern zone that will be processed through the pilot hammer mill and the results will be announced by mid- January on the ASX. Should these grades show a vast improvement through the hammer mill then the Northern zone will become an important 3<sup>rd</sup> source of ore in 2018.

In addition to the Northern zone, work is now underway to study the potential fast track restart of the Cuca zone that sits 20 metres vertically below the Mestre zone. Historically, Cuca was always considered higher grade than either Mestre or the Central zone by its previous operators. Our Head of Exploration, Mr Marcelo de Carvalho and his team will work in partnership with Mr Crew's mining team to assess the best option to restart Cuca. As it stands there are 3 options for Cuca's restart which include: 1) developing from underground; 2) refurbishing the existing Cuca shaft or 3) developing a new decline from surface. A decision on Cuca is expected to be made by the end of January and should potentially commence mining by April 2018.



Image 5; Gold nugget recovered from Rampa central



Image 6; Tabling concentrate in gold room

## Summary

Management is focused on turning the Cascavel operation around with the new direction being taken. Mining of high grade stope ore has commenced and is being stockpiled for processing upon commissioning of the larger hammer mill. A focus on cost reductions and a streamlining of the board and management reporting lines, Orinoco will be leaner as it aims towards sustainable and profitable production in 2018. Grades from this most recent batch of 4 samples continue to support the notion that Cascavel has the potential to be a high grade low cost mine. With mining on the Northern zone restarted and a decision on Cuca likely by the end of January, Orinoco could potentially have four sources of high grade underground feed for its much larger hammer mill(s) by the 2<sup>nd</sup> quarter of 2018.

-ENDS-

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