



ASX/Media Release – 29 March 2019

## Further Tailings Results and Update

### Key points:

- 80t tailings sample program concluded in December 2018 produced 0.3 g/t gold average
- Samples were re-processed at the Company's Cascavel processing plant and grade calculated based on recovery as part of an incomplete and ongoing review of tailings
- Decision not to re-process any further tailings material through the Cascavel plant taken by new management

Orinoco Gold Limited (ASX: OGX) ("**Orinoco**" or "**the Company**") wishes to provide an interim update on ongoing testing and internal reviews of the tailings stockpiles at the Company's Cascavel mine, in Goias State in Brazil.

ASX announcements made previously (5<sup>th</sup> February 2018, 31<sup>st</sup> October 2018) indicated potentially economic gold grades in tailings at the Company's Cascavel mining operation. The new management has undertaken to begin a programme of verification of previous results. This release represents a report on part of the programme planned. New management has engaged an independent metallurgist, Mr. Rob Riggir to oversee this work.

### Summary:

The Company has received an interim report from independent metallurgist Mr. Rob Riggir on 28 December 2018 on some sampling performed. Incoming management and Board members have now had time to review this report, attempt to reconcile and review past releases on tailings sampling and are providing an update on these results. As a result, the current management and Board's view of the potential of the tailings does not support the belief that it could be a potentially economic source of plant feed material based on available results. Current Management does not place any economic value on the tailings at Cascavel based on the information available to it at present. We do not assume any income from processing of tailings in any of our financial models, both internally and externally reported.

The Board believes that to form a conclusive opinion additional work is required to verify and that work has been planned but is subordinate to the focus on primary production given the limited resources available to the Company at present.

The Company has been requested to provide this update, however the Company wishes to note we do not consider the testing results on tailings to date to be either a complete and representative study of the total tailings, or material information.

The Company has commenced a review of all historical and current information on tailings grades, and this release represents the interim status of that work. Further work on tailings testing will only commence when the Company has the resources available to conduct the studies.

At present, the Company is focused on processing of primary ore from the Cascavel deposit and advancing our work with AngloGold Ashanti on our exploration Joint Venture, as noted in prior releases.

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### ASX Code

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

### Issued Capital

1,423,878,620 Ordinary Shares  
225,072,116 Listed Options  
64,640,687 Unlisted Options  
76,800,000 Performance Rights  
1,030,867 Tranche A  
Convertible Notes

### **Process and Interim results:**

Mr. Riggir was originally commissioned to travel to site to review recoveries from the Company's existing gravity separation gold plant and to perform optimization work if applicable. The results of this work were reported on January 2<sup>nd</sup>, 2018. Since then Mr. Riggir has been engaged on a consulting basis to be the site metallurgist and processing plant manager.

In addition to the work that was conducted by Mr. Riggir on the processing plant in Q4 2018, he also supervised the selection of, and performed some sample tests on an 80t sample of tailings. This work forms part of an incomplete, and ongoing assessment of the tailings which current management are yet to complete.

In Mr. Riggir's report the tests resulted in an average grade of 0.3g/t gold from the ten 1 kg grab samples. These were selected from a reprocessed stockpile of 40t and check assays were performed in an independent laboratory in Perth for QA/QC procedure for verification against results from the on site laboratory. The sampling and check assay results are suitable and appropriate for this level of ongoing work and the assay results are deemed accurate for this level of work.

There can be no absolute comparison between previously reported gold grades from January/February and October 2018 OGX and the initial Rob Riggir testing results because:

- 1) None of the sample selections are viewed as representative of the total tailings
- 2) Some sample reporting was not based on independent assay laboratories
- 3) Sample locations are not fully known, and tailings can be extremely varied in lateral distribution thus making comparison over large areas notoriously unreliable
- 4) Samples have been processed using a range of methodologies, from hammer mills, to third party assay, to third party CIL plants, and re-processing via the Company's plant at Cascavel (expanded below).

Whilst the above has to be considered, the differences between previously reported (ASX releases 5<sup>th</sup> February 2018, 31<sup>st</sup> October 2018) grades in tailings supervised and reported by former management are considerably different and further work is required to ascertain the reasons for this variation.

A description of the process undertaken in the recent work is provided below;

**Processing techniques** - It should be noted that in the case of the tests done by Mr. Riggir that these were re-processed through the existing gravity processing plant at Cascavel, not by an independent third party lab or a third party CIL plant such as was the case much of the tailings reported in October 2018, nor through the hammer mills as was reported in January/February 2018, and therefore they are not directly comparable results.

**Operating Procedure** - The results from Rob Riggir's tests reflect in part, standard ongoing tests of tails that management perform at all times at site which are in normal circumstances not reported on an ongoing basis. It is normal operating procedure for regular tailings samples to be conducted in order to ascertain the operating efficiency of a gold processing plant and aid in reconciliation. The Board feels further work needs to be done to assess the potential of tailings being a revenue source through reprocessing based on available information and the resources of the Company at the current time.

Discussion: Current management and the Board's view is that it is hard to provide direct comparisons as yet with prior tailings releases due to the incomplete nature of current work, the collectively low sample size by weight versus the size of the tailings, the large degrees of variation in the test results, that the samples taken in 2018 were from discrete areas of the stockpiles. The outcome of this is that a broader sampling program needs to be undertaken to ascertain the potential economic value of the tailings and the that tests reported to date are not statistically representative of the total tailing's deposit. Current management believe the press releases that included references to tailings grades last year detailed all relevant material about the samples, including that they are an indicator of potential only, but would have conducted further work prior to issuing any releases as the small sample sizes may not give a statistically accurate representation of the average grade of the entire tailings.

From the report prepared by Mr. Riggir, and from further discussions with Mr. Riggir, he noted further testing of the stockpiles would be required to locate the formerly reported high grade areas of the tails, and to determine the true average grade of the stockpiles in total. He suggests testing by using a grid pattern of auger sampling of the tails, to produce a large amount of sample for testing with the aim of achieving a representative grade of the tails in total, and detailed information of grade changes within the tails. The Company at present does not have an auger to perform such work, nor does it have the financial resources to conduct the testing, due to the volume. Such work is intended be performed at a future date to complete this review.

**Prior Announcements:**

Previous management and Board had made announcements in which they highlighted the potential for revenue to be derived from processing of tailings and retreatment, while also noting that “these samples cannot be considered representative of the entire tailings stockpile inventory” (Refer to announcements made on 31 Jan 2018 (re-released 5 February 2018) and on 31 October 2018).

In respect to the tailing’s announcements in February (and as amended) and October 2018, previous tests of tailings material reported gold grades in tailings ranging from 0.1 g/t to 514g/t gold.

The gold grades reported in October 2018 from bulk samples taken in September 2018 of 22.1t and 24t were processed through a third party CIL (Carbon in Leach) Plant to produce an average grade of 6.1 g/t gold and via the Company’s processing plant an average grade of 2.1 g/t gold respectively. We note the large variance in grade for the two samples, which were produced from trenches very proximate to one another, when processed in the different plants.

The tests of tailing’s material performed from July 2016 to March 2017, which was reported in October 2018, showed variations from 0.1 g/t to 514g/t gold. This was taken from approximately 300 Kg of samples.

The above information on prior releases was taken from ASX releases dated 5<sup>th</sup> February 2018, 31<sup>st</sup> October 2018 in which C Gray, J Pinto were authors and T. Topping the Competent Person. These three former Directors have subsequently resigned from the Board of Orinoco.

Orinoco’s current work is incomplete. The Company confirms that it is not aware of any new information or data that materially affects the information included in the ASX releases dated 5<sup>th</sup> February 2018 and 31<sup>st</sup> October 2018.

**-ENDS-**

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**Competent Person Statement:** The information in this announcement that relates to Exploration Results and geology is based on information compiled by Thiago Vaz Andrade who is a member of the Australasian Institute of Mining and Metallurgy. Thiago Vaz Andrade is an employee of Orinoco Gold Limited and has sufficient experience, which is relevant to the style of mineralization under consideration and to the activity that they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Thiago Vaz Andrade consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

## JORC TABLE 1

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling was conducted using a backhoe to dig trenches approximately 1.3 metres wide from the top of tailings surface to the base of the tailings stockpile.</li> <li>Two trenches cut at right angles for 13m lengths were cut to provide an 80t bulk sample.</li> <li>This bulk sample was then processed on site to provide a 40t processed sample.</li> <li>The 40t processed sample had 10 1kg grab samples taken for assay.</li> <li>These samples whilst substantial are not classified as representative over the entirety of the tailings.</li> <li>The samples were taken from area which was approximated to replicate the area of previous, non-representative sampling conducted in early 2018.</li> <li>A larger programme has been planned for the entirety of the tailings stockpile but has not been initiated at the current time.</li> <li>The sampling programme as detailed in this Table is incomplete.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>N/A as not drilled</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A as not drilled</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A – tailings are visually homogenous</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 80 t of tailings was initially taken.</li> <li>• The initial sample was processed on site to deliver a 40t 'processed' sample and grades were taken based on recovered gold and back calculation.</li> <li>• 10 x 1kg grab samples were also taken to allow cross lab verification.</li> <li>• Sampling was overseen and directed by independent metallurgist.</li> <li>• An incremental size fraction of &lt;2mm was selected. Due to the incomplete nature of this sampling programme it is not yet known how size fractioning may or may not influence the distribution of gold. Additional work is planned in conjunction with a wider sampling programme by current management.</li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>1kg grab Sampling was conducted using industry standard grab samples from homogenised material. This sampling was conducted to verify the results of reprocessing of the 80t material, not for in-situ tailings grades.</li> <li>The same number and selection process are reasonable given the nature and type of material but not considered by current management to be representative of the tailing stockpile as a whole.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Independent check assays were conducted in Perth through an independent commercial laboratory to validate the onsite laboratory. Results confirm the applicability of the on-site laboratory to perform and report gold assays in the range reported.</li> <li>Cyanide digest followed by AAS assay technique was utilised as an industry standard.</li> <li>No data adjustments were required.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>The sampling was in a small subset of the total tailings facility and is not deemed as complete or representative of the total storage of tailings.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 2 x 13m trenches at right angles.</li> <li>• All material was then put through the on-site processing facility and 10 sub-set samples were selected from the homogeneous material (grab samples).</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A as reprocessed material.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Processing on site was conducted by site personnel and overseen by independent metallurgist.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>There have been no audit or reviews conducted.</li> <li>This table describes the partially completed review of previous work and when completed will serve as a review of previous work.</li> </ul>



## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Faina Goldfield project is 100% owned by Orinoco do Brasil Mineração Ltda (<b>OBM</b>), which is wholly owned by Orinoco Gold Ltd.</li> <li>The Sertão and Antena mining leases are owned 100% by Orinoco.</li> <li>Orinoco has applied a Mine Concession at the Mining Nacional Department (DNPM) for the tenement 840167/2007, where the majority of the work at Cascavel has been completed. Until this date, DNPM was analyzing the documentation of the application.</li> </ul>	
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Exploration for oxide gold deposits was well developed on the belt during at least 20 years, in different cycles and by different companies. A reasonable amount of surface exploration was carried out. Soil, stream sediments and chip sampling (for gold) are widespread along and around both belts. Those surface surveys detected several gold and arsenic anomalies (about 64 anomalies are described). Some of those anomalies were tested with drilling, frequently with positive results. However, drilling was generally very shallow RAB drilling.</li> </ul>	
<i>Geology</i>	<ul style="list-style-type: none"> <li>Gold mineralization is widely distributed on the Faina Greenstone Belt, occurring on the ultramafics, felsic and mafic volcanics, on the clastic metasedimentary sequence and particularly at the chemical metasedimentary rocks;</li> <li>Golden trends seem to be very continuous also along the strike, mostly associated with the main regional scale shear zones;</li> <li>Mineralization style is also varied on the belt. Most part of the gold mineralisation can be classified as Orogenic, mainly hosted in chemical and volcanoclastic sedimentary units. At least the following models can already be considered, according to the available data: Shear Hosted (Orogenic) associated with carbonaceous/BIF hosts, mafic volcanic and vulcanoclastic units. Paleo Placer/Conglomerate Hosted: associated with meta-conglomerates within the Proterozoic (Paleo?) transgressive clastic sequence. Au rich VHMS: hosted by younger Meso-Proterozoic intrusives in the volcanosedimentary rocks sequence in the Goiás Block, potentially in the Faina greenstone. The silver-tungsten-copper mineralization at Cascavel has been interpreted as a carbonate replacement deposit due to the strong relationship to the impure limestone unit and crosscutting faults. Tinteiro Target shows features so far interpreted as potentially related to a late IOCG system.</li> </ul>	
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>N/a no drilling</li> </ul>	
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Not applicable as data was not aggregated.</li> </ul>	

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralization widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Not applicable as the samples were from tailings.</li> </ul>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>No diagrams are available</li> </ul>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Yes. Results have been reported in a balanced manner.</li> </ul>	
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>There is no other substantive data to be released with respect to the re-processed tailings.</li> </ul>	
<i>Further work</i>	<ul style="list-style-type: none"> <li>Further work may be undertaken at a future date when resources become available</li> </ul>	