



ASX/Media Release – 02 February 2018

## Mestre Assays Show Further Bonanza Grades Up To 185g/t

- The second set of laboratory results of 19 panel sample results from Mestre zone of the Cascavel mine were received by the company on 26 January 2018.
- The highest grading samples included 185g/t, 178.5 g/t, 72.6 g/t, 40.4 g/t and 28.3 g/t. The average grade of the 19 samples was 31.42g/t.

Orinoco Gold Limited (ASX: OGX) (**Orinoco** or the **Company**) is delighted to announce a second batch of outstanding panel sample assay results from the Mestre zone of Cascavel. The average grade of the 19 samples is 31.42 g/t (see table 1) This takes the total number of panel samples analysed from Mestre to 59, for a total average grade of 39,31g/t. The Mestre Zone is proving to be the 'Jewel in the crown' at Cascavel.

Our Chief Geologist Dr Marcelo de Carvalho commented: "These results represent only the start of Mestre. Our team is working extremely hard in defining new structures as the mine develops. With the results regularly being returned from the laboratory it will make grade reconciliation and control much easier. We are currently formulating a drilling programme for Cascavel to better understand structures, grade and the prospect that this orebody continues at depth."

The Company believes these results also confirm that the recoveries being achieved from the pilot hammer mill are in the high 90 percent region. To confirm this the tailings from the hammer mill have been sent to JS Mineral for gold content analysis.

### **Back to Basic High-Grade Mining and Milling**

This latest batch of 19 samples average 31.42 g/t (Table 1) which compares well with the recent hammer mill results. These latest assay results, in conjunction with test mill samples, confirm the high-grade nature of the Cascavel lodes and in particular the Mestre zone. It further provides confidence in the 'Back to Basics' approach that will focus on low dilution mining of this high-grade orebody together with effective processing recovery. It highlights that the resource grades are there and that to a large extent the poor recovered grades of the past year have been largely a reflection of poor processing efficiency and mining dilution. The larger hammer mill (25 ton/hr) is in the final stages of installation. A three-day delay has been incurred owing to a delay with the delivery of the soft start from our suppliers. We previously announced that the new hammer mill would be in operation this weekend but owing to the delay this will now be on Tuesday 6<sup>th</sup> February.

### **Assay Results**

The average grade of the 19 samples was 31.42 g/t (see Table 1). The samples were prepared and analysed by ALS Geochemistry.

ALS is internationally recognised as the global leader in providing geochemical sample preparation, analytical procedures and data management solutions tailored to meet the needs of exploration geologists, miners, mineral processing engineers, and metallurgists. ALS Goiania facility operates under the ISO 17025 quality management system.

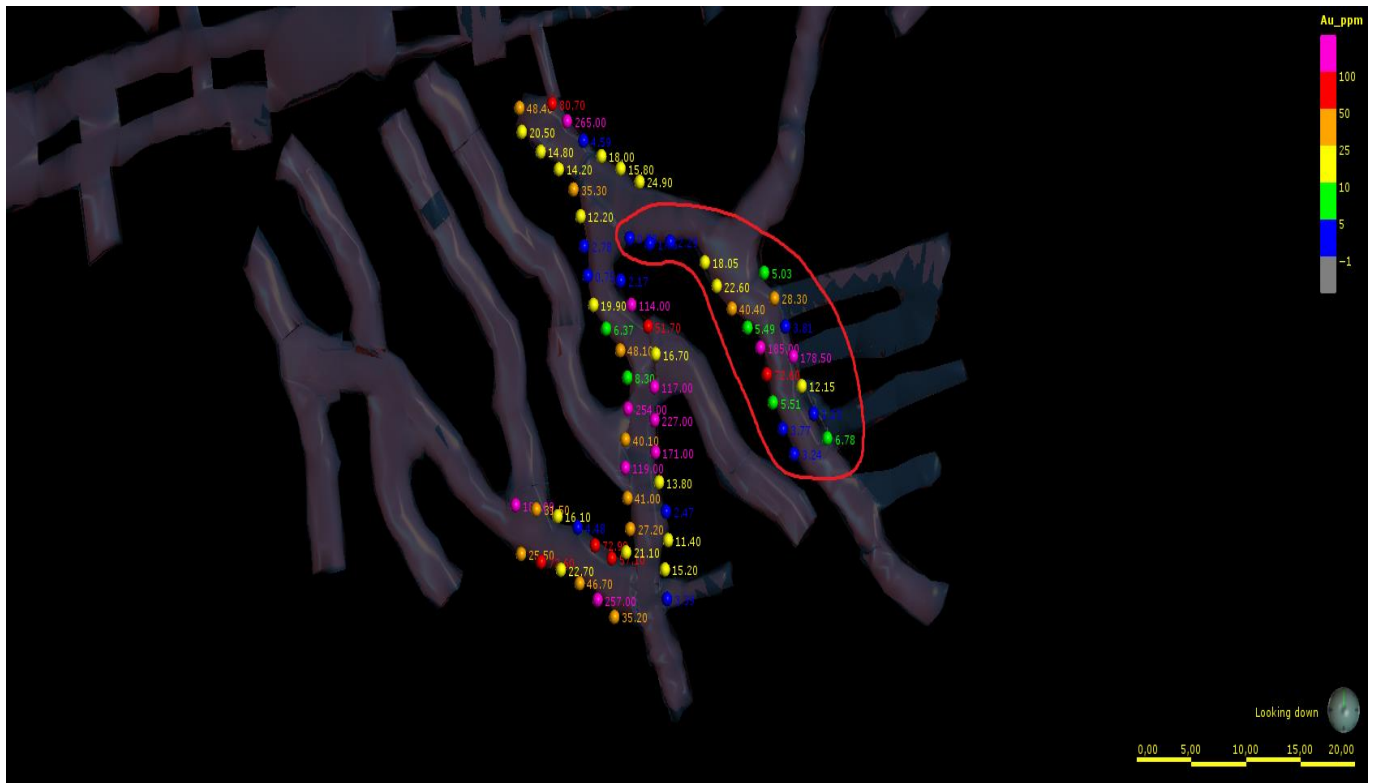
**Table 1; Mestre assay results**

GO17196014 - Finalized CLIENT : MICPED - Mineração Curral de Pedra Ltda # of Samples : 113 PROJECT : CDPM CERTIFICATE COMMENTS : PO NUMBER : CDPM_0049		
SAMPLE DESCRIPTION	WEI-21 Recvd Wt. kg	Au-AA15or Au ppm
CDP-P-2652	13.56	5.03
CDP-P-2653	10.56	28.3
CDP-P-2654	11.28	3.81
CDP-P-2655	11.88	178.5
CDP-P-2656	12.4	12.15
CDP-P-2657	18.48	1.23
CDP-P-2658	13.9	6.78
CDP-P-2659	8.86	3.24
CDP-P-2661	11.06	3.77
CDP-P-2662	10.94	5.51
CDP-P-2663	10.1	72.6
CDP-P-2664	14.6	185.0
CDP-P-2665	12.18	5.49
CDP-P-2666	13.78	40.4
CDP-P-2667	10.42	22.6
CDP-P-2668	11.34	18.05
CDP-P-2671	11.38	2.29
CDP-P-2672	12.68	1.76
CDP-P-2673	17.68	0.58

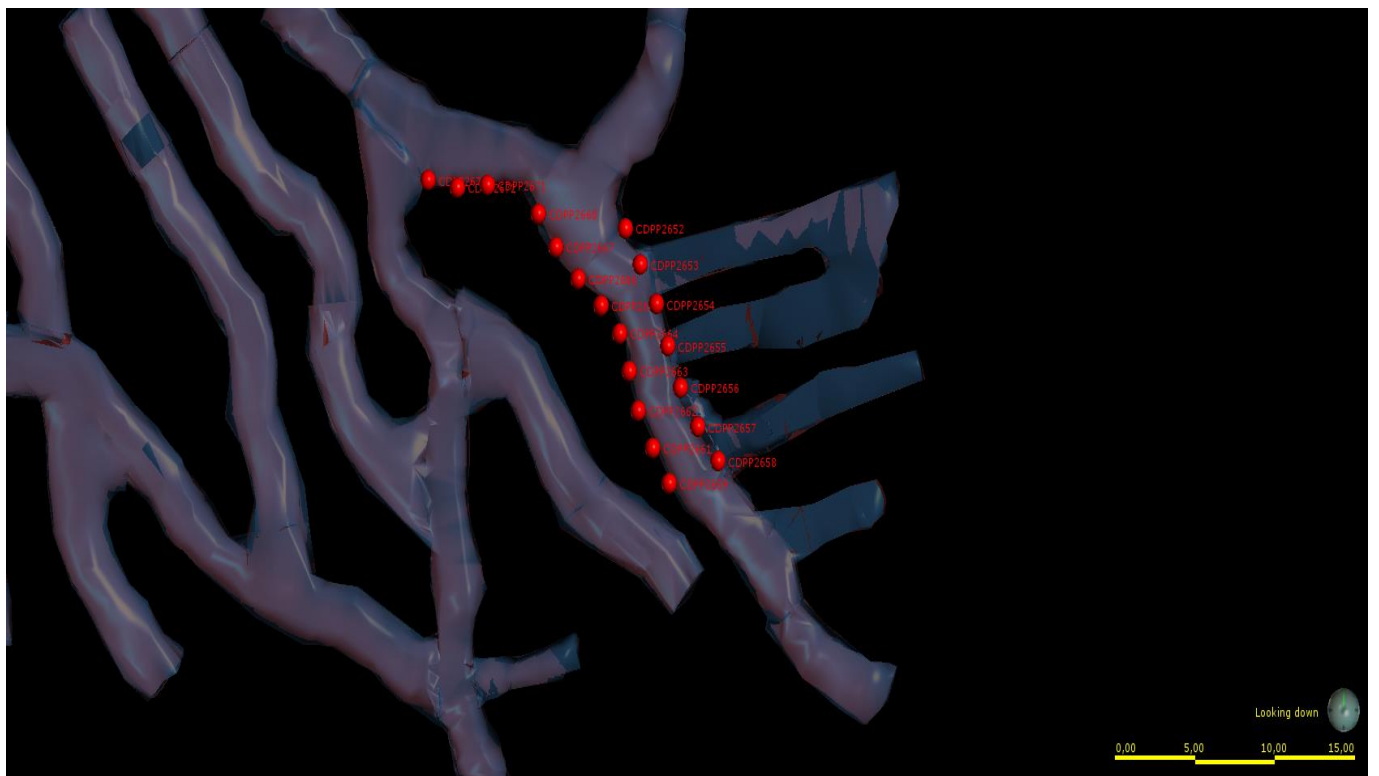
For sample locations and grades see (Figures 1, 2 & 3)

### Methodology

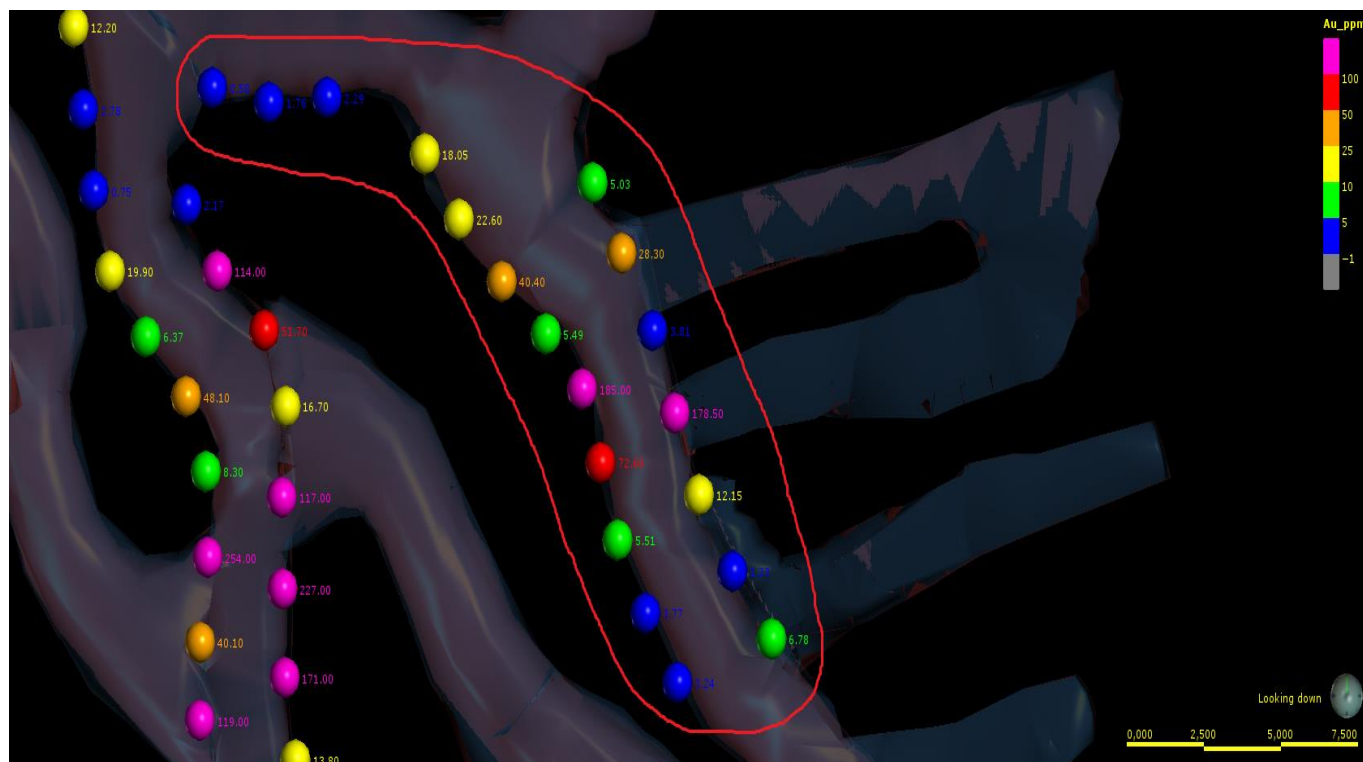
Underground samples are collected either as panels or channels. Panel samples are 2 meters long (to ensure representability in a coarse-grained gold environment), continuously taken along the vein throughout the mine, up to around 20 kg in weight. The panel vertices are then surveyed by a qualified surveyor using an electronic Leica total station to guarantee the precision in the sample location. The sample results announced are all panel samples.



**Figure 1; Sample Locations**



**Figure 2; Sample numbers and locations**



**Figure 3; Grades from samples**

**-ENDS-**

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**Competent Person Statement:**

The information in this presentation that relates to Exploration Results is based on information compiled by Dr Marcelo de Carvalho who is a member of the Australasian Institute of Mining and Metallurgy. Dr Marcelo de Carvalho is an employee of Orinoco Gold Limited and has sufficient experience, which is relevant to the style of mineralisation 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. Dr Marcelo de Carvalho consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

**Forward-Looking Statements:**

This Announcement includes "forward-looking statements" as that term within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond Orinoco Gold Limited's control. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this presentation, including, without limitation, those regarding Orinoco Gold Limited's future expectations. Readers can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "predict," "project," "risk," "should," "will" or "would" and other similar expressions. Risks, uncertainties and other factors may cause Orinoco Gold Limited's actual results, performance, production or achievements to differ materially from those expressed or implied by the forward-looking statements (and from past results, performance or achievements). These factors include, but are not limited to, the failure to complete and commission the mine facilities, processing plant and related infrastructure in the time frame and within estimated costs currently planned; variations in global demand and price for gold materials; fluctuations in exchange rates between the U.S. Dollar, the Brazilian Real and the Australian dollar; the failure of Orinoco Gold Limited's suppliers, service providers and partners to fulfil their obligations under construction, supply and other agreements; unforeseen geological, physical or meteorological conditions, natural disasters or cyclones; changes in the regulatory environment, industrial disputes, labour shortages, political and other factors; the inability to obtain additional financing, if required, on commercially suitable terms; and global and regional economic conditions. Readers are cautioned not to place undue reliance on forward-looking statements. The information concerning possible production in this announcement is not intended to be a forecast. They are internally generated goals set by the board of directors of Orinoco Gold Limited. The ability of the company to achieve any targets will be largely determined by the company's ability to secure adequate funding, implement mining plans and resolve logistical issues associated with mining. Although Orinoco Gold Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Up to 2017, Orinoco Gold has completed 36 diamond drill holes in the Cascavel area , totaling 5,844.36 meters;</li> <li>Diamond drill cores were sampled based on the geological boundaries and selected by a geologist. samples from drill core are sawn in half with a diamond core saw and sampled every 0.5m in the ore zone. The same half of the core is send to the lab and the other remains in the box. Sampling places are marked on the core tray with the sample number. The core trays are also marked with the blanks and standards samples and all core is photographed. All data is stored in the data base following QA/QC procedures;</li> <li>For a good representation of the grade results in this kind of deposit it is necessary to use panel sampling. Drill core samples are too small to generate reliable gold grades;</li> <li>At the end of 2016 the panel sampling protocol was changed and since then 540 panel samples have been taken at the Cascavel mine;</li> <li>Underground samples are collected either as panels or channels. Panel samples are 2 meters long (to ensure representability in a coarse-grained gold environment), continuously taken along the vein throughout the mine. Chips are collected from inside the panels areas to comprise the sample, up to around 20 kg in weight;</li> <li>The panel and /or channel data follow the drives and slot raises being clustered in some areas.</li> <li>Control channel samples were taken in the host rock every 3 to 5 meters to test the host rocks for marginal gold content. All channels are cut width of 20 cm wide by 5 cm deep;</li> <li>The QAQC results confirm the reliability of OBM sampling and assaying with sufficient confidence for the estimates.</li> </ul>	
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drillings has been conducted by Servitec LTDA exclusively using diamond drilling up to the present stage. Drill rigs are local built equipment (MACSonda 320) and are hydraulic assisted. Drilling starts with HQ up to the limit of the equipment or where the rock type permits and then downsize to NQ. Polymer filling is used when necessary. Drilling inclination is up to 60°;</li> <li>In 2016, it was done seven axially-oriented drill holes to help in determining the real-space orientation of any planar or linear fabric in drill cores;</li> <li>The structural survey of lines and planes on the drill holes is done through the core-angle method. This method consists in identifying the <math>\alpha</math> and <math>\beta</math> angles of structural plane. The <math>\alpha</math> angle is the angle between the axis of drill hole and the structural plane that is being measured, the <math>\beta</math> angle is the angle between the inflection point of structural plane and the line of the drill hole orientation. The <math>\alpha</math> angle is given the merge and the <math>\beta</math> angle the dip of structural plane. To carryout line measurements it is necessary to measure the delta angle (<math>\delta</math>), which is the angle between the line contained in the plane and the line of the orientation of the hole.</li> </ul>	
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Recovery is guaranteed by the contractor not be less than 90% in the ore zones and is recorded every meter of advance with metal plate markings on the core tray boxes with drilling reports delivered daily;</li> <li>Orinoco geological technicians check the numbers and measure the interval recorded on the drilling reports for data reconciliation as soon as the boxes are on the core shed;</li> <li>Assays for gold are completed using cyanide analysis followed by (AAS) Atomic absorption to minimize the analytical problems related to coarse gold.</li> </ul>	
<b>Logging</b>	<ul style="list-style-type: none"> <li>Core samples are geologically logged in an appropriated level of detail concerning mineral resources, mining studies and metallurgical studies, where the main lithology and kind of alteration is described and the alteration minerals, veins, fractures, faults quantified;</li> <li>All drill cores and channels are photographed;</li> <li>All intersections are logged, with lengths varying between 0.5 and 1 meter or limited to the presence of geological boundaries in ore zones.</li> <li>Main Hydrothermal Alteration minerals are logged quantitatively in the logging spreadsheet;</li> <li>For the panel samples, just a brief description of the vein is done and written in the spreadsheet.</li> </ul>	



Criteria	JORC Code explanation	Commentary
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Drill core are sawn in half with a diamond core saw and half core is sent to the laboratory;</li> <li>The drill core boxes are marked meter by meter, according to the recovery of each interval. A geologist subsequently marks all lithological contacts and possible ore zones in the boxes. Duplicates are inserted in each batch of 20 samples. Blanks and standards are inserted approximately each 30 meters;</li> <li>The core sample duplicates are the quarter of the remaining cores halves;</li> <li>In the lab, core samples are dried, crushed until 90% &lt; 2 mm (10 mesh), so it is split until 1 kg is obtained, and after it is crushed to 95% &lt; 106 microns (150 mesh);</li> <li>For panels and channel samples, physical preparation includes drying and crushing the total sample, riffle splitting and pulverization (95%&lt;150#) of a 1 kg subsample for cyanide leaching.</li> </ul>	
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>Core samples are analyzed using the screen fire assay technique. This procedure involves screening a large pulverized sample (commonly 1 kg) at 75 microns. The entire oversize (including the disposable screen) is fire assayed as this contains the 'coarse' gold and a duplicate determination is made on the 'minus' 75 microns fraction. A calculation can then be made to determine the total weight of gold in the sample. This procedure is equivalent to assaying a large sample to extinction and averaging the results;</li> <li>Panel and channel samples are analyzed using the leach well technique. Aggressive leaching conditions will promote the liberation and breaking of gold nuggets, being the best routine in the case of coarse-grained nugget gold present in the Cascavel deposit. The gold in the cyanide solution is then measured using atomic absorption spectroscopy (AAS). 5% of the solid residue is also analyzed to check for gold extraction issues;</li> <li>The QAQC protocol is: - <i>Standards</i>: insertion of 1 known standards in each 30 samples approximately. If less than 10% of samples are outside of the expected mean + 2x Std. Dev, the results are validated. If less than 10% of the samples report results outside the Mean + 3x Std. Dev, but there are standards between the first and these two points - the results are validated, but the Lab is notified. If more than 10% is outside the Mean + 3x Std. Dev, the batch (40 samples) is rejected, an investigation is required, and a re-analysis of the batch is made; - <i>Blanks</i>: 1 blank insertion in each of 20 samples approximately. If less than 5% are above 5x the detection limit of the Lab, the results are validated. If more than 5% is above 5x the detection limit, the Lab is notified and the batches with failure are re-analyzed; - <i>Duplicates</i>: insertion in each 20 samples – Bias control. Project Duplicates are core quarter and Lab duplicates are Pulp Duplicates.</li> </ul>	
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>All samples (drilling, panels and channels) information is stored in an appropriately protected relational Microsoft Access database;</li> <li>The assay data provided by the laboratories after the analysis is uploaded in a first moment to a master table in Excel format where any discrepancies in the samples ID's are verified, as well as the geological logs, and then both are transferred to the Access database;</li> <li>The electronic documentation (logs, assay certificates, drilling recovery, down-the-hole survey and protocols) is stored in the server at the Exploration office</li> <li>The physical documentation (logs, assay certificates, drilling recovery and protocols) is stored at Exploration office;</li> <li>Changes in the matrix of the Access database and in the data entry protocol are programmed to the beginning of 2018.</li> </ul>	
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>The drill hole collars and the panel vertices are surveyed using a Total Station surveyed by a qualified land surveyor;</li> <li>The topography crew uses surveyed base stations to guarantee the quality of their surveying;</li> <li>The grid system used is UTM South American 1969 - Zone 22 S.</li> </ul>	
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>The drilling spacing is not regular and was planned to fill zones with little or no information.</li> <li>Most part of the analyzed samples were taken with 1 meter spacings and in the mineralized zone at 0.5m spacings;</li> <li>The drill hole information is not sufficient to classify resources as inferred;</li> <li>See figure 1 in body of report.</li> </ul>	
<i>Orientation of data in relation to</i>	<ul style="list-style-type: none"> <li>The drilling data orientation is not regular and depending on the drill hole orientation is possible see different kind of structures;</li> <li>The drilling orientations provide unbiased sampling of the mineralization;</li> <li>The panel and channel data follow the drives and slot raises being clustered in some areas.</li> </ul>	

Criteria	JORC Code explanation	Commentary
<i>geological structure</i>		
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Drill cores are stored in plastic core boxes well identified and are stacked in piles in the core shed;</li> <li>The samples are stored in plastic sample bags, stored in a dedicated secure facility on site prior to transport to the lab. Mineralized samples are delivered directly to the assay lab by company staff;</li> <li>All laboratory pulps are stored in a suitable dry onsite facility in boxes supplied by the laboratories.</li> </ul>	
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audit or review has been undertaken regarding the results reported in this announcement.</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 in turn is 100% 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 (<b>DNPM</b>) 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>Any drill hole results are included in this announcement because they were used just to help in the vein modeling.</li> <li>The data used to the estimations were the panels and their data are attached in the Appendix 1.</li> </ul>	
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>The 2 meters panel samples centroids are used directly for resources estimation.</li> </ul>	
<i>Relationship between mineralization</i>	<ul style="list-style-type: none"> <li>The Orogenic type gold mineralization has a 210-230/25 direction and this value is interpreted as been constant over a strike length of 1.6km and a down dip length of 600m. Part of the drill holes show true width for the intercepts, but for some drill holes intercepts represent an approximate true thickness due to the drill hole had not been designed to intercept the ore zone at a perpendicular</li> </ul>	

Criteria	JORC Code explanation	Commentary
<i>n widths and intercept lengths</i>	angle; <ul style="list-style-type: none"> <li>The panel samples were taken just on the mineralized vein, without any mixing with the host rock.</li> </ul>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams are attached to the current announcement.</li> </ul>	
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>The entire mineralized vein was surveyed, where it was taken points in each 20cm, separating hanging and footwall points;</li> <li>A detailed geological/structural mapping with a 1:25 scale was done by the geology team;</li> <li>The surface geological map was reviewed with no relevant changes;</li> <li>Eleven geological sections were selected and they were interpreted by hand. For each section, two different drawings were made using the lithological and the hydrothermal halos respectively. The drawings are being digitalized in CAD format during the preparation of this report;</li> <li>Aiming to find the water table, eleven resistivity sections were surveyed in two phases. In the first phase, it was made five sections with a dipole-dipole array, and in the second phase, it was made six sections with a pole-dipole array. Both phases showed a large low-resistivity anomaly at NW, 300 meters distance from the mine entrance and 100 meters depth (maximum of the method).</li> </ul>	
<i>Further work</i>	<ul style="list-style-type: none"> <li>A follow up drilling program is in planning, which will help on the modelling of the orebody;</li> <li>Panels and channels are continuously sampled.</li> </ul>	