ORINOCO GOLD ASX: OGX

ASX/Media Release – 13 June 2017

Orinoco Announces Maiden High-Grade JORC Mineral Resource for Sertão Gold Deposit, Brazil

Milestone comes ahead of major drilling program by Orinoco's JV partner AngloGold as part of its US$9.5m farm-in agreement

Key Points:

- **Maiden JORC 2012 Mineral Resource estimate completed for the 100%-owned Sertão Gold Project, located 28km from Orinoco's 100%-owned Cascavel Gold Mine:**
  - ***Measured, Indicated and Inferred Resource of 223,111t @ 6.9 g/t Au for 49,268oz of contained gold.***
- **Mineralisation remains open down-dip.**
- **Potential for extensions and new discoveries at Sertão to be targeted as part of upcoming drilling program to be undertaken by Orinoco's strategic JV partner, AngloGold Ashanti.**
- **Sertão is a strategic asset which offers potential synergies with Cascavel.**

Orinoco Gold Limited (ASX: OGX) (**Orinoco** or the **Company**) is pleased to advise that it has completed a maiden high-grade JORC 2012 compliant Mineral Resource estimate for its 100%-owned **Sertão Gold Project**, located near its Cascavel Gold Project in Goiás State in central Brazil.

The JORC Mineral Resource estimate, the Company's first-ever JORC mineral resource statement, comprises **223,111 tonnes at an average grade of 6.9 g/t Au for 49,268 ounces of contained gold** (see Table 1). The Mineral Resource was prepared by Orinoco's Brazilian-based geological team in accordance with the requirements of the JORC 2012 Code.

The Sertão Gold Project, which is located just 28km by road from the Cascavel Gold Mine, forms part of Orinoco's broader Faina Goldfields Project (see Figure 1). The Sertão deposit was previously mined (2003-2006) as a shallow open pit by Troy Resources Limited (**Troy**) with historical production of 256koz at an average grade of 24.95 g/t Au.

The Sertão gold mine lies on the same shear zone as the Cascavel Gold Project and, given its strategic location, strong production history and brownfields status (located on granted a Mining Lease) offers excellent potential for the development of future synergies between the two mining hubs.

Orinoco completed a 3,035m drilling programme in Q1 2016 which formed the basis for this Mineral Resource estimate.

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ASX Code
OGX
(Ordinary Shares)
OGXOC & OGXOD
(Listed Options)

Issued Capital
497,635,459 Ordinary Shares
265,592,401 Options

Historical drilling completed by the previous owners (Troy) identified material depth and strike extensions to the known mineralisation, which was only mined as a shallow oxide open pit to a depth of approximately 40m.

The Sertão Gold Project has been identified as a priority focus for planned upcoming exploration activities to be undertaken as part of Orinoco's regional exploration joint venture with leading global gold miner AngloGold Ashanti (see ASX Announcement – 7 February 2017).

As part of this strategic alliance, AngloGold Ashanti has taken up a cornerstone investment in Orinoco and will invest up to US$9.5 million over three years to earn up to a 70% interest in the Faina Goldfields Project.

Orinoco's Chief Executive Officer, Mr Craig Dawson, said the announcement of a maiden Mineral Resource estimate for the Sertão Gold Project was a significant milestone for the Company.

"This marks an important step in the evolution of our broader Faina Goldfields Project and supports our view that our extensive ground position in this rich but under-explored region presents a significant long-term growth opportunity for the Company".

"The mineralisation at Sertão remains open down-dip and this Mineral Resource estimate has formed the basis for the design of the upcoming drill programme to be undertaken as part of the AngloGold Ashanti joint venture."

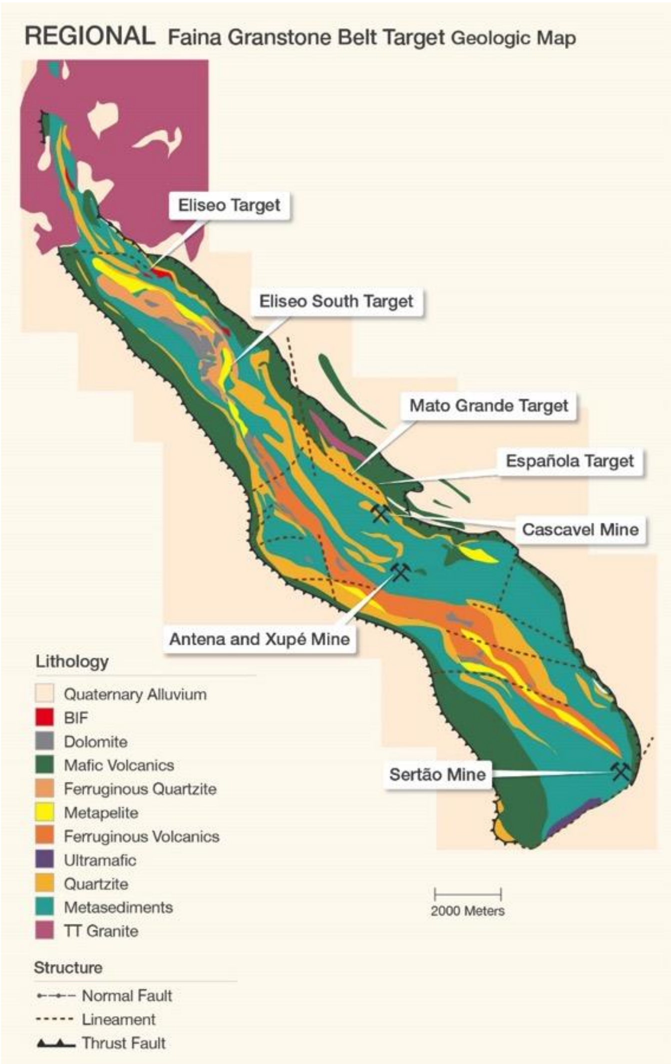

Figure 1: Faina Goldfields Project

The Mineral Resource estimate is based on two (2) domains – Oxide and Sulphide as highlighted in Table 1.

The Statement of Mineral Resource estimate is reported in accordance with the requirements of the JORC 2012 Code and is therefore suitable for public reporting.

Table 1: Sertão Mineral Resource estimate as at 30 May 2017

Domain	Category	Cut-off (g/t Au)	Tonnage (tonnes)	Grade (g/t Au)	Contained Gold (ounces)
Oxide	Measured	1.0	9,490	3.6	1,114
	Indicated	1.0	24,030	7.0	5,377
	Inferred	1.0	38,979	4.9	6,191
Sulphide	Measured	3.0	-	-	-
	Indicated	3.0	57,824	8.0	14,928
	Inferred	3.0	92,788	7.3	21,658
Total	Measured		9,490	3.6	1,114
	Indicated		81,854	7.7	20,305
	Inferred		131,767	6.6	27,849
	Total		**223,111**	**6.9**	**49,268**

Note:

*1 The Mineral Resources has been compiled under the supervision of Mr. Thiago Vaz Andrade who is an employee of Orinoco Brasil Mineração Ltda (**OBM**) and a Registered Member of the Australian Institute of Mining and Metallurgy. Mr. Andrade has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.*

2 All Mineral Resources figures reported in the table above represent estimates as at 30 May 2017. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

3 Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

4 A detailed schedule and option analysis has not been completed, however an initial open pit mining method followed by underground development is the most likely development scenario at Sertão. Additional mine design and more detailed and accurate cost estimate mining studies and test work are required to confirm viability of extraction.

5 The cut-off grade was calculated to report the Mineral Resource contained and to demonstrate reasonable prospects for eventual economic extraction. A 1 g/t Au cut-off was used in consideration that grades are sufficient for a likely open pit mining method in the Oxide zone. A higher cut-off grade of 3 g/t Au was used in consideration of the likely underground mining scenario required to exploit the Sulphide zone. The calculations do not constitute a scoping study or a detailed mining study which along with additional drilling and test work, is required to be completed to confirm economic viability. It is further noted that in the development of the Project, that capital expenditure is required and is not included in the mining costs assumed. Orinoco has utilised estimated operating costs and recoveries along with current commodity prices in determining the appropriate cut-off grade. Given the above analysis, Orinoco considers the Mineral Resource demonstrates reasonable prospects for eventual economic extraction

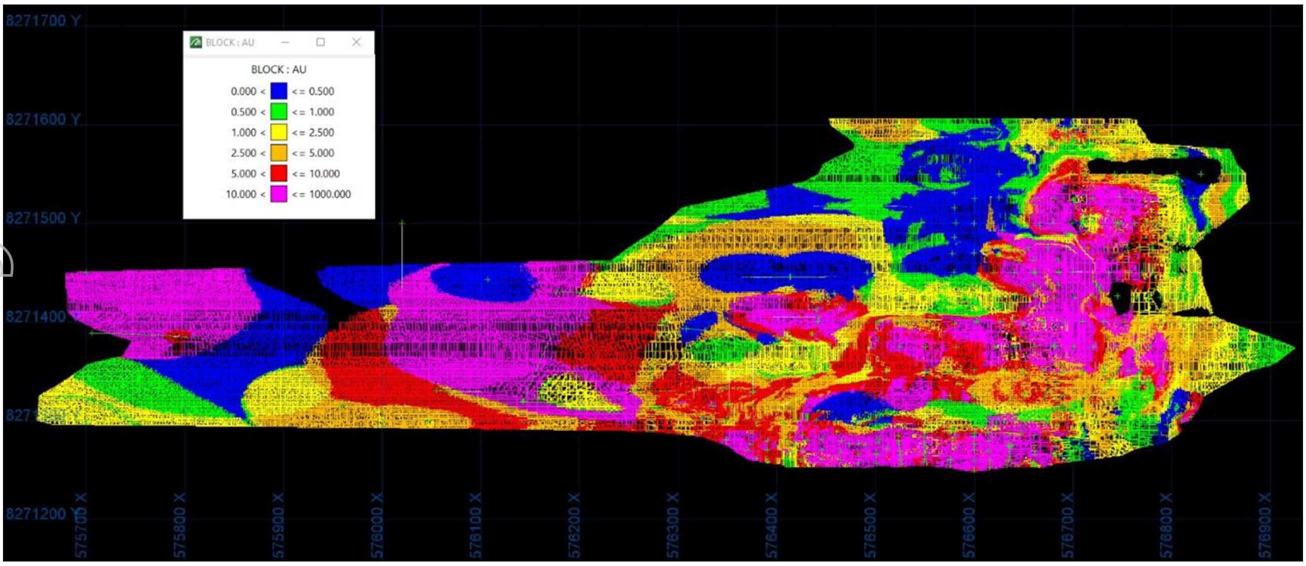

Figure 1: Plan view of Mineral Resource

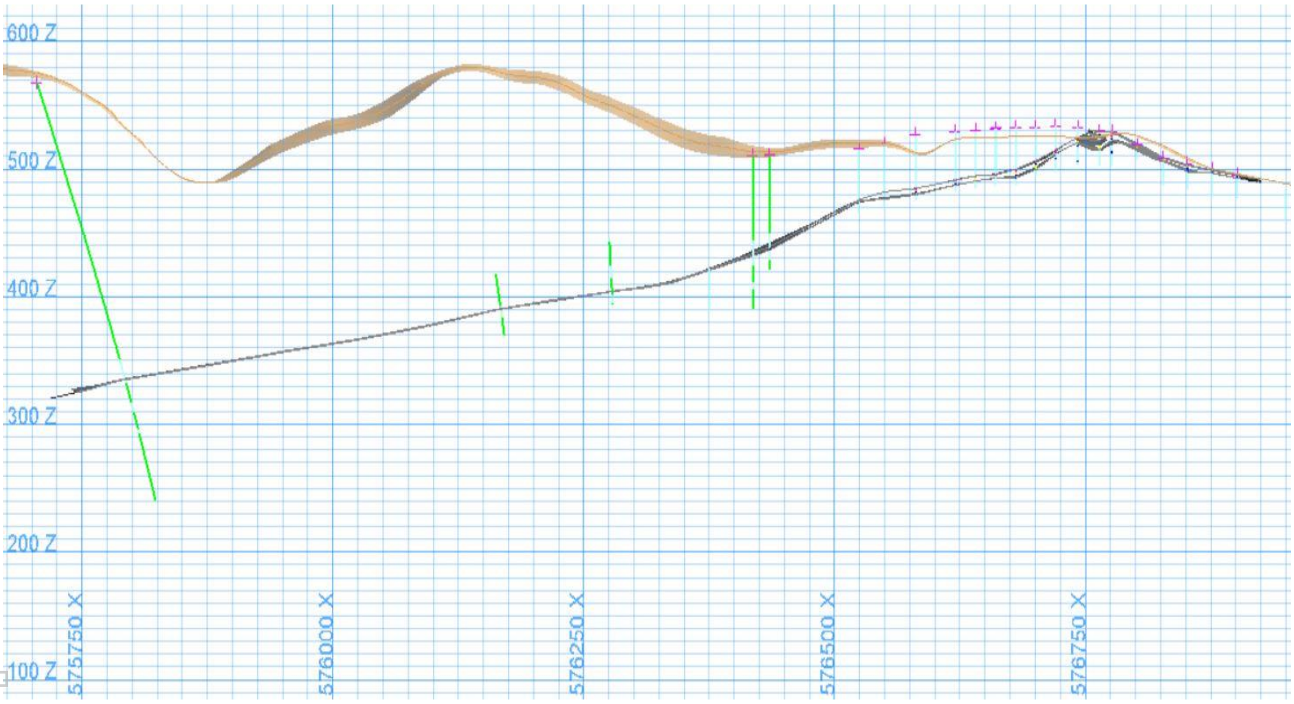

Figure 2: Section view showing the ore vein, with the fold hinge close to the surface

Summary of Resource Estimate and Reporting Criteria

As per ASX listing Rule 5.8 and the JORC 2012 reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for more detail please refer to Appendix 1 and Sections 1 to 3 in Appendix 2).

Geology and geological interpretation

The Sertão deposit is hosted within fine sedimentary horizons of carbon rich phyllite and banded iron formation (**BIF**) within the dolomites of the Córrego do Tatu formation in the Faina greenstone belt. The package is approximately 100 m thick and dips at angles of between -10° to -15° to the West. Intense hydrothermal alteration is associated with gold mineralization, including haloes of sericite and iron carbonate (ranging from 4 cm to 8 cm in thickness) around quartz and sulphide veins that are generally sub-parallel to the dominant foliation.

Gold mineralization is structurally controlled and is hosted in shallow westwards plunging (-30° to -50°) structures, with thin high grade zones (<20 cm) containing visible gold paralleling the lineation direction formed during the secondary deformation phase.

The Sertão Horizon is close to the centre of a 100m thick sequence of schists with extreme hydrothermal alteration situated between two packages of mafic metavolcanics that are slight/not altered.

Drilling Techniques and hole spacing

The majority of RC drilling conducted by Sertão Mineração Ltda (**SML**) was undertaken using SML's own drill rig imported from Australia in 2004 and operated by SML staff. The rig used 4.5 m drill rods and 4.5 inch diameter drill bits. The drilling was largely conducted dry.

SML also operated a company-owned RAB rig. This rig was a small Toyota vehicle mounted rig that used 1.5 m drill rods, a downhole hammer, and drill bits between 3.5 and 4.5 inches in diameter. The rig was connected to a separate truck mounted compressor operating at 750 cfm. A second RAB rig was purchased in 2006. This rig was a truck mounted Cobrasper rig manufactured in Brazil. The rig used 3 m drill rods, a downhole hammer with 4.5 inch diameter drill bits. The rig was also connected to a separate truck mounted compressor operating at 950 cfm.

SML conducted diamond drilling with HQ and NQ diameters, using drilling companies including Mariana, Servitec Ltda, and STS.

OBM conducted diamond drilling with HQ and NQ diameters, using the drilling company Servitec Ltda.

Sampling and sub-sampling techniques

In the NI 43-101 report, prepared by Snowden Group (**Snowden**) for SML in May 2007, it was reported that all sub-sampling techniques and sample preparations followed acceptable industry practices.

Snowden expressed the concern that some of the RC holes showed signs of possible downhole smearing. Snowden indicated that this could potentially result in local overestimation of mineralized widths by up to 10 - 30%. Snowden undertook a sensitivity analysis of potential smearing by creating a restricted model around the drill holes suspected of gold smearing, and concluded that there was a medium to low risk of locally overestimating the tonnage of the deposit around some drill holes.

Before 2001, SML RC samples were collected over intervals ranging between 0.5 m and 1.0 m. The drilled interval material was collected in a plastic bag at the main cyclone. The material from the interval was quartered and the quarter divided into two samples. One of the samples was quartered further until a volume of approximately 1.5 kg was produced, and sent to the Nomos Laboratory in Rio de Janeiro for analysis. The DDH had selective sampling of altered lithologies followed geological contacts with interval lengths ranging from 0.3 m to 1.5 m. Core was split and sent to the Nomos Laboratory for analysis.

After 2001, the SML RC samples of one meter length were collected during drilling, passing from the cyclone through a riffle splitter mounted beneath the cyclone into the sample bag. A 2 to 3 kg sample was collected and sent to SML's site laboratory. The collection of samples was completed by SML employees under the supervision of either a senior field technician or geologist. DDH sampling were selective in altered lithologies followed geological contacts with interval lengths ranging from 0.3 m to 1.5 m. Standard procedures were followed to reduce the risk of contamination while drilling, including cleaning the riffle splitter with compressed air between each meter drilled and cleaning the cyclone between drill holes. DDH sampling intervals were selected by the geologist based on geological boundaries, and the sample was sawn in half at the preparation laboratory. After cutting, one half was placed in a plastic bag with the sample number recorded on it and processed for analysis, and the other half was returned to the core tray and stored. All exploration drilling and mine grade control samples were processed by SML employees at SML's uncertified laboratories. The sample preparatory laboratory was in Goiás and the analysis laboratory were located at the Sertão mine. Samples were crushed to 80% passing -140 mesh in Goiás and sent to the analysis laboratory on the mine site.

OBM sent all samples to ALS laboratory, where they are prepared (Goiânia Laboratory) and analysed (Lima Lab). In Goiânia, the samples were dried, crushed until 90% < 2 mm (10 mesh), split until 1 kg sample obtained, and after it was crushed to 95% < 106 microns (150 mesh).

Sampling analysis method

Before 2001, SML samples were prepared and analysed for gold by Nomos Lab using Aqua-Regia with an atomic absorption spectrophotometry (**AAS**) finish. Any results returning values above 0.5 g/t Au were re-finished by fire assay. For RC samples, one standard control sample was generally included for every 20 samples. Duplicate and blank control samples were collected from drill holes intersecting the mineralized zone at an unknown frequency.

From 2001 until 2007, at the analysis laboratory on the mine site, a 30 g charge was digested were Aqua-Regia and gold content were determined by AAS following organic di-isobutyl ketone (**DIBK**) solvent extraction.

SML Exploration quality control samples were routinely submitted at a rate of approximately one in 30 samples, including standards, blanks, and duplicate samples. For mine grade control samples the laboratory inserted one standard for every 20 samples, one blank for every 30 samples, and one pulp duplicate sample for every 10 mine samples.

At the laboratory, all OBM samples were analysed using the screen fire assay technique. This procedure involved screening a large pulverized sample (commonly 1 kg) at 75 microns. The entire oversize (including the disposable screen) was fire assayed as this contained the 'coarse' gold and a duplicate determination was made on the 'minus' 75 microns fraction. A calculation was 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.

The OBM QAQC protocol was:

- *Standards*: insertion of 1 known standards in each 30 samples approximately. If less than 10% of samples were outside of the expected mean + 2x Std. Dev, the results were validated. If less than 10% of the samples report results were outside the Mean + 3x Std. Dev, but there were standards between the first and these two points - the results were validated, but the Lab was notified. If more than 10% were outside the Mean + 3x Std. Dev, the batch (40 samples) were rejected, an investigation was required and a re-analysis of the batch was made;
- *Blanks:* 1 blank insertion in each 20 samples approximately. If less than 5% were above 5x the detection limit of the Lab, the results were validated. If more than 5% were above 5x the detection limit, the Lab was notified and the batches with failure were re-analysed; and
- *Duplicates:* insertion in each 20 samples – Bias control. Project Duplicates were core quarter and Lab duplicates were Pulp Duplicates.

Cut-off grades

The cut-off grades were calculated to report the Mineral Resource contained and to demonstrate reasonable prospects for eventual economic extraction. A 1 g/t Au cut-off was used in consideration that grades are sufficient for a likely open pit mining method in the Oxide zone. A higher cut-off grade of 3 g/t Au was used in consideration of the likely underground mining scenario required for the Sulphide zone. The calculations do not constitute a scoping study or a detailed mining study which along with additional drilling and test work, is required to be completed to confirm economic viability. It is further noted that in the development of the Project, that capital expenditure is required and is not included in the mining cost assumed. Orinoco has utilised estimated operating costs and recoveries along with current commodity prices in determining the appropriate cut-off grade. Given the above analysis, Orinoco considers the Mineral Resource demonstrates reasonable prospects for eventual economic extraction.

Estimation methodology

All modelling, statistical analysis and interpolation were made with Maptek Vulcan 10.0.4 3D software.

Based on the merged database, the old SML ore shells and geological concepts, a re-interpreted Au grade shell (~ 0.5 g/t Au cut-off) was designed to represent the current drill defined mineralization.

A contact profile analysis was made comparing the grades between the ore body and waste along equal distances from the contact. Between Vein and Waste is clear that they have a hard boundary, where the Waste has average grades below 0.2 g/t and the vein has average grades above 10 g/t.

The database was composited using the run length process. This compositing process was set to 1 m to allow adjusting of the composite lengths.

Descriptive statistics of sample populations within a domain may be biased by clustering of sample data in particular areas of the domain. For Sertão composited samples was run the cell declustering where it was used cell sizes of 42 m.

In the exploratory data analysis, different comparisons were made, considering the different oxidation zones (oxide, sulphide and oxide + sulphide) and the different kind of data (drill hole database, 1m composited database and the composited declustered database).

In the geostatistical analysis were noted the presence of important outliers in the sample distributions. The statistics justifies a differentiated treatment of the samples with extreme values during the estimation. In the oxide zone this value was above 137 g/t Au and in sulphide zone this value was above 64 g/t Au. It was used the quantiles data, histograms and cumulative plots to define these extreme values.

To generate semi-variograms were used the database with 140 g/t Au capped samples. Search orientations were selected from the fan variogram, but were checked against the geological interpretation to ensure proper matching. Sertão tends to behave isotropically and so, search orientations were determined primarily from geology. Fan variograms have shown search directions very similar to the known plunge direction determined by geology, between 260° and 270° against 270° to 280° from geology. So, it was chosen 270° as the search direction.

Classification criteria

The Sertão deposit has been classified as Measured, Indicated and Inferred in accordance with JORC 2012 guidelines based on a combination of drill spacing, geological confidence, grade continuity, previous mining and the quality control standards achieved.

Mining and metallurgical methods and parameters

Based on their orientations, thickness and depths to which the ore body has been modelled, as well as the estimated grade, the potential mining method is considered to be open pit mining via a cutback of the existing historical pit followed by underground mining.

Previous mining and processing of the Sertão deposit by Troy showed that the ore is amenable to carbon in leach (**CIL**) processing with recoveries of over 97% to produce a marketable gold doré.

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Appendix 1: OBM Exploration Results – Downhole Intercepts (to be read in conjunction with JORC Table 1)

Hole ID	Hole Type	Total Depth (m)	Easting	Northing	RL (M)	Azimuth	Dip	Interval (m)	From (m)	Au (g/t Au)
STO_001	DDH	149.91	576202.86	8271271.50	508.76	90	-70	1.00	115.00	0.36
STO_001	DDH	149.91	576202.86	8271271.50	508.76	90	-70	1.00	118.00	1.51
STO_004	DDH	154.52	576054.78	8271329.93	522.30	90	-70	0.50	141.50	7.33
STO_005	DDH	142.81	576255.55	8271330.86	527.24	90	-70	0.65	126.20	13.05
STO_005	DDH	142.81	576255.55	8271330.86	527.24	90	-70	0.49	128.68	2.75
STO_005	DDH	142.81	576255.55	8271330.86	527.24	90	-70	1.82	130.18	13.55
STO_006	DDH	170.05	576141.97	8271318.80	526.73	90	-70	3.05	138.00	2.19
STO_008	DDH	172.01	576413.78	8271445.56	532.15	270	-70	0.56	119.87	0.74
STO_008	DDH	172.01	576413.78	8271445.56	532.15	270	-70	0.51	144.66	0.21
STO_009	DDH	125.87	576492.43	8271517.41	538.40	90	-70	4.70	115.00	0.29
STO_010	DDH	166.88	576493.07	8271517.37	538.33	270	-70	0.51	94.59	0.98
STO_011	DDH	241.08	576176.65	8271430.42	587.76	90	-70	2.90	204.60	1.49
STO_012	DDH	76.45	576717.47	8271879.05	516.66	90	-70	0.52	72.92	0.22
STO_015	DDH	85.47	576609.55	8271592.68	516.93	90	-70	0.50	43.00	1.22
STO_017	DDH	85.60	576610.58	8271628.55	521.15	90	-70	0.65	59.96	0.50
STO_022	DDH	211.68	576142.61	8271319.28	526.46	23	-65	1.54	153.16	1.41
STO_022	DDH	211.68	576142.61	8271319.28	526.46	23	-65	0.50	150.21	46.80

Appendix 2: Sertão JORC 2012 Table 1

Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• In 2014, Orinoco Gold Limited (**Orinoco**) purchased Sertão Mineração Ltda. (**SML**). SML provided Orinoco with a database in Access format, containing 2,297 drill holes of various targets along the Faina greenstone belt, comprising 10,0439.67 meters (**m**). • Of the 2,297 drill holes there were: ○ 217 percussion drill holes (for 4,160.3m); ○ 7 air core drill holes (for 104.5m); ○ 1 auger hole (for 40m); ○ 333 diamond drill (**DD**) holes (for 25,436.67m); ○ 1,086 rotary air blast (**RAB**) drill holes (for 41,282.7m); and ○ 654 reverse circulation (**RC**) drill holes (for 29,415.5m). • For Sertão deposit, SML used: ○ 198 DD holes (for 14,428.14m); ○ 121 RAB drill holes (for 4,669m); and ○ 153 RC drill holes (for 6,094m). • RC samples were collected over intervals of 0.5 m and 1 m, generating samples between 1.5 kg and 3 kg. RAB drilling was sampled at one meter intervals. • A possible smearing of high grade samples in RC and RAB holes. • DD cores were sampled based on the geological boundaries and selected by a geologist. The cores were cut, being half of each sample sent to the assay laboratory and the other half stored by SML. • Standard samples, duplicate samples and blank samples were inserted into the SML assay batches at a frequency of at least 1 in every 30 samples. • The QAQC results confirm the reliability of SML sampling and assaying with sufficient confidence for the estimates. • Orinoco is represented in Brazil by Orinoco Brasil Mineração (**OBM**). OBM performed a DD campaign in 2015/2016 with 22 drill holes, for a total of 3,035.35m. • The sampling was based on the geological boundaries and selected by a geologist. Most part of the samples have approximately 1 m and in the mineralized zone the samples have approximately 0.5 m. If the sample is close to the geological boundary, it can be slightly higher

Criteria	JORC Code explanation	Commentary
		or lower than 1 m or 0.5 m. • DD cores were logged for geological characteristics. The cores were cut, being half of each sample sent to the laboratory and the other half stored by OBM for future reference. This just for the mineralised zones. The other samples remain stored at the OBM exploration farm. • All samples were prepared at the ALS Laboratory in Goiânia, Brazil, and analysed at the ALS Laboratory in Lima, Peru. The analysis method was screen fire assay. • Standard samples and blank samples were inserted into the OBM assay batches at a frequency of at least 1 in every 30 samples and duplicate samples in each 20 samples. • The QAQC results confirm the reliability of OBM sampling and assaying with sufficient confidence for the estimates.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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.).*	• The majority of RC drilling by SML was undertaken using SML's own drill rig imported from Australia in 2004 and operated by SML staff. The rig used 4.5 m drill rods and 4.5 inch diameter drill bits. The drilling was largely conducted dry. SML surveyed drill hole collars by theodolite and conducted downhole survey measurements in deeper drill holes using a Fotobor survey tool. • SML operated a company-owned RAB rig. This rig was a small Toyota vehicle mounted rig that used 1.5 m drill rods, a downhole hammer, and drill bits between 3.5 and 4.5 inches in diameter. The rig was connected to a separate truck mounted compressor operating at 750 cfm. A second RAB rig was purchased in 2006. This rig was a truck mounted Cobrasper rig manufactured in Brazil. The rig used 3 m drill rods, a downhole hammer with 4.5 inch diameter drill bits. The rig was also connected to a separate truck mounted compressor operating at 950 cfm. • SML conducted the DDH drilling with HQ and NQ diameters, using drilling companies including Mariana, Servitec Ltda, and STS. Collar and downhole surveys were conducted in the same manner as for the RC drill holes. • OBM conducted the DD drilling with HQ and NQ diameters, using the drilling company Servitec Ltda. Collars were surveyed by Total Station and downhole surveys were conducted with Deviflex.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• SML recovery data is not available. • OBM drilling recoveries were logged throughout the entire program and were consistently above 95%.

Criteria	JORC Code explanation	Commentary
	• *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.*	
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• SML logging and coding is appropriate, being reasonably consistent through all holes. • All OBM drill cores are geologically logged for geology, alteration and structure by qualified exploration geologists. • Both, SML and OBM drilling has been logged with appropriate detail. • All OBM drill core is photographed and stored on site in a core reference library.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• In the NI 43-101 report, prepared by Snowden Group (**Snowden**) for SML in May 2007, it is reported that all sub-sampling techniques and sample preparations followed acceptable industry practices. • Snowden expressed the concern that some of the RC holes showed signs of possible downhole smearing. Snowden indicated that this could potentially result in local overestimation of mineralised widths by up to 10 - 30%. Snowden undertook a sensitivity analysis of potential smearing by creating a restricted model around the drill holes suspected of gold smearing, and concluded that there was a medium to low risk of locally overestimating the tonnage of the deposit around some drill holes. • Before 2001, SML RC samples were collected over intervals ranging between 0.5 m and 1.0 m. The drilled interval material was collected in a plastic bag at the main cyclone. The material from the interval was quartered and the quarter divided into two samples. One of the samples was quartered further until a volume of approximately 1.5 kg was produced, and sent to the Nomos Laboratory in Rio de Janeiro for analysis. The DD holes had selective sampling of altered lithologies followed geological contacts with interval lengths ranging from 0.3 m to 1.5 m. Core was split and sent to the Nomos Laboratory for analysis. • After 2001, the SML RC samples of 1.0 m length were collected during drilling, passing from the cyclone through a riffle splitter mounted beneath the cyclone into the sample bag. A 2 to 3 kg sample was collected and sent to SML's site laboratory. The collection of samples was completed by SML employees under the supervision of either a senior field technician or

Criteria	JORC Code explanation	Commentary
		geologist. DDH sampling were selective in altered lithologies followed geological contacts with interval lengths ranging from 0.3 m to 1.5 m. Standard procedures were followed to reduce the risk of contamination while drilling, including cleaning the riffle splitter with compressed air between each meter drilled and cleaning the cyclone between drill holes. DDH sampling intervals were selected by the geologist based on geological boundaries, and the sample was sawn in half at the preparation laboratory. After cutting, one half was placed in a plastic bag with the sample number recorded on it and processed for analysis, and the other half was returned to the core tray and stored. All exploration drilling and mine grade control samples were processed by SML employees at SML's uncertified laboratories. The sample preparatory laboratory was in Goiás and the analysis laboratory were located at the Sertão mine. Samples were crushed to 80% passing -140 mesh in Goiás and sent to the analysis laboratory on the mine site. • OBM sent all samples to the ALS laboratory, where they were prepared (Goiânia Laboratory) and analysed (Lima Laboratory). In Goiânia, the samples were dried, crushed until 90% < 2 mm (10 mesh), split until 1 kg sample obtained, and after it is crushed to 95% < 106 microns (150 mesh).
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Before 2001, SML samples were prepared and analysed for gold by Nomos Laboratory using Aqua-Regia with an atomic absorption spectrophotometry (**AAS**) finish. Any results returning values above 0.5 g/t Au were re-finished by fire assay. For RC samples, one standard control sample was generally included for every 20 samples. Duplicate and blank control samples were collected from drill holes intersecting the mineralised zone at an unknown frequency. • From 2001 until 2007, at the analysis laboratory on the mine site, a 30 g charge was digested were Aqua-Regia and gold content were determined by AAS following organic di-isobutyl ketone (**DIBK**) solvent extraction. • SML Exploration quality control samples were routinely submitted at a rate of approximately one in 30 samples, including standards, blanks, and duplicate samples. For mine grade control samples the laboratory inserted one standard for every 20 samples, one blank for every 30 samples, and one pulp duplicate sample for every 10 mine samples. • At the laboratory, all OBM samples were analysed using the screen fire assay technique. This procedure involved screening a large pulverized sample (commonly 1 kg) at 75 microns. The entire oversize (including the disposable screen) was fire assayed as this contained the 'coarse' gold and a duplicate determination was made on the 'minus' 75 microns fraction. A calculation was then made to determine the total weight of gold in the sample. This procedure was equivalent to assaying a large sample to extinction and averaging the results.

Criteria	JORC Code explanation	Commentary
		• The OBM QAQC protocol was: ○ *Standards*: insertion of 1 known standards in each 30 samples approximately. If less than 10% of samples were outside of the expected mean + 2x Std. Dev, the results were validated. If less than 10% of the samples reported results outside the Mean + 3x Std. Dev, but there were standards between the first and these two points - the results were validated, but the Laboratory was notified. If more than 10% were outside the Mean + 3x Std. Dev, the batch (40 samples) was rejected, an investigation was required and a re-analysis of the batch was made; ○ *Blanks:* 1 blank insertion in each 20 samples approximately. If less than 5% were above 5x the detection limit of the Laboratory, the results were validated. If more than 5% were above 5x the detection limit, the Laboratory was notified and the batches with failure were re-analysed; and ○ *Duplicates:* insertion in each 20 samples – Bias control. Project Duplicates are core quarter and Laboratory duplicates are Pulp Duplicates.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Snowden made several data verifications on SML data between 2001 and 2007. • In 2001, SML completed a twin hole drilling campaign and Snowden concluded that the assay results showed good assay reproducibility, which lent support to the low nugget effect observed in variography. • In May 2002, Snowden undertook an update of the Sertão mineral resources and performed a basic validation of the data, including collar surveys not matching surveyed topography, missing assay results, unrealistic assay results and overlapping sample intervals, where the database was found to be in very good condition. • In August 2003, Snowden completed a reconciliation of ore mined at Sertão to the end of July which demonstrated a very close correlation between the predicted and actual outcomes. • In June 2004, another reconciliation was completed, where the mined grades were lower than the exploration model due to excessive mining dilution • In 2006, a final mine production reconciliation was undertaken, where the total production tonnes were 13% greater than estimated, with 18% higher grades and 33% more ounces. SML attributed part of the positive reconciliation to better mining selectivity than planned and reduction of planned dilution. • In 2007 Snowden visited the mine site once more and verified collars, assay certificates and original geological logs against the database. No discrepancies were noted. • This database verified by Snowden is the same provided by SML to OBM. It is a protected relational Microsoft Access database.

Criteria	JORC Code explanation	Commentary
		• The OBM drilling information is stored in an appropriately protected relational Microsoft Access database. • The assay data provided by ALS after the analysis was uploaded in the first instance to a master table in Excel format where it was verified for any discrepancies in the samples ID, as well as the geological logs, and then both were transferred to the Access database. • The electronic documentation (logs, assay certificates, drilling recovery, down-the-hole survey and protocols) is stored in the server at the Exploration office • The physical documentation (logs, assay certificates, drilling recovery and protocols) is stored at the Exploration office. • The data entry is not being done in the most appropriate way yet, but changes in the matrix of the OBM Access database and in the data entry protocol are programmed for the beginning of August.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• SML surveyed drill hole collars by theodolite. The holes were generally vertical and shallow, with some minor topographic survey problems. • Snowden verified the collars in their 2007 visit and no discrepancies were noted. • OBM collars were surveyed using a Total Station surveyed by a qualified land surveyor. • The survey crew used surveyed base stations to guarantee the quality of their surveying. • The grid system used is UTM South American 1969 - Zone 22 S for both databases (SML and OBM). For SML database, some drill holes were in another datum (Córrego Alegre) and they had to be transformed to SAD-69.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• For SML drill holes, on most sections the spacing was regular at 25m X 25m. Most of the sampling was taken with 1 m spacing. • SML drilling spacing generated sufficient information that assisted to classify resources as indicated, at least in the most drilled zone. • OBM drill spacing is not regular and was planned to fill zones of little or no information. It was considered the use of already opened drilling squares. • Most of the analysed samples was taken with 0.5 m spacing. • OBM drill holes are sufficient to infers resources in most of cases. • There is part of the drilling of both (SML and OBM) that is not sufficient to classify as JORC resources and in these most spaced areas were considered as potential resources. • See figure 1 in body of report.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Most of the SML drill holes are vertical and oriented oblique to the mineralised zone. • In comparatively rare areas where the resource drill holes are perpendicular to local dominant mineralisation structures, comparison with appropriately oriented grade control sampling shows no significant difference in mean gold grades. • OBM drill holes were angled at 60° which effectively intercepts the shallowly dipping orebody at right angles ensuring reported thicknesses are very close to true thicknesses. • The drilling orientations provide unbiased sampling of the mineralisation.
Sample security	• *The measures taken to ensure sample security.*	• Most of the SML RC stored samples were lost after the closing of the mine. • The SML DD samples are safe and the core trays are stored in the storage facility onsite • OBM samples are stored in plastic sample bags, stored in a dedicated secure facility on site prior to transport to the laboratory. Mineralised samples were delivered directly to the assay laboratory by OBM staff. • All OBM laboratory pulps are stored in the storage facility onsite in boxes supplied by the laboratories, stacked in dry places.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audit or review has been undertaken regarding the results reported in this announcement.

Section 2: Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Faina Goldfield Project is 70% owned by Orinoco do Brasil Mineração Ltda (**OBM**), which in turn is 100% owned by Orinoco Gold Limited (**Orinoco**). The 30% partners are free carried during the exploration stage until a decision to mine. • The Sertão and Antena mining leases are owned 100% by Orinoco.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The area was previously been explored by Western Mining Corporations (**WMC**) in the 1990's. • Sertão Mineração Ltda (**SML**) worked in the area for 6 years, between 2001 and 2006, exploring several targets in Faina and Goiás greenstone belts. • The Sertão open pit Mine was operated by SML for 4 years, between 2003 and 2006, where it was processed 320,000 tonnes of ore at a grade of 24.95 g/t producing 256,800 ounces of gold. • In 2014, Orinoco purchased SML.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Sertão deposit is hosted within fine sedimentary horizons of carbon rich phyllite and banded iron formation (**BIF**) within the dolomites of the Córrego do Tatu formation in the Faina greenstone belt. • The package is approximately 100 m thick and dips at angles of between -10° to -15° to the west. Intense hydrothermal alteration is associated with gold mineralisation, including haloes of sericite and iron carbonate (ranging from 4 cm to 8 cm in thickness) around quartz and sulphide veins that are generally sub-parallel to the dominant foliation. • The gold mineralisation is structurally controlled. It is hosted in shallow westwards plunging (-30° to -50°) structures, with thin high-grade zones (<20 cm) containing visible gold paralleling the lineation direction formed during the secondary deformation phase. Higher grades and wider zones of mineralisation occur in highly weathered saprolite, significantly enriched by supergene processes that distributed the gold along the oxidation boundary. • The Sertão deposit consists of four narrow (<20 cm) high grade mineralized lenses separated

Criteria	JORC Code explanation	Commentary
		by fault zones, referred to as Stages 2, 3, 4, and 5, which are 115 m, 145 m, 375 m, and 200 m long, and 60 m, 40 m, 65 m, and 25 m wide, respectively. Stages 2, 3, and 4 are exposed in surface outcrops, whereas Stage 5 extends from approximately 15 m to 45 m below surface. The mineralised lenses are interpreted as being continuous along both length and width.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No individual drill hole results are included in this announcement.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Results over 0.5m @ 0.25g/t Au are reported. • The RC and DD holes were generally sampled over 1 m down-hole intervals with assay grades composited to 1 m intervals for resource estimation.

Criteria	JORC Code explanation	Commentary
Relationship between mineralization widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Most of the SML drill holes were vertical and oriented oblique to the mineralised zone. • OBM drill holes are angled 60° which effectively intercepts the shallowly dipping orebody at right angles ensuring reported thicknesses are very close to true thicknesses.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Diagrams are attached to the current announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Drill hole results for the 2016 OBM drilling programme are included in this announcement
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• The geophysical data provided by SML to OBM included magnetometry, gamaspectrometry, electromagnetics and gravimetry. • Most of the data was re-processed and integrated by OBM. • New anomalies were detected to the southeast of the Sertão deposit. These new anomalies are like the anomalies seen in Sertão mine area. • OBM decided to cover the area with an IP survey and the results were positive for percent frequency effect (**PFE**) and metal factor (**MF**) parameters. • The MF parameter showed a geometrical similarity to the hydrothermal alteration zone, with a step-and-ramp feature. • New detailed geological mapping was undertaken in 2014 in the Sertão area, with a Southeast extension completed in 2015. • In 2014, a detailed structural mapping was undertaken on one of the benches of the Sertão mine by OBM geologists, the information from which was used to assist in the construction

Criteria	JORC Code explanation	Commentary
		of the Mineral Resource model.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive*.	• A follow up drilling program has been planned as part of the AngloGold Ashanti (**AGA**) exploration joint venture, which will focus on the areas not classified in the mineral resource estimate, considered as potential resources, besides the extension to Southeast area identified in the geophysics re-processing.

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• In 2014, Sertão Mineração Ltda (**SML**) provided Orinoco Brasil Mineração (**OBM**) with a database in Access format, containing 2,297 drill holes of various targets along the Faina greenstone belt, comprising 100,439.67 meters. • The database provided by SML was audited several times by Snowden Group (**Snowden**) who considered that the data was reliable for Mineral Resources estimates. • OBM reviewed the database and validation checks were performed in Vulcan 3D software including searches for overlaps or gaps in sample and geology intervals, inconsistent drill hole identifiers, and missing data. The database was found to be in a very good condition. • OBM performed a drilling campaign in 2015 with 22 drill holes (for 3,035.35m). All data was uploaded into an Access database. The same validation checks were done for this database. • With both databases validated, a merge of the SML and OBM databases was made into Vulcan 3D software for modelling, geostatistics and estimation of the data.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person works on site, or regularly visits the site, and has a vast knowledge on the regional and local geology, the mineralisation controls and resources data.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• After 9 years of exploration and evaluation workings of Western Mining Company (**WMC**) (1992 to 2001) and 6 years of development and mining by SML, added up of the high experience of OBM crew in the same Greenstone belt, the geological setting and mineralisation control are well understood and confidence in the geological interpretation is high. • The interpreted geological frame work is based on the old workings and drilling data. Alternatively, OBM has made a new pit mapping and integrated it with the new drilling data, extending the mineralised body 600 meters down-plunge. • Geologically, the Sertão Horizon is close to the centre of a 100 m thick sequence of schists with extreme hydrothermal alteration situated between two packages of mafic metavolcanics that are slightly/not altered. • The best gold grades usually are located close to the top of the Sertão Horizon. The most significant intersections obtained with diamond drilling (**DD**) (>20 g/t Au per m) are on the

Criteria	JORC Code explanation	Commentary
		surface within the intensely weathered saprolite. When found in fresh rock, the mineralisation is a thin (4 to 20 cm) quartz zone with 30 to 40% of sulphides. Pyrite and arsenopyrite are the dominant sulphides and they occur as fine-grained aggregates. Pyrite is locally altered to marcasite. Frequently gold is visible in these zones but always very fine, its diameter does not exceed 0.2 mm. The ore may be found within the Sertão Horizon's iron formation or carbonaceous phyllite. Bleaching halos with 5 to 10 cm envelope the mineralised zones within the phyllite, as described in item Alteration. The bleaching is not so clear within the iron formation, but there is sericitisation.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The model has a N-S anticlinal fold at the oxidised zone. The orebody has a behaviour of step and ramp, plunging 15° average to the West. From it hinge, the model extends until 1,130m length to the West and 60m to East, with 350m along strike. • SML had mined the hinge in the oxidised zone, leaving only minor ore in the East flank. In the West flank there remains the majority of the ore. The remaining resource extends 250 to 1,000 m down plunge. Overall strike length is typically 170 to 310 m depending on dip. The model extends from the topographic surface to a maximum of 250 meters below it.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block*	• All modelling, statistical analysis and interpolation was made with Maptek Vulcan 10.0.4 3D software. • Based on the merged database, the old SML ore shells and geological concepts, a re-interpreted Au grade shell (~ 0.5 g/t Au cut-off) was designed to represent the current drill defined mineralisation. • A contact profile analysis was made comparing the grades between the ore body and waste along equal distances from the contact. The boundary between Vein and Waste material is clear that they have a hard boundary, where the Waste has average grades below 0.2 g/t and the vein has average grades above 10 g/t. • The database was composited using the run length process. This compositing process was set to 1 m to allow adjusting of the composite lengths. • Descriptive statistics of sample populations within a domain may be biased by clustering of sample data in particular areas of the domain. For Sertão, composited samples was run the cell declustering where it was used cell sizes of 42 m. • In the exploratory data analysis, different comparisons were made, considering the different oxidation zones (oxide, sulphide and oxide + sulphide) and the different kind of data (drill hole database, 1m composited database and the composited declustered database). • In the geostatistical analysis were noted the presence of important outliers in the sample

Criteria	JORC Code explanation	Commentary
	size in relation to the average sample spacing and the search employed. • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	distributions. The statistics justified a differentiated treatment of the samples with extreme values during the estimation. In the oxide zone this value was above 137 g/t Au and in sulphide zone this value was above 64 g/t Au. Quartiles data, histograms and cumulative plots were used to define these extreme values. • To generate semi-variograms the database with 140 g/t Au capped samples was used. Search orientations were selected from the fan variogram, but were checked against the geological interpretation to ensure proper matching. Sertão tends to behave isotropically and so, search orientations are determined primarily from geology. Fan variogram have shown search directions very similar to the known plunge direction determined by geology, between 260° and 270° against 270° to 280° from geology. So, 270° was chosen as the search direction. • Search distances were determined from the directional semi-variograms using 90% of the total sill variance. The other 10% sill variance are nugget effect, extracted from the down-the-hole variogram. Two structures were used to model the variograms. The major direction shows a little zonal anisotropy, whilst the semi-direction has a huge zonal anisotropy

Variogram Model Parameters
Nugget: 0.100, Num Struct: 2

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.360	270.000	-13.000	0.000	8.900	4.000	0.800
SPHERICAL	0.540	270.000	-13.000	0.000	17.400	8.000	1.500

Criteria	JORC Code explanation	Commentary
		• Before making the block definition file in Vulcan 3D Software, plots were made with many values of discretization, block sizes and gammabar using the variogram model. This was developed to choose the best discretization value and block size (Discretization X Gammabar; Block Size X Gammabar; Block Size X Block Variance). For this step it was necessary to use the gammabar program from GSLib package. • For discretization, the values 3x3x2 seems to be the point of stabilisation, and these were the values chosen to be used on estimation parameters. The test for block sizes using gammabar and the block variance showed that size 10 m x 10 m x 1 m can make a better balance between block size (volume) and variance. To fit better to the grade shells and don't lose volume from the model, sub-blocks with 1 m x 1 m x 0.5 m were used. • The block model has an origin at the coordinates 575,547.0 m (X), 8,271,200.0 m (Y) and 270.0 m (Z). The block model has no rotations. The offsets are 1,400 m (X), 500 m (Y) and

Criteria	JORC Code explanation	Commentary
		350 m (Z). Parent block dimensions used to construct the block model were 10 m (x) by 10 m (y) by 1 m (z), and the sub-blocks has a minimum size of 1 m (x) by 1 m (y) by 0.5 m (z) varying until a maximum equal to the parent block sizes. • Two estimation techniques were used for the Sertão deposit. The blocks were estimated using Inverse Distance Weighting (**IDW**) and Ordinary Kriging (**OK**). IDW was used for two purposes, to treat the extreme values in the dataset and in a validation comparison with OK. To treat the extreme values a power 4 (**ID4**) methodology was used, giving more weight to nearest samples, and to the validation a power 3 (**ID3**) methodology was used. OK was used as the main interpolation method, estimating the samples below the extreme values. • Five estimation steps were used for the ore shells to reflect changes in search distances and sample selection. Search directions were determined by using the average plunge and dip of the ore grade shell. Search distances were determined using the directional variograms. • Run Top is a special step used to treat the samples with grades higher than 137 g/t Au for Oxide samples and 64 g/t Au for Sulphide samples. For this step, a very restricted search area was used, with a small number of samples, to estimate blocks, and the variable run was flagged as 1. • Run 1 to Run 4 reflect the best level of confidence decreasing until the worst level of confidence in the estimation. For these steps, samples below 137 g/t Au in the oxide zone and 64 g/t Au in the sulphide zone were used. • Following the grade estimation, sectional and plan views of the block model were validated visually with the drill hole composites. Grades, density, oxidised zone and topographic zones were checked as was a check on whether the blocks fit the triangulations. During the interpolation, some blocks were not estimated. • A global comparison of the input and model averages indicates a fair comparison of both. The grades over the quartiles are better distributed in the blocks than in the declustered dataset, for both zones (oxide and sulphide). This smoothing is intrinsic from the interpolation methodology. The averages of the blocks have values between the median and the third quartile, while the declustered dataset have values higher than the third quartile. Nevertheless, the averages have similar values comparing the blocks and the declustered dataset for both zones. • To test the local estimation of the mean within each zone, it was computed moving window input-output mean grades. Narrow slices were generated through each zone along northing, easting and elevation, and for each slice, the composited mean grades were compared to the tonnage weighted mean grade of the blocks. Locally, where the number of input samples

Criteria	JORC Code explanation	Commentary
		was poor, there were some overestimations or sub-estimations, all in the Run 4 pass. • To guarantee that no already mined blocks were contained in the remaining resources table, it was constructed a sill pillar surface using the topographic surface provided by SML and the topographic surface surveyed by OBM. This sill pillar is a merge of these two topographic surfaces that was offset 2.5m below the original surfaces. • During the construction of the block model there was inserted the variable "sill" to flag what was already mined and what was remaining. OBM considers as mined the blocks above the sill pillar surface, and what stays below as remaining.

Steps (run)	Samples Search Orientation (°)			Sample Search Range (m)			Samples						Type
	Azimuth	Plunge	Dip	Major Axis	Semi-Major Axis	Minor Axis	Discretiz.	Min.	Max.	Max. per octant	Min. DH	Max. DH	
Oxide Run Top	270	-13	0	10	5	1	3x3x2	1	12	x	x	x	ID4
Oxide Run1	270	-13	0	20	10	2	3x3x2	3	12	8	2	10	OK and ID3
Oxide Run2	270	-13	0	40	20	4	3x3x2	2	12	8	2	12	OK and ID3
Oxide Run3	270	-13	0	60	30	6	3x3x2	1	24	x	x	x	OK and ID3
Oxide Run4	270	-13	0	200	100	20	3x3x2	1	24	x	x	x	OK and ID3
Sulphide Run Top	270	-13	0	10	5	1	3x3x2	1	12	x	x	x	ID4
Sulphide Run1	270	-13	0	20	10	2	3x3x2	3	12	8	2	10	OK and ID3
Sulphide Run2	270	-13	0	40	20	4	3x3x2	2	12	8	2	12	OK and ID3
Sulphide Run3	270	-13	0	60	30	6	3x3x2	1	24	x	x	x	OK and ID3
Sulphide Run4	270	-13	0	200	100	20	3x3x2	1	24	x	x	x	OK and ID3

Criteria	JORC Code explanation	Commentary
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The tonnages were estimated on a dry basis with bulk densities assigned by oxidation zone on the basis of volume displacement measurements of representative core samples.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The cut-off grades were calculated to report the Mineral Resource contained and to demonstrate reasonable prospects for eventual economic extraction. • A 1 g/t Au cut-off was used in consideration that grades are sufficient for a likely open pit mining method (i.e. Oxide zone). A higher cut-off grade of 3 g/t Au was used in consideration of the likely underground mining scenario (Sulphide zone).
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• As potential mining methods, it is possible mine part of the oxidized ore with the opening of a new pit. • Most of the remaining ore has the potential for an underground mining extraction method.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Ore from all SML deposits was processed at the TC8 mill located at the Sertão mine site. The plant was originally designed by Lycopodium Engineering and Dr. Ron Blanks, and had operated at Tennant Creek in Australia treating high grade copper-gold ore in the 1990's. In December of 2001, Troy purchased the plant and shipped it to site. • Both the oxide and sulphide ores are not grind sensitive, and are not difficult to comminute. Assays by size fraction and gold distribution of the oxide tailings indicates that gold remaining in tailings was finely disseminated, indicating that further grinding would result in very little additional gold recovery. • Cyanide consumption for Sertão and Antena ore was relatively low at 0.7 kg/t for oxide ore and 1.0 kg/t for sulphide ore, and higher for Xupé ore at approximately 1.7 kg/t. Tailings treatment included an INCO air detoxification unit which enabled the production of tailings containing less than 0.02 ppm of weak acid dissociable (**WAD**) cyanide. Tailings treatment for most of the operation included a belt filter producing tailings with around 20% water

Criteria	JORC Code explanation	Commentary
		content which was trucked to a worked-out portion of the open pit and layered with mine waste. • Mineralogy of the oxide ore revealed an abundance of quartz, muscovite mica, chlorite, kaolinite, and goethite. Mineralogy of the sulphide ore revealed a low percentage of sulphides in chlorite, quartz sericite carbonate, and minor graphite. Pyrite, arsenopyrite, marcasite, and some chalcopyrite were also present. Gold occurred as free gold ranging in size from 10 µm to 150 µm, with sizes of up to 500 µm observed in gravity concentrate. Gold also occurred as fine inclusions in carbonate. • OBM did not run any metallurgical tests.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Estimated resources are inserted inside the Mining Lease. OBM acquired SML with the approved Mining Lease, but to start any operation it will be necessary to provide a renewal of the environmental impact statements to the Environmental Agency. • OBM is running a new environmental impact study.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*	• Bulk density measurements were conducted at the mine site by SML and based on the old dataset. A value of 1.90 g/cm³ was attributed to regolith and oxide material and 2.75 g/cm³ for the fresh rock. These density values were assigned according to the interpreted base of oxidation surface. • To have a guarantee of the density values and based on its own drill core samples, OBM conducted 269 measurements at the project site using Volume Displacement methodology for the sulphide zone.

Criteria	JORC Code explanation	Commentary
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The resource classification in the block model is based on the directional variogram ranges that were derived from the 1 m run length composite database, besides the number minimum and maximum of samples, the number of octants and the number of drill holes used in each step, reflecting distinct levels of confidence in the grade estimation. Five steps was used during the grade estimation process, that were flagged in the variable "run", with values varying from 1 to 4, for each oxidation zone. • The first step (Run top), flagged as 1, used thereabouts half of the variogram ranges, with a minimum of 1 sample and a maximum of 12 samples to estimate. The second step (Run 1), flagged as 1 too, used ranges approximately equal to the variogram ranges, with a minimum of 3 samples, a maximum of 12 samples, 8 samples per octant, minimum of 2 drill holes and a maximum of 10 drill holes. These two steps had a higher level of confidence and defined the preliminary measured resources. • The third step (Run 2), flagged as 2, used 2 times the ranges of the second step, with a minimum of 2 samples, a maximum of 12 samples, 8 samples per octant, minimum of 2 drill holes and a maximum of 12 drill holes. This step defined the preliminary indicated resources. • The fourth step (Run 3), flagged as 3, used 3 times the second step ranges, with a minimum of 1 samples and a maximum of 24 samples, defining the preliminary inferred resources. • The fifth step (Run 4), flagged as 4, used 10 times the ranges of the second step and was careless about the number of samples, reflecting the lower level of confidence and the preliminary potential resources. • To avoid the "spotted dog effect" and normalise the classification boundary definition of the estimated blocks, block-by-block resource classification was smoothed into geologically coherent zones, reflecting a realistic level of confidence, considering the amount, distribution and quality of the data. Wireframes were created based on block estimation attributes (Variable Run) and the broader geological and data considerations. All blocks falling within each wireframe (measured, indicated and inferred) were flagged with the final classification (Variable Class).
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates*	• The current resource model was prepared by Thiago Andrade of OBM and it was not audited by an external party. • This Table 1 forms part of extensive internal documentation to provide for any independent

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		consultant in future audit.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The relative level of confidence of the Mineral Resource estimate is reflected by the classification report, being Measured class the highest level of confidence, Indicated class an intermediate level of confidence and Inferred class the lower level of confidence for the classified resources. • Measured and Indicated resources classes have sufficient local confidence to form the basis of mine designs and production scheduling.

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. No JORC Mineral Resources or Reserves have been estimated for the Cascavel Gold Mine.

Sertão JORC Compliance

*The Information in this report that relates to exploration results or mineral resources for Sertão is based on information compiled by Mr Thiago Vaz Andrade, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Andrade is a full-time employee of Orinoco Brasil Mineração Ltda (**OBM**) (a subsidiary of the Company). Mr Andrade has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is 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 (the JORC Code)`. Mr Andrade consents to the inclusion of this information in the form and context in which it appears in this report.*