



## Visible Gold Encountered in Cascavel Exploration Decline

- **Decline advanced 20m along strike**
- **Continuity of mineralized unit confirmed**
- **Visible gold frequently observed – assay results June.**

Orinoco Gold Limited (ASX: OGX) is pleased to provide an update on the progress of the recently commenced exploration decline at the Cascavel Gold Project, part of its Faina Goldfields Project in central Brazil.

The recently commenced exploration decline at Cascavel has advanced approximately 20m along strike, allowing visual confirmation of the continuity of the mineralised unit (quartz vein/s and mainly sericite alteration) along strike with small offsets where late faults cut the package. Observations have also confirmed the repetition of high-grade shoots within the mineralised unit (Figure 4).

Some of the ore shoots identified in the decline were intersected in earlier drilling undertaken down-plunge. For example, a previously announced intercept of 1m @ 2.87 g/t 40m down-plunge from the decline in drill hole CDP\_031<sup>1</sup> correlates with a visually identified ore shoot at approximately the 17m mark of the decline.

Visible gold has frequently been observed in the decline (Figures 5 and 6), and assays from panel sampling undertaken using 0.5m long channels will be used to identify any further ore shoots exposed in the decline that may not be evident from visual inspection. First results from this sampling are expected during June.

Ore removed from the exploration decline is being stockpiled by Orinoco.

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<sup>1</sup> Previously announced at ASX on 23rd December 2013

### ASX Release

12 June 2014

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### Issued Capital

113,412,134 Ordinary Shares  
15,000,000 Performance Shares  
27,342,756 Listed Options  
19,400,000 Unlisted Options

### ASX Code

OGX (Ordinary Shares)  
OGXO (Listed Options)





**Figure 1.** Visible gold from the Cascavel exploration decline.



**Figure 2.** Visible gold from the Cascavel exploration decline.



Figure 3. Cleaning the face of the exploration decline ahead of sampling.

-ENDS-

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**Competent Person's Statement:** *The information in this presentation that relates to Exploration Results is based on information compiled by Dr Klaus Petersen who is a member of the Australasian Institute of Mining and Metallurgy and CREA. Dr Klaus Petersen 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 Klaus Petersen consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.*

**Previous Reported Results:** *There is information in this report relating to Exploration Results at Cascavel. Full details of the Results were included in the following ASX Release and are available to view on the Company's website [www.orinocogold.com](http://www.orinocogold.com):*

1. 23 December 2013 – Clarification to Inside Briefing Interview Announcement

*The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the Exploration Results in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

### Forward-Looking Statements:

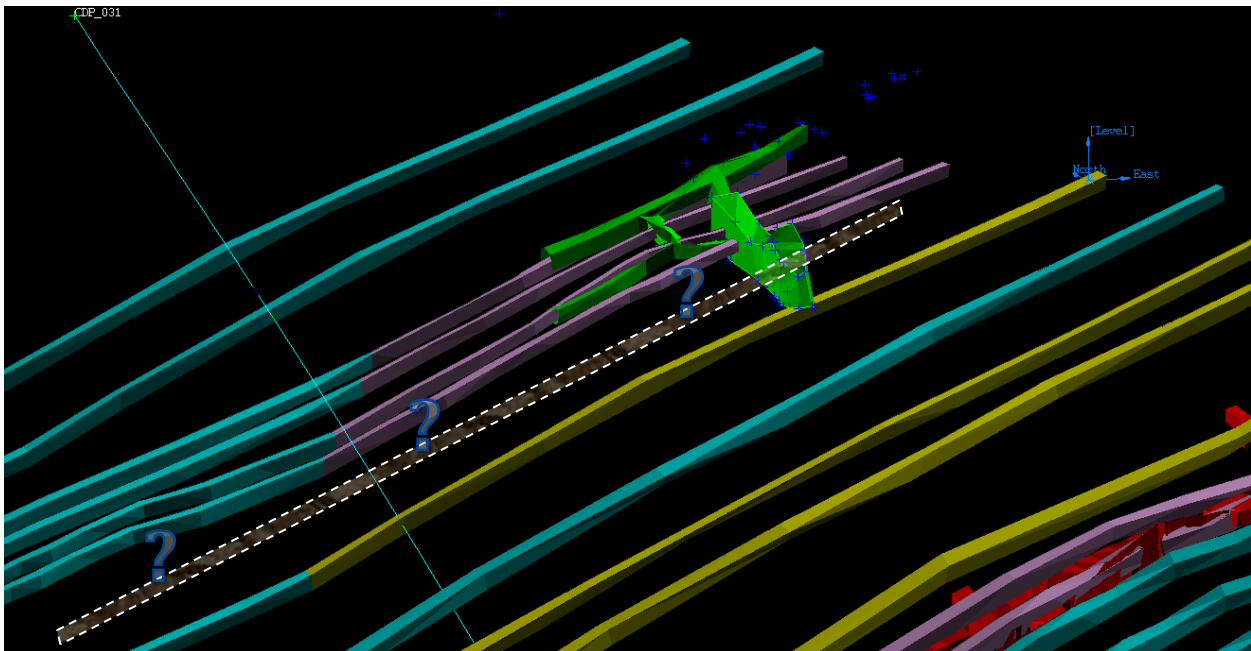
This Announcement includes "forward-looking statements" as that term within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond Orinoco Gold Limited's control. These forward-looking 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 coal and base metal 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, resolve logistical issues associated with mining and enter into any necessary off take arrangements with reputable third parties. 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.

It is common practice for a company to comment on and discuss its exploration in terms of target size and type. Any information relating to the exploration target should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. Hence the terms Resource(s) or Reserve(s) have not been used in this context. The potential quantity and grade is conceptual in nature, since there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.

### About the Faina Goldfields Project

Orinoco aims to build a high-grade resource inventory at the Faina Goldfields Project, initially to support a low-cost gravity gold operation. The Company is confident that sites within the broader Faina Project such as Cascavel (OGX: 70%) and the Sertão gold mine (OGX acquiring 100%) offer significant resource potential from ongoing exploration and resource definition programmes.

Sertão is a fully licensed gold mine located 18km along strike (28km by road) on the same mineralised shear zone as Cascavel, which in turn is currently licensed for underground ore extraction.



**Figure 4.** Diagram highlighting high-grade shoots within the mineralised envelope at Cascavel. The mineralised envelope is not represented in this diagram. Purple shoots are those confirmed by bulk sampling, yellow shoots are interpreted from drill intersections, whilst the light blue shoots are simply inferred. The Mestre Winze is represented in red in the bottom right hand corner, and the Cascavel winze is in green.

## Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Chip sampling</i>: sampling has been conducted on site following pre-determined selective sections that target rock types, structural and geophysical features. Samples are collected from in-situ outcrops, chipped with a geo pic and bagged in plastic bags with weights between 3-5kg. Samples are bagged in double bags with number codes and a short description of the sampling place (e.g. rock type, features, alteration). All data is stored in a geological database following appropriate QA/QC procedures.</li> <li>• All data is stored in the database following appropriate QA/QC procedures.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• No drilling is reported in this announcement.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• No drilling is reported in this announcement.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• All chip samples have a brief description recorded in the database and are preferentially used to recognize geochemical anomalies. The geological description is recorded on a card brochure and lodged on the sampling table in the data base;</li> <li>• The core samples are geologically logged in an appropriate level of detail for future potential mineral resources, mining studies and metallurgical studies, where the main lithology and kind of alteration is described and the alteration minerals, veins, fractures, faults identified.</li> <li>• Main Hydrothermal Alteration minerals are logged quantitatively in the logging spreadsheet.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• Chip samples are sent to the laboratory without drying or splitting.</li> <li>• Blanks and standards are inserted into chip samples batches;</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• In the lab, all samples are dried at 100°C and crushed to 9 mesh in a jaw crusher. The samples go to a Jones or Rotary splitter and 500g of material is separated and powdered to 150 mesh. The 150# pulp is quartered and an aliquot of 50g is obtained. This aliquot is analysed by Fire Assay in non-ore samples. Metallic Screen Fire Assay is applied if the sample is considered ore. Selective samples are analysed in ICP-MS (Inductively Coupled Plasma Atomic Emission Spectrophotometry), with a multi-acid digestion for 32 elements.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• <i>Standards</i>: (insertion of different standards in each 30 samples approximately): If less than 10% are outside of the mean + 2x Std. Dev, the results are validated. If less than 10% is 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;</li> <li>• <i>Blanks</i> (insertion in each 30 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-analysed;</li> <li>• <i>Duplicates</i> (insertion in each 20 samples – Bias control): Project Duplicates are core quarter and Lab duplicates are Gravel and Pulp Duplicates.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• Chip samples are located with a hand held GPS</li> <li>• The grid system used is UTM South American 1969 - Zone 22 S;</li> <li>• The topography crew uses local landmarks to guarantee the quality of their surveying.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• Rock chip samples are selective samples of outcrop.</li> </ul>

Criteria	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>The data orientation is intended to cover lithological or structural targets.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Samples are stored in plastic sample bags, stored in the core shed on site prior to transport to the lab.</li> <li>All laboratory pulps are stored in the core shed in boxes supplied by the labs, stacked in dry places.</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	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Faina Goldfield project is 70% owned by Orinoco do Brasil Mineração Ltda, which in turn is 100% owned by Orinoco Gold Ltd. The 30% partners are free carried during the exploration stage until a decision to mine.</li> <li>The Sertão and Antena mining leases are being acquired 100% by Orinoco, but the acquisition remains subject to previously announced conditions precedent.</li> <li>Some locations within the Cascavel project have archaeological sites that are required to be mapped and photographed prior to removal of the sites.</li> <li>The key Tinteiro tenements are granted exploration leases.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Exploration for oxide gold deposits was well developed through the belt during the last 20 years, in different cycles and by different companies, however no exploration of IOCG systems is recorded to have taken place. A reasonable amount of surface exploration has been 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 mineralisation 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>Mineralisation style is also varied on the belt. Most of the gold mineralisation can be classified as Orogenic, mainly hosted in chemical and volcanoclastic sedimentary units. The following models are considered relevant: Shear Hosted (Orogenic) associated with carbonaceous/BIF hosts, mafic volcanic and volcanoclastic 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 mineralisation 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 being related to a late IOCG system.</li> <li>Polymetallic mineralisation at Tinteiro: silver/tungsten/copper is interpreted as a carbonate replacement mineralization type that overlaps parts of the Cascavel Orogenic style mineralization and represents the most distal expression of the Tinteiro</li> </ul>

Criteria	Commentary
	<p>system. Closer to the core of the Tinteiro system gold, copper, barium, cobalt, uranium anomalies occur with hematite, potassic and sodic alteration together with structural features like fold hinges and crosscutting faults that are interpreted as a potential IOCG target.</p> <ul style="list-style-type: none"> <li>The mineralization of copper/gold/silver and other metals at Tinteiro is associated with zones of mainly hydrothermal sericite, hematite and magnetite alteration that are associated with regional and potentially deep crustal faults systems showing several non-deformed mafic alkaline to felsic intrusions. These mineralised faults have been mapped and sampled over an area of approximately 7km x 4km to date.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>No drill holes are reported in this announcement.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>No data was aggregated in this announcement.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Reported rock chips are single point, selective samples of outcropping lithologies.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams are attached to the current announcement.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>This announcement is a comprehensive report of the results covered by this announcement.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Only assays for rock chips are reported in this announcement.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Drilling is required to test the identified targets at depth.</li> </ul>