

**ASX ANNOUNCEMENT**

**Liontown Announces Maiden 390,000oz Mineral Resource for the Jubilee Reef Gold Project in Tanzania, East Africa**

**Initial resource marks a major milestone for Liontown in highly prospective East African gold belt, providing strong support for ongoing exploration**

Liontown Resources Limited (ASX: LTR – “Liontown” or “the Company”) is pleased to announce a maiden Inferred Mineral Resource estimate of approximately 8.5Mt @ 1.4g/t gold (~390,000 ounces) for its 100%-owned **Jubilee Reef Gold Project** in Tanzania, East Africa.

The Mineral Resource, which was prepared by independent specialist resource and mining consulting group Optiro Pty Ltd, encompasses two deposits at Jubilee Reef, Simba and Panapendesa.

The total Inferred Mineral Resource for Jubilee Reef is summarised below:

**Jubilee Reef – Mineral Resource statement as at November 2015 reported above a cut-off grade of 0.7 g/t gold**

Deposit	Classification	Million Tonnes	Grade g/t gold	Contained metal (koz gold)
Simba	Inferred	7.4	1.4	320
Panapendesa	Inferred	1.1	2.0	70
<b>Total</b>	<b>Inferred</b>	<b>8.5</b>	<b>1.4</b>	<b>390</b>

Note: Inconsistencies in totals are due to rounding

The independent Mineral Resource estimates for the Jubilee Reef Project were prepared by Optiro Pty Ltd and reported and classified in accordance with the guidelines of the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code; 2012).

Liontown’s Chairman, Tim Goyder, said the maiden resource marked an important milestone for the Jubilee Reef Project representing the culmination of the Company’s initial phases of exploration activity.

“Both deposits are located on a well-defined regional gold trend which includes the plus 1Moz Nyakafuru resource approximately 25km to the southwest, and both are open along strike,” Mr Goyder. “The completion of this resource gives our team a strong foundation to plan ongoing exploration activities, including opportunities to expand the resource immediately along strike.”

“The Jubilee Reef Project also hosts a number of undrilled, high-order gold geochemical targets including the Tembo, Koboko and Mhandu prospects – all of which offer the potential for additional discoveries in close proximity to the maiden resource.”

**Jubilee Reef Project Overview**

The Jubilee Reef Project is located in northern Tanzania approximately 850km west-northwest of Dar es Salaam in the Lake Victoria Goldfield (**Figure 1**). The Lake Victoria Goldfield hosts a number of world-class gold mining operations including the Bulyanhulu and Geita mines. The Project lies within a sequence of Archaean mafic volcanics, intermediate to felsic volcanoclastics, shales and banded iron formations (BIF) that form part of the Siga Hills Greenstone Belt within the Lake Victoria Goldfield.



Figure 1: Tanzania – Regional location plan showing Liontown Projects

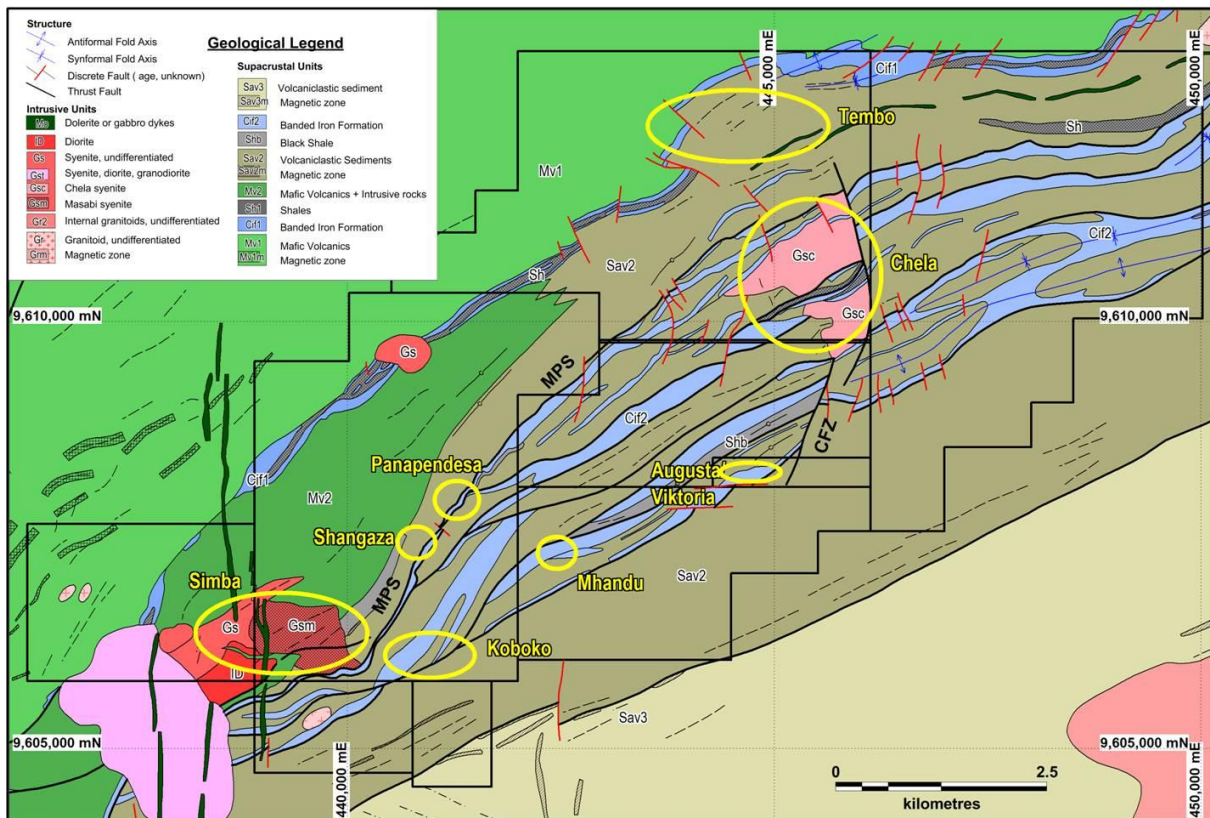


Figure 2: Jubilee Reef Project – Geology interpretation showing main gold prospects

The Simba deposit is located in the south-west corner of the Jubilee Reef Project (**Figure 2**) and is centred on the Masabi Syenite, an elliptical intrusion of syenite and diorite emplaced into the volcanic and volcanoclastic stratigraphy.

The intrusive complex comprises a series of felsic to intermediate intrusions forming a broadly east-west striking, rectangular body at least 1,600m long (east-west) by 700m wide. Gold mineralisation is hosted in massive but variably fractured and carbonate altered syenite, diorite, quartz diorite, and, along the southern contact, fine and coarse grained mafic volcanics and dolerites.

The Panapendesa deposit is located some 1.8 km to the north-east of the Simba deposit and lies within a sequence of BIF, shale, and volcanoclastic sediments.

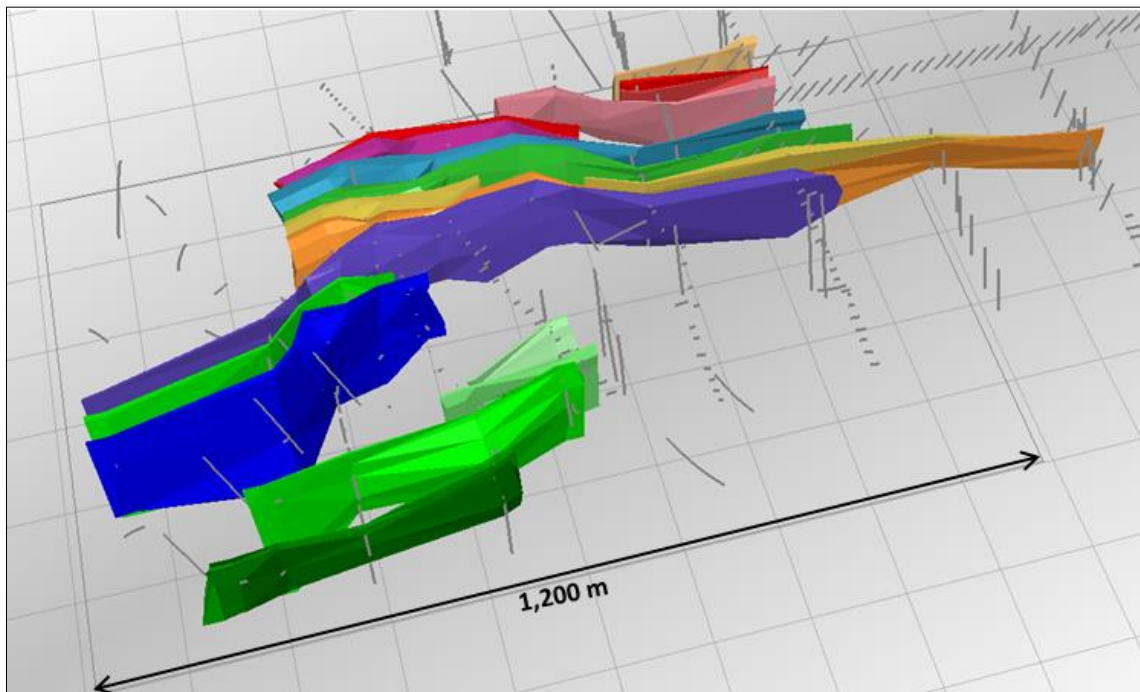
### Mineral Resources for Jubilee Reef

The mineralisation at the Simba deposit has been defined by 70 Reverse Circulation (RC) drill holes for a total of 8,735m, three diamond drill holes for a total of 982m and 26 rotary air blast (RAB) holes for a total of 758m.

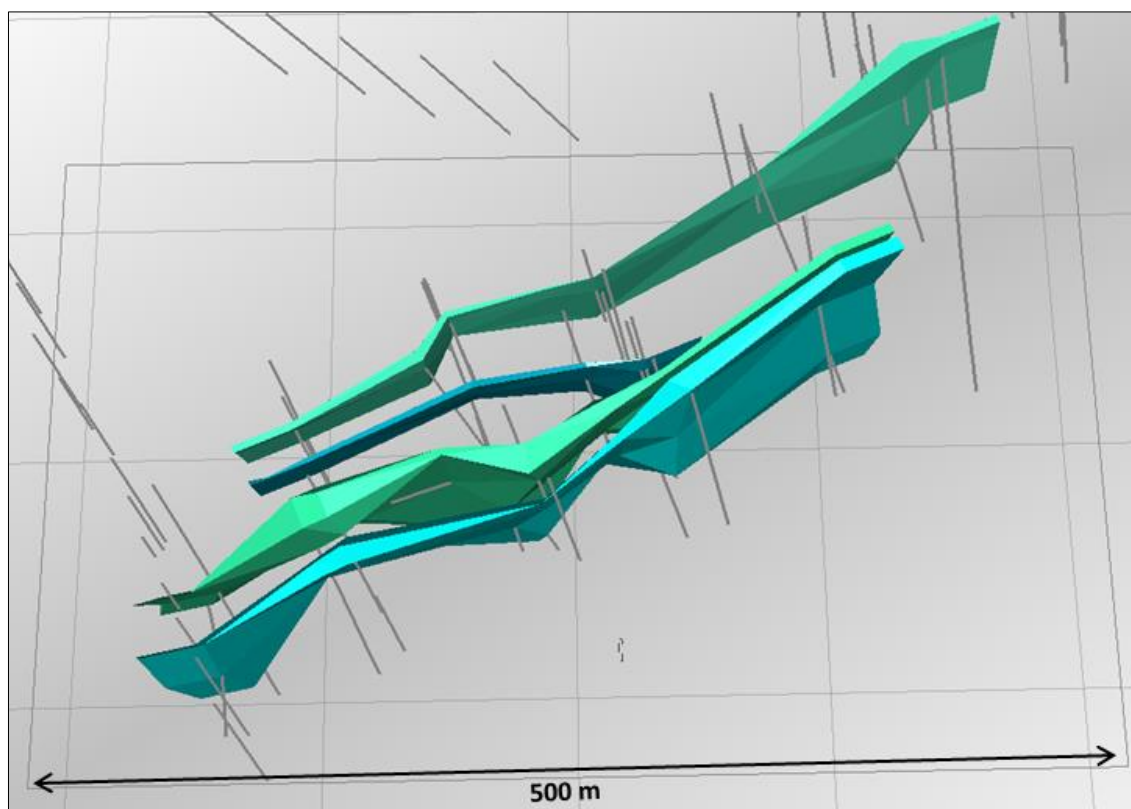
The mineralisation at Panapendesa has been defined by 14 RC drill holes for a total of 1,937m and 16 RAB drill holes for a total of 677m.

Statistical analysis indicated no relative bias between the RC and RAB drilling results.

The gold mineralisation has been interpreted using a nominal cut-off grade of 0.3 g/t gold. Three-dimensional views of the interpreted mineralisation at Simba and Panapendesa are included in **Figures 3 and 4**.



**Figure 3: 3D view of mineralised lodes at Simba – looking north-northeast**



*Figure 4: 3D view of mineralised lodes at Panapendesa – looking north*

Block grades were estimated using an ordinary kriging technique using a panel size of 20 mE by 5 mN on 10m benches at Simba and a panel size of 15 mE by 5 mN on 10m benches at Panapendesa. Following validation against the input data, this model was post-processed using local uniform conditioning to reflect selective mining units (SMU) of 5 mE by 2.5 mN by 2.5 mRL at both deposits. This resulted in a modest increase to the grade. A bulk density of 2.6 t/m<sup>3</sup> was assigned for tonnage estimation of both the syenite material at Simba and the metasedimentary sequence at Panapendesa.

The Mineral Resources have been reported above a 0.7g/t gold cut-off grade to reflect current commodity prices and potential open pit mining and processing options. The Mineral Resources have not been constrained within an open pit.

#### **Summary of JORC 2012 Compliance Tables**

The data, interpretation and estimation methodology utilised in the Mineral Resource estimates for the Simba and Panapendesa deposits are summarised below.

For detailed explanations of the Jubilee Reef Project procedures refer to Appendix 1.

#### *Geology and Mineralisation Interpretation*

At Jubilee Reef, gold is structurally controlled and hosted in a number of different settings and lithologies similar to Archaean lode style gold systems in Western Australia and Canada.

Eighteen sub-parallel lodes of mineralisation were interpreted at Simba. These dip steeply to the south and the strike orientation of the lodes changes from east-northeast to east-west to east-southeast along strike (to the east).

The main lodes of mineralisation extend over 400m along strike with some lodes interpreted to have a strike length of around 1,000m. The resource estimate generally includes mineralisation down to 150m depth and extends to a depth of 250m in the southern lodes.



At Panapendesa four sub-parallel lodes of mineralisation were interpreted with an east-west strike and a steep dip of ~70° to the north. Mineralisation extends over 400m in length and the resource estimate extends to a depth of ~140m.

Both deposits remain open along strike and at depth.

#### *Sampling Techniques*

In most instances drill holes are oriented perpendicular to the interpreted strike of the mineralised trend.

RC samples were homogenised by riffle splitting prior to sampling and then assayed as 1m intervals or 2-4m composites with 2-3kg submitted for assay. If a composite sample returned a significant result (typically >0.25g/t gold) then the individual metre intervals were also submitted for assay.

Diamond core was split by a core saw with half the core submitted for assay and the other half stored in trays on site. Samples were typically submitted as 1m intervals although within the mineralised zones irregular lengths were collected to reflect rock type and alteration intensity.

#### *Drill Techniques*

Drilling techniques used at Jubilee Reef comprise:

- Reverse Circulation (RC)/4.5-5.5", face sampling hammer
- Rotary Air Blast (RAB)/3.5-4.5" bit, open hole blade or hammer
- Aircore (AC)/ 3.5-4.5" face sampling, blade
- Diamond Core/NQ diameter, standard tube with all core oriented when feasible.

#### *Sample Preparation and Analyses*

All samples are prepared for analyses at the ALS facility in Mwanza and then sent to ALS laboratories in Australia or South Africa. Sample preparation comprises oven drying, jaw crushing and pulverising so that 85% passes 75 microns.

Gold is assayed for by ALS technique Au-OG43 (Aqua regia extraction with ICPMS finish).

#### *Validation and Classification*

The estimated gold block model grades were visually validated against the input drill hole data, comparisons were carried out against the declustered drill hole data and by northing, easting and elevation slices.

Classification for the Simba and Panapendesa Mineral Resources is based upon the continuity of geology, mineralisation and grade, using drill hole data spacing and quality, variography and estimation statistics (number of samples used, estimation pass, kriging efficiency and slope of regression).

The Mineral Resources have been classified as Inferred.

#### *Estimation Methodology*

Estimation was carried out using ordinary kriging at the parent block scale.

Three estimation passes were used; the first search was based upon the variogram ranges in the three principal directions. For Simba the second search was three times the initial search and the third search was five times the initial search, with reduced sample numbers required for estimation. For Panapendesa the second search was two times the initial search and the third search was six times the initial search, with reduced sample numbers required for estimation.

At Simba 42% of the block grades were estimated in the first pass and 53% were estimated in the second pass. At Panapendesa 14% of the block grades were estimated in the first pass and 52% were estimated in the second pass.

Post-processing of the data by local uniform conditioning was applied to estimate block grades at the selective mining (SMU) scale of 5 mE by 2.5 mN by 2.5 mRL.

#### *Reporting*

Reporting of the Mineral Resources used a gold cut-off of 0.7g/t gold to reflect potential open pit mining methods and processing options.

#### *Metallurgy*

No metallurgical assumptions have been built into the resource models.



DAVID RICHARDS  
Managing Director

30 November 2015

*The information in this report which relates to Mineral Resources for the Jubilee Reef Project is based upon information compiled by Mrs Christine Standing who is a Member of the Australasian Institute of Mining and a Member of the Australian Institute of Geoscientists. Mrs Standing is an employee of Optiro Pty Ltd and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity undertaken 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'. Mrs Standing consents to the inclusion in the report of a summary based upon her information in the form and context in which it appears.*

*The Information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company. Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Richards consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

## APPENDIX 1 - JUBILEE REEF - JORC TABLE 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>Sub surface samples have been collected by a variety of different drilling techniques (see below). Samples either comprise chips or core.</p> <p>Trench samples are collected as continuous 1-2m chip samples along floor.</p> <p>Drill holes and trenches are oriented perpendicular to the interpreted strike of the mineralised trend.</p> <p>Rock samples comprise multiple chips considered to be representative of the horizon or outcrop being sampled.</p> <p>Samples submitted for assay typically weigh 2-3kg.</p> <p>Aircore/RAB samples are collected as 1m samples from which grab samples are taken to produce a 4m composite weighing 2-3kg.</p> <p>RC samples are homogenised by riffle splitting prior to sampling and then assayed as 1m intervals or 2-4m composites with 2-3kg submitted for assay. If a composite sample returns a significant result (typically &gt;0.25g/t gold) then the individual metre intervals are also submitted for assay.</p> <p>Diamond core is split by a core saw with half the core submitted for assay and the other half stored in trays on site. Samples are typically submitted as 1m intervals although within the mineralised zones irregular lengths are collected to reflect rock type and alteration intensity.</p>
<b>Drilling techniques</b>	<p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>Drilling techniques used at Jubilee Reef comprise:</p> <ul style="list-style-type: none"> <li>• Reverse Circulation (RC)/4.5-5.5", face sampling hammer</li> <li>• Rotary Air Blast (RAB)/3.5-4.5" bit, open hole blade or hammer</li> <li>• Aircore (AC)/ 3.5-4.5" face sampling, blade</li> <li>• Diamond Core/NQ diameter, standard tube with all core oriented when feasible.</li> </ul>
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>Sample recoveries are visually estimated and recorded for each metre. To date sample recoveries have averaged &gt;95%.</p> <p>Drill collars are sealed to prevent sample loss and holes are normally drilled dry to prevent poor recoveries and contamination caused by water ingress. Wet intervals are noted in case of unusual results.</p> <p>None noted as yet.</p>
<b>Logging</b>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All drill holes are logged on 1 m intervals and the following observations recorded:</p> <p>Recovery, quality (i.e. degree of contamination), wet/dry, hardness, colour, grainsize, texture, mineralogy, lithology, structure type and intensity, vein type and %, sulphide type and %, alteration assemblage and magnetic susceptibility.</p> <p>In addition, RQD and structural orientation data are collected for diamond core.</p> <p>Logging is quantitative, based on visual field estimates</p> <p>All drill core is photographed prior to cutting.</p> <p>All holes are logged from start to finish.</p>
<b>Sub-sampling</b>	<p><i>If core, whether cut or sawn and whether quarter, half</i></p>	<p>Core is sawn with half submitted for assay.</p>

Criteria	JORC Code explanation	Commentary
<b>techniques and sample preparation</b>	<i>or all core taken.</i>	
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Non core samples are collected as 1 metre samples, riffle split and then composited by tube sampling the bags. Samples are typically dry.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories; i.e.  Oven drying, jaw crushing and pulverising so that 85% passes - 75microns.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	All sample batches include duplicates (1:20), blanks (1:50) and certified standards (1:33).
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Measures taken include: <ul style="list-style-type: none"> <li>regular cleaning of cyclones, splitters and sampling equipment to prevent contamination;</li> <li>statistical comparison of duplicate samples; and</li> <li>statistical comparison of anomalous 4m composite assays versus average of follow up 1m assays.</li> </ul>
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Comparison of anomalous duplicates and 4m v 1m assays show excellent repeatability indicating sample size is appropriate to the grain size.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories. In addition, the sample prep laboratory in Mwanza is regularly visited to ensure high standards are being maintained.  The techniques used for gold and base metals are total.
	<i>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.</i>	None used
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established</i>	Multiple certified standards with varying element contents have been purchased. Different ones are selected randomly and submitted every 33 samples.  Barren granitic material from a road quarry is submitted every 50 samples.  Duplicates are collected every 20 samples and assayed.  Comparison of results indicates good levels of accuracy and precision. No external laboratory checks have been used.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	None undertaken
	<i>The use of twinned holes.</i>	None undertaken
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Acquire database. (NB data cannot be loaded into Acquire unless it is validated first).  Hard copies are stored in the local office and electronic data is stored on the Perth server. Data is exported from Acquire for processing by a number of different software packages.  All electronic data is routinely backed up.
	<i>Discuss any adjustment to assay data.</i>	None required
<b>Location of data points</b>	<i>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.</i>	All drill holes, trenches, workings and geochemical samples are initially located using a hand held GPS.  Drill holes that will be used in Mineral Resource estimation are accurately located using a DGPS.  All RC and diamond holes have been surveyed by either a down hole camera or gyroscope.



Criteria	JORC Code explanation	Commentary
	<i>Specification of the grid system used</i>	The grid system used is ARC1960 Zone 36S; however, for reporting purposes, and to maintain confidentiality, local coordinates are sometimes used.
	<i>Quality and adequacy of topographic control.</i>	Nominal RLs based on regional topographic datasets are used initially; however, these are updated if DGPS coordinates are collected.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Varies from 400-700m spacings for trenching at Tembo to <50x50m at Simba (formerly Masabi Hill).
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	Data spacing at Simba and Panapendesa suitable for definition of Inferred Mineral Resources.
	<i>Whether sample compositing has been applied.</i>	Some drill samples are initially collected as 4 m intervals which have been composited from 1 m intervals. 1 m samples are submitted at a later date if the results from 4 m samples are considered significant based on grade and setting.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Unknown for Simba and Chela prospects where mineralisation is largely hosted by a granitoid body and not visually distinct.  At Panapendesa and Tembo prospects, drilling and trenching is oriented perpendicular to the interpreted strike of mineralisation and no bias is envisaged.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No orientation based sampling bias has been recognised; however, it is possible that drilling at Simba has drilled down and sub parallel to mineralised structures.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Company geologist supervises all sampling and subsequent storage in field. Same geologist delivers samples to ALS lab in Mwanza and receives an official receipt of delivery.  ALS Mwanza organises transport to ALS in Brisbane.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	None completed.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>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.</i>	The Jubilee Reef Project comprises 8 granted prospecting licences (PLs 4495/2007, 6168/2009, 8125/2012, 8304/2012, PL9711/2014, PL9973/2014, PL10222/2014 and PL10599/2015). The tenement package forms a contiguous, 66km <sup>2</sup> area located ~850km NW of Dar es Salaam, Tanzania. Liontown originally entered the Project via a Joint Venture agreement with Currie Rose Resources Inc in 2011 and earned 66% by sole funding exploration. In April 2013, Liontown agreed to acquire the remaining equity in the property.  All tenements with the exception of PLs 9711/2014 and 10222/2014 are in the name of Liontown Resources Tanzania Limited. PLs 9711/2014 and 10222/2014 are held by Currie Rose but are being transferred to Liontown as part of the acquisition agreement.  On mining, royalties are payable to the Tanzanian government (4% NSR) and Currie Rose (2% NSR).  There are no other material issues affecting the tenements.
	<i>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.</i>	All granted tenements are in good standing and there are no impediments to operating in the area.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	The Project has been held by Currie Rose and predecessor companies continuously since 1996. Work completed prior to Liontown includes soil sampling, prospecting, aeromagnetics, VTEM and ~15,000m drilling. This work was of high quality and

Criteria	JORC Code explanation	Commentary
		<p>defined multiple gold targets which have been the focus of Liontown's exploration activities.</p> <p>Significant results from the prior exploration have been validated by Liontown and reported in the initial ASX announcement released in early 2011.</p> <p>PL10599/2015 was previously held by Acacia Mining (formerly African Barrick Gold). Significant results from Acacia's work are discussed in the document "Quarterly Activities Report for the quarter ended 31st March 2015" which was released to the ASX and is also available on the Company's website.</p> <p>Acacia employs similar QA/QC protocols as Liontown and its data is considered reliable. Results are consistent with those obtained by Liontown immediately to the east.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Jubilee Reef Project comprises Archaean greenstone stratigraphy including volcanoclastic sediments, BIFs and basalt that have been intruded by granitoids varying in composition from diorite to syenite. The stratigraphy has been thickened by a layer parallel thrust faults that are possibly also a major control on gold mineralisation.</p> <p>Gold is structurally controlled but hosted in a number of different settings and lithologies similar to Archaean lode style gold systems mined in Western Australia and Canada.</p>
<b>Drill hole Information</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li>• <i>easting and northing of the drill hole collar</i></li> <li>• <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>• <i>dip and azimuth of the hole</i></li> <li>• <i>down hole length and interception depth</i></li> <li>• <i>hole length.</i></li> </ul>	<p>Exploration results are not being reported for the Mineral Resource area. Drillhole information is provided in the resource estimation section.</p>
<b>Data aggregation methods</b>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>Exploration results are not being reported for the Mineral Resource area.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p>	<p>Exploration results are not being reported for the Mineral Resource area.</p>
<b>Diagrams</b>	<p><i>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.</i></p>	<p>Exploration results are not being reported for the Mineral Resource area.</p>
<b>Balanced reporting</b>	<p><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be</i></p>	<p>Exploration results are not being reported for the Mineral Resource area.</p>

Criteria	JORC Code explanation	Commentary
	<i>practiced to avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<i>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.</i>	Exploration results are not being reported for the Mineral Resource area.
<b>Further work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Pending future funding

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<i>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.</i>	All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Acquire database. (NB data cannot be loaded into Acquire unless it is validated first).  Hard copies are stored in the local office and electronic data is stored on the Perth server. Data is exported from Acquire for processing by a number of different software packages.  Data validation included checking for out of range assay data and overlapping or missing intervals.
<b>Site visits</b>	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	A site visit to the Simba and Panapendesa deposits has not been undertaken by the independent consultant (Competent Person for the Mineral Resource estimate).
<b>Geological interpretation</b>	<i>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.</i>	The level of confidence in the interpretations of the mineralised domains is reflected by the Mineral Resource classification. Alternative geological interpretations may be developed with further drilling. In the Competent Person's opinion they would not significantly affect the global resource estimate, but could affect local estimates.  There are no alternative detailed interpretations of geology using the current data. The main mineralisation domains were defined using grade constraints and a nominal cut-off grade of 0.3 g/t gold was used to define boundaries between mineralised and weakly-mineralised or unmineralised domains. The interpretations were completed along sections typically at spacings of 40m to 100m and some sections are at 200m spacing. The interpretations were triangulated to form 3D solids (mineralised domains).  Eighteen sub-parallel lodes of mineralisation were interpreted at Simba. These dip at ~70° to the south and the strike orientation changes from east-northeast to east-west to east-southeast along strike (to the east).  At Panapendesa four sub-parallel lodes of mineralisation were interpreted with an east-west strike and a steep dip of ~70° to the north.
<b>Dimensions</b>	<i>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.</i>	The main lodes of mineralisation at Simba extend over 400m along strike with some lodes interpreted to have a strike length of around 1,000m. The resource estimate generally includes mineralisation down to 150m depth and extends to a depth of 250m in the southern lodes.  At Panapendesa the mineralisation extends over 400m along strike and the resource estimate extends to a depth of ~140m.  Both deposits remains open to the along strike (east-west) and at depth.

Criteria	JORC Code explanation	Commentary
<b>Estimation and modelling techniques</b>	<p><i>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.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p> <p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></p>	<p>Drillhole sample data was flagged from three dimensional interpretations of the mineralised domains. Sample data was composited to a 1m downhole length.</p> <p>The data within each domain generally has a low to moderate coefficient of variation (0.72 to 1.62). A few outlier grades were noted and a top-cut grade of 12.0 g/t gold was applied.</p> <p>Gold mineralisation continuity was interpreted from variogram analyses to have a down plunge range of 30 m and a down dip range of 100m at Simba and a down plunge range of 14m and a down-dip range of 63m at Panapendesa. Perpendicular ranges of 5m at Simba and 3.5m at Panapendesa were interpreted.</p> <p>At Simba the drillhole spacing ranges from 40m to 100m along strike, with some sections at a spacing of 200m. On-section spacing ranges from 25m to 50m. Maximum extrapolation distance is 25m along strike and up to 70m depth, in line with intersections from deeper drillholes.</p> <p>The mineralisation at Panapendesa is defined by 6 lines of drilling at a spacing of 60m to 100m along strike. On-section spacing ranges from 15m to 25m. Maximum extrapolation distance is 25m along strike and up to 40m depth, in line with intersections from deeper drillholes.</p> <p>Grade estimation was into parent blocks of 20 mE by 5 mN on 10m benches at Simba and into parent blocks of 15 mE by 5 mN on 10m benches at Panapendesa.</p> <p>Estimation was carried out using ordinary kriging at the parent block scale.</p> <p>Three estimation passes were used; the first search was based upon the variogram ranges in the three principal directions. For Simba the second search was three times the initial search and the third search was five times the initial search, with reduced sample numbers required for estimation. For Panapendesa the second search was two times the initial search and the third search was six times the initial search, with reduced sample numbers required for estimation.</p> <p>At Simba 42% of the block grades were estimated in the first pass and 53% were estimated in the second pass. At Panapendesa 14% of the block grades were estimated in the first pass and 52% were estimated in the second pass.</p> <p>Post-processing of the data by local uniform conditioning was applied to estimate block grades at the selective mining (SMU) scale of 5 mE by 2.5 mN by 2.5 mRL.</p> <p>The estimated gold block model grades were visually validated against the input drillhole data, comparisons were carried out against the declustered drillhole data and by northing, easting and elevation slices.</p>
<b>Moisture</b>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnes have been estimated on a dry basis. Moisture content has not been determined.
<b>Cut-off parameters</b>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The Mineral Resource is reported above a 0.7 g/t gold cut-off grade to reflect current commodity prices and potential open pit mining methods and processing options.
<b>Mining factors or assumptions</b>	<i>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</i>	<p>Planned extraction is by open pit mining.</p> <p>Mining factors such as dilution and ore loss have not been applied.</p>

Criteria	JORC Code explanation	Commentary
	<i>mining methods and parameters when estimating Mineral Resources may not always be rigorous.</i>	
<b>Metallurgical factors or assumptions</b>	<i>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.</i>	No metallurgical assumptions have been built into the resource models.
<b>Environmental factors or assumptions</b>	<i>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.</i>	The Simba and Panapendesa deposits are at an early stage of evaluation and environmental studies have not yet been undertaken.
<b>Bulk density</b>	<i>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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	No bulk density measurements have been taken at Simba or Panapendesa.  An in-situ bulk density of 2.6 t/m <sup>3</sup> was applied to the resource estimate.  In situ specific gravity values are appropriate for syenite at Simba and the mixed metasedimentary units at Panapendesa.
<b>Classification</b>	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <ul style="list-style-type: none"> <li><i>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).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	Classification for the Simba and Panapendesa Mineral Resources is based upon the continuity of geology, mineralisation and grade, using drillhole data spacing and quality, variography and estimation statistics (number of samples used, estimation pass, kriging efficiency and slope of regression).  The Mineral Resources are classified as Inferred.  The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	The resource estimates have been internally reviewed by Optiro staff.
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	The assigned classification of Inferred reflects the Competent Person's assessment of the accuracy and confidence levels in the Mineral Resource estimate.  The confidence levels reflect production volumes on an annual basis.