

- First JORC diamond resource supports alluvial mining operations for ~4 years

### **KEY POINTS**

- Independent JORC diamond resource estimate confirms the extent and quality of the alluvial diamond deposits at Lulo
- Maiden resource estimate sufficient to support diamond mining for approximately 4 years at 20,000 bulk cubic metres per month
- First resource estimate covers less than 10% of the alluvial mining licence area
- Resource points to the potential of the Mining Block 8 and E46 alluvial diamond areas
- Multi-purpose drill rig purchased for resource extension work at Mining Block 8 and E46 in 2016
- Drill rig will also be used in priority kimberlite exploration program at L259, L13 and L15, which are considered potential kimberlite sources of the exceptional diamonds being recovered from Mining Block 8



14.28ct pink diamond recovered from Mining Block 8

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15 December 2015

Lucapa Diamond Company Limited (**ASX: LOM**) ("Lucapa" or "the Company") is pleased to announce a maiden JORC Diamond Resource Estimate ("Diamond Resource") at the Lulo Diamond Concession in Angola.

The JORC inferred Diamond Resource (Table 1) has been independently validated by ZStar Mineral Resource Consultants (Pty) Ltd of Cape Town, South Africa (Z\*). The maiden Diamond Resource excludes any zones disturbed by prior artisanal mining activity and is already depleted for mining activities and reconciled to the end of October 2015.

The Diamond Resource covers less than 10% of the alluvial diamond mining licence area at Lulo and is based primarily on limited historical geological sampling work and recent Mining Block 8 extension pitting.

Lucapa and its partners plan to update the maiden Diamond Resource in 2016 and have already purchased a multi-purpose mobile drill rig with both diamond and augur capability for resource extension drilling at Mining Block 8 and the E46 alluvial terraces.

This drill rig will also be used in the ongoing kimberlite exploration program at the priority L259 kimberlite adjoining Mining Block 8 and the proximal L13 and L15 kimberlites (See ASX announcement 23 November 2015).

The depleted insitu Diamond Resource volume (with an assumed mining dilution of 20cm and an assumed swell factor of 1.1) is sufficient to sustain approximately 4 years of alluvial diamond mining operations at Lulo at 20,000 bulk cubic metres (bcm) per month.

Lucapa Chief Executive Officer Stephen Wetherall said Lucapa welcomed the maiden Diamond Resource independently compiled by Z\*.

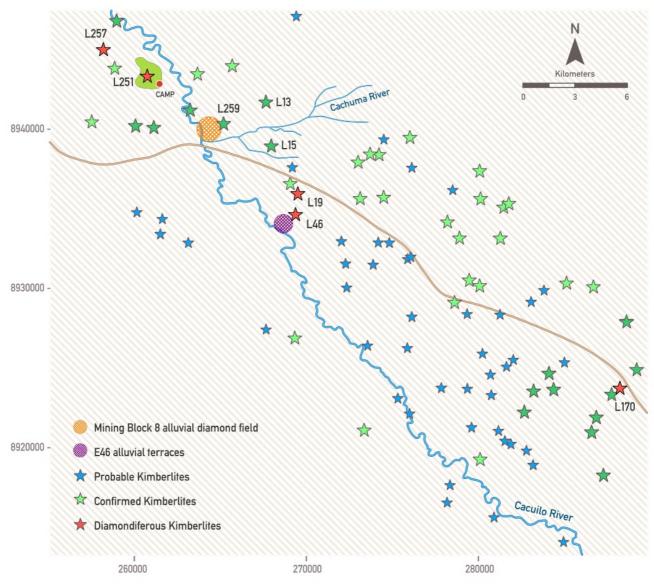
"This Diamond Resource confirms the extent and quality of the alluvial diamond deposits at Lulo and also points to the high potential of the Mining Block 8 and E46 areas. We are planning further resource delineation and development activities in 2016 to extend the JORC Diamond Resource in these priority areas. Our immediate focus remains the L259/Mining Block 8 area - where alluvial mining and kimberlite activities continue - and assessing treatment options for the E46 alluvial terraces, which are located about 18km south of the 150 tonne per hour diamond processing plant."

JORC classification	Sector	Thickness (m)	Area (m²)	lnsitu volume (m³)	Grade (stns /m³)	cts/stn	Stones	Carats	Insitu grade (cphm³)	Modelled value (USD)*
Inferred	5	0.44	96,200	10,400	0.11	0.95	1,200	1,100	10.58	\$781
	4	0.33	60,000	17,699	0.05	1.04	2,600	1,800	9.09	\$781
	5N	0.64	80,000	51,200	0.06	1.13	3,000	3,400	6.64	\$781
	4 MB08	0.57	255,575	120,001	0.06	1.48	6,900	9,700	8.23	\$931
	46	0.4	331,800	132,700	0.18	0.97	24,100	23,400	17.63	\$781
	1	0.60	363,700	218,200	0.07	0.82	14,300	11,700	5.36	\$781
Total		 , , ,	1,187,275	550,200	0.09	1.02	52,100	51,000	9.27	\$806

Average realised sales may be significantly higher in value than the modelled values shown above

Bottom screen size: effective -1.5mm

Table 1: Inferred and depleted alluvial resource as at 31 October 2015

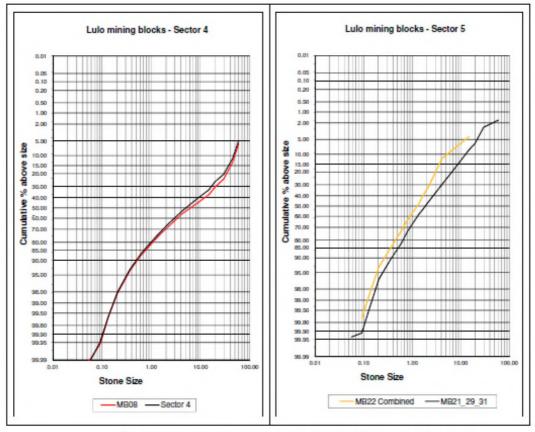


Map indicating Mining Block 8 and E46 alluvial areas

The Z\* maiden Diamond Resource (Table 1) used an average overall diamond price of US\$806 per carat, which compares with an average overall selling price of US\$1,532 per carat achieved to date from the sale of seven parcels of Lulo diamonds from all activities.

The other variables estimated for the six separate zones in the Diamond Resource were the grade or stone density (stones per metre cubed or stones/m<sup>3</sup>), stone size (carats per stone or carats/stone) and modelling of appropriate size frequency distributions (Figure 1). The estimate was insitu zonal type by nature, with volume weighted due to the variable sample support.

The average gravel thickness was assessed at 0.5m (0.3m minimum to 0.6m maximum).



Combined size frequency distributions per Sector 4 (left) and Sector 5 (right)

Figure 1: Reconciled size frequency distributions as applied in mining reconciliation

The maiden Diamond Resource model has been reconciled and depleted against mining production to date by  $Z^*$  and comprises:

- A total of 73,397m<sup>3</sup> gravels mined to the end of October 2015, with 6,686 carats recovered at an average stone size of 1.14 carats per stone (which is higher than the average stone size in the Diamond Resource);
- The average recovered stone density is 0.08 stones/m<sup>3</sup> (which is marginally lower than the estimated average of 0.09 stones/m<sup>3</sup> in the Diamond Resource );
- In Sector 5, the average stone density through sampling was 0.09 stones/m<sup>3</sup> compared to an average of 0.11 stones/m<sup>3</sup> in mining; and
- Similarly the average stone size recovered during mining was 0.95 carats/stone against 0.96 carats/stone from bulk sampling.

The Z\* report noted: "These trends confirm the Inferred Level of classification confidence in an estimate that exhibits a reasonable level of accuracy."

For and behalf of the Board.

#### STEPHEN WETHERALL CHIEF EXECUTIVE OFFICER

#### ABOUT LUCAPA

Lucapa Diamond Company Limited operates the Lulo Diamond Project in Angola's Lunda Norte diamond heartland. The 3,000km<sup>2</sup> Lulo Diamond Concession is located within 150km of Catoca, the world's fourth biggest kimberlite diamond mine, and on the same favourable geological trend (Lucapa Graben).

Lucapa and its partners commenced alluvial diamond mining operations at Lulo in January 2015 and have successfully scaled up mining and processing operations to 20,000 bulk cubic metres per month.

The Lulo alluvial diamonds sold to date have achieved exceptional average sale prices of A\$1,910 per carat.

Lulo also hosts 296 kimberlite targets in two separate provinces, of which 97 have already been classified as proven and probable kimberlites and five confirmed as diamond-bearing pipes.

Lucapa's board and management team has extensive diamond mining experience with companies including De Beers, Rio Tinto and Gem Diamonds. Lucapa operates Lulo in partnership with Endiama, the Angolan Government's diamond concessionary, and private group Rosas & Petalas.

Lucapa is dual listed on the Australian Securities Exchange and the Frankfurt Stock Exchange.

#### ABOUT ANGOLA

Angola is the world's fourth biggest producer of diamonds by value with forecast annual production of 10 million carats in 2014.

Angola introduced a new Mining Code in 2012 and is actively seeking foreign investment in its diamond industry.

Angola's potential for new diamond discoveries has been recognised by the world's two biggest diamond mining companies, Alrosa and De Beers.

Angola was appointed to chair the Kimberley Process Certification Scheme in 2015.

#### **Competent Person's Statement**

Information included in this announcement that relates to previously released exploration data disclosed under JORC Code 2012. The information has not materially changed since it was last reported and is based on and fairly represents information and supporting documentation prepared and compiled by Albert Thamm MSc FAusIMM (CP), who is a Corporate Member of the Australasian Institute of Mining and Metallurgy. Mr Thamm is a Director of Lucapa Diamond Company Limited. Mr Thamm has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Thamm and consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

Information included in this announcement that relates to the stone frequency, grade and size frequency valuation and validation in the alluvial resource estimate is based on and fairly represents information and supporting documentation prepared and compiled by Sean Duggan (Pri.Sci.Nat 400035/01) and David Bush (Pri.Sci.Nat 400071/00). Messers Duggan and Bush are Directors and employees of ZStar Mineral Resource Consultants (Pty) Ltd, of Cape Town, South Africa. Both hold qualifications and experience such that both qualify as members of a Recognised Overseas Professional Organisation (ROPO) under relevant ASX listing rules. Mr Duggan and Mr Bush have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Both Mr Duggan and Mr Bush consent to the inclusion in the announcement of the matters based on this information in the form and context in which it appears

#### **Forward-Looking Statements**

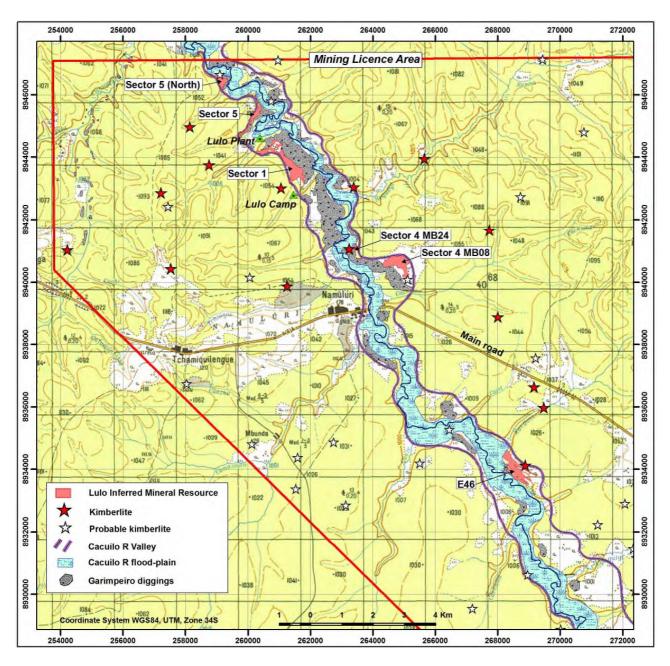
This announcement has been prepared by Lucapa Diamond Company Limited. This document contains background information about Lucapa Diamond Company Limited and its related entities current at the date of this announcement. This is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement. This announcement is for information purposes only. Neither this document nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction.

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Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, Lucapa Diamond Company Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this document or any changes in events, conditions or circumstances on which any such forwardlooking statement is based.

#### Appendix 1



### Mining Block and JORC Diamond Resource Map

### Appendix 2

### Reporting of diamond exploration results and diamond resource estimates for the Lulo Project - JORC Code (2012) requirements -

#### Depleted, Inferred alluvial diamond resource as at 31 October 2015 Sampling Techniques and Data

Criteria	JORC Code Explanation	Lucapa Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. 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.</li> </ul>	<ul> <li>Bulk sample results were reported to JORC 2012. The bulk samples were collected from surface excavations using an excavator and trucks. For alluvial samples overburden of Kalahari sand, Calonda Formation sand and silt were stripped and basal Calonda and Calonda like gravel exposed. The gravels together with some underlying basement material (&lt;30cm) was excavated.</li> <li>The current sampling is grade control by nature and generally is seeking to identify diamondiferous lithologies. Samples are relatively large (typically &gt;100m<sup>3</sup>) and by their nature are representative.</li> <li>Diamonds occur in very low concentrations in most lithologies. They also occur as discrete crystal particles and these must be physically separated and recovered to determine grade. Individual diamonds are unique and their value depends on factors including size, shape, colour and clarity. Large samples (tens to hundreds of tonnes) are required to identify the presence of commercial diamonds. Samples in the order of tens of or hundreds of thousands of tonnes are required to establish reliable grade and value for diamond deposits</li> </ul>
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.).	• No drilling is reported in this document.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>No new drilling is reported in this document</li> <li>Sample recovered using an excavator and front-end loader. Sample area visually inspected and all gravels excavated to basement. For kimberlite samples all materials within the sample interval are processed</li> <li>No relationship appears to exist between sample recovery and grade. All material within the sampled interval is collected for treatment.</li> </ul>
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.	<ul> <li>Sample pits are lithologically logged and measured to determine volumes.</li> <li>Logging is semi-quantitative with edge thicknesses measured of the entire pit. Pits are photographed, but the photography is not systematic.</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	All excavated faces of the pits are logged
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Not core. No sub-samples are taken. Al material excavated is processed to recove diamonds.</li> <li>Most of the samples are excavated dry and al material is taken.</li> <li>The sampling and sample preparation are identical to those that would be used fo mining and are considered appropriate for this type of sampling.</li> <li>Samples are disaggregated during excavatior and washed through a scrubber. The process is identical to that which would be used fo mining and results are considered representative.</li> <li>Sample size is appropriate for the materia being sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples are processed through a Dense Media Separation (DMS) plant. Recovery in the size fractions used on the plant is considered total.</li> <li>Samples are processed through the Company's DMS Plant to produce a heavy concentrate Diamonds are recovered from the heavy concentrate using a Flowsort x-ray sorting machine followed by visual sorting.</li> <li>DMS efficiency is monitored using density beads</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No verification of sample data at an independent facility has been undertaken due to the very large size of the samples.</li> <li>A total of 714 stones from 13 representative bulk samples from 9,044m<sup>3</sup> were utilised.</li> <li>Twinned holes not applicable</li> <li>Entry of primary data has been checked and loaded into a sampling spreadsheet.</li> <li>Assay data are not adjusted</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sample sites were located using a hand held GPS with a nominal accuracy of about 5m.</li> <li>The grid system is WGS84 Zone 34L</li> <li>Topographic control uses Digital Terrain Models collected during aeromagnetic surveys In pit measurements are recorded with tape measures.</li> <li>See Appendix 1 for location of mining blocks.</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data in this report comes from individual pits where all the material from that pit has been, or will be processed.</li> <li>The pit spacing is currently related to exploration and is appropriate for Diamond Resource estimation.</li> <li>Sample compositing has not been applied</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The samples are considered spot samples within either an alluvial or kimberlitic body.</li> <li>Insufficient data exists to determine whether sample bias is present but given the nature of the body, bias is considered unlikely. Independent review opines the bulk samples, which are considered representative.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Sample stockpiles are located near the company's processing facility and are guarded by armed security personnel at all times.</li> <li>Security of processing and diamond recovery is monitored by company and Angolan State Diamond Security personnel.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>The sampling techniques are industry standard and audits or reviews have been undertaken to validate the maiden Diamond Resource.</li> </ul>

## **Reporting of Exploration Results**

Criteria	JORC Code Explanation	Lucapa Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The 1994 legislation covering the Angolan diamond industry stipulates that only ENDIAMA (Empresa Nacional de Diamantes de Angola, the State Diamond Company) or joint ventures with ENDIAMA, can hold diamond mining rights awarded by the Council of Ministers.</li> <li>Under the terms of the Lulo Joint Venture Association Agreements, separate titles are granted for alluvial and kimberlite mining. The exploration for both alluvials and kimberlites on the Lulo Concession is a requirement under the Act.</li> <li>The Angolan Government Gazette, dated 24 December 2007, authorized the formation of a Joint Venture for the exercise of prospecting, evaluation and mining of secondary (alluvial) diamond deposits. These rights were granted for a maximum period of five years. Should the Joint Venture wish to extend the agreement beyond five years, then 50% of the Concession would be relinquished. The equity distribution is: ENDIAMA 32%, Lucapa Diamond Company Ltd 40%, Rosas e Petalas S.A. 28%</li> <li>In May 2014, the authorization for the</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
		<ul> <li>kimberlite exploration and mining was gazetted. The equity distribution is: ENDIAMA 51%, Lucapa Diamond Company Ltd 39%*, Rosas e Petalas S.A. 19% (*This interest will be reduced to 30% after recoupment of the investment.).</li> <li>The Joint Ventures Alluvial licence was extended for two years to 25 May 2016. The application to extend Kimberlite Licence for two years until 25 May 2016 was also granted to the concession by the Angolan Ministry of Mines.</li> <li>A new 10 year alluvial mining title was awarded end July 2015 creating "Sociedade Mineira Do Lulo, LDA.", an Angolan incorporated company uth which Lucapa Diamond Company Ltd has a 40% beneficial interest.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Limited exploration has been undertaken by state controlled entities.</li> <li>Parts of the area have been exploited by artisanal miners - no records of this work are available.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Significant diamond bearing alluvial systems, of Mesozoic to Recent ages overlie a major, but relatively poorly explored, kimberlite field. The kimberlite pipes intrude flat-lying Karoo sediments within the Lucapa Graben. The kimberlite field is believed to be the source of the alluvial diamonds.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth hole length.</li> <li>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.</li> </ul> </li> </ul>	<ul> <li>No new drilling is reported in this document.</li> <li>The location of the sample pits is shown on maps within this report. The maps provide data on the location and relative elevations of the samples. The sample pits are surface excavations and other data required in the code is not material and its exclusion does not detract from the understanding of the report.</li> <li>Drillhole information are not pertinent to bulk sampling results.</li> <li>Bulk sampling results were reported in toto.</li> <li>No material information has been excluded.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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</li> </ul>	<ul> <li>No weighting, averaging, grade truncations or cut-off grades have been used.</li> <li>No short or long length aggregation applicable.</li> <li>No metal equivalent values are used</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
	<ul> <li>shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Results quoted are from surface pits. For the alluvial sample, the entire gravel horizon was sampled.</li> <li>Non-drillhole, in pit sampling, not applicable length concepts.</li> </ul>
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.	<ul> <li>Appropriate map and plans for the reported mineralisation with scale and north points are included with the text of the report at Appendix 1.</li> </ul>
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.	<ul> <li>Results reported are complete.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Previously reported drilling, pitting and bulk sampling data were used to site bulk sample pits. The collar locations of drill holes, exploration pits and bulk samples are shown on diagrams within the report</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further excavation and processing of material from the MB08 north and south and E46 area is planned and ongoing results will be reported on completion.</li> </ul>

## Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Lucapa Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data in particular diamond quantity, assortment &amp; size frequency distribution (SFD) and value cross checked between different CP's.</li> <li>The bulk sampling dataset is small compared to other forms of exploration data.</li> <li>External data validation has occurred.</li> </ul>
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those	• A site visit by the Competent Person was undertaken in January 2015

Criteria	JORC Code explanation	Lucapa Commentary
	<ul> <li>visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geology mapped in bulk sample pits and gravel thicknesses are estimated from separate systematic excavated and hand dug pits surrounding the bulk sample sites.</li> <li>The data are thickness and type, facies and relative age, and carats per hundred cubic metres recovered or stones per cubic metres recovered.</li> <li>Geostatistical methods are difficult to apply/not applicable as alluvial diamond concentrations are pure nugget effect.</li> <li>Gravel thickness and stones per cubic metre are the controlling factors in guiding the Diamond Resource estimate</li> <li>Sedimentary gravel facies (types) and contacts affect both the grade and continuity of the diamondiferous gravel zones.</li> </ul>
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.	<ul> <li>Each gravel zone is delineated in plan from bulk sample and smaller hand dug or excavated pits to determine lateral extent. Gravel thickness are measured directly from pits and trenches.</li> </ul>
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process</li> </ul>	<ul> <li>Estimation of volume thickness and variability as well as recovered stones per cubic metre are the standard industry methods for alluvial diamond estimation.</li> <li>On completion the estimate was reconciled against ten months actual mining and recovery.</li> <li>There are no by-products.</li> <li>There are no deleterious by products.</li> <li>Block model interpolation is not applied.</li> <li>Geology is assumed to be continuous across six separate gravel/conglomerate horizons as demonstrated by adjacent pits either hand dug or excavated.</li> <li>The only pertinent variables are stones per cubic metre and volume, these are not assumed but measured.</li> <li>The planar and vertical distribution of gravels controls the geological extent of the Diamond Resource estimate.</li> <li>Grade capping is not an applicable concept.</li> <li>Reconciliation is the primary method of validation, the bulk samples and zone estimates are reconciled against mining production. Recovered average stone size and grade (stones/cubic metre) as well as in-situ volume are the reconciled factors.</li> <li>Grade capping is not an applicable concept.</li> <li>Reconciliation and depletion of the Diamond Resource has been undertaken.</li> </ul>

Criteria	JORC Code explanation	Lucapa Commentary
	used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>The Diamond Resource estimate does take account of mining prosuction data.</li> </ul>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method	<ul> <li>Estimates are of bulked or Insitu cubic meters to negate the effect of moisture.</li> </ul>
	of determination of the moisture content.	<ul> <li>Global density of 2.1 was applied to the gravel volume in all six estimation areas.</li> </ul>
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	Refer to diamond section below.
Mining factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>None applied to the Inferred Diamond Resource. The Diamond Resource is reported Insitu, depleted and reconciled for mining to end October, 2015</li> <li>Based on modelled SFD the revenue carat value estimate is US\$42.07 million dollars (A\$58.43 million @ an exchange rate of US\$0.72 to A\$1). Note: actual prices received have been materially higher.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>The production plant has been the sampling plant since late 2013, the same metallurgical factors i.e. bottom screen size, apply.</li> </ul>
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.	<ul> <li>No environmental assumptions are made. Reasonable prospects for eventual economic extraction are the award of a 10 year mining lease and actual records of ten months mining and diamond sales. The Diamond Resource is under actual extraction.</li> </ul>
Bulk density	<ul> <li>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.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.),</li> </ul>	<ul> <li>Bulk density measurements were performed using the Archimedes method.</li> <li>Alluvial estimation methods use volume, not density as industry practice.</li> <li>The methods applied are industry practice.</li> <li>Bulk density is not assumed but measured.</li> </ul>

Criteria	JORC Code explanation	Lucapa Commentary	
	<ul> <li>moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>		

Criteria	JORC Code explanation	Lucapa Commentary
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Classification was based on numerous factors including; Modelled assortment, Modelled size frequency distribution, Number of samples, Geological continuity, Mining reconciliation. The amount of carats and stones recovered so far and values obtained in commercial sales by tender.</li> <li>The resultant Diamond Resource estimation reflects the Competent Person's view of the deposit and is classified as "Inferred".</li> </ul>
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The Diamond Resource estimate was peer reviewed by an internal second competent person, (Dr J. A. Grills, Pr.Sci. Nat.) and externally by Albert. G. Thamm, FAusIMM, CP(Management)
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to</li> </ul>	<ul> <li>The Diamond Resource estimate has been tested by reconciliation between the model and mining reconciliation and diamond sales, over a period of ten months.</li> <li>Geostatistical methods are NOT applied.</li> <li>Both recovered stone size and grade (as stones per cubic meter) reconcile well within an inferred resource classification and mining over 10 months.</li> <li>The Diamond Resource estimates are not global, but zonal within district gravel zones, as reported.</li> <li>The Diamond Resource estimate has been reconciled with production data</li> <li>Average reconciled mining grade exceeds or is similar sample grades.</li> </ul>

JORC Code explanation	Lucapa Commentary
<ul> <li>technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	Sector 5: mining versus sample grade 0.200 0.180 0.160 0.140 0.120 0.0000 0.0000 0.0000 0.0000 0.
	Comparison of sampling and mining stone grade (stns/m <sup>3</sup> ) in Sector 5 Sector 5: mining versus sample stone size 120 100 100 0,920 0,920 0,920 0,620 Dec-14 Feb-15 Apr-15 May-15 Jul-15 Sep-15 Oct-15 Production period Mining stone-size (cts/stn) Avg sample stone size - Avg stone size (mining) Comparison of sampling and mining average stone size (cts/stn) in Sector 5 • The relative accuracy and confidence of the Diamond Resource
	estimate is compared with production data and is tabulated below:
	<ul> <li>technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production</li> </ul>

Criteria	JORC Code Explanation	Lucapa Commentary
Indicator minerals	<ul> <li>Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.</li> </ul>	<ul> <li>Historical soil samples were collected from hand-dug prospecting pits approximately 0.7m deep</li> <li>Indicator minerals were concentrated and recovered in the field by hand panning of samples.</li> <li>Indicator grains were identified and counted but are not relevant to alluvial grade estimates.</li> <li>Indicators are useful primarily in kimberlite exploration.</li> </ul>
Source of diamonds	• Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.	<ul> <li>The diamonds reported have a variety of sizes, shapes and colours. The diamonds were recovered from alluvial gravels of the Mid-Cretaceous Calonda or more recent Calonda like conglomerate. These are essentially fanglomerates and braided stream sediments. At Lulo the primary, kimberlitic source of the diamonds are believed to be kimberlites located within the Lulo Concession.</li> <li>As described in the report secondary diamonds were sourced from adjacent/ nearby sub-cropping kimberlite intrusions which have been eroded and have shed diamonds into elevated terraces and pediments, older than the current Cacuilo River.</li> </ul>
Sample collection	<ul> <li>Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (e.g. large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).</li> <li>Sample size, distribution and representivity.</li> </ul>	<ul> <li>Samples reported are bulk samples of alluvial gravels. The samples are designed to determine whether the units sampled are diamondiferous and to what extent. The samples are also designed to determine stone size distribution and eventually diamond values.</li> <li>Lucapa and its JV partners are conducting exploration activities to locate diamondiferous lithologies. The sample size, distribution and representivity are appropriate for this activity.</li> </ul>
Sample treatment	<ul> <li>Type of facility, treatment rate, and accreditation.</li> <li>Sample size reduction. Bottom screen size, top screen size and re-crush.</li> <li>Processes (dense media separation, grease, X-ray, hand-sorting, etc.).</li> <li>Process efficiency, tailings auditing and granulometry.</li> <li>Laboratory used type of process for micro diamonds and accreditation.</li> </ul>	<ul> <li>Samples are processed through a DMS plant. The plant uses a 420mm diameter cyclone and has a nominal head feed treatment rate of 150 tonnes per hour. The plant is not accredited.</li> <li>Samples are disaggregated during excavation and washed through a scrubber. The bottom screen size is 1.2mm (slotted) (1.5mm effective) and the top size is 32mm.</li> <li>The recovery process involves DMS separation, X-ray sorting of the heavy concentrate and hand sorting of the X-ray concentrate. Larger diamonds are characterised using a ZVI Yehuda F1000 Colorimeter.</li> <li>Lulo are processing the material through a recently commissioned DMS plant. Processing efficiency has been demonstrated in density bead recovery tests. Tails auditing and granulometry studies have not been completed.</li> <li>Microdiamonds are not reported.</li> </ul>

Estimation and Reporting of Diamonds and Other Gemstones

Criteria	JORC Code Explanation	Lucapa Commentary
Carat	• One fifth (0.2) of a gram (often defined as a metric carat or MC).	Reported as carats.
Sample grade	<ul> <li>Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.</li> <li>The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume to weight basis for calculation.</li> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne).</li> </ul>	<ul> <li>Sample grade is quoted in the text in units of stones per cunic metre, carats per stone and carats per 100 cubic metres for alluvials.</li> <li>For the purposes of estimation stones per hundred cubic metres are reported.</li> <li>A nominal 2.1 tonnes per cubic metre is ascribed to the alluvial gravels and weathered kimberlite. Limited density measurements have been made and the use of an "average" density is considered appropriate for the stage of exploration.</li> <li>The table in the report reports average carats per stone and carats per unit volume. Stones per cubic metres, insitu, can be calculated from the reported data.</li> <li>Stone frequency (stones per cubic metre), stone size (carats per 100 cubic metres).</li> </ul>
Reporting of Exploration Results	<ul> <li>Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry.</li> <li>Sample density determination.</li> <li>Per cent concentrate and undersize per sample.</li> <li>Sample grade with change in bottom cut-off screen size.</li> <li>Adjustments made to size distribution for sample plant performance and performance on a commercial scale.</li> <li>If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.</li> <li>The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated.</li> </ul>	<ul> <li>Exploration results are reported in summary (ASX LOM: Annual Report 2014, p.4) in the text of that report, and prior JORC reporting.</li> <li>The density for alluvials and has been determined at 2.1 tonnes per cubic metre. This number was measured for previous samples and has been applied throughout.</li> <li>Percent concentrate and undersize have not been measured and are not considered material to the understanding of this report.</li> <li>Variation in grade with changes in bottom cutoff screen size has not been determined. Lulo's original and smaller plant was considered to be a pilot plant and the plant parameters were the same as would have been used in a commercial plant. The second and larger 150tph plant was commissioned in November 2013 and this plant is used for the commercial alluvial production as well as treatment of bulk samples.</li> <li>Geostatistical studies have not been undertaken because of the relatively small number of diamonds recovered and uncertainties of using this data for alluvial deposits.</li> <li>The total weight of diamonds recovered is reported in the text as are the upper and lower cut-off sizes.</li> </ul>

Criteria	JORC Code Explanation		Lucapa Commentary
Grade estimation for reporting Mineral Resources and Ore Reserves	<ul> <li>Description of the samp arrangement of drilling for grade estimation.</li> <li>The sample crush size that achievable in a plant.</li> <li>Total number of diamo specified and reported lo specified and reported lo</li> <li>Total weight of diamo specified and reported lo</li> <li>The sample grade abo cut-off sieve size.</li> </ul>	or sampling designed and its relationship to commercial treatment onds greater than the ower cut-off sieve size. onds greater than the ower cut-off sieve size.	<ul> <li>Diamond Resources are included in the report. See text above. No Diamond Reserves are reported.</li> </ul>
Value estimation	<ul> <li>Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.</li> <li>To the extent that such information is not deemed commercially sensitive, Public Reports should include:         <ul> <li>diamonds quantities by appropriate screen size per facies or depth.</li> <li>details of parcel valued.</li> <li>number of stones, carats, lower size cut-off per facies or depth.</li> </ul> </li> <li>The average \$/carat and \$/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value.</li> <li>The basis for the price (e.g. dealer buying price, dealer selling price, etc.).</li> <li>An assessment of diamond breakage.</li> </ul>	<ul> <li>plant. Total liberatio</li> <li>Value has been mode</li> <li>Much of the detaile commercially sensitiveleased in advance</li> <li>Broad details of the</li> <li>The seventh parcel of at the time the value</li> <li>The seventh parcel of at the time the value</li> <li>The bottom cut-off screen (1.5mm effect</li> <li>Values are reported</li> <li>The price quoted is the value achieves and the time the value at the time the value at the transmet of the screen (1.5mm effect)</li> <li>Values are reported is the values are reported is the price quoted is the No significant diame</li> <li>Average modelled values achieves achieves and the screen state of the screen scr</li></ul>	parcel valuations are included in the text. of diamonds sold includes all diamonds held by Lulo ation was undertaken (November 2015). f used is the same as the plant – 1.2 mm slotted stive). in US and/ or Australian Dollars. the average sale price per carat. ond breakage was recognised. alue is US\$806 per carat. ieved in commercial sales (seven actual diamond A\$1 910). are commercial dealer buying prices. y analysis and value were modelled by: the Analyst (Z*) be Nationale Supérieure des Mines de Paris, France, with a DEA in Geostatistics of the Witwatersrand, South Africa (1980). He has in excess of twenty years' al resource estimation and classification. A significant proportion of this experience ond deposits. He is currently a director of Z Star Mineral Resource Consultants costatistical Association of South Africa. David qualifies as a competent person as for Reporting of Mineral Resources and Ore Reserves' (SAMREC) and is registered he South African Council for Natural Scientific Professions (Registration No. t. ce Analyst (Z*) with a BSc degree in Geology, in 1985 with a BSc Honours degree in ersity of Stellenbosch, South Africa and in 1994 was awarded an MSc degree in for Meynes of the Witwatersrand. He has been directly involved in the ineralised placer deposits for the last 30 years and base metal deposits ember of the Geological Society of South Africa, the Geostatistical Society of a Professional Natural Scientist with the South Africa Charl Marce Analyst and

Criteria	JORC Code Explanation	Lucapa Commentary
Security and integrity	<ul> <li>Accredited process audit.</li> <li>Whether samples were sealed after excavation.</li> <li>Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.</li> <li>Core samples washed prior to treatment for micro diamonds.</li> <li>Audit samples treated at alternative facility.</li> <li>Results of tailings checks.</li> <li>Recovery of tracer monitors used in sampling and treatment.</li> <li>Geophysical (logged) density and particle density.</li> <li>Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.</li> </ul>	<ul> <li>There has been no accredited process audit.</li> <li>Samples were monitored by armed guards after excavation and the process operation was monitored by Angolan State Diamond Security personnel.</li> <li>Diamonds recovered are stored in a locked vault or in vaults in Sodiam's secure offices in Luanda. The diamonds have not yet been cleaned or valued.</li> <li>Microdiamonds were not processed.</li> <li>No audit samples were collected because of the size of the bulk samples.</li> <li>Tailings have not been checked.</li> <li>Tracer monitors were used in sample treatment with tracer recovery in all tested size fractions &gt;95% for tracers of density 3.5 g/cc.</li> <li>Geophysical densities were not determined.</li> <li>Gross validation of weights with hole volume and density is not considered appropriate for the stage of exploration.</li> </ul>
Classification	<ul> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.</li> </ul>	<ul> <li>Sufficient diamonds have been recovered to allow Lucapa to quantify the commercial uncertainty in stone size frequency (SFD), stone size, assortment and diamond grade, at Inferred Resource level, other than in Block 4.</li> <li>In addition SFD and stone size as modelled has reconciled against 10 months of commercial scale alluvial mining.</li> <li>The special stones are not excluded in the modelling stage, either in terms of size or assortment.</li> <li>The size frequency distribution model is based on all the stone data.</li> <li>As diamond market conditions change, the modelled value and realised values will be different.</li> </ul>