Gravelotte Project Operations Update

Highlights

- Trial crushing and washing plant performing around 40% above design capacity.
- XRF processing has commenced with testing well advanced to determine optimal throughput rates across rock variability.
- Early testing of the XRF unit has shown excellent accuracy and a high level of efficiency in its sorting process.
- Parcels processed by the XRF sorter have returned emerald grades as high as 247 carats per tonne.

Trial Mining and Processing

As previously advised, the trial mining of hard rock from the Cobra and Discovery historic pits commenced in March 2019 and around 7,800 tonnes was mined and stockpiled from three benches within the Cobra pits.

The mining and stockpiling of an estimated 2,000 tonnes of emerald bearing rock from the Discovery Pit is scheduled for the December 2019 quarter but is currently a low priority as sufficient rock for the trial processing programme is available from the Cobra pits stockpiles.

Crushing Plant

The 2,000 tonne per month crushing and washing plant was commissioned early in May and to date is performing above design capacity and providing a very efficient crush of rock in the designated sort fractions of +3mm-10mm and +10mm-30mm.

These sort fractions have been determined from the testing carried out in late 2018 and represent the optimal fractions that preserve the integrity of the emeralds (avoid fracturing) and allow for efficient processing times.

The -3mm fraction has been determined as the “waste” cut as it is considered that emeralds below this size will have minimal commercial value.

The crushing and washing plant has achieved steady state rates nearly 40% higher than design capacity and indicates that our bench scale testing of the crushing characteristics of the emerald bearing rock was overly conservative. This augers well for a reduction in the size (and cost) for the crushing and washing circuit for any potential future commercial operations at Gravelotte.

This plant is now in full operation and the processed Cobra mined rock is being stockpiled for the secondary processing by XRF sorting.

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XRF Sorter

The XRF unit arrived on site late in May and calibration commenced almost immediately prior to the commencement of the processing of +3mm-10mm and +10mm-30mm fractions.

The processing of these fractions commenced as scheduled in early June.

The initial processing by the XRF is a multi-faceted test as the throughput rate, crush size, moisture content and type of rock (biotite schist, talc schist etc) are all variables that need to be considered to achieve a calibration that provides optimal accuracy and efficiency.

4.55 carats

1.25 carats

Photos 1 and 2: Samples of emeralds recovered from XRF processing of material from 930 bench Coordinates 7347 000mN, 260 230mE (refer Figure 2)

To date the operators have achieved near design capacity with the +10mm-30mm fraction and are undertaking detailed testing with the +3mm-10mm fraction to achieve design throughput rates.

A critical aspect of the XRF sorter is to not miss any emeralds but also discard as much of the non-emerald bearing rock as possible.

As part of the testing processing each parcel is weighed before and after processing and the discarded material (“rejects”) then visually examined for emeralds.

Whilst testing is still at an early stage the XRF unit appears to be operating with exceptional accuracy with no emeralds noted in any of the visually examined rejects.

In terms of efficiency, initial visual examination of the retained fraction indicated minimal reject material is being retained by the XRF sorter although continued testing is required as this could vary across throughput rates.

Most pleasing is that the parcels of retained material that have been examined to date all are emerald bearing with calculated grades to date ranging from 36 carats per tonne to a high of 247 carats per tonne.

This compares with the estimated historic average grade of 30 carats per tonne for Gravelotte.

Sorted test sample size	Calculated emerald grade	Notes
300kgs	147 carats/tonne	XRF sorted
750kgs	57 carats/tonne	XRF sorted
426kgs	125 carats/tonne	XRF sorted and hand sorted checked
365kgs	247 carats/tonne	XRF sorted and hand sorted checked
280 kgs	84 carats/tonne	XRF sorted and hand sorted checked

Table 1: Cobra 990 bench 7347 860mN, 260 260mE 7 +3mm-10mm fraction sorted grades - refer Figure 2

Please note that the grade is a measure of the emerald content but is not a measure of the quality of the emeralds – this can only be determined after full cleaning, examination by Magnums contract gemologist and ultimately the sale price received.

What is the next step after the processing of the mined material?

The current processing of the mined material has been designed to recover a parcel of emeralds from Gravelotte of a sufficient size to allow a commercial assessment of pricing for the emeralds through a sales process. The process of identifying potential buyers for the emeralds is well advanced and will be expedited as a critical mass of emerald material is recovered.

Photo 3: Gravelotte Project showing existing infrastructure and mining stockpiles

There has been a significant increase in demand for emeralds reported since 2000 so this will provide vital data for assessing the current demand and consequent pricing for emerald product from Gravelotte.

This in turn will allow the financial modelling for a potential future commercial mining operation to be completed.

It is anticipated that the definitive financial modelling will commence in the December 2019 quarter.

About the Gravelotte Project (South Africa)

Magnum's 74%-owned Gravelotte Project is located in the Limpopo Province of South Africa. Emeralds were discovered in the province in 1927 and, since then, several companies have explored for and mined within the broader region for emeralds.

From 1929 to 1982 the total recorded emerald production from the Gravelotte Project, as well as the area surrounding the nearby Gravelotte township, was nearly 113 million carats.

It is reported that during the 1960's the Gravelotte Project itself was the largest emerald mine of its type in the world, employing over 400 sorters.

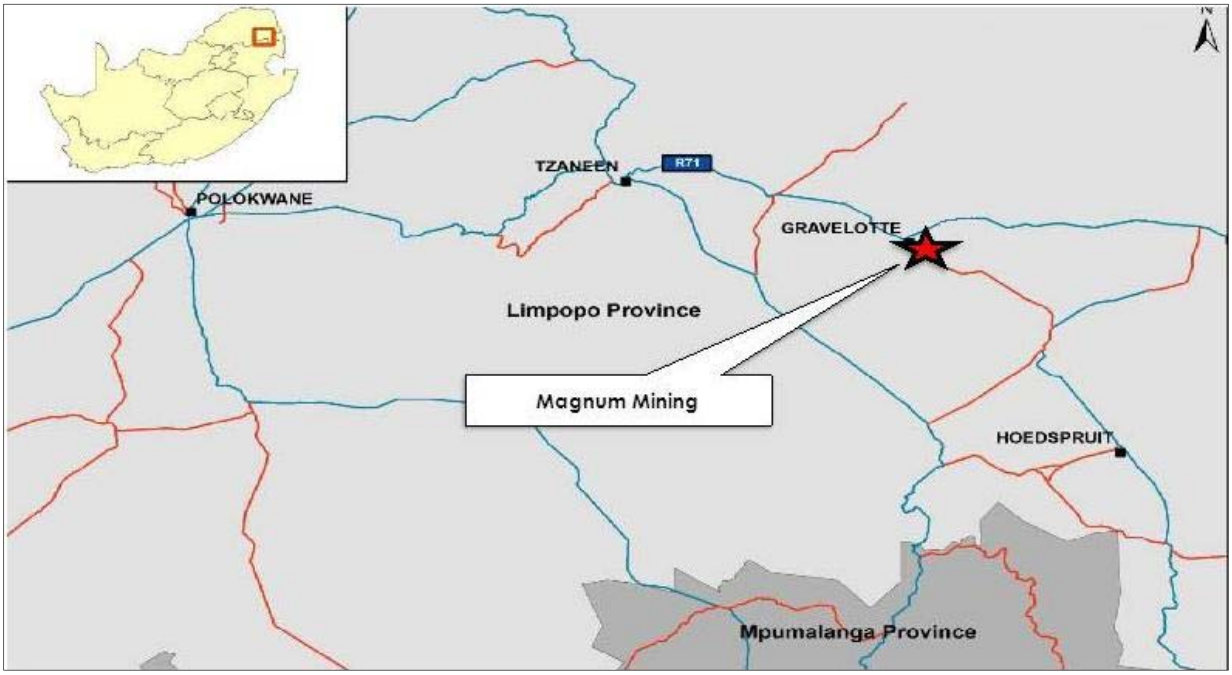

Figure 1: Gravelotte Location Map

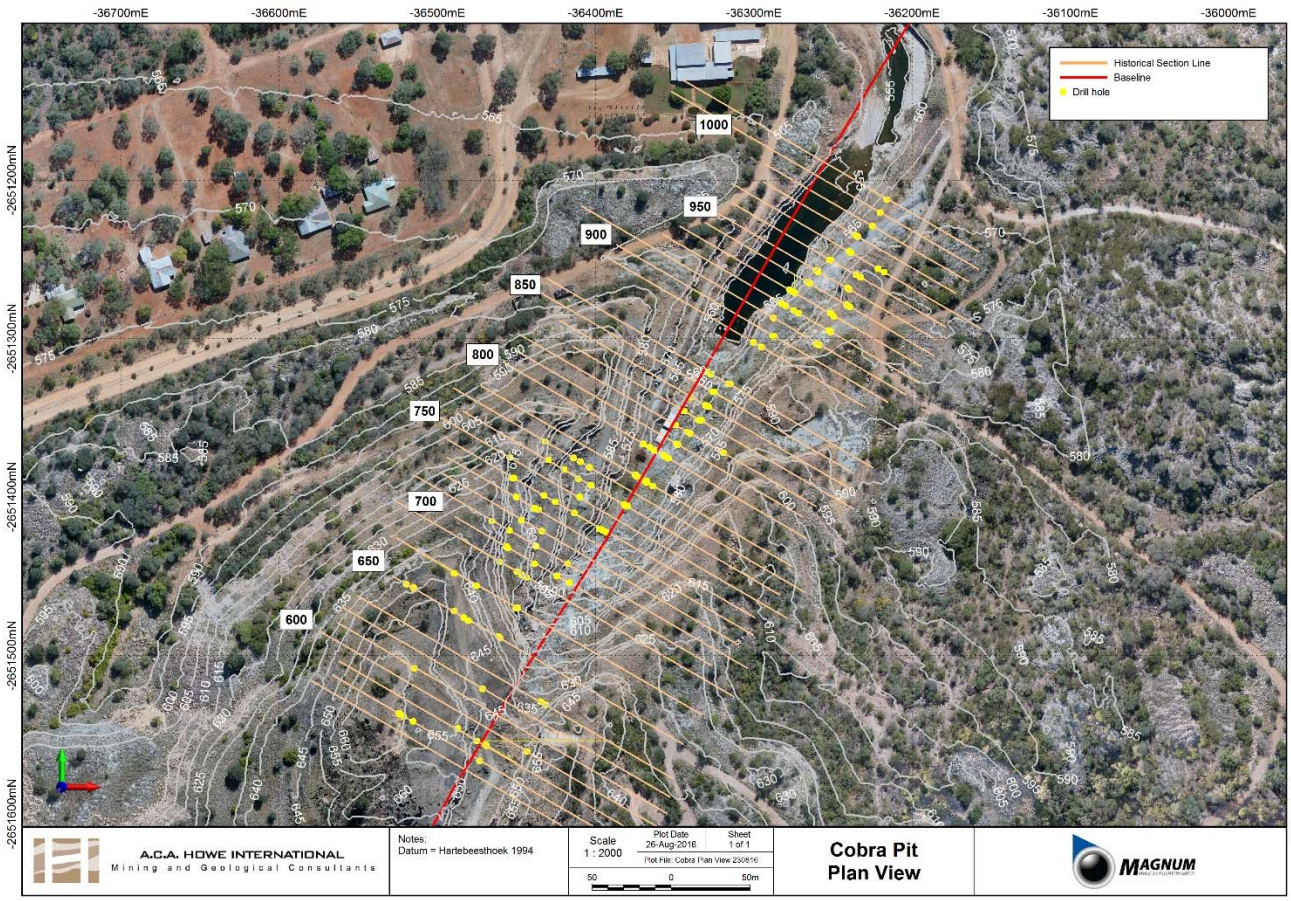

Figure 2: Cobra Pit Plans

Why is Magnum at Gravelotte?

The Gravelotte project provides Magnum with a medium term production opportunity in a niche commodity such as emeralds where demand is growing.

The project offers established infrastructure, existing and accessible open cuts together with extensive low grade dumps, a large (albeit incomplete) historic data base, a nearby and available work force, local on-site technical expertise and a nearby township that can serve as a supply centre.

The Company has maintained and refurbished much of the extensive mine site infrastructure at Gravelotte including offices, laboratory, workshops, garages, management accommodation complex and a mine hostel to accommodate mine workers.

The mine site is well situated with utilities and logistics being serviced by ESKOM grid power, has a sealed road to the mine gate and has a working airstrip.

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*The information in this announcement that relates to Exploration Results and Mineral Resources complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**) and has been compiled and assessed under the supervision of Mr Howard Dawson, Non-Executive Director of Magnum Mining and Exploration Limited. Mr Dawson is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Dawson consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.*

JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (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.*	• The selected benches were prepared using drill and blast and then mined using a wheel loader and an excavator. • The mining as supervised by a geologist to ensure quality control and provide direction for where the mined material was to be stockpiled and nomenclature for recording said dumps. • Each bench was geologically examined to determine lithology and dominant alteration type and effects.
Drilling techniques	• *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).*	• Not applicable
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Not applicable
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.*	• Not applicable

Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• As close as possible to 100% of the drill blasted material was mined stockpiled. • Multiple stockpiles were created to differentiate the different bench locations mined. • Processing of the mined material is ongoing. The material is processed using a jaw crusher to crush to -30mm and then washed through a trommel and screened to separate into the three fractions: -3mm, 3mm-10mm, +10mm-30mm. • The -3mm material is discarded and returned to a waste stockpile. • Any oversize material is re-crushed.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• No assays were carried out. • For emerald count the sample was crushed, washed, screened and then hand sorted. • For quality control a limited number of trained sorters are being used with cross checks on precision and accuracy carried out on a daily basis.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• The mining was supervised by a Geologist.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.*	• Each bench location was surveyed prior to mining and then post mining located to +/-5 metres using GPS.

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Not applicable, this programme was a mining exercise to obtain in pit material to test crushing, screening and processing (XRF) techniques.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Not applicable.
Sample security	• *The measures taken to ensure sample security.*	• All mining and processing is supervised by the onsite Geologist or the mine manager.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Ongoing self-assessment by onsite personnel.

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Mining Right, Portion 7 of the Farm Farrell 781LT, LP30/5/1/2/2/0153MR, located 2km from Gravelotte in the Phalaborwa magisterial district of South Africa. The Company has a 74% ownership of the project with the remaining portion owned by Black Economic Empowered ("BEE") shareholders to ensure compliance with South African BEE ownership requirements.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The collating of the historic exploration and production results is a work in progress by restricted because of multiple previous owners and some poor record keeping. Magnum has engaged consultants to assemble and digitize as much data as can be sourced.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Hydrothermal breccia.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Magnum is only partially relying on the previous exploration but as the historic data base is incomplete use of the data is by necessity selective.
Data aggregation methods	• *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.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Not applicable.
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.*	• Not applicable.
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*	• Not applicable.

Criteria	JORC Code explanation	Commentary
	Exploration Results.	
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Not applicable.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Not applicable.

Section 5 Estimation and Reporting of Diamonds and Other Gemstones

(Criteria listed in other relevant sections also apply to this section. Additional guidelines are available in the 'Guidelines for the Reporting of Diamond Exploration Results' issued by the Diamond Exploration Best Practices Committee established by the Canadian Institute of Mining, Metallurgy and Petroleum.)

Criteria	JORC Code explanation	Commentary
Indicator minerals	• *Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.*	• Not applicable.
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.*	• Emeralds, introduction into breccia of Cr rich solutions through hydrothermal activity
Sample collection	• *Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (eg large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).* • *Sample size, distribution and representivity.*	• Historic waste and low grade ore dumps. • Dumps cannot be considered representative. • Historic pit benches
Sample treatment	• *Type of facility, treatment rate, and accreditation.* • *Sample size reduction. Bottom screen size, top screen size and re-crush.* • *Processes (dense media separation, grease, X-ray, hand-sorting, etc).* • *Process efficiency, tailings auditing and granulometry.*	• On site treatment facilities, supervised onsite geologist and senior management personnel. • Crushing, washing, screening, hand sorting, XRF sorting.

Criteria	JORC Code explanation	Commentary
	• *Laboratory used, type of process for micro diamonds and accreditation.*	
Carat	• *One fifth (0.2) of a gram (often defined as a metric carat or MC).*	• 1 gram = 5 carats
Sample grade	• *Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.* • *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.* • *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).*	• Determined by weight of emeralds recovered from each sample.
Reporting of Exploration Results	• *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.* • *Sample density determination.* • *Per cent concentrate and undersize per sample.* • *Sample grade with change in bottom cut-off screen size.* • *Adjustments made to size distribution for sample plant performance and performance on a commercial scale.* • *If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.* • *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.*	• Only emeralds 3mm or greater reported.
Grade estimation for reporting Mineral Resources	• *Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.* • *The sample crush size and its relationship to that achievable in a commercial treatment plant.* • *Total number of diamonds greater than the specified and reported*	• Not applicable

Criteria	JORC Code explanation	Commentary
and Ore Reserves	*lower cut-off sieve size.* • *Total weight of diamonds greater than the specified and reported lower cut-off sieve size.* • *The sample grade above the specified lower cut-off sieve size.*	
Value estimation	• *Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.* • *To the extent that such information is not deemed commercially sensitive, Public Reports should include:* o *diamonds quantities by appropriate screen size per facies or depth.* o *details of parcel valued.* o *number of stones, carats, lower size cut-off per facies or depth.* • *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.* • *The basis for the price (eg dealer buying price, dealer selling price, etc).* • *An assessment of diamond breakage.*	• Not applicable
Security and integrity	• *Accredited process audit.* • *Whether samples were sealed after excavation.* • *Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.* • *Core samples washed prior to treatment for micro diamonds.* • *Audit samples treated at alternative facility.* • *Results of tailings checks.* • *Recovery of tracer monitors used in sampling and treatment.* • *Geophysical (logged) density and particle density.* • *Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.*	• On site security provided by senior on site management.
Classification	• *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.*	• Not applicable.