Resolute | ASX Announcement

23 October 2017 Syama Resource Upgrade

5.7 Million Ounce Resource for Syama

Underground Mineral Resources increased by 1.6 million ounces, up 39%

Gold grade of total resources increased from 2.8g/t to 3.2g/t

Maiden Inferred Resource for Nafolo discovery of 400,000 ounces of gold

Highlights

- Syama Underground Mineral Resource Estimate now totals **5.7million ounces at 3.2 grams per tonne gold**
- Increase from previous total underground resources of 1.6 million ounces, **up 39%**
- Total Syama Underground Indicated and Inferred Resources increased to **55.9 million tonnes at 3.2 grams per tonne gold for 5.7 million ounces**
- Indicated Resources increased by **42%** to **45.6 million tonnes at 3.2 grams per tonne gold for 4.7 million ounces**
- Grade increased by **14%** from 2.8 grams per tonne Au **to 3.2 grams per tonne gold** at a 1.5 grams per tonne gold cut off
- Maiden Inferred Resource for Nafolo discovery of **400,000 ounces at 2.9 grams per tonne gold**
- Drilling is continuing at both Nafolo and Syama Deeps with further future resource expansion expected
- An updated mining study is underway and will enable an updated Syama Underground Ore Reserve estimate prior to the end of the current financial year
- Syama optimisation study has commenced to investigate production expansion and cost reduction opportunities and assess the unconstrained potential of Resolute's Syama mining operations

Resolute Mining Limited (Resolute or the Company) (ASX:RSG) is pleased to announce a significant upgrade of underground resources at the Syama Gold Mine (Syama) in Mali. The new mineral resource has been independently estimated in accordance with the JORC code 2012 edition, incorporating results from the Syama deep drilling program. Managing Director and CEO, Mr John Welborn, was thrilled by the growth in resources at Syama:

"Resources at Syama Underground have increased significantly in both size and in grade. The upgrade is reward for our renewed focus on using exploration to create value, for our commitment to maximising the potential of Syama, and ultimately for our belief that Syama is a world class mining operation. The expansion of the Mineral Resources will inform the various studies we have commenced aimed at potential expansion of future production. The vast majority of the additional 1.6 million ounces of resources are in the Indicated category and provides an opportunity for a significant future uplift in Ore Reserves. The increase in grade is particularly pleasing and aligns with the work we are doing to improve the efficiency of the processing operations and consistently achieve gold recoveries above 85%."

"The new resource estimate includes a maiden resource for our Nafolo discovery. This initial estimate only includes drilling completed at Nafolo up until April 2017. Based on the maiden resource and the subsequent and ongoing drilling, we are confident this new zone of mineralisation at Syama will continue to grow. We remain excited by the potential for further new similar discoveries as we continue to explore the more than five kilometres of untested strike length to the south of the current drilling. Syama is Resolute's flagship asset and one of the most significant gold deposits in West Africa. The main Syama ore body remains open at depth. We will continue to invest in exploration and optimisation of our development plans as we seek to unlock the true value of this great deposit."

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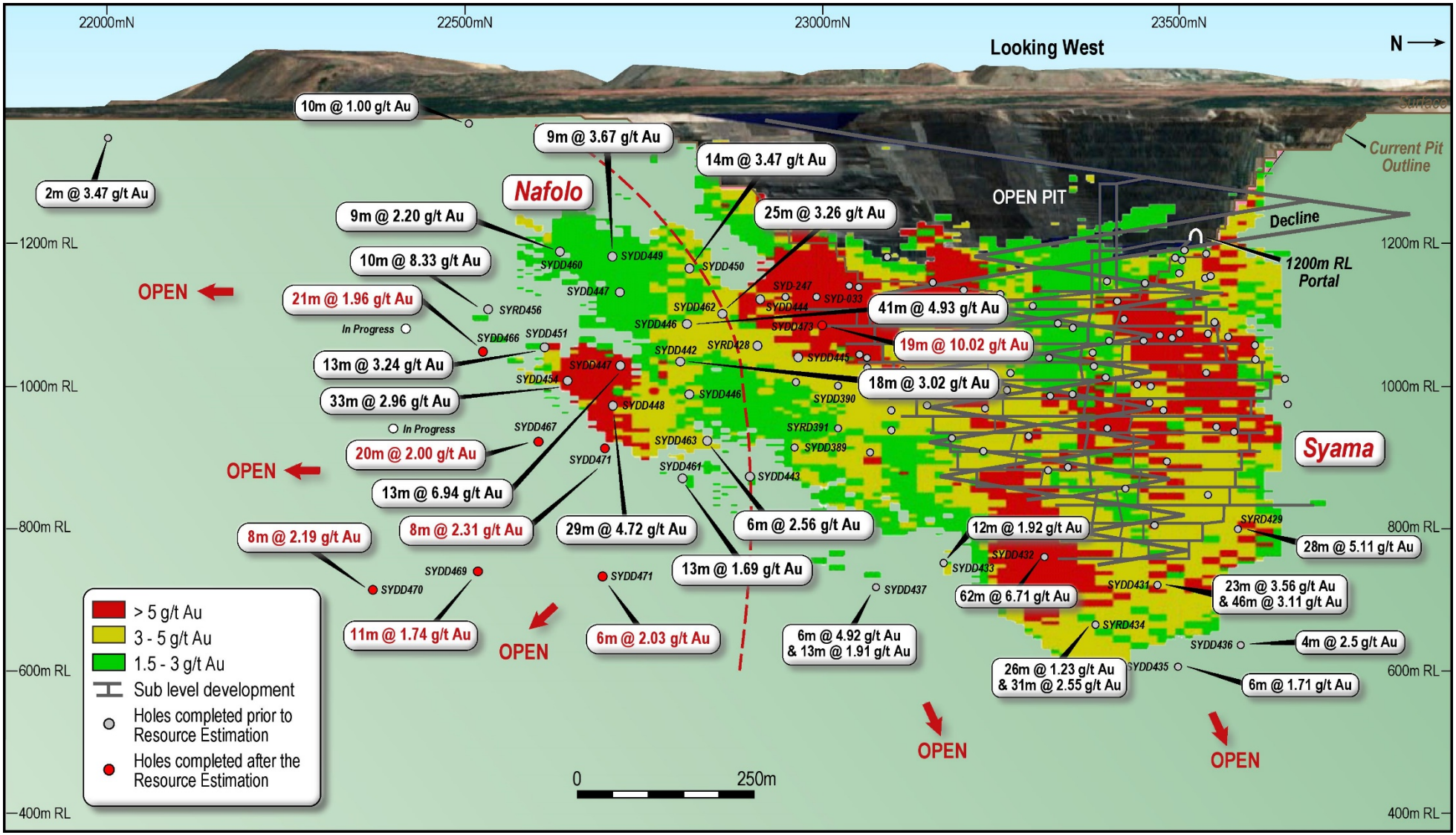

Figure 1: Longitudinal projection of Syama showing updated resource model, drilling results and current underground development design

Syama Underground Mineral Resources Estimate Upgrade

Resolute engaged mining consultants Optiro Pty Ltd (Optiro) to undertake an independent estimation, in accordance with the JORC code 2012 edition, of the Syama Underground Mineral Resources. This work, based on drilling completed up until April 2017, has significantly upgraded both the size and grade of the underground resources at Syama. The new Mineral Resource Estimate includes all underground resources at Syama with the maiden Inferred Resource for Nafolo included in the global Syama Underground Mineral Resource as displayed in the longitudinal projection above in Figure 1. The projection shows the updated Indicated and Inferred resource model in grade blocks, drilling results, and the current underground development design at Syama. The extension of resources at Syama to the South into the Nafolo zone, and the increase in grade both to the South and in the Syama deeps is clearly displayed.

The upgraded global Syama Underground Mineral Resource estimate is presented in Table 1 below including Indicated and Inferred classification. The upgraded estimate can be compared to the previous estimate for Syama Underground Mineral Resources, which is included in Table 2. Overall, total resource tonnage has increased by 23%, gold grades by 14%, and contained gold by 39%. Indicated Resource tonnage has increased by 22%, gold grade by 15%, and contained gold by 42%. Further detail on the new estimate is included in the JORC Table 1 Report attached as an appendix to this announcement.

Syama Mineral Resources as at 18 October 2017 (1.5g/t Au cutoff)			
Classification	**Tonnes (million)**	**Grade (g/t)**	**Ounces (million)**
Indicated	45.6	3.2	4.7
Inferred	10.3	3.0	1.0
Total	55.9	3.2	5.7

Table 1: Syama Mineral Resources as at 23 October 2017

Syama Mineral Resources as at 30 June 2017 (1.5g/t Au cutoff)			
Classification	**Tonnes (million)**	**Grade (g/t)**	**Ounces (million)**
Indicated	37.4	2.8	3.3
Inferred	8.1	2.9	0.8
Total	45.5	2.8	4.1

Table 2: Syama Mineral Resources as at 30 June 2017

Drilling program and results

The program to extend the Mineral Resources at Syama commenced in late 2015. The aim of the exploration program was to investigate the full potential of the Syama mineralised system, one of the largest gold deposits in West Africa. Drilling has been extremely successful, with every hole in the program to date intersecting zones of alteration and mineralisation. In October 2016 the Syama Deeps drilling program identified the Nafolo discovery to the south of the main Syama orebody (refer to ASX announcements dated 25 October 2016, 8 January 2017 and 11 July 2017).

The discovery of Nafolo has motivated Resolute to explore further opportunities for major discoveries within the Company's large holdings in the Syama region. Resolute's ground holding in the Syama region covers approximately 80km of the Syama shear zone. The majority of historic and recent exploration drilling has focused on the identification of shallow oxide resources. Following a refocus of exploration strategy in 2015, combined with the Company's strengthened financial position, Resolute has seized the opportunity to systematically test the full potential of the prolific Syama gold endowment.

Syama deep drilling program

The Syama deep drilling program commenced in December 2015 (refer to ASX announcements dated 9 March 2016 and 1 August 2016) and continued throughout 2016. The program was designed to test the limits of the open underground mineralisation down plunge and along strike at Syama, with the aim of expanding the Mineral Resource and adding to the existing 4.1 million ounce (Moz) Syama Underground Mineral Resource and 2.2Moz Syama Underground Ore Reserve. The results of the program confirmed a major extension of the Syama mineralisation at depth and identified a new discovery at Nafolo. The Syama orebody remains open at depth with opportunities for further mineralisation to be identified along strike to the north and south.

Significant drill results from the Syama deeps drilling included:

- SYDD431 — 23m @ 3.6 grams per tonne (g/t) Au from 717m; and 46m @ 3.1g/t Au from 749m
- SYDD432 — 62m @ 6.7g/t Au from 651m
- SYRD434 — 31m @ 2.6g/t Au from 781m
- SYDD436 — 7m @ 5.0g/t Au from 570m
- SYDD428 — 32m @ 2.7g/t Au from 323m; and 13m @ 3.1g/t Au from 377m
- SYRD429 — 28m @ 5.1g/t Au from 708m

Nafolo Discovery

Results from targeting the southern extensions of gold mineralisation on the Syama Shear contact led to the discovery of the Nafolo mineralised zone in October 2016 (refer to ASX Announcement 26 October 2016). Initial drill holes suggested that the Nafolo zone was a completely separate system. The completion of 20 drill holes has now led to a revised interpretation in which two separate zones, or lenses, have been identified at Nafolo. The upper lens at Nafolo appears to be the southern continuation of the main Syama lens and the lower zone is a separate “en echelon” lens which is structurally beneath the main Syama zone.

Drilling at Nafolo is continuing with recent step out holes continuing to intersect alteration and mineralisation similar to the main Syama orebody. Exploration is now focused on looking for repetitions of the Nafolo zone to the south along the Syama shear. There is an unexplored strike length of six kilometres extension to the south of Syama. This area is a key target for ongoing exploration.

Significant drill results from the Nafolo discovery are listed below:

- SYDD442 — 19m @ 2.6 g/t Au from 273m; and 18m @ 3.0 g/t Au from 372m.
- SYDD446 — 41m @ 4.9 g/t Au from 281m; and 37m @ 3.1 g/t Au from 372m
- SYDD447 — 13m @ 6.9 g/t Au from 434m; and 11m @ 2.4 g/t Au from 472m
- SYDD448 — 10m @ 3.6 g/t Au from 385m; and 29m @ 4.7 g/t Au from 446m
- SYDD450 — 14m @ 3.5 g/t Au from 251m
- SYDD451 — 19m @ 3.7 g/t Au from 407m
- SYDD454 — 33m @ 3.0 g/t Au from 405m
- SYRD456 — 10m @ 8.3 g/t Au from 394m
- SYDD462 — 25m @ 3.3 g/t Au from 287m

Mineral Resource Estimation

Geology and Mineralisation

The Syama gold deposit is hosted within the Syama Formation with the sediment sequences of the Sikoro Formation to the west and the Banmbere Conglomerate of the N'golopene Group to the east. The Syama-Bananso Fault Zone is a regionally significant and long-lived domain bounding suture occurs in the footwall of the deposit which separates the Syama Formation and the N'golopene Group.

The Syama Formation consists of basalts and metasediments which are intruded by a series of lamprophyre dykes and sills. The Syama Formation has experienced multiple phases of deformation, with D3 shear zones considered to be the most important structural element for gold mineralisation. Within the Syama sequence, the basalts and associated lamprophyres have a close relationship to mineralisation and host substantial proportion of the orebody. Mineralisation is mostly in the form of dolomite-ankerite-quartz-pyrite veins, veinlets and localised breccias associated with broad zones of strong sericite-ankerite-albite +/- pyrite alteration.

Resource Estimation methodology

Resolute engaged Optiro to undertake an independent Resource Estimation, in accordance with the JORC code 2012 edition, based on drilling completed to April 2017. The Syama gold mineralisation lacks hard geological boundaries therefore previous resource estimates were undertaken using gold grade shells for underground models and utilising unconstrained multiple indicator kriging (MIK) methodology for open pit estimations. As observed during ten years of open pit mining, the Syama gold mineralisation has a natural cut off of 1g/t Au. Optiro used categorical indicator method based on a 1g/t gold threshold to select blocks which have a greater than 45% chance of being above 1g/t Au. The mineralisation shape was further refined based upon blocks with low conditional bias. This process then coded blocks as either waste or potential ore.

The coded composite samples were used to undertake statistical and geostatistical analysis. These composites were top-cut to restrict the influence of outliers prior to grade estimation. Gold, sulphide sulphur and organic carbon were all estimated by ordinary kriging (OK) of the top-cut composites.

Using this methodology Optiro have estimated, in accordance with the JORC code, a total Syama resource including Nafolo of 55.9 million tonne (Mt) at 3.2g/t Au for 5.7Moz at a 1.5g/t cut off. Mineral Resources are reported at a 1.5g/t Au cut-off grade. The new Mineral Resource estimate is 39% above the previously stated resource. The additional 1.6Moz comes from extensions at depth, along strike to the south, and the new Nafolo discovery zone. The gold grade of the total Mineral Resources estimate has increased by 14% to 3.2g/t Au. The increase in grade is primarily due to the categorical indicator method which better constrains the mineralisation.

The Nafolo discovery has been defined as a zone within the greater Syama resource located south of 22875N (see Figure 1). This zone contains an initial Inferred Resource of **4.3Mt at 2.9g/t Au for 400koz**. Drilling at Nafolo is ongoing and further resource extensions are expected.

Syama Underground mine

In June 2016, Resolute published the results of a definitive feasibility study (DFS) into the Syama Underground mine (refer ASX Announcement 30 June 2016). The current Syama Ore Reserve provides an operating life for the underground mine of more than 12 years at a production rate of 2.4 million tonnes per annum (Mtpa). The DFS mine plan was designed to a depth of only ~600m below surface. Construction of the Syama Underground mine commenced in September 2016 and the decline development is currently on track for the mine to deliver full underground production of 2.4Mtpa in December 2018.

Through the various stages of mining evaluation, the DFS determined that sub level caving represented the optimal mining method to develop the extensive sulphide orebody beneath the open pit. This mining method will provide controlled, high-productivity ore delivery from the deposit. At the time of completion of the DFS it was recognised that the 2.4Mtpa production rate from Syama Underground was well within the capabilities of the deposit and the chosen mining method. The DFS requires a modest vertical advance rate of 39m per annum, and the twin decline design

allows far larger tonnages to be hauled. In the period since the DFS was completed the company has been investigating opportunities to introduce autonomous loading and trucking with the aim of increasing productivity and extraction rates. The substantial increase in resources reported here will provide further support for a potential increase in mining rates.

Once in full production the Syama Underground will be a consistent, large scale operation. Resolute's vision for Syama is a mine that employs the most advanced extraction and haulage technologies available to ensure a safe, productive and global best practice operation.

Revised Reserve and optimisation study

An updated mining study to establish a new Syama Underground Ore Reserve has commenced. Once completed, the mining study will be used to update the Company's Life of Mine plan for Syama. This work is expected to be completed by the end of December 2017.

In parallel, the Company will undertake an optimisation study for Syama. Recent work on autonomous trucking and loading, in addition to resource expansion, has identified options for expanding production rates from the underground mine. The Syama optimisation study will seek to identify a maximum, or unconstrained mine production rate, and then assess options for expanding processing capacity to accommodate increased tonnage.

The Syama optimisation study is expected to be completed during the current financial year, with the results incorporated into future Life of Mine plans and FY19 guidance. Resolute is excited by the potential impact on future production and cost guidance for Syama and will update the market with the results of this work when completed.

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About Resolute

Resolute is a successful gold miner with more than 25 years of continuous production. The Company is an experienced explorer, developer, and operator having operated nine gold mines across Australia and Africa which have produced 8 million ounces of gold. Resolute currently operates two mines, the Syama Gold Mine in Africa and the Ravenswood Gold Mine in Australia, and is one of the largest gold producers listed on the Australian Securities Exchange with FY18 guidance of 300,000 ounces of gold production at All-In Sustaining Costs of A$1,280/oz (US$960/oz).

Resolute's flagship Syama Gold Mine in Mali is a robust long life asset comprising parallel sulphide and oxide processing plants. The move to underground mining is expected to extend the mine life beyond 2028.

The Ravenswood Gold Mine in Queensland demonstrates Resolute's significant underground expertise in successfully mining the Mt Wright ore body, where operations are expected to cease in FY18. The Company's next stage of development in Queensland is the return to large scale open pit mining at the Ravenswood Expansion Project which will extend the Company's local operations for a further 13 years to at least 2029.

In Ghana, the Company has completed a feasibility study on the Bibiani Gold Project focused on the development of an underground operation requiring modest capital and using existing plant infrastructure. Resolute is also exploring over 6,600km^2 of potential world class tenure in West Africa and Australia with active drilling programs in Mali, Ghana, Cote d'Ivoire and Queensland, Australia. The Company is focused on growth through exploration and development and is active in reviewing new opportunities to build shareholder value.

Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Bruce Mowat, a Competent Person who is a Member of the Australian Institute of Geoscientists and is a full-time employee of Resolute Mining Ltd. Mr Mowat 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 "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Mowat consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this announcement that relates to the Mineral Resource estimate has been based on information and supporting documents prepared by Mrs Susan Havlin, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mrs Havlin is an employee of Optiro and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which has been undertaken to qualify as a Competent Person. Mrs Havlin confirms that the Mineral Resource estimate is based on information in the supporting documents and consents to the inclusion in the report of the Mineral Resource estimate and related content based on the information in the form and context in which it appears.

SYAMA GOLD MINE MALI

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	The mineral resource estimate was based on data collected from reverse circulation (RC) and diamond core (DD) drill holes completed by Resolute Mining Limited (2003-2017), Randgold Resources Ltd (1996-2000) and BHP (1987-1996). Diamond core was sampled at 1m intervals and cut in half, to provide a 2-4kg sample, which was sent to the laboratory for crushing, splitting and pulverising, to provide a 30g charge for analysis. RC samples were collected on 1m intervals via a cyclone by riffle split (dry), or by scoop (wet), to obtain a 2-4kg sample which was sent to the laboratory for crushing, splitting and pulverising to provide a 30g charge for analysis. Resolute sampling and sample preparation protocols are industry standard and are deemed appropriate by the Competent Person. The Randgold and BHP diamond core and RC samples were taken on 1m intervals. Due to the historical nature of the data sampling protocols are not known.
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.).*	Drill types used include RC and diamond core of HQ and NQ sizes. Core is oriented at 3m down hole intervals using a Reflex Act II RD Orientation Tool.

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.*	Drill core interval recoveries are measured from core block to core block using a tape measure. Appropriate measures are taken to maximise sample recovery and ensure representative nature of the samples. No apparent relationship is seen between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	Drill holes were geologically logged by geologists for colour, grainsize, lithology, minerals, alteration and weathering on geologically domained intervals. Geotechnical and structure orientation data was measured and logged for all diamond core intervals. Diamond core was photographed (wet and dry). Holes were logged in their entirety (100%) and this logging was considered reliable and appropriate.
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.*	Diamond core were sampled at 1m intervals and cut in half to obtain a 2-4kg sample. Reverse circulation samples were collected on 1m intervals by riffle split (dry) or by scoop (wet) to obtain a 2-4kg sample. Sample preparation for diamond core and RC samples includes oven drying, crushing to 10mm and splitting, pulverising to 85% passing -75um. These preparation techniques are deemed to be appropriate to the material and element being sampled. Drill core coarse duplicates were split by the laboratory after crushing at a rate of 1:20 samples. Reverse circulation field duplicates were collected by the company at a rate of 1:20 samples. Resolute sampling, sample preparation and quality control protocols are of industry standard and all attempts were made to ensure an unbiased representative sample was collected. The methods applied in this process were deemed appropriate by the Competent Person. Sub-sampling techniques and sample preparation completed by previous owners is not known.

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	All Resolute samples were analysed for gold by 30g fire assay fusion with AAS instrument finish. The analysis was performed by ALS Bamako or SGS Morila. The analytical method was appropriate for the style of mineralisation. No geophysical tools were used to determine elemental concentrations. Quality control (QC) procedures included the use of certified standards and blanks (1:20), non-certified sand blanks (1:20), diamond core coarse duplicates (1:20) and reverse circulation field duplicates (1:20). Laboratory quality control data, including laboratory standards, blanks, duplicates, repeats and grind size results were also captured into the digital database. Analysis of the QC sample assay results indicates that an acceptable level of accuracy and precision has been achieved. The assay techniques used by Randgold and BHP include fire assay fusion with AAS instrument finish and aqua regia with AAS. The majority of the samples were analysed at the onsite Syama laboratory. Due to the historical nature of the Randgold and BHP data the assay procedures are not known for all samples.
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.*	Verification of significant intersections have been completed by company personnel and the competent person. No drill holes within the resource area were twinned. Drill holes were logged onto paper templates or Excel templates with lookup codes, validated and then compiled into a relational SQL 2012 database using DataShed data management software. The database has a variety of verification protocols which are used to validate the data entry. The drill hole database is backed up on a daily basis to the head office server. Assay result files were reported by the laboratory in PDF and CSV format and imported into the SQL database without adjustment or modification. Resolute has conducted extensive reviews, data validation and data verification on the historic data collected by the previous owners, Randgold and BHP.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Collar coordinates were picked up in UTM (WGS84) by staff surveyors using an RTK DGPS or Total Station Theodolite with an expected accuracy of ±0.05m; elevations were height above EGM96 geoid. Down hole surveys were collected using single shot and multi shot magnetic survey tools including Reflex EZTrac and EZShot instruments. A time-dependent declination was applied to the magnetic readings to determine UTM azimuth.

		Coordinates and azimuth are reported in UTM WGS84 Zone 29 North in this release. Coordinates were translated to local mine grid where appropriate. Local topographic control is via satellite photography and drone UAV Aerial Survey.
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.*	Drill hole spacing was sufficient to demonstrate geological and grade continuity appropriate for a Mineral Resource and the classifications applied under the 2012 JORC Code. The appropriateness of the drill spacing was reviewed by the geological technical team, both on site and head office. This was also reviewed by the Competent Person. RC and diamond core samples were collected on 1m intervals; no sample compositing is applied during sampling.
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.*	Holes were drilled predominantly perpendicular to mineralised domains where possible. No orientation based sampling bias has been identified in the data.
Sample security	• *The measures taken to ensure sample security.*	Samples were collected from the drill site and stored on site. All samples were individually bagged and labelled with unique sample identifiers then securely dispatched to the laboratories. All aspects of sampling process were supervised and tracked by SOMISY personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	External audits of procedures indicate protocols are within industry standards.

Section 2 Reporting of Exploration Results

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*	Drilling was conducted within the Malian Exploitation Concession Permit PE 93/003 which covers an area of 200.6 Km^2

	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.*	Resolute Mining Limited has an 80% interest in the Syama project and the Exploitation Permit PE—93/003, on which it is based, through its Malian subsidiary, Sociêtê des Mines de Syama SA (SOMISY). The Malian Government holds a free carried 20% interest in SOMISY. The Permit is held in good standing. Malian mining law provides that all mineral resources are administered by DNGM (Direction Nationale de la Géologie et des Mines) or National Directorate of Geology and Mines under the Ministry of Mines, Energy and Hydrology.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The Syama deposit was originally discovered by a regional geochemical survey undertaken by the Direction National de Géologie et des Mines (DNGM) with assistance from the United Nations Development Program (UNDP) in 1985. There had also been a long history of artisanal activities on the hill where an outcropping chert horizon originally marked the present day position of the open pit. BHP during 1987-1996 sampled pits, trenches, auger, RC and diamond drill holes across Syama prospects. Randgold Resources Ltd during 1996-2000 sampled pits, trenches, auger, RAB, RC and diamond drill holes across Syama prospects.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Syama Project is found on the northern margin of the Achaean-Proterozoic Leo Shield which forms the southern half of the West African Craton. The project area straddles the boundary between the Kadiana–Madinani terrane and the Kadiolo terrane. The Kadiana-Madinani terrane is dominated by greywackes and a narrow belt of interbedded basalt and argillite. The Kadiolo terrane comprises polymictic conglomerate and sandstone that were sourced from the Kadiana-Madinani terrane and deposited in a late- to syntectonic basin. Prospects are centred on the NNE striking, west dipping, Syama-Bananso Fault Zone and Birimian volcano-sedimentary units of the Syama Formation. The major commodity being sought is gold.
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 *Whole length.*	No new exploration results have been reported in this release. The listing of the entire drill hole database used to estimate the resource was not considered relevant for this release.

	• *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.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No new exploration results have been reported in this release. Metal equivalent values are not used in reporting.
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 (e.g. 'down hole length, true width not known').*	The mineralisation is steeply dipping at approximately 60^0 from the horizontal. The majority of the drill holes are planned at local grid 090^0 at a general inclination of -60^0 east to achieve as close to perpendicular to the ore zone as possible. At the angle of the drill holes and the dip of the ore zones, the reported intercepts will be slightly more than true width.
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.*	Relevant maps, diagrams and tabulations are included in the body of text.
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.*	Mineral Resources and Ore Reserves are being reported in this announcement. No new exploration results have been reported in this release.

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.*	No geophysical and geochemical data and any additional exploration information has been reported in this release, as they are not deemed relevant to the release.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Depth extension drilling is planned to test the down-dip potential of the Syama ore body at depth, and beneath the current limit of drilling. Relevant maps and diagrams are included in the body of text.

Section 3 Estimation and Reporting of Mineral Resources

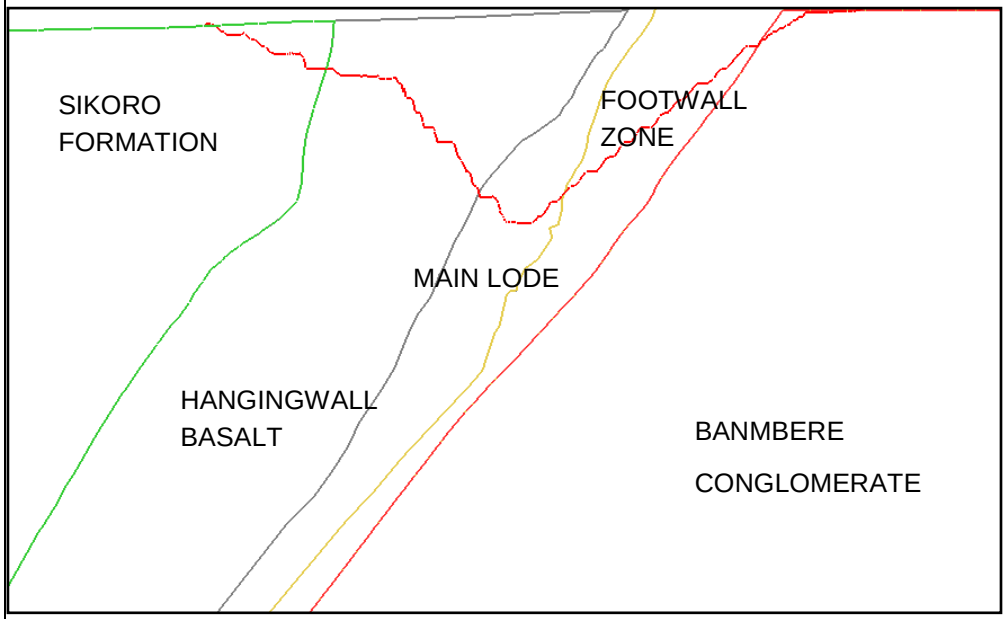
CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Data have been compiled into a relational SQL database; the setup of this database precludes the loading of data which do not meet the required validation protocols. The data is managed using DataShed© drill hole management software using SQL database techniques. Validation checks are conducted using SQL and DataShed© relational database standards. Data has also been checked against original hard copies for 100% of the data, and where possible, loaded from original data sources. Resolute carried out the following basic validation checks on the data supplied prior to resource estimation: ➢ Drill holes with overlapping sample intervals. ➢ Sample intervals with no assay data. Duplicate records. ➢ Assay grade ranges. ➢ Collar coordinate ranges. ➢ Valid hole orientation data There are no significant issues identified with the data.

Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	Mr Andrew Goode, a Member of the Australasian Institute of Mining and Metallurgy is the Competent Person who has visited this site on numerous occasions. No Optiro personnel have been to site. All aspects of drilling, sampling and mining are considered by the Competent Persons to be of a high industry standard.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The digital database used for the interpretation included logged intervals for the key stratigraphic zones of Syama. Detailed geological logs were available in hardcopy and digital and reviewed where necessary. Drill density (50m by 50m) for the majority of the Syama area allows for confident interpretation of the geology and mineralised domains. More recent infill/verification drilling of selected more structurally complicated areas confirms the positions of mineralised zones. Geological and structural controls support modelled mineralised zones, which are constrained within geological units. Continuity of mineralisation is affected by proximity to structural conduits (allowing flow of mineralised fluids), stratigraphic position, lithology of key stratigraphic units and porosity of host lithologies.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Syama area extends for approximately 1,000 metres in strike and the west dipping gold mineralised zone is between 100-200 metres in horizontal width, narrowing at its southern and northern limits. The Mineral Resource is limited in depth by drilling, which extends from surface to a maximum depth of approximately 800 metres vertically.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	Estimation was completed in Datamine Studio RM using a Categorical Indicator (CI) approach to define the mineralised blocks followed by an Ordinary Kriged (OK) model to estimate the gold grade. Grades were estimated into parent block of 10mE by 25mN by 10mRL. Sub-celling down to 5mE by 12.5mN by 5mRL was employed for resolution of the mineralisation boundary. The categorical model used a cut-off of 1 g/t gold. A 5mE by 12.5mN by 5mRL block size was employed during the categorical process used to delineate mineralised regions. After this process, the model was reblocked up to 10mE by 25mN by 10mRL while retaining the smaller size blocks as subcells at mineralisation boundaries. The resource model included estimates for sulphide sulphur and organic carbon which assist with metallurgical characterisation. It should be noted that there is less sample data for these elements which has resulted in greater smoothing of the block grades.

	• *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Kriging neighbourhood analysis was performed to optimise the block size, sample numbers and discretisation levels with the goal of minimising conditional bias in the gold grade estimates. A larger blocks size was chosen based on this analysis than was employed in the previous resource estimate. A total of three search passes was used, with the first search pass set to the range of the variogram for each element. A minimum of 10 and a maximum of 30 samples were used. The search stayed the same for the second pass but was increased by a factor of 3 for the third and final pass. The minimum number of samples was reduced to 8 for the second pass and 6 for the third pass. Un-estimated blocks (less than 1% for gold) were assigned the domain average grades. No deleterious elements were found in the ore. No selective mining units have been assumed. No assumptions have been made regarding the correlation of variables although it is noted that a broad positive correlation exists between gold and sulphur. Estimation searches have been orientated to respect the orientation of the Syama Formation which hosts the mineralisation. Top cuts were applied to reduce the variability of the data and to remove the outliers. The estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the drillhole data and by northing and elevation slices. Global comparison between the input data and the block grades for each variable is considered acceptable (±10%). Comparison with the 2015 Mineral Resource was carried out.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	All tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	Mineral Resources are reported at a 1.5 g/t Au grade cut-off for this model. The remaining resource is anticipated to provide an underground mining opportunity.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining*	The anticipated mining method for underground exploitation is Sub-Level Caving (SLC). The resource model extends from 1,250 mRL to 600 mRL. Open pit mining methods were used by Resolute to 1,120 mRL. Material testing conducted on samples of underground ore

	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.	confirmed that properties such as metallurgical factors, structural trends and geological continuity remain the same as observed in the fresh rock portion of the open pit.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Resolute has conducted metallurgical testwork on variability samples taken from within the proposed underground ore zone. A testwork program was supervised by consultants MineLogix Pty Ltd based on analytical testwork completed at ALS Metallurgy Laboratory. The program included comminution, flotation, roasting and leaching assessments. The planned processing flowsheet involves crushing, milling, flotation and roasting, followed by CIL recovery of the calcine product. The Syama sulphide processing facility has been in operation in its current form since 2007. The various testwork programs did not identify any contrasting metallurgical behaviour from samples within the underground ore zone and the performance of the underground ore typically matches that observed for open pit ore.
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 green fields 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.*	It is a requirement of Decree No.03-594/P-RM of 31 December 2003 of Malian law that an Environmental and Social Impact Study (Étude d'Impact Environmental et Social – EIES) must be undertaken to update the potential environmental and social impacts of the mine's redevelopment. The EIES for the Syama Gold Mine was approved in November 2007 and an Environment Permit (07- 0054/MEA – SG) was issued by the Ministry of Environment and Sanitation on the 22 November 2007. The Ministry of Environment conduct timely reviews of the Syama Gold Mine to ensure that company maintains compliance with the EIES guidelines. At Syama there are three key practices for disposal of wastes and residues namely, stacking of waste rock from open pit mining; storage of tailings from mineral processes; and "tall-stack dispersion" of sulphur dioxide from the roasting of gold bearing concentrate. All waste disposal practices are in accordance with the guidelines in the EIES. The Environmental & Social Impact Study – "Société des Mines de Syama, Syama Gold Mine, Mali, dated 2007 indicated there was minimal potential for acid mine drainage from waste rock due to the elevated carbonate content which buffers an potential acid generation. Resolute

		maintains a plan for progressive rehabilitation of waste rock landforms as part of ongoing mine development and waste rock dumping. The landform of tailings impoundments does not have a net acid generating potential. The largest volume is flotation tailings where the sulphide minerals have already been removed from the host rock. Its mineralogy includes carbonates which further buffer any acid-formation potential from sulphides that may also be present. Cyanide levels in the leached-calcine tailings are typically less than 50 ppm in the weak acid dissociable form. Groundwater away from the tailings landform is intercepted by trenches and sump pumps. Sulphur dioxide is generated from the roasting of gold concentrate so that gold can be extracted and refined. Tall-Stack "dispersion" of the sulphur dioxide emission is monitored continuously. Prevailing weather and dissipation of the sulphur dioxide is modelled daily to predict the need to pause the roasting process to meet the air quality criteria set out in the Environmental & Social Impact Study.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Site personnel have completed numerous bulk density estimates on HQ drill core to assess the variability using the Archimedes method of dry weight versus weight in water. This method was the method used for 96% of the bulk density measurements. Other tests were completed by SGS using the pycnometer method. On the basis of the data collected the following SG estimates were applied to the model: a) Hangingwall Basalt 2.80 b) Main Lode 2.75 c) Footwall Zone 2.765 d) Sikoro Formation 2.78

		e) Banmbere Conglomerate 2.73 
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The Indicated Mineral Resource is classified based on good confidence in the geological and grade continuity, along with the less than 75 m x 75 m spaced drillhole density in the central part of the deposit. The Inferred Mineral Resource classification is applied to extensions of mineralised zones to the margins of the deposit where drill spacing is more than 100 m by 100 m and the lower extents of the mineralisation at depth. Nafolo to the south, which is tested by wider drill spacing, has also been classified as Inferred. The validation of the block model has confirmed satisfactory correlation of the input data to the estimated grades and reproduction of data trends in the block model. The Mineral Resource estimate appropriately reflects the view of the Competent Persons.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	The Mineral Resource has been audited internally as part of the normal validation processes by Optiro. There has been no external review of the Mineral Resource estimate.

Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of Indicated and Inferred as per the guidelines of the 2012 JORC Code. The geostatistical techniques applied to estimate the underground resource at Syama are deemed appropriate to the estimation of Sub Level Caving (SLC) mining method and hence applicable for reserve estimation. There has been no production of the underground material at Syama to date.