Resolute | ASX Announcement

3 July 2018

# Syama All-In Sustaining Cost reduced to US$746 per ounce

## DFS Update delivers lower costs, longer mine life for Syama Underground

## Syama Underground Reserves increase by 38% to 3 million ounces

### Highlights

- Life of Mine All-In Sustaining Cost for Syama Underground mine reduced to **US$746/oz** (from US$881/oz)
- Syama Underground Probable Reserve increased by 38% to **3.0Moz** (35.2Mt at 2.7 g/t)
- Mine life is extended by four years from 2028 to **2032**
- Automation of underground mining equipment and Syama power upgrade key drivers of cost savings
- Drilling is continuing at Syama with further future resource and reserve expansion expected
- Optimisation studies for future expansion confirm that increased throughput may be achievable

Resolute Mining Limited (ASX:RSG) (Resolute or the Company) is pleased to announce an update (DFS Update) to the June 2016 Syama Underground Definitive Feasibility Study (Original DFS) which delivers a significant reduction in the Life of Mine (LOM) All-In Sustaining Cost (AISC) to US$746 per ounce (oz), from US$881/oz. This material cost reduction is accompanied and assisted by a 38% increase in Underground Ore Reserves to 3.0 million ounces (Moz) of gold.

The DFS Update presents the results of an ongoing effort by Resolute to critically examine and pursue improvements in all aspects of our flagship operation, the Syama Gold Mine in southern Mali (Syama). A key focus has been the redesign and rescheduling of the underground mine (Syama Underground), following the 39% increase in Mineral Resources previously announced in October 2017 (refer ASX announcement 26 October 2017). The adoption of autonomous mining will result in substantially lower average mining costs, while improvements to site power generation facilities will deliver significant reductions in processing costs.

Managing Director & CEO, Mr. John Welborn, was excited to see the Company's investment in technology and exploration result in a substantial expansion to the scale, operating margins and value of Syama.

"Our ambition at Syama is to transform this world gold class deposit into a world class gold mine. The updated DFS numbers capture the progress we have made in exploration, automation, and power, and confirm Resolute is transforming Syama into a robust, long life, low cost mine. We are developing a new underground mine at Syama and are on track to commence sub-level caving in December 2018.

"The sub-level cave mine plan at Syama lends itself to automation. Our partnership with Sandvik to deliver autonomous haulage and trucking enables major productivity and cost improvements over the Original DFS. An upgrade of the Syama power station supports a further cost reduction in sulphide processing. Collectively, these


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improvements support life of mine production at an All-In Sustaining Cost of US$746/oz, a material improvement on the original mine design.

“Reducing operating costs and increasing production at Syama is consistent with our journey to build an operation that utilises best-in-class technology while maintaining flexibility to incorporate further advances in mining and processing. We aim to make Syama the best mine of its type in the world and to ensure we unlock the full potential of this outstanding orebody.

“The pursuit of world class mining and processing has been accompanied by a renewed commitment to, and investment in, exploration. The exceptional drill results achieved over the past two years have been followed by a sophisticated and rigorous mine design and evaluation process. This has resulted in an increase of nearly one million ounces in contained gold in the Syama Underground Probable Reserve. In addition, we have discovered and commenced the delineation of a new ore zone at Nafolo. This is a breakthrough in our understanding of the size and potential of the Syama mineralised system, and we are very confident of further growth in the resource base.

“The growing reserves at Syama, and our commitment to new technologies, offer significant opportunities for further optimisation, expansion and unit cost reduction. The DFS Update announced today is based on maintaining the planned mining rate of 2.4 million tonnes per annum. This mining rate was originally programmed in the Original DFS on the basis of the 2015 assessment of the available sulphide processing capacity at Syama. Our study focus at Syama will now turn to identifying the optimal future mining rate based on the improved automated infrastructure we have developed and the significant progress being made on our processing capabilities. There is obvious scope to increase the current planned mining rate of 2.4 million tonnes per annum to as much as 4.0 million tonnes per annum. This is exciting and highly value creative pathway ahead for Resolute at Syama.”

**Figure 1: Syama Underground Mine**

## Syama Underground DFS Update Operating Metrics

The key operating metrics for the Syama Underground mine as reported in this DFS Update are presented below with a comparison with the Original DFS.

| | Unit | Original DFS | DFS Update |
|---|---|---|---|
| **Underground Development** | | | |
| Decline development | m | 8,594 | 10,869 |
| Vertical development | m | 3,554 | 3,738 |
| Level development | m | 62,717 | 81,928 |
| Total development | m | 74,865 | 96,465 |
| **Ore Production** | | | |
| Development ore | kt | 4,195 | 3.319 |
| Stoping ore | kt | 20,954 | 31,870 |
| Total ore | kt | 25,150 | 35,188 |
| Metal grade (ROM) | g/t | 2.81 | 2.69 |
| Metal contained (ROM) | koz | 2,271 | 3,042 |
| **Metal Recovery** | | | |
| Processing recovery | % | 89% | 89% |
| Metal (recovered) | koz | 2,030 | 2,697 |
| **Operating Unit Costs (including pre-production)** | | | |
| Mining | US$/t | 25.2 | 19.9 |
| Processing | US$/t | 25.0 | 19.4 |
| G&A | US$/t | 4.9 | 4.9 |
| Royalty, refining costs & silver credits | US$/t | 5.8 | 5.8 |
| **Operating and Capital Costs** | | | |
| Pre-production capital | US$M | 95 | 116 |
| Pre-production operating | US$M | 13 | 11 |
| Ramp-up Capital | US$M | | 97 |
| Sustaining capital | US$M | 270 | 255 |
| Operating cost (including royalties) | US$M | 1,519 | 1,758 |
| **AISC** | **US$/oz** | **881** | **746** |
| **Mine Life (incl. pre-production)** | **years** | **13** | **16** |

**Table 1: Syama Underground key operating metrics with comparison between Original DFS and DFS Update**

## Syama Underground Mineral Resource and Reserve Estimates

A new Syama Underground Probable Reserve has been calculated as 35.2 million tonnes (Mt) at 2.7 grams per tonne (g/t) for 3.0Moz. This represents a material increase on the previous Probable Reserve of 23.9Mt @ 2.8g/t for 2.2Moz (see Table 3 and 4 below). The upgraded reserve contains 48% higher tonnage and 38% more contained ounces than the previous estimate.

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 (see ASX announcement on 25 October 2017). This work, based on drilling completed up until April 2017, significantly upgraded both the size and grade of the underground resources at Syama from the earlier estimate. The Mineral Resource Estimate which forms the basis of the revised Mineral Reserve Estimate for the DFS Update is set out below in Table 2. The new Mineral Reserve Estimate is set out below in Table 3.

| Syama Mineral Resources as at 18 October 2017 (1.5g/t Au cut-off) | | | |
|---|---|---|---|
| **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 2: Syama Mineral Resources as at 18 October 2017**

## Revised Syama Underground Reserve Estimate

The new Mineral Reserve Estimate for Syama Underground is summarised in Table 3 below.

| Classification | Tonnes (million) | Grade (g/t) | Ounces (million) |
|---|---|---|---|
| **Probable** | **35.2** | **2.7** | **3.0** |

**Table 3: Syama Ore Reserves as at June 2018**

For comparison, the previous reserve estimate is set out in Table 4 below.

| Classification | Tonnes (million) | Grade (g/t) | Ounces (million) |
|---|---|---|---|
| **Probable** | **23.9** | **2.8** | **2.2** |

**Table 4: Syama Ore Reserves as at June 2016**

The process for converting the October 2017 Resource estimate into the updated Reserve has been extensive and rigorous. The key steps have comprised:

- establishment of a new mine design;
- modelling of cave draw, dilution and recovery;
- completion of a 3D cave geotechnical model;
- development of a revised cost model; and
- completion of a revised mine schedule.

The capital and operating development cost model is based on the incumbent contractor rates for an additional three years to June 2022, with owner operating costs being developed from first principles for ore production. The maintenance costs for the underground fleet are based on preliminary rates from Sandvik AB - Mining and Rock Technology (Sandvik) who will be providing a complete maintenance service for Syama Underground. The principal change in the operating strategy for Syama Sub Level Cave (SLC) is automation of the underground load and haul fleet realising a net reduction in equipment numbers, manning personnel and maintenance costs.

Mine production operating costs were also calculated from first principles using labour rates based on actual expenditures, usage rates based on the schedule and unit cost rates, with maintenance and fuel costs based on Sandvik's maintenance model.

Unit costs for consumables are based on contractor rates and supplier quotations together with benchmark data from the cost model developed by AMC Consultants. Mining fixed costs include management supervision, geology, survey and haulage and have been also been built up from first principles.

Capital costs are based on budgeted expenditures from FY19 to FY21 and thereafter based on budget price quotations for equipment replacement.

## Original DFS Background

In June 2016 Resolute completed the Original DFS (refer ASX announcement 30 June 2016). The Original DFS mining strategy consisted of:

- SLC mining which is a high productivity, non-selective mechanised mining method;
- Twin decline access which also allowed Resolute to consider expansions in mine production rates in the future;
- Conventional manually operated mining equipment; and
- Sub-level open stope mining of mineralisation external to the SLC footprint.

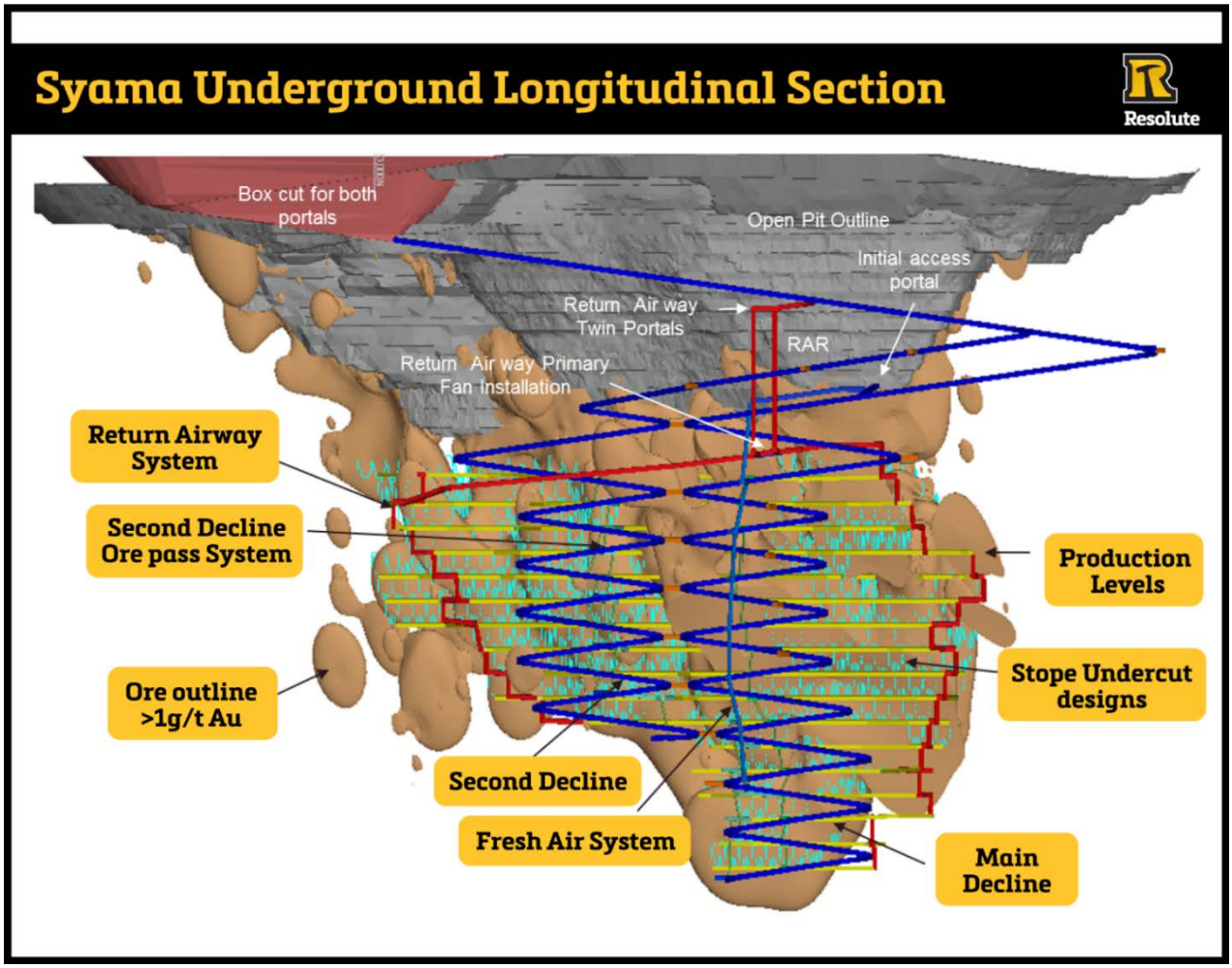


**Figure 2: Long section of Syama showing footwall development and stoping blocks within orebody outline adopted for Original DFS**

The design of the mine as envisaged in the Original DFS is presented in Figure 2. Excavation of the decline commenced in the October 2016 quarter, first development ore was delivered in the June quarter of 2017 with stoping due to commence in July 2018. Importantly, this timing has allowed continuous production to be maintained at Syama from stockpiled sulphide material and satellite open pit mining.

## Syama DFS Update

### Overview

Since the completion of the DFS, Resolute has assessed opportunities to enhance the production, cost and safety performance of the Syama Underground. To support this effort substantial work has been undertaken in the following areas:

- automation of the extraction and truck haulage of ore from the SLC;
- establishment of a Framework Agreement for supply and maintenance of mobile equipment and automation control systems with Sandvik (Sandvik Agreement);
- expansion and upgrading of onsite power generation;
- an extensive surface drilling program aimed at extending the Syama resource laterally and at depth;
- a revised and substantially expanded Mineral Resource Estimate;
- a detailed review of geotechnical data and refinement of geotechnical inputs into cave models;
- development of new dynamic cave models; and
- a new mine design and schedule.

The completion of this work has allowed Resolute to update the Original DFS. The revised plan set out in the DFS Update comprises:

- sub-level caving at 2.4 million tonnes per annum (Mtpa), with automated loading and haulage of SLC ore from an expanded cave footprint;
- extension of sublevel mining to 2032; and
- expanded production of ore from sub-level open stope mining of zones outside the SLC limits.

The expanded mining envelope is presented in Figure 3. Unit mining costs have declined as a result of increased productivity brought about by underground automation. Processing costs are lower due to a planned upgrade of Syama's onsite power generation. These elements of the Updated DFS are discussed in further detail below. Other elements of the project remain largely unchanged from the Original DFS.

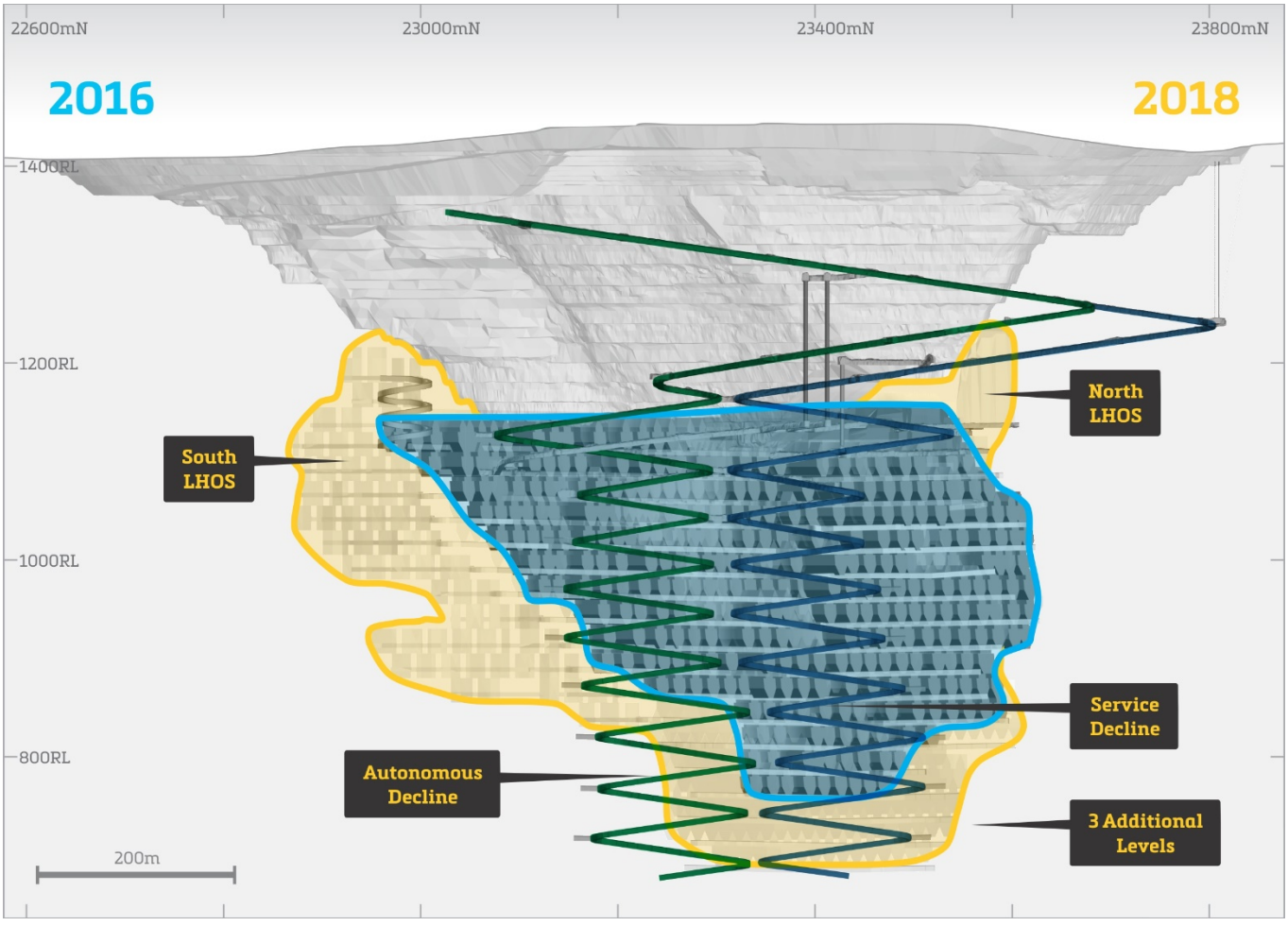


**Figure 3: Long section showing comparison of outlines of June 2018 with June 2016 Ore Reserves**

## Automation of Syama Underground

Resolute has identified a number of key benefits available through the adoption of automation and associated communication and information systems to the Syama Underground mine. These include:

- increased machine productivity and performance;
- reduction in number of machines required leading to capital and maintenance savings;
- reduced risk and better safety outcomes including reduced emissions, noise, and vibration;
- reduction in required personnel underground;
- lower production costs per tonne;
- greater control of mining with less variation which results in less dilution;
- reduction in equipment wear and damage;
- increased productivity and efficiency and optimised scheduling;
- greater machine life;
- opportunity for mining rate increases without requirement for additional infrastructure; and
- ability to train the Syama workforce using new intuitive technologies.

## Partnership with Sandvik

Resolute has entered into a framework agreement which sets out the key parameters of the commercial relationship between Resolute and Sandvik for the full automation of the Syama Underground including the delivery of mobile and fixed equipment, operating software, maintenance of mobile equipment and delivery of training to maintenance and operational personnel (Sandvik Agreement). Sandvik is a globally leading engineering group with headquarters in Sweden specialising in mining and rock excavation, metal-cutting and materials technology.

Resolute and Sandvik have worked very closely in designing the underground mine and collaborated closely on both equipment selection and the design of the underground infrastructure. The Sandvik Agreement secures the terms of this important partnership for the next 3 years and will facilitate the implementation of current and future Sandvik technology without having to revisit contractual arrangements for every purchase.

To fully automate the Syama Underground mine, Sandvik is delivering the AutoMine® and OptiMine® systems for planning, analysis, process optimisation and automation, and a full fleet of Sandvik TH663 trucks, LH621, LH517 and LH514E loaders. Together with a range of development, production and bolting rigs and rock tools, Syama will become a mine of the future. The system is scheduled for commissioning in late 2018. The LH514E tethered electrical loader has been selected as the main loader for stope extraction. The choice of loaders was based on several criteria including:

- suitability to the task of repetitive tramming from stope draw point to ore pass in automated mode with rapid acceleration and high tramming speeds over short distances;
- proven ability at comparable mines;
- lower maintenance costs;
- reduced ventilation requirements, which saves power consumed in ventilation and provides a cooler working environment;
- automated operation allowing earlier re-entry after stope blasting, and higher utilisation and improved draw control; and
- anticipating the logical next step in the evolution of underground machinery to battery powered operation.

Sandvik's integrated product package provides a full suite of technologies and equipment. The TH663 truck depicted in Figure 4 in autonomous mode will be used for ore and waste haulage. Using this collection of software and hardware products Resolute will develop the Syama Underground as an automated mine focussing on load and haul and semi-autonomous drilling with continuous operations. The key elements of these software packages are described below.

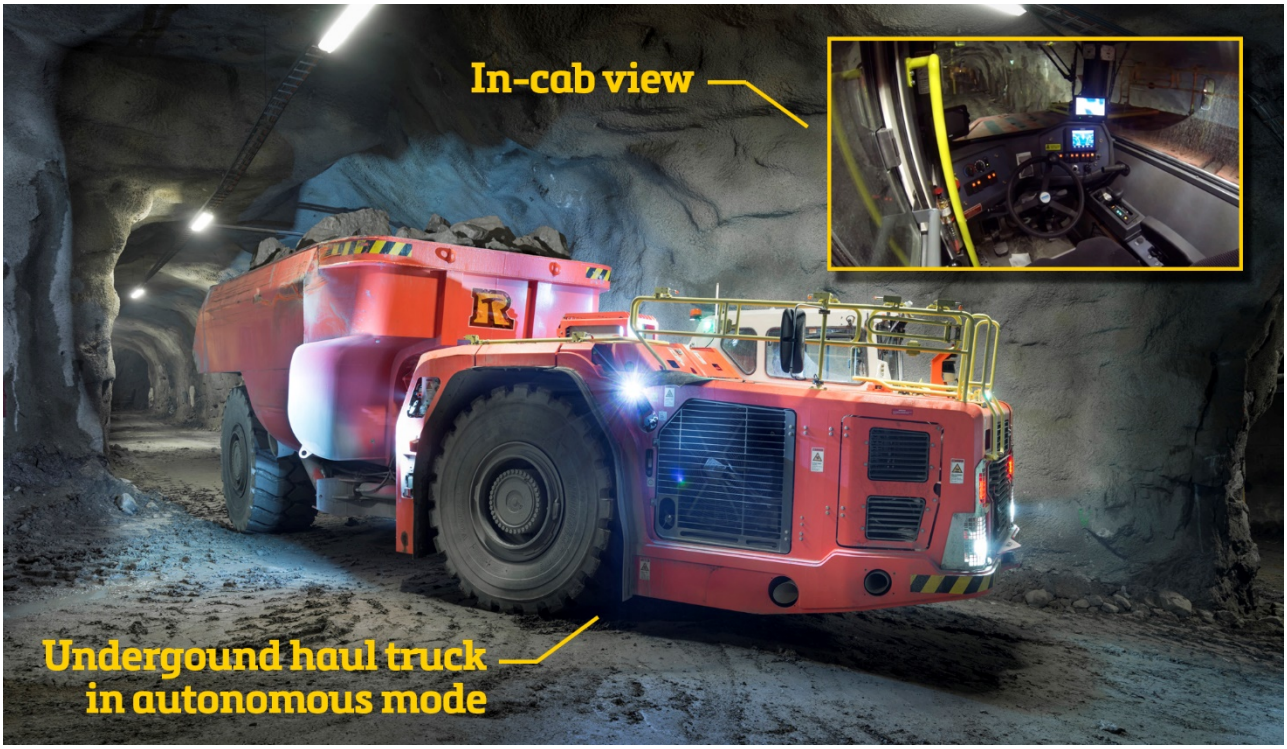


**Figure 4: Sandvik TH663 Truck in autonmous mode.**
***This truck will be used for the haualge of ore and waste from the Syama Underground mine.***

### OptiMine® with 3D Mine and Drill Plan Visualiser

A modular information management solution that offers a real-time view in 3D of the underground mining operations. It provides real-time tracking and production management tools for planning and controlling the mining operations.

### AutoMine® Hauling

A navigation system that controls the trucks during loading, tramming and dumping. Trucks are equipped with an onboard video system, mobile terminal for wireless communications and a navigation system. The AutoMine® Hauling system includes real time production and fleet condition monitoring and traffic control to permit several automated trucks to operate in the same production area. AutoMine® Hauling can be interfaced to the mine's other information and production planning systems.

### AutoMine® Loading Lite, with Automatic Bucket Loading Assistant

A load haul dump machine (LHD) automation product that ensures safe operation and high productivity from drawpoints to ore passes.

Sandvik is the world's leading provider of underground mine automation technologies with 34 mine sites running Optimine® connecting 288 pieces of mobile equipment of which 200 loaders and trucks, deployed in five continents, are running autonomously using AutoMine®. Resolute will procure the latest edition of these software programmes that cover all required areas of automation from the loading at the drawpoint, underground haulage to the surface and surface haulage to the ROM pad.

To facilitate the Sandvik Agreement and assist with the implementation of associated automation at Syama, Resolute has engaged Dr Joe Cronin, a globally recognised robotics expert in the mining industry. With over 25 years of experience, Dr Cronin has demonstrated specialist expertise in complex technical project management and robotics in unmanned vehicles. As Automation Project Manager at CMOC Northparkes in New South Wales, Dr Cronin completed the full automation of the world's most automated underground mine where fully autonomous fifty tonne vehicles roam the production level 24 hours a day, seven days a week with no operators in the cabins.

"I'm looking forward to working with the Sandvik Automation Team again", Dr Cronin explained, "This is the mine we have been talking about building for over a decade. It brings together the automated truck experience from Finsch and the automated loader experience from Northparkes. Combined with a centralised scheduling and visualisation system and a mine-wide wireless network, we will have real-time, closed loop control of the entire underground production task".

## Syama Power Upgrade

Historically, Resolute has operated a 28MW diesel fired power station at Syama. The Syama power station was originally established by BHP and contains a fleet of diesel generators which have progressively expanded to meet operational requirements. Current configuration consists of two 5MW Allen units and a series of smaller Caterpillar and Cummins units. Total available power at Syama from these units is approximately 40MW.

Resolute has been examining opportunities to reduce the mine's reliance on diesel, and reduce costs, for many years. The current cost to generate power at Syama at prevailing diesel fuel prices is approximately USD$0.20/kWh.

Prior to 2016, Resolute had been working with the Mali government on a possible high voltage grid connection between the City of Sikasso and Syama. The Syama Grid Connection Project (SGCP) contemplated the construction of a 225kV electrical transmission line to provide the mine with reliable and lower cost power. The SGCP was suspended in June 2016 following a comprehensive review of the project and an assessment of possible energy alternatives.

During 2018, Resolute has conducted an international Expression of Interest process seeking proposals for an Independent Power Producer (IPP) model, whereby a third party would be responsible for construction and operation of new power generation facilities. The Company has also, in parallel, investigated an owner-operator model. This work, which mirrors similar energy progress being made across the mining industry, has identified a new hybrid energy solution for Syama.

The new Syama power concept solution will comprise an advanced combination of modern Heavy Fuel Oil (HFO) and Solar PhotoVoltaic generation (Solar PV) and hybrid Energy Management System. HFO fuel costs are typically 40% to 50% lower than diesel with larger modern generating units substantially more efficient than Resolute's current engines. The addition of a component of low cost power from Solar PV, and the use of batteries to provide spinning reserve and manage loads more efficiently is projected to result in a substantial reduction in Syama power costs. The new Syama power solution has been incorporated into Resolute's DFS Update and mine plans with a new solution expected to be operational by 2020. Power costs at Syama will incrementally reduce by up to 40% with a material impact in operating costs particularly in reducing the sulphide processing cost. The sulphide processing plant is the main user of power at Syama.

The development of advanced, efficient and more environmentally friendly power solutions is consistent with Resolute's broader intention to build a mine which utilises currently available advanced mature technologies, but which also anticipates future developments. Lower cost self-generated power provides significant advantages for Syama, including the opportunity to provide social and economic benefits for the region.

## Revised Mine Schedule

The ramp up to full production is similar to the Original DFS with full production of 2.4Mtpa achieved toward the end of FY19 and maintained until FY32 (refer Figure 5). The addition of long hole open stope ore, which has yet to be built into the detailed LOM schedule, will further extend the life of mine.

The relative contributions from stope and development ore are presented in Figure 6. Development tonnages and meters of advance are maintained at current levels for the next three years. A substantially lower rate of development advance is required to maintain production at the planned 2.4Mtpa from FY22 onwards. This has two implications:

- production costs will decline from FY22, as the last 10 years of the mine will require relatively little sustaining capital; and
- from FY22 there is potential to expand production by sustaining higher development rates.

A key element of the enlarged Reserve is the increased mining footprint which is illustrated in Figure 7. The 1080 level is the first full automated mining level. The revised design is substantially larger than its predecessor. In addition, draw point orientation and ore pass locations have been changed to reflect geotechnical advice.

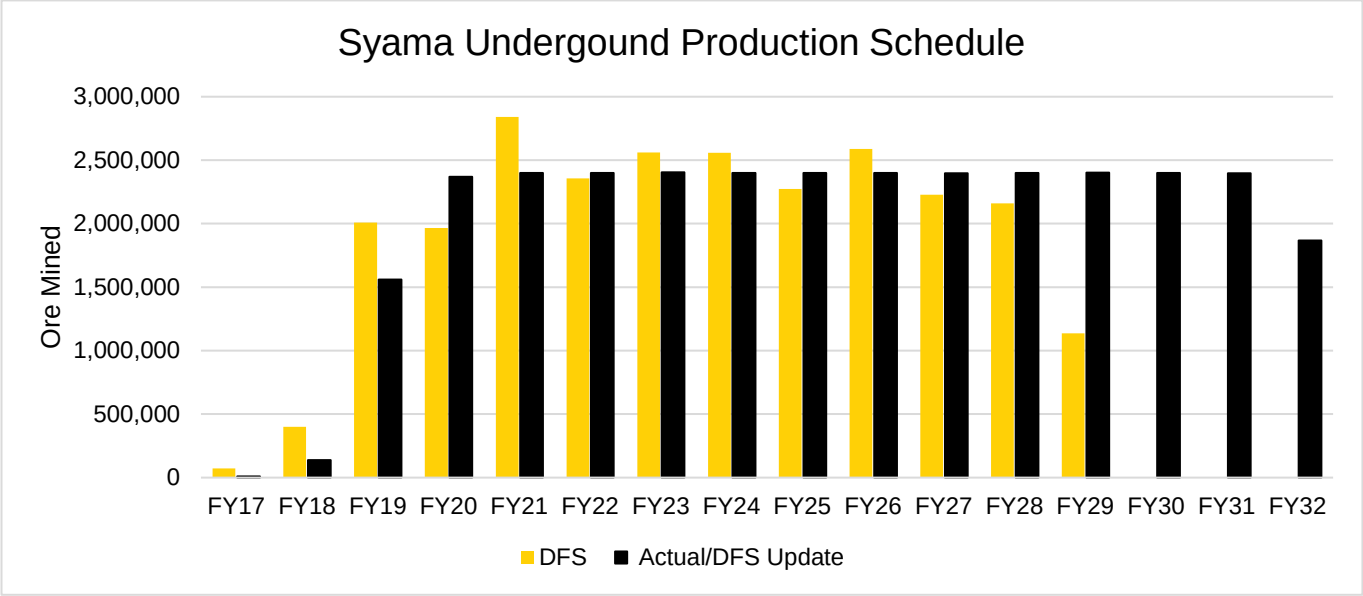


**Figure 5: Annual production schedule DFS Update vs Original DFS**

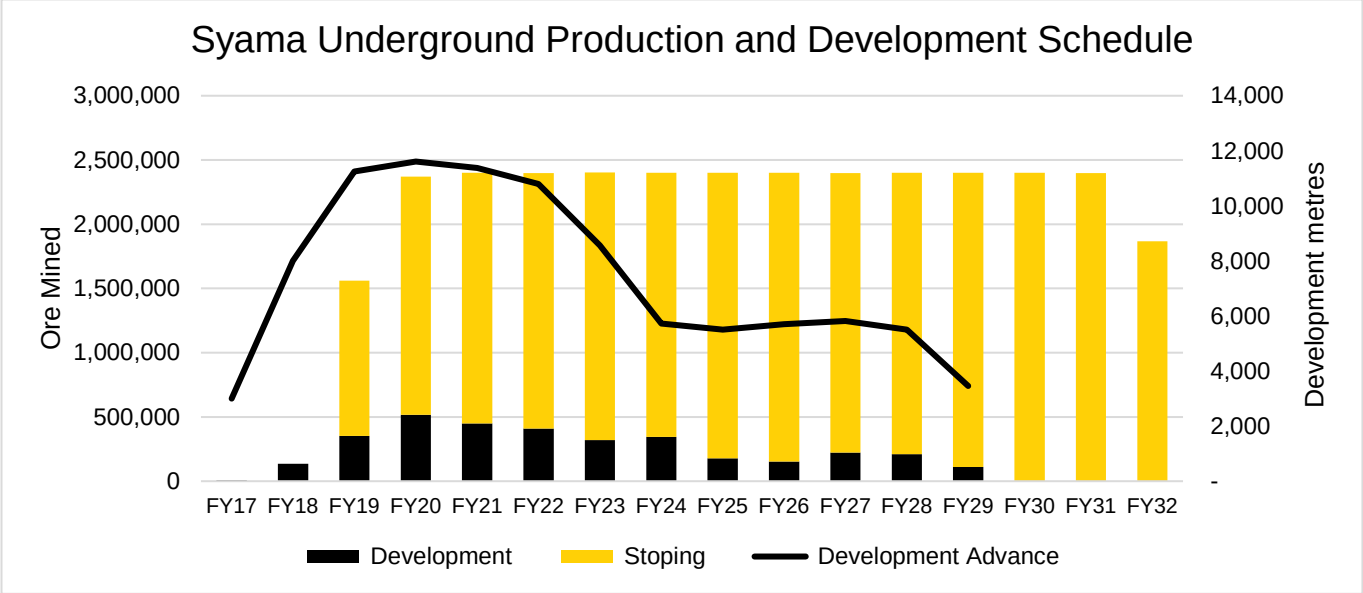


**Figure 6: Annual development and stoping tonnages and development advance**

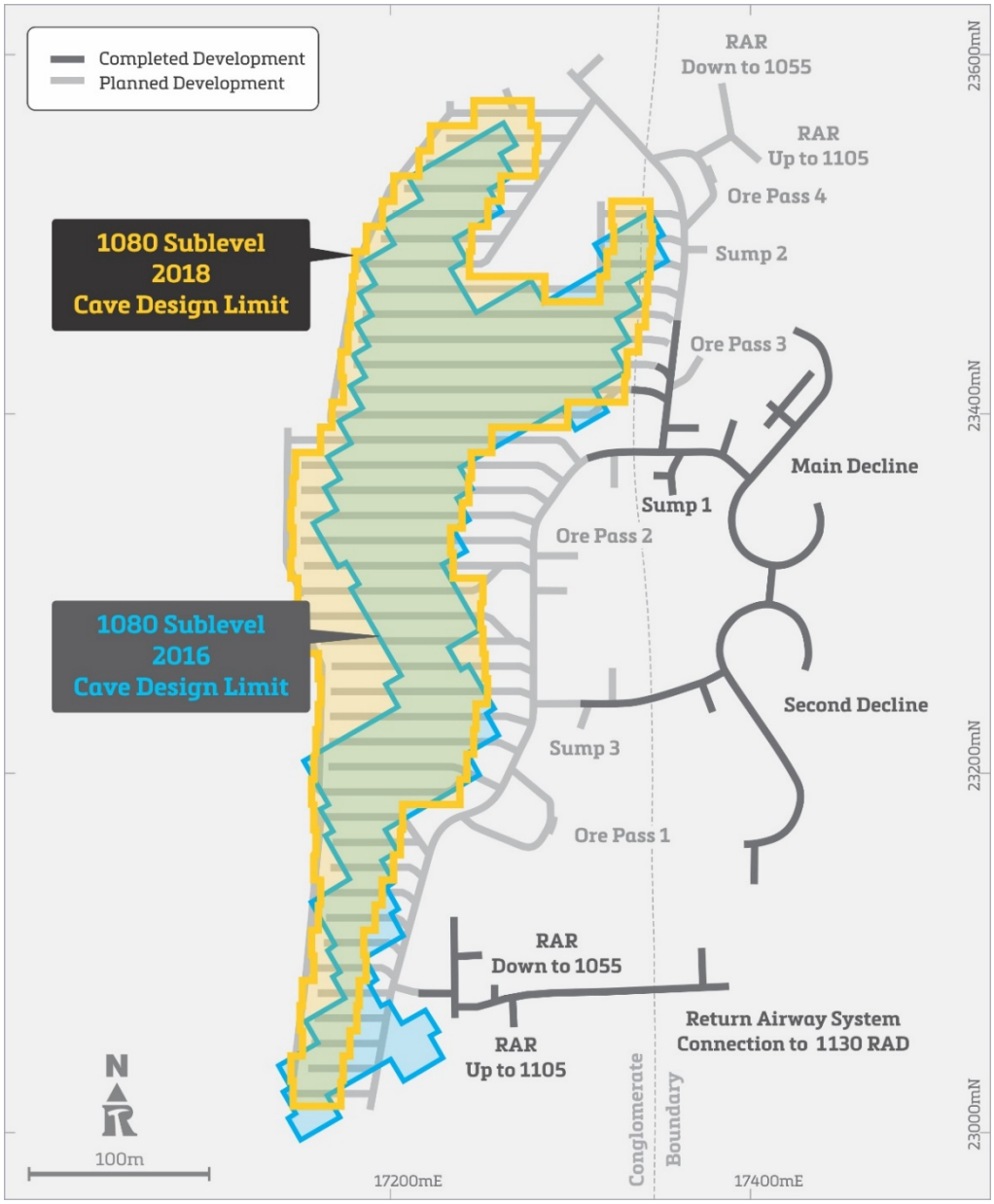


**Figure 7: Comparison of typical design level from Original DFS and DFS Update**

## Processing

Since completing the Original DFS, Resolute has commenced implementation of a series of processing upgrades with the objective of increasing the total sulphide gold recovery to 89% or above. While it has always been considered feasible to achieve sulphide recoveries at these levels, it has not been operationally possible with the historic infrastructure, flowsheet, and operating model.

The initial program, which has now been commissioned, is expected to increase sulphide recoveries from 78% to a minimum of 85% (Project 85). The process upgrades included in Project 85 are summarised in the flowsheet included below in Figure 8 and consist of the following work:

1. **Flotation Tails CIL**: calcine CIL circuit has been repurposed to treat the flotation tails;
2. **New Calcine CIL**: a new dedicated calcine CIL circuit has been installed and commissioned;
3. **Regrind**: the coarse calcine product will now be reground prior to CIL; and
4. **Upgrade of current flotation circuit**: A series of minor upgrades are being completed to the current flotation circuit to improve the operational performance.

These enhancements have been progressively commissioned since October 2017. The major components of Project 85 have now been commissioned and have commenced operation. The full benefits of Project 85 will be received once the Syama Underground Mine is in operation and a constant source of high grade ore can be processed through the enhanced plant configuration. At present the sulphide plant is processing lower grade stocks supplemented by some underground development ore. During periods where the plant is processing underground development ore, higher recoveries consistent with Project 85 expectations are already being recorded providing confidence in the effectiveness of the improvements. Over the next 12 months, the underground mine will supply an increasing proportion of ore to the plant with recoveries are expected to improve accordingly.

Beyond Project 85, Resolute has been working with Outotec, the manufacturer of the Syama roaster, in developing a new roaster technology that will produce a low carbon calcine with the aim of further improving CIL recovery. This new technology will allow Resolute to modify the current single stage Circulating Fluidized Bed roaster into a Low Carbon Roaster (LCR). Through a series of improvements, the roaster has recently been running above capacity at 25t/h. The LCR will allow this to be increased further to 30t/h. By significantly reducing the carbon in the calcine being fed to the calcine CIL circuit, the LCR will contribute to an increase in the overall sulphide gold recovery above the benefits already mentioned in Project 85. This additional recovery is expected to result in total sulphide recoveries of at least 89%.

Following the commissioning of Project 85, Resolute expects to operate the sulphide processing plant at a steady state for an extended period before the further modifications required to implement the LCR are undertaken. The LCR is currently scheduled to be fully operational in 2021 and recoveries in the Syama LOM have been calculated accordingly.

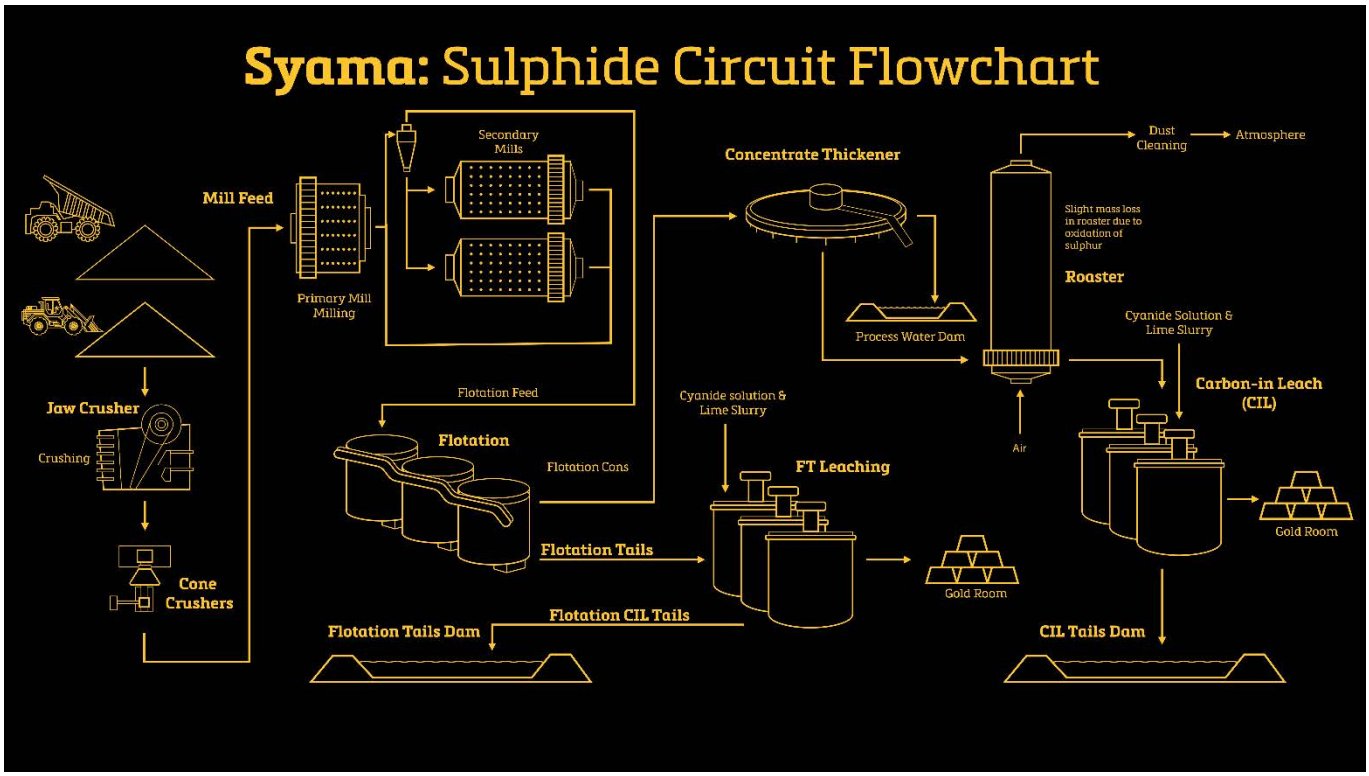


**Figure 8: Syama Flowsheet following completion of Project 85**

## Expansion Studies

The substantial expansion of both Resources and Reserves at Syama has prompted the Company to identify and study options for expansion of mining and processing rates from the underground mine. Initial work has comprised the engagement of independent mining consultants to analyse the mine's potential for higher production rates incorporating both sublevel cave and long hole open stope production.

Mining schedules were analysed for a 2.4, 3.0, 4.0, 4.5 and 5.0Mtpa production rate. Production constraint analysis suggests that a 4.0 Mtpa (ore) production rate could be achieved at Syama and that this appears to be the upper sustainable production rate. This understanding has been supported by more detailed mine scheduling that demonstrated that a 4.0Mtpa (ore) production rate could be reached and maintained.

Thin analysis indicates that a significant expansion at the Syama Underground is achievable and is likely to deliver value to Resolute shareholders. Further studies will be completed to identify opportunities to increase processing plant capacity to match an expanded mining schedule. This work will comprise comminution optimisation and plant bottleneck studies with the aim of identifying the most capital efficient option for expanding plant throughput.

Resolute will continue to progress exploration programs at Syama designed to discover and further extend the Company's gold Resources and Reserves. At the same time optimisation studies will be completed on the potential for an expansion in mining and processing at Syama.

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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 280,000 ounces of gold production at All-In Sustaining Costs of A$1,360/oz (US$1,020/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 2032.

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 Mine focused on the development of an underground operation requiring modest capital and using existing plant infrastructure.

## Competent Persons Statement

The information in this announcement that relates to the October 2017 Syama Mineral Resource Estimate is 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 Pty Ltd 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 as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012). Resolute confirms that it is not aware of any new information or data that materially affects the information included in the original announcement, and that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changed.

The information in this announcement that relates to data quality, geological interpretation and Mineral Resource estimation is based on information compiled by Andrew Goode, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of Resolute Corporate Services Pty Ltd, a wholly owned subsidiary of Resolute Mining Limited. Mr Goode has more than 5 years' experience relevant to the styles of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code 2012. Mr Goode has consented to the inclusion in this announcement of the material compiled by him in the form and context in which it appears.

The information in this announcement that relates to the Mineral Resources and Ore Reserves is based on information compiled by Mr Ian Bignell, a Competent Person who is a Member of the Institute of Materials, Minerals and Mining and a full time employee of Resolute Corporate Services Pty Ltd, a wholly owned subsidiary of Resolute Mining Limited. Mr Bignell has more than 5 years' experience relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code 2012. Mr Bignell has consented to the inclusion in this announcement of the material compiled by him in the form and context in which it appears.



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## JORC Code, 2012 Edition – Table 1 report

## 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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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).<br>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.<br>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.<br>Resolute sampling and sample preparation protocols are industry standard and are deemed appropriate by the Competent Person.<br>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 diamond core of HQ and NQ sizes.<br>Core is oriented at 3m down hole intervals using a Reflex Act II RD Orientation Tool and more recently using a Reflex north seeking gyro instrument. |
| Drill sample recovery | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.<br>Appropriate measures are taken to maximise sample recovery and ensure representative nature of the samples.<br>No apparent relationship 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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*<br>• *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.<br>Geotechnical and structure orientation data was measured and logged for all diamond core intervals.<br>Diamond core was photographed (wet and dry).<br>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.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | Diamond core were sampled at 1m intervals and cut in half to obtain a 2-4kg sample.<br>Reverse circulation samples were collected on 1m intervals by riffle split (dry) or by scoop (wet) to obtain a 2-4kg sample.<br>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. |

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| | • *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material 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.<br><br>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.<br><br>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.*<br>• *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.*<br>• *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.<br><br>No geophysical tools were used to determine elemental concentrations.<br><br>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).<br><br>Laboratory quality control data, including laboratory standards, blanks, duplicates, repeats and grind size results were also captured into the digital database.<br><br>Analysis of the QC sample assay results indicates that an acceptable level of accuracy and precision has been achieved.<br><br>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.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | Verification of significant intersections have been completed by company personnel and the competent person.<br><br>No drill holes within the resource area were twinned.<br><br>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.<br><br>Assay result files were reported by the laboratory in PDF and CSV format and imported directly into the SQL database without adjustment or modification.<br><br>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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | Collar coordinates were picked up in UTM (WGS84) by staff surveyors using an RTK DGPS with an expected accuracy of ±0.05m; elevations were height above EGM96 geoid.<br><br>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. Diamond drilling completed in 2017 and 2018 has utilised a Reflex EZ Gyro downhole survey instrument to provide more frequent data points and reduced magnetic interference. |

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| | | Coordinates and azimuth are reported in UTM WGS84 Zone 29 North in this release.<br>Coordinates were translated to local mine grid where appropriate.<br>Local topographic control is via satellite photography and drone UAV Aerial Survey. |
| Data spacing and distribution | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | The drill hole spacing was sufficient to demonstrate geological and grade continuity appropriate for Mineral Resource estimation and classification in accordance with the 2012 JORC Code.<br>The appropriateness of the drill spacing was reviewed by the geological technical team, both on site and within the Resolute group. This was also reviewed by the Competent Person.<br>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.*<br>• *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.<br>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.<br>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 |
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| 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.*<br>• *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.* | Drilling was conducted within the Malian Exploitation Concession Permit PE 93/003 which has an area of 200.6 $km^2$.<br>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.<br>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 |

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| | | (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.<br><br>BHP during 1987-1996 sampled pits, trenches, auger, RC and diamond drill holes across Syama prospects.<br><br>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.<br><br>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:*<br>o *easting and northing of the drill hole collar*<br>o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>o *dip and azimuth of the hole*<br>o *down hole length and interception depth*<br>o *Whole length.*<br>• *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.* | No new exploration results have been reported in this release.<br><br>The listing of the entire drill hole database used to estimate the resource was not considered relevant for this release. |
| 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.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | No new exploration results have been reported in this release.<br><br>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.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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.<br><br>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.<br><br>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* | Relevant maps, diagrams and tabulations are included in the body of text. |

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| | *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.* | |
| 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.<br><br>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).*<br>• *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.<br><br>Relevant maps and diagrams are included in the body of text. |

## Section 3 Estimation and Reporting of Mineral Resources

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
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| 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.*<br>• *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.<br><br>Resolute completed the following basic validation checks on the data supplied prior to resource estimation:<br>▪ Drill holes with overlapping sample intervals.<br>▪ Sample intervals with no assay data. Duplicate records.<br>▪ Assay grade ranges.<br>▪ Collar coordinate ranges.<br>▪ Valid hole orientation data<br><br>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.*<br><br>• *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 Pty Ltd personnel have been to the Syama mine site.<br><br>All aspects of drilling, sampling and mining are considered by the Competent Persons to be of a high industry standard. |

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| Geological interpretation | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *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.<br><br>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.<br><br>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.*<br><br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by- products.*<br><br>• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* | 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.<br><br>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.<br><br>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.<br><br>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.<br><br>A larger blocks size was chosen based on this analysis than was employed in the previous resource estimate.<br><br>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. |

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| | • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br><br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | 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.<br><br>Un-estimated blocks (less than 1% for gold) were assigned the domain average grades. No deleterious elements were found in the ore.<br><br>No selective mining units have been assumed.<br><br>No assumptions have been made regarding the correlation of variables although it is noted that a broad positive correlation exists between gold and sulphur.<br><br>Estimation searches have been orientated to respect the orientation of the Syama Formation which hosts the mineralisation.<br><br>Top cuts were applied to reduce the variability of the data and to remove the outliers.<br><br>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%).<br><br>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 reasonable prospects for eventual economicextraction 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.* | The mining method for underground exploitation is Sub-Level Caving (SLC).<br><br>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 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. |

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| 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 assumptons 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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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. |

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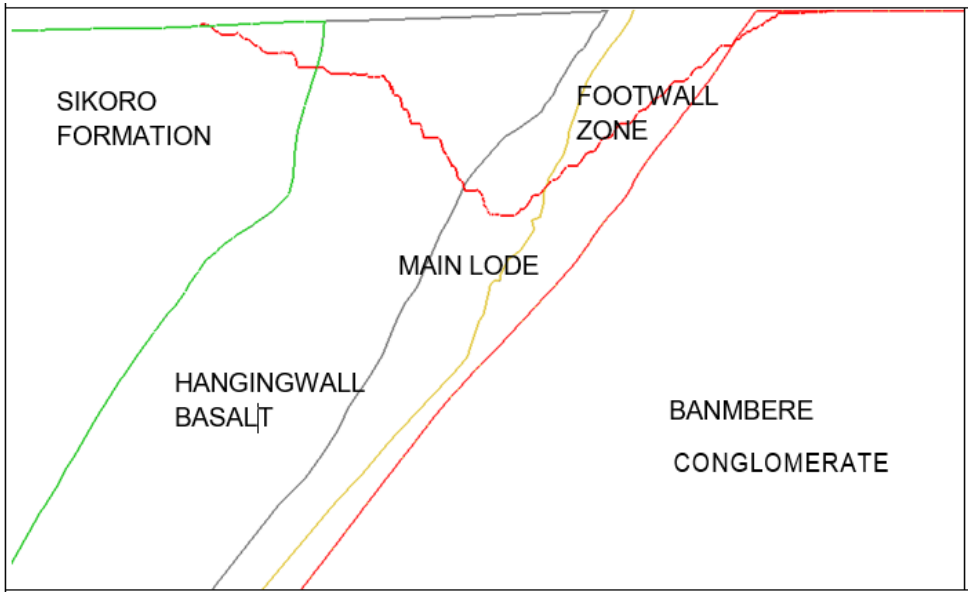
| Bulk density | • *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*<br>• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | Site personnel have completed numerous bulk density comparative estimates on HQ drill core to assess variability using the Archimedes method of dry weight versus weight in water. This method was used for 96% of the bulk density measurements.<br><br>Other tests were completed by SGS using the pycnometer method.<br><br>On the basis of the data collected the following SG estimates were applied to the model:<br>a) Hangingwall Basalt 2.80<br>b) Main Lode 2.75<br>c) Footwall Zone 2.765<br>d) Sikoro Formation 2.78<br>e) Banmbere Conglomerate 2.73<br><br>  |

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| Classification | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *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).*<br>• *Whether the result appropriately reflects theCompetent Person's view of the deposit.* | The Indicated Mineral Resource classification is based on good confidence in the geology and gold grade continuity with less than 75 m x 75 m spaced drillhole density in the central part of the deposit.<br>The Inferred Mineral Resource classification is applied to extensions of mineralised zones on the margins of the deposit where drill spacing is more than 100 m x 100 m and the extents of mineralisation at depth. The Nafolo orebody to the south of Syama which is tested by wider drill spacing has also been classified as Inferred.<br>The validation of the block model has confirmed satisfactory correlation of the input data to the estimated grades and reproduction of data trends.<br>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 and in conjunction with resource consultants at Optiro Pty Ltd as part of the routine validation process. 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.*<br>• *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.*<br>• *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 resource categories as defined by 2012 JORC Code guidelines.<br>The geostatistical techniques applied to the estimate of underground resources at Syama are deemed appropriate to the estimation of Sub Level Caving (SLC) mining method and hence applicable for reserve estimation.<br>There has been no stoping production from the underground mine at Syama at the timing of this release. |

## Section 4 Estimation and Reporting of Ore Reserves

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|---|---|---|
| Mineral Resource estimate for | • *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* | The Ore Reserves are based on a Minera Resource estimate that was completed in Datamine Studio RM using a Categorical Indicator approach to define the mineralised blocks, followed by an Ordinary Kriged model to estimate the gold grade. Grades were estimated into parent blocks with |

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| conversion to Ore Reserves | • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserve.* | dimensions 10mE by 25mN by 10mRL. Sub- celling to 5mE by 12.5mN by 5mRL was employed for resolution of the mineralisation boundary.<br>Only Mineral Resources below the base of the final open pit and below 1250 mRL have been considered in the mining studies.<br>Mineral Resources at Syama are reported above a 1.5 Au g/t cut-off. This is determined from the marginal and geological cut off. Material below this cut-off is not considered in the resource but may form part of the dilution envelope reporting into the underground cave.<br>Ore Reserves are the material which can be extracted from the mine and processed with an economically acceptable outcome. The Ore Reserves have been calculated by means of an economic assessment, which results in a Life Of Mine Plan. Reported Ore Reserves are inclusive to the Mineral Resources. |
| Site visits | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | Mr. Ian Bignell is a Chartered Engineer member of the Institute of Materials, Minerals and Mining and is a Competent Person who has conducted regular site visits to the project location. |
| Study status | • *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*<br><br>• *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.* | Open pit mining operations recently completed in the Syama open pit were conducted successfully and were well established. This study considered the underground operation below the open pit following the completion of the Definitive Feasibility Study. Approval for the development of the underground project was given by the Resolute Board of Directors in June 2016.<br>During FY 18 additional detailed design work was completed to convert the Definitive Feasibility Study to an executable operating plan compromising the following work fronts:<br>• Remodelling the Syama Sub Level Cave with the 2017 resource estimate using PCSLC software.<br>• Reoptimizing the 2016 mine design with a 270-degree drawpoint orientation, together with mine designs for the Longhole Open Stopes.<br>• Validating the cost assumptions for the DFS Operating Case in building a life of mine cost model. Building a new 3D Numerical Cave model for the revised mine design and mining sequence with NOMA Consultants .<br>• Consolidating these outcomes into one reformatted & integrated LOM physical schedule. |

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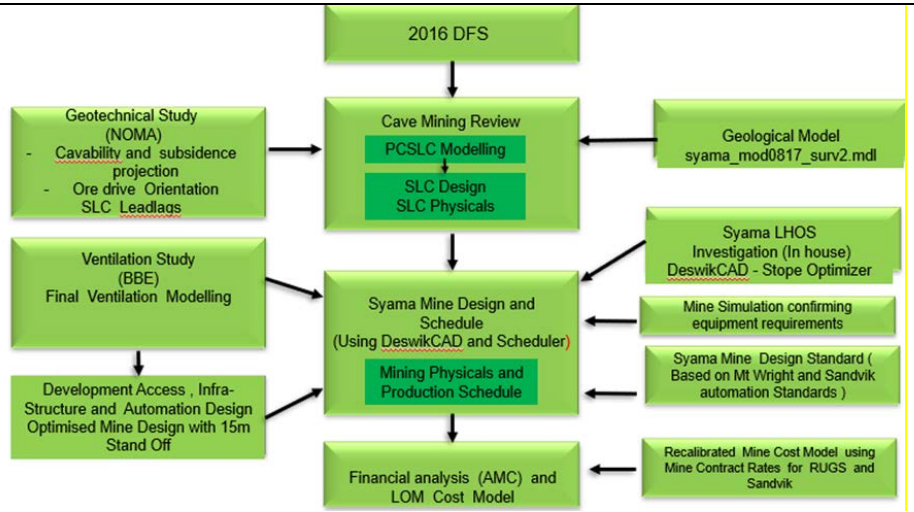
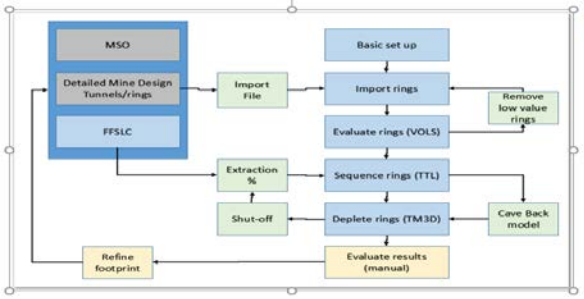
| | |  <br>*The Syama 2017-18 Mine Design Programme* |
| Cut-off parameters | • *The basis of the cut-off grade(s) or quality parameters applied.* | To select the optimum stope design, a breakeven Cut Off Grade (COG) estimate was performed. The cost per tonne for processing and administration were derived from actual mine costs, the mining cost per tonne were derived from first principles and metallurgical recovery were taken from the 2016 DFS . The table below shows the breakeven COG estimate with a cost per tonne mined of $61.45 /t or COG of 1.90 g/t. Thus, to cover these average costs an NSR (Net Smelter Royalty) of $60/t was selected for the PCSLC stope design.<br><br>FY19 LOM Cut Off Grade |

| Item | Units | Value | Comments |
|---|---|---|---|
| Stope mine recovery | % | 100.0% | *Incorporated in design* |
| Dilution – unplanned | % | 0.0% | *Incorporated in design* |
| Mining cost | *$/t ore* | $ 33.10 | *LOM FY 19* |
| Processing cost | *$/t ore* | $ 19.40 | *LOM FY19* |
| Metallurgical recovery | % | 89.0% | *LOM FY 19* |
| General and Administration | *$/t ore* | $ 8.95 | *LOM FY 19* |
| Other (Selling, refining, royalties, etc) | *% sold* | 6.0% | *2016 FS* |
| Contracter mark-up | *% on mining opex* | 0.0% | |
| Gold prices | *$/ozUSD* | $ 1,200 | *LOM FY 19* |
| | | | |
| Gold grade mined | *g/t* | 1.00 | |
| Metal mined after mining dilution and loss | *oz Au / (g/t)* | 1.00 | |
| Metal recovered after plant | *oz Au / (g/t)* | 0.89 | |
| | | | |
| Metal value after plant (Metal produced) | *$ / (g/t Au)* | $ 34.34 | |
| Royalties, sales, refining, etc costs | | $ 2.06 | |
| Metal value sold less royalties, sales, refining, etc costs | *$ / (g/t Au)* | $ 32.28 | |
| Metal value sold less cost and contracter mark-up | *$ / (g/t Au)* | $ 32.28 | |
| | | | |
| **Opex Cost** | ***$/t ore*** | **$ 61.45** | |
| | | | |
| **COG** | ***g/t Au*** | **1.90** | |

Mine Stope Optimisor was used to determine an economic envelope of mine shapes at 1-1.9g/t COG and derive the perimeter for production rings on each level.
Dilution and overdraw was modelled using PCSLC© 2018 software by Mining Plus in January 2018, using the PCSLC sub models were built following the process flow outlined below .




The results of the modelling provided a basis for estimating tonnes and grade in each of the ring shapes to be later scheduled in the Deswik LOM Schedule.

| | | |
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| Mining factors or assumptions | • *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).*<br>• *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip,* | Consultants from Noma Geotechnical Modelling confirmed Snowden's geotechnical study that the deposit is amenable to caving, making SLC the preferred mining method. SLC is a highly mechanized, bulk mining method used in operations world-wide. The ore is blasted and during extraction the surrounding rock is allowed to cave naturally; backfilling is not required. SLC offers the advantage of a high mining productivity with reduced mining cost compared with more selective mining methods such as long hole open stoping. The Noma study provided guidance on dilution movement used to optimize the cave draw parameters in the PCSLC model. |

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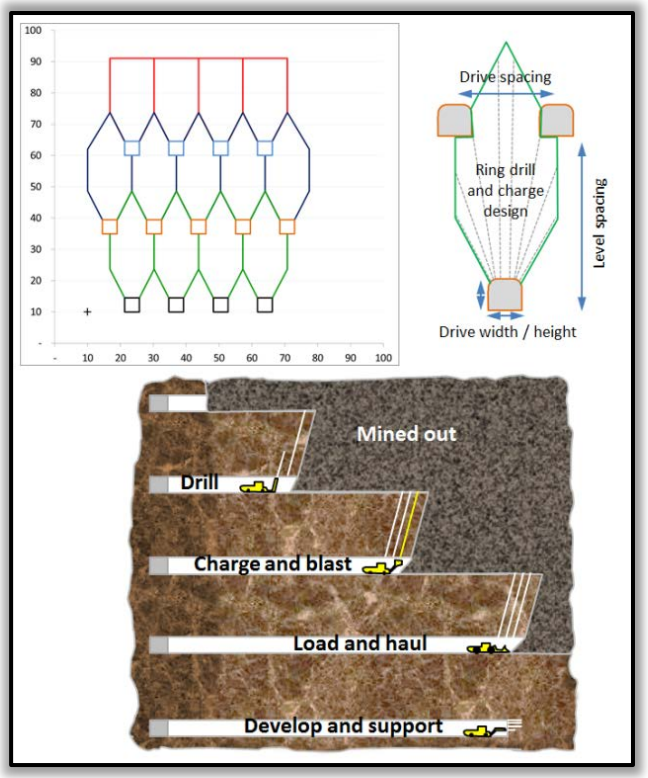
| | *access, etc.*<br>• *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.*<br>• *The major assumptions made and Mineral Resource model used for pit and stope optimization (if appropriate).*<br>• *The mining dilution factors used.*<br>• *The mining recovery factors used.*<br>• *Any minimum mining widths used.*<br>• *The manner in which Inferred Mineral Resources are utilized in mining studies and the sensitivity of the outcome to their inclusion.*<br>• *The infrastructure requirements of the selected mining methods.* |  <br>The Syama orebody is steeply dipping with a competent footwall conglomerate and an orebody amenable to caving (Laubscher RMR of 45 to 60). The chosen mining method was selected after excluding other potential mining methods based on their technical and/or economical risk. Caving was identified as the only potential mining method allowing for maximum extraction of the Mineral Resource. The competent footwall has an UCS of 133 MPa, while the orebody is typically 75 to 100 MPa. The hanging wall has a UCS of approximately 100 MPa. The competency contrast is favorable to the mining method.<br>The orebody mining outline was designed using a cut-off grade of 1.9g/t Au based on current overhead and treatment costs and processing recovery from the open pit operations, combined with DFS estimates for the underground component of the mine and confirmed with completion of the AMC Cost Study in January 2018.<br>Assumptions for mining and dilution factors:<br>• Development ore – 100% tonnes at block model grade. No over break is included for development ore as this would require a corresponding reduction in production ore to avoid double-accounting. This does not have a material impact on the overall result. |

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| | | • Production rings attributed by level and drawpoint – determined by outcome of PCSLC cave modelling. Rings were mined to an economic shut off grade of 1.9 g/t Au, not exceeding the maximum draw percentages listed below:<br>o first level below pit – 60% tonnes<br>o second level below pit – 80% tonnes<br>o third level below pit – 100% tonnes<br>o fourth and consecutive levels – 100% tonnes<br>o bottom two overdraw levels – 125% tonnes<br>Overdraw was modeled in PCSLC and was derived from material higher in the draw column and from external dilution. External dilution properties were extracted from the relevant adjacent model blocks to provide a more reliable estimate than applying universal modifying factors. The mine design was based on the following design criteria:<br>• Draw point spacing of 14m and level spacing of 25m.<br>• A transverse layout was designed for the majority of the Syama deposit. The northern section is wider and will be used to initiate caving. The southern section is narrower and the cave was terminated where the continuous economic width reduced below 30 m. Draw point drives have been aligned orthogonal to the orebody strike in line with geotechnical recommendations.<br>• A full set of ring designs were completed in the PCSLC software using the orthogonal draw point drive orientation and clipped to a 1.9g/t cut off using stepped height rings on the hangingwall.<br>• Hydraulic radius of 12 (ore) to 17 (hanging wall) was calculated to initiate caving.<br>• The mine will be accessed via two independent haulage declines with one dedicated to autonomous haulage. Both declines are located to the east of the orebody and within competent footwall conglomerate, approximately central to the strike extent of the ore zone. Each level has been designed with infrastructure for ventilation, second means of egress and drainage.<br>• Multiple models were tested to determine optimum extraction rates with the draw shut off grade selected at 1.4 g/t.<br>A small component (<5%) of Inferred Resources in the lower levels of the mine is included in the later years of the life of mine plan. These resources are included in the Ore Reserves as part of the cave dilution inventory. This does not materially impact the outcome of the LOM Plan. |
| Metallurgical factors or assumptions | • *The metallurgical process proposed and the appropriateness of that process to the style of mineralization.*<br>• *Whether the metallurgical process is well-tested technology or novel in nature.*<br>• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*<br>• *Any assumptions or allowances made for deleterious elements.*<br>• *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole.*<br>• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?* | Experience from the current open pit shows that ore from the Syama deposit can be highly refractory due to locking of gold within the sulphides and variable amounts of reactive natural carbon which robs cyanide leach solutions of dissolved gold. Processing of the ore will be via the following stages:<br>• Crushing and grinding.<br>• Flotation to produce a sulphide rich concentrate.<br>• Concentrate thickening.<br>• Roasting, followed by calcine quench and wash.<br>• CIL.<br>• Tailings disposal.<br>The crushing, grinding and flotation circuit has a designed capacity of 2.4 Mtpa and the roaster will process 196,000t of concentrate per annum. The CIL circuit has a designed capacity sufficient to process all of the roasted concentrate. |
| Environmental | • *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps* | The Syama Gold Mine operates in accordance with its' Environmental & Social Impact Study – "Société des Mines de Syama, Syama Gold Mine, Mali, dated 2007. Waste rock characterisation has been included in prior studies for this Environmental & Social Impact Study. Work is ongoing to optimise the mining operation and environmental management through the following: |

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| | *should be reported.* | • Drilling to investigate rock characteristics<br>• mineralogical assay analysis of drill core<br>• routine testing of rock material types for acid generating properties<br>• developing a sequence, rate and design optimization for open-pit mine walls, ramps and the waste rock dump landform to meet the requirements of rock characteristics.<br>The outcomes of this work are part of a continuing improvement program which contributes to the waste rock dump management plans, annual reporting and consultation-committee meetings with government and community representatives.<br>Tailings storage for the life of mine is forecast to be impounded over the existing footprint area approved in the Environmental & Social Impact Study. Progressive raising of the tailings impoundments will occur to contain life-of-mine storage capacity. Routine progress on the monitoring is reported to government and at stakeholder meetings in concert with routine inspections by government representatives.<br>The Syama Project is in a mature phase of its operating life with environmental management permitted by an Environmental Authority and supported by an Environmental Management Plan. No impediments are anticipated to the development of the underground mine. |
| Infrastructure | • *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.* | The Syama Mine and the underground mine site are located near the two major towns of Kadiola and Sikasso. Kadiola, 55km southeast, is the regional capital while Sikasso, approximately 85 km to the northeast, is the second largest city in Mali and located close to the border with Burkina Faso.<br>Access is via formed gravel road off the sealed Sikasso to Côte d'Ivoire highway through Kadiola, and then from Fourou to site. Most consumables and supplies use this route as it can be approached either from Côte d'Ivoire through the border post at Zegoua or alternatively from Burkina Faso and Togo through Sikasso. The road north through Bananso to Farakala, on the main highway from Bamako to Sikasso, provides an alternate and shorter route to Bamako. This road is generally impassable during the wet season when the low level "bridge" at Bananso is covered with water.<br>Supporting infrastructure for the current operations has included upgrading of the 70km section of road from Kadiola to the site, refurbishment of administration buildings, plant site buildings and accommodation for housing expatriate and senior national staff. This infrastructure will also be used by the underground operations, with additional allowance made in the study for underground specific infrastructure on surface, such as primary ventilation fan installations, additional work shops and offices and change rooms for underground workers.<br>The site is serviced by two Internet and mobile telecommunications providers (Sotelma & Orange), in addition to a point to point satellite connection to Perth.<br>The current operation has a peak continuous power demand of approximately 22MW with an installed power capacity of 27MW. Power is currently supplied from a diesel fired power station. Supply of power from the national grid is being considered in the near future and was incorporated into the underground study. |
| Costs | • *The derivation of, or assumptions made, regarding projected capital costs in the study.*<br>• *The methodology used to estimate operating costs.*<br>• *Allowances made for the content of deleterious elements.*<br>• *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.*<br>• *The source of exchange rates used in the study.*<br>• *Derivation of transportation charges.*<br>• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*<br>• *The allowances made for royalties payable, both Government and private.* | Resolute's mobile equipment and mining plant will be purchased by both SOMISY the mining contractor and amortized over the operational lifespan of the items.<br>The underground mine development contract has been awarded to Byrnecut Offshore and cost assumptions have been derived from that contract.<br>Mine operating costs are calculated from first-principles using fixed and variable components for RUGS mining rates and Sandvik maintenance ratesAllowances were made for regional efficiencies, supervision and training. Current processing and administration costs were applied. The average mining cost (including decline development, raises and contractor margin) is $19.9/t. Owner's infrastructure capital costs are estimated to be $116M.<br>Assumed gold prices have been derived by reference to recent USD spot gold prices.<br>All revenue and cost estimates have been made in USD, thus no exchange rates were required.<br>Treatment and refining charges have been derived from current operating costs. |

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| | | Royalties equal to 7% (6% government and 1% smelter) of sales proceeds are included in the cost model and is based on current royalties paid.<br>No other royalties or Joint Venture agreements are expected. |
| Revenue factors | • *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*<br>• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.* | It has been assumed that gold will be sold at the prevailing spot gold price. All revenue and cost estimates have been made in USD and exchange rate assumptions were not necessary.<br>The study used an assumed gold price of US$1,200 per ounce which was derived by reference to recent USD spot gold prices. |
| Market assessment | • *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*<br>• *A customer and competitor analysis along with the identification of likely market windows for the product.*<br>• *Price and volume forecasts and the basis for these forecasts.*<br>• *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.* | There is a transparent quoted market for the sale of gold.<br>The mine life of the project and processing forecasts are based on Life of Mine Plans.<br>Industrial minerals have not been considered in this Study. |
| Economic | • *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*<br>• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.* | A variety of gold price points and discount rates were used to assess the robustness of the project, likely payback periods, the breakeven point and the projected internal rate of return.<br>The project generates pre-tax revenue of US$467M and has a positive pre-tax IRR of 22% (Original DFS).<br>In the estimate, a gold price of US$1,200 per ounce was assumed. |
| Social | • *The status of agreements with key stakeholders and matters leading to social license to operate.* | Resolute assumed management of Société des Mines de Syama in May 2004. The recently completed open pit operated under the 1993 Permit Syama (No.PE-93/003) and the proposed underground will do the same.<br>It is anticipated that transferrable skills from the current operation will be utilized for the underground operation and that existing employees will be up skilled where possible.<br>Initially selected posts requiring specific skills or experience will most likely be filled by expatriates. In addition to performing their job function, expatriate personnel will be expected to transfer knowledge and expertise in order to develop the capabilities of their Malian staff. In the longer term it is anticipated that Malian nationals will fill most operating and management positions within the company.<br>It is the intention to encourage economic development within the local community. Local contracts therefore, are let wherever possible and the company works actively with existing and emerging companies to achieve this aim.<br>The Syama Mine Community Consultative Committee was established in February 2001 with representatives from local villages, the Malian Government and SOMISY. Since April 2004 the Committee has met regularly as a communication forum and to address community issues and assist with community project proposals. |
| Other | • *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*<br>• *Any identified material naturally occurring risks.*<br>• *The status of material legal agreements and marketing arrangements.*<br>• *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.* | High seasonal rain fall events present a risk for the underground operations.<br>Further drilling and logging of drill holes is underway to extend the underground reserves.<br>All current government agreements and approvals are in good standing and no anticipated changes are expected. |

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| Classification | • *The basis for the classification of the Ore Reserves into varying confidence categories.*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.*<br>• *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).* | All Measured and Indicated Resources were converted to Probable Reserves.<br>An estimated 63% of the Ore Reserve metal is derived from Measured Resources and classified as a Probable Ore Reserve because some modifying factors are only at a PFS (±25%) level of confidence.<br>A small component (5%) of Inferred Resources is included in the Ore Reserves, but this does not materially affect the outcome. |
| Audits or reviews | • *The results of any audits or reviews of Ore Reserve estimates.* | Snowden Mining Industry Consultants completed the Syama Underground Pre-Feasibility study in 2015 and later contributed to detailed designs incorporated in the Definitive Feasibility Study. Subsequent mining studies have been conducted in conjunction with various industry experts from external companies relevant to the areas of study.<br>No other external audits of Ore Reserves were undertaken. |
| Discussion of relative accuracy/ confidence | • *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*<br>• *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.*<br>• *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*<br>• *It is recognized that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | Treatment costs and recoveries are based on actual performance in the open pit operations and provide a high level of confidence.<br>Resolute has extensive experience with a similar underground operation at the company's Mt Wright mine in Australia. This experience was combined with industry average assumptions, where required, to provide a level of accuracy and confidence that falls within the required standard for a Definitive Feasibility Study and the subsequent Mining studies.<br>All the parameters assumed and adopted including the financial modelling and analysis have been subject to internal peer review. |