



**Resolute**

# ASX Announcement

**23 December 2019**

## Ravenswood 5Mtpa Plant Expansion Completed

**Stage 1 of Ravenswood Expansion Project completed**

**Recommissioning of third mill increases processing capacity to 5Mtpa**

**Stage 1 target production of ~80kozpa at an AISC of ~A\$1,600/oz**

**Commencement of Stage 2 expected during 2020**

**Stage 2 target production of ~200koz annually for 15 years from 2022**

### Highlights

- The first stage of the Ravenswood Expansion Project has been completed with recommissioning of third mill
- Site processing capacity at Ravenswood has been increased to 5Mtpa
- Processing of beneficiated low-grade stockpiles is now generating positive operating cash flows
- Stage 1 expansion targets production of ~80,000oz of gold at an AISC of ~A\$1,600/oz in 2020
- The strategic and technical review of the Ravenswood Expansion Project continues to identify efficiency and scale improvements with potential to deliver ~200,000oz annually for 15 years
- Stage 2 of the Ravenswood Expansion Project expected to commence during 2020 with timeline to complete implementation ~24 months post investment decision

Resolute Mining Limited (Resolute or the Company) (ASX/LSE: RSG) is pleased to announce that Stage 1 of the Ravenswood Expansion Project (REP) has been completed at the Ravenswood Gold Mine (Ravenswood) in Queensland, Australia. This follows a 5-month program to refurbish the third ball mill at the Nolans Processing Plant (Mill #3) (see ASX Announcement 28 August 2019). Stage 1 of the REP enables processing of available stockpiled material to target production of 80,000 ounces (oz) of gold at a reasonable cost to ensure Ravenswood generates positive operating cashflows during the subsequent development phases of the REP.

Stage 1 of the REP comprised the recommissioning of the third grinding mill at the Nolans Processing Plant which allows a return to a processing rate of 5 million tonnes per annum (Mtpa). The increased processing capacity permits Resolute to process greater volumes of the low-grade mineralised stockpiles (LGMS) that are available at Ravenswood. The LGMS were stockpiled during previous open pit operations at Sarsfield. Available stockpiled material currently includes an Inferred Mineral Resource of 32.6 million tonnes (Mt) at 0.4 grams of gold per tonne (g/t Au) for 390,000oz.

Beneficiation of the LGMS, via a combination of contract crushing and screening and owner-operated facilities, will result in an uplift in head grades from 0.4g/t Au to approximately 0.6g/t Au. Current operating performance at Ravenswood is confirming the capacity of the LGMS material to provide beneficiated grades of approximately 0.6g/t Au, consistent with the Stage 1 operating strategy. This allows Resolute to target annual production from Ravenswood, based on the processing of the beneficiated LGMS at 5Mtpa, of approximately 80,000oz of gold. The



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All-In Sustaining Cost (AISC) of this production is expected to be approximately A\$1,600/oz.

Following completion of Stage 1 of the REP, Ravenswood is now producing positive operating cash flows for the Company and these positive cashflows are expected to continue during further REP development stages.

The recommissioning of Mill #3 at the Nolans Processing Plant is the first step in the eventual upgrading of the plant to support the REP. The strategic review of the REP which commenced in early 2019 continues to provide strong encouragement for higher throughput and production rates than envisaged in earlier studies. Based on this work, the development period for the full REP is estimated at 24 months and is demonstrating that the full REP has the potential for Ravenswood to deliver approximately 200,000oz of gold annually for 15 years from 2022.



**Figure 1: Nolans Processing Plant with third grinding mill (Mill #3)**

Managing Director and CEO, Mr John Welborn, highlighted the importance of the increase in processing capacity at Ravenswood and the implications of beneficiation on the potential for larger scale production over a long mine life in an upgraded REP:

“The strategic review of the Ravenswood Expansion Project continues to demonstrate we are creating value for Resolute. Increasing the plant capacity at Ravenswood to 5Mtpa and using this capacity to beneficiate and process available low-grade stockpiles, delivers an immediately cashflow positive, profitable mining operation at Ravenswood. More importantly, it is a step towards the much larger production base that we believe is possible at Ravenswood. During 2020, the strategic review will now evaluate the future capital demands of the full REP, contemplate the timing of an investment decision on Stage 2, and how best to maximise value for Resolute shareholders from this potential.”



“The completion of Stage 1 of the REP, and the ongoing value being created at Ravenswood, is consistent with a core strength of Resolute: mining smarter, using advanced technologies and innovative techniques to create sustainable value for all our stakeholders.”



**Figure 2: Nolans Processing Plant showing the beneficiation circuit.  
Reject material from beneficiation is located at the top right**

## Nolans Processing Plant

Prior to the recommissioning of Mill #3, the Nolans Processing Plant had capacity to treat up to 3Mtpa of gold bearing ore through a three-stage crushing circuit. The existing crushing circuit uses a jaw crusher, along with secondary and tertiary cone crushers to reduce the run-of-mine ore to a size suitable for grinding (nominally 18mm). The Nolans Processing Plant includes a beneficiation circuit, which allows production of two products; an oversize fraction which is largely devoid of gold, and a grade-enriched fine fraction which reports to the crushed ore stockpile ready for milling. The oversize fraction is conveyed and transported to a waste stockpile. The existing crushing circuit will be supplemented by contract crushing, which will produce additional screened product for direct feed to the grinding circuit.

The grinding circuit was configured in a conventional, closed-circuit primary (Mill #1) and regrind (Mill #2) arrangement. Crushed ore is slurried with water, and ground in the primary mill. Following classification, remaining coarse material is further processed in the regrind mill. The ground slurry from both the primary and regrind mills is pumped to cyclone classifiers, which produce a coarse underflow fraction for regrinding and a fine overflow fraction for gold leaching. A gravity concentrator also recovers gold from the cyclone underflow.

The upgraded grinding circuit now utilises the additional 4,000kW ball mill (Mill #3) to increase the overall primary and regrind milling capacity to 5Mtpa. Mill #3 has been refurbished and recommissioned and is now operating alongside Mill #1 and Mill #2. Mill #1 and Mill #2 are both rated at 3,250kW and continue to operate in their existing arrangement.

For further information, contact:

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Managing Director & CEO

**Jeremy Meynert**  
General Manager – Business Development & Investor Relations



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### About Resolute

Resolute is a successful, dividend paying gold miner with more than 30 years of experience as an explorer, developer and operator of gold mines in Australia and Africa which have produced more than 8 million ounces of gold.

Resolute's production and cost guidance for the 12 months to 31 December 2019 is 400,000oz of gold at an AISC of US\$1,020/oz.

Resolute owns four gold mines. Its flagship asset is the world class Syama Gold Mine in Mali (Syama) which can produce more than 300,000 ounces of gold per annum from existing processing infrastructure. Resolute is currently commissioning the world's first fully automated underground mine at Syama which will deliver a low cost, large scale operation with a mine life beyond 2032. The Mako Gold Mine in Senegal is a high quality, low cost asset with average annual production of ~140,000 ounces of gold. The Ravenswood Gold Mine in Australia and the Bibiani Gold Mine in Ghana are existing largescale assets which provide Resolute with significant production growth potential. Resolute has a pathway to annual gold production in excess of 500,000 ounces from a Global Mineral Resource base of more than 18 million ounces of gold.

Resolute trades on the Australian Securities Exchange (ASX) and the London Stock Exchange (LSE) under the ticker RSG.

### Contact Information

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### Follow Resolute



*Authorised by Mr John Welborn, Managing Director & CEO*

*The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulation (MAR). Upon the publication of this announcement via a Regulatory Information Service (RIS), this inside information is now considered to be in the public domain.*

#### ASX/LSE: RSG Capital Summary

Fully Paid Ordinary Shares: 903,153,734  
Current Share Price:  
A\$1.09 as at 20 December 2019  
Market Capitalisation: A\$984 million  
FY19 Guidance (to 31 December):  
400,000oz @ AISC US\$1,020/oz

#### Board of Directors

Mr Martin Botha *Non-Executive Chairman*  
Mr John Welborn *Managing Director & CEO*  
Ms Yasmin Broughton *Non-Executive Director*  
Mr Mark Potts *Non-Executive Director*  
Ms Sabina Shugg *Non-Executive Director*  
Mr Peter Sullivan *Non-Executive Director*

#### Contact

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