Syama Gold Mine

In December 2018, Resolute commenced sublevel caving at the new Syama Underground Mine on time and on budget.

The successful development of the Syama Underground Mine represents a pivotal moment in the long history of Resolute. Syama will be the world’s first, purpose built, fully automated sublevel cave gold mine. It is a world class, long life, low cost asset that will deliver long term benefits to our shareholders, stakeholders, and local Mali communities for years to come.

Syama is located in the south of Mali, West Africa approximately 30km from the Côte d’Ivoire border and 300km southeast of the capital city, Bamako. Resolute has an 80% interest in Syama which is held through Société des Mines de Syama S.A. (SOMISY). The Malian Government holds a 20% interest in SOMISY.

Resolute operates two processing plants at Syama: a 2.4 million tonnes per annum (Mtpa) sulphide processing circuit and a 1.5Mtpa oxide processing circuit. Mining at the main Syama open pit was completed in May 2015 with ore for the sulphide circuit currently being sourced from previously stockpiled sulphide ore, underground ore from the new sub level cave mine and satellite operations. Ore for the oxide circuit was supplied by series of satellite deposits in FY18 and will be sourced from Tabakaroni from FY19.

Due to the refractory nature of the sulphide ore, it is treated using conventional three-stage crushing, ball milling, sulphide flotation, roasting, calcine leaching and elution. The oxide processing circuit is a conventional crushing, SAG milling, and leaching circuit.

Syama will be the most sophisticated and advanced gold mine in Africa. Our investment in exploration, infrastructure, technology, power, and innovation at Syama has transformed a world class orebody into a world class mine. Resolute has an ambition to be a leader in sustainable and responsible economic growth in Africa. We recently announced plans to build a new 40 MW Syama Solar Hybrid Power Plant which will deliver an expected 40% savings on power costs and is expected to be the world’s largest mine based, off-grid fully integrated independent solar hybrid power plant.

The commissioning of Project 85, a series of sulphide processing plant upgrades, will enable us to achieve improved recoveries from high-grade ore sourced from the new sublevel cave. The combination of mine automation, improved recoveries, and lower cost power has the potential to increase Syama site production to 300,000 ounces of gold per annum and reduce Life-of-Mine All-In Sustaining Costs to below US$750 per ounce.

The Syama Underground Mine is an achievement that builds Resolute’s African development expertise demonstrated in earlier successes at Obotan and Golden Pride. The new mine also builds on the Company’s underground technical achievements demonstrated in pioneering the sublevel shrinkage mining method at the Mount Wright Underground Mine in Ravenswood, Queensland.
The most advanced mining automation system in the world.

- Autonomous Haulage
- Autonomous Loading & Dumping
- Autonomous Drilling
- Autonomous Truck Navigation
- Mine Digitalisation
- Central Monitoring & Visualisation

The most advanced mining automation system in the world.

- Extra Productive Hours
- Continuous Operation
- Less Downtime
- Consistent Output
- High-Speed Production
- Upgradable to Multi
- Optimised Tracking & Reporting
- Less Operational Headings
- Reduced Damage
- Low Upfront Capex
- Mine Life Extended to 2032
- Low Upfront Capex
- Improved Operator Comfort

LOM AISC Reduced to US$746/oz

Upskilling Local Workforce

Smaller Fleet

Technology Driven Productivity Gains

Automated Mine
15% - 20% Gain
- Remotely Operated Machinery
- Autonomous Drilling
- Autonomous Loading
- Autonomous Haulage

Digital Mine
10% - 15% Gain
- Tracking and Visualisation
- Task Scheduling and Optimisation

MANUAL MINE

Day Shift

Night Shift