Positively unique potash project set to deliver

This company plans to have the low cost Colluli premium potash project with a 200 year mine life and numerous product options in production before the end of 2018.

Danakali Managing Director and CEO Paul Donaldson dubs their company-making Colluli potash project in Eritrea “positively unique”.

“Every factor that makes this resource and this project unique, is positive – it ticks all the boxes of a world-class project,” he says.

The recently released definitive feasibility study shows Colluli is one of the most fundable potash projects in the world, it’s underpinned by a massive 1.1 billion tonne mineral reserve and the economics demonstrate it has a low capital intensity and will be in the bottom quartile of the mine gate cost curve.

The DFS also put the phase one development capital cost under $US300 million – a 30% reduction from the earlier pre-feasibility study – and a payback period of less than 4 years.

Colluli is owned by the Colluli Mining Share Company, a 50:50 joint venture between Australian-based Danakali and the Government’s Eritrean National Mining Corporation (ENAMCO).

“Many aspects of Colluli can’t be replicated by other potash projects,” Donaldson explains.

“It’s strategically located in Eritrea at the epicentre of a booming population centre, it’s the closest potassium sulphate project to a coastline anywhere in the world – and the shallow mineralisation is where the project really differentiates itself.”

The high value, geologically rare combination of salts in the Colluli deposit are just 16m from surface.

One of the key advantages for the production of Colluli’s potassium sulphate (sulphate of potash or SOP) is that the salts are in solid form in contrast with many other SOP deposits, that are either a potassium-rich brine that needs evaporating, or are underground and need to be dissolved to bring to surface.

“We’ve got a highly favourable combination of salts, that come together favourably under ambient conditions to give a high yield conversion to potassium sulphate,” Donaldson said.

“The shallow mineralisation allows open cut mining, and the salts commencing in solid form both reduces the capital intensity by negating the need for large evaporation ponds, and also results in immediate revenue generation.

“These are all things make Colluli positively unique. We’ve pulled the whole project apart over the last few years and analysed the composition of the resource to determine the development path that plays to the strengths of the deposit and location to give it the best possible project start-up, and subsequent expansions.”

Colluli will produce high-grade 98% sulphate of potash or potassium sulphate, with greater than 52% potassium oxide (K2O) equivalent, making Colluli one of the highest-grade SOP producers globally.

Colluli contains a JORC 2012 ore reserve of 1.113 billion tonnes at 10% K2O for 216Mt of contained SOP, and the resource remains open to the southeast and northeast.

In Phase I, Colluli will produce 425,000tpa of the premium SOP fertiliser product, increasing to 850,000tpa when Phase II begins in the sixth year, with an estimated mine life of 200 years.

The planned modular development approach balances fundability, risk and economic return, and the DFS has reduced mining costs by 22% over the first four years of operation thanks to improved strip ratios and an optimised mining schedule.

Danakali plans to have Colluli in production late in 2018

Colluli will produce a high-grade 98% sulphate of potash
According to the DFS, the project will have a post-tax net present value of $US$600 million and an internal rate of return of 29%.

Colluli is located 75km from the Red Sea coast and 180km south of the Massawa port.

Donaldson said the size of the existing SOP market was expected to grow for several reasons, as population growth increased demand for food, while half the world’s SOP production was high-cost and there were few economically exploitable resources that were expandable.

“Colluli is located 75km from the Red Sea coast and 180km south of the Massawa port.”

He said Africa alone was expected to drive 62% of the world’s increase in population and developing countries would represent a large portion of potash demand.

“Also Colluli has unrivalled capacity to produce diverse potash products, which as far as I know is unique to the Danakil region,” he said.

“Of the four types of potash fertiliser on the market, Colluli has the capability of producing three of them.”

“The reason we’ve opted not to make the more common potassium chloride (KCl) is that we get better returns from producing potassium sulphate – but that doesn’t constrain our growth and we could make KCl in the future.

“We could also made potassium magnesium sulphate, another high quality fertiliser, so we’ve got product diversity within potash – not to mention the 350 million tonne rock salt resource, so we can monetise our waste as well.”

The company name may be unfamiliar to some as Danakali changed names mid-2015 from South Boulder Mines to better reflect its key focus.

The company is now working with its joint venture partner ENAMCO to secure funding for Colluli.

“We’ve got a supportive joint venture partner and the country can see the opportunity this project could provide, but there is also a firm focus on ensuring everything is done the right way,” Donaldson said.

“Eritrea is a maturing mining jurisdiction, with a growing pipeline of developments and successes, he added.

ENAMCO is also in a joint venture with Vancouver’s Nevsun Resources at the Bisha Mine in central Eritrea, one of the highest grade open pit copper mines in the world.

Job creation and skills development are two priorities for Danakali’s corporate social responsibility.

“Colluli has all the makings of a world-class project which could play an important role in developing future skills for the country’s maturing mining industry.”

He said ENAMCO looked forward to its continuing collaboration with Danakali as the project progressed towards funding, mining licence application and development.

Danakali’s key development focus is to produce premium potash products and maximise shareholder returns.

Donaldson said the approvals process was underway and they were working to finalise construction prerequisites and secure capital and off-take agreements with a view to being in production late in 2018.

“As we go through our funding solutions, we’ll start to on-board the right people with the right skills to further execute our activities,” he said.

“We have a uniquely positive project with a massive mine life and even greater potential, and we offer investors an unrivalled pre-production potash opportunity.”

“We believe that over time, Colluli has got the potential to be one of the largest potash mines in the world.”

— PAUL DONALDSON CEO, DANAKALI