



Danakali

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Danakali further sharpens potash plans as hotly anticipated DFS nears

Danakali (ASX:DNK) has flagged progress in feasibility work at its Colluli potash project in Eritrea, with recent infrastructure and logistical simplifications expected to materially enhance project economics.

Colluli's Definitive Feasibility Study (DFS) is on track for completion in Q4 2015 with support from optimisation potential identified in the highly favourable Prefeasibility Study (PFS).

Key optimisation areas identified at the PFS stage and subsequently worked on in the DFS include:

- Substantial reductions in process water requirements;

- Identification of subsurface water at the Colluli site which negates the need for 75-kilometre seawater delivery pipeline for the project start-up phase;

- Revised process recovery pond layouts and construction schedule;

- Completion of metallurgical and size optimisation testwork;

- Simplification of product export logistics; and

- Optimisation of pit designs following completion of geotechnical work.

A two-phase development approach rapidly being progressed for the DFS has prioritised these opportunities for inclusion in the study to enable a highly robust, optimised and construction-ready report.

Concurrent with the DFS has been the finalisation of the baseline reports for the social and environmental impact assessment along with the engagement of a consortium of social, cultural, marine and wildlife experts to establish the social and environmental management plan.

These milestones will enable a rapid transition from DFS completion to mining licence application.

Water work in detail

Water use optimisations are among the project improvements that may most meaningfully strengthen the imminent DFS, given the arid nature of Eritrea.

Danakali is now expecting a 60% reduction in processing water requirements following processing optimisation testwork.

In addition to reducing the water supply infrastructure requirements and water delivery costs to site, the water reduction has positively impacted the size of the processing plant mixing tanks, pumps, and piping, thereby reducing the overall process plant footprint size.

The reduction in water consumption has also significantly reduced the size of the recovery ponds, which capture potassium-rich brines exiting the processing plant to improve the overall process yield.

Price: A\$0.28

Market Cap: A\$47.964M

1 Year Share Price Graph



Share Information

Code: DNK

Listing: ASX

Sector: General Mining

Website: www.danakali.com.au

Company Synopsis:

Danakali (ASX:DNK) formally known as South Boulder Mines is focussed on the world class Colluli Potash Project in Eritrea.

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Finalisation of hydrogeological work supporting the DFS has also confirmed that there is sufficient subsurface water to satisfy the processing plant requirements for at least the first five years of production. This negates the need to install a 75-kilometre seawater pipeline delivery system for the project start-up phase.

A second production module is currently planned for commissioning five years after the first, allowing the installation of a single water pipeline to supply both modules.

Further definition on what has been identified as a potentially large sub-surface aquifer may completely eliminate the need for the installation of any water delivery system from the coast to the Colluli mine site.

Other optimisations

The optimisation of site layouts has allowed refinement to a more efficient recovery and tailings pond layout. This change should allow a staged construction and development schedule, which minimises development capital and progressively installs the recovery ponds as the plant recirculation load grows over time.

Relocation of the tailings ponds closer to the processing plant is expected to reduce processing plant operating costs.

The finalisation of the internal plant design, meanwhile, has allowed for a number of simpler, less energy-intensive size separation units for solid-liquid separation processes.

A product export terminal has been removed from the site infrastructure, allowing for product to be containerised at site and trucked to the port of Massawa and eliminating the need to construct an 85-kilometre road.

Significant inventory

The definition of a significant rock salt resource at Colluli in September enhanced the economic potential of the project by offering a possible additional income stream at the developing mine.

The overburden is estimated to hold 347 million tonnes of rock salt within Area A the area of focus for the DFS mining schedules.

Colluli resources now stand at 1.289 billion tonnes at 11% K₂O for 260 million tonnes of contained SOP. This includes an estimated at 1.1 billion tonnes of reserves, comprising 287 million tonnes in the proved category and 820 million tonnes in the probable category.

Mineralisation begins at just 16 metres below surface, making Colluli one of the most accessible potash deposits globally.

Marketing milestone

Last week, Danakali achieved an important milestone in marketing products from Colluli by publishing product specification sheets for key fertiliser ingredients.

The company has published technical specifications and safety data for three products within the potash strain known as potassium sulphate or sulphate of potash (SOP).

Colluli's SOP-Standard, SOP-Granular and SOP-Soluble products have each been found to be high-purity in nature with no safety hazard statements attached.

The reports compliment the production earlier this year of 300 kilograms of product samples grading more than 98% SOP, or greater than 52% K₂O equivalent. SOP is a high-quality potash fertiliser carrying a price premium over the more common potassium chloride (MOP) due to its practicality in low-rainfall regions.

Analysis

The latest optimisation work by Danakali improves confidence that the upcoming DFS will draw up a materially enhanced project at Colluli, which is already considered a world-class potash asset.



Delivery of the study along with the subsequent advancement of further funding and the mining approvals process represents substantial potential for an improvement in Danakali valuation.

Shares in Danakali have gained 42% in value since the beginning of the year, indicating growing investor consciousness of the marketability of Colluli's SOP products and various by-product options.

Danakali's SOP marketing prospects have further strengthened with the recent publishing of product technical specifications and safety data, which fulfills a key requirement for securing product sales agreements.

This step forward in commercialising Colluli also supports Danakali's growth by satisfying an important facet of the project funding process.

Colluli's shallow mineralisation makes the resource amenable to open cut mining, a proven, high-productivity mining method that allows for higher resource recovery rates relative to underground and solution mining methods.

As the world's shallowest evaporite deposit, Colluli has unique cost, operational and growth advantages, which have led to predictions that the project will be in the bottom quartile cost curve position.

Also, the new rock salt resource offers a means of commercialising waste material at Colluli and further emphasises the diversity and wide marketability of the project's potential products.

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