



Danakali

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Danakali's aquifer find to reduce capital costs for Colluli Potash Project

Danakali Limited (ASX:DNK) continues to progress the Definitive Feasibility Study for its Colluli Potash Project in Eritrea with groundwater testing identifying a large subsurface aquifer.

This has the potential to eliminate the need for a 75 kilometre seawater delivery pipeline, reducing capital costs.

Groundwater testing has also identified potassium bearing brines that are suitable as supplementary process plant water.

Process flow diagrams and equipment lists have been completed while detailed mine scheduling is well advanced.

The company is also approaching on a rock salt resource definition that could reduce the cost of waste stripping of the potassium bearing salts and increase revenue.

It expects to fully explore a number of project enhancements in the third quarter while firm costings from equipment suppliers will be available in the fourth quarter.

The DFS is expected to be completed and announced in the fourth quarter of 2015.

Earlier this month, Danakali had successfully completed pilot tests that generated over 300 kilograms of high quality sulphate of potash (SOP) for distribution to potential future customers and project equipment suppliers.

Colluli is a 50/50 joint venture between the Eritrean National Mining Company (ENAMCO) with a world class 1.1 billion tonne Ore Reserve.

The project is located in the emerging potash province of Danakil, which is one of the largest unexploited potash basins in the world.

To date over 6 billion tonnes of potassium bearing salts suitable for the production of potash fertilisers have been identified.

Groundwater Testing

Groundwater testing at site has indicated the presence of a large sub-surface aquifer within the Colluli tenements.

This has the potential to completely eliminate the requirement of the 75 kilometre seawater delivery pipeline from Anfile Bay and reduce capital costs.

Further hydrogeological work is required to confirm the overall volume and quality of the water within the aquifer.

This has also identified potassium bearing brines in the upper clastic materials as being suitable for supplementary process plant water.

This represents a process benefit by introducing additional potassium with the potassium salt feed to the process plant

Price: A\$0.36

Market Cap: A\$60.971M

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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and potentially improving its overall yield.

Pump tests completed on site to support the groundwater modelling, have confirmed with a high level of confidence, that sufficient water is available from pit dewatering activities to supply the processing plant for the first five years.

The DFS will be completed on the basis of deferring the pipeline until the fifth year of production.

Further groundwater testwork is planned following the completion of the DFS to verify the business case to eliminate the requirement for the seawater pipeline.

Rock Salt Resource

Work on a JORC 2012 Resource for the considerable volume of rock salt above the potash resource is well advanced and nearing completion.

While this is currently treated as waste material in the mine plan, deployment of the rock salt to the market has the potential to substantially reduce the cost of waste stripping of the potassium bearing salts and increase the project's revenue generating capacity.

Other Work

With the completion of all site related geotechnical work, detailed mine scheduling is well advanced.

The project commissioning production profile has been developed and is under refinement.

In addition, detailed discussions with equipment suppliers have identified a number of alternate equipment options that have the potential to favourably impact both capital and operating costs of the project.

A number of economic trade-off studies have been prioritised to ensure the most suitable and cost effective equipment configurations are selected.

To ensure sufficient time is allocated to complete these evaluations, the finalisation of the DFS is now expected to be in the fourth quarter of 2015.

Previous Activity

Earlier this month, Danakali completed pilot testing at the Saskatchewan Research Council that demonstrated the Colluli process design is robust, and consistently generates high purity SOP over a range of temperatures and feed grades.

This has allowed refinement of the input parameters for the final equipment sizing, plant process flow diagrams and plant configuration.

It also generated over 300 kilograms of high purity SOP in standard, granular and soluble form for distribution to potential offtake partners.

Samples have also been forwarded to equipment suppliers for accurate sizing and operating cost estimations for the DFS.

In July, optimisation testwork resulted in a 60% reduction in processing plant water requirements, which has favourably impacted the water delivery infrastructure requirements and the surface area of the process recovery evaporation ponds.

Colluli Potash Project

Colluli is strategically located 75 kilometres from the coast, making it one of the most accessible potash deposits globally.



Its Ore Reserve of 1.1 billion tonnes at 10% K₂O equivalent contains about 205 million tonnes sulphate of potash (SOP), enough to support a mine life of more than 200 years at modelled production rates.

Mineralisation starts at just 16 metres, making the resource amenable to open cut mining methods.

The DFS is focused on the production of SOP and has adopted a modular approach to development in order to balance fundability, risk mitigation, market penetration and economic return.

A module size of 425,000 tonnes per annum was selected from the Pre-Feasibility Study.

Analysis

The potential for the subsurface aquifer to reduce capital costs at Danakali's Colluli Potash Project is certainly encouraging.

Already, the Pre-Feasibility Study completed in February 2015 indicated the project will be in the bottom quartile of production costs.

Danakali is well-funded with \$7.9 million in cash.

Share Price Catalysts:

- Completion of the rock salt resource
- Delivery of the DFS in 4Q 2015.

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