



**DANAKALI**  
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ASX Release:

27 May 2021

## Colluli Project Update:

### Colluli will use seawater in game changing production breakthrough at Colluli

#### Highlights

- Unlimited source of production water using filtered Red Sea seawater drives Water Intake Treatment Area (WITA) optimisation and redesign (See Figure 1)
- WITA capex, opex, sustaining capital significantly reduced with WITA redesign
- Environmental impact in optimised WITA design massively reduced
- 2021 process test results demonstrate filtered seawater assures high quality, predictable, in spec Sulphate of Potash (SOP) production
- Construction complexity reduced which de-risks the project schedule

Danakali Limited (ASX: DNK, LSE: DNK) (**Danakali, the Company**) is pleased to announce that extensive test work has confirmed significant economic, construction, operational and environmental optimisations at the WITA using filtered sea water. This testwork has confirmed that filtered sea water is a reliable, unlimited and economic option in Colluli's Sulphate of Potash (SOP) production process.

CMSC confirms it will now rely upon a combination of beach well intake, smaller pumping station and greater renewable energy to pump filtered sea water to the SOP processing plant at the Colluli mine site. (See Figure 1 & Video link: <https://www.danakali.com.au/medias/project-videos>).

The proposed new WITA boasts the following advantages:

- Has a materially smaller onshore and offshore footprint, significantly reducing the environmental impact particularly on the ocean flora and fauna
- Requires an estimated 75% less power reducing opex, fuel costs and CO<sub>2</sub> emissions. Colluli investigating renewable energy, solar, wind and battery storage option at redesigned WITA
- Requires less capex for a smaller plant at Anfile Bay driving economic and environmental improvements and materially reducing sustaining capex required over the LOM

Testing in 2015 proved that SOP could be made from Colluli ore, but only at higher water rates with Reverse Osmosis fresh water. What was achieved with recent test work with Saskatchewan Research Council in 2021 demonstrates that high quality product only using seawater is assured.

The Colluli Potash Project (**Project, Colluli**) is 100% owned by Colluli Mining Share company (**CMSC**), a 50:50 Joint Venture between Danakali Limited (**DNK**) and Eritrean National Mining Corporation (**ENAMCO**)



#### Codes:

ASX: DNK, LSE: DNK,  
SO3-FRA, SO3-BER.  
US Level 1 ADR's OTC-  
DNKLY,  
CUSIP.23585T101

#### Highlights:

The world's largest JORC compliant solid salt, Sulphate of Potash (SOP) reserve, 1.1Bt

Aiming to be the worlds first Zero Carbon SOP Producer

Development underway towards production

#### Financial facts:

Issued capital: 367.25m  
Share price: A\$0.48.  
Market cap: A\$176.3m



**Executive Chairman, Seamus Cornelius commented:** *“Using filtered seawater as an unlimited input in our production process is not only a world first, but also a long-term game changer. This will reduce capex, opex and sustaining capex over a very long time and have a massively positive environmental impact onshore and in the Red Sea for the 200 years Life of Mine. With the WITA redesign our energy requirements are materially reduced, bringing us closer to our **Zero Carbon** goals. I am extremely proud of our team in Canada who focused on developing and repeatedly testing the ore streams and other inputs to create the most operationally efficient and cost-effective SOP production method for Colluli which allows us to produce the required high quality and quantity of SOP for our offtake partners.”*

## WATER INTAKE DESIGN CHANGES

Water intake design change to yield environmental, capital and operational benefits

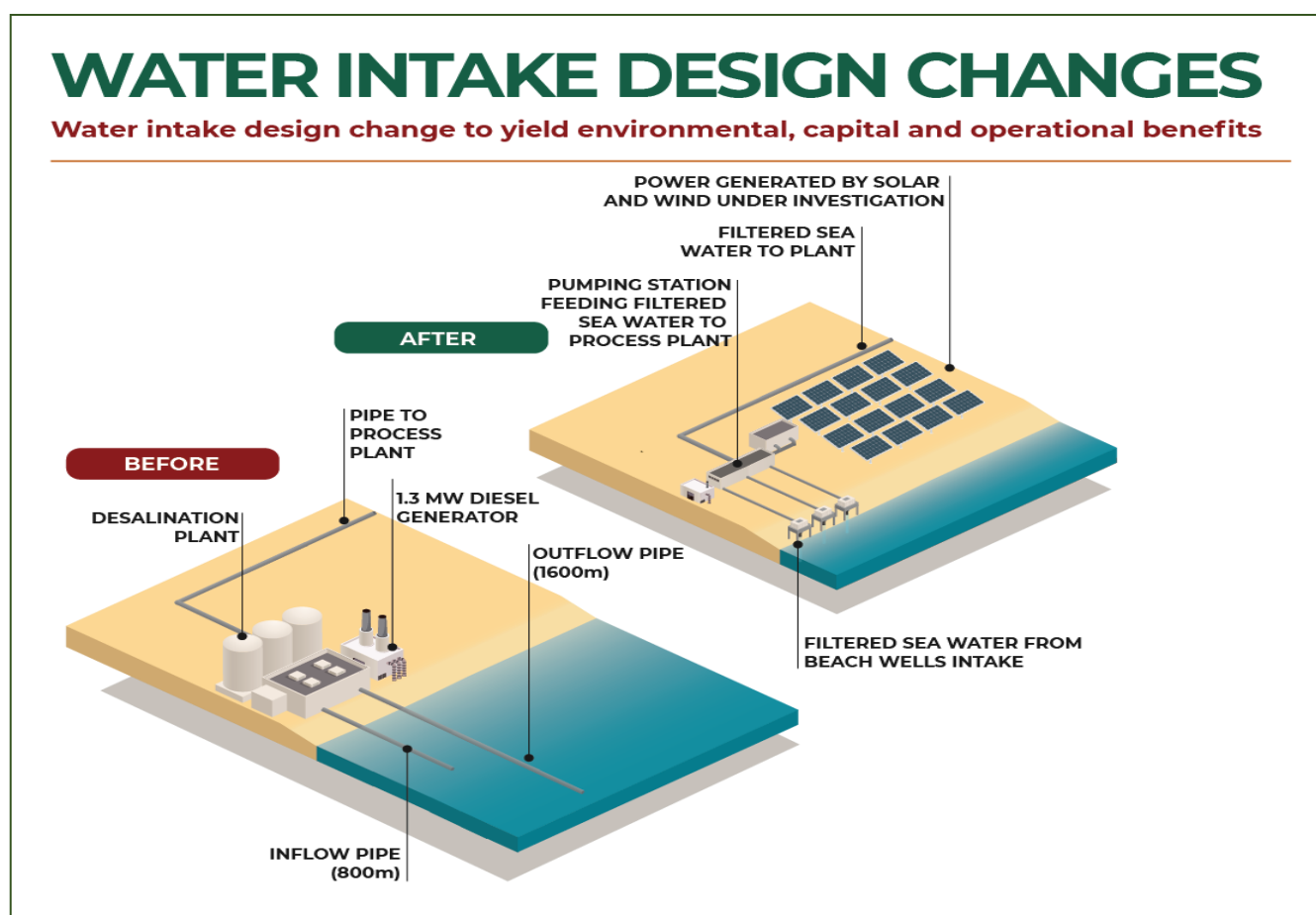


Figure 1: Water intake design changes.



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This announcement authorised for release by the Board of Danakali Limited.

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## About Danakali

Danakali Limited (ASX: DNK, LSE: DNK) (**Danakali**, or the **Company**) is an ASX- and LSE-listed potash company focused on the development of the Colluli Sulphate of Potash Project (**Colluli** or the **Project**). The Project is 100% owned by the Colluli Mining Share Company (**CMSC**), a 50:50 joint venture between Danakali and the Eritrean National Mining Corporation (**ENAMCO**).

The Project is located in the Danakil Depression region of Eritrea, East Africa, and is ~75km from the Red Sea coast, making it one of the most accessible potash deposits globally. Mineralisation within the Colluli resource commences at just 16m, making it the world's shallowest known potash deposit. The resource is amenable to open cut mining, which allows higher overall resource recovery to be achieved, is generally safer than underground mining, and is highly advantageous for modular growth.

The Company has completed a Front-End Engineering Design (**FEED**) for the production of potassium sulphate, otherwise known as Sulphate of Potash or **SOP**. SOP is a chloride free, specialty fertiliser which carries a substantial price premium relative to the more common potash type; potassium chloride (or **MOP**). Economic resources for production of SOP are geologically scarce. The unique composition of the Colluli resource favours low energy input, high potassium yield conversion to SOP using commercially proven technology. One of the key advantages of the resource is that the salts are present in solid form (in contrast with production of SOP from brines) which reduces infrastructure costs and substantially reduces the time required to achieve full production capacity.

The resource is favourably positioned to supply the world's fastest growing markets. A binding take-or-pay offtake agreement has been confirmed with EuroChem Trading GmbH (**EuroChem**) for up to 100% (minimum 87%) of Colluli Module I SOP production.

Development Finance Institutions, Africa Finance Corporation (**AFC**) and African Export Import Bank (**Afreximbank**), have obtained formal credit approval to provide CMSC with US\$200M in senior debt finance. The credit documentation was executed in December 2019, allowing drawdown of CMSC senior debt on satisfaction of customary conditions precedent. This represents the majority of funding required for the development and construction of the Colluli.

Project execution has commenced and the Company's vision is to bring Colluli into production using the principles of risk management, resource utilisation and modularity, using the starting module (**Module I**) as a growth platform to develop the resource to its full potential.

## Forward looking statements and disclaimer

The information in this document is published to inform you about Danakali and its activities. Danakali has endeavoured to ensure that the information enclosed is accurate at the time of release, and that it accurately reflects the Company's intentions. All statements in this document, other than statements of historical facts, that address future production, project development, reserve or resource potential, exploration drilling, exploitation activities, corporate transactions and events or developments that the Company expects to occur, are forward looking statements. Although the Company believes the expectations expressed in such statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in forward-looking statements.

Factors that could cause actual results to differ materially from those in forward-looking statements include market prices of potash and, exploitation and exploration successes, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, as well as those factors disclosed in the Company's filed documents.

There can be no assurance that the development of Colluli will proceed as planned. Accordingly, readers should not place undue reliance on forward looking information. Mineral Resources and Ore Reserves have been reported according to the JORC Code, 2012 Edition. To the extent permitted by law, the Company accepts no responsibility or liability for any losses or damages of any kind arising out of the use of any information contained in this document. Recipients should make their own enquiries in relation to any investment decisions.

Mineral Resource, Ore Reserve, production target, forecast financial information and financial assumptions made in this announcement are consistent with assumptions detailed in the Company's ASX announcements dated 25 February 2015, 23 September 2015, 15 August 2016, 1 February 2017, 29 January 2018, and 19 February 2018 which continue to apply and have not materially changed. The Company is not aware of any new information or data that materially affects assumptions made.

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