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ASX Release:

5 July 2021

Company Presentation and Video

Danakali Limited (ASX: DNK, LSE: DNK) (**Danakali, the Company**) is pleased to provide the full length Company Presentation in support of the information disclosed in its announcement dated 17 June 2021. The presentation will be available on the Company's [website](#) and is attached to this announcement.

Dr Rod McEachern discusses the results with Executive Chairman, Seamus Cornelius **see extended version Video link:** <https://www.danakali.com.au/medias/project-videos>.

This announcement authorised for release by the Executive Chairman of Danakali Limited.

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Visit the Company's website: www.danakali.com

Follow Danakali on LinkedIn: www.linkedin.com/company/danakali-limited

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Mark Riseley

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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\$0.455
Market cap: A\$167.1m



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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.

No representation or warranty, express or implied, is or will be made by or on behalf of the Company, and no responsibility or liability is or will be accepted by the Company or its affiliates, as to the accuracy, completeness or verification of the information set out in this announcement, and nothing contained in this announcement is, or shall be relied upon as, a promise or representation in this respect, whether as to the past or the future. The Company and each of its affiliates accordingly disclaims, to the fullest extent permitted by law, all and any liability whether arising in tort, contract or otherwise which it might otherwise have in respect of this announcement or any such statement.

The distribution of this announcement outside the United Kingdom may be restricted by law and therefore any persons outside the United Kingdom into whose possession this announcement comes should inform themselves about and observe any such restrictions in connection with the distribution of this announcement. Any failure to comply with such restrictions may constitute a violation of the securities laws of any jurisdiction outside the United Kingdom.



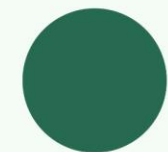
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COLLULI PROCESS DEVELOPMENT

Rod McEachern

May 26, 2021





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EXECUTIVE SUMMARY

GOALS OF THE SRC/GPS TESTING 2020/21



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STAGE 1 FLOTATION

Develop and prove a flotation strategy which will remove unwanted impurities from the Colluli ores (Carnallite, Sylvinite and Kainitite).



STAGE 2 FLOTATION

Determine the feasibility of co-processing the various ores from Colluli. Assess the performance of column flotation on Colluli ores



EQUIPMENT TESTING

Determine kinetics of reactions for sizing equipment.
Crystal growth experiments



SOP PRODUCTION

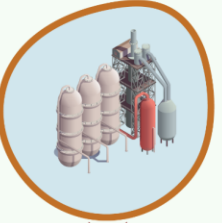
To develop a robust process for conversion of Leonite + KCl into high purity SOP, preferably using seawater only.

The information acquired from all the tests, was used to fine-tune the plant process, and the results were incorporated into the mass balance

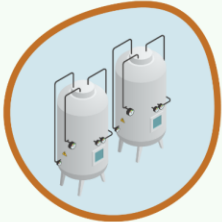
OVERALL REACTION FOR COLLULI



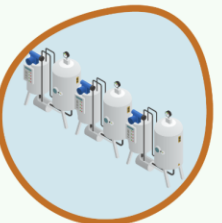
Pilot testing in 2015 proved conceptually that SOP could be made from Colluli ore.



However, the quantities of water used in 2015 were not economically feasible, and relied on high purity (RO) water to make adequate purity.



Testing in 2020/21 confirmed that a one-step conversion reaction was inefficient, and so a two-step process was implemented.



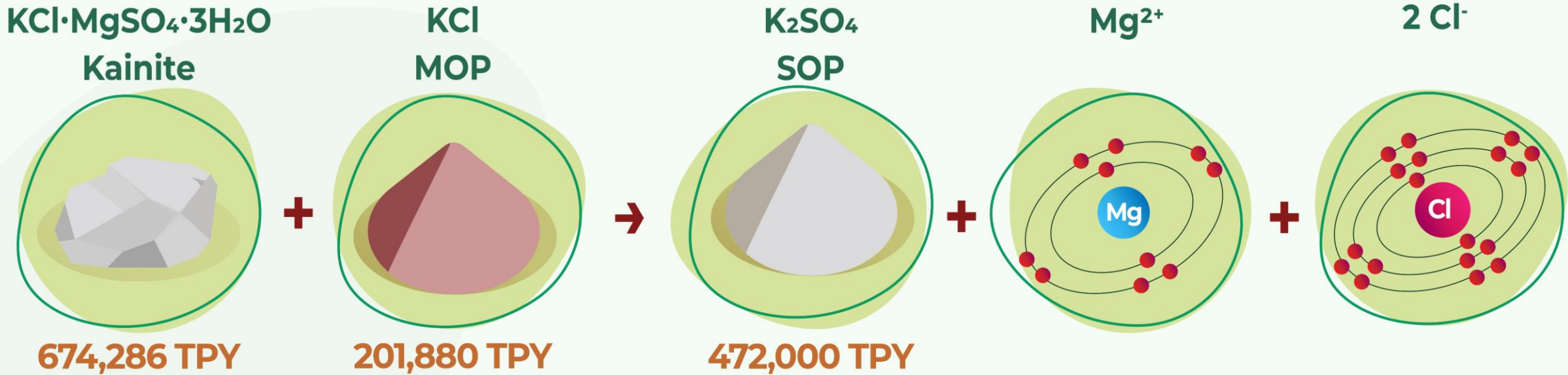
In the two-step process, the reactants are pulped with seawater and recycle brine (step 1), centrifuged and then repulped with extra seawater (step 2). Finally, a rinse step was added to ensure adequate product purity



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OVERALL REACTION FOR COLLULI

The overall process for Colluli is reaction of Kainite and KCl to produce SOP:



Kainite ($\text{KCl} \cdot \text{MgSO}_4 \cdot 3\text{H}_2\text{O}$) is largely derived from the kainitite ore

The availability of “supplemental potassium” from KCl is unique to Colluli

Supplemental potassium is derived from carnallitite and sylvinitite (C/S) ores

Halite (NaCl) is a common impurity in each ore, and needs to be removed by flotation



STAGE 1 FLOTATION TESTING

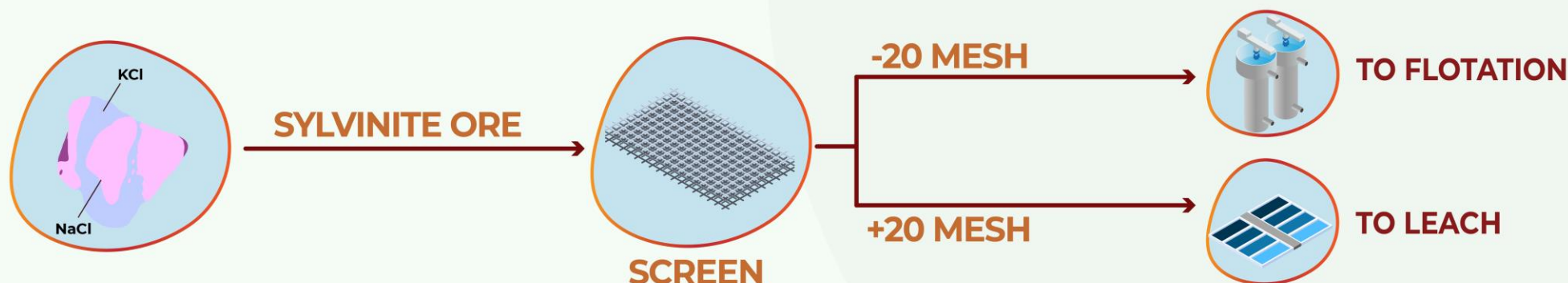
Each of the three ore streams were evaluated separately to determine the best flotation process

Direct and reverse flotation were both evaluated

Several different collectors were evaluated for each ore stream

Kainitite and Carnallite are effectively treated by direct flotation to remove NaCl

The process was modified to include a screen so the coarse material can be leached



The Kainitite circuit was simplified by removal of the desliming equipment

STAGE ONE FLOTATION TESTING

The three individual ores were tested separately to determine:

How fine the ore needs to be ground

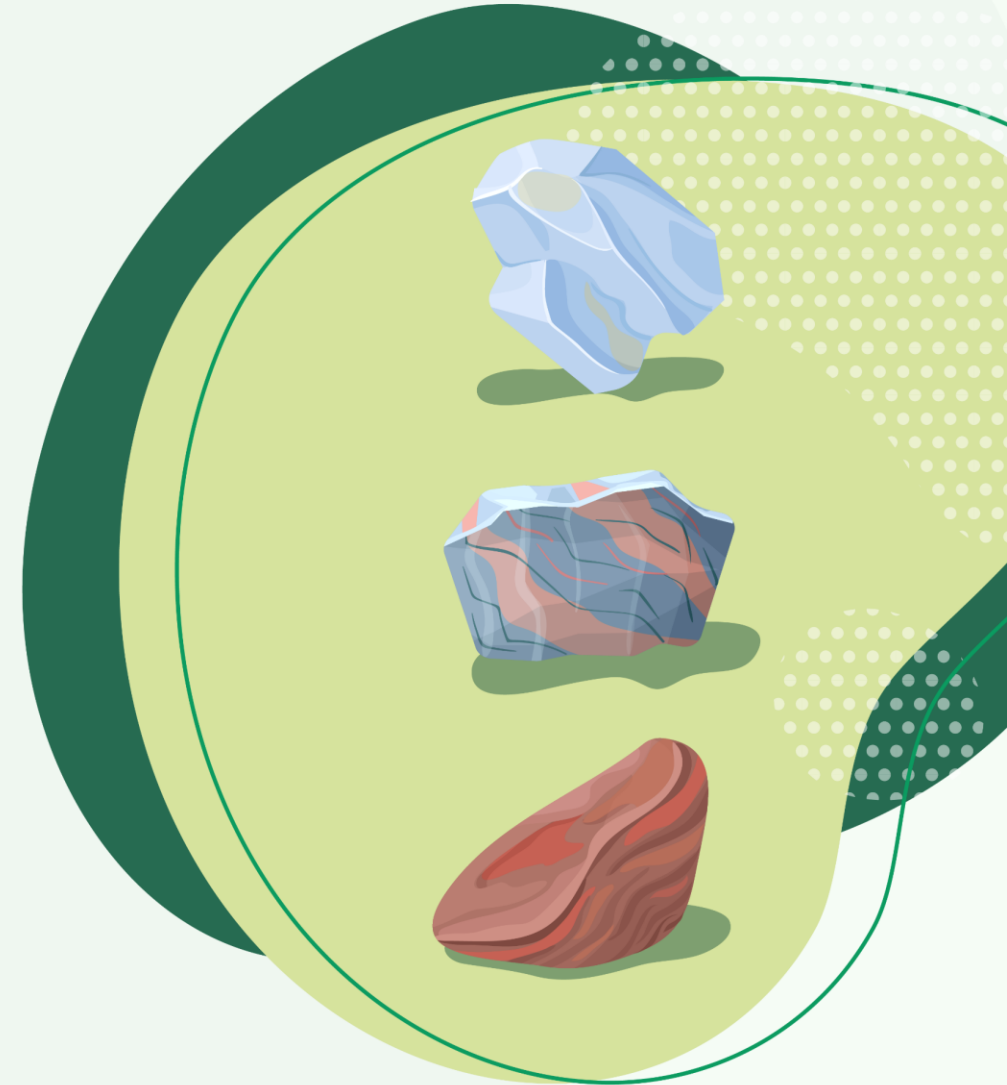
Type of collector

Optimal dosage of collector

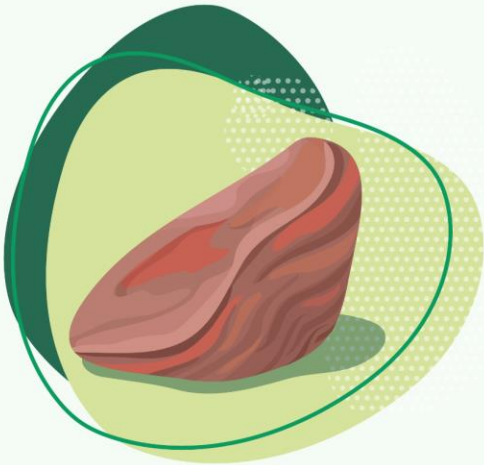
Requirements for depressants (which inhibit flotation of unwanted minerals)

Expected recovery of the desired mineral to the flotation concentrate

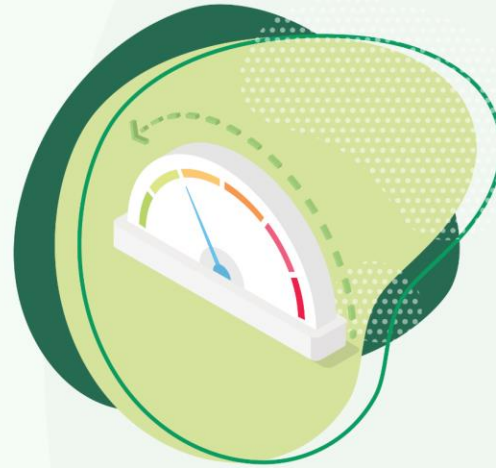
Expected impurities in the flotation concentrate



STAGE 2 TESTING



In Stage 2 testing, flotation performance was evaluated for all possible combinations of the three ore streams



This information was used to determine which ore streams could be combined (thus simplifying the process, and reducing capital costs)



The analysis was done by comparing the flotation performance of the combined streams, relative to the weighted average performance of the individual streams

STAGE 2 FLOTATION TESTING

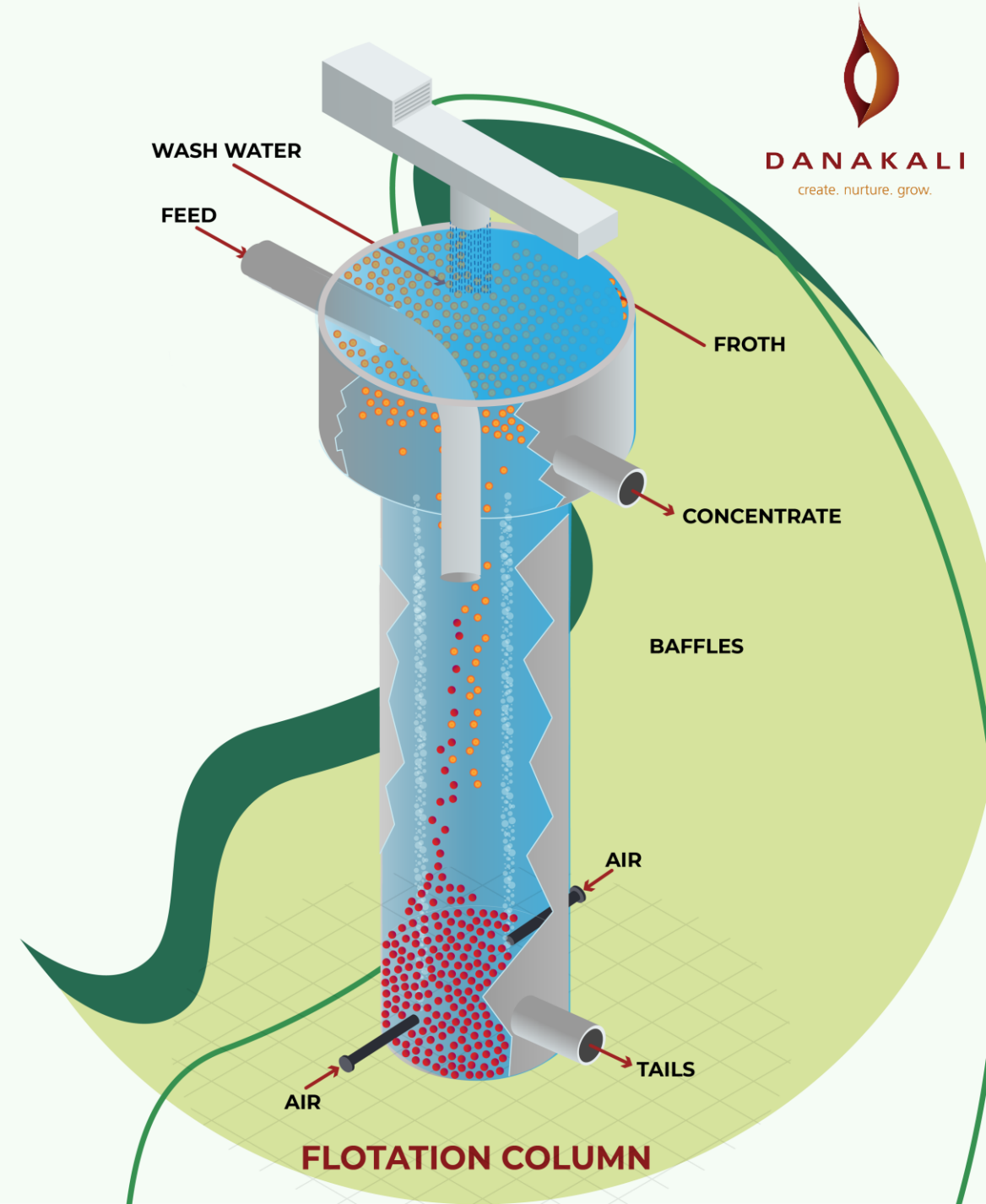
Stage 1 testing gave expected recoveries for each individual ore stream

In Stage 2 the various ores were blended, and the expected performance was predicted as a weighted average of the recovery for the individual ore streams

Each combination of the ores was then evaluated by comparing expected versus actual performance then the process flow redesigned to optimize recoveries

The floatation performance using blended Carnallitie and Sylvinite prior was proven successful, so blending on the ROM pad was incorporated into final design

Tests with column flotation confirmed that it will perform well on -20 mesh ores



COLUMN FLOTATION

Stage 1 tests were done using conventional (Denver) lab flotation equipment

Column flotation is the preferred technology for Colluli ores, and gives the best combination of high recovery and low impurities

Testing in Stage 2 was performed using column flotation. The results were successful and the measured recoveries are being used in the mass balance

Column flotation will be used exclusively for processing Colluli ores

Column flotation of fine potash has a proven track record in the Canadian potash industry



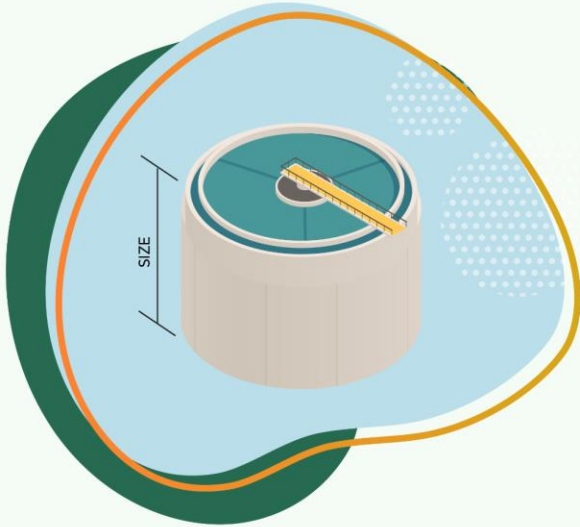
EQUIPMENT TESTING



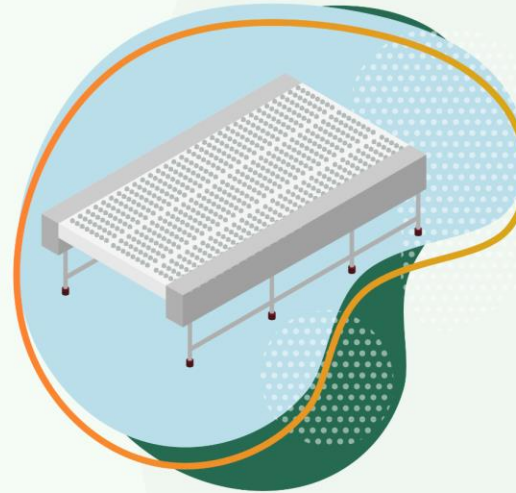
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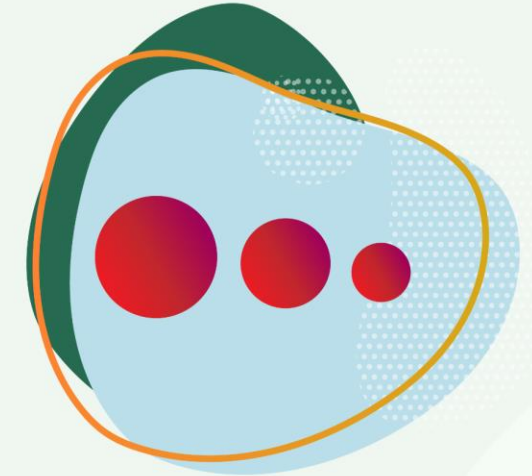
A series of short tests was performed to provide information useful for process design. This included:



Kinetics for decomposition of Carnallite and Kainite. This information provides the retention time required for the reaction, and is used for tank sizing



Carnallite/Sylvinite -9+20 mesh leach. This information is required for the mass balance, to determine the impact on recovery



Particle Size Distribution (PSD) tests to understand how effective we can control the crystal size. This information will be applied to selection of the types of centrifuges

EQUIPMENT TESTING

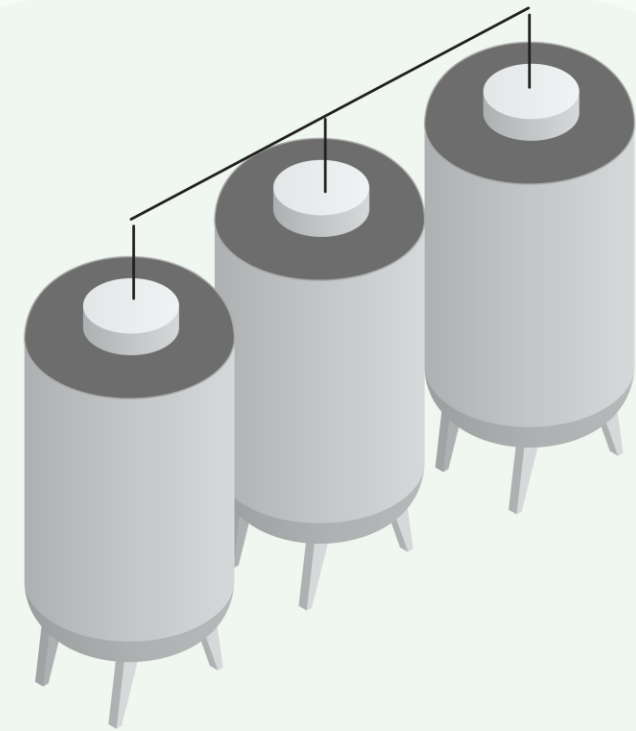
Carnallite decomposes into KCl, and Kainite decomposes into Leonite

Decomposition is a function of time and the amount of excess brine, relative to the theoretical minimum (TM)

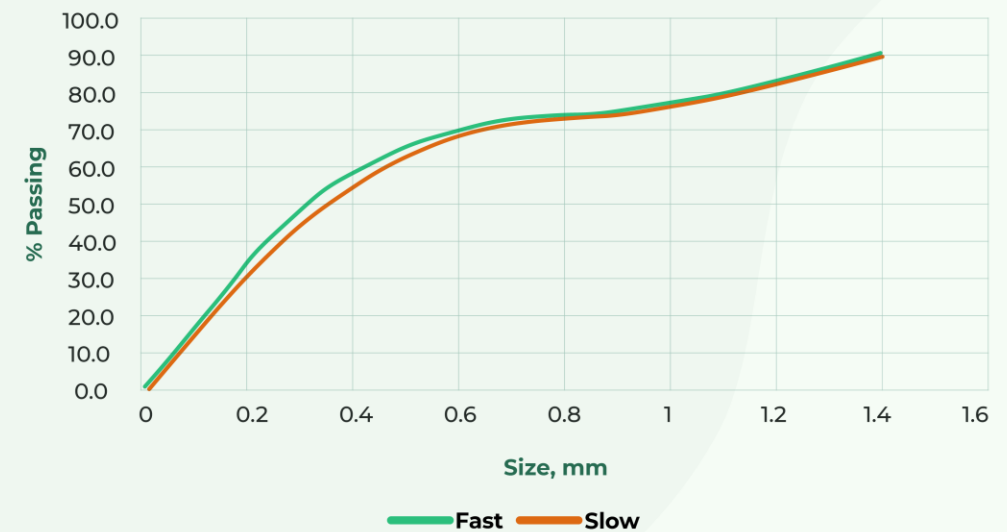
The kinetics must be understood for correct tank sizing, and for the mass balance.

Tests were also performed to determine how effectively we can grow larger crystal size for the Kainite and Leonite (and SOP).

Crystal growth was only partially successful, and needs to be studied further during pilot plant testing



LEONITE PARTICLE SIZE

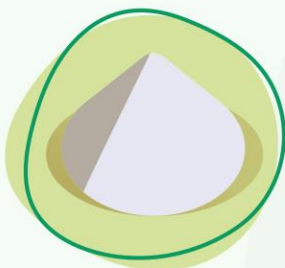


SOP PRODUCTION

Preliminary specifications have been developed, in consultation with our offtake partner



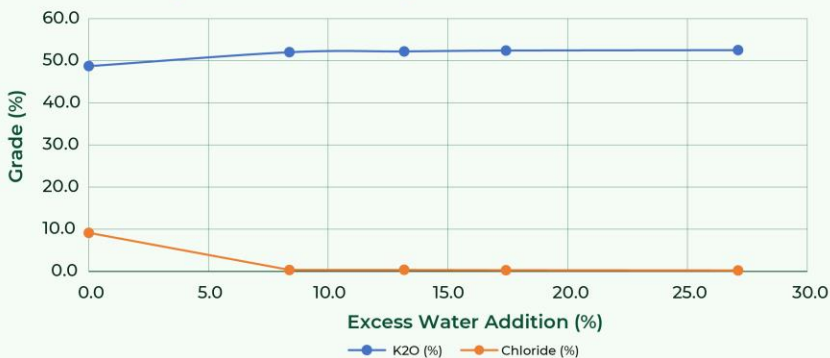
TYPICAL
K₂O (%) 51.0
Chloride (%) 0.5



GUARANTEE
K₂O (%) 50
Chloride (%) <1

Testing in 2015 proved that SOP could be made from Colluli ore, but only at high water rates, and with RO water. The process developed in 2021 assures high quality product, and is made only using seawater.

GRADE (K₂O AND CHLORIDE) AS A FUNCTION OF EXCESS WATER



Wash Total	XS Wash (%)	K ₂ O (%)	Chloride (%)
165.16	0.0	48.7	9.15
179	8.4	52.0	0.33
186.92	13.2	52.2	0.36
193.93	17.4	52.4	0.27
209.93	27.1	52.5	0.22



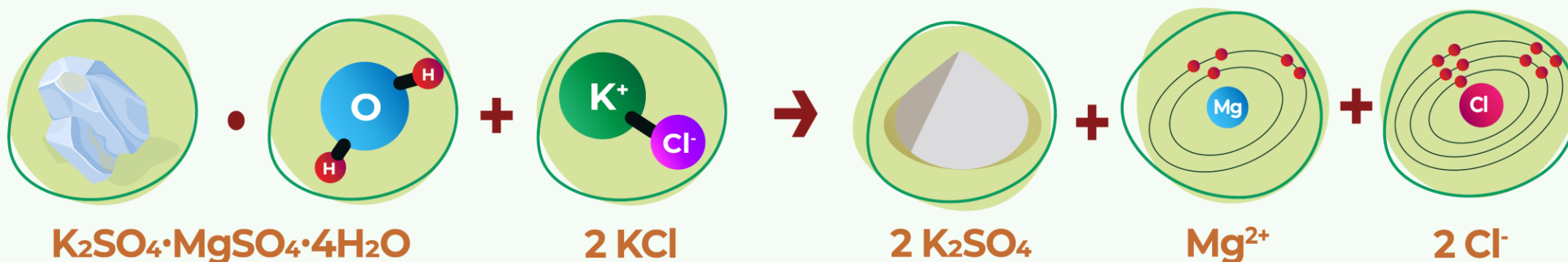


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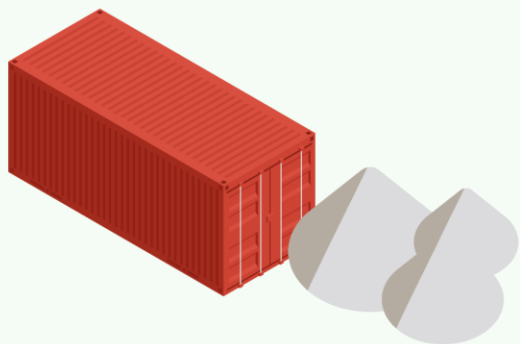
OVERALL REACTION FOR COLLULI

The product from Carnallite/Sylvinite flotation is KCl, while the product of Kainite flotation is Leonite.

Leonite reacts with KCl in the presence of water to produce SOP:



Product Specifications, developed in consultation with our offtake partner:



TYPICAL

K_2O (%) 51.0

Chloride (%) 0.5

GUARANTEE

K_2O (%) 50

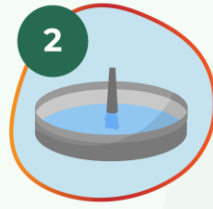
Chloride (%) <1

Guaranteed purity is aligned with industry norms, but Colluli typical assays will be significantly better than our competitors

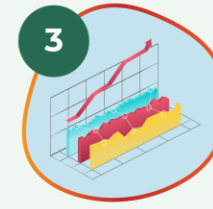
KEY OUTCOMES OF THE SRC/GPS PHASE OF TESTING



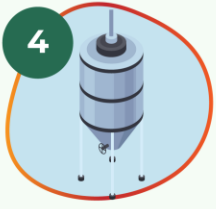
1 Development of a robust strategy for processing Colluli ores by froth flotation



2 Determination of specific conditions for successful flotation (crush size, collector type and dosage, type of equipment, etc.)



3 Provided performance information which has been included in the mass balance



4 Elimination of the need for desliming equipment for Kainitite ore



5 Inserting an oversize leach step to effectively recover the poorly liberating Sylvinit ore



6 Co-processing of Carnallite and Sylvinit, which reduces front-end crushing and material handling costs



7 Development of a process for SOP production, which provides a high purity SOP final product



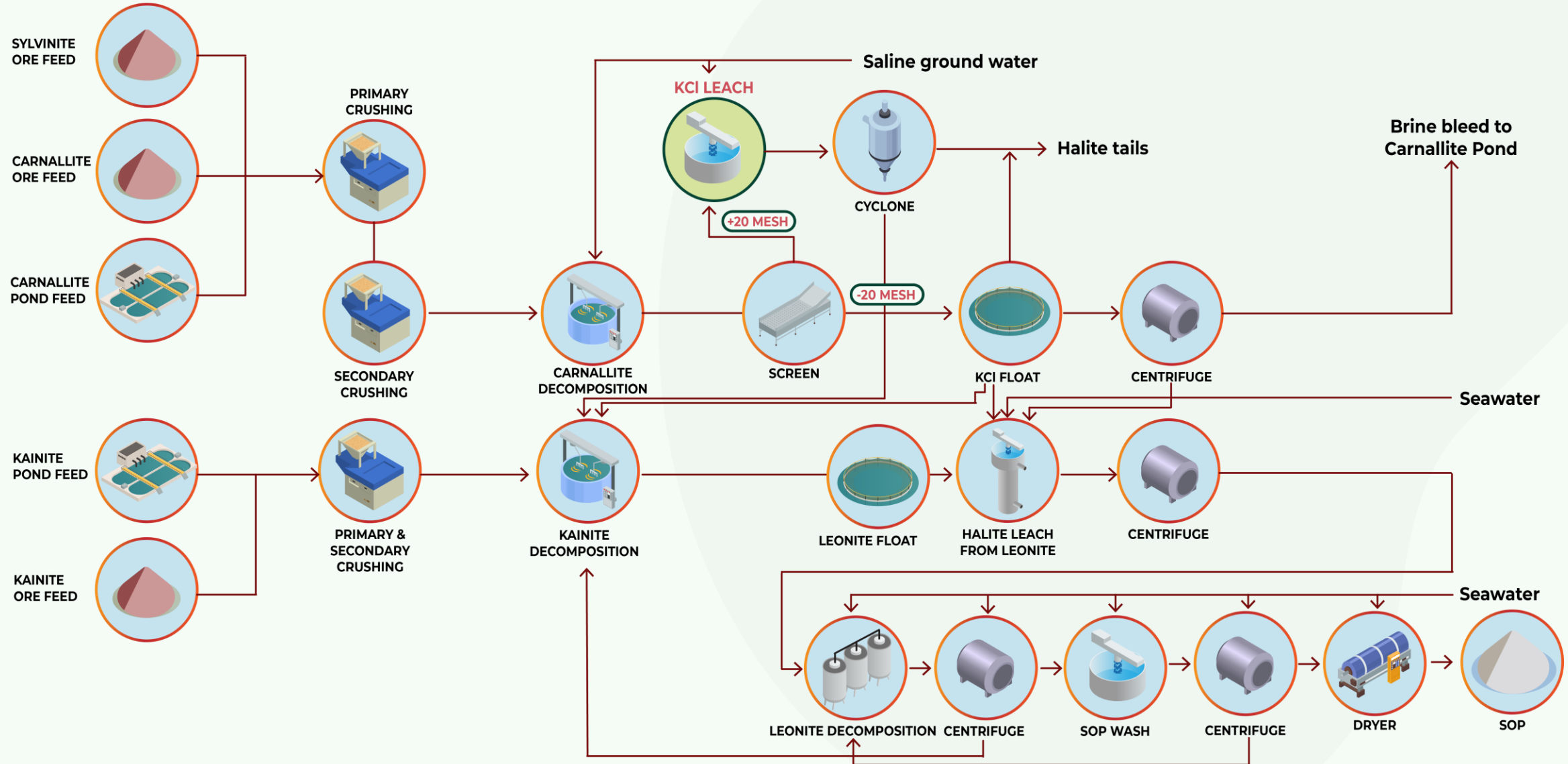
8 Conversion to SOP by seawater only, thus reducing reliance on RO water and reducing capital costs

COLLABORATION PARTNERS



We were extremely fortunate to have worked with a number of renowned world class experts in the potash industry sector

SCREENING AND LEACHING THE +20 MESH SYLVINITE



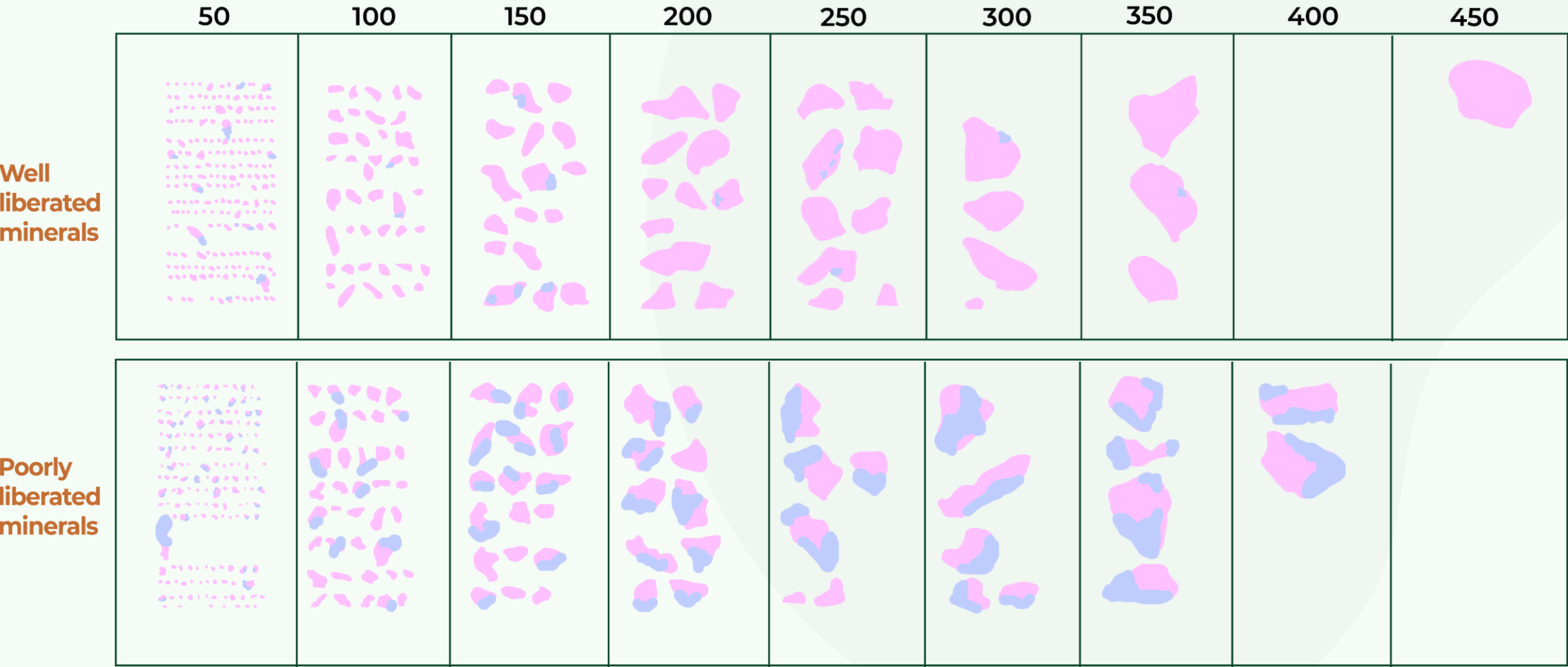
UNDERSTANDING THE ORE



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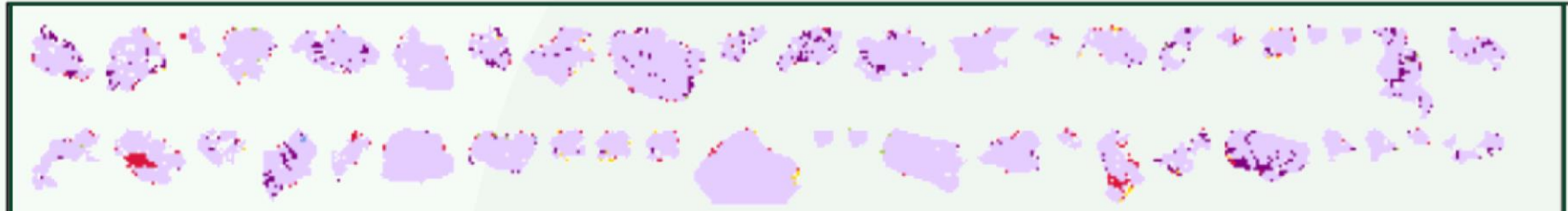
QEMSCAN analysis was done to determine how well the desired minerals were liberated from the impurities

Particle size

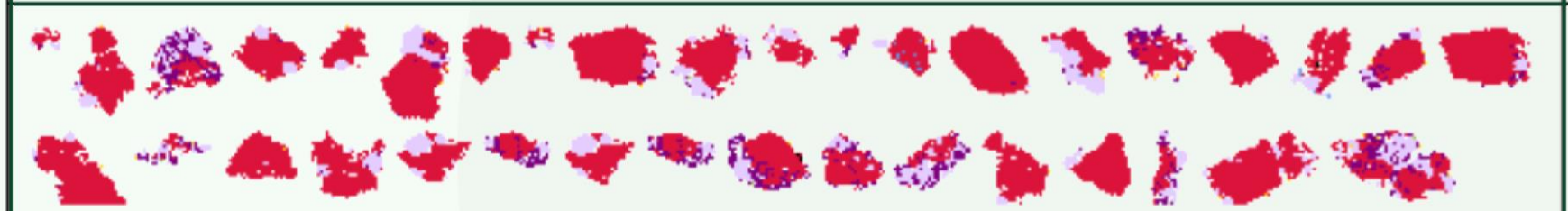


QEMSCAN RESULTS

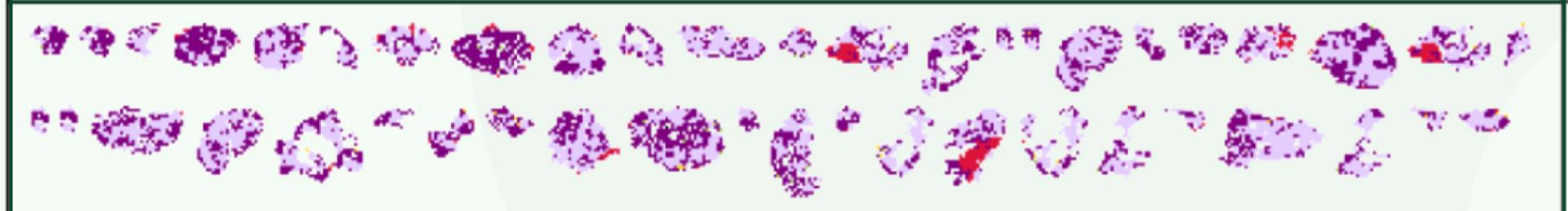
HALITE >80



CARNALITE



KIESERITE



KAINITE





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THANK YOU