DANAKALI

ASX Release **3rd May 2017**

FEED optimisation increases planned Sulphate of Potash production capacity at Colluli

Key Points

- **FEED optimisation complete**
- **Optimised processing plant SOP output increased by an expected 47kt per annum**
- **Further development capital reduction opportunities identified**
- **Further process water consumption reduction expected**
- **FEED equipment lists and procurement strategy well advanced and integrated with funding work stream**
- **Pre-construction geotechnical work well progressed**
- **FEED process progressing to schedule**
- **Detailed mine schedules to be refined and aligned with modified SOP output rate**

Danakali Limited (**ASX:DNK**) and the Eritrean National Mining Corporation ("**ENAMCO**") are pleased to advise that the optimisation phase of the front-end engineering design (**"FEED"**) process has been completed. In addition to identifying a number of significant development capital reduction opportunities, systematic debottlenecking of the definitive feasibility study **("DFS")** processing plant configuration has liberated an additional 47kt per annum of expected sulphate of potash **("SOP")** output capacity. The additional expected capacity has been confirmed by the FEED lead engineer and is the result of a comprehensive process engineering and infrastructure review. The additional capacity increases the expected Module I annual SOP output to 472kt per annum from the DFS planned output of 425kt per annum[1,2].

The DFS incorporated a long-term price estimate of US$572 per tonne SOP, with estimated mine gate and total cash costs for Module I (@425kt per annum) of US$167 per tonne SOP and US$255 per tonne SOP respectively, and mine gate and total cash costs for Module I and Module II combined[1] (@850kt per annum) of US$141 per tonne SOP and US$227 per tonne SOP respectively. The same assumptions have been applied to the revised production forecast pending a finalised set of FEED economics.

In addition to the increase in expected product output, the value engineering and optimisation work has identified further opportunities to reduce development capital and water consumption, which have been

incorporated into the optimised configuration and are being costed as part of the FEED. The FEED process is well advanced and progressing to schedule.

Key areas of potential capital reduction include further optimisation of non-processing infrastructure, reducing the overall site footprint size and reducing recovery pond size following reconfiguration of the brine circuits and increasing brine density to the recovery ponds. This is expected to reduce process water requirements per tonne of SOP product. Refined water usage modelling is underway following the brine circuit optimisation.

Optimisation of the construction schedule has also commenced.

Managing Director, Paul Donaldson said *"This excellent result is a direct consequence of clever process plant design during the DFS. The liberation of over 10% production capacity with no expected increase in capital cost is clearly value accretive relative to the DFS and further improves on the industry leading capital intensity and outstanding economics demonstrated by the project. Refined and optimised pit schedules reflecting the optimised production rate will now be developed to support the mining contract tendering process. It is also pleasing that the optimisation work has been achieved with no impact on the expected delivery of the FEED."*

1. ASX Announcement, Colluli Definitive Study Results, 30 November 2015
2. No proportion of the production target is based on inferred resources

Mineral Resource and Ore Reserves

The Colluli resource comprises three potassium bearing salts in solid form: sylvinite, carnallitite and kainitite. These salts are suitable for high yield, low energy production of SOP, which is a high-quality potash fertiliser carrying a price premium over the more common MOP.

The salt composition in the Danakil region also provides the ability to produce a suite of potash products that not only includes potassium sulphate, but also potassium magnesium sulphate and potassium chloride. Such potash product diversification cannot be achieved by any other region in the world.

The JORC-2012 compliant mineral resource estimate for Colluli stands at 1.289Bt @ 11% K_2O for 260Mt of contained SOP. The JORC-2012 compliant ore reserve estimate for Colluli stands at 1.113Bt @ 10% K_2O for 216Mt of contained SOP. The resource remains open to the south east of Area A and the north east of Area B.

Refer to Table 1 for a summary of the resource estimate and **Table 2** for the ore reserve estimate. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.

Table 1: JORC-2012 Colluli mineral resource estimate and interpretation [1]

		Measured		Indicated		Inferred		Total	
Area	**Rock unit**	**Mt**	**K_2O Equiv %**	**Mt**	**K_2O Equiv %**	**Mt**	**K_2O Equiv %**	**Mt**	**K_2O Equiv %**
Area A	Sylvinite	66	12	38	11	10	8	**115**	**11**
	Carnallitite	55	7	190	9	6	16	**251**	**9**
	Kainitite	86	12	199	11	1	10	**285**	**11**
Area B	Sylvinite	24	15	12	13	5	12	**150**	**13**
	Carnallitite	25	6	114	7	8	7	**147**	**7**
	Kainitite	48	13	289	13	4	13	**341**	**13**
Total	Sylvinite	90	13	160	13	15	9	**265**	**12**
	Carnallitite	80	7	303	8	15	11	**398**	**8**
	Kainitite	133	12	488	12	5	11	**626**	**12**
Overall		**303**	**11**	**951**	**11**	**35**	**10**	**1,289**	**11**

1. ASX Announcement, Colluli Review Delivers Mineral Resource Estimate of 1.289Bt, 25th February 2015

Table 2: JORC-2012 Colluli ore reserve[3]

	Proved		Probable		Total			
Occurrence[2]	Mt	K_2O Equiv %	Mt	K_2O Equiv %	Mt	K_2O Equiv %	K_2SO_4 Equiv %	K_2SO_4 Equiv Mt[1]
Sylvinite (KCl.NaCl)	78	15	175	12	**253**	**13**		
Carnallitite ($KCl.MgCl_2.H_2O$)	79	7	284	8	**363**	**8**		
Kainitite (KCl.MgSO4.H2O)	129	12	368	11	**497**	**11**		
Total	**286**	**11**	**827**	**10**	**1,113**	**10**	**19**	**216**

Note:
[1] Equivalent K_2SO_4 (SOP) calculated by multiplying % K_2O by 1.85
[2] The Ore Reserve estimate contains dilutant material. Only sylvite, carnallite and kainite mineral species from Sylvinite, Carnallitite and Kainitite rock types contribute to recovered product.
[3] ASX Announcement, Colluli Definitive Study Results, 30 November 2015

Summary of Material Assumptions

The revised production target is based on the assumptions in the Colluli Definitive Feasibility Study Results including below and Annexure 1 updated for the results of completion of the FEED optimization phase.

Project team

The primary FEED and optimisation team is shown below.

Table 3: FEED and optimisation team

Consultant	Key area of expertise
Fluor	Lead consultant; process design
Knight Piésold	Pond and tailings specialists
Global Potash Solutions	Plant technical support
Elemental Engineering	Mass balance modelling

Geology

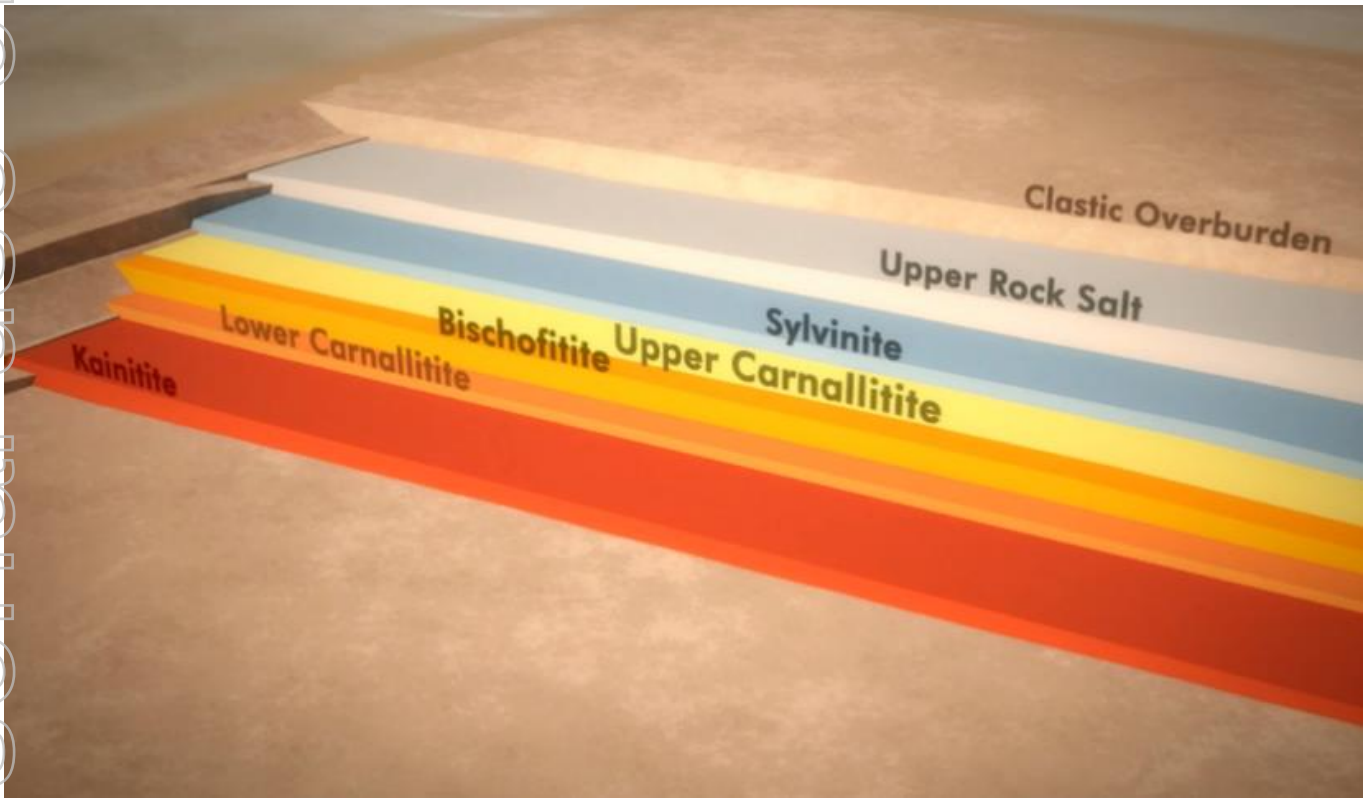
The geology is dominated by an evaporite sequence where the potash bearing mineralisation is overlain by, typically, 10-70m of clastic sediments and, typically, 10-20m of Upper Rock Salt. Under this rock salt lies the potassium bearing minerals, capped by Marker Beds below the Upper Rock Salt.

These potash bearing minerals begin with the Sylvinite Member hosting the sylvite (KCl) mineral, which is up to 10m thick. Below the Sylvinite lies the Intermediate Member comprising of carnallitites and bischofite which vary from 3 to 25m thick with the Bischofite mineralisation horizons constrained above and below by Upper and Lower Carnallitite Members.

Below the Intermediate Member in the sequence is the Kainitite Member composed of kainite approximately 5-15m thick and overlying the Lower Rock Salt which marks the lower extent of the mineralisation.

Refer to Figure 1 for the stratification of the Colluli resource.

Figure 1: Upper rock salt caps the potash salts



Mining

Method

The exploitation of the resource will be carried out by open pit mining using conventional truck and shovel techniques along with surface miners. A single pit will be developed. There are no blasting activities planned for the construction or operation of the Project. Mined ore will be transported by truck to a ROM pad adjacent to the processing plant.

Overburden and other waste materials (i.e. clastics, rock salt and bischofite) will be removed and stockpiled on site. Clean rock salt will be stockpiled separately in anticipation of future sales. Other mine waste materials will be used as backfill in the progressing pit void. Material that cannot be used as backfill will be transported from the pit and placed to form waste rock landforms. Some mine waste material will also be used during construction to form embankments and foundations.

Processing

Method

The processing method is the most commonly used, low cost process for the production of SOP via the addition of potassium chloride (sylvite) with kainite (from the salt kainitite). Kainitite represents approximately 50% of the Colluli resource with the remaining salts comprising sylvinite and carnallitite, which are commonly used for the production of potassium chloride. Using well understood and proven processing principles, the ore containing sylvite and carnallite can be decomposed, and then recombined with decomposed kainite. The reaction occurs spontaneously under ambient conditions and provides a high potassium yield relative to alternate potassium sulphate production processes.

Potassium yields are further improved using a series of ponds to collect excess brines exiting the processing plant. With the Project being located in an area with highly favourable ambient conditions for solar evaporation, additional potassium salts will precipitate from the collection ponds. These will be collected and recirculated back through the processing plant.

Product logistics

Method

Dried SOP product from the processing plant will be stored in shipping containers at the processing plant before being loaded onto road haulage vehicles for transport to Eritrea's primary import/export facility, the Port of Massawa. Loading of product onto road haulage vehicles will take place continuously. The majority of the product storage is proposed to be at the Port of Massawa.

The Port of Massawa, which is located approximately 230km from the Colluli site has the capability to export both containerised and bulk materials. Product exporting options and infrastructure at Anfile Bay will be reviewed after Phase I commissioning.

Massawa has been exporting product from the Bisha mine, which has been operating since 2010.

About Danakali Ltd

Danakali is an ASX listed company and 50% owner of the Colluli Potash Project in Eritrea, East Africa. The company is currently developing the Colluli Project in partnership with the Eritrean National Mining Corporation (ENAMCO).

The project is located in the Danakil Depression region of Eritrea, 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 potash deposit. The resource is amenable to open pit 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 definitive feasibility study for the production of potassium sulphate, otherwise known as SOP. SOP is a chloride free, specialty fertiliser which carries a substantial price premium relative to the more common potash type; potassium chloride. 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) with 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.

Our vision is to bring the Colluli project into production using the principles of risk management, resource utilisation and modularity, using the starting module as a growth platform to develop the resource to its full potential.

Competent Persons Statement (Rock Salt Resource)

Colluli has a JORC 2012 compliant Measured, Indicated and Inferred Mineral Resource estimate of 347Mt @97% NaCl. The resource contains 28Mt @ 97% NaCl of Measured Resources, 180Mt @ 97% NaCl of Indicated Resources and 139Mt @ 97% NaCl of Inferred Resources.

The information relating to the Colluli Rock Salt Mineral Resource estimate was compiled by Mr. John Tyrrell. Mr. Tyrrell is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of AMC. Mr. Tyrrell has more than 25 years' experience in the field of Mineral Resource estimation. He has sufficient experience relevant to the style of mineralisation and type of the deposit under consideration, and in resource model development, to qualify as a Competent Person as defined in the JORC Code.

Mr Tyrrell consents to the inclusion of the information relating to the rock salt Mineral Resource in the form and context in which it appears

Competent Persons Statement (Sulphate of Potash Resource)

Colluli has a JORC 2012 compliant Measured, Indicated and Inferred Mineral Resource estimate of 1,289Mt @11% K_20. The resource contains 303Mt @ 11% K_20 of Measured Resources, 951Mt @ 11% K_20 of Indicated Resources and 35Mt @ 10% K_20 of Inferred Resources.

The information relating to the 2015 Colluli Mineral Resource estimate was compiled by Mr. John Tyrrell, under the supervision of Mr. Stephen Halabura M. Sc. P. Geo. Fellow of Engineers Canada (Hon), Fellow of Geoscientists Canada, and as a geologist with over 25 years' experience in the potash mining industry. Mr. Tyrrell is a member of the Australian Institute of Mining and Metallurgy and a full-time employee of AMC. Mr. Tyrrell has more than 25 years' experience in the field of Mineral Resource estimation.

Mr. Halabura is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan, a Recognised Professional Organisation (RPO) under the JORC Code and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

Mr. Tyrrell & Mr. Halabura consent to the inclusion of information relating to the 2015 Resource Statement in the form and context in which it appears.

Competent Persons Statement (Sulphate of Potash Reserve)

The November 2015 Colluli Ore Reserve is reported according to the JORC Code and estimated at 1,113Mt @10% K_2O Equiv. The Ore Reserve is classed as 286Mt @ 11% K_2O Equiv Proved and 827Mt @ 10% K_2O Equiv Probable. The Competent Person for the estimate is Mr Mark Chesher, a mining engineer with more than 30 years' experience in the mining industry. Mr. Chesher is a Fellow of the AusIMM, a Chartered Professional, a full-time employee of AMC Consultants Pty Ltd, and has sufficient open pit mining activity experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code. Mr Chesher consents to the inclusion of information relating to the Ore Reserve in the form and context in which it appears.

In reporting the Mineral Resources and Ore Reserves referred to in this public release, AMC Consultants Pty Ltd acted as an independent party, has no interest in the outcome of the Colluli Project and has no business relationship with Danakali Ltd other than undertaking those individual technical consulting assignments as engaged, and being paid according to standard per diem rates with reimbursement for out-of-pocket expenses. Therefore, AMC Consultants Pty Ltd and the Competent Persons believe that there is no conflict of interest in undertaking the assignments which are the subject of the statements.

Quality Control and Quality Assurance

Danakali Exploration programs follow standard operating and quality assurance procedures to ensure that all sampling techniques and sample results meet international reporting standards. Drill holes are located using GPS coordinates using WGS84 Datum, all mineralisation intervals are downhole and are true width intervals.

The samples are derived from HQ diamond drill core, which in the case of carnallite ores, are sealed in heat sealed plastic tubing immediately as it is drilled to preserve the sample. Significant sample intervals are dry quarter cut using a diamond saw and then resealed and double bagged for transport to the laboratory.

Halite blanks and duplicate samples are submitted with each hole. Chemical analyses were conducted by Kali-UmwelttechnikGmBHSondershausen, Germany utilising flame emission spectrometry, atomic absorption spectroscopy and ionchromatography. Kali- Umwelttechnik (KUTEC) Sondershausen1 have extensive experience in analysis of salt rock and brine samples and is certified according by DIN EN ISO/IEC 17025 by the Deutsche AkkreditierungssystemPrüfwesen GmbH (DAR). The laboratory follows standard procedures for the analysis of potash salt rocks chemical analysis (K^+, Na^+, Mg^{2+}, Ca^{2+}, Cl^-, SO_4^{2-}, H_2O) and X-ray diffraction (XRD) analysis of the same samples as for chemical analysis to determine a qualitative mineral composition, which combined with the chemical analysis gives a quantitative mineral composition.

Forward Looking Statements and Disclaimer

The information in this document is published to inform you about Danakali Limited (the "Company" or "DNK") and its activities. DNK 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 the Colluli Project 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 and financial assumptions made in this presentation are consistent with assumptions detailed in the Company's ASX announcements dated 25 February 2015, 4 March 2015, 19 May 2015, 23 September 2015, 30 November 2015, 15 August 2016 and 1 February 2017 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.