

The Company Announcements Officer  
Australian Securities Exchange Ltd  
via electronic lodgement



**The following is an *Inside Briefing* interview with  
South Boulder Mines Chief Executive Paul Donaldson**

---

In this interview, Paul Donaldson provides an update on South Boulder Mines (ASX: STB, market capitalisation: ~\$25.7m) and its Colluli potash project in Eritrea.

Mr Donaldson explains the testwork that is about to begin on the various Colluli processing options, the key cost advantages associated with the unusually-shallow nature of the resource, the premium product suite which can be derived from this high-quality resource and the strong outlook for potash prices.

*Inside Briefing: Can you provide an update on the work South Boulder is undertaking at the Colluli Potash Project to identify the most effective alternate processing route to that contained in the original study?*

**Paul Donaldson:**

We are reviewing a short-list of proposals for testwork on various processing routes. We have developed a hierarchy of preferences based on the options identified in earlier work. These preferences are based on capital and operating cost structures that we believe are best-suited to this project.

All these proposals include contributions from construction contractors, processing experts and technical involvement to ensure we get the best outcome. We expect to allocate the work this month and we are keen to get the program running as quickly as practicable. As part of this, we have been reviewing our inventory of drilling core to ensure we can deliver samples to the test facility as soon as the program has been allocated. We are also collecting water samples from the Red Sea for testing as part of the program.

*Inside Briefing: What are some of the key issues you have been addressing at Colluli up to this point?*

**Paul Donaldson:**

Our focus has been on identifying the right processing route for the salt composition in the Colluli resource. The salt is turned into potash via the processing route and different forms of salt and different processing routes result in different forms of potash.

This is not a typical resource for a potash project. It consists of both chloridic and sulphatic potassium salts, which opens the door to a wide suite of final products. The resource also contains magnesium salts which can be used to make fertiliser. By using all the different salt types the

project's economics are substantially improved in the mining area and the product suite is extended beyond potassium chloride, the more common form of potash.

Our analysis of processing routes is based on existing technologies and we have assembled a number of conceptual processing options that augment these technologies to minimise both capital intensity and operating costs.

The sulphatic nature of the salts at Colluli provides the opportunity to produce potassium sulphate, a potassium fertiliser, or potash (sulphate of potash), that attracts a price premium relative to the more common form of potash, potassium chloride (muriate of potash). All the processing options we have considered allow for the production of potassium sulphate. Potassium sulphates are produced mostly from brines which in most cases need to be evaporated to solid form prior to processing. This usually requires considerable land space, a favourable environment for evaporation and sufficient time for evaporation to take place. But Colluli has a significant advantage because the salt is already in solid form.

Some more recent projects are considering the potential to make potassium sulphate using polyhalite. This requires high temperature calcination at almost 500 degrees celsius followed by counter current leaching. Again, we do not need to do this. Technology also exists to convert the kainite resource at Colluli to potassium sulphate. The key issue for the Colluli project is to determine the right conversion path. Given the significant opportunity this represents, we are seeking to determine this as quickly as possible.

*Inside Briefing: The Colluli deposit is very shallow compared with most of the major potash deposits around the world. What is the key advantage of this?*

**Paul Donaldson:**

The mineralisation starts from just 16m below the surface. This brings two significant advantages. The first is the impact on the capital intensity of the project. The scale of underground potash mines is to a large extent driven by their depth. The capital costs associated with sinking deep underground shafts are high and the deeper the deposit, the larger the scale of the processing facility required to cover the capital investment.

The shallow mineralisation at Colluli eliminates the need for underground mining. This means that a lower up-front capital investment is needed to generate the same production scale. Net present value (NPV) is a function of capital and cashflow, so operating costs are obviously the other key part of the equation. The balance between capital expenditure, operating cost and the scale of the facility has been a key area of focus in our latest studies. By driving down the operating costs and having the benefit of a lower capital intensity due to open cut mining, the start-up module size can be reduced. Given the size of the Colluli resource, this lowers the relative barrier to entry when compared to a lot of other potash projects and creates a solid platform for growth over a period of time. Safety, commercial, resource and capital risks can all be mitigated with a smaller-scale start-up.

The other significant advantage I see is the scalability. The Colluli resource has a potential strike length of more than 18km. Open cut mines are far easier and more economical to expand than underground operations, a factor which supports the modular growth approach we are now adopting.

*Inside Briefing: Do you see any strategic advantages associated with the location of the Colluli deposit compared with the traditional potash basins of Canada and Russia?*

**Paul Donaldson:**

Our location brings a number of benefits. First, the deposit is quite close to the coast. The distance between the mine site and the nominated export facility is only 70km. This is an important point when comparing operating cost structures given some operations publish costs on an FOB basis (cost of loading to ship) and some publish costs at the mine gate. In the Canadian basin, some of the product is railed more than 1500km with transportation costs in the order of \$50 per tonne of product. At Colluli, the transportation costs for product to be moved to the port are between \$5 and \$10 per tonne. When you consider the location of all of the major potassium fertiliser-producing operations, specifically potassium sulphate projects, Colluli would be the closest to the coast. Currently the closest is SQM's Salar de Atacama operations, which are approximately 220km from the Chilean coast.

The second benefit of the location is the proximity to the key markets. Compared to the traditional production basins, East Africa is the closest to India. Almost 70 per cent of India's potash imports currently come from Canada, Russia and Belarus. Given it is the fourth largest import market and is expected to demonstrate continued growth, Colluli is well positioned to capitalize on this market. Colluli is also a comparable freight distance to northern China compared with Canada and a slight advantage to southern coastal areas.

*Inside Briefing: The potash market has been quite soft over the past 12 months with potash prices sliding to just over \$300 per tonne on an FOB basis. How do you see the market outlook?*

**Paul Donaldson:**

The fundamentals for potash demand are well established. The equation for increasing demand is quite simple – growing population, less arable land and changing dietary preferences all add up to continued growth for fertiliser demand. Potash cannot be substituted.

The current market turbulence is the result of the additional capacity developed over the past few years and a change in the industry structure on the supply-side. This capacity will be consumed in the future and prices will return to higher levels, otherwise there will be another price spike in the future due to a supply shortage. We are quite confident the price won't remain at this level.

One of the advantages of the new product suite under consideration for Colluli is that potassium sulphate is produced. It is currently selling at an FOB price in the order of \$580 to \$600 per tonne and given the restricted number of production centres for this product, the price is not likely to drop as severely as in the case of potassium chloride.

***Inside Briefing: What do you see as the key milestones for Colluli once the processing testwork is allocated?***

**Paul Donaldson:**

Once the processing testwork is underway, we will look to appoint an environmental consultant to facilitate the baseline assessment submissions to the Environment Ministry in Eritrea, initiate material characterisation testwork to support the completion of mining work to DFS level and resume work on costing the infrastructure. We are also looking at bringing much of the work that was initiated with overseas partners back to Perth. It is easier to manage and we have an abundance of experts in Perth who can do the required work. We believe it will be a much more integrated approach that will ultimately deliver faster results.

The other key activity that we are about to initiate is defining the rock salt resource at Colluli. We have an abundance of rock salt sitting on top of the potash and the initial quality looks quite good. We see this as a potential de-icing product. This rock salt will be removed as part of the open cut mine. We are defining that resource and will look for partners that would like to participate in a rock salt business once we have established the grades and volumes.

- ENDS -

***Further information:***

**South Boulder Mines Ltd**

**Paul Donaldson**

**Chief Executive**

**T: +61 8 6315 1444**

**Investor Relations**

**Paul Armstrong / Nicholas Read**

**Read Corporate**

**T: +61-8 9388 1474**

**E: [paul@readcorporate.com.au](mailto:paul@readcorporate.com.au)**

***Important Notice:***

*Read Corporate has taken care in the provision of assistance to compile and publish this information on behalf of South Boulder Mines in good faith and as agent of South Boulder Mines for the purpose of providing the information to the ASX and those to whom it is published by the ASX. Read Corporate makes no warranties as to the accuracy of any facts or representations contained in the information, and has relied upon information provided to it in publishing this material to the ASX. Read Corporate does not accept any responsibility for any opinions expressed in the information or material. Read Corporate is not a financial adviser and this information and material is not financial or other advice of any type whatsoever. Subject to any terms implied or imposed by law and which cannot be excluded, Read Corporate is not responsible for any reliance, loss, damage, cost or expense incurred by any reliance upon this information and material or by acting upon it or for any error, omission or misrepresentation conveyed. This information is general only and does not take into account any individual objectives of investors. Read Corporate encourages the reader to read the full ASX announcements published by South Boulder Mines. Professional advice should be taken before making investment decisions.*

***Forward-Looking Statements:***

*The information in this presentation is published to inform you about South Boulder Mines (the "Company" or "STB") and its activities. STB has endeavoured to ensure that the information in this presentation is accurate at the time of release, and that it accurately reflects the Company's intentions. All statements in this presentation, other than statements of historical facts, that address future production, project development, reserve or resource potential, exploration drilling, exploration on 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 have been estimated using the Australian JORC (2004) Code ('JORC 2004'), which is a permitted code under Canadian National Instrument 43-101 ('NI 43-101'). In addition to the CIM Definition Standards on Mineral Resources and Mineral Reserves. Mineral Resource classifications under the two reporting codes are recognised as equivalent in categories with no material differences. 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 presentation. Recipients should make their own enquiries in relation to any investment decisions.*

### **Competent Persons Statement**

*The Colluli Potash Project has a current JORC/NI43-101 Compliant Measured, Indicated and Inferred Mineral Resource Estimate of 1,079.00Mt @ 17.97% KCl or 11.35% K<sub>2</sub>O (total contained potash of 194.09Mt KCl or 122.61Mt K<sub>2</sub>O). The resource contains 261.81Mt @ 17.94% KCl or 11.33% K<sub>2</sub>O of Measured Resources, 674.48Mt @ 17.98% KCl or 11.36% K<sub>2</sub>O of Indicated Resources and 143.50Mt @ 18.00% KCl or 11.37% K<sub>2</sub>O of Inferred Resources.*

*This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported by independent consultants ERCOSPLAN and announced by South Boulder on 16 April 2012.*

*The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Greg Knox using estimates supplied by South Boulder Mines Ltd under supervision by Ercosplan. Dr Henry Rauche and Dr Sebastiaan Van Der Klauw are co-authors of the JORC and NI43-101 compliant resource report. Greg Knox is a member in good standing of the Australian Institute of Mining and Metallurgy and Dr.s' Rauche and Van Der Klauw are members in good standing of the European Federation of Geologists (EurGeol) which is a "Recognised Overseas Professional Organisation" (ROPO). A ROPO is an accredited organisation to which Competent Persons must belong for the purpose of preparing reports on Exploration Results, Mineral Resources and Ore Reserves for submission to the ASX.*

*Mr Knox, Dr Rauche and Dr Van Der Klauw are geologists and they have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they have undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Knox, Dr Rauche and Dr Van Der Klauw consent to the inclusion in the report of the matters based on information in the form and context in which it appears.*