

# ASX Release 26th October 2011

ASX Code : STB
Berlin : SO3-Ber
Frankfurt : SO3-Fra
OTC : SBMSY

Share Price: \$2.12

Market Cap: \$200M

Shares on issue: 92.3M Company options: 13.5M (\$5.2)

Cash at Bank: \$11.4M ASX/TSX listed shares: \$2.0M

Top 40 shareholders - 64%

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## **LISTED EQUITY HOLDINGS**

(ASX: MZM) - 5.382m shares (ASX: AVZ) - 0.400m shares (ASX: BUX) - 1.610m shares (unlisted options) 0.750m options (CDNX: CNI.V) - 130,000 shares (ASX: LTX) - 1.016m shares Auvex (Pte) - 0.500m shares

# SCOPING STUDY UPDATE FOR COLLULI POTASH PROJECT

- The technical viability of mining and processing the Colluli Potash Deposit has been confirmed and a Definitive Feasibility (DFS) is scheduled for completion in early 2013 with production scheduled for 2016:
- A conservative start-up base case to produce an initial 1 million tonnes per annum of standard MOP (KCI) has been determined utilising shallow open pit mining methods for 11 years with scope to significantly increase production rates and mine life to an excess of 50 years based on SOP (Sulphate of Potash);
- Substantial production upside is expected from the large resource and outstanding exploration potential. The deposit remains open in many directions and further immediate exploration, resource definition and delineation drilling is continuing;
- The overall production strategy is to initially produce standard MOP (KCI) from Sylvinite mineralisation and to progressively transition the project to include the production of SOP and K-Mg sulphates from Kainitite and Kieserite mineralisation. Only MOP production from Sylvinite mineralisation has been included in the current economic modelling;
- Metallurgical tests have confirmed froth flotation of Sylvinite as the preferred processing route with estimated recoveries in excess of 80% and with significant scope to increase;
- Processing facility to be built at the Colluli site with subsequent road transport of damp potash to a drying, storage and port facility in the Anfile Bay area located 65-75kms from Colluli (Figure 1);
- Marketing study identifies the general Asian region, particularly India and China, as the key export market for South Boulder Potash;
- Estimated total capital expenditure guidance is in the range of USD\$500 - 750 million (Average capex for Greenfield projects is >USD\$1.0 billion per 1 million tonnes of MOP production capacity);
- Numerous project funding options have been identified, evaluated and are available;
- South Boulder continues to have overwhelming support from the Eritrean Government to build a long term economically and environmentally sustainable resource project;
- Further project details and economic modelling will be available in November.

South Boulder Mines Limited (ASX; STB) is very pleased to report that engineering scoping study results have confirmed the viability of the Colluli Potash Project and the Company has committed to progress a definitive feasibility study scheduled for completion in the next 14-17 months. The study has been completed by ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN) with input from a number of independent mining organisations and professionals under the guidance of Dr. Chris Gilchrist.

An eleven year initial mining and processing period was determined to represent a suitably conservative approach to the technical assessment of the project in order to ensure low risk, economic evaluation. Given that only a small portion of the potash contained within the current JORC Compliant Mineral Resource Estimate is planned to be mined as part of the current study the Company considers the mine life upside of the project to be immense and likely to be in excess of 50 years.

The current resource consists of 133.70Mt @ 17.55% KCl of Measured Resources, 343.33Mt @ 17.38% KCl of Indicated Resources and 87.37Mt @ 24.96% KCl of Inferred Resources for a total of **564.40Mt** @ **18.60% KCl** (total contained potash of 104.96Mt). This includes higher grade Sylvinite mineralisation of 130.39Mt @ 27.02% KCl. Sylvinite mineralisation was selected to be the focus of the engineering scoping study for a number of reasons;

- > Sylvinite is located shallowest in the stratigraphic sequence;
- Processing methods are relatively simple to produce MOP;
- Open pit mining methods are simple;
- MOP will be easily consumed by the existing market;
- Start-up capex is minimised to ensure simplified project financing.

Mining will be conducted with a flexible standard fleet of 90-100 tonne dump trucks with backhoe loading. In addition the use of in-pit crushing, conveying and continuous mining will be investigated. Groundwater will be controlled by a combination of dewatering drill holes, intercept trenching, evaporation, batter toe drainage and geopolymers which are all standard mine dewatering methods.

The processing facility will be located at the Colluli site and will consist of an industry-standard milling and flotation plant. The metallurgical amenability of froth flotation has been demonstrated and early recovery results have been highly encouraging at >80% KCl which is considered to be near industry averages. Further process optimisation work is planned as part of the Definitive Feasibility Study and it is expected that the metallurgical recovery will further increase. Residue disposal from the processing facility is planned to be deposited with pit wastes at the mine site. These consist of Halite (NaCl) and sulphate minerals, the environmental impact of which will be minimal.

A small diameter pipeline from the coastal town of Mersa Fatma has been scoped to bring sea water to the processing site if insufficient volumes of groundwater are identified. Up to 120 kilolitres per hour of water will be required consisting of 75% seawater/brackish water and 25% freshwater. Brackish water is present in the ground above and in adjacent areas to the resource however it is currently thought that the volumes are smaller than requirements. A substantial brackish and fresh water exploration drilling program has commenced as part of site hydrogeological investigations and will assess ground within a 50 kms radius of the Colluli site. Water sourced from mine dewatering activities will be used to supplement the total site brackish water requirements.

Road train or truck transport to a port, storage and loading facility at the Anfile Bay Area (Figure 1) is planned pending environmental, social impact and Government approvals. Anfile Bay contains deep water close to the coast and has sufficient options for offshore trans-shipment barges. Self-powered, self-discharging "shuttle barges" with 5,000 metric tonne capacity have been planned to access deeper water and load ships at a rate of 20,000 metric tonnes per day.

Numerous opportunities have been identified to improve the current project plan in terms of rates of production, fertilizer products and resource utilisation and these will be defined in the next 14-17 months.

Details on further exploration and feasibility results will be released as they come to hand.

-ENDS-

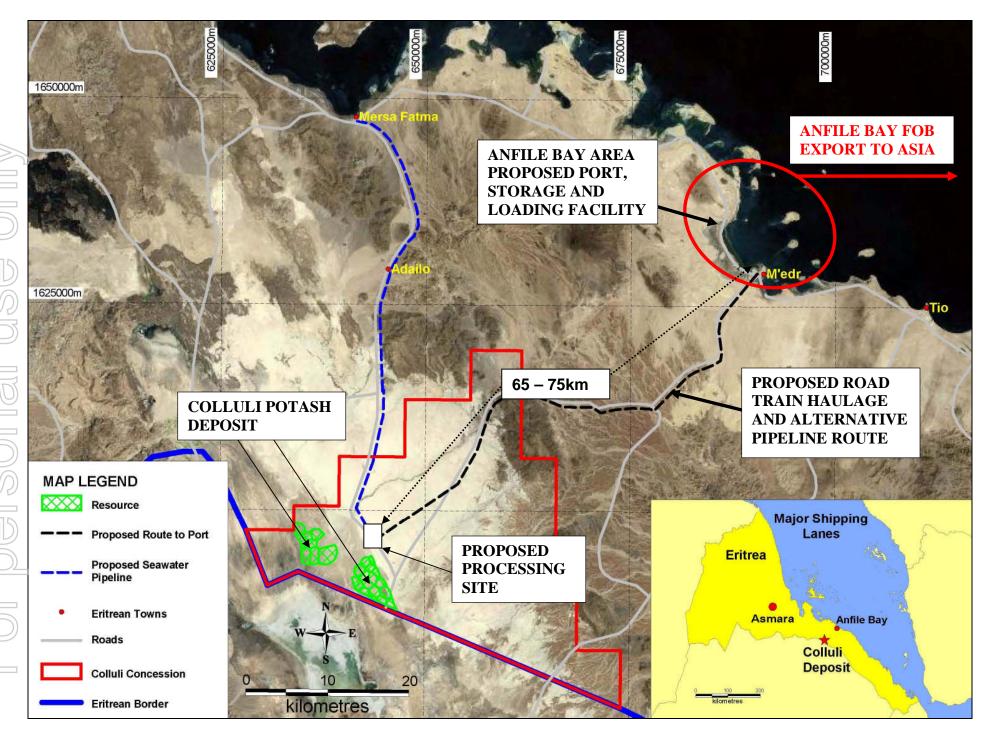


Figure 1: Colluli Project Site Plan.

#### **Investor Coverage**

Recent investor relations, corporate videos and broker/media coverage on The Company's projects can be viewed on the website in the "Media Centre" and "Investor Centre" sections by following the links www.southbouldermines.com.au and www.abid.co.

#### **About South Boulder Mines Ltd**

Listed in 2003, South Boulder Mines (ASX: STB) is a diversified explorer focused on potash, nickel and gold. South Boulder has a 100% interest in the Colluli Potash Project in Eritrea and a 100% interest in the Duketon Gold Project in Western Australia.

The Colluli Potash Project has a current JORC Compliant Measured, Indicated and Inferred Mineral Resource Estimate comprised of 133.70Mt @ 17.55% KCl of Measured Resources, 343.33Mt @ 17.38% KCl of Indicated Resources and 87.37Mt @ 24.96% KCl of Inferred Resources for a total of 564.40Mt @ 18.60% KCl (total contained potash of 104.96Mt); This includes higher grade Sylvinite of 130.39Mt @ 27.02% KCl. There is an exploration target of 1.25 – 1.75 billion tonnes @ 18-20% KCl ## (see disclaimer below). A definitive feasibility study into the open pit mining and processing to produce up to 10Mt p.a of potash is underway.

Within the Duketon Gold Project area, South Boulder entered a farm-out Joint Venture (JV) Agreement with Independence, whereby Independence can earn a 70% interest in the nickel rights on JV tenements held by South Boulder in the Duketon Project, by the completion of a Bankable Feasibility Study within 5 years of the grant of the relevant tenement.

#### **About the Nickel Joint Venture**

The Duketon Nickel JV has had recent success at The Rosie and C2 Nickel sulphide prospects where drilling has defined intercepts of 5.20m @ 9.13% Ni, 1.09% Cu, 0.21% Co and 7.09g/t PGE's at Rosie and 50m @ 0.92% Ni including 37m @ 1.05% Ni at C2. The deposits are located approximately 120km NNW of Laverton, W.A in the Duketon Greenstone Belt. The deposits are approximately 2km apart and the mineralisation at both prospects is considered open in most directions. A Mining Lease was granted over the Rosie and C2 deposits on the 19<sup>th</sup> of November. A resource definition and exploration drilling program and scoping study into an open pit mine at C2 and an underground mine at Rosie is underway.

#### More information:

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#### ## Competent Persons and Responsibility Statement

The Colluli Potash Project has a current JORC/43-101 Compliant Measured, Indicated and Inferred Mineral Resource Estimate of 564.40Mt @ 18.60% KCl (total contained potash of 104.96Mt); Includes 130.39Mt @ 27.02% KCl. The resource contains 133.70Mt @ 17.55% KCl in the Measured Category, 343.33Mt @ 17.38% KCl in the Indicated Category and 87.37Mt @ 24.96% KCl in the Inferred Category. The current Mineral Resource Estimate is included in the current exploration target of 1.25 – 1.75 billion tonnes @ 18-20% KCl. The potential quantity and grade of the total current exploration target which includes the current Mineral Resource Estimate is conceptual in nature and there has been insufficient exploration to define a Mineral Resource other than the current Mineral Resource Estimate and it is uncertain if further exploration will result in the determination of a Mineral Resource Estimate other than the current Mineral Resource Estimate.

This ASX release has been compiled by Lorry Hughes using information on exploration results and Mineral Resource 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 43-101 compliant resource report. Lorry Hughes 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 organization 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 Hughes, Mr Rauche and Mr 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 Hughes, Mr Rauche and Mr van der Klauw consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# Quality Control and Quality Assurance

South Boulder 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. Assay values are shown above a cut-off of 6% K<sub>2</sub>O. 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-Umwelttechnik GmBH Sondershausen, 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 Akkreditierungssystem Prüfwesen GmbH (DAR). The laboratory follow standard procedures for the analysis of potash salt rocks • chemical analysis (K+, Na+, Mg2+, Ca2+, Cl-, SO42-, H2O) 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.