

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

Share Price: \$3.51

Market Cap: \$266M

Shares on issue: 75.7M

Cash at Bank: \$10.7M  
ASX/TSX listed shares: \$4.5M

Top 20 shareholders – 56%

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#### LISTED EQUITY HOLDINGS

(ASX: MZM) - 3.957m shares  
(ASX: MZMO) - 1.037m options  
(ASX: AVZ) - 0.400m shares  
(ASX: BUX) - 1.610m shares  
(unlisted options) 0.750m options  
(ASX: UNX) - 0.800m shares  
(CDNX: CNI.V) - 130,000 shares  
Lithex (Pte) - 1.016m shares  
Auvex (Pte) - 1.000m options

## MAIDEN JORC/43-101 POTASH RESOURCE BASED ON ASSAYS FROM FIRST THREE HOLES ONLY

South Boulder Mines Ltd is pleased to announce the completion of an initial JORC and 43-101 compliant Measured, Indicated and Inferred Mineral Resource Estimate located at < 100m depth for the Colluli Potash Deposit. Highlights include;

- A maiden Mineral Resource Estimate comprising;
  - 547.62Mt @ 18.58% KCl (total contained potash of 101.73Mt);
  - Includes 119.21Mt @ 23.14% KCl;
  - Total in-ground value of ~ USD \$40.5bn using USD \$400/t KCl;
- Increased Exploration Target of;
  - 750Mt – 1.25 billion tonnes @ 18-20% KCl;
  - Includes 450Mt – 750Mt @ 20-23% KCl;
- To date a total of 17 shallow vertical diamond holes have been drilled at Colluli defining mineralisation over an area of >10km<sup>2</sup>. Of these only 3 holes (Col-001, 002 and 004) with assay results, have been used to calculate the initial resource tonnage and grade (Figure 1);
- This maiden resource represents the first stage of a mining engineering study into the optimum production capacity from open pit mining. The study will investigate a range of production scenarios from 1Mt – 10Mt p.a.;
- Mineralisation is currently open in all directions and a near term resource upgrade is expected on receipt of outstanding assay results from holes 006 – 017;
- The current potash resource is located from between 22.20m to 64.80m below surface confirming Colluli as the world's shallowest buried potash deposit;
- All potash is contained within potash minerals that can be processed using standard techniques;
- Scoping study results are planned to be completed in mid 2011;
- Drilling to resume in late January with a second rig planned to be onsite in early February;
- Outstanding assay results and details on further exploration drilling will be released as they come to hand.

South Boulder Mines Ltd is pleased to report that a maiden JORC and 43/101 compliant geological resource estimate has been compiled by independent potash industry experts Ercosplan Ingenieurgesellschaft Geotechnik und Bergbau mbH (Ercosplan) for the Colluli Potash Deposit in Eritrea. The estimate has been compiled using standard industry techniques and practices that are in effect across the global potash industry for buried potash deposits.

The total Measured, Indicated and Inferred resource comprises sylvinite, carnallite and kainite ores of **547.62Mt @ 18.58% KCl** with a higher grade portion of sylvinite and carnallite ores of **119.21Mt @ 23.14% KCl**. The resource has been compiled using assay information from 3 holes as shown on Figure 1. The total resource by category is shown in Table 1.

Resource Category	Tonnes (Mt)	Grade (% KCl)	Mt (Potash)
<b>Total Inferred</b>	340.86	18.58	63.34
<b>Total Indicated</b>	173.37	18.57	32.20
<b>Total Measured</b>	33.39	18.56	6.20
<b>Total Resources</b>	<b>547.62</b>	<b>18.58</b>	<b>101.73</b>

**Table 1: Total JORC/43-101 compliant resource by resource category using a variable cut-off grade.**

Mineralisation Types	Tonnes (Mt)	Grade (% KCl)	Mt (Potash)
<b>Sylvinite Measured</b>	6.24	23.10	1.44
<b>Sylvinite Indicated</b>	32.28	23.12	7.46
<b>Sylvinite Inferred</b>	64.86	23.21	15.06
<b>Upper Carnallite Measured</b>	0.99	22.87	0.23
<b>Upper Carnallite Indicated</b>	5.10	22.87	1.17
<b>Upper Carnallite Inferred</b>	9.74	22.87	2.23
<b>Total Sylvinite and U.Carnallite</b>	<b>119.21</b>	<b>23.14</b>	<b>27.58</b>

**Table 2: Total JORC/43-101 compliant resource, sylvinite and upper carnallite only, using a variable cut-off grade.**

The resource categories and cut-off grades have been determined based on standard potash industry practice and the opinions of the authors at the time of the report. The geological information from drill holes completed drilled during the period of resource compilation have not been used for the geological interpretation. Once the assays have been returned from holes 006 – 017 the geological information will be incorporated and compiled into an upgraded resource.

In addition, as part of the resource compilation process a resource reduction factor of 25% on the resource area on Figure 1, was applied by Ercosplan in order to reflect the level of uncertainty of undetermined geological anomalies at the time. It is expected that once outstanding assays are returned, the level of confidence in the resource estimate will enable most of the resource area to report to the Measured and Indicated categories.

Measured, Indicated and Inferred resource categories were determined as follows;

**Measured Resources** – Mineral resource extends in a 300m radius from a potash bearing South Boulder drill hole, excluding any potential identified boundary of the deposit.

**Indicated Resources** – Mineral resource extends from a 300m - 750m radius from a potash bearing South Boulder drill hole, excluding any potential identified boundary of the deposit.

**Inferred Resources** – Mineral resource extends from a 750m - 1,500m radius from a potash bearing South Boulder drill hole, excluding any potential identified boundary of the deposit.

Cut-off grades used for the resource estimate were variable depending on the ore types and MgCl<sub>2</sub> content as follows;

**Sylvinite Member** – A sample is part of the resource if the KCl grade of the sample is > 15%, or when the average grade of all samples reaching up to 1.5m below and 1.5m above the sample have an average sylvite grade of > 12%. If no samples with sylvite content > 15% are present above the sample, this sample is taken as the top of the deposit.

**Upper Carnallite Member** – A sample is part of the resource if the KCl grade of the sample is >10%, or when the average grade of the sample above and below are above 10%. The cut-off grade towards the underlying Bischofite Member is when the sample has a MgCl<sub>2</sub> content, which is over 35%.

**Lower Carnallite Member** – A sample is part of the resource when the carnallite content summed with kieserite content is above 60%.

**Kainite Member** – A sample considered part of the resource when the kainite content is above 30%.

## Resource Potential/Discussion

The geological continuity and predictability of the Colluli deposit, as is typical of numerous other potash deposits across the globe, has been proven through drilling to be substantially strong. The strong continuity has facilitated the Inferred resource category to extend up to 1,500m from a potash bearing drill hole (Figure 1). It is expected that outstanding assay results will provide a better estimate of tonnage and grades reported, and allow most of the current drilling area to report to the Measured and Indicated resource categories. Further to this, surface and downhole seismic surveys will be investigated to potentially better define the subsurface geometry of the potash bearing units and any potential geological structures.

The deposit is clearly open in all directions (Figure 2), however the company has adopted a conservative approach to the geological interpretation and the compilation of the initial Mineral Resource Estimate. This reflects the confidence level of the resources at the time of reporting, based on the available drilling information.

The currently defined eastern boundary of the resource has been interpreted by the location of an anhydrite sequence. As no historic drilling information is available to the company and the company has not completed any drilling in this area to date, it has not been determined if mineralisation extends past this geological boundary.

The currently defined western boundary of the resource has been interpreted by the location of a gravimetric anomaly which is thought to represent an underlying north-south feature that may have locally truncated the resource in that direction. As no exploration has been completed to the west of hole Col-003, the deposit is still considered open in this direction.

In addition to drilling, the company has been utilising ground gravimetric surveys to assist with interpreting the resource extents and drilling targets. To date the method has proved encouraging and a larger more extensive survey is planned as shown in Figure 1. It is also planned to examine extending some of the lines to the west to better define the mineral prospectivity prior to drilling.

South Boulder Managing Director Lorry Hughes commented;

“The maiden resource estimate is a fantastic result and Colluli is already showing world class potential. We are ramping up and continuing exploration to extend and better define resources. The upgraded resource expected in the March quarter will be a robust platform on which to effectively scope the project.

I expect Colluli to be able to demonstrate very cheap mining costs primarily because the mineralisation is so continuous and shallow. I look forward to providing further updates to the market as we complete key scoping study tasks.”

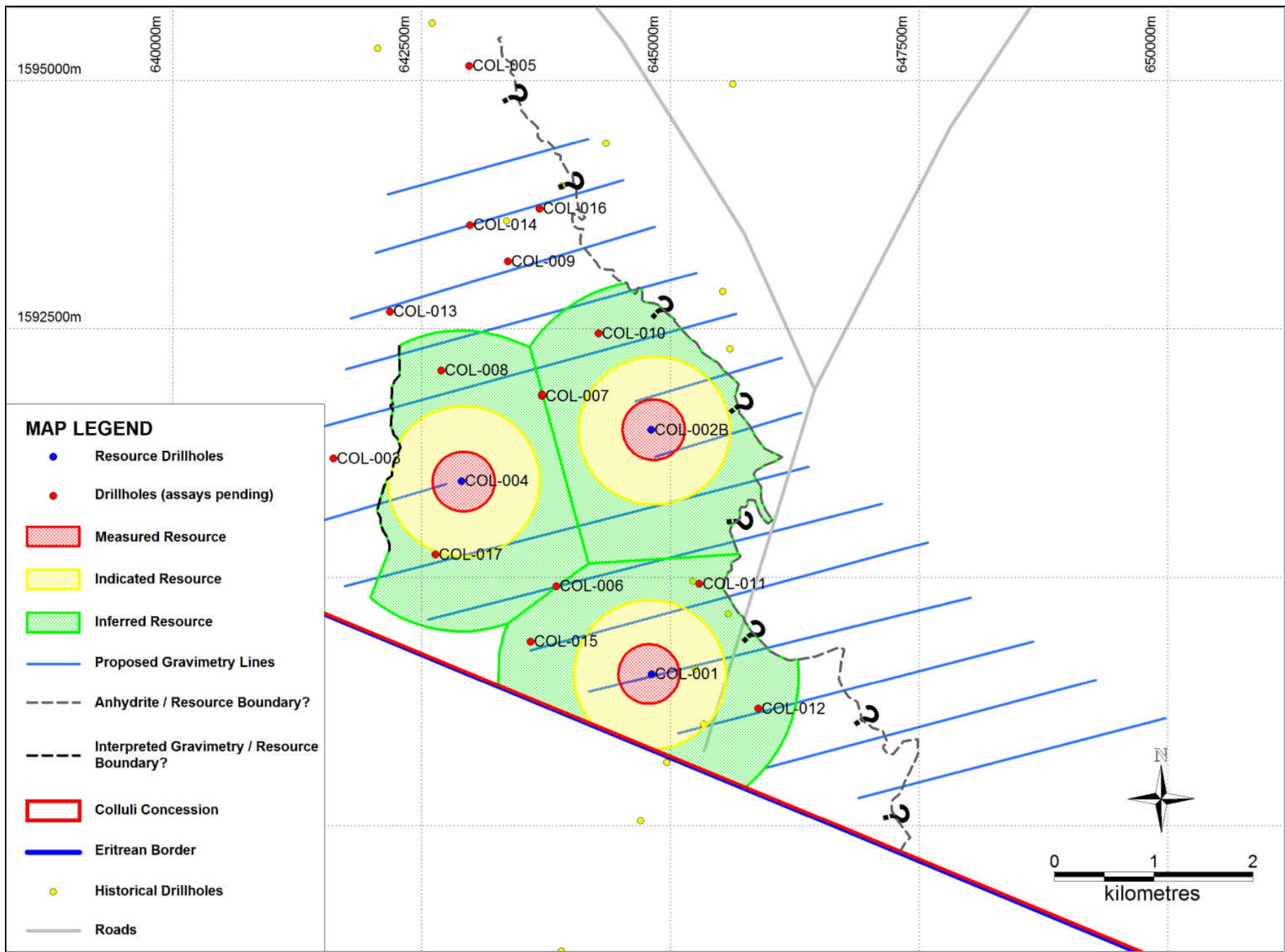


Figure 1: Colluli Project plan showing drilling, resource categories and proposed gravimetric survey lines.



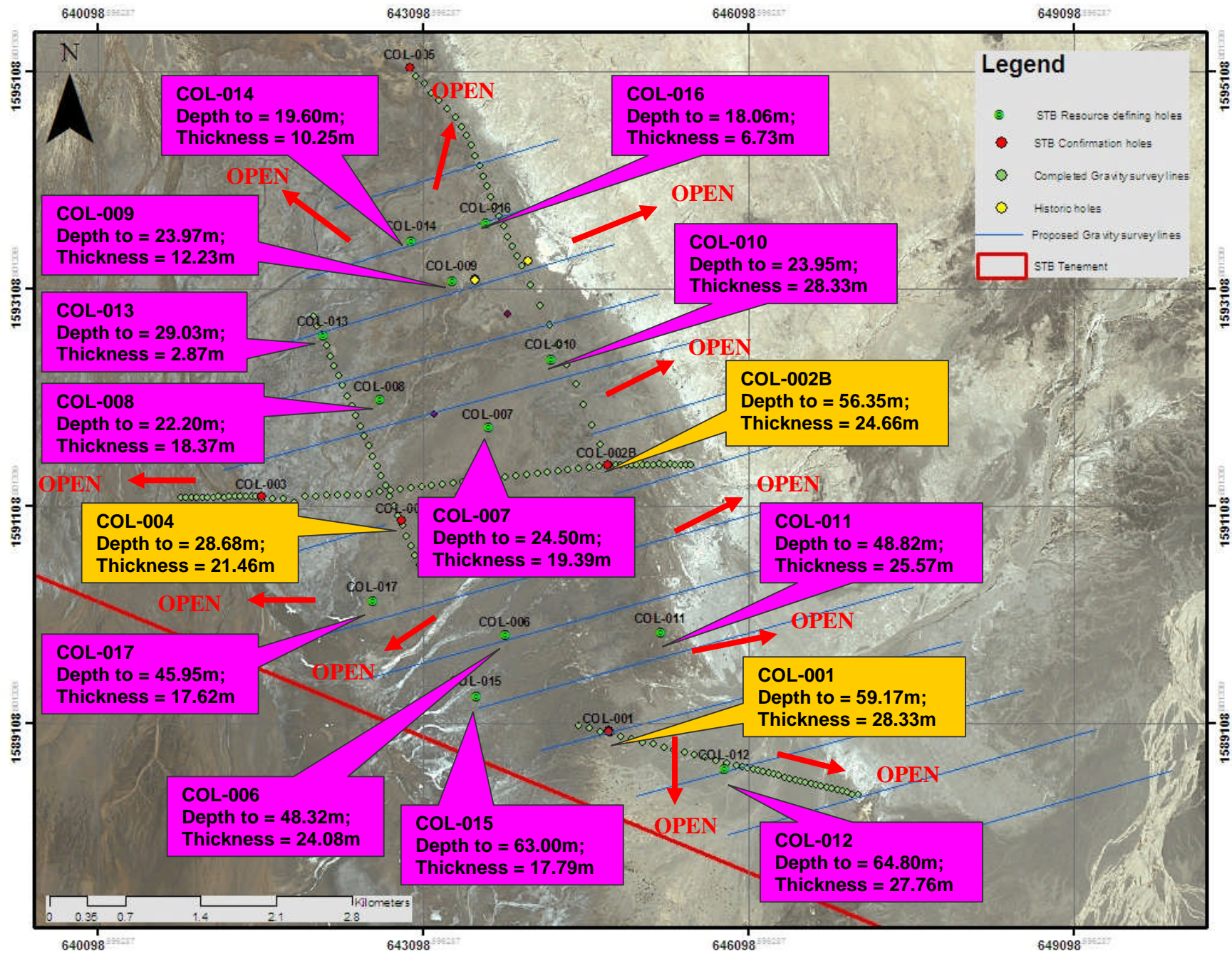


Figure 2: Colluli Project drilling plan showing preliminary down hole depth to and thickness of potash bearing intervals. Holes shown in purple have assay results outstanding.



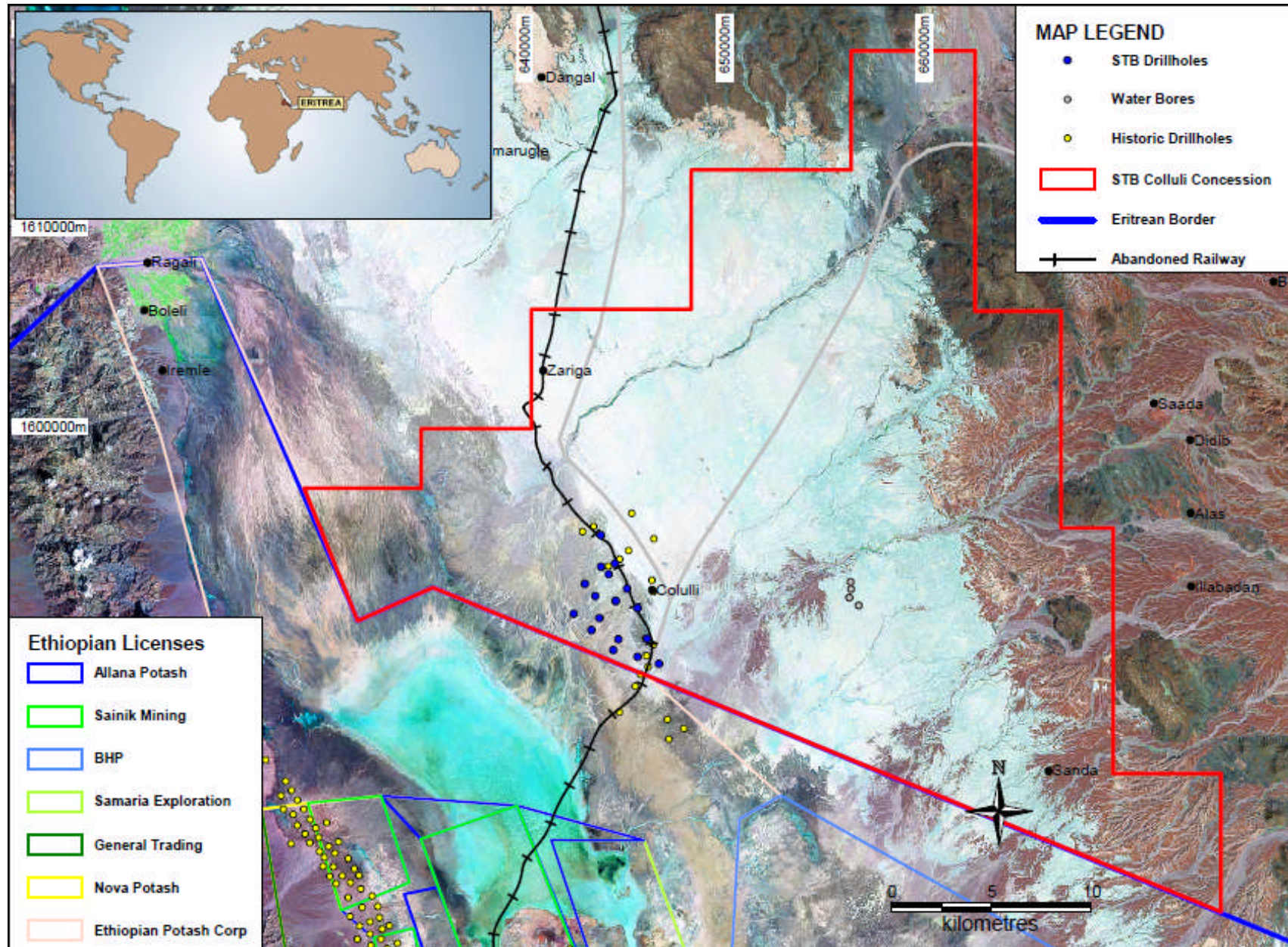


Figure 3: Colluli Project plan showing the exploration license and proximity to neighbouring potash projects.

## 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 link [www.southbouldermine.com.au](http://www.southbouldermine.com.au).

## About South Boulder Mines Ltd

Listed in 2003, South Boulder Mines (ASX: STB) is a diversified explorer primarily 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.

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. The Mining Lease comprises a total of 19.13km<sup>2</sup>.

## More information:

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### Disclaimer

The potential quantity and grade of the Colluli exploration target is conceptual in nature and there has been insufficient exploration to define a Mineral Resource (outside the area shown in Figure 1) and it is uncertain if further exploration will result in the determination of a Mineral Resource (outside the area shown in Figure 1).

In-ground values have been calculated using a nominal USD \$400/t potash price for the purpose of estimating the nominal insitu value of the potash resource to help investors compare relative valuations of companies in the same sector. The figures do not include any estimate of mining, processing and delivery costs and do not constitute an estimate of profit or the like.

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 at the Technical University of Clausthal, who have extensive experience in analysis of salt rocks and brines. For analysis ion chromatography of a dissolved aliquot of the samples was used to determine the amounts of the typical elements (Mg, Ca, Na, K, Cl, SO<sub>4</sub>) in salt rocks. The insoluble content was determined by weighing of the dissolution residue of the dissolved aliquot. The chemical analysis was supported by X-ray powder diffraction to determine the salt minerals present within the sample. Check samples were analysed by Kali-Umwelttechnik GmbH Sondershausen, Germany utilising flame emission spectrometry, atomic absorption spectroscopy and ionchromatography. Kali-Umwelttechnik (KUTEC) Sondershausen 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).