# ASX Release

1<sup>th</sup> January 2012



## **Corporate Details**

ASX Code:	STB
Germany:	SO3-Fra
OTC/ADR:	SBMSY
Share Price:	\$1.36
Market Cap:	\$132M
Shares on issue:	96.6M
STB Options:	9.2M (\$4.2M)
Cash/NTA:	13.4M
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shareholders: 65%

## **Contact Details**

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### **Listed Equity Holdings**

(ASX: MZM):	5.382M
(ASX: AVZ):	0.400M
(ASX: BUX):	1.610M
(BUX options):	0.750M
(CDNX: CNI.V):	0.121M
(ASX: LTX):	1.016M
Auvex (Pte):	0.500M

## **Colluli Drilling & Feasibility Update**

South Boulder Mines Ltd "South Boulder" is pleased to provide an update on drilling and definitive feasibility study (DFS) activity in relation to the development of the Colluli Potash Deposit in Eritrea. The completion of a highly positive engineering scoping study (ESS) in November has allowed the Company to expedite the transition to potash production in 2016 or sooner. Recent key activities and highlights in relation to Colluli include;

- Potash assays from a further six resource extension holes were returned from holes completed in the last drill program (Figure 2 and Table 1). An updated JORC Compliant Mineral Resource Estimate (resource) is planned for completion in the March quarter;
- A program of HQ diamond drilling has recommenced (5 holes completed to date) to define further shallow potash. Continuous drilling is planned throughout the next 14 months, commencing with an initial resource extension program of 22 holes for ~ 2,000m (Figure 2);
- A close spaced (50 200m centres) PQ diamond drilling program is in the final stages of approval. Up to 70 holes will be completed in order to collect sufficient sample for definitive metallurgical testing and to assess the short range variability and localised geometry of the deposit (Figure 1);
- A total of 13 hydrogeological monitoring bores have been installed at Area A as part of DFS ground water and geotechnical assessment with respect to open cut mining studies (Figure 2);
- South Boulder Mines has commenced a global tender process for DFS engineering design and is expecting to award the tender in February 2012;
- The recently completed ESS produced a pre-tax NPV<sub>12</sub> of USD 1.33bn with start-up capital costs of USD 0.74bn based on production of an initial 1Mt of KCI p.a. The ESS only considered ~20% utilisation of the current resource and therefore enormous upside is expected to be captured within the DFS;
- South Boulder is well funded to complete the DFS and is in the process of completing a fully underwritten 1 for 5 Entitlement Issue to raise ~ \$10.7m. This will result in a strong cash position of ~\$21 million in early February 2012.

South Boulder is pleased to report that significant progress towards completion of a DFS into the production of an initial 1Mt p.a. of standard KCl in 2016 or sooner has been made. All key technical activities in order to complete the DFS in 2013 are underway, or are set to commence in the near term pending approvals. Key activities currently awaiting approvals include;

- A close spaced PQ diamond drilling program (similar to a broadly spaced grade control program) is in the final design and approval stages to assess the short range variability of the deposit with respect to mining methods, assist with ongoing geological interpretation of the deposit and to collect sufficient potash samples for definitive feasibility processing test work. It is planned that the program will be undertaken over potential mining areas that correspond to the first few years of production from Area A;
- A complete Social Environment Impact Assessment (SEIA) plan has been submitted to the Eritrean Government for consideration. The plan was undertaken by Knight Piesold Consulting in conjunction with South Boulder personnel and is a comprehensive plan in accordance with the local and international guidelines. Approval of the plan is anticipated in the March quarter and a number of data collection activities are well underway to support the DFS;
- A Baseline Hydrology Program was initiated in November 2011 and included the installation of 13 hydrogeological monitoring bores at Area A. Initial assessment was made at Colluli and adjacent regional areas to plan the ongoing surface and ground water assessment programs.

In addition, commencing in January 2012 a series of strategic investor visits will be undertaken to the Colluli site with a view to assessing potential financial, off-take and development partners for the Colluli Project.



Figure 1: Colluli Area A Potash Deposit typical geological cross-section (Section line shown on Figure 2).





Figure 2: Colluli JORC Compliant Resource Plan showing resource and hydrogeological drill hole locations.



Hole No.	East (m)	North (m)	RL (m)	Azi. (degr.)	Dip (degr.)	E.O.H.	From	From To Interval KCI (m) (%)		Comment			
Col-018	642104	1590740	-116	000	-90	55.60	49.74	51.88	2.14	23.26	Area A – Kainitite (Resource extension hole)		
Col-021B	646170	1588388	-82	000	-90	117.10	90.36	99.92	9.56	15.29	Area A – Carnallite (Resource extension hole)		
							99.92	113.72	13.80	14.69	Area A – Kainitite (Resource extension hole)		
PQ-001	644658	1590208	-118	000	-90	85.60	Assays awaited				Area A – Sylvinite, carnallite and kainitite; total thickness ~20.76m from ~31.57m (Resource category upgrade hole)		
PQ-002	643772	1590934	-119	000	-90	147.00	Assays awaited				Area A – Sylvinite, carnallite and kainitite; total thickness ~20.67m from ~35.45m (Resource category upgrade hole)		
Col-023	635833	1596782	-122	000	-90	52.60	33.63	35.67	2.04	27.63	Area B - Sylvinite (Within resource, interval previously released)		
							40.60	41.43	0.83	13.37	Area B – Carnallite (Resource extension hole)		
							41.43	47.85	6.42	23.03	Area B – Kainitite (Resource extension hole)		
Col-024	635677	1597779	-121	000	-90	45.00	24.00	24.00 29.10 5.10 14.80 Area B - Kainitite					
							29.10	31.51	2.41	11.44	Area B – Carnallite, kieserite dominated (Resource extension hole)		
							31.51	39.63	8.12	20.91	Area B – Kainitite (Resource extension hole)		
Col-025	636562	1596890	-119	000	-90	54.00	36.09	38.43	2.34	19.54	Area B - Sylvinite (Resource extension hole)		
							38.43	38.43 49.04 10.61 19.94 Area B - Kainitite and		19.94	Area B - Kainitite and kieserite (Resource extension hole)		
Col-026	636356	1594877	-122	000	-90	102.00	83.10 86.06 2.96 29.85		29.85	Area B - Sylvinite (Within resource, interval previously released)			
							86.06 87.00 0.94 14.87			14.87	Area B – Carnallite, kieserite dominated (Resource extension hole)		
							90.00 90.86 0.86 11.15		11.15	Area B – Carnallite, kieserite dominated (Resource extension hole)			
							90.86 97.62 6.76 23.82		23.82	Area B – Kainitite (Resource extension hole)			
Col-027	636116	1595879	-122	000	-90	72.00	50.28 52.00 1.72 39.69		39.69	Area B – Sylvinite (Within resource, interval previously released) Assays awaited carnallite and kainitite zones (Resource extension hole)			
Col-028	637528	1595879	-119	000	-90	63.00	Assays awaited				Area B - Carnallite, kainitite; ~8.89m from ~48.36m (Resource extension hole)		
Col-029	637780	1594876	-120	000	-90	93.00	74.58	75.74	1.16	29.44	Area B – Sylvinite (Within resource, interval previously released) Assays awaited carnallite and kainitite zones (Resource extension hole)		
Col-030	635493	1595891	-122	000	-90	75.00	Assays awaited				Area B - Sylvinite, carnallite; total thickness ~3.23m from ~53.94m (Resource extension hole)		
Col-031	635211	1596851	-121	000	-90	51.00	Assays awaited				Area B - Sylvinite, carnallite and kainitite; total thickness ~12.97m from ~32.95m (Resource extension hole)		
Col-032	635750	1594886	-122	000	-90	102.00	82.00	83.69	1.69	30.10	Area B – Sylvinite (Within resource, interval previously released) Assays awaited carnallite and kainitite zones (Resource extension hole)		



Hole No.	East (m)	North (m)	RL (m)	Azi. (degr.)	Dip (degr.)	E.O.H.	From	То	Interval (m)	KCI (%)	Comment	
Col-033	635016	1597777	-120	000	-90	30.00	19.35	20.82	1.47	14.66	Area B – Sylvinite (Within resource, interval previously released) Assays awaited kainitite zones (Resource extension hole)	
Col-034	635432	1598553	-119	000	-90	36.00	Assays awaited				Area B - Carnallite, kainitite; total thickness ~8.99m from ~22.14m (Resource extension hole)	
Col-035	636343	1597777	-119	000	-90	42.00	Assays awaited				Area B - Carnallite, kainitite; total thickness ~12.91m from ~25.70m (Resource extension hole)	
Col-036	637309	1596837	-118	000	-90	114.00	Assays awaited				Area B - Sylvinite, carnallite and kainitite; total thickness ~10.87m from ~32.60m (Resource extension hole)	
Col-037	634893	1595946	-122	000	-90	83.30	65.59	71.17	5.58	31.47	Area B – Sylvinite (Within resource, interval previously released) Assays awaited carnallite/kieserite and kainitite zones (Resource extension hole)	
Col-038	637586	1598135	-117	000	-90	43.00	-	-	-	-	Area B - No samples taken, hole to be deepened	
Col-038B	637422	1598015	-117	000	-90	78.00	-	Area B - No samples taken, hole to be deepened		Area B - No samples taken, hole to be deepened		
Col-039	634618	1596841	-122	000	-90	57.00	Assays awaited				Area B - Sylvinite, kainitite; total thickness ~9.87m from ~42.70m (Resource extension hole)	
Col-040	634500	1598976	-119	000	-90	78.00	-	-	-	-	Area B - No samples taken, hole to be deepened	
Col-040B	634476	1598917	-119	000	-90	27.00	Assays awaited				Area B - Kainitite; total thickness ~8.07m from ~16.51m (Resource extension hole)	
Col-041	634341	1598197	-120	000	-90	33.00	Assays awaited				Area B - Sylvinite, kainitite; total thickness ~8.45m from ~18.86m (Resource extension hole)	
Col-045	634300	1595879	-122	000	-90	62.50	Logging and sampling awaited			aited	Area B – samples to be dispatched	
Col-046	633350	1594894	-123	000	-90	60.00	Logging and sampling awaited			aited	Area B – samples to be dispatched	
Col-047	637622	1592828	-124	000	-90	138.00	Logging and sampling awaited		aited	Area B – samples to be dispatched		
Col-048	637343	1593906	-123	000	-90	111.00	Logging and sampling awaited		aited	Area B – samples to be dispatched		
Col-049	636022	1593912	-123	000	-90	114.00	Logging and sampling awaited		aited	Area B – samples to be dispatched		

Table 1: Colluli drilling assay table showing recent results and holes where results are pending (all assay intervals are true width intervals).



#### **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 detailed engineering scoping study for the production of 1Mt p.a. of potash demonstrated an estimated capital cost of USD 0.74 bn generating a Pre-tax NPV<sub>12</sub> of USD 1.33 bn. A DFS study into the open pit mining and processing to produce in 2016 or sooner is underway. South Boulder has strong support from the Eritrean Government to build a long term economically and environmentally sustainable resource project;

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% KCI (total contained potash of 104.96Mt); Includes 130.39Mt @ 27.02% KCI. The resource contains 133.70Mt @ 17.55% KCI in the Measured Category, 343.33Mt @ 17.38% KCI in the Indicated Category and 87.37Mt @ 24.96% KCI 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% KCI. 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 seled 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 • Xray 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.

