

# Making the Transition to Potash Producer

Annual General Meeting Activities Update

23 November 2011 | **Managing Director & CEO, Lorry Hughes**



[www.southbouldermines.com.au](http://www.southbouldermines.com.au)



# Flagship Project

## Colluli Potash Project, Eritrea

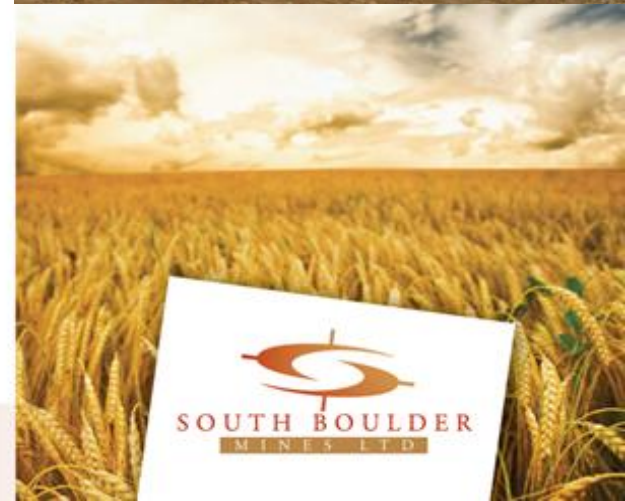
- Worlds cheapest start-up capex/tonne at USD 0.74 billion (including 15% contingency)
- Low capex/tonne = low financing risk
- Shallow open pit mining = low technical risk
- Stage 1

NPV<sub>12%</sub> :USD 1.33 bn

Internal Rate of Return: 40.6%

Project Revenue: USD 6.03bn over 17 years

- Start-up production of 1Mt of Muriate of Potash (MOP) in 2016 or sooner
- Potential to increase mine life to +50 years producing both MOP and Sulphate of Potash (SOP)
- “Tier 1” asset in an emerging world class potash basin
- The Colluli Mine will have the quickest development timeline from discovery to production in potash history



# Company Snapshot

## Company Share Information

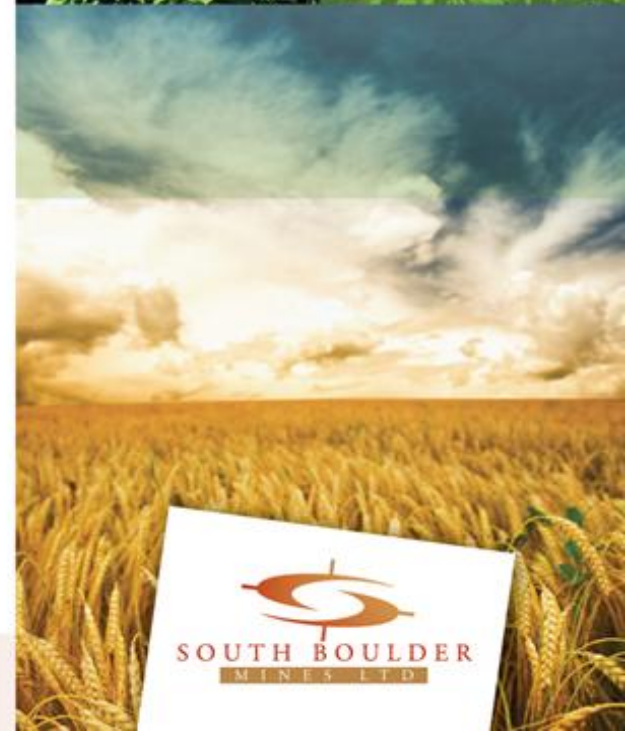
Ordinary Shares on Issue	92.3M
Unlisted Options (20c-75c: \$5.2M)	13.5M
Market Cap (\$1.50/ Share)	~\$140M
Cash/NTA	\$14.5M
Price Range (12 Months)	\$0.96- \$6.25
Top 40 Shareholders	65%

## Major Share Holders

Sprott Asset Management	15%
Management	17%

## Board and Management

Terry Grammer (+35 years)	Chairman
Lorry Hughes (+20 years)	CEO & Managing Director
Liam Cornelius (+20 years)	Executive Director
Dr. Chris Gilchrist (+30 years)	Non Executive Director
Dennis Wilkins (+20 years)	Company Secretary
Dayle Kenny (+30 years)	Mining Engineering Manager
ERCOSPLAN (+50 years)	Potash Expertise



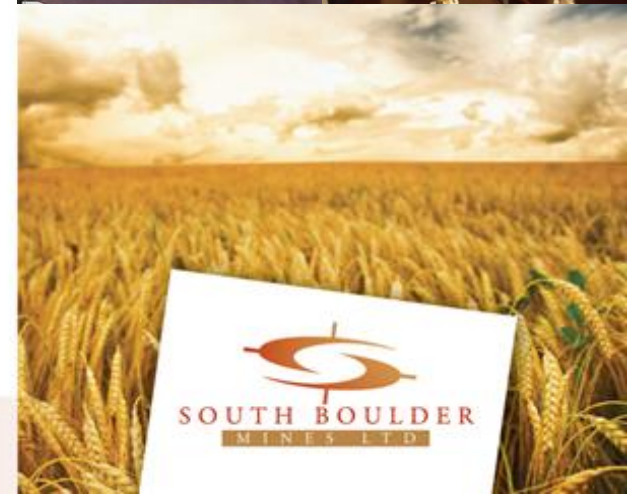
# Eritrea

## A Fast Growing Mining Jurisdiction

- Eritrea celebrated its 20th year of Independence in May 2011
- Eritrea's first modern mine commenced production in Dec 2010 (TSX:NSU)
- Eritrean Government highly supportive of foreign mining investment
- 20 foreign mining and exploration companies are operating in Eritrea
- Eritrea promotes self-reliance and nation building and has zero tolerance of corruption

## Standard Deal Structure

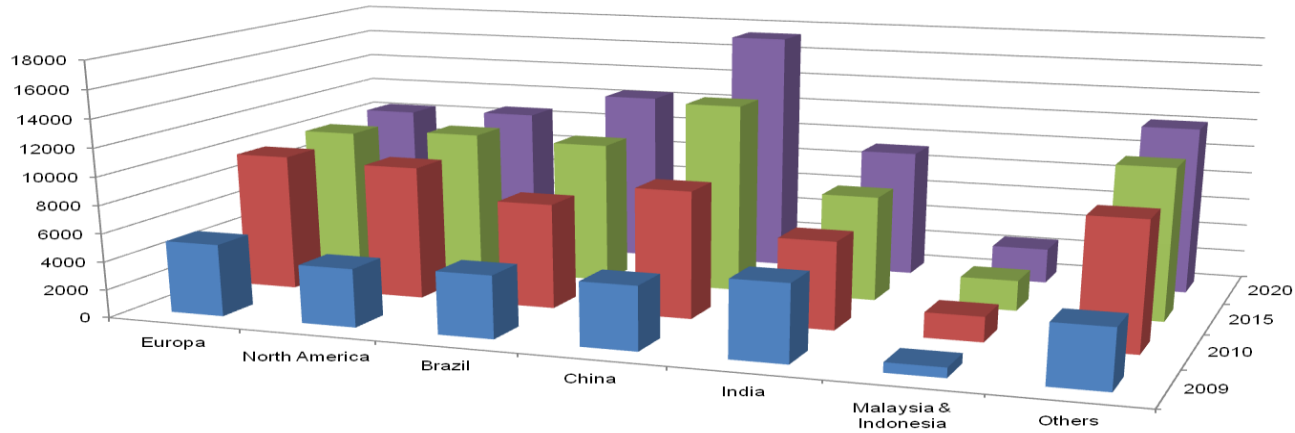
- After BFS The Eritrean Government gets a 10% free carry and can purchase up to a further 30% at fair value
- 3.5% royalty on potash and corporate tax rate of 38%
- Ownership structure paves the way for a long-term, secure and reliable mining partnership



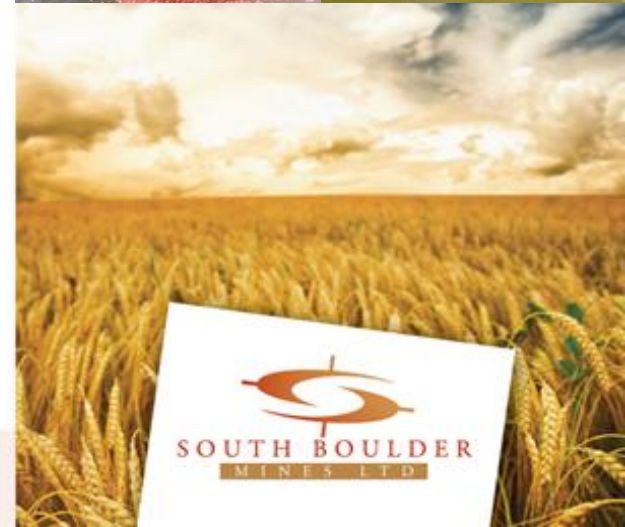


# Potash

Forecast of MOP (KCI) demand (Mt p.a.)

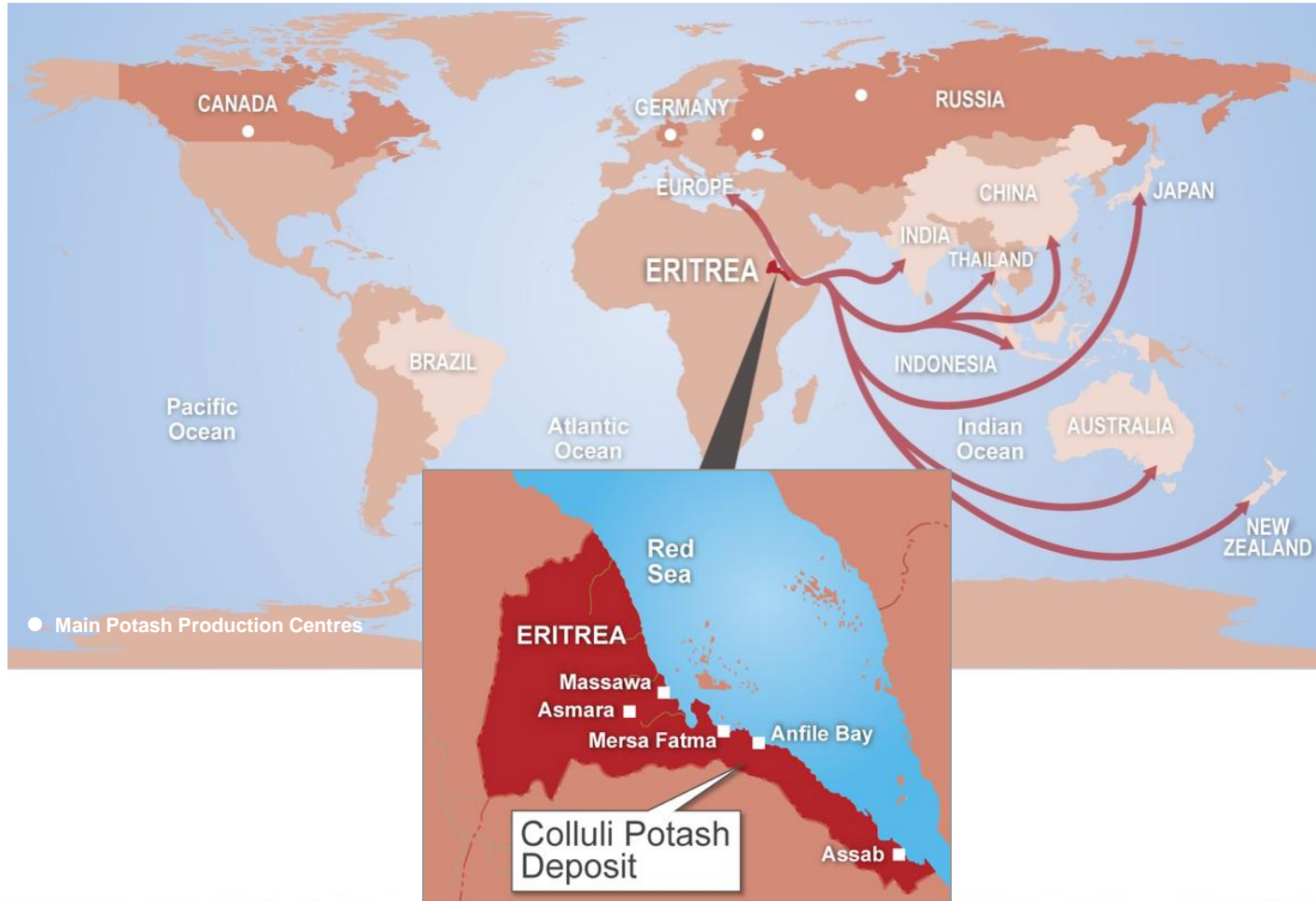


- The potash sector has excellent long term fundamentals
- Demand for potash is expected to rise due to increased population and standard of living and worldwide decreased arable land
- The biggest growth markets are India, China and Brazil
- MOP price is ~USD500-550/tonne and rising



# Colluli Potash Project

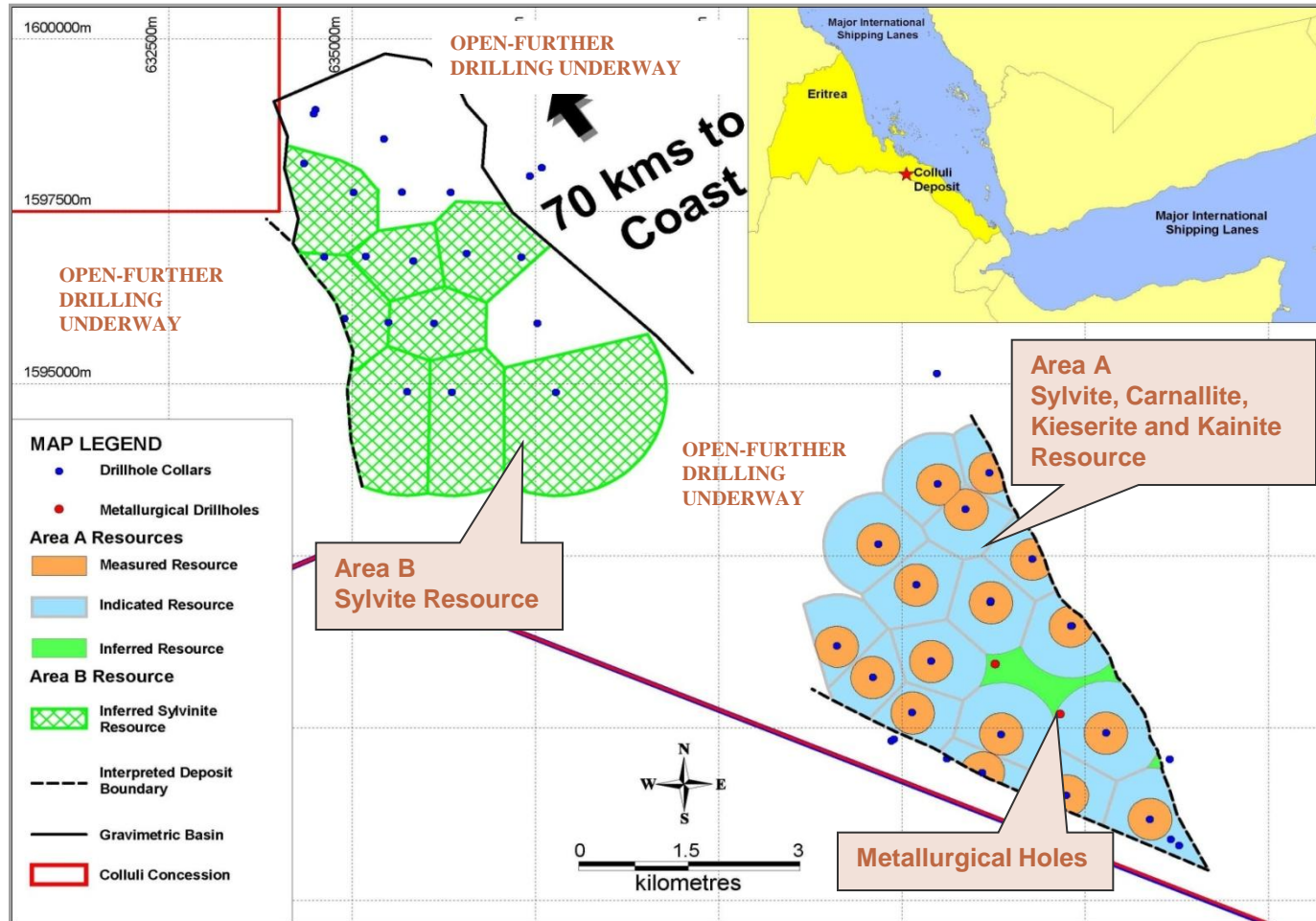
## The Next Globally Significant Supplier



- Close to port, markets and major shipping routes – 70km to coast
- Closest supplier to India and close to Asia
- South Boulder will initially produce standard potash (MOP)
- MOP (KCl) potash market is ~50Mt p.a. and growing
- SOP ( $K_2SO_4$ ) potash market is ~6Mt p.a. and growing
- Once established in the MOP market South Boulder will incorporate the production of premium SOP
- SOP, low chloride potash is increasing in demand and will be the way of the future



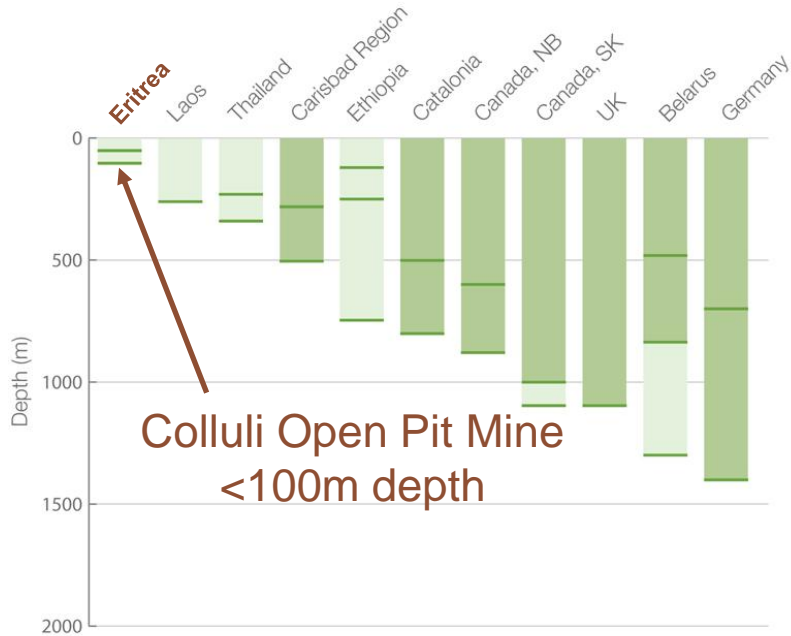
# Colluli Potash Resource



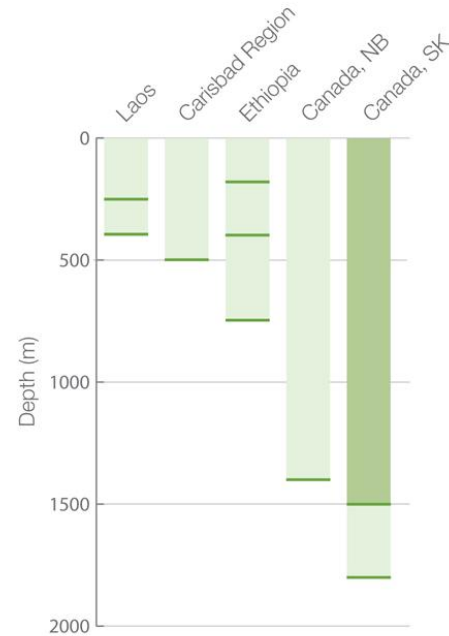
- Current JORC resource - 564Mt @ 19% KCI (105Mt) includes high grade sylvinite of:
  - 130Mt @ 27% KCI (35Mt)
- Mineralisation open and located at depths of ~16-90m
- Further assays from Area A and B imminent
- Continued exploration drilling targeting 1.25 -1.75Bt @ 18 - 20% KCI
- Hydro-geological drilling, environmental study & monitoring well advanced
- 1<sup>st</sup> and 2<sup>nd</sup> stage metallurgical and geotechnical drilling complete
- No known significant environmental issues

# Colluli Potash Resource (Cont'd)

## Conventional Potash Mining



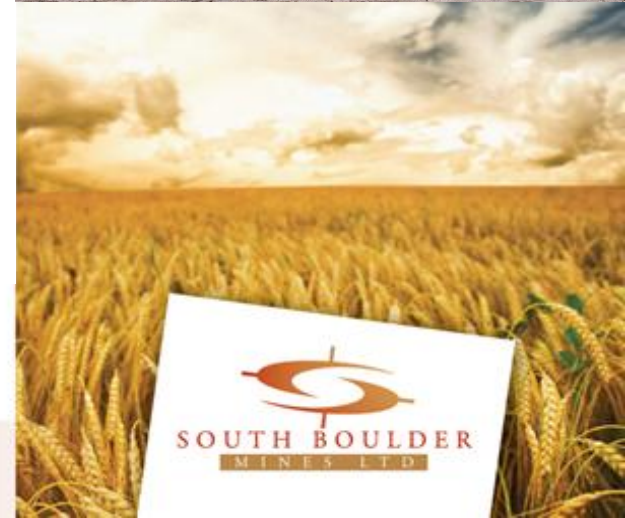
## Solution Potash Mining



Development stage  
 In production  
 Potash

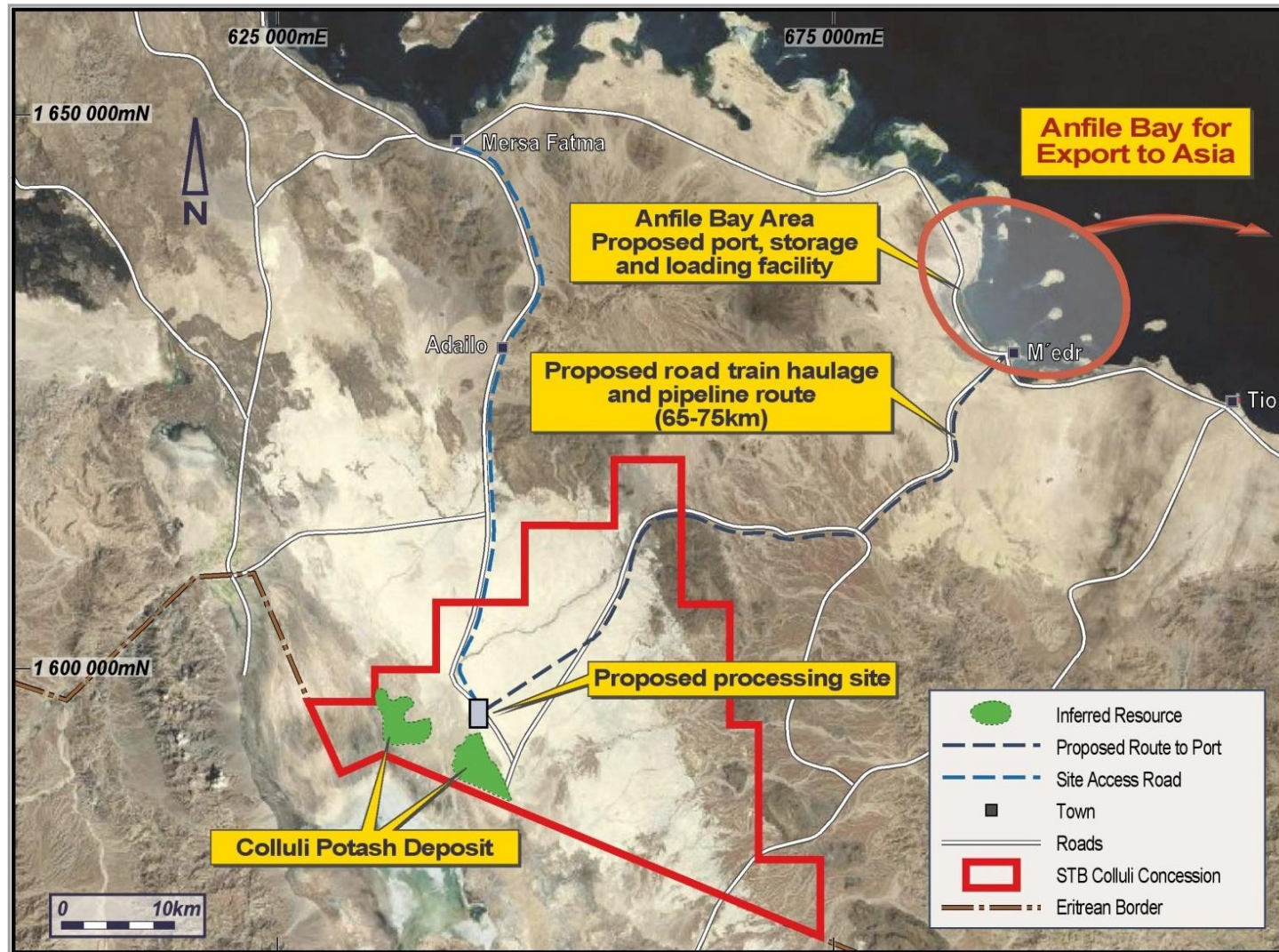
90% of the world's potash comes from technically challenging, high cap-ex, deep underground mines

Colluli will be unique, with low cap-ex and ability to ramp production up and down to suit prevailing market conditions





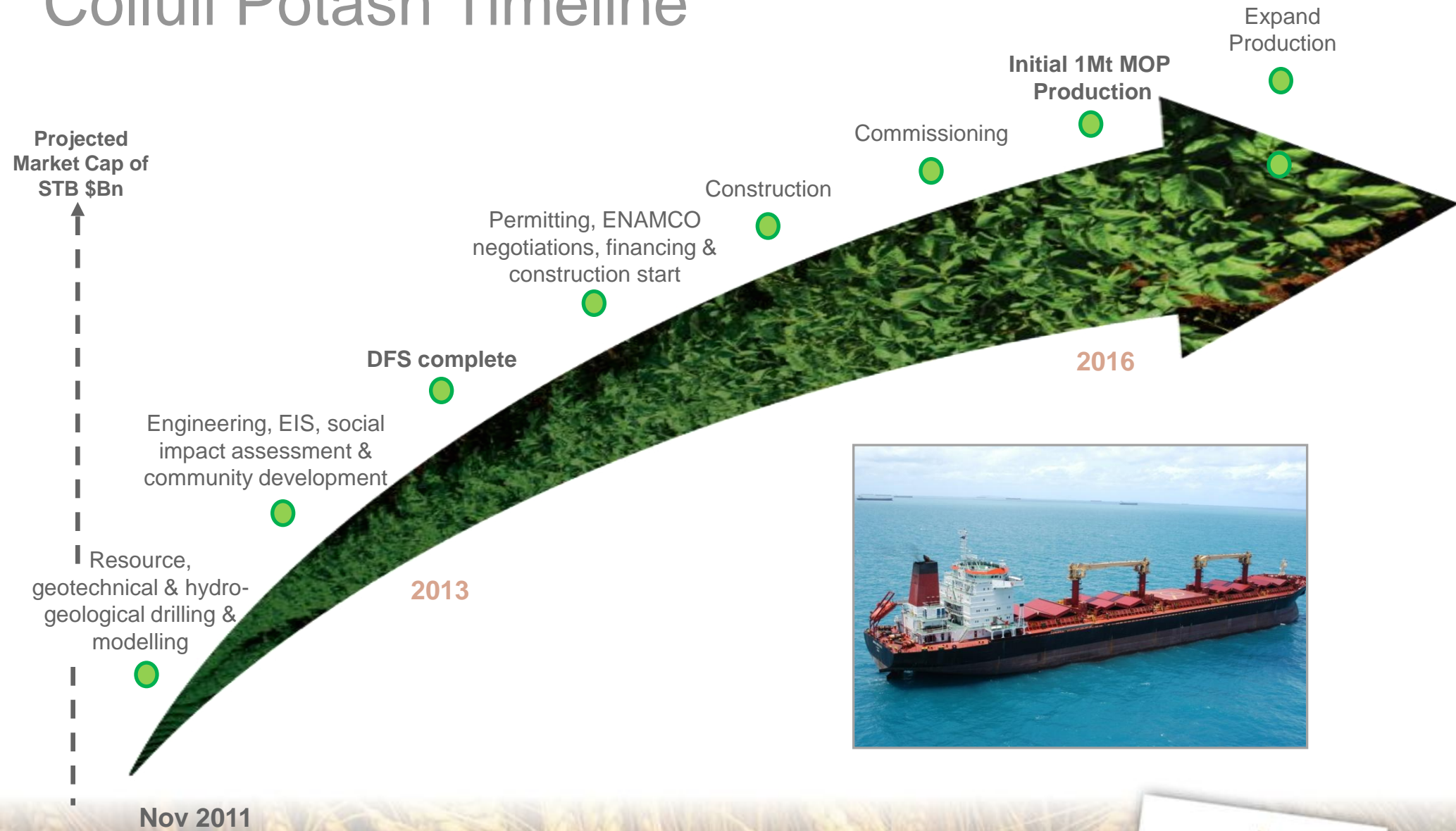
# Colluli Potash Engineering



- Colluli will be one of the few Greenfield potash deposits developed in the next 10 years
- A number of attractive processing and transport routes are available
- Open pit mining and location will allow cheap cap-ex & op-ex mining and rapid expansion
- Simple mineralogy - all minerals at Colluli have been mined and processed to produce potash  
MOP, SOP & K-Mg Sulphates  
Sylvite – KCl  
Carnallite –  $\text{KMgCl}_3 \cdot 6(\text{H}_2\text{O})$   
Kieserite –  $\text{KMgSO}_4$   
Kainite –  $\text{MgSO}_4\text{KCl} \cdot 3(\text{H}_2\text{O})$
- Standard flotation confirmed as preferred processing route for Stage One production with recovery >80%
- Recovery expected to improve with further optimisation test work

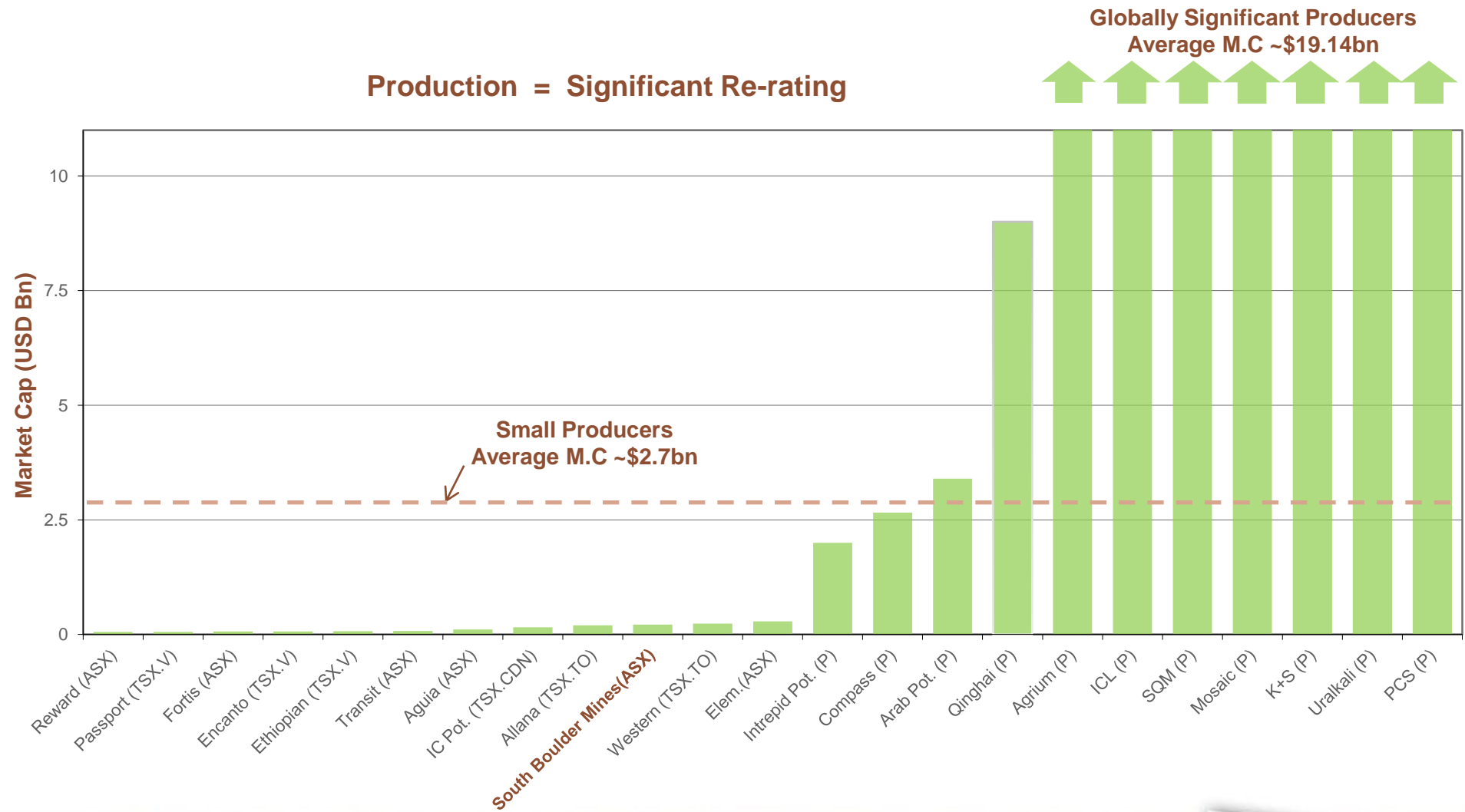


# Colluli Potash Timeline



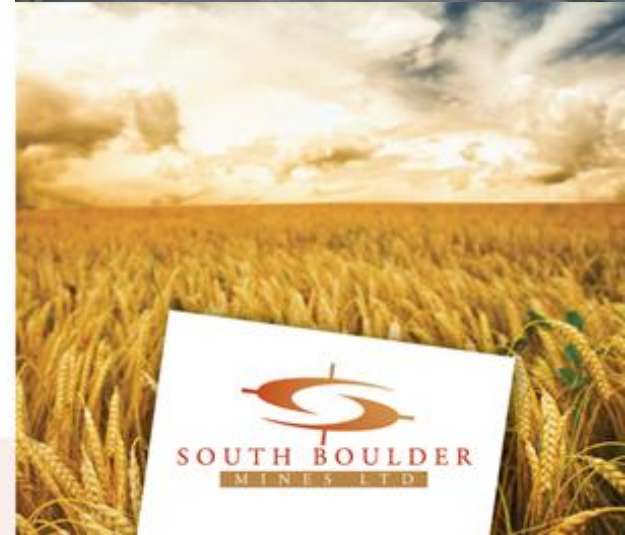


# Potash Company Comparison



# Reasons to Invest

- South Boulder is developing the world's shallowest potash deposit at Colluli. Open pit mining = low technical risk
- Detailed Scoping Study has demonstrated strong financials and technical's for one of the industries lowest cost potash mines. Low cap-ex = low financing risk
- Start-up capital ~ half the industry average to initially produce 1Mt p.a. of potash
- Definitive feasibility study (DFS) has commenced for first production in 2016 or sooner
- The project is situated in a prime infrastructure location to sell into the largest growth markets for potash; Asia
- Well funded with approximately \$14M in liquid assets + option conversions (\$5.2m). Low burn rate
- On-going news flow from drilling and DFS results
- South Boulder with JV partner Independence Group NL is developing the Rosie and C2 Ni-Cu-PGE deposits. Maiden JORC resource due this quarter, scoping study underway. Potential spinout and in-specie distribution





# Disclaimer

## Forward-Looking Statements

The following presentation represents South Boulder Mine's best judgment at the time of presentation. This document is in summary form and does not purport to be all inclusive or complete. The contents include forward looking statements prepared on the basis of assumptions which may prove to be incorrect. This presentation should not be relied upon as a recommendation or forecast by South Boulder Mines Limited. No representation or warranty is made as to the accuracy, completeness or reliability of the information.

## Competent Persons

Information that relates to Exploration Results including exploration data and geological interpretations is based on information compiled by Lorry Hughes who is a full time employee at South Boulder Mines Ltd. Exploration results from the Duketon Nickel JV has been supplied by Independence Group who are operator of the Duketon Nickel JV. Lorry Hughes is a member of the AusIMM and has experience which is relevant to the style of mineralisation and type of deposits under consideration, and to the activities which is being undertaken to qualify as Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Lorry Hughes consent to the inclusion in the report of the matters based on his information in the form and context in which it appears. Most data, interpretation and diagrams for the Duketon Nickel JV have been provided courtesy of Independence.

Information that relates to the Mineral Resource estimates supplied by South Boulder Mines Ltd are done so 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 Drs 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 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 deposits under consideration and to the activity which they have undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian 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.

## JORC – Exploration Targets

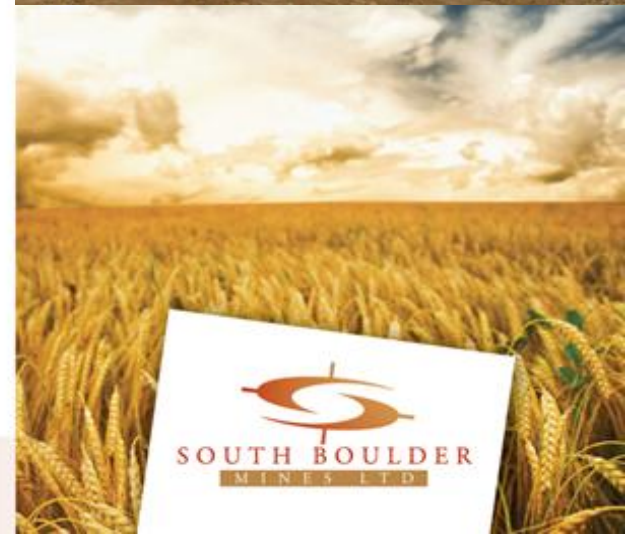
The Colluli Potash Project has a current JORC/43-101 Compliant Measured, Indicated and Inferred Mineral Resource Estimate of 564.40Mt @ 18.60% KCl (total contained potash of 104.96Mt); Includes higher grade sylvinite of 130.39Mt @ 27.02% KCl. The resource contains 133.70Mt @ 17.55% KCl in the Measured 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.

It is common practice for a company to comment on and discuss its exploration in terms of target size and type. The information in this presentation relating to exploration targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. Hence the terms Resource(s) or Reserve(s) have not been used in this context. The potential quantity and grade stated or implied is conceptual in nature, since there has been insufficient work completed to define them beyond exploration targets and it is uncertain if further exploration will result in the determination of a Mineral Resource Estimate other than the current Mineral Resource Estimate.

## 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 GPO 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 carnalite 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 spectrometry and ionchromatography. Kali-Umwelttechnik (KUTECH) 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<sup>+</sup>, Na<sup>+</sup>, Mg<sup>2+</sup>, Ca<sup>2+</sup>, Cl<sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, H<sub>2</sub>O) 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.



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