



South Boulder Mines

Managing Director : Lorry Hughes

Investor Update

Drilling Potash
and Nickel

August 2010

www.southbouldermines.com.au (ASX: STB)



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1. Executive Summary

SOUTH BOULDER MINES

PROJECTS

- ASX Listed October 2003 (ASX: STB), (SO3-Ber), (SO3-Fra); and
- Three outstanding projects: nickel, gold and potash.

Colluli Potash Project, Eritrea.

- Potentially **“world class”** buried evaporite potash project in Eritrea;
- Conduct resource confirmation and definition drilling ahead of JORC resources and feasibility studies at Colluli;
- **Significant shallow potash mineralisation has now been intersected in diamond drilling, drilling continuing;**
- **Approximate area of 4.5km² defined to contain potash at present and growing;**
- **Assay results from first 2 holes are due in August;**
- **Strategy to define a 1.5Mt p.a operation.**

Duketon Greenstone Belt Projects, Western Australia.

- Nickel Sulphide JV with Independence Group (ASX: IGO);
- **New Nickel Sulphide Discovery – “Australia’s most exciting greenfields nickel discovery”**
- IGO earning 70% of nickel upon completion of BFS; and **5.20m @ 9.13% Ni, 1.09% Cu, 0.21% Co and 7.09g/t PGEs (2.20g/t Pt, 1.74g/t Pd, 0.82g/t Rh, 1.79g/t Ru);**
- **Scoping Study programs to commence shortly;**
- **STB has 100% of Gold Rights on the DNJV and additional tenure in the Duketon Greenstone Belt.**



Shallow carnallite mineralisation from COL-001, Colluli Potash Project, Eritrea.



Outstanding Nickel - copper – PGE mineralisation from the Duketon Nickel Project W.A.

2. Company Snapshot

COMPANY DETAILS

Market cap @ 0.68c/share)	\$45.0M
Ordinary Shares	65.6M
Cash/NTA	\$6.0M
Unlisted Options	36.8M
Top 40 Shareholders	58.52%

BOARD

Terry Grammer (Chairman) – 35 years experience, discovered Cosmos Nickel Deposit and was a founder of Western Areas NL;

Lorry Hughes (Managing Director) – 18 years experience, Au, U, Pb mining and exploration, Aust., Malaysia, Indon.; Energy Metals Ltd, Magellan Metals Inc., Riotinto, North Limited, Plutonic;

Liam Cornelius (Executive Director) – 18 years experience, Au, Ni, company founder, Aust., SE Asia, Africa;

Dennis Wilkins (Company Secretary) – 20 years experience with resource companies;

ERCOSPLAN (Potash Consultant) - +50 years experience in planning and execution of projects in the potash and mineral salt industry. World renowned experts.



South Boulder Drill Crew conducting the second diamond hole at The Colluli Potash Project, Eritrea.



COL-001 drill core showing base of a strong carnallite mineralisation zone from 89.74 - 93.20m (note carnallite is heat sealed in plastic immediately after drilling to prevent dissolution of the samples)

3. Eritrea a Mining Friendly Country

FORMATION

- The country gained its independence in 1991;
- UN supervised referendum made it official in 1993;
- Population ~ 5.0 million people; 80% dependent on subsistence agriculture;

CURRENTLY

- Stable Government:
 - **Previous minister for mines was in place for 12 years.**
- Supportive government for foreign investment in mining and exploration.

MINING REGIME

- Mining code based on Northern Territory, Australia, with royalties of:
 - 5% on precious metals; and
 - 3.5% on base metals and salts.

GOV'T INTEREST

- Corporate tax rate ~ 38%;
- Government 10% free carry; and
- After BFS Government has option to purchase an additional 30% equity participation interest at an independently determined price; and
- 17 foreign resource companies now operating in Eritrea.

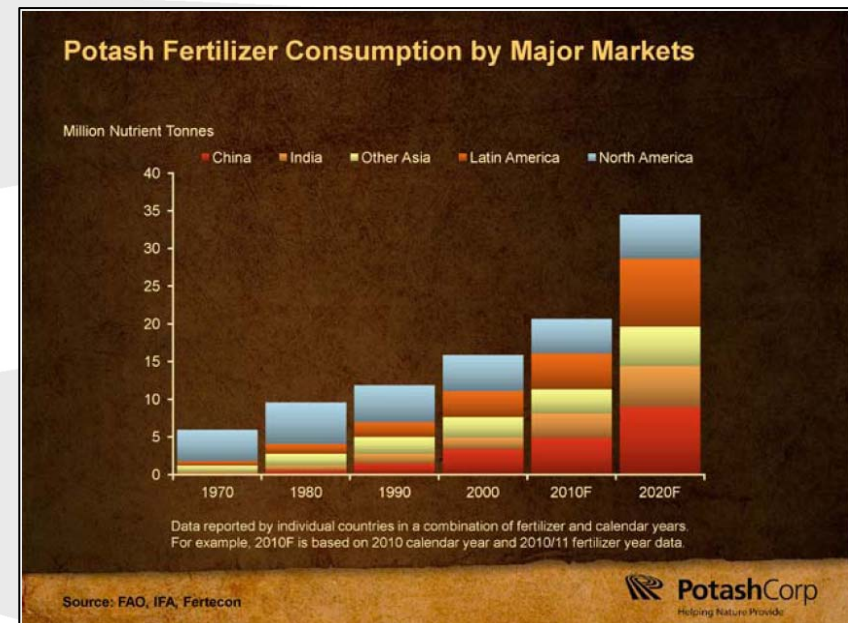
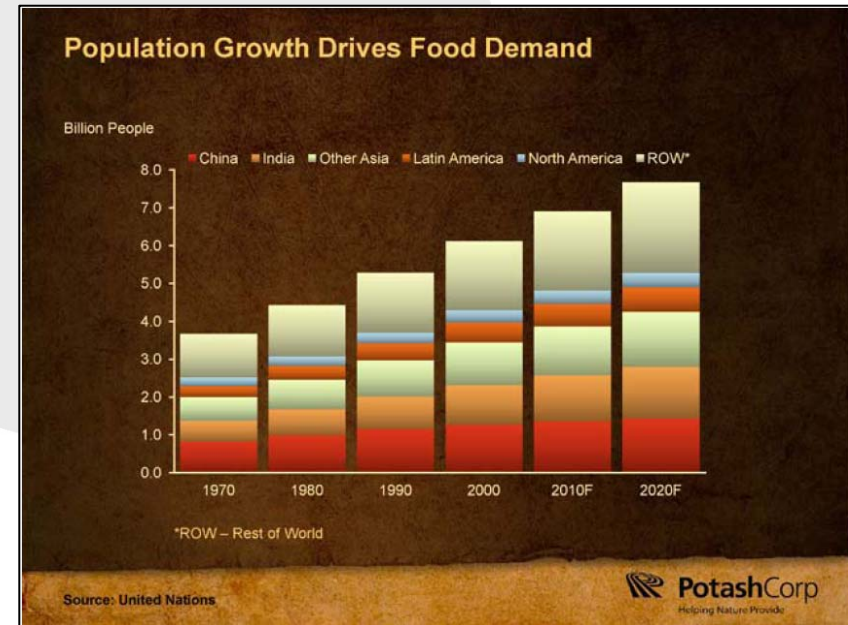


Above; South Boulder crew checking the important drilling mud.
Below; South Boulder Geologist examining some of the first the potash core.



4. Potash – Why Potash?

- Large scale, long term projects, strategic asset;
- Rising population and improving diets are driving food consumption growth and potash demand;
- Potash is required to produce more food from a declining per-capita land base;
- Price estimates of USD\$350 – 400/t for 2010 and rising, peak price USD\$1,000/t in 2008;
- Short-term decline in fertilizer use is not sustainable – irreplaceable, reduced use cannot continue without potential consequences for the global food supply;
- **Upshot is the potash market has strong fundamentals for demand growth;**
- Recent deals include BHP offer of USD \$39bn to acquire Potash Corp and Mag Industries (TSX: MAA) option to COMPLANT to purchase 50.1% of the Mengo Potash Project in the ROC for debt financing of US\$1.2b.
- BHP is planning to build the largest potash mine in the world. 8Mt p.a, capital cost USD\$10.5bn;
- **Colluli Project initial potential target to define a 1.5Mt p.a operation, capital cost ~ USD\$0.5-0.75bn and mine life exceeding 20 years.**



5. Colluli Potash Project Ticks a lot of Boxes

✓ Close to port and markets
(70kms to Mersa Fatma)

✓ Size and grade of targets
(massive deposits, huge mine lives)

✓ Shallow potash horizons
(25m to 400m deep)

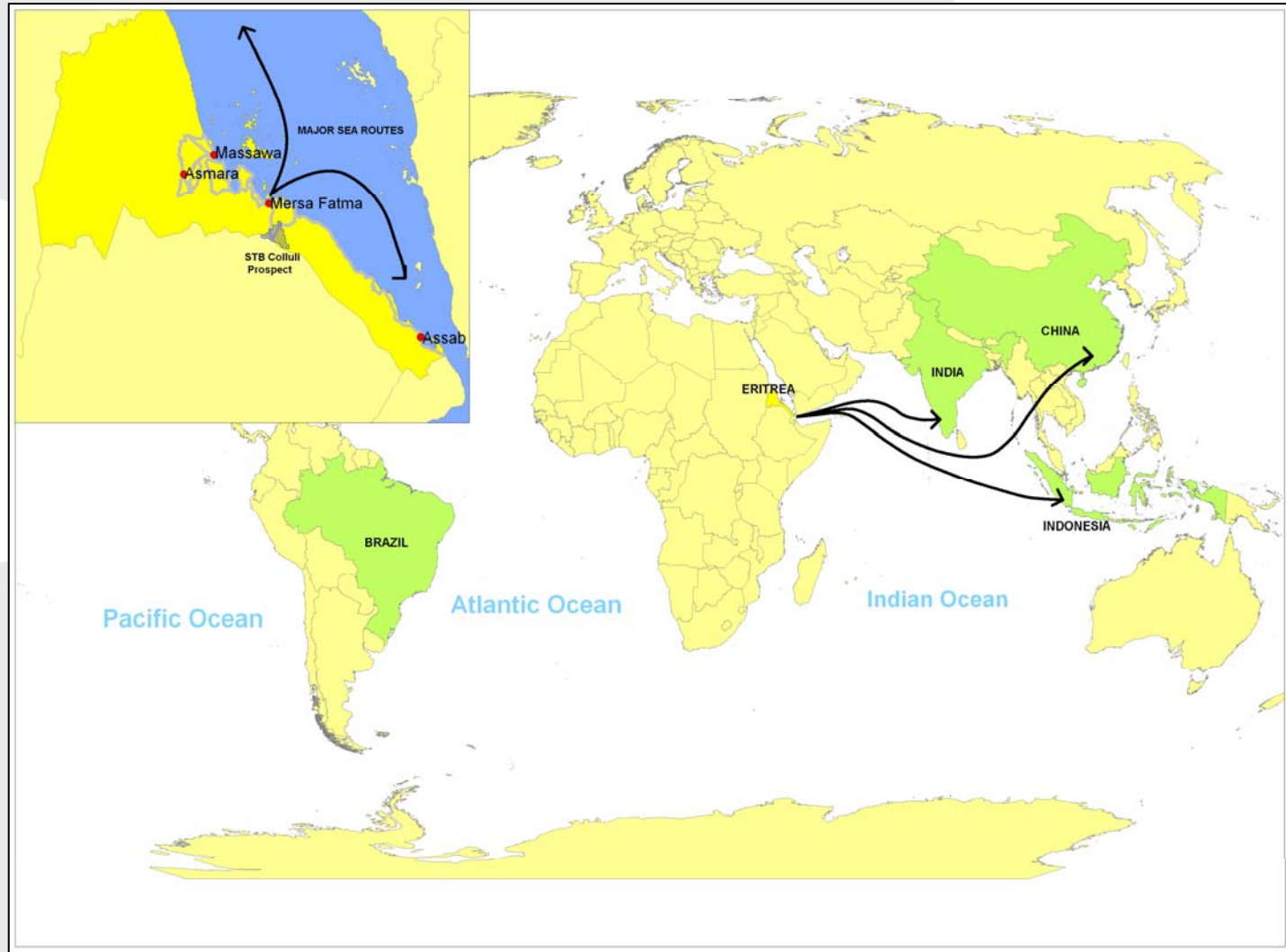
✓ Underlying demand for Potash
(irreplaceable)

✓ Mining methods
(OC, UG or solution mining)

✓ Solar evaporation *(energy use ~ 40% of opex at other sites)*

✓ Geothermal energy
(known hot spots in region)

✓ No known significant environmental issues



✓ **Potential Low Cost Production**

5. Colluli Potash Project (CONT'D)

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Above; Drill crew getting ready.
Below; A typical solution mine well head and distributor.



Above; Bulk magnesium chloride for drilling mud.
Below; carnallite zone drill hole COL-002B.



5. Colluli Potash Project (CONT'D)

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Above; COL-002B drill core showing the base of a strong carnallite zone from 63.25 – 67.00m.
Below; COL-002B drill core showing kainite zone from 74.63 – 78.20m.



5. Colluli Potash Project (CONT'D)

- 1st Layer; (Historic)
1.7m sylvinite @ 12.5% K₂O
TOP 23m – 180m depth;
- 2nd Layer: (Historic)
17m carnallite @ 50-70wt% TOP
390m depth (~17% K₂O);

COL-001 intersected potash from 59.20 – 65.20m (6.00m) and from 83.20 – 103.40m (20.20m);

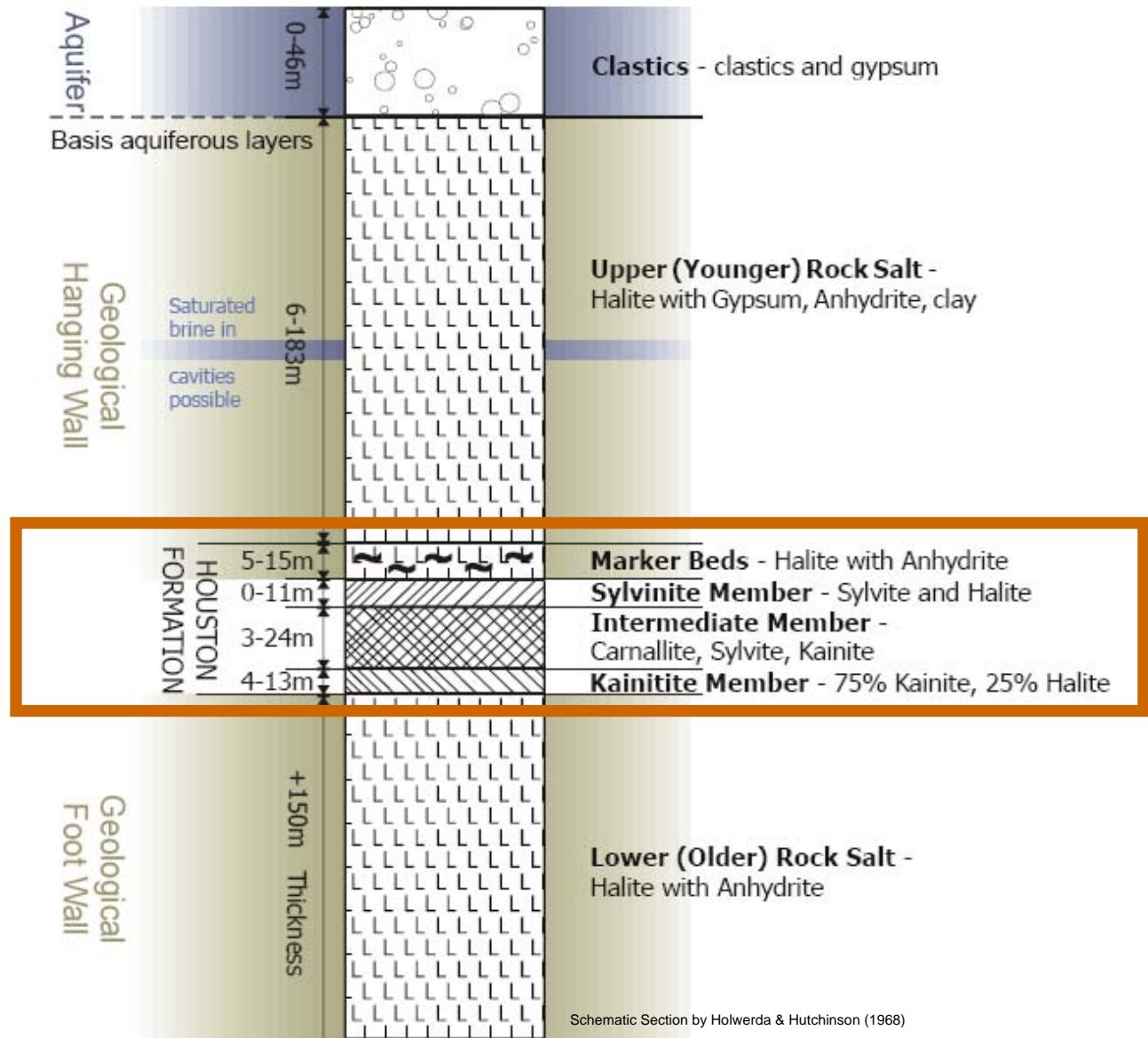
COL-002B intersected potash from 56.56 – 80.50m (23.94m);

COL-004 has intersected potash from 30m with drilling continuing;

Potash has been intersected over an area of ~ 4.5km² and growing (program increased to 10-12 holes);

Potential for very large tonnage;

Excellent potential for the discovery of additional potash beds at depth as well as near surface potash rich brines.



5. Colluli Potash Project (CONT'D)

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Hole ID/ Member	East (m)	North (m)	Dip	Length (m)	From (m)	To (m)	Description
COL-001	644740	1589024	90	52.00	0.00	52.00	Clastics, overburden
Marker beds				9.20	52.00	59.20	Rock salt with anhydrite (CaSO ₄)
Sylvinitic				6.00	59.20	65.20	Rock salt with sylvite (KCl) locally up to 30% sylvite
Intermediate				2.80	65.20	68.00	Rock salt with carnallite (KMgCl ₃ ·6(H ₂ O))
Intermediate				15.20	68.00	83.20	Bischofite (MgCl ₂ ·6(H ₂ O))
Intermediate				10.10	83.20	93.30	Carnallite, (60-70%) carnallite (KMgCl ₃ ·6(H ₂ O))
Kainitite				10.10	93.30	103.40	Kainitite, kainite (MgSO ₄ ·KCl·3(H ₂ O))
				37.90	103.40	141.30	Rock salt with layers of anhydrite (CaSO ₄) and clay

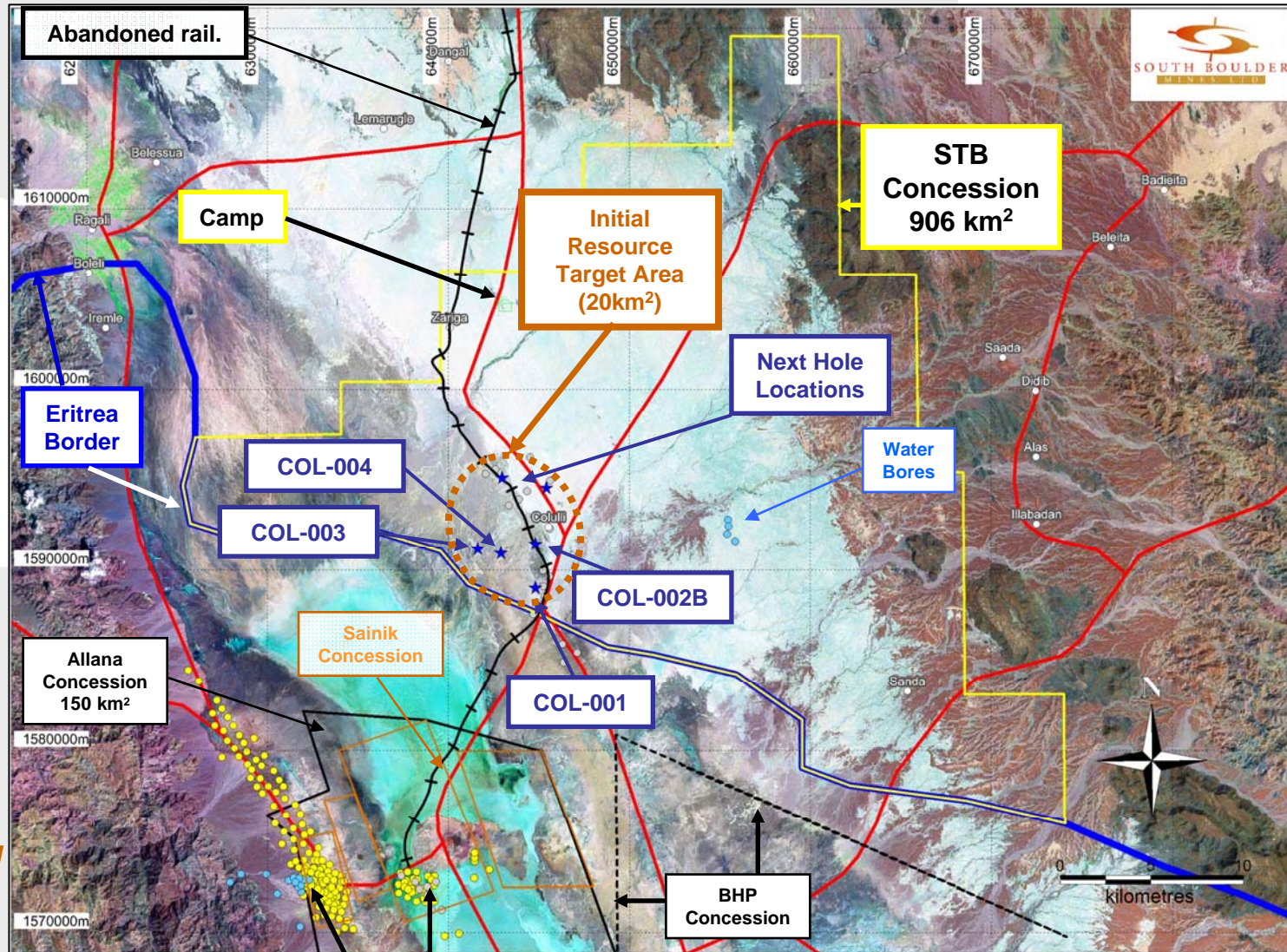
Above: COL-001 Summary Log
Below: COL-002B Summary Log

Hole ID/ Member	East (m)	North (m)	Dip	Length (m)	From (m)	To (m)	Description
COL-002B	644806	1591484	90	26.00	0.00	26.00	Clastics, overburden
				4.00	26.00	30.00	Rock salt
Intermediate				26.56	30.00	56.56	Bischofite (MgCl ₂ ·6(H ₂ O)) minor carnallite, kieserite (MgSO ₄) and rock salt
Intermediate				11.34	56.56	67.90	Carnallite, (60-70%) carnallite (KMgCl ₃ ·6(H ₂ O))
Kainitite				12.60	67.90	80.50	Kainitite, kainite (MgSO ₄ ·KCl·3(H ₂ O))
				9.60	80.50	90.10	Rock salt with layers of anhydrite (CaSO ₄) and clay

5. Colluli Potash Project (CONT'D)

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- Danakil Depression deposits formed by the evaporation of water once the basin was cut off from the Red Sea due to volcanic activity; and
- Houston Formation potash rich layers have been intersected up to 45m thick at Musley, only 15kms from Colluli;
- BHP, Allana Potash Corp., Sainik and other players in the region;
- Sylvite- KCL
Carnallite – $\text{KMgCl}_3 \cdot 6(\text{H}_2\text{O})$
Kainite – $\text{MgSO}_4\text{KCl} \cdot 3(\text{H}_2\text{O})$
- Mineralogy can support the production of **both SOP and MOP.**



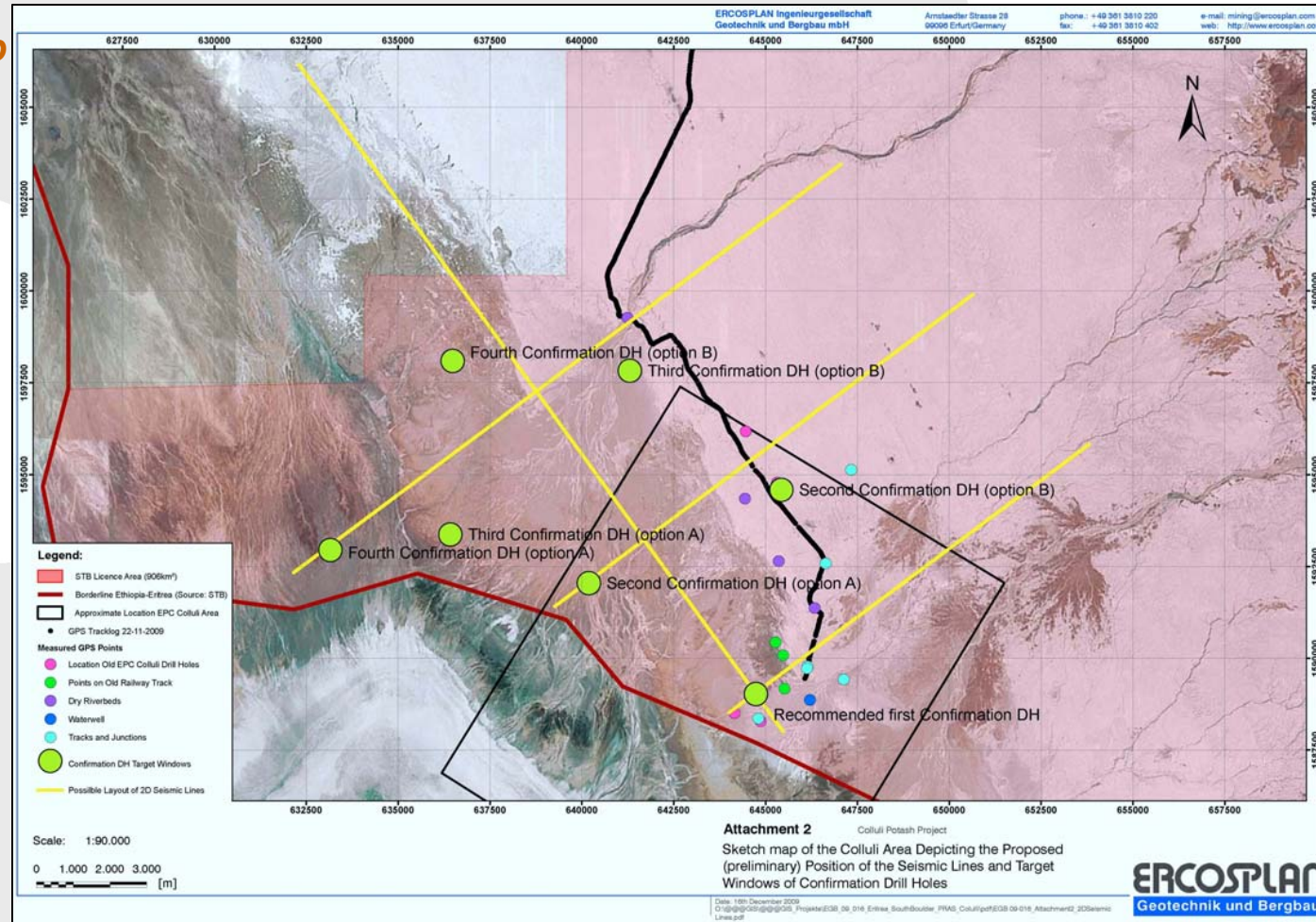
Northern area of the historic Musley and Crescent potash deposits/trial mine, now owned in part by Sainik Coal Mining Pvt. and Allana Potash Corp. (TSX:AAA). Allana has defined a 43-101 compliant resource of 105Mt @ 20.8% KCl.



6. What is Happening Next

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- **Continue Drilling potash (up to 10-12 holes;**
- **Receive assays from first 2 holes in August;**
- **Compile 43-101 compliant resource by year end;**
- **Award DHole geophysics contract for early next year;**
- **Commence scoping study, complete by mid 2011;**
- **Award seismic survey for 2011;**
- **Conduct further resource definition drilling;**
- **Decide on feasibility studies by mid 2011.**



Planned seismic survey location.

7. Summary (Potash)

EXPLORATION STRATEGY

- 10-12 hole confirmation HQ/NQ diamond drill hole program to be completed around October 2010;
- Compile 43-101 compliant resource and commence early stage economic studies by December 2010;
- Immediate follow-up exploration undertaken upon analysis of initial drilling results;
- Musley Deposit (Ethiopian side) studies suggest amenable to solution mining and estimated capital cost for 1mtpa operation is USD\$0.5bn;

POTENTIAL ADVANTAGES

- Key advantages if economic deposit is defined;
 - Close to port;
 - Solar evaporation;
 - Geothermal energy;
 - Solution mining potential;
 - MOP and SOP products; and
 - ***Cheap capital and operating costs.***

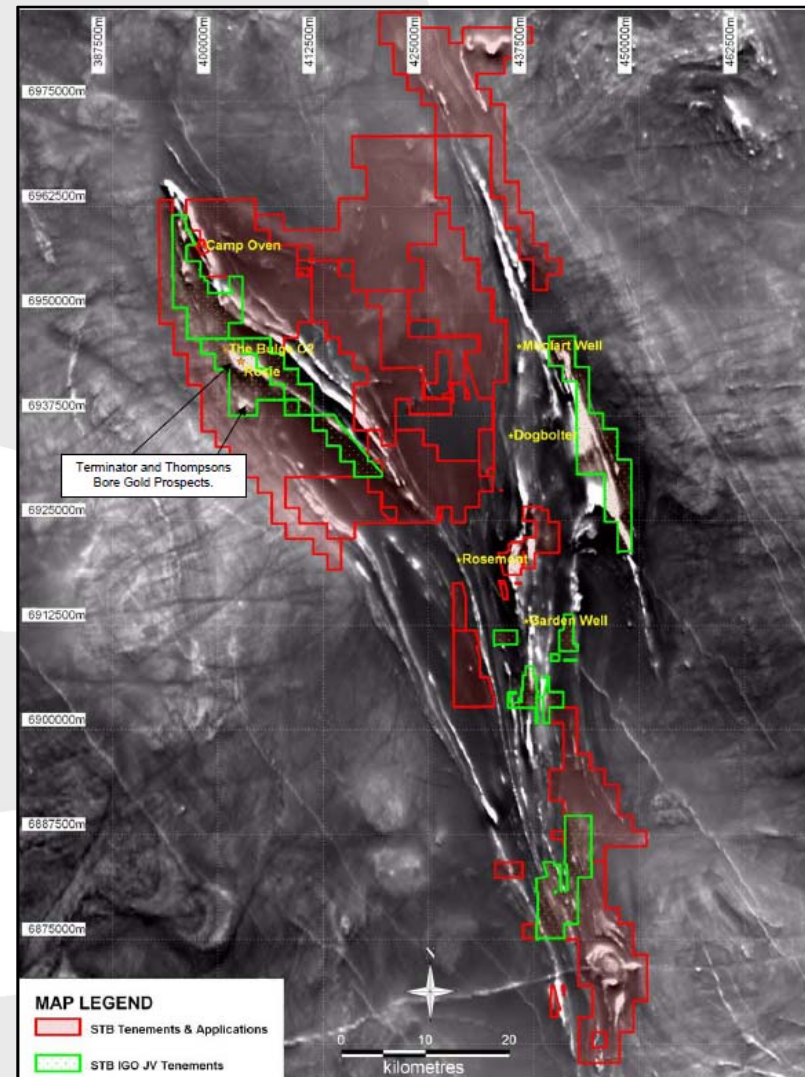


South Boulder drilling crews at the Colluli Potash Project, Eritrea.

8. Duketon Nickel Project

QUALITY NICKEL ASSETS

- Successfully targeted extensions to massive Ni-Cu-PGE mineralisation intersected in TBDD080;
 - **Hole TBDD098 - 5.20m @ 9.13% Ni, 1.09% Cu, 7.09g/t PGE's (2.20g/t Pt, 1.74g/t Pd, 0.82g/t Rh, 1.79g/t Ru) (TW~3.3m);**
 - **Hole TBDD087 – 4.55m @ 4.05% Ni, 0.74% Cu, 2.71g/t Pt+Pd (TW~2.4m);**
 - **Hole TBDD093 - 3.20m @ 3.20% Ni, 0.41% Cu, 2.37g/t Pt+Pd (TW~1.8m) including;**
 - **1.68m @ 4.21% Ni, 0.46% Cu;**
- Recently completed 1 RC/DD hole at C2 Prospect (1.5kms NW Rosie);
- Further positive results;
 - **9.70m @ 1.11% within a broader zone of 25.50m @ 0.70% Ni;**
 - **50.00m @ 0.92% Ni, 0.04% Cu, 0.08g/t Pt+Pd from 275.0m, including 37.00m @ 1.05% Ni.**



8. Duketon Nickel Project (CONT'D)

MASSIVE NICKEL
SULPHIDES FROM
ROSIE

**TBDD098 - 5.20m
Massive Sulphide
Intercept.**

Nickel = 9.13%

Copper = 1.09%

Cobalt = 0.21%

PGE's = 7.09g/t

Platinum = 2.22g/t

Palladium = 1.74g/t

Rodium = 0.82g/t

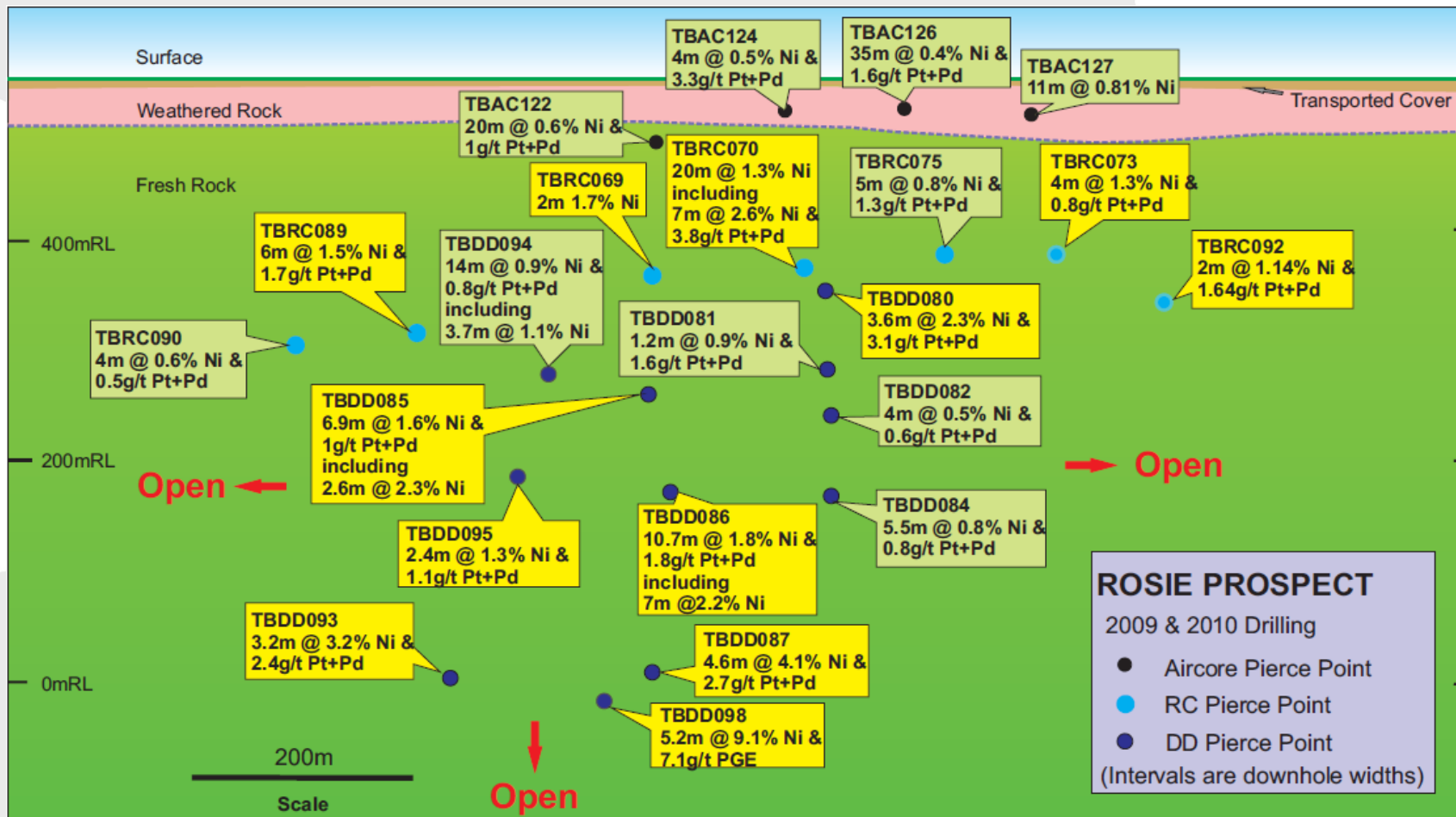
Ruthenium = 1.79g/t



8. Duketon Nickel Project (CONT'D)

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QUALITY NICKEL
MINERALISATION
IS OPEN

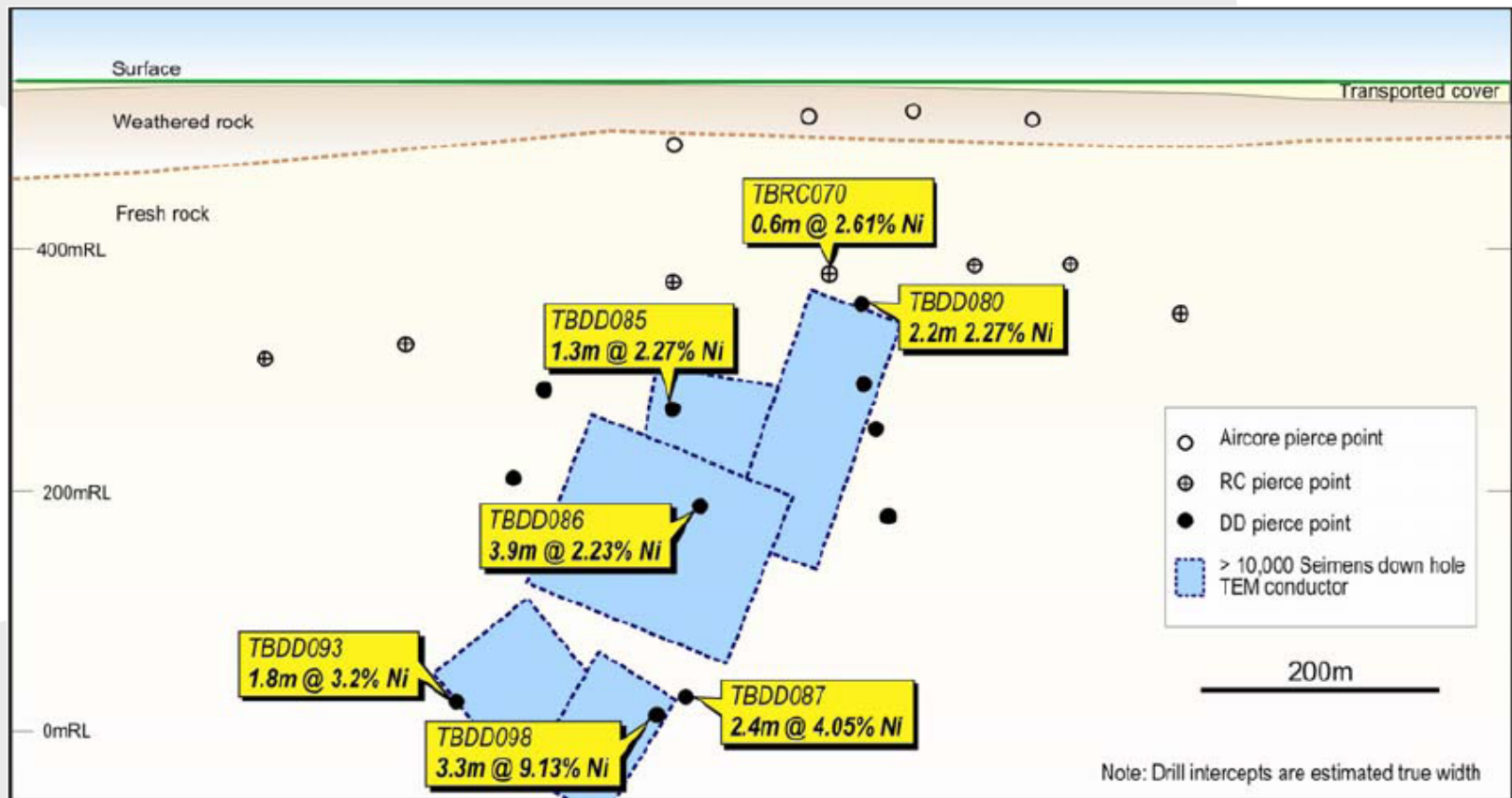


Mineralisation has currently been intersected over a strike length of ~ 750m and dip extent of ~ 400m.

8. Duketon Nickel Project (CONT'D)

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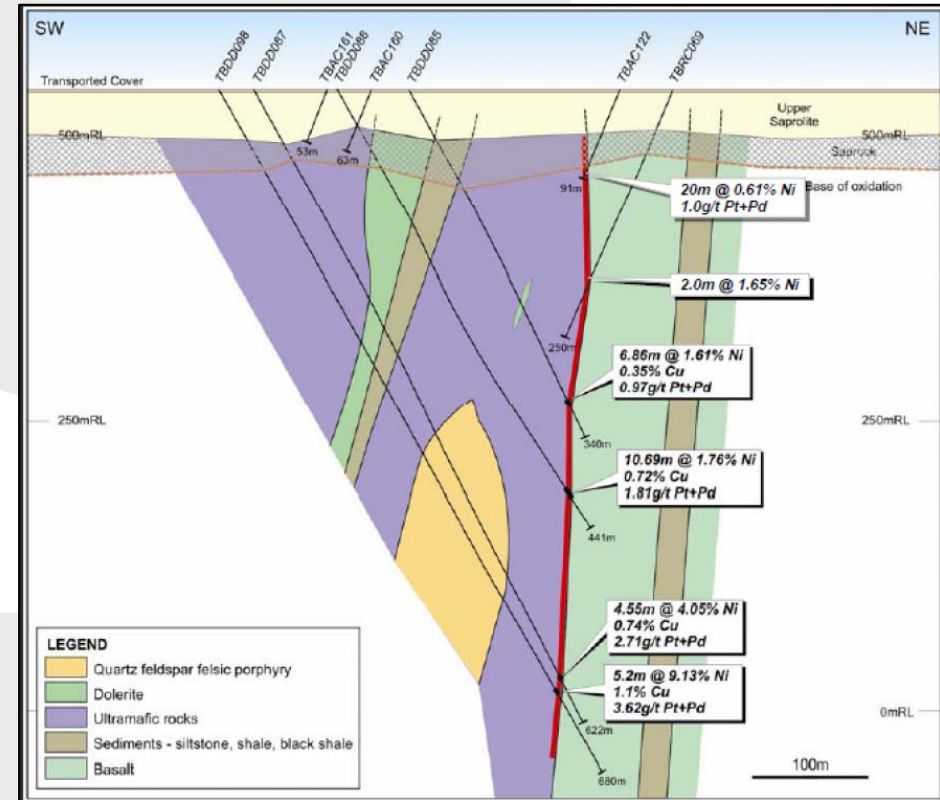
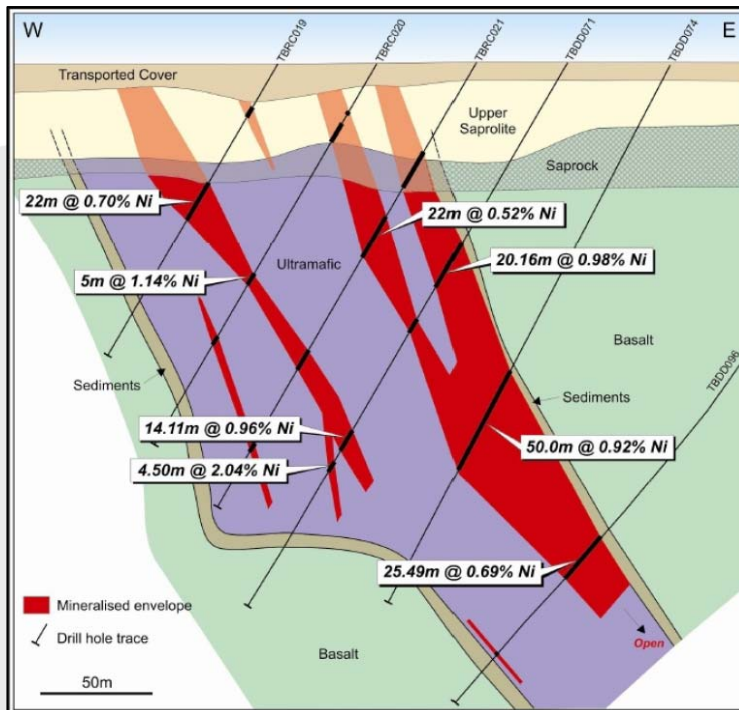
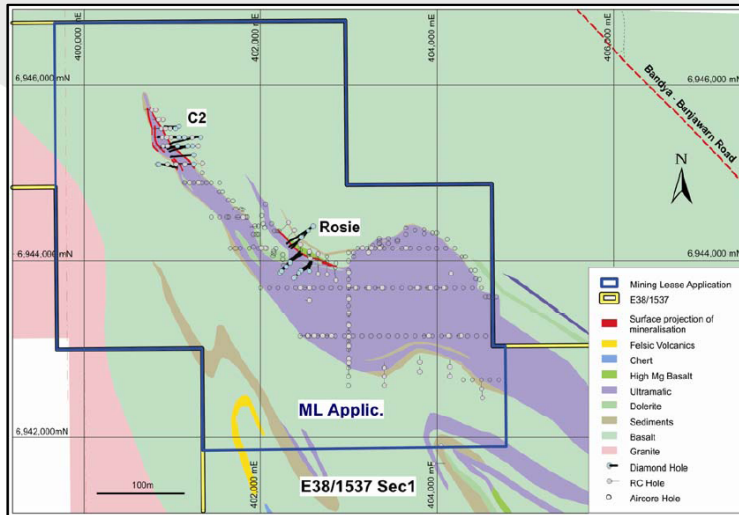
QUALITY
NICKEL
ASSETS



The potential for further mineralisation is supported by the interpretation of down-hole transient-electromagnetic (DHTEM) survey results from holes TBDD093 and TBDD098 which suggests that the strongest mineralisation is situated between these holes and continues steeply down plunge to the north west.

8. Duketon Nickel Project (CONT'D)

QUALITY
NICKEL
ASSETS



“The most promising and exciting Greenfields nickel project in Australia”. Terry Grammer.



9. Reasons to Invest

- ✓ South Boulder is a diversified explorer with **recent** significant new greenfield discoveries of potash in Eritrea as well as gold and nickel in Western Australia;
- ✓ The Colluli project is situated in the prime location in an emerging new potash province with the potential to discover **world class** deposits;
- ✓ **The Duketon Ni-Cu-PGE Project is set to take off with the commencement of follow-up drilling and completion of a scoping study over the next 4-6 months;**
- ✓ The **potash sector** has excellent long term growth drivers and very large multinational resource companies participate in the sector;
- ✓ The Colluli project is **proximal to major markets and infrastructure;**
- ✓ Tight capital structure with 65.6M shares on issue, **highly leveraged** to success;
- ✓ Well funded with approximately **\$6.0M** in liquid assets;
- ✓ **On-going news flow** in coming months.



CONTACT

Lorry Hughes Bsc. MAusIMM
Managing Director

Mobile 0400 038 439

Int. Mobile +61 400 038 439

Telephone +61 8 9227 1144

Facsimile +61 8 9328 8302

lorry@southbouldermines.com.au

www.southbouldermines.com.au

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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'.

JORC- Exploration Targets

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 that it is uncertain if further exploration will result in the termination of a Mineral Resource.

JORC- Exploration Targets

This ASX release has been compiled by Lorry Hughes using information on exploration results supplied by South Boulder and in the case of the Duketon Nickel JV, Independence Group who are the operator of the Duketon Nickel JV. Lorry Hughes is a member of the Australian Institute of Mining and Metallurgy. Mr Hughes is a geologist and he has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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". 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. The data, interpretation and diagrams for the Duketon Nickel JV have been provided courtesy of Independence.