QUARTERLY OPERATIONS REPORT
THREE MONTHS ENDING 31 DECEMBER 2008

HIGHLIGHTS

- **~$250,000 p.a overhead cost savings implemented**
- **Results pending from C2 Prospect drilling**

CORPORATE

During the quarter the Company implemented staff cuts and salary reductions across the board in order to reduce the cash "burn" rate. The savings equate to approximately ~$250,000 p.a. and were made to improve the financial health of The Company for the forecasted difficult capital markets in 2009-10. In recognition of the salary reductions and the uncertain future faced by the company it was proposed by management at a board meeting on the 8th of January to issue up to 4 million, 5 year 20c options to be approved and ratified at the next general meeting.

South Boulder Mines Ltd ("South Boulder") (ASX:STB) currently has cash in the bank of approximately $2.7 million and ASX and TSX listed equities worth approximately $0.73 million.

Company Name	Stock Exchange	No of fully paid Shares	20c Options	Option Expiry Date
IMX Resources NL	ASX	1,325,000		
Montezuma Mining Company Ltd	ASX	4,150,000	1,037,500	31/08/2011
Buxton Resources Limited	ASX	250,000	750,000	30/06/2012
Gold Aura Limited	ASX	1,000,000		
Avonlea Minerals Limited	ASX	400,000		
Continental Nickel	TSX	121,200		
Atlas Iron Limited	ASX	12,490		

In line with reductions in overall spending, South Boulder has been rationalising its exploration portfolio and undertaking rigorous review of all exploration plans and commitments. Discussions with a number of parties have been held during the period with a view to securing joint venture partners for some projects as previously mentioned at the AGM. No agreements have been entered into at this stage.

POTASH PROJECTS

As previously indicated South Boulder is continuing a worldwide search for significant phosphate and potash projects that can demonstrate the potential for early stage development. A number of projects have been evaluated during the period however none have been entered into at this stage. News will be released as soon as practicable on new projects after due consideration of the local political and cultural sensitivities of the respective areas.

Lake Disappointment East (EL 45/2562, ELA 45/3122 and ELA 45/2688) – 973km^2

EL45/3122 was granted during the period (Figure 1). A planned heritage survey was postponed until March/April 2009. The results of the heritage survey over the main parts of the lake system are required to be included with an application under Section 18 of the Aboriginal Heritage Act 1972 (WA) to gain access to the ground for exploration. At this stage it is anticipated by South Boulder, that access to the ground could be achieved around August 2009.

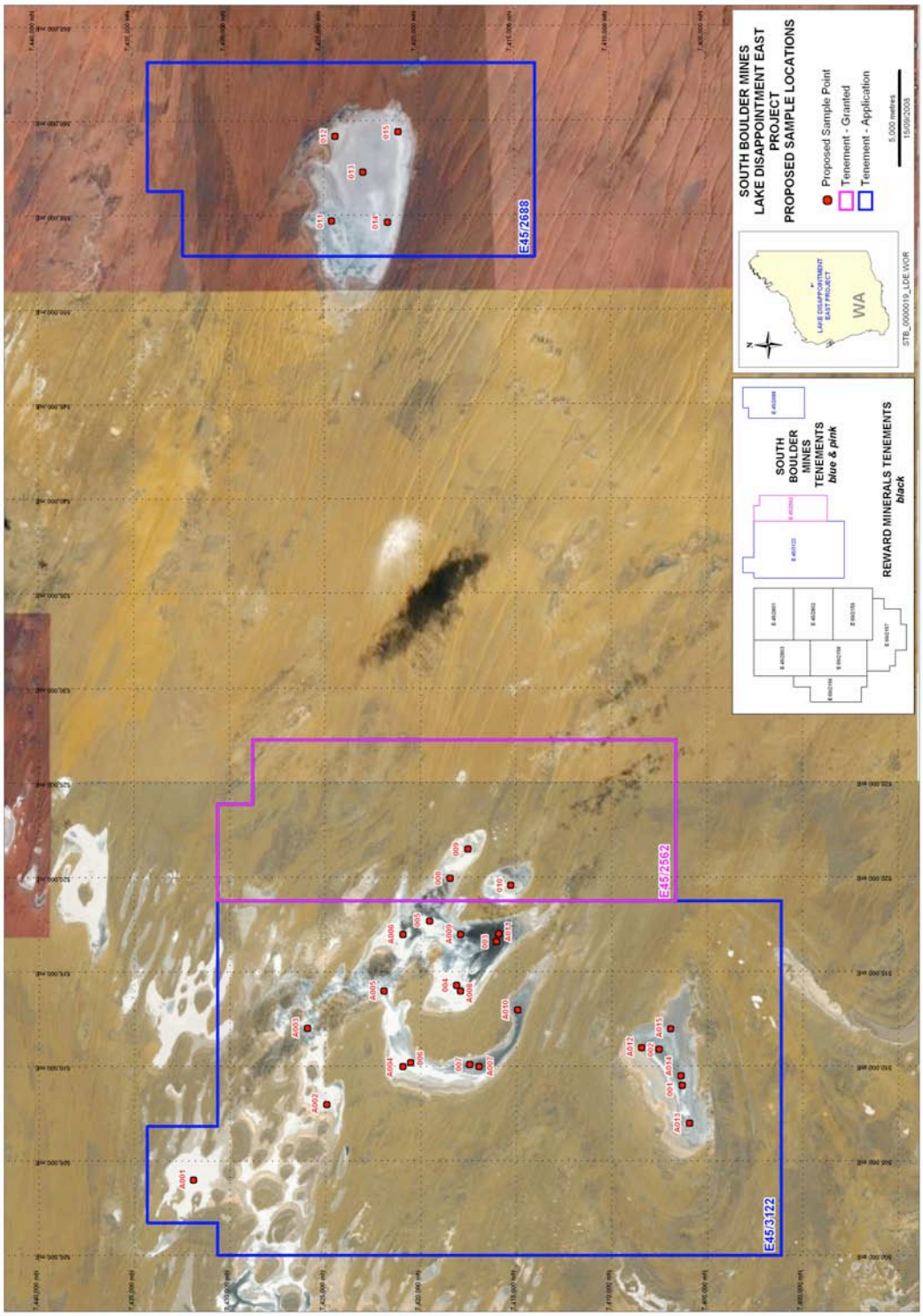


Figure 1: Lake Disappointment East Potash Project

An option to purchase the potash rights on tenements E45/2562 & E45/2688 was added to the project by negotiating a deal with Caldera Resources Incorporated and Ronald Winston on the 8th of September. To purchase the option, South Boulder issued 200,000 shares to Caldera Resources Incorporated (CAL) and Ronald Winston (RW). Within 5 months (Prior to 8th Feb 2009), South Boulder can elect to take up the option by the issue of a further 400,000 shares and CAL and RW retain a 1.25% gross FOB sales revenue per tonne of potash sold royalty. South Boulder plans to make a final decision on this deal early in the next quarter.

Canning Basin (ELA 04/1806, 04/1807, 04/1808, 45/3227) – 1,115km^2

The Canning Basin Project, contains 4 prospects that are prospective for evaporite hosted (MoP) Potash deposits. All the projects are located in the Canning Basin W.A. and are underlain by an extensive sedimentary sequence with significant evaporite horizons within the Siluro-Devonian Carribuddy Formation.

The sequence was subject to oil exploration in the 1950's and more recently potash exploration by BHP in the mid 1980's. The evaporite horizon targets in the areas under application are in the order of 960 – 1991m vertical depth with drilled salt thicknesses ranging from 485 – 660m thick.

The projects are currently under an early stage of data compilation and evaluation prior to exploration commitments. As the target horizons are deep it is anticipated that exploration will be relatively expensive.

PHOSPHATE PROJECTS

Cardabia (ELA 08/1855, 08/1856, 08/1864, 08/1945, 08/1955) – 1,900km^2

The 100% owned Cardabia Phosphate Project is located in the northern Carnarvon Basin in Western Australia, approximately 200km north northeast from Carnarvon. The project comprises ~1,900km^2 and contains extensive phosphate-rich nodules hosted within contact zones between the Gearle Siltstone and the Toolonga Calcilutite and the Toolonga Calcilutite and the Korojon Calcarenite.

The phosphate mineralisation was discovered by CRA Exploration Pty Ltd by aircore drilling across the White Peaks and Nabawarra synclines during 1989-90. It will be South Boulder's immediate exploration target to locate and test depressions along these synclines which are considered favourable for thicker and possibly economic accumulations of phosphate-rich nodules.

The vertical wide spaced aircore drilling (all <100m depth) conceptually tested the area on a nominal ~ 7kms x 3kms grid. Grades encountered in the +5mm fraction were up to 49% P_2O_5 with numerous grades in the 25-30% range. Drill intersections were generally from 1-5m thick. The previous drilling provides an excellent knowledge base from which to plan future programs.

Additional to follow-up drilling, South Boulder is planning to complete some early stage bulk sampling and beneficiation test work. South Boulder believes that due to the coarsely dispersed nature of the mineralisation, the potential project economics may benefit from simple screening. The generally good location of the project (<100km from the coast and major roads) with respect to infrastructure is likely to benefit potential project economics.

It is anticipated that some tenements will be granted in 2009. Depending on global economic conditions work will focus on data compilation, geological targeting and strategic concepts. It is envisaged that aboriginal heritage consultation will be the first field based priorities to conduct prior to and immediately after grant dependant on the weather at that time.

Southern Georgina Project (EL26380,EL25983,EL25982,ELA26768,ELA26769)- 4,112km^2

The 100% owned Southern Georgina Phosphate Project is located in the central east Northern Territory, approximately 450km east north-east of Alice Springs. The granted tenements were acquired for $40,000 and the issue of 200,000 STB shares from Bralich Holdings Pty Ltd.

The tenements cover substantial extents of phosphate and base metal prospective Cambrian carbonate sequences. Elsewhere in the Georgina Basin (QLD and NT) significant phosphate deposits are hosted in Lower to Middle Cambrian marine carbonate and clastic sediments including mudstones, claystones and limestones. The deposits are generally formed by chemical and biological precipitation.

The area has been subject to sporadic exploration over the last 30 years including strata-bound Mississippi Valley Type base metal exploration conducted by CRAE (1970's), Carpentaria Exploration (1976-77), Agip Australia (1981-84) and MIM Exploration (1991). Additional to the phosphate and base metal prospectivity of the tenements, there are known occurrences of manganese as identified by previous explorers. The manganese potential of the project will be evaluated during the next quarter.

Central Georgina Project (EL's 26761,26763,26766,ELA's 26765,26762,26800)- 3,585km^2

The 100% owned Central Georgina Phosphate Project is located in the central east Northern Territory, approximately 1,000km south east of Darwin. The tenements comprise 3 recently granted exploration licenses and 3 applications covering ~3,585 km^2. The tenements cover substantial extents of phosphate and base metal prospective Cambrian carbonate sequences as in the Southern Georgina project areas.

EL26763, EL26766 and EL26765 are located in close proximity to the known historic phosphate resources of Buchanan Dam, Alroy and Highland Plains. Other historic phosphate deposits in the general area are the large Wonarah and Arruwurra Deposits held by Minemakers Ltd.

Companies that have previously explored the areas for phosphorites between 1968-77 include IMC Development Corporation, Australian Geophysical Pty Ltd, Pickands Mather & Co, Minoil Services Pty Ltd and ICI Australia Ltd. Riotinto explored the Wonarah Deposits in 2001.

South Boulder is in the early stages of acquiring and compiling the available exploration data from the project areas and will use it to evaluate the project areas with respect to grant of individual tenements. Is not expected that any ground work will be completed until heritage issues are understood and the 2008/2009 wet season has passed. After review, the previously held applications ELA 26764, ELA26801-26803 were withdrawn.

QLD Georgina Project (EPM 17662, EPM 17663) – ~422km^2

The Lady Imogen Phosphate Project is located within the Queensland Georgina Basin approximately 110kms northeast of Mt Isa. The Project consists of exploration license applications EPM17662 and EPM17663 and cover ~422 km^2. The projects are easily accessed by road from Mt Isa.

Both application areas have been subject to exploration for phosphate in the mid to late 1960's by Mines Exploration Pty Ltd and Continental Oil Company of Australia Pty Ltd. Exploration included broad spaced drilling which intersected significant phosphate mineralisation. The best vertical drill intercept was 7.9m @ 4.6% P_2O_5 from 51m depth. (The assay result is historic and was determined using atomic absorption spectroscopy by AMDEL Laboratories Pty Ltd at the time of exploration)

South Boulder intends to continue to compile and evaluate data prior to potential granting of the license in 2009.

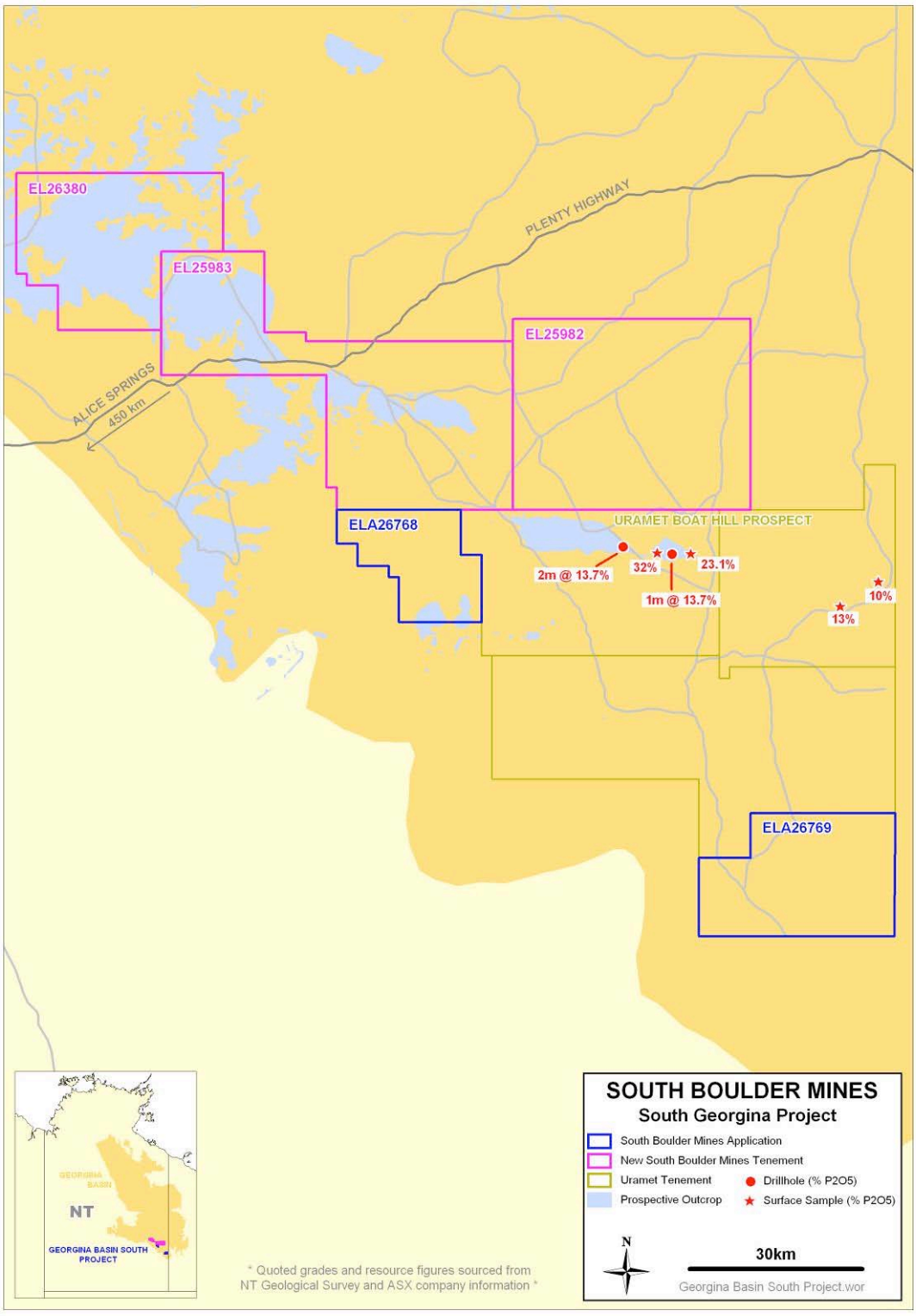
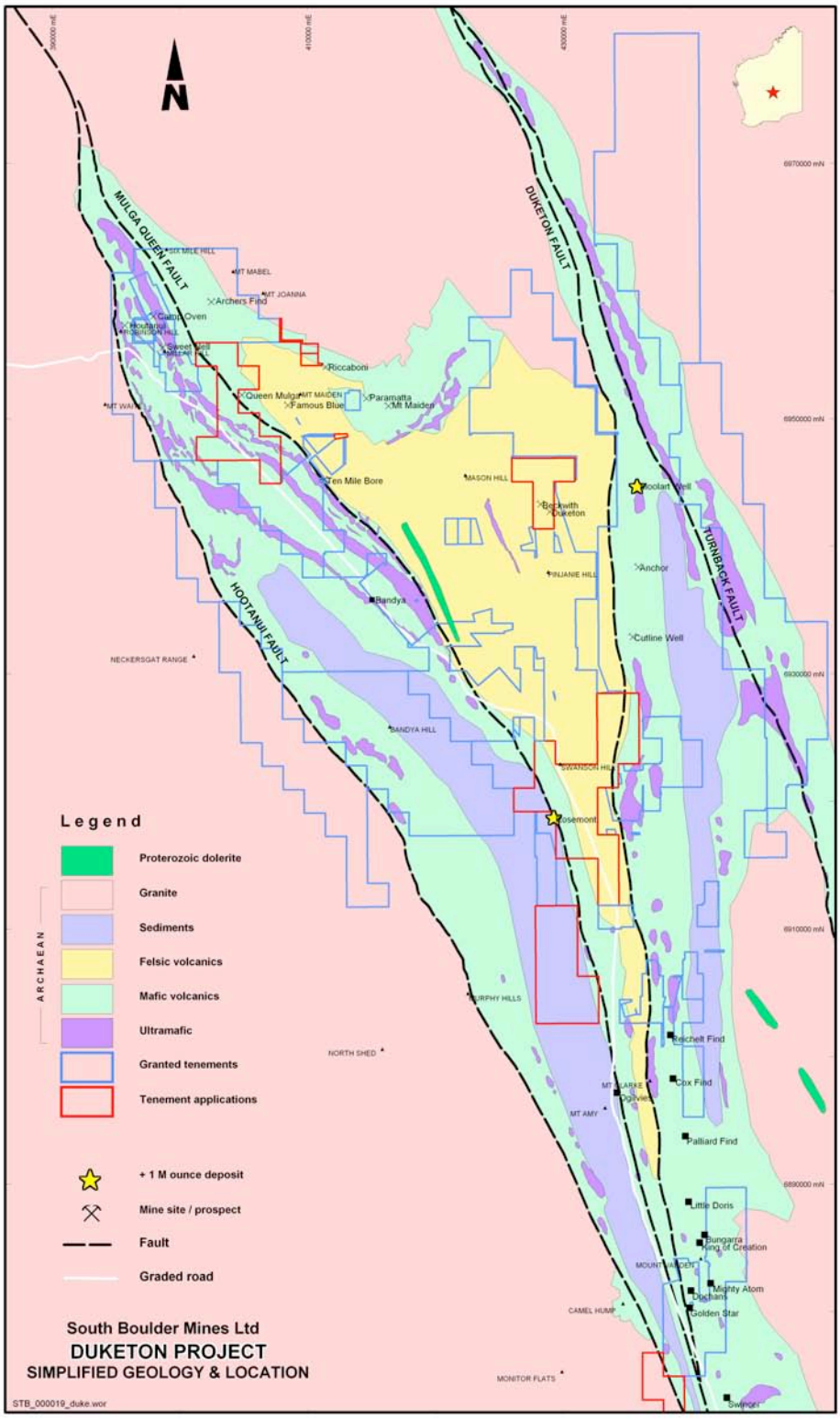


Figure 2: Southern Georgina Phosphate Project in Relation to the Uramet Boat Hill Prospect.

DUKETON PROJECT

The Duketon Project comprises ~ 1,800 km^2 of the Achaean Duketon Greenstone Belt and is located ~ 80kms north of Laverton in Western Australia. It is dominated by a broad, complex north-northwest trending fold structure known as the Erlistoun Syncline (Figure 3).

Figure 3: Duketon Project tenements over Duketon Greenstone Belt geology.



DUKETON NICKEL JOINT VENTURE

In April 2004 South Boulder signed a farm-out Joint Venture Agreement with Independence Group NL. Under the terms of the agreement Independence will farm-in to earn 70% of the nickel metal rights on tenements held by South Boulder within the Duketon Project. In addition, Independence agreed to spend a minimum of $400,000 on 'in ground' exploration over the first two years of the joint venture. A bankable feasibility study ("BFS") must also be completed within five years from grant of the individual tenements.

The Duketon Nickel Joint Venture covers approximately 100 strike kilometres of ultramafic rich stratigraphy in the Duketon Greenstone Belt – considered highly prospective for Ni-Cu-PGE mineralisation. To date only about 30% of this ultramafic stratigraphy has been subjected to modern exploration techniques.

Nickel sulphide mineralisation within the Duketon Greenstone Belt is highlighted by the recent Collurabbie discovery by Falcon Minerals Ltd and BHP Billiton Ltd to the north of the Duketon Project; and by Poseidon Nickel Ltd's, recently revived Windarra nickel mine and associated resources to the south.

The most advanced prospect is the Bulge C2 Prospect which is located within E38/1537, approximately 100km northwest of Laverton (Figures 4 & 5). Independence Group has advised that 3 out off 6 planned follow-up RC/Diamond drill holes were completed at C2 just prior to Christmas. Results are currently outstanding and are expected in late January or early February. A separate ASX release will be made once all data and interpretation is received.

Highlights from the last drilling program completed in the second half of 2008 include:

- 5m @ 1.14% Ni (0.20% Cu + 0.91g/t Pt + Pd) from 127m in TBRC020 incl. 1m @ 2.25% Ni.
- 22m @ 0.70% Ni (0.30% Cu, 0.98g/t Pt + Pd) from 68m in TBRC019.
- 12m @ 0.76% Ni 172m in TBRC021 incl. 1m @ 1.57% Ni.
- 4m @ 0.77% Ni from 90m in TBRC067.
- 1m @ 2.11% Ni from 279m in TBRC066.
- 7m @ 0.59% Ni from 110m in TBRC018.

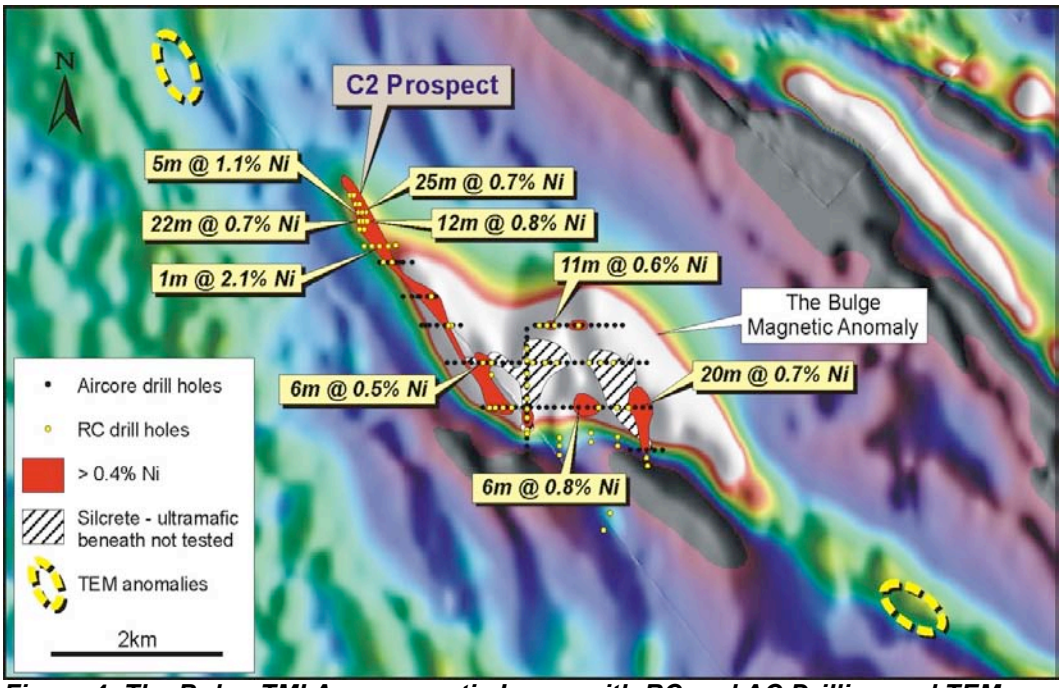


Figure 4: The Bulge TMI Aeromagnetic Image with RC and AC Drilling and TEM anomalies.

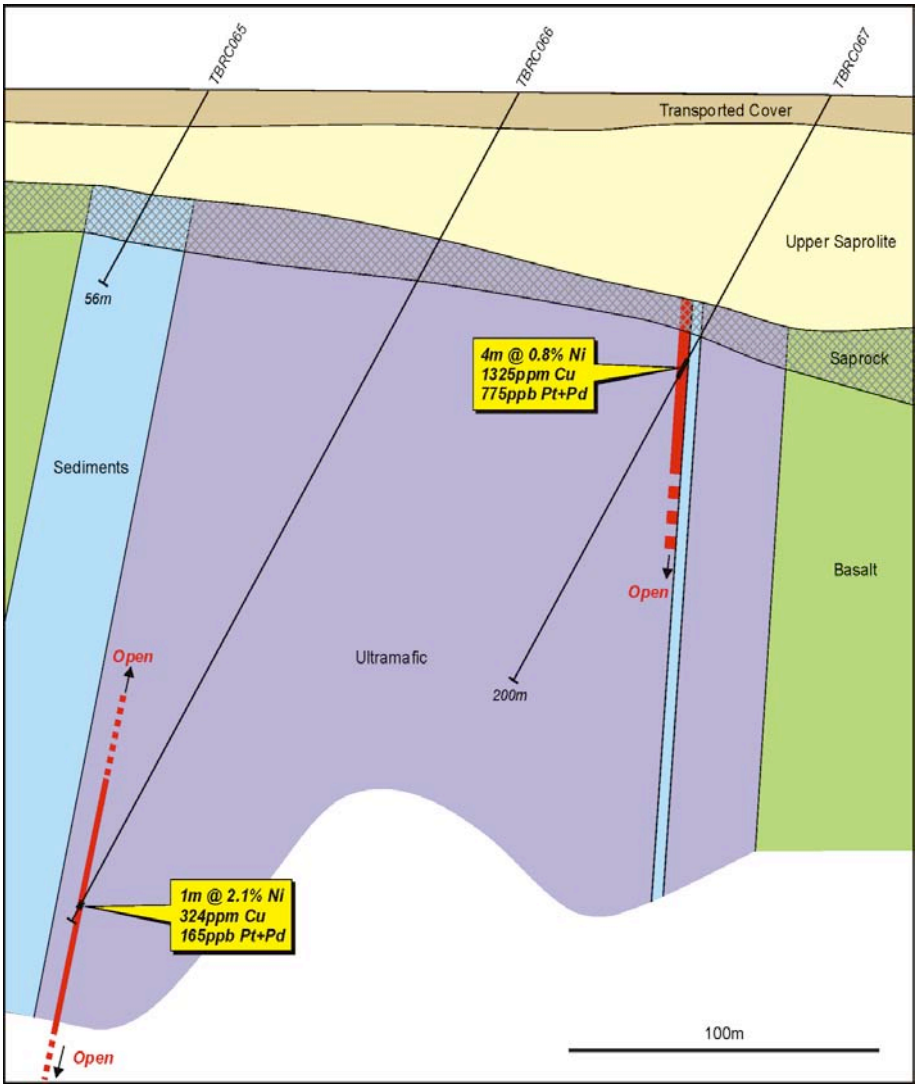


Figure 5: The Bulge C2 Prospect Schematic Cross Section 6945100N.

DUKETON GOLD PROJECT

South Boulders 100% owned Duketon Project is located north of Laverton in Western Australia. The Duketon Project totals approximately 1,800km² in area, making South Boulder the largest single land holder in the Duketon Greenstone Belt. The Duketon Project is highly prospective for gold, nickel sulphide and base metals.

From the early 90's the majority of the Duketon Project was held by Normandy Mining Limited and Newmont Mining Corporation. Although wide spaced reconnaissance exploration was sporadically conducted, the vast majority of the project remains under shallow cover and vastly under explored.

The Duketon Belt contains highly prospective geological sequences and mineralised structures. Numerous structures are known to contain significant gold mineralisation and this is demonstrated by the approximately +3M ounces of unmined gold resources currently defined to date within the belt. In addition the +1.5M ounce Moolart Well Gold Project is currently being developed by Regis Resources NL. Once operational this will be the only mining operation in the Duketon Belt.

South Boulder has a two-pronged attack on the Project, seeking both large scale stand alone gold operations as well as smaller high grade opportunities. As part of its push to find further resources South Boulder is targeting gold prospects that would not have met the size criteria of

the previous explorers. A number of discussions have been had regarding farming in to South Boulders' gold in the Duketon Belt however no agreements have been entered into at present.

During the period most work was focussed on the Thompsons Bore Prospect where shallow gold has been defined. Elsewhere on the project the exploration has been of a target generative nature. South Boulder has been planning and gaining Traditional Owner and governmental approvals for reconnaissance drilling over numerous prospects. Due to the high number of prospects being evaluated, only Thompsons Bore is discussed here.

Thompson's Bore Prospect

The Thompson's Bore Gold Prospect (Figure 6) is located within E38/1537, 5km due south of the Bulge Nickel Sulphide discovery and 30km east of the 1.5M ounce Moolart Well deposit owned by Regis Resources NL. Significant results from shallow air-core drilling previously announced include:

- TBAC009 - 8m @ 0.59g/t from 0m + 4m @ 12.7g/t from 44m
- TBAC010 - 16m @ 7.8g/t (inc 4m @ 14.4g/t) from 32m
- TBAC018 - 4m @ 3.1g/t from 56m
- TBAC020 - 12m @ 2.3g/t (inc 4m @ 3.5g/t) from 20m
- TBAC009 - 5m @ 2.92g/t (inc 1m @ 8.13g/t from 0m) + 1m @ 59.0g/t from 44m
- TBAC010 - 11m @ 8.70g/t (inc 2m @ 27.75g/t) from 35m
- TBAC018 - 4m @ 3.26g/t (inc 1m @ 6. 5g/t) from 57m
- TBAC020 - 7m @ 4.01g/t from 23m

Most recent 1m re-split samples (announced on 11th March 2008) include:

- TBAC034 - 1m @ 75.30g/t from 14m
- TBAC042 - 7m @ 5.80g/t (inc 2m @ 15.70g/t) from 18m
- TBAC036 - 4m @ 5.0g/t (inc 1m @ 17.3g/t) from 8m
- TBAC030 - 12m @ 2.10g/t from 76m
- TBAC041 - 4m @ 3.03g/t (inc 2m @ 5.2g/t) from 37m
- TBAC040 - 5m @ 3.98g/t (inc 1m @ 6. 44g/t) from 63m
- TBAC047 - 4m @ 4.4g/t from 44m

The mineralisation is considered open in all directions and indications are that mineralised intersections are significantly depleted down to depths of ~ 80m. At least 2 and possibly 3 steeply dipping, parallel north - north west striking gold zones exist within the project. Gold mineralisation at Thompson's Bore appears to be related to (smokey and often pink) quartz veining and ferruginous structures in the oxidised zone of the weathering profile. Host rocks are volcanic in origin and often intercalated with chert bands.

South Boulder is currently planning up to six RC holes to 200m depth to determine the grade and width of the primary mineralisation. It is planned to carry out this drilling once approvals are in place during 2009.

URANIUM JOINT VENTURE – THATCHER SOAK

The Thatcher Uranium Joint Venture is located approximately 150km east of the Duketon Project within the Yamarna Greenstone Belt. In May 2005, South Boulder sold 100% of its uranium rights on E38/1732 to Goldstream Mining NL ("Goldstream") (ASX:GDM) for the consideration of 1.5M fully paid Goldstream shares - 200,000 of which were issued immediately. All non-uranium related mineral rights on E38/1732 have been retained by South Boulder.

In August 2005 Goldstream announced to the market that it was spinning off all of its uranium interests in Tanzania and Australia (including E38/1732) into a new, uranium focused company named Uranex NL ("Uranex") (ASX:UNX). Uranex listed on the ASX in September 2005 after raising $7M.

The granting of E38/1732 resulted in the issue of the remaining 1.3M fully paid Goldstream shares to South Boulder. In September 2006, South Boulder entered into a Uranium JV with Uranex whereby Uranex could earn a 65% interest in the uranium rights on P38/3298 for the consideration of 275,000 fully paid Uranex shares a deemed price of 59.5 cents. South Boulder retains a 35% free carry to the completion of a BFS. During the period no reportable exploration activity occurred.

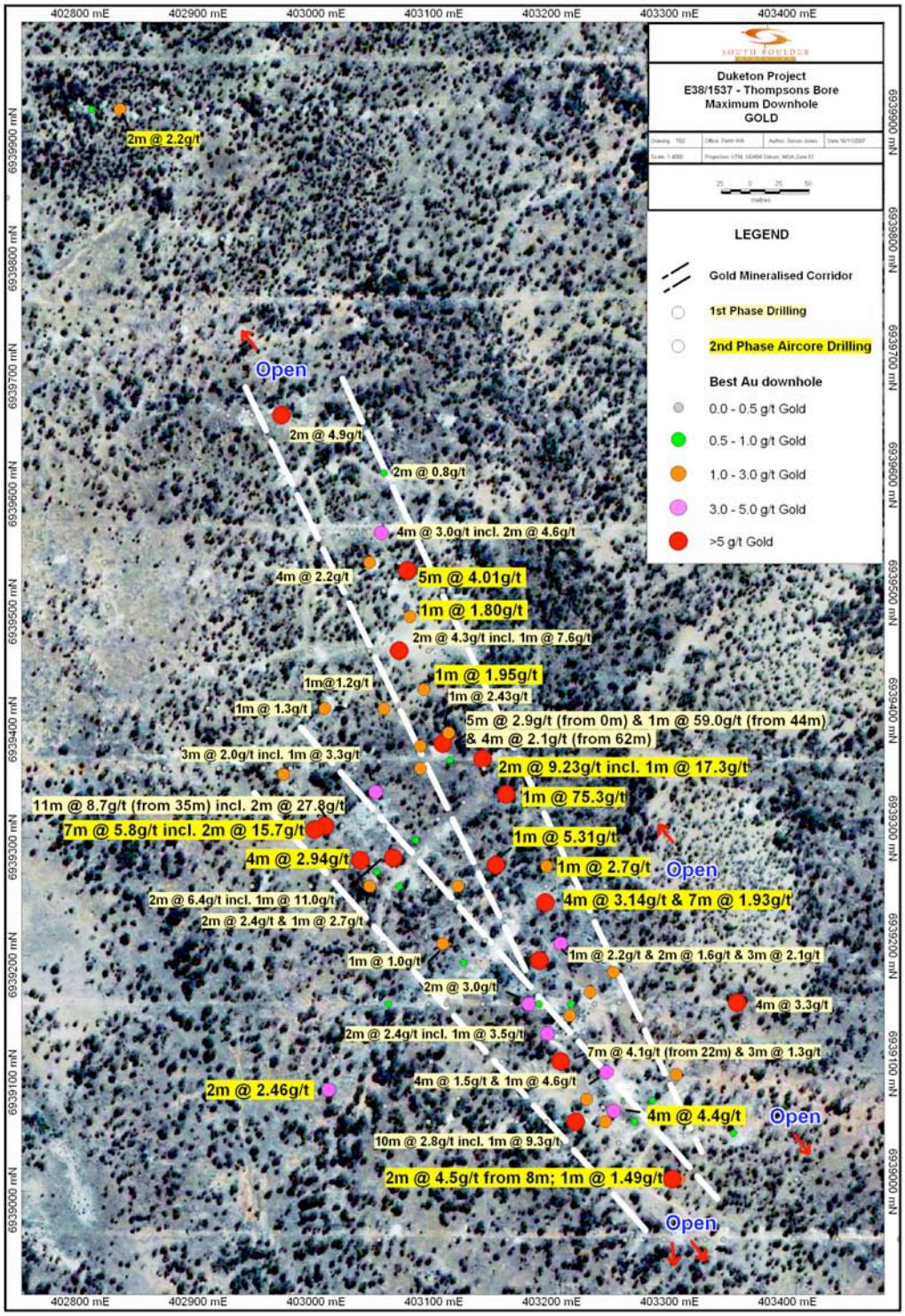


Figure 6: Plan showing gold mineralisation at the Thompsons Bore Gold Prospect

SALE OF URANIUM RIGHTS – QUONGDONG WELL

In September 2007 South Boulder signed an agreement with Gold Aura Limited ("Gold Aura") (ASX:GOA) for the uranium rights on E38/1762. Under the terms of the agreement Gold Aura has issued 1.0M fully paid shares in the capital of Gold Aura to South Boulder. South Boulder has a 20% free carry to the completion of a uranium BFS.

On the 15th of January 2009, Gold Aura advised that, due to difficult global financial markets, Gold Aura is formally withdrawn from the Quongdong Well Uranium Project. South Boulder is currently assessing appropriate options for continued exploration on the ground.

Registered Office

South Boulder Mines Ltd
133-135 Edward Street
PERTH 6000
Western Australia

Telephone: (61 8) 9227 1144
Facsimile: (61 8) 9227 8178

Security Transfers Registrars Pty Ltd
770 Canning Highway
APPLECROSS 6153
Western Australia

Telephone: (08) 9315 2333
Facsimile: (08) 9315 2233

For more information visit the South Boulder Mines website www.southbouldermines.com.au

27 JAN 2009

The Information in this report that relates to exploration results is based on information compiled by Lorry Hughes, who is a member of the Australian Institute of Mining and Metallurgy. Mr Hughes is a geologist and 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 is an Executive Officer of South Boulder Mines Ltd and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.