

ASX Code: GBR

Capital Structure

Ordinary Shares: 81.6m

Unlisted Options: 35.9m

Current Share Price: 8¢

Market Capitalisation: A\$6.5m

Cash: A\$1.5m

Debt: Nil

Board of Directors

Greg Hall
Non-Executive Chairman

Stefan Murphy
Managing Director

Murray Black
Non-Executive Director

Melanie Leighton
Non-Executive Director

Projects

Yamarna (Mt Venn - Eastern Mafic)

Winchester

Mt Carlon

Tarmoola

Jundee South

Yamarna Project (Mt Venn - Eastern Mafic)

EASTERN MAFIC

- EIS co-funded RC and diamond drilling completed at the Eastern Mafic, targeting nickel mineralisation associated with the “feeder” zone to the Eastern Mafic complex
- Drilling tested depth extensions beneath known sulphide mineralisation at Zermatt, Cortina and ML 13
- Discrete EM and geochemistry anomalies to the west of the main intrusion were also tested as potential feeder structures (Figure 1)
- New zones of sulphide mineralisation were intersected as well as several off-hole EM conductors identified that indicate a bedrock sulphide source

METALLURGICAL TESTWORK

- Latest results demonstrate a robust, reliable flowsheet developed in the preliminary metallurgical program can produce readily marketable copper and nickel-cobalt sulphide concentrates
- The results strengthen the economic potential of Great Boulder’s Yamarna project as they show high-quality sulphide concentrates can be produced from Mt Venn
- High overall copper recovery of more than 90% achieved in the flotation and leach circuit to produce a +20% saleable copper sulphide concentrate
- Exceptionally high-value nickel-cobalt sulphide concentrate produced grading 26% Ni and 9% Co, suitable for use in the battery and EV markets

Winchester

- Great Boulder formally executed a joint venture agreement with Ausgold over the Winchester project, located 40km north of Great Boulder’s Yamarna project
- Great Boulder is earning up to 75% of Winchester through the expenditure of \$500k over 4 years
- Frist-pass aircore geochemistry and ground gravity survey now completed, results are imminent

Exploration Activities

Eastern Mafic Complex

Great Boulder completed an EIS co-funded drilling program at the Eastern Mafic, designed to test potential feeder structures to the mafic complex which may host higher-tenor nickel sulphide and to identify off-hole EM conductors that may represent nearby massive sulphide accumulations.

Drilling at the Zermatt and Cortina prospects identified new zones of sulphide mineralisation, extensions to known mineralisation and associated off-hole EM conductor plates.

At Zermatt, the deeper diamond drill hole intersected several zones of low-grade copper and nickel mineralisation, with a large off-hole conductor identified to the south-east. A second diamond hole intersected shallow mineralisation and appears to have ended just above another mineralised zone, with a conductor plate located 20m below the end of the hole.

A previously identified (but as yet untested) anomaly to the west of the main Eastern Mafic complex was drilled and returned a thick interval of low-grade copper-nickel sulphide mineralisation. This mineralisation appears related to shallow (60-80m below surface) EM conductors modelled from MLEM and the recent DHEM surveys. The host rock is much more mafic than host rocks elsewhere in the eastern mafic and as such untested EM anomalies in this region become priority drill targets.

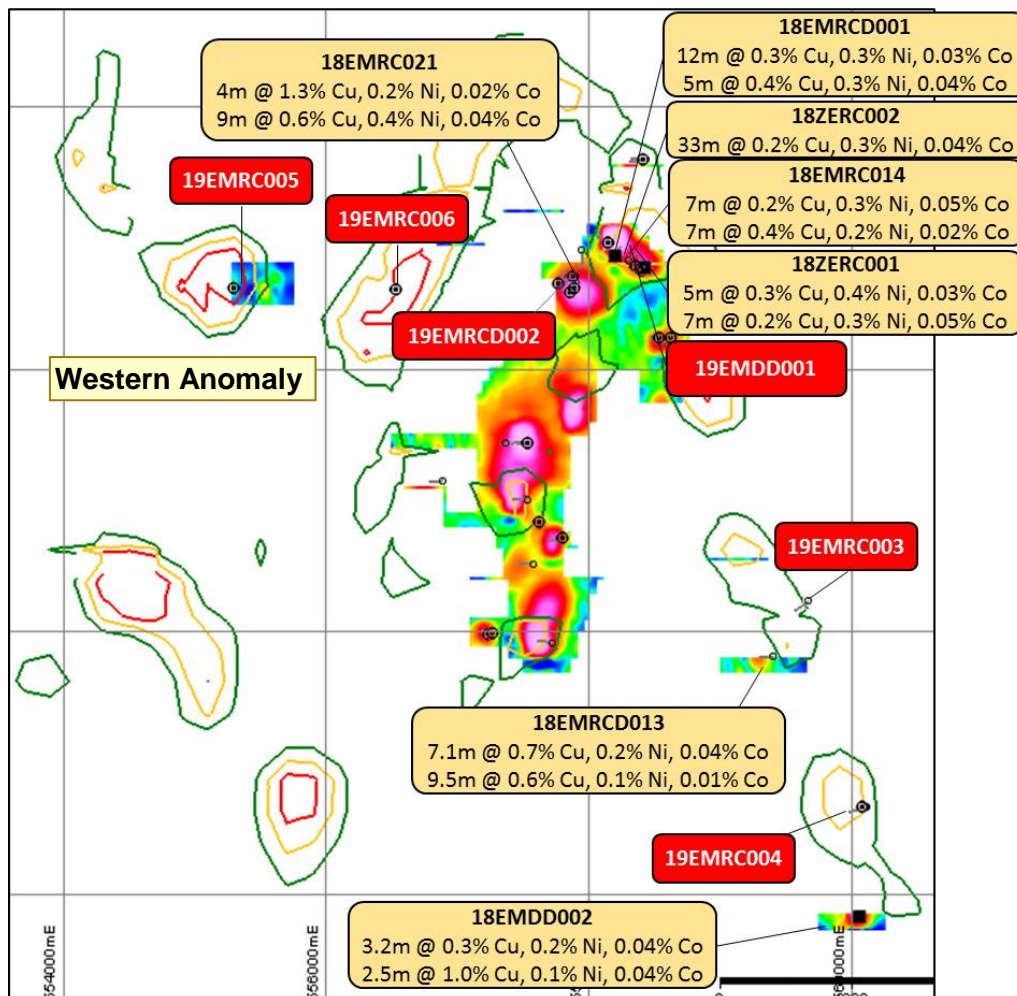


Figure 1. New drill holes (red) and previous significant intersections (yellow). Contour lines show gravity highs that were targeted with this recent drill program and colored image shows MLEM anomalies

A total of 7 RC and DD drill holes were completed at the Eastern Mafic for 2,117m of drill advance.

Drilling was designed to target the dense core of the intrusion based on modelling of the gravity survey. All drill holes intersected significant granite intrusions, with many holes ending in granite rather than the expected denser mafic-ultramafic units of the intrusive complex.



Figure 2. Oblique view of Zermatt modelled sulphide lenses (wireframes) with drilling and new DHEM conductor plates (magenta)

At Zermatt, a large off-hole conductor is detected south-east of 18EMRCD001 and beneath 18ZERC003 that is consistent with previous modelling. This conductor can be tested by extending 18ZERC003 with a diamond drill tail.

Several strong off-hole DHEM conductors are detected from new diamond drill hole 19EMDD001. The results were modelled together with the DHEM from a nearby drill hole 18EMRC014 to generate combined conductor plates from both DHEM surveys.

Two strong conductor plates are modelled, one above and to the north and the second below and to the south. The conductor plates are consistent with sulphide mineralisation intersected from 85m down hole (4.5m at 0.3% Ni, 0.2% Cu).

A third potentially strong off-hole conductor is modelled below the end of 19EMDD001. The hole ended in low grade mineralisation but the nickel tenor increased to 2-4% range. The drill hole was designed to intersect a higher-tenor nickel sulphide lens previously intersected. The below hole conductor plate and increased nickel tenor suggests the lens is flatter than previously modelled and has not yet been intersected.

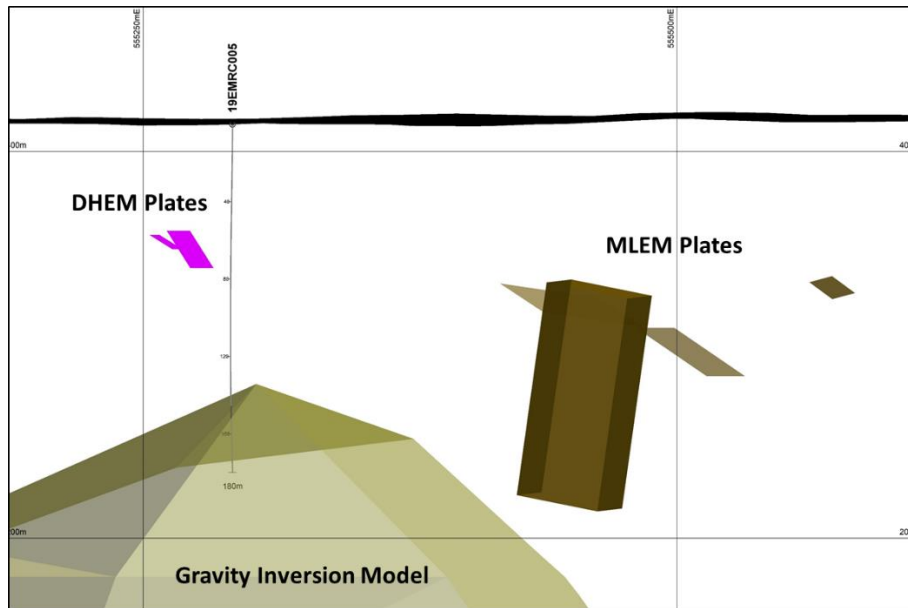


Figure 3. 19EMRC005 targeting discrete mafic intrusion – Untested DHEM and MLEM conductor plates

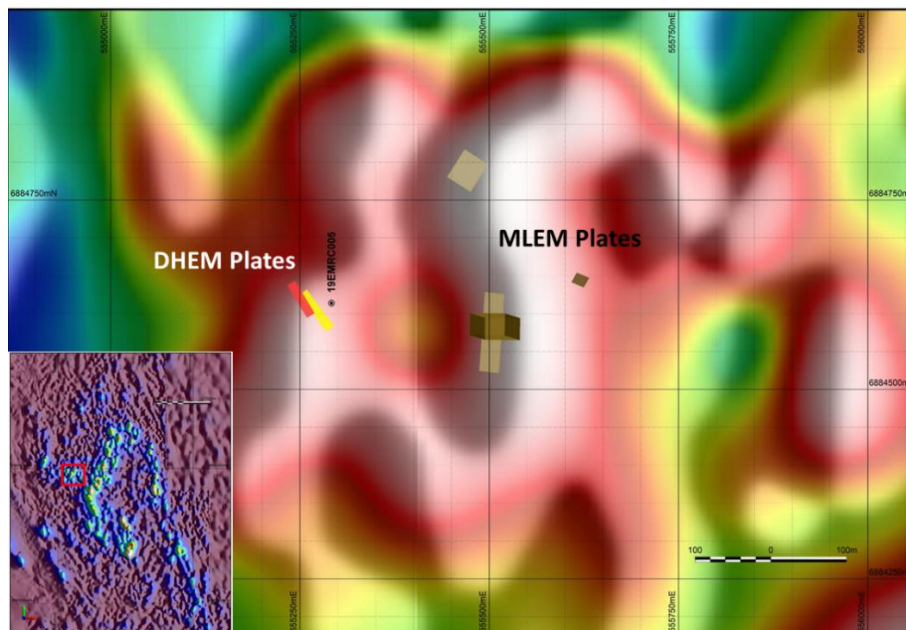


Figure 4. Plan view showing conductor plates and circular magnetic feature, west of the Eastern Mafic intrusion

Hole 19EMRC005 was drilled into a western gravity and magnetic high interpreted to be a near surface expression of the mafic intrusion. Trace sulphides were intersected from 28-104m downhole, with elevated copper and nickel in 4m composite samples.

The DHEM survey identified a shallow (60m) moderately strong off-hole anomalous response at a downhole depth at 75m consistent with a semi-massive/matrix sulphide source.

Two plates are modelled to fit the observed response in 19EMRC005 and are interpreted to be located to the west of the drill hole, striking NNW-SSE. These two plates fit reasonably well with the anomalous response identified on the moving loop EM (MLEM) survey at surface (Figure 4), indicating an untested conductive trend of over ~250m strike length. The host rocks in this location are more mafic than other conductor plates and as such are priority drill targets.

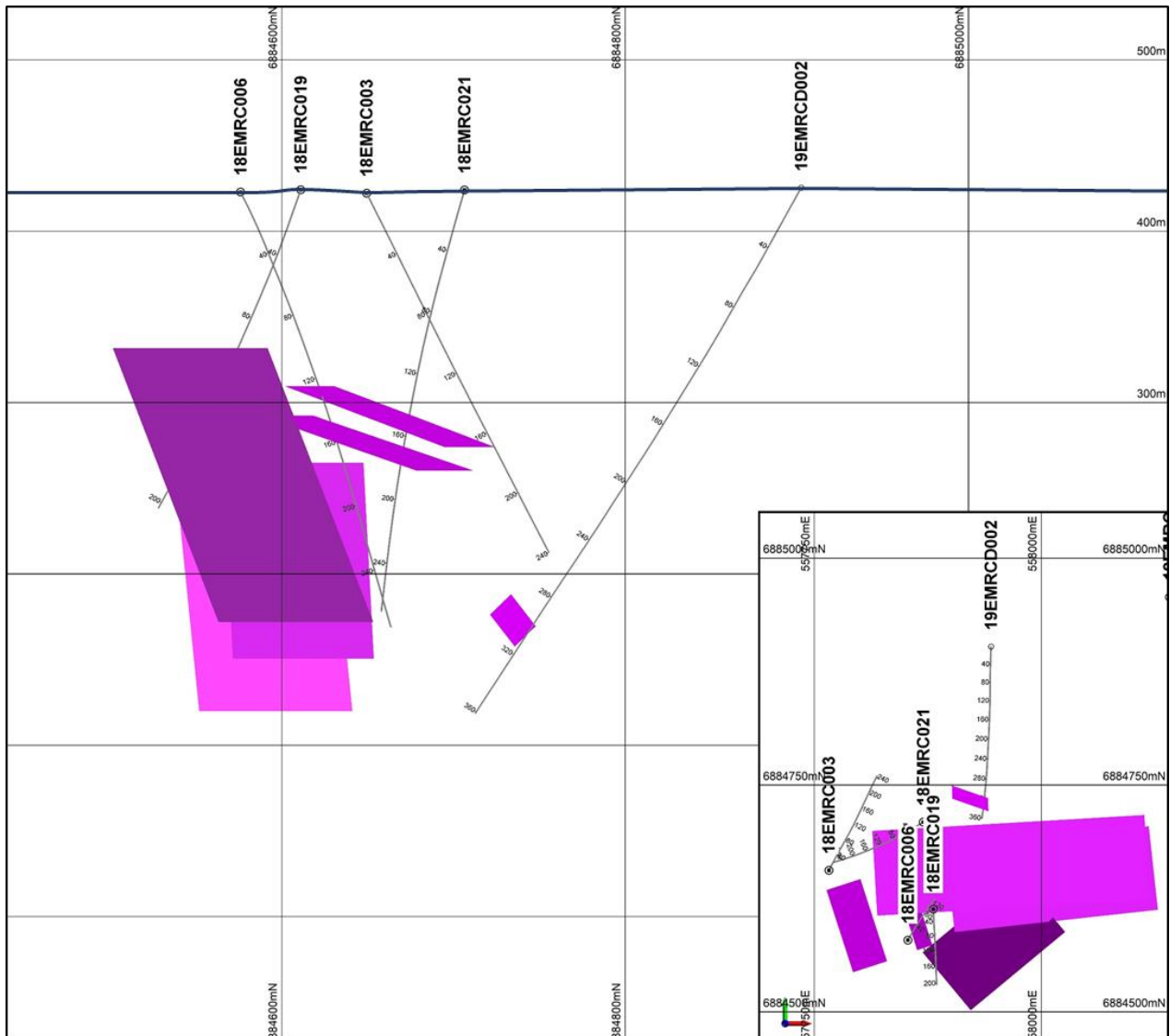


Figure 5. Cortina drilling and modelled conductor plates

Drill hole 19EMRCD002 did not intersect significant mineralisation but the DHEM survey detected several strong off-hole conductors, consistent with conductors identified in neighboring drill hole 18EMRC021.

The anomalous responses are complicated and indicated multiple sources, mostly orientated with a north-west strike but some sources are modelled as cross-cutting (east-west strike).

Three new strong conductor plates have been modelled using data from both holes. Two plates appear to be strike continuous (NNW) and below 19EMRC021 and can be tested by extending 19EMRC021 with a diamond drill tail.

Of particular note is drill hole 18EMRC021 which returned the best intersection to date from the Eastern Mafic with 4m at 1.3% Cu, 0.2% Ni from 134m and 10m at 0.5% Cu, 0.4% Ni from 141m downhole. The third new conductor plate appears to represent the southern extension of this mineralisation.

Follow-up drilling is planned to test the conductor plates and determine the size and grade of any mineralised lenses.

Winchester

During the quarter Great Boulder and Ausgold formalised the Winchester JV Agreement covering exploration of the highly prospective Winchester nickel-copper project in WA.

Ausgold previously identified shallow copper and nickel sulphide mineralisation from RC drilling at the Winchester project. Significant results include:

- 20m @ 0.7% Cu, 0.4% Ni and 0.02% Co from 39m (YMRC003)
- 17m @ 0.7% Cu, 0.2% Ni, and 0.02% Co from 92m (YMRC009)
- 19m @ 0.6% Cu, 0.3% Ni, and 0.02% Co from 106m (YMRC010)
 - **including 10m @ 0.8% Cu, 0.4% Ni, 0.03% Co**

Great Boulder completed two RC holes in October 2018 that confirmed the continuity of nickel-copper sulphide mineralisation. Significant results include:

- 7m at 1.1% Cu, 0.2% Ni, 0.01% Co from 123m (18WNRC001)
- 13m at 0.9% Cu, 0.3% Ni, 0.02% Co from 138m (18WNRC002)
 - **including 5m at 1.1% Cu, 0.7% Ni, 0.04% Co, 0.10g/t PGE**

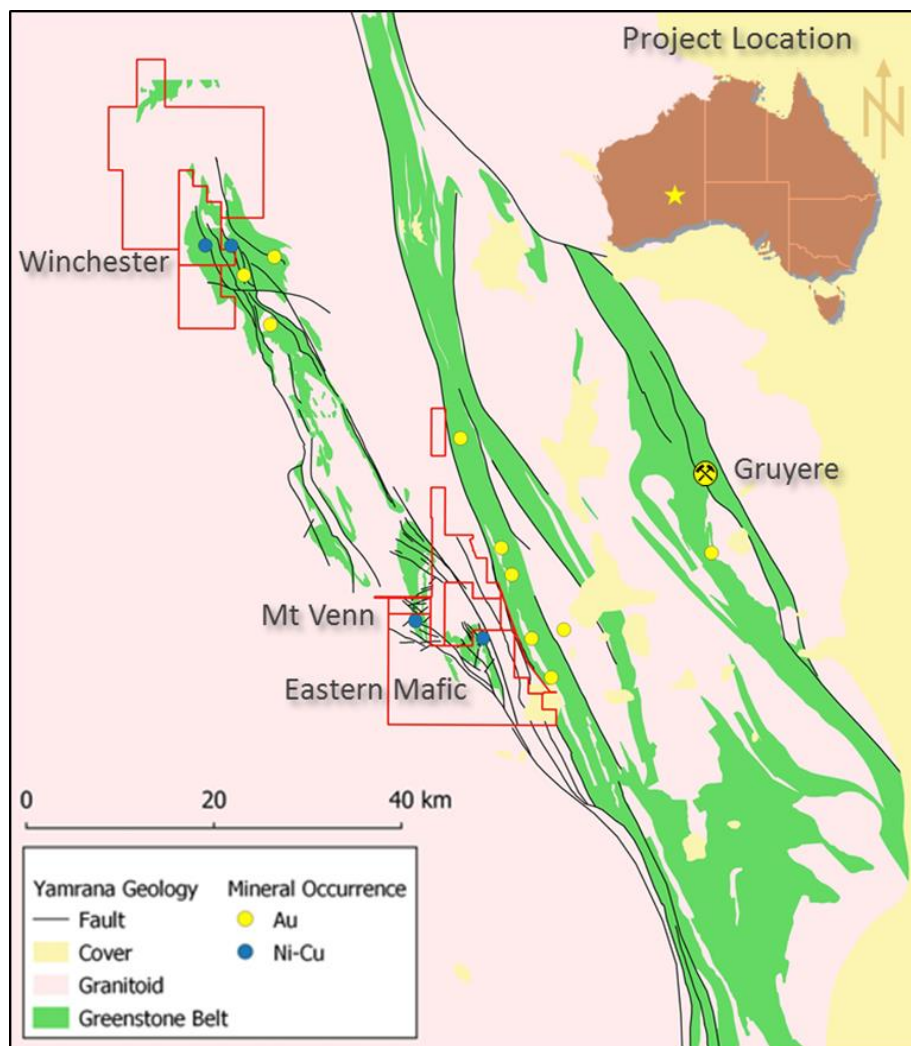


Figure 6. Location map showing Great Boulder's Yamarna Project (Mt Venn and Eastern Mafic) and the Winchester JV project area

Petrography and geochemistry of samples taken from Great Boulder RC drilling confirm the high nickel-tenor of the sulphide mineralisation, with pentlandite observed in both drill holes.

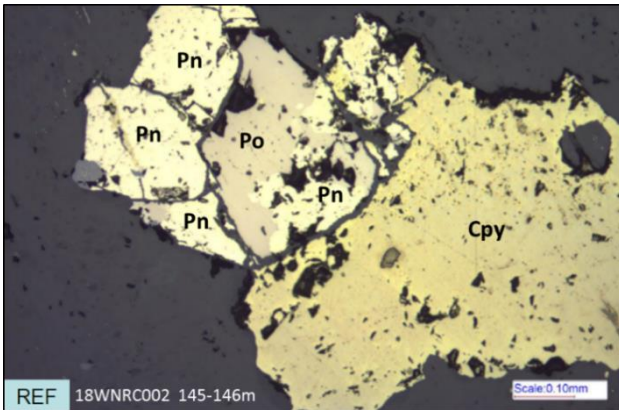


Figure 7: Pyrrhotite, chalcopyrite and blocky pentlandite crystals and flames in pyrrhotite

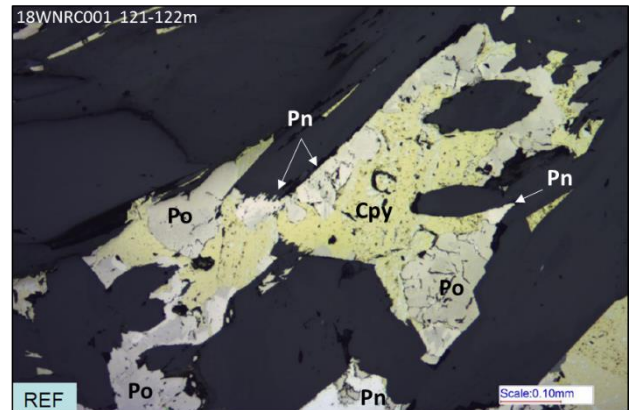


Figure 8: Sulphide patch in amphibolite composed of chalcopyrite, pyrrhotite and small spots of pentlandite

Based on recent metallurgical testwork from Mt Venn, the high nickel-tenor at Winchester makes it particularly attractive as a blend for Great Boulder’s Yamarna project, as does its potential to host higher grade nickel sulphide mineralisation.

An aircore geochemistry drilling program and gravity survey were completed in late March, with results imminent.

The geochemistry and gravity data will be used in conjunction with other geophysical data to map prospective intrusions and identify nickel-copper mineralisation.

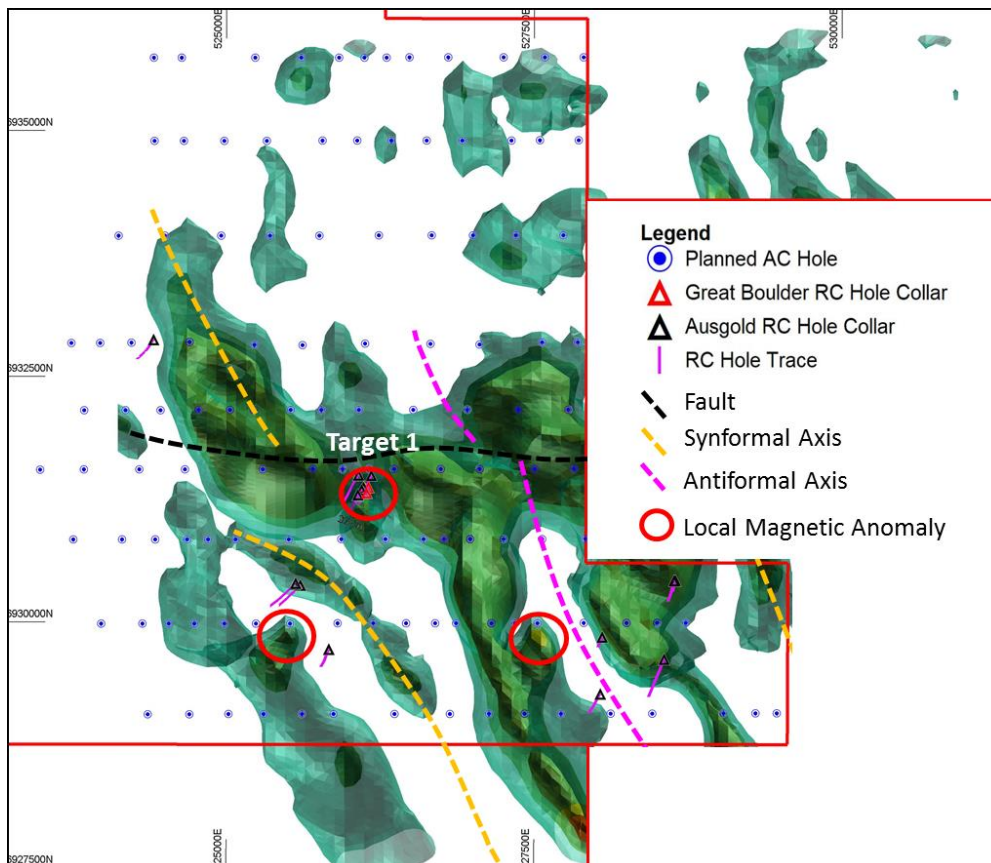


Figure 9. Planned aircore drilling, showing magnetic inversion model and previous RC drilling

Mt Venn Complex

During the quarter Great Boulder completed initial metallurgical testwork on a composite diamond drill hole sample from Mt Venn

The key objective of this phase of metallurgical testwork is to develop a robust, viable flowsheet for Mt Venn.

Testwork was completed to:

- Test the ability to separate copper into a saleable concentrate, with minimal losses of other value metals
- Select leaching conditions for nickel and cobalt extraction from bulk pyrrhotite concentrate
- Demonstrate effective impurity rejection
- Select the preferred route for nickel and cobalt recovery that would be relatively simple and generate high value products

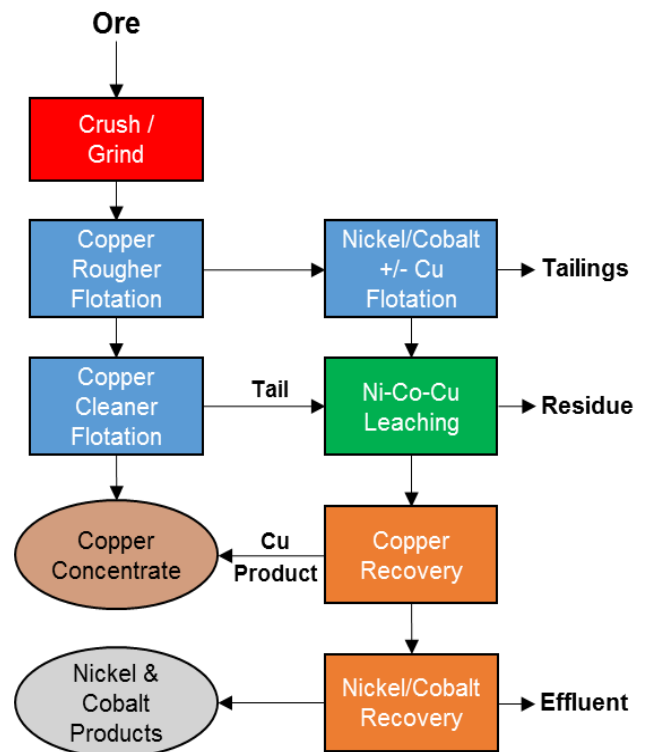


Figure 10. Simplified process flowsheet

Flotation testwork was conducted on the Mt Venn Composite sample to produce a separate

- Copper concentrate (chalcopyrite), and
- Bulk nickel-cobalt-copper concentrate (pyrrhotite +/- chalcopyrite)

A clean copper flotation concentrate with no deleterious elements was produced in the flotation circuit grading between 16 and 20% Cu. This flotation concentrate is mixed with the high purity copper sulphide (46% Cu) produced from the hydrometallurgical circuit to generate a combined **saleable +20% Cu concentrate at over 90% overall recovery**.

The bulk concentrate underwent leaching and solution purification testing to produce high value sulphide products that are in demand in the battery and EV markets. Two leaching processes were investigated:

- Atmospheric oxidative leach, and
- Pressure oxidation (POX).

POX process was selected in this phase of work due to higher recoveries and improved quality of leach solution for downstream processing.

Successful tests were carried out at 1,000 kPa oxygen pressure and 150°C temperature, with almost complete extractions of value metals typically achieved within 60-90 minutes.

Following POX, the leached slurry is neutralised with limestone to remove residual acid and the majority of iron from solution. Minor losses of copper occur at this stage but most of the nickel and cobalt metal is retained in solution (>95%).

Precipitation testwork on neutralised liquor successfully produced very high-quality copper sulphide and a combined nickel and cobalt sulphide product with no deleterious elements and at very high extraction rates of 95-99%.

SUMMARY OF RESULTS: PRECIPITATE ASSAYS							
Product	Assay (%)						
	Cu	Ni	Co	Fe	Al	Ca	Mg
Copper sulphide	45.9	2.85	1.28	0.30	0.20	2.10	0.36
Mixed sulphide	0.81	25.9	9.22	1.49	0.29	0.22	0.31

The copper sulphide product is extremely high-grade and free of any deleterious elements. It is added back into the copper flotation concentrate to produce an attractive +20% copper concentrate at a high overall recovery of over 90%.

The mixed nickel-cobalt concentrate is a high-grade and very high-value intermediate product (+35% Ni+Co) suitable for the battery and EV markets.

Solvent extraction (“SX”) and crystallisation testwork has also been successfully completed to produce a very high purity cobalt sulphate product grading 29% Co or +99% Cobalt sulphate.

Additional nickel sulphide precipitation testwork was conducted on cobalt free liquor post cobalt removal by SX. A very high purity nickel sulphide concentrate grading 41% Ni and 1.5% Co was produced.

While the testwork to produce a high-value and readily saleable cobalt sulphate product was successful, the solvent extraction circuit and additional solution purification requirements add significant cost and technical risk to the process flowsheet. Producing a copper sulphide and mixed nickel-cobalt sulphide concentrate is currently the preferred flowsheet.

Corporate

At the end of the quarter Great Boulder had \$1.5m in cash.

During the quarter 1,500,000 ordinary shares were issued to Ausgold Limited in consideration for forming the Winchester Joint Venture. These shares are under voluntary escrow for periods of 3-9 months. The capital structure as at the date of this report:

Class of Securities	Issued Capital
Ordinary fully paid shares	81,610,117
Unlisted Options (exercisable at \$0.20 and expire 18 Nov. 2020)	35,879,893
Unlisted Performance Rights	1,250,000

Competent Person's Statement

Exploration information in this Announcement is based upon work undertaken by Stefan Murphy whom is a Member of the Australasian Institute of Geoscientists (AIG). Mr Stefan Murphy has sufficient experience that 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Stefan Murphy is Managing Director of Great Boulder and consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Forward Looking Statements

This Announcement is provided on the basis that neither the Company nor its representatives make any warranty (express or implied) as to the accuracy, reliability, relevance or completeness of the material contained in the Announcement and nothing contained in the Announcement is, or may be relied upon as a promise, representation or warranty, whether as to the past or the future. The Company hereby excludes all warranties that can be excluded by law. The Announcement contains material which is predictive in nature and may be affected by inaccurate assumptions or by known and unknown risks and uncertainties, and may differ materially from results ultimately achieved.

The Announcement contains "forward-looking statements". All statements other than those of historical facts included in the Announcement are forward-looking statements including estimates of Mineral Resources. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstances after the date of the Announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws. All persons should consider seeking appropriate professional advice in reviewing the Announcement and all other information with respect to the Company and evaluating the business, financial performance and operations of the Company. Neither the provision of the Announcement nor any information contained in the Announcement or subsequently communicated to any person in connection with the Announcement is, or should be taken as, constituting the giving of investment advice to any person.

The exploration results contained in this report were previously reported by the Company in its announcements released to ASX and listed below. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Company's previous announcement.

- [Diamond Drilling Underway at the Eastern Mafic](#) (18 February 2019)
- [More Strong Metallurgical Results from Mt Venn](#) (5 March 2019)
- [Great Boulder Signs Winchester Nickel-Copper JV](#) (13 March 2019)
- [Eastern Mafic Update - DHEM Conductors and Drilling Results](#) (24 April 2019)

Appendix 1 – Tenement Schedule

In line with obligations under ASX Listing Rule 5.3.3, Great Boulder provides the following information relating to its mining tenement holdings as at 30 September 2018.

Project	Tenement Number	Status	% Held	% Earning	GBR Status
Yamarna	E38/2320	Granted	75%		
Yamarna	E38/2685	Granted	75%		
Yamarna	E38/2952	Granted	75%		
Yamarna	E38/2953	Granted	75%		
Yamarna	E38/2957	Granted	75%		
Yamarna	E38/2958	Granted	75%		
Yamarna	P38/4178	Granted	75%		
Yamarna	E38/3340	Application	100%		
Winchester	E38/2129	Granted		75%	Tenement Extension Granted
Mt Carlon	E38/2902	Granted			Option to acquire 100%
Winchester South	E38/3340	Granted	100%		Granted during the Quarter
Jundee South	E53/1101	Granted	100%		
Tarmoola	P37/8935	Granted	100%		
Tarmoola	E37/1241	Granted		75%	
Tarmoola	E37/1242	Granted		75%	
Tarmoola	P37/8667	Granted		75%	
Tarmoola	P37/8668	Granted		75%	
Tarmoola	P37/8669	Granted		75%	
Tarmoola	P37/8670	Granted		75%	
Tarmoola	P37/8671	Granted		75%	
Tarmoola	P37/8672	Granted		75%	
Tarmoola	P37/8673	Granted		75%	
Tarmoola	P37/8674	Granted		75%	
Tarmoola	P37/8675	Granted		75%	
Tarmoola	P37/8676	Granted		75%	
Tarmoola	P37/8677	Granted		75%	
Tarmoola	P37/8678	Granted		75%	
Tarmoola	P37/8679	Granted		75%	
Tarmoola	P37/8680	Granted		75%	
Tarmoola	P37/8681	Granted		75%	
Tarmoola	P37/8682	Granted		75%	
Tarmoola	P37/8683	Granted		75%	
Tarmoola	P37/8684	Granted		75%	
Tarmoola	P37/8685	Granted		75%	

+Rule 5.5

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Great Boulder Resources Ltd

ABN

70611695955

Quarter ended ("current quarter")

31 March 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(269)	(3,276)
(b) development		
(c) production		
(d) staff costs	(42)	(167)
(e) administration and corporate costs	(77)	(505)
1.3 Dividends received (see note 3)		
1.4 Interest received	7	30
1.5 Interest and other costs of finance paid		
1.6 EIS Co Funding	-	-
1.7 Research and development refunds	-	827
1.8 Joint Venture receipts	53	626
1.9 Other (provide details if material) GST	45	336
1.9 Net cash from / (used in) operating activities	(283)	(2,129)

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	(3)	(130)
(b) tenements (see item 10) (Lease payment)		
(c) investments		
(d) other non-current assets		
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment		
(b) tenements (see item 10)		
(c) investments		
(d) other non-current assets		
2.3 Cash flows from loans to other entities		
2.4 Dividends received (see note 3)		
2.5 Other (provide details if material)		
2.6 Net cash from / (used in) investing activities	(3)	(130)

3. Cash flows from financing activities		
3.1 Proceeds from issues of shares		
3.2 Proceeds from issue of convertible notes		
3.3 Proceeds from exercise of share options	-	50
3.4 Transaction costs related to issues of shares, convertible notes or options	-	(2)
3.5 Proceeds from borrowings		
3.6 Repayment of borrowings		
3.7 Transaction costs related to loans and borrowings		
3.8 Dividends paid		
3.9 Other (provide details if material) Seed capital refunds		
3.10 Net cash from / (used in) financing activities	-	48

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,768	3,693
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(283)	(2,129)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(3)	(130)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	48
4.5	Effect of movement in exchange rates on cash held		
4.6	Cash and cash equivalents at end of period	1,482	1,482

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,457	743
5.2	Call deposits	25	1,025
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,482	1,768

6. Payments to directors of the entity and their associates	Current quarter \$A'000
6.1 Aggregate amount of payments to these parties included in item 1.2	90
6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	
6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	
Directors salaries	

7. Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1 Aggregate amount of payments to these parties included in item 1.2	
7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	
7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities		
8.2 Credit standby arrangements		
8.3 Other (please specify)		
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

9. Estimated cash outflows for next quarter		\$A'000
9.1	Exploration and evaluation	695
9.2	Development	-
9.3	Production	-
9.4	Staff costs	110
9.5	Administration and corporate costs	80
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	885

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2	Interests in mining tenements and petroleum tenements acquired or increased				

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:


(Company Secretary)

Date: 30 April 2019

Print name: Melanie Ross

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.