

Diamond drilling intersects more wide zones of sulphide mineralisation at Mt Venn

Latest results provide more strong evidence that the Mt Venn copper-nickel-cobalt project is a large system with multiple mineralised lenses

Great Boulder Resources (ASX: GBR) is pleased to announce more outstanding drilling results which provide further strong evidence that its Mt Venn project in WA is a large copper-nickel-cobalt discovery.

A further two diamond drill holes completed at Mt Venn have intersected wide zones of near-surface sulphide mineralisation in separate, parallel mineralised lenses.

Diamond hole **17MVDD002** was drilled as a metallurgical hole, 10m west of RC drill hole 17MVRC017. Massive, semi-massive and stringer pyrrhotite with common chalcopyrite was intersected from only 16m downhole. Several mineralised lenses were intersected over a combined width of **70m between 16m and 119m downhole** (refer to Appendix 1 for detail).

17MVDD003 was designed to test a strong off-hole conductor identified in the downhole EM ("DHEM") survey. Significant semi-massive and stringer sulphide mineralisation has been intersected over a wide **77m zone from 66m downhole** (Appendix 1). Visual logs indicate mineralisation is pyrrhotite dominant with a relatively high chalcopyrite content, consistent with the higher copper grades reported in 17MVRC001.

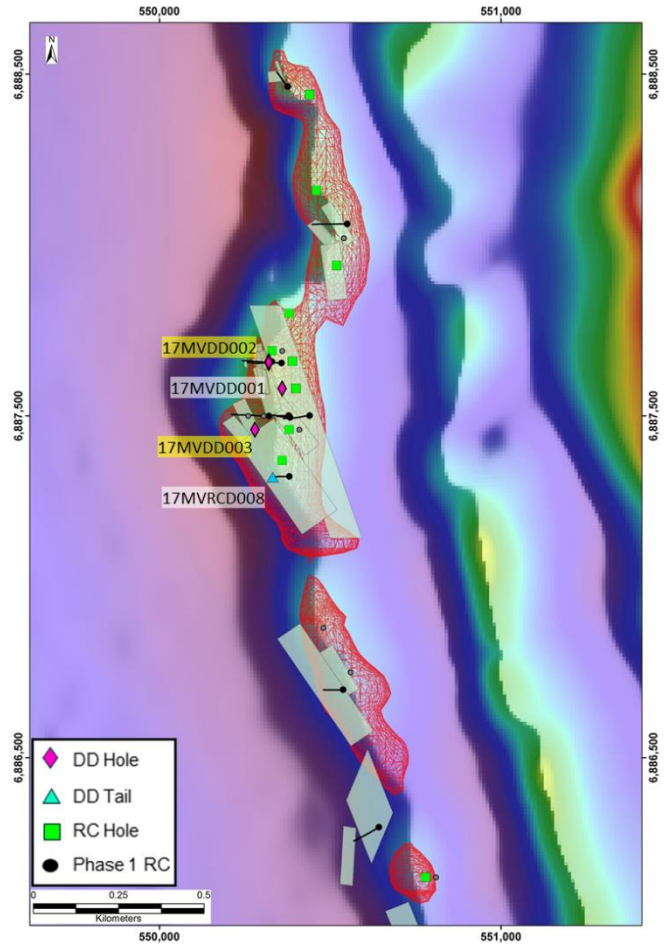
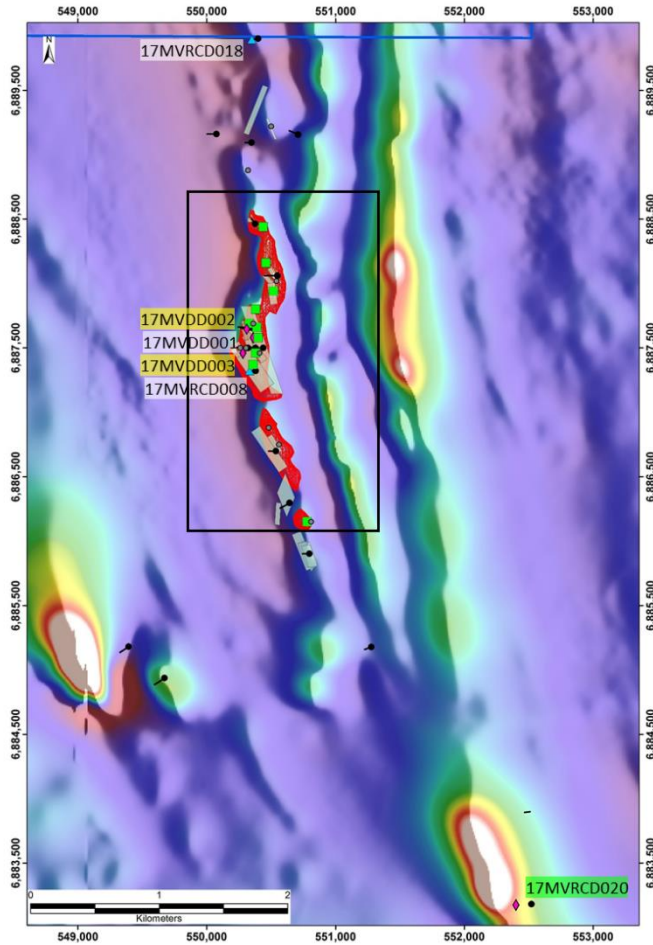
The final diamond drill hole is currently underway, testing the southern EM and magnetic anomaly, which was untested. RC drilling is almost complete, with two holes remaining to be drilled. All RC samples and diamond core will be transported to Perth for preparation and analysis at the conclusion of the drill programs.



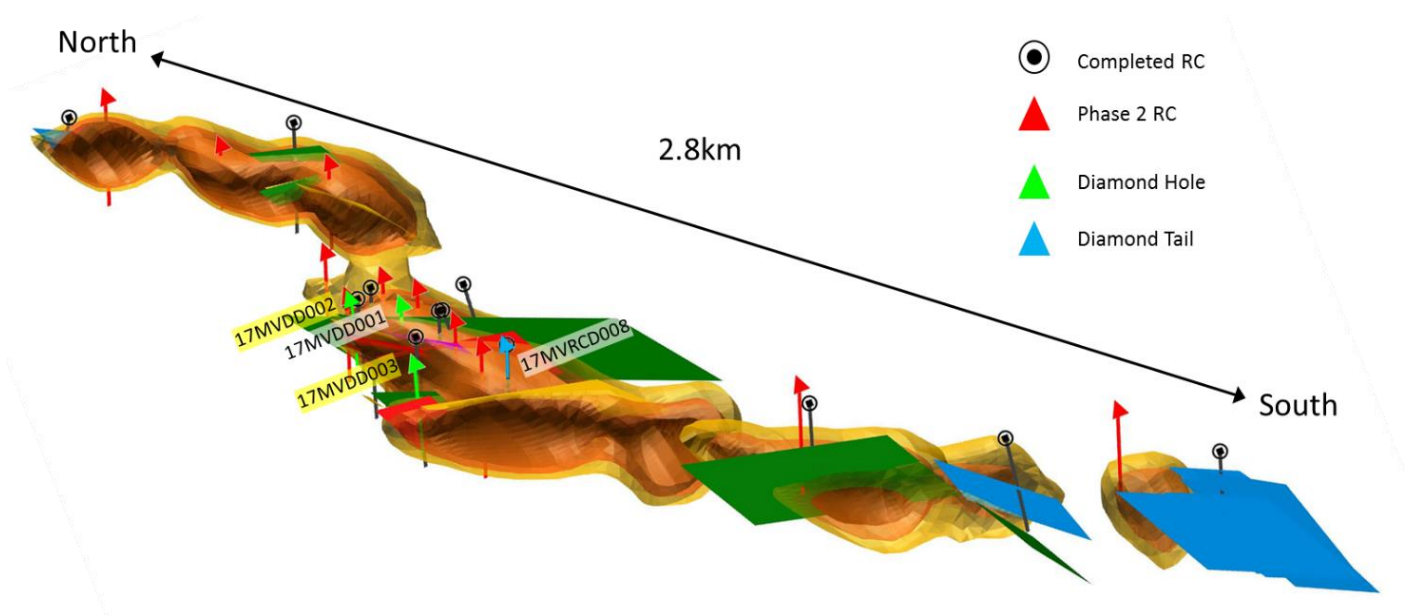
17MVDD003 – Western copper zone with interstitial chalcopyrite and pyrrhotite within very coarse-grained gabbro (108m)



17MVDD002 – Stringer chalcopyrite and pyrrhotite mineralisation (109m)



Drill hole location map over magnetic image, showing magnetic inversion model and DHEM conductor plates. Yellow labels represent recently completed diamond holes and green label represents diamond drilling in progress



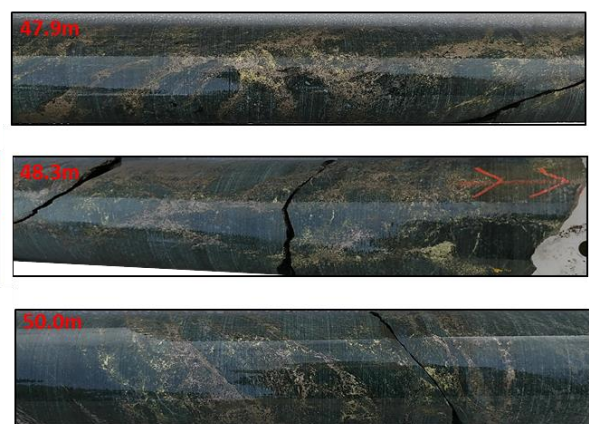
3D magnetic inversion model of the central mineralised zone and DHEM conductor plates, with planned and completed drilling

17MVDD002 was designed as a wide diameter HQ diamond core metallurgical hole, drilled from surface and planned to intersect the same wide copper and nickel-cobalt zones previously intersected in RC drilling.

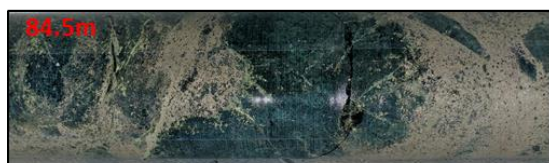
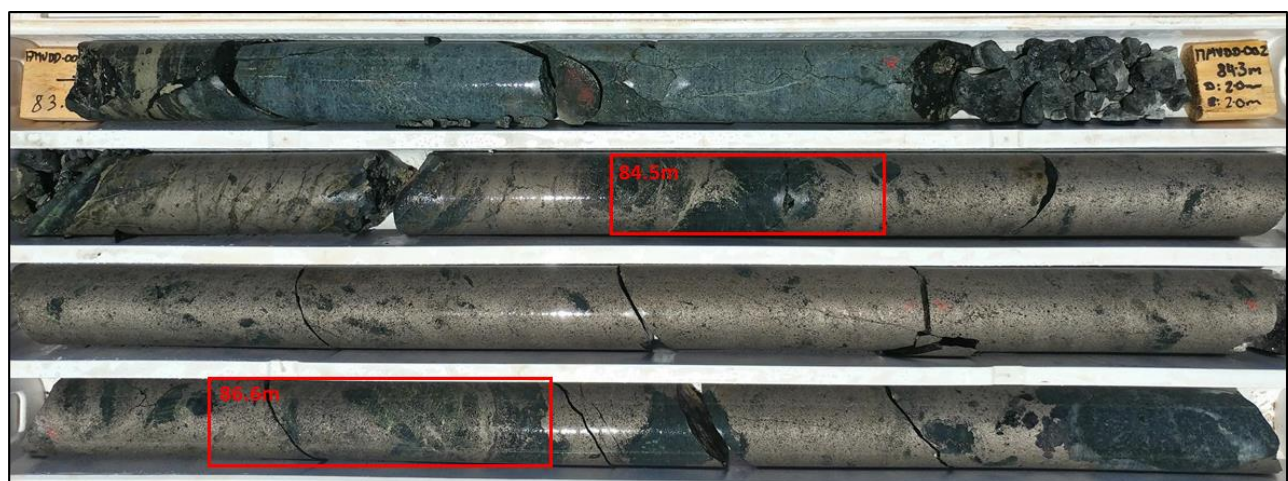
Zones of massive pyrrhotite, associated with the nickel-cobalt mineralisation, were intersected over very wide intervals. Chalcopyrite texture is typically stringer, blebby and disseminated within the pyrrhotite but more concentrated around the margins of the pyrrhotite or within structures.

Mineralisation extends from 16m to 119m but is more intense as massive to semi-massive sulphides over 4-5 zones totalling 70m downhole.

Once the core is processed and assayed, zones of copper, nickel-cobalt and mixed mineralisation will be composited and sent for sighter metallurgical test work.



17MVDD002 (45.7m-52.5m) – Semi-massive and stringer pyrrhotite and chalcopyrite in meta-dolerite



17MVDD002 (83.6-87.1m) – Stringer and heavily disseminated chalcopyrite at the margins of massive pyrrhotite

Diamond hole 17MVDD003 was drilled from surface, 60m south-west of RC hole 17MVRC001, which previously returned the highest copper grades up to 4.3% from a separate western mineralised zone (ASX release dated 13 November, 2017).

Sulphide mineralisation commences at 14m downhole with more intense mineralisation coming in at 66m downhole, coincident with an upper DHEM conductor plate. A second zone of strong sulphide mineralisation starts at approximately 98m downhole, coincident with a second DHEM conductor plate.

Mineralisation appears more net-textured and semi-massive sulphide in 17MVDD003, with less massive pyrrhotite than in previous holes, but contains a higher proportion of copper bearing chalcopyrite.



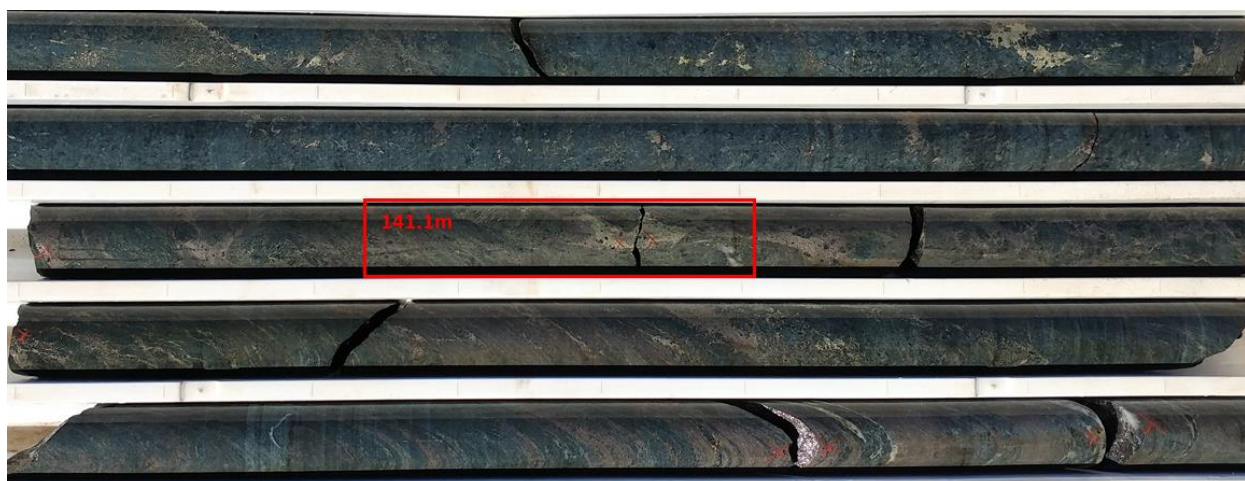
The modelled DHEM plates continue to show a close correlation with mineralisation and will provide further confidence in step out drilling, testing the strike and depth extensions to mineralisation.



Top: 17MVDD003 (97.5m) – Band of massive pyrrhotite and chalcopyrite

Above Left: 17MVDD003 (119-121m) – Net textured pyrrhotite and blebby, interstitial chalcopyrite within a coarse-grained amphibole-feldspar dolerite

Above Right: 17MVDD003 (131m) – Semi-massive and stringer chalcopyrite and pyrrhotite



17MVDD003 (139.2-143.5m) –Semi-massive, blebby and stringer chalcopyrite and pyrrhotite

Appendix 1 –Drill hole collar location

Hole ID	Easting	Northing	Azimuth	Dip	EoH (m)
17MVDD002	550320	6887660	270	-60	123.3
17MVDD003	550280	6887460	260	-60	159.1

Appendix 2 –Summary of mineralised intersections

Hole ID	From	To	Interval (m)	Sulphide (%)
17MVDD002	16	38	22	40-70%
	45	72	27	40-70%
	84	87	3	60-90%
	92	98	6	10-40%
	107	119	12	10-40%

Hole ID	From	To	Interval (m)	Sulphide (%)
17MVDD003	66	82	16	30-40%
	82	98	16	5-10%
	98	143	45	5-40%

Competent Person's Statement

Exploration information in this Announcement is based upon work undertaken by Mr 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 an employee 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.

Mt Venn Background

Great Boulder's Yamarna Project hosts the Mt Venn igneous complex, where recent drilling established the presence of a mineralised magmatic sulphide system.

In late 2015 Gold Road drilled and assayed an RC drill hole on the edge of an EM anomaly identified from an airborne XTEM survey, identifying copper-nickel-cobalt mineralisation. Great Boulder subsequently re-assayed the hole and confirmed primary bedrock sulphide mineralisation, with peak assay results of 1.7% Cu, 0.2% Ni, 528ppm Co (over 1m intervals) over two distinct lenses.

Zone	From (m)	To (m)	Interval (m)	Cu (%)	Ni (%)	Co (ppm)
Upper	67	73	6	0.54	0.08	244
<i>including</i>			1	1.53	0.12	341
Lower	85	88	3	0.85	0.12	360
<i>including</i>			1	1.71	0.07	235

Great Boulder completed a ground based moving loop EM survey in September 2017 and reported extensive strong EM conductors and co-incident copper-nickel mineralisation from aircore geochemistry (refer to announcement dated 5 October 2017 - [link](#)).

The conductors extend over the 7.5km-long survey area of the Mt Venn intrusion and show a strong late-time response indicative of a bedrock source. Aircore drilling also identified sulphide mineralisation and no carbonaceous or graphitic shales have been encountered along the main conductor trend.

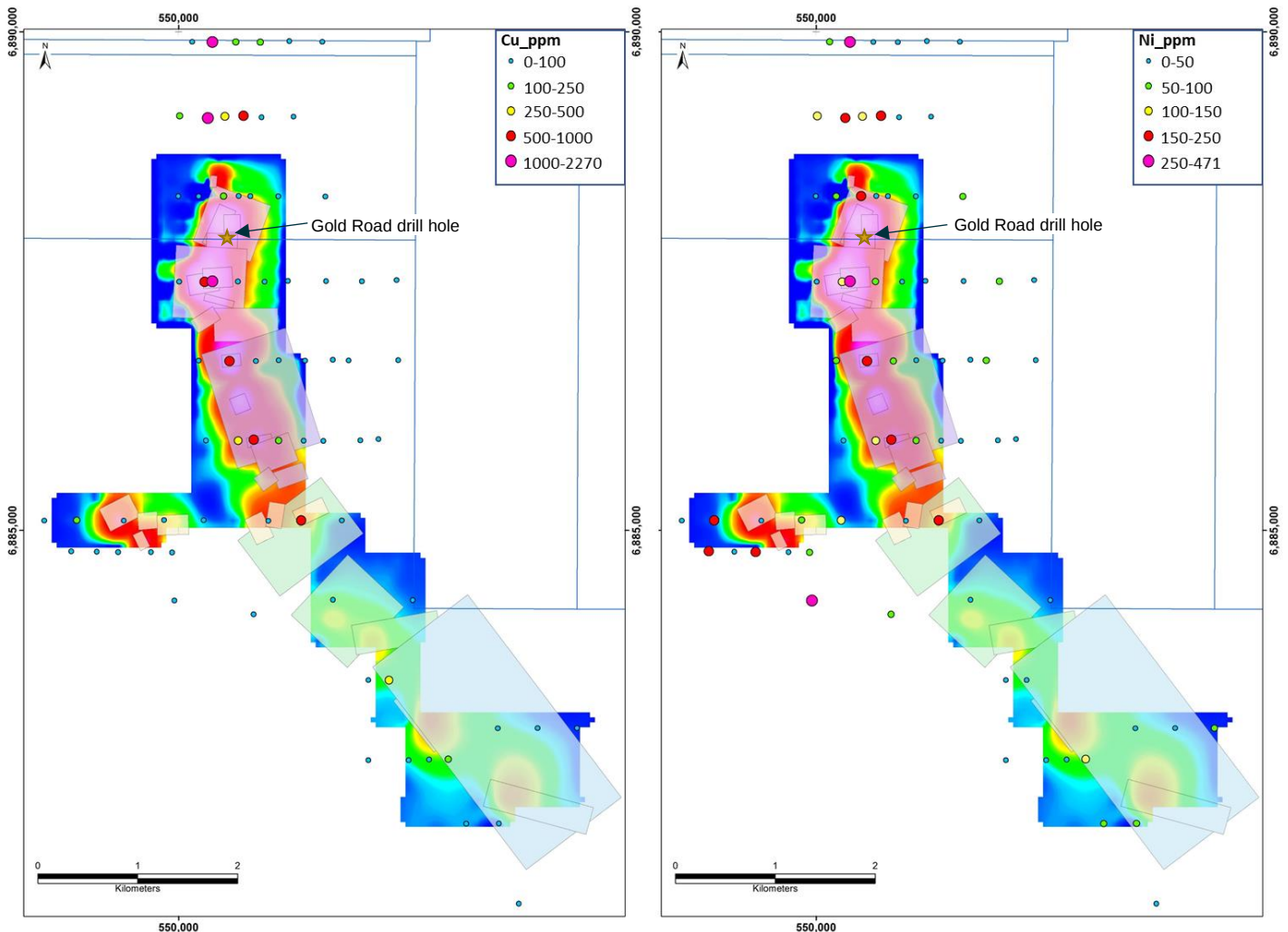
EM plate modelling in the northern survey areas show a series of stacked, near surface conductors along a 3.6km strike length immediately north of an interpreted east-west striking fault. Assay results from this area show a strong correlation between the EM response and copper, nickel and cobalt in the end-of-hole geochemistry.

Aircore drilling defined a very discrete copper-nickel-cobalt bedrock trend (end of hole) associated with the peak conductor trend in the northern area. The geochemical anomaly extends a further 1.2km north of the survey area where some of the strongest copper results, and associated zinc, lead and silver were returned.

In the southern area, the paleochannel cover was extensive and up to 120m deep in places. The ground-based EM was able to penetrate the paleochannel sediments and identify late-time bedrock conductors. The modelled conductor plates are much deeper than the northern area, with assay results still showing a copper-nickel trend but much more moderate than the north.

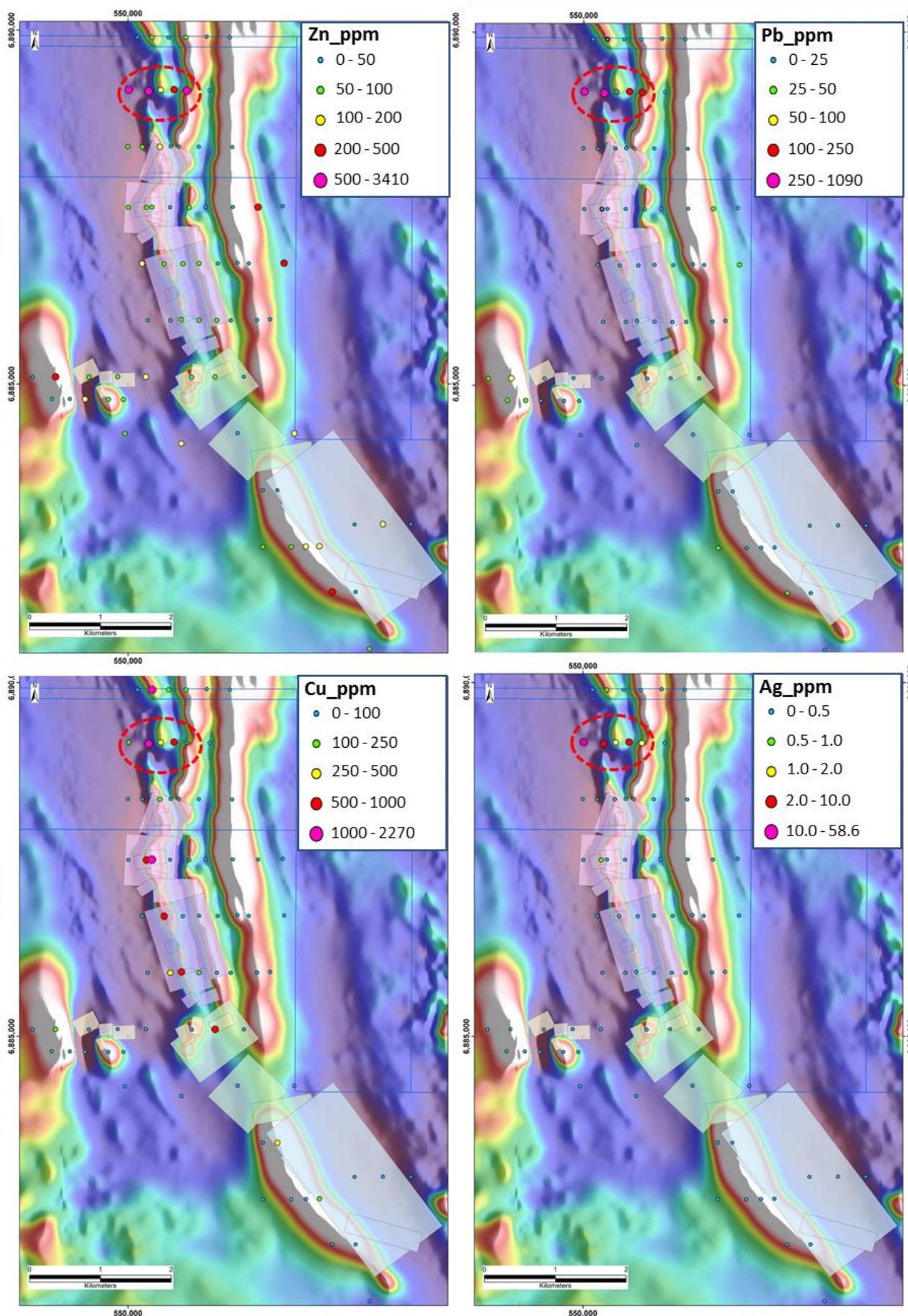
The average depth to top of conductor in the northern area is 30-50m, whereas the southern conductors beneath the paleochannel sediments are modelled at ~150m below surface.

The northern survey area exhibits a very strong correlation between the modelled conductors and copper-nickel in the aircore geochemistry results. This strong EM-geochemical association provides further evidence that the EM response is associated with bedrock sulphide mineralisation, consistent with the previously reported Gold Road drill hole that intersected massive and semi-massive sulphides with up to 1.7% Copper.



End of hole copper (LHS) and nickel (RHS) grades shown over Channel 30 EM response. Note the EM survey does not cover the northern extension of the Cu-Ni anomaly

In addition to the primary copper-nickel trend, there is a unique multi-element anomaly north of the EM survey area that is particularly anomalous in zinc, lead and silver. The EM survey was not extended to this area, primarily as the XTEM data showed it to be relatively dead. Figure 5 below shows the coincident zinc-lead-silver trend along with copper.



End of hole zinc, lead, silver and copper on RTP magnetic image and modelled EM plates. Red circle highlights discrete zinc-lead-silver anomaly

Appendix- JORC Code, 2012 Edition Table 1

The following table relates to activities undertaken at Great Boulder's Tarmoola projects.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	This announcement, and table, reports preliminary visual mineralisation logging from drilling Diamond drilling (DD) at the Mt Venn project. Drilling is still underway. The diamond core has yet to be sampled and geological logging is ongoing. Great Boulder (GBR or "the Company") has currently completed 5 diamond drill holes (3 from surface, 2 as tails to RC holes) for 581.4m of diamond drilling at the Mt Venn project. Drilling has utilized both NQ2 and HQ sizes. Previous drilling by the Company included RC drilling of 20 holes for 3,065m. The sampling techniques used are deemed appropriate for the style of exploration.
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Diamond drilling comprises NQ2 and HQ sizes. Diamond core orientation is determined using a Relfex ACT II RD tool. The core is reconstructed into continuous runs on an angle iron cradle for orientation marking.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to</i>	Logging of all samples followed established company procedures which included recording of qualitative fields to allow discernment of sample reliability. This included (but was not limited to) recording: sample condition, sample recovery, sample method. While the drilling programme is still on going, no issues relating to core recovery have been noted.

	<i>preferential loss/gain of fine/coarse material.</i>	No quantitative analysis of samples weights, sample condition or recovery has been undertaken. No quantitative twinned drilling analysis has been undertaken at the project.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	Geological logging of samples followed established company and industry common procedures. Qualitative logging of samples included (but was not limited to) lithology, mineralogy, alteration and weathering.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Drilling and geological logging is still ongoing, and as yet, no samples have been sent for assay. Sample collection, size and analytical methods are deemed appropriate for the style of exploration.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether</i>	No new assay results are presented in this announcement. Drilling and geological logging is still ongoing, and as yet, no samples have been sent for assay.

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	<i>acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	No verification of sampling and assaying has been undertaken in this exploration programme. No new assay results are presented in this announcement. Drilling and geological logging is still ongoing, and as yet, no samples have been sent for assay. Great Boulder has strict procedures for data capture, flow and data storage, and validation.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	Drill collars were set out using a hand held GPS and final collar pickups were collected using a handheld GPS. Downhole surveys were completed by the drilling contractors. The MGA94 UTM zone 51 coordinate system was used for all undertakings.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i>	The spacing and location of the majority of the drilling in the projects is, by the nature of early exploration, variable. The spacing and location of data is currently only being considered for exploration purposes.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Drilling was nominally perpendicular to regional mineralisation trends where interpreted and practical. True width and orientation of intersected mineralisation is currently unknown. A list of the drillholes and orientations are reported with significant intercepts is provided as an appended table. The spacing and location of the data is currently only being considered for exploration purposes.
Sample security	<i>The measures taken to ensure sample security.</i>	Great Boulder has strict chain of custody procedures that are adhered to for drill samples.

Audits or reviews	The results of any audits or reviews of sampling techniques and data.	None completed.
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Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	- Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. - The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	Great Boulder Resource Ltd (GBR) is comprised of several projects with associated tenements; Yamarna tenements and details; Exploration licences E38/2685, E38/2952, E38/2953, E38/5957, E38/2958, E38/2320 and prospecting licence P38/4178 where, GBR has executed a JV agreement to earn 75% interest through exploration expenditure of \$2,000,000 AUD over five years. Following satisfaction of the minimum expenditure commitment by GBR, EGMC (current tenement owner) will have the right to contribute to expenditure in the project at its 25% interest level or choose to convert to a 2% Net Smelter Royalty (NSR). Should EGMC choose to convert its remaining interest into a 2% NSR, then GBR will have a 100% interest in the project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous explorers included: 1990's. Kilkenny Gold NL completed wide-spaced, shallow, RAB drilling over a limited area. Gold assay only. 2008. Elecktra Mines Ltd (now Gold Road Resources Ltd) completed two shallow RC holes targeting extension to Mt Venn igneous complex. XRF analysis only, no geochemical analysis completed. 2011. Crusader Resources Ltd completed broad-spaced aircore drilling targeting extensions to Thatcher's Soak uranium mineralisation. XRF analysis only, no geochemical analysis completed. - In late 2015 Gold Road drilled and assayed an RC drill hole on the edge of an EM anomaly identified from an airborne XTEM survey, identifying copper-nickel-cobalt mineralisation.
Geology	Deposit type, geological setting and style of mineralisation.	Great Boulder's Yamarna Project hosts the southern extension of the Mt Venn igneous complex. This complex is immediately west of the Yamarna greenstone belt. The mineralisation encountered in the Mt Venn drilling suggests that sulphide mineralisation is prominent along a EM conductor trend, and shows a

		highly sulphur-saturated system within metamorphosed dolerite and gabbro sequence.
		Visual logging of sulphide mineralogy shows pyrrhotite dominant with chalcopyrite.
Drill hole Information	- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length. - If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	A complete list of the reported significant results from Great Boulder's drilling is provided in the body of the report. A list of the drillhole coordinates, orientations and metrics are provided as an appended table.
Data aggregation methods	- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. - Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. - The assumptions used for any reporting of metal equivalent values should be clearly stated.	No weight averaging techniques, aggregation methods or grade truncations were applied to these exploration results. All significant intercept lengths were from diamond drilling. No length weighting was applied. No metal equivalents are used.
Relationship between mineralisation widths and intercept lengths	- These relationships are particularly important in the reporting of Exploration Results. - If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. - If it is not known and only the down hole lengths are reported, there should be a	The orientation of structures and mineralisation is not known with certainty but drilling was conducted using appropriate orientations for interpreted mineralisation. True width and orientation of intersected mineralisation is currently unknown. A list of the drillholes and orientations are reported with significant intercepts is provided as an appended table.

	<i>clear statement to this effect (eg 'down hole length, true width not known').</i>	
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to figures in announcement.
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	It is not practical to report all exploration results. Low or non-material grades have not been reported. All drill hole locations are reported and a table of significant intervals is provided in the announcement.
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	In late 2015 Gold Road drilled and assayed an RC drill hole on the edge of an EM anomaly identified from an airborne XTEM survey, identifying copper-nickel-cobalt mineralisation. Great Boulder subsequently re-assayed the hole and confirmed primary bedrock sulphide mineralisation, with peak assay results of 1.7% Cu, 0.2% Ni, 528ppm Co (over 1m intervals) over two distinct lenses. Great Boulder completed a ground based moving loop EM survey in September 2017 and reported extensive strong EM conductors and co-incident copper-nickel mineralisation from aircore geochemistry (refer to announcement dated 5 October 2017). Great Boulder has also recently undertaken RC exploratory drilling with down hole EM surveys (refer to announcement data 27 November 2017).
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Potential work across the project may include detailed additional geological mapping and surface sampling, additional geophysical surveys (either surface or downhole), and potentially additional confirmatory or exploratory drilling.