Great Boulder
RESOURCES LIMITED

Drilling hits massive sulphide mineralisation at the Eastern Mafic complex

Nickel and copper sulphides intersected; Assays pending

Highlights

- **RC and diamond drilling confirm bedrock sulphides as the source of EM conductors at the Eastern Mafic complex, within the Mt Venn Project**
- **Wide zones of massive sulphide mineralisation intersected within the core of the intrusion and along interpreted feeder structures**
- **Mineralisation intersected over 5km in strike length, confirming the Eastern Mafic is a substantial magmatic sulphide system**
- **Mineralisation is pyrrhotite dominant with pyrite, chalcopyrite (copper sulphide) and pentlandite (nickel sulphide)**
    - **Pentlandite mineralisation supports Great Boulder's view that the Eastern Mafic is a more nickel rich part of the larger Mt Venn system**

Great Boulder Resources (**ASX: GBR**) is pleased to announce the initial drill holes at the Eastern Mafic complex, located 130km east from Laverton in WA, have intersected extensive sulphide mineralisation.

Drilling has established that sulphides are the source of the extensive EM conductors drilled to date within a significant package of mafic and ultramafic intrusive rocks. No sedimentary or other rock types that may give spurious EM results have been intersected.

A total of 15 RC, diamond and RC pre-collars have been drilled to date, with significant zones of sulphide mineralisation intersected at anomalies ML5, 9, 12, 15, and 16.

At anomaly ML12, located at the intersection of the feeder structure and main intrusion, massive sulphide mineralisation has been intersected over 200m of strike length and remains open in all directions.

Modelled moving loop conductor plates indicate +400m of potential strike length, with further drilling planned to test the mineralised extensions.

Drilling at Anomaly ML15, located 5km south of ML12 and along the interpreted conduit or feeder structure, intersected shallow massive sulphide mineralisation.

Sulphide mineralogy intersected at anomalies ML15 and ML12 is pyrrhotite dominant with accessory pyrite (iron sulphide), chalcopyrite (copper sulphide) and pentlandite (nickel sulphide), providing the first evidence of more nickel rich sulphide mineralisation at the Eastern Mafic mafic.

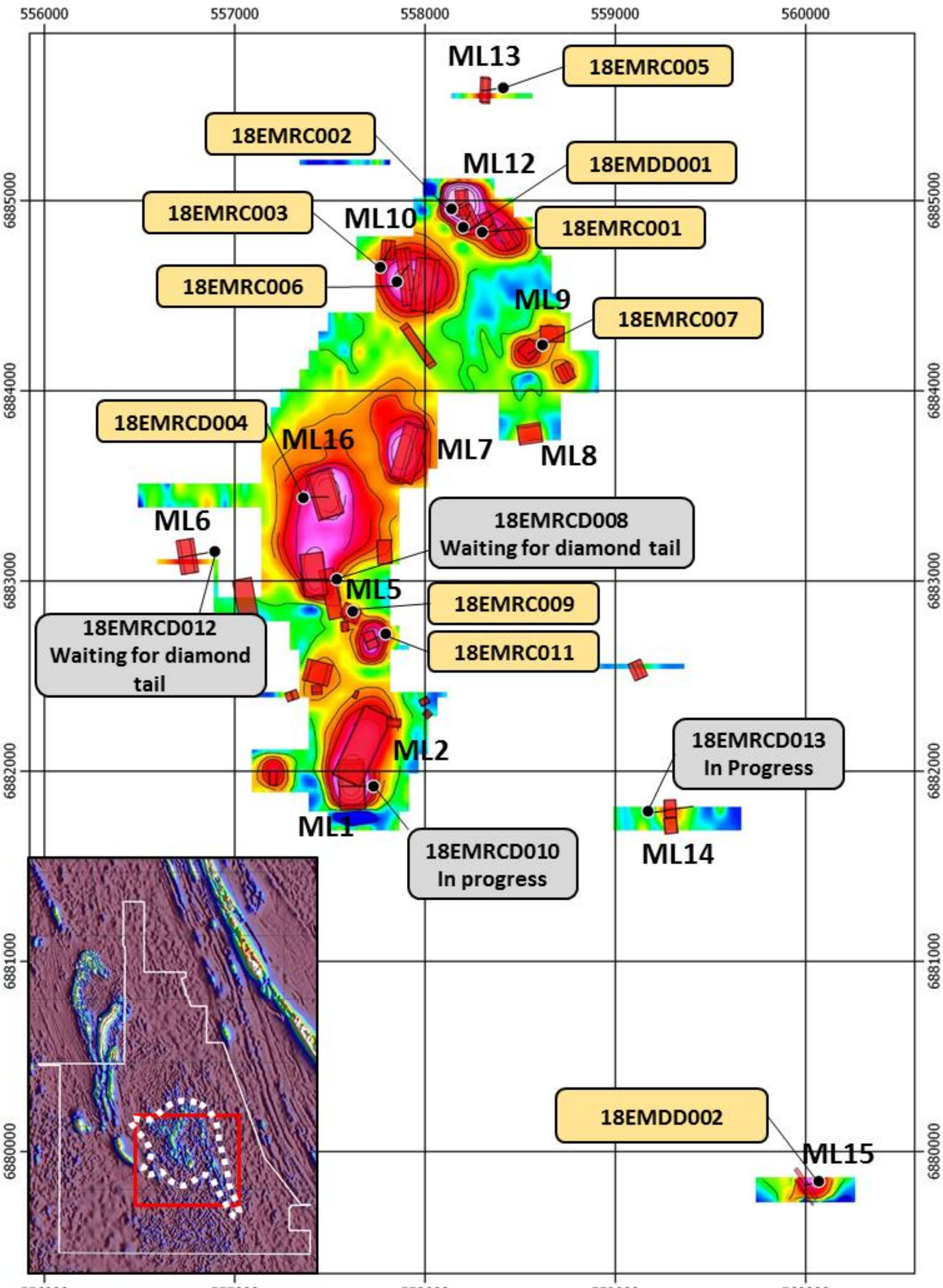


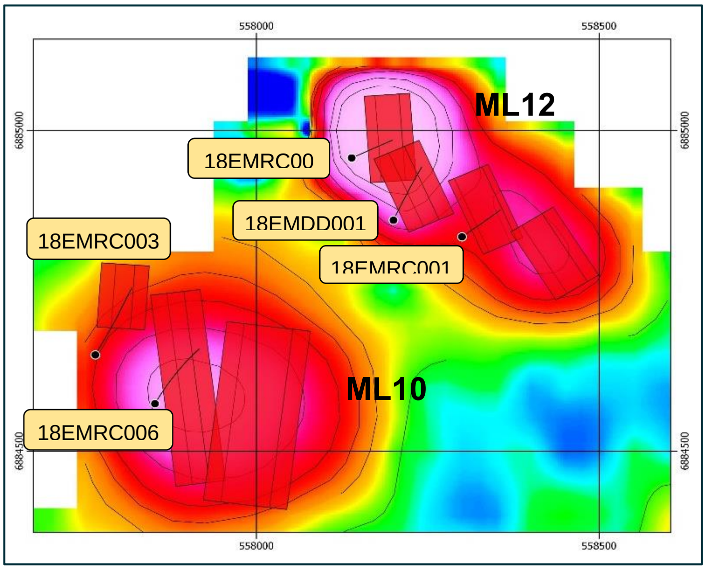
Figure 1: MLEM late time (Ch. 35) showing modelled conductor plates and drill hole collar location

	From	To	Interval	Sulphide (%)	Anomaly	Sulphide Texture
18EMRC001	115.0	135.0	20.0	30-50%	**ML12**	Matrix - Massive
	142.0	147.0	5.0	30-70%		Semi-massive - Massive
18EMRC002	73.0	81.0	8.0	30-60%		Semi-massive - Massive
	87.0	93.0	6.0	20-40%		Matrix – Semi-massive
18EMDD001	153.0	187.5	34.5	5-30%		Disseminated – Semi-massive
18EMDD002	92.0	112.9	20.9	5-15%	**ML15**	Disseminated – Matrix
	112.9	121.3	8.4	10-30%		Blebby- Semi-massive
	128.0	129.5	1.5	40-70%		Massive
18EMRCD004	83.0	87.0	4.0	3-8%	**ML16**	Disseminated – Blebby
	106.3	110.9	4.6	5-15%		Disseminated – Matrix
18EMRC006	216.0	223.0	7.0	10-15%	**ML10**	Disseminated and Vein
18EMRC009	86.0	96.0	10.0	5-15%	**ML5**	Disseminated – Matrix
	128.0	131.0	3.0	5-15%		Disseminated – Matrix

Table 1: Summary of mineralised intersections

18EMDD001: Pyrrhotite, chalcopyrite +/- pyrite mineralisation

18EMDD001: Pyrrhotite, pyrite, +/- chalcopyrite mineralisation



Anomalies ML12 and ML9 with late time (Ch. 35) MLEM, modelled conductor plates and drill hole location

Anomalies ML12 and ML9 are located at the intersection of the feeder structure and the main body of the intrusion. These targets were also located in close proximity to nickel and copper aircore geochemistry anomalies and host some of the strongest EM conductors.

Drilling of conductors in ML12 has proven relatively accurate, with wide zones of massive to semi-massive mineralisation intersected, consistent with the modelled plates. Over 200m of strike has been defined so far with further drilling scheduled to the south-east to test modelled strike extensions. Down hole EM (DHEM) is also scheduled to commence shortly to define the conductor locations.

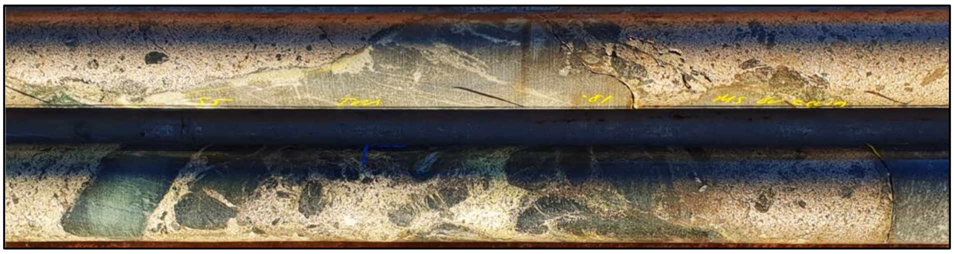
Anomaly ML10 has been tested with two RC holes, intersecting mafic-ultramafic rocks with disseminated and vein sulphide. The sulphide accumulation intersected so far in ML9 is not considered sufficient to generate the strong conductor response, therefore DHEM is now being planned on holes 18EMRC003 and 006 to locate the core of the conductor for follow-up drilling during this program

Anomaly ML16 represents a very large, strong conductor and was tested with an RC pre-collar and diamond tail down to 273m to get structural information. The hole intersected mostly disseminated and vein sulphide and a series of highly altered shear zones.

Structural logging of the drill core indicates the hole was drilled down-dip of the mafic-ultra mafic stratigraphy, missing the conductor. Re-modelling of the EM conductor plate using the drill hole information supports this interpretation and a new drill hole has been planned to intersect the revised conductor plate.

The EM response at Anomaly ML9 is complex with three different orientated conductor plates used to model the response. Hole 18EMRC007 was drilled to test one of these conductors but intersected mostly granite with no sulphide mineralisation to explain the strong EM response.

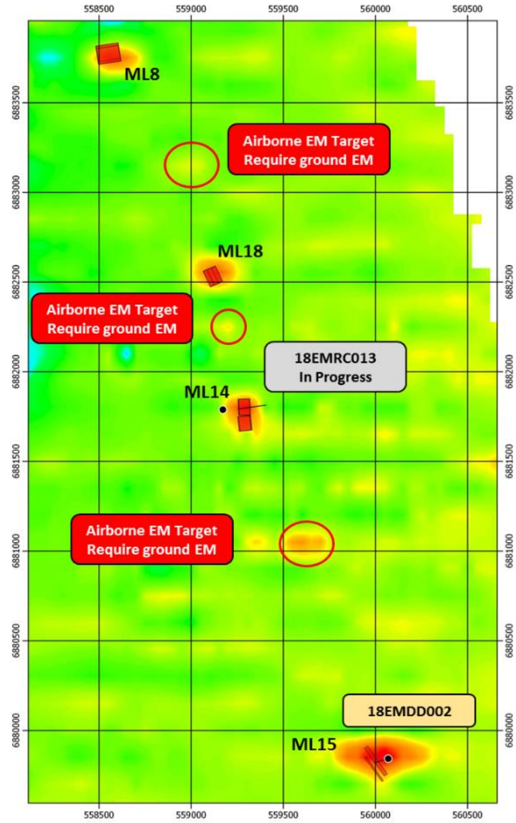
The conductor plate has now been remodeled using the drill hole information which suggests the hole was drilled to the south of a series of stacked conductor plates. A new drill hole has been designed to intersect these revised plates and will be completed in this program.



18EMDD002: 118-120m Pyrrhotite, chalcopyrite, +/- pyrite

18EMDD002: 118m Pyrrhotite, chalcopyrite, +/- pyrite

18EMDD002: Pyrrhotite, chalcopyrite, +/- pyrite mineralisation



Conductor plate modelling at Anomaly ML15 showed a complex response, therefore a diamond hole was drilled from surface to gain structural and textural information. Importantly, ML15 is the southernmost conductor, approximately 5km south of ML12 and located within an interpreted feeder structure into the Eastern Mafic complex.

Significant sulphide mineralisation was intersected over a 34m interval. The mineralisation is pyrrhotite-dominant with pyrite, chalcopyrite and pentlandite in varying amounts. The drill core shows the interaction of the silicate country rock with the sulphide and in parts is highly sheared, showing a high strain environment has existed and may have remobilized some of the sulphide.

Anomaly ML14 is located 2km north along the same feeder structure and is currently being drilled. ML 18 is a further 750m north and ML8 is 2km north of ML14, located close to the intersection with the Eastern Mafic body. In light of the results from drill hole 18EMDD002, these targets are being prioritised for drilling in this program and will also be assessed with DHEM.

Several discrete airborne EM anomalies along the feeder structure are yet to be assessed by ground EM to generate conductor plates. Given the discovery of massive sulphides within the feeder at ML15, further ground EM will be undertaken over these airborne anomalies.

Great Boulder will also assess further south, where the feeder zone extends for over 4km south of the airborne survey to its tenement boundary, where no base metal exploration has been undertaken to date.

Great Boulder will shortly move the diamond and RC drill rigs back to Mt Venn while assays are pending and the DHEM survey is completed to better define the conductor plates. Once assay and DHEM results are received, drilling will resume at the Eastern Mafic.

Appendix 1 – Drill hole collar location

HoleID	Drill Type	Easting	Northing	AZI	DIP	Total Depth
18EMRC001	RC	558300	6884834	48	-66	190
18EMRC002	RC	558139	6884957	58	-60	140
18EMRC003	RC	557765	6884650	28	-60	240
18EMRCD004	RCD	557360	6883437	79	-60	273.7
18EMRC005	RC	558411	6885593	263	-60	240
18EMRC006	RC	557852	6884574	28	-60	276
18EMRC007	RC	558617	6884241	233	-64	216
18EMRCD008	RCD	557536	6883009	270	-60	380
18EMRC009	RC	557620	6882840		-90	198
18EMRCD010	RCD	557729	6881920	268	-60	340
18EMRC011	RC	557793	6882722	246	-60	230
18EMRCD012	RCD	556895	6883155	258	-60	380
18EMRC013	RC	559172	6881789	262	-60	315
18EMDD001	DD	558200	6884860	25	-62	198.8
18EMDD002	DD	560069	6879843	251	-61	161

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.

Appendix- JORC Code, 2012 Edition Table 1

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

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	This announcement, and table, reports preliminary mineralisation logging from the July 2018 Diamond drilling (DD) programme at Great Boulder Resources (GBR) Eastern Mafic prospect, part of the Mt Venn project (Yamarna) 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 9 RC drill holes, 4 RC pre-collars, 2 diamond tails and 2 diamond holes from surface. Drilling has utilized both NQ2 and HQ sizes. The drill holes were designed based on aircore geochemistry results and a moving loop EM survey previously reported. The sampling techniques used are deemed appropriate for the style of exploration.
Drilling techniques	• *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).*	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	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to*	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.

	preferential loss/gain of fine/coarse material.	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	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	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	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Drilling and geological logging is still ongoing. Sample collection, size and analytical methods are deemed appropriate for the style of exploration.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether*	No new assay results are presented in this announcement. Drilling and geological logging is still ongoing.

	acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	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. Great Boulder has strict procedures for data capture, flow and data storage, and validation.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Drill collars were set out using a hand held GPS and final collar were collected using a handheld GPS. Downhole surveys were completed by the drilling contractors. Holes without downhole survey use planned or compass bearing/dip measurements for survey control. The MGA94 UTM zone 51 coordinate system was used for all undertakings.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	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	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	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	• *The measures taken to ensure sample security.*	Great Boulder has strict chain of custody procedures that are adhered to for drill samples. All sample bags are pre-printed and pre-numbered. Sample bags are placed in a polyweave bags (up to 5 samples) and closed with a zip tie such that no sample

		material can spill out and no one can tamper with the sample once it leaves the company's custody.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	None completed.

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 anlaysis 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.*	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.

	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	A list of the drillholes and orientations are reported with significant intercepts is provided as an appended table.
Diagrams	• *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.*	Refer to figures in announcement.
Balanced reporting	• *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.*	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	• *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.*	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 and DD exploratory drilling with down hole EM surveys.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	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.