

# ASX ANNOUNCEMENT

## Big Red Petrology Identifies Nickel Sulphides

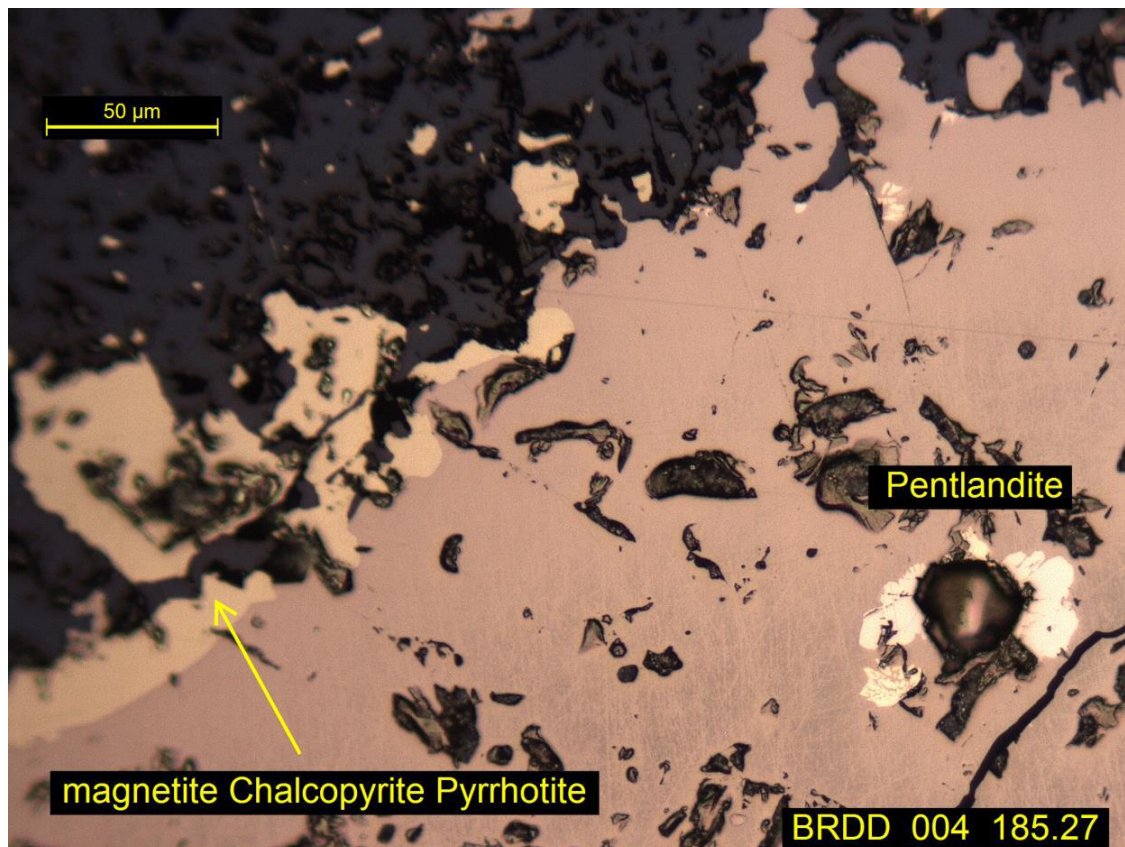
18<sup>th</sup> March 2015

### Highlights

- Nickel (pentlandite) and Copper (chalcopyrite) sulphides confirmed in Fraser Range Gabbro
- Intersecting Ni-Cu sulphides in Fraser Range gabbro is significant as it can host magmatic Ni-Cu massive sulphide deposits
- Petrology confirms mineralogy for potential feeder structures
- Multiple Off Hole conductors identified, highly conductive up to 8000 siemens, are now first order massive sulphide targets
- Technical preparation for the next phase of drilling in 2015 continuing

Rumble Resources Ltd ("Rumble" or "the Company") is pleased to provide an update on Rumble's Big Red Project, Fraser Range which is located 450 kilometres east of Kalgoorlie in the Fraser Range Western Australia.

Detailed petrographic analysis of samples collected from the recent diamond drill program has confirmed the presence of magmatic sulphides. **Nickel (pentlandite) and Copper (chalcopyrite) sulphides in association with pyrrhotite and magnetite are present within Fraser Range gabbro.**



**Figure 1** Nickel (pentlandite) and Copper (chalcopyrite) Sulphides in Pyrrhotite at Big Red



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Mr Matthew Banks  
Non-executive Director

Mr Michael Smith  
Non-executive Director

Mr Bruno Seneque  
Company Secretary



Rumble completed a maiden drill program in December 2014 to test a 2km EM conductor outlined by a high powered ground EM survey. Logging and assaying confirmed broad zones of disseminated mineralised sulphide within gabbros of the Fraser Range Complex. These sulphide zones are of considerable widths and indicate this large conductor to be a significant mineralised system. The sulphides zones are anomalous in **copper, nickel and cobalt** (See asx announcement 28<sup>th</sup> January 2015).

Petrology recently received has outlined the main rock units to be high grade metamorphic products of basic igneous rocks and also metasediments. The metasediments are biotite plagioclase quartzite and also apatite magnetite gneiss which both show evidence of significant rare earth hydrothermal activity that may be related to their proximity to the adjacent gabbro units.

The gabbro is predominantly a pyroxene, plagioclase, garnet hornblende, granulite with symplectite structures (figure 3) which are usually found in slowly cooled gabbros. The sulphides in BRDD004 at 185.2m are dominantly pyrrhotite up to 0.5mm in contact with similar dimension magnetite. The pyrrhotite contains inclusions of chalcopyrite and very fine pentlandite, there is also coarser magnetite that is replete with fine inclusions of chalcopyrite and pyrrhotite.

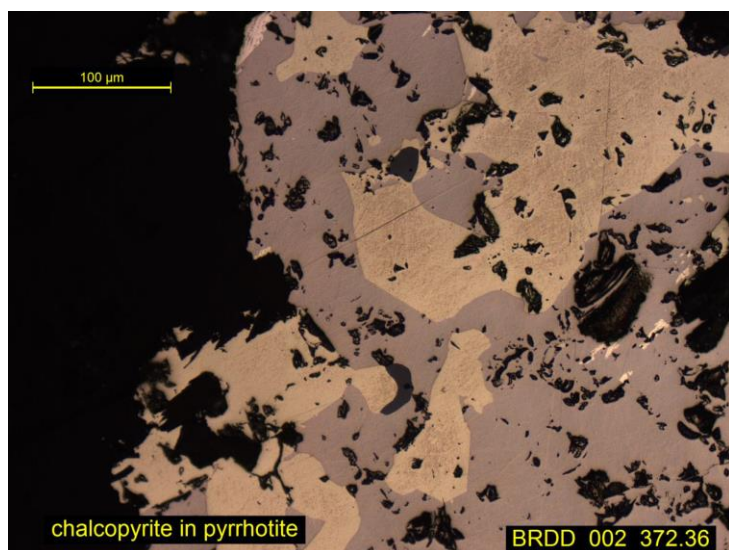


Figure 2 Chalcopyrite and pyrrhotite in Big Red gabbro

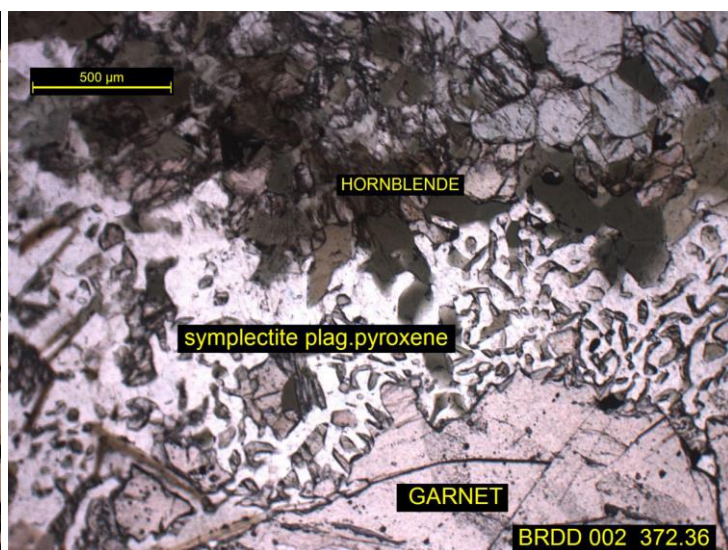


Figure 3 Symplectitic textures in Big Red gabbro

Following the drilling Rumble completed a Downhole EM Program which identified **2 highly conductive off hole conductors of 6000 to 8000 siemens which can be typical of massive sulphide accumulations**. It is noted that the petrology has not indicated any conductive units within the lower portion of hole BRDD003. Hole BRDD002, which is located 400m to the south, contains the mineralogy present in magmatic nickel copper feeder systems with sulphides of pyrrhotite, chalcopyrite pentlandite and also magnetite. **This now makes these off hole conductors first order targets in the company's exploration of the Fraser Range.**

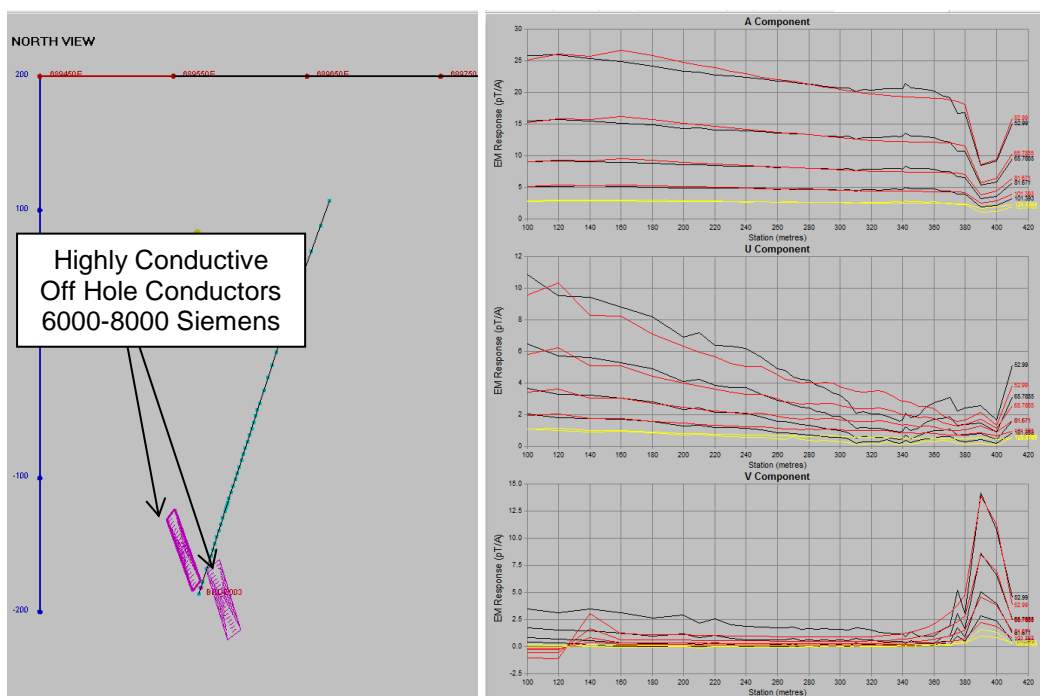


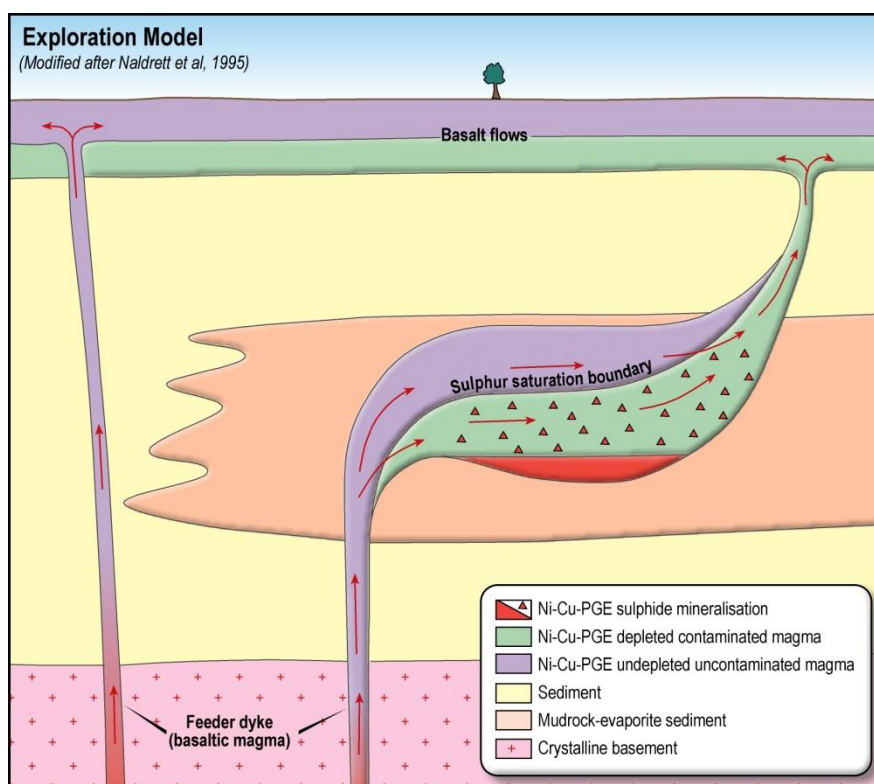
Figure 4 & 5. Model of 2 very high conductance off hole conductors up to 8000 siemens



## Exploration Model

The Company is exploring the Fraser Range in Western Australia for magmatic Nickel and Copper sulphides. These deposits have distinctive features, including massive sulphide zones that can be detected utilizing various EM methods to outline conductive bodies. The main targets are potential feeder structures (Figure 6) as outlined in this schematic cross section that is based on the Russian Norilsk nickel sulphide deposits (**the world's largest nickel sulphide deposit**). Exploration to date at Big Red has outlined the host gabbro, sulphide accumulations and also has very high conductive bodies outlined by DHEM that can be typical of massive sulphide accumulations.

Figure 6 is a stylised cross section indicating how basal magmatic Ni Cu PGE sulphides accumulate below a zone of more disseminated sulphides.



**Figure 6:** Schematic cross section through the Norilsk Ni-Cu-PGE deposits in Russia.

## Next Stage Exploration

Rumble will continue to analyse all the technical data before preparing the next phase of drilling in 2015. This will follow the upcoming program at Zanthus where rumble is drilling 5 bedrock conductors in an eye feature 20kms away from the world class Nova Bollinger deposit.

## CEO Comments

**Rumbles CEO, Mr Shane Sikora, said:** “confirmation of Nickel and Copper Sulphides in Fraser Range Gabbro is significant as it shows Big Red could host a magmatic Nickel Copper massive sulphide deposit. The 2 highly conductive off hole conductors in close proximity represent first order targets which are typical of massive sulphides accumulations. Rumble will continue to complete all the necessary technical work to prepare for the next stage of Big Red drilling in 2015”.

Shane Sikora  
CEO

- ENDS -

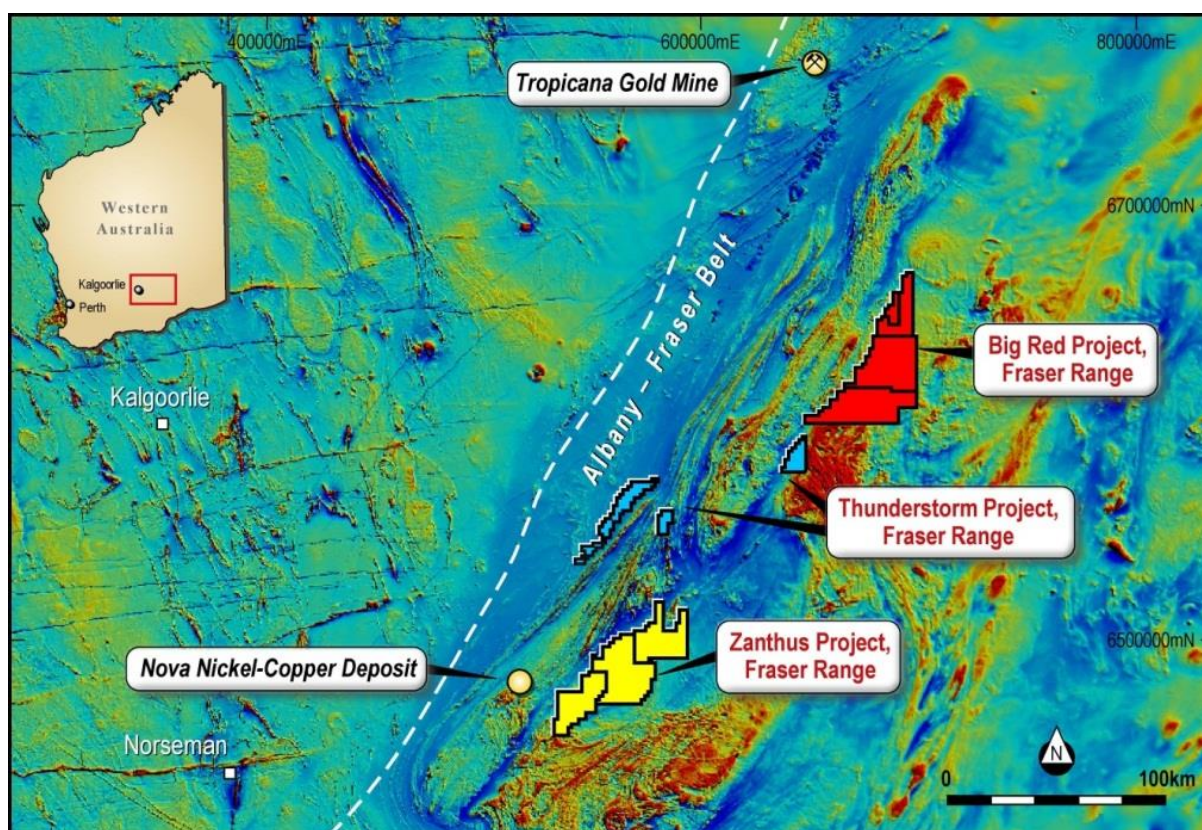
For further information visit [rumbleresources.com.au](http://rumbleresources.com.au) or contact [enquiries@rumbleresources.com.au](mailto:enquiries@rumbleresources.com.au).

## About Rumble Resources Ltd

Rumble Resources Ltd is an Australian based exploration company, officially admitted to the ASX on the 1st July 2011. Rumble was established with the aim of adding significant value to its current gold and base metal assets and will continue to look at mineral acquisition opportunities both in Australia and abroad.

## Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Terry Topping, who is a Member of the Australasian Institute of Mining & Metallurgy and the Australian Institute of Geoscientists. Mr Topping is a fulltime employee of Rumble Resources Limited and has sufficient experience 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". Mr Topping consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



**Figure 7** Rumbles Fraser Range Project Locations – Fraser Range

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li><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></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Mud Rotary (MR) drilling of Pre-collars to depths between 138.8m to 173.5m</li> <li>HQ and NQ2 Diamond drilling to the Bottom of Hole for four holes. Core collected ranges in length from 67.8m to 284.0m.</li> <li>Sampling of the Diamond core has been completed on 1m intervals through the main gabbro units and every 5m through the other intervals. One quarter of the core was then sent for analysis..</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Mud Rotary (MR) drilling of Pre-collars to depths between 138.8m to 173.5m</li> <li>HQ and NQ2 Diamond drilling to the Bottom of Hole for four holes. Core collected ranges in length from 67.8m to 284.0m.</li> <li>Diamond drilling and pre-collars undertaken by DDH1 Drilling, utilizing a multipurpose Sandvik 1200 drill rig and associated equipment.</li> <li>Diamond Core is oriented using an electronic reflex orientation tool at end of each run</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Diamond drilling recoveries are recorded by the drillers at the end of each drilling run and checked during logging by Rumbles field staff</li> </ul>
Logging	<ul style="list-style-type: none"> <li><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></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Diamond core has been geologically logged to a level of detail to be appropriate for mineral resource estimation.</li> <li>Logging of diamond core records lithology, mineralogy, mineralization, weathering, colour and other appropriate features.</li> <li>All logging is quantitative. All core trays photographed.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>All the diamond core (100%), totaling 880.1m has been orientated and geologically logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The core was cut on 1m intervals through zones of gabbro and 5m intervals through the rest of the hole. A quarter core sample was then sent for analysis.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometres, 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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were analysed using a 4 acid ICP method with appropriate quality control measures.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No verification sampling has been at present, further analysis of the core is ongoing.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collars were located by GPS. Expected accuracy is +/- 5m for northing and easting.</li> <li>The grid system is GDA94(MGA), zone 51</li> <li>The GPS is +/- 5m, and an estimated RL is used from the 1:250,000</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Individual hole collars are spaced 200-300m apart.</li> <li>1m and 5m samples have been collected to reflect the geology and style of mineralisation.</li> <li>There has been no compositing of the data.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• All core was oriented before sampling was completed.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Chain of custody is managed by Rumble Resources. Drill core is stored on site. Core is palletted and steel strapped, before being transported to Kalgoorlie and then to a laboratory in Perth.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews have been carried out at this stage</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling is located wholly within Exploration Licence E28/2268, which is 100% owned by Rumble.</li> <li>The Tenement is located on Vacant Crown Land</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The only previous exploration includes geophysical surveys by the GSWA and Teck Australia Pty.Ltd. Teck Australia completed two RC/Diamond holes during 2010.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Geological setting is the Albany Fraser Mobile Belt consisting of gneiss, mafic rocks including gabbro with significant garnet in the metamorphic rocks.</li> <li>The Company is exploring for magmatic hosted base metal mineralization.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>This information has been previously released to the ASX..</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>There was no weighting or averaging of the data..</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>All widths are at present thought to be true widths.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should</li> </ul>	<ul style="list-style-type: none"> <li>The results at this stage are preliminary and work is ongoing.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The results presented are preliminary and work is ongoing.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Previous ASX releases by Rumble Resources Limited have detailed aspects of previous work undertaken within the project area.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>At this stage, the geology and mineralization intersected is only broadly understood and requires further down hole geophysical surveying and interpretation, as well as further diamond drilling.</li> </ul>