

## Drilling to Target High Grade Gold Commences

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- **2016 first drill campaign of circa 2,000m Reverse Circulation and Diamond drilling now underway at Emmerson Resources Tennant Creek Project**
- **Drilling and exploration fully funded under the \$15m earn-in agreement with Evolution Mining**
- **First round of drilling to focus on extending “near mine” bonanza gold mineralisation and also test new green fields projects**
- **Successful application of a new tenement situated within the highly mineralised Warrego-White Devil- Orlando corridor**

Emmerson Resources Limited (“Emmerson”, ASX: ERM) and partner, Evolution Mining Limited (“Evolution”, EVN) are pleased to announce the early start to drilling following the Northern Territory wet season. This first drill campaign will focus on near mine targets at Edna Beryl west and Susan, plus a newly generated green fields project called Rhodes (fig 1).

Following the recent ASX announcement (March 2016) on the first underground drill holes at Edna Beryl that confirmed the extremely high grade nature of the mineralisation (3 pre development underground drill holes of **1.83m with grades of 139.7g/t, 309.5g/t and 93.4g/t gold**), this drilling is aimed at testing for extensions of this style of mineralisation along the Edna Beryl shear zone - both up plunge toward Edna Beryl and also at depth (Fig 2).

Likewise, the initial drilling at Susan will test immediately down plunge of some high grade historical drill holes (including **SSRB05 - 11m at 19.51g/t gold, SSRB04- 9m at 9.12g/t gold, SSRB07-10m at 14.26g/t gold**) (fig 3). A new geological interpretation and remodelling of the magnetic geophysics suggest untested potential, both below the historical Susan Mine and also some 350m deeper within the Susan syncline – this deeper target will likely be the subject of the next round of drilling.

In contrast, the Rhodes target has not seen any previous drilling and consists of testing a blind but subtle magnetic anomaly possibly representing a buried hematitic (with some residual magnetite) ironstone, above the Tennant Creek granite and within a major structural corridor.

Consistent with our strategy of consolidating highly prospective ground, Emmerson has recently been notified of its successful application to EL31249 – a strategic 120km<sup>2</sup> tenement that encompasses part of the highly mineralised Warrego-White Devil-Orlando-Gecko corridor (figure 1). We have already identified a

number of high calibre targets for drill testing that are based on geological and geophysical attributes that have a high correlation with the known deposits in this corridor.

Emmerson Managing Director, Mr Rob Bills commented, *our Tennant Creek Project remains a key focus for Emmerson where we have a strategy of quickly adding to our resource inventory. This first drill campaign has very significant implications to extending high grade gold mineralisation at both Susan and Edna Beryl. If successful, further drilling in campaign 2 will quickly follow (depending on drill rig availability), as will drilling on the new Exploration Licence (EL31249) once formally granted.*

*2016 is shaping up to be an exciting year for Emmerson as we work across the three strategic horizons of: a) application of new technology/ideas to discover/extend high grade gold-copper mineralisation within our Tennant Creek Project; b) accelerate our small mines initiative which aims to monetise existing resources and provide underground drill platforms for near mine exploration; c) in conjunction with our strategic alliance partner Kenex Limited(ASX March 2015), we are applying innovative targeting methodologies to identify new gold-copper projects in Australia – this initiative is all about increasing the success of discovery through using “big data” to pinpoint high quality epithermal gold-silver, porphyry copper-gold and iron oxide copper-gold projects. To date we have been successful in applying for three new projects in NSW but more on this later.”*

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**About Tennant Creek and Emmerson Resources**

The Tennant Creek Mineral Field (TCMF) is one of Australia's highest grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes of copper from a variety of deposits including Gecko, Orlando, Warrego, White Devil, Chariot and Golden Forty, all of which are within Emmerson Resources (ASX: ERM) exploration and joint venture portfolio. These deposits are considered to be highly valuable exploration targets and, utilising modern exploration techniques, Emmerson has been successful in discovering copper and gold mineralisation at Goanna and Monitor in late 2011, the first discoveries in the TCMF for over a decade. To date, Emmerson has only covered 5.5% of the total tenement package (in area) with these innovative exploration techniques and is confident that, with further exploration, more such discoveries will be made.

Emmerson holds 2,500km<sup>2</sup> of ground in the TCMF, owns the only gold mill in the region and holds a substantial geological database plus extensive infrastructure and equipment. Emmerson has consolidated 95% of the highly prospective TCMF where only 8% of the historical drilling has penetrated below 150m.

Emmerson is led by a board and management group of experienced Australian mining executives including former MIM and WMC mining executive Andrew McIlwain as non-executive chairman, and former senior BHP Billiton and WMC executive Rob Bills as Managing Director and CEO.

Pursuant to the Farm-in agreement entered into with Evolution Mining Limited (Evolution) on 11 June 2014, Evolution is continuing to sole fund exploration expenditure of \$15 million over three years to earn a 65% interest (Stage 1 Farm-in) in Emmerson's tenement holdings in the TCMF. An option to spend a further \$10

million minimum, sole funded by Evolution over two years following the Stage 1 Farm-in, would enable Evolution to earn an additional 10% (Stage 2 Farm-in) of the tenement holdings. Evolution must spend a minimum of \$7.5 million on exploration, or pay Emmerson the balance in cash, before it can terminate the farm-in. Emmerson is acting as manager during the Stage 1 Farm-in and is receiving a management fee during this period. Exploration expenditure attributable to the Stage 1 Farm-in to date is approximately \$8.3million.

### **About Evolution Mining**

Evolution Mining is a leading, growth-focussed Australian gold miner. Evolution operates seven wholly owned mines – Cowal in New South Wales, Cracow, Mt Carlton, Mt Rawdon and Pajingo in Queensland, and Edna May and Mungari in Western Australia.

Group production for FY15 from Evolution's five existing operating assets (prior to completion of the Cowal and Mungari acquisitions) totalled 437,570 ounces gold equivalent at an All-In Sustaining Cost of A\$1,036 per ounce. Evolution has guided FY16 attributable gold production from all seven operating assets of 770,000 – 820,000 ounces at an AISC of A\$970 – A\$1,020 per ounce.

### **About Kenex**

Kenex is a Wellington and West Australian based company which was established in 2002 to provide GIS and exploration services and advice for the exploration and mining industries in Australia and New Zealand. Over the last 14 years, they have broadened their international experience through involvement with projects and clients in the Middle East, Africa, Scandinavia, Asia-Pacific, Europe, North America and Latin America.

Kenex specialise in predictive modelling for minerals (2D and 3D) where they are at the forefront of providing these services to businesses to generate targets with the greatest geological potential in relation to the mineral system being evaluated. This delivers outcomes which can be used for a variety of purposes including regional evaluation of a mineral belt, identification of opportunities for acquisition, the tools for effective exploration work programme planning and in the case of predictive 3D modelling, drill hole targeting.

### **Regulatory Information**

*The Company does not suggest that economic mineralisation is contained in the untested areas, the information contained relating to historical drilling records have been compiled, reviewed and verified as best as the Company was able. As outlined in this announcement the Company is planning further drilling programs to understand the geology, structure and potential of the untested areas. The Company cautions investors against using this announcement solely as a basis for investment decisions without regard for this disclaimer.*

### **Competency Statement**

*The information in this report which relates to Exploration Results is based on information compiled by Mr Steve Russell BSc, Applied Geology (Hons), MAIG, MSEG. Mr Russell is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Russell is a full time employee of the Company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

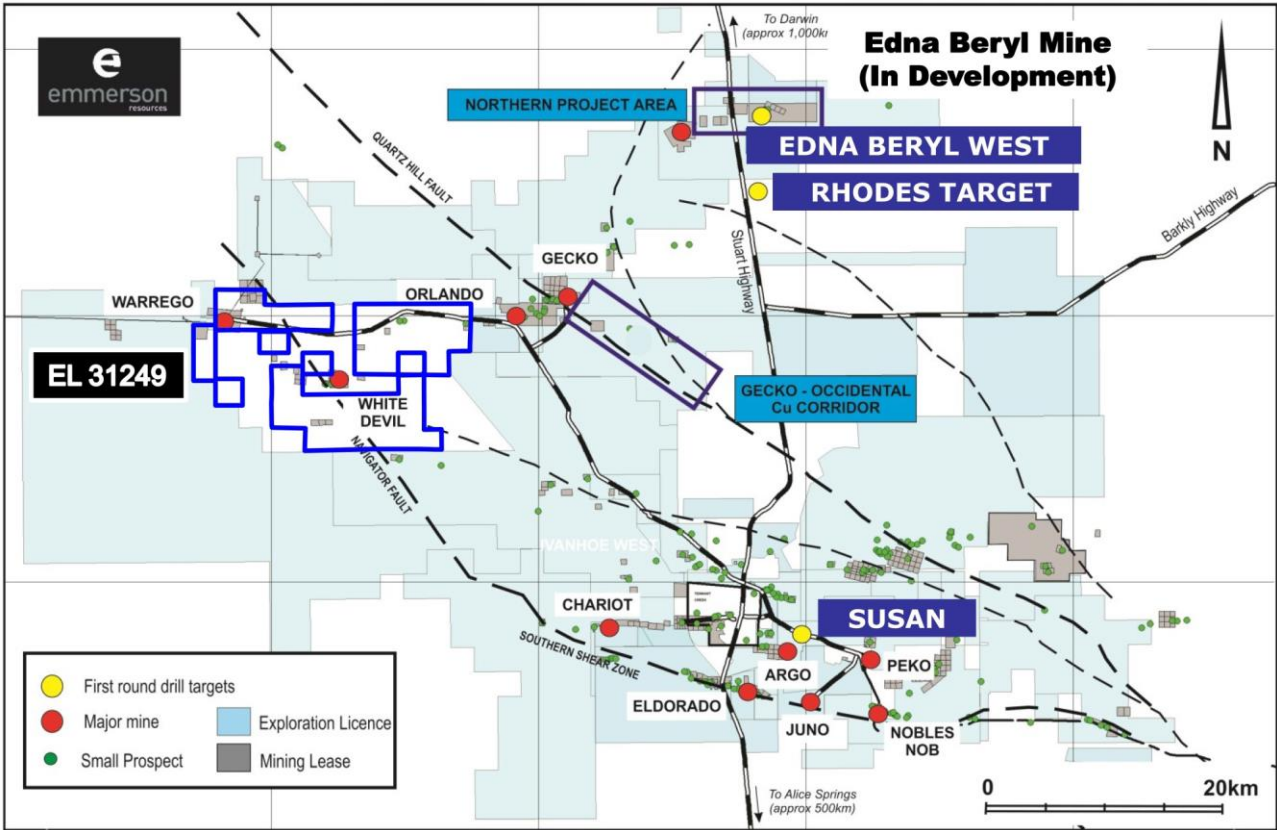


Figure 1. Location of the Emmerson Resources tenements and first round drill targets

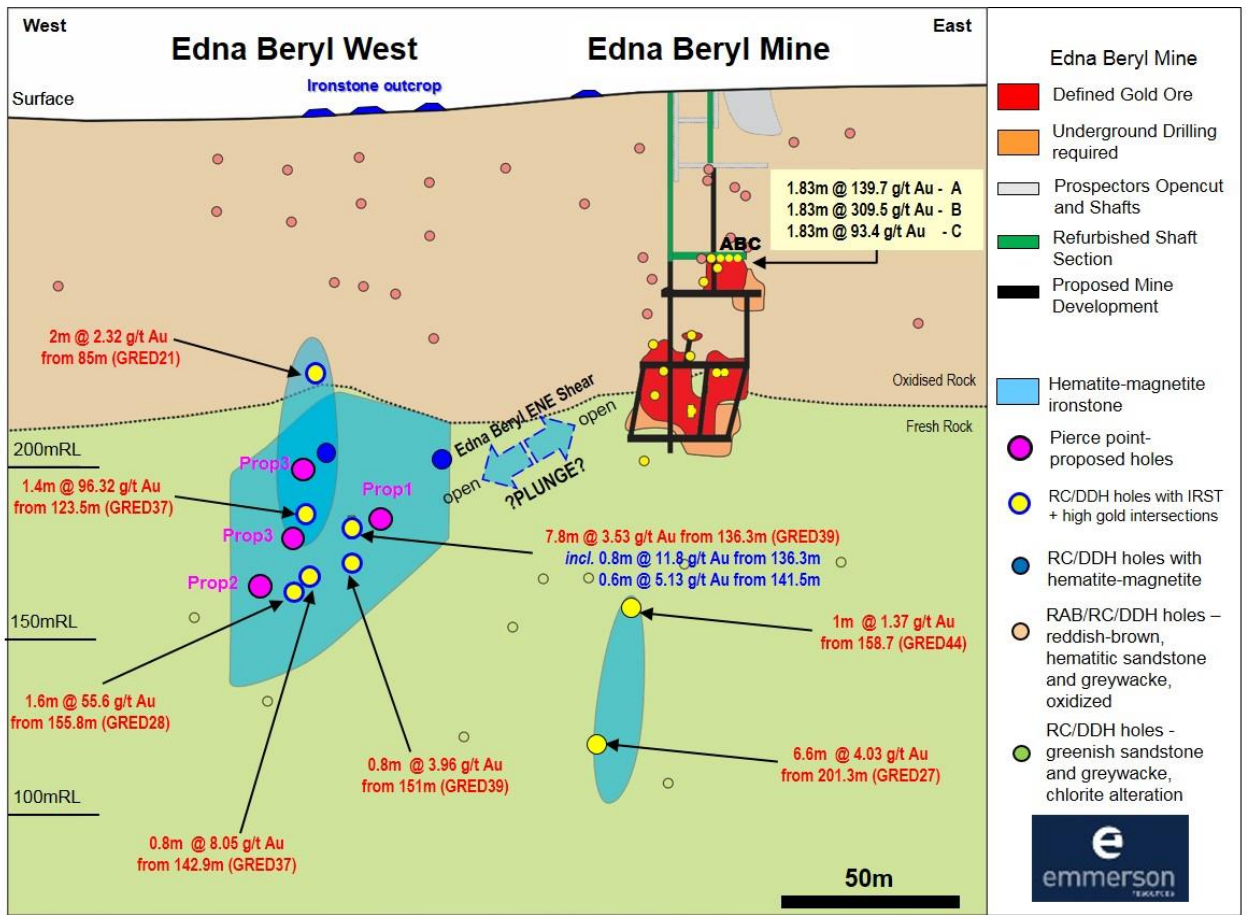


Figure 2. Long Section of Edna Beryl West with Proposed drill holes (Prop) and Edna Beryl Mine development (currently in progress)

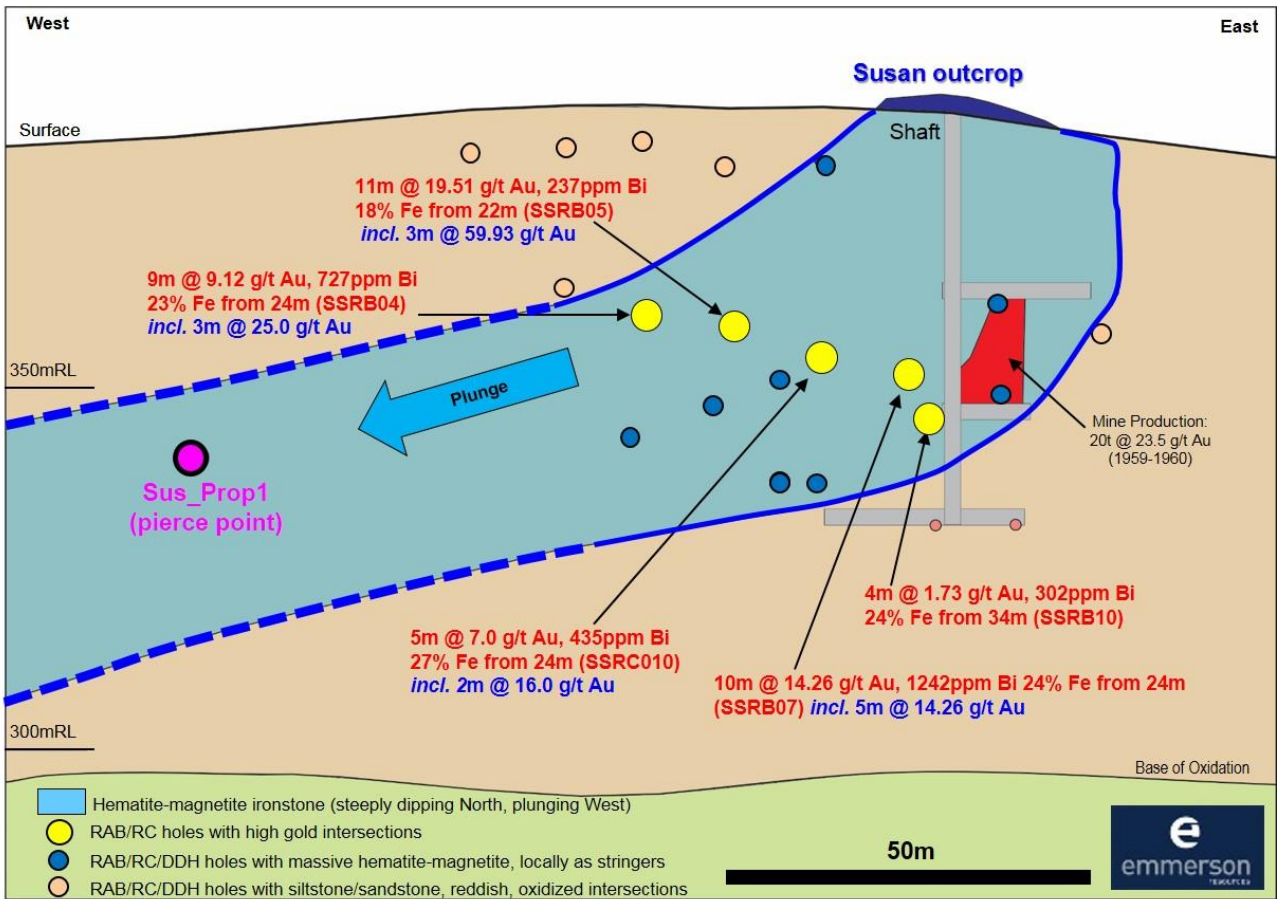


Figure 3. Long section of the Susan Project with proposed drill hole (Prop 1)

The exploration results contained within the above company release are in accordance with the guidelines of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

## SECTION 1 SAMPLING TECHNIQUES AND DATA – EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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 downhole 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>• Air Leg samples were collected from the floor of the refurbished cross cut drive at Edna Beryl to a final depth of 1.83m or 6 foot.</li> <li>• Samples were collected from approximately 53m below surface level.</li> <li>• Samples consisted of powdered (dust) and larger chips of red hematite ironstone.</li> <li>• The Edna Beryl Exploration Target has been sampled using RAB, Reverse Circulation (RC) and diamond drilling (DD) techniques. 24 RAB holes for 1,140m, 29 RC/Percussion holes for 2,534m and 26 Diamond holes for 4,678.2m have been completed. The drill hole spacing is nominal 10m x 10m grid spacing. In areas of mineralisation spacing has been reduced to 5m x 5m. Holes have been angled to optimally test the host shear zone. Typically, most drill holes have been drilled towards the North at angles (dip) between 45 to 70 degrees from surface.</li> <li>• RAB samples consist of 4m composites which may have suffered from down-hole contamination and were not used in any resource estimation. Only RC and Diamond data was used for resource estimations which included 55 holes and 2,373 samples.</li> <li>• RC chips are riffle split on site to obtain 3m composite samples from which 2.5 – 3.0kg was pulverised (at the laboratory) to produce a 50g charge for analysis by multi acid digest with an AAS (Cu,Fe,Bi) finish &amp; Fire Assay (Au) finish.</li> <li>• Individual 1m samples were pulverised (at the laboratory) to produce a 50g charge for analysis by multi acid digest with an AAS (Cu,Fe,Bi) finish &amp; Fire Assay (Au) finish.</li> <li>• RC samples were collected via a fixed splitter that is mounted to the drill rig. Samples were manually split a second time by field assistants.</li> <li>• Diamond core was used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes.</li> <li>• No assessment of the QC of drill hole sampling methods, after cut by the drill rig can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time.</li> <li>• Diamond core was typically NQ2 size, however some larger diameter core was also collected (HQ). Core was sampled on geological intervals (0.5 m to 1.5 m), cut into half core using a standard brick saw. Sample weights of approximately 3.0kg were crushed, dried and</li> </ul>

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<b>Drilling techniques</b>	<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>	<p>pulverised (Lab) to produce a 50g sub sample for analysis by multi acid digest with an AAS (Cu,Fe,Bi) finish &amp; Fire Assay (Au) finish.</p> <ul style="list-style-type: none"> <li>• Three vertical air leg holes were spaced at 1m x 1m and drilled to a final depth of 1.83m.</li> <li>• The diameter of the air leg drill steel outside diameter is 30mm.</li> <li>• Two samples were collected from each drill hole.</li> <li>• The first sample was collected from the surface of the drive floor to a distance of 1.22m or 4 foot.</li> <li>• The 1.22m hole was then blown out and cleaned via the air leg to ensure minimal contamination.</li> <li>• The second sample was then collected from 1.22 to a final depth of 1.83m or 6 foot.</li> <li>• All three holes were drilled this way.</li> <li>• RAB, RC and Diamond drilling accounts for 100% of the current drilling at <i>the</i> Edna Beryl Exploration Target.</li> <li>• RC drilling utilizes a 4.5 inch, face sampling bit.</li> <li>• NQ2 core diameter is 50.6mm.</li> <li>• HQ core diameter is 63.5mm.</li> <li>• Drill hole depths range from 17m to 508m.</li> <li>• Sections of diamond drill core has been oriented to obtain structural measurements however orientation tool type and frequency could not be established with any degree of certainty.</li> <li>• Diamond core and RC recoveries are logged and recorded in the database.</li> <li>• Standard inner tube has been used.</li> <li>• Diamond core from the Edna Beryl exploration target was reconstructed into continuous runs on a 6m long angle-iron cradle for orientation marking.</li> <li>• Depths are checked against the depth given on the core blocks for accuracy.</li> </ul>
<b>Drill sample recovery</b>	<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>• Drill sample was collected as dust and chips were returned to the surface of the cross cut drive.</li> <li>• All samples were dry.</li> <li>• Sample recovery considered good and representative.</li> <li>• RC samples were visually checked for recovery, moisture and contamination.</li> <li>• Any issues or concerns were recorded in the Giants Reef database.</li> <li>• Overall recoveries for diamond core are &gt;80% however recovery and RQD information is not complete so caution is required.</li> <li>• The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>• Emmerson consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material. Visible (course) gold is identified in sections of</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<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>	<p>diamond core so caution is required.</p> <ul style="list-style-type: none"> <li>• No geological logging was completed on the 3 drill holes.</li> <li>• Sample is described as brick red, heavy ironstone.</li> <li>• Standard operating procedures are employed by Giants Reef for logging RAB, RC and Diamond core samples.</li> <li>• All drill core and RAB &amp; RC samples was lithologically logged.</li> <li>• No lithological log could be completed in zones where no core was recovered due to voids encountered.</li> <li>• Drill hole logging data was transcribed into Giants Reef's database post drilling.</li> <li>• A detailed validation of all drilling data was completed in 1999 by a full time Giants Reef geologist.</li> <li>• Standardised codes were used for lithology, oxidation, alteration and presence of sulphide minerals.</li> <li>• Structural logging of selected diamond drill core records orientation of veins, fractures and lithological contacts.</li> <li>• Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.</li> <li>• RQD logging records core lengths, recovery, hardness and weathering however this data was not routinely collected.</li> <li>• Magnetic susceptibility data for all individual 1m RC samples was collected.</li> <li>• Magnetic susceptibility data for selected diamond core was collected as per Giants Reef procedures.</li> <li>• All drill core was reported to be photographed, however Emmerson geologists could not locate digital or hard copy data.</li> <li>• Diamond core is stored in Tennant Creek however several holes (or sections of holes are missing or incomplete. RC chips could not be located.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling</i></li> </ul>	<ul style="list-style-type: none"> <li>• Entire sample was hand delivered to the laboratory.</li> <li>• 14 samples in total of which 6 samples are reported.</li> <li>• Samples consisted of dust and chips and were all dry.</li> <li>• <b>Samples were not riffle spit.</b></li> <li>• <b>No duplicate samples were submitted.</b></li> <li>• Standard operating procedures are used by Giants Reef Mining at the Edna Beryl Exploration Target) for sampling RC and diamond core samples.</li> </ul>

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	<p><i>is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core for the Edna Beryl Exploration Target was cut in half (NQ2 &amp; HQ) at Giants Reef's Tennant Creek exploration office, using a hand operated brick saw.</li> <li>• All samples were collected from the same side of the core and were half core samples.</li> <li>• Half core samples are submitted for analysis, unless a field duplicate was required, in which case quarter core samples were submitted.</li> <li>• The sample preparation of diamond core for followed industry best practice (at that time) in sample preparation involving oven drying, coarse crushing of the half core followed by pulverisation of the entire sample (total prep) using grinding. The sample preparation for RC samples is identical, without the coarse crush stage.</li> <li>• Pulverised material not required by the laboratory (pulp) including duplicate samples were returned to Giants Reef however have subsequently been lost.</li> <li>• Coarse rejects are disposed of by the Laboratory.</li> <li>• RC samples were collected on the rig using cone (from the drill rig) and then riffle split by the field assistants if dry to obtain a 3 kg sample.</li> <li>• If samples are wet, they are left to dry before being riffle split.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No assessment of the air leg QC of drill hole sampling methods was completed.</li> <li>• Samples were delivered to North Australian Laboratories (NAL) in Pine Creek, Northern Territory.</li> <li>• Average sample weight was 3 to 4kgs.</li> <li>• Samples were crushed in a Kegger Mill.</li> <li>• Two barren quartz washes were used after each sample as zones of visible gold mineralisation was identified.</li> <li>• NAL in-house controls for the 14 samples submitted consisted of insertion of 2 CRM.</li> <li>• Samples were roll mixed with a 200-300 gram split prepared.</li> <li>• A final 50 gram split was then fire assayed with an AAS finish.</li> <li>• This technique is considered as total.</li> <li>• QC results are reported along with sample values in the final analytical report.</li> <li>• No assessment of the field QC of drill hole sampling methods, after cut by the drill rig can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time.</li> <li>• Samples typically weighed less than 3kg to ensure total preparation at the pulverisation</li> </ul>

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		<p>stage.</p> <ul style="list-style-type: none"> <li>• RC field duplicates were collected on the 3m composites samples, using a riffle splitter.</li> <li>• Individual 1m RC sample duplicates were also collected using the same technique.</li> <li>• QAQC data was difficult to locate and is not included as a digital database.</li> <li>• The sample sizes are considered to be appropriate to correctly represent the oxide and fresh mineralisation at the Edna Beryl Exploration Target based on: the style of mineralisation (iron oxide copper gold), the thickness and mineral consistency of the intersection(s).</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Emmerson's Exploration Manager (Competent Person) has discussed in detail the drill and sample collection procedures with the driller and is satisfied that best practice has been followed.</li> <li>• Emmerson's Exploration Manager (Competent Person) has discussed sample preparation and analyses with both NAL's Lab Manager and also the owner to confirm the integrity of the sample assay process.</li> <li>• Do to the high grade nature of the samples several repeats have been carried out at the lab (Table 1 in the text) and repeatability is considered to be reasonable.</li> <li>• Quart flushes (x2) between sample prep was completed to reduce potential contamination.</li> <li>• The Exploration Manager of Emmerson has visually verified significant intersections in Diamond core however not in the RAB or RC as not samples could be found.</li> <li>• Assay Corp and North Australian Laboratories located in Pine Creek, Northern Territory conducted all analytical analysis.</li> <li>• The geochemical data was managed by Giants Reef in house <u>and not</u> an external database administrator.</li> <li>• The digital data was not secured through a relational database and was kept in Micromine.</li> <li>• Digital laboratory data was and uploaded directly to Giants Reef Micromine database by a project geologist.</li> <li>• Original data sheets and files (when located) have been retained and were used to validate the contents of the database against the original logging.</li> <li>• No twin drill holes have been completed at the Edna Beryl Exploration Target.</li> </ul>
<p><b>Location of data points</b></p>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Approximate sample location is shown on Figure 2.</li> <li>• No survey control has been established underground so accurate hole pick up has not</li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>been possible.</p> <ul style="list-style-type: none"> <li>• The Edna Beryl underground mine workings were surveyed in 2005 so cross cut drive position is considered to be accurate.</li> <li>• Drill hole collars were surveyed (pick up) using a differential GPS and by a suitably qualified company employee.</li> <li>• Collar survey accuracy is +/- 30 mm for easting, northing and elevation coordinates.</li> <li>• Co-ordinate system GDA_94, Zone 53.</li> <li>• Topographic measurements are collected from the final survey drill hole pick up.</li> <li>• Downhole survey measurements were collected at a minimum of every 30m using an Eastman Single-Shot® camera for RC and every 6-12m for diamond drill holes</li> <li>• This survey camera equipment is quoted by the manufacturer to have an accuracy of <ul style="list-style-type: none"> <li>○ Azimuth 0-360° ± 1</li> <li>○ Dip ± 90° ± 0.5°</li> </ul> </li> <li>• If the measurement is considered to be affected by magnetic material (ironstone) then an average from the last non affected and the next non affected measurement is used.</li> </ul>
<p><b>Data spacing and distribution</b></p>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The air leg holes were space 1m apart.</li> <li>• The cross cut drive is 2m x 1.1m.</li> <li>• The spacing of drill hole collars is erratic, possibly to allow for the high degree of drilling deviation encountered in the Tennant Creek Mineral Field.</li> <li>• Identified mineralisation within the Edna Beryl Exploration Target has been defined by drillholes on a section spacing of 10 m to 20 m with an average on-section spacing of 10 m.</li> <li>• Due to the age of this Resource estimation, Emmerson are cautious and do not believe the historical Resource estimate can be reported in accordance with the current 2012 JORC Code. Emmerson considers the Edna Beryl mineralisation to be an Advanced Exploration Target and that it is uncertain that following evaluation and/or further exploration work that the historical estimate will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</li> <li>• RC sampling is on 1 m intervals that may have originally consisted of 3m composites.</li> <li>• Core sampling is generally defined by geological characteristics and controlled by alteration and lithological boundaries.</li> </ul>
<p><b>Orientation of data in relation to geological</b></p>	<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> </ul>	<ul style="list-style-type: none"> <li>• The 3 holes were drilled vertically into the floor of the cross cut drive.</li> <li>• Samples ended in ironstone material.</li> <li>• It is considered that the vertical drilling is</li> </ul>

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<b>structure</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>representative and that no sample bias has been introduced.</p> <ul style="list-style-type: none"> <li>Exploration drilling is at a high angle to the mineralized bodies and or shear zone.</li> <li>Exploration drilling is perpendicular to mineralized bodies or shear zone.</li> <li>No orientation based sampling bias has been identified at the Edna Beryl Exploration Target in the data at this point.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were hand delivered to the Laboratory by Mr Kevin Craig of Edna Beryl Mining Co.</li> <li>Results were faxed directly to Mr Kevin Craig.</li> <li>Digital data was emailed to the Exploration Manager.</li> <li>Samples were placed in sealed polyweave bags and larger bulka bags for transport to the assay laboratory (Pine Creek).</li> <li>The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>Results data was faxed to the Exploration Manager of Giants Reef and also emailed to the Project geologist.</li> <li>While samples are being processed in the Lab they are considered to be secure.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li><u>No formal audit has been completed on the samples being reported.</u></li> <li>Discussions with NAL including clarification of QAQC and sample analyses completed by Emmerson's Exploration Manager.</li> <li>An internal review of the sampling techniques, QAQC protocols and data collection <u>has not been conducted by Emmerson.</u></li> <li>Digital Rock Services Pty Ltd (1998) and Rocksearch Australia (?) validated historical data on two separate occasions. Minor issues were identified and remedied at the time.</li> <li>In 2003 – 2004 a 52m shaft was sunk at the Edna Beryl explorations target where mineralisation was intersected as per the data.</li> </ul>

## SECTION 2 REPORTING OF EXPLORATION RESULTS – EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>The Edna Beryl Exploration Target lies wholly within Mineral Lease (ML) C705.</li> <li>The Edna Beryl Exploration Target is located 37kms North of Tennant Creek Township and 3kms east of the Stuart Highway.</li> <li>Edna Beryl is situated on map sheet SE53-14 Tennant Creek 1:250,000 and sheet 5759 Flynn 1:100,000 at GDA coordinate 416500mE 7864700mN.</li> <li>ML C705 is located within Aboriginal Freehold</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>operate in the area.</i></p>	<p>Land held by the Warumungu Aboriginal Land Trust (NT portion 1754). The tenement is 100% held by Emmerson Resources Limited.</p> <ul style="list-style-type: none"> <li>• The mine is on Aboriginal freehold land. An agreement under the Aboriginal Land Rights (Northern Territory) Act 1976 has been entered into between Emmerson Resources and the Central Land Council on behalf of the Aboriginal landowners. The agreement provides for the protection of sites, the payment of compensation and allows the landowners unfettered access to the lease area (other than the immediate mine site where there are restrictions).</li> <li>• Emmerson Resources are in Joint Venture with Evolution Mining.</li> <li>• Exclusion Zones are identified within MLC 705 however does no impact on the Edna Beryl Exploration Target area.</li> <li>• MLC 705 is in good standing and no known impediments exist.</li> </ul>
<p><b>Exploration done by other parties</b></p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Edna Beryl was discovered in 1935 and mined in the 1940s and 1950s by excavation of vertical shafts and horizontal drives to a maximum depth of about 50 metres. Production up until 1952 was reportedly 2,700 tonnes of ore at an average grade of 53 grams gold per tonne.</li> <li>• Giants Reef Mining conducted all known “modern” exploration in and around the Edna Beryl Exploration Target Area.</li> <li>• Giants Reef has carried out exploration on the Edna Beryl area from 1990 to 2005 and during this time identified significant gold mineralisation below the original workings.</li> <li>• An existing shaft sunk during the earlier mining was refurbished in 1996.</li> <li>• In 2004 – 2005 mining was conducted by the Edna Beryl Mining Company (formally known as Craig’s Mining Services) in a Tribute arrangement with Giants Reef Mining. Approximately 410 ounces was produced during this period from the upper mineralised pod from an exploration shaft and drive to current depth of 52m.</li> <li>• Influx of underground water plus declining gold price ceased the operation in July 2005.</li> </ul>
<p><b>Geology</b></p>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Gold and copper-gold deposits discovered in the Tennant Creek gold field to date, are hosted in the Lower Proterozoic Warramunga Formation; a metamorphosed (greenschist facies) greywacke-siltstone-shale sedimentary sequence, that usually displays a pronounced</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>east-west cleavage. Ore occurs adjacent to steeply dipping, lenticular or pipe-like magnetite/haematite/chlorite/quartz bodies ('ironstone') that are found along east-west trending structures. It is generally thought that the magnetite/haematite was hydrothermally formed in dilation zones along the controlling structures, and that the deposition of gold, sulphides and associated alteration minerals was a later event with mineralisation possibly being derived from a different source but following the same structurally controlled path. In plan view, the ironstone bodies tend to be narrowest in the north-south direction and elongated east west, reflecting the regional cleavage and shearing. Edna Beryl clearly follows this pattern. Their vertical dimensions may run to hundreds of metres, beyond the reach of surface drilling. Ore grades may occur over substantial vertical intervals of an ironstone pipe or lens, but are not expected to occur over the entire length.</p> <ul style="list-style-type: none"> <li>• The mineralisation style is considered to be Iron Oxide Copper Gold.</li> <li>• Supergene enrichment is very evident.</li> </ul>
<b>Drillhole information</b>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drillhole collar</i></li> <li>○ <i>elevation or RL of the drillhole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>downhole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• A list of the drill holes, collar detail and intersections has not been provided as no significant or mineralised intersections have been reported in the body of this text or figures.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mineralized RC and Diamond intersections are reported as down hole intervals and not weighted averages.</li> <li>• The results discussed are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</li> </ul>
<b>Relationship between mineralizati</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The holes drilled within the Edna Beryl Exploration Target area are perpendicular the east-west striking mineralised zone. The holes</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>on widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</li> </ul>	were designed and drilled perpendicular to the steep dipping mineralised zone making the intercepts approximate to true width.
<b>Diagrams</b>	<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 include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures in body of text.</li> </ul>
<b>Balanced reporting</b>	<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>Due to the age of this Resource estimation, Emmerson are cautious and do not believe the historical Resource estimate can be reported in accordance with the current 2012 JORC Code. Emmerson considers the Edna Beryl mineralisation to be an Exploration Target.</li> </ul> <p>It is uncertain that following evaluation and/or further exploration work that the historical estimate will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</p>
<b>Other substantive exploration data</b>	<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>Geotechnical logging was carried out on all diamond drill holes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material was stored in the structure table of the Micromine database.</li> <li>Density measurements were collected by Giants Reef geologists.</li> <li>Metallurgical testing of selected mineralised Edna Beryl samples was conducted by Metcon Laboratories Pty Ltd in 1996.</li> <li>Metallurgical testing concluded that 70% could be gravity recovered with the remaining gold cyanide soluble so that total gold extraction of &gt;98% could be obtained. Screen Fire Assay of selected samples was conducted by Giants Reef Mining.</li> <li>Geophysical magnetic susceptibility logging is completed at 1m intervals on site (RC drilling) and in the core shed for selected sections of diamond core.</li> <li>Thin section samples were collected by Giants Reef Mining to assist in the refinement of the geological model.</li> </ul>
<b>Further work</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>Once the underground development has been established, Emmerson plan to conduct a small underground diamond drilling program searching for lateral and down dip continuance of the known mineralisation.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<ul style="list-style-type: none"> <li>• Several other exploration targets are proximal to the Edna Beryl exploration target and data is currently being reviewed.</li> <li>• It is likely that additional surface drilling will occur testing for the similar style of mineralisation as reported.</li> </ul>