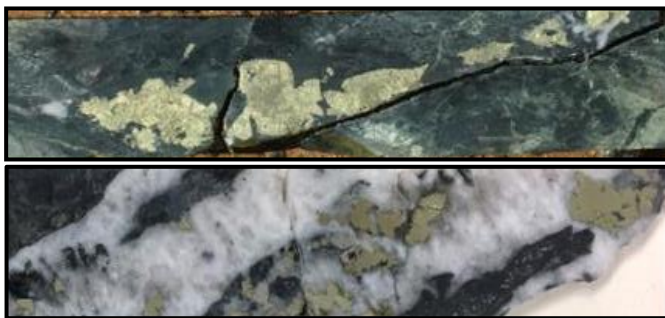


## Copper, gold and base metals intersected in first pass drilling at Whatling Hill, NSW

### Highlights

- First pass drilling aimed at establishing the underlying geology and alteration have successfully intersected the outer zones of a porphyry copper system
- Diamond drill hole WHDD002 intersected 8m at 0.4% copper from 194m including:
  - 1m at 1.4% copper
  - 1m at 0.9% copper
- Diamond drill hole WHDD001 intersected 17m at 0.4% zinc from 300m including:
  - 1m at 1.0% zinc
- Reverse Circulation drill hole WHRC004 intersected 3m at 0.4% copper from 91m and 3m at 0.22g/t gold from 231m
- Mineralisation style is analogous to the Northparkes and Cadia-Ridgeway copper-gold deposits
- Program of additional geochemistry and geophysics currently in progress ahead of the next drill program which will target the higher-grade core of the Whatling Hill porphyry copper system



***Example of the chalcopyrite-pyrite-quartz- veins. Alteration consists of chlorite-epidote (“green rock”)***

### Emmerson Managing Director Mr Rob Bills commented:

*“First pass drilling at Whatling Hill has been successful in establishing the presence of porphyry copper style mineralisation over a large area and is consistent with the widespread anomalous geochemistry. The program has been effective in providing an insight into the underlying geology in an area that is covered and has seen little previous exploration.*

*“The intersection of chalcopyrite-pyrite in quartz veins and stockworks from drill hole WHDD002 is very positive, and even more encouraging is the detailed geology which consists of multiple altered monzonite intrusions and associated alteration – mainly epidote and chlorite, signalling that the drilling has yet to test the core of the porphyry system.*

*“The assay results and alteration are consistent with intersecting the outer zones of potentially multiple or clusters of porphyry style mineralisation. Implementation of the next round of exploration is already underway and will aim to pinpoint the core of the system where higher grades of copper and gold are to be expected.”*

### **Whatling Hill (Figures 1 & 2)**

Six holes for approximately 1,500m of Reverse Circulation and Diamond drilling have been completed over the Whatling Hill project within Emmerson’s Fifield tenement in NSW. These are the first deep drill holes in this project and have successfully intersected the outer zones of a mineralised porphyry copper-gold system. Whilst the assay results are encouraging, the underlying geology and alteration encountered compares favourably with the early phases of exploration that led to the discoveries at Northparkes and Cadia-Ridgeway.

The geology at Whatling Hill consists of late Ordovician volcanics, volcanoclastics and sediments plus at least three high potassium to shoshonitic intrusive phases of a similar age and chemistry to Northparkes and Cadia-Ridgeway. The alteration of chlorite – epidote (“green rock”) associated with the mineralisation clearly indicates that this drilling only tested the periphery of the system (Figure 3). Interestingly some of the mineralised veins have minor actinolite-potassium feldspar and magnetite, signalling proximity to the core of the system.

Given the success of utilising copper, gold and molybdenum geochemistry, plus Induced Polarisation (IP) geophysics, a larger IP program is currently being planned (see Figure 2). This will be complemented with cutting edge trace element analysis of the green rock to assist in vectoring into the core of the mineralisation (under collaboration with the University of Tasmania’s ARC Linkage Project). Drilling is planned toward the latter part of this year following the completion of this next phase of geochemistry and geophysical work.

Whilst we await the arrival of the geophysical contractors, further geochemistry will be undertaken at Kiola, Emmerson’s next most advanced project in NSW.

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## **About Emmerson Resources, Tennant Creek and New South Wales**

Emmerson is fast tracking exploration across five exciting early-stage gold-copper projects in NSW, identified (with our strategic alliance partner Kenex/Duke Exploration) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery. (Duke can earn up to 10% (to pre BFS) of any project generated providing certain success milestones are met).

The highly prospective Macquarie Arc in NSW hosts >80Mozs gold and >13Mt copper with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's five exploration projects contain many attributes of the known deposits within the Macquarie Arc but remain underexplored due to historical impediments, including overlying cover (farmlands and younger rocks) and a lack of exploration. Kadungla is a JV with Aurelia Metals covering 43km<sup>2</sup> adjacent to Emmerson's Fifield project.

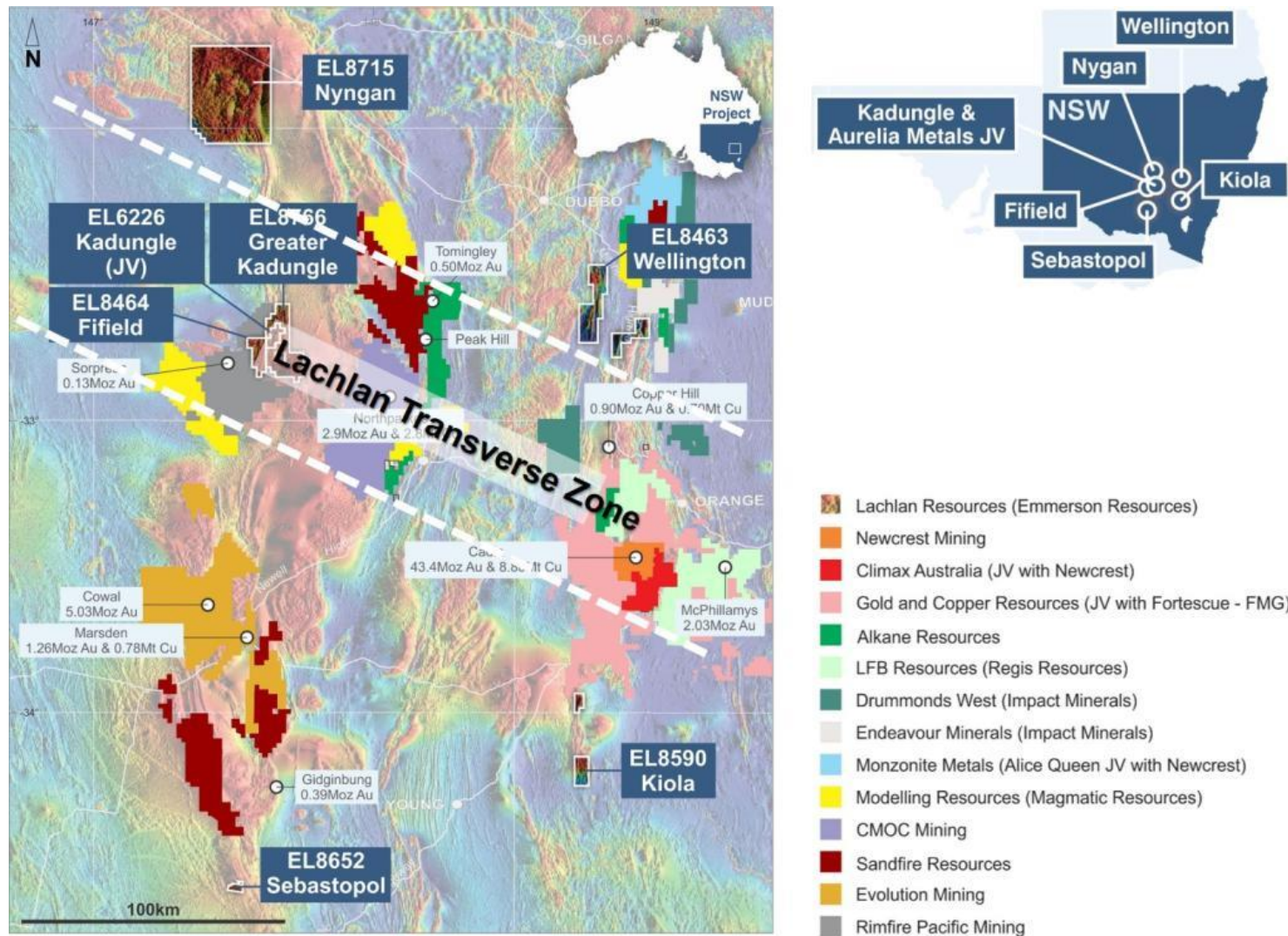
In addition, Emmerson has a commanding land holding position and is exploring the Tennant Creek Mineral Field (TCMF), one of Australia's highest-grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes of copper from deposits including Warrego, White Devil, Orlando, Gecko, Chariot, and Golden Forty. These high-grade deposits are highly valuable exploration targets, and to date, discoveries include high-grade gold at Edna Beryl and Mauretania, plus copper-gold at Goanna and Monitor. These are the first discoveries in the TCMF for over two decades.

Emmerson recently announced the formation of a strategic alliance with Territory Resources to build a central mill in Tennant Creek to support the processing from Emmerson's small gold mines and other third-party feed. This alliance also extends to a \$5m earn-in by Territory Resources over Emmerson's southern tenements (where ERM is the Operator and Manager) plus a Mining Joint Venture over a portfolio of Emmerson's small mines that is on a 75/25 profit share basis, except for the Edna Beryl and Chariot mines which respectively have a 12% and 6% gold production royalty.

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.

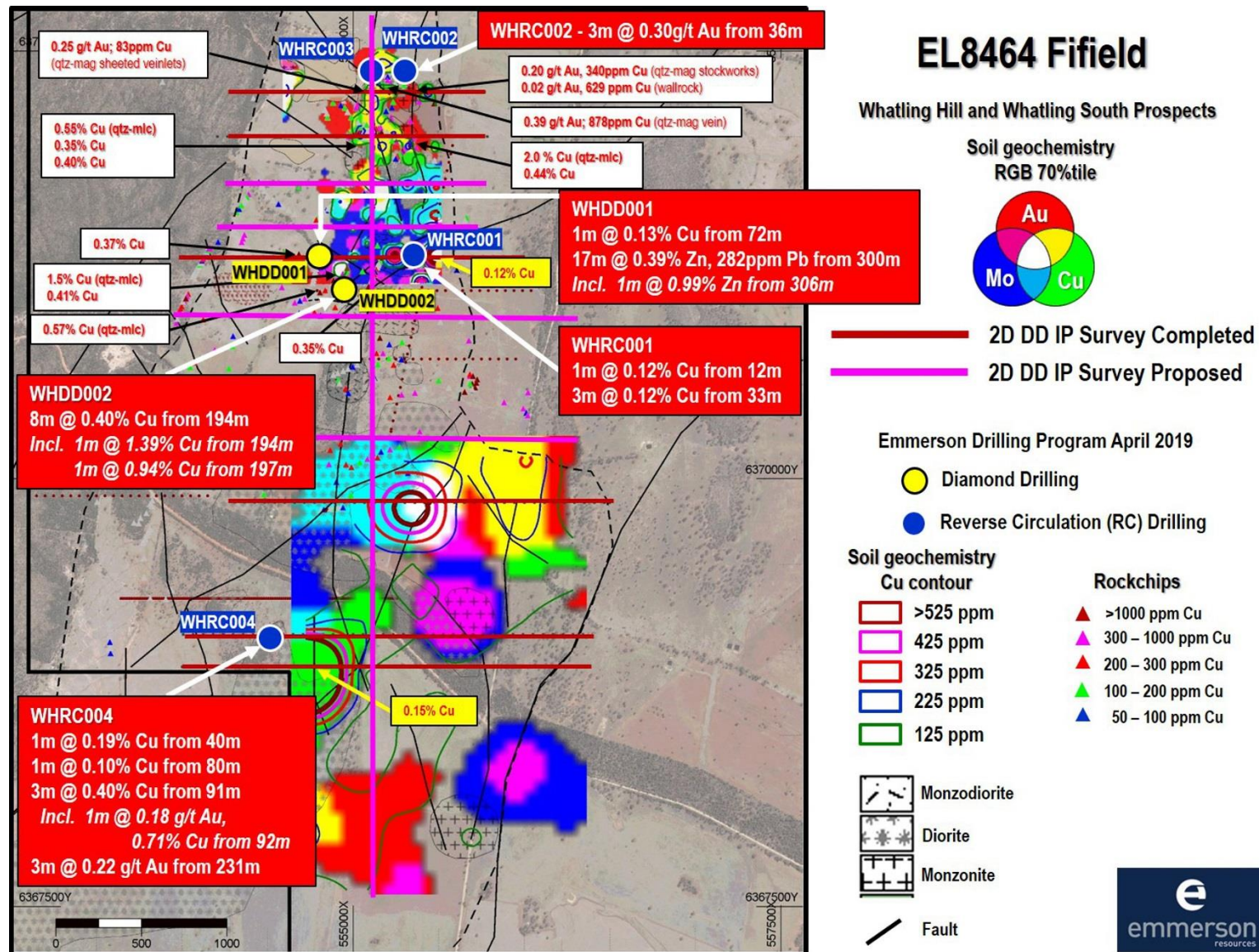
### **Competency Statement**

*The information in this report which relates to NSW Projects Exploration Results is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison 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 she 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. Dr Cuison is a full-time employee of the Company and consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.*



**Figure 1.** Location of Emmerson's NSW Projects (blue labels). The background is the regional magnetic image, with red indicating the various segments of the Macquarie Arc. Note the Fifield (EL8464) tenement contains the Whatling Hill project.



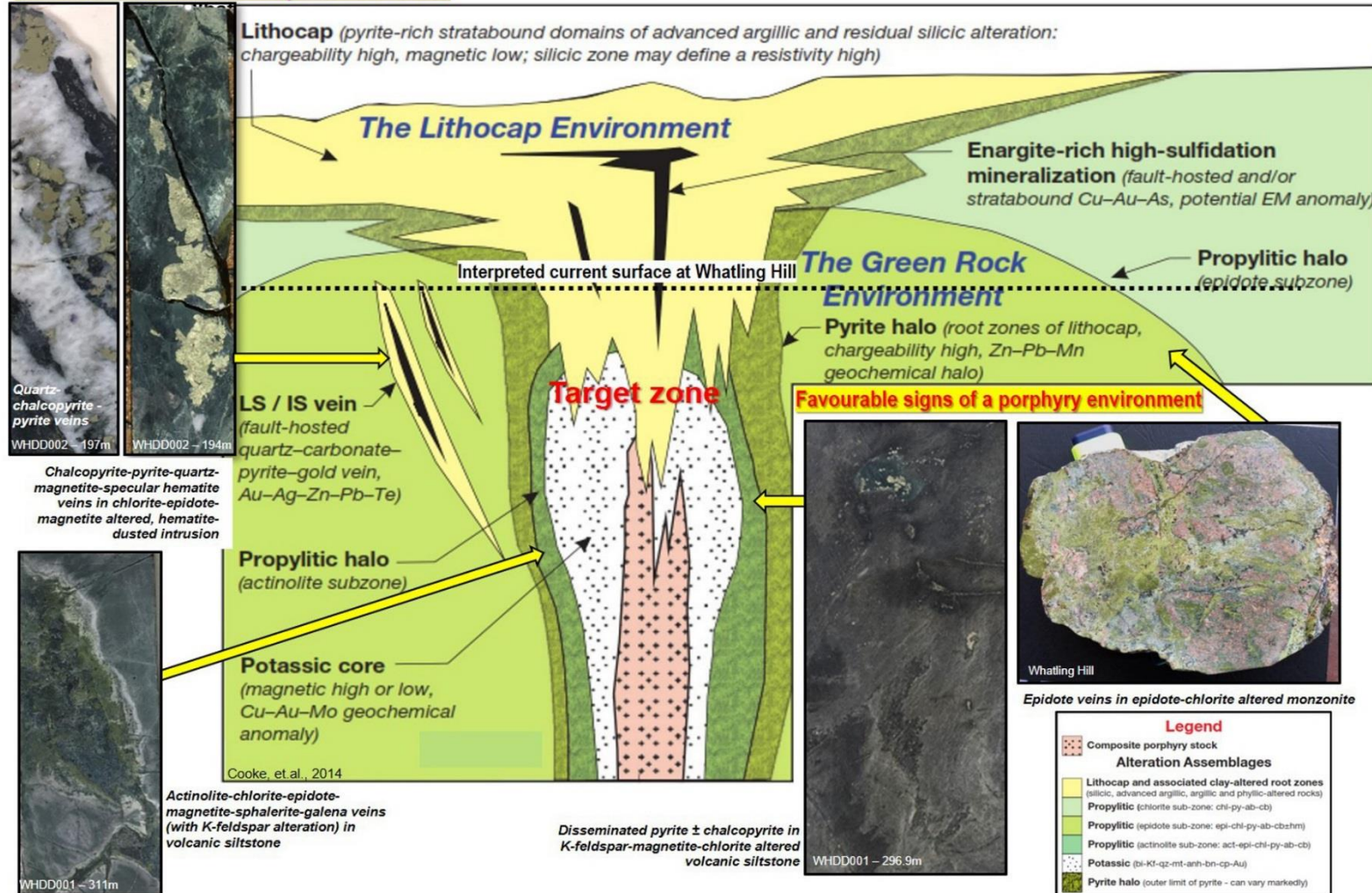


**Figure 2:** Location and assay results from drilling (red call out boxes) at Emmerson Whatling Hill Project. Background is the previously announced geochemistry, the IP geophysical survey (red lines) and rockchip assays (red font), with peak assay results from the regolith (yellow call out boxes). The proposed IP survey is represented by the purple lines. (the geochemical results were reported in ASX Announcements dated 8 August 2018 and 26 November 2018 and there is no new information or data that materially affects the information included in those previous announcements).



## Porphyry – epithermal environments Geological model for Whatling Hill Prospect

### Intermediate sulfidation epithermal veins



**Figure 3:** Schematic Porphyry Copper-Gold Model showing the approximate location of Emmerson's recent drilling with respect to the core or target zone of the system. The next phase of exploration is aimed at testing the core of the system and is where the higher grades of copper and gold are expected

Tabel 1. Whatling Hill drillhole collar data.

Hole ID	East (MGA94_55)	North (MGA94_55)	RL AHD	Dip (deg)	AZI mag (deg)	Depth	Drill Date	Drill Type	Tenement
WHDD001	554896.0	6371303.0	307.0	-65	78.0	397.7	19/03/2019	DDH	EL8464
WHDD002	554997.0	6371100.0	307.0	-65	77.5	363.9	26/03/2019	DDH	EL8464
WHRC001	555296.3	6371303.4	295.0	-65	78.0	150.0	21/03/2019	RC	EL8464
WHRC002	555288.6	6372344.6	300.6	-65	133.0	150.0	27/03/2019	RC	EL8464
WHRC003	555128.8	6372338.8	303.0	-63	137.0	150.0	28/03/2019	RC	EL8464
WHRC004	554462.6	6369092.8	286.2	-67	255.0	250.0	30/03/2019	RC	EL8464

Table 2. Whatling Hill intersections from drilling.

Hole ID	East (MGA94_55)	North (MGA94_55)	RL (AHD)	Dip (deg)	AZI (mag)	From (m)	To (m)	Width (m)	Au (ppb)	Ag (ppm)	Bi (ppm)	Cu (%)	Fe (%)	Pb (ppm)	Zn (ppm)	Sample Type	Lithology
WHDD001	554895.19	6371301.45	303.44	-65	078	72.0	73.0	1.0	10	0.25	1	0.13	9.57	1	93	0.5HQ3	Quartz-chalcopryrite-pyrite veins and breccia in chlorite-epidote altered volcanic rock.
					incl.	300.0	317.0	17.0	5	0.77	1	0.01	4.15	282	3882	0.5NQ3	Sphalerite-galena veins cutting quartz-albite altered volcanic siltstone and sandstone.
						306.0	307.0	1.0	5	1.00	1	0.01	3.85	287	9860	0.5NQ3	
WHDD002	554996.78	6371099.95	303.17	-65	077.5	194.0	202.0	8.0	16	0.46	10	0.40	7.52	5	77	0.5NQ3	Chlorite-epidote altered intrusive and volcanic rocks cut by quartz-chalcopryrite-pyrite-specular hematite veins and stockworks.
					incl.	194.0	195.0	1.0	20	0.50	4	1.39	6.80	13	70	0.5NQ3	Chalcopryrite-pyrite-quartz-magnetite-specular hematite veins in chlorite-epidote altered, hematite-dusted altered intrusive rock.
					incl.	197.0	198.0	1.0	20	1.40	43	0.94	9.18	3	76	0.5NQ3	Quartz-chalcopryrite-pyrite veins and stockworks in chlorite altered volcanic rocks.
WHRC001	555296.31	6371303.43	295.04	-65	078	12.0	13.0	1.0	5	0.25	2	0.12	7.74	11	165	1m SPLIT	Malachite as fracture fill in chlorite altered volcanic rock
						33.0	36.0	3	10	0.70	4	0.12	7.40	6	155	3m COMP	Chalcopryrite-pyrite as fracture fill in chlorite-epidote altered volcanic rock.
WHRC002	555288.61	6372344.55	300.65	-65	133	36.0	39.0	3	300	1.10	5	0.05	8.39	35	264	3m COMP	Quartz-magnetite-epidote veins in weathered, oxidized Monzonite.
WHRC004	554462.57	6369092.81	286.23	-67	255	40.0	41.0	1	60	0.25	4	0.19	5.54	2	91	1m SPLIT	Disseminated pyrite-chalcopryrite in chlorite-altered Monzonite
						80.0	81.0	1	5	0.25	1	0.10	7.38	4	127	1m SPLIT	Quartz-hematite-chalcopryrite-pyrite stringer in chlorite-altered volcanic rocks.
						91.0	94.0	3	68	0.50	1	0.40	9.56	2	161	3m COMP	Quartz-pyrite-chalcopryrite as fracture fills in chlorite altered volcanic rocks.
						92.0	93.0	1	180	1.00	1	0.71	8.68	1	145	1m SPLIT	
						231.0	234.0	3	220	0.25	1	0.01	6.26	1	85	3m COMP	Quartz-pyrite veins in epidote-chlorite altered intrusion.

- Note:
- (1) WHDD001 and WHDD002 samples are 1m to 1.5m halfcore samples.
  - (2) WHRC001, WHRC002, and WHRC004 samples are 3m riffle split composite and 1m split samples.
  - (3) Gold analysis method by 30g Fire Assay with AAS finish.
  - (4) Multi-element analysis method by four acid digestion with ICP-AES finish.
  - (5) Intersections are reported as downhole lengths and not true width.
  - (6) Minimum cut-off of 0.1% Cu. No maximum cut-off.
  - (7) Minimum cut-off of 0.1 g/t Au. No maximum cut-off.
  - (8) Minimum cut-off of 1000ppm Zn (0.1% Zn). No maximum cut-off.
  - (9) Maximum internal dilution of 3 metres for the diamond drilling
  - (10) Maximum internal dilution of 6 metres for the Reverse Circulation (RC) drilling



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).

**Appendix 1 - Section 1 Sampling Techniques and Data – Fifield Project – Whatling Hill and Whatling South Prospects – Diamond Drilling and Reverse Circulation (RC) drilling**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>WHDD001 and WHDD002 were drilled with diamond core to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes.</li> <li>Diamond core were PQ<sup>3</sup>, HQ<sup>3</sup> and NQ<sup>3</sup> sizes. Core was sampled on geological intervals (0.5 m to 1.5 m), cut into half core using a standard brick saw. Sample weights approximately 3.0kg were crushed, dried and pulverised (ALS Lab in Orange) to produce a 30g sub sample for analysis by four acid digest with an ICP-AES finish &amp; Fire Assay (Au)- AAS finish.</li> <li>RC chips from WHRC001, WHRC002, WHRC003 and WHRC004 3m composite samples from the cyclone were riffle split on site to obtain 2.5–3.0kg. Where applicable, 1m resplits were collected for analysis. The samples were pulverised (ALS Lab in Orange) to produce a 30g sub sample for analysis by four acid digest with an ICP-AES finish &amp; Fire Assay (Au)- AAS finish.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<p><b>Whatling Hill prospect</b> Two diamond holes for 761.6m and three RC holes for 450m were drilled at Whatling Hill prospect.</p> <ul style="list-style-type: none"> <li>WHDD001 has been drilled with: <ul style="list-style-type: none"> <li>PQ<sup>3</sup> core from collar to 14.8m</li> <li>HQ<sup>3</sup> core from 14.8 to 140.7m</li> <li>NQ<sup>3</sup> core from 140.7 to 397.7m</li> </ul> </li> <li>WHDD002 has been drilled with: <ul style="list-style-type: none"> <li>PQ<sup>3</sup> core from collar to 35.9</li> <li>HQ<sup>3</sup> core from 35.9 to 143.7m</li> <li>NQ<sup>3</sup> core from 143.7 to 363.6m</li> </ul> </li> <li>PQ<sup>3</sup> core diameter is 83.0mm</li> <li>HQ<sup>3</sup> core diameter is 61.1mm</li> <li>NQ<sup>3</sup> core diameter is 45.0mm.</li> <li>Standard inner tube has been used for the diamond core drilling.</li> <li>No triple tube has been used on WHDD001 and WHDD002</li> <li>The core was oriented using downhole core orientation equipment provided by the drilling company.</li> <li>WHRC001, WHRC002 and WHRC003 for a total of 450m were drilled with RC.</li> </ul> <p><b>Whatling South prospect</b></p> <ul style="list-style-type: none"> <li>One RC hole for 250m were drilled with RC (WHRC004).</li> </ul>

Criteria	JORC Code explanation	Commentary
		Diamond core (half core) and RC chips are stored in Orange, NSW.
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<p><b><u>Whatling Hill and Whatling South prospects</u></b></p> <ul style="list-style-type: none"> <li>Recoveries are considered satisfactory</li> <li>The recovery for WHDD001 is 98.1%.</li> <li>The recovery for WHDD002 is 99.0 %.</li> <li>RQD measurements and core loss has been recorded on the original diamond logging sheets and retained for reference.</li> <li>RC samples were visually checked for recovery, moisture and contamination.</li> <li>Any issues or concerns were recorded in the database.</li> <li>The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>Emmerson do not consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p><b><u>Whatling Hill and Whatling South prospects</u></b></p> <ul style="list-style-type: none"> <li>Standard operating procedures are employed for logging diamond and RC holes</li> <li>Drill hole logging data is directly entered into field laptop computer. Standardised code were used for lithology, oxidation, alteration, presence of sulphide information are recorded.</li> <li>Structural logging 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.</li> <li>Magnetic susceptibility data were collected for diamond core every 1m meter as per procedure.</li> <li>Magnetic susceptibility data for all individual 1m RC samples was collected.</li> <li>All drill core was digitally photographed. (Wet and Dry)</li> <li>All RC chips were photographed.</li> <li>Diamond core (half core) and RC chips are stored in Orange, NSW.</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>	<p><b><u>Whatling Hill and Whatling South prospects</u></b></p> <ul style="list-style-type: none"> <li>Standard operating procedures are used for sampling RC and diamond core samples.</li> <li>Areas of geological interest were identified by the company geologists and the halved core samples dispatched for assay, 3m riffle splits (from collar to end of hole) and selected 1m resplits (identified by company geologist) from the RC were sent for assay.</li> <li>Diamond core (HQ3 and NQ3) was halved using an automatic core saw. Half core from the same side was dispatched for analysis.</li> <li>The sample preparation of diamond core followed industry best practice in sample preparation involving oven drying, coarse crushing of the half core followed by pulverisation of the entire sample (total prep) using grinding.</li> <li>RC duplicate samples were routinely submitted with duplicate assays returning acceptable comparison results.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Standards are routinely inserted in the sampling batch for QAQC purposes.</li> <li>Pulverised material not required by the laboratory (pulp) including duplicate samples were returned, and are held in Orange, NSW</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, 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.</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>	<p><b><u>Whatling Hill and Whatling South prospects</u></b></p> <ul style="list-style-type: none"> <li>Field QC procedures involve the use of certified reference material (CRM's) as assay standards, including blanks, duplicates.</li> <li>Certified reference material or blanks are inserted at least every 20 samples for diamond and RC sampling.</li> <li>Standards are purchased from Certified Reference Material manufacture companies. Standards were purchased in foil lined packets of between 60g and 100g.</li> <li>Core samples are cut at RME yard in Orange, NSW using automatic core saw.</li> <li>All samples were collected from the same side of the core.</li> <li>Half core samples were submitted for analysis, unless a field duplicate is required, in which case quarter core samples are submitted.</li> <li>Average sample weight was 3 to 4kgs for the diamond, and 1 to 2kgs for the RC.</li> <li>Samples will be delivered to ALS Lab, in Orange NSW.</li> <li>The sample preparation of diamond core follows industry best practice in sample preparation involving oven drying, coarse crushing of the half core sample down to ~10mm followed by pulverisation of the entire sample to a grind size of 85% passing 75 micron.</li> <li>Laboratory checks include CRM's and/or in-house controls, blanks, splits, and replicates that are analysed with each batch of samples submitted. These QC results are reported along with sample values in the final analytical report.</li> <li>QAQC data is uploaded with the sample values into ERM's database</li> <li>A QAQC database is created as a separate table in the database and includes all field and internal laboratory QC samples.</li> <li>QC data is reported through a series of control charts for analysis and interpretation by the Exploration Manager</li> <li>The sample sizes are considered to be appropriate to correctly represent the sulfide mineralization at Whatling Hill exploration target on the style of mineralisation (Porphyry Cu-Au), the thickness and mineral consistency of the intersection(s).</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>	<p><b><u>Whatling Hill and Whatling South prospects</u></b></p> <ul style="list-style-type: none"> <li>Original sample data sheets and files have been retained and were used to validate the contents of the company's database against the original assay (when received), down hole survey results and the geological logging.</li> <li>No twin drillholes have been completed at the Whatling Hill prospect</li> <li>Drill Hole Data including: meta data, orientation methods, any gear left in the drill hole, lithological, mineral, structural, geotechnical, density, survey, sampling, magnetic susceptibility is collected and entered directly into an excel spread sheet using drop down codes.</li> </ul>



Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole 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>	<p><b>Whatling Hill and Whatling South prospects</b></p> <ul style="list-style-type: none"> <li>Collar locations and details are shown in Table 1 within the main text.</li> <li>All reported drill hole collars were surveyed using a differential GPS and by a suitably qualified company contractor.</li> <li>Collar survey accuracy is +/- 5 mm for easting, northing and elevation coordinates.</li> <li>Co-ordinate system GDA_94, Zone 55.</li> <li>Downhole survey measurements were collected every 30m for diamond drill hole using REFLEX EZ-SHOT</li> <li>This survey camera equipment is quoted by the manufacturer to have an accuracy of <ul style="list-style-type: none"> <li>Azimuth <math>0 - 360^{\circ} \pm 0.5^{\circ}</math></li> <li>Dip <math>\pm 90^{\circ} \pm 0.2^{\circ}</math></li> </ul> </li> <li>If the measurement is considered to be affected by magnetic material then an average from the last non-affected and the next non affected measurement is used.</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>	<p><b>Whatling Hill and Whatling South prospects</b></p> <ul style="list-style-type: none"> <li>Diamond core sampling is generally defined by geological characteristics and controlled by alteration and lithological boundaries.</li> <li>A 3m composite was collected for RC chips. Depending on geologist, a 1m resplit were collected to check the grade.</li> <li>Significant intersections are shown in Table 2 within the main text.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <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><b>Whatling Hill and Whatling South prospects</b></p> <ul style="list-style-type: none"> <li>WHDD001, WHDD002, WHRC001 drilling were angled, drilled from west to east, along the IP line survey to target anomalous chargeability identified at depth.</li> <li>WHRC002 and WHRC002 drilling were angled, drilled from northwest to southeast oriented to target perpendicular to outcropping mineralized veins.</li> <li>WHRC004 was angled, drilled from east to west, along the IP line survey to target anomalous chargeability identified at depth.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p><b>Whatling Hill and Whatling South prospects</b></p> <ul style="list-style-type: none"> <li>Diamond core is cut down the core orientation line and same side half core is collected for assay.</li> <li>Core length minimum is 0.5m and maximum 1.5m.</li> <li>Sampling intervals are determined by geological changes.</li> <li>RC samples were selected, bagged and labelled by site geologist and field assistants.</li> <li>They are placed in sealed polyweave bags for transport to the assay laboratory (ALS Lab in Orange).</li> <li>Digital data is emailed to the Exploration Manager informing that the samples have been dispatched to the lab.</li> <li>The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>Sample receipt is logged into NSW Emmerson sample ledger.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>While samples are being prepared in the laboratory they are considered to be secure.</li> <li>Tracking is available through the internet and designed by the laboratory to track the progress of batches of samples.</li> <li>While samples are being processed in the laboratory they are considered to be secured</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><u>No formal audit has been completed on the samples being reported.</u></li> </ul>

## Section 2 Sampling Techniques and Data – Fifield Project – Fifield Project – Whatling Hill and Whatling South Prospects – Diamond Drilling and Reverse Circulation (RC) drilling

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Whatling Hill and Whatling South prospects are in EL8464.</li> <li>EL8464 Fifield is located just south of Tullamore and approximately 50 NW of Northparkes Cu-Au mine.</li> <li>EL8464 is situated on map sheet SI55-3 Narromine 1:250,000</li> <li>EL8464 is consists of wheat paddocks and minor grazing paddocks.</li> <li>The tenement is 100% held by Lachlan Resources (Emmerson Resources).</li> <li>EL8464 is in good standing and no known impediments exist.</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>North Broken Hill Ltd explored the area in 1978 for tungsten and skarn.</li> <li>Shell Company of Australia from 1981 - 1983 explored for tin-tungsten skarn deposits associated with the Gobondery granite; porphyry copper and base metal mineralisation associated with monzonite-diorite; tin-quartz- tourmaline mineralisation hosted by Girilambone sediments; and gold-base metal stockwork mineralisation hosted in Ordovician sediments.</li> <li>North Mining Ltd (North) explored the district for Porphyry Cu-Au deposits within the Ordovician Volcanics from 1992 – 1995.</li> <li>Clancy Exploration Ltd held the ground through EL6534 from 2006 – 2014 targeting Ordovician Porphyry Cu-Au system.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Since the 1960's, the area inside EL8464 has been actively explored for a variety of metals including Cu, Au, Pb, Zn, Pt, Ni, Sn and W. Several historical small mining operations have been conducted in the tenement, Allandale and Gobondery. The Allandale Cu mine is a vein associated copper occurrence. The Gobondery Fe Mine was described as a small high-grade hematite deposit on the eastern contact of the Devonian Gobondery Granite. EL8464 lies within an inlier of Ordovician arc interpreted to have been rifted west off the Northparkes Igneous Complex. The main Ordovician arc is dominated by the Raggatt Volcanics consists of andesitic to trachyandesitic lavas and volcaniclastic rocks. The Devonian Gobondery granite in the western part of the tenement outcrops as a prominent hill.</li> <li>The Ordovician Raggatt Volcanics have been tentatively correlated with the Womblin and Goonumbla Volcanics at Northparkes.</li> <li>The style of mineralization of the Whatling Hill prospect is considered to be Porphyry Cu-Au. Elsewhere in the tenement, other porphyry prospects are Forrest View and Allandale prospect.</li> <li>The Raggatt Volcanics are considered to be highly prospective to host Porphyry Cu Au, supported by the Late Ordovician age, and the occurrence of alteration associated with this style of mineralization. i.e. pervasive epidote and chlorite alteration, locally with disseminated magnetite, presence of magnetite veins and quartz-magnetite veins with clots of malachite.</li> <li>Field based exploration has been complemented by cutting edge science which has included analysis of the alteration (trace and rare earth elements within the outer green rock or epidote/chlorite zone) where initial findings suggests geochemical footprints of a porphyry system. Moreover, age dating of the monzonite intrusion within the Raggatt Volcanics yielded a Late Ordovician to Early Silurian age – all part of the University of Tasmania CODES ARC Linkage project.</li> </ul>
Drillhole information	<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 drillholes: <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A list of drill hole information, collar details and intersections is provided in the main text, Table 1 and Table 2.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<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>Mineralized RC and DDH 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> <li>Cut-off grades applied to results reported in this report are : <ul style="list-style-type: none"> <li>Minimum cut-off of 0.1 g/t Au. No maximum cut-off.</li> <li>Minimum cut-off of 0.1 % Cu. No maximum cut-off.</li> <li>Minimum cut-off of 0.1 % Zn. No maximum cut-off.</li> </ul> </li> <li>Maximum internal dilution of 3 metres for the diamond drilling</li> <li>Maximum internal dilution of 6 metres for the RC drilling</li> <li>No metal equivalent values reported</li> </ul>
Relationship between mineralisation widths and intercept lengths	<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 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>	<ul style="list-style-type: none"> <li>The holes at Whatling Hill and Whatling South prospects were designed and drilled aimed at being as perpendicular as possible to the interpreted mineralised zone, the drill holes are at a high angle therefore making the intercepts larger than true width.</li> <li>Intersections are reported as downhole lengths and not true width.</li> </ul>
Diagrams	<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>
Balanced reporting	<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>Whatling Hill and Whatling South prospects have seen little previous exploration and recent drilling program of Emmerson was designed to test a variety of geological, geophysical and geochemical targets.</li> <li>First pass drilling at Whatling Hill has been successful in establishing the presence of porphyry copper style mineralisation and Intermediate sulfidation epithermal veins.</li> <li>Further analysis of the geology, alteration and vein orientations combined with the assay results will assist in providing vectors to the core of the mineralisation and determine the location of the next drilling campaign.</li> <li>It is uncertain that following evaluation and/or further exploration work that the current identified mineralisation will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</li> </ul>
Other substantive exploration data	<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 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 database.</li> <li>Magnetic susceptibility was carried out 100% for all holes drilled.</li> </ul>
Further work	<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> </ul>	<ul style="list-style-type: none"> <li>Further work on the reported exploration targets will involve: <ul style="list-style-type: none"> <li>- Update of the geological model and geological and structural interpretation</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>- Proposal of Deep IP to assist and focused next round of drilling</li> <li>- Representative samples were submitted to assist in refining the conceptual model to provide vectors to the core of the mineralization and determine the location of the next drilling campaign: <ul style="list-style-type: none"> <li>Epidote and chlorite chemistry (green rock environment)</li> <li>Age dating of intrusions identified from the recent drilling</li> <li>Wholerock/XRF lithogeochem to assess fertility of intrusions</li> <li>Pb-Pb isotope dating of galena to determine age of mineralization</li> <li>Review of surface Geochem to re-assess prospectivity inside EL8464.</li> </ul> </li> </ul>