

# NICKEL-COPPER SULPHIDES INTERSECTED IN THIRD HOLE AT ANDOVER

## Fourth Diamond Drill Hole Underway

- ANDD0003 intersected significant quantities of massive, semi-massive, matrix, blebby and disseminated nickel and copper sulphide mineralisation in three shallow intervals:
  - 2.50m interval from 41.20m - includes 0.75m of massive and semi-massive sulphides
  - 9.25m interval from 62.80m - mostly blebby and disseminated sulphides
  - 7.65m interval from 78.30m - includes 1.90m of massive and semi-massive sulphides
- Variable amounts of disseminated and blebby sulphides present throughout the hole
- Spectral analysis of selected drill core samples from holes ANDD0001 and ANDD0002 confirms the presence of abundant nickel and copper sulphides

Azure Minerals Limited (ASX: AZS) ("Azure" or "the Company") is pleased to report that the third drill hole on the Andover Project (60% Azure / 40% Creasy Group) has intersected substantial shallow nickel and copper sulphide mineralisation, which follows on from similar strong intersections in the first two holes.



**Figure 1: Massive, semi-massive and blebby nickel and copper sulphides in ANDD0003: ~79m downhole**

Commenting on the latest drill hole, Managing Director, Mr. Tony Rovira said:

*“Drilling at Andover continues to deliver very exciting visual mineralisation with our third hole intersecting strong, near-surface nickel and copper sulphide mineralisation. Our fourth hole has now started, and it is targeting along-strike and down-dip mineralised extensions to the northwest.*

*“This is early stage drilling but with each of our first three drill holes successfully intersecting substantial widths of nickel and copper sulphides and the presence of strong electromagnetic conductors associated with this mineralisation, we are confident this mineralised system has the potential to be extensive.*

*“Importantly, spectral scanning of drill core from the first two holes has verified the presence of significant quantities of pentlandite (nickel sulphide) and chalcopyrite (copper sulphide) mineralisation, confirming the Company’s geological logging and visual estimations.”*

## **OVERVIEW**

As with the first two holes reported by the Company, ANDD0003 contains wide intervals of nickel and copper mineralisation in the form of massive, semi-massive, matrix, blebby and disseminated sulphides hosted in gabbro and similar mafic rocks. Readings by pXRF indicate the presence of significant nickel and copper grades in the sulphide-rich intervals.

In order to support and confirm the on-site pXRF readings, the Company submitted two samples of drill core from holes ANDD0001 and ANDD0002 containing semi-massive, matrix and stringer nickel and copper sulphides to be analysed by Portable Spectral Services utilising the Bruker M4 TORNADO. The resulting images (see **Figures 2 and 3**) clearly identify the presence of substantial amounts of pentlandite (Ni) and chalcopyrite (Cu) sulphides. Importantly, the textural characteristics of the sulphide species and, particularly in the ANDD0002 sample, the linear orientation of the sulphide grains present in the spectral scans, indicate that the sulphide mineralisation has been re-mobilised to its current location.

The Company’s surface fixed loop (FLTEM) and down-hole (DHTEM) electromagnetic surveys are continuing, and modelling of this geophysical data continues to identify numerous EM conductor plates, providing additional targets for follow-up drilling. The fourth diamond drill hole, ANDD0004, is in progress and it is targeting a strong and extensive conductor plate which is interpreted to represent the west/northwest down-dip extensions of the sulphide mineralisation intersected in the first three holes (see **Figures 4 and 5**).

Cutting and sampling of the mineralised intervals in hole ANDD0003 have been completed and the samples are in transit to the laboratory in Perth for analysis. Samples from the first two holes, ANDD0001 and ANDD0002, are at the laboratory and analysis is in progress. Assay results will be released as they become available.



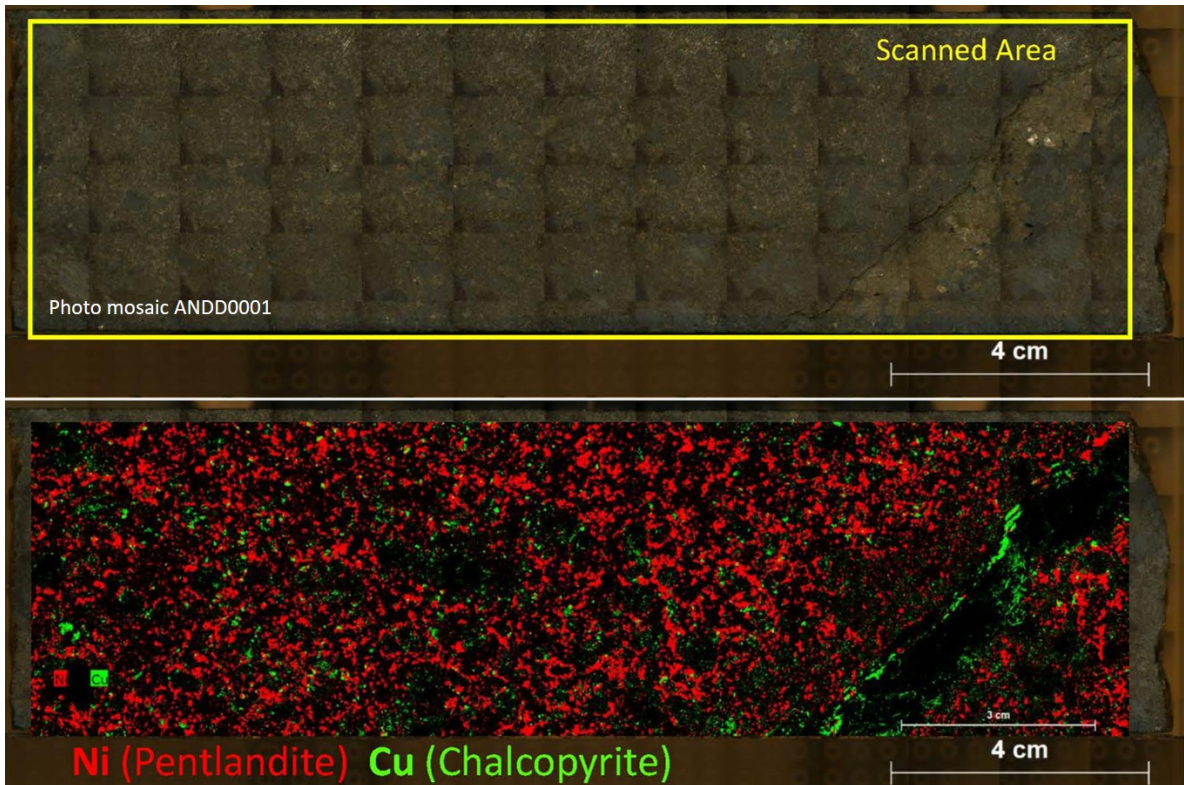


Figure 2: Spectral scan of semi-massive and matrix Ni-Cu sulphides in ANDD0001; 95.20m – 95.40m

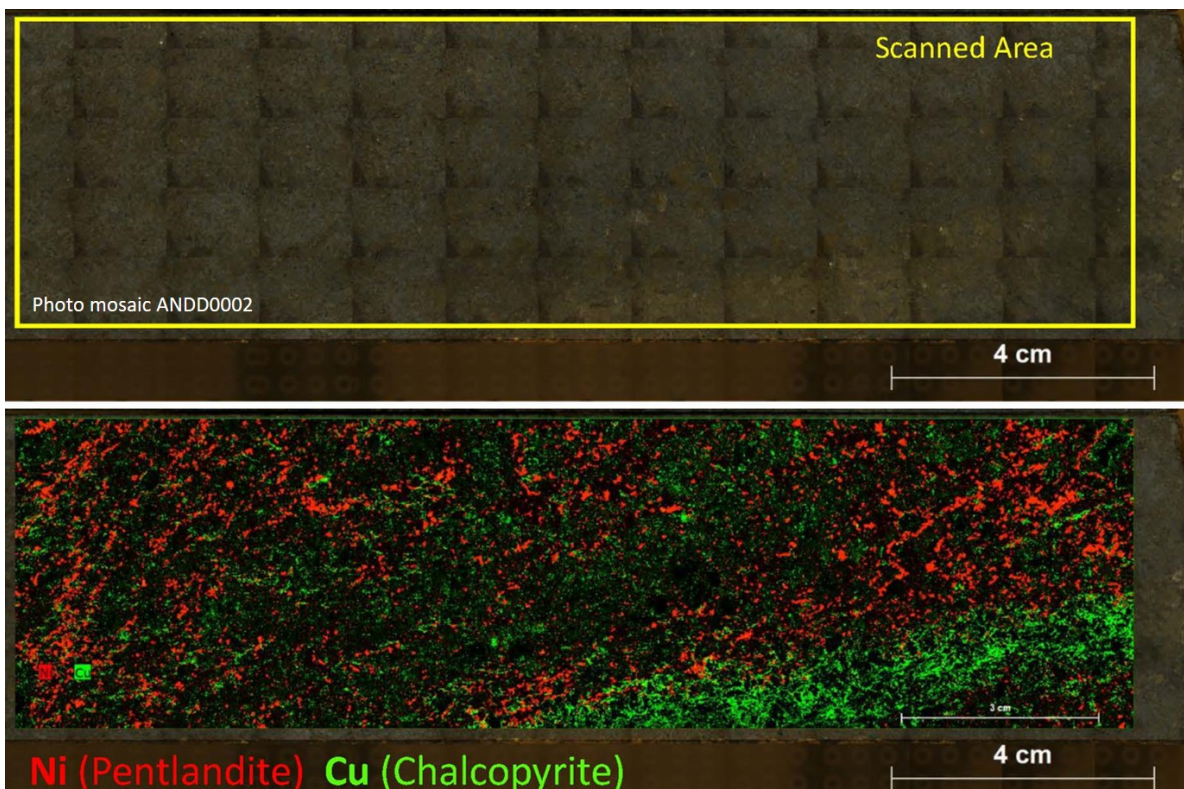


Figure 3: Spectral scan of matrix and stringer Ni-Cu sulphides in ANDD0002; 116.30m – 116.50m



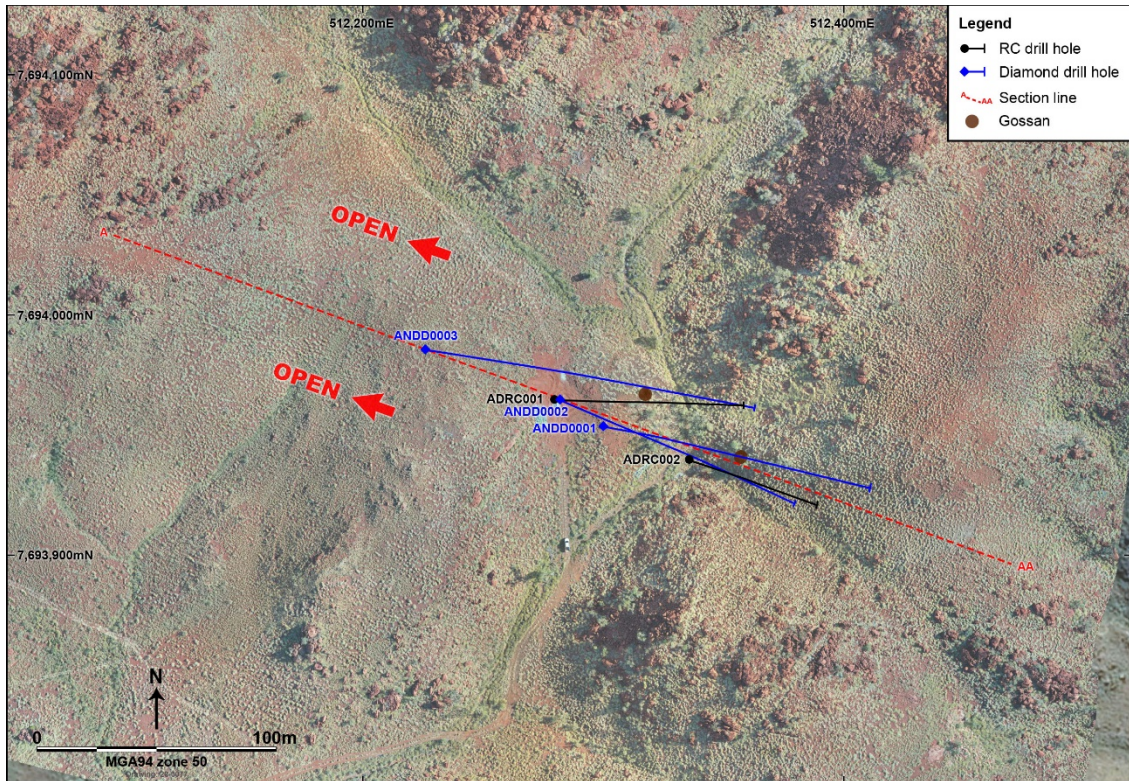


Figure 4: Andover - Drill holes with section line A-AA

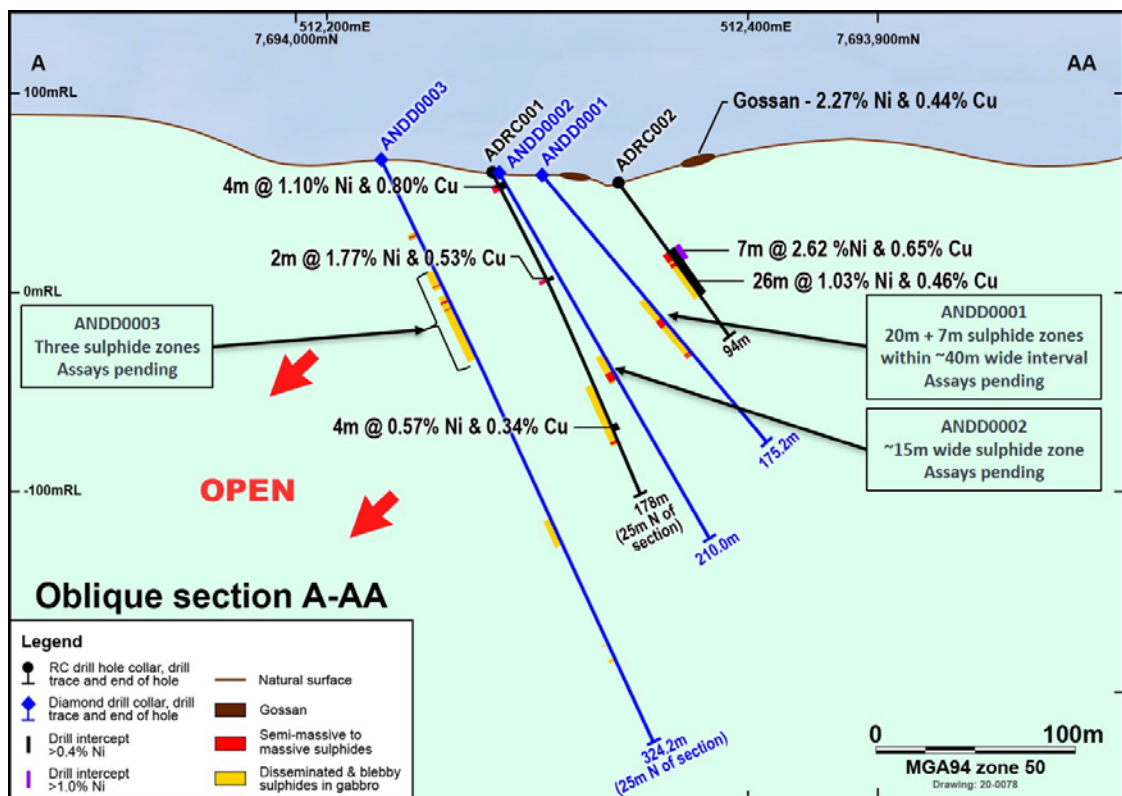


Figure 5: Section A-AA showing drill holes and mineralised intersections

**Table 1: Summary drill log of mineralised intersections for ANDD0003**

HOLE No.	INTERVAL	SULPHIDE FORM	SULPHIDE TYPE	SULPHIDE % (Visual Estimate)
ANDD0003	41.20 – 41.95	Disseminated & stringers	Pyrrhotite-pentlandite-chalcopryrite	5-10%
	41.95 – 42.45	Massive	Pyrrhotite-pentlandite-chalcopryrite	>80%
	42.45 – 43.45	Disseminated	Pyrrhotite-pentlandite-chalcopryrite	1-5%
	43.45 – 43.70	Semi-Massive	Pyrrhotite-pentlandite-chalcopryrite	40-80%
	62.80 – 72.05	Disseminated & blebby	Pyrrhotite-pentlandite-chalcopryrite	5-20%
	78.30 – 78.70	Blebby to matrix	Pyrrhotite-pentlandite-chalcopryrite	20-40%
	78.70 – 80.60	Semi-massive to massive	Pyrrhotite-pentlandite-chalcopryrite	40-80%
	80.60 – 83.45	Blebby to matrix	Pyrrhotite-pentlandite-chalcopryrite	20-40%
	83.45 - 85.95	Disseminated & stringers	Pyrrhotite-pentlandite-chalcopryrite	5-10%
	93.90 – 94.80	Disseminated & stringers	Pyrrhotite-pentlandite-chalcopryrite	10-20%

*In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide and oxide material abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of the visible mineralisation reported in preliminary geological logging. The Company will update the market when laboratory analytical results become available.*

**Table 2: Location data for Andover drill holes**

HOLE No.	EAST (mE)	NORTH (mN)	ELEVATION (mASL)	AZIMUTH	DIP	TOTAL DEPTH (m)	COMMENT
ANDD0001	512300	7693954	58.5	100	-50	175.2	Completed
ANDD0002	512282	7693965	58.8	110	-60	210.0	Completed
ANDD0003	512226	7693986	66.3	097	-65	324.2	Completed

**COMPETENT PERSON STATEMENT**

*Information in this report that relates to Exploration Results for the Andover Project is based on information compiled by Mr Tony Rovira, who is a Member of The Australasian Institute of Mining and Metallurgy and fairly represents this information. Mr Rovira has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Rovira is a full-time employee and Managing Director of Azure Minerals Limited and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*Information in this report that relates to previously reported Exploration Results has been cross-referenced in this report to the date that it was reported to ASX. Azure Minerals Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcements.*

## APPENDIX 2

### JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<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>	No sampling has been undertaken
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	No sampling has been undertaken
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	No sampling has been undertaken
<b>Drilling Techniques</b>	<i>Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Diamond drill hole ANDD0003 was drilled with HQ core from surface to 50.7m and HQ2 core from 50.7m to the final depth of 324.2m.  Drill core in angled holes is oriented for structural interpretation.  The drilling company is Topdrive Drilling.
<b>Drill Sample Recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Diamond core was reconstructed into continuous runs. Depths were measured from the core barrel and checked against marked depths on



Section 1: Sampling Techniques and Data		
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	the core blocks. Core recoveries were logged and recorded in the database.
	<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>	Drill core orientation was recorded when possible at the end of each drill run.  No sampling has been undertaken.
<b>Logging</b>	<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>	Detailed core logging was carried out with recording of weathering, lithology, alteration, veining, mineralisation, structure, mineralogy, RQD and core recovery.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Drill core logging is qualitative.
	<i>The total length and percentage of the relevant intersections logged.</i>	Core from the entire drill was logged.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No sampling has been undertaken.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No sampling has been undertaken.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	No sampling has been undertaken.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	No sampling has been undertaken.
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	No sampling has been undertaken.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	No sampling has been undertaken.

Section 1: Sampling Techniques and Data		
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	No sampling has been undertaken.
	<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>	No sampling has been undertaken.
	<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>	No sampling has been undertaken.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Senior technical personnel from the Company (Project Geologists) logged and verified significant intersections.
	<i>The use of twinned holes</i>	No twinned holes.
	<i>Discuss any adjustment to assay data</i>	No sampling has been undertaken.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Drill holes were pegged by Azure Minerals' personnel using a handheld GPS $\pm 3\text{m}$ .
	<i>Specification of the grid system used</i>	MGA94_50
	<i>Quality and adequacy of topographic control</i>	Available state contour data and GPS recorded RL has been used which is adequate given the early stage of the project.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results</i>	Holes were individually drilled into electromagnetic targets and were not setup on a regular spacing. Downhole sample interval spacings are selected based on identification of intersected mineralisation.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</i>	The project is at early exploration drilling stage, geological and grade continuity is not yet established.



Section 1: Sampling Techniques and Data		
	<i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	
	<i>Whether sample compositing has been applied</i>	No sampling has been undertaken.
<b>Orientation of data in relation to geological structure</b>	<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>	Drilling was designed to intersect the modelled EM targets and geological features were not factored at this early stage of exploration.
	<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>	No sampling bias has been identified due to the early stage of the project.
<b>Sample security</b>	<i>The measures taken to ensure sample security</i>	No sampling has been undertaken.

Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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>	<p>Exploration Licence E47/2481 is a Joint Venture between Azure Minerals Ltd (60%) and Croydon Gold Pty Ltd (40%), a private subsidiary of the Creasy Group.</p> <p>The tenement is centred 35km southeast of the major mining/service town of Karratha in northern WA. The tenement is approximately 12km x 6km in size with its the northern boundary located 2km south of the town of Roebourne.</p> <p>Approximately 30% of the tenement area is subject to either pre-existing infrastructure, Class "C" Reserves and registered Heritage sites. Written permission is required to access these areas which are outside the current areas of exploration focus.</p>
	<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>	The tenement has been kept in good standing with all regulatory and heritage approvals having been met. There are no known impediments to operate in the area.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Limited historical drilling has been completed within the Andover Complex. The following phases of drilling works with results have been undertaken:</p> <p>1986-1987: Greater Pacific Investment; 6 core holes. No PGEs were detected but 1m @ 1% Ni, 0.25% Cu from 166.5m in ADD-5, and 0.72% Ni, 0.41% Cu from 147m in ADD-6.</p> <p>1996-1997: Dragon Mining; Stream sediment sampling, 5 RC holes in the NE at Mt Hall Ni-Cu target. Zones of noted sulphides (in sediments &amp; gabbro) were selectively sampled with no anomalous results. Rare intervals of ultramafics were sampled so results are inconclusive.</p> <p>1997-1998: BHP Minerals; 2 RC/DD holes were drilled within the Andover project areas. Both holes intersected strongly magnetic serpentinite containing elevated values of nickel (up to 0.29% Ni), copper (up to 0.26% Cu) and cobalt (up to 332ppm Co) but no anomalous PGE's.</p> <p>2012-2018: Croydon Gold; VTEM Survey, soil and rock chip sampling, 7 RC holes over 4 Ni-Cu-Co targets.</p>

Section 2: Reporting of Exploration Results		
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Andover Complex is an Archean-age layered mafic-ultramafic intrusion covering an area of about 200km<sup>2</sup>. The complex is part of a series of mafic-ultramafic bodies that intruded the West Pilbara Craton.</p> <p>The Andover Complex comprises a lower layered ultramafic zone 1.3km thick and an overlying 0.8km gabbroic layer intruded by dolerites.</p> <p>Ni-Cu-Co sulphide mineralisation occurs at lithological boundaries, either between different types of gabbro's, or between pyroxenites and ultramafics. The current interpretation of the mineralized sulphides suggests a magmatic origin, heavily overprinted by one or several hydrothermal events.</p>
<b>Drill hole information</b>	<i>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:</i>	Table included in the body of this report.
	<i>easting and northing of the drill hole collar</i>	See above
	<i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	See above
	<i>dip and azimuth of the hole</i>	See above
	<i>down hole length and interception depth</i>	See above
	<i>hole length.</i>	See above
	<i>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.</i>	No material information has been excluded.
<b>Data aggregation methods</b>	<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>	No sampling has been undertaken.



Section 2: Reporting of Exploration Results		
	<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>	No sampling has been undertaken.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No sampling has been undertaken.
<b>Relationship between mineralisation widths and intercept lengths</b>	<i>These relationships are particularly important in the reporting of Exploration Results</i>	No drilling results have been reported in this release.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Results are reported as downhole widths. Drilling was designed to intersect the modelled EM targets and geological features have not been factored at this early stage of exploration. The true direction of mineralisation is not determined at this stage.
	<i>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').</i>	Downhole lengths have been reported and true widths are not known at this stage.
<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to figures in the report.
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to</i>	No sampling has been undertaken but photographs of sulphide intervals are included in this report.

Section 2: Reporting of Exploration Results		
	<i>avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	Everything meaningful and material is disclosed in the body of the report. Geological observations have been factored into the report.
<b>Further work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or large-scale step out drilling).</i>	Submit drill core for analysis. Additional diamond drilling to follow-up the sulphide intersections.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Downhole EM surveying.