

## ASX ANNOUNCEMENT

8 April 2022  
ASX Code: MYL

### BOARD OF DIRECTORS

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Non-Executive Chairman

Mr John Lamb  
Managing Director

Mr Rowan Caren  
Executive Director

Mr Paul Arndt  
Non-Executive Director

### ISSUED CAPITAL

Shares	190 m.
Performance Rights	5 m.
Unlisted Options	5 m.

### Mallee Resources Limited

Suite 1, Ground Floor,  
9 Havelock Street  
West Perth 6005  
Western Australia

info@malleeresources.com.au  
P +61 (0)8 6147 8100  
malleeresources.com.au

ABN: 48 124 943 728

# Avebury Nickel Project - Mineral Resource Estimate

Mallee Resources Limited (“MYL” or “the Company”) is pleased to announce that independent consultants CSA Global Pty Ltd, an ERM Group Company, (“CSA Global”) have reported a Mineral Resource estimate in accordance with the JORC Code (2012 Edition) (“JORC Code”) in respect of the Avebury Project (defined below).

As announced on 11 March 2022, the deed of company arrangement (“DOCA”) for Allegiance Mining Pty Ltd (Administrators Appointed) (Receivers and Managers Appointed) (“Allegiance”) has been executed. The DOCA contemplates MYL (through a wholly owned subsidiary) acquiring Allegiance, which wholly owns the Avebury mining licences, exploration licences, the underground mine, processing plant, mine infrastructure and other associated assets (“Avebury Project”).

Mineral Resource estimation work in respect of the Avebury Project was carried out by MMG Limited (“MMG”) in 2011 and reported in accordance with the JORC Code in 2013. No drilling has been undertaken since.

CSA Global has reviewed the work undertaken by MMG, undertaken a review of (and amended) the classification approach, checked the Mineral Resource depletion, completed an assessment of reasonable prospects for eventual economic extraction (“RPEEE”), and re-reported the Mineral Resource in accordance with the JORC Code. The Mineral Resource estimate is shown in Table 1.

*Table 1: Avebury Mineral Resource estimate, reported from all blocks within Ni > 0.4 % envelope*

JORC classification	Tonnage (Mt)	Ni (%)	Co (ppm)	As (ppm)
Indicated	8.7	1.0	244	378
Inferred	20.7	0.8	223	297
<b>TOTAL</b>	<b>29.3</b>	<b>0.9</b>	<b>229</b>	<b>321</b>

*Notes: Due to effects of rounding, the total may not represent the sum of all components. All resources quoted as total nickel, a nickel recovery of 75 to 80% is expected using conventional flotation processes.*

John Lamb, Managing Director, commented:

“Avebury has an outstanding nickel sulphide mineral resource endowment. Subject to the DOCA effectuating, our plans will include drilling to upgrade Inferred Mineral Resources to define, with confidence, the next phases of development at Avebury.”



Approved for release to the ASX by

**John Lamb**

Managing Director

### **Competent Persons Statement**

The information in this report that relates to Mineral Resources is based on information compiled by Mr Tony Donaghy and Mr Aaron Meakin. Mr Tony Donaghy is a full-time employee of CSA Global Pty Ltd and is a Registered Professional Geoscientist (P.Geo) with the association of Professional Geoscientists of Ontario (PGO), a Recognised Professional Organisation (RPO). Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Tony Donaghy and Mr Aaron Meakin have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Tony Donaghy and Mr Aaron Meakin consent to the disclosure of the information in this report in the form and context in which it appears. Mr Tony Donaghy assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr Aaron Meakin assumes responsibility for matters related to Section 3 of JORC Table 1.

### **Geology and Geological Interpretation**

The Avebury nickel deposit is hosted in an ultramafic body (part of the Mclvor Hill Mafic-Ultramafic Complex) located within a sedimentary sequence comprising volcanoclastic turbidites (the Crimson Creek Formation) which appears to grade laterally into a complex volcano-sedimentary sequence of polymictic conglomerates and breccias, carbonates, calc-alkaline volcanics and volcanoclastic sediments which may represent the Lower Dundas Group of Cambrian age. The sedimentary sequence is overturned and south facing.

Near the deposit, the ultramafic body strikes east-west for about 2 km and generally dips steeply to the south. The body shows complex geometry with respect to the host sequence and thickens considerably with depth to a width more than 500 m. The ultramafic unit extends from Trial Harbour on the west coast in a sinuous fashion towards Avebury and then discontinuously towards the north, fragmented by faulting. Because of folding of the host sediments, the ultramafic body does not crop out where fold axes plunge below the surface; its extent can be followed by its magnetic response. Much of the ultramafic body is located 50–100 m below surface in the vicinity of the Avebury mine.

The ultramafic body at Avebury consists of serpentinitised and metasomatised peridotite or dunite cumulates, both concordant and discordant to bedding of the enclosing Crimson Creek sediments. Margins of the ultramafic body are frequently brecciated with numerous protrusions extending into the overlying volcano-sedimentary sequence and xenoliths of volcano-sedimentary rocks incorporated into pervasive calc-silicate altered mafic-ultramafic rock on the contact. The calc-silicate altered margin ranges from 1 m to 10 m in width.

Mineralisation is hosted primarily in a carapace in what appears to be a structural doubly plunging folded contact between the ultramafic rocks and overlying Crimson Creek Volcanic sequence. Mineralisation at Avebury was focused along the ultramafic-host sequence contact, but lenses of mineralised rock are also present within the ultramafic body. Mineralisation is associated with two distinct gangue mineralogies: dark green to black serpentinitised ultramafics with minor disseminated chromite and magnetite (mine rock type



SERP), and pale green, intensely metasomatised skarn assemblages dominated by amphibole, clinopyroxene and magnetite (mine rock type SKSP). Sixty percent of the Mineral Resource is hosted in the SERP rock type; 40% of the Mineral Resource is hosted in the SKSP rock type.

Mineralisation at Avebury consists of veins and coarse-grained disseminations of sulphides. The sulphide assemblage is dominated by pentlandite (Fe,Ni)S with minor pyrrhotite FeS and millerite NiS, and variable amounts of niccolite NiAs, gersdorffite NiAsS and maucherite Ni<sub>11</sub>As<sub>8</sub>. The gangue assemblage is magnetite-rich, with up to 18% magnetite in both SERP and SKSP assemblages.

Grades of mineralised SERP and SKSP range from 0.4% Ni to 4% Ni, with an average of about 1% Ni at a cut-off grade of 0.4% Ni. Arsenic levels within the mineralisation range from about 200 ppm to 650 ppm. The assay results report total nickel in the rock, including speciation of nickel that is silicate/oxide hosted and therefore metallurgically non-recoverable. MMG delineated the nickel mineralisation using a cut-off grade of 0.4% Ni following statistical analysis and based on geological observation. This nickel grade was deemed to represent the natural cut-off grade between mineralised (recoverable sulphide nickel dominant) and non-mineralised (non-recoverable silicate-oxide nickel dominant) material. Records indicate that olivine/serpentine in the SERP/SKSP can contain approximately 0.17–0.3% nickel and magnetite 0.15–0.2% nickel. The nickel in magnetite occurs as microscopic pentlandite inclusions. A final small amount of nickel is also locked in the pyrrhotite either as a solid solution interchanged with iron within the pyrrhotite mineral lattice, or as microscopic inclusions of pentlandite enclosed within the pyrrhotite. Solid solution nickel in pyrrhotite will not be recoverable, while micro pentlandite inclusions will require very fine grind to liberate the grains and make them available for flotation.

Mineralised zones in the ultramafic body vary in true width from 1 m to 40 m and average around 10 m. Mineralised lenses are generally around 50–600 m in length and can extend over 400 m down dip. Lenses are generally sub-parallel to the contact with the overlying volcanic complex, although there is some suggestion of structural control of internal lenses either on fold axial planar schistosity or within high-strain shear structures. The lenses anastomose and pinch and swell in an irregular and unpredictable manner.

Nickel domains are delineated using a 0.4% Ni cut-off which is the natural break between background ultramafic nickel and elevated nickel sulphides (**Error! Reference source not found.**). Coarse pentlandite mineralisation is visible above 0.4% Ni. Separate wireframes were also modelled for high arsenic (>300 ppm) domains (**Error! Reference source not found.**).

Figure 1: Nickel wireframes

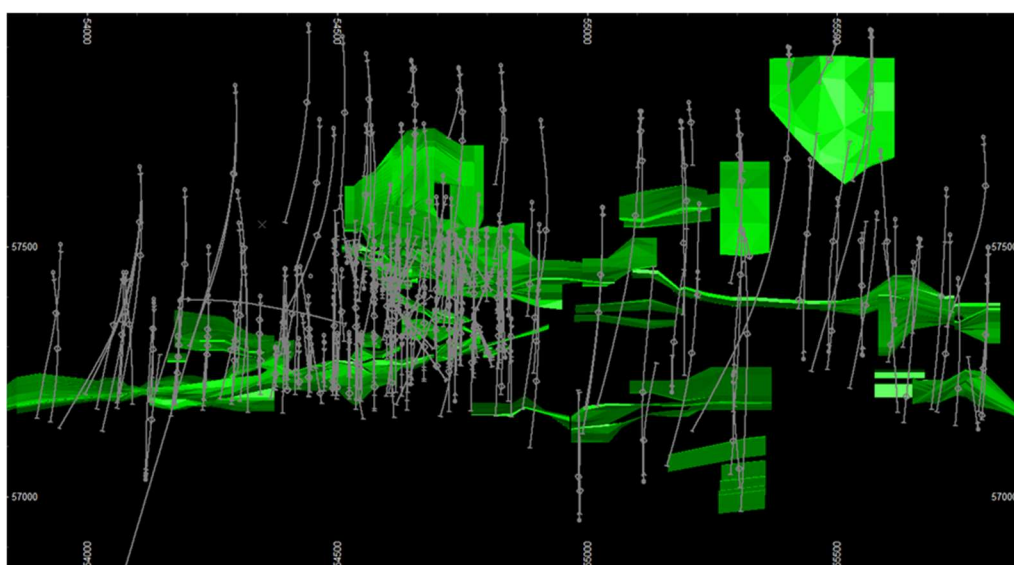
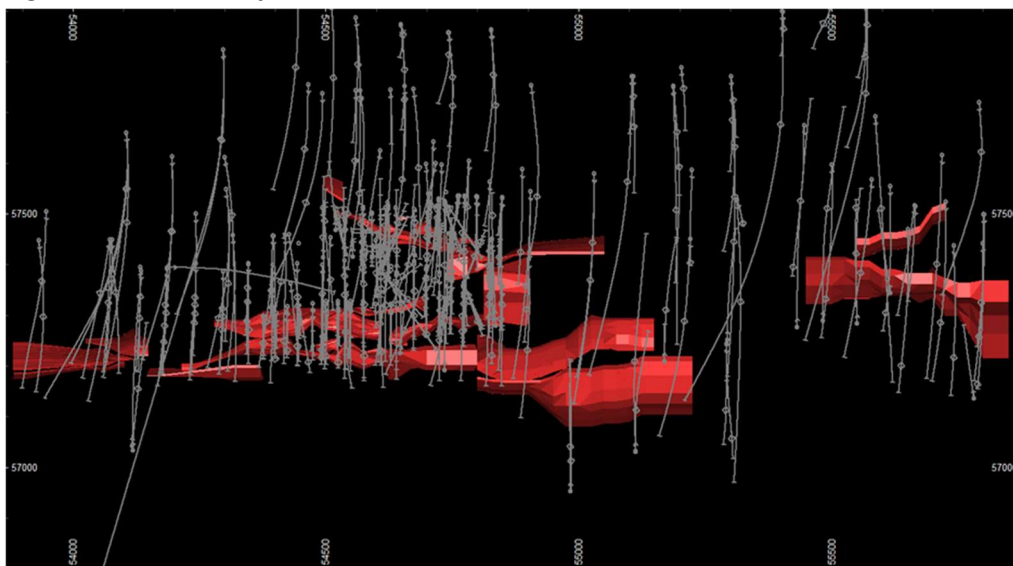




Figure 2: Arsenic wireframes



### Sampling and Sub-Sampling Techniques

Core samples were taken at a nominal length of 1 m, honouring geological contacts where possible. Only minor core loss was recorded and there is no demonstrated relationship between sample recovery and grade.

Core is split in half using a core saw. Samples are then bagged, numbered, and dispatched to analytical laboratories. The laboratory process followed drying, crushing, milling and homogenising the entire sample to 80% passing 75 microns.

Sampling and sub-sampling techniques can be considered industry standard.

### Drilling Techniques

The drill hole database contains 456 diamond drill holes (NQ, NQ2, LTK56 or LTK60) for 118,000 m. The drilling was carried out from 1997 through 2010/2011. The drilling data which has been collected represents a high-quality dataset which is suitable to carry forward for Mineral Resource estimation. Core recoveries have been high throughout the drill programmes, and no relationship between recovery and Ni grade has been established.

All drill hole collars were located by a licensed surveyor according to a mine grid system.

The method used to survey drill hole paths has varied throughout the project's history. The presence of magnetic minerals (magnetite and pyrrhotite) precluded the use of conventional down-hole survey tools which measure the magnetic azimuth.

Either an Eastman single shot camera, a digital downhole survey camera, a gyroscope or a Maxibor optical tool were used for surface holes prior to 2005. The first two methods measured magnetic azimuth, hence correction of the data is required when magnetic minerals are present. Gyroscope results are limited to a few holes prior to 2005 and should be considered the most accurate. The Maxibor method measures incremental differences at fixed intervals down the drill hole relative to the orientation of the drill rods at the collar. The method relies heavily on centralisation of the tool in the hole, and an accurate measurement of the original collar dip and azimuth. Prior to 2005, surface holes which were not surveyed utilised nearby deviation data. Since 2005, a gyroscopic tool has been used for surface holes.

The method used to survey underground drill holes, which have been completed from 2004 through 2010/2011) is as follows:

- The collar azimuth was used for holes drilled east of 345,350 m E



- A +1° deviation was used every 50 m west of 345,350 m E.

The corrections were based on analysis of gyroscope results.

Downhole survey methods used for surface drill holes are appropriate given the presence of magnetic minerals, however pre 2005 surface holes and underground holes are subject to some uncertainty with regard to their position. Given the lack of real down-hole data, hole paths should be considered approximate. Since 2005, a gyroscopic tool has been used for surface holes, and greater confidence exists in the hole paths.

## Classification Criteria

Mineral Resources have been classified based primarily on drill spacing, with due consideration of the data quality and style of mineralisation.

The approximate drill densities were:

- Indicated – from < 25 to 50 m E and from < 40 to 60 m RL
- Inferred – from 50 to 100 m E and from 60 to 100 m RL.

No Measured Mineral Resources have been reported based on the significant short-range grade and geological variability, adopted drilling spacing, and some uncertainty regarding the precision and accuracy of the XRF data. CSA Global considers that underground development within the mineralisation and additional drilling will be required to classify Measured Mineral Resources.

To expand on the statement above, the JORC Code stipulates that mineralisation may be classified as a Measured Mineral Resource when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt, in the opinion of the Competent Person determining the Mineral Resource, that the tonnage and grade of the mineralisation can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability. CSA Global considers that the tonnage and grade of the mineralisation has not been estimated within close limits for the reasons described in the paragraph above.

## Sample Analysis Method and Quality Assurance

Laboratory analytical techniques have varied over the Projects history as follows:

- Pre 2005: 4 acid digest and analysis of Ni, As, Co and S by ICP\_AES at SGS, Townsville.
- 2005 to 2009: pressed powder XRF analysis for Ni, As, Co, S, FeO and MgO at Burnie Research Laboratories (BRL), Burnie.
- Post 2009: 4 acid digest and analysis of Ni, As, Co and S by ICP\_AES at ALS Laboratories, Perth.

The following quality assurance (QA) procedures were adopted:

- Prior to 2004, QA involved reviewing internal laboratory standard results and check assaying (of coarse rejects) by an independent laboratory (Amdel, Adelaide)
- From 2004 through 2010/2011:
  - External standards (matrix matched using Avebury core) were submitted with every batch of samples
  - Pulps were re-submitted to a check laboratory (BRL)
  - Approximately 1 in every 10 submissions was sent for analysis at an umpire laboratory (Amdel Laboratories, Adelaide or ALS Laboratories, Perth).

CSA Global reviewed the quality control (QC) data, and considers that overall, the results are satisfactory.

It is noteworthy, however, that XRF re-assay programs reveal a potential bias in the XRF results. XRF assays from 2006 and 2007 drilling suggest XRF consistently overcalled Ni by less than 5% and undercalled As by between 5 and 10% when compared to the repeat results (data filtered for Ni>0.4% and filtered for



As>100ppm respectively). A bias was also evident in the 2008 results. Pulps were re-assayed using 4 acid digest with ICP determination. For results greater than 100 ppm As, there was a 21% under-call of XRF results compared to ICP results. It was also noted that between 0 ppm and 100 ppm, the mean ICP grade was 20 ppm compared to a mean XRF grade of 80 ppm, due to the high detection limit of 50 ppm and the incorrect assignment of below detection values (a value of 25 ppm was used whereas a value of 14 ppm is suggested as more appropriate). A 6% Ni XRF over-call for + 0.2% Ni grades was also identified. The bias may relate to either the calibration of XRF results or non-complete digestion prior to ICP determination.

Based on the information supplied, CSA Global considers that the sensitivity of the resource estimate to assaying errors for arsenic for XRF data is likely to be within the errors of the resource modelling since they substantially relate to arsenic grades around the limit of detection (where, by definition, the precision is poorer) for a subset of the data.

The subsampling and assaying QA procedures and QC results indicate that overall, the data available and procedures used were reasonable for resource estimation but that some uncertainty exists in the XRF data. Further investigation into the assaying accuracy and precision should be carried out. If the XRF assaying errors cannot be resolved, a sensitivity study will demonstrate the impact of this data on the Mineral Resource and potential Ore Reserve. This is not expected to be material in the context of re-developing the mine, given various alternative strategies that could be adopted for mining ore and producing concentrate. Such strategies could include cut-off grade definition, stope scheduling, mining, grade control and plant modifications.

## Estimation Methodology

Grade estimation was carried out within all nickel and arsenic domains using ordinary kriging. The arsenic domains overlap the nickel domains. Mineral Resources were only reported from the nickel domains.

The parent cell size was set to 10 m E by 10 m N by 10 m RL, with sub-celling to 0.1 m N by 2.5 m E by 2.5 m RL.

A multiple search pass strategy was adopted, whereby search ellipse sizes were progressively increased until there were sufficient samples to inform a block.

The search ellipse dimensions are summarised below:

- Primary 120 m along-strike by 80 m down-dip by 40 m across-strike
- Secondary 240 m along-strike by 160 m down-dip by 80 m across-strike
- Tertiary 720 m along-strike by 480 m down-dip by 240 m across-strike.

No high-grade cuts were applied to Ni or Co, as they were deemed unnecessary following statistical analysis. Arsenic samples outside the high-grade arsenic domains were cut to 5,000 ppm.

All search passes used a minimum of 8 and a maximum of 32 samples. Blocks were only informed if a minimum of 3 octants contained sample data. A minimum of 1 and a maximum of 16 samples were allowed from each octant.

An additional set of search passes (using the same dimensions summarised above) was then used whereby the requirement for samples to fall within 3 octants was removed. This was carried out to ensure all blocks were informed.

Discretisation was set to 4 points in each direction and sub-cells were assigned the grades of parent cells.

Block model validation included visual comparison of the block model with drill hole data and statistical comparison of block and sample grades. Significant smoothing is evident when comparing block grades to drill hole grades.

Surveyed underground development and stopes were used to deplete the Mineral Resource estimate. The depletion is current to March 2022. CSA Global notes that there was a minor, non-material, discrepancy



between the surveyed solids provided and the depletion which was already coded in the block model. Prior to mining, the depletion coding should be validated.

Density was calculated using a formula based on FeO and MgO, derived from Archimedes density results and ICP chemical analysis as follows:

- $SKSP = 0.029 * (-0.85 * FeO\% + MgO\% * 0.6) + 3.4$
- $SERP = 0.065 * (0.3 * FeO\% + 0.6 * S\% + 0.1 * Ni\%) + 2.44$
- $HOST = 2.89$ .

Significant short-range grade and thickness variability is evident within the nickel mineralisation zones. The grade and thickness variability have not been studied in detail; however visual inspection of the mineralisation indicates that there would be significant Mineral Resource risk if a dense drill pattern was not achieved prior to mining.

### **Cut-off Grades**

Mineral Resources have been reported within all mineralisation models which were constructed using a 0.4% Ni cut off. This represents the natural cut-off between mineralised and unmineralized material and is also similar to cut-off grades which have been used for reporting Mineral Resources at comparable underground nickel projects recently in Australia. CSA Global notes that there is an immaterial amount of tonnage below 0.4% Ni within the nominal 0.4% Ni mineralisation wireframes that is reported in this Mineral Resource estimate.

In selecting the cut-off grade criteria, and forming a judgement regarding RPEEE, the following was considered:

- The very high current spot nickel prices
- The fact that substantial underground development is in place, and therefore the operation is likely to sit at the bottom quartile of the cost curve
- 0.4% Ni is similar to what is being used to report Mineral Resource estimates at other underground Ni sulphide deposits in Australia and Canada.

### **Modifying Factors**

Transverse and Longitudinal Long-hole Open Stopping mining methods have previously been adopted at Avebury. Sub-levels were developed every 25 m vertically. The adopted mining method provides the opportunity for refinement of mineralisation interpretations through face sampling and mapping of underground exposures should it be required.

No assumptions regarding minimum mining width, internal dilution or other mining factors were applied. There is no evidence of reconciliations being used to validate the resource model.

The Avebury processing plant has a nameplate design of 900,000 tpa at 79% Ni recovery to produce a produce a +20% Ni concentrate. The processing plant was in operation from mid-2008 through early 2009. During this period, a small amount of concentrate contained elevated arsenic levels which rendered the concentrate unsaleable.

Metallurgical test work has been completed for the Indicated Mineral Resources. Some test work has also been completed on samples within the Inferred Mineral Resource. Standard variability, comminution, grinding and flotation test work have been completed. Test work has also been completed on bulk samples sourced from selected mineralisation types.

An assumption is made in the Mineral Resource estimate that it will be possible to optimise scheduling to blend production so that concentrate arsenic levels will not reach levels that would render the product unsaleable.



# Attachment 1: JORC Table 1

## JORC Table 1 Section 1 – Key Classification Criteria

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. 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>	After logging, the core was marked up for splitting usually at 1 m sample intervals while respecting significant geological boundaries and visible sulphides. The core was sawn longitudinally by diamond saw, bagged, ticketed, and despatched to the contract laboratory for sample preparation and analysis. Samples were generally of 2 kg in weight.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Only minor core loss was recorded in geotechnical logging sheets and there is no demonstrated relationship between sample recovery and grade.
	<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 (e.g. "RC 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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	NQ2 diamond core drilling or similar (LTK56, LTK60, NQ). After logging, the core was marked up for splitting usually at 1 m sample intervals while respecting significant geological boundaries. The core was sawn longitudinally by diamond saw, bagged, ticketed, and despatched to the contract laboratory for sample preparation and analysis. Samples were generally of 2 kg in weight. The laboratory process followed drying, crushing, milling and homogenising the entire sample to 80% passing 75 microns. A 5 g sample of the pulverised material was taken for laboratory analysis.
Drilling techniques	<i>Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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>	NQ2 (core size 50.6 mm), NQ (core size 47.6 mm), LTK56 (core size 45.2 mm) or LTK60 (core size 44 mm) diamond core drilling.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Geotechnical logging of core recovery and drill log sheets do not note any recovery issues.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Core recovery was near 100% and samples were taken respecting geological boundaries.
	<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>	There is no demonstrated relationship between sample recovery and grade.
Logging	<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>	Core was geologically and geotechnically logged, usually directly into a laptop, measured for recovery and photographed prior to sampling. Digital logging data is downloaded from Excel spreadsheets into an Access database. Core has been logged to a level to support Mineral Resource estimation.





Criteria	JORC Code explanation	Commentary
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Core was geologically and geotechnically logged by qualified geologists and experienced technicians, usually directly into a laptop, measured for recovery and photographed prior to sampling. Digital logging data is downloaded from Excel spreadsheets into an Access database.
	<i>The total length and percentage of the relevant intersections logged.</i>	100% of intersections are geologically logged
<i>Subsampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	The core was sawn longitudinally by diamond saw in half and one half taken as a sample.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	All samples are core.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	The sampling technique was appropriate and completed to industry standard for sampling diamond core.
	<i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i>	Sample preparation followed standard industry practice. The laboratory process followed drying, crushing, milling and homogenising the entire sample to 80% passing 75 microns. A 5 g sample of the pulverised material was taken for laboratory analysis.
	<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>	Internal standards and pulp duplicates were submitted with every batch of samples Approximately 1 in every 10 submissions was sent for analysis at an umpire laboratory (Amdel Laboratories, Adelaide or ALS Laboratories, Perth).
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample sizes are considered appropriate to the grain size of the material being sampled.
<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Laboratory analytical techniques have varied over the Projects history as follows: Pre 2005: 4 acid (total) digest and analysis of Ni, As, Co and S by ICP_AES at SGS, Townsville. 2005 to 2009: pressed powder XRF analysis for Ni, As, Co, S, FeO and MgO at Burnie Research Laboratories, Burnie. Pressed powder pellets are considered a total analysis. Post 2009: 4 acid (total) digest and analysis of Ni, As, Co and S by ICP_AES at ALS Laboratories, Perth.
	<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 geophysics tools were used to support the Mineral Resource estimate.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Internal standards and pulp duplicates were submitted with every batch of samples. Approximately 1 in every 10 submissions was sent for independent laboratory analysis (Amdel laboratories, Adelaide, ALS Laboratories Perth). A re-assay program of 2008 drill samples (pressed powder XRF method) by 4 acid ICP analysis identified a +6% Ni bias and a -21% As bias in the XRF results. The XRF analysis method for samples returning values less than 100ppm As is considered inaccurate. The mean ICP result of repeat analysis for <100ppm As was 24ppm As. Corrections for the sub 100ppm As XRF values and the As bias identified were factored into a run of the estimation process. This



Criteria	JORC Code explanation	Commentary
		produced a result showing of a 10% increase in As metal in the Arsenic domain areas of the Measured Resource. Overall, a difference of <1% in As grade occurred for the entire Mineral Resource. This factor has not been applied to the Mineral Resource estimate.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Senior technical personnel from MMG (Project Geologists +/- Exploration Manager) logged and verified significant intersections. Assay results were verified against logging and core photos.
	<i>The use of twinned holes.</i>	No dedicated twin drill holes were completed.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary data was collected by employees of MMG at the project site. All measurements and observations were recorded digitally and entered into MMG's database. Data verification and validation is checked upon entry into the database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations have been made to any assay data.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	All drill hole collars were located by a licensed surveyor according to a mine grid system. The method used to survey drill hole paths has varied throughout the project's history. The presence of magnetic minerals has precluded the use of conventional down-hole survey tools which measure the magnetic azimuth. A Maxibor optical tool was used for surface holes prior to 2005. This method measures incremental differences at fixed intervals down the drill hole relative to the orientation of the drill rods at the collar. Prior to 2005, surface holes which were not surveyed utilised nearby deviation data. Since 2005, a gyroscopic tool has been used for surface holes. The method used to survey underground drill holes is as follows: <ul style="list-style-type: none"> <li>• The collar azimuth was used for holes drilled east of 345,350 m E</li> <li>• A +1° deviation was used every 50 m west of 345,350 m E.</li> </ul> Downhole survey methods used for surface drill holes are appropriate given the presence of magnetic minerals. Underground drill hole paths are subject to some uncertainty. Given the lack of real down-hole data, hole paths should be considered approximate.
	<i>Specification of the grid system used.</i>	All holes are referenced to a local mine grid for the Avebury Mine.
	<i>Quality and adequacy of topographic control.</i>	All hole collar locations were surveyed by a licensed surveyor.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Drill spacing approximately < 60 m x 40 m for Indicated areas of Resource. Drill spacing approximately 100 m x 100 m for Inferred areas of Resource.
	<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>	The distribution and continuity of nickel mineralisation is often coincident with geological contacts, these features identified in drilling are demonstrated by underground mapping. The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedures and classifications applied. The distribution of the deleterious arsenic content is not as regular as the nickel distribution and is less well supported by geological indicators. For this reason, confidence in the arsenic content and distribution is lower than for nickel. It is assumed that production sampling with blending and processing strategies will be sufficiently implemented to manage arsenic levels



Criteria	JORC Code explanation	Commentary
		reporting to concentrates thus maintaining the appropriateness of the make the resource classifications applied.
	<i>Whether sample compositing has been applied.</i>	No compositing has been applied at the sampling stage.
<i>Orientation of data in relation to geological structure</i>	<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>	Geological mapping and interpretation show that the mineralisation forms in antiformal setting striking east-west. Hence drilling is conducted on north-south and south-north directions to intersect mineralisation across-strike.
	<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>	Drilling orientation is not considered to have introduced any sampling bias.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Measures to provide sample security included: <ul style="list-style-type: none"> <li>• Adequately trained and supervised sampling personnel</li> <li>• Core yard facility with security fence and well-maintained sampling sheds</li> <li>• Cut core samples stored in numbered and tied calico sample bags</li> <li>• Calico sample bags transported by courier to assay laboratory</li> <li>• Assay laboratory checks of sample dispatch numbers against submission documents.</li> </ul>
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	AMC Consultants Pty Ltd completed an audit of the 2005 Mineral Resource estimate, including sampling techniques and data, and commented that core sampling, sample preparation and assaying are carried out to accepted industry standards. Further comment was made that QA/QC procedures have improved significantly during the course of the exploration programme and, overall, are considered to be satisfactory.

## JORC 2012 Table 1 Section 2 – Key Classification Criteria

<i>Mineral tenement and land tenure status</i>	<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>The Avebury Project tenure consists of two granted mining licences, two granted exploration licences and one granted retention licence, all currently held by Allegiance.</p> <table border="1"> <thead> <tr> <th>Lease</th> <th>Lease type</th> <th>Expiry date</th> <th>Holder</th> <th>Status</th> <th>Size</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Avebury 3M/2003</td> <td>Mining</td> <td>16 Oct 2024</td> <td>Allegiance Mining Pty Ltd</td> <td>Granted</td> <td>400 ha</td> <td>Covers the western portion of the Avebury Mine</td> </tr> <tr> <td>Avebury East 6M/2007</td> <td>Mining</td> <td>16 Oct 2024</td> <td>Allegiance Mining Pty Ltd</td> <td>Granted</td> <td>400 ha</td> <td>Covers the eastern portion of the Avebury Mine</td> </tr> <tr> <td>Mt Zeehan EL28/1988</td> <td>Exploration</td> <td>9 Dec 2022</td> <td>Allegiance Mining Pty Ltd</td> <td>Granted<sup>#</sup></td> <td>25 km<sup>2</sup></td> <td>To the west of Avebury – includes Trial Harbour, Burbank and Fen Creek</td> </tr> <tr> <td>Melba Flats EL43/1992</td> <td>Exploration</td> <td>16 Apr 2022</td> <td>Allegiance Mining Pty Ltd</td> <td>Granted</td> <td>6 km<sup>2</sup></td> <td>North-northeast of Zeehan – includes Melba Flats</td> </tr> <tr> <td>Melba Siding RL5/2009</td> <td>Retention</td> <td>1 Dec 2022</td> <td>Allegiance Mining Pty Ltd</td> <td>Granted<sup>#</sup></td> <td>3 km<sup>2</sup></td> <td>North-northeast of Zeehan – includes North Cuni/Genets, Nickel Reward, Deveraux</td> </tr> </tbody> </table> <p>Source: Groom Kennedy (2022)</p> <p><sup>#</sup>Renewal and extension of term of EL28/1988 and RL5/2009 was confirmed on 17 January 2022, and the status was amended to granted on 10 March 2022.</p> <p>Tenement information for the Avebury Project was provided by Groom Kennedy Lawyers and Advisors, Hobart, Tasmania. CSA Global relies on the independent opinions of Groom Kennedy</p>	Lease	Lease type	Expiry date	Holder	Status	Size	Description	Avebury 3M/2003	Mining	16 Oct 2024	Allegiance Mining Pty Ltd	Granted	400 ha	Covers the western portion of the Avebury Mine	Avebury East 6M/2007	Mining	16 Oct 2024	Allegiance Mining Pty Ltd	Granted	400 ha	Covers the eastern portion of the Avebury Mine	Mt Zeehan EL28/1988	Exploration	9 Dec 2022	Allegiance Mining Pty Ltd	Granted <sup>#</sup>	25 km <sup>2</sup>	To the west of Avebury – includes Trial Harbour, Burbank and Fen Creek	Melba Flats EL43/1992	Exploration	16 Apr 2022	Allegiance Mining Pty Ltd	Granted	6 km <sup>2</sup>	North-northeast of Zeehan – includes Melba Flats	Melba Siding RL5/2009	Retention	1 Dec 2022	Allegiance Mining Pty Ltd	Granted <sup>#</sup>	3 km <sup>2</sup>	North-northeast of Zeehan – includes North Cuni/Genets, Nickel Reward, Deveraux
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		dated 25 March 2022, with regards to the validity, ownership, and good standing of the tenements that MYL is acquiring in Tasmania. CSA Global makes no other assessment or assertion as to the legal title of the tenements and is not qualified to do so.
	<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>	Tenure is secure and there are no known impediments to obtaining a licence to operate.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	A zinc exploration joint venture between CRA Exploration Pty Limited and Allegiance Mining over the period 1991 to 1997 identified elevated nickel in stratigraphic exploration drill holes targeting magnetic anomalies. In January 1998 Allegiance Mining drilled the discovery hole A001 into the Central Avebury Orebody. Allegiance Mining continued exploration at Avebury and surrounding tenements until 2008, after which further exploration was undertaken by OZ minerals from 2008 to 2009, and MMG from 2009 to 2015.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The Avebury Nickel Sulphide deposit is hosted in moderately to steeply dipping Cambrian ultramafic intrusive rocks belonging to the McIvor Hill Mafic-Ultramafic Complex. The whole sequence has undergone moderate contact metamorphism to hornfels accompanied by mild to strong metasomatism during the intrusion of the Heemskirk Granite at the end of the Devonian Tabberabberan Orogeny. Variable metasomatism of the ultramafic rock has formed two distinctly different gangue mineral assemblages; a serpentinite-magnetite gangue (SERP) or an intensely metasomatised tremolite-diopside-magnetite gangue (SKSP). The ultramafic shows a moderately tight antiformal geometry gently plunging to the west. Most of the nickel sulphide mineralization is located within the ultramafic immediately adjacent to its margins. Nickel grades diminish toward the interior of the ultramafic body. Mineralisation is dominated by a pentlandite-pyrrhotite-magnetite assemblage with much lesser millerite, gersdorffite and niccolite. Mineralised widths vary from 4 to 40 m and average around 10 m true width. Mineralised lenses are generally around 50-600 m in length and can extend over 400 m down dip.
<i>Drill hole information</i>	<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> <ul style="list-style-type: none"> <li>• <i>Easting and northing of the drill hole collar</i></li> <li>• <i>Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drill hole 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>	456 diamond drill holes and associated data are held in the database. No individual hole is material to the resource estimated and hence this geological database is not supplied. This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.
	<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>	Exploration results are not being reported.
	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade</i>	Exploration results are not being reported.



<i>Data aggregation methods</i>	<i>truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	
	<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>	Exploration results are not being reported.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Exploration results are not being reported.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Exploration results are not being reported.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Exploration results are not being reported.
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. “downhole length, true width not known”).</i>	Exploration results are not being reported.
<i>Diagrams</i>	<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 drillhole collar locations and appropriate sectional views.</i>	Significant discovery not being reported.
<i>Balanced reporting</i>	<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 avoid misleading reporting of Exploration Results.</i>	Exploration results are not being reported.
<i>Other substantive exploration data</i>	<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>	All diamond drill hole information was considered for this Mineral Resource estimation. This is a Mineral Resource statement and is not a report on Exploration Results hence no additional information is provided for this section.
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	No future work program is currently planned. Future work is likely to focus on stope delineation.
	<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>	Diagrams are provided in the body of the announcement.



## JORC 2012 Table 1 Section 3 – Key Classification Criteria

Criteria	JORC Code explanation	Commentary
Database integrity	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i>	<p>The following measures were taken at the time the data was collected to ensure the data was not corrupted:</p> <ul style="list-style-type: none"> <li>All data was stored in customised Access database and was converted to the MMG GBIS database by the MMG Exploration Department in 2009/10.</li> <li>All logging was entered into Microsoft Excel and loaded into the database.</li> <li>Assay data was loaded from Microsoft Excel directly into database pre-2009. Post 2009 laboratory files were directly loaded into GBIS.</li> <li>Data integrity was validated for EOH depth and sample overlaps.</li> <li>Manual checks were carried out by plotting and review of sections and plans.</li> <li>Drill hole A007 has been removed from the database due to inaccurate survey results.</li> </ul>
	<i>Data validation procedures used.</i>	CSA Global completed numerous checks on the data. Absent collar data, multiple collar entries, suspect downhole survey results, absent survey data, overlapping intervals, negative sample lengths and sample intervals which extended beyond the hole depth defined in the collar table were reviewed.
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	Tony Donaghy, Competent Person for Sections 1 and 2 of JORC Table 1, completed a site visit in 2020.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	Not applicable
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	<p>Mineralisation is hosted in Middle Cambrian ultramafic bodies intruding Cambrian volcanoclastic sediments. Both host volcanoclastic and ultramafic intrusions are steeply north dipping in an overturned south facing sequence. The stratigraphy and intrusions broadly strike east-west. A Devonian Granite intrusion has strongly hornfelsed and locally metasomatised the host sequence.</p> <p>Mineralisation consists of coarse disseminated and stringer pentlandite with minor pyrrhotite. Nickel arsenides (Niccolite, Maucherite, Gersdorfite), although sparse are contributors to the penalty element. They occur in elevated concentrations in discreet zones both parallel with and cross-cutting the main Ni bearing mineralisation.</p> <p>Mineral Resource estimation was made using Datamine Software. Separate Nickel, Arsenic and Ultramafic domains were wire-frame modelled using north-south cross sections, respecting geological contacts and down-hole geochemical data.</p> <p>Nickel domains are delineated on the SKSP/SERP to Volcanoclastics contact and a 0.4% Ni cut-off which is the natural break between background ultramafic Nickel and elevated Nickel sulphides. Coarse pentlandite mineralisation is visible above 0.4% Ni.</p> <p>Separate wireframes were modelled for high arsenic (&gt;300ppm) domains.</p> <p>Although confidence in geometries defined by Indicated drill spacing is adequate for mine planning, infill drilling is required prior to stoping. This is carried out on roughly a 25 m x 15 m or closer spacing.</p> <p>Confidence in geological interpretation of Inferred mineralisation is at a lower level than Indicated mineralisation due to the limited</p>



Criteria	JORC Code explanation	Commentary
		sampling in these areas, hence implied but not verified geological and grade continuity occurs.
	<i>Nature of the data used and of any assumptions made.</i>	Geological logging and mapping have been used to assist with lithological and structural modelling, which guided mineralisation interpretations. A nominal cut-off grade of 0.4 % Ni has been used to define outer mineralisation envelopes.
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	Alternative interpretations are likely to materially impact on the Mineral Resource estimate on a local but not global basis. There remains some uncertainty regarding the interpretations that have been made on a local basis.
	<i>The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.</i>	Geological logging and mapping have been used to guide Mineral Resource estimation.
<i>Dimensions</i>	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	Mineralised lenses are located on the flanks of the antiformal ultramafic body. True widths vary from 4 to 40 m and average around 10 m true width. Lenses are between 50-600 m in length and can extend over 400 m down dip. Mineralisation extends between: <ul style="list-style-type: none"> <li>• 353,700 m E to 355,900 m E</li> <li>• 5,357,100 m N to 5,357,750 m N</li> <li>• 1,550 m RL to 2,200 m RL.</li> </ul>
<i>Estimation and modelling techniques</i>	<i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i>	The Avebury Mineral Resource is located within the bounds of ML 3M/2003 and ML 6M/2007. Mineral Resources within ML 6M/2007 are identified as “East Avebury” in the Mineral Resource statement. Model attributes were interpolated using ordinary kriging. Parent block size was set to 10 m x 10 m x 10 m with sub blocks 1.25 m x 2.5 m x 1.25 m. For the estimate sample intervals were composited to approximately 1 m so that no residuals were created. 40 Nickel domains based on SKSP/SERP to Volcanoclastics contact and cut off of 0.4% Ni. Domains include internal dilution. Domains at times consist of 2 to 3 lenses. Lenses range in size from 50 m x 50 m x 4 m up to 300+ m x 200 m x 20+m. These domains were used for the estimation of Ni, S and Co. 24 Arsenic domains based on a 300 ppm cut off where >4m width, Arsenic samples outside of these domains were top cut to 5000ppm (0.2% of samples). The estimate of each element was undertaken using hard domain boundaries and a series of elliptical search passes orientated in the plane of mineralisation. These search orientations and sizes were supported by variography analysis. The first estimation search pass was 120 m x 80 m x 40 m, additional larger passes were used to estimate less well-informed blocks. The first estimation search pass employed a minimum of 8 and maximum of 32 samples and a minimum of 3 octants with a minimum of 1 and maximum of 16 samples per octant. Estimates were also limited to a maximum of 4 samples from any given hole. Additional passes used more relaxed criteria to estimate the less well-informed blocks. Statistical analysis between estimated blocks and input data was reviewed. Visual checks of block grades and drill-hole data in plan and section.



Criteria	JORC Code explanation	Commentary
		Extrapolation distances in general are 25-50 m but occur up to 100 m in less well drilled areas.
	<i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i>	No accurate mine production records were made available to enable checking the reported Mineral Resource estimate.
	<i>The assumptions made regarding recovery of by-products.</i>	The recovery and payment for cobalt will be subject to future concentrate sales agreements.
	<i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	Arsenic has been estimated and is the main deleterious element. Ongoing monitoring is required.
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	Parent block size was set to 10 m x 10 m x 10 m with sub blocks 1.25 m x 2.5 m x 1.25 m. The drillhole data spacing is highly variable but approximates 20 m along strike by 20 m down-dip in the well drilled areas. The block size therefore represents approximately half the drillhole spacing in the more well drilled areas of the deposit.
	<i>Any assumptions behind modelling of selective mining units.</i>	No assumptions were made regarding selective mining units.
	<i>Any assumptions about correlation between variables</i>	No assumptions have been made regarding correlation between variables.
	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	40 Nickel domains based on the SKSP/SERP to Volcanoclastics contact and a cut off of 0.4% Ni were interpreted to constrain grade estimation.
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	No high-grade cuts were applied to the Ni, Co, S, FeO or MgO data, as they were deemed unnecessary following statistical analysis. Arsenic samples outside the high-grade arsenic domains were cut to 5,000 ppm.
	<i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i>	Drillhole grades were initially visually compared with cell model grades. Swath plots were then created to compare drillhole grades with block model grades for easting, northing and elevation slices throughout the deposit. The block model reflected the tenor of the grades in the drillhole samples both globally and locally.
Moisture	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages are estimated on a dry basis.
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	All blocks within the 0.4 % Ni envelope were reported. The adopted cut-off grade is considered reasonable for Mineral Resources which are likely to be extracted by underground methods.
Mining factors or assumptions	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an</i>	No mining factors have been applied to the Mineral Resource. The cut-off grade selected for reporting represents an underground incremental cut-off grade. The site is currently on care and maintenance.





Criteria	JORC Code explanation	Commentary
	<i>explanation of the basis of the mining assumptions made.</i>	
<i>Metallurgical factors or assumptions</i>	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	<p>Metallurgical test work was completed for the Indicated areas of the Mineral Resource and selected areas of the Inferred Mineral Resource. Test work included standard variability, comminution, grinding and float tests and the treatment of bulk samples from selected mineralisation types.</p> <p>The metallurgical processing plant containing crushing, grinding and floatation stages to produce nickel sulphide concentrate operated between mid-2008 and early 2009. The plant has a nameplate design of 900ktpa at 79% Ni recovery to a 20%+ Ni in concentrate grade.</p> <p>The plant is currently on care and maintenance.</p> <p>A small portion of nickel concentrate produced during the period of operation contained arsenic levels which reached unsaleable levels.</p> <p>It is assumed that production scheduling, blending, and processing strategies will enable the sale of future concentrates. It is assumed that concentrate limits for deleterious elements will not change.</p>
<i>Environmental factors or assumptions</i>	<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i>	<p>Avebury operates under Land use permit (DA P7/2004) issued by the Tasmanian Environmental Protection Authority (EPA) dated 29 June 2005.</p> <p>Environmental Protection Notice (EPN 7446/2) for mining to 900ktpa on ML 3M/2003 was issued by the EPA in July 2009.</p> <p>An application for an EPN for mining on ML 6M/2007 has been submitted to the EPA but has not progressed by either party due to suspension of operations.</p> <p>Licence exceedance for water discharge is an ongoing issue which has been recognised by the EPA to be caused by inappropriate licence conditions.</p>
<i>Bulk density</i>	<i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i>	Bulk density measurements are undertaken by the weight in air (oven dried) /weight in water technique. The density measurements were compared against elemental compositions to generate Indexed density formulas for SERP and SKSP rock types.
	<i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i>	No sealing of core was undertaken as core porosity is low.
	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	<p>The shown Indexed density formulas were applied to the estimated blocks grades in each domain to calculate the resultant dry bulk density</p> <ul style="list-style-type: none"> <li>• SKSP = 0.029 * (-0.85 * FeO% + MgO% * 0.6) + 3.4</li> <li>• SERP = 0.065 * (0.3 * FeO% + 0.6 * S% + 0.1 * Ni%) + 2.44</li> <li>• HOST = 2.89.</li> </ul>
<i>Classification</i>	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i>	Classification is based on data spacing and distribution relative to the distribution and continuity of nickel mineralisation which is often coincident with geological contacts. These features



Criteria	JORC Code explanation	Commentary
		<p>identified in drilling are demonstrated by mapping of underground development exposures.</p> <p>Indicated Mineral Resource areas contain a drill spacing of &lt; 60 m x 40 m.</p> <p>Inferred Mineral Resource areas contain a drill spacing of approximately 40-100 m x 60-100 m.</p>
	<p><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p>	<p>The distribution of the deleterious arsenic content is not as regular as the nickel distribution and is less well supported by geological indicators. For this reason, confidence in the arsenic content and distribution is lower than for nickel. It is assumed that production sampling with blending and processing strategies will be sufficiently implemented to manage arsenic levels reporting to concentrates thus maintaining the appropriateness of the resource classifications applied.</p>
	<p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit.</p>
<p><i>Audits or reviews</i></p>	<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<p>The current model was created by MMG, and peer reviewed by CSA Global.</p>
<p><i>Discussion of relative accuracy/confidence</i></p>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p>	<p>The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource.</p> <p>The Mineral resource estimate has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.</p> <p>Significant short scale nickel grade variability is evident which will increase the likelihood of "unexpected" resource results. During mining, the potential for poor reconciliation results (both positive and negative) over small production volumes in particular is high.</p>
	<p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p>	<p>The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.</p>
	<p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>Reliable production statistics are not available for the mined-out areas, which are only relatively minor.</p>