



ASX Announcement

15 September 2023

## Aircore Drilling Completed at Tate Project

### HIGHLIGHTS

#### Tate Project (100% DKM)

- Aircore drilling completed over the two interpreted late mafic intrusions
- Drillholes intersected a combination of fresh mafic and granite rocks from 1m down hole (beneath transported cover)
- Numerous individual samples to be submitted for petrography
- A total of 54 holes completed for 2228 metres
- Maximum hole depth to 69m
- Assays expected within 4-6 weeks

Duketon Mining Limited (**ASX: DKM**) ("**Duketon**" or "**the Company**") is pleased to announce the aircore drill program at Tate is complete.

The Tate Project is located north of the Duketon Greenstone Belt and is prospective for intrusion related nickel, copper and PGE's. The tenement covers the interpreted Hootanui Fault that is the boundary between two major geological terranes - the Kurnalpi and Burtville Terranes.

The tenement covers 213 km<sup>2</sup> and encompasses the area between DKMs northern-most tenement and Kinterra Capital's Fisher East Project southern-most tenement.

Two large, mafic intrusions were identified, one approximately 6km by 1.2km and the other 2.2km by 1.2km.

A data review has shown there is a single historical BHP drill hole (1994) into the northern most intrusive drilled to 25 metres depth. This was logged as mafic rocks from 8m and the end of hole assay was reported to include 143 ppm nickel, 108 ppm copper, 86 ppm zinc, 2,710 ppm manganese and 9.9% iron (Tables 1-3). This is the only hole identified as intersecting

either intrusion. Petrography on rock chips located near the collar of this drillhole identified it as a fine grained, weakly banded amphibolite.

Moving Loop Electromagnetics (MLEM) was completed over the two intrusions in 2022 and several EM anomalies were identified both internal and along the edges of the intrusions.

The aircore program was designed to determine the geology of the magnetic low units and test the MLEM anomalies generated from the survey. A total of 54 aircore holes were drilled for 2228 metres. Numerous individual samples to be submitted for petrography.

Assays are expected within 4-6 weeks.

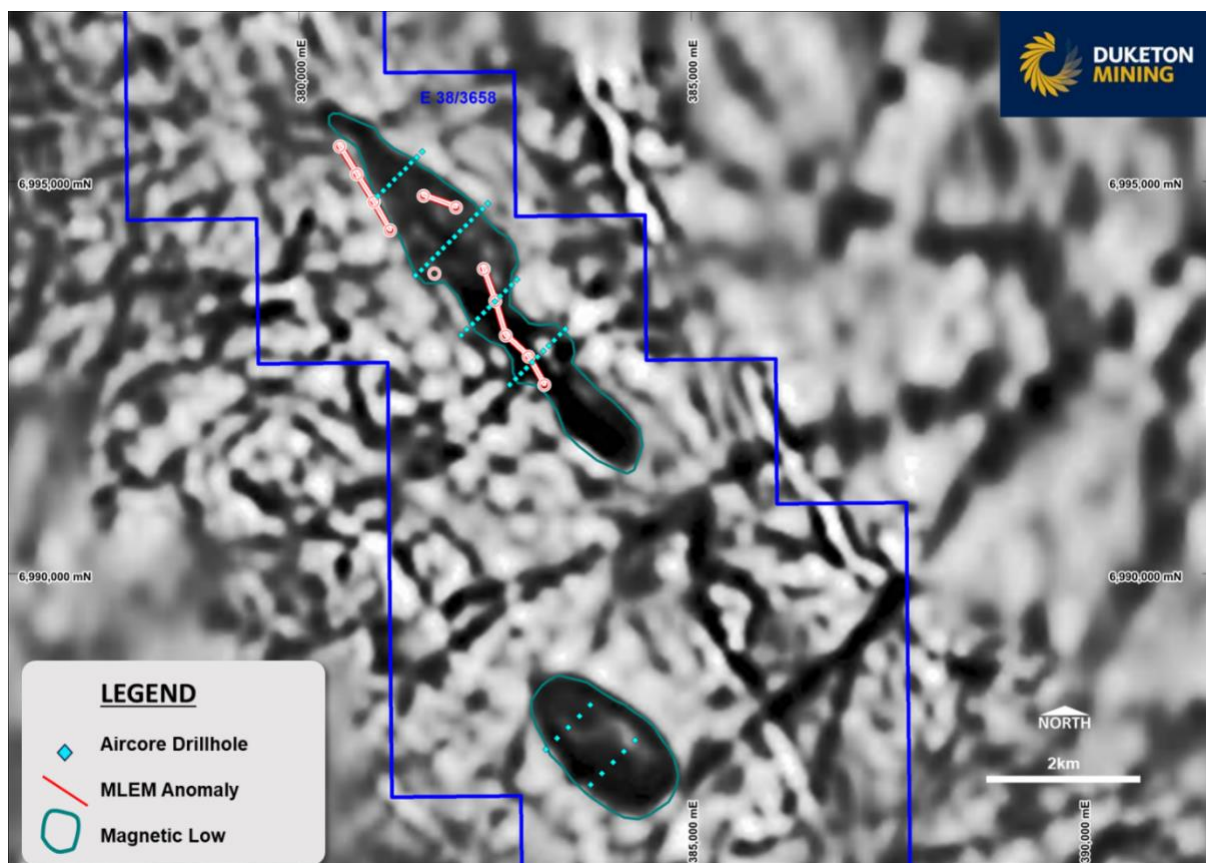


Figure 1: Aircore drilling, MLEM conductors over a magnetic image, Tate.



Figure 2: Aircore rig on the Tate Project

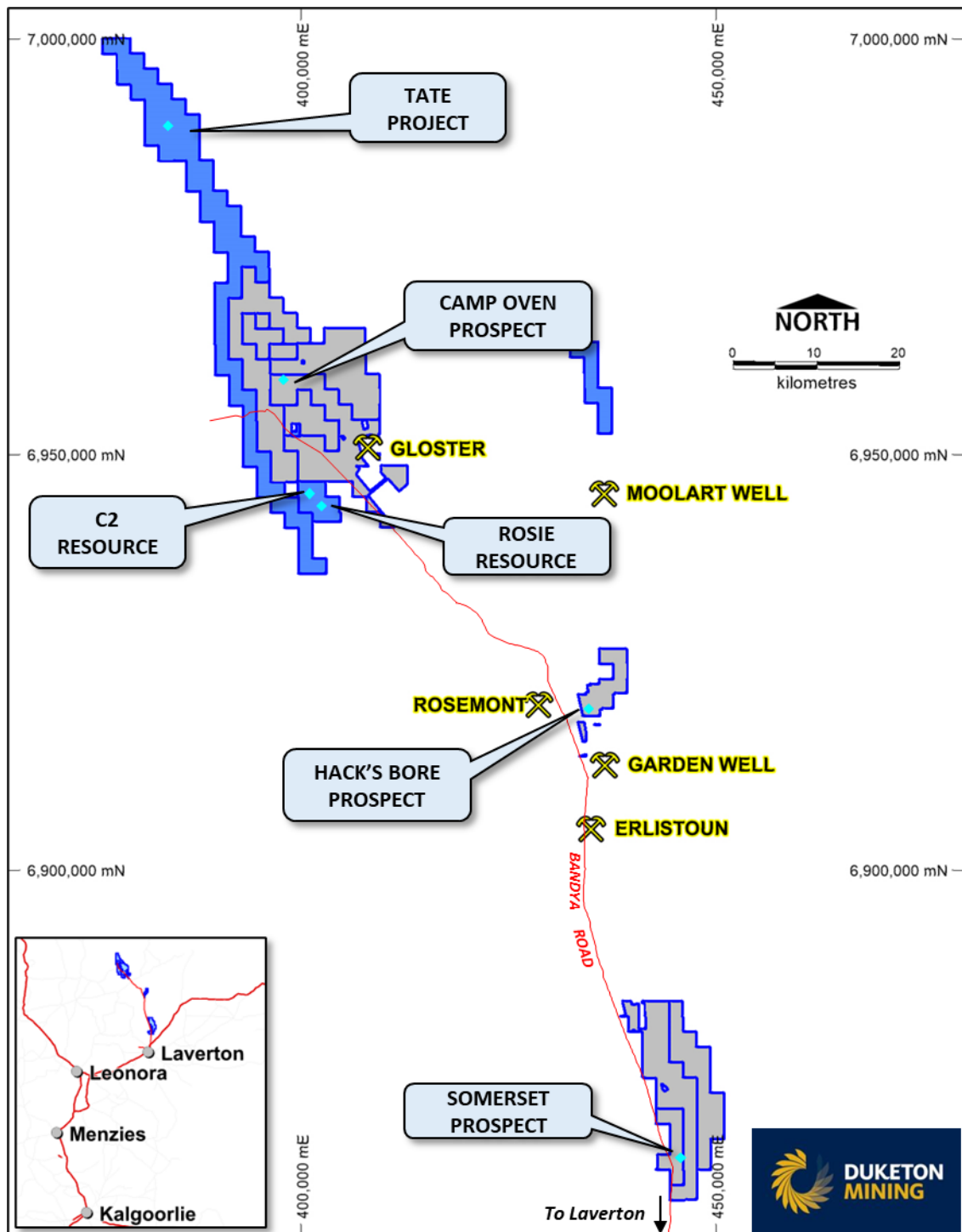


Figure 3: Tate Project Location



**Table 1: BHP Drill Hole (1994) – Geological Information**

Hole ID	From (m)	To (m)	Interval (m)	Lithology
NLR021	0	2	2	Transported sand cover
	2	6	4	Hardpan (laterite)
	6	8	2	Laterite
	8	24	16	Mafic rock – weathered (saprolite & saprock)
	24	25	1	Mafic rock - fresh

**Table 2: BHP Drillhole Collar Details**

Hole ID	East GDA94 (Zone 51)	North GDA94 (Zone 51)	Depth (m)	Dip	Azimuth
NLR021	381333	6995127	25	-90	360

**Table 3: BHP Drillhole End of Hole Assay Results**

Hole ID	From (m)	To (m)	Ni ppm	Cu ppm
NLR021	24	25	143	108

**Authorised for release by:**

**Stuart Fogarty**

Duketon Mining Limited - Managing Director

+61 8 6315 1490

**Competent Person Statement:**

The information in this release that relates to exploration results is based on information compiled by Ms Kirsty Culver, Member of the Australian Institute of Geoscientists (AIG) and an employee of Duketon Mining Limited. Ms Culver has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a competent person as defined in the JORC Code 2012. Ms Culver consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

**Duketon Mining Limited** ACN 159 084 107

Level 2, 25 Richardson Street West Perth WA 6005 T: +61 8 6315 1490



JORC Table 1

## JORC Code, 2012 Edition – Table 1 report – Tate Project

### Section 1 Sampling Techniques and Data – Historic Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<p>Historic Drilling</p> <ul style="list-style-type: none"> <li>Various methods were used by previous explorers. Historic BHP drilling (A44379) was aircore.</li> <li>Drillholes have been sampled at various intervals which include multi and single metre composites.</li> <li>The exact sampling methods cannot be determined, with confidence, from the historic data.</li> </ul> <p>Duketon Drilling</p> <ul style="list-style-type: none"> <li>AC drill chips were collected as composite samples (either 1m, 2m, 3m or 4m samples, approx. 2kg). End of hole metre collected as a one metre sample.</li> <li>AC drill chips were collected from bulk piles laid out next to the drillhole collar using an aluminium scoop.</li> <li>Aircore samples were scooped in such a manner as to ensure portions of the whole pile were sampled. This is standard industry practice for this type of early phase drilling.</li> <li>Certified samples and field duplicates are inserted every 50<sup>th</sup> for AC drilling,</li> <li>Mineralisation determined qualitatively by geological logging and quantitatively through assaying.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Drilling techniques</b>	<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>Historic Drilling</p> <ul style="list-style-type: none"> <li>Various methods were used by previous explorers. Historic BHP drilling (A44379) was aircore.</li> </ul> <p>Duketon Drilling</p> <ul style="list-style-type: none"> <li>AC drilling using a 3 ½ inch face sampling blade or where AC hammer method used, a 3 ½ inch face sampling bit.</li> </ul>
<b>Drill sample recovery</b>	<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>Historic Drilling</p> <ul style="list-style-type: none"> <li>Due to the historic nature of the data, recovery cannot be determined with confidence.</li> </ul> <p>Duketon Drilling</p> <ul style="list-style-type: none"> <li>Recoveries qualitatively noted at the time of drilling and recorded in the DKM database.</li> <li>The cyclone of the drill rig is cleaned at the end of each rod to ensure sample is not “hung-up” and samples are as clean as possible with as little cross contamination as possible.</li> <li>No relationship between grade and recovery has yet been established</li> </ul>
<b>Logging</b>	<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>Historic Drilling</p> <ul style="list-style-type: none"> <li>Not all geological data for historic drillholes is available. The data will be unsuitable for use in a Mineral Resource or more advanced study and is to be used as an exploration aid only.</li> </ul> <p>Duketon Drilling</p> <ul style="list-style-type: none"> <li>All samples were logged to a level of detail to support future use in a mineral resource calculation should it be required.</li> <li>Qualitative: Lithology, alteration, mineralisation.</li> <li>Quantitative: Vein percentage, assaying for gold and other elements.</li> <li>All holes for their entire length are logged.</li> </ul>
<b>Sub-sampling</b>	<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</li> </ul>	<p>Historic Drilling</p> <ul style="list-style-type: none"> <li>The nature of the sub-sampling for the aircore chips has not been determined due to the historic nature of the data.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>techniques and sample preparation</b>	<p><i>whether sampled wet or dry.</i></p> <ul style="list-style-type: none"> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>The sample preparation and sample size information is not available due to the historic nature of the data. Duketon Drilling</li> <li>AC drill chips were collected as 1m, 2m 3m or 4m composite samples from bulk piles laid out next to the drillhole collar using a hand held aluminium scoop.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<p>Historic Drilling</p> <ul style="list-style-type: none"> <li>QAQC protocols are not provided in the historic data and it is unlikely to be to the same level as current industry standards.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Historic Drilling</p> <ul style="list-style-type: none"> <li>The historic data cannot be verified and it has been collected from publicly available sources. Duketon Drilling</li> <li>All data has been checked internally for correctness by senior DKM geological and corporate staff.</li> <li>All data is collected via Ocris software and uploaded into the DKM Datashed Database following validation.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Historic drillholes were reported on a local grid. Collars have been determined using historical maps provided with reports and correlated with Bing Aerial Maps. Drillholes have also been located on the</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>ground. Duketon Drilling</p> <ul style="list-style-type: none"> <li>• All location points were collected using a handheld GPS in MGA 94 – Zone 51.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Historic holes were drilled at broad space.</li> <li>• Duketon drilling spaced at 100 m along drill lines</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The historic data is a guide to future exploration and at face value has been collected in a manner that is sensible with respect to gross geological trends however more detailed interpretation would be required to assess this further.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<p>Historic Drilling</p> <ul style="list-style-type: none"> <li>• Due to the historic nature of the data presented, this cannot be determined.</li> </ul> <p>Duketon Drilling</p> <ul style="list-style-type: none"> <li>• Chain of custody is managed by company representatives and is considered appropriate. All samples are bagged in a tied numbered calico bag, grouped into larger polyweave bags and cable tied. Polyweave bags are placed into larger bulky bags with a sample submission sheet and tied shut. Consignment note and delivery address details are written on the side of the bag and delivered to Toll in Laverton. The bags are delivered directly to Intertek in Kalgoorlie, WA who are NATA accredited for compliance with ISO/IEC17025:2005.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No external audits or reviews have been conducted apart from internal company review.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement (E38/3658) is owned Duketon Mining. It is in good standing and there are no known impediments to obtaining approvals to operate in the area.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous drilling in this area was completed by BHP Minerals in 1994. Refer WAMEX Report A44379.</li> <li>This work has been checked for quality as far as possible and provides the purpose for the proposed follow-up work presented in the release.</li> <li>An extensive auger geochemical program over the northern half of the Tate exploration licence was completed by Breaker Resources in 2013. Refer WAMEX Reports A099216, A099218, A106728, A106861 and A108629. Sampling was completed at a final spacing of 400m x 200m. Exploration completed was in line with current industry standards.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The anomalies presented in the historic data are sourced from typical</li> </ul>

Criteria	JORC Code explanation	Commentary
		Archaean Greenstone rocks of the Yilgarn Craton.
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collar details are provided in a table within the text of this announcement.</li> <li>No relevant RL information is contained within the BHP Minerals original report (WAMEX A44379).</li> <li>The bottom of hole assays are provided within the body of the text.</li> </ul>
<b>Data aggregation methods</b>	<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>No top-cuts have been applied when reporting results.</li> <li>First assay from the interval in question is reported (i.e. Ni1)</li> <li>Aggregate sample assays calculated using a length weighted average</li> <li>No metal equivalent values have been used for reporting of results.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation orientations have not been determined.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of</li> </ul>	<ul style="list-style-type: none"> <li>Refer to figures in document.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>drill hole collar locations and appropriate sectional views.</i>	
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All drillhole locations are tabulated and significant intervals are provided in the release text.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to document.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further work may involve ground geophysical surveys along with field investigations. The results of this work will determine if further drilling is required at this prospect.</li> </ul>