ASX Announcement **11 May 2023**

Nickel Sulphate Solution Produced from Duketon Concentrate

Alternative value-add processing pathway unlocked for the EV battery market.

HIGHLIGHTS - Duketon Project (100% DKM)

Pressure oxidation testing of a composite sulphide concentrate from The Duketon Nickel Sulphide Project has produced a Nickel, Copper and Cobalt sulphate solution.

Leach extraction of Nickel, Copper and Cobalt into solution **are all very high**.

- **Nickel leach extraction was 97-98%** and was achieved very quickly
- **Copper and cobalt leach extractions** were extremely high, at approximately **99%** each
- **Low iron extraction**

The sulphate leach solution will be used to produce a **Mixed Hydroxide Precipitate (MHP)** and then subsequent conversion into a **precursor Cathode Active Material (pCAM)** over the coming weeks.

This was completed in collaboration with Pure Battery Technologies ("PBT").

These build on the positive concentrate results for the project and demonstrate significant optionality for the downstream products that can be considered.

Stuart Fogarty, Duketon Mining Managing Director said:

"These Pressure Oxidation Leach results are significant. It is a material development in the staged and methodical de-risking of the entire Duketon Project. It shows the quality of the concentrate produced from the Duketon Project is highly amenable to pressure oxidation leaching and demonstrates a new avenue to process and to add value to the Duketon Project. It takes us a step closer to producing a product that is highly desired to the EV battery industry."

Duketon Mining Limited ACN 159 084 107
Level 2 25 Richardson Street West Perth WA 6005 T: +61 8 6315 1490

Duketon Mining Ltd (**ASX: DKM**, **"Duketon"** or **"the Company"**) is pleased to announce that preliminary test results from pressure oxidation of a composite concentrate (see ASX Announcement 5 September 2022) from the Duketon Project has delivered excellent extractions of nickel, copper and cobalt into a sulphate leach solution. The leach extraction results achieved up to 98% for nickel and up to 99% for copper and cobalt. This concentrate sample lacked any material PGE's however, it is expected the PGE's would report into the iron rich residue and will be extracted through a simple and well understood separate leach process. This will be the focus of subsequent testing.

The next steps underway are to demonstrate the production of Mixed Hydroxide Precipitate (MHP) from the sulphate solutions and then subsequent conversion from MHP to precursor Cathode Active Material (pCAM).

This test result provides an alternative credible pathway for nickel concentrate produced at the Duketon Project.

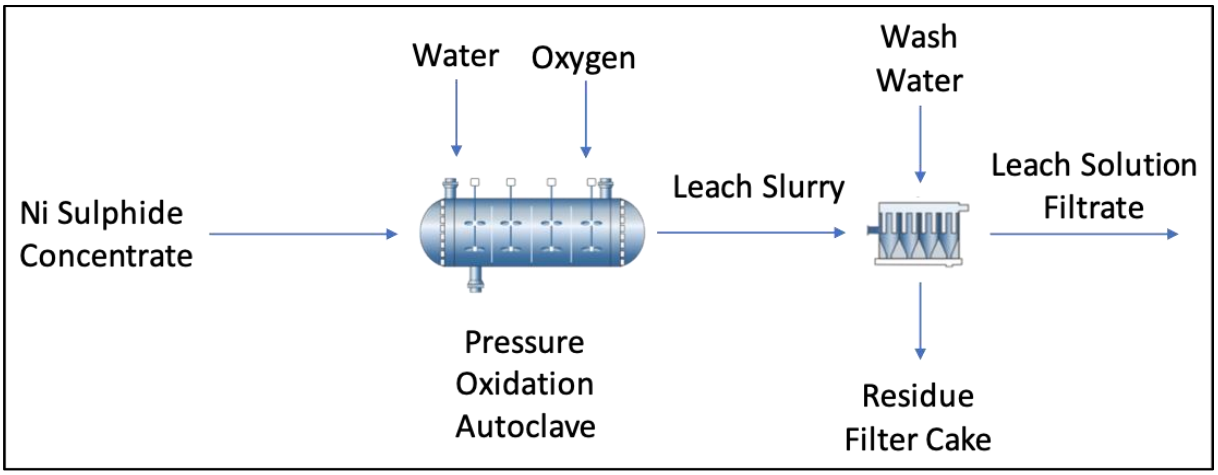

Figure 1: Conceptual Process Diagram for Leaching Nickel Concentrate.

Figure 2: Nickel, Copper and Cobalt Sulphate from Pressure Oxidation Leaching.

Figure 3: Pressure Oxidation Vessel.

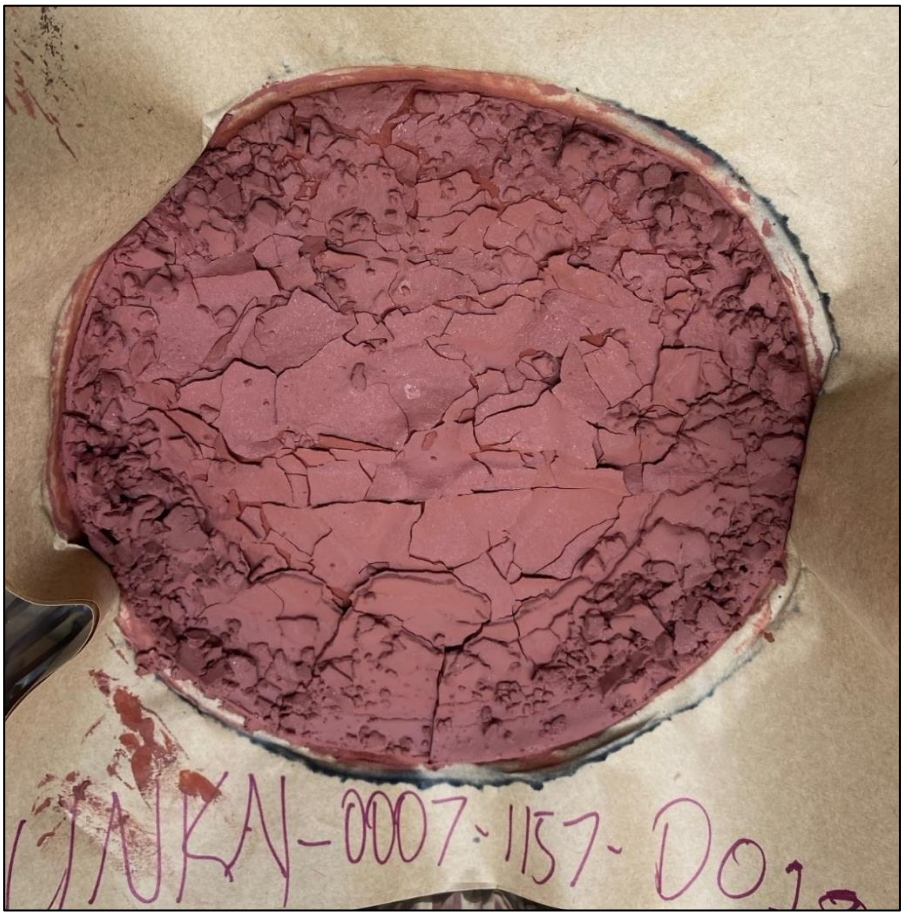

Figure 4: Iron rich Residue from Pressure Oxidation Vessel after extraction of Nickel, Copper and Cobalt.

Figure 5: Nickel, Copper and Cobalt Sulphate Samples over 30-minute intervals of testing and the final.

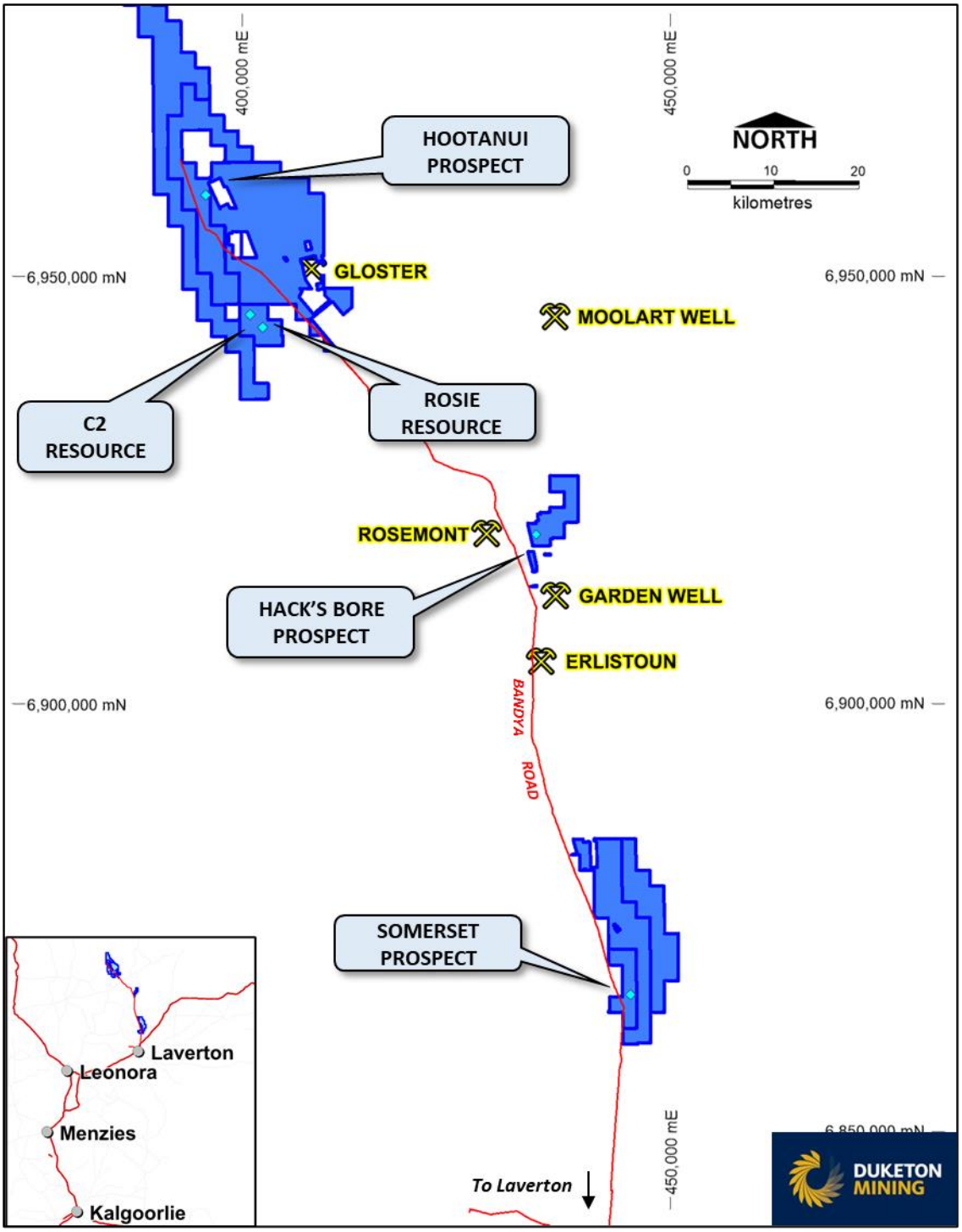

Figure 6: Plan of DKM Tenements showing Nickel Resources and Prospects

Authorised for release by:
Stuart Fogarty
Duketon Mining Limited - Managing Director
+61 8 6315 1490

Competent Person Statement:

The information in this report 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.

This announcement includes information extracted from the Company's previous ASX announcements, which are available to view on the Company's website (www.duketonmining.com.au) as follows:

- Significant Metallurgical Results C2 Resource – ASX announcement dated 5 September 2022.

About Pure Battery Technologies (PBT)

Pure Battery Technologies (PBT) is an Australian based company, with a current refinery operation in Germany. PBT is currently finalising their feasibility study for development of a refinery in the Coolgardie region of Western Australia. The refinery will produce precursor Cathode Active Material (pCAM) produced from both Sulphide Concentrate and Mixed Hydroxide Precipitate (MHP) feed materials sourced from local collaborators. The study focuses on stage one production of up to 25,000tpa of metal in pCAM, and a total production of up to 50,000tpa of metals in pCAM.

JORC Table 1

JORC Code, 2012 Edition – Table 1 report – Duketon Project

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• Diamond core was drilled triple tube HQ to competent rock and then NQ2 to end of hole. • The sample interval is cut in half and half again using a diamond core saw and quarter core sampled for assay. Each sample provides between 1.5-2.0kg of material. The core is cut to the left of the orientation line, with the same quarter sampled to ensure sample is representative. • Diamond core is sampled to geological boundaries, no greater than 1m and no less than 20cm per sample. • Certified samples and blanks are routinely added to every batch of samples. • Mineralisation is determined qualitatively by geological logging and quantitatively through assaying. • Metallurgical sample was extracted from drillhole DKDD0030. The drill core was shipped to Strategic Metallurgy in Belmont Western Australia and stored at the Strategic Metallurgy Laboratory. • Pressure Oxidation testing was conducted at Simulus in Welshpool Western Australia.
Drilling techniques	• *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).*	• Rock roll or rough core to refusal then diamond drilling using triple tube HQ3 (61.1mm) sized core to competent rock and then NQ2 (50.6mm) to end of hole. • Core is oriented using a Boart Longyear TruCore UPIX orientation tool.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Recoveries qualitatively noted at the time of drilling and recorded. • Core is metre marked and orientated. Recoveries are recorded. • Triple tube HQ is used to maximise recovery through the weathered zone and ensure a representative sample.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All core is logged to a level of detail to support future use in a mineral resource calculation. • Qualitative: Lithology, alteration, mineralisation. • Quantitative: Vein percentage, sulphide percentage. • All holes for their entire length are logged. • All core is photographed.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The core is cut using an automatic core saw, half core is sampled. • The entire sample (approx. 2kg) is dried, pulverised to 85% passing 75µm. • Pulp duplicates are taken at the pulverising stage and selective repeats conducted at the laboratory's discretion. • Sample sizes are considered appropriate for the grainsize of the material sampled. • Metallurgical samples were crushed and pulverised to 75µm. Samples were then split into 1kg sub-samples for flotation testwork. • A subset of the resulting concentrate (approximately 200g) was then used in the pressure oxidation testwork
Quality of assay data and	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument*	• Samples are analysed using a Fire Assay 40g charge with MS finish for Au, Pt & Pd and a multi-acid digest with ICP-AES finish for 17 elements. • This technique is industry standard for nickel and considered appropriate.

Criteria	JORC Code explanation	Commentary
laboratory tests	*make and model, reading times, calibrations factors applied and their derivation, etc.* • *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.*	• Samples are analysed for the following elements: Al, As, Au, Ca, Co, Cr, Cu, Fe, K, Mg, Na, Ni, Pd, Pt, S, Sc, Ti, V, Zn, Zr • Certified Reference Material (Standards) and blanks were submitted with batches.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• All data is checked internally for correctness by senior DKM geological and corporate staff. • All data is collected via Ocris software and uploaded into the DKM Datashed Database following validation. • No adjustments are made to assay data. • No twinned holes have been drilled to date.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All location points are collected using a handheld GPS in MGA 94 – Zone 51 • Downhole surveying (azimuth and dip of the drillhole) of diamond drillholes was measured by the drilling contractors using an Axis Champ Gyro tool. • A topographic surface has been created from airborne geophysical data. Drillholes are corrected to this surface.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Current drillhole spacing ranges from 30m x 30m up to 50m x 50m in parts. • Sample compositing has been applied.
Orientation of data in relation to eological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The orientation of the geology and mineralization at C2 is steeply dipping to the east and striking NW.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• 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 Bureau Veritas in Canning Vale, WA who are NATA accredited for compliance with ISO/IEC17025:2005.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits or reviews have been conducted apart from internal company review.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• The tenement (M38/1252) is 100% owned by Duketon Mining Limited and is in good standing and there are no known impediments to obtaining a licence to operate in the area. • The above information has been previously reported in relation to Exploration Results. There is no new information in relation to this criteria specifically applicable to the metallurgical testwork reported in this announcement.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous drilling at The Bulge Complex was completed by Independence Group (IGO) and South Boulder Mines Ltd. This work has been checked for quality as far as possible and formed the basis of the follow-up conducted as part of the drilling programme presented. • There is no new information in relation to this criteria specifically

Criteria	JORC Code explanation	Commentary
		applicable to the metallurgical testwork reported in this announcement.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The C2 deposit is a komatiite-hosted nickel sulphide deposit. The mineralisation is characterised by accumulations of massive, matrix, breccia and disseminated Ni-Cu-PGE magmatic sulphides at the basal contact of a komatiite ultramafic rock, overlying a mafic pillow basalt footwall +/- fine grained siltstone sediments which may also contain sulphides in varying amounts. • There is no new information in relation to this criteria specifically applicable to the metallurgical testwork reported in this announcement.
Drill hole Information	• *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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.*	• Significant intercepts are provided in a table within the text of the announcement (see ASX announcement 5 September 2022) • The above information has been previously reported in relation to Exploration Results. There is no new information in relation to this criteria specifically applicable to the metallurgical testwork reported in this announcement.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No top-cuts have been applied when reporting results. • First assay from the interval in question is reported (i.e. Ni1). • Aggregate sample assays calculated using a length weighted average. • Significant grade intervals are based on intercepts > 3000ppm nickel. • The above information has been previously reported in relation to Exploration Results. There is no new information in relation to this criteria specifically applicable to the metallurgical testwork reported in this announcement.
Relationship between	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• Downhole length is reported for the drillholes. • The above information has previously been reported in relation to

Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	• *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').*	Exploration Results. There is no new information in this criteria applicable to the metallurgical testwork reported in this announcement.
Diagrams	• *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.*	• Refer to figures in document. • There is no new information in relation to this criteria specifically applicable to the metallurgical testwork reported in this announcement.
Balanced reporting	• *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.*	• All drillhole locations are reported and a table of significant intervals is provided in the release text. • The results referred to in this announcement report the production of a nickel, copper, cobalt sulphate solution from a bulk concentrate feed (see ASX announcement 5 September 2022)The above information has been previously reported in relation to Exploration Results. There is no new information in relation to this criteria specifically applicable to the metallurgical testwork reported in this announcement.
Other substantive exploration data	• *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.*	• Refer to document.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• A discussion of further work underway is contained within the body to this ASX release.