



ASX Announcement

29th June 2021

More massive sulphide hits at Rosie - drilling continues to deliver...

HIGHLIGHTS

Rosie Project (100% DKM)

- Hole 6 of the program has intersected 6m of mineralisation including 70cm of massive sulphide, 1.4m of matrix/vein sulphides and 3.9m of disseminated sulphides.
- Six drillholes now completed at the Rosie Nickel Project
- Includes three holes into the oxide material for PGE metallurgical testwork
- Mineralisation intersected in all drillholes
- Drilling continues
- First batch of assays expected in 6-8 weeks

Duketon Mining Ltd (DKM) is pleased to announce drilling at the Rosie Nickel Project is progressing well with six drillholes now complete. Mineralisation has been intersected in all drillholes with the most recent drillhole, DKDD0017, intersecting massive, stringer and blebby sulphides over a 6m interval (see Table 1, Table 2, Figure 1 and Figure 2).

DKDD0013, the second drillhole into the upper north area (see Figure 3 and Table 2), intersected 7.8m of 10% blebby sulphides above 3.7m of 30% stringer sulphides on the footwall contact.

Table 1: DKDD0017 lithology and mineralisation

From	To	Style of Mineralisation
199.5	200.1	5% blebby sulphides (pyrrhotite-pentlandite) in orthocumulate ultramafic
200.1	201.4	20% Stringer sulphides (pyrrhotite-pentlandite-chalcopryrite) in orthocumulate ultramafic
201.4	204.2	5% blebby sulphides (pyrrhotite-pentlandite) in orthocumulate ultramafic
204.2	204.9	Massive sulphide (pyrrhotite-pentlandite-chalcopryrite)
204.9	205.5	10% stringer sulphides (chalcopryrite-pyrrhotite-pentlandite) in mafic



Figure 1: 70cm intersection of massive sulphide in DKDD0017 with the Rosie Camp in the background.



Figure 2: Pentlandite rich stringer sulphides in drillhole DKDD0017

The three drillholes within the Oxide zone are also complete, these holes were drilled for PGE recovery/metallurgical testwork, and intersected weathered, iron rich oxidised mineralisation. These holes have been cut and sampled and are at the laboratory for PGE analysis prior to recovery testwork.

The program at Rosie Nickel Project is designed to increase confidence in mineralisation in the upper north area, test at depth below the south-eastern area (previously known as Nariz) and collect PGE rich oxide material from directly above the sulphide deposit for assay and PGE recovery/metallurgical testwork. These three areas have been identified from the Rosie Nickel Sulphide Scoping Study as having potential upside by either impacting early cash flow or extending the life of mine (see ASX announcement 28th April 2021).

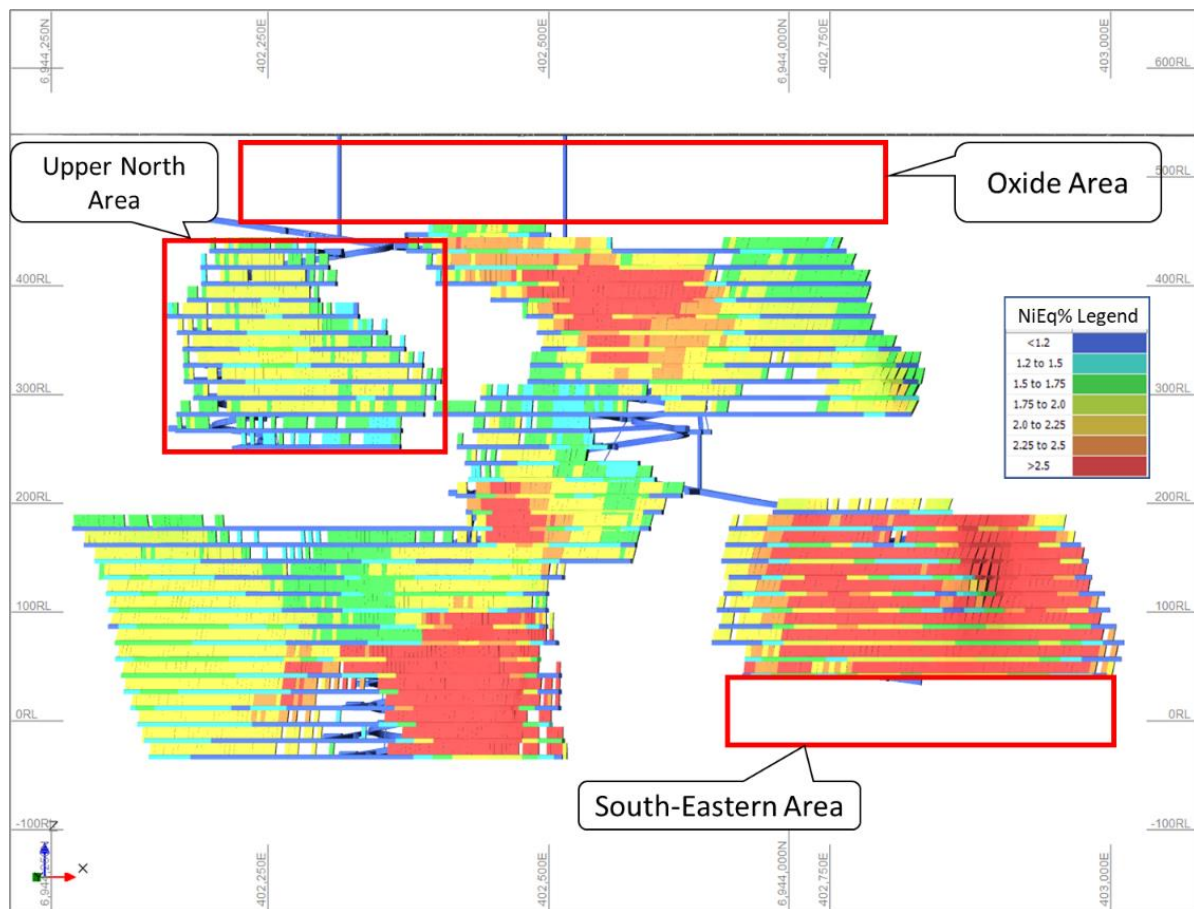


Figure 3: Stope grade heat map with areas of drilling

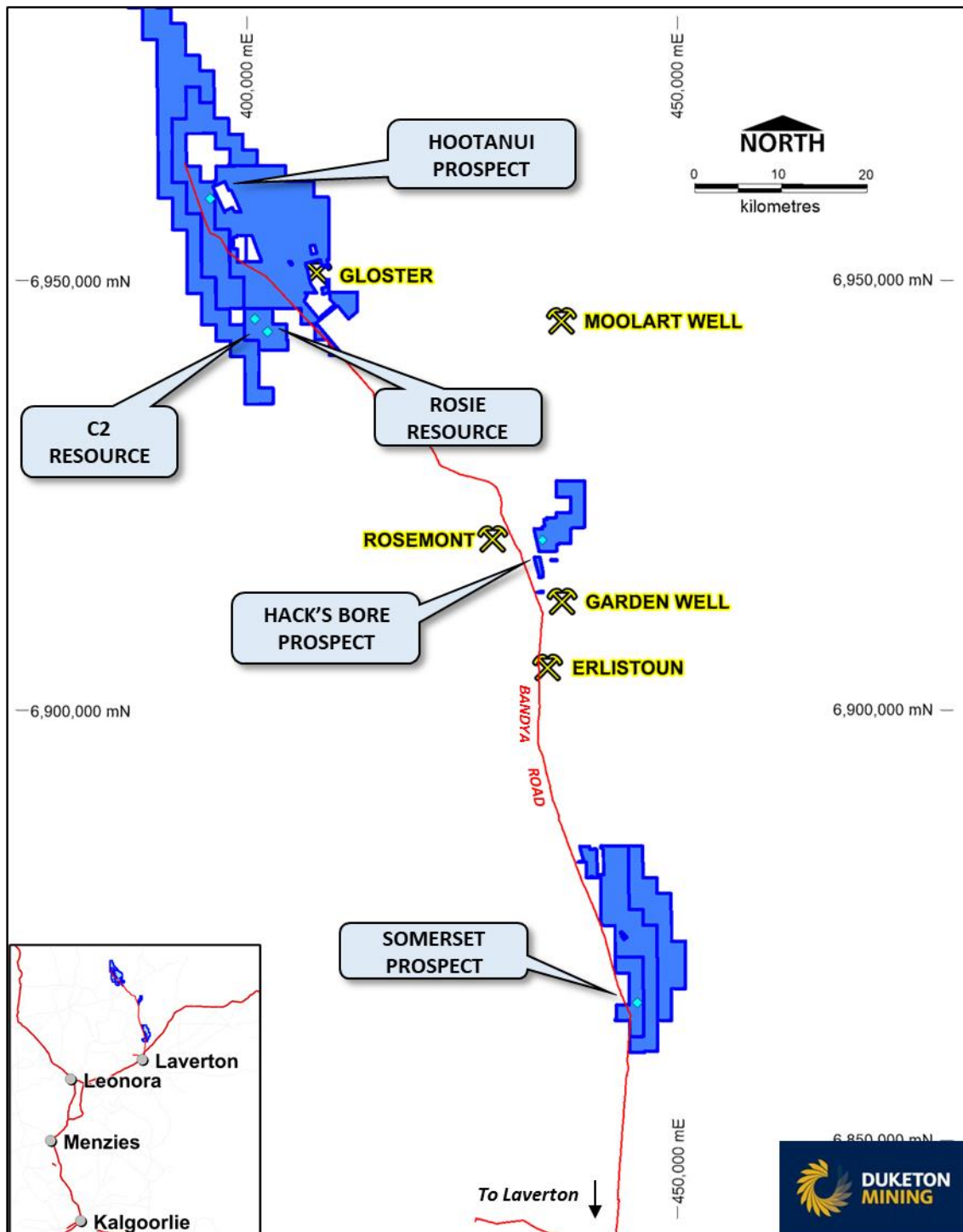


Figure 4: Plan of DKM Tenements showing Ultramafic, Nickel Resources and Prospects



Table 2: Drillhole collar details

Hole ID	Easting	Northing	RL	Depth	Azimuth	Dip	Area of Drilling
DKDD0012	402230	6944161	540	231.9	45	-60	Upper North
DKDD0013	402355	6943992	540	282.2	45	-60	Upper North
DKDD0014	402426	6944056	540	85.4	45	-60	Oxide
DKDD0015	402532	6944000	540	82.9	45	-60	Oxide
DKDD0016	402640	6943960	540	85.1	0	-60	Oxide
DKDD0017	402341	6944039	540	227.5	45	-60	Upper North

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.



JORC Table 1

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

Section 1 Sampling Techniques and Data – Rosie Diamond Drilling

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Diamond core was drilled triple tube HQ to competent rock and then NQ2 to end of hole. The sample interval is cut in half using a diamond core saw and half core sampled for assay. Each sample provides between 2.0-3.0kg of material. The core is cut to the left of the orientation line, with the same half sampled to ensure sample is representative. Diamond core is sampled to geological boundaries, no more than 1m and no less than 20cm per sample. Certified samples and blanks are inserted every 25th sample for diamond drilling. Mineralisation is determined qualitatively by geological logging and quantitatively through assaying.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Rock roll or rough core to refusal then diamond drilling using HQ3 (61.1mm) sized core to competent rock and then NQ2 (50.6mm) to end of hole. Core was oriented using a Boart Longyear TruCore UPIX orientation tool.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> Recoveries qualitatively noted at the time of drilling and recorded. Core is metre marked and orientated. Run recoveries are recorded.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Triple tube HQ is used to maximise recovery through the weathered zone and ensure a representative sample.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 laboratories discretion. Sample sizes are considered appropriate for the grain size of the material sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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 make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, 	<ul style="list-style-type: none"> 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. 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 Selected samples are also analysed using a Fire Assay 25g charge

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	<i>duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	<ul style="list-style-type: none"> with MS finish for Au, Pt, Pd, Rh, Ru, Os, Ir to a 1ppb detection limit. • Certified Reference Material (Standards) and blanks were submitted with batches (1 in every 25 samples).
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <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> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • 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. • A topographic surface has been created from airborne geophysical data. Drillholes are corrected to this surface.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <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> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Holes are drilled at various spacing depending upon the holes drilled previously in the area of interest. • Hole spacing is appropriate for drilling at this stage in the exploration process. • Sample compositing has been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <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> • <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> 	<ul style="list-style-type: none"> • The orientation of the geology and mineralization at Rosie is steeply dipping to the south and striking NNW to W.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • 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

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		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	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <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> <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> 	<ul style="list-style-type: none"> 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.
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> 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.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Rosie Nickel Deposit is a komatiite-hosted nickel sulphide deposit. The mineralisation is characterised by accumulations of massive, matrix, breccia and disseminated sulphides at the basal contact overlying a basalt footwall.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> 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"> eastings 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. 	<ul style="list-style-type: none"> Significant intercepts are provided in a table within the text of this announcement.
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 > 4000ppm nickel. No metal equivalent values have been used for reporting of results.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	<ul style="list-style-type: none"> Downhole length is reported for the drillholes.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer to figures in document.
Balanced reporting	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All drillhole locations are reported and a table of significant intervals is provided in the release text.

Criteria	JORC Code explanation	Commentary
	<i>Exploration Results.</i>	
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer to document.
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A discussion of further work underway is contained within the body to this ASX release.