ASX Announcement

Aus Tin Mining Limited (ASX:ANW)

27 March 2019

Pembroke Drilling Identifies Zones of Deeper Nickel-Copper Mineralisation

Highlights:

- **Deeper drilling at Pembroke identifies:**
  - **new zones of nickel-copper associated sulphide mineralisation including zones of what appears to be radial fracture hosted mineralisation;**
  - **petrographic assessment suggestive of a metamorphic halo above potential target mineralised zone.**
- **Drilling at Mt Cobalt confirms target shear zone in new area north of previous drilling.**

The Directors of Aus Tin Mining Limited (the **Company**) are pleased to provide the following update in relation to the Company's Pembroke and Mt Cobalt projects.

Pembroke (nickel-copper-cobalt)

In January 2019 the Company completed a 425m drill hole (PEM029 Reverse Circulation (RC) / diamond tail) targeting a zone of previously untested elevated magnetic susceptibly that was thought to host sulphide mineralisation. As reported in January 2019 geological logs confirmed the presence of potential nickel and copper sulphides[1] and assay and petrographic results now confirm elevated nickel, copper and cobalt over varying intervals. Native copper observed was found to be limited to isolated blebs disseminated in the rock matrix and nickel was confined to zones of fine pentlandite encased in extensive pyrrhotite veining.

The entire drill hole was high in magnetite with a zone of more intense magnetite between two intervals of elevated sulphides identifying the source of elevated magnetic susceptibility that was the initial drill target. Petrological studies commissioned by the Company suggest the mineralisation in sulphides encountered is the result of the influence of an intrusion at depth coinciding with the Black Snake Porphyry. Furthermore, elemental analysis shows reduction of Mg and increases in K, P, Ti and Al indicate the presence of altering fluids from an intrusive at depth.

Assay results up to 1.085%Ni and 352ppmCo[2] coupled with the orientation of sulphides observed in sections of diamond core[3] and observation from the petrographic studies are indicative of radial fracturing concentrating sulphide mineralisation following mobilisation of minerals originating at depth through fluid pathways in the surrounding host.

[1] Refer ASX Announcement dated 18 January 2019
[2] PEM029 Interval 230m to 230.6m at 1.085%Ni & 352ppmCo, refer Table 1 and Appendix 1 for further information
[3] Refer Figure 2, ASX Release dated 18 January 2019

The petrographic assessment suggests this surrounding host is the result of intense metasomatic replacement and may represent a metamorphic halo at the edge of a main mineralised zone (Refer Figure 1). Future programs of drilling at Pembroke will target this potential main mineralised zone.

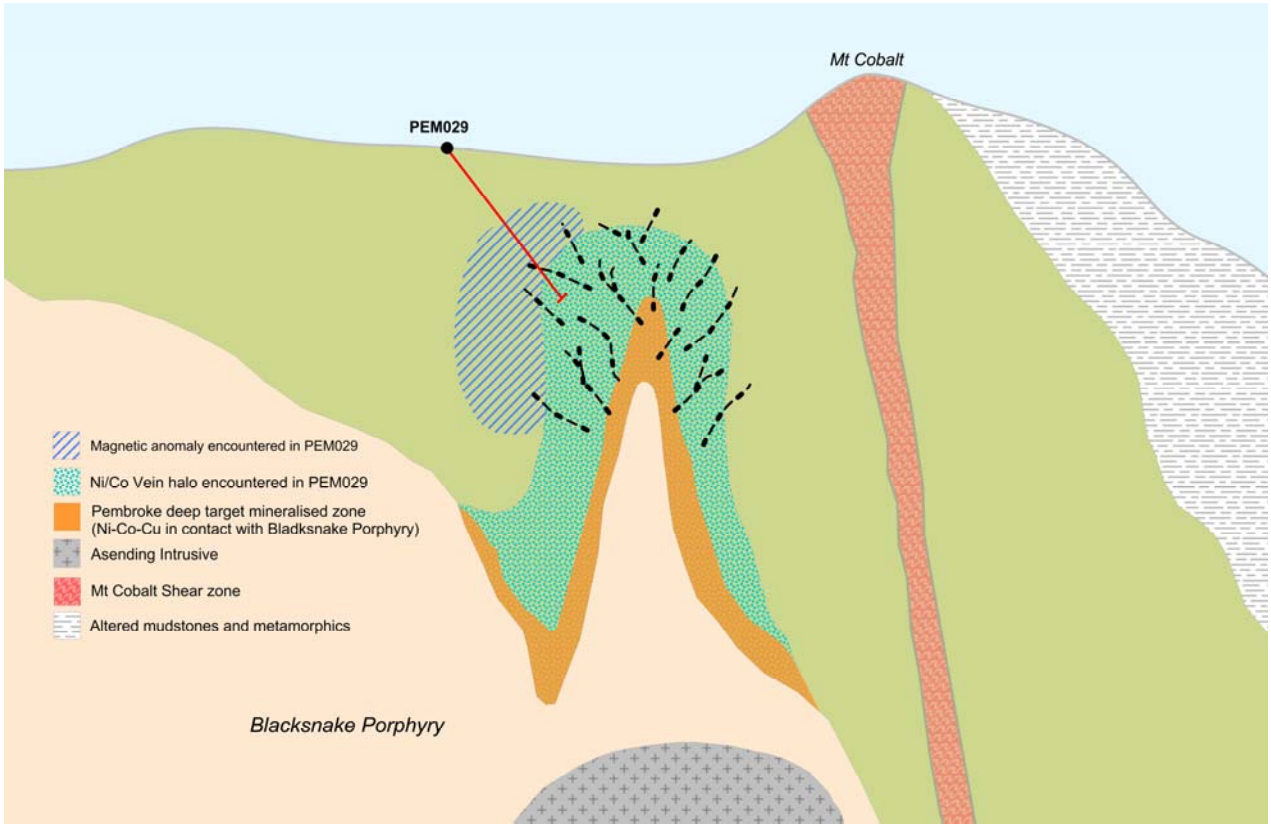

Figure 1 – Schematic geological interpretation of Pembroke mineralisation (NOT TO SCALE)

The recent drilling at Pembroke supports the geological model for the prospect comprising copper-silver and nickel-cobalt concentration occurring along the contact with apical porphyry structures associated with the Blacksnake Porphyry and/or Station Creek Ameldite. There are several examples globally of such geological models, including Avebury in Tasmania, Santa Rita in New Mexico USA and other similar systems in Nevada and Montana.

Chief Executive Officer, Peter Williams said *"the synthesis of drill logs, assay date and petrographic results for hole PEM029 has taken time but has enabled the Company to obtain a better understanding of the geology at Pembroke. PEM029 is considered a technical success demonstrating the existence of nickel-copper sulphides at depths much deeper than previously tested and most importantly highlighting through structural, elemental and petrological indicators to the main mineralised zone ".*

Three reverse circulation (RC) holes totalling 192m were also drilled at Pembroke testing for potential shear zones such as those previously tested at Mt Cobalt. Each hole consisted of altered foliated serpentinite finishing in unaltered serpentinite with disseminated sulphides including chalcopyrite. However, the drilling failed to intercept any significant structures or shear zones and hence all three holes displayed cobalt, copper and nickel assay results consistent with surface anomalous soil results (Table 2).

Mt Cobalt (cobalt-nickel)

The Company previously announced[4] that it had commenced a program of drilling at Mt Cobalt targeting shear zones that elsewhere at Mt Cobalt have found to host high cobalt grade, asbolite mineralisation. The Company has now completed three holes at the northern end of Mt Cobalt with two holes confirming varying intervals of shear zones that will be sampled and submitted for analysis. A fourth hole is currently being drilled on the western side of Mt Cobalt and subject to weather is expected to be completed this week.

The shear zones observed in the latest drilling support the previous interpretation of a possible continuation of the shear zone in a north west direction[5] and possible extension of the target zone. In 2018 a 350m target zone was defined by a combination of target lithology mapping, surface mineralisation, soil geochemistry, drilling and the extent of historic workings, over a zig zag folded and sheared zone in the host serpentinite. Further evaluation of the target zone will be undertaken upon completion of the program.

Figure 2 – Drill core (COB035) highlighting shear zone (fractured zones)

On behalf of the Board
KM Schlobohm
Company Secretary

[4] Refer ASX Announcement dated 21 March 2019
[5] Refer ASX Announcement dated 16 February 2018

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About Aus Tin Mining (the Company)

Aus Tin Mining Limited (ASX: ANW) has a vision to become a major Australian tin producer. The Company has recommenced production at the high grade Granville Tin Project located north of Zeehan (TAS) and the Company intends to expand the Granville Tin Project and undertake exploration to extend the Life of Mine. The Company is also developing the world class Taronga Tin Project located near Emmaville (NSW). The Company defined and announced its maiden JORC compliant resource for the Taronga Tin Project in late 2013 and test work and exploration activities on site have revealed potential credits for copper, silver, tungsten, molybdenum, lithium and rubidium. Highly prospective regional targets have also been established within the Company's broader tenement footprint, and within trucking distance of the proposed processing site at Taronga. In December 2017 the Company received approval for the first stage of development at Taronga for a trial mine and pilot plant.

The Company is also actively exploring for cobalt at its Mt Cobalt project west of Gympie (QLD). Recent drilling has returned high grades for an enriched cobalt-manganese oxide zone. In addition the Company is exploring an approximately 4km arc along the contact with the Black Snake Porphyry which is prospective for cobalt, nickel, copper and gold.

PEM029	Hole Depth (m)	Interval (m)	Co (ppm)	Cu (ppm)	Ni (ppm)
Upper Zone	230 – 244	14	133	48	3544
	Incl 230-230.6	0.6	352	275	10850
	244 – 256	11	119	91	3104
	262 - 274	12	139	183	3150

Table 1 – Summary Analytical results for diamond drilling (PEM029)

	Hole Depth (m)	Interval (m)	Co (ppm)	Cu (ppm)	Ni (ppm)
PEM026	0-10	10	165	299	3118
PEM 027	0-16	16	147	114	2936
PEM 028	0-14	14	139	76	2525
	22-50	28	111	210	2359

Table 2 – Summary Results of Reverse Circulation (RC) drilling at Mt Cobalt

Forward Looking Statement

This announcement may contain certain statements and projections provided by or on behalf of Aus Tin Mining Limited (Aus Tin Mining) with respect to the anticipated future undertakings. These forward-looking statements reflect various assumptions by or on behalf of Aus Tin Mining. Accordingly, these statements are subject to significant business, economic and competitive uncertainties and contingencies associated with exploration and/or mining which may be beyond the control of Aus Tin Mining which could cause actual results or trends to differ materially, including but not limited to price fluctuations, exploration results, reserve and resource estimation, environmental risks, physical risks, legislative and regulatory changes, political risks, project delay or advancement, ability to meet funding requirements, factors relating to property title, native title and aboriginal heritage issues, dependence on key personnel, share price volatility, approvals and cost estimates. Accordingly, there can be no assurance that such statements and projections will be realised. Aus Tin Mining makes no representations as to the accuracy or completeness of any such statement of projections or that any forecasts will be achieved.

Additionally, Aus Tin Mining makes no representation or warranty, express or implied, in relation to, and no responsibility or liability (whether for negligence, under statute or otherwise) is or will be accepted by Aus Tin Mining or by any of their respective officers, directors, shareholders, partners, employees, or advisers as to or in relation to the accuracy or completeness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any interested party or its advisers. In furnishing this presentation, Aus Tin Mining undertakes no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise.

Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in Aus Tin Mining Limited.

COMPETENT PERSON STATEMENT

The information in this presentation that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Brian Roach BA (Geology) who is a Member of The Australian Institute of Mining and Metallurgy. Mr Roach provides consultancy services to Aus Tin Mining. Mr Roach has more than five years experience which is relevant to the style of mineralisation and type of deposit being reported and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves' (the JORC Code). This public report is issued with the prior written consent of the Competent Person(s) as to the form and context in which it appears.

Appendix 1 - JORC Code, 2012 Edition – Table 1

1.1 Section 1 Sampling Techniques and Data

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.*	Sub surface samples were collected as rock chips from Reverse Circulation (RC) and drill core from diamond drilling (NQ). A total of 3RC drill holes were completed for a total of 192m and 1 Diamond hole to 425m with 162m RC pre collar and 263m diamond tail. The reported results are for 4 holes totalling 617m. The 3 RC drill holes were oriented perpendicular to the interpreted strike of the targeted structure at dip angles of 60 degrees from horizontal. The diamond hole was oriented perpendicular to the targeted magnetic anomaly at a dip angle of 60degrees to optimally intersect the interpreted anomaly.
	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.*	RC samples were collected as 1m bulk RC drill cuttings and were collected from the cyclone and retained in large plastic RC sample bags from which tube samples were obtained for both lithological logging and assaying. Diamond core samples were collected from halved cut core. Samples for geochemical analysis were collected at intervals of 2m composite intervals for the entirety of the hole for both the RC and the diamond core sampling. Additional selective diamond ¼ core samples were collected at intervals of varying thickness over mineralised zones. Zones not sampled reflected zones of either poor core recovery or lithology not representing exploration target zone. A total of 177RC and 104 diamond core samples were collected with sample weights typically 1-3kg. Samples were packaged at site and delivered to ALS labs in Brisbane to be assayed using Nitric aqua regia digestion followed by ICP AES finish (ALS ME-ICP41). Samples selected for Au were assayed using ALS Au-TL43.
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).*	Diamond drilling comprised: NQ diamond drilling Diamond tail depth from 162m to 425m RC drilling comprised: 150mm diameter face sampling reverse circulation drilling. Hole depths range from 60-162m
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	NQ core samples were visually checked and recorded for recovery, moisture and contamination.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The drill holes were drilled using polymers and muds to limit core loss in argillic zones and where cutting return was lost swelling polymers were mixed with the drilling muds to restore mud and cutting return to the surface
	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.	Sample recoveries were high throughout the entirety of the holes. No significant bias is expected.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support*	Drill core was geologically logged and the level of understanding of these variables increases with the

Criteria	JORC Code explanation	Commentary
	appropriate Mineral Resource estimation, mining studies and metallurgical studies.	maturity of the prospect.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All drill holes were geologically logged for the entirety of the holes with the following observations recorded: Lithology, texture, colour, mineralogy, alteration, weathering and other relevant features of the samples. Mineralised zones were identified from observation of mineralogy and lithological characteristics. All logged information was initially logged on to field notes and then later entered digitally into a MS database (Excel). Core from each hole for the entirety of the hole was collected into core trays, with intervals and core loss recorded on drillers blocks, numbered and photographed as a representation of the hole. The core trays are stored in a designated building for future reference.
	The total length and percentage of the relevant intersections logged.	All drillholes were geologically logged in full where core recovery allowed.
Sub-sampling techniques and sample preparation	*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	RC samples were collected as 1m bulk samples from the cyclone and then 2m composited by tube sampling from the bags. Samples were all 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*	Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories.
	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.	Regular cleaning of sampling equipment was undertaken to prevent contamination.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for the rock type, style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories.
	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.	None used
	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.	Appropriate analytical method using Nitric aqua regia digestion with ICP-AES finish (ME_ICP41) and aqua regia with ICPMS finish (AU TL43) Assaying was carried out by ALS, an accredited laboratory. No duplicates or standards were submitted

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The drill logs were prepared by the site supervising geologist and have subsequently reviewed by the Company's senior geologist.
	The use of twinned holes.	No twinned holes were undertaken
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All field data is manually collected and noted on field sheets then later entered into excel spreadsheets. Hard copies are stored within a local office and electronic data is stored on the Brisbane server. All electronic data is routinely backed up.
	Discuss any adjustment to assay data.	None required
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.*	All drill holes are initially located using a hand held GPS Upon completion of drill hole, collars are again checked with two hand held GPS with a 3m lateral accuracy.
	Specification of the grid system used.	The grid system used is MGA_GDA94 Zone56.
	Quality and adequacy of topographic control.	The accuracy is adequate for collection of initial data on the zone of mineralisation
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Due to project area terrain drill spacing was largely dependent on accessible sites.
	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.	The purpose of the drilling was to target interpreted structures indicated from surface mapping and anomalous magnetic zone at depth inferred from Geophysical modelling. The drilling results are not intended to be used for JORC resource calculation purposes.
	Whether sample compositing has been applied.	Diamond core samples collected by compositing half core up to 2m within zones of little visible mineralisation. The composite samples to be resampled at 1m intervals as quarter core at a later date if the results from the composite samples were considered significant based on grade. RC composite bulk samples to be resampled and submitted as 1m interval samples at a later date if the results from the composite sample are considered significant based on grade.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Drill holes were oriented perpendicular to the interpreted strike of the interpreted structures and anomaly at dip angles to optimally intersect the mineralisation zones.
	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.	As drill holes were oriented perpendicular to the interpreted strike of mineralisation, no bias is envisaged.

Criteria	JORC Code explanation	Commentary
Sample security	*The measures taken to ensure sample security.*	Company geologist supervises all sampling and subsequent storage in the field. The samples are delivered to ALS Brisbane by either company management or recognized freight service. Sample submission forms are submitted both electronically and with the samples. Upon receipt of samples, ALS delivers by email to the Company's CEO confirmation of arrival of samples.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	None completed

2 Section 2 Reporting of Exploration Results

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.*	Pembroke prospect is located wholly within Exploration Permit 19366 approximately 40km West of Gympie and is 100% held by AusTin Mining.
	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.	All granted tenements are in good standing and there are no impediments to operating in the area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Reference made to results previously reported by the Company
Geology	*Deposit type, geological setting and style of mineralisation.*	The Pembroke project is part of a larger Nickel mineralisation province. The prospect setting is a structurally controlled nickel/cobalt mineralising system hosted in Carboniferous Serpentinite rocks of the Wandilla Province. The Pembroke prospect is a Nickel-Cobalt sulphide target analogous to the Avebury Nickel deposit in Tasmania. It has also been observed at Pembroke that considerable Copper mineralisation exists above the Nickel-Cobalt mineralisation. The Pembroke prospect is located approximately 1km south of Mt Cobalt, and the historic mine workings occur at the northern contact of the Black Snake Porphyry with serpentinite and metasediments and are associated with an intense magnetic low. Both the copper gold and nickel are related to the general contact zone between diorite and ultrabasic rocks.
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* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this*	Refer to the body of this report for significant intercepts pertaining to this announcement.

Criteria	JORC Code explanation	Commentary
	exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
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.*	Results are reported for individual and averaged intervals
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *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').*	Drill holes were orientated to intersect the structures and anomaly at the perpendicular. The general orientation of the drill holes is considered suitable.
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 body of text.
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.*	Results are reported for grades greater 0.2%Ni
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.*	Limited preliminary metallurgical test work has been undertaken and a review of extraction options evaluated.
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.*	Details of further work are yet to be determined