ASX MEDIA RELEASE Havilah Resources



15 January 2024

LARGE COPPER-GOLD-MOLY MINERALISED SYSTEM CONFIRMED AT BIRKSGATE

HIGHLIGHTS

- Havilah's drilling has extended the Birksgate skarn copper-gold-molybdenum mineralisation at least 1.5 km east of the original 2014 discovery by the MMG-Havilah joint venture.
- The mineralised target potentially covers an area of at least 8 km² in a broad synclinal structure.
- Co-associated vanadium and uranium reach potentially economic levels and together with the graphite discovery in the core of the syncline, as previously announced, highlights the multi-commodity potential.

Havilah Resources Limited (Havilah or the Company) (ASX: HAV) is pleased to report extensions to the Birksgate prospect skarn** copper-gold-molybdenum mineralisation in the Curnamona Province of northeastern South Australia, located approximately 50 km north-northwest of Kalkaroo (Figure 1).

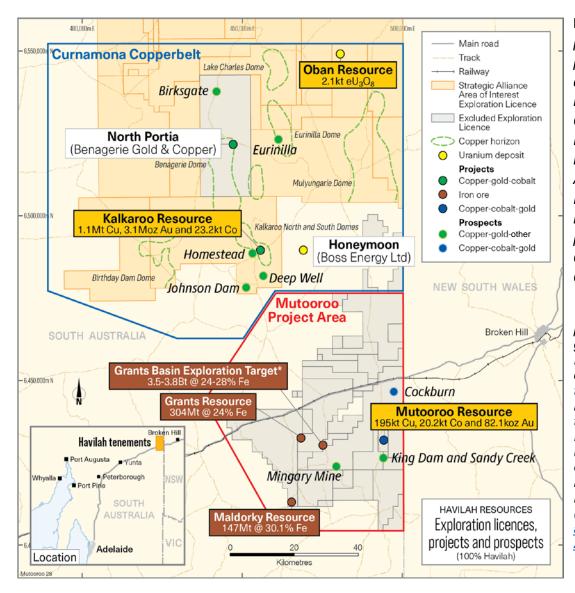


Figure 1 Havilah's project and prospect locations and tenement holding in the Curnamona Province in northeastern South Australia. The Birksqate prospect lies in the northern part of the Curnamona Copperbelt.

*Note that the potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource (refer to ASX announcement of 5 April 2019).

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Havilah recently completed 6 reverse circulation (**RC**) drillholes for 1,227 metres at the Birksgate prospect as previously reported (<u>refer to ASX announcement of 29 November 2023</u>). The objective was to explore for extensions of the skarn copper-gold-molybdenum mineralisation intersected in 2014 MMG-Havilah joint venture diamond drillholes (<u>refer ASX announcement of 17 October 2014</u>) (Figures 4 and 5) that included:

BRK14DD001A 10.9 metres of 0.84% copper, 0.64 g/t gold and 493 ppm molybdenum from 209.5 metres within an interval of 23.8 metres of 0.51% copper from 207.5 metres (on the western limb of the syncline).

BRK14DD004 4.45 metres of 0.47% copper, 0.18 g/t gold, 278 ppm molybdenum, 0.8% lead and 0.32% zinc from 192.05 metres (on the eastern limb of the syncline) (Figure 2).

Skarn mineralisation was intersected in five of the 2014 diamond drillholes in the K3 stratigraphic horizon (lying above the K2 host to Kalkaroo copper-gold mineralisation, see Figure 3) on the western limb of an interpreted synclinal fold structure. Three of Havilah's drillholes specifically targeted the skarn horizon where aeromagnetic and other geophysical data indicated that it may re-appear near surface on the eastern limb of the interpreted syncline, roughly 1.5 km east of the 2014 MMG-Havilah joint venture discovery (Figure 2). Skarn copper-gold-molybdenum mineralisation was intersected in each of the 3 Havilah RC drillholes over a strike length of roughly 2 km, confirming Havilah's conceptual geological model, with mineralised intercepts as follows:

BKRC001 5 metres of 0.09% copper, 0.70 g/t gold and 513 ppm molybdenum from 167 metres. **BKRC002** 4 metres of 0.48% copper, 0.64 g/t gold and 437 ppm molybdenum from 156 metres and 6 metres of 0.50% copper, 0.30 g/t gold and 231 ppm molybdenum from 164 metres. **BKRC003** 7 metres of 0.45% copper, 0.29 g/t gold and 295 ppm molybdenum from 117 metres.

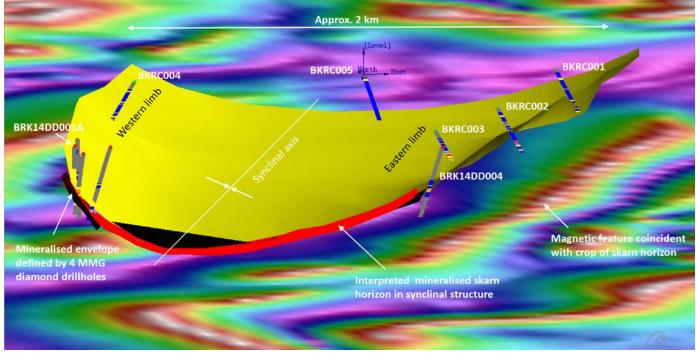


Figure 2 3D oblique view of the Birksgate prospect area showing Havilah RC drillholes that targeted the crop of the skarn horizon on the eastern limb of an interpreted syncline. The underlying aeromagnetic image shows the interpreted trace of the targeted mineralised skarn horizon where it crops in the east (broad red feature). Some 2014 MMG-Havilah joint venture diamond drillholes are also shown.

The distinctive geochemical signatures of predominantly copper, gold, molybdenum and associated elevated uranium (up to 213 ppm) and vanadium (up to 1,010 ppm) in both the western limb and eastern



limb drillhole assays is compelling evidence that the same skarn horizon extends across the entire approximately 8 km² area of the syncline. The Birksgate skarn therefore represents potentially a very large copper-gold-molybdenum mineralised target that would require extensive drilling to determine its average thickness and grade over this large area.

Drillhole BKRC004 terminated in graphitic rocks and did not reach the skarn horizon on the western limb. The 178 metre intersection of graphitic rocks previously reported in drillhole BKRC005 occurs in the K4 unit in the central (uppermost) part of the syncline (refer to ASX announcement of 5 January 2024) (Figure 2).

It is noted that the main Kalkaroo copper-gold mineralised K2 prospective horizon has not yet been intersected at Birksgate and represents a potentially substantial target in its own right, that if present, would lie beneath the skarn horizon (Figure 3).

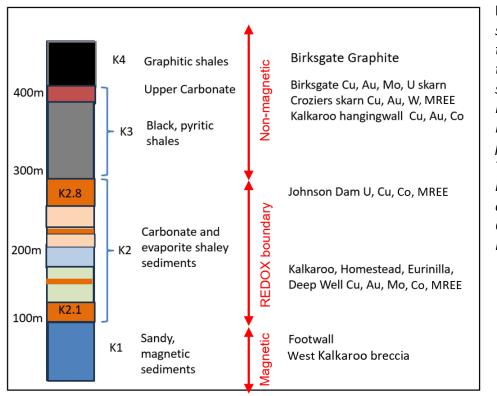


Figure 3 Regional stratigraphic column showing the position of the K3 unit that is host to the mineralised skarn horizon described here. K3 lies immediately above the Kalkaroo copper-gold K2 prospective horizon. These stratigraphic relationships are observed over a large area of the Curnamona Copperbelt (see Figure 1).

Commenting on the Birksgate skarn drilling results, Havilah's Technical Director, Dr Chris Giles said:

"The MMG-Havilah joint venture intersected consistent skarn mineralisation in four diamond drillholes during 2014 and Havilah has now duplicated this in three RC drillholes over 2 km of strike, located roughly 1.5 km to the east, confirming Havilah's conceptual geological model.

"It is remarkable that all drillholes that intersected the skarn horizon to date have returned appreciable copper-gold-molybdenum mineralisation. Geological reasoning suggests this mineralisation could extend continuously all the way from the western to the eastern limb of the syncline, potentially covering an area of at least 8 km² in the subsurface.

"Based on this interpretation, the Birksgate skarn may therefore represent a very large copper-goldmolybdenum mineralised target that warrants systematic follow up drilling to understand the syncline geometry and, if feasible, to define a JORC Mineral Resource.

"The associated uranium and vanadium approach levels that may potentially be economic to recover with the other metals, depending amongst other things on the metallurgical recovery characteristics.



"The ubiquitous molybdenum at Birksgate assumes greater significance given the December 2023 update of the Australian Government's critical minerals list that now includes this metal.

"The 21 metre intersection of 4.9% TGC (total graphitic carbon) mineralisation in the K4 unit over a potentially large area in the centre of the syncline further highlights the multi-commodity discovery potential of the Birksgate prospect area."



Figure 4 Drillcore from 212m depth from MMG – Havilah joint venture 2014 diamond drillhole BRK14DDO01A skarn mineralisation comprising laminated chalcopyrite (copper sulphide-brassy yellow colour) and dark grey magnetite (iron oxide) replacement bands. This interval carries more than 2% copper.

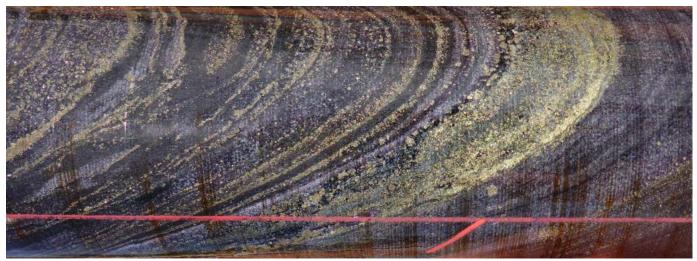


Figure 5 Drillcore from 196m depth from MMG – Havilah joint venture 2014 diamond drillhole BRK14DDO04 showing laminated replacement style chalcopyrite-pyrite (brassy yellow colour), magnetite (dark grey-black) and carbonate-fluorite (light grey-pale purple) skarn mineralisation.

** Skarns are a particular class of metal deposits typically formed by the interaction of metal bearing granite-derived or metamorphic hydrothermal fluids with generally carbonate rich wall rocks. Less common types of skarns are formed in contact with carbonaceous rocks such as black shales, graphitic shales and banded iron formations. At the Birksgate prospect there has been an intimate replacement of thinly bedded carbonate and graphitic layers by the introduced sulphide minerals, magnetite and fluorite (see Figures 4 and 5).



This announcement has been authorised on behalf of the Havilah Board by Mr Simon Gray.

For further information visit <u>www.havilah-resources.com.au</u> Contact: Dr Chris Giles, Technical Director, on (08) 7111 3627 or email <u>info@havilah-resources.com.au</u> Registered Office: 107 Rundle Street, Kent Town, South Australia 5067 Mail: PO Box 3, Fullarton, South Australia 5063

Cautionary Statement

This announcement contains certain statements which may constitute 'forward-looking statements'. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, performance or achievements to differ materially from those expressed, implied, or projected in any forward-looking statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Competent Person's Statements

The information in this announcement that relates to Exploration Results is based on data and information compiled by geologist Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, a full-time employee and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of *'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'*. Dr Giles consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

Appendix 1

Sections 1 and 2 below provide a description of the sampling and assaying techniques in accordance with Table 1 of The Australasian Code for Reporting of Exploration Results.

Hole Number	Easting m	Northing m	RL m	Grid azimuth	Dip degrees	EOH depth metres
BKRC001	441915	6537513	47	123	-60	210
BKRC002	441397	6536327	47	117.5	-60	216
BKRC003	440980	6535696	47	114	-60	150
BKRC004	440064	6537522	47	285	-60	246
BKRC005	441074	6537528	47	120	-70	210
BRK14DD001A	439348	6535516	45	190	-70	296.4
BRK14DD004	440894	6535167	48	290	-70	318.2
Datum: AGD66 Zone 54 Note: All azimuths and dips are as measured at surface; deviations from this typically occur at depth.						

Details for drillholes cited in the text and in Figure 2



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. 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. 	 Sample data was derived from reverse circulation (RC) drillholes as documented in the table above. RC samples were collected at 1 metre intervals and laid out in rows. RC assay samples averaging 2-3kg were split at 1m intervals into prenumbered calico bags, using a riffle splitter mounted on the cyclone of the drill rig. The calico bags were packed into polyweave bags by Havilah staff for shipment to the assay lab in Adelaide. This table refers only to the recent Havilah RC drillholes. For sampling techniques and other details of the two 2014 MMG-Havilah joint venture diamond drillholes refer to the relevant announcement (refer ASX announcement of 17 October 2014).
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). 	 All RC holes were drilled with a face sampling hammer bit. All samples were collected via riffle splitting directly from the cyclone.
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 	 The sample yield and quality of the RC samples was routinely recorded in drill logs. The site geologist and Competent Person consider that overall the results are acceptable for interpretation purposes.



Criteria	JORC Code explanation	Commentary
	sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	 No evidence of significant sample bias due to preferential concentration or depletion of fine or coarse material was observed. No evidence of significant down hole or inter-sample contamination was observed. Sample recoveries were continuously monitored by the geologist on site and adjustments to drilling methodology were made in an effort to optimise sample recovery and quality where necessary.
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 RC samples were logged by an experienced exploration geologist using in-house software on a tough field tablet. The logs were then approved and uploaded to a remote Excel database. All RC chip sample trays and some representative samples are stored on site. Logging is semi-quantitative and 100% of reported intersections have been logged. Logging is of a sufficiently high standard to support any subsequent interpretations, resource estimations and mining and metallurgical studies.
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 	 RC drill chips were received directly from the drilling rig via a cyclone and were riffle split on 1 metre intervals to obtain 2-3 kg samples. Sampling size is considered to be appropriate for the style of mineralisation observed. Assay repeatability for copper, gold and other metals has not proven to be an issue in the past and is checked with regular duplicates. All Havilah samples were collected in numbered calico bags that were sent to BV assay lab in Adelaide. At BV assay lab the samples are crushed in a jaw crusher to a nominal 10mm



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	 sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 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, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision 	 (method PR102) from which a 3kg split is obtained using a riffle splitter. The split is pulverized in an LM5 to minimum 85% passing 75 microns (method PR303). These pulps are stored in paper bags. All samples were analysed for gold by 40g fire assay, with AAS finish using BV method FA001 and a range of other metals by BV methods MA101 and 102 (not reported here). Total graphitic carbon (TGC) was determined by BV method TC005. All sample pulps are retained by Havilah so that check or other elements may be assayed using these pulps in the future. Fire assay method FA001 is a total gold analysis. Assay data accuracy and precision was continuously checked through submission of field and laboratory standards, blanks and repeats which were inserted at a nominal rate of approximately 1 per 25 drill samples. Assay data for laboratory standards and repeats have been previously statistically analysed and no material issues were noted.
Verification of sampling and assaying	 have been established. 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. 	 Rigorous internal QC procedures are followed to check all assay results. All data entry is under control of the responsible geologist, who is responsible for data management, storage and security.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and 	 The holes were not surveyed using an electronic downhole camera. Present drillhole collar coordinates



Criteria	JORC Code explanation	Commentary
Data	 other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. Data spacing for reporting of 	 were surveyed in UTM coordinates using a GPS system with an x:y:z accuracy of <5m and are quoted in AGD66 Zone 54 datum. A digital GPS system will be used in due course to obtain final drillhole coordinates with mm accuracy. Regional topographic control is established by DTM data points from detailed aeromagnetic surveys, which is sufficiently accurate at the exploration stage. The RC drillholes were positioned at
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. 	 appropriate spacing to test down dip of the interpreted projection of the potentially mineralised target. Data spacing (drillhole spacing) is variable and appropriate to the geology. As this is an exploration project, infill drilling may be necessary to confirm interpretations. Not applicable as not reporting mineral resources. Sample compositing was not used in reporting exploration results.
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. 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 drillhole azimuth and dip was chosen to intersect the interpreted mineralised zones as nearly as possible to right angles and at the desired positions to maximise the value of the drilling data. At this stage, no material sampling bias is known to have been introduced by the drilling direction.
Sample security	• The measures taken to ensure sample security.	 RC chip samples are directly collected from the riffle splitter on the cyclone in numbered calico bags. Several calico bags are placed in each polyweave bag which are then sealed with cable ties. The samples are transported to the assay lab by a reputable local carrier at regular intervals.



Criteria	JORC Code explanation	Commentary
		 There is minimal opportunity for systematic tampering with the samples as they are not out of the control of Havilah personnel on site and the carrier is very reputable. The samples are transported to the lab within one or two days, limiting time for any interference. This is considered to be a secure and practical procedure and no known instances of tampering with samples has ever occurred.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 Ongoing internal auditing of sampling techniques and assay data has not revealed any material issues.

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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	 Security of tenure is via current exploration licence (EL) 5873 owned 100% by Havilah that is in good standing. Exploration drilling reported was undertaken on EL 5873. A Native Title Exploration Agreement is in place for EL 5873. The agreement was executed between Havilah and ATLA, the representative claimant organisation.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Much of the area has been explored by a number of groups in the past including Pasminco and the MMG- Havilah joint venture. This has included shallow aircore drilling, reverse circulation drilling and diamond drilling. All previous exploration data has been integrated into Havilah's databases.
Geology	• Deposit type, geological setting and style of mineralisation.	 The graphite mineralisation style is generally classified as sedimentary stratabound. The Cu-Au-Mo mineralisation is



Criteria	JORC Code explanation	Commentary
Drill hole information	 A summary of all information material to the under-standing 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 If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain 	 structurally controlled, stratabound replacement and at Birksgate it has skarn style affinities. Skarns are a particular class of metal deposits typically formed by the interaction of metal bearing granite-derived or metamorphic hydrothermal fluids with generally carbonate rich wall rocks. Less common types of skarns are formed in contact with carbonaceous rocks such as black shales, graphitic shales and banded iron formations. At the Birksgate prospect there has been an intimate replacement of thinly bedded carbonate and graphitic layers by the introduced sulphide minerals, magnetite and fluorite (see Figures 4 and 5). This information is provided in the accompanying table for the relevant drillholes.
Dete	why this is the case.	Charles and the state
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 	 Simple average grades over the specified intervals are reported, with no weighted aggregation of results. Reported mineralisation does not include intervals that are considered to be of uneconomic grade in the context



Criteria	JORC Code explanation	Commentary
	 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. 	of adjacent mineralised intervals. This is considered appropriate for reporting of exploration results. • Not applicable – see above. • Not applicable as no metal equivalent values are stated.
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 (e.g. 'down hole length, true width not known'). 	 Downhole lengths are reported. Drillholes are typically oriented with the objective of intersecting mineralisation as near as possible to right angles, and hence downhole intersections in general are as near as possible to true width. For the purposes of the geological interpretations and resource calculations the true widths are always used.
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.	• This information is provided.
Balanced Reporting	 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. 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. 	 Not applicable as not reporting mineral resources. Only potentially economic grade intervals are reported.
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; 	 Relevant geological observations are reported.



Criteria	JORC Code explanation	Commentary
	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	 The nature and scale of planned further work (e.g. 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. 	 No firm plans at this stage. Subject to allocation of future drilling budget and rig availability. Additional drilling may be carried out in the future to explore strike and depth extensions and for resource delineation.