

6 January 2022

**KEFI Gold and Copper plc**  
**("KEFI" or the "Company")**  
**Update to Hawiah Mineral Resource**

**Appendix C – JORC Table 1**

**Section 1: Sampling Techniques and Data**  
 (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Project Description
<b>Sampling techniques</b>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>A total of 193 surface diamond drillholes for 41,919 m and 53 surface trenches for 1,669 m have been completed at the Hawiah site, within the Project Licence area.</p> <p>Diamond drilling and surface trenching was used to obtain sample intervals that typically range from 0.3-3m for drilling and 1-3m for trenching from which a split was pulverised to produce a charge for fire assay digest with AAS instrumentation for gold and 4-acid digest ICP-AES for silver, copper and zinc.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	
	<i>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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	

Criteria	JORC Code explanation	Project Description
<b>Drilling techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i>	All drilling at the Project was completed using diamond drilling techniques, taking mostly HQ diameter using double tube core barrels. HQ3 diameter core (with triple tube core barrels) was used for early drillholes HWD_001 - HWD_025 and then in zones where poorer ground conditions were anticipated, for example in the highly weathered oxide domain.
<b>Drill sample recovery</b>	<p data-bbox="414 523 1030 576"><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p data-bbox="414 1230 1030 1283"><i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i></p> <p data-bbox="414 1315 1120 1367"><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential</i></p>	<p data-bbox="1169 523 2000 635">SRK has reviewed the drill core recovery results and found that in general the core recovery in the transition (where away from the immediate oxide contact) and fresh mineralised zone is reasonably good with an average recovery of 93.0% and 99.7%, respectively.</p> <p data-bbox="1169 715 2024 826">Within the oxide domain (and at the immediate oxide-transition contact), core recoveries are relatively poor, on average 27%, which is due to a combination of interpreted (sulphide) weathering cavities and soft friable/ clay material within this highly weathered zone.</p> <p data-bbox="1169 1007 1989 1150">The low core recovery values in the oxide domain mean that the geological confidence and data quality associated with the position of the mineralisation hangingwall and footwall contacts, assay and density sampling results is also low. This is reflected in the (Inferred) Mineral Resource Classification for the oxide domain.</p> <p data-bbox="1169 1230 2011 1342">HQ3 diameter core (with triple tube core barrels) was used zones where poorer ground conditions were anticipated, for example in the highly weathered oxide domain. No clear relationship is noted between Au, Ag, Cu or Zn grade and recovery.</p>

Criteria	JORC Code explanation	Project Description
	<i>loss/gain of fine/coarse material.</i>	
<b>Logging</b>	<i>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.</i>	All drillcore and trench samples have been geologically logged.  Geotechnical (RQD and core recovery) logging has been completed for all drillholes.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Both quantitative (geotechnical logging of RQD and core recovery) and qualitative (lithology) logging was carried out. All core has been photographed.
	<i>The total length and percentage of the relevant intersections logged.</i>	100% of diamond core and trench sampling has been logged.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Whole core was split using a core saw by Project personnel and then submitted for preparation, during which material was crushed to 2mm, pulverised to ~75 µm, with 250g split sent for analysis. The sample preparation procedures used for trench samples in consistent with the drillcore samples.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Certified Reference Materials ("CRM"), field duplicates, and blank samples were inserted into the sample stream, equating to a Quality Assurance Quality Control ("QAQC") sample insertion rate of approximately 18% for gold and 16% for

Criteria	JORC Code explanation	Project Description
	<p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <hr/> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></p>	<p>silver, copper and zinc.</p> <p>For trench sampling, QAQC samples were limited to CRM samples for gold and were inserted at a rate of approximately 3%.</p> <p>Assessment of the available QAQC data indicates that, with the exception of a limited number of anomalies and potential CRM sample mix-ups, the assay data for the drilling and sampling to date appears both appropriately accurate and precise.</p>
<p><b>Verification of sampling and assaying</b></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p>	<p>SRK completed a visit to the Project during October 2021. The site visit allowed SRK to review exploration procedures, examine new drill core, inspect the site, interview G&amp;M personnel and collect relevant information.</p>
	<p><i>The use of twinned holes.</i></p>	<p>No twin drilling has been completed. All drillholes have been completed by G&amp;M in accordance with their protocols, during 2019-2021.</p>
	<p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p>	<p>SRK was provided the Hawiah database in Microsoft Access format on 18 October 2021. SRK performed validation checks on the entire digital sample database and excluded data where appropriate. The Company validated sample assays during 2015 trench sampling and 2019-2021 drilling and by routinely submitting QAQC samples into each batch submitted for analysis at the ALS Jeddah Laboratory.</p>
	<p><i>Discuss any adjustment to assay data.</i></p>	<p>SRK excluded the following sample data within the digital sample database:</p> <ul style="list-style-type: none"> <li>All early-exploration surface rock chip sampling completed by the Company (namely HoleID's HWTR001- HWTR0018), due to their low accuracy (handheld GPS) survey, lack of QAQC protocol support and superseded nature, with systematic trench sampling completed over the same area</li> </ul>

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		during 2015; <ul style="list-style-type: none"> <li>Reconnaissance trench sampling completed on adjacent prospects, namely HAT054 and HAT055.</li> </ul>
<b>Location of data points</b>	<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>	The topographic survey for drillhole collars at Hawiah has been completed by using a Topcon ES-103 total station survey tool which provides a high degree of accuracy in terms of x, y and z coordinates. All trenches were surveyed using differential GPS or land surveyor.
	<i>Specification of the grid system used.</i>	UTM coordinate grid.
	<i>Quality and adequacy of topographic control.</i>	A topographic survey was completed by a G&M surveyor using Topcon ES-103 total station. The Resolution of topo-station points is considered to better than 0.5m, across the Project site.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Drillhole spacing typically ranges between 40 to 180 m.
	<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>	The drilling pattern is sufficiently dense to establish geological and grade continuity for the Mineral Resource at a reasonable level of confidence.
	<i>Whether sample compositing has been applied.</i>	SRK created 2.0m composites throughout samples in the modelled zones to regularise the grade data/ sample lengths whilst retaining grade variability at a visually representative scale.
<b>Orientation of data in relation to geological structure</b>	<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>	Drillholes have been completed from surface at inclinations typically ranging from 50 – 60°, providing intersection angles with the mineralisation that typically range from ~65° to ~30°.
	<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>	The orientation of the drilling is not considered to have introduced any material bias to the sample data or MRE.

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<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Transport of core from drill site to core storage was supervised by G&M personnel. Samples are driven to the analytical laboratory in Jeddah by a G&M driver. Sampled half and quarter core is kept in core stacks at G&M's core storage area. Analytical pulps are retained by the laboratory until the end of the drilling program; these are then returned to G&M's core storage yard by a G&M driver and stored in sealed barrels.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	SRK performed validation checks on the digital sample database and excluded data where appropriate. Based on the verification work completed, SRK considers that the digital sample and logging database is an appropriate reflection of the drilling and sampling data.

## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Project Description
<b>Mineral tenement and land tenure status</b>	<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>	G&M is a joint venture partnership between ARTAR and KEFI. The Exploration Licence is held by ARTAR, under the terms of the G&M Joint Venture agreement. ARTAR currently has a 68.8% share of the Project, with the remainder (31.2%) owned by KEFI, where KEFI is the operating partner. The Exploration Licence was granted by order of the Ministry of Energy, Industry and Mineral Resources and Deputy Ministry of Mineral Resources of Kingdom of Saudi Arabia. The Licence was originally awarded in 2014 and then renewed in October 2018. The Licence is due to expire on 21 October 2022.
	<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>	There are no known litigations potentially affecting the Hawiah Project.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Modern exploration at the Project commenced in 1936, with exploration activities including surface mapping, sampling and geophysics undertaken under the ownership of Saudi Arabian Mining Syndicate and (following 1956 and through to 1987) the KSA Directorate General of Mineral Resources as part of cooperative agreements. Most notably, the BRGM undertook a trench sampling program at the Hawiah prospect during 1987, which followed up on the results of earlier (1986-1987) rock chip sampling, mapping and geophysics, also undertaken by the BGRM. G&M subsequently acquired the Project in 2014.
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	The Hawiah VMS deposit is located on the eastern limb of a regional-scale antiform in the Group 2 mafic volcanics of the Wadi Bidah Mineral Belt (WBMB).  The Hawiah deposit forms a prominent north-south trending ridgeline, exposed over a total length of approximately 4,500m with a thickness that typically varies from 1-15m. The ridge has been interpreted by the Company as the modern-day expression of the original VMS palaeohorizon. The rock package comprises a suite of gossanous ex-massive sulphides, chert breccias, banded iron stones and intermediate volcanic breccias. The deposit has been subject to varying degrees of supergene alteration as a result of groundwater interactions. The

Criteria	JORC Code explanation	Project Description
		deposit comprises of four weathering domains; oxide, oxide-transition, transition and fresh, within which different resulting facies are described. The oxide and oxide-transition domain typically shows supergene gold enrichment, while certain parts of the transitional domain shows copper enrichment. The fresh mineralised domain appears to be a dominantly pyritic stratiform massive sulphide body.
<b>Drill hole Information</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li>• <i>easting and northing of the drill hole collar</i></li> <li>• <i>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</i></li> <li>• <i>dip and azimuth of the hole</i></li> <li>• <i>down hole length and interception depth</i></li> <li>• <i>hole length.</i></li> </ul> <p><i>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 why this is the case.</i></p>	Listing this material would not add any further material understanding of the deposit and Mineral Resource. Furthermore, no detailed Exploration Results are specifically reported.
<b>Data aggregation methods</b>	<p><i>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.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated</i></p>	
<b>Relationship between</b>	<i>These relationships are particularly important in the reporting of</i>	



Criteria	JORC Code explanation	Project Description
<b>mineralisation widths and intercept lengths</b>	<i>Exploration Results.</i>	
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	
	<i>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').</i>	
<b>Diagrams</b>	<i>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.</i>	
<b>Balanced reporting</b>	<i>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.</i>	
<b>Other substantive exploration data</b>	<i>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.</i>	
<b>Further work</b>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	SRK consider that there may be some potential to increase tonnage in the reported Mineral Resource at Hawiah with additional drilling at depth, within the central, northern and southern (down plunge) parts of the model, and also within the unclassified (transition and fresh) material within the central part of the deposit.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive</i>	

### Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Project Description
<b>Database integrity</b>	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i>	SRK performed a number of database validation checks on the Company's digital sample data and found no material issues in the final database.
	<i>Data validation procedures used.</i>	
<b>Site visits</b>	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	SRK completed a visit to the Project during October 2021 to review exploration procedures, examine new drill core, inspect the site, interview G&M personnel and collect relevant information.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	
<b>Geological interpretation</b>	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	<p>Mineralisation wireframes have been defined primarily based on lithology logging, elevated copper and gold grades (relevant to zones of anticipated grade enrichment or depletion, as described below) and visual assessments of geological and grade continuity. Selected mineralised intervals for oxide, oxide-transition, transition and fresh zones were typically based on visually distinguishable boundaries between the mineralised zones and background host rock, with lower grade samples and interburden incorporated where necessary to honour geological continuity.</p> <p>For the oxide domain, mineralisation is primarily modelled based on a combination of gossan, saccharoidal silica and hematitic chert lithologies (i.e. weathering products of the massive sulphide), relative enrichment of gold (Au) grade (and depletion in copper (Cu) and zinc (Zn) grade) and typical red/ orange colour observed in core photos.</p> <p>The oxide-transition zone occurs in certain areas between the oxide and transition zones and represents material considered to be chemically similar to the oxide (elevated gold, depleted Cu) however with density and physical (logging) characteristics similar to the transition.</p> <p>In the transition, mineralisation is mainly modelled based on massive sulphide</p>
	<i>Nature of the data used and of any assumptions made.</i>	
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	
	<i>The use of geology in guiding and controlling Mineral Resource estimation.</i>	
	<i>The factors affecting continuity both of grade and geology.</i>	

Criteria	JORC Code explanation	Project Description
		<p>logging, relative enrichment of Cu and Au (similar to the fresh) and core photo observations, where (in proximity to the oxide contact) transition material typically has a dark-grey to black colour (which clearly contrasts with the oxide zone). The boundary with the fresh rock is generally less distinct based on logging observations and appears to be gradational based on sample grade distributions.</p> <p>Within the fresh rock, mineralisation is primarily modelled based on massive sulphide logging and relative enrichment of Cu and Au; typically, these features are closely correlated in the fresh. Zinc (Zn) and silver (Ag) are also generally coincident with the fresh massive sulphide mineralisation and were used as a secondary modelling criteria.</p>
<b>Dimensions</b>	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	Mineralisation modelled for 2021 comprises a mineralised lode which is geologically continuous along strike for ~5 km, with down-plunge extents of up to 900 m and an average thickness normally between 1 m and 15 m.
<b>Estimation and modelling techniques</b>	<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p>	<p>In summary, for this Mineral Resource Estimate, SRK has completed the following:</p> <ul style="list-style-type: none"> <li>• modelled the mineralised lode and weathering domains in 3D, in conjunction with the G&amp;M geological team;</li> <li>• composited the sample data to 2m intervals;</li> <li>• applied high grade caps per estimation domain from log histograms;</li> <li>• undertaken geostatistical analyses to determine appropriate interpolation algorithms;</li> <li>• created block models with block dimensions of 2 x 25 x 25 m</li> <li>• interpolated Cu, Zn, Au and Ag grade into the block model using ordinary kriging (or IDW where variograms were not achieved);</li> <li>• assigned average or lithology-weighted average density by modelled weathering domain;</li> <li>• visually and statistically validated the estimated block grades relative to the original sample results</li> </ul> <p>In comparison to the previous 2020 SRK MRE, which was reported in only the Inferred Mineral Resource category, targeted infill drilling at the Project has resulted in the reporting a portion of the 2021 Mineral Resource in the Indicated</p>

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		<p>category, comprising some 10.9 Mt at 0.96% Cu, 0.86% Zn, 0.64 g/t Au and 9.98 g/t Ag.</p> <p>On a combined Indicated and Inferred basis, SRK note the following changes for the Hawiah deposit, compared with the 2020 MRE Statement:</p> <ul style="list-style-type: none"> <li>• Increase in tonnage from 19.3 Mt to 24.9 Mt, slight increase in copper and zinc grades from 0.87% Cu to 0.9% Cu and from 0.81% Zn to 0.85% Zn, increase in gold grade from 0.56 g/t Au to 0.62 g/t Au and slight reduction in silver grade from 10.3 g/t Ag to 9.8 g/t Ag.</li> </ul> <p>SRK consider the changes outlined above for Hawiah to be a due to a combination of the following key factors:</p> <ul style="list-style-type: none"> <li>• infill drilling resulting in increased drillhole coverage;</li> <li>• exploration drilling at the southern down-plunge extents of the deposit (at the Camp Lode), extending modelled mineralisation wireframes to depth;</li> <li>• new drilling and sampling results at the deposit for 2021 resulting in slightly higher overall mean sample grades for Cu, Zn and Au (and slightly lower mean grades for Ag), mainly due to of addition of new intercepts at depth;</li> <li>• refinements to the mineralisation model and estimation parameters;</li> <li>• changes to the RPEEE parameters for 2021, including (with the exception of Zn) slightly higher overall metal prices and metallurgical recoveries, based on initial metallurgical testwork results and updated assessment of long-term metal price forecasts</li> </ul>
	<i>The assumptions made regarding recovery of by-products.</i>	No by-products have been estimated as part of this MRE.
	<i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	No deleterious elements have been estimated as part of this MRE.
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	Block dimensions are 2 x 25 x 25 m (x, y and z). These dimensions were chosen to reflect the average drillhole spacing and to appropriately reflect the grade variability within the modelled mineralised domains.
	<i>Any assumptions behind modelling of selective mining units.</i>	Selective mining units have not been modelled as part of this MRE.
	<i>Any assumptions about correlation between variables.</i>	No significant correlation relationships were found between modelled variables during raw statistical analysis.

Criteria	JORC Code explanation	Project Description
	<i>Description of how the geological interpretation was used to control the resource estimates</i>	The limits of the block model domains are constrained by wireframes that represent the mineralised lode.
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	High-grade capping was applied based on histogram plots for each mineralisation wireframe domain and spatial (visual) assessment of high-grade sample support
	<i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	Visual checks were carried out along sections and in 3D to compare model block grades with drillhole data. Mean model grades were compared to mean sample grades per domain and spatially assessed along a series of pre-defined sections using SWATH plots. Based on the visual, sectional and statistical validation results SRK has accepted the grades in the block model.
<b>Moisture</b>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages are estimated on a dry basis.
<b>Cut-off parameters</b>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	SRK has applied basic economic considerations based on initial metallurgical testwork results and assumptions provided by the Company, similar deposit types located within Saudi Arabia and SRK's experience to determine which portion of the block model has reasonable prospects for eventual economic extraction by underground and open-pit mining methods.
<b>Mining factors or assumptions</b>	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	To achieve this, the Mineral Resource has been subject to an underground floating stope optimisation and open-pit optimisation studies, based on long-term metal price forecasts (with appropriate uplift to reflect potential for assessing Mineral Resources) for copper, zinc, gold and silver, to assist in determining the material with potential for underground and open pit mining and reporting above a suitable Resource NSR USD/t cut-off value.
<b>Metallurgical factors or assumptions</b>	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	The parameters used for the underground stope optimisation and open pit optimisation exercise are summarised below.

Criteria	JORC Code explanation	Project Description
		<p>Summary of key assumptions for conceptual underground stope optimisation, open pit optimisation and cut-off grade calculation</p>

Criteria	JORC Code explanation	Project Description																																																																																																																																																
		<table border="1"> <thead> <tr> <th data-bbox="1160 248 1563 268">Parameters</th> <th data-bbox="1563 248 1675 268">Units</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td colspan="4" data-bbox="1160 272 2020 292"><b>Production Rate</b></td> </tr> <tr> <td data-bbox="1160 296 1563 316">Production Rate - Ore</td> <td data-bbox="1563 296 1675 316">(mtpa)</td> <td colspan="2" data-bbox="1675 296 2020 316">1.8 - 2.2</td> </tr> <tr> <td colspan="4" data-bbox="1160 320 2020 339"><b>Geotechnical</b></td> </tr> <tr> <td data-bbox="1160 344 1563 363">Overall Slope Angle (Oxide)</td> <td data-bbox="1563 344 1675 363">(Deg)</td> <td colspan="2" data-bbox="1675 344 2020 363">43</td> </tr> <tr> <td data-bbox="1160 368 1563 387">Overall Slope Angle (Transition)</td> <td data-bbox="1563 368 1675 387">(Deg)</td> <td colspan="2" data-bbox="1675 368 2020 387">46</td> </tr> <tr> <td data-bbox="1160 392 1563 411">Overall Slope Angle (Fresh)</td> <td data-bbox="1563 392 1675 411">(Deg)</td> <td colspan="2" data-bbox="1675 392 2020 411">52</td> </tr> <tr> <td colspan="4" data-bbox="1160 416 2020 435"><b>Open Pit Mining Factors</b></td> </tr> <tr> <td data-bbox="1160 440 1563 459">Dilution</td> <td data-bbox="1563 440 1675 459">(%)</td> <td colspan="2" data-bbox="1675 440 2020 459" rowspan="2">Included in regularised Block Model 5x5x2.5 m</td> </tr> <tr> <td data-bbox="1160 464 1563 483">Recovery</td> <td data-bbox="1563 464 1675 483">(%)</td> </tr> <tr> <td colspan="4" data-bbox="1160 488 2020 507"><b>Underground Mining Factors</b></td> </tr> <tr> <td data-bbox="1160 512 1563 531">Minimum stope dimension</td> <td data-bbox="1563 512 1675 531">(m)</td> <td colspan="2" data-bbox="1675 512 2020 531">2m width x 25 m height x 20 m length</td> </tr> <tr> <td data-bbox="1160 536 1563 555">Dilution</td> <td data-bbox="1563 536 1675 555">(%)</td> <td colspan="2" data-bbox="1675 536 2020 555">15%</td> </tr> <tr> <td colspan="4" data-bbox="1160 560 2020 579"><b>Processing (Oxide: Heap Leach)</b></td> </tr> <tr> <td data-bbox="1160 584 1563 603">Recovery - Cu</td> <td data-bbox="1563 584 1675 603">(%)</td> <td colspan="2" data-bbox="1675 584 2020 603">0%</td> </tr> <tr> <td data-bbox="1160 608 1563 627">Recovery - Zn</td> <td data-bbox="1563 608 1675 627">(%)</td> <td colspan="2" data-bbox="1675 608 2020 627">0%</td> </tr> <tr> <td data-bbox="1160 632 1563 651">Recovery - Au</td> <td data-bbox="1563 632 1675 651">(%)</td> <td colspan="2" data-bbox="1675 632 2020 651">75%</td> </tr> <tr> <td data-bbox="1160 655 1563 675">Recovery - Ag</td> <td data-bbox="1563 655 1675 675">(%)</td> <td colspan="2" data-bbox="1675 655 2020 675">15%</td> </tr> <tr> <td colspan="4" data-bbox="1160 679 2020 699"><b>Processing (Transition and Fresh: Floatation and Cyanide Leach)</b></td> </tr> <tr> <td data-bbox="1160 703 1563 722">Recovery - Cu</td> <td data-bbox="1563 703 1675 722">(%)</td> <td colspan="2" data-bbox="1675 703 2020 722">92%</td> </tr> <tr> <td data-bbox="1160 727 1563 746">Recovery - Zn</td> <td data-bbox="1563 727 1675 746">(%)</td> <td colspan="2" data-bbox="1675 727 2020 746">71%</td> </tr> <tr> <td data-bbox="1160 751 1563 770">Recovery - Au</td> <td data-bbox="1563 751 1675 770">(%)</td> <td colspan="2" data-bbox="1675 751 2020 770">74%</td> </tr> <tr> <td data-bbox="1160 775 1563 794">Recovery - Ag</td> <td data-bbox="1563 775 1675 794">(%)</td> <td colspan="2" data-bbox="1675 775 2020 794">84%</td> </tr> <tr> <td colspan="4" data-bbox="1160 799 2020 818"><b>Commodity Prices</b></td> </tr> <tr> <td data-bbox="1160 823 1563 842">Cu</td> <td data-bbox="1563 823 1675 842">(USD/t)</td> <td colspan="2" data-bbox="1675 823 2020 842">9,200</td> </tr> <tr> <td data-bbox="1160 847 1563 866">Zn</td> <td data-bbox="1563 847 1675 866">(USD/t)</td> <td colspan="2" data-bbox="1675 847 2020 866">3,000</td> </tr> <tr> <td data-bbox="1160 871 1563 890">Au</td> <td data-bbox="1563 871 1675 890">(USD/oz)</td> <td colspan="2" data-bbox="1675 871 2020 890">1,820</td> </tr> <tr> <td data-bbox="1160 895 1563 914">Ag</td> <td data-bbox="1563 895 1675 914">(USD/oz)</td> <td colspan="2" data-bbox="1675 895 2020 914">26</td> </tr> <tr> <td colspan="4" data-bbox="1160 919 2020 938"><b>Operating Costs</b></td> </tr> <tr> <td data-bbox="1160 943 1563 962">Open Pit Mining (Oxide)</td> <td data-bbox="1563 943 1675 962">(USD/t rock)</td> <td colspan="2" data-bbox="1675 943 2020 962">1.9</td> </tr> <tr> <td data-bbox="1160 967 1563 986">Open Pit Mining (Transition)</td> <td data-bbox="1563 967 1675 986">(USD/t rock)</td> <td colspan="2" data-bbox="1675 967 2020 986">2.2</td> </tr> <tr> <td data-bbox="1160 991 1563 1010">Open Pit Mining (Fresh)</td> <td data-bbox="1563 991 1675 1010">(USD/t rock)</td> <td colspan="2" data-bbox="1675 991 2020 1010">2.1</td> </tr> <tr> <td data-bbox="1160 1015 1563 1034">Underground Mining (Transition and Fresh)</td> <td data-bbox="1563 1015 1675 1034">(USD/t ore)</td> <td colspan="2" data-bbox="1675 1015 2020 1034">27.0</td> </tr> <tr> <td data-bbox="1160 1038 1563 1058">Processing (Oxide: Heap Leach)</td> <td data-bbox="1563 1038 1675 1058">(USD/t ore)</td> <td colspan="2" data-bbox="1675 1038 2020 1058">6.0</td> </tr> <tr> <td data-bbox="1160 1062 1563 1082">Processing (Transition and Fresh: Floatation and Cyanide Leach)</td> <td data-bbox="1563 1062 1675 1082">(USD/t ore)</td> <td colspan="2" data-bbox="1675 1062 2020 1082">13.9</td> </tr> <tr> <td data-bbox="1160 1086 1563 1106">G&amp;A (incl. corporate, sales/ marketing)</td> <td data-bbox="1563 1086 1675 1106">(USD/t ore)</td> <td colspan="2" data-bbox="1675 1086 2020 1106">5.6</td> </tr> </tbody> </table>			Parameters	Units			<b>Production Rate</b>				Production Rate - Ore	(mtpa)	1.8 - 2.2		<b>Geotechnical</b>				Overall Slope Angle (Oxide)	(Deg)	43		Overall Slope Angle (Transition)	(Deg)	46		Overall Slope Angle (Fresh)	(Deg)	52		<b>Open Pit Mining Factors</b>				Dilution	(%)	Included in regularised Block Model 5x5x2.5 m		Recovery	(%)	<b>Underground Mining Factors</b>				Minimum stope dimension	(m)	2m width x 25 m height x 20 m length		Dilution	(%)	15%		<b>Processing (Oxide: Heap Leach)</b>				Recovery - Cu	(%)	0%		Recovery - Zn	(%)	0%		Recovery - Au	(%)	75%		Recovery - Ag	(%)	15%		<b>Processing (Transition and Fresh: Floatation and Cyanide Leach)</b>				Recovery - Cu	(%)	92%		Recovery - Zn	(%)	71%		Recovery - Au	(%)	74%		Recovery - Ag	(%)	84%		<b>Commodity Prices</b>				Cu	(USD/t)	9,200		Zn	(USD/t)	3,000		Au	(USD/oz)	1,820		Ag	(USD/oz)	26		<b>Operating Costs</b>				Open Pit Mining (Oxide)	(USD/t rock)	1.9		Open Pit Mining (Transition)	(USD/t rock)	2.2		Open Pit Mining (Fresh)	(USD/t rock)	2.1		Underground Mining (Transition and Fresh)	(USD/t ore)	27.0		Processing (Oxide: Heap Leach)	(USD/t ore)	6.0		Processing (Transition and Fresh: Floatation and Cyanide Leach)	(USD/t ore)	13.9		G&A (incl. corporate, sales/ marketing)	(USD/t ore)	5.6	
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<b>Environmental factors or assumptions</b>	<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts,</i>	SRK is unaware of any environmental factors which would preclude the reporting of Mineral Resources.																																																																																																																																																

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	<p><i>particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	
<p><b>Bulk density</b></p>	<p><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i></p> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<p>Density measurements were taken from drill core during the 2019-2021 diamond drilling programmes. The immersion method (Archimedes principal) was used, measuring dry versus immersion in water weights. A piece of core typically measuring 10-15 cm in length was selected and weighed in air and then again while submerged in water.</p> <p>Prior to 2021, almost all samples were covered in a wax coating before immersion in water. Since then, core density measurements (for drilling targeted on transition and fresh mineralisation) has been based on unsealed core, based on largely non-porous core material.</p> <p><i>Transition and Fresh Density</i></p> <p>Based on density histogram assessment within the transition and fresh mineralisation domains, SRK noted the presence of a bimodal population, with higher and lower populations relating to massive sulphide and interburden (manly Greenschist) lithologies, respectively.</p> <p>The variability between the typically thin, interburden intervals and massive sulphide, within the mineralisation zone, is generally not evenly distributed downhole and often occurs at a resolution finer than the frequency of density sampling (typically 1 sample every 1-2m). This means that direct interpolation of density samples may result in local overestimation of block model density</p> <p>Instead, to appropriately reflect the two populations in the block model, SRK has derived a % massive sulphide field ("MS%") for every drillhole intercept within the mineralisation domain (derived based on lithology logging) and used this to assign a lithology-weighted density field for each block in the model. MS% was interpolated into the block model using an ID2 algorithm, with density for the transition and fresh mineralisation domains derived based on average sample densities and the following formulas:</p> <p><b>Transition Density g/cm<sup>3</sup> = [ MS%*4.5 ] + [ (1-MS%)*2.6 ]</b></p> <p><b>Fresh Density g/cm<sup>3</sup> = [ MS%*4.6 ] + [ (1-MS%)*3.3 ]</b></p>



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		<p><i>Oxide Density</i></p> <p>Given the relatively limited density sample coverage within the oxide, SRK has applied block model density according to average values. Within the oxide domain, where weathering cavities are currently interpreted to occur, SRK has accounted for these in the density estimation by applying a 'cavity factor' to the average value determined from drillhole samples.</p> <p>The cavity factor was determined for the previous SRK 2020 MRE based on the following observations within the mineralisation wireframe:</p> <ul style="list-style-type: none"> <li>• Total intercepted length within drillholes in the oxide domain: 28.3 m;</li> <li>• Total intercepted length within the drillholes in the oxide domain that returned zero core recovery (interpreted as cavities): 9.4 m;</li> <li>• Total % core with zero recovery within the oxide domain (i.e. the cavity factor): <math>9.4 / 28.3 = 33\%</math> (or 30%, to apply appropriate rounding and reflect the current low level of confidence associated with the density of the oxide material)</li> </ul> <p>Limited new information is available for oxide zone for 2021; therefore, the cavity factor outlined above remains current, with oxide density for the model determined using the formula below:</p> <p><b>Oxide density g/cm<sup>3</sup> = [ 2.4 * (1-30%) = 1.7 ]</b></p>

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<b>Classification</b>	<p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p> <p><i>Whether appropriate account has been taken of all relevant factor (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <hr/> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>The following guidelines apply to SRK's classification:</p> <p>Indicated Mineral Resources are where SRK has a reasonable level of confidence in the geological interpretation and grade continuity, within relatively well drilled areas of the model with 60m coverage or better, limited to the transition and fresh mineralisation domains.</p> <p>Inferred Mineral Resources are in domains that display reasonable to low geological confidence, where blocks are typically within 100-120 m of sample data. These areas require support from targeted infill drilling to improve the quality of the local block grades and geological interpretation before they can be used for long term mine planning.</p> <p>This classification was prepared by, and reflects the views of, the Competent Person.</p>
<b>Audits or reviews</b>	<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<p>SRK is not aware of any previous audits or reviews</p>
<b>Discussion of relative accuracy/ confidence</b>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The Hawiah deposit is an Advanced Exploration Property that is predominantly an underground target however with open-pit potential in certain thicker and higher-grade areas nearer to surface. The Project is at a moderate stage of exploration and geological understanding, particularly within better drilled areas. In areas of wider spaced drilling and increased geological uncertainty, notably at depth and in the oxide zone, additional targeted infill is required to improve geological confidence and quality of the local block estimates before these areas are considered suitable for use for long-term mine planning.</p> <p>Areas of lower geological confidence will require more drilling and verification work and may be subject to further revision in the future.</p>