

## EXPLORATION UNDERWAY AT RED MOUNTAIN JV PROJECT

13 May 2020

Xanadu Mines Ltd (ASX: XAM, TSX: XAM) (“Xanadu” or “the Company”) is pleased to report that on-ground exploration activities have commenced at the highly prospective Red Mountain Joint Venture (JV) with the Japan Oil, Gas and Metals National Corporation (JOGMEC).

### HIGHLIGHTS

- On-ground exploration activities have commenced at Red Mountain
- On-ground program is designed to collect baseline data over the large district to prepare drill targets
- Red Mountain JV with JOGMEC is focused on discovery of a Tier-1 copper-gold porphyry deposit
- Red Mountain JV builds upon Xanadu’s other active exploration program at Kharmagtai in the South Gobi

### ABOUT RED MOUNTAIN

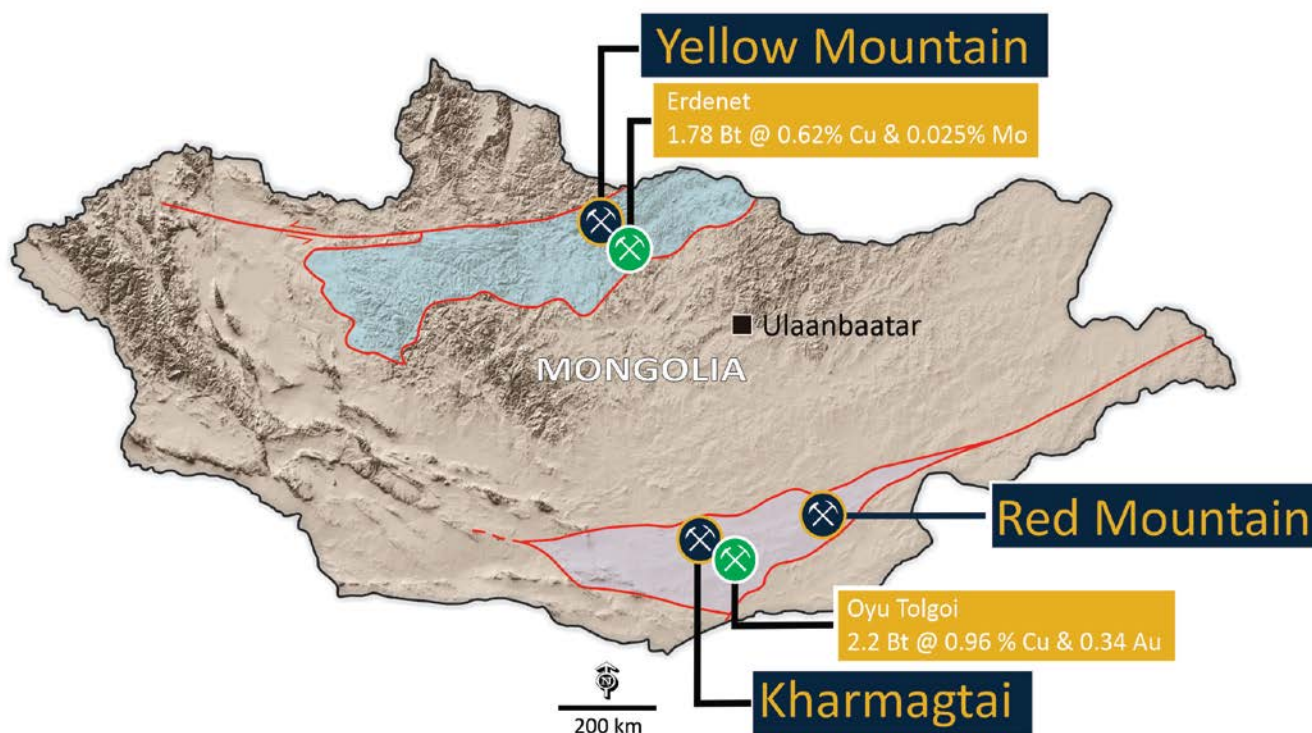
The Red Mountain JV project located within the Dornogovi Province of southern Mongolia, approximately 420 kilometres southeast of Ulaanbaatar (**Figure 1**), is a joint venture between Xanadu and JOGMEC. The project covers approximately 57 square kilometres in a frontier terrane with significant mineral endowment and has a granted 30-year mining licence. Red Mountain comprises a cluster of outcropping mineralising porphyry intrusions which display features typically found in the shallower parts of porphyry systems where narrow dykes and patchy mineralisation branch out above a mineralised stock. This underexplored porphyry district includes multiple porphyry copper-gold centres, mineralised tourmaline breccia pipes copper-gold/base metal skarns and high-grade epithermal gold veins.

### JOINT VENTURE WITH JOGMEC

JOGMEC may earn up to 51% beneficial interest in the project by sole funding up to \$US7.2 million in exploration expenditure over the next 4 years. Exploration objectives of the earn-in deal are to discover Mongolia’s next world-class copper-porphyry deposit.

**Xanadu’s Chief Executive Officer, Dr Andrew Stewart, said** “*We are thrilled to have exploration underway again at our Red Mountain JV with JOGMEC, less than one month after signing the earn-in agreement. The fact that we can commence operational activities now, during the global COVID-19 crisis, is testament to the proactive and effective approach by the Government of Mongolia in managing the pandemic.*”

*Red Mountain offers a rare opportunity to access a large, under-explored porphyry district. In the coming months, we will deploy a systematic exploration program, including deep penetrating geophysics, that we expect will provide a new perspective on the mineral potential at Red Mountain district. A steady stream of new geological information will help advance and refine several large-scale drill targets ready for testing in Q3 in 2020.”*



**FIGURE 1:** Location of the Red Mountain Project in the South Gobi porphyry copper belt.

## EXPLORATION PROGRAM

A staged exploration program has been designed to test the numerous porphyry centres, help drilling phases to mesh and reach clear decision points.

The first phase of the exploration program is designed to gather the remaining background data for targeting large-scale copper-gold porphyry deposits. The program will primarily focus on providing an even coverage of each data type across the entire mining lease (geophysical, geochemical & geological); followed by detailed conceptual 3D modelling and integrating data at all levels into a common environment for interrogation and drill hole targeting. Approximately 2,100 metres of diamond drilling has been designed in first phase to test the highest priority drill ready targets.

The second phase of exploration focusses on testing the best targets developed out of the 3D models generated from combining the complete geological, geochemical and geophysical dataset. The process will be iterative, as each drill hole will be analysed with its data combined with the models and the targeting refined.

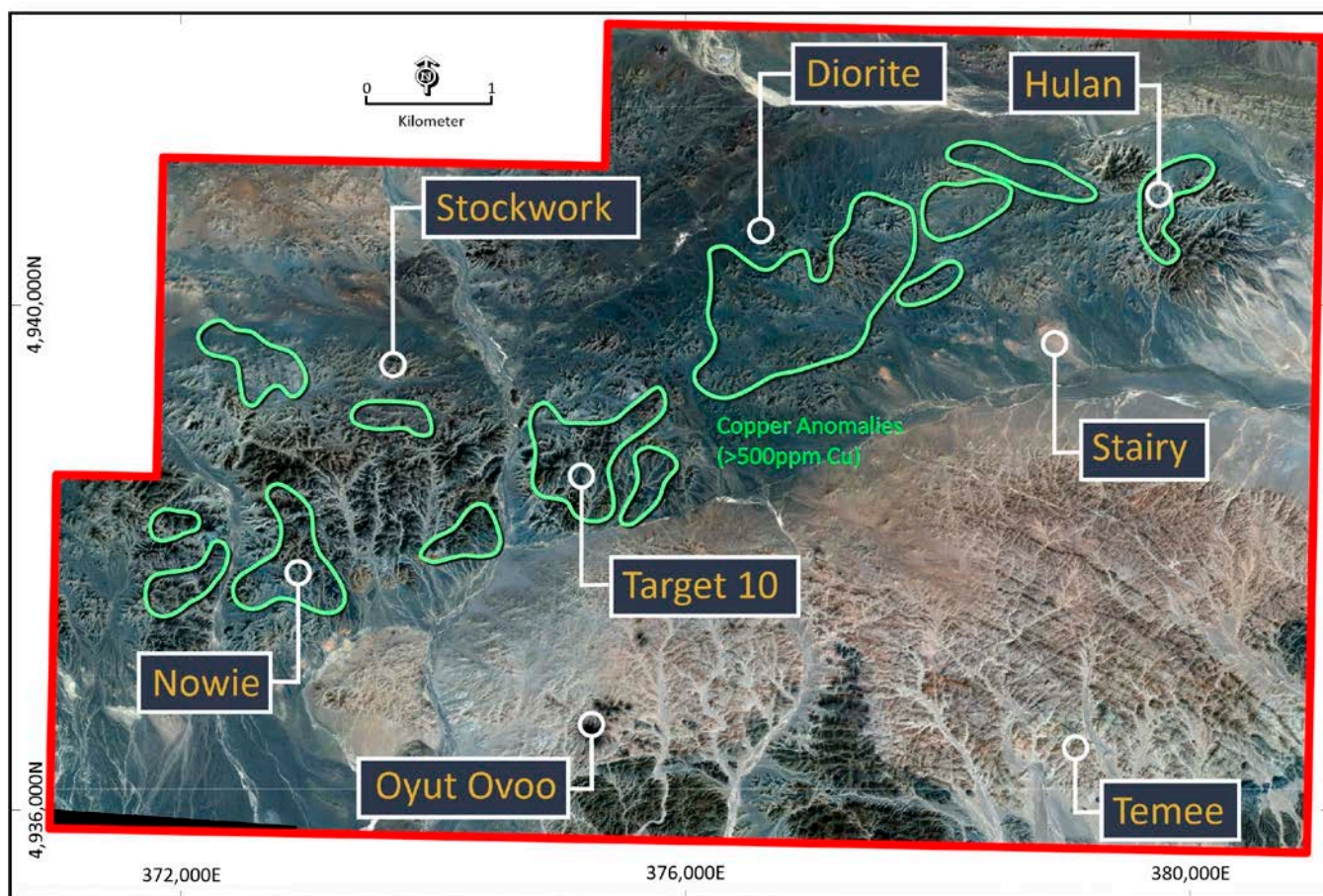
## HIGH PRORITY TARGETS

Several drill ready targets exist across the lease, where previous work is sufficient to provide robust drill targeting. Diorite, Stockwork, Oyut Ovoo, Stairy and Target 10 (**Figure 2**) all provide compelling drill targets with substantial scale and historical drill holes intersecting high-grade copper and gold and mineralisation open at depth and along strike.

Porphyry mineralisation at Diorite, Stockwork, Stairy and Target 10 is hosted within narrow stockwork zones that have been focused around several narrow structurally controlled monzonite porphyry dykes. Emplacement of mineralisation appears to be controlled by intersection of northeast and north-northwest trending structures. The quartz-chalcopyrite-bornite stockwork mineralisation is associated with strong reddening albite-sericite-biotite-magnetite (potassic) alteration assemblage in the host lithology. The thin nature of the mineralising dykes, their irregular intrusion geometry, and the patchy distribution of stockwork mineralisation are all features typically found in the shallower parts of porphyry systems, where narrow dykes and patchy mineralisation branch out above a mineralised stock. Similar orebody geometries are found in the shallower parts of the North Parkes porphyry copper-gold (Cu-Au) deposits in NSW, where porphyry mineralisation has also been tightly focused along a controlling structure adjacent to a felsic pluton. Like North Parkes, there is the potential for further mineralisation along the main structures at Diorite Hill and Stockwork Hill, and the likelihood that mineralisation extends (and could amalgamate) at depth.

Historically significant drill results from Diorite include:

- OUDDH087 intersected **185.4m @ 0.51% Cu and 0.84g/t Au from surface** including **108m @ 0.70% Cu and 1.26g/t Au from 38m**
- OUDDH003 intersected **134m @ 0.46% Cu and 0.90g/t Au from surface** including **106m @ 0.53% Cu and 1.05g/t Au from surface** and **44m @ 0.74% Cu and 1.59g/t Au from 8m**
- OUDDH005 intersected **188.6m @ 0.34% Cu and 0.55g/t Au from surface** including **104.65m @ 0.48% Cu and 0.82g/t Au from 7.35m** and **8.1m @ 0.60% Cu and 1.43g/t Au from 27.9m**



**FIGURE 2:** The Red Mountain Mining Licence showing ground Landsat data and location of the priority targets.

The tourmaline breccia complex at Oyut Ovoo has similarities to the very strongly mineralised tourmaline breccia dyke complex at Kharmagtai, in that it appears to be a large (several km long), variably mineralised breccia complex, or a series of isolated breccia pipes and dikes localised along a favourable structural corridor. The large areas of tourmaline breccia that crop out throughout the Oyut Ovoo area, are yet to be drill-tested and if they are mineralised at depth, then a significant increase in the resource potential of the district is predicted.

Historically significant drill results include:

- OUDDH036 intersected 92m @ 1.50% Cu and 0.02g/t Au from surface including 65m @ 2.09% Cu and 0.03g/t Au from surface
- OUDDH088 intersected 84m @ 1.49% Cu and 0.01g/t Au from surface including 58m @ 2.00% Cu and 0.01g/t Au from 8m

## ABOUT XANADU MINES

Xanadu is an ASX and TSX listed exploration company that seeks to discover and define globally significant porphyry copper-gold assets in Mongolia. We give investors exposure to large scale copper-gold discoveries, and we create liquidity events for our shareholders at peak value points in the mining life cycle. Xanadu delivers this through a low cost of discovery, inventory growth, and by progressing projects from Discovery towards Pre-Feasibility.

## FORWARD-LOOKING STATEMENTS

Certain statements contained in this Announcement, including information as to the future financial or operating performance of Xanadu and its projects may also include statements which are 'forward-looking statements' that may include, amongst other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These 'forward-looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Xanadu, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Xanadu disclaims any intent or obligation to update publicly or release any revisions to any forward-looking statements, whether as a result of new information, future events, circumstances or results or otherwise after the date of this Announcement or to reflect the occurrence of unanticipated events, other than required by the Corporations Act 2001 (Cth) and the Listing Rules of the Australian Securities Exchange (ASX) and Toronto Stock Exchange (TSX). The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements.

All 'forward-looking statements' made in this Announcement are qualified by the foregoing cautionary statements. Investors are cautioned that 'forward-looking statements' are not guarantee of future performance and accordingly investors are cautioned not to put undue reliance on 'forward-looking statements' due to the inherent uncertainty therein.

## COMPETENT-QUALIFIED PERSON STATEMENT

The information in this Announcement that relates to exploration results is based on information compiled by Dr Andrew Stewart, who is responsible for the exploration data, comments on exploration target sizes, Quality Assurance/Quality Control (QA/QC) and geological interpretation and information. Dr Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists, has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as the "Competent Person" as defined in the 2012 Edition of the *Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves* and the *National Instrument 43-101*. Dr Stewart consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

## COPPER EQUIVALENT CALCULATIONS

The copper equivalent (**CuEq**) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed, and expressed in equivalent copper percentage. Grades have been adjusted for metallurgical recoveries based off previous metallurgical work performed on the mineralisation in question. The copper/gold equivalent grades are of an exploration nature only and intended for summarising grade. The copper/gold equivalent calculation is intended as an indicative value only. The following copper equivalent conversion factors and long-term price assumptions have been adopted:

Copper Equivalent Formula  $eCu$  or  $CuEq = Cu + Au * 0.62097 * 0.8235$ .

Gold Equivalent Formula  $eAu = Au + Cu / (0.62097 * 0.8235)$ .

Where:

Cu - copper grade (%)

Au - gold grade (g/t)

0.62097- conversion factor (gold to copper)

0.8235 - relative recovery of gold to copper (82.35%)

The copper/gold equivalent formula was based on the following parameters (prices are in USD):

Copper price - 3.1 \$/lb (or 6834 \$/t)

Gold price - 1320 \$/oz

Copper recovery - 85%

Gold recovery - 70%

Relative recovery of gold to copper =  $70\% / 85\% = 82.35\%$ .

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This Announcement was authorised for release by Xanadu's Board of Directors.

APPENDIX 1: RED MOUNTIAN TABLE 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 Edition for the Red Mountain project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 18 September 2017.

1.1 JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
<p><b><i>Sampling techniques</i></b></p>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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></li> </ul>	<ul style="list-style-type: none"> <li>• The resource estimate is based on diamond drill core samples, RC chip samples and channel samples from surface trenches.</li> <li>• Representative ½ core samples were split from PQ, HQ &amp; NQ diameter diamond drill core on site using rock saws, on a routine 2m sample interval that also honors lithological/intrusive contacts.</li> <li>• The orientation of the cut line is controlled using the core orientation line ensuring uniformity of core splitting wherever the core has been successfully oriented.</li> <li>• Sample intervals are defined and subsequently checked by geologists, and sample tags are attached (stapled) to the plastic core trays for every sample interval.</li> <li>• RC chip samples are ¼ splits from one meter intervals using a 75%:25% riffle splitter to obtain a 3kg sample</li> <li>• RC samples are uniform 2m samples formed from the combination of two ¼ split 1m samples.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• 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.).</li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource estimation has been based upon diamond drilling of PQ, HQ and NQ diameters with both standard and triple tube core recovery configurations, RC drilling and surface trenching with channel sampling.</li> <li>• All drill core drilled by Xanadu has been oriented using the “Reflex Ace” tool.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drill core recoveries were assessed using the standard industry (best) practice which involves: removing the core from core trays; reassembling multiple core runs in a v-rail; measuring core lengths with a tape measure, assessing recovery against core block depth measurements and recording any measured core loss for each core run.</li> <li>• Diamond core recoveries average 97% through mineralization.</li> <li>• Overall, core quality is good, with minimal core loss. Where there is localized faulting and or fracturing core recoveries decrease, however, this is a very small percentage of the mineralized intersections.</li> <li>• RC recoveries are measured using whole weight of each 1m intercept measured before splitting</li> <li>• Analysis of recovery results vs grade shows no significant trends that might indicate sampling bias introduced by variable recovery in fault/fracture zones.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Whether logging is qualitative or</li> </ul>	<ul style="list-style-type: none"> <li>• All drill core is geologically logged by well-trained geologists using a modified “Anaconda-style” logging system methodology. The Anaconda method of logging and mapping is specifically designed for porphyry Cu-Au mineral systems and is entirely appropriate to support Mineral Resource Estimation,</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <ul style="list-style-type: none"> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>mining and metallurgical studies.</p> <ul style="list-style-type: none"> <li>Logging of lithology, alteration and mineralogy is intrinsically qualitative in nature. However, the logging is subsequently supported by 4 Acid ICP-MS (48 element) geochemistry and SWIR spectral mineralogy (facilitating semi-quantitative/calculated mineralogical, lithological and alteration classification) which is integrated with the logging to improve cross section interpretation and 3D geological model development.</li> <li>Drill core is also systematically logged for both geotechnical features and geological structures. Where drill core has been successfully oriented, the orientation of structures and geotechnical features are also routinely measured.</li> <li>Both wet and dry core photos are taken after core has been logged and marked-up but before drill core has been cut.</li> </ul>
<p><b><i>Sub-sampling techniques and sample preparation</i></b></p>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> <li><i>Whether sample sizes are</i></li> </ul>	<ul style="list-style-type: none"> <li>All drill core samples are ½ core splits from either PQ, HQ or NQ diameter cores. A routine 2m sample interval is used, but this is varied locally to honour lithological / intrusive contacts. The minimum allowed sample length is 30cm.</li> <li>Core is appropriately split (onsite) using diamond core saws with the cut line routinely located relative to the core orientation line (where present) to provide consistency of sample split selection.</li> <li>The diamond saws are regularly flushed with water to minimize potential contamination.</li> <li>A field duplicate ¼ core sample is collected every 30<sup>th</sup> sample to ensure the “representivity of the in situ material collected”. The performance of these field duplicates are routinely analysed as part of</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>appropriate to the grain size of the material being sampled.</i></p>	<p>Xanadu’s sample QC process.</p> <ul style="list-style-type: none"> <li>• Routine sample preparation and analyses of DDH samples were carried out by ALS Mongolia LLC (<b>ALS Mongolia</b>), who operates an independent sample preparation and analytical laboratory in Ulaanbaatar.</li> <li>• All samples were prepared to meet standard quality control procedures as follows: Crushed to 75% passing 2mm, split to 1kg, pulverised to 85% passing 200 mesh (75 microns) and split to 150g sample pulp.</li> <li>• ALS Mongolia Geochemistry labs quality management system is certified to ISO 9001:2008.</li> <li>• The sample support (sub-sample mass and comminution) is appropriate for the grainsize and Cu-Au distribution of the porphyry Cu-Au mineralization and associated host rocks.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All samples were routinely assayed by ALS Mongolia for gold</li> <li>• Au is determined using a 25g fire assay fusion, cupelled to obtain a bead, and digested with Aqua Regia, followed by an atomic absorption spectroscopy (<b>AAS</b>) finish, with a lower detection (<b>LDL</b>) of 0.01 ppm.</li> <li>• All samples were also submitted to ALS Mongolia for the 48 element package ME-ICP61 using a four acid digest (considered to be an effective total digest for the elements relevant to the MRE). Where copper is over-range (&gt;1% Cu), it is analysed by a second analytical technique (Cu-OG62), which has a higher upper detection limit (<b>UDL</b>) of 5% copper.</li> <li>• Quality assurance has been managed by insertion of appropriate Standards (1:30</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>samples – suitable Ore Research Pty Ltd certified standards), Blanks (1:30 samples), Duplicates (1:30 samples – ¼ core duplicate) by XAM.</p> <ul style="list-style-type: none"> <li>• Assay results outside the optimal range for methods were re-analysed by appropriate methods.</li> <li>• Ore Research Pty Ltd certified copper and gold standards have been implemented as a part of QC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-gold standards.</li> <li>• QC monitoring is an active and ongoing processes on batch by batch basis by which unacceptable results are re-assayed as soon as practicable.</li> <li>• Prior to 2014: Cu, Ag, Pb, Zn, As and Mo were routinely determined using a three-acid-digestion of a 0.3g sub-sample followed by an AAS finish (AAS21R) at SGS Mongolia. Samples were digested with nitric, hydrochloric and perchloric acids to dryness before leaching with hydrochloric acid to dissolve soluble salts and made to 15ml volume with distilled water. The LDL for copper using this technique was 2ppm. Where copper was over-range (&gt;1% Cu), it was analysed by a second analytical technique (AAS22S), which has a higher upper detection limit (UDL) of 5% copper. Gold analysis method was essentially unchanged.</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All assay data QAQC is checked prior to loading into XAM’s Geobank data base.</li> <li>• The data is managed by XAM geologists.</li> <li>• The data base and geological interpretation is managed by XAM.</li> <li>• Check assays are submitted to an umpire lab (SGS Mongolia) for duplicate analysis.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No twinned drill holes exist.</li> <li>• There have been no adjustments to any of the assay data.</li> </ul>
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drill holes have been surveyed with a differential global positioning system (DGPS) to within 10cm accuracy.</li> <li>• The grid system used for the project is UTM WGS-84 Zone 48N</li> <li>• Historically, Eastman Kodak and Flexit electronic multi-shot downhole survey tools have been used at Red Mountain to collect down hole azimuth and inclination information for the majority of the diamond drill holes. Single shots were typically taken every 30m to 50m during the drilling process, and a multi-shot survey with readings every 3-5m are conducted at the completion of the drill hole. As these tools rely on the earth’s magnetic field to measure azimuth, there is some localised interference/inaccuracy introduced by the presence of magnetite in some parts of the Red Mountain mineral system. The extent of this interference cannot be quantified on a reading-by-reading basis.</li> <li>• More recently (since September 2017), a north-seeking gyro has been employed by the drilling crews on site (rented and operated by the drilling contractor), providing accurate downhole orientation measurements unaffected by magnetic effects. Xanadu have a permanent calibration station setup for the gyro tool, which is routinely calibrated every 2 weeks (calibration records are maintained and were sighted)</li> <li>• The project DTM is based on 1 m contours from satellite imagery with an accuracy of</li> </ul>

Criteria	JORC Code explanation	Commentary
		±0.1 m.
<p><b>Data spacing and distribution</b></p>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Holes spacings range from &lt;50m spacings within the core of mineralization to +500m spacings for exploration drilling. Hole spacings can be determined using the sections and drill plans provided.</li> <li>• Holes range from vertical to an inclination of -60 degrees depending on the attitude of the target and the drilling method.</li> <li>• The data spacing and distribution is sufficient to establish anomalism and targeting for porphyry Cu-Au, tourmaline breccia and epithermal target types.</li> <li>• Holes have been drilled to a maximum of 1,300m vertical depth.</li> <li>• The data spacing and distribution is sufficient to establish geological and grade continuity, and to support the Mineral Resource classification.</li> </ul>
<p><b>Orientation of data in relation to geological structure</b></p>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling is conducted in a predominantly regular grid to allow unbiased interpretation and targeting.</li> <li>• Scissor drilling, as well as some vertical and oblique drilling, has been used in key mineralised zones to achieve unbiased sampling of interpreted structures and mineralised zones, and in particular to assist in constraining the geometry of the mineralised hydrothermal tourmaline-sulphide breccia domains.</li> </ul>
<p><b>Sample security</b></p>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples are delivered from the drill rig to the core shed twice daily and are never left unattended at the rig.</li> <li>• Samples are dispatched from site in locked boxes transported on XAM company vehicles to ALS lab in Ulaanbaatar.</li> <li>• Sample shipment receipt is signed off at the Laboratory with additional email</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>confirmation of receipt.</p> <ul style="list-style-type: none"> <li>• Samples are then stored at the lab and returned to a locked storage site.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Internal audits of sampling techniques and data management are undertaken on a regular basis, to ensure industry best practice is employed at all times.</li> <li>• External reviews and audits have been conducted by the following groups:</li> <li>• 2012: AMC Consultants Pty Ltd. was engaged to conduct an Independent Technical Report which reviewed drilling and sampling procedures. It was concluded that sampling and data record was to an appropriate standard.</li> <li>• 2013: Mining Associates Ltd. was engaged to conduct an Independent Technical Report to review drilling, sampling techniques and QAQC. Methods were found to conform to international best practice.</li> <li>• 2018: CSA Global reviewed the entire drilling, logging, sampling, sample shipping and laboratory processes during the competent persons site visit for the 2018 MRe, and found the systems and adherence to protocols to be to an appropriate standard.</li> </ul>

1.2 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code (Section 2) Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• The Project comprises 1 Mining Licence (MV-17129A).</li> <li>• Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence.</li> <li>• The Mongolian Minerals Law (2006) and Mongolian Land Law (2002) govern</li> </ul>

Criteria	JORC Code (Section 2) Explanation	Commentary
	<p>national park and environmental settings.</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<p>exploration, mining and land use rights for the project.</p>
<p><b>Exploration done by other parties</b></p>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping.</li> </ul>
<p><b>Geology</b></p>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation is characterised as porphyry copper-gold type.</li> <li>Porphyry copper-gold deposits are formed from magmatic hydrothermal fluids typically associated with felsic intrusive stocks that have deposited metals as sulphides both within the intrusive and the intruded host rocks. Quartz stockwork veining is typically associated with sulphides occurring both within the quartz veinlets and disseminated throughout the wall rock. Porphyry deposits are typically large tonnage deposits ranging from low to high grade and are generally mined by large scale open pit or underground bulk mining methods. The deposits at Red Mountain are atypical in that they are associated with intermediate intrusions of diorite to quartz diorite composition; however the deposits are in terms of contained gold significant, and similar gold-rich porphyry deposits.</li> </ul>
<p><b>Drill hole Information</b></p>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drill holes are the principal source of geological and grade data for the Project.</li> <li>See figures in ASX/TSX Announcement.</li> </ul>

Criteria	JORC Code (Section 2) Explanation	Commentary
	<p>drill holes:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar.</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar.</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> <li>• 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.</li> </ul>	
<p><b>Data Aggregation methods</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• A nominal cut-off of 0.1% eCu is used in copper dominant systems for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3%, 0.6% and 1% eCu.</li> <li>• A nominal cut-off of 0.1g/t eAu is used in gold dominant systems like for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3g/t, 0.6g/t and 1g/t eAu.</li> <li>• Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6% and 1% eCu.</li> <li>• Most of the reported intercepts are shown in sufficient detail, including maxima and subintervals, to allow the reader to make an assessment of the balance of high and low grades in the intercept.</li> <li>• Informing samples have been composited to two metre lengths</li> </ul>



Criteria	JORC Code (Section 2) Explanation	Commentary
		<p>honouring the geological domains and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).</p> <ul style="list-style-type: none"> <li>• The copper equivalent (<b>eCu</b>) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage with a metallurgical recovery factor applied. The copper equivalent calculation used is based off the eCu calculation defined by CSA in the 2018 Mineral Resource Upgrade.</li> <li>• Copper equivalent (<b>CuEq</b> or <b>eCu</b>) grade values were calculated using the following formula: <ul style="list-style-type: none"> <li>• <math>eCu \text{ or } CuEq = Cu + Au * 0.62097 * 0.8235,</math></li> </ul> </li> <li>• Gold Equivalent (<b>eAu</b>) grade values were calculated using the following formula: <ul style="list-style-type: none"> <li>• <math>eAu = Au + Cu / 0.62097 * 0.8235.</math></li> </ul> </li> <li>• Where: <ul style="list-style-type: none"> <li>• Cu - copper grade (%)</li> <li>• Au - gold grade (g/t)</li> <li>• 0.62097- conversion factor (gold to copper)</li> <li>• 0.8235 - relative recovery of gold to copper (82.35%)</li> </ul> </li> <li>• The copper equivalent formula was based on the following parameters (prices are in USD): <ul style="list-style-type: none"> <li>• Copper price - 3.1 \$/lb (or 6834 \$/t)</li> <li>• Gold price - 1320 \$/oz</li> <li>• Copper recovery - 85%</li> </ul> </li> </ul>

Criteria	JORC Code (Section 2) Explanation	Commentary
		<ul style="list-style-type: none"> <li>• Gold recovery - 70%</li> <li>• Relative recovery of gold to copper = <math>70\% / 85\% = 82.35\%</math>.</li> </ul>
<p><b>Relationship between mineralisation on widths and intercept lengths</b></p>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<ul style="list-style-type: none"> <li>• Mineralised structures are variable in orientation, and therefore drill orientations have been adjusted from place to place in order to allow intersection angles as close as possible to true widths.</li> <li>• Exploration results have been reported as an interval with 'from' and 'to' stated in tables of significant economic intercepts. Tables clearly indicate that true widths will generally be narrower than those reported.</li> </ul>
<p><b>Diagrams</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• See figures in ASX/TSX Announcement.</li> </ul>
<p><b>Balanced Reporting</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Resources have been reported at a range of cut-off grades, above a minimum suitable for open pit mining, and above a minimum suitable for underground mining.</li> </ul>
<p><b>Other substantive exploration data</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive work in this area has been done and is reported separately.</li> </ul>

Criteria	JORC Code (Section 2) Explanation	Commentary
<b>Further Work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation is open at depth and along strike.</li> <li>Current estimates are restricted to those expected to be reasonable for open pit mining. Limited drilling below this depth (-300m RLI) shows widths and grades potentially suitable for underground extraction.</li> <li>Exploration on going.</li> </ul>

**1.3 JORC TABLE 1 - SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES**

Mineral Resources are not reported so this is not applicable to this report.

**1.4 JORC TABLE 1 - SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES**

Ore Reserves are not reported so this is not applicable to this report.