XANADU MINES

NEW EXTENSION TO GOLD-RICH HIGH-GRADE COPPER ZONE AT KHARMAGTAI

24 March 2021

Xanadu Mines Ltd (**ASX: XAM, TSX: XAM**) (**Xanadu** or the **Company**) is pleased to report the results of diamond drill hole KHDDH563, located at the Stockwork Hill deposit on the Company's Kharmagtai porphyry copper and gold project in the South Gobi region of Mongolia (**Figures 1 and 2**).

Highlights

- Drill hole KHDDH563 intersects a broad zone of high-grade gold-rich chalcopyrite and bornite mineralisation south of the Stockwork Hill resource, expanding the high grade bornite zone beyond the defined resources
- **KHDDH563 intersects 181.4m @ 0.68% Cu and 1.78g/t Au (1.59% eCu) from 648.6m**

  Including 92m @ 1.06% Cu and 3.23g/t Au (2.71% eCu) from 686m
- KHDDH563 expands high-grade mineralisation 70m south and up-dip of previously reported intercept in KHDDH559B
- KHDDH564 identifies new target to the south with similar structural characteristics to the high grade zones at Stockwork Hill
- Deeper step back hole KHDDH564, still in progress, intercepting visual chalcopyrite mineralisation in target zone 400m along down-dip and along strike from KHDDH563.

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said *"KHDDH563 is the first follow-up hole to our high-grade intercept at KHDH559B. We are pleased to report this delivered our expectation of a clear extension of high-grade gold-rich mineralisation along strike and up-dip, outside the current*

AUSTRALIA
c/o Company Matters Pty Limited
Level 12, 680 George Street
Sydney NSW 2000
T: +612 8280 7497

MONGOLIA
Suite 23, Building 9B
Olympic St, Sukhbaatar District
Ulaanbaatar, Mongolia
T: +967 7012 0211

Xanadu Mines Ltd ACN 114 249 026

www.xanadumines.com

resource model. This result further demonstrates the growth potential through extension of Stockwork Hill, and our team is designing follow-up drilling to test this exciting new zone."

About KHDDH563

The purpose of drilling KHDDH563 was to test extensions of Stockwork Hill at depth to inform the second phase of drilling focused on higher grade targets. KHDDH563 was drilled from south of Stockwork Hill towards the north, designed as a scissor hole to KHDDH559B (please see ASX/TSX Announcement dated 15 February 2021). KHDDH563 entered mineralisation at 648.6m, expanding the intercept in KHDDH559B 70m up-dip and to the south (**Figures 1 and 2**).

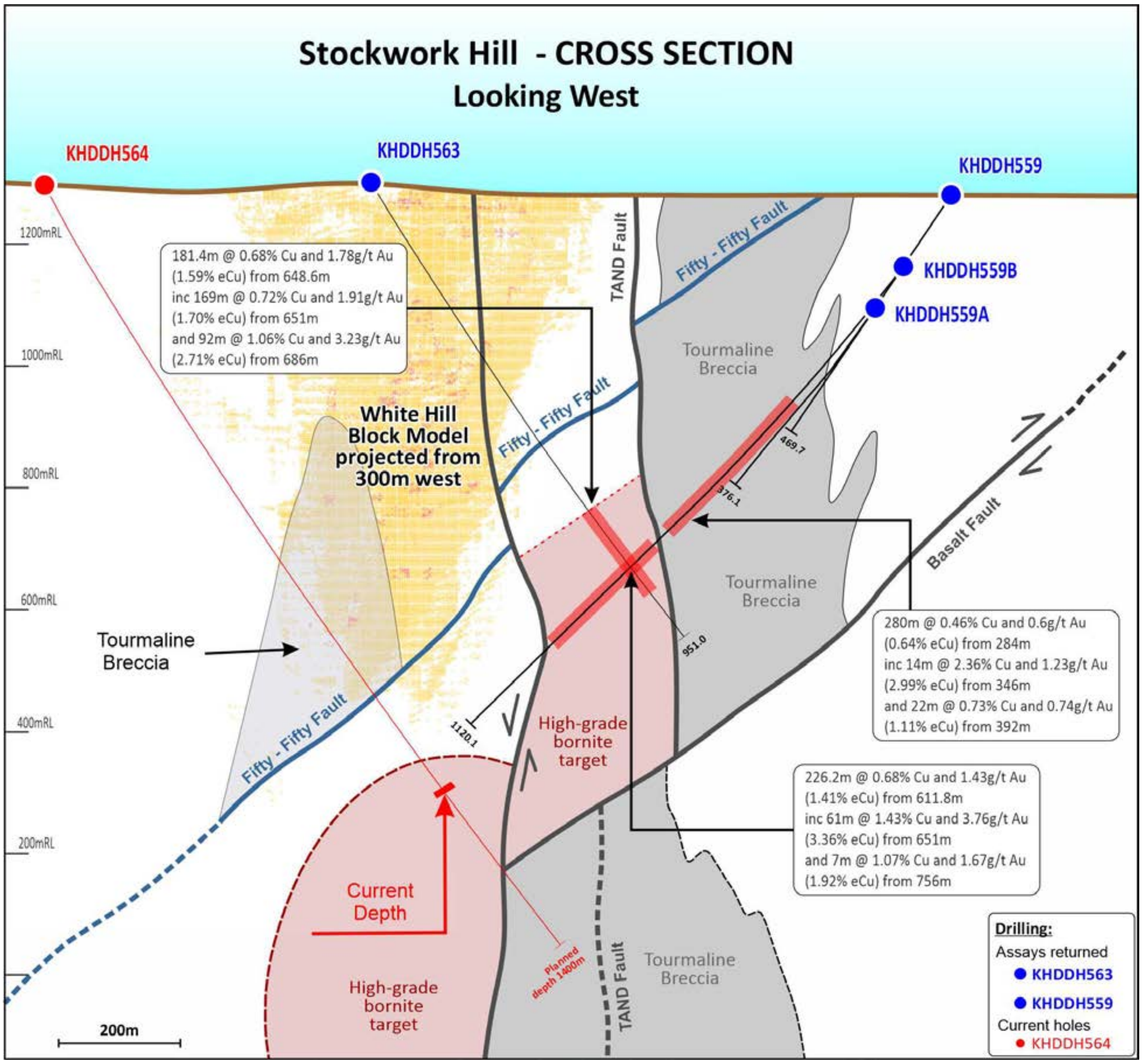

Figure 1. KHDDH563 cross section, intercepts and interpreted geology. Section width is 25m.

KHDDH563 intersected;

181.4m @ 0.68% Cu and 1.78g/t Au (1.59% eCu) from 648.6m

Including 169m @ 0.72% Cu and 1.91g/t Au (1.7% eCu) from 651m

Including 105.6m @ 0.99% Cu and 2.89g/t Au (2.46% eCu) from 680m

Including 92m @ 1.06% Cu and 3.23g/t Au (2.71% eCu) from 686m

It is noteworthy that this maintains the gold tenor of the deeper, high-grade bornite mineralisation seen in KHDDH559B (previously announced), with between 2-4 g/t Au for each percent in copper.

Importantly, structural information from this hole and the surrounding drilling has aided in a new structural interpretation, identifying the potential repeat of high-grade bornite mineralisation south of the current drilling, towards the base of White Hill (**Figure 1**). Drill Hole KHDDH564 was collared in early March to test this new target and is currently drilling visible sulphide mineralisation within the expected target zone (**Figure 4**).

About KHDDH564

Drill hole KHDDH564 is designed as a large-scale step out (400m to the south), targeting a repeat of the high-grade bornite zone at Stockwork Hill (**Figure 1 and 2**). KHDDH564 is currently at 1,200m and entered visible sulphide mineralisation within the predicted target zone at ~1,180m (**Figure 4**).

Additionally, KHDDH564 passed through a zone of tourmaline breccia (main host rock copper and gold mineralisation) between 570m and 740m **(Figure 5)**. This zone of tourmaline breccia is identical to the tourmaline breccia found above the strongly mineralised tourmaline breccia at Stockwork Hill, identifying another significant target at Kharmagtai. The tourmaline breccia at Stockwork Hill is zoned, with an outer shell of pyrite bearing tourmaline breccia surrounding the high-grade chalcopyrite zone. Interestingly, this zone of breccia terminated against a fault, indicating it has been offset. Structural work is underway to understand the offset on this fault and determine the location of potentially copper bearing tourmaline breccia.

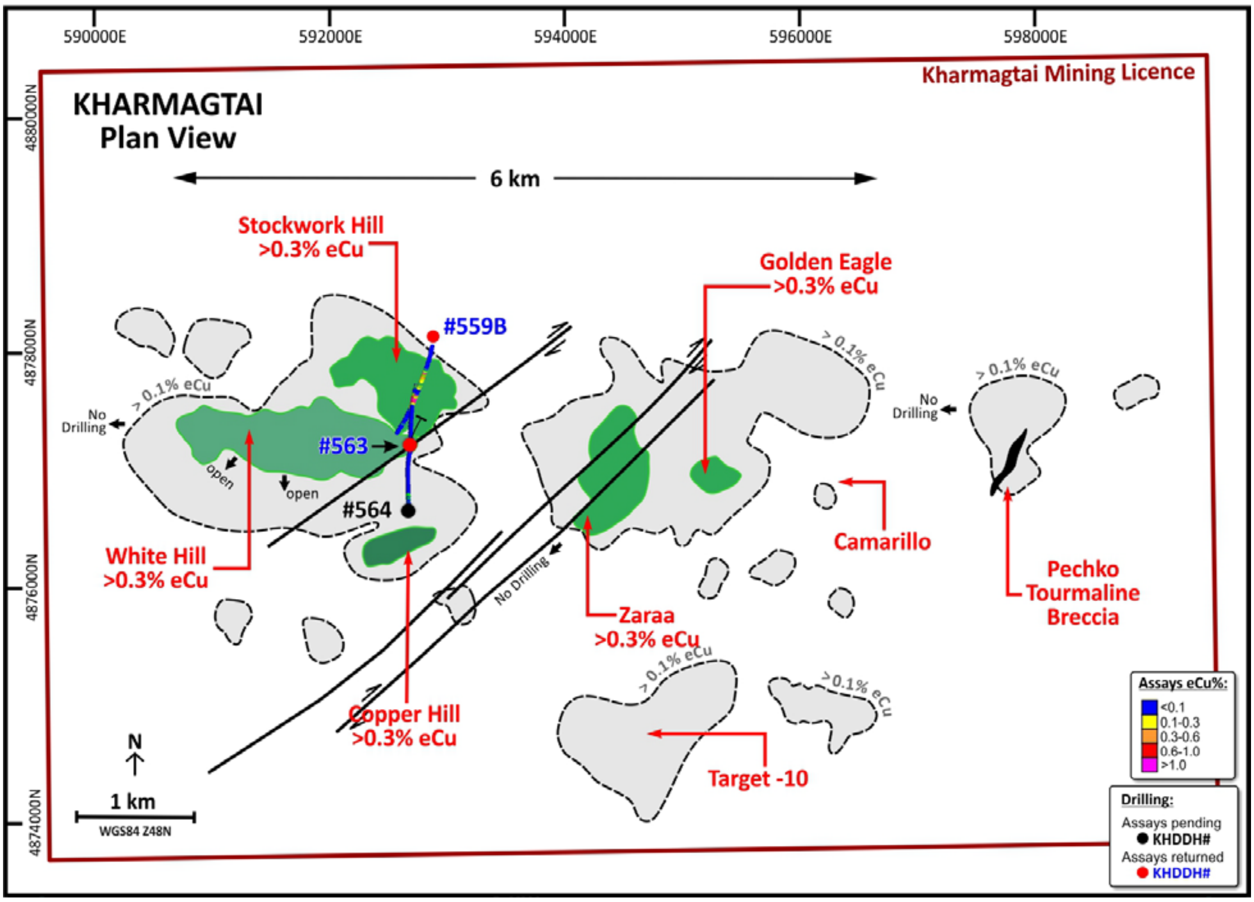

Figure 2. Location of KHDDH563 and KHDDH564 in plan view on Kharmagtai Mining Lease

Final Assay Results KHDDH559B

Final assay results from the tail of KHDDH559B have been received. These results did not change the reported intercept (see ASX/TSX Announcement dated 15 February 2021). The remainder of the hole returned broad intervals of patchy low grade copper mineralisation with a narrow intercept at the end of the hole returning 5m @ 1.13g/t Au, relating to a narrow (2m @ 4.91g/t Au) epithermal vein.

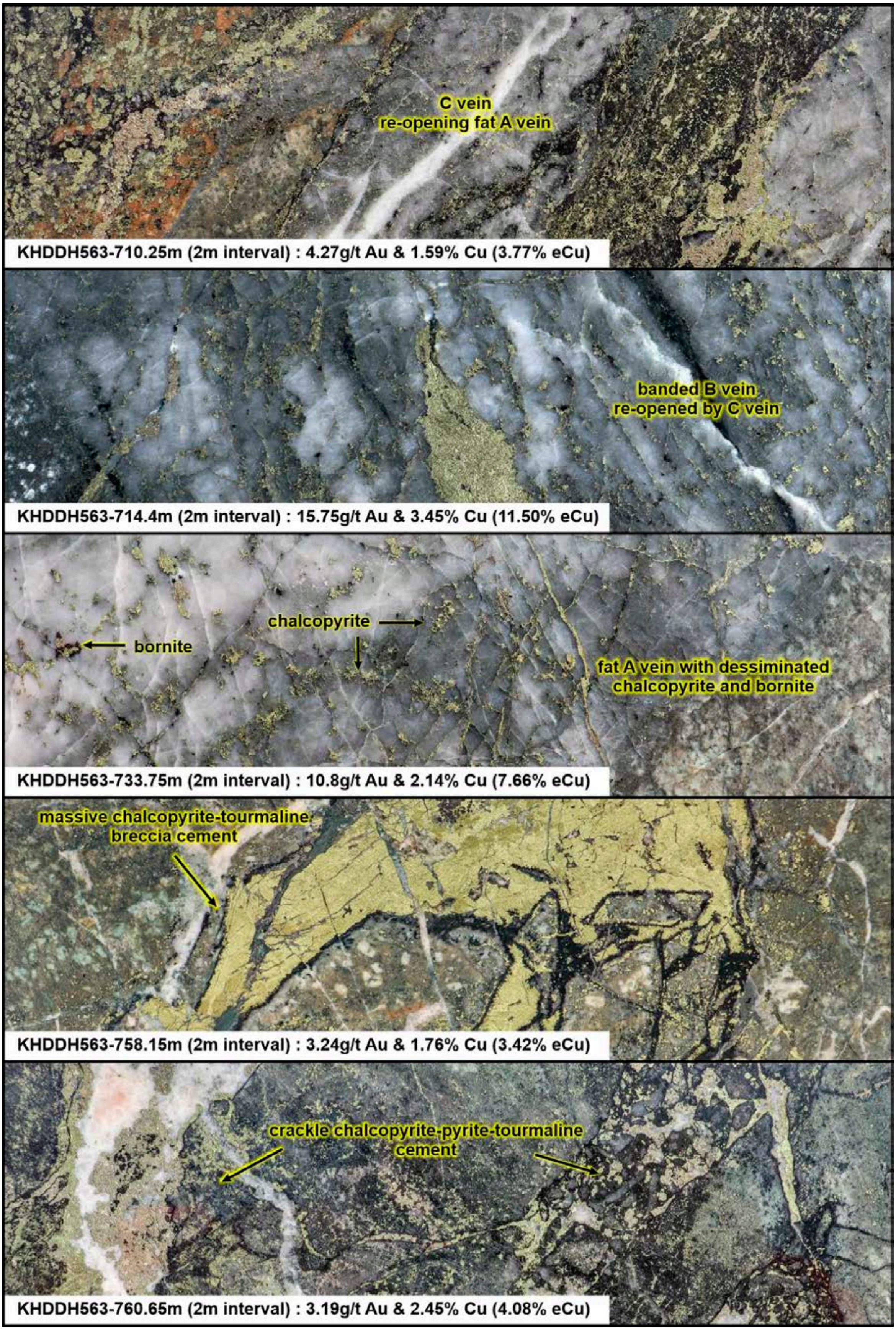

Figure 3. Selected Slab images from KHDDH563. Each image is halved HQ core and 4.36cm tall.

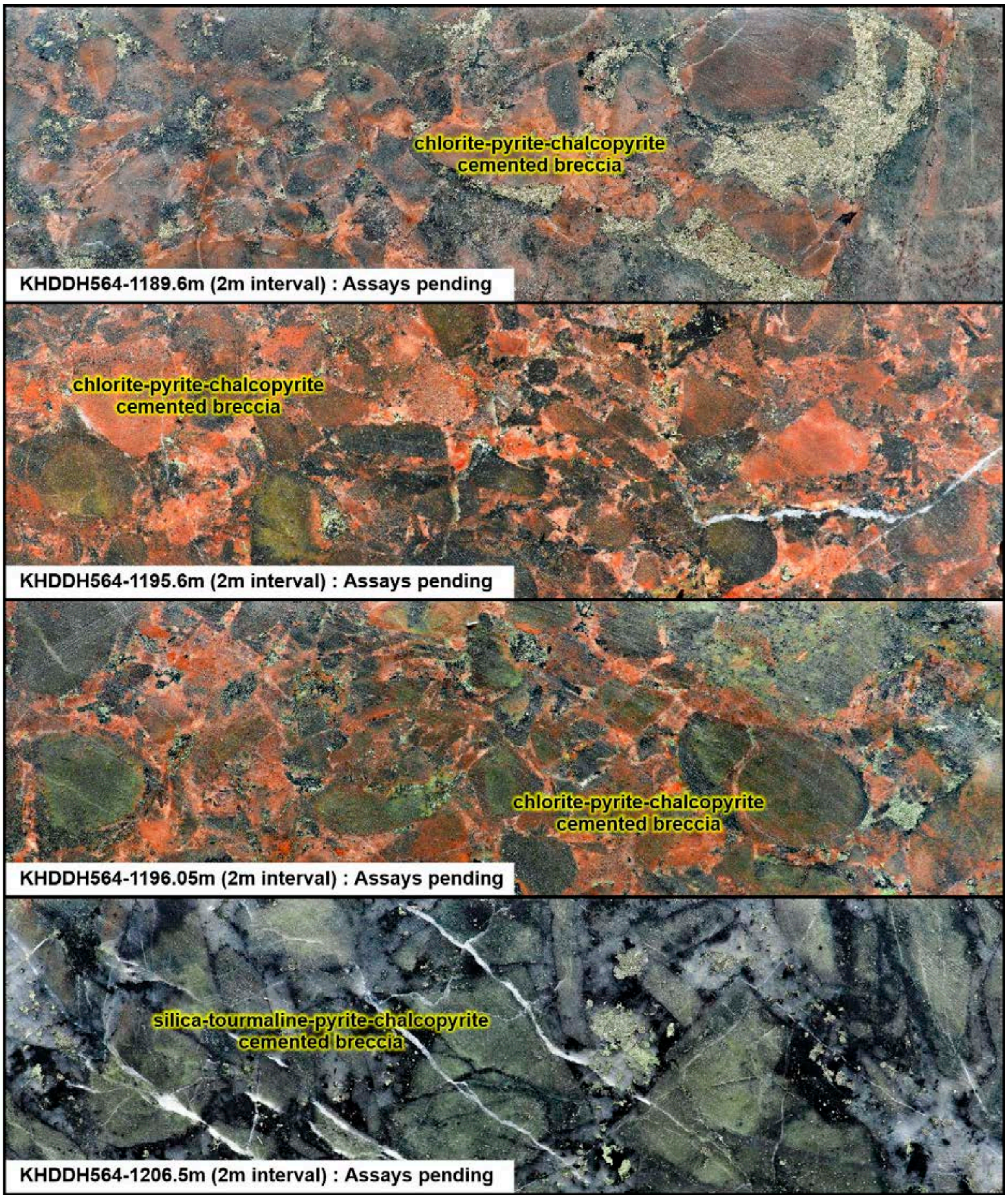

Figure 4. Selected Slab images from KHDDH564. Each image is halved HQ core and 4.36cm tall.

Figure 5. Selected core-box images from KHDDH564 showing broad zones of distal tourmaline breccia.

About Xanadu Mines

Xanadu is an ASX and TSX listed Exploration company operating in Mongolia. We give investors exposure to globally significant, large scale copper-gold discoveries and low-cost inventory growth. Xanadu maintains a portfolio of exploration projects and remains one of the few junior explorers on the ASX or TSX who control an emerging Tier 1 copper-gold deposit in our flagship Kharmagtai project. For information on Xanadu visit: www.xanadumines.com.

Andrew Stewart
CEO
Xanadu Mines Ltd
Andrew.stewart@xanadumines.com
+61 409 819 922

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

Appendix 1: Drilling Results

Table 1: Drill hole collar

Hole ID	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
KHDDH559B	Stockwork Hill	592867	4878060	1163	190	-53	1120.1
KHDDH563	Stockwork Hill	592690	4877190	1296	0	-60	951.0
KHDDH564	Stockwork Hill	592668	4876649	1299	0	-60	1200.0

Table 2: Significant drill results

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH559B	Stockwork Hill	218	226	8	0.14	0.11	0.18	0.35
and		236	248	12	0.09	0.06	0.10	0.20
and		284	564	280	0.36	0.46	0.64	1.26
and		290	294	4	0.19	0.28	0.38	0.74
including		308	554	246	0.40	0.51	0.71	1.39
including		318	336	18	0.28	0.67	0.81	1.58
including		346	472	126	0.50	0.70	0.96	1.87
including		346	360	14	1.23	2.36	2.99	5.84
including		370	374	4	0.53	1.11	1.37	2.69
including		392	414	22	0.74	0.73	1.11	2.17
including		510	518	8	0.97	0.27	0.76	1.49
including		534	546	12	0.34	0.41	0.58	1.14
and		611.8	838	226.2	1.43	0.68	1.41	2.75
including		615	790	175	1.83	0.84	1.78	3.47
including		617	637	20	2.09	1.09	2.16	4.22
including		617	635	18	2.28	1.15	2.32	4.53
including		649	783	134	2.04	0.89	1.93	3.77
including		651	712	61	3.76	1.43	3.36	6.57
including		756	763	7	1.67	1.07	1.92	3.76
and		848	908	60	0.05	0.09	0.11	0.22
and		928	938	10	0.05	0.08	0.11	0.21
and		970.3	994	23.7	0.13	0.10	0.16	0.32
and		1115	1120.1	5.1	1.13	0.05	0.62	1.22
KHDDH563	Stockwork Hill	322	332	10	0.06	0.12	0.15	0.29
and		648.6	830	181.4	1.78	0.68	1.59	3.11
including		651	820	169	1.91	0.72	1.70	3.32
including		664	668	4	0.40	0.52	0.72	1.41
including		680	785.6	105.6	2.89	0.99	2.46	4.82
including		686	778	92	3.23	1.06	2.71	5.30
and		860	937.1	77.1	0.10	0.19	0.24	0.47
including		888	892	4	0.07	0.30	0.34	0.66

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
including		906	936	30	0.16	0.27	0.35	0.69
including		928	934	6	0.38	0.42	0.62	1.20
and		947.5	951	3.5	0.05	0.35	0.38	0.74

Table 3: Selected copper and gold assay results for the high-grade zone

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH563	680	682	2	0.45	0.43	0.66	1.29
KHDDH563	682	684	2	0.60	0.25	0.55	1.08
KHDDH563	684	686	2	0.95	0.37	0.85	1.67
KHDDH563	686	688	2	1.65	1.27	2.11	4.12
KHDDH563	688	690	2	**3.40**	**1.39**	3.12	6.11
KHDDH563	690	692	2	1.25	0.38	1.02	2.00
KHDDH563	692	694	2	1.12	0.32	0.89	1.75
KHDDH563	694	696	2	1.73	0.35	1.23	2.41
KHDDH563	696	698	2	**2.39**	**1.00**	2.22	4.34
KHDDH563	698	700	2	**2.49**	**0.69**	1.97	3.84
KHDDH563	700	702	2	**2.66**	**0.83**	2.19	4.29
KHDDH563	702	704	2	1.53	0.59	1.37	2.69
KHDDH563	704	706	2	0.96	0.29	0.78	1.53
KHDDH563	706	708	2	1.78	0.79	1.70	3.32
KHDDH563	708	710	2	**2.21**	**0.64**	1.77	3.46
KHDDH563	710	712	2	**4.27**	**1.59**	3.77	7.37
KHDDH563	712	714	2	**7.71**	**1.83**	5.77	11.28
KHDDH563	714	716	2	**15.75**	**3.45**	11.50	22.50
KHDDH563	716	718	2	**7.22**	**2.11**	5.80	11.35
KHDDH563	718	720	2	**6.33**	**1.77**	5.01	9.79
KHDDH563	720	722	2	1.15	0.47	1.05	2.06
KHDDH563	722	724	2	0.79	0.50	0.90	1.76
KHDDH563	724	726	2	1.44	0.59	1.33	2.60
KHDDH563	726	728	2	**2.41**	**0.80**	2.03	3.98
KHDDH563	728	730	2	**5.08**	**1.53**	4.13	8.07
KHDDH563	730	732	2	**5.80**	**1.26**	4.22	8.25
KHDDH563	732	734	2	**10.80**	**2.14**	7.66	14.98
KHDDH563	734	736	2	**4.42**	**1.04**	3.30	6.44
KHDDH563	736	738	2	**2.57**	**1.13**	2.44	4.78
KHDDH563	738	740	2	**2.62**	**0.88**	2.22	4.34
KHDDH563	740	742	2	**4.73**	**1.82**	4.23	8.28
KHDDH563	742	744	2	**4.58**	**0.95**	3.29	6.43
KHDDH563	744	746	2	**4.49**	**1.08**	3.38	6.60
KHDDH563	746	748	2	**2.92**	**0.94**	2.43	4.75

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH563	748	750	2	**2.89**	**0.92**	2.40	4.69
KHDDH563	750	752	2	**2.24**	**0.72**	1.86	3.65
KHDDH563	752	754	2	1.18	0.40	1.00	1.95
KHDDH563	754	756	2	1.94	0.52	1.51	2.96
KHDDH563	756	758	2	1.97	0.66	1.67	3.26
KHDDH563	758	760	2	**3.24**	**1.76**	3.42	6.68
KHDDH563	760	762	2	**3.19**	**2.45**	4.08	7.98
KHDDH563	762	764	2	0.96	0.50	0.99	1.94
KHDDH563	764	766	2	1.35	0.65	1.34	2.62
KHDDH563	766	768	2	1.44	0.79	1.52	2.98
KHDDH563	768	770	2	0.71	0.45	0.82	1.60
KHDDH563	770	772	2	1.57	0.78	1.58	3.09
KHDDH563	772	774	2	**2.52**	**0.96**	2.25	4.41
KHDDH563	774	776	2	**3.17**	**1.86**	3.48	6.81
KHDDH563	776	778	2	1.73	1.07	1.95	3.82
KHDDH563	778	780	2	0.70	0.54	0.89	1.75
KHDDH563	780	782	2	0.63	0.59	0.91	1.79
KHDDH563	782	784	2	0.41	0.59	0.80	1.56
KHDDH563	784	785.6	1.6	0.35	0.64	0.82	1.60
KHDDH563	785.6	788	2.4	0.14	0.33	0.40	0.78

Appendix 2: Statements and Disclaimers

Mineral Resources and Ore Reserves Reporting Requirements

The 2012 Edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the **JORC Code 2012**) sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The Information contained in this Announcement has been presented in accordance with the JORC Code 2012.

Competent 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, 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 (**eCu**) 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.

Copper equivalent (**eCu**) grade values were calculated using the following formula:

eCu = Cu + Au * 0.62097 * 0.8235,

Where Cu = copper grade (**%**); Au = gold grade (gold per tonne (**g/t**)); 0.62097 = conversion factor (gold to copper); and 0.8235 = relative recovery of gold to copper (82.35%).

The copper equivalent formula was based on the following parameters (prices are in USD): Copper price = 3.1 $/lb (or 6,834 $ per tonne (**$/t**)); Gold price = 1,320 $ per ounce (**$/oz**); Copper recovery = 85%; Gold recovery = 70%; and Relative recovery of gold to copper = 70% / 85% = 82.35%.

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.

For further information please visit the Xanadu Mines' Website at www.xanadumines.com.

Appendix 3: Kharmagtai Table 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 Edition for the Kharmagtai project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 11 April 2019.

JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *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 (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.*	• Representative ½ core samples were split from PQ, HQ & NQ diameter diamond drill core on site using rock saws, on a routine 2m sample interval that also honours lithological/intrusive contacts. • 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. • Sample intervals are defined and subsequently checked by geologists, and sample tags are attached (stapled) to the plastic core trays for every sample interval. • RC chip samples are ¼ splits from one meter intervals using a 75%:25% riffle splitter to obtain a 3kg sample • RC samples are uniform 2m samples formed from the combination of two ¼ split 1m samples.
Drilling techniques	• *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,*	• 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. • All drill core drilled by Xanadu has been

Criteria	JORC Code explanation	Commentary
	whether core is oriented and if so, by what method, etc.).	oriented using the "Reflex Ace" tool.
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 sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• 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. • Diamond core recoveries average 97% through mineralization. • 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. • RC recoveries are measured using whole weight of each 1m intercept measured before splitting • Analysis of recovery results vs grade shows no significant trends that might indicate sampling bias introduced by variable recovery in fault/fracture zones.
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 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, mining and metallurgical studies. • 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. • Drill core is also systematically logged for both geotechnical features and geological structures. Where drill core has been successfully oriented, the orientation of

Criteria	JORC Code explanation	Commentary
		structures and geotechnical features are also routinely measured. • Both wet and dry core photos are taken after core has been logged and marked-up but before drill core has been cut.
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 sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 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. • 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. • The diamond saws are regularly flushed with water to minimize potential contamination. • A field duplicate ¼ core sample is collected every 30th sample to ensure the "representivity of the in situ material collected". The performance of these field duplicates are routinely analysed as part of Xanadu's sample QC process. • Routine sample preparation and analyses of DDH samples were carried out by ALS Mongolia LLC (ALS Mongolia), who operates an independent sample preparation and analytical laboratory in Ulaanbaatar. • 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. • ALS Mongolia Geochemistry labs quality management system is certified to ISO 9001:2008. • 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.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• All samples were routinely assayed by ALS Mongolia for gold • Au is determined using a 25g fire assay fusion, cupelled to obtain a bead, and digested with Aqua Regia, followed by an

Criteria	JORC Code explanation	Commentary
	• *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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	atomic absorption spectroscopy (AAS) finish, with a lower detection (LDL) of 0.01 ppm. • 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 (>1% Cu), it is analysed by a second analytical technique (Cu-OG62), which has a higher upper detection limit (UDL) of 5% copper. • Quality assurance has been managed by insertion of appropriate Standards (1:30 samples – suitable Ore Research Pty Ltd certified standards), Blanks (1:30 samples), Duplicates (1:30 samples – ¼ core duplicate) by XAM. • Assay results outside the optimal range for methods were re-analysed by appropriate methods. • 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. • QC monitoring is an active and ongoing processes on batch by batch basis by which unacceptable results are re-assayed as soon as practicable. • 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 (>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.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *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.*	• All assay data QAQC is checked prior to loading into XAM's Geobank data base. • The data is managed by XAM geologists. • The data base and geological interpretation is managed by XAM. • Check assays are submitted to an umpire lab (SGS Mongolia) for duplicate analysis. • No twinned drill holes exist. • There have been no adjustments to any of the assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Diamond drill holes have been surveyed with a differential global positioning system (DGPS) to within 10cm accuracy. • The grid system used for the project is UTM WGS-84 Zone 48N • Historically, Eastman Kodak and Flexit electronic multi-shot downhole survey tools have been used at Kharmagtai 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 Kharmagtai mineral system. The extent of this interference cannot be quantified on a reading-by-reading basis. • 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) • The project DTM is based on 1 m contours from satellite imagery with an accuracy of ±0.1 m.

Criteria	JORC Code explanation	Commentary
Data 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.*	• Holes spacings range from <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. • Holes range from vertical to an inclination of -60 degrees depending on the attitude of the target and the drilling method. • The data spacing and distribution is sufficient to establish anomalism and targeting for porphyry Cu-Au, tourmaline breccia and epithermal target types. • Holes have been drilled to a maximum of 1,300m vertical depth. • The data spacing and distribution is sufficient to establish geological and grade continuity, and to support the Mineral Resource classification.
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.*	• Drilling is conducted in a predominantly regular grid to allow unbiased interpretation and targeting. • 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.
Sample security	• *The measures taken to ensure sample security.*	• Samples are delivered from the drill rig to the core shed twice daily and are never left unattended at the rig. • Samples are dispatched from site in locked boxes transported on XAM company vehicles to ALS lab in Ulaanbaatar. • Sample shipment receipt is signed off at the Laboratory with additional email confirmation of receipt. • Samples are then stored at the lab and returned to a locked storage site.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Internal audits of sampling techniques and data management are undertaken on a regular basis, to ensure industry best practice is employed at all times. • External reviews and audits have been conducted by the following groups:

Criteria	JORC Code explanation	Commentary
		• 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. • 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. • 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.

JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

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

Criteria	Commentary

Mineral tenement and land tenure status	• The Project comprises 2 Mining Licences (MV-17129A Oyut Ulaan and (MV-17387A Kharmagtai):
	  o Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence.
	  o The Kharmagtai mining license MV-17387A is 100% owned by Oyut Ulaan LLC. Xanadu has an 85% interest in Mongol Metals LLC, which has 90% interest in Oyut Ulaan LLC. The remaining 10% in Oyut Ulaan LLC is owned by Quincunx (BVI) Ltd (“Quincunx”).
	• The Mongolian Minerals Law (2006) and Mongolian Land Law (2002) govern exploration, mining and land use rights for the project.

Exploration done by other parties	• Previous exploration at Kharmagtai was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping. • Previous exploration at Red Mountain (Oyut Ulaan) was conducted by Ivanhoe Mines.
Geology	• The mineralisation is characterised as porphyry copper-gold type. • 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 thought out 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 Kharmagtai are atypical in that they are associated with intermediate intrusions

Criteria	Commentary
	of diorite to quartz diorite composition; however the deposits are in terms of contained gold significant, and similar gold-rich porphyry deposits.
Drill hole Information	• Diamond drill holes are the principal source of geological and grade data for the Project. • See figures in this ASX/TSX Announcement.
Data Aggregation methods	• The CSAMT data was converted into 2D line data using the Zonge CSAMT processing software and then converted into 3D space using a UBC inversion process. Inversion fit was acceptable, and error was generally low. • 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. • A nominal cut-off of 0.1g/t eAu is used in gold dominant systems like Golden Eagle for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3g/t, 0.6g/t and 1g/t eAu. • Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6% and 1% eCu. • 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. • Informing samples have been composited to two metre lengths honouring the geological domains and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit). The copper equivalent (**eCu**) 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. Copper equivalent (**CuEq** or **eCu**) grade values were calculated using the following formula: eCu or CuEq = Cu + Au * 0.62097 * 0.8235, Gold Equivalent (**eAu**) grade values were calculated using the following 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%)

Criteria	Commentary
	The copper equivalent formula was based on the following parameters (prices are in USD): o Copper price - 3.1 $/lb (or 6834 $/t) o Gold price - 1320 $/oz o Copper recovery - 85% o Gold recovery - 70% o Relative recovery of gold to copper = 70% / 85% = 82.35%.
Relationship between mineralisation on widths and intercept lengths	• 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. • 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.
Diagrams	• See figures in the body of the report.
Balanced reporting	• 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.
Other substantive exploration data	• Extensive work in this area has been done and is reported separately.
Further Work	• The mineralisation is open at depth and along strike. • 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. • Exploration on going.