XANADU MINES

MULTIPLE STRONG MLEM CONDUCTORS DETECTED AT STARIY

16 June 2021

Xanadu Mines Ltd (**ASX: XAM, TSX: XAM**) **("Xanadu" or "the Company"**) is pleased to announce that preliminary Moving-Loop Electromagnetic data from the Red Mountain joint venture with the Japan Oil, Gas and Metals National Corporation (**JOGMEC JV**) copper-gold project (**Figures 1 and 2**), has identified multiple highly prospective drill targets.

Highlights

- First-pass ground Moving Loop Electromagnetic (**MLEM**) survey completed at the Stairy prospect
- Cluster of moderate to high, mid to late-time bedrock Electromagnetic (**EM**) conductors defined
- Several extensive Cu anomalies proximal to and coincident with these new EM conductors
- Numerous new targets identifying for trenching and drilling
- Results highlight the potential for the discovery to expand considerably along strike from the high-grade intercept reported on the 22nd of March
- Additional ground EM surveys underway
- Trenching planned to commence immediately; and diamond drilling planned to commence mid-July

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said "*This is an exciting and important development for the Red Mountain JOGMEC JV project. Whilst it is still early days, we are very encouraged that the first phase of MLEM survey at the Stairy prospect has identified numerous conductive anomalies in the target area. The identification of numerous conductors' co-incident with broad geochemical anomalism in historical trenches and where high-grade massive sulphide mineralisation has been intersected in drilling is encouraging. We consider Stairy to be analogous to the other massive sulphide/lode copper vein deposits where very high-grade copper occurs in structures above a larger porphyry system. Trenching will commence immediately, and we anticipate diamond drilling to commence mid-July.*"

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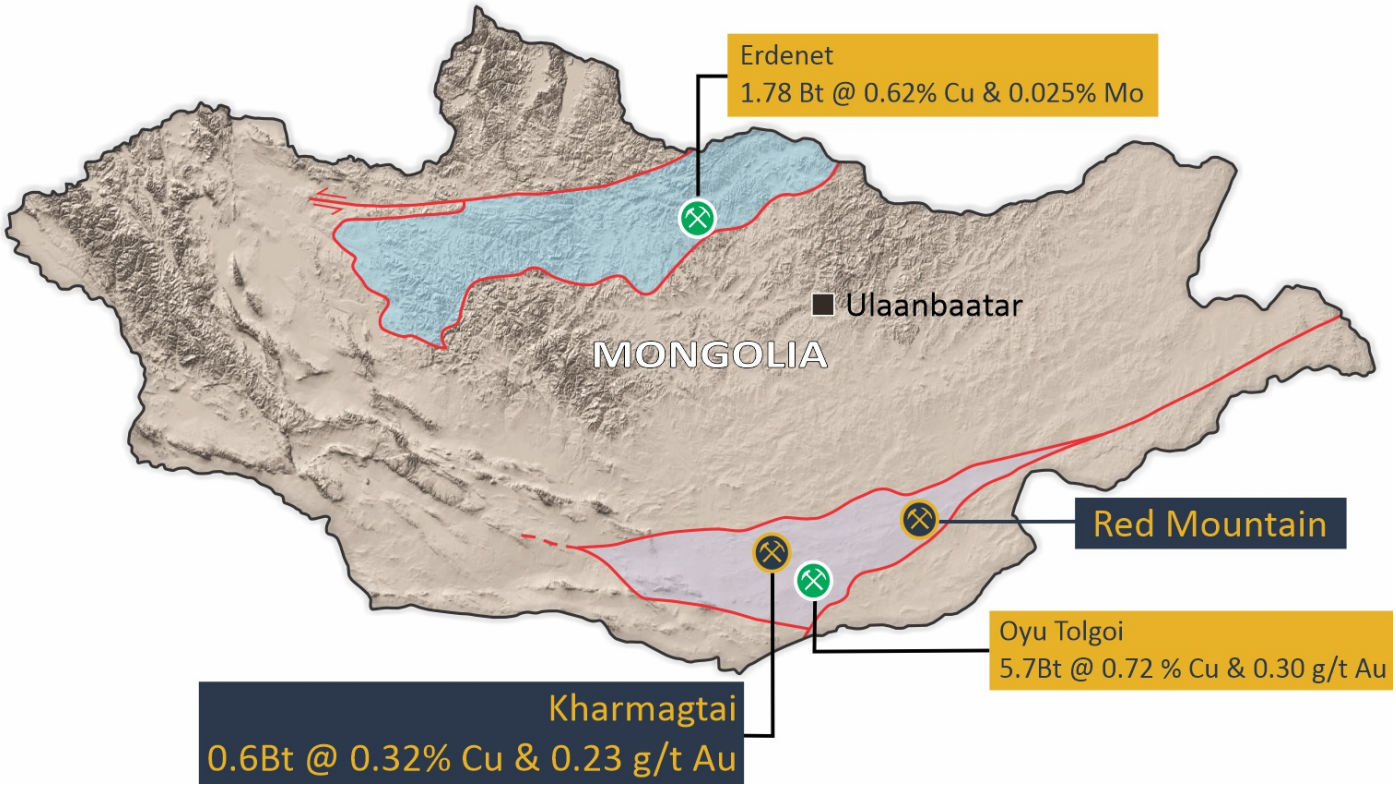

FIGURE 1: Location of the Red Mountain JOGMEC JV Project in the South Gobi porphyry copper belt.

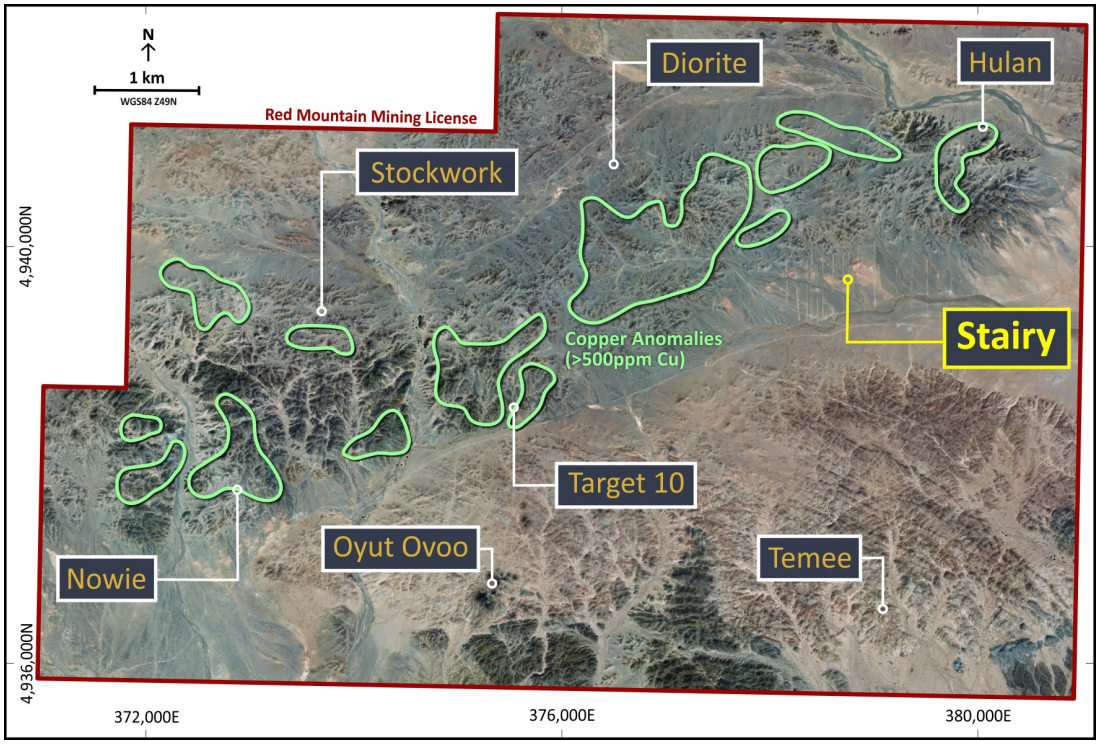

FIGURE 2: The Red Mountain Mining Licence showing ground Landsat data and location of the priority targets.

Stairy Previous Exploration

The Stairy prospect consists of a 1.5km by 1km zone of sheeted mineralised structures hosted within the Stairy Intrusive in the central east of the Red Mountain Mining Lease. These structures are interpreted to be sub-vertical, up to twenty-four meters wide and can extend for over a kilometre. Copper mineralisation at Stairy consists of massive bornite and chalcopyrite sulphide with quartz carbonate fill. The current geological interpretations suggest these sheeted structures may be linked to a large-scale porphyry system at depth.

Recent drilling at Stairy (please see ASX/TSX Announcement dated 22 March 2021) returned significant shallow high-grade copper with OUDDH100 returning **16m @ 4.09% Cu** from 54m, including **4m @ 15.89% Cu** from 55m (Figure 3).

Prior to Xanadu exploring at Red Mountain, several companies conducted trenching at Stairy. Previous explorers worked at Red Mountain between 2001 and 2007 and completed 6,274m of trenching at Stairy in 2005. Key historical intercepts from these previous companies trenching at Stairy include;

OUT001 16m @ 0.98% Cu and 0.17g/t Au (1.07% eCu) from 266m

Including 6m @ 2.27% Cu and 0.44g/t Au (2.49% eCu) from 276m

And 56m @ 1.02% Cu and 0.02g/t Au (1.03% eCu) from 518m

Including 12m @ 4.07% Cu and 0.08g/t Au (4.11% eCu) from 542m

OUT002 6m @ 3.85% Cu and 0.24g/t Au (3.97% eCu) from 490m

OUT008 6m @ 2.61% Cu and 0.10g/t Au (2.65% eCu) from 280m

A full review of the previous company exploration has been conducted for Stairy and a summary of the historical (previous company) intercepts above 0.5% Cu are presented in Table 1.

Stairy Future Exploration

The massive sulphide lenses that occur at Stairy are likely to be visible to MLEM. A detailed MLEM survey has commenced at Stairy, designed to map the structures that contain the most significant accumulations of massive sulphide. The survey is split into two areas, a northern area and a southern area. Data from the northern area has been received and preliminary results can be seen in **Figure 4**. These preliminary results show moderate to strong EM responses in the late time channels for known lenses of massive sulphide, but more importantly show numerous stronger responses in along strike from known lenses in areas untested by trenching or drilling. This data will focus the planned trenching scheduled to start in a weeks' time. Drilling will commence in mid-July on completion of trenching. Approximately 2,400m of diamond drilling is planned for Stairy.

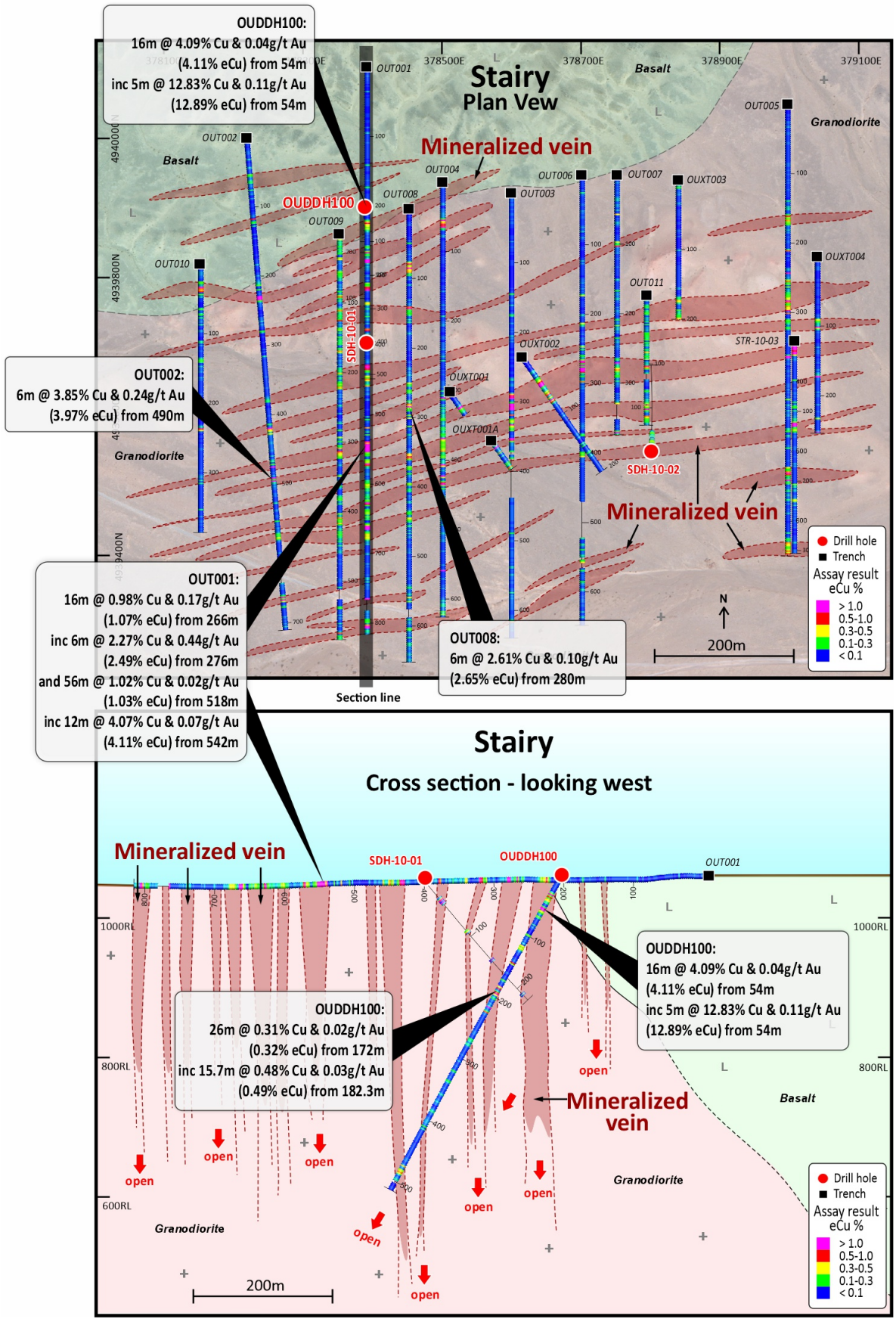

FIGURE 3: The Stairy Prospect with drill hole OUDDH100, section and plan and historic trench results.

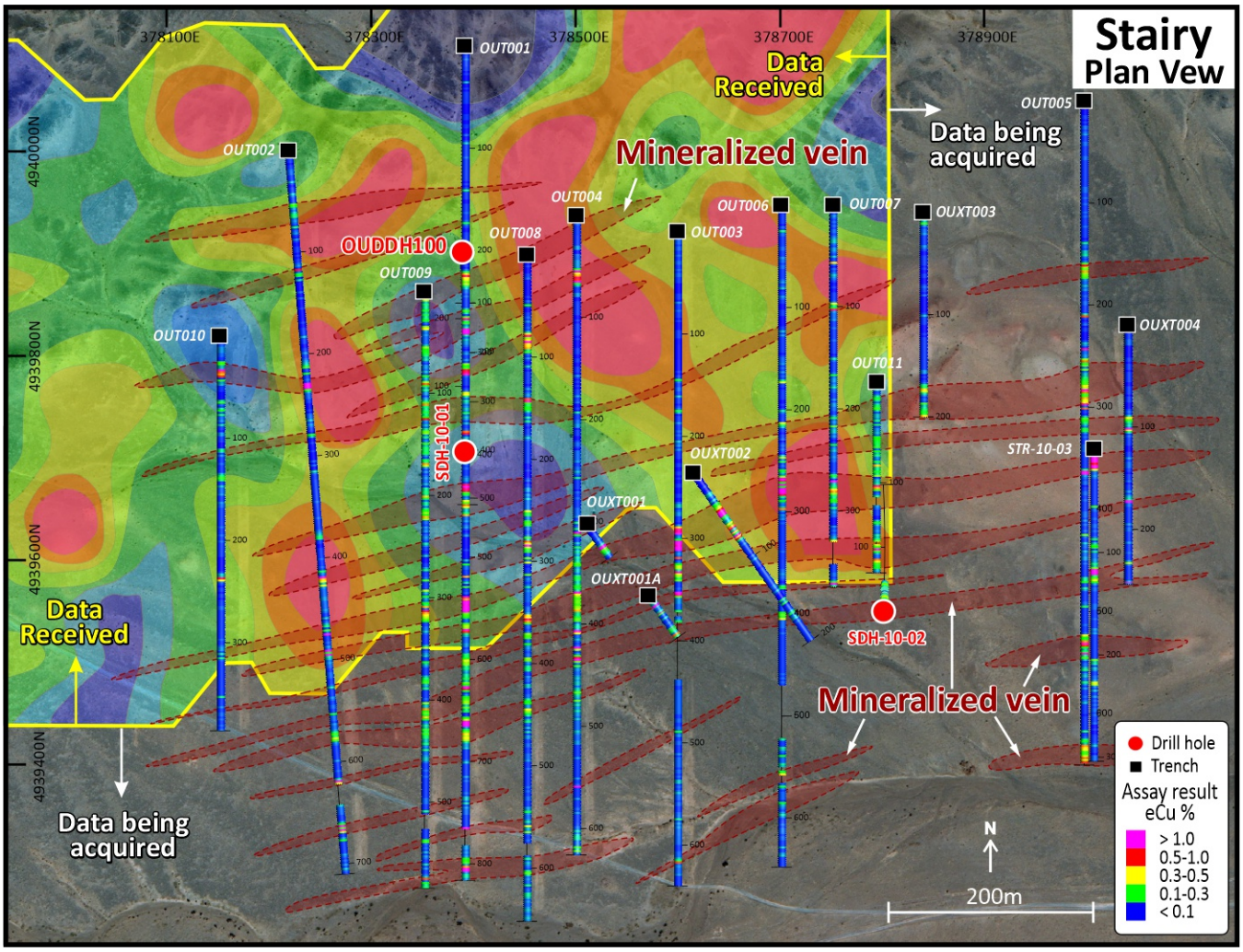

FIGURE 4: Preliminary MLEM data over the northern area of Stairy. Channels 15 to 27 Tau.

About Red Mountain

The Red Mountain JOGMEC 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.

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.

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

Appendix 1: Drilling Results

Table 1: Historic trench results

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
OUT001	Stairy	266	282	16	0.17	0.98	1.07	2.09
including		276	282	6	0.44	2.27	2.49	4.87
and		518	574	56	0.02	1.02	1.03	2.02
including		538	554	16	0.06	3.2	3.23	6.32
including		542	554	12	0.08	4.07	4.11	8.04
and		660	678	18	0.13	0.88	0.95	1.85
including		660	666	6	0.34	2.27	2.45	4.78
including		802	808	6	0.2	0.95	1.05	2.05
including		804	808	4	0.27	1.24	1.37	2.68
OUT002	Stairy	228	234	6	0.16	1.28	1.36	2.67
and		418	428	10	0.02	0.51	0.52	1.02
including		418	422	4	0.03	1.02	1.03	2.02
and		490	496	6	0.24	3.85	3.97	7.77
and		618	622	4	0.02	1.28	1.29	2.53
and		662	668	6	0.02	1.16	1.17	2.28
OUT003	Stairy	288	320	32	0.03	0.59	0.61	1.19
and		352	356	4	0.04	1.35	1.37	2.67
OUT004	Stairy	52	66	14	0.01	0.66	0.66	1.3
including		54	66	12	0.01	0.75	0.75	1.47
and		406	410	4	0.04	0.71	0.72	1.42
and		422	442	20	0.06	0.56	0.59	1.16
including		422	436	14	0.05	0.77	0.8	1.56
OUT005	Stairy	362	366	4	0.08	1.52	1.56	3.05
OUT006	Stairy	258	298	40	0.04	0.63	0.64	1.26
including		266	284	18	0.06	1.27	1.3	2.54
including		266	282	16	0.06	1.35	1.38	2.71
OUT007	Stairy	368	372	4	0.01	0.91	0.92	1.79
OUT008	Stairy	78	92	14	0.02	0.5	0.51	0.99
including		78	86	8	0.01	0.62	0.63	1.23
and		140	144	4	0.1	0.6	0.65	1.26
and		276	302	26	0.03	0.68	0.69	1.35
including		280	286	6	0.1	2.61	2.65	5.19
OUT010	Stairy	32	40	8	0.01	0.54	0.54	1.06
OUT011	Stairy	102	106	4	0.01	0.54	0.54	1.07
OUXT001	Stairy	25.7	32	6.3	0.04	1	1.02	1.99
OUXT001A	Stairy	5	20.6	15.6	0.01	0.53	0.53	1.04
including		5	12.9	7.9	0.02	0.9	0.91	1.77
OUXT002	Stairy	43.1	51.1	8	0.05	0.95	0.98	1.91
including		45	51.1	6.1	0.04	1.1	1.12	2.2

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
including		68.9	75	6.1	0.02	0.59	0.6	1.17
OUXT003	Stairy	2.7	12	9.3	0.04	0.57	0.59	1.15
STR-10-03	Stairy	2	20	18	0.14	0.79	0.86	1.68
Including		2	18	16	0.15	0.86	0.94	1.83
and		116	122	6	0.14	0.98	1.06	2.07

Appendix 2: Statements and Disclaimers

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: Red Mountain 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
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (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.*	• The EM survey was conducted on 25m spaces stations on 50m spaced lines. • The EM loop used is a 50m by 50m loop. • The average current used is 25-30Amps • The EM transmitted being used is a Zonge GGT-30 • The EM Receiver being used is a Zonge GDP-30 • The EM Antenna being used is a Zonge ANT/6 • The exploration results are based on diamond drill core samples, reverse circulation **(RC)** chip samples and channel samples from surface trenches. • Representative ½ core samples were split from PQ, HQ & NQ diameter diamond drill core on site using rock saws, on a routine two metre sample interval that also honors 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 1m 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. • Trench samples are collected as 2m composite from 30m above the trench toe. • Sampling generally honors lithological contacts • Trench samples are continuous along the length of the trench
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g.*	• The exploration results are based upon diamond drilling of PQ, HQ and NQ diameters with both standard and triple tube core recovery

Criteria	JORC Code explanation	Commentary
	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.).	configurations, RC drilling and surface trenching with channel sampling. • All drill core drilled by Xanadu has been 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. • 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 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.

Criteria	JORC Code explanation	Commentary
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. • Trench samples by previous explorers between 2001 to 2007 were prepared and assayed by SGS Mongolia
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.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates,*	• All XAM 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 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%

Criteria	JORC Code explanation	Commentary
	external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	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. • Trenching samples from 2001 to 2007 were analysed for 6 elements (Cu, Ag, Pb, Zn, As and Mo) by SGS Mongolia using a three-acid-digestion of a 0.3g sub-sample followed by an AAS finish (AAS21R). 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 49N • 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. • 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. • Trenching locations for trenches between 2001 and 2007 were located using a handheld GPS • EM survey locations were located using a handheld GPS

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.*	• The EM survey was collected on 25m spaced stations on 50m spaced lines • 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.
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.*	• EM survey lines are roughly perpendicular to the interpreted structures • 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.*	• The EM data is being QAQC'd and reviewed by an independent geophysical consultant Barry de Wet • 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

Criteria	JORC Code explanation	Commentary
		conducted by the following groups: • 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.

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
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• The Project comprises 1 Mining Licence (MV-17129A). • Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence. • 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	• Acknowledgment and appraisal of exploration by other parties. •	• Previous exploration was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping.
Geology	• Deposit type, geological setting and style of mineralisation.	• 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 Red

Criteria	JORC Code (Section 2) Explanation	Commentary
		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.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar. • elevation or RL Reduced Level – elevation above sea level in metres) of the drill hole collar. • dip and azimuth of the hole • down hole length and interception depth • hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Diamond drill holes are the principal source of geological and grade data for the Project. • See figures in ASX/TSX Announcement.
Data Aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. •	• 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 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

Criteria	JORC Code (Section 2) Explanation	Commentary

		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.
		
		• 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%)
		• The copper 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%.

Relationship between mineralisation on widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• 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.

Criteria	JORC Code (Section 2) Explanation	Commentary
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• See figures in ASX/TSX Announcement.
Balanced Reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Exploration results 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	• 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.	• Extensive work in this area has been done and is reported separately.
Further Work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• 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.

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.