18 July 2014

HIGH-GRADE EXTENSIONS DISCOVERED AT KHARMAGTAI

HIGHLIGHTS

- **Step-out drilling significantly extends and confirms the continuity of shallow, high-grade porphyry copper-gold mineralisation at Kharmagtai.**
- **KHDD338 intersects 160m @ 0.47% Cu & 0.85 g/t Au (1.00% CuEq) at Altan Tolgoi.**
- **KHDD340 intersects 42m @ 0.56% Cu & 0.72g/t Au (1.01% CuEq) at Tsagaan Sudal.**
- **Second diamond drill rig mobilised to advance the step-out drilling based on these outstanding results.**

INTRODUCTION

Xanadu Mines Ltd (**ASX:XAM – "Xanadu"**) is pleased to announce the results of its recent diamond drill program at the Kharmagtai copper-gold project, located in the South Gobi region of Mongolia. A total of five diamond drill holes for 1,634m (out of an initial 45 planned drill holes) have been completed at the Kharmagtai project (refer to Figure 1 and Table 1 for drill collars).

ASSAY RESULTS

This step-out drilling significantly extends and confirms the continuity of shallow high-grade porphyry copper-gold mineralisation at the Altan Tolgoi, Zesen Uul and Tsagaan Sudal prospects. The assay results are presented in Table 2 and some key observations include:

- Altan Tolgoi results show continuity of copper and gold mineralisation along strike and down dip;
- KHDD338 at Altan Tolgoi indicates the high-grade copper and gold mineralisation, including 160m grading 0.47% Cu & 0.85g/t Au (1.00% CuEq) from 110m, continues to be associated with the strong magnetic anomaly in the most eastern part of the prospect;
- KHDDH340 at Tsagaan Sudal discovered a higher-grade core to the system within a broad, low-grade zone including 42m grading 0.56% Cu & 0.72g/t Au (1.01% CuEq) from 202m; and
- the Zesen Uul drilling continues to expand the known shallow porphyry mineralisation.

Photographs of mineralisation from the diamond drill core are shown in Figures 2 to 6.

SECOND DRILL RIG MOBILISED

Based on these outstanding results, a second diamond drill rig has been mobilised to Kharmagtai to advance the step out drilling. This drill program will test potential extensions to high-grade mineralisation and identify new areas of mineralisation not included in the current geological model. The drill program will contribute to defining a new resource estimate at Kharmagtai.

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Xanadu Mines Ltd (ASX: XAM) is an exploration company that has assembled a significant exploration portfolio across Mongolia's porphyry belts. These belts are part of the larger Central Asian Orogenic Belt – one of the last great exploration frontiers known to host large copper porphyry deposits – and Mongolia is emerging as a globally significant copper province.

Porphyry mineralisation in the central Kharmagtai area is focused in and around the intrusions of the Kharmagtai Igneous Complex. Ground magnetics indicate that at least 70% of this strongly mineralised intrusive complex lies under cover at the Basin. There are numerous other targets in the Kharmagtai area that remain under explored. Xanadu's Managing Director, Mr George Lloyd, noted that: "The potential for further discoveries remains very high".

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KHARMAGTAI PROJECT & THE MONGOL METALS JV

Xanadu and its joint venture partner, Mongol Metals LLC, announced the acquisition of a 90% interest in the Kharmagtai porphyry copper-gold project from Turquoise Hill Resources in February 2014. Under the Mongol Metals LLC joint venture terms, Xanadu has the right to earn an 85% interest in the Kharmgtai project, equivalent to a 76.5% effective interest, by funding acquisition and exploration costs.

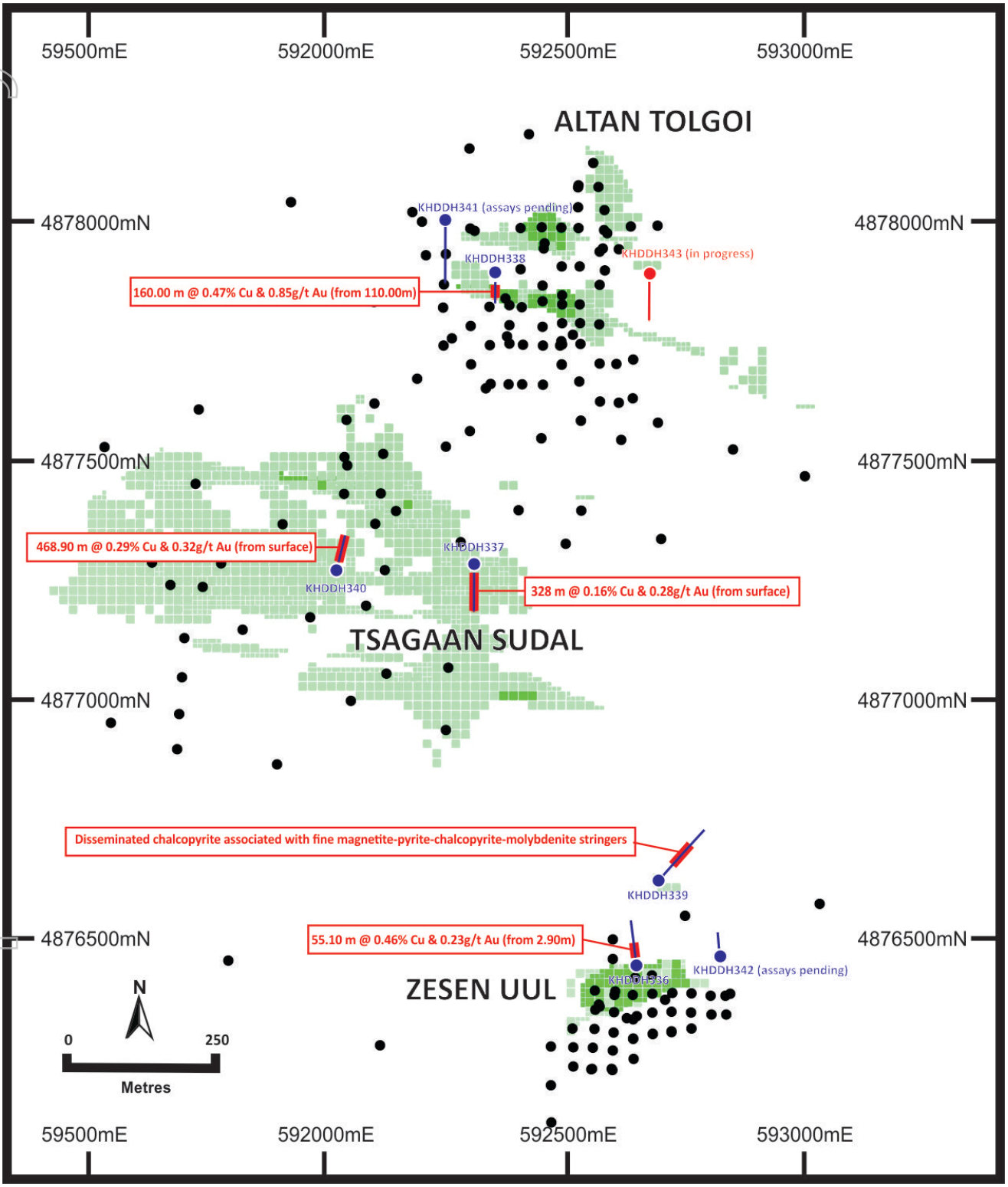
The Kharmagtai project is located in the under-explored South Gobi porphyry copper province which hosts the world-class Oyu Tolgoi copper-gold operation, the Tsagaan Survaga porphyry copper-molybdenum development and Xanadu's Oyut Ulaan copper-gold exploration project. The Kharmagtai project is located within the Omnogovi Province, approximately 420km southeast of Ulaanbaatar and 60km north of the Tavan Tolgoi coal deposit.

The Kharmagtai project is an advanced exploration project consisting of multiple co-genetic gold-rich porphyry copper centres and tourmaline breccia pipes occurring within the Lower Carboniferous Kharmagtai Igneous Complex. Exploration has identified significant shallow high-grade porphyry copper-gold mineralisation. A majority of the mineralised porphyry complex lies under un-explored shallow sediments. The large licence area has only been partially explored and the potential for further discoveries remains high.

COMPETENT PERSONS STATEMENT

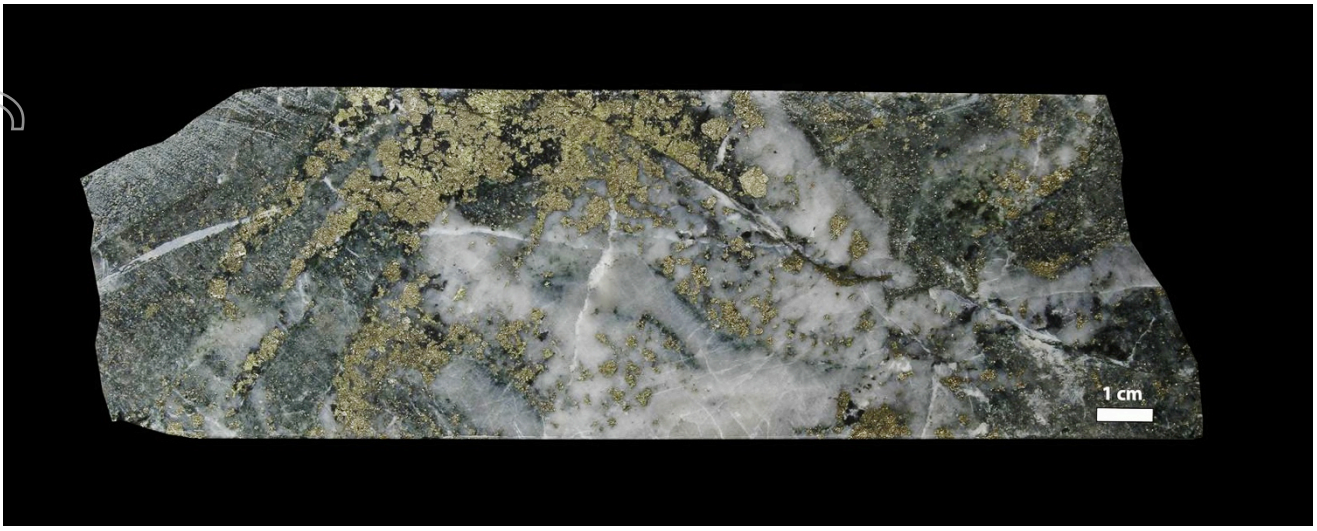
The information in this report relating to Exploration Results and Exploration Targets is based on information compiled or reviewed by Dr. Andrew Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists. Dr. Andrew Stewart has sufficient experience relevant 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". Dr. Andrew Stewart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

FIGURE 1: CENTRAL KHARMAGTAI DRILL COLLARS



Central Kharmagati showing drill holes completed in 2014 at Altan Tolgoi, Tsagaan Sudal and Zesen Uul. Green blocks represent the mineralised zone.

FIGURE 2:



Intensely magnetite-biotite altered quartz monzodiorite porphyry. Massive quartz-chalcopyrite vein. KHDDH338 – 95.10 metre. From a 2 metre interval (94.00 to 96.00 metres) which assayed 0.37% Cu and 0.80g/t Au.

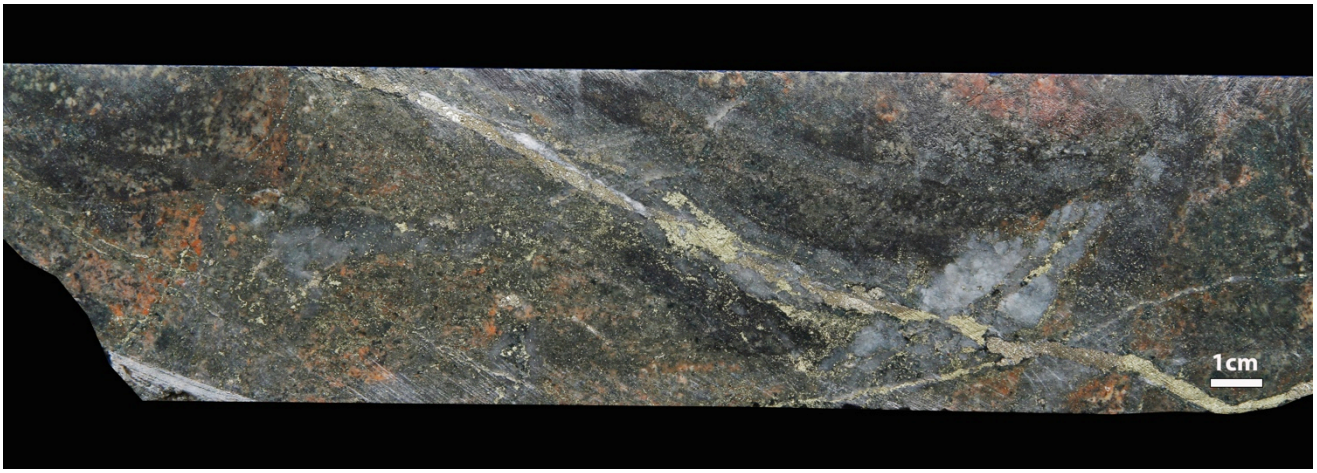
FIGURE 3:

Strongly magnetite-epidote altered quartz monzodiorite porphyry with cross cutting quartz-chalcopyrite centre-line veins. KHDDH338 – 179.10 metre. From a 2 metre interval (178.00 to 180.00 metres) which assayed 0.81% Cu and 0.85g/t Au.

FIGURE 4:

Centre-line quartz-chalcopyrite veins hosted in a strongly magnetite-chlorite-epidote altered quartz monzodiorite porphyry. KHDDH338 – 196.30 metre. From a 2 metre interval (196.00 to 198.00 metres) which assayed 0.47% Cu and 0.36g/t Au.

FIGURE 5:



Intensely magnetite-biotite-albite (potassic) altered quartz monzodiorite porphyry. Massive chalcopyrite veins cut early centre-line quartz-chalcopyrite-bornite veins. KHDDH340 – 219.40 metre. From a 2 metre interval (218.00 to 220.00 metres) which assayed 1.19% Cu, 1.33g/t Au and 3.00g/t Ag.

FIGURE 6:

Pervasively magnetite-biotite-albite (potassic) altered quartz monzodiorite porphyry. Coarsely disseminated chalcopyrite and bornite. KHDDH340 – 225.30 metre. From a 2 metre interval (224.00 to 226.00 metres) which assayed 1.27% Cu, 1.69g/t Au and 3.00g/t Ag

TABLE 1: KHARMAGTAI DRILL COLLARS

Set out below is summary of diamond drill completed at Kharmagtai as at 17 July 2014.

Hole	Prospect	East	North	RL	Azimuth	Incline	Depth (m)
KHDDH336	Zesen Uul	592649	4876447	1300	0	-60	158.6 EOH
KHDDH337	Tsagaan Suaal	592310	4877286	1312	180	-75	398.2 EOH
KHDDH338	Altan Tolgoi	592355	4877895	1300	180	-80	357.8 EOH
KHDDH339	Zesen Uul	592695	4876624	1298	40	-55	250.8 EOH
KHDDH340	Tsagaan Sudal	592025	4877274	1301	0	-80	468.9 EOH

TABLE 2: KHARMAGTAI ASSAY RESULTS

Set out below is summary of significant intercepts at Kharmagtai as at 17 July 2014.

Hole	Prospect	From (m)	To (m)	Interval (m)	Cu (%)	Au (%)	CuEq (%)
KHDDH336	Zesen Uul	2.9	58.0	55.1	0.46	0.23	0.60
KHDDH337	Tsagan Sudal	0.0	328.0	328.0	0.16	0.28	0.38
including		12.0	48.0	36.0	0.23	0.39	0.53
KHDDH338	Altan Tolgoi	28.0	78.0	50.0	0.33	0.44	0.60
and		86.0	102.0	16.0	0.50	0.68	0.93
and		110.0	268.0	160.0	0.47	0.85	1.00
and		316.0	357.8	41.8	0.30	0.31	0.50
KHDDH340	Tsagan Sudal	0.0	468.9	468.9	0.29	0.32	0.49
Including		164.0	350.0	186.0	0.37	0.53	0.70
Including		202.0	244.0	42.0	0.56	0.72	1.01

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 not been adjusted for metallurgical or refining recoveries and the copper equivalent grades are of an exploration nature only and intended for summarising grade. The copper 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 (CuEq) = Cu% + (Au (ppm) x 0.6284); Price assumptions: Cu (US$3.20lb) and Au (US$1,375oz).

APPENDIX 1: 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 Turquoise Hill and Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 3 February 2014.

1.1 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 and assaying. • 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.	• The resource estimate is based on drill samples only. • Representative 2 metre samples were taken from ½ NQ or HQ) or diamond. • Only assay result results from recognised, independent assay laboratories were used in Resource calculation after QAQC was verified.
Drilling techniques	• Drill type and details.	• DDH drilling has been the primary drilling method.
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.	• DDH core recoveries have been very good, averaging between 97% and 99% for all of the deposits. In localized areas of faulting and/or fracturing the recoveries decrease; however this is a very small percentage of the overall mineralised zones. • Recovery measurements were collected during all DDH programs. The methodology used for measuring recovery is standard industry practice. • Analysis of recovery results vs. grade indicates no significant trends. Indicating bias of grades due to diminished recovery and / or wetness of samples.
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.	• Drill samples are logged for lithology, mineralisation and alteration and geotechnical aspects using a standardised logging system, including the recording of visually estimated volume percentages of major minerals. • Drill core was photographed after being logged by a geologist. • The entire interval drilled has been logged by a geologist.
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.	• DDH Core is cut in half with a diamond saw, following the line marked by the geologist. The rock saw is regularly flushed with fresh water. • Sample intervals are a constant 2m

Criteria	JORC Code Explanation	Commentary
	• 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.	interval down-hole in length. • Routine sample preparation and analyses of DDH samples were carried out by SGS Mongolia LLC (SGS 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 90% passing 3.54 mm, split to 1kg, pulverised to 90% - 95% passing 200 mesh (75 microns) and split to 150g. • Certified reference materials (CRMs), blanks and pulp duplicate were randomly inserted to manage the quality of data • Sample sizes are well in excess of standard industry requirements.
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, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• All samples were routinely assayed by SGS Mongolia for gold, copper, silver, lead, zinc, arsenic and molybdenum. • Au is determined using a 30g 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. • 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). Samples are 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 is over-range (>1% Cu), it is analysed by a second analytical technique (AAS22S), which has a higher upper detection limit (UDL) of 5% copper. • Quality assurance was provided by introduction of known certified standards, blanks and duplicate samples on a routine basis. • 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 QAQC procedures, as well as coarse and pulp blanks, and certified matrix matched

Criteria	JORC Code Explanation	Commentary
		copper--gold standards. • QAQC monitoring is an active and ongoing process on batch by batch basis by which an acceptable results are re-assayed as soon as practicable.
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 the ACESS data base. • The data is managed XAM geologists. • The data base and geological interpretation is collectively managed by XAM.
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.	• All DDH's have been surveyed with a differential global positioning system (DGPS) to within 10cm accuracy. • All DDH's have been down hole surveyed to collect the azimuth and inclination at specific depths. Two principal types of survey method have been used over the duration of the drilling programs including Eastman Kodak and Flexit. • UTM WGS84 48N grid. • The DTM is based on 1 m contours with an accuracy of ±0.01 m.
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.	• Drilling has been completed on nominal north-south sections, commencing at 100m spacing and then closing to 50m for resource estimation. • Vertical spacing of intercepts on the mineralised zones similarly commences at 100m spacing and then closing to 50m for resource estimation. • Drilling has predominantly occurred with angled holes approximately 70° to 60° inclination below the horizontal and either drilling to north or south, depending on the dip of the target mineralised zone. • Holes have been drilled to 1000m vertical depth • The data spacing and distribution is sufficient to establish geological and grade continuity appropriate for the Mineral Resource estimation procedure and has been taken into account in 3D space when determining the classifications to be applied.
Orientation of data in relation to geological	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is	• Drilling has been predominantly completed on north-south section lines along the strike of the known mineralised

Criteria	JORC Code Explanation	Commentary
structure	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.	zones and from either the north or the south depending on the dip. • Vertical to South dipping ore bodies were predominantly drilled to the north. • Scissor Drilling, (drilling from both north and south), as well as vertical drilling, has been used in key mineralised zones to achieve unbiased sampling of possible structures and mineralised zones.
Sample security	• The measures taken to ensure sample security.	• Samples are dispatched from site through via company employees to the Laboratories. • Samples are signed for at the Laboratory with confirmation of receipt emailed through. • 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 on a regular basis, to ensure industry best practice is employed at all times. • External review and audit have been 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 appropriate for use in resource estimation including that required by the NI 43-101 standards. • 2013 - Mining Associates Ltd. was engaged to conduct an Independent Technical Report to review drilling, sampling techniques, QAQC and previous resource estimates. 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 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 licence to operate in the area.	• The Project comprises 1 Mining Licences (MV 17387A). • 100% owned by Oyut Ulaan LLC. THR Oyu Tolgoi Ltd (a wholly owned subsidiary of Turquoise Hill Resources Ltd owns 90% of Oyut Ulaan LLC. The remaining 10% is owned by Quincunx Ltd, which in turn is owned by an incorporated joint venture between Kerry Holdings Ltd. and MCS Holding LLC. • 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 and mineral resource estimation to NI 43-101 standards.
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 Kharmagtai 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	• Diamond drill holes are the principal source of geological and grade data for the Project. • See Table 1 in main report.

Criteria	JORC Code Explanation	Commentary
	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.	
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 cutoff of 0.1% Cu is used for identification of potentially significant intercepts for reporting purposes. • 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 (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. Grades have not been adjusted for metallurgical or refining recoveries and the copper equivalent grades are of an exploration nature only and intended for summarising grade. The copper 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 (CuEq) = Cu% + (Au (ppm) x 0.6284); Price assumptions: Cu (US$3.20lb) and Au (US$1,375oz).
Relationship between mineralization 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	• 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

Criteria	JORC Code Explanation	Commentary
	clear statement to this effect (eg 'down hole length, true width not known').	generally be narrower than those reported. • Resource estimation, as reported later, was done in 3D space.
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 main report.
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.	• Results have been reported at a range of cut-off grades, above a minimum suitable for open pit 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 rl) shows widths and grades potentially suitable for underground extraction. • Exploration on going.