29 March 2017

EXPLORATION SUCCESS CONTINUES AT XANADU'S KHARMAGTAI PROJECT

HIGHLIGHTS

- **Deep drilling at Altan Tolgoi has confirmed significant continuous high-grade mineralisation at depth:**
  - **Drill hole KHDDH394 intersected 646m @ 0.51% Cu & 0.87g/t Au (1.06% CuEq) from 16m, including 64m @ 1.06% Cu & 3.15g/t Au (3.08% CuEq) from 18m;**
  - **Drill hole KHDDH394A intersected 385m @ 0.52% Cu and 0.60g/t Au (0.9% CuEq) from 351m;**
- **The mineralisation identified within the resource shell is better than, or similar, to the current resource estimate;**
- **The high-grade breccia hosted chalcopyrite-gold mineralisation, as identified by the current drilling results, remains open at depth;**
- **Widespread near-surface copper and gold mineralisation has been intersected in the bedrock drilling;**
- **Six potential porphyry clusters have been identified, containing 19 individual porphyry and epithermal targets;**
- **Additional and substantial broad zones of near-surface gold-rich porphyry mineralisation was intersected at Altan Burged:**
  - **Drill hole KHDDH401 intersected 20m @ 1.73g/t Au & 0.18% Cu from 39m.**

Xanadu Mines Ltd (**ASX: XAM – "Xanadu"** or **"Company"**) is pleased to provide an update on the ongoing exploration activities at its flagship Kharmagtai project (Figure 1), where drilling is targeting the discovery of additional near-surface porphyry copper-gold deposits undercover and testing the continuity of mineralisation below the current resources within this largely under-explored porphyry copper-gold district.

Xanadu's Managing Director and Chief Executive Officer, Dr Andrew Stewart, said *"The intersection of high-grade breccia mineralisation at depth demonstrates the potential size and scale of the Kharmagtai mineralised system. We are yet to define the extents of the Altan Tolgoi porphyry system, and further drilling is planned below the zone of breccia hosted chalcopyrite-gold mineralisation to test whether a higher-grade bornite core is in the root zones of this large breccia system. High-grade mineralisation may be manifested as bornite-gold-cemented breccia or as bornite-gold stockwork mineralisation in the causative intrusive complex at Kharmagtai."*

TOURMALINE BRECCIA MINERALISATION

Multiple drill holes confirm the significant depth extension of the Altan Tolgoi copper-gold deposit at Kharmagtai. Drill hole KHDDH394 successfully identified a mineralised intersection of **646m grading 0.51% Cu & 0.87g/t Au (1.06% CuEq) from 16m, including 64m @ 1.06% Cu & 3.15g/t Au (3.08% CuEq) from 18m** (Figure 2), which confirms mineralisation extends from surface to almost 625 metres vertically. This represents the best intersection so far drilled at the Kharmagtai project. The hole crossed through the Altan Tolgoi Fault and out of high-grade tourmaline breccia mineralisation at 752m (Figure 2). Drill hole KHDDH394A was a wedge from KHDDH394 at a depth 351m and intersected **385m @ 0.52% Cu and 0.60g/t Au (0.9% CuEq) from 351m**. The hole remained in strong alteration and weak mineralisation to a depth of approximately 1,200 metres.

Mineralisation consistent with or better than the resource estimate was intersected in the two new drill holes (Table 1 and 2; Figure 2 and Figure 3). These results add further confidence to the geological interpretation, mineralisation controls, and resource classification.

The Kharmagtai tourmaline breccia complex is zoned vertically, from barren or weakly mineralised tourmaline breccia near-surface to chalcopyrite and chalcopyrite-gold cemented breccia at increasing depths. Geological observations indicate high-grade part of the tourmaline breccia has been offset 50-100m and KHDDH394A was drilled through the outer edge of the high-grade tourmaline breccia mineralisation, representing a near miss. Structural data from both these holes is currently being analysed and further drilling is being planned to locate the off-set mineralisation. Deeper drilling is planned below the zone of breccia hosted chalcopyrite-gold mineralisation to test whether a high grade bornite core is in the root zones of the breccia. High grade mineralisation may be manifested as bornite-gold-cemented breccia or as bornite-gold stockwork mineralisation in the causative intrusive complex.

The large areas of barren tourmaline breccia that crop out to the east of Altan Tolgoi are yet to be drill-tested. If they are mineralised at depth, then a significant increase in the resource potential of the district is predicted.

Gold-rich porphyry copper deposits such as Kharmagtai are characterised as being vertically extensive, with analogous deposits such as Wafi Goldpu and Cascabel extending to depths greater than 2 kilometres. Historical drilling at Kharmagtai is limited to the upper 400 metres (Figure 4).

TOP OF BASEMENT DRILLING

Final assays have now been received from an undercover bedrock drilling program over the Kharmagtai district (refer Xanadu's ASX announcement - 22 December 2016). Six potential porphyry clusters have been identified containing 19 porphyry and epithermal targets (Figure 5). Currently two undercover targets are being drilled. Target 4 represents a copper-gold porphyry target within the same cluster of anomalies as Altan Burged (Figure 5). One hole has been drilled into Target 4 and has intersected high-density porphyry veining and alteration at the top of basement. Target 3 also represents a copper gold porphyry target and lies halfway between Altan Burged and Altan Tolgoi (Figure 5). Drilling into Target 3 has also encountered high density porphyry veining and alteration from the top of basement. Assays will be available for both these holes within the next few weeks.

ALTAN BURGED

Drilling has continued to define the size and shape of the newly discovered Altan Burged porphyry centre. Seven diamond drill holes have been completed, for approximately 1,846 metres (Figure 6). These holes define a very large scale porphyry system, approximately 250 by 150 metres wide, with a high gold to copper ratio (4:1). Mineralisation is currently open at depth, to the north, west and south. A best intercept of **20m @ 1.73g/t Au and 0.18% Cu from 39m, including 16m @ 2g/t Au from 41m** (Figure 7 and 8) associated with uni-directional solidification textures (USTs) and veining within the porphyry suggests potential exists for a reasonable sized mineralising system and the high-grade gold cap extends to the south. These textures occur at the top and sides of porphyry systems indicating that all the drilling to date has been conducted at the margins of the system. The higher-grade sulphide mineralisation would be expected within the centre of the system rather than on the edges and work is being conducted to vector to this higher-grade centre.

OYUT ULAAN

Targeting work continues at Oyut Ulaan and drilling is planned to commence in the second week of April targeting both gold-rich copper porphyry deposits and near surface high-grade epithermal gold.

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”. Dr Stewart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Kharmagtai Mineral Resource estimate: The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not materially changed from the original market announcement.

METAL EQUIVALENT CALCULATIONS

The copper equivalent (CuEq) and gold equivalent (AuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage or gold grams per tonne. Grades have been adjusted for metallurgical recoveries of 90% for copper and 78.72 % for gold, but not for refining recoveries and equivalent grades are intended for summarising grade only. The equivalent calculation is intended as an indicative value only. The following equivalent conversion factors and long term price assumptions have been adopted: Copper Equivalent Formula (CuEq) = Cu% + (Au (ppm) x 0.6378) Gold Equivalent Formula (AuEq) = Au ppm + (Cu % / 0.6378). Based on a copper price of $2.60/lb and a gold price of $1,300/oz.

For further information, please contact:

Dr Andrew Stewart
Managing Director & Chief Executive Officer
T: +612 8280 7497
M: +976 9999 9211
andrew.stewart@xanadumines.com

www.xanadumines.com

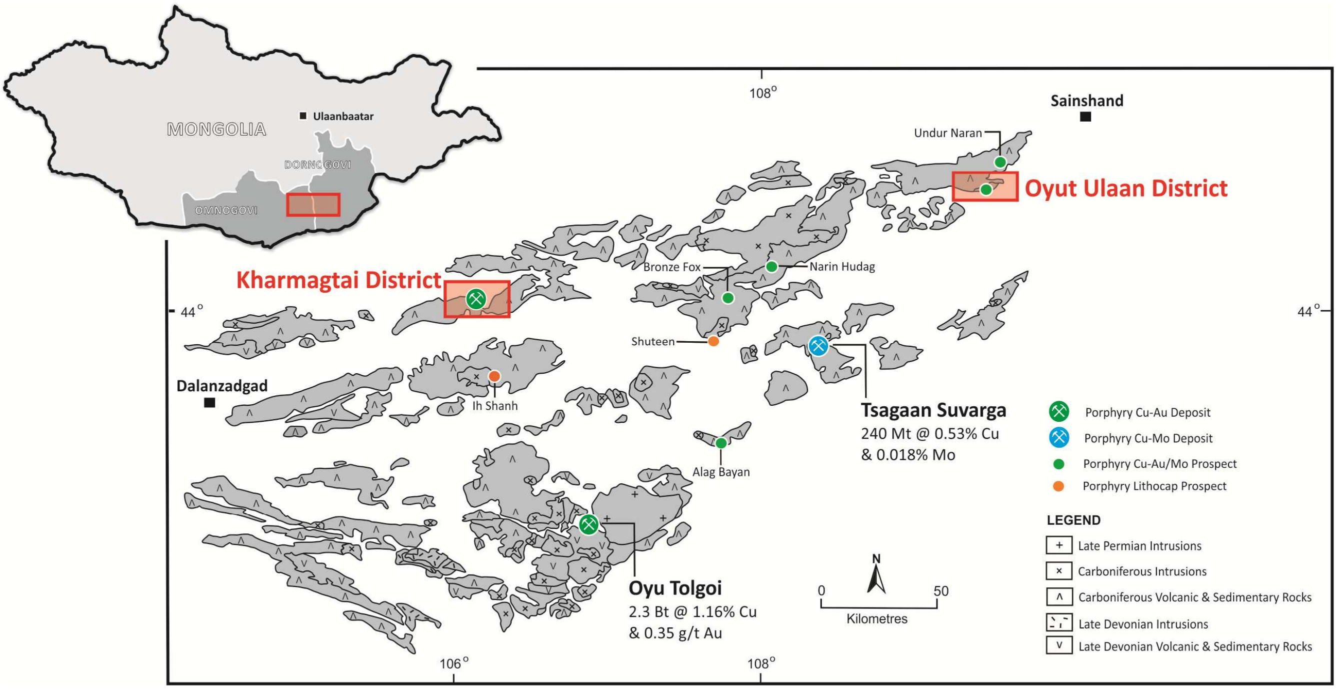

FIGURE 1: Location of the Kharmagtai Project, in the South Gobi porphyry copper belt.

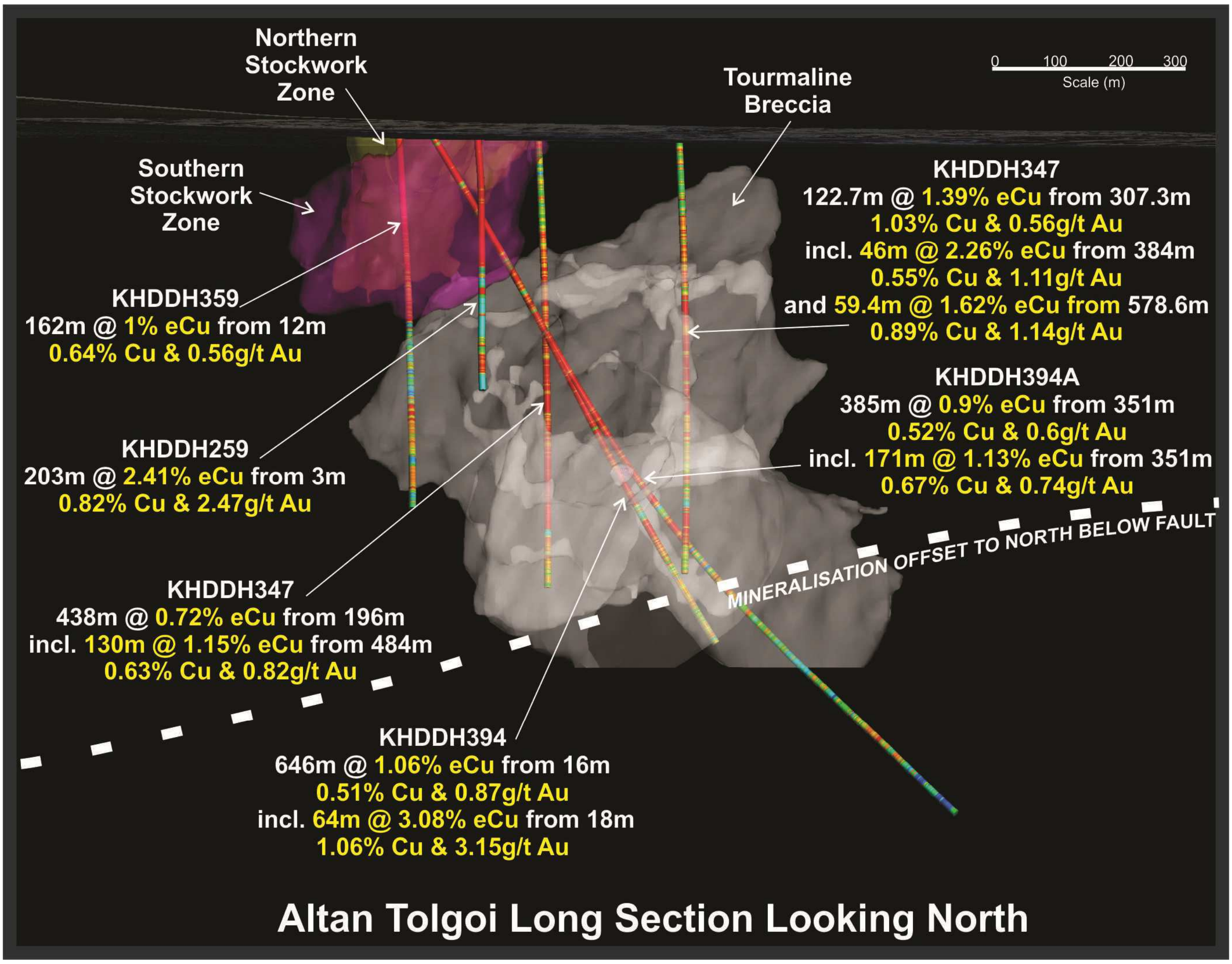

FIGURE 2: Long section through Altan Tolgoi showing selected previous results and KHDDH394/394A.

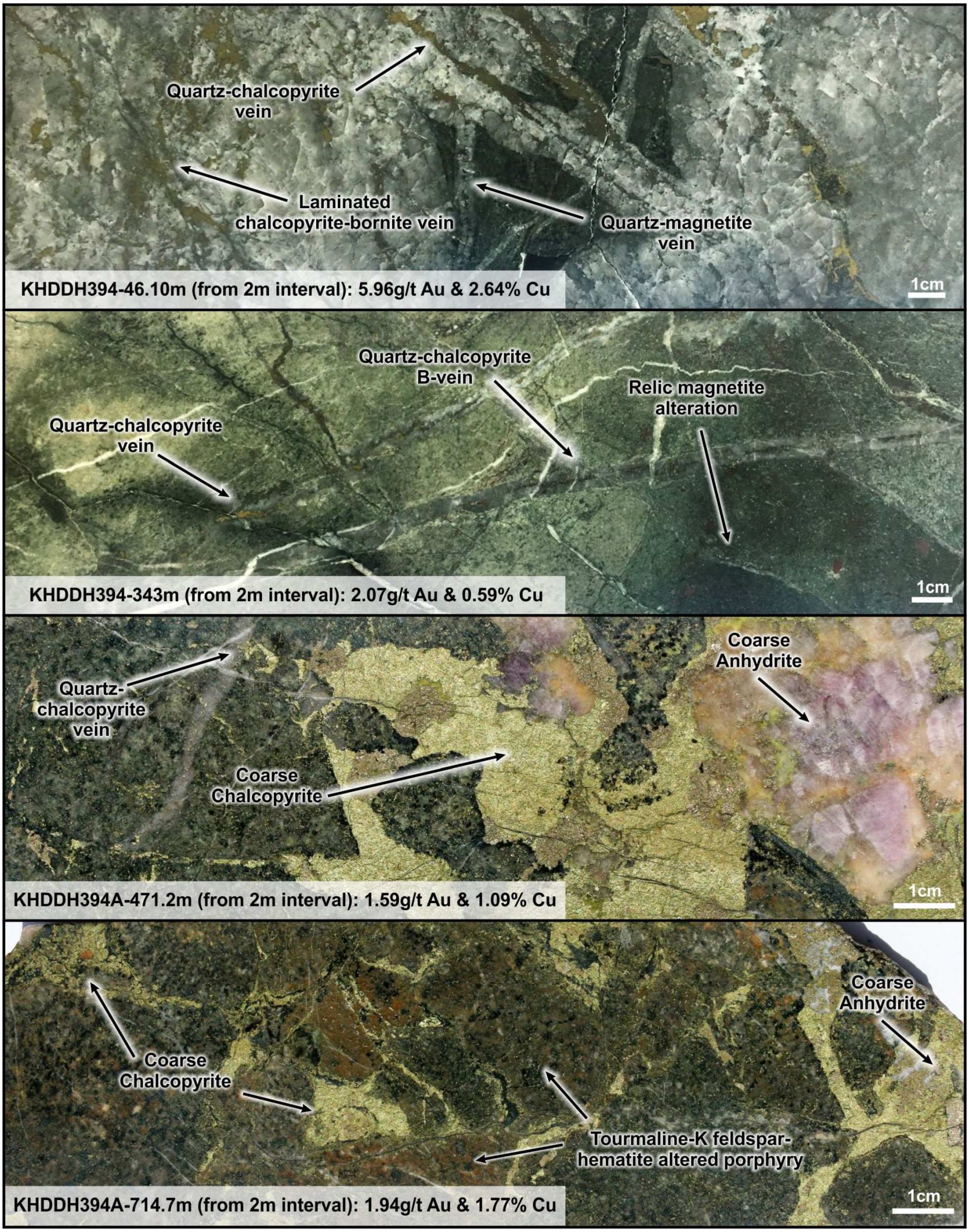

FIGURE 3: Tourmaline breccia mineralisation from KHDDH394 and KHDDH394A.

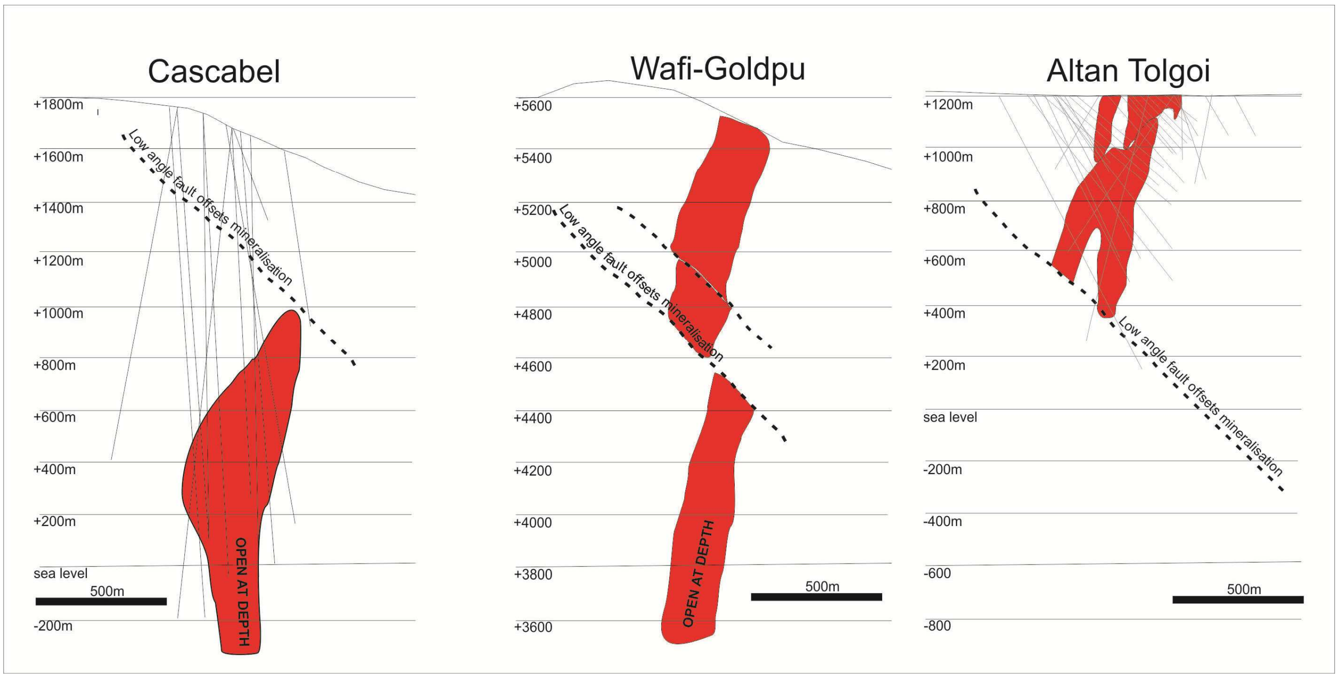

FIGURE 4: Comparison showing depth of drilling at various porphyry deposits across the world. Gold-rich porphyry copper deposits are characterised by significant depth extents. At the Alpala (Cascabel Project) porphyry higher grade mineralisation starts at approximately 600m from surface and extends beyond 1,600m in depth. Mineralisation at the Wafi-Golpu porphyry extends from surface to greater than 2km in depth. At Altan Tolgoi, only the shallowest 600-700m of mineralisation has been drilled. Recent drilling has been conducted to help determine the location of the tourmaline breccia body offset by the Kharmagtai Fault Zone. Figure adapted from Sol Gold corporate presentation dated 17 February 2017 and Newcrest corporate presentation to Adapting to Exploration in the 21st Century dated 27 June 2016.

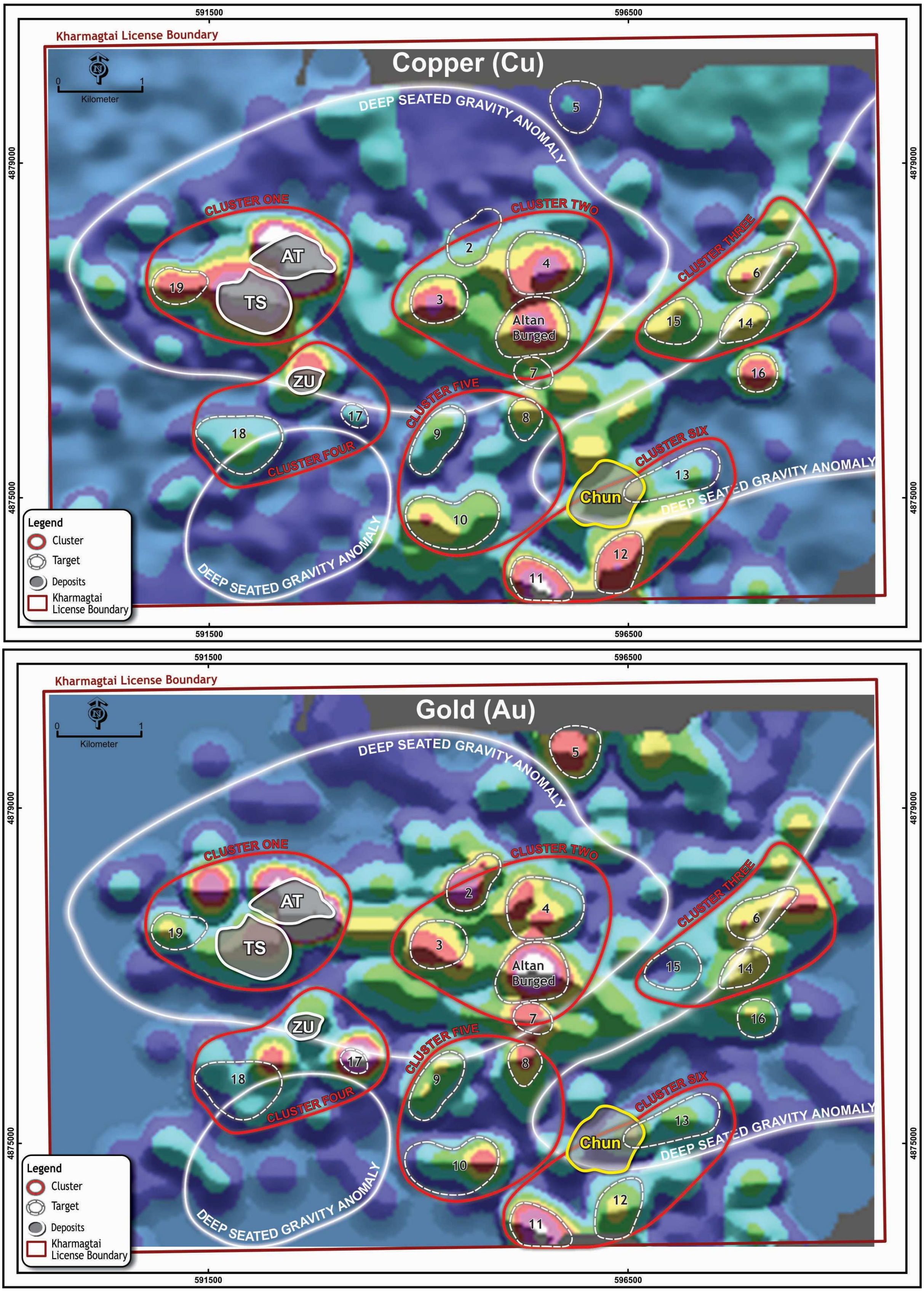

FIGURE 5: Copper and gold geochemistry in covered areas and rock-chip data in outcropping areas (data has been levelled to ensure a valid comparison between sample types). The copper geochemistry (top) defines six clusters of anomalism that are interpreted to represent clusters of porphyry system. Gold geochemistry (bottom) corroborates this interpretation.

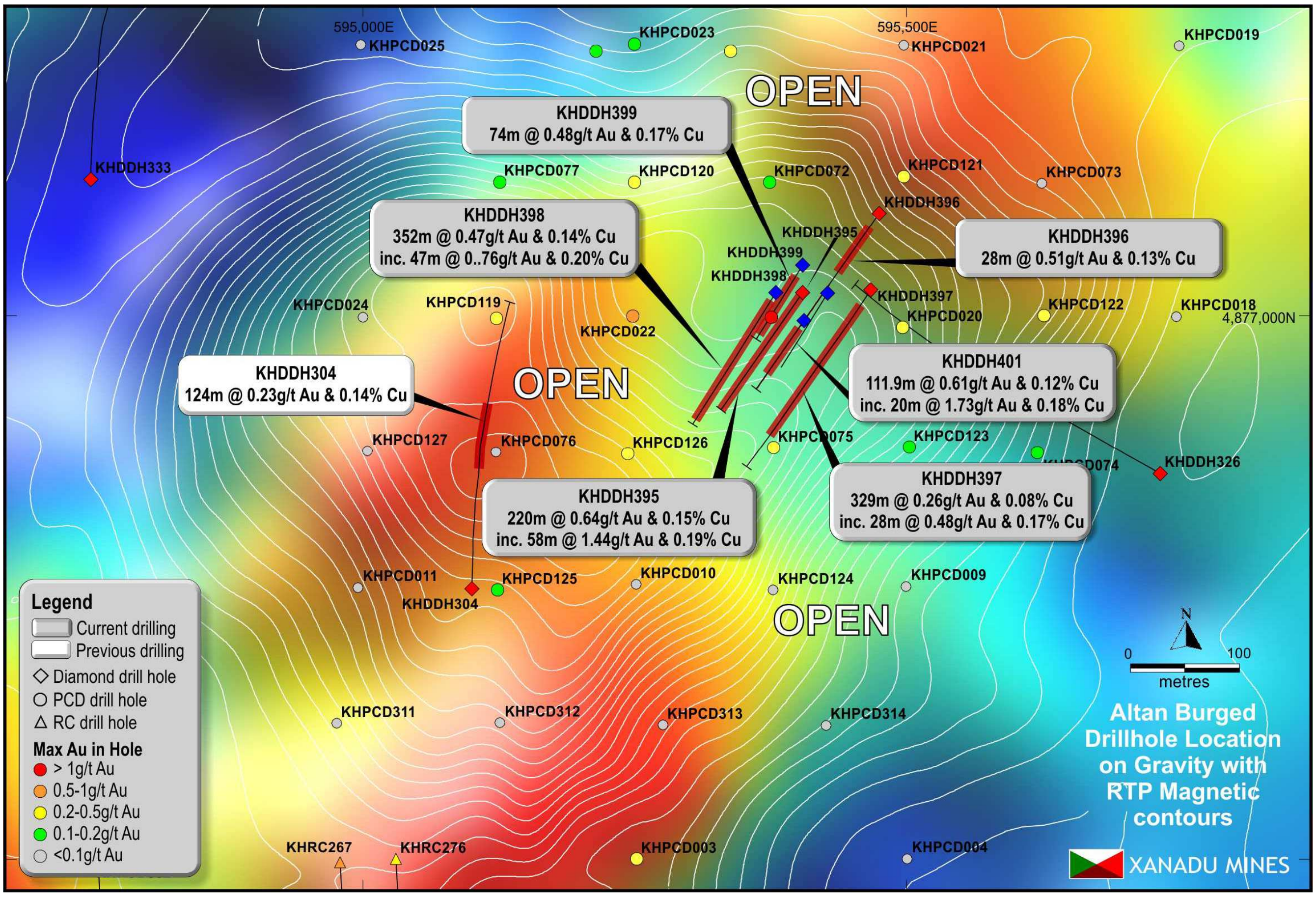

FIGURE 6: Recent Altan Burged drilling over gravity and magnetics contours.

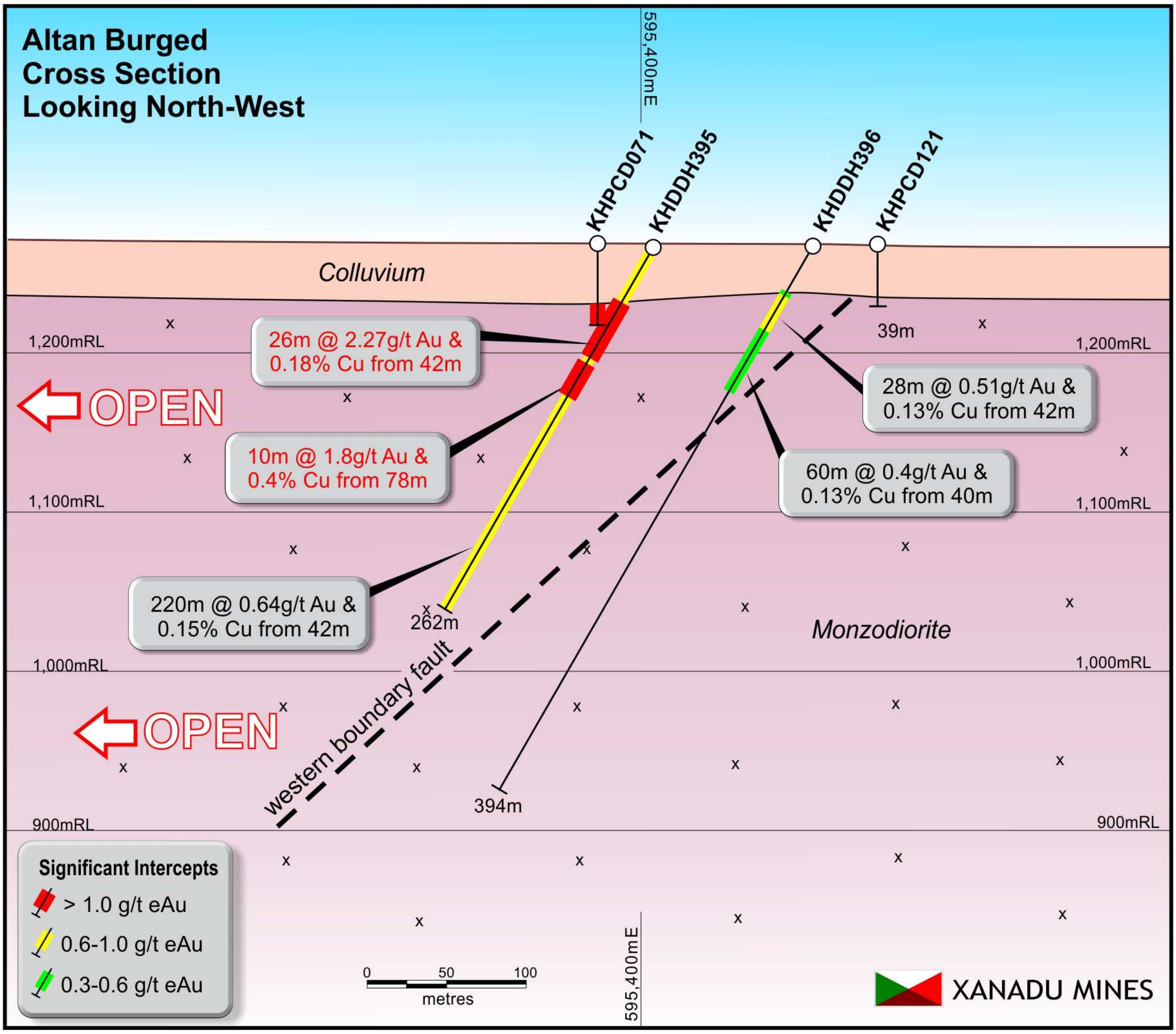

FIGURE 7: Cross section through new porphyry Altan Burged showing drill holes KHDDH395 and KHDDH396 with assay intercepts.

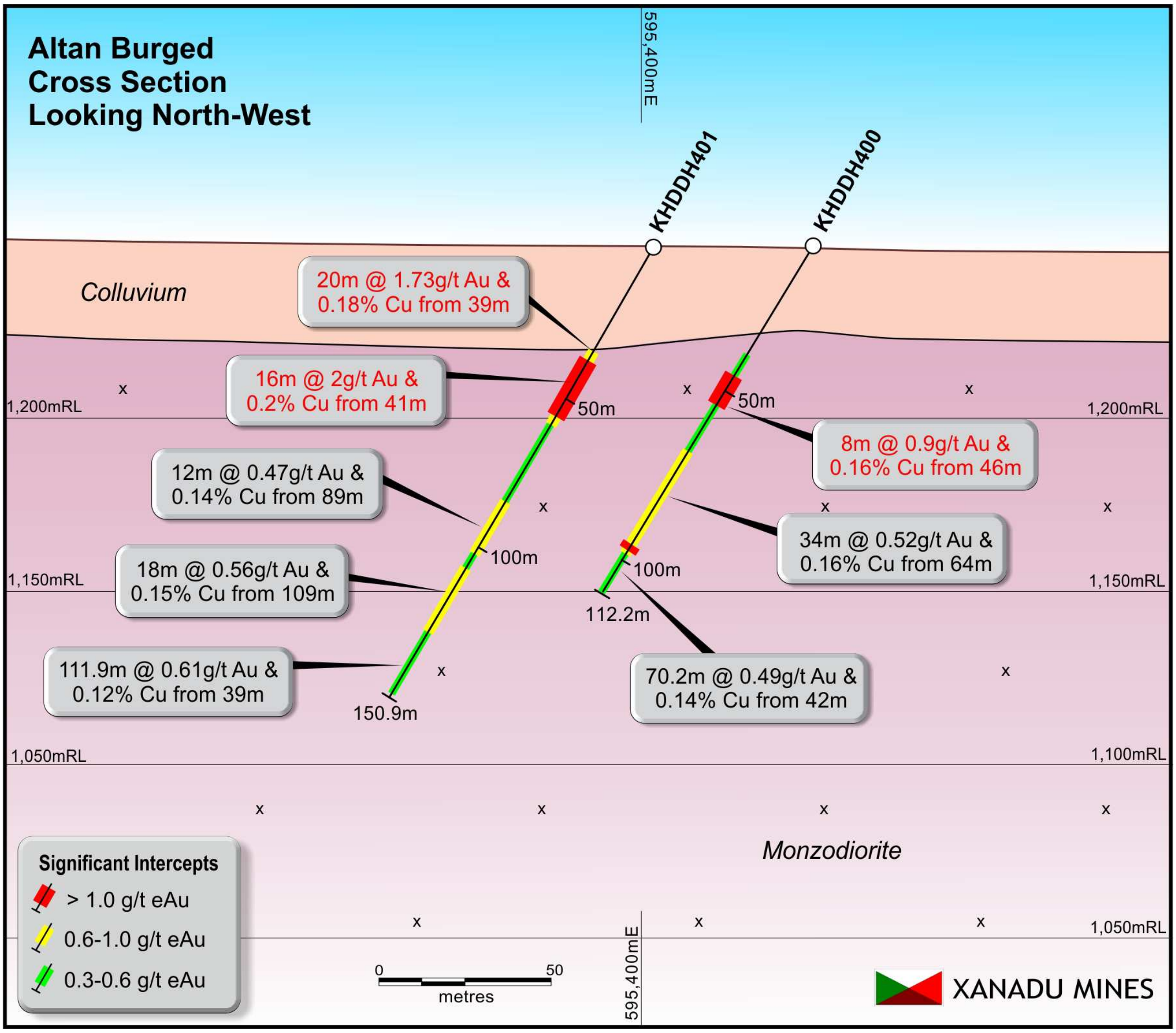

FIGURE 8: Cross Section KHDDH400-KHDDH401. Looking Northwest.

TABLE 1: Collar Location.

Hole ID	Prospect	East	North	RL	Azi (^{0})	Dip	Drilled Depth (m)
KHDDH394	Altan Tolgoi	592460	4877833	1288	100	-59	898.0
KHDDH394a	Altan Tolgoi	592924	4877790	1282	100	-59	1358.1
KHDDH395	Altan Burged	595405	4877021	1266	220	-60	262.0
KHDDH396	Altan Burged	595475	4877094	1267	220	-60	394.0
KHDDH397	Altan Burged	595467	4877024	1266	215	-60	370.0
KHDDH398	Altan Burged	595380	4877021	1266	216	-60	397.0
KHDDH399	Altan Burged	595405	4877046	1266	216	-60	160.0
KHDDH400	Altan Burged	595430	4877021	1265	216	-60	112.2
KHDDH401	Altan Burged	595404	4876997	1265	216	-60	150.9
KHPCD009	Altan Burged	595500	4876751	1270	0	-90	35.6
KHPCD010	Altan Burged	595251	4876753	1270	0	-90	32.4
KHPCD011	Altan Burged	594995	4876750	1273	0	-90	27.8
KHPCD018	Altan Burged	595748	4876999	1268	0	-90	43.0
KHPCD019	Altan Burged	595751	4877248	1268	0	-90	38.8
KHPCD020	Altan Burged	595496	4876989	1269	0	-90	43.0
KHPCD021	Altan Burged	595497	4877249	1267	0	-90	30.5
KHPCD022	Altan Burged	595248	4877000	1268	0	-90	32.8
KHPCD023	Altan Burged	595250	4877250	1267	0	-90	30.3
KHPCD024	Altan Burged	595000	4876999	1271	0	-90	33.5
KHPCD025	Altan Burged	594998	4877249	1267	0	-90	28.4
KHPCD071	Altan Burged	595376	4876999	1268	0	-90	51.0
KHPCD072	Altan Burged	595374	4877123	1268	0	-90	38.2
KHPCD073	Altan Burged	595624	4877122	1267	0	-90	37.2
KHPCD074	Altan Burged	595620	4876874	1268	0	-90	61.8
KHPCD075	Altan Burged	595378	4876879	1269	0	-90	38.4
KHPCD076	Altan Burged	595122	4876875	1270	0	-90	33.5
KHPCD077	Altan Burged	595126	4877123	1268	0	-90	38.0
KHPCD119	Altan Burged	595123	4876997	1269	0	-90	37.9
KHPCD120	Altan Burged	595250	4877123	1267	0	-90	36.0
KHPCD121	Altan Burged	595497	4877128	1268	0	-90	39.0
KHPCD122	Altan Burged	595626	4877000	1267	0	-90	40.7
KHPCD123	Altan Burged	595503	4876879	1269	0	-90	43.0
KHPCD124	Altan Burged	595377	4876748	1270	0	-90	39.2
KHPCD125	Altan Burged	595123	4876748	1271	0	-90	36.0
KHPCD126	Altan Burged	595244	4876873	1269	0	-90	38.8
KHPCD127	Altan Burged	595004	4876876	1272	0	-90	32.0
KHPCD311	Altan Burged	594976	4876625	1271	0	-90	30.0
KHPCD312	Altan Burged	595126	4876625	1267	0	-90	32.0
KHPCD313	Altan Burged	595276	4876623	1262	0	-90	29.0
KHPCD314	Altan Burged	595426	4876623	1263	0	-90	36.0

Hole ID	Prospect	East	North	RL	Azi (⁰)	Dip	Drilled Depth (m)
KHPCD318	Altan Burged	595313	4877057	1267	0	-90	46.0
KHPCD319	Altan Burged	595307	4876931	1266	0	-90	46.0
KHPCD320	Altan Burged	595431	4876929	1265	0	-90	50.0
KHPCD321	Altan Burged	595425	4877184	1267	0	-90	45.5
KHPCD322	Altan Burged	595305	4877185	1268	0	-90	42.1
KHPCD323	Altan Burged	595568	4877053	1265	0	-90	46.0

TABLE 2: Altan Tolgoi significant intercepts.

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)
KHDDH394	Altan Tolgoi	16	662	646	0.51	0.87	1.06
including		18	82	64	1.06	3.15	3.08
including		94	132	38	0.49	1.46	1.42
including		330	378	48	0.54	1.01	1.19
including		400	494	94	0.74	0.75	1.22
including		508	550	42	0.46	1.04	1.12
and		676	750	74	0.36	0.5	0.68
including		678	706	28	0.61	1.04	1.28
and		754	836	82	0.13	0.08	0.18
and		860	888	28	0.13	0.1	0.19
KHDDH394A	Altan Tolgoi	351	736	385	0.52	0.60	0.90
including		351	576	225	0.61	0.73	1.07
including		351	522	171	0.67	0.74	1.13
including		354	392	38	0.71	0.95	1.32
including		366	382	16	0.98	1.84	2.15
including		398	426	28	0.74	0.21	0.87
including		404	414	10	1.14	0.30	1.33
including		428	494	66	0.7	1.01	1.35
including		430	448	18	0.81	0.86	0.36
including		450	476	26	0.79	1.52	1.76
including		496	522	26	0.49	0.65	0.90
including		527.3	558	30.7	0.5	0.94	1.10
including		578	642	64	0.46	0.44	0.74
including		592	618	26	0.52	0.50	0.84
including		620	642	22	0.42	0.42	0.69
including		648	670	22	0.54	0.61	0.93
and		648	660	12	0.7	0.72	1.15
and		690	755.6	65.6	0.41	0.47	0.71
including		692	736	44	0.53	0.64	0.94
including		704	724	20	0.83	1.10	1.53
including		712	722	10	1.13	1.35	1.99

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)
and		815.2	817.7	2.5	0.86	11.00	7.88
and		848.9	849.2	0.3	0.66	9.63	6.80
and		1238	1240	2	0.07	4.45	2.91

TABLE 3: Altan Burged significant intercepts.

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	AuEq (%)
KHDDH395	Altan Burged	42	262	220	0.64	0.15	0.88
including		42	100	58	1.44	0.19	1.77
including		42	68	26	2.26	0.18	2.55
including		78	88	10	1.8	0.40	2.44
including		112	144	32	0.45	0.14	0.66
including		192	206	14	0.55	0.17	0.82
KHDDH396	Altan Burged	37.6	394	356.4	0.16	0.08	0.29
including		40	100	60	0.4	0.13	0.60
including		42	70	28	0.51	0.13	0.72
including		50	54	4	0.84	0.20	1.15
including		82	92	10	0.48	0.16	0.74
including		90	92	2	0.91	0.19	0.91
including		350	356	6	0.81	0.07	0.91
including		352	354	2	1.91	541.00	1.99
KHDDH397	Altan Burged	41	370	329	0.26	0.13	0.46
including		43	211	168	0.35	0.14	0.57
including		45	57	12	0.49	0.19	0.73
including		69	103	34	0.41	0.15	0.64
including		133	161	28	0.48	0.17	0.74
including		155	157	2	0.77	0.19	1.07
including		219	247	28	0.28	0.14	0.5
including		227	237	10	0.43	0.17	0.70
including		273	309	36	0.26	0.13	0.46
including		275	283	8	0.45	0.21	0.78
including		277	279	2	0.72	0.32	1.23
KHDDH398	Altan Burged	45	397	352	0.47	0.14	0.52
including		51	77	26	0.24	0.09	0.38
including		101	360	259	0.37	0.15	0.61
including		111	119	8	0.38	0.16	0.62
including		125	172	47	0.76	0.20	1.05
including		131	136	5	2.02	0.48	2.77
including		140	152	12	0.76	0.17	1.02
including		214	238	24	0.44	0.16	0.70
including		338	359	21	0.66	0.24	1.15
including		340	348	8	0.63	0.26	1.05

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	AuEq (%)
including		354	359	5	0.83	0.25	1.60
including		374	380	6	0.46	0.17	0.73
including		374	394	20	0.25	0.12	0.42
KHDDH399	Altan Burged	41	160	119	0.41	0.16	0.66
including		41	115	74	0.48	0.17	0.75
including		45	47	2	0.70	0.21	1.04
including		51	57	6	0.84	0.19	1.14
including		63	65	2	0.91	0.20	1.24
including		123	131	8	0.52	0.13	0.72
including		155	159	4	0.49	0.30	0.95
including		157	159	2	0.56	0.42	1.22
KHDDH400	Altan Burged	36	112	76	0.46	0.14	0.68
including		42	112	70	0.49	0.14	0.72
including		46	54	8	0.90	0.16	1.15
including		64	98	34	0.52	0.16	0.78
including		94	96	2	4512.00	94.00	1.20
KHDDH401	Altan Burged	39	151	112	0.61	0.12	0.8
including		39	59	20	1.73	0.18	2.00
including		41	57	16	2.00	0.20	2.32
including		71	75	4	0.87	0.13	1.07
including		89	101	12	0.47	0.14	0.70
including		109	127	18	0.56	0.15	0.80

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 Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 31 January 2017.

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

Criteria	JORC Code (Section 1) 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.	• Representative 2 metre samples were taken from ½ HQ diamond core. • Only assay result results from recognised, independent assay laboratories were used after QAQC was verified.
Drilling techniques	• Drill type and details.	• DDH drilling has been the primary drilling method in basement. Basin rocks were drilled with rotary mud. Samples only come from DDH drilling.
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 95% and 99% for all of the deposits. In localised 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 and trench 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 and trenched 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. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	• 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 interval down-hole in length. • 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

Criteria	JORC Code (Section 1) Explanation	Commentary
	• 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.	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 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 submitted to ALS Perth for the Complete characterization package for whole rock package ME-ICP06 plus carbon and sulfur by combustion furnace (ME-IR08) to quantify the major elements in a sample. Trace elements including the full rare earth element suites are reported from three digestions with either ICP-AES or ICP-MS finish: a lithium borate fusion for the resistive elements (ME-MS81), a four acid digestion for the base metals (ME-4ACD81) and an aqua regia digestion for the volatile gold related trace elements (ME-MS42).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

Criteria	JORC Code (Section 1) Explanation	Commentary
		a part of QAQC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-gold standards. • QAQC monitoring is an active and ongoing processes on batch by batch basis by which unacceptable 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 Geobank data base. • The data is managed by XAM geologists. • The database 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.	• Diamond drill holes have been surveyed with a differential global positioning system (DGPS) to within 10cm accuracy. • All diamond drill holes 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 1m contours with an accuracy of ±0.01m.
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 were drilled on an initial 250m grid which has been infilled to 125m where needed. • Holes are vertical. • The data spacing and distribution is sufficient to establish anomalism and targeting for both porphyry, tourmaline breccia and epithermal target types.
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.
Sample security	• The measures taken to ensure sample security.	• Samples are dispatched from site through via company employees and secure company vehicles 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.

Criteria	JORC Code (Section 1) Explanation	Commentary
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.

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 licence to operate in the area.	• The Project comprises 1 Mining Licence (MV 17387A). • 100% owned by Oyut Ulaan LLC. • Xanadu and its joint venture partner, Mongol Metals can earn a 90% interest in the Kharmagtai porphyry copper-gold project. 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:	• Diamond drill holes are the principal source of geological and grade data for the Project. • See figures in main report.

Criteria	JORC Code (Section 2) Explanation	Commentary
	– 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.	
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 Altan Burged 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 6m for 0.1 and 0.3 intervals. 4m maximum dilution is used for 0.6% intervals and 2m for 1% eCu or 1 g/t eAu • 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). • Metal equivalents used the following formula: CuEq = Cu% + (Au g/t x 0.6378) AuEq = Au g/t + (Cu% / 0.6378) Formula is based on a \$2.60/lb copper price and a \$1,300/oz gold price. A gold recovery factor of 78.72% was used.
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	• 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

Criteria	JORC Code (Section 2) Explanation	Commentary
	lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	tables of significant economic intercepts. Tables clearly indicate that true widths will generally be narrower than those reported.
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.	• 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	• 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.

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

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code (Section 3) Explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• The database is a Geobank data base system. • Data is logged directly into an Excel spread sheet logging system with drop down field lists. • Validation checks are written into the importing program ensures all data is of high quality. • Digital assay data is obtained from the Laboratory, QAQC checked and imported • Geobank exported to Access, and connected directly to the GemcomSurpac Software.

Criteria	JORC Code (Section 3) Explanation	Commentary
		• Data was validated prior to resource estimation by the reporting of basic statistics for each of the grade fields, including examination of maximum values, and visual checks of drill traces and grades on sections and plans.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• Andrew Vigar of Mining Associates visited site from 24 and 25 October 2014. • The site visit included a field review of the exploration area, an inspection of core, sample cutting and logging procedures and discussions of geology and mineralisation with exploration geologists.
Geological interpretation	• Confidence in (or conversely, the uncertainty of the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Mineralisation resulted in the formation of comprises quartz-chalcopyrite-pyrite-magnetite stockwork veins and minor breccias. • The principle ore minerals of economic interest are chalcopyrite, bornite and gold, which occur primarily as infill within these veins. Gold is intergrown with chalcopyrite and bornite. • The ore mineralised zones at Altan Tolgoi, Tsagaan Sudal and Zesen Uul are associated with a core of quartz veins that were intensely developed in and the quartz diorite intrusive stocks and/or dykes rocks. These vein arrays can be described as stockwork, but the veins have strong developed preferred orientations. • Sulphide mineralisation is zoned from a bornite-rich core that zone outwards to chalcopyrite-rich and then outer pyritic haloes, with gold closely associated with bornite. • Drilling indicates that the supergene profile has been oxidised to depths up to 60 metres below the surface. The oxide zone comprises fracture controlled copper and iron oxides; however there is no obvious depletion or enrichment of gold in the oxide zone.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• Altan Tolgoi comprises two main mineralised zones, northern and southern stockwork zones (AT-N and AT-S) which are approximately 100 metres apart and hosted in diorite and quartz diorite porphyries. The AT-S is at least 550 metres long, 600 metres deep and contains strong quartz-chalcopyrite-pyrite stockwork veining and associated high grade copper-gold mineralisation. The stockwork zone widens eastward from a 20 to 70 metres wide high-grade zone in the western and central sections to a 200 metres wide medium-

Criteria	JORC Code (Section 3) Explanation	Commentary
		grade zone in the eastern most sections. Mineralisation remains open at depth and along strike to the east. • The AT-N consists of a broad halo of quartz that is 250 metres long, 150 metres wide long and at least 350 metres deep. • TS consists of a broad halo of quartz veins that is 850 metres long, 550 metres wide long and at least 500 metres deep, and forms a pipe like geometry. • ZU forms a sub vertical body of stockwork approximately 350 × 100 metres by at least 200 metres and plunges to the southeast.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• The estimate Estimation Performed using Ordinary Kriging. • Variograms are reasonable along strike. • Minimum & Maximum Informing samples is 5 and 20 (1st pass), Second pass is 3 and 20. • Copper and Gold Interpreted separately on NS sections and estimated as separate domains. • Halo mineralisation defined as 0.12% Cu and 0.12g/t Au Grade. • The mineralised domains were manually digitised on cross sections defining mineralisation. Three dimensional grade shells (wireframes) for each of the metals to be estimated were created from the sectional interpretation. Construction of the grade shells took into account prominent lithological and structural features. For copper, grade shells were constructed for each deposit at a cut-off of 0.12% and 0.3% Cu. For gold, wireframes were constructed at a threshold of 0.12g/t and 0.3 g/t. These grade shells took into account known gross geological controls in addition to broadly adhering to the above mentioned thresholds. • Cut off grades applied are copper-equivalent (CuEq) cut off values of 0.3% for appropriate for a large bulk mining open pit and 0.5% for bulk block caving underground. • A set of plans and cross-sections that displayed colour-coded drill holes were plotted and inspected to ensure the proper assignment of domains to drill holes. • The faulting interpreted to have had considerable movement, for this reason, the fault surface were used to define two separate structural domains for grade estimation. • Six metre down-hole composites were

Criteria	JORC Code (Section 3) Explanation	Commentary
		chosen for statistical analysis and grade estimation of Cu and Au. Compositing was carried out downhole within the defined mineralisation halos. Composite files for individual domains were created by selecting those samples within domain wireframes, using a fix length and 50% minimum composite length. • A total of 4,428 measurements for specific gravity are recorded in the database, all of which were determined by the water immersion method. The average density of all samples is 2.74 t/m3. In detail there are some differences in density between different rock types, but since the model does not include geological domains a single pass ID2 interpolation was applied. • Primary grade interpolation for the two metals was by ordinary kriging of capped 6m composites. A two-pass search approach was used, whereby a cell failing to receive a grade estimate in a previous pass would be resubmitted in a subsequent and larger search pass. • The Mineral Resource estimate meets the requirements of JORC 2012 and has been reported considering geological characteristics, grade and quantity, prospects for eventual economic extraction and location and extents. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories using relevant copper-equivalent cut-off values; CuEq = Cu% x(Aug/t x 0.6378 Formula is based on a $2.60/lb copper price and a $1,300/oz gold price. A gold recovery factor of 78.72% was used.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• All tonnages are reported on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• Cut off grades applied are copper-equivalent (CuEq) cut off values of 0.3% for possible open pit and 0.5% for underground.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining	• No mining factors have been applied to the in situ grade estimates for mining dilution or loss as a result of the grade control or mining process. • The deposit is amenable to large scale bulk mining. • The Mineral resource is reported above an optimised pit shell. (Lerch Grossman algorithm), mineralisation below the pit

Criteria	JORC Code (Section 3) Explanation	Commentary
	methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	shell is reported at a higher cut-off to reflect the increased costs associated with block cave underground mining
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical factors have been applied to the in situ grade estimates.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• An environmental baseline study was completed in 2003 by Eco Trade Co. Ltd. of Mongolia in cooperation with Sustainability Pty Ltd of Australia. The baseline study report was produced to meet the requirements for screening under the Mongolian Environmental Impact Assessment (EIA) Procedures administered by the Mongolian Ministry for Nature and Environment (MNE).
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• A total of 4,428 measurements for specific gravity are recorded in the database, all of which were determined by the water immersion method. • The average density of all samples is approximately 2.74 t/m3. In detail there are some differences in density between different rock types, but since the model does not include geological domains a single estimation pass (ID2) was applied to a density attribute. • There is no material impact on global tonnages, but it should be noted that density is a function of both lithology and alteration (where intense magnetite/sulphide is present).
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative	• The mineral resource classification protocols, for drilling and sampling, sample preparation and analysis, geological logging, database construction, interpolation, and estimation parameters

Criteria	JORC Code (Section 3) Explanation	Commentary
	confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	are described in the Main Report have been used to classify the 2015 resource. • The Mineral Resource statement relates to global estimates of in situ tonnes and grade • The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. The classifications reflect the competent person's view of the Kharmagtai Copper Gold Project.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• XAM's internal review and audit of the Mineral Resource Estimate consisted of data analysis and geological interpretation of individual cross-sections, comparing drill-hole data with the resource estimate block model. • Good correlation of geological and grade boundaries were observed • 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.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• An approach to the resource classification was used which combined both confidence in geological continuity (domain wireframes) and statistical analysis. The level of accuracy and risk is therefore reflected in the allocation of the measured, indicated and inferred resource categories. • Resource categories were constrained by geological understanding, data density and quality, and estimation parameters. It is expected that further work will extend this considerably. • Resources estimates have been made on a global basis and relates to in situ grades. • Confidence in the Indicated resource is sufficient to allow application of Modifying Factors within a technical and economic study. The confidence in Inferred Mineral Resources is not sufficient to allow the results of the application of technical and economic parameters. • The deposits are not currently being mined. • There is surface evidence of historic artisanal workings. • No production data is available.

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.