28 July 2017

QUARTERLY ACTIVITIES REPORT

FOR THE QUARTER ENDED 30 JUNE 2017

HIGHLIGHTS

Modelling confirms large-scale potential at Kharmagtai Project

- New predictive 3D-modelling validates many large-scale porphyry targets
- Strong bedrock copper & gold results delineate more high-priority porphyry targets
- Modelling and geochemistry indicate a 6-km-long strike potential for mineralisation
- Assay results pending from five RC and two deeper DD holes with all holes encountering significant alteration zones over wide intervals
- Exploration drilling to be accelerated with three drill rigs.

Strong drill results across the district at Oyut Ulaan Project

- Significant gold and copper intersections from multiple prospects
- Diamond drill hole OUDDH089 at Target 10 intersected high-grade copper-gold massive sulphide:
  - 6.2m at 4.24% Cu and 1.9g/t Au (5.45% CuEq) from 128m including 0.9m at 22.10% Cu and 8.27g/t Au (27.37% CuEq) from 129m
- Massive sulphide mineralisation is flanked by a broad zone of porphyry-related mineralisation
- Infill drilling (OUDDH088) at Tourmaline Breccia intersected high-grade copper mineralisation:
  - 66m at 1.8% Cu from surface including 19m at 4.15% Cu from 20.4m
- Gold-rich porphyry mineralisation at Diorite Hill Prospect:
  - 184m at 0.52% Cu and 0.85g/t Au (1.06% eCu) from surface
- New drilling intersected more high-grade epithermal gold mineralisation
- Drilling programme continues to test several high-priority targets.

Corporate activities

- Appointment of Kevin Tomlinson as Non-Executive Chairman
- Planned drilling activities fully funded from existing cash reserves of $4.4 million.

ASX XAM

ABN 92 114 249 026

COMPANY DIRECTORS
Kevin Tomlinson
Non-Executive Chairman
Ganbayar Lkhagvasuren
Executive Director
Hannah Badenach
Non-Executive Director
Darryl Clark
Non-Executive Director
Marcus Engelbrecht
Non-Executive Director
Andrew Stewart
Managing Director & CEO

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Xanadu Mines Ltd (**ASX: XAM – "Xanadu" or "the Company")** is pleased to provide shareholders with an update on exploration and associated activities undertaken during the June quarter 2017. The Company's primary focus during the reporting period continued to be the advancement of its Kharmagtai and Oyut Ulaan copper-gold projects in the South Gobi of Mongolia (Figure 1).

EXPLORATION ACTIVITIES

Commenting on the quarter's activities, MD/CEO Dr Andrew Stewart, said: "*New predictive 3D modelling at Kharmagtai has improved our understanding of the geological framework and mineralisation potential within the Kharmagtai porphyry system and what really excites our geoscience team is that we have only drill tested a small fraction of the system's total footprint, which remains wide open.*

"*Upside is beginning to look transformational and has particularly highlighted the porphyry copper-gold potential underlying the untested Golden Eagle (Altan Burged) prospect, where shallow drilling has defined a broad zone of gold mineralisation representing the gold cap of what we believe to be a large porphyry system that is yet to be tested.*

"At Kharmagtai our focus is to discover additional near-surface high-grade copper-gold mineralisation to add to the existing resource and move the project into economic viability. This can be achieved by discovery of a shallow fourth porphyry centre or adding mineralisation at depth under existing resources.

"Preparations have begun to accelerate drilling at Kharmagtai by the end of the month, targeting both the shallow porphyry copper-gold mineralisation undercover with an aggressive RC programme and high-grade copper-gold in the roots of the system with deeper diamond drill holes. The next three months promise to be an exciting time.

"Xanadu announced new drill results from the Oyut Ulaan Project during the quarter that clearly demonstrate that all the hard work put in by the geology team continues to translate into success. These new drilling results confirm that a significant zone of epithermal gold mineralisation occurs above widespread high-grade porphyry gold-copper mineralisation and drilling is continuing to vector in to the source or engine-room of widespread mineralisation that has been discovered across the project. Excellent progress has been made here and planned drilling programs are underway to test highest priority targets."

KHARMAGTAI COPPER-GOLD PROJECT

The Kharmagtai copper-gold project is located within the South Gobi porphyry copper province of Mongolia, approximately 440km south-southwest of Ulaanbaatar and 120km north from Rio Tinto's Oyu Tolgoi copper-gold mine and approximately 50km from where Rio Tinto is currently drilling deep holes (Figure 1). Exploration drilling at the Kharmagtai Project continues to test a combination of targets that include high-level gold-rich porphyry mineralisation and deeper high-grade tourmaline breccia mineralisation within a large under-explored district which has delivered outstanding results to date.

Activity in the June quarter 2017 focused on targeting additional porphyry centres under shallow cover. This work has highlighted multiple new porphyry and tourmaline breccia targets validated by robust geochemistry and geology (Figure 2 and Table 1). A total of 13 RC holes (790m) and five deeper DD holes (1758m) were completed with all holes encountering wide intervals of significant alteration and mineralisation (Tables 2 and 3).

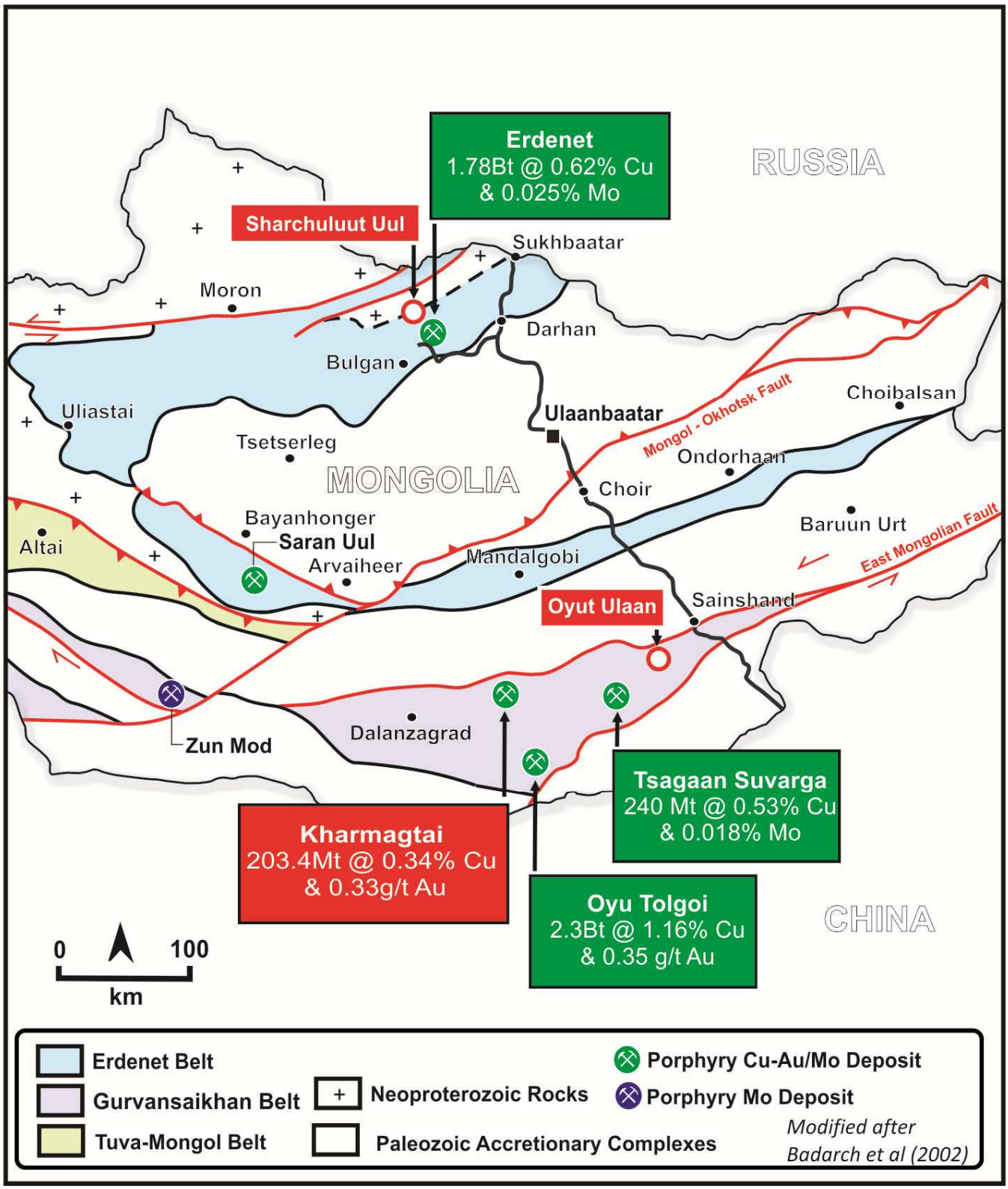

FIGURE 1: Location of Xanadu's copper-gold projects within Mongolia's South Gobi Copper Belt (Gurvansaikhan Belt).

The new results from 3D modelling represent a significant milestone for understanding the potential scale and geological framework of the Kharmagtai porphyry system (Figures 3 to 5). Geophysical modelling was conducted by industry specialists Fathom Geophysics by combining gravity and magnetic data areas which have similar magnetic and density characteristics to known mineralisation.

The strong association of magnetite alteration with chalcopyrite and bornite mineralisation endorses the predictive nature of the model, provides better targeting and enhances the potential for further discoveries to add to the historic JORC resources at Kharmagtai.

The models have been processed using several different filtering tools combined with geochemical data to enhance vectors and improve the detection of deeper seated mineralised structures and porphyry intrusions. The mineralising systems observed at Kharmagtai are very much like prototype gold-rich porphyry copper systems seen around the world with a large central intrusion surrounded by multiple mineral deposits (porphyry apophyses). The extent of the mineralisation and alteration seen in previous bedrock drilling (*XAM ASX announcement 16 January 2017*) further confirms Xanadu's belief that the mineralisation system at Kharmagtai is very extensive and the Company is making significant steps in its understanding of the project's geology, which will aid with the current drilling programmes.

This work specifically targets very large porphyry systems and of interest is a significant scale anomaly at the Golden Eagle prospect (Altan Burged, Figure 6), where shallow RC drilling has intersected the gold-rich cap of what could be a large porphyry system.

The increasing understanding of the large Kharmagtai system means Xanadu will now accelerate exploration drilling over the six porphyry clusters identified, containing 19 individual porphyry and epithermal targets and move as quickly as possible to scout drilling in those areas. A further two drill rigs will be added to the current programme later this month, taking the number of rigs on site to three and allowing the Company to more rapidly to evaluate the new targets and further explore in areas that have returned significant intersections to date.

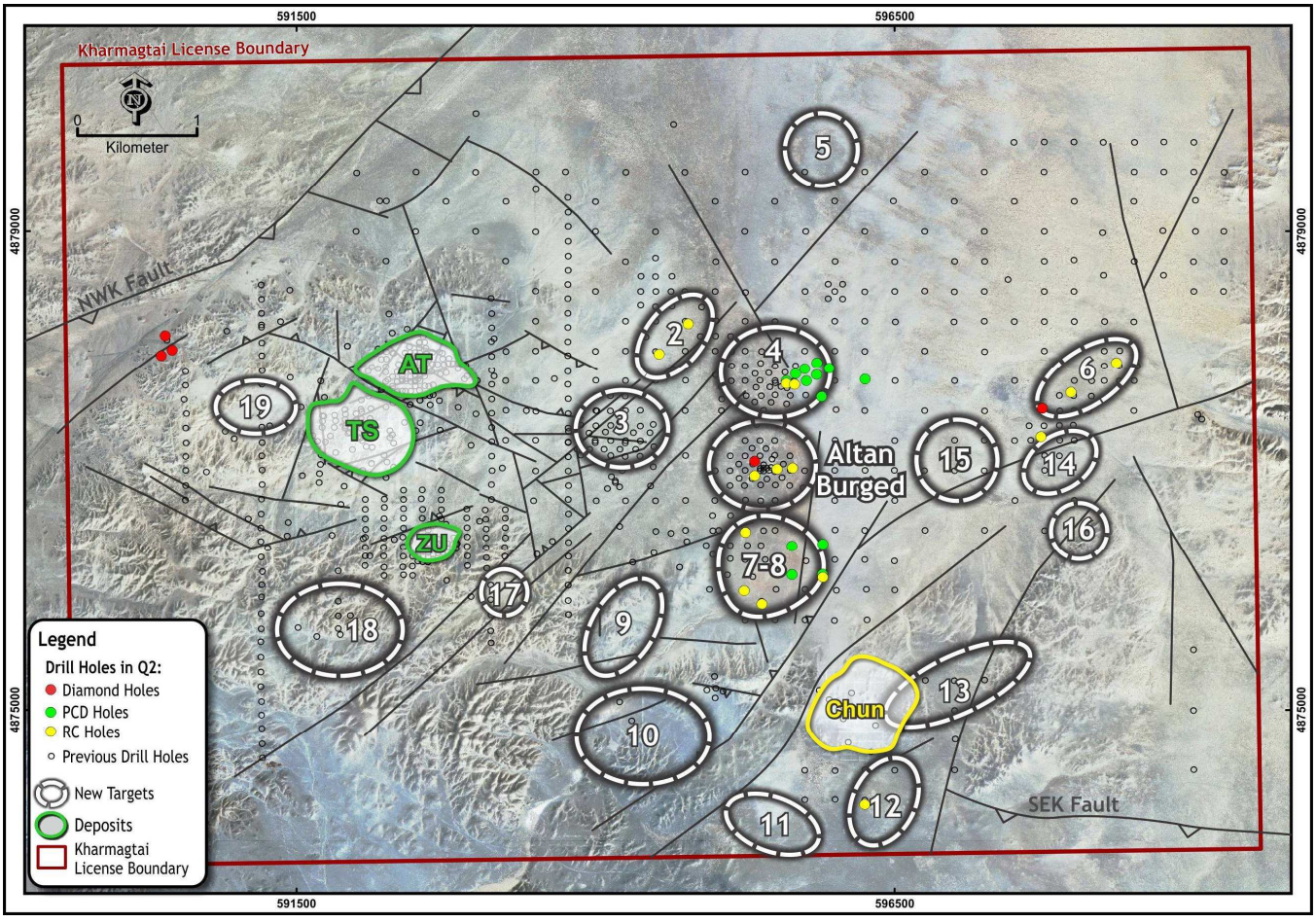

FIGURE 2: The Kharmagtai Mining Licence showing location of recently completed RC and DD drill holes. Location of known porphyry deposits and targets are shown.

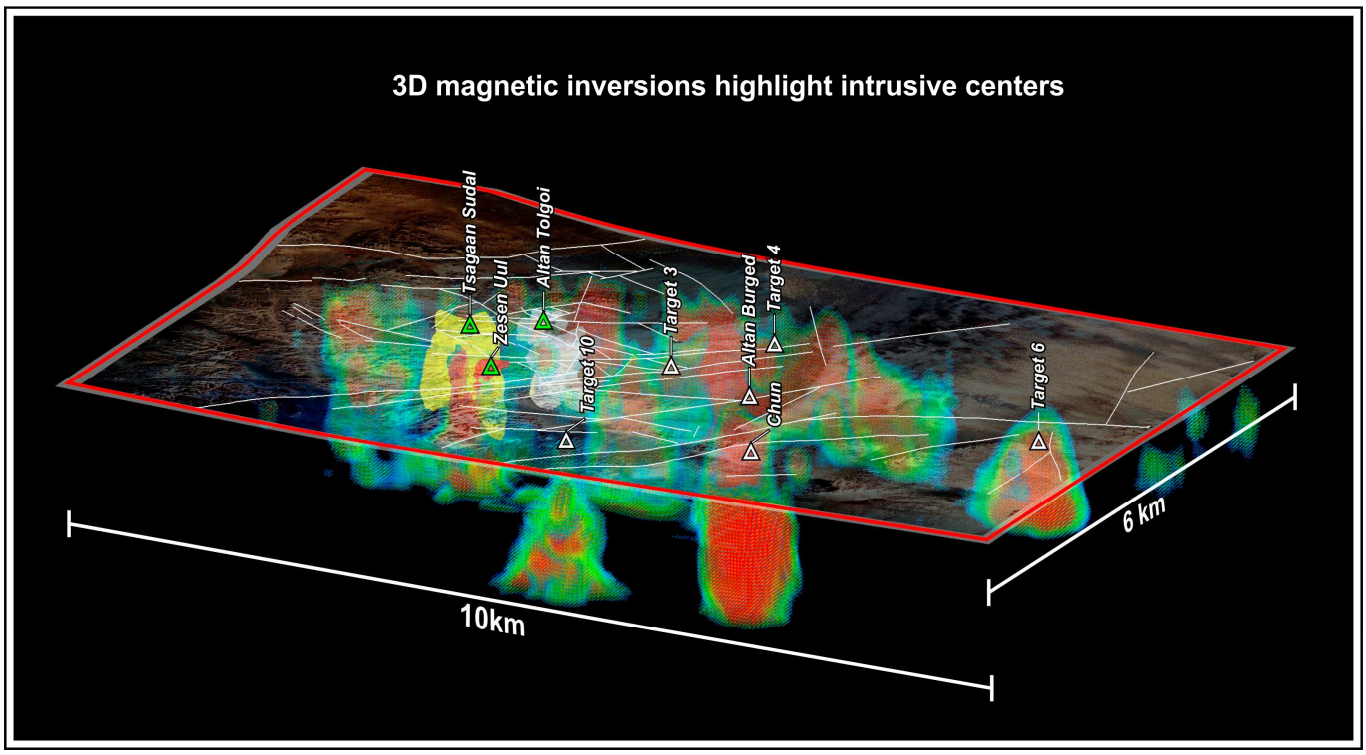

FIGURE 3: 3D magnetic inversion model confirming the presence of numerous untested intrusive centres under cover within the Kharmagtai district.

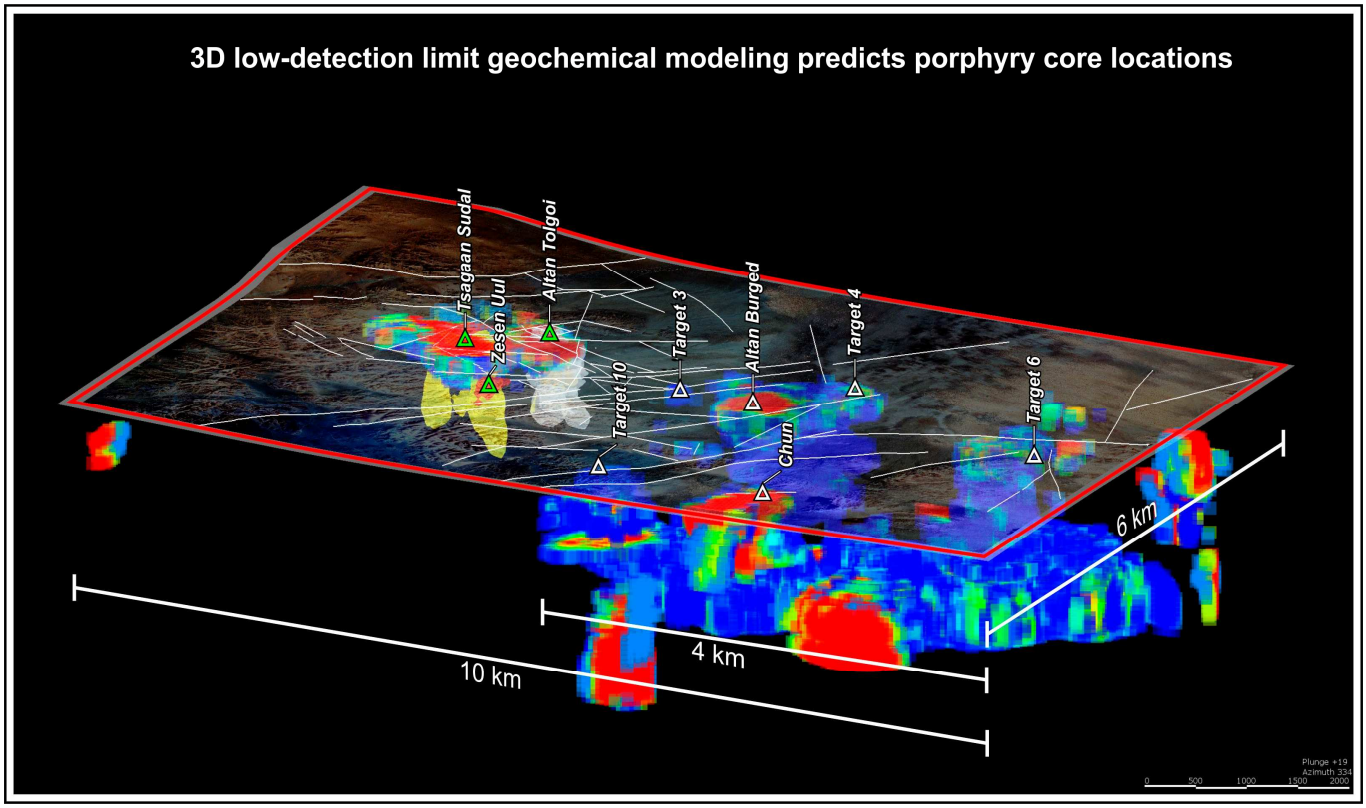

FIGURE 4: 3D geochemical modelling showing several untested porphyry systems under cover within the Kharmagtai district.

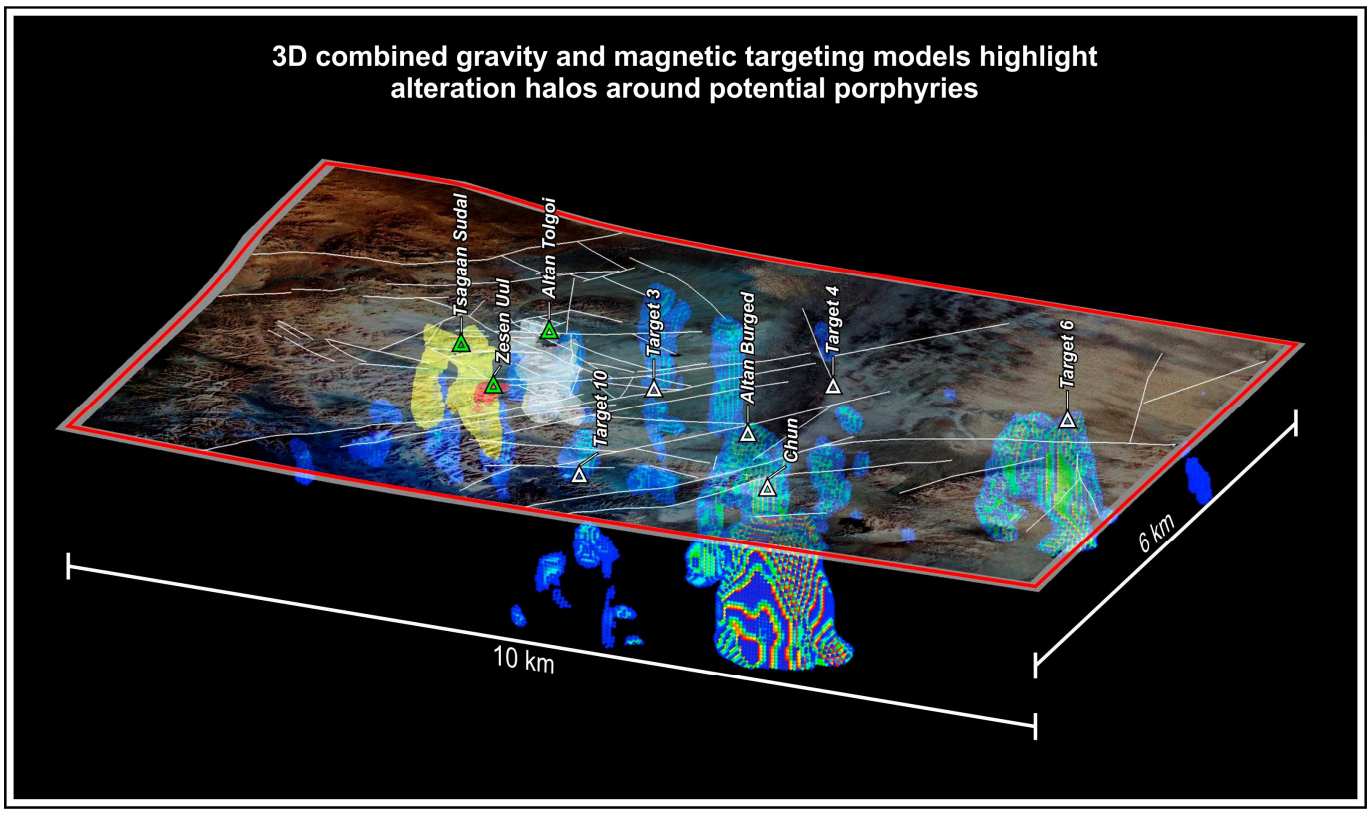

FIGURE 5: 3D gravity and magnetic data modelling showing several untested porphyry systems under cover within the Kharmagtai district targets. Also shown are the locations of current deposits.

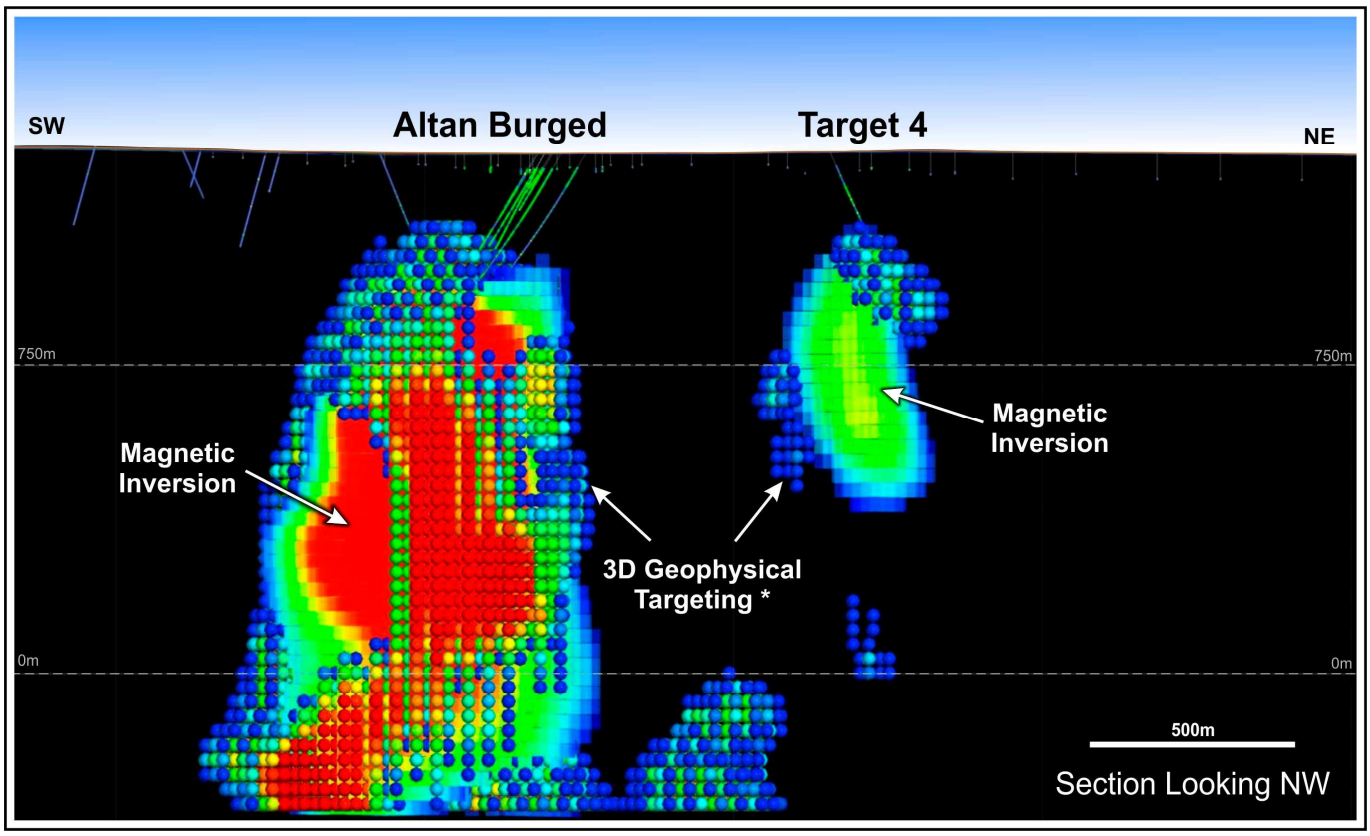

FIGURE 6: 3D geophysical targeting models at Kharmagtai indicate that the currently drilled portions of the Golden Eagle (Altan Burged) prospect lie at the top of a potentially large porphyry system.

OYUT ULAAN COPPER-GOLD PROJECT

The Oyut Ulaan copper-gold project is located within the South Gobi porphyry copper province of Mongolia, approximately 420km south-southwest of Ulaanbaatar (Figure 1). This large and underexplored porphyry district (covering approximately 40km²) consists of multiple co-genetic porphyry copper-gold centres, mineralised tourmaline breccia pipes copper-gold/base metal magnetite skarns and epithermal gold veins (Figure 7).

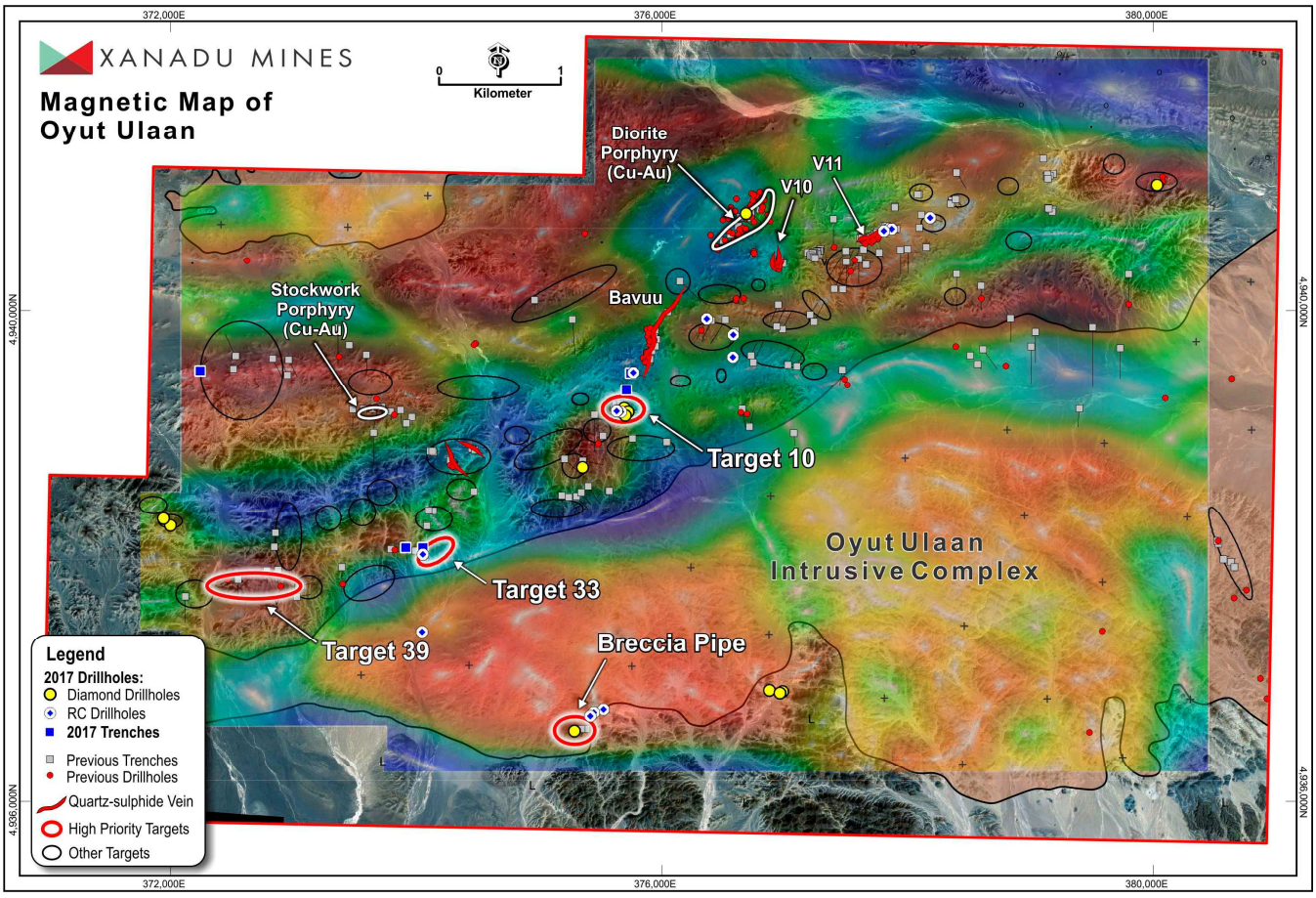

FIGURE 7: The Oyut Ulaan Mining Licence showing location of recently completed RC and DD drill holes. Location of known porphyry deposits and targets are shown.

Exploration conducted during 2016 identified numerous epithermal and porphyry targets across the Oyut Ulaan property. Drilling has commenced at Oyut Ulaan to test the highest ranked shallow Cu-Au porphyry and epithermal gold targets with approximately 15 RC holes (870m) and 12 deeper DD holes (1723m) completed and all holes encountering wide intervals of significant alteration and mineralisation (Tables 3 and 4).

Significant porphyry copper-gold mineralisation intersected at Diorite Hill.

A single diamond drill hole – OUDDH087 has been drilled at the Diorite Hill Prospect (Figure 8). The hole was designed to test for potential extensions of high grade copper and gold mineralisation and returned 184m at 0.52% Cu and 0.85g/t Au (1.06% eCu) from surface including 8m at 1.24% Cu and 3.19g/t Au from 116m (Figure 9). This hole was designed to test for fault offset mineralisation down plunge of previously drilled mineralisation and successfully located the fault which offsets the Diorite Hill mineralisation. Structural interpretation is currently underway to determine the location of the offset

mineralisation for further drilling. Geophysical interpretation indicates the Diorite Hill prospect could be linked to a significant zone of porphyry mineralisation under shallow cover to the northeast.

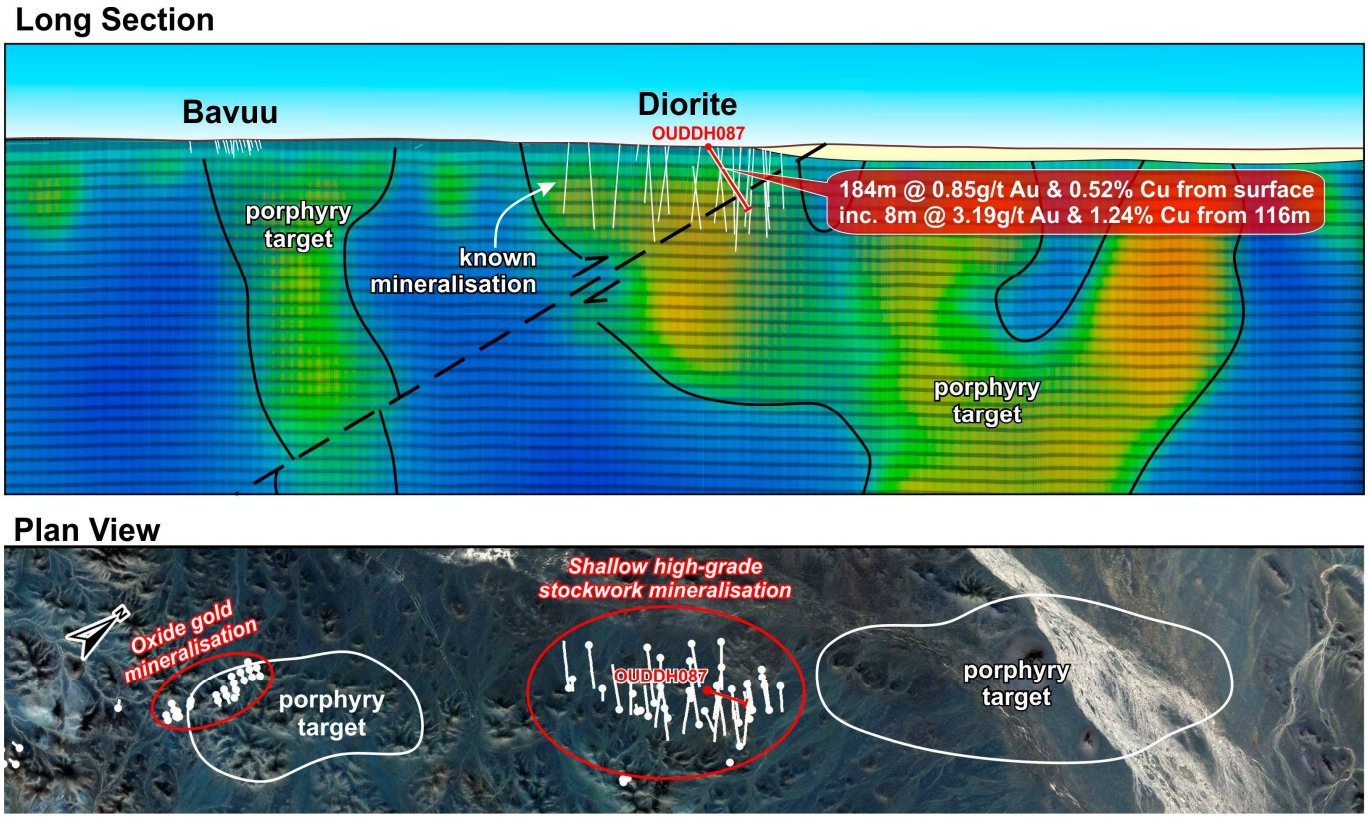

FIGURE 8: Long section and plan of the Diorite Hill prospect drilling.

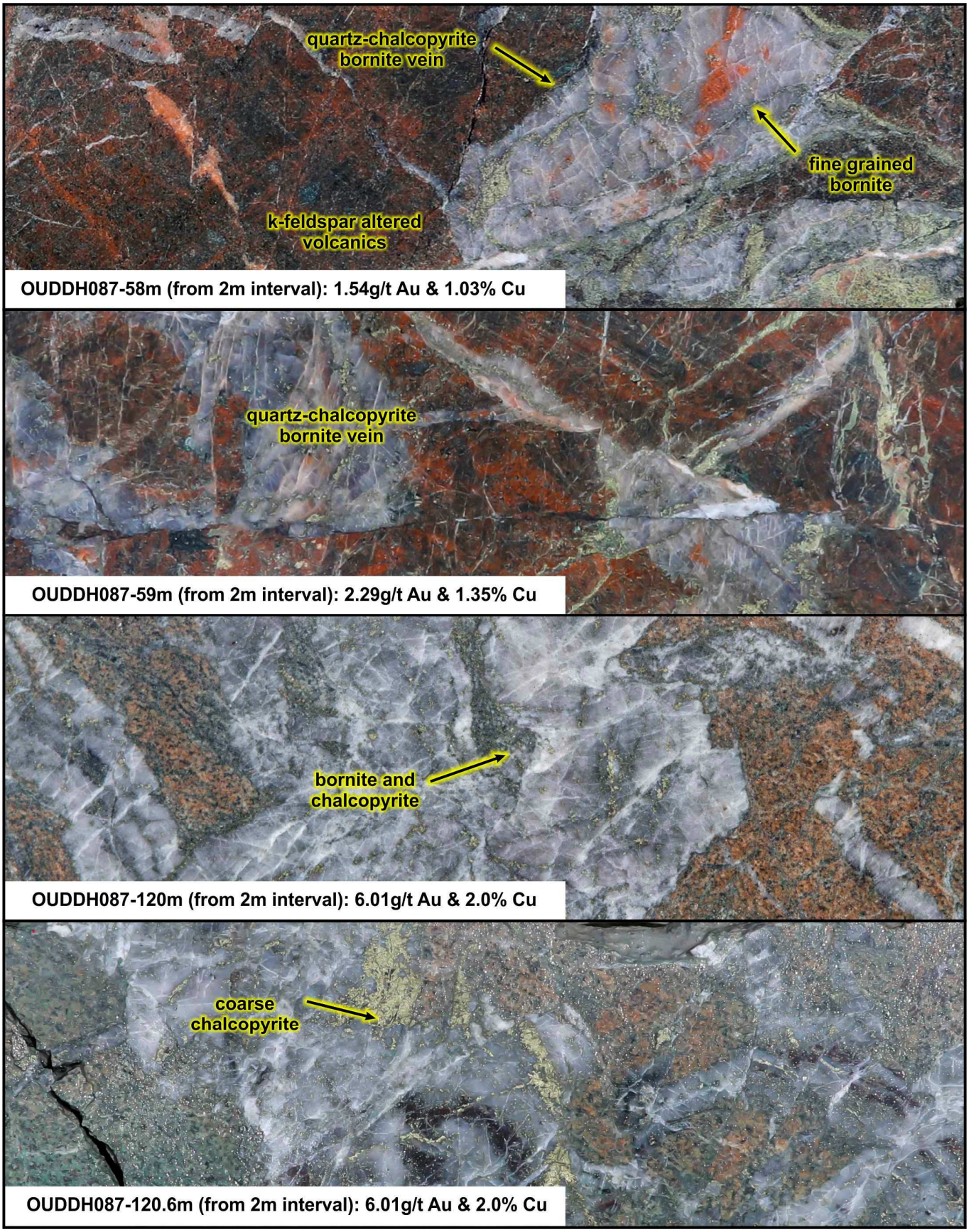

FIGURE 9: Drill core images from recent drilling at the Diorite Hill prospect, showing bornite-rich stockwork mineralisation.

New drilling intersects more high-grade epithermal gold mineralisation

Recent trenching at Oyut Ulaan has identified extensive shallow high-grade gold mineralisation in multiple epithermal gold veins at Target 33. Geology, geochemistry and geophysics indicate this target is up to 1km long and up to 150m wide (Figures 7 and 10). A single RC drill hole – OURC043 – was designed to test these gold bearing quartz veins and intersected 22m at 1.8g/t from 40m including 10m at 3.7g/t Au from 50m within silica and epidote altered volcanic rocks and below the weathering zone. A second hole was collared to aid in determining the orientation of this zone of primary gold mineralisation, assays for which are pending (Figure 11). Further drilling and trenching is currently underway to expand this new zone of high-grade primary gold mineralisation and to identify potential high-grade shoots within the system.

Target 33 is one of many high-quality epithermal gold targets in the exploration pipeline at Oyut Ulaan.

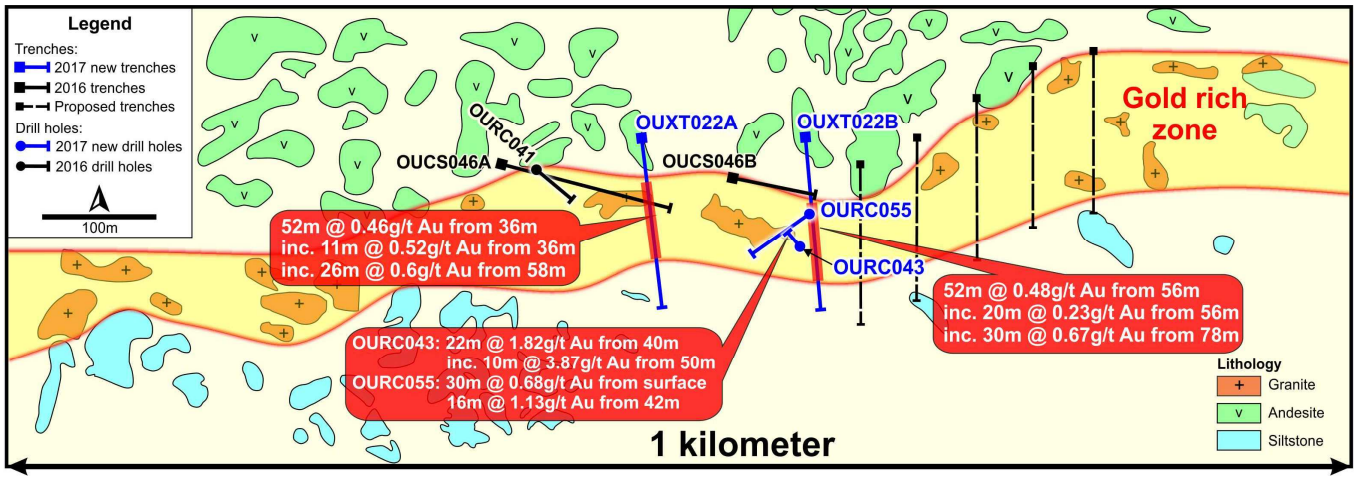

FIGURE 10: Plan map showing the potential scale of Target 33 epithermal gold mineralisation.

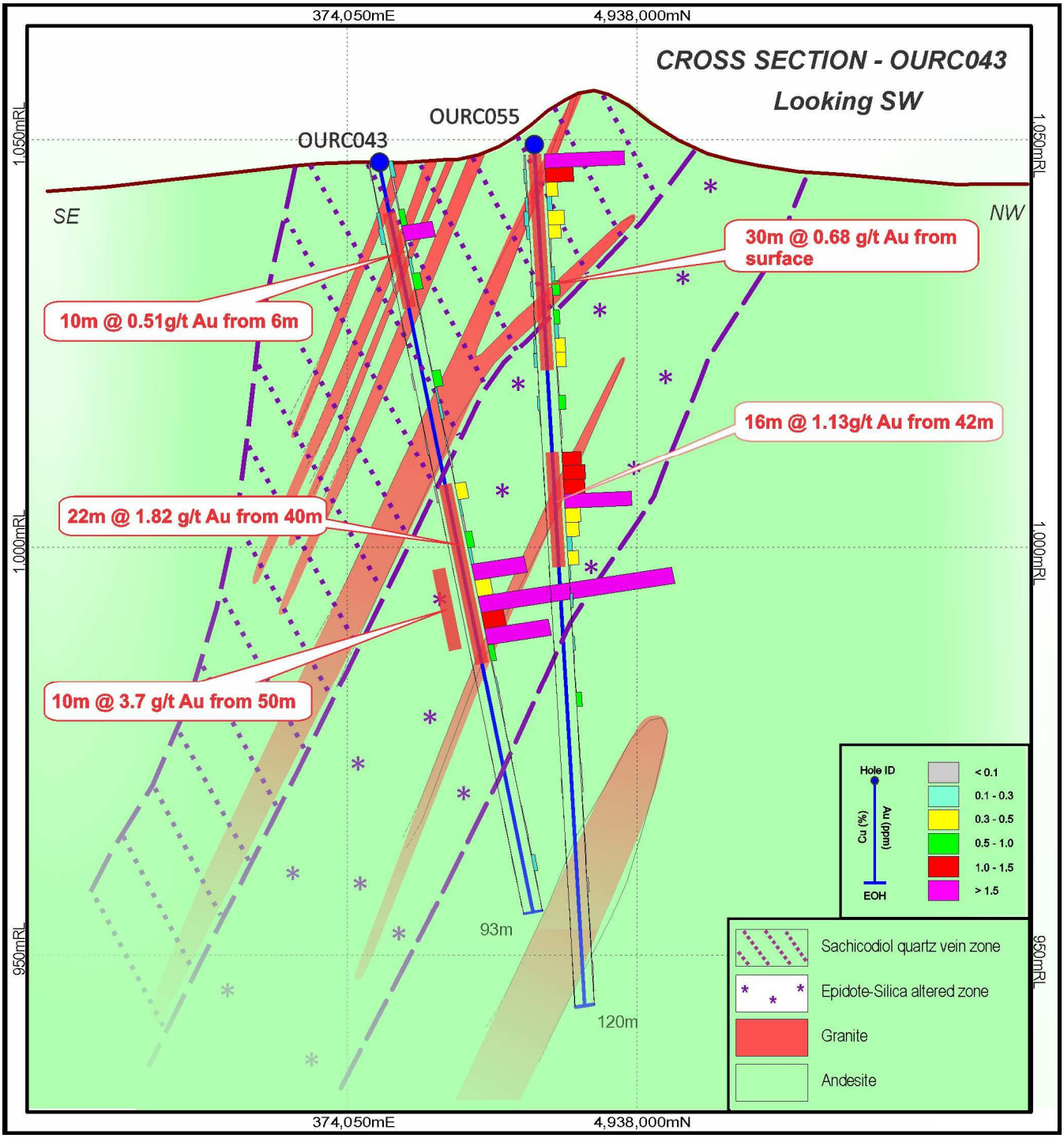

FIGURE 11: Cross-section of Target 33 showing the intercepts returned from OURC043 & OURC055.

Diamond drill hole OUDDH089 at Target 10 intersected a significant zone of high-grade massive sulphide mineralisation within a broad zone (up to 79.5m) of porphyry-related alteration and mineralisation (Figure 12). The 6.2m wide zone of massive sulphide mineralisation returned **4.24% Cu and 1.9g/t Au (5.45% CuEq) from a depth of 128m** and included **0.9m grading 22.10% Cu and 8.27g/t Au (27.37% CuEq) from 129m**. The intercept resulted from systematic drill testing of high priority targets lying under shallow cover within the Oyut Ulaan project. This high-grade porphyry-related massive sulphide mineralisation is open in all directions (Figure 12).

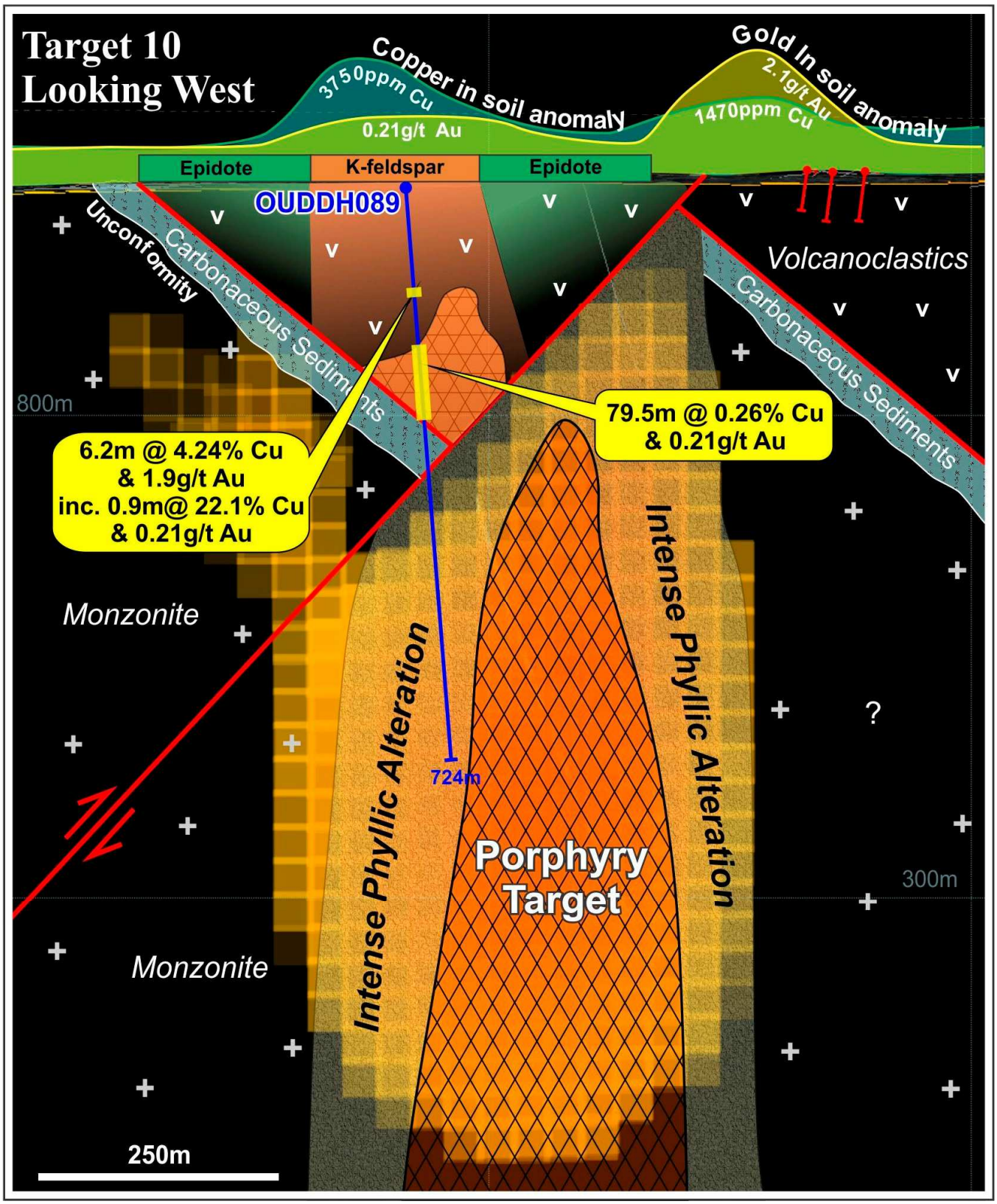

FIGURE 12: Target 10 cross-section showing magnetics, interpreted porphyry target and observed alteration halo from drilling.

Additionally, diamond drill hole OUDDH088 at the Tourmaline Breccia prospect which was designed to test the eastern strike extension to high-grade mineralisation (refer to ASX release dated 9 June 2016) and continuity of breccia mineralisation, intersected 66m of continuous tourmaline breccia from surface. This broad interval included **19m at 4.15% Cu from a depth of 20.4m** of high-grade chalcocite-chalcopyrite cemented breccia (Figure 13). Mineralisation remains open at depth and to the southwest and northeast (Figure 14).

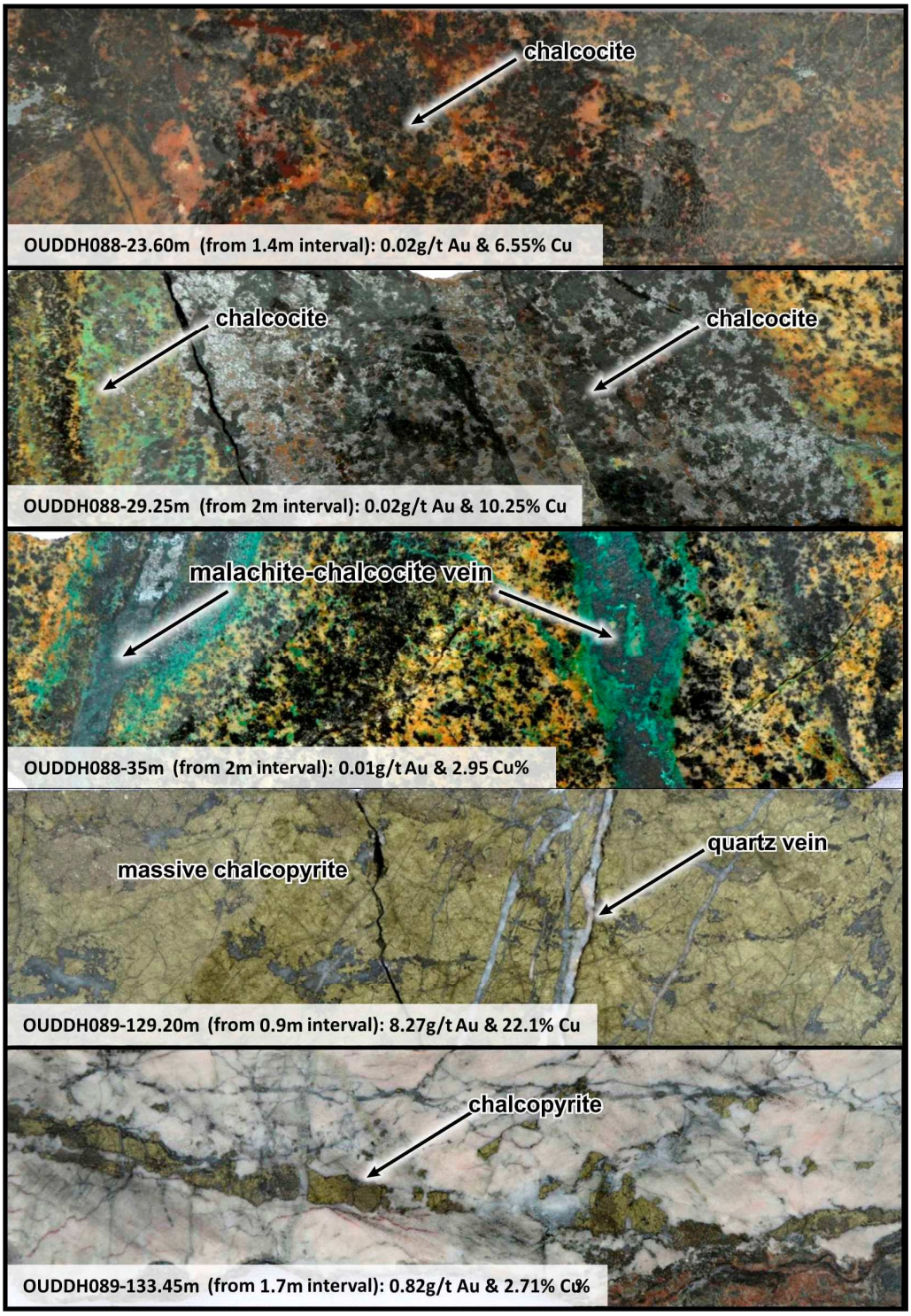

FIGURE 13: Slab photos from OUDDH089 and OUDDH088 showing massive chalcopyrite and high-grade chalcocite mineralisation.

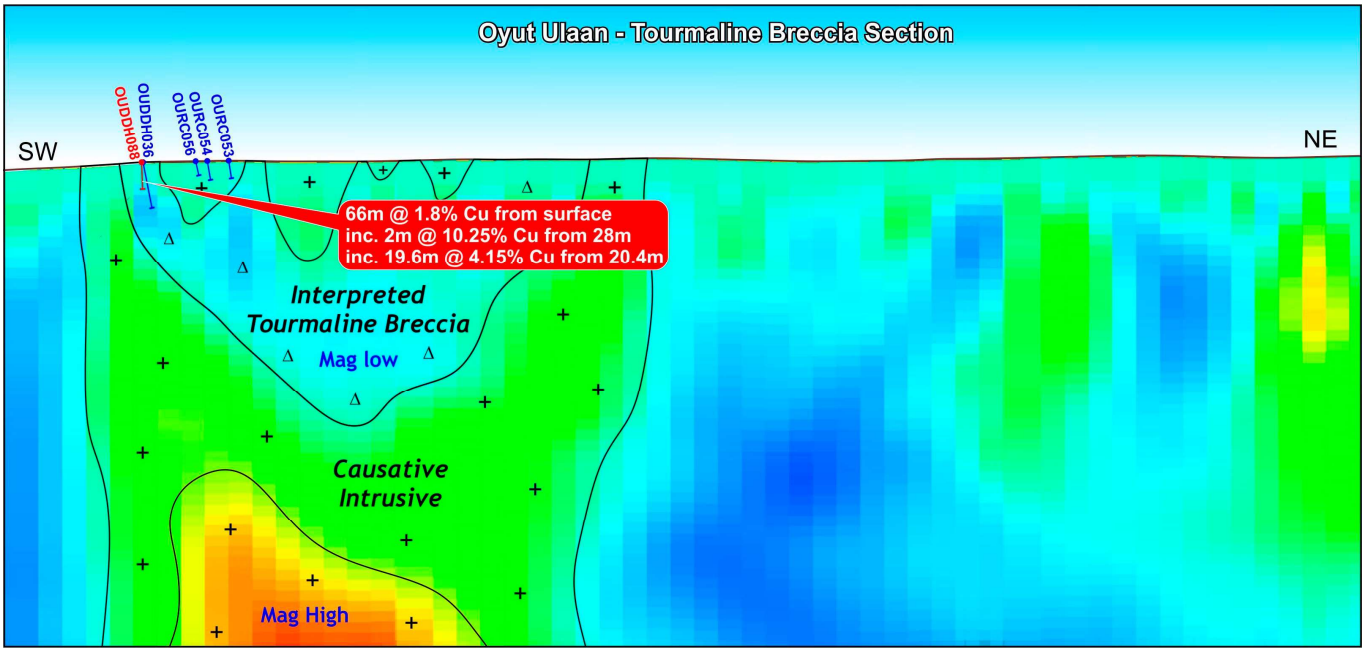

FIGURE 14: Long section through the Tourmaline Breccia prospect showing magnetic depletion, interpreted tourmaline breccia and interpreted causative intrusive.

CORPORATE ACTIVITIES

Continued exploration success at Kharmagtai over the past year indicates it is one of the most promising copper-gold projects globally and the recent discovery of the tourmaline breccia mineralisation ranks it as one of the highest-grade porphyry discoveries in last 12 months.

The retirement of Mr Mark Wheatley as Chairman and Non-Executive Director was announced on 27 January 2017. Xanadu would like to take this opportunity to thank Mark for his considerable contribution to the Company and wishes him well in his future endeavours.

Mr Kevin Tomlinson was appointed as an independent Non-Executive Director and will succeed Mr Mark Wheatley as Chairman of the Company. Mr Tomlinson, based in London, has more than 30 years' experience in the resource and finance sectors within the Canadian, Australian and United Kingdom markets. In Australia, Mr Tomlinson held senior executive roles with Plutonic Resources and Hartleys Australia as Head of Research. In London, he was Managing Director of Investment Banking at Westwind Partners/Stifel Nicolaus raising equity and providing corporate advice for many resources companies. Mr Tomlinson brings extensive experience in exploration, development and financing of mining projects internationally. Currently, Kevin holds non-executive positions on the boards of listed mining companies Cardinal Resources Limited, Plymouth Minerals and Samco Gold Limited. Previous long-term board positions held have included Chair of Medusa Mining, Director with Orbis Gold and Director with Centamin Plc.

Share Capital

As at 30 June 2017, the Company had 511,218,639 fully paid shares, 2,433,334 performance rights and 35,000,000 options issued pursuant to the restructure of the Oyut Ulaan acquisition terms.

Financial position

As at 30 June 2017, the Company had A$4.4 million cash.

For further information please visit www.xanadumines.com or contact:

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COMPETENT PERSON STATEMENT

The information in this report 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, which is incorporated in the database that was provided to Mining Associates for undertaking a resource estimate. 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 deposits 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.

COPPER EQUIVALENT CALCULATIONS

The copper equivalent (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. Grades have 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 0.6378). Based on a copper price of $2.60/lb and a gold price of $1300/oz.

Table 1: Target Ranking for the Kharmagtai Project

Target	Target type	Current Ranking	Length	Width	Peak Cu %	Peak Au g/t	Lithology	Alteration	Comments
Altan Burged	**Stockwork**	**1**	800m	650m	**0.30%**	**3.39**	Quartz monzodiorite and monzodiorite	quartz-k-spar/biotite-chlorite	Large scale gold rich porphyry target. Geology from current drilling and 3D geophysical modelling indicates the present holes have tested the top of a very large porphyry system
Target 4	**Stockwork**	**2**	800m	750m	**0.41%**	**0.76**	Quartz monzodiorite and monzodiorite, tourmaline breccia dykes	quartz-sericite-pyrite; chlorite-epidote	Large circular gold and copper anomaly
Target 6	**Tourmaline Breccia / Stockwork**	**3**	1000m	400m	**0.10%**	**0.19**	Tourmaline breccia's in Quartz monzodiorite and monzodiorite	chlorite	A large scale moderate copper and gold anomaly associated with a significant volume of tourmaline breccia
Target 3	**Stockwork**	**4**	650m	550m	**0.59%**	**0.52**	Monzodiorite and siltstone, andesite and tourmaline breccia dykes	quartz-sericite-pyrite	Circular gold and copper anomaly along strike from Altan Tolgoi.
Target 14	**Stockwork**	**5**	600m	400m	**0.60%**	**0.12**	Monzodiorite, tourmaline breccia dyke	chlorite-magnetite	Moderate copper and gold associated with porphyry style mineralisation and tourmaline breccia
Target 17	**Tourmaline Breccia / Stockwork**	**6**	250m	250m	**0.05%**	**1.45**	Siltstones and monzodiorite, quartz-tourmaline breccia	Silica	Au anomaly associated with vuggy quartz-tourmaline veins to 20cm width, 0.1-1.45 g/t Au in rockchip
Target 18	**Stockwork**	**7**	800m	400m	**0.14%**	**1.04**	Siltstone, hornblend diorite and quartz monzodiorite, tourmaline breccia dyke	Chlorite-magnetite	Weak gold and copper anomalism in rockchipped siltstones and tourmaline breccia
Target 7-8	**Stockwork**	**8**	1000m	800m	**0.10%**	**0.47**	Monzodiorite and siltstone, tourmaline breccia	quartz-sericite-pyrite	Targets 7-8 combined after infill drilling merged the anomalism. Large scale gold anomaly with weak copper anomalism. Tourmaline-py+/-cpy breccia's
Target 16	**Stockwork**	**9**	5000m	400m	**0.26%**	**0.11**	Sandstones and quartz-tourmaline dyke	silica	Single point Au anomaly in quartz-hematite+/-tourmaline vein dykes hosted in sandstone
Target 2	**Epithermal**	**10**	400m	250m	**0.08%**	**1.27**	Monzodiorite and siltstone	quartz-pyrite-sericite; silicification	Linear gold anomaly associated with the interpreted extensions of the Kharmagtai Fault zone. Moderate Pb/Zn/As anomalism indicates CBM source

Target	Target type	Current Ranking	Length	Width	Peak Cu %	Peak Au g/t	Lithology	Alteration	Comments
Target 10	**Stockwork**	**11**	1100m	500m	**0.10%**	**0.23**	Ssandstones intruded by quartz monzodiorite	chlorite-magnetite-epidote	Large moderate but consistent Au-Cu anomaly driven by rock chipping, low density quartz-sulphide B veining, abundant malachite fracture filling,
Target 11	**Tourmaline Breccia**	**12**	300m	300m	**0.23%**	**0.1**	Tourmaline breccia float,		Driven by single point rock-chip of tourmaline breccia
Target 12	**Stockwork**	**13**	7000m	400m	**0.13%**	**0.1**	Monzodiorite and quartz monzodiorite dykes	Chlorite	Moderate to strong Au and Cu anomalism on margins of Chun
Target 19	**Stockwork**	**14**	800m	400m	**0.16%**	**0.45**	Siltstone, monzodiorite and quartz monzodiorite	biotite-magnetite-hornblend	Bleached hornfelsed siltstone and weakly mineralised monzodiorite porphyry west of Tsagaan Sudal
Target 13	**Stockwork**	**15**	1100m	300m	**0.06%**	**0.1**	Sandstone and monzodiorite	Chlorite	moderate Au and Cu anomalism on margins of Chun
Target 15	**Stockwork**	**16**	600m	400m	**0.06%**	**0.06**	Siltstones and monzodiorite	chlorite-magnetite	Weak Cu and Gold anomalism associated with porphyry style alteration and tourmaline breccia
Target 9	**Stockwork**	**17**	800m	400m	**0.05%**	**0.01**	Siltstones and monzodiorite	Silica	Large but moderate to low level Au-Cu anomalism driven by rock chipping
Target 5	**Epithermal**	**18**	125m	125m	**0.08%**	**0.17**	Basalts		Single point Au anomaly on northern edge of grid. Moderate As, Pb and Zn anomalism suggests CBM style

Table 2: Kharmagtai drill hole details from the second quarter.

Hole ID	Prospect	East	North	RL	Azi (^{0})	Dip	Drilled Depth (m)
KHDDH405	THC	597732	4877519	1261	135	-65	700.5
KHDDH406	THC	595328	4877078	1268	218	-60	403.5
KHDDH407	Altan shand	590368	4877963	1282	310	-70	55.0
KHDDH408	Altan shand	590461	4878009	1282	330	-50	52.0
KHDDH409	Altan shand	590401	4878130	1280	110	-50	52.0
KHPCD377	Basin	595593	4877749	1265	0	-90	37.0
KHPCD378	Basin	595670	4877811	1267	0	-90	43.0
KHPCD379	Basin	595747	4877851	1269	0	-90	44.0
KHPCD380	Basin	595762	4877750	1269	0	-90	45.0
KHPCD381	Basin	595848	4877801	1269	0	-90	46.0
KHPCD382	Basin	595951	4877858	1268	0	-90	55.0
KHPCD383	Basin	595850	4877903	1269	0	-90	55.0
KHPCD384	Basin	595888	4877617	1269	0	-90	48.0

Hole ID	Prospect	East	North	RL	Azi (^{0})	Dip	Drilled Depth (m)
KHPCD385	Basin	596252	4877764	1267	0	-90	58.0
KHPCD386	Basin	595640	4876368	1271	0	-90	34.0
KHPCD387	Basin	595900	4876384	1276	0	-90	43.0
KHPCD388	Basin	595640	4876127	1272	0	-90	40.0
KHPCD389	Basin	595897	4876131	1278	0	-90	28.0
KHRC298	Basin	594531	4877976	1268	315	-60	170.0
KHRC299	Basin	594771	4878230	1262	315	-60	151.0
KHRC300	Basin	595594	4877727	1268	0	-60	160.0
KHRC301	Basin	595662	4877719	1268	0	-60	61.0
KHRC302	Basin	597973	4877655	1262	135	-60	187.0
KHRC303	Basin	597722	4877283	1264	135	-60	104.0
KHRC304	Basin	595391	4875883	1276	0	-60	61.0
KHRC305	Altan shand	595899	4876107	1276	0	-60	103.0
KHRC306	Basin	595241	4875992	1275	0	-60	74.0
KHRC307	Basin	595252	4876482	1270	0	-60	52.0
KHRC308	Basin	595643	4876100	1274	0	-60	67.0
KHRC309	Basin	598352	4877900	1255	135	-60	39.0
KHRC310	Basin	596248	4874211	1298	0	-60	56.0

Table 3: Kharmagtai significant drill results from the second quarter.

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
KHDDH405	THC	49	53	4	0.13	0.05	0.14
and		67	79	12	0.09	0.06	0.12
and		95	183	88	0.36	0.10	0.33
including		111	121	10	0.35	0.10	0.33
including		127	151	24	0.37	0.12	0.36
including		151	183	32	0.49	0.10	0.42
and		187	191	4	0.15	0.03	0.12
and		209	229	20	0.15	0.04	0.13
and		233	281	48	0.18	0.07	0.19
and		295.5	333	37.5	0.13	0.09	0.17
including		327	333	6	0.28	0.20	0.38
and		337	385	48	0.14	0.07	0.16
and		387	391	4	0.07	0.06	0.11
and		403	439	36	0.05	0.11	0.15
and		447	479	32	0.03	0.11	0.13
and		485	527	42	0.03	0.12	0.14
and		529	569	40	0.04	0.09	0.11
and		571	581	10	0.05	0.10	0.13

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
and		687	693	6	0.03	0.09	0.10
KHDDH406	THC	38	403.5	365.5	0.29	0.14	0.33
including		42	148	106	0.51	0.16	0.51
including		48	50	2	0.73	0.14	0.61
including		54	56	2	0.88	0.18	0.74
including		80	86	6	1.28	0.24	1.06
including		112	128	16	0.78	0.16	0.66
including		132	138	6	0.7	0.16	0.61
including		158	172	14	0.23	0.19	0.34
including		196	204	8	0.76	0.14	0.62
including		198	200	2	1.97	0.22	1.47
including		212	224	12	0.3	0.13	0.33
including		228	240	12	0.25	0.18	0.35
including		256	264	8	0.66	0.21	0.64
including		342	346	4	0.25	0.16	0.31
including		366	368	2	0.33	0.12	0.32
KHPCD324	Basin	37.5	44	6	0.14	0.05	0.13
KHPCD325	Basin	27	31	4	0.08	0.06	0.11
KHPCD327	Basin	32	38	6	0.20	0.13	0.26
KHPCD339	Basin	18	24	6	0.08	0.06	0.11
KHPCD353	Basin	37	43	6	0.45	0.23	0.51
KHPCD354	Basin	21	27	6	0.15	0.09	0.19
KHPCD356	Basin	34.5	41	6	0.07	0.22	0.27
KHPCD376	Basin	32	36	4	0.03	0.09	0.11
KHPCD377	Basin	31	37	6	0.29	0.34	0.53
KHPCD378	Basin	37	43	6	0.09	0.21	0.26
KHPCD380	Basin	35	41	6	0.10	0.18	0.24
KHPCD381	Basin	40	46	6	0.01	0.11	0.11
KHPCD388	Basin	34	40	6	0.30	0.01	0.20
KHPCD389	Basin	22	26	4	0.17	0.01	0.12
KHRC298	Basin	67	71	4	0.34	0.01	0.23
and		81	87	6	0.21	0.01	0.14
and		95	99	4	0.21	0.01	0.14
and		129	131	2	0.14	0.01	0.10
KHRC299	Basin	28	30	2	0.60	0.01	0.39
and		140	144	4	0.41	0.02	0.28
KHRC300	Basin	30	129	99	0.24	0.20	0.36
including		30	36	6	0.47	0.37	0.67
including		42	83	41	0.23	0.30	0.43
including		54	58	4	0.29	0.52	0.70
including		115	119	4	1.67	0.27	1.33

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
and		133	149	16	0.09	0.08	0.13
KHRC301	Basin	31	61	30	0.07	0.17	0.21
including		50	54	4	0.05	0.33	0.36
KHRC302	Basin	36	46	10	0.14	0.05	0.14
and		65	67	2	0.1	0.04	0.10
and		107	121	14	0.09	0.06	0.12
and		151	157	6	0.22	0.03	0.17
and		162	186	24	0.24	0.08	0.23

Table 4: Oyut Ulaan drill hole details from the second quarter.

Hole ID	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
OUDDH078	Target 46	372000	4938253	1072	215	80	59.3
OUDDH079	Target 46	371942	4938311	1073	137	60	170.0
OUDDH080	Target 10	375695	4939211	1090	260	60	50.0
OUDDH081	Target 10	375725	4939177	1081	260	60	50.0
OUDDH082	Target 10	375704	4939150	1082	260	60	35.3
OUDDH083	Hulan	380035	4941034	1056	30	80	61.0
OUDDH084	Temee	376877	4936911	1046	0	60	153.2
OUDDH085	Temee	376983	4936900	1050	130	60	63.9
OUDDH086	Temee	376963	4936887	1050	130	60	39.0
OUDDH087	Diorite	376688	4940804	1073	60	55	211.6
OUDDH088	Breccia Pipe	375288	4936582	1077	320	75	106.0
OUDDH089	Target 27	375356	4938728	1079	20	80	724.0
OURC042	Bavuu	374048	4937979	1060	320	-60	50.0
OURC043	Target 33	375670	4939168	1047	325	-80	93.0
OURC044	Target 10	375638	4939174	1082	260	-60	50.0
OURC045	Target 10	377853	4940670	1078	260	-60	7.0
OURC046	Vein 22	377875	4940668	1073	190	-60	50.0
OURC047	Vein 22	377810	4940652	1074	190	-60	50.0
OURC048	Vein 22	376583	4939801	1073	190	-60	50.0
OURC049	Target 4	376583	4939801	1081	200	-50	50.0
OURC050	Target 14	378187	4940761	1060	125	-60	70.0
OURC051	Target 4	376580	4939617	1082	200	-60	60.0
OURC052	Target 10	375634	4939175	1083	255	-60	40.0
OURC053	Breccia Pipe	375527	4936746	1056	325	-60	64.0
OURC054	Breccia Pipe	375448	4936719	1063	325	-60	66.0
OURC055	Target 33	374056	4938007	1048	240	-60	120.0
OURC056	Breccia Pipe	375420	4936693	1063	330	-60	50.0

Table 5: Oyut Ulaan significant drill results from the second quarter.

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
OUDDH078	Target 46	32	50	18	0.04	0.15	0.18
including		44	50	6	0.06	0.22	0.25
OUDDH079	Target 46	6	66	60	0.186	0.18	0.30
including		54	56	2	1.4	0.24	1.13
including		60	64	4	1.58	0.11	1.12
OUDDH080	Target 10	4.1	6	1.9	0.2	0.1	0.23
and		14	18	4	0.15	0.02	0.12
OUDDH081	Target 10	0	32	32	0.39	0.04	0.28
including		18	24	6	1.04	0.04	0.71
including		22	24	2	2.04	0.04	1.35
OUDDH083	Hulan	0	3.6	3.6	0.05	0.32	0.35
OUDDH084	Temee	0	10	10	0.01	0.18	0.18
and		32	56	24	0.03	0.3	0.32
including		38	46	8	0.07	0.52	0.57
including		42	46	4	0.09	0.71	0.77
OUDDH085	Temee	6	12	6	0.016	0.18	0.19
and		58	63.9	5.9	0.009	0.11	0.11
OUDDH086	Temee	4	10	6	0.01	0.15	0.15
and		24	38.3	14.3	0.01	0.18	0.18
OUDDH087	Diorite	0	184	184	0.85	0.52	1.06
including		40	78	38	1.3	0.83	1.66
including		82	86	4	2.74	1.24	2.99
including		110	146	36	1.67	0.79	1.85
including		116	124	8	3.19	1.24	3.28
OUDDH088	Breccia Pipe	0	66	66	0.01	1.8	1.81
including		28	30	2	0.02	10.25	10.26
including		8	18	10	0.009	0.88	0.89
including		20.4	40	19.6	0.01	4.15	4.16
including		44	54	10	0.01	1.24	1.25
including		60	64	4	0.01	1.05	1.06
and		78.8	82	3.2	0.05	1.28	1.32
OUDDH089	Target 27	128	134.2	6.2	1.9	4.24	5.45
including		129	129.9	0.9	8.27	22.1	27.37
and		156	190	34	0.07	0.13	0.18
and		198.5	278	79.5	0.21	0.26	0.39
OURC043	Target 33	6	16	10	0.51	0.1	0.43
and		26	32	6	0.23	0.04	0.19
and		40	62	22	1.82	0.01	1.17
including		50	60	10	3.7	0.01	2.36

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
OURC044	Target 10	4	13	9	0.14	0.02	0.11
and		17	18	1	0.62	0.01	0.40
OURC047	Vein 22	8	11	3	0.08	0.08	0.13
and		36	39	3	0.1	0.06	0.12
OURC049	Target 4	0	14	14	0.07	0.07	0.11
and		18	22	4	0.32	0.19	0.40
including		18	42	24	0.13	0.1	0.19
and		46	50	4	0.12	0.1	0.17
OURC050	Target 14	0	24	24	0.16	0.12	0.23
including		4	12	8	0.25	0.18	0.33
and		30	46	16	0.09	0.09	0.15
OURC051	Target 4	34	38	4	0.07	0.07	0.11
and		44	54	10	0.1	0.08	0.14
OURC053	Breccia Pipe	8	10	2	0.01	0.27	0.27
and		46	60	14	0.01	0.13	0.13
including		20	30	10	0.01	0.42	0.42
including		22	24	2	0.01	0.63	0.63
OURC054	Breccia Pipe	10	54	44	0.01	0.36	0.36
including		12	16	4	0.01	0.75	0.75
including		16	44	28	0.01	0.39	0.38
OURC055	Target 33	0	30	30	0.68	0.09	0.53
including		0	4	4	2.82	0.1	1.90
including		4	12	8	0.58	0.15	0.53
including		22	30	8	0.39	0.1	0.34
and		42	58	16	1.13	0.004	0.73
including		42	50	8	1.7	0.01	1.09

Table 6: Oyut Ulaan trench details from the second quarter.

Trench ID	Prospect	Start East	Start North	RL	Azimuth (^{0})	Length (m)
OUXT020A	Target 10	375743	4939497	1084	110	144
OUXT020B	Target 10	375709	4939359	1080	110	124
OUXT021A	Target 43	372238	4939518	1077	45	126
OUXT021B	Target 43	372483	4939349	1067	30	128
OUXT022A	Target 33	373913	4938073	1071	180	150
OUXT022B	Target 33	374053	4938073	1071	180	150

Table 7: Oyut Ulaan significant trench results from the second quarter.

Trench ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
OUXT020A	Target 10	17.8	29	11.2	0.55	0.05	0.4
including		22	24	2	1.2	0.1	0.86
including		28	29	1	1.71	0.01	1.1
and		132	144	12	0.08	0.06	0.11
OUXT021B	Target 43	86	90	4	0.36	0.05	0.28
OUXT022A	Target 33	36	88	52	0.46	0.05	0.34
including		36	47	11	0.52	0.06	0.38
including		42	47	5	0.81	0.05	0.57
including		52	56	4	0.47	0.02	0.31
including		58	60	2	3.05	0.02	1.97
including		58	84	26	0.60	0.05	0.43
including		72	78	6	0.35	0.08	0.30
including		78	80	2	1.74	0.19	1.29
and		90	96	6	0.12	0.06	0.14
OUXT022B	Target 33	56	108	52	0.48	0.1	0.41
including		56	76	20	0.23	0.02	0.17
including		78	108	30	0.67	0.17	0.59
and		92	102	10	1.47	0.31	1.25
including		94	100	6	2.13	0.43	1.79
including		98	100	2	4.32	0.65	3.41

Table 8: Tenements held as at 30 June 2017

Set out below is the relevant information in relation to Xanadu's mining tenements as required under ASX Listing Rule 5.3.3.

Tenement No.	Tenement Name	Location	Change in % Interest	% Interest as at 30 June
MV17387A1	Kharmagtai	Umnugovi Province	-	74%[1]
MV017129	Oyut Ulaan	Dornogovi Province	-	90%
13670x	Sharchuluut	Bulgan Province	-	100%

[1.] The Kharmagtai project has been funded through Xanadu's interest in Mongol Metals LLC by a combination of equity and shareholder advances converted to equity periodically. Xanadu's interest in Mongol Metals LLC is equivalent to approximately 82.4% as at 30 June 2017 (an effective 74.2% interest in the Kharmagtai project).

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.	• The resource estimate is based on drill samples only. • Representative 2 metre samples were taken from ½ NQ or HQ diamond core and chip channel samples from trenches. • 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 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	• 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. • Trench chip channel samples taken close to the base of the trench wall (about 10cm above the floor). Samples are about 3kg. • Trench Sample collected with a plastic

Criteria	JORC Code (Section 1) Explanation	Commentary
	maximiserepresentivity 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.	sheet or tray. • 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 copper-gold standards. • QAQC monitoring is an active and ongoing

Criteria	JORC Code (Section 1) Explanation	Commentary
		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 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.	• Diamond drill holes and trenches 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.	• Drilling and trenching has been completed on nominal north-south sections, commencing at 120m spacing and then closing to 40m 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 1,000m 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 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	• Drilling and trenching has been predominantly completed on north-south section lines along the strike of the known mineralised zones and from either the north or the south depending on the dip. • Limited trenching has been completed along strike (subparallel) orientations to mineralisation - no conclusion regarding

Criteria	JORC Code (Section 1) Explanation	Commentary
	should be assessed and reported if material.	width and grade can be drawn from this data; • 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 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.
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: o 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. o 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 (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	• 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.

Criteria	JORC Code (Section 2) Explanation	Commentary
	operate in the area.	• 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 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 main report.
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.	• A nominal cut-off 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

Criteria	JORC Code (Section 2) Explanation	Commentary
	• 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.	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% 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.
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. • Limited trenching has been completed along strike (subparallel) orientations to mineralisation - no conclusion regarding width and grade can be drawn from this data; • 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.	• 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	• Extensive work in this area has been done, and is reported separately.

Criteria	JORC Code (Section 2) Explanation	Commentary
	substances.	
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. • 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	• 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

Criteria	JORC Code (Section 3) Explanation	Commentary
	grade and geology.	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. • Sulphidemineralisation 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-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 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.

Criteria	JORC Code (Section 3) Explanation	Commentary
	• 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.	• 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 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

Criteria	JORC Code (Section 3) Explanation	Commentary
		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 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.	• 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 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	• Assumptions made regarding possible	• An environmental baseline study was

Criteria	JORC Code (Section 3) Explanation	Commentary
factors or assumptions	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.	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 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.	• The mineral resource classification protocols, for drilling and sampling, sample preparation and analysis, geological logging, database construction, interpolation, and estimation parameters 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

Criteria	JORC Code (Section 3) Explanation	Commentary
		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.