Exploration Ramps Up at Red Mountain

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TORONTO, Aug. 24, 2022 - Xanadu Mines Ltd. (ASX: XAM, TSX: XAM) (Xanadu or the Company) is pleased to announce the restart of exploration work at our 100% owned Red Mountain project located in the South Gobi region of Mongolia (Figure 1).

Highlights

- Exploration targeting shallow high-grade gold-silver-copper, following a detailed review of prior exploration results
- Ground exploration program underway, including surface mapping and trenching activities
- Trenching will test strike extent of shallow mineralisation and set high-priority targets for diamond drilling. Drill testing expected to commence in September 2022 quarter
- Phases 2 and 3 of Xanadu's strategic partnership with Zijin Mining Group Co. Ltd.. (Zijin).[1] are in advanced approval stages and on track to complete in the December 2022 quarter

Xanadu's Executive Chairman & Managing Director, Colin Moorhead said:
"Red Mountain has delivered several exciting, shallow, high-grade gold, silver and copper drilling results, which led us to rethink how we tackle this large and highly prospective tenement. With a renewed focus on multiple near surface targets, we are now ready to ramp exploration back-up at Red Mountain. This will include extensive trenching to define targets for the forthcoming drill program. By following a systematic program, we will be able to characterise the nature and mineral potential of Red Mountain, and we look forward to sharing results as this very exciting program progresses."

FIGURE 1: Location of Red Mountain in the South Gobi region of Mongolia - https://www.globenewswire.com/NewsRoom/AttachmentNg/35dead47-4b8c-4d34-aab1-5397f8caaf65

2022 Exploration Program

Red Mountain trenching in 2022 will include 6,500 horizontal metres, designed to test strike extent, and develop targets for follow-up diamond drilling program. Surface trenching has proven to be a rapid and economic target definition approach prior to diamond drilling, and this program will include extensive trenching over new, gold, silver and copper targets.

Trenching forms part of a disciplined and systematic exploration program. The program will include:

1. Detailed geological work, 3D geophysical and geochemical modelling
2. Trenching to test strike extent and develop drill targets.
3. Drill program focussed on shallow gold, silver and copper targets

About Red Mountain

Xanadu's Red Mountain porphyry copper-gold-silver project is located within the Dornogovi Province of southern Mongolia, approximately 420km southeast of Ulaanbaatar (Figure 1), and 70km west from the provincial centre of Sainshand. The project has a granted 30-year mining licence and comprises an underexplored porphyry district (covering approximately 57km²).

Red Mountain mineralisation is associated with late-stage monzonite and quartz diorite porphyry dykes and stocks emplaced on the flanks of the Red Mountain Intrusive Complex (Figure 2). This consists of multiple co-genetic porphyry gold and copper centres, mineralised tourmaline breccia pipes, gold and copper base metal magnetite skarns and epithermal gold veins.

Previous exploration at Red Mountain has defined several broad zones of strongly mineralised quartz stockwork veining associated with high-grade gold and increasing alteration strength, with the mineralisation style suggesting strong likelihood for depth extensions.

Shallow gold-rich and silver-rich copper mineralisation has been identified in numerous zones, located within a 4.5km long and 300m wide prospective mineralisation zone. This mineralisation is primarily located in Bavuu, Stairy, Diorite, Target 33, Nowie and Stockwork (Figure 2). Broad spaced drilling has confirmed gold mineralisation is hosted by hematite-quartz veins with coarse visible gold, occurring as multiple stacked arrays. Veins are typically narrow, but very high-grade with gold assays ranging from 1 g/t to >30 g/t gold over widths of 0.5m to 1.5m. Mineralised veins are characterised by banded and crustiform quartz and abundant sulphides. All these features are commonly found in the lower boiling zone of epithermal system, where bonanza grades are expected.

In addition to shallow, high-grade mineralisation, Red Mountain has potential for large-scale porphyry at depth. Highly anomalous geochemistry corresponds to broad zones of porphyry mineralisation from trenching, zoned porphyry alteration, overlapping with large-scale magnetic and gravity anomalies, representing a compelling string of very large porphyry targets over 6km strike (Figure 2). Initial deeper drilling in 2017 encountered 200-300m wide zones of porphyry style mineralisation at Target 10.

FIGURE 2: Red Mountain Mining Licence, showing ground Landsat data and priority target locations - https://www.globenewswire.com/NewsRoom/AttachmentNg/d0616a49-addf-410c-a6ad-c9c70653fb59

Previous Red Mountain Drilling

Previous diamond and reverse circulation (RC) drilling at Red Mountain have returned significant, gold, silver and copper results. Some highlights are below.

Bavuu Epithermal Gold

OUDDH035 - 6.3m @ 6.67g/t Au from 15m [2]

OUDDH040 - 6m @ 21.57g/t Au from surface [2]

Diorite Epithermal Gold

OUDDH043 - 9.5m @ 21.06g/t Au from surface, including 3m @ 47g/t Au from 2m [3]

OUDDH044 - 6m @ 15.43g/t Au from surface, including 1.2m @ 21.34g/t Au from 3.3m [3]

Target 33 Epithermal Gold

OURC043 - 22m @ 1.82g/t Au from 40m, including 10m @ 3.7g/t Au from 50m [4]

OURC055 - 16m @ 1.13g/t Au from 42m, including 8m @ 1.7g/t Au from 42m [4]

Stairy High-Grade Copper-Silver

OUDDH115 - 4m @ 7.34% Cu, 29.3g/t Ag from 60m, including 1m @ 28.9% Cu, 114g/t Ag from 62m[5]

OUDDH119 - 8m @ 1.31% Cu, 7.00g/t Ag from 94m [5]

OUDDH112 - 4m @ 1.98% Cu, 9.15g/t Ag from 40m [5]

FIGURE 3: Target 33 Plan View, Including Prior Trench and Drill Results [4] - https://www.globenewswire.com/NewsRoom/AttachmentNg/996e76e6-63a0-4294-8a3a-ffb536786839

Zijin Strategic Partnership

In April 2022, Xanadu announced a strategic partnership with Zijin, a global mining major and Top-10 copper producer operating in 14 countries and based in China. This included a staged, 3 phase investment of A$11 million placement into Xanadu and US$35 million into the Kharmagtai project, providing Zijin with 19.99% of Xanadu shares and 38.25% of the Kharmagtai project.[6]

Funds from this strategic partnership will be used to progress exploration at both Red Mountain and Kharmagtai projects and to complete the Pre-Feasibility Study at Kharmagtai leading to a formal Decision to Construct. Phase 1 included a A$5.6 million placement of 139,000,000 shares (9.8%) in Xanadu and was completed on 27 April 2022.

Phases 2 and 3 will provide the balance of funding upon receipt of Australia and Chinese regulatory approvals and Xanadu shareholder approval. Zijin has informed Xanadu that a no objection notification from Australia Foreign Investment Review Board (FIRB) was received on 11 August 2022.[7] Xanadu anticipates the completion of remaining approvals and full funding during December 2022 Quarter.

About Xanadu Mines

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

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This Announcement was authorised for release by Xanadu's Executive Chairman & Managing Director.

Appendix 1: Statements and Disclaimers

Competent Person Statements

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* (JORC Code, 2012) and the *National Instrument 43-101*. Dr Stewart consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Forward-Looking Statements

Certain statements contained in this Announcement, including information as to the future financial or

operating performance of Xanadu and its projects may also include statements which are 'forward?looking statements' that may include, amongst other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These 'forward-looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Xanadu, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward?looking statements.

Xanadu disclaims any intent or obligation to update publicly or release any revisions to any forward?looking statements, whether as a result of new information, future events, circumstances or results or otherwise after the date of this Announcement or to reflect the occurrence of unanticipated events, other than required by the *Corporations Act 2001* (Cth) and the Listing Rules of the Australian Securities Exchange (ASX) and Toronto Stock Exchange (TSX). The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward?looking statements.

All 'forward?looking statements' made in this Announcement are qualified by the foregoing cautionary statements. Investors are cautioned that 'forward?looking statements' are not guarantee of future performance and accordingly investors are cautioned not to put undue reliance on 'forward?looking statements' due to the inherent uncertainty therein.

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

Appendix 3: Red Mountain Table 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 for the Red Mountain project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 28 September 2021.[8]

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

Criteria	Commentary
Sampling techniques	● The exploration results are based on diamond drill core sam ● Representative ½ core samples were split from PQ, HQ & N ● The orientation of the cut line is controlled using the core ori ● Sample intervals are defined and subsequently checked by ● RC chip samples are ¼ splits from 1m intervals using a 75% ● RC samples are uniform 2m samples formed from the comb ● Trench samples are collected as 2m composite from 30m ab ● Sampling generally honours lithological contacts. ● Trench samples are continuous along the length of the trenc
Drilling techniques	● The exploration results are based upon diamond drilling of P ● All drill core drilled by Xanadu has been oriented using the "
Drill sample recovery	● Diamond drill core recoveries were assessed using the stan ● Diamond core recoveries average 97% through mineralisati ● Overall, core quality is good, with minimal core loss. Where ● RC recoveries are measured using whole weight of each 1m ● Analysis of recovery results vs grade shows no significant tr

Logging	● All drill core is geologically logged by well-trained geologists ● Logging of lithology, alteration and mineralogy is intrinsically ● Drill core is also systematically logged for both geotechnical ● Both wet and dry core photos are taken after core has been
Sub - sampling techniques and sample preparation	● All drill core samples are ½ core splits from either PQ, HQ o ● Core is appropriately split (onsite) using diamond core saws ● The diamond saws are regularly flushed with water to minim ● A field duplicate ¼ core sample is collected every 30th samp ● Routine sample preparation and analyses of DDH samples w ● All samples were prepared to meet standard quality control p ● ALS Mongolia Geochemistry labs quality management syste ● The sample support (sub-sample mass and comminution) is ● Trench samples by previous explorers between 2001 to 200
Quality of assay data and laboratory tests	● All XAM samples were routinely assayed by ALS Mongolia f ● Au is determined using a 25g fire assay fusion, cupelled to d ● All samples were also submitted to ALS Mongolia for the 48 ● Quality assurance has been managed by insertion of approp ● Assay results outside the optimal range for methods were re ● Ore Research Pty Ltd certified copper and gold standards ha ● QC monitoring is an active and ongoing processes on batch ● Prior to 2014: Cu, Ag, Pb, Zn, As and Mo were routinely dete ● Trenching samples from 2001 to 2007 were analysed for 6 e
Verification of sampling and assaying	● All assay data QA/QC is checked prior to loading into Xanad ● The data is managed by Xanadu geologists. ● The data base and geological interpretation is managed by X ● Check assays are submitted to an umpire lab (SGS Mongoli ● No twinned drill holes exist. ● There have been no adjustments to any of the assay data.
Location of data points	● Diamond drill holes have been surveyed with a differential gl ● The grid system used for the project is UTM WGS-84 Zone 4 ● Historically, Eastman Kodak and Flexit electronic multi-shot ● More recently (since September 2017), a north-seeking gyro ● The project DTM is based on 1 m contours from satellite ima ● Trenching locations for trenches between 2001 and 2007 we
Data spacing and distribution	● Holes spacings range from <50m spacings within the core o ● Holes range from vertical to an inclination of -60 degrees de ● The data spacing and distribution is sufficient to establish an ● Holes have been drilled to a maximum of 1,300m vertical de ● The data spacing and distribution is sufficient to establish ge
Orientation of data in relation to geological structure	● Drilling is conducted in a predominantly regular grid to allow ● Scissor drilling, as well as some vertical and oblique drilling,
Sample security	● Samples are delivered from the drill rig to the core shed twic ● Samples are dispatched from site in locked boxes transporte ● Sample shipment receipt is signed off at the Laboratory with ● Samples are then stored at the lab and returned to a locked

Audits or reviews	● Internal audits of sampling techniques and data managemer ● External reviews and audits have been conducted by the fol ● 2012: AMC Consultants Pty Ltd. was engaged to cond ● 2013: Mining Associates Ltd. was engaged to conduct

1.2 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS
(Criteria in this section apply to all succeeding sections).

Criteria	Commentary
Mineral tenement and land tenure status	● The Project comprises 1 Mining Licence (MV-17129A). ● Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan ● The *Mongolian Minerals Law (2006)* and *Mongolian Land Law (2002)* gover
Exploration done by other parties	● Previous exploration was conducted by Quincunx Ltd, Ivanhoe Mines Ltd ar
Geology	● The mineralisation is characterised as porphyry copper-gold type. ● Porphyry copper-gold deposits are formed from magmatic hydrothermal fluid
Drill hole Information	● Diamond drill holes are the principal source of geological and grade data for ● See figures in this ASX/TSX Announcement.
Data Aggregation methods	● A nominal cut-off of 0.1% CuEq is used in copper dominant systems for iden ● A nominal cut-off of 0.1g/t AuEq is used in gold dominant systems like for id ● Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6 ● Most of the reported intercepts are shown in sufficient detail, including maxi ● Informing samples have been composited to two metre lengths honouring th ● The copper equivalent (CuEq) calculation represents the total metal value fo ● Copper equivalent (CuEq or eCu) grade values were calculated using the fo ● CuEq = Cu + Au * 0.62097 * 0.8235, ● Gold Equivalent (AuEq or eAu) grade values were calculated using the follo ● AuEq = Au + Cu / 0.62097 * 0.8235 ● Where: Cu = copper grade (%); Au = gold grade (g/t); 0.62097 = conversion ● The copper equivalent formula was based on the following parameters (pric ● Copper price = 3.1 $/lb (or 6834 $/t) ● Gold price = 1320 $/oz ● Copper recovery = 85% ● Gold recovery = 70% ● Relative recovery of gold to copper = 70% / 85% = 82.35%.
Relationship between mineralisation on widths and intercept lengths	● Mineralised structures are variable in orientation, and therefore drill orientati ● Exploration results have been reported as an interval with 'from' and 'to' stat
Diagrams	● See figures in this ASX/TSX Announcement.
Balanced Reporting	● Exploration results have been reported at a range of cut-off grades, above a
Other substantive exploration data	● Extensive work in this area has been done and is reported separately.

Further Work	● The mineralisation is open at depth and along strike. ● Current estimates are restricted to those expected to be reasonable for ope ● Exploration ongoing.

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

Mineral Resources are not reported so this is not applicable to this report.

1.4 JORC TABLE 1 - SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

Ore Reserves are not reported so this is not applicable to this report.

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[1] ASX/TSX Announcement 19 April 2022 - Strategic Partnership with Zijin Mining Group
[2] ASX Announcement 9 June 2016 - Latest Drilling Results Underpin Significant Gold Discovery at Oyut Ulaan
[3] ASX Announcement 30 June 2016 - Further High-Grade Gold Intercepts at Oyut Ulaan
[4] ASX Announcement 28 June 2017 - Oyut Ulaan Exploration Update: Strong Drill Results Across the District
[5] ASX Announcement 28 September 2021 - New High Grade Bornite Intersections at Red Mountain
[6] ASX/TSX Announcement 19 April 2022 - Strategic Partnership with Zijin Mining Group
[7] ASX/TSX Announcement 22 August 2022 - Foreign Investment Review Board Approves Zijin Investment in Xanadu
[8] ASX/TSX Announcement 28 September 2021 - New High-Grade Bornite Intersections at Red Mountain