# Vertical Extension of High Grade Bornite Zone at Stockwork Hill

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TORONTO, Aug. 16, 2021 - Xanadu Mines Ltd. (ASX: XAM, TSX: XAM) (Xanadu or the Company) is pleased to update the market on its on-going exploration program for porphyry copper and gold deposits at the Kharmagtai District in the South Gobi region of Mongolia.

Highlights

- High-grade intercept from drill hole KHDDH573 at Stockwork Hill extends gold-rich bornite zone by 40 metres up-dip and 40 metres down-dip returning:
  - 240m @ 1.36% eCu from 474m
  - including 130m @ 1.75% eCu
  - including 26m @ 2.22% eCu
- Step-out drill holes demonstrate potential to grow the gold-rich bornite zone, with copper and gold grades that materially exceed those estimated in the 2018 Mineral Resource Estimate
- 3 active diamond drill rigs are targeting extensions of the higher-grade bornite core at Stockwork Hill
- Xanadu is currently targeting an updated Mineral Resource Estimate for Kharmagtai in Q4 2021

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said *"The results from* KHDDH573 *continue to grow the higher-grade copper and gold core at Stockwork Hill, and build toward our >100Mt @ >0.8% eCu objective. It's also exciting to see a continuation of the increasing gold to copper ratio as we drill deeper into the core of the system, which bears a growing resemblance to other world class deposits such as Oyu Tolgoi and Cadia Valley.*

*Drilling out a large porphyry system is a marathon, not a sprint and given the structurally complexity of the Kharmagtai system it is a credit to our team that they continue to steadily unravel the knot and continue to deliver such high-quality results that enhance project economics."*

Full intercepts and drill hole details for KHDDH573 can be found in Appendix 1, Tables 1 and 2.

Drill Hole KHDDH573

Drill hole KHDDH573 (see Figure 1, 2 & 3) was designed to target vertical extensions to the higher-grade core at the Stockwork Hill deposit, largely dominated by gold-rich bornite mineralisation. It intercepted wide zones of mineralisation, grading up to 0.91% copper (Cu) and 2.56g/t gold (Au) within a broader intercept of 240m grading 1.36% eCu from 474m.

| Hole ID | Interval | Cu | Au | eCu | From |
|---|---|---|---|---|---|
| KHDDH573 | 240m | 0.72% | 1.24g/t | 1.36% | 474m |
| including | 130m | 0.94% | 1.58g/t | 1.75% | 534m |
| including | 26m | 0.91% | 2.56g/t | 2.22% | 678m |

Note that true widths will generally be narrower than those reported. See disclosure in JORC explanatory statement attached.

Drill hole KHDDH573 extended the higher-grade bornite zone (>1% eCu) by 40 metres up-dip and 40 metres down-dip at Stockwork Hill, which represents an increase to the interpreted tonnage of higher-grade material at Stockwork Hill. Current drill holes have been adapted to consider a greater vertical distribution of bornite. Furthermore, future drill program design and geological modelling will ensure vertical extent of bornite

mineralisation is a key consideration.

Assays are returned to 728m; the final 257m are expected in the coming weeks and are not expected to materially impact the findings in this announcement.

Core slabs (see Figure 4) illustrate visible bornite and massive chalcopyrite in KHDDH573.

Figure 1. Stockwork Hill plan view, drill hole KHDDH573 and interpreted grade shells is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/ec23b300-4ec1-42ef-a517-032de2e01724

Figure 2. Stockwork Hill plan view showing drill hole KHDDH573 and interpreted grade shells is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/4ef0f324-7d19-49e3-ae78-b89577dc4635

Figure 3. Stockwork Hill cross section, drill hole KHDDH573 and interpreted grade shells is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/92c6c65c-01f6-4d98-b817-1a9eef666b8f

Figure 4. Core Slab of KHDDH573 demonstrating bornite and massive chalcopyrite is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/3f663e03-6a79-46e6-bf04-8c2c54efea51

Current Drilling

Xanadu is currently operating 3 diamond drill rigs at Kharmagtai, which are targeting extensions of the higher-grade core at Stockwork Hill (Figure 1, 2 & 3), taking into account the greater vertical extension of bornite demonstrated in KHDDH573.

- KHDDH577 is completed and pending assay results and was designed to test extensions to the west of the southern bornite zone;
- KHDDH578 is ongoing and tests extensions to the east of the central and southern zone;
- KHDDH579 is ongoing and tests extensions to the west of the central bornite zone; and
- KHDDH580 is ongoing and tests extensions to the west of the southwest bornite zone.

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 Kharmagtai project. For information on Xanadu visit: www.xanadumines.com.

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

Appendix 1: Drilling Results

Table 1: Drill hole collar

| Hole ID | Prospect | East | North | RL | Azimuth (?) | Inc (?) | Depth (m) |
|---|---|---|---|---|---|---|---|
| KHDDH573 | Stockwork Hill | 592584 | 4877603 | 1289 | 80 | -80 | 983.1 |

Table 2: Significant drill results

| Hole ID | Prospect | From (m) | To (m) | Interval (m) | Au (g/t) | Cu (%) | eCu (%) | eAu (g/t) |
|---|---|---|---|---|---|---|---|---|
| KHDDH573 | Stockwork Hill | 452.2 | 459.5 | 7.3 | 0.17 | 0.14 | 0.22 | 0.43 |
| *and* | | 474 | 714 | 240 | 1.24 | 0.72 | 1.36 | 2.65 |
| *including* | | 474 | 712 | 238 | 1.25 | 0.73 | 1.37 | 2.67 |
| *including* | | 490 | 498 | 8 | 0.49 | 0.23 | 0.48 | 0.94 |
| *including* | | 508 | 512 | 4 | 0.25 | 0.53 | 0.65 | 1.28 |
| *including* | | 522 | 706 | 184 | 1.54 | 0.87 | 1.65 | 3.23 |
| *including* | | 534 | 664 | 130 | 1.58 | 0.94 | 1.75 | 3.42 |
| *including* | | 678 | 704 | 26 | 2.56 | 0.91 | 2.22 | 4.34 |

Appendix 2: Statements and Disclaimers

Mineral Resources and Ore Reserves Reporting Requirements

The 2012 Edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code 2012) sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The Information contained in this Announcement has been presented in accordance with the JORC Code 2012.

The information in this Announcement relates to the exploration results previously reported in ASX Announcements which are available on the Xanadu website at: http://www.xanadumines.com/irm/content/announcements.aspx.

The Company is not aware of any new, material information or data that is not included in those market announcements.

Competent Person Statement

The information in this announcement that relates to exploration results is based on information compiled by Dr Andrew Stewart, who is responsible for the exploration data, comments on exploration target sizes, QA/QC and geological interpretation and information. Dr Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists, has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as the "Competent Person" as defined in the 2012 Edition of the *Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves* and the *National Instrument 43-101*. Dr Stewart consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Copper Equivalent Calculations

The copper equivalent (CuEq or eCu) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage with a metallurgical recovery factor applied. The copper equivalent calculation used is based off the eCu calculation defined by CSA in the 2018 Mineral Resource Upgrade (see ASX Announcement dated 31 October 2018).

Copper equivalent grade values were calculated using the formula eCu = Cu + Au * 0.62097 * 0.8235.

Where Cu = copper grade (%); Au = gold grade (gold per tonne (g/t)); 0.62097 = conversion factor (gold to copper); and 0.8235 = relative recovery of gold to copper (82.35%).

These equivalent formulas were based on the following parameters (prices are in USD): Copper price = 3.1

$/lb (or 6,834 $ per tonne ($/t)); Gold price = 1,320 $ per ounce ($/oz); Copper recovery = 85%; Gold recovery = 70%; and Relative recovery of gold to copper = 70% / 85% = 82.35%.

Forward-Looking Statements

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

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

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

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

Appendix 3: 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 13 July 2021.

JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections).

| Criteria | JORC Code explanation |
|---|---|
| *Sampling techniques* | ● *Nature and quality of sampling (e.g. cut channels, random c*<br>● *Include reference to measures taken to ensure sample repre*<br>● *Aspects of the determination of mineralisation that are Mate*<br>● *In cases where 'industry standard' work has been done this* |
| *Drilling techniques* | ● *Drill type (e.g. core, reverse circulation, open-hole hammer,* |

| | |
|---|---|
| *Drill sample recovery* | ● *Method of recording and assessing core and chip sample re*<br>● *Measures taken to maximise sample recovery and ensure re*<br>● *Whether a relationship exists between sample recovery and* |
| *Logging* | ● *Whether core and chip samples have been geologically and*<br>● *Whether logging is qualitative or quantitative in nature. Core*<br>● *The total length and percentage of the relevant intersections* |
| *Sub-sampling techniques and sample preparation* | ● *If core, whether cut or sawn and whether quarter, half or all*<br>● *If non-core, whether riffled, tube sampled, rotary split, etc. a*<br>● *For all sample types, the nature, quality and appropriateness*<br>● *Quality control procedures adopted for all sub-sampling stag*<br>● *Measures taken to ensure that the sampling is representativ*<br>● *Whether sample sizes are appropriate to the grain size of th* |
| *Quality of assay data and laboratory tests* | ● *The nature, quality and appropriateness of the assaying and*<br>● *For geophysical tools, spectrometers, handheld XRF instrum*<br>● *Nature of quality control procedures adopted (e.g. standards* |
| *Verification of sampling and assaying* | ● *The verification of significant intersections by either indepen*<br>● *The use of twinned holes.*<br>● *Documentation of primary data, data entry procedures, data*<br>● *Discuss any adjustment to assay data.* |
| *Location of data points* | ● *Accuracy and quality of surveys used to locate drill holes (co*<br>● *Specification of the grid system used.*<br>● *Quality and adequacy of topographic control.* |
| *Data spacing and distribution* | ● *Data spacing for reporting of Exploration Results.*<br>● *Whether the data spacing and distribution is sufficient to est*<br>● *Whether sample compositing has been applied.* |
| *Orientation of data in relation to geological structure* | ● *Whether the orientation of sampling achieves unbiased sam*<br>● *If the relationship between the drilling orientation and the ori* |

| | |
|---|---|
| *Sample security* | ● *The measures taken to ensure sample security.* |
| *Audits or reviews* | ● *The results of any audits or reviews of sampling techniques* |

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 2 Mining Licences (MV-17129A Oyut Ulaan and (MV<br>● Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut<br>● The Kharmagtai mining license MV-17387A is 100% owned by Oyut U<br>● The *Mongolian Minerals Law (2006)* and *Mongolian Land Law (2002)* gover |
| Exploration done by other parties | ● Previous exploration at Kharmagtai was conducted by Quincunx Ltd, Ivanho<br>● Previous exploration at Red Mountain (Oyut Ulaan) was conducted by Ivanh |
| Geology | ● The mineralisation is characterised as porphyry copper-gold type.<br>● 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<br>● See figures in this ASX/TSX Announcement. |

| | |
|---|---|
| | ● The CSAMT data was converted into 2D line data using the Zonge CSAMT<br>● A nominal cut-off of 0.1% eCu is used in copper dominant systems for ident<br>● A nominal cut-off of 0.1g/t eAu is used in gold dominant systems like Golde<br>● Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.<br>● Most of the reported intercepts are shown in sufficient detail, including maxi<br>● Informing samples have been composited to two metre lengths honouring th<br><br>The copper equivalent (eCu) calculation represents the total metal value for each<br><br>Copper equivalent (CuEq or eCu) grade values were calculated using the followin<br><br>eCu or CuEq = Cu + Au * 0.62097 * 0.8235,<br><br>Gold Equivalent (eAu) grade values were calculated using the following formula:<br><br>eAu = Au + Cu / 0.62097 * 0.8235. |
| Data Aggregation methods | Where:<br><br>Cu - copper grade (%)<br><br>Au - gold grade (g/t)<br><br>0.62097 - conversion factor (gold to copper)<br><br>0.8235 - relative recovery of gold to copper (82.35%)<br><br>The copper equivalent formula was based on the following parameters (prices are<br><br>● Copper price - 3.1 $/lb (or 6834 $/t)<br>● Gold price - 1320 $/oz<br>● Copper recovery - 85%<br>● Gold recovery - 70%<br>● 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<br>● Exploration results have been reported as an interval with 'from' and 'to' stat |
| Diagrams | ● See figures in the body of this ASX/TSX Announcement. |
| Balanced reporting | ● Resources have been reported at a range of cut-off grades, above a minimu |
| 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.<br>● Current estimates are restricted to those expected to be reasonable for ope<br>● Exploration on going. |

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

Mineral Resources are not reported so this is not applicable to this Announcement. Please refer to ASX Announcement dated 31 October 2018 for Xanadu's most recent reported Mineral Resource Estimate and

applicable Table 1, Section 3.

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

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