Oxide Gold Drilling Commences at Kharmagtai

24.07.2019 | GlobeNewswire

TORONTO, July 24, 2019 - Xanadu Mines Ltd. (ASX: XAM, TSX: XAM) (“Xanadu” or “the Company”) is pleased to report that a drill rig has been mobilised to commence drilling at the Kharmagtai copper-gold project in Mongolia (Figure 1). The objective of this program is to confirm the presence of the oxide gold cap above the Stockwork Hill deposit and characterise this mineralisation for gold deportment to give direction for further work. An initial development of an oxide gold operation would be focused exclusively on mining and processing near-surface resources. The low cost drill program is the first step towards this goal. Subject to further technical, environmental and social studies the larger-scale copper-gold project is expected to be developed in the future.

HIGHLIGHTS

- Potential for low-cost, high-value oxide gold project at Kharmagtai
- Targets include gold cap above Stockwork Hill, where several holes have highlighted high grade oxide gold previously
- Previous drilling in these areas is stepped off targeting deeper copper-gold mineralisation, underestimating shallow oxide gold potential
- Oxide gold may provide early cashflow for the project and/or alternative financing options for the development of the larger-scale project
- Further development of oxide gold metallurgical performance will be targeted with additional test work.

Xanadu’s Chief Executive Officer, Dr Andrew Stewart, said:

“We are excited about the opportunity for a near term, low-cost, high-value oxide gold project at Kharmagtai to fund further exploration and development of the large-scale copper gold project. Kharmagtai sits on a granted mining lease with a registered water resource and an established power supply nearby. We have the ability to move quickly on an oxide gold project.

This first round of drilling is designed to quickly and cheaply test the concept and confirm the tenor of the oxide cap we know is above the established sulphide copper-gold resources”.

OXIDE GOLD DRILL PROGRAM

The objective of this drill program is to quickly and cheaply test one of the main oxide gold targets at Kharmagtai to confirm the expected gold grades and characterise the gold deportment. A total of eight vertical PQ drill holes have been designed to test several sections across the oxide cap and several holes to test beneath extremely high-grade gold at surface along strike (Figure 2, 3, 4 and 5). PQ drilling is being used to ensure sufficient material for metallurgical and geotechnical data to be gathered. Screen fire assays will be used to help determine the gold grain sizes and ensure accurate QAQC going forward. Material from this work will be submitted for gravity and leach metallurgical work to obtain initial recovery data. This work will form a decision point for further drilling and resource estimation.

OXIDE POTENTIAL ABOVE EXISTING DEPOSITS

Drilling at Stockwork Hill has been focused on deeper sulphide mineralisation and not shallow oxide gold potential. In the preliminary economic assessment released in April, this material was highlighted as being sparsely drilled, despite the presence of free gold in the soil above both deposits. This gap in drill data is

driven by the need to drill diamond drill holes at a dip of 60 to 70 degrees, meaning holes need to be stepped back from the top of the orebody to best intersect mineralisation further down.

SHALLOW GOLD POTENTIAL AT KHARMAGTAI – EXPLORATION TARGETS DEVELOPED

As previously released (*see press release dated 20th March, 2019*) a review of the shallow gold potential of the Kharmagtai lease has been conducted with the aim of assessing the potential for a low-cost, high-value gold project to deliver cash into the early stages of a larger scale copper-gold development.

Eight gold targets across the lease have been reviewed in detail and exploration targets developed for each of these prospects. This work informs a decision point for drilling and further metallurgical work. These targets include sparsely drilled oxide gold above the existing resources at Copper Hill and Stockwork Hill, oxide gold potential above Golden Eagle, disseminated free gold and electrum within Golden Eagle and numerous carbonate base metal epithermal gold veins previously drilled while targeting porphyry mineralisation (Table 1). The location of each target is summarised in Figure 2.

The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code” (JORC 2004). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve.

Table 1: Kharmagtai oxide gold exploration targets

Target Name	Gold Style*1	Length*2	Width
Golden Eagle (0.3 to 0.6g/t Au)	Oxide gold cap and disseminated free gold and electrum	400 to 500m	300 to
Golden Eagle (0.6 to 1g/t Au)	Oxide gold cap and disseminated free gold and electrum	200 to 350m	75 to
Copper Hill Oxide Gold	Oxide gold cap above Copper Hill	150 to 200m	50 to
Stockwork Hill Oxide Gold	Oxide gold cap above Stockwork Hill	200 to 400m	85 to
Zaraa Vein One and Two	C.B.M Oxide Epithermal Gold	2 X 200 to 400m veins	2 to 3
Wolf Vein One and Two	C.B.M Oxide Epithermal Gold	2 x 400 to 500m	1.5 to
Badger Vein	C.B.M Oxide Epithermal Gold	280 to 500m	1.5 to
Seventeen One and Two	C.B.M Oxide Epithermal Gold	2 X 400 to 500m	1.5 to
Target Two	C.B.M Oxide Epithermal Gold	400 to 500m	2 to 3

1* - Each style of gold mineralisation will manifest (size, shape, gangue minerals) differently and perform differently within metallurgical plant
2* - Length of the exploration target is defined as a conservative maximum and minimum length estimation based off the distances over which drill intercepts are observed and geological or geophysical characteristics associated with the mineralisation are observed
3* - Width of the exploration targets is taken from drill intercepts and expressed as a range
4* - Depth information is gained from drill intercepts. The oxide/weathering zone is often taken from geochemical data from drilling, i.e. sulphur often helps define the base of oxidation as it is readily weathered and does not commonly exist in the weathering profile. The base of oxidation is interpreted to be the depth that sulphur appears within the drill hole
5* - Density data is taken from drilling or assumed to be the average rock density in the Kharmagtai dataset (2.75)
6* - Tonnage range is estimated as a calculation of the maximum and minimum length, width and depth.
7* - Grade range is taken directly from drill results
8* - Metallurgical factor is either taken from existing metallurgical results or assumed to be 85%.
9* - Potential Oz range is estimated from a calculation of tonnage ranges and grade ranges. Larger tonnage

with lesser grade range and smaller tonnage with higher grade range.

Photos accompanying this announcement are available at:

https://www.globenewswire.com/NewsRoom/AttachmentNg/e362f2b1-3176-45c1-b15e-ad74a58183e7

https://www.globenewswire.com/NewsRoom/AttachmentNg/fc400518-6699-4945-89a0-42867e1b0d3d

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COMPETENT-QUALIFIED 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) 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 $1,300/oz.

CAUTIONARY STATEMENTS REGUARDING EXPLORATION TARGETS

The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code” (JORC 2004). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve.

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APPENDIX 1: KHARMAGTAI TABLE 1 (JORC 2012)

1.1 JORC TABLE 1 – SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

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 July 2018.

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

Criteria	JORC Code explanation
Sampling techniques	● *Nature and quality of sampling (eg cut channels, random ch* ● *Include reference to measures taken to ensure sample repre* ● *Aspects of the determination of mineralisation that are Mate* ● *In cases where ‘industry standard’ work has b*
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* ● *Measures taken to maximise sample recovery and ensure re* ● *Whether a relationship exists between sample recovery and*
Logging	● *Whether core and chip samples have been geologically and* ● *Whether logging is qualitative or quantitative in nature. Core* ● *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* ● *If non-core, whether riffled, tube sampled, rotary split, etc an* ● *For all sample types, the nature, quality and appropriateness* ● *Quality control procedures adopted for all sub-sampling stag* ● *Measures taken to ensure that the sampling is representativ* ● *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* ● *For geophysical tools, spectrometers, handheld XRF instrum* ● *Nature of quality control procedures adopted (eg standards,*

Verification of sampling and assaying	● *The verification of significant intersections by either indepen* ● *The use of twinned holes.* ● *Documentation of primary data, data entry procedures, data* ● *Discuss any adjustment to assay data.*
Location of data points	● *Accuracy and quality of surveys used to locate drill holes (co* ● *Specification of the grid system used.* ● *Quality and adequacy of topographic control.*
Data spacing and distribution	● *Data spacing for reporting of Exploration Results.* ● *Whether the data spacing and distribution is sufficient to est* ● *Whether sample compositing has been applied.*
Orientation of data in relation to geological structure	● *Whether the orientation of sampling achieves unbiased sam* ● *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*

1.3 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation
Mineral tenement and land tenure status	● *Type, reference name/number, location and ow* ● *The security of the tenure held at the time of re*
Exploration done by other parties	● *Acknowledgment and appraisal of exploration b*

	● *Deposit type, geological setting and style of mi*
Geology	
Drill hole Information	● *A summary of all information material to the un* ο *easting and northing of the drill hole* ο *elevation or RL (Reduced Level &nc* ο *dip and azimuth of the hole* ο *down hole length and interception d* ο *hole length.* ● *If the exclusion of this information is justified or*
Data aggregation methods	● *In reporting Exploration Results, weighting ave* ● *Where aggregate intercepts incorporate short l* ● *The assumptions used for any reporting of met*
Relationship between mineralisation widths and intercept lengths	● *These relationships are particularly important i* ● *If the geometry of the mineralisation with respe* ● *If it is not known and only the down hole length*
Diagrams	● *Appropriate maps and sections (with scales) a*
Balanced reporting	● *Where comprehensive reporting of all Explorat*
Other substantive exploration data	● *Other exploration data, if meaningful and mate*

Further work	● *The nature and scale of planned further work (e* ● *Diagrams clearly highlighting the areas of poss*

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

Criteria	JORC Code explanation
Database integrity	● *Measures taken to ensure that data has not been corrupted by, for e* ● *Data validation procedures used.*
Site visits	● *Comment on any site visits undertaken by the Competent Person an* ● *If no site visits have been undertaken indicate why this is the case.*
Geological interpretation	● *Confidence in (or conversely, the uncertainty of) the geological interp* ● *Nature of the data used and of any assumptions made.* ● *The effect, if any, of alternative interpretations on Mineral Resource e* ● *The use of geology in guiding and controlling Mineral Resource estim* ● *The factors affecting continuity both of grade and geology.*
Dimensions	● *The extent and variability of the Mineral Resource expressed as leng*

Estimation and modelling techniques	● *The nature and appropriateness of the estimation technique(s) applie* ● *The availability of check estimates, previous estimates and/or mine p* ● *The assumptions made regarding recovery of by-products.* ● *Estimation of deleterious elements or other non-grade variables of ec* ● *In the case of block model interpolation, the block size in relation to t* ● *Any assumptions behind modelling of selective mining units.* ● *Any assumptions about correlation between variables.* ● *Description of how the geological interpretation was used to control t* ● *Discussion of basis for using or not using grade cutting or capping.* ● *The process of validation, the checking process used, the compariso*
Moisture	● *Whether the tonnages are estimated on a dry basis or with natural m*
Cut-off parameters	● *The basis of the adopted cut-off grade(s) or quality parameters applie*
Mining factors or assumptions	● *Assumptions made regarding possible mining methods, minimum mi*
Metallurgical factors or assumptions	● *The basis for assumptions or predictions regarding metallurgical ame*
Environmental factors or assumptions	● *Assumptions made regarding possible waste and process residue di*
Bulk density	● *Whether assumed or determined. If assumed, the basis for the assu* ● *The bulk density for bulk material must have been measured by meth* ● *Discuss assumptions for bulk density estimates used in the evaluatio*
Classification	● *The basis for the classification of the Mineral Resources into varying* ● *Whether appropriate account has been taken of all relevant factors (* ● *Whether the result appropriately reflects the Competent Person&rsqu*
Audits or reviews	● *The results of any audits or reviews of Mineral Resource estimates.*

Discussion of relative accuracy/ confidence	● *Where appropriate a statement of the relative accuracy and confiden* ● *The statement should specify whether it relates to global or local esti* ● *These statements of relative accuracy and confidence of the estimat*

1.5 JORC TABLE 1 – SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

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

Image removed and available in the link below