Significant New Zone of Bornite Gold-Rich Porphyry Mineralisation

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HIGHLIGHTS

Location of the Kharmagtai Project in the South Gobi porphyry copper belt.

The Kharmagtai Mining Licence showing ground magnetic data and location of the Kharmagtai Deposit (Stockwork Hill, White Hill, Copper Hill), porphyry centres, targets and location of drill holes KHDDH488.

Long section showing KHDDH488 and KHDDH419.

Mineralised slab images from KHDDH488. Halved HQ core, the height of each image is 6.35cm.

Estimation and modelling techniques

Bulk density

- KHDDH488 discovers a significant new zone of high-grade mineralisation outside the current open pit resource returning:
    - 352m @ 0.41% Cu & 0.58g/t Au (0.78% eCu or 1.22g/t eAu) from 448m,

including 102m @ 1.00% Cu and 1.67g/t Au (2.06% eCu or 3.23g/t eAu) from 572m,

including 78m @ 1.14% Cu and 2.06g/t Au (2.45% eCu or 3.85g/t eAu) from 594m,

including 14m @ 1.51% Cu and 3.36g/t Au (3.66% eCu or 5.73g/t eAu) from 622m

and 10m @ 2.24% Cu and 5.28g/t Au (5.60% eCu or 8.78g/t eAu) from 658m

- KHDDH488 extends known mineralisation in the central portion of the Stockwork Hill Deposit approximately 200 metres to the southeast and 100 metres east of KHDDH419;
- The discovery has revealed a transition to a zone of higher temperature sulphide mineral assemblages, i.e. bornite, in the intrusive root to the deposit;
- New results are expected to enhance the mining economics significantly;

- Follow up drilling is underway to further quantify the positive impacts;
- Remaining assay results from KHDDH488 expected in the coming weeks.

TORONTO, Feb. 28, 2019 - Xanadu Mines Ltd. (ASX: XAM, TSX: XAM) (“Xanadu” or “the Company”) is pleased to report partial assay results for diamond drill hole KHDDH488 which has returned a thick intercept of high-grade copper and gold mineralisation. The latest drilling results have confirmed a transition to higher temperature sulphide mineral assemblages such as bornite in the intrusive root to the deposit, with a significant increase in the gold-to-copper ratio associated with increasing bornite. The high-grade bornite occurs within a highly mineralised quartz monzodiorite intrusion that appears to be one of the primary sources of mineralisation for the entire Kharmagtai deposit, which is located in the south Gobi region of Mongolia (Figures 1 and 2). The current drilling is targeting high-grade mineralisation associated with the causative copper and gold porphyry at depth.

Xanadu’s Managing Director & Chief Executive Officer, Dr Andrew Stewart, said *“After two and a half years of intensive exploration, it is remarkable that our drilling has intersected a significant new zone of bornite-rich porphyry which has produced one of the best intersections of copper and gold mineralisation encountered on the property. Like most classic gold-rich porphyry systems, the target is the bornite zone which correlates with high copper values, but significantly also a higher gold-to-copper ratio.*

Hole KHDDH488 has successfully demonstrated the existence of high-grade mineralisation along strike and at depth of the current open pit resource. This represents an exciting new development for the project following the release of an interim open pit resource last year and we are particularly excited with the new results from this hole which are expanding a new zone of bornite porphyry mineralisation. We are very confident these results will provide the basis for a significant increase in the size and grade of the overall Kharmagtai deposit and have a positive impact on ongoing economic studies.”

EXTENSION TO THE STOCKWORK HILL DEPOSIT DESCOVERED

Drilling is targeting mineralisation below chalcopyrite‐gold mineralisation to test for a higher-grade bornite core in the root zones of the causative porphyry intrusion. High-grade mineralisation may manifest as bornite‐gold‐cemented breccia or as bornite‐gold stockwork mineralisation in the causative intrusive.

KHDDH488 has returned:

352m @ 0.41% Cu & 0.58g/t Au (0.78% eCu or 1.22g/t eAu) from 448m,

including 102m @ 1.00% Cu and 1.67g/t Au (2.06% eCu or 3.23g/t eAu) from 572m,

including 78m @ 1.14% Cu and 2.06g/t Au (2.45% eCu or 3.85g/t eAu) from 594m,

including 14m @ 1.51% Cu and 3.36g/t Au (3.66% eCu or 5.73g/t eAu) from 622m

and 10m @ 2.24% Cu and 5.28g/t Au (5.60% eCu or 8.78g/t eAu) from 658m.

Assays for the remaining 400 metres of the drill hole are expected in the coming weeks. A wedge hole KHDDH488a as been initiated to test up-dip of this intercept and define the orientation of the high-grade bornite mineralisation.

KHDDH488 has extended the Stockwork Hill deposit a minimum of 200 metres beyond the southern limit of the open cut resource estimate that was prepared by CSA in October 2018 and 100 metres to the east of the drill intercept in KHDDH419 (see Xanadu’s ASX announcement – 26 September 2017; Figure 2) which intersected:

KHDDH419 − 294m @ 0.47% Cu & 0.85g/t Au (1.01% eCu or 1.59g/t eAu) from 466m,

Including 86m @ 0.78% Cu and 1.91g/t Au (2.0% eCu or 3.14g/t eAu) from 558m.

The high-grade bornite zone as currently drilled, appears to be the tip of a wedge of mineralisation that could broaden significantly at depth. Drilling will focus on expanding this wedge of mineralisation in the coming months.

Photos accompanying this announcement are available at:

http://www.globenewswire.com/NewsRoom/AttachmentNg/0ad0bb84-1d31-4279-b935-59edbd9f965e

http://www.globenewswire.com/NewsRoom/AttachmentNg/adf5e645-33c4-4241-8727-3593af2e0027

http://www.globenewswire.com/NewsRoom/AttachmentNg/76a6ccdd-f786-4dc2-8cd0-92f8d11200bb

http://www.globenewswire.com/NewsRoom/AttachmentNg/647dda6a-c954-46f8-8955-01b074f36b35

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.

TABLE 1: Currently returned assay intercepts for Stockwork Hill

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH488	Stockwork Hill	3.4	29	25.6	0.06	0.09	0.13	0.20
and		39	103	64	0.14	0.10	0.19	0.29
including		53	59	6	0.26	0.25	0.42	0.66
and		117	148	31	0.10	0.24	0.30	0.47
including		134	140	6	0.24	0.57	0.72	1.13
and		170	372.1	202.1	0.22	0.21	0.35	0.55
including		178	191.2	13.2	0.27	0.35	0.52	0.82
including		201	207	6	0.28	0.22	0.40	0.62
including		227	251	24	0.27	0.21	0.39	0.60

including	229	241	12	0.37	0.25	0.49	0.76
including	261	345	84	0.28	0.26	0.43	0.68
including	263	271	8	0.14	0.45	0.54	0.85
including	321	331	10	0.53	0.31	0.65	1.01
including	355	369	14	0.44	0.27	0.55	0.86
including	357	363	6	0.66	0.35	0.77	1.21
and	394	400	6	0.03	0.11	0.13	0.21
and	412	426	14	0.04	0.10	0.13	0.20
and	448	800	352	0.58	0.41	0.78	1.22
including	530	540	10	0.09	0.22	0.28	0.43
including	550	676	126	1.39	0.88	1.77	2.77
including	572	674	102	1.67	1.00	2.06	3.23
including	572	584	12	0.38	0.59	0.83	1.30
including	594	672	78	2.06	1.14	2.45	3.85
including	690	736	46	0.31	0.24	0.44	0.69
including	710	732	22	0.26	0.25	0.41	0.65
including	748	758	10	0.25	0.25	0.41	0.64
including	782	798.6	16.6	0.18	0.12	0.24	0.38
and	883	1214.4	*Assays pending*				

Intercepts are weighted averages to ensure different sample lengths do not skew the results. There is insufficient information to understand true widths at this stage. Due to the size of the system and current ambiguity around orientation of the drill hole relative to minor diluting intrusives, a larger than normal internal dilution of 9m has been used to calculate a geologically relevant intercept. Cut-off grades and maximum dilution details are included in the tabulated intercepts for clarity.

TABLE 2: Drill hole collar location

Hole ID	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
KHDDH488	Stockwork Hill	592741	4877800	1284	180	-73	901.0

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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 (e.g. cut channels, random c* ● *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. a* ● *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 (e.g. 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*
Geology	● *Deposit type, geological setting and style of mi*

Drill hole Information	● *A summary of all information material to the un*
	  ● *easting and northing of the drill hole colla*
	  ● *elevation or RL (Reduced Level –*
	  ● *dip and azimuth of the hole*
	  ● *down hole length and interception depth*
	  ● *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 Explorati*
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.