

## Quarterly Activities Report and Appendix 5B - 30 September 2021

28 October 2021

ASX Markets Announcement Office  
Exchange Centre  
20 Bridge Street  
Sydney NSW 2000

### BY ELECTRONIC LODGEMENT

### Quarterly Activities Report and Appendix 5B - 30 September 2021

Please find attached for release to the market, Xanadu Mining Ltd's *Quarterly Activities Report and Appendix 5B* for the quarter ended 30 September 2021.

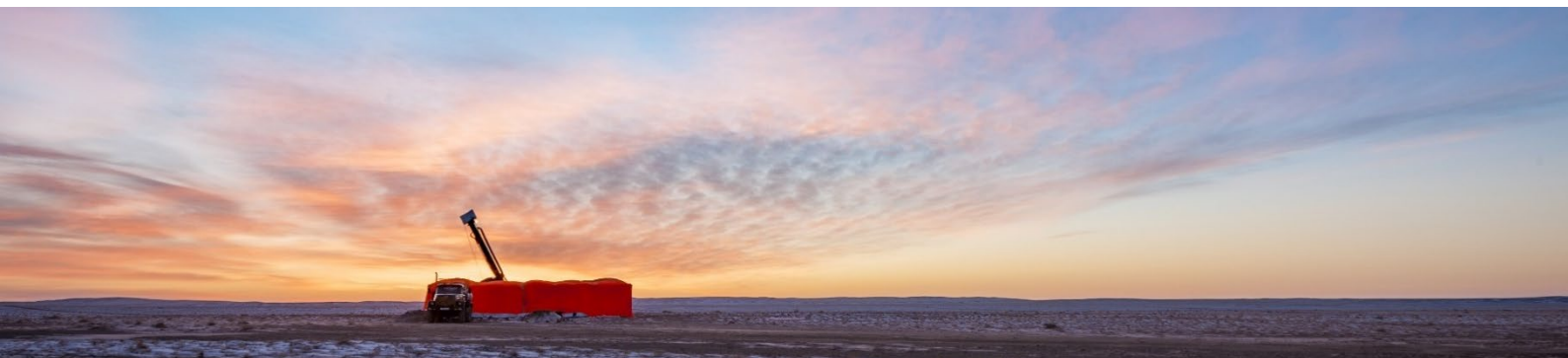
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This Announcement was authorised for release by Xanadu's Board of Directors.



## QUARTERLY ACTIVITIES REPORT

for the three months ended 30 September 2021  
(figures are unaudited and in A\$ except where stated)

28 October 2021

### September 2021 Quarter Highlights

Exploration continued at Kharmagtai and Red Mountain districts in the South Gobi Region of Mongolia, with high health and safety standards maintained during the quarter. At Kharmagtai, drilling further extended the high-grade bornite zone at Stockwork Hill and identified a large extension to mineralisation at White Hill. At Red Mountain, drilling at the Stairy Prospect successfully intersected near surface, silver-rich, high-grade copper sulphide veins, confirming and extending mineralisation seen in previous drilling.

Subsequent to the quarter, ownership of Red Mountain was consolidated to 100% via purchase of a minority interest and termination of a Joint Exploration Agreement with the Japan Oil, Gas and Metals National Corporation (**JOGMEC**). During the December 2021 quarter, Xanadu will release an update of the Kharmagtai Mineral Resource Estimates and will publish its inaugural Sustainability Report.

#### Kharmagtai District

- 11,146 metres of diamond drilling (13 holes) completed during the quarter using 3 rigs.
- Extended high grade bornite zone at Stockwork Hill by 80 metres (40m up dip and 40m down dip), with **KHDDH573 returning 240m @ 1.36% CuEq from 474m.**<sup>1</sup>
- Expanded White Hill mineralisation to south by 300m, with **KHDDH569 returning 697m @ 0.38% CuEq from 443m, including 172m @ 0.51% CuEq from 570m and 208m @ 0.52% CuEq from 754m.**<sup>2,3</sup>
- Commenced update of the mineral resource estimates for all deposits at Kharmagtai including the newly discovered Zarea deposit. This includes ~61,500 metres of drilling that was completed since the interim resource estimate was released in 2018 (MRE 2018). The Company expects MRE 2021 to be completed and released before the end of 2021.

#### Red Mountain District

- Completed Moving Loop Electromagnetic survey and identified numerous conductive anomalies.
- Significant results from 1,000 metres (horizontal) trenching program confirmed shallow, high-grade copper-silver mineralisation at Stairy and extended zones of mineralisation seen in historic trenches.

<sup>1</sup> ASX/TSX Announcement 16 August 2021 - Vertical Extension of High Grade Bornite Zone at Stockwork Hill

<sup>2</sup> ASX/TSX Announcement 13 July 2021 - Large Scale Extension at White Hill

<sup>3</sup> ASX/TSX Announcement 29 July 2021 - Quarterly Activities Report and Appendix 5B - 30 June 2021

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- Completed 2,950 metre diamond drilling program targeting near surface, high-grade bornite mineralisation at Stairy and large scale targets, yielding silver rich high-grade copper zones in three holes.<sup>4</sup>
  - OUDDH115 4m @ 7.34% Cu & 29.3g/t Ag from 60.0m, including, 1m @ 28.9% Cu & 114g/t Ag from 61.5m
  - OUDDH119 8m @ 1.31% Cu & 7.00g/t Ag from 94.0m
  - OUDDH112 4m @ 1.98% Cu & 9.15g/t Ag from 40.0m

### Corporate

- Increased to 100% ownership and full control of Red Mountain exploration program<sup>5</sup>
  - Purchased 10% minority interest previously owned by Enkh Tunkh Delkhii LLC for US\$350,000 cash, with effective date pending final lodgement of share transfer in Mongolia.
  - Joint Exploration Agreement with JOGMEC terminated effective 30 November 2021, prior to meeting earn-in conditions, reverting ownership to previous structure.
- Closing Cash at 30 September 2021 of **\$7.0 million**.

**Chief Executive Officer, Dr Andrew Stewart, said,** “During the September quarter, whilst safely managing the additional challenges of the pandemic, Xanadu made significant progress towards our project goals at both the Kharmagtai and Red Mountain Districts.

*At our flagship Kharmagtai project, we aim to position the project as a world class copper-gold asset. Drilling during the quarter successfully defined significant growth of the high-grade bornite zone at Stockwork Hill and extended known mineralisation at White Hill to the south. We have now completed approximately 61,500 metres of drilling since our interim Mineral Resource Estimate in 2018 and are working on an update for release before the end of 2021.*

*At our second project at Red Mountain, we completed an electromagnetic geophysical survey and a trenching program at Stairy, which expanded areas of known surface mineralisation. Follow-up drilling yielded shallow, high grade, copper-silver sulphide vein mineralisation in three holes. The resulting exploration model highlights Stairy’s potential for a smaller and lower capex project that could complement the larger scale porphyry targets elsewhere at Red Mountain and at Kharmagtai.*

*Commercially, with Xanadu now the sole owner and operator of Red Mountain, the value proposition is enhanced for our shareholders. We will share an updated exploration strategy for this highly prospective district in the coming quarter.*

*Mongolia’s vaccination and booster programs are going well, and we are keenly observing progress in negotiations with Rio Tinto, our neighbours at Oyu Tolgoi. We see these developments as positive news for Mongolia as a destination for international investment.*

*Looking forward, we will share an updated Mineral Resource Estimate for Kharmagtai in the December 2021 Quarter, and I am confident this will show that Kharmagtai is a copper asset that has scale, well-defined blocks of higher grade material, and strong gold credits. We will also proudly publish our inaugural Sustainability Report, underpinning our goal to be a leader in sustainable exploration.”*

Xanadu Mines Ltd (ASX:XAM | TSX:XAM) (**Xanadu** or the **Company**) is pleased to provide an update on exploration and associated activities undertaken during the quarter ended 30 September 2021.

<sup>4</sup> ASX/TSX Announcement 28 Sep 2021 – New High-Grade Bornite Intersections at Red Mountain

<sup>5</sup> ASX/TSX Announcement 27 October 2021 – Xanadu Consolidates 100% Ownership of Red Mountain

## Exploration Update

### Kharmagtai Copper-Gold Project

Kharmagtai exploration focused on drilling the high-grade bornite zone at Stockwork Hill. 11,146 metres of diamond drilling was completed during the quarter in 13 drill holes (**Figure 1** and **Table 2**). This includes 331 metres in three holes that were reported in the June 2021 Quarter Report.

Xanadu has set a medium term goal targeting an increase of the combined Kharmagtai resource to >1 billion tonnes @  $\geq 0.5\%$  copper equivalent (**CuEq**) including >100 million tonnes @  $\geq 0.8\%$  CuEq, with the aim to provide both **scale** and a **high-grade** core to accelerate future development of the Kharmagtai.<sup>6</sup>

The Company is currently undertaking a 23,000 metre diamond drilling program at Kharmagtai with anticipated completion by Q4 of CY2021. The program includes three key components, structured to progress toward Company's high-grade and scale goals:.

- High-Grade Definition Program - define scale and tenor of gold-rich, bornite zone underneath Stockwork Hill, White Hill and Copper Hill resources;
- Discovery Drilling Program - drill priority targets to identify new discoveries within the Kharmagtai District; and
- Resource Upgrade Program - target a resource upgrade beneath the current resource, including large-scale mineralisation at recently discovered Zараа.

### STOCKWORK HILL DRILLING

Results were received from eight diamond drill holes at Stockwork Hill during the quarter targeting high-grade extensions to known mineralisation and new discoveries (**Figure 1**). This includes seven new diamond drill holes and one hole (KHDDH573) which was drilled in the prior quarter.

<sup>6</sup> ASX/TSX Announcement 3 June 2021 - Xanadu Accelerates 2021 Exploration Program

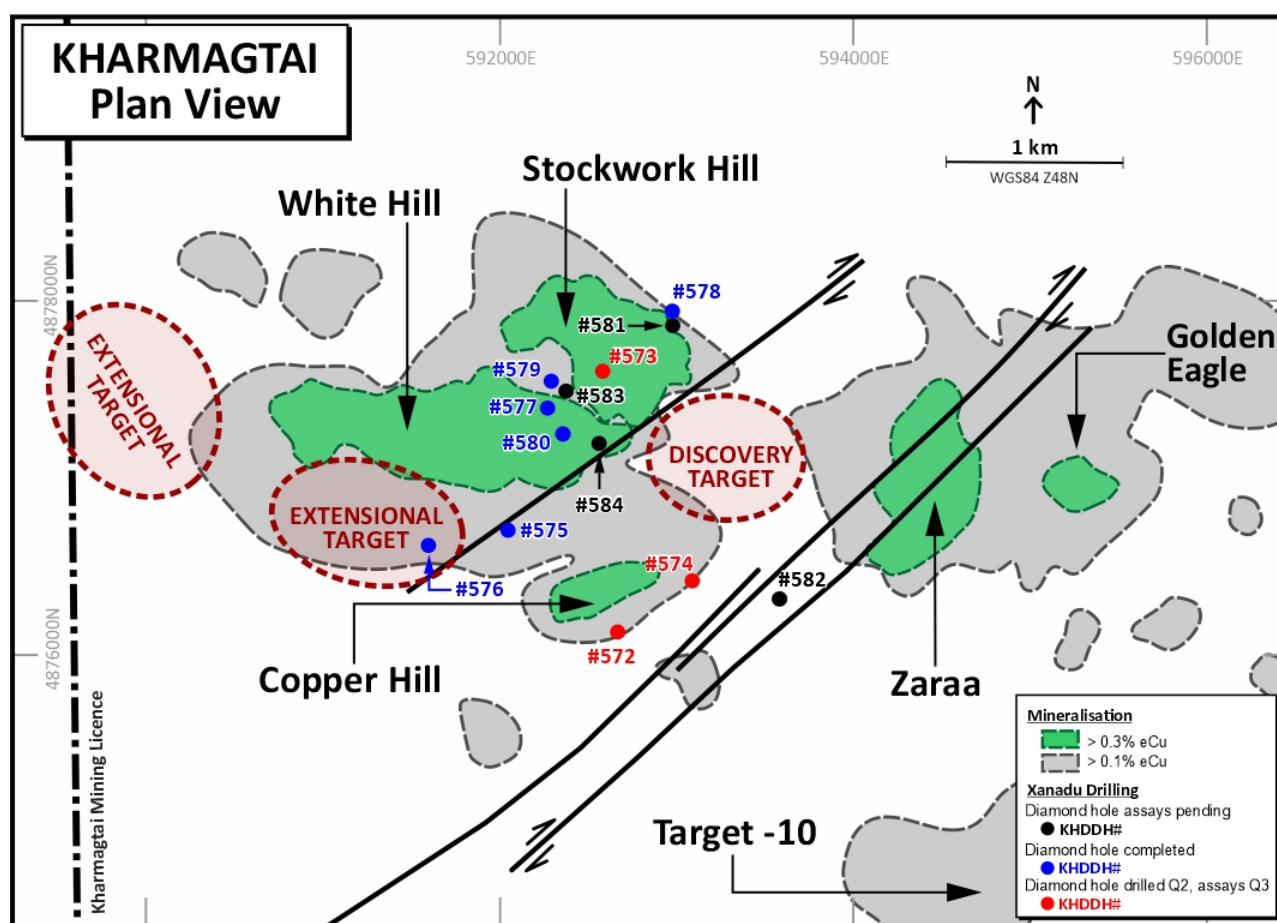


Figure 1: Kharmagtai plan view showing location of drilling for Q3, 2021.

### About KHDDH573

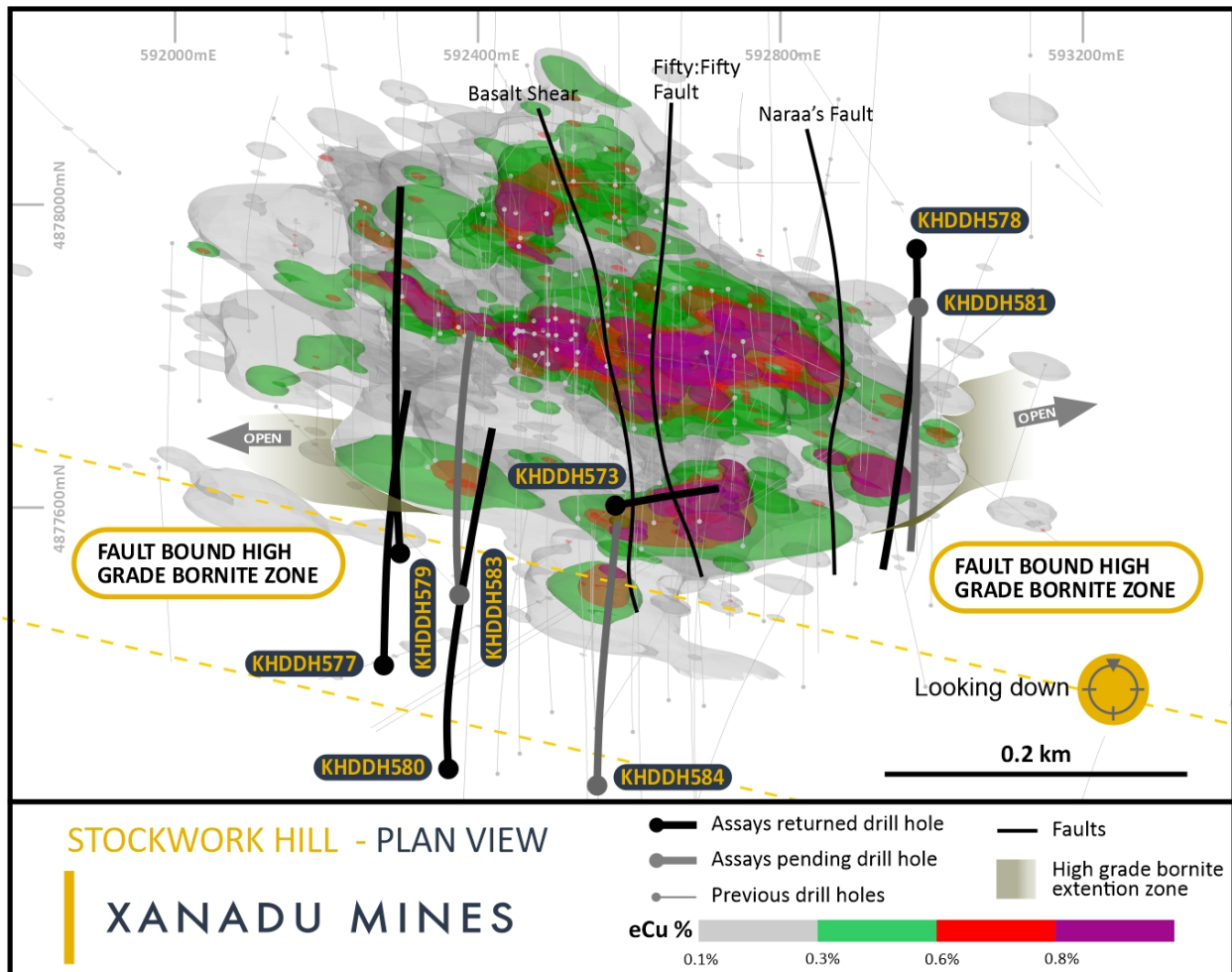
Drill hole KHDDH573 was drilled in Q2 2021 but results were not received until Q3 2021. Drill hole KHDDH573 (**Figure 2 & 3**) was designed to target vertical extensions to the higher-grade core at the Stockwork Hill deposit, largely dominated by gold-rich bornite mineralisation. It intercepted wide 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% CuEq from 474m.<sup>7</sup>

Hole ID	Interval	Cu	Au	CuEq	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.

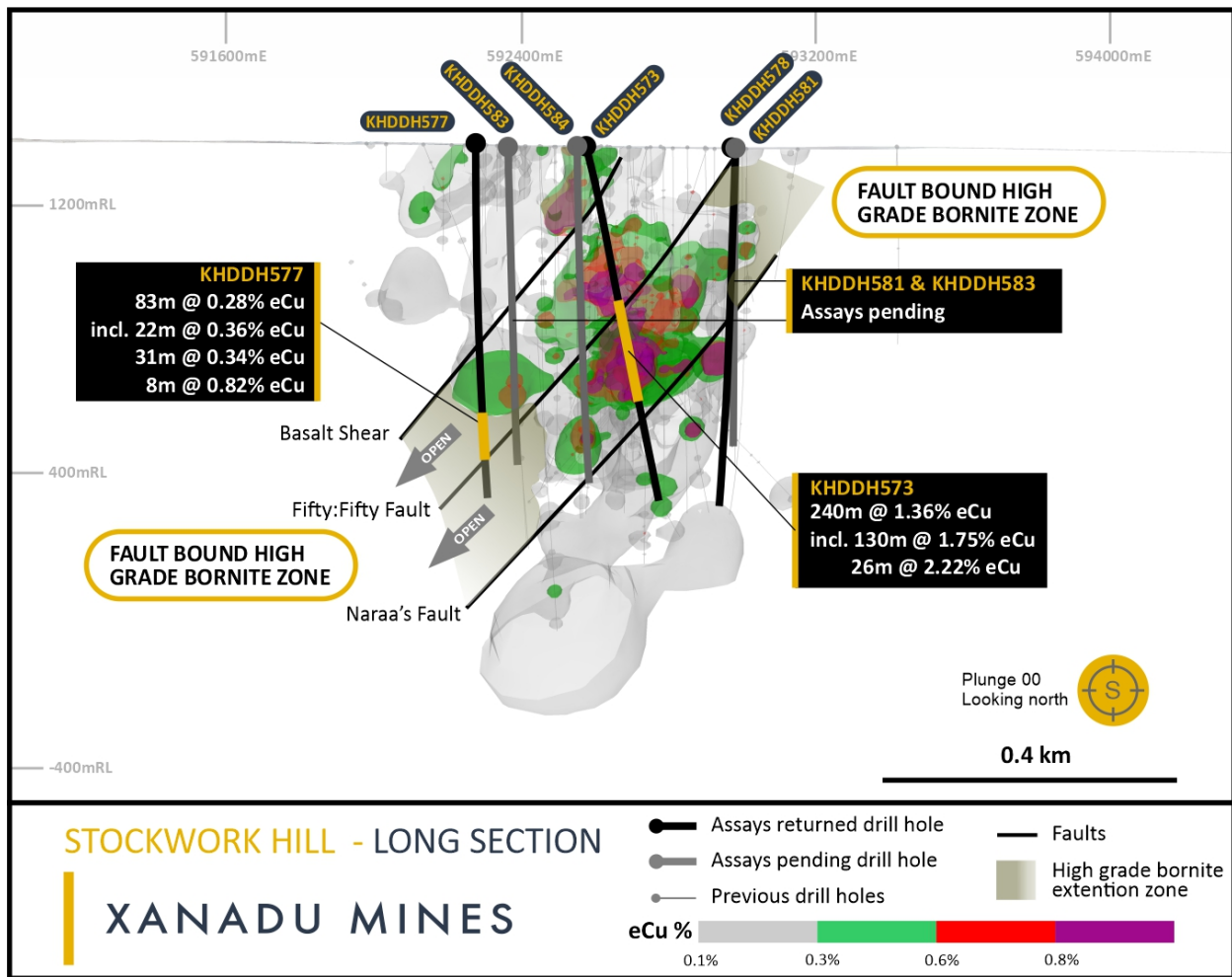
<sup>7</sup> ASX/TSX Announcement 16 August 2021 – Vertical Extension of High-Grade Bornite Zone at Stockwork Hill

Drill hole KHDDH573 extended the higher-grade bornite zone ( $>1\%$  CuEq) 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.



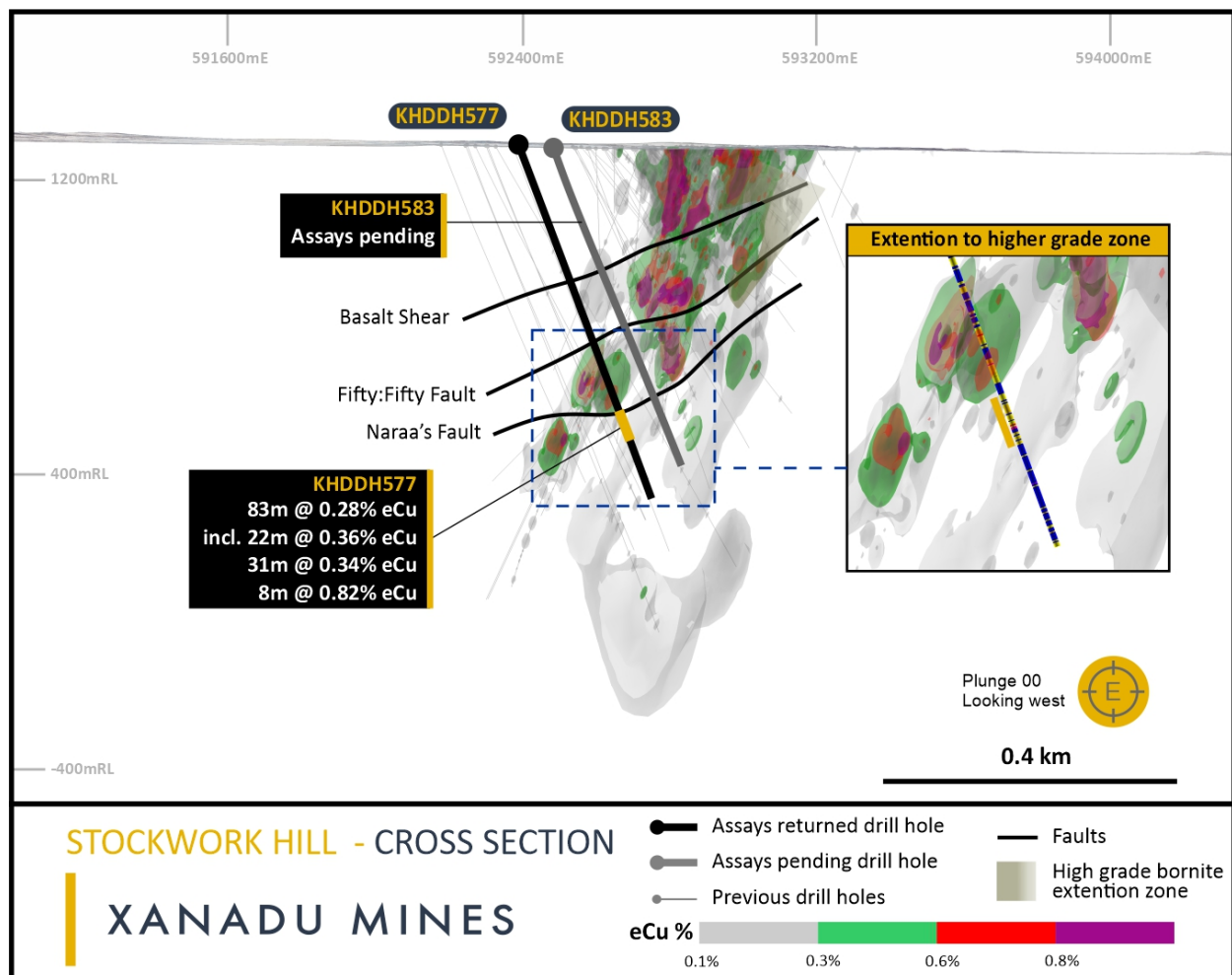
**Figure 2.** Stockwork Hill plan view, drill hole KHDDH573 and interpreted grade shells





**Figure 3.** Stockwork Hill long section showing drill hole KHDDH573<sup>8</sup> and interpreted grade shells

<sup>8</sup> ASX/TSX Announcement 16 August 2021 - Vertical Extension of High-Grade Bornite Zone at Stockwork Hill



**Figure 4.** Stockwork Hill cross section showing drill hole KHDDH577 and interpreted grade shells

#### About KHDDH577, 579, 580 and 583 (Upper fault-block targets - bornite zone)

Drill holes KHDDH577, 579, 580 and 583 were designed to test the upper fault block above the high-grade bornite zone for additional bornite mineralisation (**Figures 1, 2, 3 and 4**). These holes encountered weak to moderate stockwork hosted chalcopyrite mineralisation associated with the same host lithology as the main high-grade bornite zone, suggesting a near miss to the high-grade bornite within this fault block. Modelling is underway to vector to higher grades within this fault block and near-term additional drilling will focus on the lower fault block, below the high-grade bornite zone. Full intercepts can be found in **Table 2**.

#### About KHDDH578 and 581 (Eastern extensions of Stockwork Hill)

Drill holes KHDDH578 and 581 were designed to test the faulted offsets to the eastern extension of Stockwork Hill where high-grade tourmaline mineralisation terminates against Naraa's Fault (**Figures 1, 2 and 3**). KHDDH578 returned patchy tourmaline breccia mineralisation suggesting a near miss. KHDDH581 was drilled as a 100m step over to the south of KHDDH578. Assays are pending for KHDDH581 and full intercepts for KHDDH578 can be found in **Table 2**.

#### About KHDDH584 (Down-dip High-Grade Bornite Zone)

Drill hole KHDDH584 collared during the quarter and was designed to test the southern, down-dip extension to the high-grade bornite zone (**Figures 1, 2 and 3**). KHDDH584 encountered a 120m wide zone of mineralisation within the expected target zone. Assays are pending for KHDDH584 and will be returned in the coming months.



## WHITE HILL DRILLING

Two diamond drill holes were drilled at White Hill during the quarter (KHDDH575 and KHDDH576) and final assay results were received for KHDDH569, which was completed during the previous quarter <sup>9</sup>.

KHDDH569 was drilled targeting the southern extensions of the White Hill deposit. The hole encountered mineralisation over 300m outside the current mineral resource estimate boundary and has returned a significant 697m intercept (**Figure 1, 5 and 6**).

Hole ID	Interval	Cu	Au	CuEq	From
KHDDH569	697m	0.29%	0.18g/t	0.38%	443m
including	172m	0.31%	0.38g/t	0.51%	570m
and	208m	0.44%	0.18g/t	0.52%	754m
including	32m	0.62%	0.22g/t	0.73%	811m
and	42m	0.59%	0.21g/t	0.69%	904m
and	60m	0.35%	0.15g/t	0.43%	972m
and	22m	0.47%	0.24g/t	0.59%	990m

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

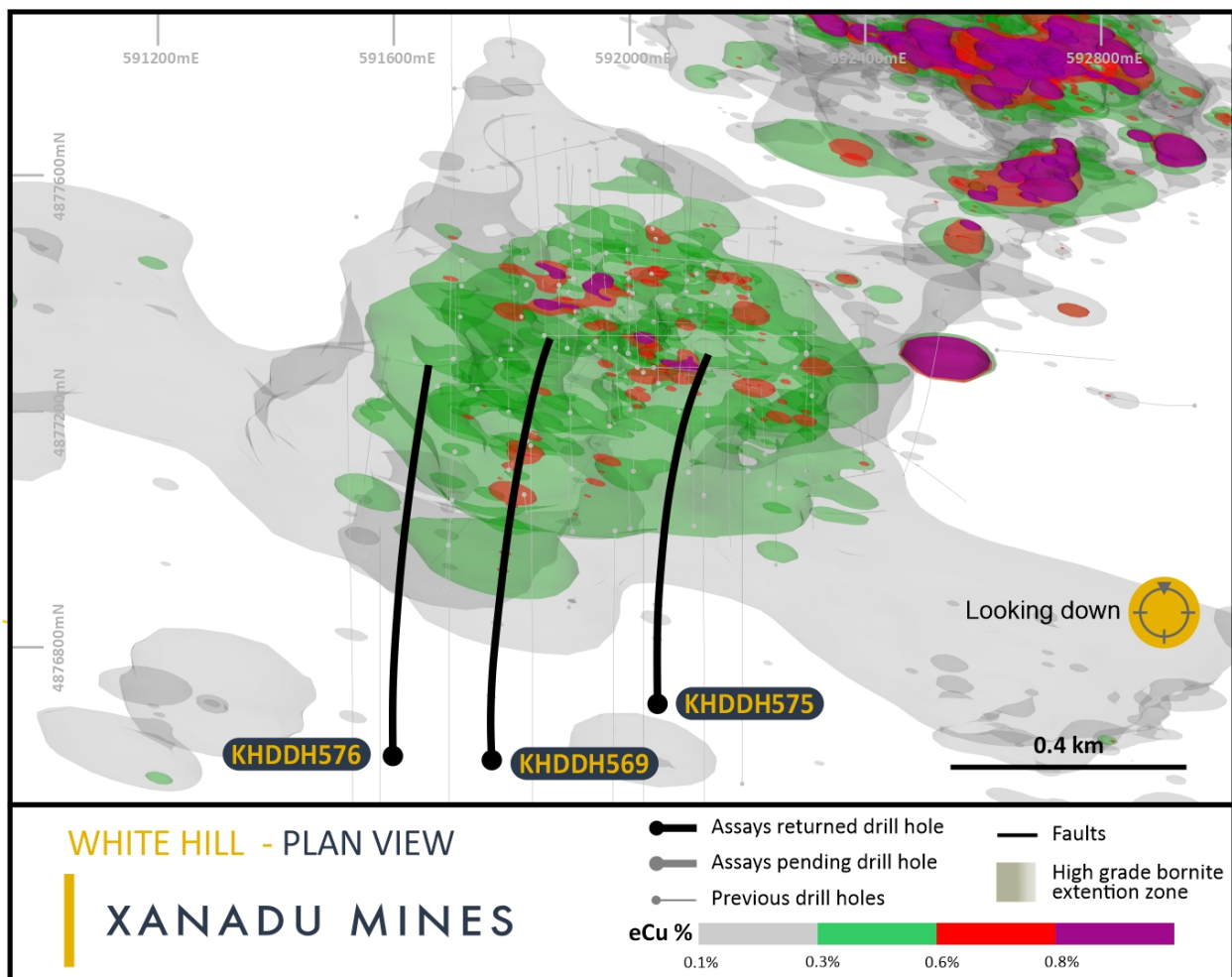
### About KHDDH575

Drill hole KHDDH575 was designed as a 300m step to the east of KHDDH569 aimed at expanding the southern margin of White Hill. KHDDH575 encountered three broad zones of mineralisation and has extended the global mineralisation envelope for White Hill 300m to the east and 300m to the south. Full Intercepts can be found in **Table 2**.

### About KHDDH576

Drill hole KHDDH576 was designed as a 150m step to the west of KHDDH569 aimed at expanding the southern margin of White Hill. KHDDH576 has expanded the global mineralisation envelope for White Hill 150m to the west and 300m to the south. Full Intercepts can be found in **Table 2**.

<sup>9</sup> ASX/TSX Announcement 13 July 2021 - Large Scale Extension at White Hill



**Figure 5.** Plan View of the White Hill deposit showing KHDDH569, KHDDH575 and KHDDH576.

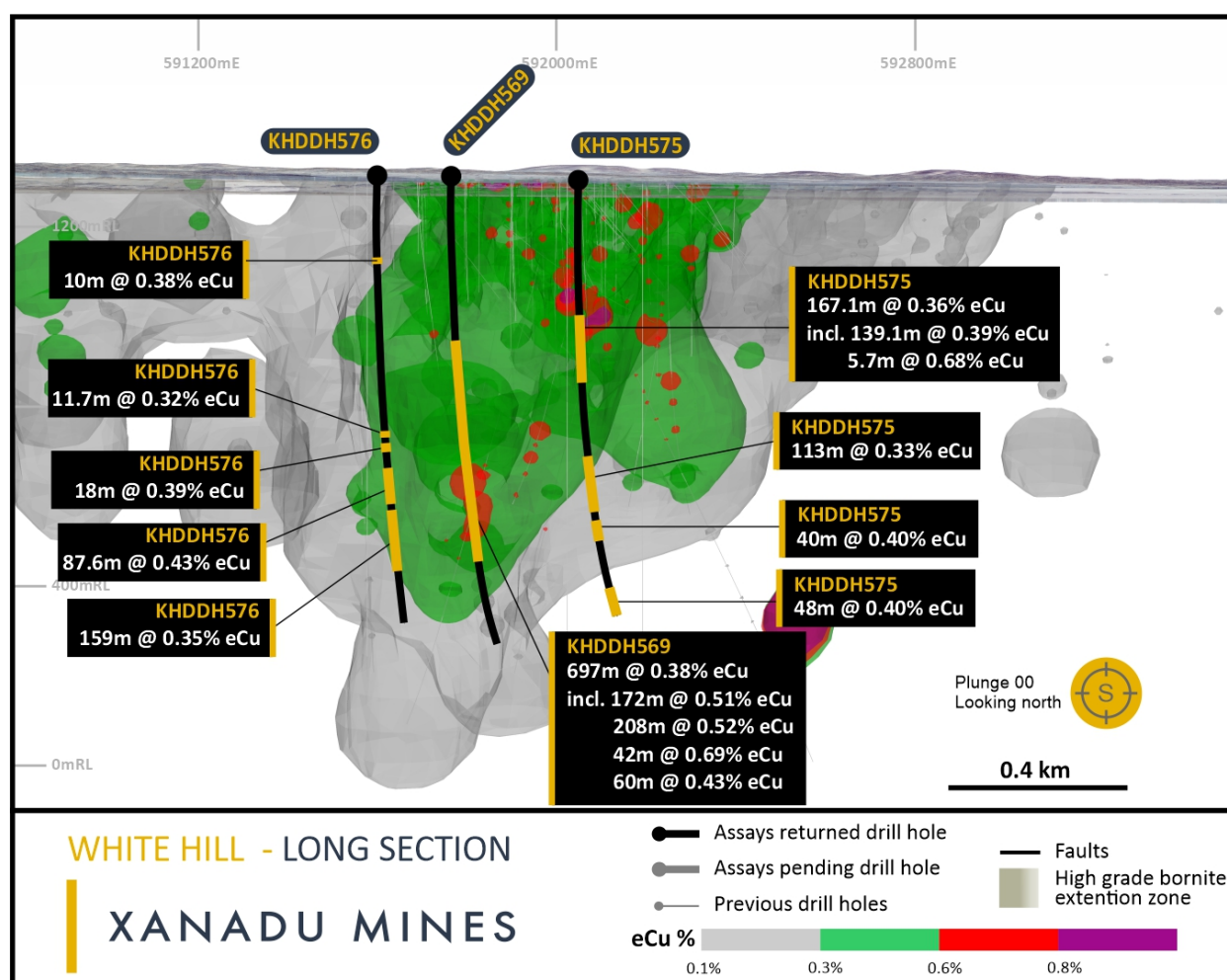


Figure 6. Long Section of the White Hill deposit showing KHDDH569, KHDDH575 and KHDDH576.<sup>10</sup>

## DISCOVERY DRILLING

### About KHDDH574 and KHDDH582

Drill holes KHDDH574 and KHDDH582 are designed to test the 2km undrilled zone between White Hill and Zaraa (Figure 1). Large-scale geophysical and geochemical datasets suggest these systems are linked at depth and a discovery within this area would have a material impact on the Kharmagtai Project.

KHDDH574 was drilled 1km to the southeast of the eastern margin of White Hill and encountered two separate broad zones (320m and 360m wide) of porphyry veining and associated weak copper mineralisation indicative of a near miss to a very large porphyry system. Full intercepts for KHDDH574 can be found in Table 2.

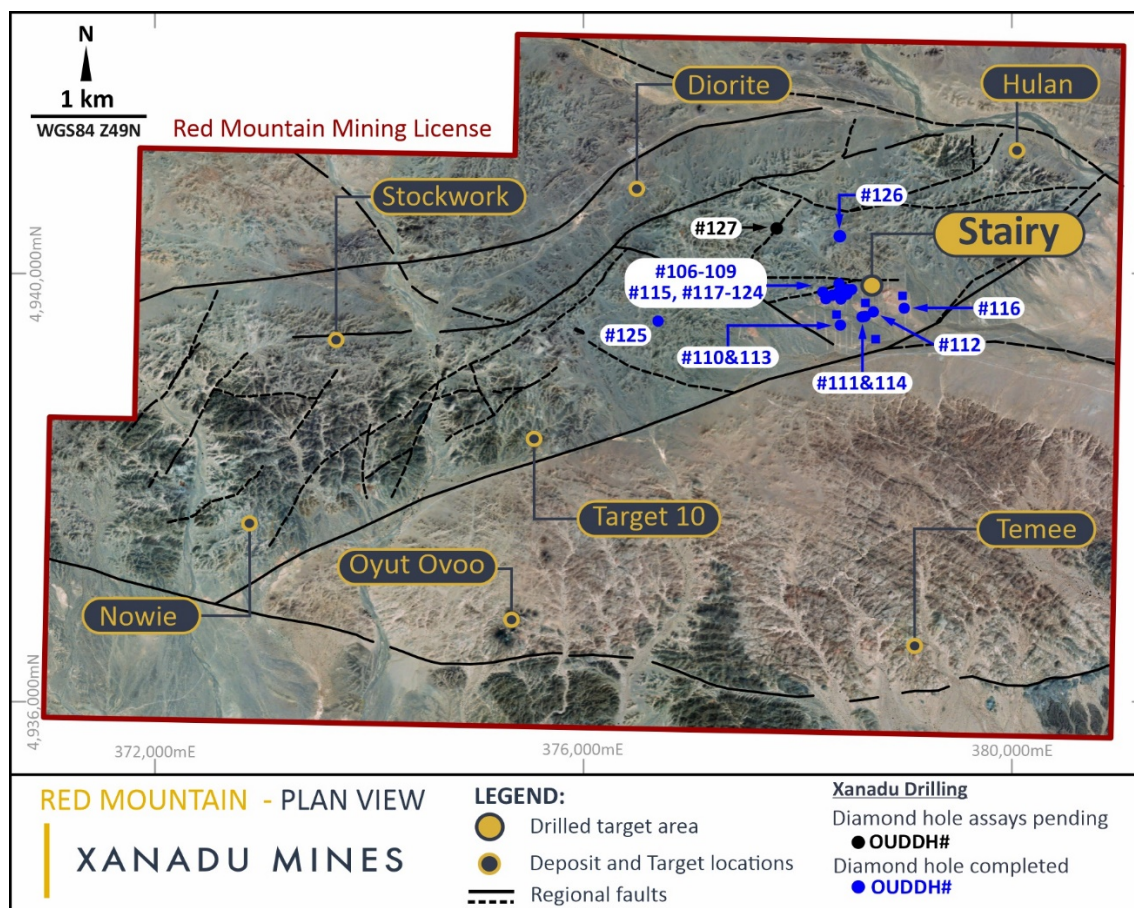
KHDDH582 was collared 500m to the east of KHDDH574 and encountered a very broad zone (700m) of moderate intensity porphyry veining and associated copper mineralisation. Assays are pending for KHDDH582 and are expected in the coming months.

Data from these holes suggest that White Hill and Zaraa systems are linked at depth and a third drill hole is being planned to vector into the higher-grade parts of this new, large porphyry system.

<sup>10</sup> ASX/TSX Announcement 13 July 2021 - Large Scale Extension at White Hill

## Red Mountain Copper-Gold Project

During the quarter, Xanadu and the Japan Oil, Gas and Metals National Corporation (**JOGMEC**) continued exploration activities at Red Mountain. During the quarter exploration activities at Red Mountain consisted of a Moving Loop Electromagnetic (**MLEM**) survey, 1,000m of surface trenching and 2,950m of diamond drilling (Figure 7).



**Figure 7.** The Red Mountain Mining Lease showing drilling and trenching conducted during the quarter.

## STAIRY PROSPECT EXPLORATION

The Stairy prospect contains massive sulphide lenses that coincide with high-grade copper, which may be identifiable using Moving Loop Electromagnetic (**MLEM**). A detailed MLEM survey was completed at Stairy, designed to map the structures that contain the most significant accumulations of massive sulphide. This data was used to assist targeting for 1,000m of trenching and 1,600m of drilling.



Approximately 1,000m of surface trenching was conducted at Stairy (**Figure 8**) focused on understanding the orientation of known zones of high-grade copper mineralisation. The most significant results were returned from OUTR100 and OUTR104 <sup>11</sup>. Full intercepts can be found in **Table 2**.

Trench Hole ID	From <sup>12</sup>	Interval	Au	Ag	Cu	CuEq
OUTR100	22m	6m	0.01g/t	6.17g/t	0.77%	0.78%
and	132m	12m	0.09g/t	12.63g/t	1.35%	1.39%
including	136m	8m	0.13g/t	18.33g/t	1.96%	2.03%
including	136m	6m	0.17g/t	23.60g/t	2.36%	2.45%
Trench Hole ID	From	Interval	Au	Ag	Cu	CuEq
OUTR104	0m	14m	0.03g/t	9.43g/t	1.32%	1.34%
including	4m	8m	0.04g/t	13.78g/t	1.92%	1.94%
and	38m	14m	0.02g/t	6.56g/t	0.95%	0.96%
including	40m	12m	0.02g/t	7.62g/t	1.08%	1.09%
including	46m	6m	0.03g/t	11.50g/t	1.46%	1.47%

This data was used to design approximately 1,600m of diamond drilling in 19 drill holes targeting shallow high-grade copper-silver mineralisation (**Figure 9**). Assay results from this drilling have been returned and high-grade copper silver intercepts were returned from OUDDH112, OUDDH115 and OUDDH119 <sup>13</sup>.

Hole ID	From	Interval	Cu	Ag
OUDDH112	0	8m	0.15%	0.96g/t
and	30m	4m	0.16%	0.80g/t
and	40m	4m	1.98%	9.15g/t
and	48m	4m	0.19%	1.20g/t
Hole ID	From	Interval	Cu	Ag
OUDDH115	60m	4m	7.34%	29.29g/t
including	61.5m	1m	28.90%	114.0g/t
Hole ID	From	Interval	Cu	Ag
OUDDH119	42m	6m	0.27%	0.55g/t
including	42m	4m	0.36%	0.70g/t
and	94m	8m	1.31%	7.00g/t
including	94m	6m	1.72%	9.17g/t

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

<sup>11</sup> ASX/TSX Announcement 5 August 2021 - Significant Trench Results & Drilling Commences at Red Mountain

<sup>12</sup> Refers to horizontal distance along the trench

<sup>13</sup> ASX/TSX Announcement 28 September 2021 - New High-Grade Bornite Intersections at Red Mountain

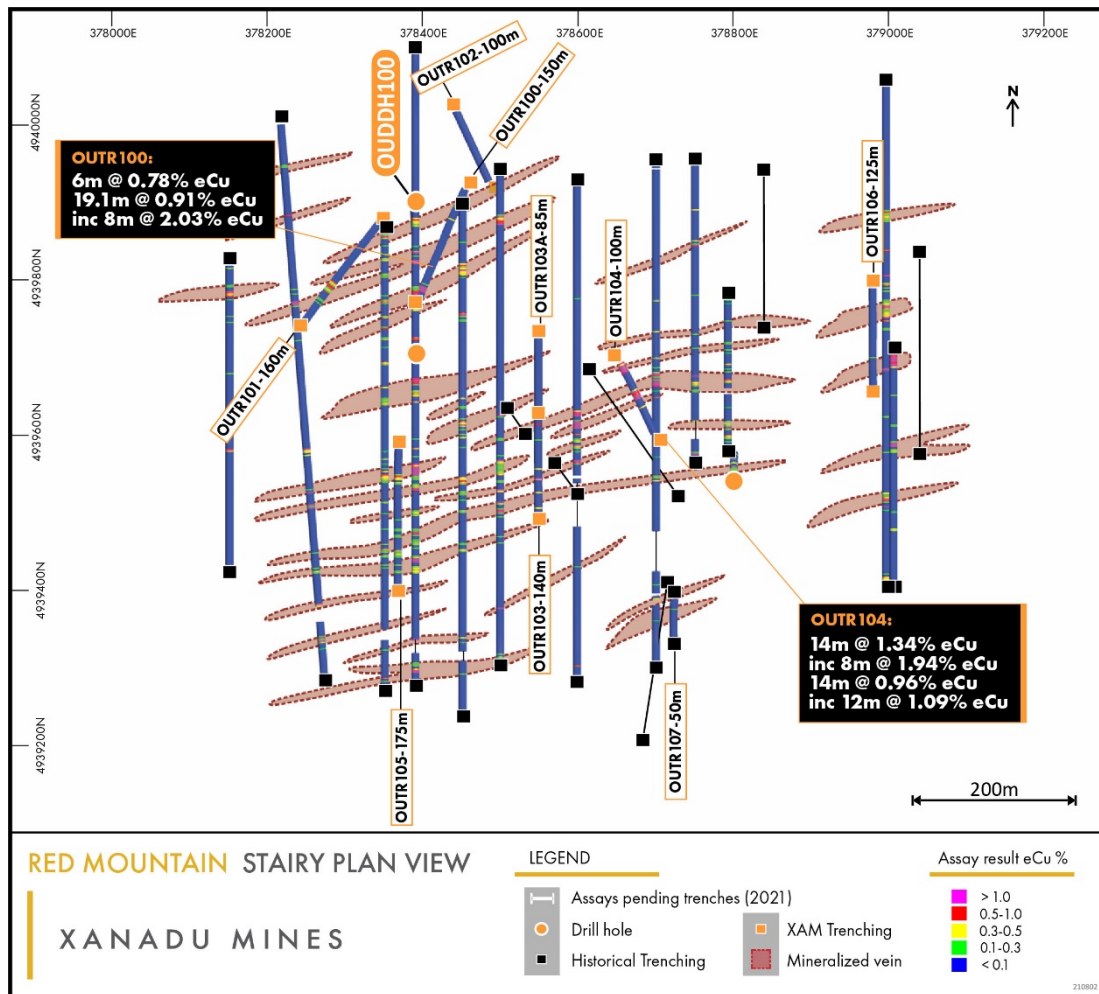
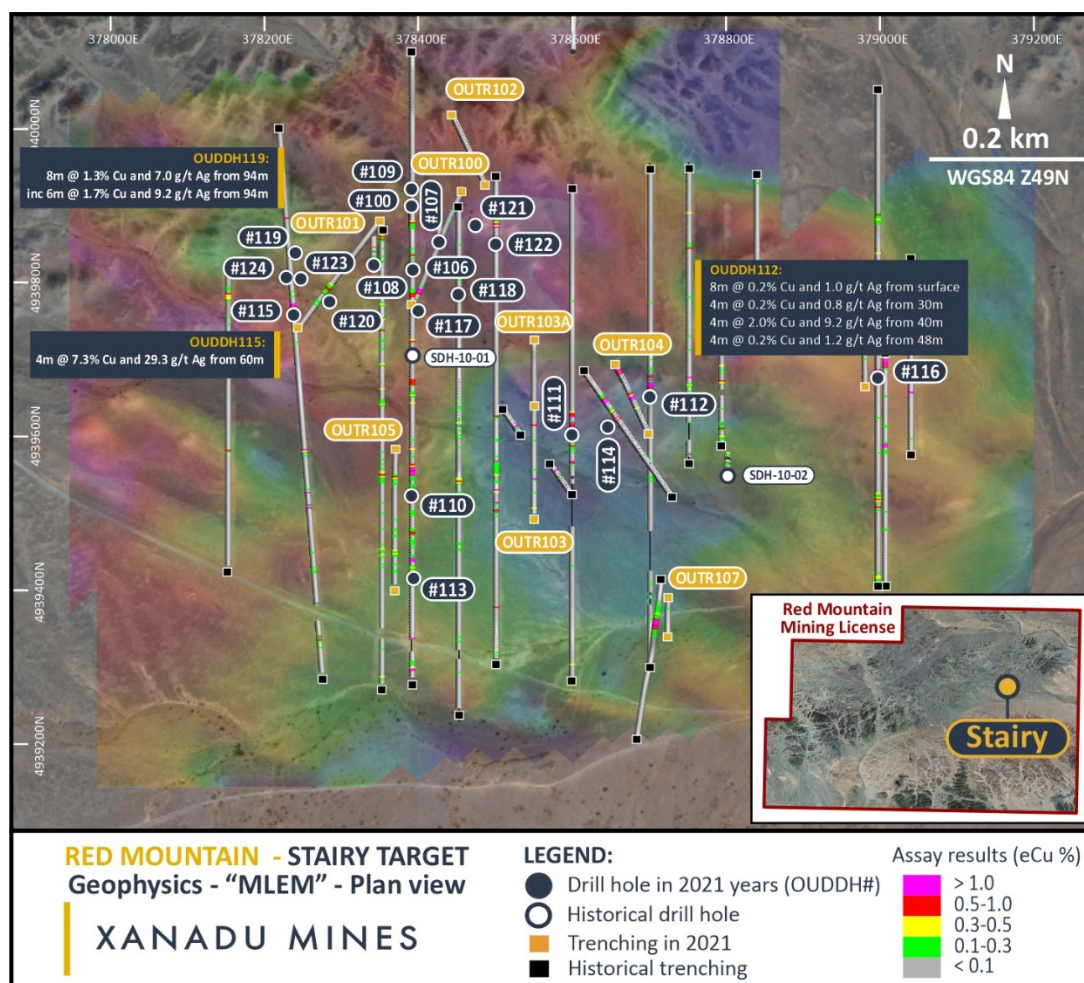


FIGURE 8: Trenching Results at Stairy, showing surface high-grade mineralisation.<sup>14</sup>

<sup>14</sup> ASX/TSX Announcement 5 August 2021 - Significant Trench Results & Drilling Commences at Red Mountain





**FIGURE 9:** Plan view of Stairy showing MLEM conductors and OUDDH112 OUDDH115 and OUDDH119.<sup>15,16,17</sup>

These results and planned drilling aim to develop the Red Mountain district as a standalone shallow high-grade copper project, complementing the large-scale Kharmagtai copper-gold district in Xanadu's portfolio.

An additional 1,350 meters of drilling was conducted at Red Mountain in three holes targeting large-scale porphyry IP chargeability anomalies. No significant results were returned from this drilling.

Intercept parameters have been changed for Stairy drilling and trenching to include 2m internal dilution to more closely represent mining methods for similar high-grade deposits. Previously reported intercepts may vary.

<sup>15</sup> ASX/TSX Announcement 16 June 2021 - Multiple Strong MLEM Conductors Detected at Stairy

<sup>16</sup> ASX/TSX Announcement 5 August 2021 - Significant Trenching Results & Drilling Commences at Red Mountain

<sup>17</sup> ASX/TSX Announcement 28 September 2021 - New High-Grade Bornite intersections at Red Mountain

## December Quarter Planned Exploration Activities

In the Kharmagtai district, at Stockwork Hill, two diamond drill holes KHDDH584 and KHDDH585 are currently underway.

KHDDH584 is targeting the down-dip extensions of the high-grade bornite zone. This hole is currently at 1,000m and has passed through 120m of strong (visual) mineralisation below the Fifty-Fifty fault.

Drilling has commenced on KHDDH585, which is targeting a large gap surrounded by high grade intercepts in the Tourmaline Breccia Zone and will also test the lower fault block of the high-grade bornite zone. This hole is currently at 250m and has encountered high-grade (visual) tourmaline breccias from 230m.

In the Red Mountain district, data from the recent drilling and trenching is being compiled to generate new models for exploration and targeting, with anticipated follow-up drilling in Q1 2022.

Xanadu will issue an updated JORC Compliant Mineral Resource Estimate for the Kharmagtai district in the December Quarter.

## Results of Operations

**Table 1. Selected Quarterly Information**

	Quarter Ending				
	30 Sep 2021 \$'000	30 Jun 2021 \$'000	31 Mar 2021 \$'000	31 Dec 2020 \$'000	30 Sep 2020 \$'000
Gross Exploration Expenditure					
Kharmagtai	2,756	2,297	1,640	2,457	1,534
Red Mountain	1,090	480	885	242	832
Exploration expenditures capitalised *	3,092	2,457	1,640	2,345	1,545
Impairment of deferred exploration expenditure	-	-	-	-	-
Corporate general and administration	930	606	1,187	939	937
Share-based payments	-	-	-	-	-
Depreciation and amortisation	11	13	14	15	12
Loss after income tax attributable to owners of XAM	1,098	666	1,221	931	642
Basic loss per share	0.09	0.05	0.11	0.09	0.07
Diluted loss per share	0.09	0.05	0.11	0.09	0.07
Kharmagtai drill metres	11,146	8,760	7,984	14,380	7,209
Red Mountain drill metres	2,950	-	4,039	393	3,629

\* Red Mountain exploration funded by JOGMEC under the Joint Exploration Agreement is not capitalised

## Finance and Corporate

On 30 September 2021, the Company had 1,255,617,750 fully paid ordinary shares on issue and approximately \$7.0 million in cash.

Xanadu increased its ownership to 100% of the Red Mountain district by acquiring a 10% minority interest from Enkh Tunkh Delkhii LLC, a private Mongolian company, for US\$350,000 cash. Registration of the change in share ownership is currently being finalised with the Mongolia regulator. This acquisition forms part of a broader commercial strategy to consolidate and simplify ownership of the Company's projects.

Also, at Red Mountain, prior to meeting earn-in conditions, Japan Oil, Gas and Metals National Corporate (JOGMEC) elected to terminate the Red Mountain Joint Exploration Agreement, effective 30 November 2021. The Joint Exploration Agreement, dated 24 March 2020, allowed JOGMEC to earn 51% of the Red Mountain project by investing US\$7.2 million over a four-year period. Through 30 September 2021, US\$2.6m (A\$3.6m) was spent under the agreement, which funded geophysics and 11,295 metres of diamond drilling. By terminating prior to meeting these conditions, JOGMEC forfeits its rights to the Red Mountain district, and ownership reverts to the previous structure.

During the December 2021 Quarter, Xanadu plans to issue its inaugural Sustainability Report, demonstrating our commitment to Environmental, Social and Governance and our goal to be a leader in sustainable exploration.

## COVID-19 in Mongolia

The economy of Mongolia has fared relatively well compared to others during the COVID-19 pandemic, largely due to the conservative approach taken by the Government of Mongolia at the start of the period. Mongolia has now vaccinated a large portion of its population and is one of the first countries making the transition to a post-vaccinated economy. This includes an ongoing program to roll out booster shots across the country.

Mining and exploration facilities, including Xanadu, have continued operations with limited interruption, as have assay labs in Ulaanbaatar.

## 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 an emerging, globally significant copper-gold deposit in our flagship Kharmagtai project.

For further information, please visit [www.xanadumines.com](http://www.xanadumines.com) or contact:

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

## APPENDIX 1: TABLES

**Table 1.** Drill hole details from the quarter (KH prefix = Kharmagtai, OU prefix = Red Mountain).

Hole ID *	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
KHDDH575	White Hill	592048	4876705	1309	0	-60	1147.6
KHDDH576	White Hill	591599	4876617	1314	0	-60	1198.9
KHDDH577	Stockwork Hill	592276	4877392	1297	0	-70	1026.7
KHDDH578	Stockwork Hill	592980	4877940	1280	180	-67	1054.5
KHDDH579	Stockwork Hill	592297	4877540	1293	0	-62	950.0
KHDDH580	Stockwork Hill	592361	4877253	1299	0	-70	1194.8
KHDDH581	Stockwork Hill	592982	4877864	1281	180	-67	870.4
KHDDH582	Zaraa	593586	4876318	1293	0	-60	1437.0
KHDDH583	Stockwork Hill	592376	4877485	1293	0	-70	935.5
KHDDH584	Stockwork Hill	592560	4877182	1298	0	-70	1000.0
OUDDH106	Stairy	378390	4939816	1055	0	-58	145.0
OUDDH107	Stairy	378426	4939852	1055	0	-58	95.0
OUDDH108	Stairy	378342	4939821	1055	0	-58	75.0
OUDDH109	Stairy	378388	4939917	1056	180	-60	125.0
OUDDH110	Stairy	378392	4939522	1051	0	-58	75.5
OUDDH111	Stairy	378598	4939602	1049	0	-58	75.5
OUDDH112	Stairy	378699	4939648	1050	0	-58	75.5
OUDDH113	Stairy	378393	4939413	1049	0	-58	75.0
OUDDH114	Stairy	378644	4939610	1049	0	-58	75.5
OUDDH115	Stairy	378237	4939758	1056	0	-60	80.5
OUDDH116	Stairy	378995	4939675	1044	0	-60	75.0
OUDDH117	Stairy	378396	4939764	1054	0	-58	85.0
OUDDH118	Stairy	378451	4939784	1054	0	-58	75.0
OUDDH119	Stairy	378239	4939837	1056	180	-60	120.0
OUDDH120	Stairy	378285	4939774	1055	0	-58	85.0
OUDDH121	Stairy	378473	4939874	1055	0	-58	75.0
OUDDH122	Stairy	378501	4939846	1054	0	-58	75.0
OUDDH123	Stairy	378246	4939803	1056	180	-55	55.0
OUDDH124	Stairy	378228	4939804	1056	180	-55	55.0
OUDDH125	Bavuu	376700	4939549	1081	0	-75	400.0
OUDDH126	Diorite	378398	4940329	1064	180	-75	400.0
OUDDH127	Diorite	377800	4940430	1071	0	-65	550.0
OUTR104	Stariy	378656	4939694	1051	152	0	100.0
OUTR105	Stariy	378370	4939582	1052	180	0	175.0
OUTR106	Stariy	378979	4939792	1047	180	0	125.0
OUTR107	Stariy	378725	4939389	1045	180	0	50.0

\* This table excludes holes KHDDH572, KHDDH573 and KHDDH574 which were drilled early during the quarter but reported as part of the June Quarterly Report.

**Table 2. Significant drill results from the quarter (KH prefix = Kharmagtai, OU prefix = Red Mountain)**

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)*	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH572	Copper Hill	85	93	8	0.41		0.07	0.28	0.55
and		108	112	4	0.24		0.04	0.17	0.33
and		155	173	18	0.17		0.03	0.11	0.22
and		262	276	14	0.07		0.08	0.12	0.23
and		294	318	24	0.06		0.07	0.10	0.20
and		530	562	32	0.25		0.03	0.15	0.30
including		530	544	14	0.46		0.03	0.26	0.51
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
and		750	812	62	0.06		0.14	0.18	0.35
including		796	808	12	0.08		0.30	0.34	0.66
and		850	963	113	0.06		0.16	0.19	0.37
including		906.1	933	26.9	0.09		0.30	0.35	0.68
including		943	957	14	0.12		0.26	0.32	0.63
and		973	983.1	10.1	0.13		0.29	0.35	0.69
including		975	983.1	8.1	0.15		0.33	0.40	0.79
KHDDH574	Stockwork Hill	15	19	4	0.19		0.04	0.14	0.27
and		33	47	14	0.14		0.05	0.12	0.23
and		117	124.6	7.6	0.11		0.04	0.10	0.20
and		525	529	4	0.04		0.11	0.13	0.26
and		539	545	6	0.06		0.12	0.15	0.29
and		557	563	6	0.06		0.14	0.17	0.34
and		573	577	4	0.07		0.13	0.16	0.31
and		613	643	30	0.03		0.07	0.09	0.18
and		677	723	46	0.03		0.09	0.11	0.21
and		802	832	30	0.02		0.08	0.09	0.17
and		858	882	24	0.02		0.09	0.10	0.19
and		993	1009	16	0.08		0.08	0.12	0.24
and		1058	1074	16	0.11		0.07	0.13	0.25
and		1104	1159	55	0.08		0.09	0.13	0.25
including		1151	1155	4	0.13		0.26	0.33	0.64
and		1171	1245.5	74.5	0.06		0.08	0.12	0.23
and		1255	1270	15	0.11		0.23	0.28	0.55
and		1290	1297	7	0.16		0.07	0.15	0.30
and		1319	1323	4	0.07		0.20	0.23	0.45

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)*	Cu (%)	CuEq (%)	AuEq (g/t)
<i>and</i>		1335	1375	40	0.07		0.29	0.32	0.63
<i>including</i>		1343	1359	16	0.10		0.46	0.51	1.01
<i>including</i>		1345	1357	12	0.09		0.47	0.52	1.01
<i>and</i>		1443	1475	32	0.06		0.08	0.11	0.21
<i>and</i>		1487	1491	4	0.06		0.15	0.17	0.34
<i>and</i>		1540	1564	24	0.05		0.09	0.11	0.22
KHDDH575	White Hill	200	224	24	0.04		0.07	0.09	0.18
<i>and</i>		237	241.4	4.4	0.04		0.09	0.11	0.22
<i>and</i>		267	289.1	22.1	0.08		0.09	0.13	0.26
<i>and</i>		309	331	22	0.04		0.09	0.11	0.21
<i>and</i>		357	524.1	167.1	0.13		0.29	0.36	0.70
<i>including</i>		385	524.1	139.1	0.14		0.31	0.39	0.75
<i>including</i>		459.3	462.6	3.3	0.50		0.17	0.43	0.83
<i>including</i>		474.3	480	5.7	0.22		0.57	0.68	1.34
<i>and</i>		713.7	1014	300.3	0.07		0.24	0.27	0.54
<i>including</i>		713.7	723.4	9.7	0.10		0.46	0.51	0.99
<i>including</i>		739	852	113	0.08		0.29	0.33	0.64
<i>including</i>		868	876	8	0.10		0.28	0.33	0.65
<i>including</i>		890	930	40	0.10		0.34	0.40	0.77
<i>and</i>		1056	1147.6	91.6	0.10		0.24	0.29	0.56
<i>including</i>		1079	1127	48	0.15		0.33	0.40	0.79
<i>including</i>		1106	1112.6	6.6	0.28		0.53	0.68	1.33
KHDDH576	White Hill	186	224	38	0.12		0.21	0.27	0.53
<i>including</i>		192	200	8	0.16		0.37	0.45	0.88
<i>including</i>		210	220	10	0.20		0.28	0.38	0.75
<i>and</i>		252	323	71	0.03		0.11	0.12	0.24
<i>and</i>		377.6	392	14.4	0.04		0.13	0.15	0.29
<i>and</i>		402	451	49	0.04		0.11	0.13	0.26
<i>and</i>		461	572	111	0.03		0.11	0.12	0.23
<i>and</i>		582	1099	517	0.09		0.25	0.30	0.58
<i>including</i>		652	656	4	0.10		0.28	0.33	0.65
<i>including</i>		678.2	689.9	11.7	0.11		0.26	0.32	0.62
<i>including</i>		703	721	18	0.20		0.29	0.39	0.76
<i>including</i>		733	739	6	0.09		0.24	0.29	0.57
<i>including</i>		753	760	7	0.17		0.34	0.42	0.83
<i>including</i>		787.4	875	87.6	0.15		0.35	0.43	0.84
<i>including</i>		893	1052	159	0.09		0.30	0.35	0.68
<i>and</i>		1129	1139	10	0.03		0.12	0.14	0.28
KHDDH577	Stockwork Hill	3	333	330	0.09		0.16	0.20	0.40
<i>including</i>		3	23	20	0.22		0.31	0.42	0.82
<i>including</i>		41	55	14	0.19		0.26	0.36	0.70
<i>including</i>		102	115.5	13.5	0.29		0.19	0.34	0.67



Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)*	Cu (%)	CuEq (%)	AuEq (g/t)
<i>including</i>		125	153	28	0.09		0.20	0.25	0.48
<i>and</i>		347	355.4	8.4	0.03		0.08	0.10	0.19
<i>and</i>		370.5	375	4.5	0.04		0.09	0.11	0.21
<i>and</i>		385	395	10	0.04		0.11	0.13	0.26
<i>and</i>		427	444	17	0.03		0.09	0.11	0.21
<i>and</i>		464	480	16	0.04		0.11	0.13	0.25
<i>and</i>		524	532	8	0.04		0.07	0.10	0.19
<i>and</i>		544	570	26	0.04		0.09	0.11	0.21
<i>and</i>		590	608	18	0.07		0.08	0.11	0.22
<i>and</i>		639	699	60	0.07		0.16	0.20	0.39
<i>including</i>		669	685	16	0.12		0.30	0.36	0.71
<i>and</i>		717	757	40	0.13		0.20	0.27	0.52
<i>including</i>		721	727	6	0.28		0.43	0.57	1.11
<i>including</i>		739	747	8	0.21		0.23	0.33	0.65
<i>and</i>		775	858	83	0.28		0.13	0.28	0.54
<i>including</i>		793	815	22	0.20		0.26	0.36	0.70
<i>including</i>		825	856	31	0.51		0.08	0.34	0.66
<i>including</i>		825	833	8	1.25		0.18	0.82	1.61
<i>and</i>		922	928	6	0.15		0.21	0.29	0.57
<i>and</i>		962	972	10	0.08		0.10	0.14	0.28
<i>and</i>		982	1004	22	0.05		0.08	0.10	0.20
<i>and</i>		1016	1026.7	10.7	0.06		0.08	0.11	0.22
KHDDH578	Stockwork Hill	206	218	12	0.32		0.01	0.18	0.35
<i>and</i>		295	347	52	0.13		0.07	0.14	0.27
<i>including</i>		323	331	8	0.47		0.08	0.32	0.63
<i>and</i>		371	491	120	0.05		0.10	0.13	0.25
<i>including</i>		439	443	4	0.09		0.32	0.36	0.71
<i>and</i>		562	593	31	0.04		0.09	0.11	0.21
<i>and</i>		607	670	63	0.06		0.09	0.12	0.24
<i>and</i>		775	849	74	0.04		0.15	0.17	0.34
<i>including</i>		785	803	18	0.08		0.31	0.35	0.68
<i>and</i>		859	875	16	0.03		0.14	0.16	0.31
<i>and</i>		956	964	8	0.02		0.06	0.07	0.13
<i>and</i>		988	998	10	0.03		0.07	0.08	0.17
KHDDH579	Stockwork Hill	7	21	14	0.08		0.16	0.20	0.39
<i>including</i>		13	17	4	0.15		0.24	0.31	0.61
<i>and</i>		39	47	8	0.06		0.08	0.11	0.21
<i>and</i>		80	127	47	0.05		0.09	0.11	0.22
<i>and</i>		215	227	12	0.07		0.06	0.10	0.20
<i>and</i>		259	304	45	0.12		0.11	0.17	0.34
<i>including</i>		269	280	11	0.17		0.16	0.24	0.48
<i>and</i>		318	371	53	0.08		0.09	0.13	0.25

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)*	Cu (%)	CuEq (%)	AuEq (g/t)
<i>and</i>		399	411	12	0.07		0.06	0.09	0.19
<i>and</i>		425	435	10	0.03		0.06	0.07	0.14
<i>and</i>		453	459	6	0.11		0.07	0.13	0.25
<i>and</i>		511	515	4	0.09		0.07	0.12	0.23
<i>and</i>		525	552	27	0.07		0.25	0.29	0.56
<i>and</i>		562	580	18	0.02		0.08	0.09	0.17
<i>and</i>		596	701	105	0.09		0.17	0.22	0.42
<i>including</i>		648	674	26	0.19		0.24	0.34	0.67
<i>including</i>		692	701	9	0.06		0.42	0.45	0.87
<i>and</i>		714.6	773.5	58.9	0.08		0.17	0.21	0.41
<i>including</i>		714.6	731	16.4	0.05		0.17	0.20	0.39
<i>including</i>		755	773.5	18.5	0.15		0.30	0.37	0.73
<i>and</i>		797	803	6	0.26		0.24	0.37	0.72
<i>including</i>		797	801	4	0.25		0.28	0.41	0.80
<i>and</i>		840	846	6	0.08		0.08	0.12	0.24
<i>and</i>		858	872	14	0.09		0.07	0.12	0.23
<i>and</i>		898	912	14	0.06		0.08	0.11	0.22
<i>and</i>		934	938	4	0.14		0.07	0.14	0.27
KHDDH580	Stockwork Hill	1	205	204	0.15		0.22	0.30	0.58
<i>including</i>		1	97	96	0.21		0.28	0.38	0.75
<i>including</i>		107	125	18	0.18		0.29	0.38	0.74
<i>including</i>		181	185	4	0.11		0.27	0.32	0.63
<i>and</i>		215	514.5	299.5	0.07		0.16	0.20	0.39
<i>including</i>		279	303	24	0.16		0.23	0.31	0.60
<i>including</i>		313	321	8	0.12		0.27	0.33	0.65
<i>and</i>		778	832	54	0.05		0.11	0.13	0.26
<i>and</i>		859	881	22	0.12		0.03	0.09	0.18
<i>and</i>		897	903	6	0.18		0.07	0.16	0.32
<i>and</i>		999	1004.6	5.6	0.08		0.07	0.11	0.22
<i>and</i>		1030.3	1037	6.7	0.03		0.11	0.13	0.25
<i>and</i>		1049	1079	30	0.04		0.07	0.09	0.18
<i>and</i>		1117	1143	26	0.05		0.12	0.14	0.28
KHDDH581	Stockwork Hill	Assays pending							
KHDDH582	Zaraa	Assays pending							
KHDDH583	Stockwork Hill	Assays pending							
KHDDH584	Stockwork Hill	Assays pending							
OUDDH106	Stairy	8	12	4	0.01	0.90	0.19	0.20	0.38
<i>and</i>		42	45.4	3.4	0.02	3.18	0.58	0.59	1.15
<i>and</i>		56	64	8	0.01	1.39	0.29	0.30	0.58
<i>including</i>		56	60	4	0.01	2.20	0.40	0.40	0.78
OUDDH107	Stairy	68	74	6	0.01	0.90	0.20	0.21	0.40
OUDDH108	Stairy	0	4	4	0.01	0.38	0.12	0.13	0.25

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)*	Cu (%)	CuEq (%)	AuEq (g/t)
<i>and</i>		10	14	4	0.01	1.85	0.34	0.34	0.66
<i>and</i>		26	32	6	0.01	2.27	0.51	0.52	1.02
<i>and</i>		40	44	4	0.02	2.50	0.45	0.46	0.89
<i>and</i>		68	72	4	0.01	0.53	0.15	0.16	0.31
OUDDH109	Stairy	102	108	6	0.02	1.27	0.28	0.29	0.57
<i>and</i>		118	124	6	0.05	2.37	0.49	0.51	1.00
OUDDH110	Stairy	18	24	6	0.02	0.67	0.15	0.16	0.31
<i>and</i>		66	72	6	0.03	3.10	0.60	0.61	1.19
<i>including</i>		68	72	4	0.03	3.85	0.75	0.77	1.50
OUDDH112		0	8	8	0.01	0.96	0.15	0.15	0.30
<i>and</i>		30	34	4	0.01	0.80	0.16	0.17	0.32
<i>and</i>		40	44	4	0.03	9.15	1.98	1.99	3.90
<i>and</i>		48	52	4	0.02	1.20	0.20	0.20	0.40
OUDDH113	Stairy	16	26	10	0.01	1.26	0.24	0.24	0.47
<i>including</i>		32	54	22	0.01	1.03	0.21	0.21	0.42
OUDDH115	Stairy	60	64	4	0.03	29.29	7.34	7.36	14.38
<i>including</i>		61.5	62.5	1	0.10	114.00	28.90	28.95	56.61
OUDDH117	Stairy	70	74	4	0.01	0.55	0.14	0.15	0.28
OUDDH119	Stairy	42	48	6	0.01	0.55	0.27	0.28	0.55
<i>including</i>		42	46	4	0.01	0.70	0.36	0.37	0.72
<i>and</i>		94	102	8	0.01	7.00	1.31	1.32	2.58
<i>including</i>		94	100	6	0.01	9.17	1.72	1.72	3.37
OUDDH120	Stairy	72	76	4	0.01	1.13	0.30	0.30	0.59
OUDDH121	Stairy	42	48	6	0.01	0.40	0.39	0.39	0.76
OUDDH123	Stairy	16	28	12	0.02	2.44	0.35	0.36	0.70
<i>including</i>		18	26	8	0.03	3.23	0.45	0.46	0.90
OUDDH124	Stairy	32	36	4	0.03	1.55	0.27	0.29	0.56
OUDDH125	Bavuu	54	72	18	0.04	0.59	0.05	0.07	0.14
OUDDH127	Diorite	<i>Assays pending</i>							
OUTR100	Stariy	22	28	6	0.01	6.17	0.77	0.78	1.53
<i>and</i>		132	144	12	0.09	12.63	1.35	1.39	2.72
<i>including</i>		136	144	8	0.13	18.33	1.96	2.03	3.97
<i>including</i>		136	142	6	0.17	23.60	2.36	2.45	4.79
OUTR101	Stariy	96	113	17	0.01	2.32	0.32	0.33	0.64
<i>including</i>		102	106	4	0.02	3.35	0.56	0.57	1.11
<i>and</i>		123	131	8	0.01	0.43	0.09	0.09	0.18
OUTR103	Stariy	94	97.5	3.5	0.02	2.86	0.69	0.70	1.37
OUTR104	Stariy	0	14	14	0.03	9.43	1.32	1.34	2.62
<i>including</i>		4	12	8	0.04	13.78	1.92	1.94	3.80
<i>and</i>		38	52	14	0.02	6.56	0.95	0.96	1.88
<i>including</i>		40	52	12	0.02	7.62	1.08	1.09	2.12
<i>including</i>		46	52	6	0.03	11.50	1.46	1.47	2.88

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)*	Cu (%)	CuEq (%)	AuEq (g/t)
OUTR105	Stariy	32	46	14	0.01	0.77	0.24	0.24	0.48
<i>including</i>		34	38	4	0.01	1.10	0.44	0.44	0.86
<i>and</i>		102	106	4	0.01	0.43	0.12	0.12	0.24
<i>and</i>		110	114	4	0.01	0.88	0.11	0.12	0.23
<i>and</i>		130	140	10	0.01	0.62	0.21	0.21	0.42
<i>including</i>		130	136	6	0.01	0.70	0.28	0.28	0.54
<i>and</i>		156	160	4	0.01	0.25	0.15	0.15	0.30

## 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.

### MINERAL RESOURCES AND ORE RESERVES

The previously reported resource estimates for Kharmagtai have not changed. For information regarding these resources please see the Company's ASX/TSX Announcement dated 31 October 2018.

### MINING ACTIVITIES

There were no mine production or development activities during the quarter.

### LIST OF TENEMENTS

Xanadu held licenses for the following tenements during the quarter. No new farm-in or farm-out agreements were entered into during the quarter.

**Table 4. Licenses and Projects Held by Xanadu**

Project Name	Tenement Name	Beneficial Ownership Start of Quarter	Beneficial Ownership End of Quarter	Location
Red Mountain *	Red Mountain	90%	90% ^	Mongolia, Dornogobi province, Saikhandulaan soum
Kharmagtai	Kharmagtai	76.5%	76.5%	Mongolia, Umnugobi province, Tsogttsetsii soum

\* Subsequent to the quarter, the Joint Exploration Agreement with Japan Oil and Gas Exploration Company (JOGMEC) was terminated, effective 30 November 2021, prior to completion of earn-in conditions. As a result, JOGMEC will no longer hold earn-in rights to the Red Mountain project.

^ Subsequent to the quarter, Xanadu completed purchase of 10% minority interest held by Enkh Tunkh Delkhii LLC, which increases its beneficial ownership to 100%.

### 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 JORC Code 2012 and the National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, issued by the Ontario Securities Commission. Dr Stewart consents to the inclusion in this 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 with a metallurgical recovery factor applied. The copper equivalent calculation used is based off the CuEq calculation defined by CSA Global Pty Ltd (**CSA**) in the 2018 Mineral Resource Upgrade.

Copper equivalent (**CuEq**) grade values were calculated using the following formula:

$$\text{CuEq} = \text{Cu} + \text{Au} * 0.62097 * 0.8235,$$

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%).

The copper equivalent formula was 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%.

## RELATED PARTIES

As set out in section 6.1 of the attached Appendix 5B, *Mining exploration entity or oil and gas exploration entity quarterly cash flow report*, payments made to related parties and their associates was \$298k in the quarter ended 30 September 2021. The amounts relate to salary, superannuation and bonus payments to Directors; legal fees paid to HopgoodGanim Lawyers (a company associated with Xanadu Non-Executive Director Michele Muscillo) for legal services; rent paid to Xanadu Executive Director Ganbayar Lkhagvasuren in relation to Xanadu's Ulaanbaatar office; rent and consulting fees paid to Colin Moorhead & Associates (a company associated with Xanadu Chairman Colin Moorhead) in relation to Xanadu's Melbourne office, geology and sustainability consultants; and rent paid to Bastion Minerals (a company in which Xanadu CEO and Executive Director Dr Andrew Stewart is a Non-Executive Director) in relation to Xanadu's Sydney office.

## 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 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 web site [www.xanadumines.com](http://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 11 April 2019.

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

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Representative 2 metre samples were taken from ½ HQ diamond core.</li> <li>Only assay results from recognised, independent assay laboratories were used after QAQC was verified.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>Diamond Drill Hole (DDH) drilling has been the primary drilling method. Some RC (reverse circulation) is conducted. RC holes are denoted by the KHRC prefix. Diamond Drill Holes are denoted by the KHDDH prefix.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>DDH core recoveries have been very good, averaging between 95% 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.</li> <li>Recovery measurements were collected during all DDH and RC programs. The methodology used for measuring recovery is standard industry practice.</li> <li>Analysis of recovery results vs. grade indicates no significant trends. Indicating bias of grades due to diminished recovery and / or wetness of samples.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Drill core was photographed after being logged by a geologist.</li> <li>The entire interval drilled and trenched has been logged by a geologist.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Sample intervals are generally a constant 2m interval down-hole in length unless subdivided at geological contacts.</li> <li>Routine sample preparation and analyses of DDH samples were carried out by ALS Mongolia LLC (<b>ALS Mongolia</b>), who operates an independent sample preparation and analytical laboratory in Ulaanbaatar.</li> <li>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.</li> <li>Certified reference materials (<b>CRMs</b>), blanks and pulp duplicate were randomly inserted to manage the quality of data.</li> <li>Sample sizes are well in excess of standard industry requirements.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>All samples were routinely assayed by ALS Mongolia for gold</li> <li>Au is determined using a 25g fire assay fusion, cupelled to obtain a bead, and digested with Aqua Regia, followed by an atomic absorption spectroscopy (<b>AAS</b>) finish, with a lower detection limit (<b>LDL</b>) of 0.01 ppm.</li> <li>All samples were submitted to ALS Mongolia for the package ME-ICP61 using a four acid digest. Where copper is over-range (&gt;1% Cu), it is analysed by a second analytical technique (Cu-OG62), which has a higher upper detection limit (<b>UDL</b>) of 5% copper.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>Quality assurance was provided by introduction of known certified standards, blanks and duplicate samples on a routine basis.</li> <li>Assay results outside the optimal range for methods were re-analysed by appropriate methods.</li> <li>Ore Research Pty Ltd certified copper and gold standards have been implemented as a part of QA/QC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-gold standards.</li> <li>QAQC monitoring is an active and ongoing processes on batch-by-batch basis by which unacceptable results are re-assayed as soon as practicable.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>All assay data QA/QC is checked prior to loading into the Geobank data base.</li> <li>The data is managed by Xanadu geologists.</li> <li>The database and geological interpretation is collectively managed by Xanadu.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Diamond drill holes have been surveyed with a differential global positioning system (<b>DGPS</b>) to within 10cm accuracy.</li> <li>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.</li> <li>UTM WGS84 48N grid.</li> <li>The digital terrain model (<b>DTM</b>) is based on 1m contours with an accuracy of <math>\pm 0.01\text{m}</math>.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>CSAMT receiver nodes were placed at 200m spacings to allow a potential maximum depth penetration of 1000m.</li> <li>Holes spacings range from 50m spacings within the core of mineralization to +500m spacings for exploration drilling. Hole spacings can be determined using the sections and drill plans provided</li> <li>Holes range from vertical to an inclination of -60 degrees depending on the attitude of the target and the drilling method.</li> <li>The data spacing and distribution is sufficient to establish anomalism and targeting for both porphyry, tourmaline breccia and epithermal target types.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Drilling is conducted in a predominantly regular grid to allow unbiased interpretation and targeting.</li> <li>Sample lines for the CSAMT survey were conducted roughly perpendicular to the gross geological trend</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Samples are dispatched from site through via company employees and secure company vehicles to the Laboratories.</li> <li>Samples are signed for at the Laboratory with confirmation of receipt emailed through.</li> <li>Samples are then stored at the lab and returned to a locked storage site.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>CSAMT data from the survey was reviewed and audited by Barry de Wet, an external consultant.</li> <li>Internal audits of sampling techniques and data management on a regular basis, to ensure industry best practice is employed at all times.</li> </ul>

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

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

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>The Project comprises 2 Mining Licences (MV-17129A Oyut Ulaan and (MV-17387A Kharmagtai)</li> <li>Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence.</li> <li>The Kharmagtai mining license MV-17387A is 100% owned by Oyut Ulaan LLC. Xanadu has an 85% interest in Mongol Metals LLC, which has 90% interest in Oyut Ulaan LLC. The remaining 10% in Oyut Ulaan LLC is owned by Quincunx (BVI) Ltd ("Quincunx").</li> <li>The Mongolian Minerals Law (2006) and Mongolian Land Law (2002) govern exploration, mining and land use rights for the project.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Previous exploration at Kharmagtai was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping.</li> <li>Previous exploration at Red Mountain (Oyut Ulaan) was conducted by Ivanhoe Mines.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The mineralisation is characterised as porphyry copper-gold type.</li> <li>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 throughout 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.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>Diamond drill holes are the principal source of geological and grade data for the Project.</li> <li>See figures in this ASX/TSX Announcement.</li> </ul>
<b>Data Aggregation methods</b>	<ul style="list-style-type: none"> <li>A nominal cut-off of 0.1% CuEq is used in copper dominant systems for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3%, 0.6% and 1% CuEq.</li> <li>A nominal cut-off of 0.1g/t eAu is used in gold dominant systems like Golden Eagle for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3g/t, 0.6g/t and 1g/t eAu.</li> <li>Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6% and 1% CuEq.</li> <li>Most of the reported intercepts are shown in sufficient detail, including maxima and subintervals, to allow the reader to make an assessment of the balance of high and low grades in the intercept.</li> <li>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).</li> </ul>

Criteria	Commentary
	<p>The copper equivalent (<b>CuEq</b>) 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 CuEq calculation defined by CSA in the 2018 Mineral Resource Upgrade.</p> <p>Copper equivalent (<b>CuEq</b> or <b>eCu</b>) grade values were calculated using the following formula:</p> $eCu \text{ or } CuEq = Cu + Au * 0.62097 * 0.8235,$ <p>Gold Equivalent (<b>eAu</b>) grade values were calculated using the following formula:</p> $eAu = Au + Cu / 0.62097 * 0.8235.$ <p>Where:</p> <p>Cu - copper grade (%)</p> <p>Au - gold grade (g/t)</p> <p>0.62097 - conversion factor (gold to copper)</p> <p>0.8235 - relative recovery of gold to copper (82.35%)</p> <p>The copper equivalent formula was based on the following parameters (prices are in USD):</p> <ul style="list-style-type: none"> <li>• Copper price - 3.1 \$/lb (or 6834 \$/t)</li> <li>• Gold price - 1320 \$/oz</li> <li>• Copper recovery - 85%</li> <li>• Gold recovery - 70%</li> <li>• Relative recovery of gold to copper = 70% / 85% = 82.35%.</li> </ul>
<b>Relationship between mineralisation on widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• See figures in the body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• Extensive work in this area has been done and is reported separately.</li> </ul>

Criteria	Commentary
<b>Further Work</b>	<ul style="list-style-type: none"><li>• The mineralisation is open at depth and along strike.</li><li>• Current estimates are restricted to those expected to be reasonable for open pit mining. Limited drilling below this depth (-300m RLI) shows widths and grades potentially suitable for underground extraction.</li><li>• Exploration on going.</li></ul>

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

Section 3 is not included, as this Announcement contains no new Mineral Resources and no material changes to existing Mineral Resources.

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

Section 4 is not included, as this Announcement contains no new Ore Reserves, and Xanadu has no existing Ore Reserves.

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

**Xanadu Mines Ltd**

ABN

**92 114 249 026**

Quarter ended ("current quarter")

**30 September 2021**

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation		
	(b) development		
	(c) production		
	(d) staff costs	(379)	(1,499)
	(e) administration and corporate costs	(431)	(1,167)
1.3	Dividends received (see note 3)		
1.4	Interest received		
1.5	Interest and other costs of finance paid	(10)	(25)
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(820)</b>	<b>(2,691)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	(241)	(401)
	(d) exploration & evaluation	(3,846)	(9,148)
	(e) investments		
	(f) other non-current assets		



Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material) <i>proceeds from JOGMEC Red Mtn Earn-In payments</i>	815	1,639
2.6	<b>Net cash from / (used in) investing activities</b>	<b>(3,272)</b>	<b>(7,910)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	10,154
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(623)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material) <i>repayment of leases and other finance cost paid</i>	(19)	(38)
3.10	<b>Net cash from / (used in) financing activities</b>	<b>(19)</b>	<b>9,493</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	10,803	7,687
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(820)	(2,691)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(3,272)	(7,910)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(19)	9,493
4.5	Effect of movement in exchange rates on cash held	356	469
4.6	<b>Cash and cash equivalents at end of period</b>	<b>7,048</b>	<b>7,048</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	7,048	10,803
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>7,048</b>	<b>10,803</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	298
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

<b>7.</b>	<b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>Unused financing facilities available at quarter end</b>		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8.</b>	<b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(820)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(3,846)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	<b>(4,666)</b>
8.4	Cash and cash equivalents at quarter end (item 4.6)	7,048
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	<b>7,048</b>
8.7	<b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	1.5
	<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: Xanadu will have marginally reduced operating cash flows in the December quarter, following a reduction from 3 to 2 diamond drill rigs at Kharmagtai.	
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: Further cash for operations will be raised via equity markets. Xanadu considers this a high likelihood of success and refers to its track record of prior successful placements, most recently in April 2021.	

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes via additional funding as noted in 8.8.2.

*Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.*

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 28 October 2021

Authorised by: By the Board

(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.