



QUARTERLY ACTIVITIES REPORT

for the three months ended 30 September 2024
(figures are unaudited and in A\$ except where stated)

31 October 2024

September 2024 Quarter Highlights

During the quarter ending 30 September 2024 (**September Quarter**), Xanadu Mines Ltd (**Xanadu or the Company**) progressed the Pre-Feasibility Study (**PFS**) at the Kharmagtai Copper and Gold Project (**Kharmagtai**) through its final stages, reporting strong metallurgical¹ results in late September and reporting full study findings² after the quarter on 14 October 2024, demonstrating a larger and more robust project than the 2022 Scoping study at 21% IRR and US\$930M post-tax NPV on US\$890M pre-production capital. A Maiden Ore Reserve (**Reserve**) and updated Mineral Resource Estimate (**MRE or Resource**)³ were published in parallel and based on the PFS design. During the quarter, the Company also commenced exploration at its new Sant Tolgoi Copper-Nickel Project⁴ (**Sant Tolgoi**) in North-Western Mongolia.

Kharmagtai Copper-Gold Project:

Pre-Feasibility Study⁵

- Confirms Kharmagtai as a potential world class, low cost, long life mine.
 - 21% IRR (range 14-25%, and 31% at spot commodity prices)
 - US\$930M NPV @ 8% (range US\$ 450-1,220M, and US\$1,880M at spot commodity prices)
 - 4-year payback (range 4-5 years, and 3 years at spot commodity prices)
 - 29-year mine life
- Production projected 60-80ktpa copper and 165-170kozpa gold production across two stages of expansion.
- First quartile all-in sustaining (C1) costs of US\$0.70/lb Cu for first eight years, net of by-product credits
- Conventional, low technical complexity open pit and process plant with low 0.6:1 strip ratio for first eight years
- Located in sparsely populated, flat terrain, with nearby established rail, power and water links

¹ ASX/TSX Announcement 18 September 2024 – Kharmagtai PFS Metallurgy Results

² ASX/TSX Announcement 14 October 2024 – Pre-Feasibility Study - Kharmagtai Copper-Gold Project

³ ASX/TSX Announcement 14 October 2024 – Kharmagtai Maiden Ore Reserve, Updated Mineral Resource

⁴ ASX/TSX Announcement 13 September 2024 – Copper-Nickel Exploration Advancing at Sant Tolgoi Project

⁵ ASX/TSX Announcement 14 October 2024 – Pre-Feasibility Study - Kharmagtai Copper-Gold Project

- Bankable Feasibility Study (BFS) expected to commence in Q1 CY2025 and complete in Q2 of CY2026
- Robust study outcomes, led by high quality advisory team

Maiden Ore Reserved and Mineral Resource Update⁶

- Kharmagtai Maiden Ore Reserve reported with approximately 1.6Mt Cu and 4.0Moz Au, comprised of Indicated material within the pit shells in the Kharmagtai PFS, but excluding the final pit phase at White Hill which is primarily driven by Inferred material.
- Significant increase in Kharmagtai MRE as Kharmagtai adopts the PFS marginal cut-off grade for economic extraction within the open pit
 - Open Pit Resource cut-off reduced from 0.20% CuEq to 0.13% CuEq to match the PFS mine plan marginal cut-off grade.
 - Contained copper increase from 3.8Mt to 4.7Mt Cu, or an increase of 0.9Mt Cu.
 - Contained gold increase from 9.3Moz to 11Moz Au, or an increase of 1.7Moz Au.
- No additional drilling undertaken since August 2024. The MRE growth was exclusively due to change in cut-off grade aligned to PFS calculations by Mining Plus.

Metallurgical Testwork⁷

- PFS metallurgical testwork for Kharmagtai completed following full locked cycle testwork (LCT) on appropriately representative deposit and master composites.
- The study defines a conventional flowsheet, including crushing, grinding and flotation to produce a saleable concentrate, augmented by upfront gravity and leaching of cleaner tails to produce gold doré.
- The combined process plant is projected to deliver average overall recoveries of approximately 81% copper and 80% gold from sulphide feed. Recoveries are made up of the following:
 - Gravity gold recovery of approximately 10%
 - Simple flotation recovery of 81% copper and 63% gold
 - Carbon in leach (CIL) recovery of an additional 7% gold
- Testwork shows concentrate grades of up to 25% copper and 25g/t gold, with very low impurities, indicating potential strong demand for the product.

Sant Tolgoi Project:

Exploration Activities Underway⁸

- Field exploration program is well underway at the Sant Tolgoi Copper-Nickel Project, representing Xanadu's first detailed activities at these highly encouraging district-scale magmatic targets. This includes:
 - Detailed geological mapping and geochemical sampling in progress.
 - Acquisition of high-resolution magnetic, gravity and CSAMT is complete, with modelling underway
 - Multiple shallow copper-nickel sulphide targets are being identified over several kilometres of strike.
 - Laboratory testing is underway. Early geochemical and geophysical results expected in Q4 CY2024.

⁶ ASX/TSX Announcement 14 October 2024 – Kharmagtai Maiden Ore Reserve, Updated Mineral Resource

⁷ ASX/TSX Announcement 18 September 2024 – Kharmagtai PFS Metallurgy Results

⁸ ASX/TSX Announcement 13 September 2024 – Copper-Nickel Exploration Advancing at Sant Tolgoi Project

Corporate:

- Kharmagtai Project Operator Transition now complete per the Joint Venture (JV) Shareholders Agreement, with General Manager and Chair of Khuiten Metals JV Board now Zijin's nominees.
- Xanadu held A\$3.3 million in cash on 30 September 2024.

Executive Chairman & Managing Director, Colin Moorhead, said:

"I am pleased and proud to have delivered such a strong PFS outcome for Kharmagtai, working together with our JV partners at Zijin Mining Group Co Ltd. The further confirms Kharmagtai as a world class copper-gold asset, located in a region of the South Gobi which hosts several significant deposits, including Rio Tinto's Oyu Tolgoi copper mine. We are excited to now work with Zijin to move Kharmagtai forward to a Bankable Feasibility Study, final construction permitting and Financial Investment Decision.

"Furthermore, the commencement of exploration activities at our Sant Tolgoi Copper-Nickel Project provides the next potential for discovery by Xanadu as the team transitions away from operatorship of Kharmagtai."

Operations Report: Kharmagtai Copper-Gold Project

During the September Quarter, the Company continued work nearing completion of the PFS and Maiden Ore Reserve at the Kharmagtai Copper-Gold Project, which was funded by US\$35 million from the sale of Xanadu's 50% share of the JV to Zijin Mining Group Co (**Zijin**). On 10 September, Zijin commenced Operatorship per the Joint Venture (JV) Shareholders Agreement, as the project progresses through final Feasibility, engineering, construction, and operations delivery.

Pre-Feasibility Study Summary of Findings⁹

Presented in 100% terms (Xanadu holds 50% control and 38.25% economic share)

LARGE SCALE, LOW-COST COPPER AND GOLD PRODUCTION

- Average annual production of 75kt copper and 165koz gold
- 29-year Life of Mine (LOM) at an initial mill throughput of 26Mtpa, expanding to 52Mtpa
- Total LOM ore processed of 1,270 Mt, producing approximately 2.2Mt of copper and 4.8Moz of gold metal.
- First quartile C1 cash cost \$0.70/lb Cu net of byproduct credits for the first eight years and second quartile C1 cash cost of \$1.30/lb Cu over LOM.

STRONG INVESTMENT RETURNS

- Post-Tax Internal Rate of Return (IRR) of 21% (range 14% to 25%, and 31% for spot commodities).
- Payback of 4 years (range 4 to 5 years, and 3 years for spot commodities).
- Post-Tax Net Present Value (NPV) of \$930 million (range \$450 million to \$1,220 million, and \$1,880 million for spot commodities).

⁹ ASX/TSX Announcement 14 October 2024 – Pre-Feasibility Study Kharmagtai Copper-Gold Project

- Estimated pre-production capital expenditure of \$890 million for pit development, process plant and infrastructure (range \$840 million to \$930 million).

LOW TECHNICAL COMPLEXITY

- Open pit mine, with low 0.6:1 strip ratio for first eight years and 1.4:1 over LOM.
- Limited (30-40Mt) pre-strip of oxidised material.
- Conventional copper sulphide flotation plant, augmented with gravity and Carbon In Leach (CIL) to improve gold recoveries.
- Relatively flat terrain and low rainfall enabling low risk waste and tailings storage solutions.
- Rail links and upgradeable construction grid power are already in place at or near the tenement.

GLOBALLY COMPETITIVE TIME TO PRODUCTION

- Relatively low ESG risk due to sparse population and flat terrain.
- Permitting and approvals process established and achievable.
- Established road and rail infrastructure and proximity to major copper markets.
- Mongolia is a well established and emerging mining jurisdiction with a well-educated population providing access to the required skills base.

SIGNIFICANT UPSIDE OPPORTUNITIES

- Copper recovery expected to improve through further optimisation of reagents, including pyrite suppression.
- Test work demonstrates that silver is present in the ore at payable grades, with potential to add material value uplift but is yet to be modelled to JORC standard.
- Heap leach testwork using glycine leach technology demonstrated potential to reduce stripping and generate early cash from processing shallow copper and gold rich oxide material, subject to further studies and finding a commercial solution for acid supply.
- Potential for further optimisation of pit slopes through targeted drilling, structural modelling and geological studies to reduce stripping and deepen pits.
- Application of additional technologies in later stages such as trolley assist and other future technologies has potential to reduce carbon emissions, lower operating costs, enable bigger economic pits, and extend the mine life.
- Modelling demonstrates further exploration upside with mineralisation remaining open along strike and at depth in several areas, implying potential to grow the resource and extend higher-grade zones.
- Deeper, higher-grade zones have potential for future bulk underground (UG) mining.
- With a large Chinese miner as a partner, there is potential to access lower cost capital which could materially uplift project NPV.

Kharmagtai JV Partner Zijin Mining Group will take over as operator for the final feasibility stage prior to Financial Investment Decision (FID) and may add significant value uplift through further project optimisation and access to lower cost of capital. Subject to approval of this PFS by the Khuiten Metals JV Board, the Kharmagtai Project is expected to commence the Bankable Feasibility Study (BFS) stage in Q1 2025 and targeting construction to commence by Q2 2026 (subject to funding and approvals).

KEY STUDY FINDINGS

Presented on 100% basis (Xanadu holds 50% control and 38.25% economic share)

Table 1: Key Study Outcome Ranges (US\$)

Project Financial Summary	Unit	Low	Base	High	Spot	2022 PEA ¹⁰
Net Revenue	\$M	26,600	27,900	29,300	32,400	16,100
EBITDA	\$M	7,400	8,500	9,500	12,500	6,770
Post-Tax Net Cash Flow	\$M	3,200	4,600	5,500	7,700	3,420
Post-Tax NPV (8%)	\$M	450	930	1,220	1,880	630
Post-Tax IRR	%	14%	21%	25%	31%	20%
Post-Tax Capital Payback ^a	Yr	5	4	4	3	4
Pre-Tax Net Cash Flow	\$M	5,100	6,300	7,500	10,300	4,900
Pre-Tax NPV (8%)	\$M	1,030	1,400	1,770	2,670	1,030
Pre-Tax IRR	%	22%	27%	32%	40%	25%
Pre-Tax Capital Payback	yr	4	3	3	2	3

a. Represents the year during which capital payback is achieved

Table 2: Key Study Assumptions (US\$)

Project Financial Summary	Unit	Low	Base	High	Spot ^a	2022 PEA
Cu price	\$/lb	3.69	4.10	4.51	4.52	4.00
Au price	\$/oz	2,210	2,100	1,990	2,658	1,700
Pre-Production Capex	\$M	930	890	840	890	690
LOM Capex ^b	\$M	2,070	1,970	1,870	1,970	1,880

a. Spot prices as at 4 October 2024, per [dailymetals.com](https://www.dailymetals.com)

b. LOM capex includes Stage 1 Pre-Production capital, Stage 2 Expansion capital, and Sustaining capital as developed during the PFS

The high and low ranges are created to help readers understand potential variances in different economic outcomes by flexing copper price, gold price, and capex. The low case scenario assumes copper price -10%, capex +5%, and gold price +5% which represents an economic environment of slowing industrial activity (copper -10%), higher inflation (capex +5%), partly offset by gold acting as a natural hedge (gold +5%). The high case represents the inverse, representing an accelerating industrial environment and reduced inflation.

The spot price scenario above assumes no change to capex and metal prices remaining at the current spot prices per the date in the table.

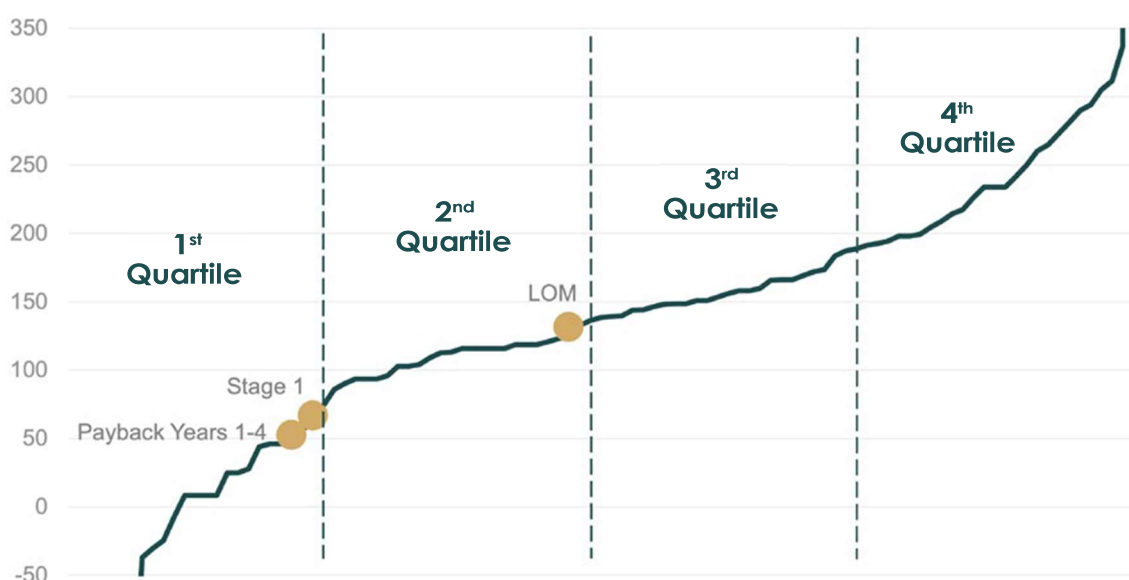
Capital payback is found to be within the 4th year of operation in both high and low scenarios, although much earlier within the year for the high scenario.

Table 3: Base Case Detail Findings (US\$)

Area	Measure	Unit	Stage 1 (8-yr)	Stage 2 (21-yr)	PFS LOM	2022 PEA LOM ¹¹
Production	Period	Years	8	21	29	30
	Ore Process Rate ^a	Mtpa	26	52	26-52	15-30
	Ore Processed	Mt	210	1,060	1,270	760
	Cu avg grade	%	0.28%	0.20%	0.21%	0.21%
	Au avg grade	g/t	0.24	0.13	0.15	0.18
	Cu avg recovery	%	83%	82%	82%	90%
	Au avg recovery from sulphide	%	82%	79%	81%	73%
	Cu produced total	kt	490	1,710	2,200	1,480
	Au produced from sulphide	koz	1,270	3,420	4,700	3,340
	Au produced from oxide	koz	70	0	70	0
	Au produced total	koz	1,340	3,420	4,770	3,340
	Cu avg annual production	ktpa	60	80	75	50
	Au avg annual production	kozpa	170	165	165	110
Capital	Project Capital	\$M	890	720	1,610	1,210
	Sustaining Capital	\$M	80	290	360	680
Operating Cost	All In Sustaining Cost	\$/lb	1.25	2.05	1.90	1.90
	C1 Cash Cost	\$/lb	0.70	1.50	1.30	1.35
	Operating Cost	\$/t ore	16.80	11.50	12.50	11.20

a. Excludes processing of higher gold grade oxides for first 8 years

Kharmagtai operates in the first quartile C1 Cash Costs for Stage 1 and the second quartile C1 Cash Costs for the Life of Mine.

**Figure 1:** Kharmagtai on C1 Industry Cost Curve (US\$/lb)¹²

¹¹ ASX/TSX Announcement 6 April 2022 – Scoping Study Kharmagtai Copper-Gold Project; and ASX Announcement 20 June 2022 – NI43-101 Preliminary Economic Assessment Technical Report

¹² ASX/TSX Announcement 14 October 2024 – Pre-Feasibility Study Kharmagtai Copper-Gold Project; Industry curve sourced from S&P Global Market Intelligence

The Project timeline has been developed with inputs from the PFS team and Mongolian project, government and community relations advisers in consideration of required Mongolian submissions and approvals. The construction period incorporates a hybrid of traditional western and Chinese contributions to a Mongolian constructed facility. Construction commences in 2026 allowing for completion of an international standard BFS, which differs from the Scoping Study¹³ which assumed earlier construction in parallel with final engineering and study.

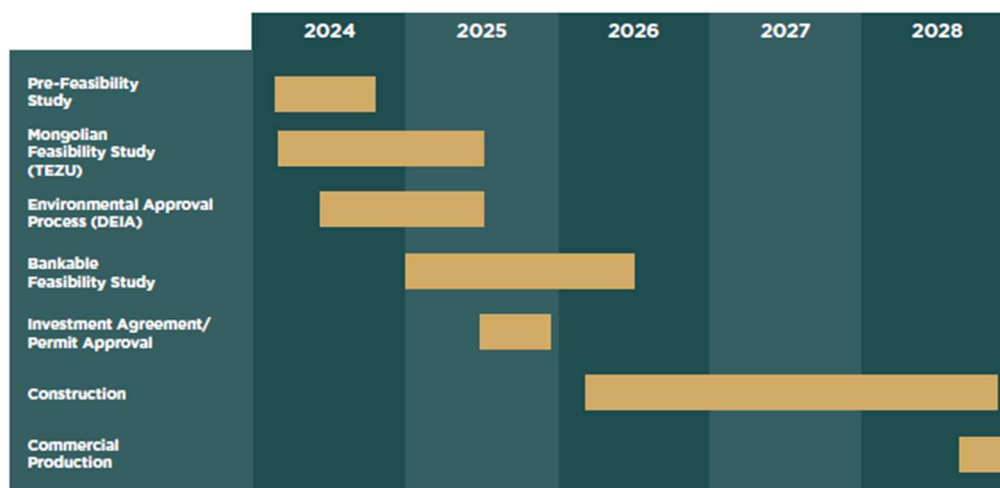


Figure 2: Project Timeline

Kharmagtai Mineral Resource and Ore Reserve¹⁴

MINERAL RESOURCE ESTIMATE UPDATE OVERVIEW

Xanadu engaged independent consultants, Spiers Geological Consultants (SGC), to prepare an updated Resource for Kharmagtai. The Resource has been reported in accordance with the JORC Code 2012, is effective as of 31st July 2024.

This Resource is an update to the August 2024 Mineral Resource Estimate, which reduces the open pit cut-off grade from 0.20% CuEq to 0.13% CuEq in line with the PFS marginal breakeven cut-off grade. Open cut resources are reported within the same revenue factor 1.4 pit shell from the Kharmagtai PFS. The revenue factor 1.4 pit shell is being used to define RPEEE for the open pit-able MRE at Kharmagtai.

SGC considers that data collection techniques are consistent with industry best practice and are suitable for use in the preparation of a Resource to be reported in accordance with JORC Code 2012. Available quality assurance and quality control (QA/QC) data supports the use of the input data provided by Xanadu.

The Resource is considered to have reasonable prospects for eventual economic extraction (RPEEE) on the following basis:

- The deposit is located in a favourable mining jurisdiction, with no known impediments to land access or tenure status;

¹³ ASX/TSX Announcement 6 April 2024 – Kharmagtai Copper-Gold Project Scoping Study

¹⁴ ASX/TSX Announcement 14 October 2024 – Kharmagtai Maiden Ore Reserve, Updated Mineral Resource

- the volume, orientation and grade of the Resource is amenable to mining extraction via traditional open-pit and underground methods;
- a Scoping Study¹³ and PFS⁹ have been reported to ASX that demonstrate Kharmagtai economic viability as an open pit mine within the revenue factor 1.4 shell that constrains the open cut Resource using the selected marginal cut-off grade, at a range of metal prices and assumptions; and
- The PFS has reported a maiden Ore Reserve based on Indicated Resource within the Open Cut Mineral Resource Estimate.

The Resource models are well understood and there is substantial upside potential to be realised by better understanding the economics of the deposit. As demonstrated in the images below, significant volumes of mineralisation have been modelled that fall outside of the constraining pit wireframe. These parts of the model will be targeted for further investigation through economic studies to assess if more of this material can be brought into the Mineral Resource.

Table 4: Comparison October 2024¹⁵ vs August 2024 Mineral Resource Estimate¹⁶

Resource	Cutoff (% CuEq)	Classification	Tonnes (Mt)	Grades			Contained Metal			
				CuEq (%)	Cu (%)	Au (g/t)	CuEq (Mlbs)	CuEq (kt)	Cu (kt)	Au (koz)
October 2024	0.13 (OC) 0.30 (UG)	Indicated	1,300	0.30	0.22	0.17	8,800	4,000	2,900	7,100
		Inferred	900	0.28	0.21	0.13	5,600	2,500	1,900	4,000
		Total	2,200	0.29	0.21	0.15	14,400	6,500	4,700	11,000
August 2024	0.20 (OC) 0.30 (UG)	Indicated	890	0.37	0.26	0.21	7,300	3,300	2,300	6,000
		Inferred	590	0.34	0.25	0.17	4,500	2,000	1,500	3,300
		Total	1,500	0.36	0.26	0.19	12,000	5,300	3,800	9,300

Notes:

- CuEq (lbs and t) accounts for Au (g/t) value and CuEq (t) must not be totalled to Au ounces
- Figures may not sum due to rounding
- Significant figures do not imply an added level of precision
- Resource constrained by 0.1%CuEq reporting solid in line with geological analysis by XAM
- Resource constrained by RV1400fpit (coded field equal to 1)
- Cut-off for Open Cut uses 0.13% CuEq, the marginal mine cut-off per the October 2024 PFS. Cut-off for Underground remains unchanged at 0.30% CuEq.
- Resource CuEq equation ($CuEq = Cu + Au \times 0.60049 \times 0.86667$) where Au at USD\$1400/oz and Cu at USD\$3.4/lb was employed according to the Clients' (XAM) direction.
- Au recovery is relative with Cu rec=90% and Au rec=78% (rel Au rec=78/90=86.667% with number according to the Clients' (XAM) direction
- Underground Resource "other 0p2 and 0p3" NOT inside RV1400fpit above and below nominated mRL level by deposit as follows SH>=720mRL, WH>=915mRL, CH>=1100mRL, ZA>=920mRL, ZE>=945mRL, PE>=1100mRL and GE>=845mRL
- Model: KH_ALL_GLOBAL_OKMOD_FINAL_V3_FORCLIENT_140624_inRV1400fpit

¹⁵ ASX/TSX Announcement 14 October 2024 – Kharmagtai Maiden Ore Reserve, Updated Mineral Resource

¹⁶ ASX/TSX Announcement 28 August 2024 – Update - Increase in Kharmagtai Resource

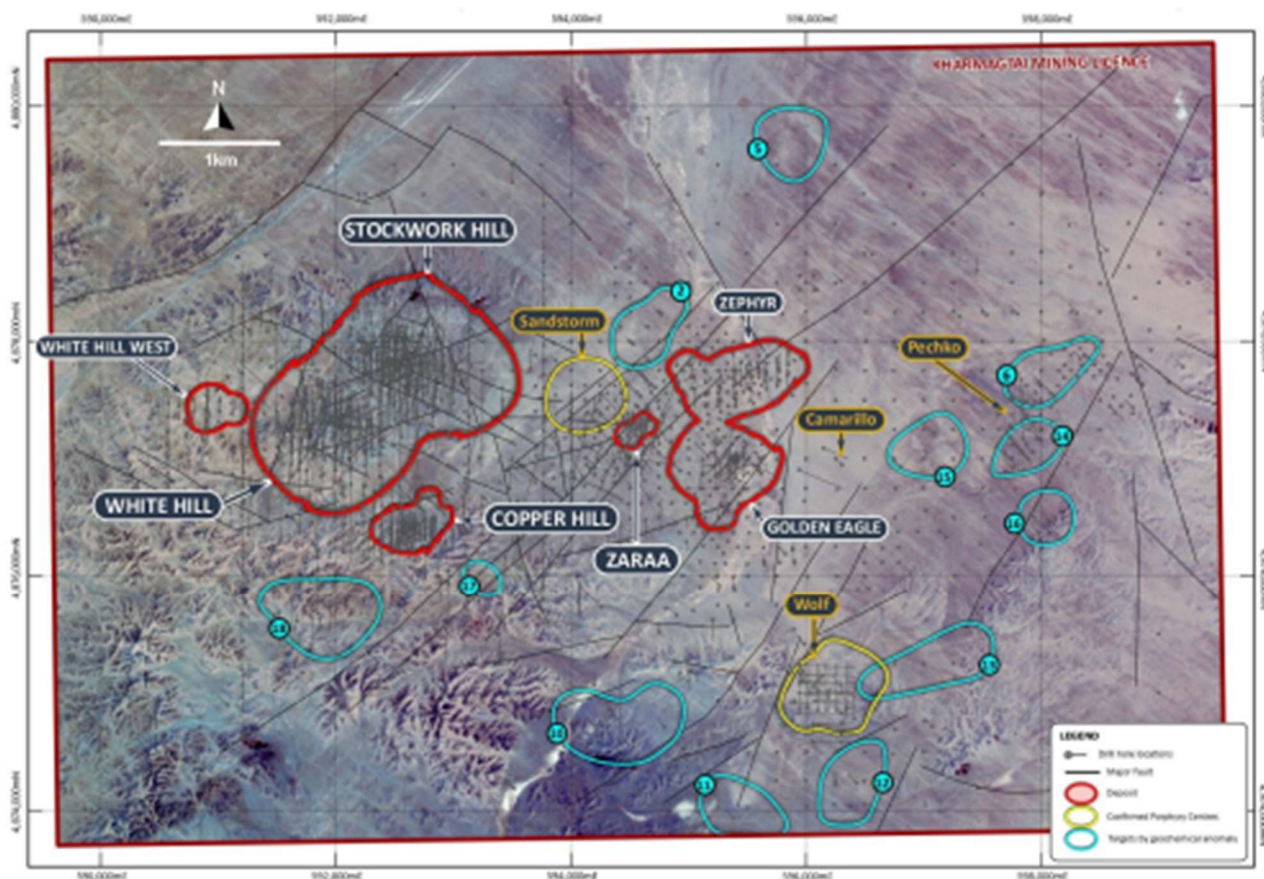


Figure 3: Plan view of the Kharmagtai district. Deposit outlines define the edges of the PFS open pit designs.

ORE RESERVE ESTIMATE UPDATE OVERVIEW

During the completion of the Kharmagtai PFS, evaluation of an Ore Reserve Estimate was completed. This includes Probable tonnes only. To support the Ore Reserve evaluation within the PFS a separate Whittle 4X open pit optimization evaluation was completed with no value given to the inferred classified material within the mineral resource estimate for all deposits. Following this a PFS level mine design, mine scheduling, mining costing and overall project economic model evaluation was completed to confirm positive economic outcomes for the Ore Reserve.

A summary of material assumptions can be found in the ASX/TSX Announcement dated 14 October 2024 “Kharmagtai Maiden Ore Reserve, Updated Mineral Resource”. There are no material differences between the definitions of Probable Ore Reserves under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves and the equivalent definitions in the JORC Code.

Table 5: Ore Reserve by Classification (Open Cut)

Classification	Tonnes (Mt)	Grades		Contained Metal	
		Cu (%)	Au (g/t)	Cu (kt)	Au (koz)
Proved	0	0	0	0	0
Probable	730	0.21	0.17	1,600	4,000

Notes:

- Figures may not sum due to rounding
- Significant figures do not imply an added level of precision
- Ore Reserve constrained by Kharmagtai PFS mine plan inventory
- The marginal breakeven open pit mine cut-off is 0.13% CuEq per the October 2024 PFS.
- Au recovery is relative with Cu rec=80% and Au rec=81% according to the Clients' (XAM) direction

Table 6: Ore Reserve by Deposit (all Probable)

Classification	Tonnes (Mt)	Grades		Contained Metal	
		Cu (%)	Au (g/t)	Cu (kt)	Au (koz)
Stockwork Hill	233	0.22	0.21	520	1,600
White Hill	437	0.21	0.14	930	2,000
Copper Hill	22	0.26	0.17	60	200
Golden Eagle	13	0.12	0.31	20	100
Zephyr	16	0.15	0.19	20	100
White Hill West	11	0.16	0.11	20	40
Probable	730	0.21	0.17	1,570	4,000

Notes:

- Figures may not sum due to rounding
- Significant figures do not imply an added level of precision
- Ore Reserve constrained by Kharmagtai PFS mine plan inventory
- Reserve CuEq equation ($\text{CuEq} = \text{Cu} + \text{Au} \times 0.7039$) where Au at USD\$1900/oz and Cu at USD\$4.0/lb was employed according to the Clients' (XAM) direction.
- Au recovery is relative with Cu rec=80% and Au rec=81% according to the Clients' (XAM) direction

Kharmagtai Metallurgical Testwork

PFS metallurgical testwork was completed for the copper-gold porphyry deposits located within the Kharmagtai Porphyry Project¹⁷. The PFS program builds on previous testwork, which was used to define the Mineral Resource and the 2022 Scoping Study. The more substantial PFS data set provides an appropriate basis for overall recovery, product quality and process engineering design. Key objectives of this program included:

- Ore hardness and comminution characteristics
- Optimal grind size
- Regrind size
- Gravity recoverable gold
- Amenability to gold and copper recovery by froth flotation
- Amenability to gold cyanidation via treatment of cleaner tailings stream and high-grade oxide feed

The overall goal of the program was to complete test-work and trade-off studies to identify the optimal ore processing pathway and flowsheet for the Kharmagtai deposits. The testwork program was developed and supervised by Leo Consulting. Principally, the work was performed at ALS laboratories in Perth, with some specialist work performed by others.

The study defines a conventional flowsheet, including crushing, grinding and flotation to produce a saleable concentrate. Gold doré is also produced through an upfront gravity circuit and leaching of cleaner tails.

The combined process plant is projected to deliver average overall recoveries of approximately 81% copper and 80% gold from sulphide feed.

Recoveries are made up of the following:

- Gravity gold recovery of approximately 10%
- Simple flotation recovery of 81% copper and 63% gold
- Carbon in leach (CIL) recovery of an additional 7% gold

Testwork also shows concentrate grades of up to 25% copper and 25g/t gold, with very low impurities, indicating potential strong demand for the product.

¹⁷ ASX/TSX Announcement 18 September 2024 – Kharmagtai PFS Metallurgy Results

Operations Report: Sant Tolgoi Copper-Nickel Project

Exploration Advancing

The Company reported that field operations had commenced¹⁸ at the highly prospective Sant Tolgoi Copper-Nickel Project, located in Zavkhan Province of Western Mongolia (Figure 4). The objective of this exploration programme is to identify potential high-grade sulphide, magmatic copper-nickel mineralisation within the large Sant Tolgoi Intrusive Complex.

This field exploration program represents Xanadu's first detailed activities at these highly encouraging district-scale magmatic targets. The program includes detailed geological mapping and geochemical sampling; modelling of high-resolution magnetic, gravity and CSAMT. The Company is identifying multiple shallow copper-nickel sulphide targets r several kilometres of strike. Early geochemical and geophysical results expected in Q4 CY2024.

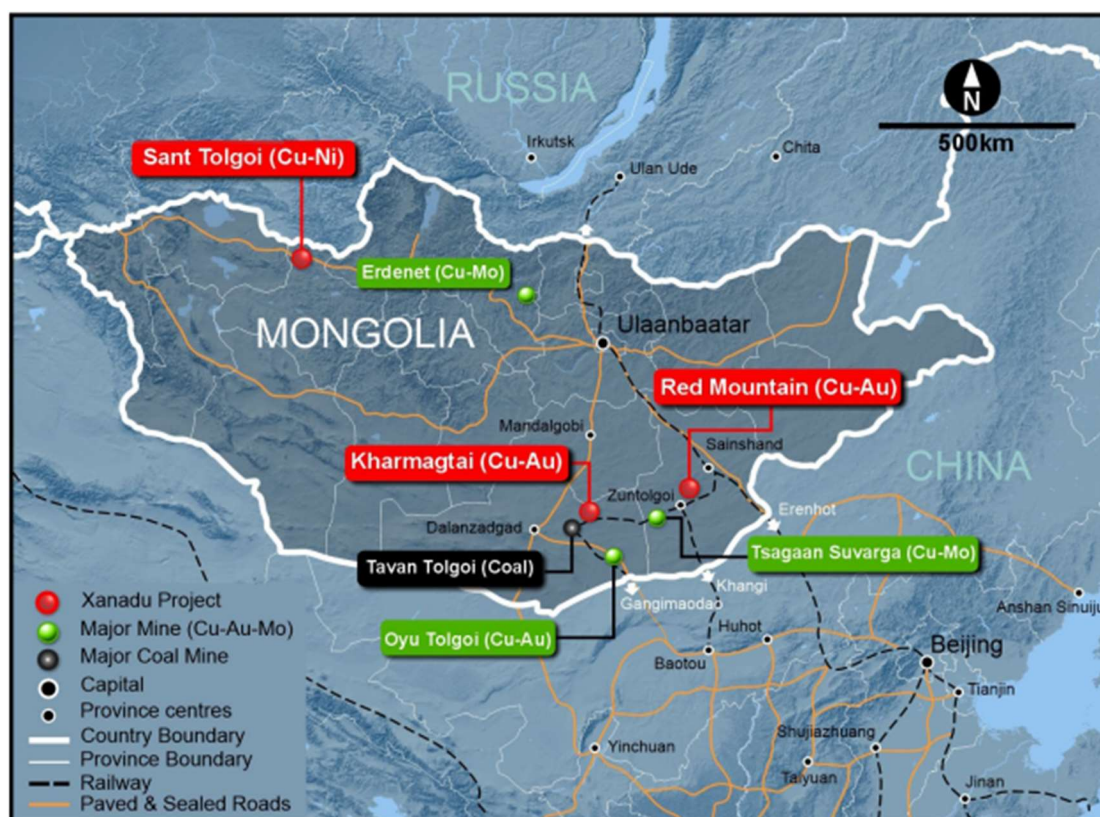


Figure 4: The Sant Tolgoi located in the Zavkhan Province of Western Mongolia

¹⁸ ASX Announcement 13 September 2024 - Copper-Nickel Exploration advancing at Sant Tolgoi Project - Clarification

December 2024 Quarter Planned Activities

Key activities planned during the quarter ending 31 December 2024 (**December Quarter**) include:

- Kharmagtai
 - Complete and publish the NI43-101 PFS Technical Report
 - Develop and Approve the Scope, Schedule and Budget for the Bankable Feasibility Study (**BFS**)
 - Develop and Approve the Scope, Schedule and Budget for Exploration in 2025-2026
 - Progress funding partner discussions for BFS
- Exploration
 - Publish outcomes from Sant Tolgoi exploration
 - Planning for next phase of exploration at Sant Tolgoi under earn-in agreement
 - Planning for next phase of exploration at Red Mountain

Results of Operations

	Quarter Ended				
	30 Sep	30 Jun	31 Mar	31Dec	30 Sep
	2024	2024	2024	2024	2023
	\$'000	\$'000	\$'000	\$'000	\$'000
JV: Gross Exploration Expenditure ^a					
Kharmagtai	-	4,209	2,883	7,839 ^g	10,515
Drill metres ^{b,c}	-	601	3,283	12,677	29,388
Gross Exploration Expenditure					
Red Mountain	97	929	317	69	90
Drill metres ^{b,c}	-	3,726	1,220	-	-
Sant Tolgoi	181	-	-	-	-
Drill metres	-	-	-	-	-
Exploration expenditures capitalised	278	929	317	69	90
Corporate general and administration	1,175	1,466	1,148	2,184 ^e	1,365
Less JV Operator Overhead recovery	<u>(933)</u>	<u>(1,036)</u>	<u>(825)</u>	<u>(891)</u>	<u>(970)</u>
Net Corporate general and administration	242	430	323	1,293	395

a. Includes all forms of exploration such as diamond drilling, trenching, hydrology drilling, geophysics, assays and related costs.

b. Reflects invoiced metres paid during the quarter under drilling contract. Physical metres drilled during the quarter may vary due to invoice timing.

c. Excludes metres related to horizontal trenching, hydrological drilling, and shallow geotechnical investigation.

d. Excludes Kharmagtai (Khuiten JV) Gross exploration expenditure no longer consolidated in the Company's results.

e. Includes tranche 1 of success fee of AUD\$753k paid to Jeffries in April 2023 and following tranche 2 AUD\$750 accrued Dec 2023, paid April 2024 in relation to completion of Khuiten JV with Zijin.

f. As operator of Khuiten JV, the operator overheads are recoverable in accordance with the Shareholders Joint Venture Agreement

g.

Financial and Corporate

Capital Structure

On 30 September 2024, the Company had 1,716,006,009 fully paid ordinary shares and 151,860,000 options over ordinary shares on issue and approximately A\$3.3 million in cash.

Operatorship of Kharmagtai

During the Quarter, Xanadu provided an update on the ownership of the Kharmagtai Copper-Gold Project¹⁹, noting that on the release of the PFS, the operatorship transition to Zijin Mining Group Co (Zijin) commenced on 10 September 2024 per the Joint Venture Shareholders Agreement, and that planning and funding discussions underway for the next stage of development. The General Manager and Chair of Khuiten Metals JV Board are now Zijin's nominees and responsible to lead planning for the Bankable Feasibility Study.

ASX Announcements

This September 2024 Quarterly Activities Report contains information reported in accordance with the 2012 Edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012)* in the following announcements.

14-Oct-24	Kharmagtai Maiden Ore Reserve, Updated Mineral Resource
14-Oct-24	Pre-Feasibility Study Kharmagtai Copper-Gold Project
18-Sep-24	Kharmagtai PFS Metallurgy Results
10-Sep-24	Copper-Nickel Exploration advancing at Sant Tolgoi Project - Clarification
28-Aug-24	Update - Increase in Kharmagtai Resource
21-Jun-24	Near Surface Copper & Gold Results at Red Mountain

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 jointly control a globally significant copper-gold deposit in our flagship Kharmagtai project.

For further information on Xanadu, please visit: www.xanadumines.com or contact:

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

¹⁹ ASX/TSX Announcement 2 October 2024 - Kharmagtai Project Update

APPENDIX 1: STATEMENTS AND DISCLAIMERS

MINERAL RESOURCES AND ORE RESERVES REPORTING REQUIREMENTS

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

Mineral Resource Estimates for Kharmagtai were updated during and after the September Quarter – please refer to the relevant ASX/TSX Announcement for details.²⁰ There are no reported Ore Reserves.

MINING ACTIVITIES

There were no mine production or development activities during the September 2024 Quarter.

LIST OF TENEMENTS

Xanadu held licenses or rights related to licenses for the following tenements during the September 2024 Quarter. No new farm-in or farm-out agreements were entered into during the quarter.

Project Name	Tenement Name	Beneficial Ownership Start of Quarter	Beneficial Ownership End of Quarter	Location
Sant Tolgoi	Sant Tolgoi	0%	0% ^{21,22}	Mongolia, Zavkhan Province
Red Mountain	Red Mountain	100%	100%	Mongolia, Dornogobi province, Saikhandulaan soum
Kharmagtai	Kharmagtai	38.25% ²³	38.25%	Mongolia, Umnugobi province, Tsogttsetsii soum

COMPETENT PERSON STATEMENTS

The information in this announcement that relates to Mineral Resources is based on information compiled by Mr Robert Spiers, who is responsible for the Mineral Resource Estimate. Mr Spiers is a full time Principal Geologist employed by Spiers Geological Consultants (SGC) and is a Member of the Australian Institute of Geoscientists. He 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 Qualified Person as defined in the CIM Guidelines and National Instrument 43-101 and as a Competent Person under JORC Code, 2012. Mr Spiers consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

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

²⁰ ASX/TSX Announcement 14 October 2024 – Kharmagtai Maiden Ore Reserve, Updated Mineral Resource

²¹ Current earning into 51% equity in Sant Tolgoi project by spending US\$1M over 24 months commencing 22 January 2024

²² ASX/TSX Announcement 22 January 2024 – Xanadu Enters into New Magmatic Copper and Nickel Sulphide Project

²³ 38.25% represents 50% of Khuiten Metals via the Khuiten JV with Zijin. Khuiten Metals controls Kharmagtai and holds 76.5% of the Kharmagtai mining lease.

The information in this Announcement that relates to metallurgy and metallurgical test work has been reviewed by Graham Brock, BSc (Eng), ARSM. Mr Brock is not an employee of the Company but is employed as a contract consultant. Mr Brock is a Fellow of the Australasian Institute of Mining and Metallurgy; he has sufficient experience with the style of processing response and type of deposit under consideration, and to the activities undertaken, to qualify as a competent 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. Mr Brock consents to the inclusion in this report of the contained technical information in the form and context as it appears.

The information in this Announcement that relates to mining and project management has been reviewed by Julien Lawrence, BEng (Mining Hons 1), MS (Project Management). Mr Lawrence is not an employee of the Company but is employed as a contract consultant. Mr Lawrence is a Fellow of the Australian Institute of Mining and Metallurgy and has sufficient experience with the style of mining and type of deposit under consideration, and to the activities undertaken, to qualify as a competent 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. Mr Lawrence consents to the inclusion in this report of the contained technical information in the form and context as it appears.

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 approx. \$322,710 in the September 2024 Quarter. 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; and rent fees paid to Colin Moorhead & Associates (a company associated with Xanadu's Executive Chairman and Managing Director, Colin Moorhead) in relation to a share of Xanadu's Melbourne office.

COPPER EQUIVALENT CALCULATIONS

The copper equivalent (**eCu**, **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.

Copper equivalent grade values were calculated using the formula: $CuEq = Cu + Au * 0.60049 * 0.86667$.

Where Cu - copper grade (%); Au - gold grade (g/t); 0.60049 - conversion factor (gold to copper); 0.86667 - relative recovery of gold to copper (86.67%).

The copper equivalent formula was based on the following parameters (prices are in USD): Copper price 3.4 \$/lb; Gold price 1400 \$/oz; Copper recovery 90%; Gold recovery 78%; Relative recovery of gold to copper = $78\% / 90\% = 86.67\%$.

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.

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 2024

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(601)	(2,076)
(e) administration and corporate costs	(1,464)	(3,428)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	35	106
1.5 Interest and other costs of finance paid	(7)	(20)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)		
Operator overhead received from Joint Venture	511	2,373
1.9 Net cash from / (used in) operating activities	(1,526)	(3,045)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	(182)	(243)
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(168)	(1,475)
(e) investments	-	-
(f) other non-current assets	-	-

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

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)	-	-
2.6	Net cash from / (used in) investing activities	(350)	(1,718)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	835
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	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	(16)	(45)
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(16)	790

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

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	5,235	7,318
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,526)	(3,045)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(350)	(1,718)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(16)	790
4.5	Effect of movement in exchange rates on cash held	2	-
4.6	Cash and cash equivalents at end of period	3,345	3,345

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	3,345	2,663
5.2	Call deposits	-	2,572
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3,345	5,235

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	322
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>		

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

7.	Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i> <i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)- Motor Vehicle Lease	149	149
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		-
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.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(1,526)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(168)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,694)
8.4	Cash and cash equivalents at quarter end (item 4.6)	3,345
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	3,345
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.97
	<i>Note: if the entity has reported positive relevant outgoings (i.e., 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?	
	<p>Answer:</p> <p>No. Xanadu cost base will reduce in line with a reduced level of corporate activity, because the Company is no longer the Operator of the Kharmagtai project post PFS delivery. Xanadu will instead be focused on operating its Sant Tolgoi and Red Mountain exploration projects, which requires a lower rate of expenditure.</p>	

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

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:

Xanadu does have two broker mandates in place and will consider raising cash on an opportunistic basis during the next two quarters. However, taking into account a reduced level of activity and therefore costs (see answer above), the Company expects to have more than 2 quarters of cash available.

As previously communicated, Xanadu is investigating non-dilutive fund-raising options for its share of the next stage of study at the Kharmagtai project through the Khuiten Metals Joint Venture, working through its adviser Bacchus Capital. This JV project funding will be managed separately from corporate funding.

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. As noted above, with a reduced cost base after Kharmagtai PFS completion, the Company expects to have more than 2 quarters of cash available. Additional cash will be raised on an opportunistic basis during the next two quarters, noting a history of successful fund raising.

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: 31 October 2024

Authorised 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 – e.g., 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".

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

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.