



28 October 2024

Tertiary Minerals plc ("Tertiary" or the "Company")

Copper-Zinc Mineralisation discovered at Mushima North

Further to its announcement of 16 October 2024, the Company is pleased to advise that drilling on its Mushima North Copper Project in Zambia has intersected widespread copper and zinc mineralisation with multiple holes ending in mineralisation.

Highlights:

- Twenty-five holes drilled to a maximum depth of 112m on three traverses at Target A1 and one traverse at Target C1.
- Field portable X-Ray Fluorescence ("pXRF") analysis of drill samples now completed.
- Wide downhole intervals of largely coincident copper and zinc mineralisation found on and around Traverse 1 at Target A1 in in drill holes spanning an open ended 350m (east-west) x 170m (north-south) area, e.g.:
 - Hole 24TMN024: 33m grading 0.21% copper from 22m
 - **inc. 6m downhole grading 0.58% copper from 47m**
 - **inc. 1m downhole grading 1.04% copper from 49m**
 - Hole 24TMN003: 8m grading 0.10% copper from 33m
 - And 28m grading 0.30% zinc from 41m to end of hole
 - Hole 24TMN004: 55m grading 0.18% copper from 14m to end of hole
 - and 26m grading 0.27% zinc from 45m to end of hole
 - Hole 24TMN005: 43m grading 0.14% copper from 31m to end of hole
 - and 58m grading 0.27% zinc from 16m to end of hole
 - Hole 24MN008P: 11m grading 0.14% copper from 65m
 - and 62m grading 0.41% zinc from 19m
- Narrower intervals of similar copper mineralisation intersected drill holes on Traverses 2 and 3 at Target A1, and on the traverse at Target C1.
- Ground magnetic survey now in progress at Target A1 to assist structural and stratigraphic interpretation.
- Selected samples to be submitted for laboratory check analysis and for precious metal analysis.

Detailed information and a table of significant drill results follows, together with a drill hole location plan and other images.

Patrick Cheetham, Executive Chairman of Tertiary Minerals plc said:

"Our first drill programme at Mushima North has delivered exciting results and demonstrates that the large copper-in-soil anomaly at Target A1 is rooted in thick intervals of copper and zinc mineralisation over a wide area. The aircore drill rig used for this programme allowed us to complete a meaningful number of widely spaced drill-holes, but the depth limitations of this reconnaissance drilling method meant that many holes ended in mineralisation.

"Use of pXRF analysis in near real-time allowed us to modify the drill programme as it progressed with the result that the last hole in the programme hit the highest grades - grades similar to those being mined elsewhere in northwest Zambia. So far we have only scratched the surface at Mushima North and work is now in progress to help us plan follow-up work for the 2025 field season."

Cautionary Statement

pXRF analytical results form the basis of this announcement. It should be noted that pXRF analytical results are generally considered to be less accurate than analytical results generated by an accredited analytical laboratory. The Company has carried out a comprehensive QA/QC programme with the pXRF where sample duplicates and certified reference materials with certified metal values were inserted into the sequence of drill samples being analysed. In addition, the values being reported are based on five pXRF readings averaged for each sample. The QA/QC of the pXRF results was satisfactory. As a result, the Company is satisfied that the results being reported are a reliable indication of the occurrence of copper and zinc mineralisation of interest for further exploration. The Company will submit a series of drill samples for check analysis using an accredited analytical laboratory and the resulting analytical results will be released in due course.

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Market Abuse Regulation

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ('MAR'). Upon the publication of this announcement via Regulatory Information Service ('RIS'), this inside information is now considered to be in the public domain.

Detailed Information

The Mushima North Copper Project (Licence 27068-HQ-LEL) is held through Group company Copernicus Minerals Limited ("Copernicus") which is 90% owned by Tertiary Minerals (Zambia) Limited. Copernicus is in the process of taking a transfer of the licence through its agreement with licence holder and Copernicus 10% shareholder, Mwashia Resources Limited ("Mwashia") (see announcement dated 26 February 2024).

The project lies 20km to the east of the Kalengwa copper mine which is now being reopened and is expected to produce 15,000 tonnes of copper annually. Kalengwa was one of the highest-grade copper deposits ever to be mined in Zambia. In the 1970s high-grade ore, in excess of 26% copper, was trucked for direct smelting at other mines in the Copperbelt.

Kalengwa was discovered by drill testing a coincident copper-in-soil anomaly and gravity anomaly and has characteristics of the Iron-Oxide-Copper-Gold ("IOCG") class of deposits.

In 2023, following a detailed targeting project, Tertiary carried out soil sampling over the A1, A2 and C1 targets, defining significant copper in soil anomalies in all three areas (see announcements dated 5 October and 16 October 2023).

A1 Target Drill Testing

The A1 target, a copper-in-soil anomaly, covers an area of up to approximately 3km north-south by 1.5km east-west.

In the recently completed drill programme, 17 shallow holes were drilled on three traverses using a combination of aircore and reverse circulation methods as an initial test of the A1 soil anomaly.

Drill Traverse 1 was completed west-east over the northern part of the anomaly and initially comprised 5 holes drilled at 100m intervals an angle of -60 degrees to the east. Samples were collected at 1m intervals and analysed using a pXRF. Additional holes were sited to infill the hole spacing at 50m intervals

on the eastern half of the traverse and the traverse was extended to the east. Wide zones of copper and zinc were intersected over the majority of holes on Traverse 1.

A full tabulation of drill results is given in Table 1 below and details of the reporting grade cut-offs is given in the accompanying notes.

The final hole in the whole programme (24TMN024) was drilled vertically 170m south of Traverse 1 and intersected the highest grades of the whole programme - up to 1% copper - grades similar to those being mined at major mining operations elsewhere in northwest Zambia. Unfortunately, there was insufficient time to drill further holes in the current programme.

Preliminary logging of drill samples indicates that the geological sequence intersected at A1 on Traverse 1 is a series of altered ferruginous sandstones, siltstones and conglomerates with mineralisation hosted primarily in ferruginous and graphitic conglomerates. Many of the clasts are highly weathered or leached out (vuggy) suggesting the possibility that leaching of copper may have occurred. This is a permissive lithological setting for economic copper deposits in northwest Zambia and is similar to that hosting copper mineralisation at the Kalengwa mine.

The association of zinc and copper mineralisation at Mushima North requires further evaluation. Arsenic is also highly anomalous in some holes (up to 0.4%) and samples need to be analysed for precious metals.

The mineralisation intersected on Traverse 1 is best developed on the western side of the soil anomaly and continues beyond the soil anomaly to the east where it is open ended.

Drill Traverse 2 comprised five 100m spaced holes (24TMN006 to 24TMN010) in the western part of the A1 soil anomaly, approximately 500m south of Traverse 1. A similar sedimentary sequence was intersected as in Traverse 1 and whilst copper values on this traverse were lower, all holes were consistently anomalous in copper in the low -mid 100s of parts per million copper throughout. It is believed that these holes were placed too far to the west and this traverse should be extended to the east in future.

Drill Traverse 3 is located approximately 750m further south from Traverse 2. and comprised four 100m spaced aircore holes (24TMN011 to 24TMN014). The pXRF results on Traverse 3 are similar to those on Traverse 2 and this traverse also needs to be extended to the east in future programmes.

C1 Target Area

The principal target at C1 is for IOCG style mineralisation associated with coincident magnetic and gravity anomalies defined by BHP in an earlier phase of exploration. This target is deep and testing was beyond the depth capability of the drill rig used at Mushima North during the recent programme.

However, seven shallow aircore holes (24TMN016 to 24TMN022) were drilled vertically at 100m intervals on a north-south traverse to test a copper-in-soil geochemical anomaly for shallow mineralisation.

A number of narrow intersections of copper mineralisation were made as shown in Table 2 below. Mineralisation occurs in a mixed sequence of dolomitic siltstones and granite with iron and copper sulphide minerals, pyrite and chalcopyrite being logged.

The primary IOCG target at C1 remains untested.

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Table 1: Target A1, Mushima North Significant Aircore/Reverse Circulation Drilling Results

Hole Number	Interval (m)	% Copper	% Zinc	From (m)	To (m)	Note
Traverse 1	From West to East					
24TMN003	2m	0.10% copper		28m	30m	
	8m	0.10% copper		33m	41m	
	28m		0.30% zinc	41m	69m	Hole ended in mineralisation
24TMN006P	21m	0.16% copper		22m	43m	
	2m	0.10% copper		53m	55m	
	46m		0.27% zinc	22m	68m	
24TMN004	55m	0.18% copper		14m	71m	Hole ended in mineralisation
	2m		0.28% zinc	21m	23m	
	26m		0.27% zinc	45m	71m	Hole ended in mineralisation
24TMN008P	2m	0.13% copper		24m	26m	
	11m	0.14% copper		65m	76m	
	62m		0.41% zinc	19m	82m	
24TMN005	43m	0.14% copper		31m	74m	Hole ended in mineralisation
	58m		0.27% zinc	16m	74m	Hole ended in mineralisation
24TMN015	48m	0.16% copper		22m	70m	Hole ended in mineralisation
24TMN023	3m	0.11% copper		39m	42m	
	55m	0.18% copper		54m	112m	Hole ended in mineralisation
	9m	0.31% copper		79m	88m	
	26m		0.20% zinc	84m	112m	Hole ended in mineralisation
24TMN024	Located 170m due south of 24TMN015					
	33m	0.21% copper		22m	57m	
	6m	0.58% copper		47m	53m	
	1m	1.04% copper		49m	50m	
Traverse 2	From West to East					
24TMN006	9m	0.13% copper		33m	42m	
	5m	0.11% copper		80m	85m	
Traverse 3	From West to East					
24TMN011	9m		0.20% zinc	8m	17m	
24TMN012	4m	0.10% copper		31m	35m	

Table 2: Target C1, Mushima North Significant Aircore/Reverse Circulation Drilling Results

Hole Number	Interval (m)	% Copper	% Zinc	From (m)	To (m)	Note
Traverse drilled South to North						
24TMN016	3m	0.11% copper		29m	32m	
24TMN017	3m	0.12% copper		28m	31m	Hole ended in mineralisation
24TMN019	2m	0.10% copper		28m	30m	

Notes:

1 . The information in this release has been compiled and reviewed by Mr. Patrick Cheetham (MIMMM, MAusIMM) who is a qualified person for the purposes of the AIM Note for Mining and Oil & Gas Companies. Mr. Cheetham is a Member of the Institute of Materials, Minerals & Mining and also a member of the Australasian Institute of Mining & Metallurgy.

2 . The news release may contain certain statements and expressions of belief, expectation or opinion which are forward looking statements, and which relate, inter alia, to the Company's proposed strategy, plans and objectives or to the expectations or intentions of the Company's directors. Such forward-looking statements involve known and unknown risks, uncertainties, and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from such forward-looking statements. Accordingly, you should not rely on any forward-looking statements and save as required by the AIM Rules for Companies or by law, the Company does not accept any obligation to disseminate any updates or revisions to such forward-looking statements.

3. Reporting cut-offs:

For copper - a mineralised interval of minimum 2m thickness with a 0.1% start/finish threshold and having an average grade of >0.1% copper.

For zinc - a mineralised interval of minimum 2m thickness with a 0.2% start/finish threshold and having an average grade of >0.2% zinc.

Where voids occur within continuous sampled lengths, the average grade reported is the average grade of the samples actually collected and the reported sample interval excludes the extent of the voids which are likely due to washing out of clay or other soft materials, possibly in fault zones. The following voids were noted:

Hole 24TMN004 drilled through a 2m void from 43-45m.

Hole 24TMN008P drilled through a 1m void from 17-18m and 30-31m downhole.

Hole 24TMN023 drilled through voids from 70-71, 88-89m and 95-96m downhole.

Hole 24TMN024 drilled through voids from 46-47m and 54-55m downhole.

REPORTED THICKNESSES ARE DOWNHOLE THICKNESSES AND TRUE THICKNESS ARE UNKNOWN.

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