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**African Pioneer Plc**  
**("African Pioneer" or "the Company")**  
**Central Africa Copperbelt - Update on Shallow and DRC-style copper occurrences**

African Pioneer plc ("APP" or the "Company") is pleased to report on results from shallow drilling at several targets, as well as two potentially significant copper intercepts from deeper drilling on a conceptual target undertaken by First Quantum Minerals Limited ("First Quantum"), operating in northwest Zambia under an Option Agreement with APP's 80% owned subsidiary African Pioneer Zambia Ltd.

**Highlights**

- The fourth quarter 2022 report from joint venture partner First Quantum confirms encouraging copper oxide intercepts at three shallow drill targets and potentially significant copper mineralisation in two holes on a separate licence being explored for geological settings similar to the giant Kamoa-Kakula deposits in the DRC.
- Preliminary analytical results for shallow air-core drilling completed in the previous quarter over soil geochemical targets on licence 27770-HQ-LEL recorded several copper mineralised intervals hosted in black shales on the Turaco and Eagle targets - final assay results are awaited.
- Two deep drillholes were completed 5km apart at the Ikatu target on licence 27767-HQ-LEL to test if the geologic setting is analogous to the 'Western Foreland' domain in the nearby DRC, host to Ivanhoe Mines Limited's Kamoa-Kakula mines, projected to be one of the highest grade major copper mines in the world. The target Diamictite unit was encountered in both holes, with visible copper mineralisation being identified at different stratigraphic levels in each hole:
  - o Hole IKDD001A intersected chalcocite, bornite and chalcopyrite copper mineralisation about 180m below the Diamictite unit over 2.9m from 430.9m depth
  - o Hole IKDD002 encountered a 2m zone of strong alteration and irregular disseminated chalcocite mineralisation at the base of the target Diamictite unit at about 600m depth
- First Quantum considers it is a positive sign to see copper mineralisation at the same Grand Conglomerat/Diamictite stratigraphic level as at Kamoa-Kakula in DRC.
- Future work planned by First Quantum includes additional AMT geophysical survey lines in 27767-HQ-LEL, further diamond drilling at the Ikatu target, follow up diamond drilling at the Turaco and Eagle targets and aircore drilling of additional targets in 27770- and 27771-HQ-LEL.

**Colin Bird, Executive Chairman, commented:** "The latest quarterly report from First Quantum continues to provide encouragement. Two key targets have been identified - near surface oxide mineralisation of potentially considerable extent, together with mineralisation similar to that found at Ivanhoe's high grade Kamoa mine across the border in DRC, which represents a new discovery for the APP licence block. The 'Western Foreland' domain is a significant high grade copper target for several groups exploring in the region.

We are very pleased at how First Quantum is progressing work on the APP licence block - as always, a high level of knowledge and thought is being applied to the exploration programme."

**Work Completed**

### **Air-Core Drilling Analytical Results**

pXRF analytical results have now been received for sample pulps from the 2022 air-core shallow drilling programme at Turaco and Eagle targets in 27770-HQ-LEL. Selected intervals of interest are shown in Table 1 below. At Turaco, best results were from the north of the target where drillhole TUAC012 intersected several significant copper intercepts within a silicified and talc-altered black shale, including an oxide mineralised zone with 8m @ 1.19% Cu from 5m depth. Elsewhere at Turaco, another drillhole intersected 1m @ 1.14% Cu within a thin black shale unit.

At Eagle target, the best intercept was in drillhole EAAC005 which intersected 29m @ 0.33% Cu, including 7m @ 0.61% Cu within a strongly chlorite-clay altered rock.

Table 1 - Selected pXRF* Analytical Intervals From Aircore Drilling Programme					
Target	Hole No.	Depth From (m)	Depth to (m)	Interval (m)	Cu%
Turaco	TUAC012	5	20	15	0.80
	incl.	5	13	8	1.19
		30	36	6	0.34
		44	57	13	0.73
		61	75	14	0.57
	TUAC017	66	67	1	1.14
Eagle	EAAC005	37	66	29	0.33
	incl.	46	53	7	0.61

It is planned to send samples from TUAC012 for a 4-acid ICP analysis with ALS Global laboratories in Johannesburg to check for cobalt and other metal contents not possible to analyse with pXRF.

Drillholes adjacent to TUAC012, interpreted to be within the footwall of the mineralisation in TUAC012, exhibit strong magnesian hydrothermal alteration within shales, breccias and diamictite. These drillholes also contain abundant pyrite mineralisation as well as minor chalcopyrite.

### **'Framework' Diamond Drilling - Ikatu Target**

Two diamond drillholes were successfully completed at the Ikatu target about 5km apart within the Western Foreland domain in licence 27767-HQ-LEL. Both holes encountered copper mineralisation at two different stratigraphic positions.

The first drillhole (IKDD001A, 603.0 m), intercepted a diamictite unit from 229m to 252m, but with no visible copper mineralisation. The diamictite has an oxidised sandstone matrix as opposed to the reduced diamictite which hosts copper mineralisation at Kamoakakula in DRC. However, at greater depth in IKDD001A, a 2.9m interval of copper mineralisation (chalcocite, bornite and chalcopyrite) was encountered from 430.9m to 433.8m at the top of a sequence of reduced rhythmites (sandstone-siltstone and shale interbeds).

The second drillhole (IKDD002, 650.3m) also intersected the diamictite unit from 593.3m to 602.3m. For the most part, the diamictite unit is hematitic and oxidized, as in IKDD001A, but at the base of the unit there is a 2m interval with strong chlorite alteration and disseminated chalcocite mineralisation selectively targeting certain clasts. First Quantum considers it is a positive sign to see copper mineralisation at the same part of the stratigraphy as at Kamoakakula in DRC.

No analytical information is available as yet for the mineralisation encountered in these holes. First Quantum plans to send half core samples to the ALS Global laboratory in Johannesburg for 4-acid ICP analysis.

### **Planned Work**

Further planned work includes:

- Additional AMT survey lines in 27767-HQ-LEL
- Further diamond drilling at Ikatu target in 27767-HQ-LEL
- AC drilling of additional targets in 27770- and 27771-HQ-LEL
- Sampling of remaining soils in 27771-HQ-LEL (Chibwika East)
- Mapping and soil sampling in 27767- and 27768-HQ-LEL
- Follow up diamond drilling at Turaco and Eagle targets

#### **\*Air Core sampling / pXRF analysis methodology**

Each one metre interval Air Core sample is riffle split before being despatched to Intertek prep lab in Kitwe, Zambia. Samples are dried at 1050°C for 8 hours, pulverised and sieved to 180 micron (SP13 method). The prepared samples were then transported to an in-house lab at Kansanshi, where the powdered pulps are analysed by a portable X-ray fluorescence (pXRF) instrument, analysing for 28 elements. The pXRF analysis includes the use of regular standards and blanks for calibration however some variation to wet assay laboratory techniques can be expected and results are therefore considered indicative only.

#### **Background Information**

The APP licence package covers part of the north-western extension of the Zambian Copperbelt. The properties are located within 80-100km of First Quantum Minerals Sentinel copper mine, one of the largest copper mines in Africa, with current Measured and Indicated Resources 867.1Mt @ 0.44% Cu. It also lies close to the Enterprise nickel deposit (37.7Mt @ 1.03% Ni), also owned by First Quantum Minerals, which is under development.

The projects lie on the Lufilian Fold Belt in the Domes region of the Central African Copperbelt, straddling the western boundary of the Kabompo Dome, underlain principally by rocks of the Lower and Upper Roan, as well as the stratigraphically higher Kundelungu and Nguba Groups. This geological package is similar in age and rock type to that hosting the major copper deposits of the Copperbelt, including Sentinel. Therefore, the licence areas are considered to be strongly prospective for Copperbelt-type copper/cobalt and/or nickel deposits. They are historically underexplored, representing the westerly extension of the Copperbelt which has not been investigated in detail, as previous work focussed primarily on the central part of the zone.

On the Luamata South licence (27771-HQ-LEL), African Pioneer acquired a valuable exploration package arising from recent work by MMG Zambia Ltd ('MMG') which highlighted strong soil/airborne magnetic targets that were not drill tested, as MMG pulled out of Zambia. The Kasongo licence (27770-HQ-LEL) was recently held by Anglo American which also carried out airborne magnetic surveying and reconnaissance soil sampling before exiting the Copperbelt. The soil data highlighted several copper anomalies of considerable interest.

#### **African Pioneer Plc**

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The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulation (EU) No. 596/2014 as it forms part of UK Domestic Law by virtue of the European Union (Withdrawal) Act 2018 ("UK MAR").

#### **Qualified Person:**

Technical information in this announcement has been reviewed by Edward (Ed) Slowey, BSc, P.Geo, a technical adviser to African Pioneer Plc. Mr Slowey is a graduate geologist with more than 40 years' relevant experience in mineral exploration and mining, a founder member of the Institute of Geologists of Ireland and is a Qualified Person under the AIM rules. Mr Slowey has reviewed and approved this announcement.

#### **Glossary**

"Air-core drilling"	A rotary drilling technique employing an annular drag bit in which cuttings and small core samples are recovered through the drill rods by compressed air
"audio-magneto telluric (AMT)"	A geophysical technique that measures variations in the Earth's natural electromagnetic fields to detect electrical resistivity variations in the

telluric (AMT)	electromagnetic fields to detect electrical resistivity variations in the subsurface
"bornite"	A copper-iron sulphide mineral, $\text{Cu}_5\text{FeS}_4$ , often found in copper ores
"breccia"	Rock fragmented into angular components
"calcite"	Calcium carbonate, $\text{CaCO}_3$
"carbonaceous"	Descriptive of a sedimentary rock containing organic material
"chalcocite"	A copper sulphide mineral, $\text{Cu}_2\text{S}$ , found in zones of secondary enrichment of copper ores
"chalcopyrite"	A copper-iron sulphide mineral, $\text{CuFeS}_2$ , often found in copper ores
"chlorite"	Dark green, platy, hydrous silicate mineral of iron, magnesium and aluminium related to mica
"diamictite"	A lithified sedimentary rock that consists of non-sorted to poorly sorted terrigenous sediment containing particles that range in size from clay to boulders, suspended in a matrix of mudstone or sandstone
"diapir"	The movement of salt from deeper strata up through the overlying strata under lithostatic pressure
"dolerite"	A dark coloured fine- to medium-grained mafic intrusive rock composed of plagioclase feldspar and pyroxene
"dolomite"	Calcium-magnesium carbonate mineral, $(\text{CaMg})\text{CO}_3$ , or a rock composed largely of the mineral dolomite
"DRC"	Democratic Republic of the Congo
"ferruginous"	Containing the element iron
"hematite"	A mineral composed of ferric iron oxide
"hydrothermal"	Descriptive of hot magmatic emanations rich in water
"ICP analysis"	An analytical method that provides total elemental analysis of materials in aqueous solution
"Indicated Mineral Resource"	That part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. (JORC 2012)
"intrusive"	A body of igneous rock that invades older rocks
"laterite"	A strongly leached iron and aluminium rich rock, formed at the surface by weathering in tropical conditions
"lithotectonic"	Relating to structurally controlled features within rock packages
"mafic"	Containing or relating to a group of dark-coloured minerals, composed chiefly of magnesium and iron, that occur in igneous rocks
"magnesian"	A type of rock alteration introducing the magnesium carbonate mineral, $\text{MgCO}_3$
"malachite"	A green copper carbonate mineral ( $\text{Cu}_2(\text{OH})_2\text{CO}_3$ ) which forms by alteration of copper sulphide minerals
"Measured Mineral Resource"	That part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. (JORC 2012)

confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered (JORC 2012)

"metamorphosed"	A rock that has been altered by physical and chemical process involving heat, pressure and derived fluids
"micaceous"	Consisting of, containing or pertaining to the platy mineral mica
"mineralisation"	The concentration of metals and their chemical compounds within a body of rock
"ppm"	Parts per million
"pXRF"	Hand-held instrument to determine the chemistry of a sample by measuring the fluorescent (or secondary) X-ray emitted from a sample when it is excited by a primary X-ray source
"pyrite"	Iron sulphide mineral, FeS <sub>2</sub>
"quartzite"	A silica rich metamorphic rock formed from sandstone
"salt diapir"	The movement of salt from deeper strata up through the overlying strata under lithostatic pressure
"sandstone"	A sedimentary rock usually composed essentially of sand-sized quartz grains
"shale"	A fine-grained laminated sediment
"silicified"	An altered rock whereby original rock minerals are chemically replaced by various forms of silica which generally harden the rock
"sill"	A tabular sheet of intrusive rock which is parallel to the planar structure in the surrounding rock
"stratigraphic"	Pertaining to the inter-relationship of rocks in a geometric, spatial or time sense
"talc"	A soft platy mineral with the general formula Mg <sub>3</sub> Si <sub>2</sub> O <sub>10</sub> (OH) <sub>2</sub>

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