Arc Minerals Limited - Assays confirm copper sulphide mineralisation

10/25/2021

RNS Number : 1384Q
Arc Minerals Limited
25 October 2021

25 October 2021

Arc Minerals Ltd

('Arc' or the 'Company')

Assays confirm the presence of copper sulphide mineralisation

Arc is pleased to announce that a sample from the first hole drilled at its Cheyeza East target sent for assaying has confirmed the presence of copper sulphide mineralisation. The first hole at Cheyeza East intersected massive and disseminated copper sulphide mineralisation and represents the most significant copper sulphide discovery since the Company's drilling campaign started.

Highlights

- **Sulphide copper mineralisation encountered throughout the entire 4.3m sample assayed, including two intervals that returned assays of over 1% Cu**
- **Confirmation of sulphide mineralised system: this combined with airborne geophysical survey data to provide enhanced targeting for drilling**
- **Second hole drilled intersects further Copper sulphide mineralisation**
- **Testing of 4km long anomaly generated from multielement geochemical characterisation proves successful in locating sulphide copper mineralisation**

Based on both visual inspection of the core drilled and X-Ray Flourescence ('XRF') analyses, selected intervals were sent to SGS Inspection Services, Kalalushi Laboratory in Zambia for assay. This batch of assays confirms mineralisation throughout the entire 4.3m sample assayed including up to 4.3m @ 0.6% Cu (including 1.8m @ 0.8% Cu or 3.3m @ 0.7%) and two intervals of over 1% Cu.

Nick von Schirnding, Executive Chairman of Arc Minerals, commented:

"This is the first result from what will be an extensive drilling programme going forward to determine the scale of massive sulphide mineralisation at Cheyeza East and provides support for a large mineralised system at play.

This is the first time that the Arc team has targeted the anomalies generated by multielement geochemical characterisation study carried out last year, targeting Muswema and Cheyeza East as the first and second priorities respectively with Muswema still to be drilled. The immediate success in intersecting sulphide copper mineralisation is extremely encouraging given the number and re-ranking of targets that have arisen as a result of this study.

With the high resolution airborne geophysical data, drill targeting will be further enhanced, and I envisage further success with regards to our ambition of discovering a significant copper sulphide resource."

Background

Cheyeza East

The first hole drilled at Cheyeza this year is at the south-easterly end of a 4km x 1km Cu:Sc anomaly. This hole was designed to test this interpreted NW-SE feature, identified by the multielement geochemical characterisation study, which is discordant with the expected trend of the stratigraphy and is additionally characterised by a relatively high Nb:Sc.

Located between 500m to 1,000m north-west of last years oxide drilling campaign at Cheyeza East, it is the first time that any drilling has ever been carried out in this part of the license by the Company and likewise the first intersection of copper bearing sulphides in this NW-SE trending feature.

A second hole drilled further to the north west has similarly intersected similar lithologies and based on both visual inspection of the core drilled and XRF analyses confirms further copper sulphide mineralisation.

Data from the high resolution airborne programme will be used to further enhance the drill targeting at Cheyeza as well as the other target areas identified by the multielement geochemical characterisation study.

Figure 1. *Testing of 4km long anomaly generated from multielement geochemical characterisation*

Please see link below:

http://s2.q4cdn.com/256050873/files/doc_downloads/2021/10/Cu-Sc-anomaly.png

Table 1. Cheyeza East Sulphide Laboratory Assay Results

BHID	From	To	Length	Cu (%)
CHDDE72	**275.80**	**280.10**	**4.30**	**0.59**
	includes from 275.80		1.80	0.83
	includes from 275.80		3.30	0.68

Notes:

1) *Reported intervals are downhole widths.*

2) *Reported intervals are calculated for zones assaying > 0.2% Cu and more than 3m in length.*

Qualified Persons

Mr Vassilios Carellas (BSc (Hons), MAusIMM) is the Chief Operating Officer for Arc Minerals and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined under the JORC Code (2012). Mr Carellas consents to the inclusion in this announcement of the technical matters based on his information in the form and context in which it appears.

Market Abuse Regulation (MAR) Disclosure

This announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ("MAR"), and is disclosed in accordance with the Company's obligations under Article 17 of MAR.

ENDS

For more information visit **www.arcminerals.com**.

Contacts

Arc Minerals Ltd	+44 (0) 20 7917 2942
Nick von Schirnding (Executive Chairman)	
SP Angel (Nominated Adviser & Joint Broker)	+44 (0) 20 3470 0470
Ewan Leggat / Adam Cowl	
WH Ireland Limited (Joint Broker)	+44 (0) 20 7220 1666
Harry Ansell / Katy Mitchell	

Forward-looking Statements

This news release contains forward-looking statements that are based on the Company's current expectations and estimates. Forward-looking statements are frequently characterised by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate", "suggest", "indicate" and other similar words or statements that certain events or conditions "may" or "will" occur. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause actual events or results to differ materially from estimated or anticipated events or results implied or expressed in such forward-looking statements. Such factors include, among others: the actual results of current exploration activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; possible variations in ore grade or recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing; and fluctuations in metal prices. There may be other factors that cause actions, events or results not to be as

anticipated, estimated or intended. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise. Forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein.

Glossary of Technical Terms

"anomaly or anomalous"	something in mineral exploration that geologists interpret as deviating from what is standard, normal, or expected.
"assay"	The laboratory test conducted to determine the proportion of a mineral within a rock or other material. For copper, usually reported as percentage which is equivalent to percentage of the mineral (i.e. copper) per tonne of rock.
"azimuth"	the "compass direction" refers to a geographic bearing or azimuth as measured by a magnetic compass, in true or magnetic north.
"bornite"	Bornite, also known as peacock ore, is a copper sulphide mineral with the formula Cu_5FeS_4.
"breccia"	Breccia is a rock classification, comprises millimetre to metre-scale rock fragments cemented together in a matrix, there are many sub-classifications of breccias.
"chalcocite"	Chalcocite is a copper sulphide mineral with the formula Cu_2S and is an important copper ore mineral. It is opaque and dark-gray to black with a metallic luster.
"chalcopyrite"	Chalcopyrite is a copper sulphide mineral with formula $CuFeS_2$. It has a brassy to golden yellow colour.
"chargeability"	Chargeability is a physical property related to conductivity. Chargeability is used to characterise the formation and strength of the induced polarisation within a rock, under the influence of an electric field, suggesting sulphide mineralisation at depth.
"covellite"	Covellite is a copper sulphide mineral with the formula CuS. This indigo blue mineral is ubiquitous in some copper ores.
"diamond drilling"	A drilling method in which penetration is achieved through abrasive cutting by rotation of a diamond encrusted drill bit. This drilling method enables collection of tubes of intact rock (core) and when successful gives the best possible quality samples for description, sampling and analysis of an ore body or mineralised structure.
"dip"	A line directed down the steepest axis of a planar structure including a planar ore body or zone of mineralisation. The dip has a measurable direction and inclination from horizontal.
"grab sample"	are samples of rock material collected from a small area, often just a few pieces or even a single piece of rock "grabbed" from a face, dump or outcrop or roughly 2-5kg. These are common types of rock samples collected when conducting mineral exploration. The sample usually consists of material that is taken to be representative of a specific type of rock or mineralisation.
"grade"	The proportion of a mineral within a rock or other material. For copper mineralisation this is usually reported as % of copper per

	tonne of rock.
"g/t"	grams per tonne; equivalent to parts per million ('ppm')
"hematite"	Hematite is the mineral form of iron(III) oxide (Fe_2O_3), one of several iron oxides. Magnetite alteration is also typically associate with porphyry copper systems, at or close to the central core.
"Indicated Resource"	An "Indicated Mineral Resource" is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
"Inferred Resource"	An "Inferred Mineral Resource" is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
"Induced Polarisation Geophysics"	Induced polarisation (IP) is a geophysical survey used to identify the electrical chargeability of subsurface materials, such as sulphides. The survey involves an electric current that is transmitted into the subsurface through two electrodes, and voltage is monitored through two other electrodes.
"intercept"	Refers to a sample or sequence of samples taken across the entire width or an ore body or mineralised zone. The intercept is described by the entire thickness and the average grade of mineralisation.
"JORC Code"	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves.
"K"	The element potassium, abundance on surface can be inferred from radiometric surveys
"Magnetics"	Rocks are made up of different minerals and the magnetic properties of a rock depends on the amount and type of iron rich minerals it contains. Earth's magnetic field interacts with these iron rich minerals to generate variations in the magnetic field. Measuring and mapping these variations allows remotely mapping of the distribution and patterns of magnetic rocks and, as a result, map the subsurface geology
"magnetite"	Magnetite is main iron ore mineral, with chemical formula Fe_3O_4. Magnetite is ferromagnetic, and it is attracted to a magnet and can be magnetized to become a permanent magnet itself.
"massive"	In a geological sense, refers to a zone of mineralisation that is dominated by sulphide minerals. The sulphide-mineral-rich material can occur in centimetre-scale, metre-scale or in tens of metres wide veins, lenses or sheet-like bodies containing sphalerite, galena, and / or chalcopyrite etc.
"Measured Resource"	A "Measured Mineral Resource" is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are

	spaced closely enough to confirm both geological and grade continuity.
"Mineral Resource"	A "Mineral Resource" is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilised organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.
"mineralisation"	In geology, mineralisation is the deposition of economically important metals (copper, gold, lead, zin etc) that in some cases can be in sufficient quantity to form mineral ore bodies.
"open pit mining"	A method of extracting minerals from the earth by excavating downwards from the surface such that the ore is extracted in the open air (as opposed to underground mining).
"outcrop"	A section of a rock formation or mineral vein that appears at the surface of the earth. Geologists take direct observations and samples from outcrops, used in geologic analysis and creating geologic maps. In situ (in place) measurements are critical for proper analysis of the geology and mineralisation of the area under investigation.
"polymict"	A geology term, often applied to breccias or conglomerates, which identifies the composition as consisting of fragments of several different rock types.
"Preliminary Economic Assessment"	NI 43-101 defines a PEA as "a study, other than a pre-feasibility study or feasibility study, which includes an economic analysis of the potential viability of mineral resources".
"Pyrrhotite"	Pyrrhotite is an **iron sulfide** **mineral** with the formula Fe(1-x)S (x = 0 to 0.2). It is a **nonstoichiometric** variant of FeS, the mineral known as **troilite**. Pyrrhotite is also called magnetic **pyrite**
"Radiometrics"	The radiometric, or gamma-ray spectrometric method is a geophysical process used to estimate concentrations of the radioelements potassium, uranium and thorium by measuring the gamma-rays which the radioactive isotopes of these elements emit during radioactive decay
"sediments"	Sedimentary rocks formed by the accumulation of sediments. There are three types, Clastic, Chemical and Organic sedimentary rocks.
"sphalerite"	Sphalerite is a zinc sulphide in crystalline form but almost always contains variable iron, with formula (Zn,Fe)S. It can have a yellowish to honey brown or black colour.
"supergene"	Supergene ore processes occur near surface, and form deposits of secondary minerals, such as malachite, azurite, chalcocite, covellite, digenite, etc.
"surface rock chip samples"	Rock chip samples approximately 2kg in size that are typically collected from surface outcrops exposed along rivers and mountain ridgelines.
"Th"	The element thorium, abundance on surface can be inferred from radiometric surveys
"U"	The element uranium, abundance on surface can be inferred from radiometric surveys
"veins"	A vein is a sheet-like or anastomosing fracture that has been infilled with mineral ore (chalcopyrite, covellite etc) or mineral gangue (quartz, calcite etc) material, within a rock. Veins form when minerals carried by an aqueous solution within the rock mass are deposited through precipitation and infill or coat the fracture faces.
"volcanics"	Volcanic rock such as andesite or basalt that is formed from magma erupted from a volcano, or hot clastic material that erupts from a volcano and is deposited as volcaniclastic or pyroclastics.
"XRF"	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

END

MSCKELBLFBLZFBX