

6 DECEMBER 2018

## High-grade copper returned from Pantera drilling

- High-grade copper-gold intersections returned from a recently completed 30-hole, ~6,200m diamond drill program at Pantera project in Brazil
- Mineralisation now extends over 1.2km of strike length and remains open down-dip, along strike and down-plunge

Further high-grade copper-gold results have been returned from the Pantera copper-gold project in the Carajás region of Brazil. The results are from recent drilling in the western half of the deposit where historical holes had intersected the best and most consistent grades but new drilling had not been possible until land access had been granted. Final results have been received for drill holes APANTD-18-14 to APANTD-18-32 and APANTD-18-35.

Highlights from the drilling program include:

Hole Number	Interval			Cu (%)	Au (g/t)
	From (m)	To (m)	(m)		
APANTD-18-29*	77.85	100.05	22.20	1.93	0.13
Including	85.80	93.00	7.20	3.98	0.26
APANTD-18-20*	110.80	134.00	23.20	1.91	0.13
Including	126.00	128.00	2.00	13.09	0.52
APANTD-18-35*	219.00	229.00	10.00	4.82	0.57
Including	219.00	224.00	5.00	8.90	1.09

\*0.2% Cu cut off with internal dilution limited to no more than 3 continuous metres of <0.2 % Cu).

Reported as down hole lengths as true widths are not known.

Refer to Figure 1 for location of the Pantera drill collars, and Figure 2 for a cross-section.

OZ Minerals' Head of Exploration and Growth, Richard Holmes, said, "This most recent drilling at Pantera is very encouraging as, for the first time since the signing of the option agreement with Vale, access was granted by surface owners to the western half of the deposit where higher grades were intersected in historical drilling. Drilling to date has confirmed continuity of mineralisation in the eastern part of Pantera and we look forward to receiving more assays from the western part of the deposit."

In the west of the deposit APANTD-18-35 intersected high-grade copper mineralisation confirming historical work. Results are pending for drill holes APANTD-18-33, APANTD-18-34 and APANTD-18-36 to APANTD-18-44, which focused on the western part of the Pantera deposit. All of these holes intersected visible copper sulphides.

Mineralisation is hosted within steeply dipping, tabular mineralised zones in a granitoid unit. Shear zones which control mineralisation typically comprise, biotite-quartz schists, sericite schists and zones of intense mylonitisation. The sulphide mineralisation is best described as comprising intervals of massive to semi-massive and disseminated chalcopyrite hosted within a shear zone and associated with strong potassic alteration (magnetite-biotite).

The 2018 results will help define the pathway forward for the project including a decision on the option to acquire 100 per cent of the project from Vale. Mineral Resource definition drilling, licensing, environmental and other studies are expected to continue throughout 2019. OZ Minerals expects to make a decision on excising the Vale Option within the first quarter of 2019.

## Background

The Pantera Project is located in the state of Para, approximately 110km west of the 100% OZ Minerals-owned Pedra Branca project. It is close to public infrastructure in the towns of Ourilandia and Tucuma, which is approximately 20 km from Vale's operating Onca-Puma nickel mine. The Pantera licence covers an area of 9,700 hectares and is accessed from a sealed national highway immediately to the south of the project.

OZ Minerals acquired the Pantera option when it acquired Avanco Resources and its Brazilian assets in August 2018. Avanco Resources entered into an option agreement ("Pantera Acquisition Option") with **VALE METAIS BÁSICOS S.A.** (Vale) in January 2018<sup>1</sup>. Under the terms of the Vale option, drilling is required to establish a valuation based on US \$0.04/lb of copper contained in JORC Measured and/or Indicated Resources or, alternatively, by paying US \$0.04/lb of copper based on a non-JORC Resource of 400,000 tonnes of copper metal.

An Inferred Resource<sup>2</sup> (MRE) of approximately 20.8 Million Tonnes at 1.7% copper and 0.2g/t gold was defined in 2018 based on historical Vale drilling. Since the acquisition of the option drilling has focused on extending areas of known mineralisation along strike, down dip and drilling between historical sections to increase confidence for future resource estimation.

**For further information, please contact:**

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<sup>1</sup> Refer ASX announcement "[Avanco acquires Pantera Project from Vale](#)" 16 January 2018 for detail on the terms and conditions of the option agreement with Vale

<sup>2</sup> Refer ASX Announcement "[Maiden Pantera MRE pushes Avanco's Carajás Resource Base Beyond 1 Mt of Contained Copper](#)", 19 March 2018, for Competent Person's Consent, material assumptions, and technical parameters underpinning the Pantera MRE

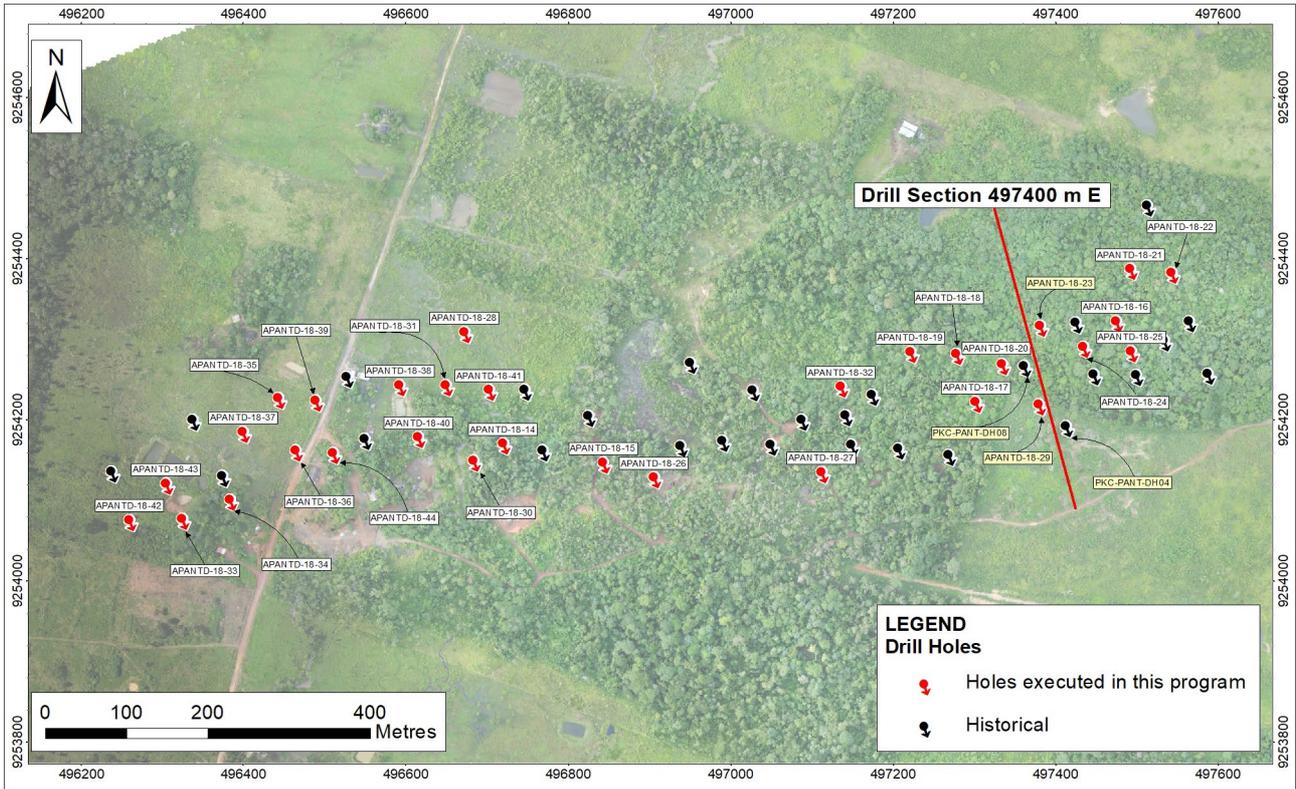
## Competent Persons Statement

The information in this report that relates to exploration results in respect to the Pantera and Centro Gold deposits are based on and fairly represents information and supporting documentation compiled by Dr Owen Hatton (PhD), a competent person who is a Member of the AusIMM. Dr Hatton is a full-time employee of Avanco Resources Brazil Limited, a wholly owned subsidiary of OZ Minerals Limited. Dr Hatton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Hatton consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

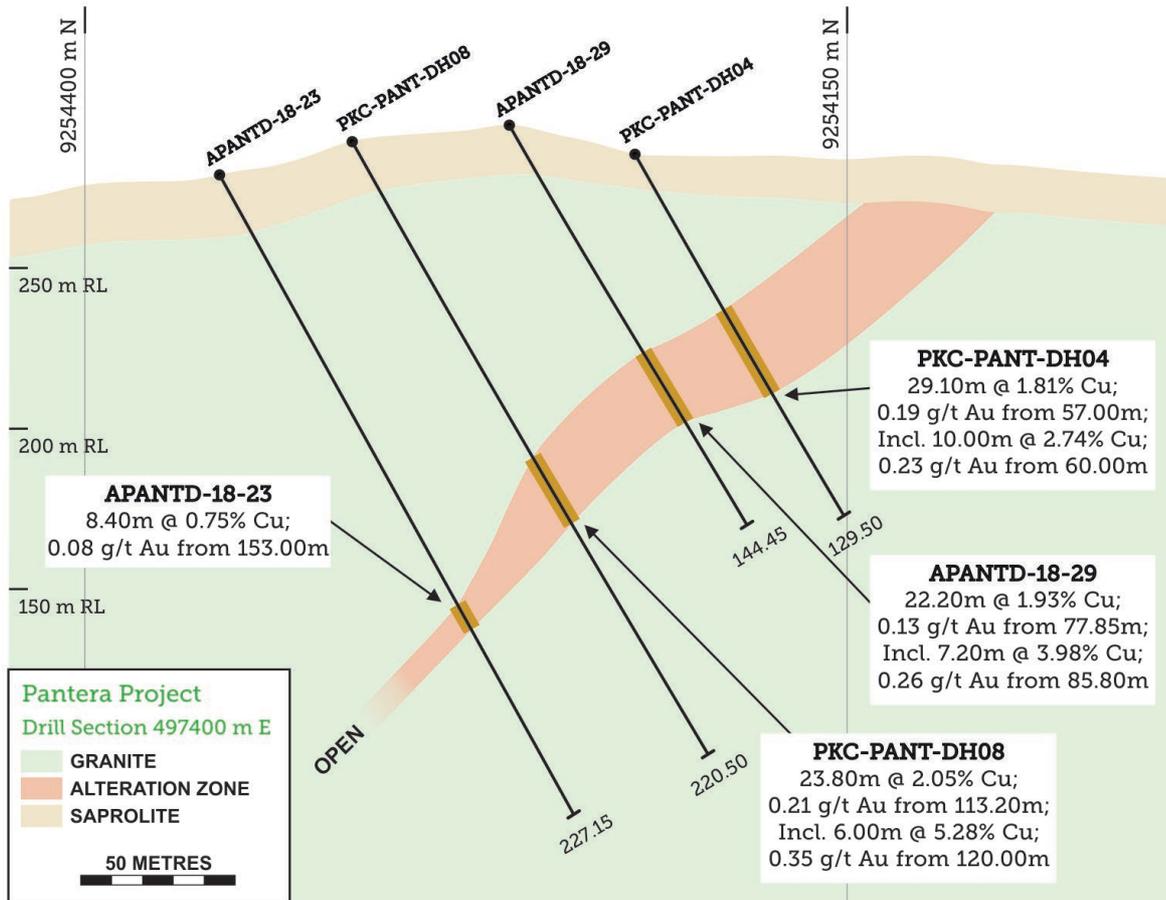
Dr Hatton has more than 19 years of continuous and relevant experience as a geologist in mineral exploration, including 10 years in copper-gold deposits.

## Resources

DEPOSIT	Category	Million Tonnes	Cu (%)	Au (ppm)	Cu Metal (T)	Gold Metal (Oz)
Pantera <sup>2</sup>	Inferred	20.80	1.7	0.2	350,000	140,000



**Figure 1. Location of Pantera Drill collars**



**Figure 2. Pantera cross section 497400 m E (looking NW)**

**PANTERA PROJECT**

**APPENDIX 1: EXPLORATION DRILLING RESULTS**

**JORC 2012 Table 1 – Section 1: Sampling techniques and data (Pantera deposit)**

Criteria	JORC Code explanation	Commentary
<p><b>Sampling techniques</b></p>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling consists of 30 diamond drill holes, for a total of 6209.15 m of drilling in the Pantera target.</li> <li>Diamond drilling core is cut in half onsite using an industry standard core saw, perpendicular to mineralisation or geology to produce two identical (mirrored) halves. Samples are collected consistently from the same side of cut core, sent to an internationally accredited independent assay laboratory, and analysed for a suite of elements by appropriate analytical techniques for the style and type of Iron Oxide Copper Gold (IOCG) mineralisation.</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>The drill hole collar locations were surveyed with a DGPS instrument and surveyed (centimetre precision) after completion. Drill samples are logged for lithology, weathering, structure, mineralogy, mineralisation, colour and other features. It is the view of the Competent Person that this work and the subsequent results are of adequate quality to assure the reliability of historical work.</li> </ul>
	<ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core is HQ and NQ in size, sampled on mineralised intervals or regular 1.0 m intervals in wide mineralised zones. Core is cut in half to produce sample weights of 3–5 kg. Samples are crushed, dried and pulverised (total prep) to produce a sub-sample for analysis. Using a four-acid digest, drill core samples are analysed for Cu, Ni (ICP) and Au (Fire Assay, 50 g). Mineralised zones and samples with &gt;2,000 ppm Cu are further analysed for "Ore Grade" Cu by Atomic Absorption Spectrometry (AAS). Additional elements may be assayed based on geological observations. Screen fire assay testwork is used to examine the distribution of coarse gold in high grade samples.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drilling is a combination of HQ and NQ. Core is reconstructed into continuous runs on an angle iron cradle orientation device.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core recoveries were logged and recorded in the database. Overall recoveries are consistently &gt;80% in oxide and &gt;99% in fresh rock. Drill sample recoveries are recorded as an average for each metre and recorded in the database. Recoveries are excellent and there are no known sample recovery problems, with the exception of the soil profile.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core is reconstructed into continuous runs on an angle iron cradle for recovery measurement and core orientation. Depths are checked against those marked on the core blocks, and against the drilling company's records.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• There is no known sample bias or potential for sample bias.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features.</li> <li>• It is the view of the Competent Person that this work and the subsequent results are of adequate quality to assure the reliability of historical work, and that the level of detail and quality of the work is appropriate to support future studies.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill samples are logged for lithology, weathering, structure, mineralogy, mineralisation, colour and other features. Core is photographed both wet and dry.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All drill holes are logged completely from start to finish of the hole.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Where sampled, core is cut in half onsite using an industry standard core saw, perpendicular to mineralisation or geology to produce two identical (mirrored) halves. Samples are collected consistently from the same side of cut core.</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling to date has been by diamond core.</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Sample preparation is according to industry standard, including oven drying, coarse crush, and pulverisation.</li> <li>It is the view of the Competent Person that this work and the subsequent results are of adequate quality to assure the reliability of historical work.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>An industry standard QAQC programme has been used, involving Certified Reference Materials "standards" for Cu (with Cu grades ranging from low to very high), and blank samples, which are introduced in the assay batches at an approximate rate of one control sample per 20 normal samples. These QAQC results are reported along with the sample values in the preliminary and final analysis reports. Umpire checking of the Primary laboratory is then carried out by a Secondary laboratory, in this case SGS in Belo Horizonte. Both are internationally accredited independent assay laboratories.</li> <li>It is the view of the Competent Person that this work and the subsequent results are of adequate quality to assure the reliability of historical work.</li> </ul>
	<ul style="list-style-type: none"> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul style="list-style-type: none"> <li>Duplicates are inserted at an approximate rate of 1 duplicate per 20 normal samples. Umpire checking of the Primary laboratory is then carried out at by a Secondary laboratory, at an approximate rate of 1 control sample per 20 normal samples, or a minimum of 3 umpire samples per hole.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill samples were crushed to minus 10 mesh; then a 2 kg split was pulverized to a nominal 85% passing 100 mesh using a ring pulveriser. An assay split of 250 g was collected from the pulp for a 50 g fire assay digestion, and atomic absorption (AA) determination for Au. The analysis is considered total and appropriate. Assaying uses a four-acid digest, which is a standard industry method for Base and Precious metals analysis. The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica-based samples. The method approaches total dissolution of most minerals. "Ore grade" Cu is further analysed by an accredited AAS "Ore Grade" analysis method. The analysis is considered total and appropriate.</li> </ul>
	<ul style="list-style-type: none"> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> </ul>	<ul style="list-style-type: none"> <li>None have been used.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>An industry standard QAQC programme involving Certified Reference Cu Materials "standards" (with Cu grades ranging from low to very high), blank samples, duplicates and Umpire Laboratory check sampling has been used.</li> <li>It is the view of the Competent Person that this work and the subsequent results are of adequate quality to assure the reliability of historical work.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> </ul>	<ul style="list-style-type: none"> <li>Avanco's Exploration Manager and/or senior geologists have visually verified significant intersections and results in the historical drilling.</li> </ul>
	<ul style="list-style-type: none"> <li><i>The use of twinned holes.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company uses twin holes routinely in the more advanced stages of resource definition drilling, and for metallurgical drilling. Historic work is of an exploratory nature and no twin holes have been completed so far.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li>Primary data was collected on Excel templates with detailed geological and structural logging recorded on paper. The historical information has been transferred, validated, compiled, and managed by an in-</li> </ul>

Criteria	JORC Code explanation	Commentary
		house database manager in a Acquire database. All Company Intellectual Property is stored on a central server, kept in a secure and environmentally controlled room. Automated tape back-up occurs on a nightly basis and duplicate back-ups are regularly rotated "off-site" as a secondary precaution in case of loss of the Server site.
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No adjustments or calibrations are made to assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul style="list-style-type: none"> <li>Collar locations are surveyed by DGPS on the State Survey Datum using true Mean Sea Level RL's (centimetre precision) after completion. Downhole surveys are completed using a Maxibor digital down-hole tool with readings taken every 3 m.</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>Universal Transverse Mercator, SAD69 Zone 22 South.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Regional Topographic control and Digital Terrain Models are used. Accurate ground surveying of topography will be completed in later stages of exploration.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Current drilling is infill in nature and was designed on nominal 40x40 and 20x25m centres.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> </ul>	<ul style="list-style-type: none"> <li>No Mineral Resources are reported herein.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Sample compositing has not been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling has been orientated to be as optimal as practicable to the known geology and mineralisation.</li> </ul>
	<ul style="list-style-type: none"> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person does not believe that any sample bias has been introduced.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Information regarding the chain of custody, and sample security for historical Pantera samples is not available in the currently accessible data.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company's independent Resource consultants (CSA Global Pty Ltd of Perth, WA) and their CP completed a satisfactory site visit in March 2017, as part of a wider review of all projects where Mineral Resource estimates produced by them or will be in the future.</li> <li>It is the view of the Competent Person that the historical work and the subsequent results are of adequate quality to assure the reliability of this work</li> </ul>

JORC 2012 Table 1 – Section 2: Reporting of exploration results (Pantera Cu-Au deposit)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> </ul>	<ul style="list-style-type: none"> <li>Avanco Resources Mineração Ltda, a wholly owned Brazilian subsidiary of Avanco Resources Ltd., has an option to acquire 100% of exploration license 850.777/1990 from Vale Mineracao.</li> <li>Government royalties amount to a 2% gross on Cu and 1.5% gross on Au. Unless otherwise agreed a 1% Cu and 0.75% Au royalty is payable to the owner of the surface rights. Other third-party royalties amount to: 1.5% on gross revenue payable to BNDS, and a 1% NSR to Vale for any copper production outside of the Historical Mineralised Zone.</li> </ul>
	<ul style="list-style-type: none"> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>850.777/1990 is a granted Exploration License in its second 3-year term. The licence is in good standing. To maintain the area in good standing Avanco submitted the "final exploration report" to the regulatory authorities on behalf of Vale in March 2018.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Avanco's CP has determined that the quality and integrity of historical work is adequate for inclusion, consideration and interpretation in the current work programme.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Shear zone hosted Iron Oxide Copper Gold (IOCG) breccia pipe, with mineralisation hosted within granodiorite rocks.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:                             <ol style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>The tables of drilling information contained in this report include the Information relating to Points "A" though to "E" inclusive.</li> </ul>
	<ul style="list-style-type: none"> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person</li> </ul>	<ul style="list-style-type: none"> <li>The information has not been excluded.</li> </ul>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
	<i>should clearly explain why this is the case.</i>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Where results are reported, averaging of mineralised intervals are calculated by the following parameters               <ol style="list-style-type: none"> <li>Weighted averaging of grade/thickness</li> <li>A minimum Cut-off grade of 0.2% Cu</li> <li>A maximum of 3 continuous metres of internal dilution (&lt;0.2 % Cu)</li> </ol> </li> <li>A top-cut has not been used</li> </ul>
	<ul style="list-style-type: none"> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> </ul>	<ul style="list-style-type: none"> <li>Where results are reported and intercepts incorporate lengths of "high grade" (in the context of surrounding results), these "high grade" results are detailed transparently and separately in any reported results, both in the text of the report and in any attached tables.</li> </ul>
	<ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metal Equivalents have not been used in this report.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>Geology and mineralisation in proximity to Pedra Branca is relatively well understood. Drilling is angled at achieving the most representative perpendicular intersections.</li> </ul>
	<ul style="list-style-type: none"> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>Downhole lengths have been used and this is clearly stated in the text and tables.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>An appropriate location plan has been included, which also shows the location of the representative sections presented in the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades</i></li> </ul>	<ul style="list-style-type: none"> <li>All relevant results from drillholes have been reported</li> </ul>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
	<i>and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported) including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>All material and meaningful data, relevant to the scope of work in this report, has been included in this report. There is no other information, which is available and/or in the opinion of the Competent Person, lacking in this report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Current drilling is exploratory in nature. Future work will consist of in-fill drilling in addition to step-out and drilling at depth to test extensions.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Significant potential for extension exists at depth, with all existing sections open down dip, and potential exists along strike beyond the reach of existing drilling.</li> </ul>

## PANTERA - 2018 Q3 Drilling Results

Hole ID	UTM-E	UTM-N	RL (m)	Depth (m)	Dip	Az	Status	From Downhole Depth	(m)	To Downhole Depth	(m)	Width (m) Downhole Depth	Cu (%)	Au (g/t)
<b>APANTD-18-14</b>	<b>496713.0</b>	<b>9254173.0</b>	<b>253.0</b>	<b>191.20</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>93.00</b>		<b>102.00</b>		<b>9.00</b>	<b>1.20</b>	<b>0.10</b>
Including								98.00		102.00		4.00	2.22	0.18
And								121.00		124.00		3.00	0.28	0.00
And								146.00		168.00		22.00	1.48	0.13
Including								149.00		152.00		3.00	3.59	0.44
Including								162.00		165.00		3.00	2.81	0.30
<b>APANTD-18-15</b>	<b>496843.0</b>	<b>9254148.0</b>	<b>256.0</b>	<b>135.25</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>32.00</b>		<b>39.00</b>		<b>7.00</b>	<b>0.55</b>	<b>0.73</b>
And								54.00		63.60		9.60	0.70	0.08
Including								54.00		59.60		5.60	0.90	0.10
And								116.50		118.00		1.50	0.51	0.05
<b>APANTD-18-16</b>	<b>497469.0</b>	<b>9254326.0</b>	<b>288.0</b>	<b>226.95</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>111.40</b>		<b>115.90</b>		<b>4.90</b>	<b>0.46</b>	<b>0.02</b>
And								163.40		171.00		7.60	0.78	0.07
And								204.00		211.60		7.60	0.77	0.12
<b>APANTD-18-17</b>	<b>497297.0</b>	<b>9254219.0</b>	<b>282.0</b>	<b>125.1</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>25.20</b>		<b>31.70</b>		<b>6.50</b>	<b>1.70</b>	<b>0.23</b>
Including								27.00		30.00		3.00	2.36	0.30
And								81.20		89.00		7.80	0.60	0.06
And								93.00		97.00		4.00	0.45	0.06
<b>APANTD-18-18</b>	<b>497271.0</b>	<b>9254281.0</b>	<b>272.0</b>	<b>181.15</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>103.90</b>		<b>106.00</b>		<b>2.10</b>	<b>0.48</b>	<b>0.10</b>

And								117.00	122.60	5.60	0.63	0.18
Including								<b>119.00</b>	<b>121.00</b>	<b>3.00</b>	<b>2.42</b>	<b>0.28</b>
And								129.00	138.90	9.90	0.53	0.04
<b>APANTD-18-19</b>	<b>497216.0</b>	<b>9254292.0</b>	<b>265.0</b>	<b>199.4</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>131.00</b>	<b>133.00</b>	<b>2.00</b>	<b>1.98</b>	<b>0.49</b>
And								136.15	144.30	8.15	1.46	0.11
Including								137.00	140.00	3.00	2.90	0.16
And								150.00	153.00	3.00	0.38	0.06
And								156.00	159.00	3.00	0.28	0.04
And								177.90	186.50	8.60	0.48	0.10
<b>APANTD-18-20</b>	<b>497328.0</b>	<b>9254271.0</b>	<b>279.0</b>	<b>200.25</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>110.80</b>	<b>134.00</b>	<b>23.20</b>	<b>1.91</b>	<b>0.13</b>
Including								114.00	120.00	6.00	2.01	0.19
Including								126.00	128.00	2.00	13.09	0.52
And								143.00	175.00	32.00	1.39	0.16
Including								148.00	151.00	3.00	4.32	0.24
Including								157.00	159.00	2.00	6.11	0.82
<b>APANTD-18-21</b>	<b>497490.0</b>	<b>9254394.0</b>	<b>285.0</b>	<b>247.6</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>210.00</b>	<b>218.90</b>	<b>8.90</b>	<b>0.53</b>	<b>0.92</b>
And								232.00	234.00	2.00	0.60	0.38
And								236.00	242.20	6.20	0.36	0.48
<b>APANTD-18-22</b>	<b>497539.0</b>	<b>9254390.0</b>	<b>291.0</b>	<b>296.85</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>125.50</b>	<b>131.40</b>	<b>5.90</b>	<b>1.06</b>	<b>0.30</b>
And								208.30	213.70	5.40	0.62	0.07
And								248.00	255.00	7.00	1.69	0.03
Including								250.00	254.30	4.30	1.99	0.04

And									258.00	260.60	2.60	2.98	0.18
<b>APANTD-18-23</b>	<b>497361.0</b>	<b>9254329.0</b>	<b>277.0</b>	<b>227.15</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>153.00</b>	<b>161.40</b>	<b>8.40</b>	<b>0.74</b>	<b>0.09</b>	
<b>APANTD-18-24</b>	<b>497428.0</b>	<b>9254294.0</b>	<b>286.0</b>	<b>220.10</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>43.30</b>	<b>45.00</b>	<b>1.70</b>	<b>3.45</b>	<b>0.18</b>	
And								131.20	134.00	2.80	0.44	0.04	
And								143.00	146.00	3.00	0.42	0.03	
<b>APANTD-18-25</b>	<b>497479.0</b>	<b>9254294.0</b>	<b>290.0</b>	<b>190.35</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>25.30</b>	<b>26.90</b>	<b>1.60</b>	<b>0.73</b>	<b>0.25</b>	
And								97.00	99.00	2.00	1.09	0.17	
And								132.80	139.00	6.20	0.90	0.34	
And								169.00	172.00	3.00	0.26	0.04	
And								177.00	179.00	2.00	0.39	0.02	
<b>APANTD-18-26</b>	<b>496897.0</b>	<b>9254137.0</b>	<b>259.0</b>	<b>130.7</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>20.00</b>	<b>24.00</b>	<b>4.00</b>	<b>5.47</b>	<b>0.10</b>	
And								37.00	39.00	2.00	0.77	0.11	
And								96.00	98.60	2.60	3.52	0.14	
And								110.00	116.00	6.00	0.80	0.14	
<b>APANTD-18-27</b>	<b>497107.0</b>	<b>9254137.0</b>	<b>276.0</b>	<b>90.45</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>28.20</b>	<b>40.80</b>	<b>12.60</b>	<b>1.22</b>	<b>0.07</b>	
Including								28.20	31.00	2.80	4.25	0.25	
And								48.00	50.00	2.00	0.38	0.08	
<b>APANTD-18-28</b>	<b>496665.0</b>	<b>9254310.0</b>	<b>250.0</b>	<b>310.85</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>218.00</b>	<b>220.00</b>	<b>2.00</b>	<b>0.24</b>	<b>0.05</b>	
And								275.00	285.00	10.00	0.40	0.02	
<b>APANTD-18-29</b>	<b>497397.52</b>	<b>9254220.04</b>	<b>290.18</b>	<b>144.45</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>77.85</b>	<b>100.05</b>	<b>22.20</b>	<b>1.93</b>	<b>0.13</b>	
Including								85.80	93.00	7.20	3.98	0.26	
<b>APANTD-18-30</b>	<b>496683.31</b>	<b>9254150.58</b>	<b>253.99</b>	<b>136.55</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>65.35</b>	<b>66.75</b>	<b>1.40</b>	<b>2.37</b>	<b>0.06</b>	

And								70.00	74.50	4.50	1.46	0.00
Including								71.65	73.00	1.35	5.01	0.02
And								102.00	104.20	2.20	3.40	0.05
And								111.00	112.20	1.20	0.91	0.14
<b>APANTD-18-31</b>	<b>496648.61</b>	<b>9254243.88</b>	<b>250.94</b>	<b>245.55</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>143.70</b>	<b>154.00</b>	<b>10.30</b>	<b>1.47</b>	<b>0.00</b>
Including								147.70	152.65	4.95	2.46	0.01
And								192.55	203.00	10.45	0.68	0.01
<b>APANTD-18-32</b>	<b>497135.29</b>	<b>9254242.14</b>	<b>271.21</b>	<b>153.30</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>98.00</b>	<b>102.30</b>	<b>4.30</b>	<b>0.65</b>	<b>0.13</b>
And								136.15	138.00	1.85	1.46	0.04
<b>APANTD-18-35</b>	<b>496442.29</b>	<b>9254227.95</b>	<b>256.61</b>	<b>270.05</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>144.00</b>	<b>148.00</b>	<b>4.00</b>	<b>0.57</b>	<b>0.08</b>
And								167.00	172.00	5.00	1.05	0.12
And								177.40	185.40	8.00	0.47	0.04
And								219.00	229.00	10.00	4.82	0.57
Including								219.00	224.00	5.00	8.90	1.09
<b>APANTD-18-33</b>	<b>496437</b>	<b>9254227</b>	<b>253</b>	<b>270.05</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				
<b>APANTD-18-34</b>	<b>496373</b>	<b>9254102</b>	<b>250</b>	<b>193.70</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				
<b>APANTD-18-36</b>	<b>496318</b>	<b>9254084</b>	<b>251</b>	<b>186.45</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				
<b>APANTD-18-37</b>	<b>496395</b>	<b>9254185</b>	<b>252</b>	<b>262.85</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				
<b>APANTD-18-38</b>	<b>496587</b>	<b>9254244</b>	<b>252</b>	<b>246.65</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				
<b>APANTD-18-39</b>	<b>496487</b>	<b>9254225</b>	<b>253</b>	<b>230.80</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				
<b>APANTD-18-40</b>	<b>496609</b>	<b>9254178</b>	<b>252</b>	<b>145.05</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>				

<b>APANTD-18-41</b>	<b>496709</b>	<b>9254206</b>	<b>251</b>	<b>250.65</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>
<b>APANTD-18-42</b>	<b>496260</b>	<b>9254072</b>	<b>256</b>	<b>191.80</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>
<b>APANTD-18-43</b>	<b>496303</b>	<b>9254127</b>	<b>250</b>	<b>260.20</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>
<b>APANTD-18-44</b>	<b>496511</b>	<b>9254159</b>	<b>251</b>	<b>149.00</b>	<b>-60</b>	<b>160</b>	<b>Completed</b>	<b>Results Pending</b>