CALIBRE GOLD RESOURCE INCREASES 62% TO 2.1 MILLION OZ OF GOLD +

103,700 TONNES of COPPER and 1.3 MILLION OZ of SILVER

RIO TINTO - ANTIPA CITADEL JOINT VENTURE PROJECT

Highlights

- **Updated Calibre Inferred Mineral Resource increased by 62%:**
  - **2.1 million ounces of gold, 103,700 tonnes of copper and 1.3 million ounces of silver at 0.72 g/t gold and 0.11% copper**
  - **2.7 million gold-equivalent ounces from 92 million tonnes at 0.92 g/t gold-equivalent[1]**
- **The Calibre resource extends for approximately 1.8 kilometres and remains open along strike to the south, at depth and potentially across strike**
- **The existing Magnum Inferred Mineral Resource, located just 1.3km from Calibre, provides an additional 340,000 ounces of gold, 57,800 tonnes of copper and 511,000 ounces of silver and remains open at depth and along strike to both the north and south**
- **Potential for further resource growth with a Citadel JV CY2021 Exploration budget of $24.5 million, including further extensional drilling at both Calibre and Magnum**

Antipa Minerals Limited (ASX: **AZY**) (**Antipa** or the **Company**) is pleased to announce a 62% increase to the Calibre deposit's Mineral Resource estimate to 2.1 million ounces of gold (up from 1.3 million ounces). The Calibre deposit is located 45km east of Rio Tinto's Winu copper-gold-silver deposit on the Citadel Joint Venture Project, which is 65% owned by the Company's joint venture partner Rio Tinto Exploration Pty Limited (**Rio Tinto**) with Antipa holding 35% (Figures 2 and 3).

The updated Inferred Mineral Resource estimate (on a 100% basis), which incorporates the results of drilling completed in 2020, totals 92 million tonnes at 0.92 g/t gold-equivalent (0.72 g/t gold, 0.11% copper and 0.46 g/t silver) containing 2.7 million gold-equivalent ounces (2.1 million ounces of gold, 103,700 tonnes of copper and 1.3 million ounces of silver) using a 0.5 g/t gold equivalent cut-off grade[1].

Commenting on the Calibre Mineral Resource update, Antipa's Managing Director, Roger Mason, said:

"This outstanding result confirms that Calibre, which was discovered by Antipa, is a very large-scale gold-copper-silver mineral system with significant growth potential located in the rapidly advancing tier-one Paterson Province. The strategic significance of this deposit is supported by this year's substantial $24.5 million Citadel Project exploration programme which has the potential to both further increase the project's resources and enhance potential development options".

[1] *Calculation of the gold equivalent (Aueq) is documented below*

Calibre Deposit - Mineral Resource Overview

The Calibre and Magnum deposits are part of the Citadel Project's large 1,320km^2 tenure which comes to within 5km of Rio Tinto's Winu copper-gold-silver development project[2]. Calibre and Magnum together contain global Mineral Resources (at a 0.5 g/t Aueq cut-off) of 108Mt at 0.72 g/t gold, 0.15% copper and 0.54 g/t silver for 2.5Moz gold, 162kt copper and 1.8Moz silver, with Calibre having a Mineral Resource estimate of 92Mt at 0.72 g/t gold, 0.11% copper and 0.46 g/t silver for 2.1Moz gold, 103,700t copper and 1.3Moz of silver, and Magnum having a Mineral Resource of 16Mt at 0.70 g/t gold, 0.37% copper and 1.00 g/t silver for 339,000oz gold, 57,800t copper and 511,000oz silver. The locations of the two deposits are shown in Figures 2, 3 and 6.

Both deposits are located in WA's tier-one Paterson Province, approximately 45km east of Rio Tinto's Winu deposit (Figures 2 and 3), which Rio Tinto is continuing to advance development studies on, with first ore from Winu expected in 2024, subject to regulatory approvals, traditional owner and other consents and COVID-19 restrictions. On 28 July 2020, a maiden JORC 2012 Inferred Mineral Resource estimate of 503Mt at 0.35% copper, 0.27 g/t gold and 2.15 g/t silver (containing 4.4Moz of gold, 1.8Mt of copper and 35Moz of silver) was announced for Winu[2].

The May 2021 Mineral Resource estimate (**MRE**) update for the Calibre deposit is summarised in Table 1. The MRE was prepared by Antipa and reviewed and endorsed by mining industry consultants Optiro Pty Ltd (**Optiro**) and reported in accordance with guidelines and recommendations of the JORC Code (2012) based on 0.5 g/t and 0.8 g/t gold equivalent cut-offs. The deposit is considered amenable to large scale open pit mining.

The Calibre MRE at a 0.5 g/t Aueq cut-off represents a very significant increase in tonnage (+92%) and contained gold ounces (+62%), copper tonnes (+49%) and silver ounces (+82%) compared to the previous estimate (November 2017) of an Inferred Mineral Resource of 47.7Mt grading 0.85 g/t gold for 1.3Moz, 0.15% copper for 69.5kt and 0.5 g/t silver for 730koz.

Calibre provides grade-tonnage optionality, for example at a 0.8 g/t Aueq cut-off, the MRE contains 1.7 million gold-equivalent ounces (1.4 million ounces of gold, 60,900 tonnes of copper and 830,000 ounces of silver) at a +37% gold equivalent grade of 1.26 g/t (1.00 g/t gold, 0.14% copper and 0.61 g/t silver).

Both Calibre and Magnum represent very large-scale mineral systems with material potential exploration upside under just 70 to 80m of cover, with deposit strike lengths up to 1.6km, and thicknesses up to 480m, and with each deposit being open in several directions (Figure 6). The brownfield component of the 2021 drill programme will test shallow resource extensional targets in the southern region of Calibre, where mineralisation remains open in most directions (Figures 1, 4 and 5), in the northern region of Magnum (Figure 6), and also follow up additional mineralised trends within 500m of existing resources (Figure 6).

Antipa's overall Paterson Province strategy is to deliver both greenfield discoveries and increase brownfield gold and/or copper resources with the ultimate aim of generating a short to medium term production opportunity. Exploration activities within the Citadel Joint Venture Project are complementary to this strategy.

[2] *On 28 July 2020, Rio Tinto disclosed a maiden Inferred Mineral Resource for Winu (which at a 0.2% copper equivalent cut-off, is 503Mt at 0.45% copper equivalent (CuEq) and includes a higher grade component of 188Mt at 0.68% CuEq at a cut-off grade of 0.45% CuEq) and subsequently stated that it 'is targeting first production from Winu in 2024, subject to securing all necessary approvals. For further information on Winu, please refer to Rio Tinto's website (www.riotinto.com) and Australian Securities Exchange (ASX: RIO) news releases (www.asx.com.au)*

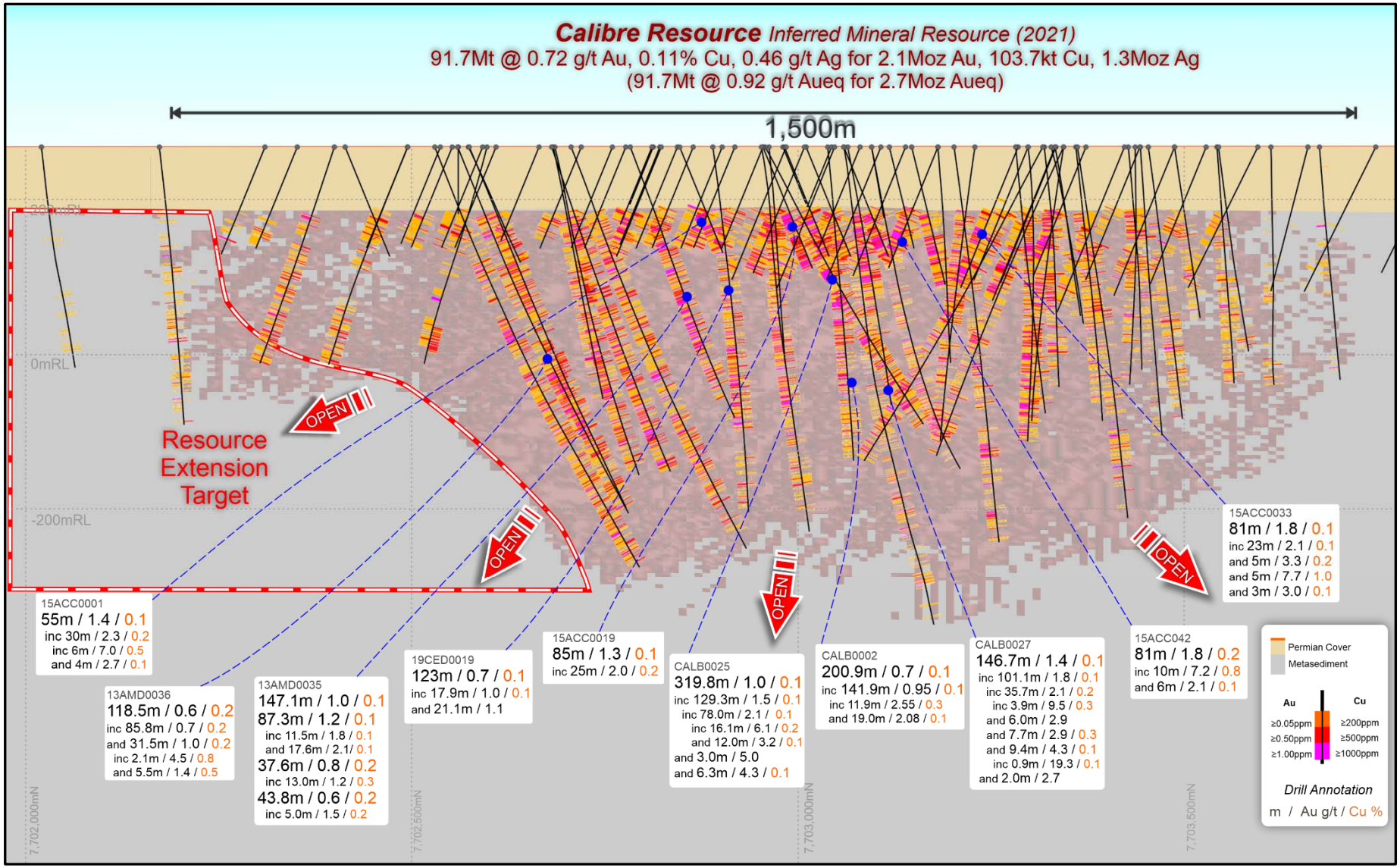

Figure 1: Calibre Deposit west looking vertical projection showing all Calibre drill holes (including 2020 drilling) depicting gold and copper grade distribution, including intersection labels for a selection of holes, and MRE blocks ≥ 0.5 g/t Aueq. Note extensional resource target regions to the south and at depth beyond the limits of the 2021 Mineral Resource. NB: 500m horizontal x 200m vertical MGA Zone 51 / GDA 2020 grid.

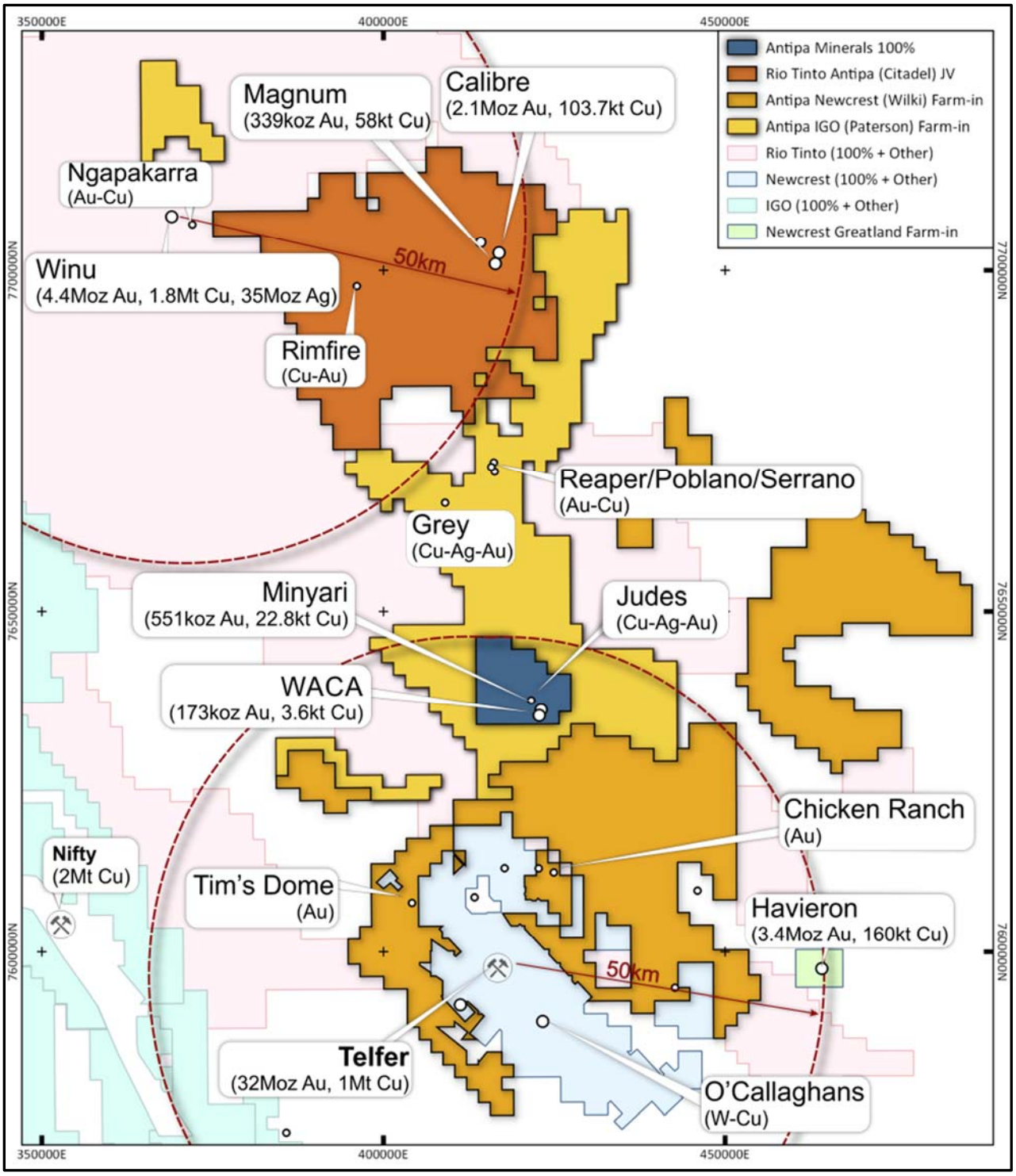

Figure 2: Plan showing location of Antipa 100% owned tenements, Rio Tinto-Antipa Citadel Joint Venture Project, including the Calibre and Magnum deposits, Rimfire prospect and Boxer GAIP target. Also shows Antipa-Newcrest Wilki Farm-in, Antipa-IGO Paterson Farm-in, Newcrest Mining Ltd's Telfer Mine and O'Callaghans deposit, Rio Tinto's Winu deposit, Greatland Gold plc's/Newcrest's Havieron deposit and Cyprium Metals Nifty Mine. NB: Rio and IGO tenement areas include related third-party Farm-in's/Joint Ventures.
NB: Regional GDA2020 / MGA Zone 51 co-ordinates, 50km grid.

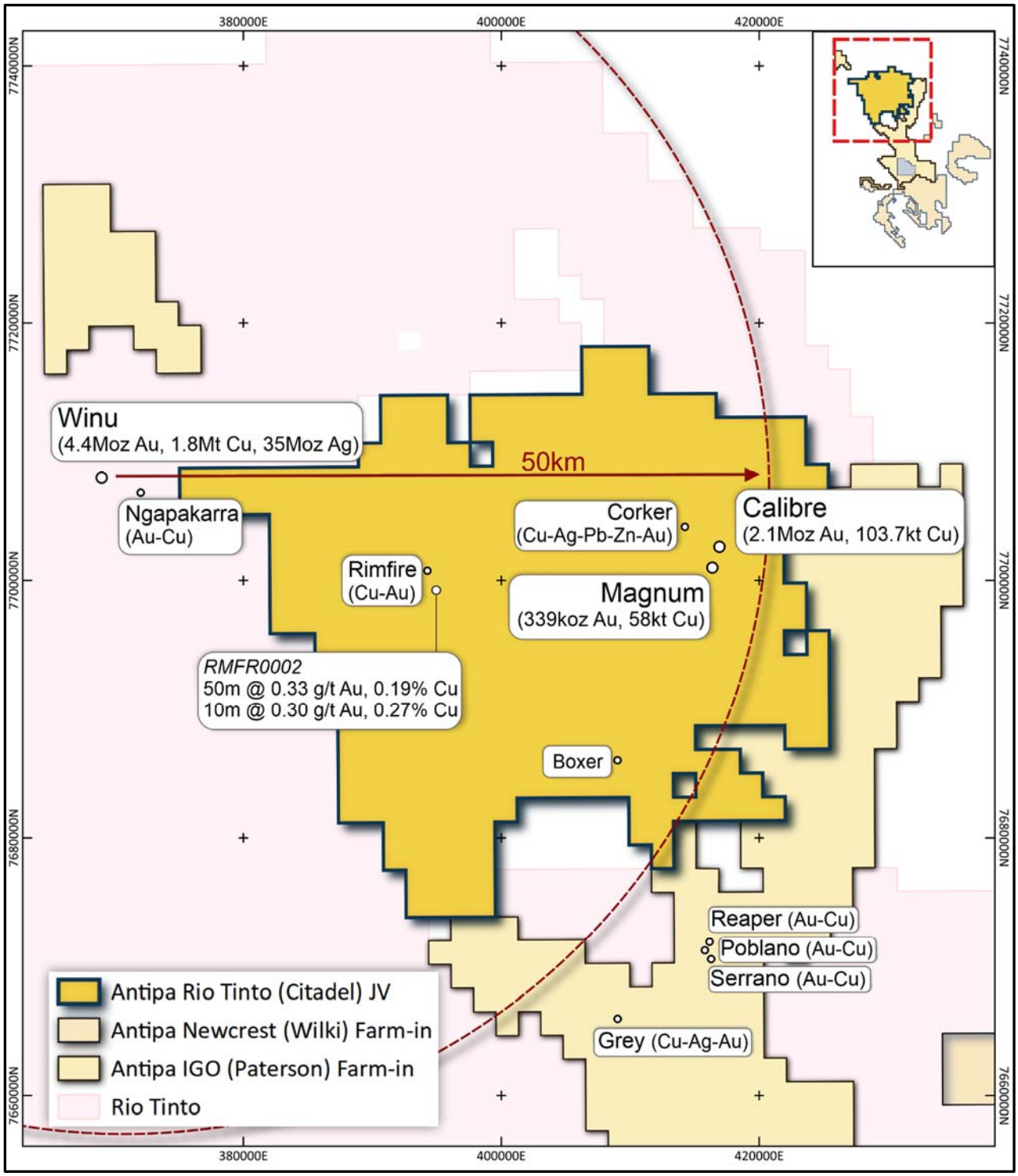

Figure 3: Plan showing location of Rio Tinto-Antipa Citadel Joint Venture Project, including the Calibre and Magnum deposits, Rimfire prospect area and Boxer GAIP target. Also shows Rio Tinto's Winu deposit and a portion of the Antipa-IGO Paterson Farm-in including the Reaper, Poblano, Serrano and Grey gold-copper prospects. NB: Regional GDA2020 / MGA Zone 51 co-ordinates, 20km grid.

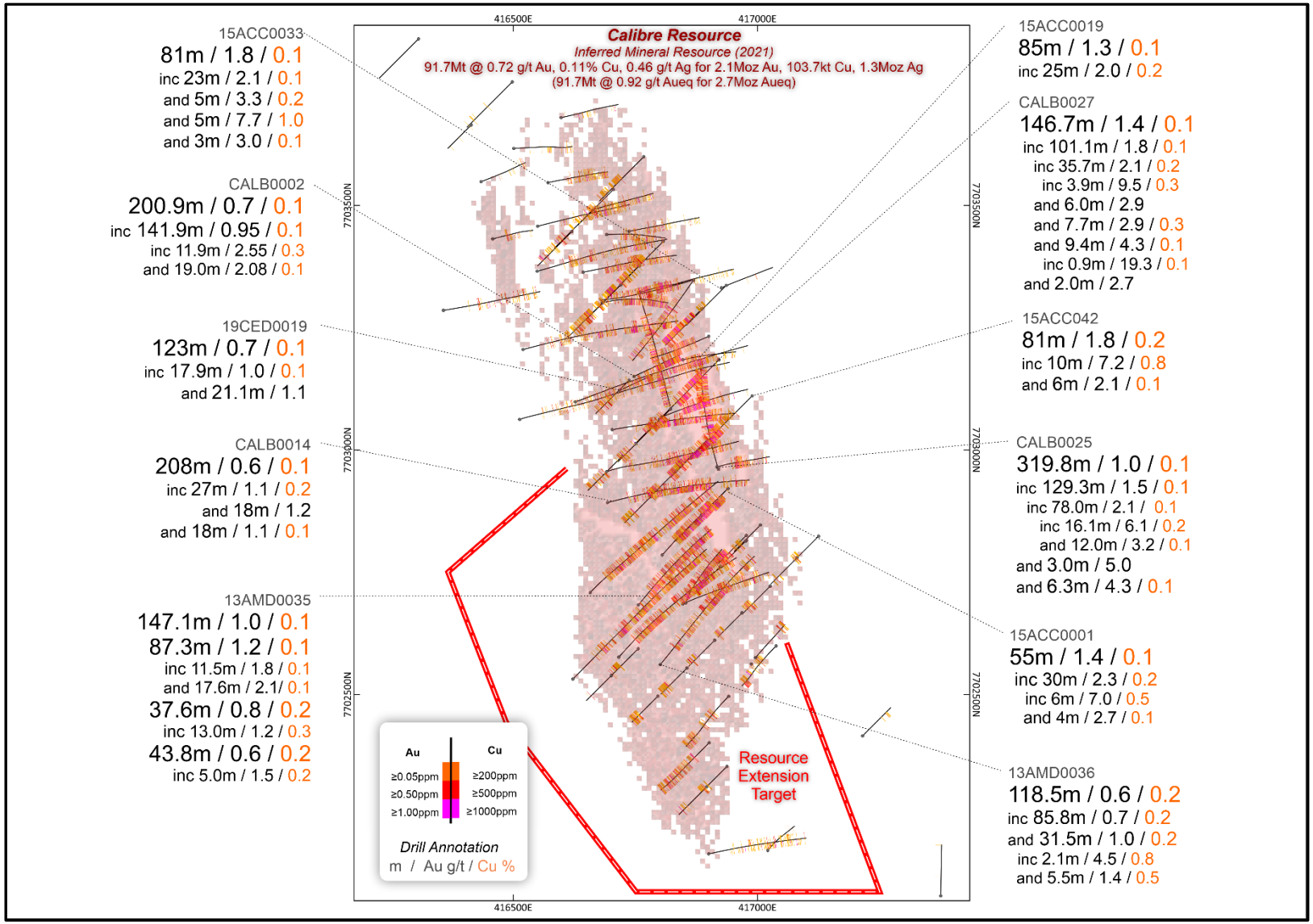

Figure 4: Calibre Deposit plan showing all Calibre drill holes (including 2020 drilling) depicting gold and copper grade distribution, including intersection labels for a selection of holes, and MRE blocks ≥ 0.5 g/t Aueq. Note extensional resource target regions to the south and west beyond the limits of the 2021 Mineral Resource. NB: 500m MGA Zone 51 / GDA 2020 grid.

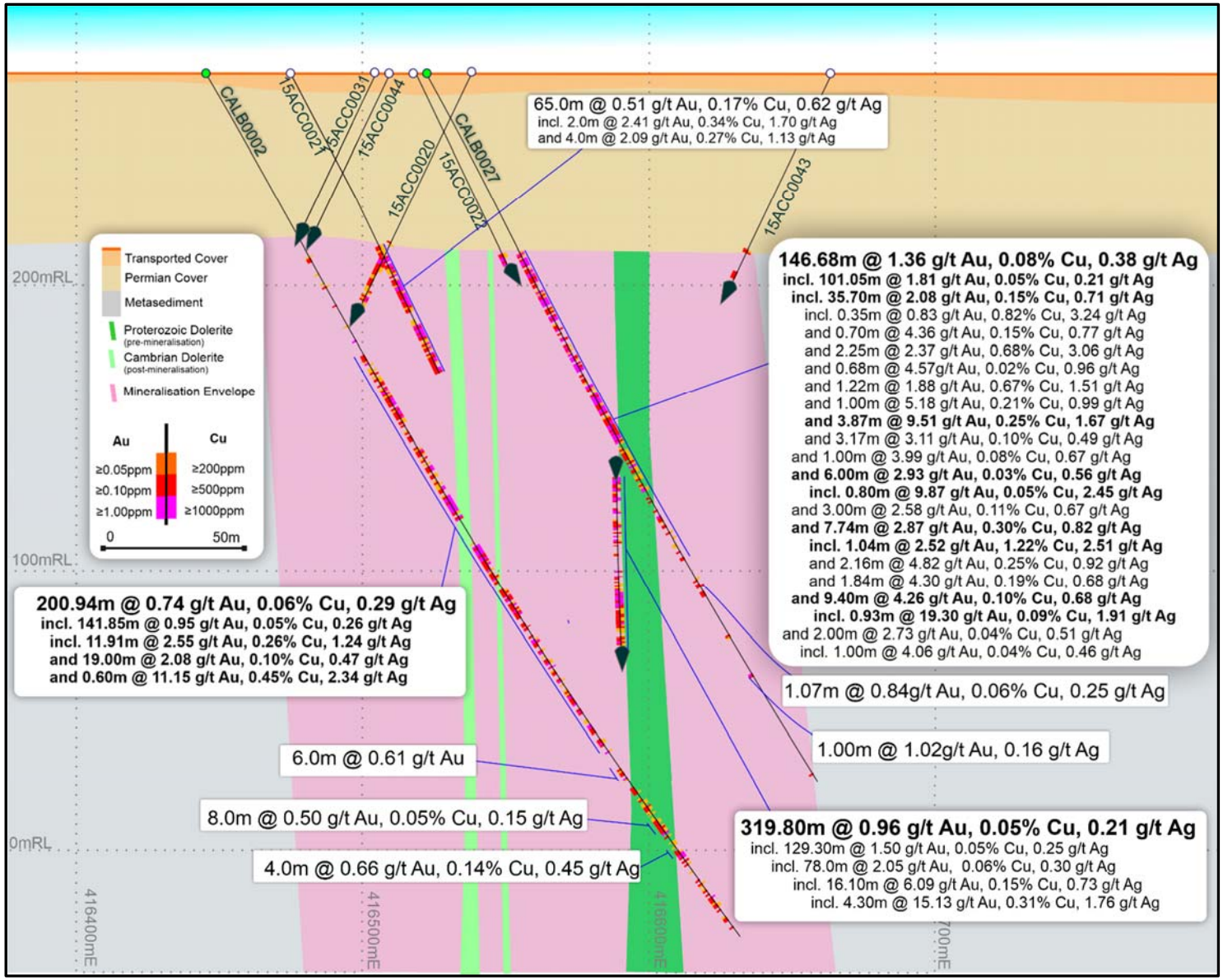

Figure 5: Calibre Deposit interpreted east-west cross-section showing drill hole Au-Cu-Ag intersections including CALB0027.

NB: 100m horizontal x 100m vertical MGA Zone 51 / GDA 2020 grid – Approx. north looking.

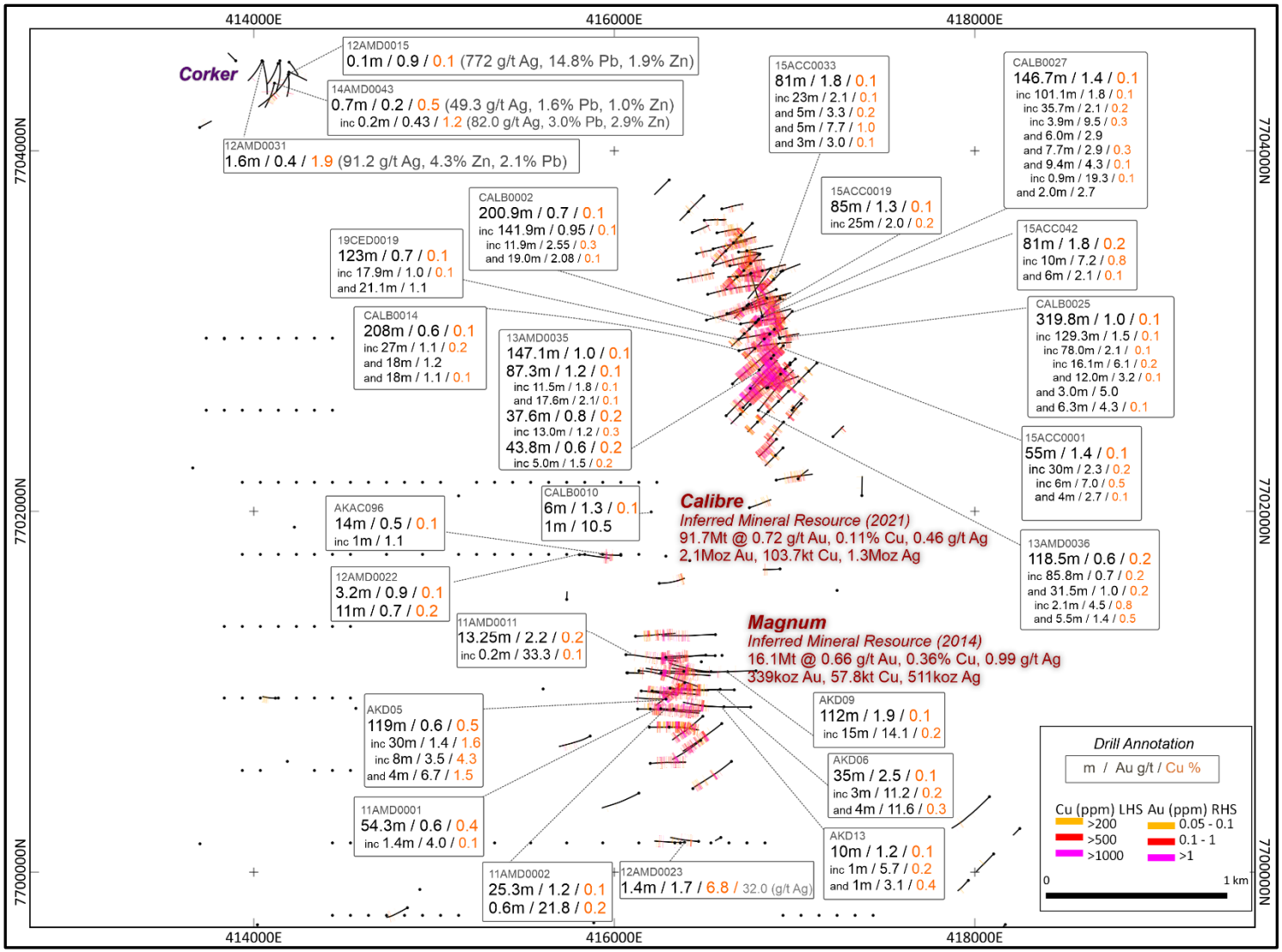

Figure 6: Magnum Dome plan showing Calibre, Magnum and Corker deposits, with drill holes depicting gold and copper grade distribution including intersection labels for a selection of holes. NB: 2 km MGA Zone 51 / GDA 2020 grid.

Calibre Deposit - Summary of Material Mineral Resource Information

The Calibre Mineral Resource summary at May 2021 is presented below in **Error! Reference source not found.**, at cut-offs of 0.5 gold equivalent and 0.8 gold equivalent (**Aueq**).

Table 1: Calibre Mineral Resource Statement (JORC 2012) – May 2021

Resource Category (JORC 2012)	Cut-off (Aueq)	Tonnes (Mt)	Aueq (g/t)	Au (g/t)	Cu (%)	Ag (g/t)	Au (Moz)	Cu (t)	Ag (Moz)	Aueq (Moz)
Inferred	0.5	92	0.92	0.72	0.11	0.46	2.1	104,000	1.3	2.7
Inferred	0.8	42	1.26	1.00	0.14	0.61	1.4	61,000	0.8	1.7

Notes:

1. The resource has been reported at cut-off grades above 0.5 g/t and 0.8 g/t gold equivalent (Aueq); the calculation of the metal equivalent is documented below.
2. Both the 0.5 g/t and 0.8 g/t Aueq cut-offs assume large scale open pit mining.
3. The resource is on a 100% basis, with Antipa's current joint venture interest being 35%.

Gold Equivalent Calculation

A gold equivalent grade (**Aueq**) has been calculated from individual gold, copper and silver grades. This equivalent grade has been calculated and declared in accordance with Paragraph 50 of the JORC Code, using the following parameters:

- The metal prices used for the calculation are as follows:
  - US$ 1,874 /oz gold
  - US$ 4.50 /lb copper
  - US$ 25.25 /oz silver
- An exchange rate (A$:US$) of 0.722 was assumed.
- Metallurgical recoveries, based upon Antipa test-work in 2014, are as follows:
  - Gold = 84.5%, Copper = 90.0%, Silver = 85.4%
- A factor of 105% (as with the previous estimate) has been applied to the recoveries for gold, copper and silver to accommodate further optimisation of metallurgical performance. Antipa believes that this is appropriate, given the preliminary status of the recovery test-work.
- Tungsten has not been estimated and does not contribute to the equivalent formula.
- The gold equivalent formula, based upon the above commodity prices, exchange rate and recoveries, is thus:
  - **Aueq** = Au (g/t) + (1.75*Cu%) + (0.014*Ag g/t)

Mineral Resource Classification

The Calibre Mineral Resource has been classified entirely as Inferred, using the guidelines of the JORC Code (2012). This classification is based upon the consideration of geological confidence, estimation quality and the levels of information. A full description of the Mineral Resources and supporting data is contained in Antipa's JORC 2012 Table 1 declaration at the back of this release.

Calibre Deposit Overview and Geology

The Calibre deposit is part of the Citadel Project, which has total tenure of approximately 1,320 km^2. Exploration at the project is being managed by Antipa's joint venture partner, Rio Tinto (Rio 65% JV interest and Antipa 35% JV interest), which carried out a substantial exploration

programme in 2020, comprising 27 diamond core (**DD**) and reverse circulation (**RC**) holes, comprising 6,730m DD and 3,780m RC (see Antipa public release of 9 February 2021).

The Citadel Project is located on the Anketell Shelf of the Yeneena Basin, which comprises a Neoproterozoic aged sequence of metasediments, mafic intrusives and granitoids intruded by later post-mineralisation Cambrian aged dolerite dykes. The entire deposit is overlain by up to 80m of post-mineralisation Permian aged sediments. Precious metal (gold and silver) and base metal (copper, tungsten, zinc, lead and bismuth) mineralisation is associated with hydrothermal alteration, and sulphide-bearing veins, stockwork, breccia and skarn styles. The main minerals are chalcopyrite, pyrrhotite, pyrite, bismuthine, sphalerite, galena, scheelite and scheelite/wolframite.

Data and Quality Control

The DD core holes drilled in 2020 were carried out under Rio Tinto protocols, representing industry best practice. All core was cut in half and all half core below the cover rocks (PQ and HQ core sizes) was cut to geological or mineralisation/mineralogical boundaries and sampled, with lengths ranging between 0.3 and 1.2m. The RC samples were taken with a face-sampling hammer bit and were collected using a static cone splitter on 1.0m intervals. The samples submitted for assay were approximately 12% of the total sample collected. QAQC procedures followed by Rio Tinto included field duplicates (1 in 20), coarse crush duplicates (1 in 55), pulp duplicates (1 in 55), blank insertion at the rate of 1 per 50 samples and certified reference materials inserted at the rate of 1 in 33. The laboratories also carried out sieve (fineness) testing of pulps. The QAQC was processed and endorsed by Rio Tinto geologists, and the results were stored in an AcQuire database. The base and other metals (including qualitative assays of gold, silver, platinum and palladium) were assayed by inductively-coupled plasma following a four-acid digest, and gold and silver were subject to fire assay with an inductively-coupled plasma finish.

Bulk Density

Samples for bulk density determination were taken from diamond core, covering both mineralised and waste lithologies and measured using the Archimedes (weight in air/weight in water) method. Bulk density values were assigned per rock type; those used for the 2021 Mineral Resource estimation differed slightly from those used in 2017; the key bulk density values estimated and used in the 2021 estimate were:

- 2.7 t/m^3 for metasediments; and
- 3.3 t/m^3 for pre-mineralisation gabbro and mafic/dolerite intrusives.

Geology and Mineralisation Modelling

Key rock types were modelled using Leapfrog software, including the gabbro and mafic intrusives and the cover sequence. An overall envelope enclosing the limits of the drilling to date was generated and this was used to constrain grade interpolation and extrapolation. Two broad geographical domains were established, to the north and south of a northwest-striking, southwest-dipping pre-mineralisation gabbro intrusion/dyke (Figure 7).

Grade envelopes were generated using an indicator approach within Leapfrog; in the northern domain an envelope was generated from samples defined above an 0.8 g/t gold cut-off which were accepted with a 45% probability following indicator estimation. In the southern domain, the grade envelope was generated using a 0.2 g/t gold cut-off with a 60% probability. These

shells were used to flag higher-grade samples, but a soft boundary with the surrounding lower-grade material was also applied. Grades were estimated both inside and outside of the grade shells within the limits of the drilling; this represents relatively unconstrained estimation compared to the 2017 estimate, which was generated within 27 modelled mineralisation shapes. Grades were estimated separately within the pre-mineralisation mafic/dolerite and gabbroic intrusives using only samples flagged within those rock types.

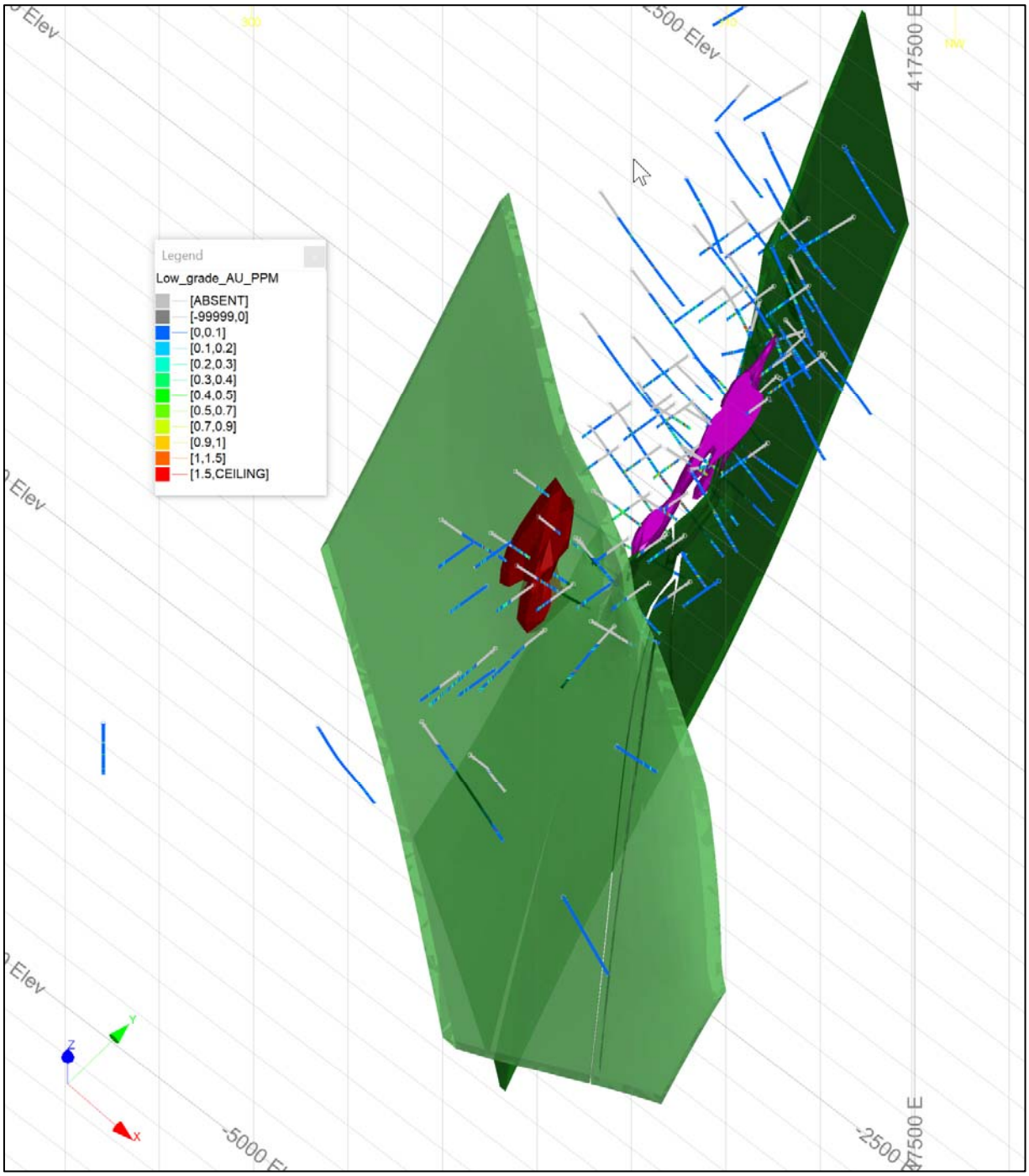

Figure 7: View of key geological and grade solids looking to the northwest along with all drilling, coloured on gold grade. Light green solid = pre-mineralisation gabbroic dyke, dark green solid = pre-mineralisation mafic/dolerite intrusive, pink solid = high grade gold grade shell, red solid = low grade shell. Grid squares are 100m.

Data Conditioning

Two-metre composites, subdivided on lithology, were used for estimation. A combination of grade restriction and top-cutting (capping) was used on high grades. For the gold assays a very small number of values were capped at 7.8 g/t, and other higher grades (i.e. above 7.0 g/t) had their interpolation radius restricted to a 20 x 20 x 5m (X, Y, Z) ellipsoid oriented to the northwest and steeply dipping to the southwest, using Vulcan's high yield algorithm. High copper grades (i.e. above 1.6% in the north and above 3.3% in the south) were also restricted in a similar manner to the high grade gold composites.

Variograms were generated within the broad north and south domains for gold, copper, silver and bismuth, and show relatively low nuggets (i.e. around 35% of the variogram sill for gold) and ranges up to 400m in the principal mineralisation direction.

Grade Estimation and Validation

Grade estimation was carried out initially using ordinary kriging into 5 x 5 x 5m (X, Y, Z) blocks, which were then averaged into 40 x 40 x 5m panels to provide a low conditional bias estimate. All of the key elements were estimated separately. A three-pass estimation scheme was typically used, with expanding search distances or reduced numbers of samples for later passes. The panel models were then exported to Isatis software, where uniform conditioning post-processing was carried out using a selective mining unit (**SMU**) dimension of 10 x 10 x 5m (X, Y, Z). The size of the SMU is commensurate with the assumption of large-scale open pit mining. The uniform conditioning panel grades were then localised into the SMU size using the local uniform conditioning (**LUC**) method, resulting in a block model at the SMU scale.

This SMU scale model was validated against the informing composites visually, using local profile or swath plots, and at the larger-scale domain level. Reasonable correlations were obtained. A cross-section, showing gold grades at the SMU scale, is presented in Figure 8, with the same cross-section showing copper grades presented in Figure 9.

Classification and Reporting

The Calibre Mineral Resource estimate has been classified entirely as Inferred under the guidelines of the JORC Code (2012), reflecting the levels of drilling and the confidence in the geological and mineralisation interpretation. The 2021 estimate represents a more unconstrained model than the 2017 estimate, although the higher grades have been limited within grade shells.

Gold equivalent (Aueq) grades used for reporting and cut-off purposes were calculated using a formula based upon the gold, copper and silver grades, as described above. Reasonable Prospects of Eventual Economic Extraction principles have been applied by reporting above cut-off grades of 0.5 g/t Aueq and 0.8 g/t Aueq, commensurate with a large-scale open pit mining operation.

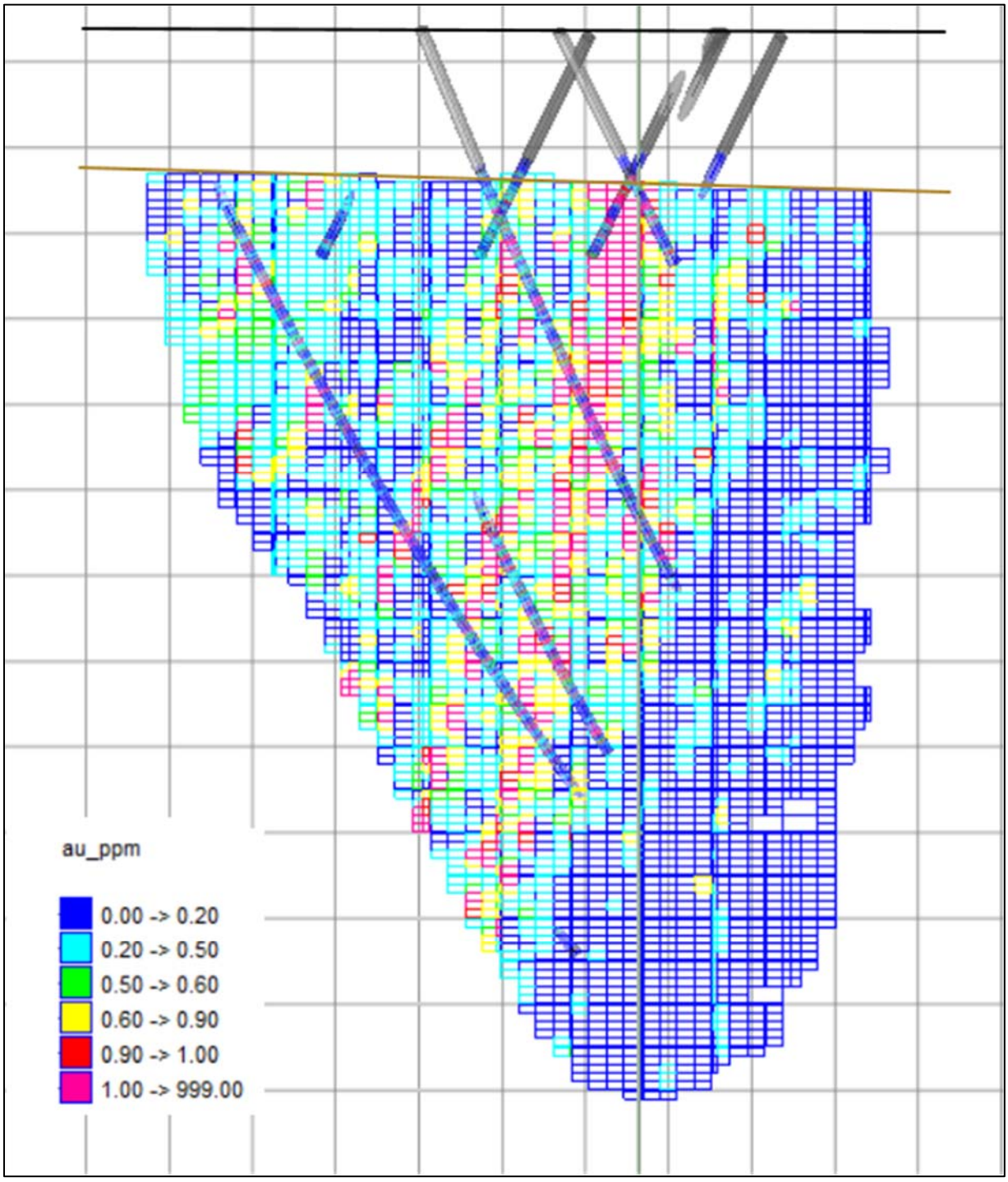

Figure 8: Cross-section centred at 7,702,880N, looking northwest (Bearing 346°), showing estimated gold grades in SMU blocks and drill holes showing gold grades. The grid squares represent 50m.

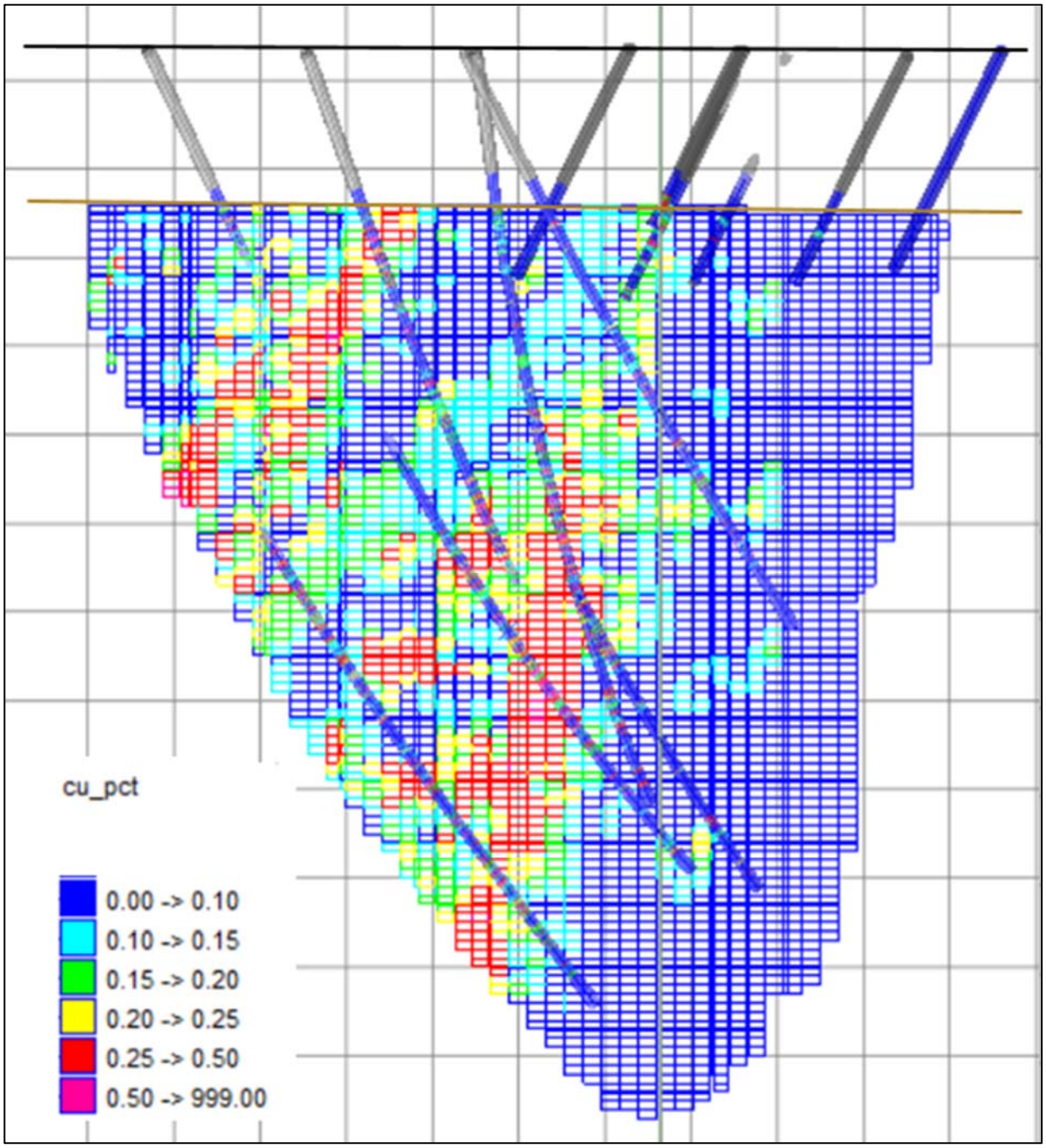

Figure 9: Cross-section centred at 7,702,780N, looking northwest (Bearing 346°), showing estimated copper grades in SMU blocks and drill holes showing copper grades. The grid squares represent 50m.

$24.5 million Citadel JV 2021 Exploration Programme

The Citadel JV 2021 Exploration Programme, to be operated by Rio Tinto, comprises the following activities:

- A 19,000m to 23,000m reverse circulation (**RC**) and diamond core (**DD**) drill programme focused on the Magnum Dome area, which hosts the Calibre and Magnum gold-copper-silver Mineral Resources and Corker deposit (Figure 6), and the Rimfire area, together with select regional targets including the Boxer GAIP target (Figures 2 and 3);
- Undertaking preliminary metallurgical test-work at Calibre;
- Appraisal work in respect of early stage conceptual project development options at the Calibre deposit;
- Continuation of the GAIP survey programme across prospective structural corridors of the Citadel tenements, prioritising areas that have had limited or no testing of the basement by drilling;
- Ongoing processing and interpretation of GAIP and drill hole data, including final 2020 programme data, together with Calibre deposit and Magnum Dome modelling to identify further priority target areas and support a potential Mineral Resource update; and
- Calibre camp infrastructure installation and expansion.

The total budgeted spend for 2021 is inclusive of JV management fees.

The Citadel JV 2021 Exploration Programme is currently underway, with two RC drill rigs and two diamond core drill rigs testing multiple greenfield gold-copper targets and Calibre-Magnum resource extension targets. The GAIP geophysical survey has also commenced.

The Citadel JV 2021 Exploration Programme and budget will be subject to ongoing review based on results, field conditions, contractor availability and pricing and other relevant matters.

Release authorised by
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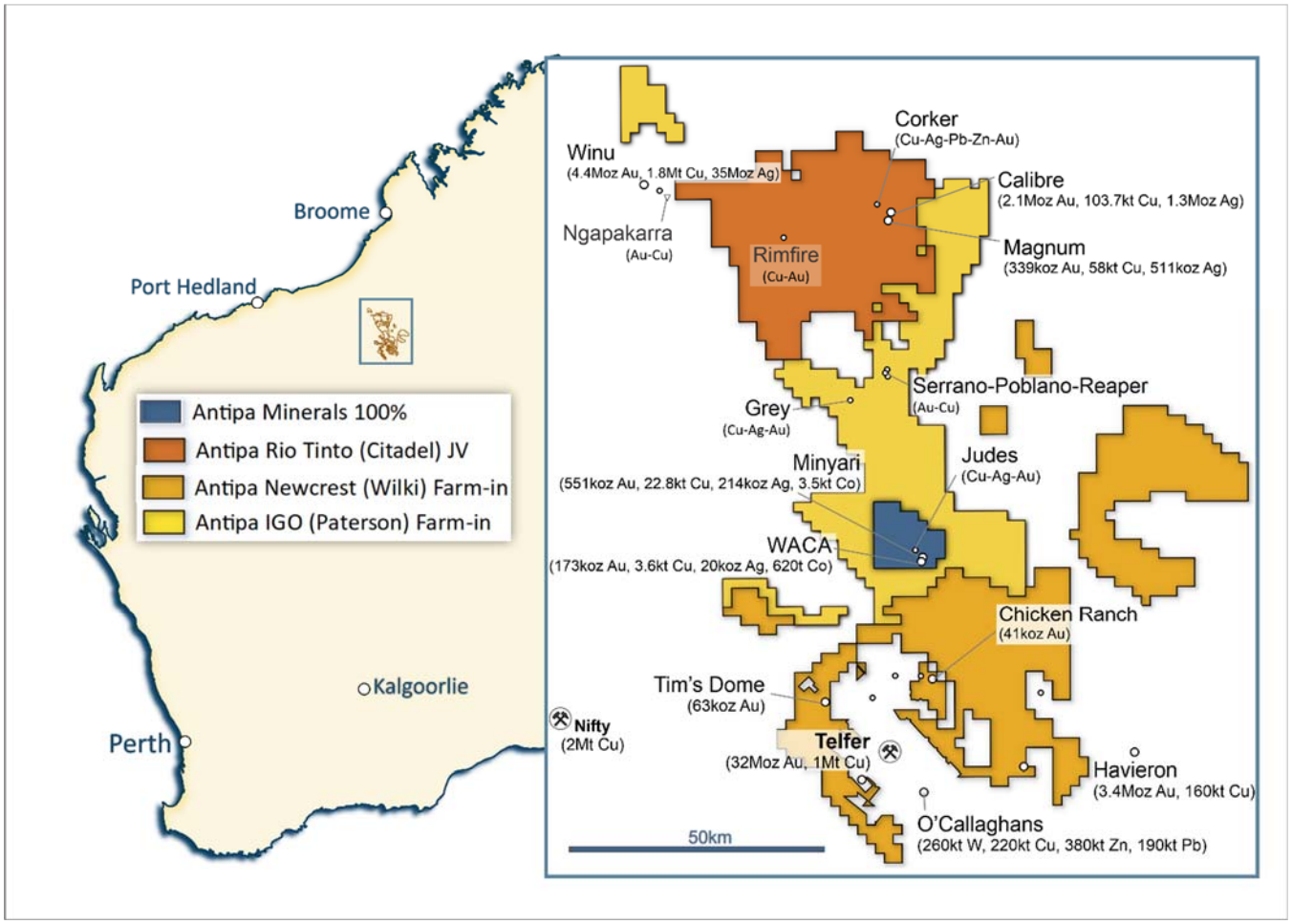
About Antipa Minerals: Antipa is a mineral exploration company focused on the Paterson Province in north-west Western Australia, home to Newcrest Mining's world-class Telfer gold-copper mine, Rio Tinto's Winu copper-gold deposit, Greatland Gold-Newcrest's recent Havieron gold-copper discovery and other significant mineral deposits. Having first entered the Paterson in 2011 when it was a less sought-after exploration address, the Company has used its early mover advantage to build an enviable tenement holding of ~5,200km^2, including the ~1,300km^2 Citadel Joint Venture Project with Rio Tinto (who currently holds a 65% joint venture interest), the ~2,200km^2 Wilki Project that is subject to a $60 million Farm-in and Joint Venture Agreement with Newcrest (who is yet to earn a joint venture interest) and the ~1,500km^2 Paterson Project that is subject to a $30 million Farm-in and Joint Venture Agreement with IGO (who is yet to earn a joint venture interest). The Citadel Project lies within 5km of the Winu deposit and contains a Mineral Resource of 2.4 million ounces of gold and 162,000 tonnes of copper from two deposits, Calibre and Magnum. Antipa retains 144km^2 of 100%-owned Minyari Dome Project tenements which contains an established Mineral Resource, with the Minyari and WACA deposits containing 723,000 ounces of gold and 26,000 tonnes of copper plus other deposits and high quality exploration targets. Unlike certain parts of the Paterson where the post mineralisation (younger) cover can be kilometres thick, making for difficult exploration, the Company's combined 5,200km^2 tenement portfolio features relatively shallow cover; approximately 80% being under less than 80 metres of cover. Extensive drilling and geophysical surveys are planned for 2021 across Antipa's combined Paterson tenement portfolio as the company pursues a dual strategy of targeting tier-one greenfields discoveries and growing its existing resources through brownfields exploration.



Forward-Looking Statements: This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Antipa Mineral Ltd's planned exploration programme and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may," "potential," "should," and similar expressions are forward-looking statements. Although Antipa Minerals Ltd believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Competent Persons Statement – Exploration Results: The information in this document that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Roger Mason, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Mason is a full-time employee of the Company. Mr Mason is the Managing Director of Antipa Minerals Limited, is a substantial shareholder of the Company and is an option holder of the Company. Mr Mason has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking 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'. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements, all of which are available to view on www.antipaminerals.com.au and www.asx.com.au. Mr Mason, whose details are set out above, was the Competent Person in respect of the Exploration Results in these original market announcements.

Various information in this report which relates to Exploration Results have been extracted from the following announcements lodged on the ASX, where further details, including JORC Code reporting tables where applicable, can also be found:

- *Citadel Project - Phase 2 Drilling Programme - Twin Success* 13 December 2012
- *Citadel Project - Calibre Deposit - Major Gold-Copper Discovery* 4 February 2013
- *Citadel Project - 2013 Exploration Programme - Calibre Deposit Focus of Phase 1* 11 February 2013
- *Calibre Exploration Update* 25 February 2013
- *Calibre Deposit - Third Drillhole - Preliminary Results* 7 March 2013
- *Calibre Deposit - Third Drillhole - Assay Results* 27 March 2013
- *Calibre Deposit - Assay Results and New DHEM Anomaly* 15 April 2013
- *Calibre Deposit - Fifth Drillhole - Assay Results* 19 April 2013
- *Calibre Deposit - Sixth Drillhole - Assay Results* 29 April 2013
- *Calibre Deposit - FLEM and Magnetics Survey Results* 15 May 2013
- *Calibre Deposit - Seventh Drillhole - Assay Results* 1 August 2013
- *Calibre Deposit - Exploration Update* 2 September 2013
- *Calibre Deposit - Maiden Mineral Resource Estimate* 28 October 2013
- *Calibre Deposit - Positive Concept Study completed by Snowden* 30 October 2013
- *Surveys extend and upgrade Calibre and Corker target areas* 26 March 2014
- *Phase 2 Geochemical Surveys Define Calibre and Matilda Drill Targets* 28 April 2014
- *2014 Exploration Programme - Drilling Commences at Calibre* 16 May 2014
- *Positive Metallurgical Results for Calibre* 28 May 2014
- *2014 Drilling Programme Update* 29 May 2014
- *2014 Drilling Programme Update* 25 July 2014
- *Citadel Project - Calibre High Grade Opportunity* 9 September 2014
- *Calibre & Magnum Mineral Resources JORC 2012 Updates* 23 February 2015
- *Calibre Drilling Programme Commenced* 15 May 2015
- *Calibre Deposit Drilling Update No. 1* 18 June 2015
- *Calibre Deposit Drilling Update No. 2* 2 July 2015
- *Calibre Deposit Drilling Update No. 3* 10 July 2015
- *Calibre Deposit Drilling Update No. 4* 28 July 2015
- *Rio Tinto – Antipa Citadel Project Joint Venture* 9 October 2015
- *Calibre Drilling October 2015 No. 1* 16 October 2015
- *Calibre Drilling October 2015 No. 2* 22 October 2015
- *Calibre 2015 Phase 2 Drilling Update No. 3* 17 November 2015
- *Calibre 2015 Phase 2 Drilling Update* 30 November 2015
- *Calibre 2015 Drilling Phase 2 Results* 16 December 2015
- *Citadel Project IP Survey Identifies Multiple Chargeability Anomalies along 20km Calibre Trend* 24 June 2016
- *Rio Tinto Elects to Proceed to Stage 2 of Citadel Farm-in* 12 April 2017
- *Citadel Project - Rio Tinto Funded 2017 Exploration Programme* 12 April 2017
- *Rio Tinto Elects to Proceed to Stage 2 of Citadel Farm-in* 12 April 2017
- *Citadel Project Exploration Update* 2 October 2017
- *Citadel Project Exploration Update* 8 November 2017
- *Calibre Deposit Mineral Resource Update* 17 November 2017

• *Citadel Project 2018 Exploration Programme*	27 March 2018
• *Rio Tinto Resumes Drilling at the Citadel Farm-in Project*	4 September 2018
• *Citadel Project Rio JV – Additional AEM Survey*	20 November 2018
• *Rio Tinto Citadel Farm-in Project 2018 Exploration Update*	11 December 2018
• *Multiple Gold-Copper Targets identified on Rio Tinto-Antipa Citadel Farm-in Project*	25 March 2019
• *Indicative $3.4M 2019 Citadel Exploration Programme*	27 March 2019
• *Citadel Project $3.4M 2019 Exploration Programme*	16 May 2019
• *Exploration Update on Rio Tinto-Antipa Citadel Farm-in*	29 July 2019
• *Citadel Project - Calibre Drilling Commences*	6 September 2019
• *Calibre Drilling Identifies Significant Deposit Extensions*	20 November 2019
• *Citadel Project - New Airborne Gravity Survey*	22 November 2019
• *Significant Extensions to Mineralisation at Calibre*	20 December 2019
• *Rio Tinto Earns 51% JV Interest in Citadel Project*	9 January 2020
• *Rio Tinto Proceeds with Next $14M Earn-in Stage at Citadel*	29 January 2020
• *Citadel Geophysical Survey Identifies New Targets*	18 February 2020
• *Citadel Project - 2020 Exploration Programme Update*	31 March 2020
• *$9.2M Citadel Project 2020 Exploration Programme*	24 April 2020
• *Citadel Project-$9.2M 2020 Exploration Programme Update No 2*	28 May 2020
• *Citadel JV GAIP Survey Highlights New Large Gold-Copper Target*	20 August 2020
• *Calibre Drilling Delivers Significant Au-Cu Intersections*	22 October 2020
• *Calibre Delivers Further Significant Au-Cu Intersections*	12 November 2020
• *Significant High-grade Gold-Copper Intersections at Calibre*	18 November 2020
• *More Significant High-Grade Au-Cu Intersections at Calibre*	25 November 2020
• *$13.8M 2021 Exploration Programme for Citadel JV Project*	21 December 2020
• *Significant Gold-Copper Intersections at Rimfire*	4 February 2021
• *Further Significant High-grade Au Intersections at Calibre*	9 February 2021
• *Expanded $24.5M Citadel Project Exploration Programme*	12 April 2021

These announcements are available for viewing on the Company's website www.antipaminerals.com.au under the Investors tab and on the ASX website www.asx.com.au.

The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements. Mr Roger Mason, whose details are set out above, was the Competent Person in respect of the Exploration Results in these original reports.

Competent Persons Statement – Mineral Resource Estimations for the Calibre Deposit: Information relating to the estimation and reporting of the Calibre Mineral Resource estimate has been reviewed and compiled by Ian Glacken, who is a Fellow of the Australasian Institute of Mining and Metallurgy and of the Australian Institute of Geoscientists. Ian Glacken is a full-time employee of Optiro Pty Ltd. Ian Glacken was engaged by Antipa on a fee for service basis, is independent of Antipa and holds no shares in the company. Ian Glacken has sufficient experience that is relevant to the style of mineralisation 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 (the JORC Code). Ian Glacken consents to the inclusion in the report of information based upon his review and endorsement of the Calibre Mineral Resource estimate in the form and context in which it appears.

Competent Persons Statement – Mineral Resource Estimations for the Minyari-WACA Deposits, Tim's Dome and Chicken Ranch Deposits and Magnum Deposit: The information in this document that relates to the estimation and reporting of the Minyari-WACA deposits Mineral Resources is extracted from the report entitled "*Minyari/WACA Deposits Maiden Mineral Resources*" created on 16 November 2017 with Competent Persons Kahan Cervoj and Susan Havlin, the Tim's Dome and Chicken Ranch deposits Mineral Resources is extracted from the report entitled "*Chicken Ranch and Tims Dome Maiden Mineral Resources*" created on 13 May 2019 with Competent Person Shaun Searle and the Magnum deposit Mineral Resource information is extracted from the report entitled "*Calibre and Magnum Deposit Mineral Resource JORC 2012 Updates*" created on 23 February 2015 with Competent Person Patrick Adams, all of which are available to view on www.antipaminerals.com.au and www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant original market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Gold Metal Equivalent Information - Calibre Mineral Resource Gold Equivalent cut-off grade: Gold Equivalent (Aueq) details of material factors and metal equivalent formula are detailed in this report which is available to view on www.antipaminerals.com.au and www.asx.com.au.

Gold Metal Equivalent Information - Magnum Mineral Resource Gold Equivalent cut-off grade: Gold Equivalent (Aueq) details of material factors and metal equivalent formula are reported in "*Citadel Project - Calibre and Magnum Deposit Mineral Resource JORC 2012 Updates*" created on 23 February 2015 which is available to view on www.antipaminerals.com.au and www.asx.com.au.

Mineral Resource Estimates

Minyari Dome Project (100% Antipa)

Deposit and Gold Cut-off Grade*	Resource Category	Tonnes (Mt)	Gold Grade (g/t)	Copper Grade (%)	Silver Grade (g/t)	Cobalt (ppm)	Gold (oz)	Copper (t)	Silver (oz)	Cobalt (t)
Minyari 0.5 Au	Indicated	3.2	1.9	0.3	0.7	590	192,610	9,600	75,660	1,860
Minyari 0.5 Au	Inferred	0.7	1.7	0.24	0.6	340	36,260	1,560	13,510	220
Minyari 0.5 Au	**Sub-Total**	**3.8**	**1.9**	**0.29**	**0.7**	**550**	**228,870**	**11,160**	**89,170**	**2,080**
Minyari 1.7 Au	Indicated	.2	2.6	0.29	0.9	430	18,740	650	6,800	100
Minyari 1.7 Au	Inferred	3.7	2.6	0.3	1.0	370	303,000	10,950	117,550	1,360
Minyari 1.7 Au	**Sub-Total**	**3.9**	**2.6**	**0.3**	**1.0**	**380**	**321,740**	**11,600**	**124,350**	**1,460**
Minyari	**Total**	**7.7**	**2.2**	**0.3**	**0.9**	**460**	**550,610**	**22,760**	**213,520**	**3,540**
WACA 0.5 Au	Inferred	2.8	1.4	0.11	0.2	180	121,950	3,120	15,920	500
WACA 1.7 Au	Inferred	0.5	2.9	0.09	0.2	230	50,780	510	3,850	120
WACA	**Total**	**3.3**	**1.6**	**0.11**	**0.2**	**190**	**172,730**	**3,630**	**19,770**	**620**
Minyari + WACA Deposits	**Grand Total**	**11.0**	**2.0**	**0.24**	**0.7**	**380**	**723,340**	**26,390**	**233,290**	**4,160**

**0.5 Au = Using a 0.5 g/t gold cut-off grade above the 50mRL (NB: potential "Open Cut" cut-off grade) and *1.7 Au = Using a 1.7 g/t gold cut-off grade below the 50mRL (NB: potential "Underground" cut-off grade)*

Wilki Project (Newcrest Farm-in)

Deposit and Gold Cut-off Grade**	Resource Category	Tonnes (Mt)	Gold Grade (g/t)	Copper Grade (%)	Silver Grade (g/t)	Cobalt (ppm)	Gold (oz)	Copper (t)	Silver (oz)	Cobalt (t)
Chicken Ranch Area 0.5 Au	Inferred	0.8	1.6	-	-	-	40,300	-	-	-
Tim's Dome 0.5 Au	Inferred	1.8	1.1	-	-	-	63,200	-	-	-
Chicken Ranch Area + Tim's Dome	**Total**	**2.4**	**1.3**	-	-	-	**103,500**	-	-	-

***0.5 Au = Using a 0.5 g/t gold cut-off grade above the 50mRL (NB: potential "Open Cut" cut-off grade)*

Note: Wilki Project Mineral Resources are tabled on a 100% basis, with Antipa's current joint venture interest being 100%

Citadel Project (Rio Tinto JV)

Deposit and Gold Cut-off Grade***	Resource Category	Tonnes (Mt)	Gold Equiv (g/t)	Gold Grade (g/t)	Copper Grade (%)	Silver Grade (g/t)	Gold Equiv (Moz)	Gold (Moz)	Copper (t)	Silver (Moz)
Calibre 0.5 Au Equiv	Inferred	92	0.92	0.72	0.11	0.46	2.7	2.1	104,000	1.3
Magnum 0.5 Au Equiv	Inferred	16	-	0.70	0.37	1.00	-	0.34	58,000	0.5
Calibre + Magnum Deposits	**Total**	**108**	-	**0.72**	**0.15**	**0.54**	**2.7**	**2.4**	**162,000**	**1.8**

****0.5 AuEquiv = Refer to details provided by the Notes section*

Note: Citadel Project Mineral Resources are tabled on a 100% basis, with Antipa's current joint venture interest being 35%

PATERSON PROVINCE – CALIBRE DEPOSIT

JORC Table 1 – Section 1 – Sampling Techniques and Data (Criteria in this section shall apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	**Reverse Circulation (RC) Drill Holes** • A total of 22 RC and 32 Slimline-RC holes totaling 9,659m were completed at the Calibre deposit from 2015 -2019. A further 13 RC holes were completed in 2020, totaling 3,780m. • RC samples were collected from a static cone splitter on a 1m intervals. • Cyclone/splitter hygiene audits were carried out regularly to ensure the best quality samples were collected. • RC drill holes were generally drilled on the northern and southern regions of the deposit to test for extensions to the mineralisation at Calibre. **Reverse Circulation (RC) Sampling** • RC sampling was carried out under Antipa Minerals and Rio Tinto Exploration Pty Ltd (RTX) protocols and QAQC procedures as per industry best practice (as are further described in this Table 1). • RC drilling was used to obtain 1 m samples which generally range from 1.5 to 4kg. A subset of each RC sample is retained in chip trays (per metre) and the coarse reject (residual material from the primary crush at the lab) is kept in Perth for repeat or tertiary analyses as needed. **Diamond Core (DD) Drill Holes** • A total of 14 Diamond drillholes were completed during 2012-2019 totaling 6,475m. A further 15 holes for 6,730m of DD drilling occurred at the Calibre deposit during 2020. **Diamond Core (DD) Sampling** • Diamond core sampling was carried out under Antipa Minerals and RTX protocols and QAQC procedures as per industry best practice. • All diamond drill core samples were cut in half with an automatic core saw. All available half core was sampled, nominally as one metre samples but at times adjusted for major geological changes. Samples range between 0.2m and 1.2m. Half diamond drill core samples are prepared for assay and the remaining half core archived. All drill core was logged and photographed by the geology team prior to cutting.
Drilling techniques	• *Drill type (e.g. 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).*	**Slim-line RC drilling** • During 2015, an 87.5mm air core diameter bit was used to drill through the unmineralised Permian cover. **Reverse Circulation (RC) Drill Holes** • A face sampling RC bit was used.

Criteria	JORC Code explanation	Commentary
		Diamond Core (DD) Drill Holes • Diamond drilling from 2012 - 2019 was completed using HQ and NQ2 sized core. Rock-roll (no core samples returned) drilling was completed to several metres above the Proterozoic unconformity for some of the drillholes. • In 2020, the drilling consisted of rock-roll drilling to several metres above the Permian-Proterozoic unconformity, followed by PQ diamond core drilling to designated competent ground, followed by HQ diamond core drilling to the end of hole with a triple tube assembly employed. • All diamond core drilled at Calibre has been orientated. At the end of each run, the low side of the core was marked by the drillers and this was used at the site for marking the whole drill core with a reference line.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	**Reverse Circulation (RC) Drill Samples** • RC sample recovery was maximised by endeavoring to maintain a dry drilling conditions as much as practicable. • Relationships between recovery and grade are not evident and are not expected given the generally excellent and consistently high sample recovery. • RC samples were also weighed on arrival at the laboratory. Sample weights were reviewed to identify potential loss. There is potential for a minor loss of sample in the running sand cover in the Permian due to the unconsolidated nature of this unit. No evidence for loss exists in basement samples. **Diamond Core (DD) Holes** • Core recovery was measured and recorded continuously from the start of the casing to the end of the hole for every hole. • Each core run length (PQ 1.5m, HQ and NQ2 – 3to 6m run length) was marked by a core block which provided the depth, the core drilled and the core recovery. • Generally, core recovery was > 99%.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	**Reverse Circulation (RC) Drill and Diamond Core Logging** • Geological logging of 100% of all intervals was carried out recording colour, weathering, lithology, mineralogy, alteration, veining and sulphides. • Logging includes both qualitative and quantitative components. • The logging of the RC chips was done after sieving and washing of the material collected from the RC rig's cyclone. • For diamond core holes structural and geotechnical measurements were also recorded. • All the drill holes were logged before sampling. • All logging is recorded digitally and uploaded into a database following a series of QAQC checks. • The core was photographed both wet and dry inside the core trays. • The RC chip trays were photographed wet.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**Reverse Circulation (RC) Samples** • All samples are crushed and pulverised at the laboratory to produce material for assay. **Diamond Core (DD) Samples** • Diamond core samples were sawn in two and half was collected in a calico bag and submitted for analysis. The other half was kept in core trays and archived. • The core was typically sampled at 1 m intervals with breaks for major geological changes, with sample interval lengths ranging from 0.2m to 1.2m. • CALB0023 and CALB0024 were analysed with CoreScan's Hyperspectral Core Imager, or similar technology, which integrates high resolution reflectance spectroscopy (0.5mm), visual imagery (0.05mm) and 3D laser profiling to map mineralogy and geochemistry. • Selective samples were taken for petrographic analysis. • All samples are crushed and pulverised at the laboratory to produce material for assay. **Reverse Circulation (RC) and Diamond Core (DD) Sample Preparation** • RC and DD samples preparation during 2012 – 2015 was completed at MinAnalytical Laboratories in Perth following industry best practice in sample preparation involving oven drying, coarse crushing of the core sample down to approximately 10mm, followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 85% passing 75 µm and split into a sub–sample/s for analysis. • Sample preparation of the 2019- 2020 RC and DD samples was completed at ALS Limited laboratory in Perth following industry best practice in sample preparation involving oven drying, coarse crushing of the RC and DD samples down to nominal 70% passing -2 mm to produce a 750 gram sub-sample, followed by pulverisation of the entire sample (total prep) using a LM2 grinding mill to a grind size of 85% passing 75 µm and split into 30 – 50 gram sub–sample/s for analysis. • Duplicate samples were collected during the 2020 drill programme at each stage of the preparation, with a rate of 1:20 (field duplicates) or 1:55 (crush and pulp duplicates) samples. Duplicate results show acceptable levels of precision for the style of mineralisation. • The sample sizes are considered appropriate to correctly represent the vein hosted style of mineralisation encountered in the region, the thickness and consistency of the intersections and the sampling methodology.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether*	**2019 -2020 Reverse Circulation (RC) and Diamond Drilling (DD)** • All samples were submitted to an ALS Limited laboratory in Perth. • 51 elements were analysed for using 4-acid digest followed by ICP-OES/MS measurements including qualitative Au, Pt and Pd. • 30 – 50 grams of sample were used for Au analysis by fire assay with ICP-AES finish. Any Au samples which trigger the over range analysis method (>10ppm Au) will be analysed with AAS finish. • Portable XRF analysis on pulp for Cr, Nb, S, Si, Ta, Ti, Y and Zr was done using a SciAps X200 instrument.

Criteria	JORC Code explanation	Commentary
	acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• Quality control samples consisted of field duplicates (1:20), crush duplicates (1:55), pulp duplicates (1:55), blanks (1:50) and commercial certified reference materials (3:100) with the grade of the inserted standards not revealed to the laboratory. All the results are verified by a competent geologist in the acQuire database before being used, and the analysed batches are continuously reviewed to ensure they are performing within acceptable accuracy and precision limits for the style of mineralisation. Any failures during this quality control process requires the batch to be re-analysed prior to acceptance in the database. • Sample preparation checks for fineness were carried out by the laboratory as part of its internal procedures. • No geophysical tools were used to determine any element concentrations in this report. • Inter laboratory cross-checks analysis programmes have not been conducted at this stage. • In addition to RTX supplied CRM's, ALS Limited laboratory includes in each sample batch assayed certified reference materials, blanks and up to 10% replicates. • Selected anomalous samples are re-digested and analysed to confirm results. **2012 – 2015 Reverse Circulation (RC) and Diamond Drilling (DD)** • A lead collection fire assay on a 50g sample with AAS undertaken to determine gold (Au) content with a detection limit of 0.005ppm (for the Proterozoic samples). • The samples of Proterozoic material were dried, crushed, pulverised and split to produce a sub–sample for a 25g sample which is digested and refluxed with hydrofluoric, nitric, hydrochloric and perchloric acids ("four acid digest") suitable for silica based samples. This digest is considered to approach a total dissolution for most minerals. Analytical methods used were ICP–OES (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W and Zn). • Permian cover samples were dried, crushed, pulverised and split to produce a sub–sample for a 25g sample for Aqua Regia digest with 61 element ICP-OES or ICP-MS (inductively coupled plasma – mass spectrometry) low-level geochemical analysis with various detection limits (Ag, Al, As, Au, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pd, Pr, Pt, Rb, Re, Sb, Se, Sc, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn and Zr). • Standards are inserted every 30 samples, increasing to every 20 samples in mineralised zones and decreasing to every 50 samples in unmineralised zones. The grade of the inserted standard is not revealed to the laboratory. • No field duplicates/second core sampling QC were utilised during the 2012 to 2014 diamond drilling programme. • Field duplicates/repeat RC samples QC was utilised during the 2015 Phase 1 Slim-Line RC and Phase 2 RC drilling programmes with nominally two duplicate RC field samples per drill hole. • Selected anomalous samples are re-digested and analysed to confirm results.

Criteria	JORC Code explanation	Commentary
		• Analysis of the QC data found results to be acceptable.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• All the sample intervals were visually verified using high quality core and chip tray photography through Imago. • All logging is recorded digitally into a laptop which is backed up daily. Further data validation is carried out e prior to data being available for use. • No adjustments or calibrations have been made to any assay data collected, which are electronically uploaded from the laboratory to the database. • No twinned holes have been drilled at Calibre. • A systematic analysis of duplicate samples was carried out at each stage of sampling including field, crush and pulp duplicates. The results from this analysis were within acceptable range for this type of mineralisation.

Location of data points	• *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.*
	• *Specification of the grid system used.*
	• *Quality and adequacy of topographic control.*
		• km = kilometre; m = metre; mm = millimetre.
		• Drill hole collar locations are initially surveyed using a handheld Garmin 64S GPS which has an accuracy of ± 3 m.
		• These locations are confirmed by an independent survey contractor using a Differential GPS (Leica Viva GNSS base and rover system operating in RTK mode to a stated accuracy of +/- 20mm).
		• The drilling co-ordinates are all in Geocentric Datum of Australia GDA94 MGA Zone 51 co-ordinates.
		• Inclined RC and DD drill holes are checked for drill rig set-up azimuth using a Suunto Sighting Compass from two directions.
		• Drill hole inclination is set by the driller using a clinometer on the drill mast and checked by the geologist prior the drilling commencing.
		• Drill hole down hole surveys were ran for the majority of RC and DD holes at Calibre with exception to any RC holes drilled vertical.
		• The topography is relatively flat, and if defaulted the topographic surface is set to 250m RL.
		• Prior to 2019 the Company has utilised and referenced a local grid at Calibre which is defined below. References in the text and the Calibre deposit diagrams are all in the Local Grid. Table 1 is in GDA94 / MGA Zone 51:
		  • Calibre Local Grid 0.00m east is 421,535.53m east in GDA94 / MGA Zone 51;
		  • Calibre Local Grid 0.00m north is 7,691,393.40m north in GDA94 / MGA Zone 51;
		  • Calibre Local Grid North (360°) is equal to 315° in GDA94 / MGA Zone 51; and
		  • Calibre Local Grid elevation is equal to GDA94 / MGA Zone 51.

Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• The reporting of both RC and diamond core assay results as broader intersection intervals may occur. • Drill lines are approximately spaced 100m apart and are orientated generally across a SW-NE direction. Drillhole spacing on each section is on average 50m. This spacing is considered appropriate for the Mineral Resource estimation procedure and Inferred Mineral Resource classification. • Calibre deposit 2020 RC and diamond core holes have been used in conjunction with RC and

Criteria	JORC Code explanation	Commentary
		diamond core drill holes completed between 2012 and 2019 for the purpose of Mineral Resource estimation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• No consistent and/or documented material sampling bias resulting from a structural orientation has been identified for the "regional" geophysical targets at this point in time. • For the Calibre deposit drilling is mainly orientated perpendicular to the dominant structural trend. • However, both folding, multiple vein directions and faulting have been variously recorded in the region via diamond core drilling, surface mapping and geophysical datasets.
Sample security	• *The measures taken to ensure sample security.*	• Samples were assigned a unique sample number. All RC and DD samples were placed in calico bags clearly marked with the assigned sample number, and placed in bulka bags, wrapped in plastic and transported by company transport to Port Hedland and by private haulage to the ALS sample preparation facility in Wangara, Perth, Western Australia. Samples submitted to MinAnalytical during previous years followed the same process. • Each sample was given a barcode at the laboratory and the laboratory reconciled the received sample list with physical samples. Barcode readers were used at the different stages of the analytical process. • The laboratory uses a LIMS system that further ensures the integrity of results.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques and procedures are regularly reviewed internally, as is the data. • Consultants Snowden, during completion of the 2013 Calibre Mineral Resource estimate, undertook a desktop review of the Company's sampling techniques and data management in relation to the drilling and sampling data up to 2013 and found them to be consistent with industry standards.

PATERSON PROVINCE – CALIBRE DEPOSIT

JORC Table 1 – Section 2 – Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• The Calibre deposit drilling is located within Exploration License E45/2877. • Currently Antipa Mineral Ltd has a 35% interest and Rio Tinto has a 65% in all Citadel Project tenements and there are no royalties on these tenements. • On 9 October 2015 Farm-in and JV Agreements were executed between Antipa and Rio Tinto Exploration Pty Limited (Rio Tinto). Refer to the main body of the report for further information pertaining to these agreements. • E45/2877 are contained completely within land where the Martu People have been determined to

Criteria	JORC Code explanation	Commentary
		hold Native Title rights. No historical or environmentally sensitive sites have been identified in the area of work. • The tenements are all in 'good standing' with the Western Australian DMIRS. • No known impediments exist, including to obtain a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Prior to 1991 limited to no known mineral exploration activities. • 1991 to 1996 BHP Australia completed various regional airborne geophysical surveys (e.g. aeromagnetics, radiometrics, GeoTEM, ground magnetics, surface EM), geochemical Air core and selected diamond core drilling programmes across a significant area which covered the Citadel Project. Whilst this era of exploration highlighted a number of areas as being variously anomalous, BHP did not locate any basement (Proterozoic) precious or base metal mineralisation. In 1995 BHP Minerals completed an MMI-A/MMI-B soil programme over an area which was ultimately found to be the region within which the Magnum deposit was located. • 1997 to 2002 JV partners Croesus-Gindalbie completed minor surface geophysical surveys (e.g. electromagnetics) and various drilling programmes across parts of the Citadel Project (i.e. 17 x Diamond core, 10 x RC and 134 x Air core drill holes) leading to the discovery of the Magnum Au-Cu-Ag deposit, and its partial delineation, in 1998. • 2002 to 2003 JV partners Teck Cominco and Croesus-Gindalbie completed detailed aeromagnetic and radiometric surveys over the entire Citadel Project, Pole-Pole IP over 8 targets and limited drilling (i.e. 4 x Diamond core holes) within the Citadel Project. • 2004 to 2005 JV partners NGM Resources and Croesus-Gindalbie completed limited drilling (i.e. 3 x Diamond core holes) at selected Citadel Project prospects intersecting minor Au-Cu-Ag mineralisation at the Colt prospect. • 2006 to 2010 Glengarry Resources/Centaurus Metals undertook re-processing of existing data and re-logging of some drill core. No drilling or geophysical surveys were undertaken, and so no new exploration results were forthcoming. • 2011 to 2015 Antipa Minerals Ltd completed exploration of the Citadel Project including both regional and prospect/area scale geophysical surveys (i.e. VTEM, ground EM, DHEM, ground magnetics and ground gravity) and geochemical surveys (i.e. MMI-M™ and SGH™ soil programmes) and drilling programmes (i.e. diamond core and RC) resulting in two greenfield discoveries in 2012, i.e. Calibre and Corker, and subsequent drilling programmes. • October 2015 to March 2017 Antipa Minerals Ltd operators under a Farm-in Agreement executed on the 9 October 2015 between Antipa and Rio Tinto Exploration Pty Limited ("Rio Tinto"), a wholly owned subsidiary of Rio Tinto Limited. RC drilling at Calibre in late 2015, and in 2016 an extensive IP survey, a regional target RC drilling programme and single (deep) diamond core hole were completed. • April 2017 to March 2019 Rio Tinto as operators under the Farm-in Agreement (see above). • 2017 and 2018 exploration activities included:

Criteria	JORC Code explanation	Commentary
		○ Further extensive IP survey (2017) in the southeastern portion of E45/2877; ○ Air Core drilling Programme (2017) in the central region (Rimfire area) of E45/2876; ○ RC drilling programme (2017) testing targets located on E45/2876 (Rimfire area) and 45/2877 (Calibre area); ○ RC drilling programme (2018) testing several targets located on E45/2876 and 45/4561; and ○ Two (2017 and 2018) aerial electromagnetic surveys primarily over various portions of all of the Citadel Project tenements have been completed. • March to December 2019 inclusive Antipa Minerals Ltd operators under the Farm-in Agreement (see above). • 2019 exploration activities included: ○ Further extensive GAIP surveys across various project tenements; ○ Airborne Falcon® AGG gravity survey across the entire project; ○ RC drill programme testing various greenfield targets across various project tenements; and ○ Diamond core drill programme at the Calibre deposit on tenement E45/2877. • January 2020 onwards Rio Tinto Ltd operators under the Joint Venture Agreement. • 2020 exploration activities, which are variously ongoing, include: ○ Diamond core and RC drill programme at the Calibre deposit on tenement E45/2877; ○ RC and diamond core drill programme testing various greenfield targets across various project tenements; and ○ Further extensive GAIP surveys across various project tenements.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Citadel Project region of the Paterson Province is located on the Anketell Shelf of the Yeneena Basin, a Neoproterozoic aged sequence of meta-sedimentary rocks, mafic intrusives and granitoids that has been intruded by post-mineralisation Cambrian dolerite dykes and is entirely covered by younger Phanerozoic sediments typically ranging in thickness of between 10 to 130 m. • The Paterson is a low to moderate grade metamorphic grade (i.e. greenschist to lower-amphibolite) terrane, with local hydrothermal alteration and/or contact metamorphic mineral assemblages and styles are indicative of a high-temperature local environment. • Precious and/or base metal mineralisation is hydrothermal in nature and is shear, fault and strata/contact controlled and is typically sulphide bearing. • Mineralisation styles include vein, stockwork, breccia and skarns. • Mineralisation includes chalcopyrite, pyrite, pyrrhotite, bismuthine, sphalerite, galena, scheelite and wolframite.
Drill hole Information	• *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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in*	• A summary of all available information material to the understanding of the exploration region exploration results can be found in the main body of the report (including drill hole collar table providing collar co-ordinates, orientations and length for all reported drill holes). • A summary of all available previously reported information material to the understanding of the

Criteria	JORC Code explanation	Commentary
	metres) of the drill hole collar • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* • *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 should clearly explain why this is the case.*	exploration region exploration results can also be found in previous Western Australia (WA) DMIRS publicly available reports. • All the various technical and exploration reports are publicly accessible via the WA DMIRS' online WAMEX system. • The specific WA DMIRS WAMEX and other reports related to the exploration information the subject of this public disclosure have been referenced in previous public reports. • Antipa Minerals Ltd publicly disclosed reports provide details of all exploration completed by the Company since 2011; these reports are all available to view on www.antipaminerals.com.au and www.asx.com.au.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• This release has no reference to previously unreported drill results, sampling, assays or mineralisation. • Antipa Minerals Ltd publicly disclosed reports provide details of all exploration completed by the Company since 2011; these reports are all available to view on www.antipaminerals.com.au and www.asx.com.au. • The reported average intersection grades may be length-weighted averages, with a minimum downhole intersection interval length of generally 1m and maximum internal dilution allowed is generally 10m. • Metal equivalence is not used in this report.

Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.*
	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*
	• *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').*
		• Calibre Deposit:
		  • The reported intersection lengths are down hole in nature and the true width, which will be dependent on the local mineralisation geometry/setting, is not known with complete certainty.
		  • For the RC and diamond core holes down hole intersections represent between 25 to 75% of the mineralisation domain/envelope true width depending on the drill hole orientation, both azimuth and dip.
		  •

Diagrams	• *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.*	• All appropriate maps and sections (with scales) and tabulations of intercepts are reported or can sometimes be found in previous WA DMIRS WAMEX publicly available reports. • This release has no reference to previously unreported drill results, sampling, assays or mineralisation. • Antipa Minerals Ltd publicly disclosed reports provide maps and sections (with scales) and tabulations of intercepts generated by the Company since 2011; these reports are all available to view on www.antipaminerals.com.au and www.asx.com.au.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading*	• All significant results are reported or can sometimes be found in previous WA DMIRS WAMEX publicly available reports. • This release has no reference to previously unreported drill results, sampling, assays or

Criteria	JORC Code explanation	Commentary
	reporting of Exploration Results.	mineralisation. • Antipa Minerals Ltd publicly disclosed reports provide details of all significant exploration results generated by the Company since 2011; these reports are all available to view on www.antipaminerals.com.au and www.asx.com.au.
Other substantive exploration data	• *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.*	• This announcement refers to previous exploration results including geophysics, drill results and geology which can be found in previous public reports. • All meaningful and material information has been included in the body of the text or can sometimes be found in previous WA DMIRS WAMEX publicly available reports. • Zones of mineralisation and associated waste material have been measured for their specific gravity ("density") at both the Calibre and Magnum deposits located on exploration licence E45/2877. The measurement used the hydrostatic/gravimetric method (Archimedes Principle of buoyancy). • Multi element assaying has been conducted variously for a suite of potentially deleterious elements including arsenic, sulfur, lead, zinc and magnesium. • Hyperspectral and high-resolution core imagery may be collected in 2020 for the 2019 diamond core using a CoreScan Hyperspectral Core Imager, or similar technology. • To date no downhole 'logging' surveys have been completed for the 2020 drill holes. • Geotechnical logging (e.g. Recovery, RQD and Fracture Frequency) is not possible for RC drill material; however, all diamond core holes (i.e. Calibre, Magnum, Corker, Blue Steel, etc) receive geotechnical logging. No geotechnical logging was obtained from the WA DMIRS WAMEX reports. • Downhole information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material are not possible for RC drill material; however all diamond core holes (i.e. Calibre, Magnum, Corker, Blue Steel, etc) receive structural logging which can be obtained from the Company's pre-existing SQL database and WA DMIRS WAMEX reports. • Metallurgical test-work results available on these particular tenements is restricted to the Calibre gold-copper-silver-tungsten deposit. Preliminary metallurgical test-work results are available for the Calibre deposit, this report is available to view on www.antipaminerals.com.au and www.asx.com.au. • The Calibre deposit's simple and coarse grained copper mineralogy is almost exclusively chalcopyrite. Very limited to no copper oxide or other copper sulphide minerals were observed. The gangue mineralogy is dominated by quartz and feldspar. The straightforward mineralogy has produced very favourable metallurgical outcomes from the low copper ore grades of Calibre. • Preliminary metallurgical test work was completed at the Bureau Veritas Minerals Pty Ltd laboratories in Perth, Western Australia under the management of Bureau Veritas metallurgists and Antipa's Managing Director. • A master 39 kilogram metallurgical composite sample was composed of material from 90 individual samples. All samples were collected from diamond core representative of the Calibre gold-copper-silver-tungsten mineralisation. As no oxide mineralisation is known to occur at Calibre the samples

Criteria	JORC Code explanation	Commentary

		were all of primary and transitional mineralisation.
		• The master metallurgical composite sample was constructed to have precious and base metal grades comparable to the Calibre Inferred Mineral Resource. The head grade for the composite used in the definitive metallurgical test was 0.63 g/t gold, 0.23% copper, 0.80 g/t silver, 0.02% tungsten tri-oxide and 0.97% sulfur.
		• The preliminary metallurgical test work which focused on the precious and base metals has comprised:
		  • Mineralogical, and metallurgical data investigation via the QEMSCAN® micro-analysis system;
		  • HLS density beneficiation test work;
		  • Sulphide Flotation;
		  • Tungsten Flotation; and
		  • Cyanide leaching of sulphide flotation tailings for recovery of remaining gold and silver.
		• The Calibre mineralisation is planned to be crushed and ground with the following products being produced:
		  • A sulphide concentrate containing copper, gold and silver;
		  • Gold doré (containing gold and silver); and
		  • A tungsten concentrate.
		• Preliminary metallurgical test work has shown that saleable products for copper, gold and silver can be produced from the Calibre mineralisation with reasonable metallurgical recoveries, supporting target recoveries of approximately 85% for gold and silver, and 90% for copper using a sulphide flotation circuit followed by CIL leaching of the flotation tails.
		• Further test-work is required with respect to tungsten concentrate specifications; however, the initial results are considered encouraging, including mineralogy investigation using QEMSCAN® which revealed the tungsten minerals to be comparatively coarse grained and well liberated. As a consequence, a conservative recovery of 50% was assumed for tungsten.
		• Preliminary heavy Liquid Separation (HLS) test work was used to assess the amenability of the ore to physical upgrade processes such as gravity. The HLS results highlighted there was reasonable potential for density beneficiation of the Calibre mineralisation, subject to further assessment.
		• Geophysical surveys carried out over significant regions of the Citadel Project include airborne electromagnetics, aeromagnetics, airborne radiometrics, some induced polarisation/resistivity and ground gravity surveys, and magnetic susceptibility from drill sample material. Satellite imagery is also available.

Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future*
		• Planned further work:
		  • Ongoing review and interpretations of the 2019 data, historical data, and 2020 exploration data;
		  • Planning and execution of follow-up exploration activities to identify potential high-grade

Criteria	JORC Code explanation	Commentary
	drilling areas, provided this information is not commercially sensitive.	mineralisation; • Ongoing modelling/interpretation of airborne gravity survey data; • Full geological interpretation including 3D modelling where data supports; and • Possible Calibre gold-copper-silver deposit Mineral Resource estimate update. • All appropriate maps (with scales) and tabulations of GAIP anomalies are reported or can sometimes be found in previous WA DMIRS WAMEX publicly available reports.

PATERSON PROVINCE – CALIBRE DEPOSIT

JORC table 1 – Section 3 – Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• All drilling information generated by Antipa has been entered directly into the database using notebook computers and a custom data entry system. Data validation was carried out on entry and upon upload into Antipa's database. Similar robust logging and validation measures were carried out by Rio Tinto for its drilling. The current database has been subject to internal checks and validation by Antipa staff and by Rio Tinto staff. • Both Antipa and the Competent Person undertook basic data validation on the data used for resource estimation. A few holes without surveys or assays, or with limited assaying, were removed from the data subset used for estimation.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• While the project has undergone several years of exploration, the mineralisation sits underneath Permian cover and there is no outcrop on site. Antipa staff have made numerous site visits during its management of the project and Rio staff supervised the latest drilling onsite. Thus, the Competent Person would have little to gain from a site visit and has not visited site.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The geological interpretations underlying the mineralisation modelling are based upon a significant number of holes. Lithologies are well known and the main lithologies (metasediment, dolerite, gabbro, mafic and cover) are easily identified. Previous interpretations by Antipa identified twenty-seven mineralised lenses; the revised geological interpretation estimates grades within broad lithological zones constrained by the metasediment lithology (apart from identified pre- and post-mineralisation intrusions, which have been modelled as separate mineralisation or lithological domains). The Competent Person endorses the revised interpretation, which is based upon an additional 27 holes drilled during the 2020 field season. • The data has been used as-is without any factoring of grades, other than grade restrictions used in the Mineral Resource estimate.

Criteria	JORC Code explanation	Commentary
		• While there are a substantial number of drillholes into the Calibre deposit, overall exploration is at an intermediate stage, and it is possible that further infill drilling will result in minor changes to the overall interpretations. • The definition of the key geological units has been used to guide the overall estimation of the key elements. • The overall trend of the mineralisation hosted in the main metasediment units has remained consistent over multiple drilling campaigns.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The current interpretation of the Calibre deposit has an approximate 1600 m strike extent, a maximum width of 410 m and 400 m down dip extent. The orebody is open down dip and along strike to the southwest of the deposit. Mineralisation sits below approximately 80 m of barren Permian cover.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. Sulphur for acid mine drainage characterization).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Drillhole data was initially constrained within a solid which defined the extent of the drilling; 2 m downhole composites were used and were flagged within lithological zones (metasediment, gabbro, dolerite, mafic and cover). The model was subdivided into northern and southern zones for estimation purposes either side of a narrow (30 m) gabbro, although only the northern and southern zones were used for estimation. • A categorical indicator grade shell constraining the high-grade mineralisation was defined in Leapfrog software, using a gold cut-off grade of 0.8 g/t and a probability of 45% for the northern zone; a lower-grade shell, using a gold cut-off of 0.2 g/t and a probability of 60%, was used for the southern zone. Both the northern and the southern grade shells were treated as soft boundaries for estimation, which was carried out in Vulcan software. Analysis of boundary grade conditions and the transitional nature of grades led to the decision to use soft boundaries. Grades were estimated both inside and outside the indicator shells. Grades were estimated separately into the narrow mafic and gabbro zones. • Extreme grades were treated in two ways: a very small number of gold values in the northern domain were capped (top cut), and then in most domains high grades had their influence restricted using Vulcan's 'high yield' algorithm, which limits the interpolation distance of samples above a threshold value. In general, gold values above 7 g/t in the northern domain, 7.8 g/t in the mafic domain, and 3.7 g/t in the southern domain were restricted. The volume of the spatial restriction varied, but typically was 20 x 20 m in the dip plane of the orebody and 5 m across dip. Copper grades were restricted above a high yield threshold of 1.6% in the northern domain and 3.7% in the southern domain. • Gold, copper, silver, and bismuth grades were estimated into a 5 x 5 x 5 m cell using Ordinary Kriging (OK) in Vulcan, and then reblocked (averaged) to a 40 x 40 x 5 panel size to provide a robust estimate which minimised conditional bias. This panel was then subject to localisation using the LUC (local uniform conditioning) algorithm into 10 x 10 x 5 (X, Y, Z) blocks, representing a nominal open pit selective mining unit (SMU), in Isatis. The OK estimates were based upon robust variography

Criteria	JORC Code explanation	Commentary
		generated using a Gaussian transformation of the data. • The model has been validated visually, on profile (swath) plots in plan and section, and by comparison of overall declustered domain grades with volume-weighted block model grades. • Several prior estimates of the Calibre mineralisation have been completed; the estimate prior to the 2021 iteration was carried out by Snowden consultants in 2017. • There has been no mining at Calibre. • Metallurgical recoveries for the main value elements of gold, copper and silver are based upon Antipa metallurgical testing. An uplift of 5% of each of the recoveries has been applied to cater for improvements in extraction technology since the test-work was carried out in 2014. • Bismuth has been estimated using a similar LUC technique to gold, copper, and silver. • The effective 40 x 40 x 10 panel size compares favorably with the drilling on approximately 100 x 50 m centres. The modelled grade continuity ranges for gold, the principal element, are around 400 m (down dip) by 400 m by 200 m (across dip) and therefore allow for robust estimation at the panel scale. • An SMU of 10 x 10 x 5 m has been assumed, reflecting large-scale open pit mining. • Gold, copper, silver, and bismuth have been modelled and estimated separately. • Estimation was carried out within broad geological domains constrained by the metasediment interpretation, with separate estimates into the mafic and gabbro zones. Higher-grade shells were used to constrain the estimates for both the north and the south broad estimation domains. • Capping and grade restriction has been applied for the economic elements of gold, copper, and silver. • The model has been validated visually by the Competent Person, on profile (swath) plots in plan and section, and by comparison of overall declustered domain grades with volume-weighted block model grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages have been estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Both 0.5 g/t and 0.8 g/t gold equivalent grades have been used for estimation and reporting purposes and are considered appropriate after consideration of relevant technical (including likely recoveries, densities and strip ratios) and economic factors (including metal prices and costs, based on relevant market based measures and comparatives), with further details provided in the sections below.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Open pit mining, with an SMU size of 10 m (X) by 10 m (Y) by 5 m (Z) has been assumed. At a density of 2.7 t/m^3, used for the main rock type, this represents approximately 1,350 t of fresh rock, suggesting that large equipment, commensurate with a substantial open pit mine, could be used.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Antipa metallurgical test-work in 2014 has defined recoveries for gold, copper, and silver. A 5% uplift has been applied to these test-work recoveries to reflect assumed increases in extraction technology up to the start of mining. A gold recovery of 84.5%, a copper recovery of 90% and a silver recovery of 85.4% have been used to generate the gold equivalent formula used for reporting. • The gold equivalent cut-off grades have then been applied to the in situ modelled block grades for reporting purposes.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No environmental factors have been assumed, given the relatively early stage of the project.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size, and representativeness of the samples.*	• Density assignments are based upon Archimedes-style water immersion test-work based upon core samples taken by both Antipa and by Rio Tinto. Density values applied are: o 2.7 t/m^3 for the principal metasediment rock type o 3.3 t/m^3 for gabbroic, mafic and doleritic intrusives. • Due to the limited number of samples tested to date, the density estimates are considered preliminary in nature but reasonable for the purposes of the Inferred Mineral Resource estimate. • Core samples used for bulk density determination were free of pores and vugs, and these are not seen in the rocks at Calibre.

Criteria	JORC Code explanation	Commentary
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density has been assigned by rock type based on numerous measurements.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Based upon the moderate levels of geological knowledge and the relatively unconstrained estimation methodology, the Calibre Mineral Resource has been entirely categorised as Inferred. • The principles of Reasonable Prospects of Eventual Economic Extraction (RPEEE) have been applied by assuming open pit mining at a cut-off of 0.5 g/t gold equivalent, which approximates cut-offs used in gold open pit mines in Western Australia. No assumptions of underground mining of the deeper portions of the mineralisation have been made. • The classification and reporting reflect the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The mineralisation model on which the estimate is based was compiled internally by Rio Tinto based on data collected by Rio Tinto and Antipa, with no classification or pit constraints applied to the modelled mineralisation. As part of the estimation process, the Competent Person reviewed and endorsed the data and model. • Rio Tinto has not endorsed the estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• No geostatistical methods have been used to determine relative accuracy and confidence. The 2021 model has been generated using soft boundaries rather than the more distinct mineralised lenses interpreted in the 2017 Antipa estimate. The Inferred classification is thus deemed appropriate for this level of data. • The resource model is seen as being accurate and precise at the global level of classification and within the definition of an Inferred Mineral Resource. Although estimates have been carried out at a nominal SMU scale, this does not imply mineability. • There has been no mining at Calibre.