

## MEDIA RELEASE 9 February 2017



## MINYARI DOME - CONTINUED DRILLING SUCCESS

### **Key Points**

- Latest results continue to progress Minyari Dome towards a meaningful near term development opportunity.
- Latest drill intersection highlights from the Minyari and WACA deposits include:
  - 16.0m at 2.94 g/t gold and 0.22% copper including 8.0m at 4.90 g/t gold and 0.38% copper at Minyari from 381.0m down-hole 16MYD0047
  - 27.4m at 2.01 g/t gold and 0.13% copper including 5.0 at 2.99 g/t gold and 0.33% copper and 1.5m at 13.54 g/t gold and 0.25% copper at Minyari from 281.0m down-hole 16MYD0047
  - 92.85m at 1.17 g/t gold and 0.10% copper bulk intercept including multiple higher grade intercepts (including above) at Minyari from 223.55m down-hole 16MYD0047
  - 17.0m at 1.64 g/t gold and 0.27% copper including 5.0m at 2.95 g/t gold and 0.56% copper at WACA from 119.0m downhole 16MYC0054
- Significant "pathfinder" silver drill intercepts at nearby Judes prospect point to potential additional gold/copper mineralisation.
- Minyari Dome metallurgical test-work now commenced and JORC Exploration Targets to be formulated. Follow up exploration programmes being prepared.
- Balance of Citadel Project drill assay results received. Further exploration required on several IP targets and newly discovered Rimfire 5km copper mineralisation trend.

## Minyari Dome - 2016 Phase 2 Exploration Programme Summary

All results for the 2016 Minyari Dome Phase 2 drilling programme have now been received. The Company is still interpreting these results but can report that solid progress has been made towards its objective of identifying a near term production opportunity.

Minyari Deposit Key Metrics:

- High grade gold (with copper);
- Mineralisation commences 1 to 10 metres from the surface and extends down for more than 580 vertical metres;
- +300m strike length;
- Up to 160m in width;
- Up to 60m in thickness;
- Remains open down dip and potentially along strike; and
- Located close to infrastructure just 40km north of Newcrest's giant Telfer gold-copper-silver mine.

## **Corporate Directory**

Stephen Power Executive Chairman Roger Mason Managing Director Mark Rodda Non-Executive Director Peter Buck Non-Executive Director Gary Johnson Non-Executive Director

### **Company Projects**

Citadel Project covering 1,335km<sup>2</sup> of prospective granted exploration licences in the World-Class under-explored Proterozoic Paterson Province of Western Australia. Rio Tinto may earn up to a 75% Interest in the Citadel Project by funding exploration expenditure of \$60m.

North Telfer Project covering an additional 1,310km<sup>2</sup> of prospective granted exploration licences located approximately 20km north of the Telfer mine, including the high-grade gold-copper Minyari and WACA deposits.

Paterson Project covering an additional 1,631km<sup>2</sup> of prospective granted exploration licences and 80km<sup>2</sup> of exploration licence applications located as close as 3km from Newcrest's Telfer gold-copper-silver mine.

## WACA Deposit Key Metrics:

- Located only 700m southwest of the Minyari deposit;
- High grade gold (with copper);
- Mineralisation commences within 10 to 20 metres of the surface and extends down for more than 340 vertical metres;
- 550m strike length;
- 2 main lodes within a corridor up to 50m in width; and
- Remains open down dip and potentially along strike.

The Minyari Dome Phase 2 drill results are detailed by Tables 1 to 3 and Figures 1 to 8. The Company has now commenced preparation of a further exploration programme with the objective of reaching a sufficient stage of certainty to commence a Scoping Study. As part of this, independent metallurgical test-work has commenced and the Company is moving towards the preparation of an Exploration Target for public release prior to the commencement of the next exploration programme.

Minyari Dome 2016 drill results include the following intercepts (NB: previously unreleased results are asterisked):

## Minyari Deposit

- 69.0m at 4.07 g/t gold and 0.07% copper from 92.0m down-hole (16MYC0006)
  - including 3.0m at 24.05 g/t gold and 0.41% copper
  - including 3.0m at 10.05 g/t gold and 0.03% copper
- **35.0m at 3.57 g/t gold and 0.05% copper** from 87.0m down-hole (16MYC0006)
  - including 21.0m at 4.8 g/t gold and 0.04% copper
    - including 4.0m at 11.34 g/t gold and 0.03% copper
- **30.0m at 2.55 g/t gold and 0.31% copper** from 14.0m down-hole (16MYC0008)
  - including 9.0m at 5.52 g/t gold and 0.34% copper
    - including 1.0m at 18.6 g/t gold and 0.23% copper
- 23.0m at 3.16 g/t gold and 0.32% copper from 7.0m down-hole (16MYC0015)
  - including 1.0m at 7.68 g/t gold and 0.62% copper
  - And 2.0m at 6.77 g/t gold and 0.66% copper
- \*92.85m at 1.17 g/t gold and 0.10% copper bulked intercept from 223.55m downhole (16MYD0047), including;
  - \*1.3m at 13.52 g/t gold and 0.10% copper from 223.55m down-hole
  - \*12.51m at 1.79 g/t gold and 0.30% copper from 236.9m down-hole, including
    - 3.1m at 4.33 g/t gold and 0.54% copper
  - **\*27.40m at 2.01 g/t gold and 0.14% copper** from 281.0m down-hole, including
    - 5.0m at 2.99 g/t gold and 0.33% copper, and
    - 1.5m at 13.54 g/t gold and 0.25% copper from 292.5m down-hole
  - \*16.0m at 2.94 g/t gold and 0.22% copper from 381.0m down-hole, including
    8.0m at 4.90 g/t gold and 0.38% copper
- **\*3.0m at 4.16 g/t gold and 0.12% copper** from 307.0m down-hole (16MYD0052)
  - including 1.0m at 11.56 g/t gold and 0.09% copper
- \*0.5m at 27.44 g/t gold and 2.34% copper from 459.0m down-hole (16MYD0047)

- **98.00m at 0.96 g/t gold and 0.05% copper** bulked intercept from 540.00m down-hole (MHC20001 Newcrest 2012 diamond drill hole), including;
  - 6.00m at 3.23 g/t gold and 0.23% copper from 540.00m down-hole
  - 16.00m at 2.50 g/t gold and 0.54% copper from 614.00m down-hole

## WACA Deposit

- 8.0m at 21.04 g/t gold (uncut), or 8.0m at 13.75 g/t gold (using 30 g/t top-cut) and
   0.56% copper from 224.0m down-hole (16MYC0049)
  - including 4.0m at 39.60 g/t gold (uncut), or 4.0m at 25.03 g/t gold (using 30 g/t top-cut) and 0.81% copper
- 41.0m at 2.10 g/t gold and 0.19% copper from 98.0m down-hole (16MYC0048)
  - including 4.0m at 10.38 g/t gold and 0.35% copper
  - including 1.0m at 24.69 g/t gold and 0.71% copper
- 15.0m at 4.64 g/t gold and 0.06% copper from 333.0m down-hole (MHC20002)
  - including 0.2m at 295.37 g/t gold and 0.2.28% copper
- 5.7m at 10.89 g/t gold and 0.06% copper from 48.7m down-hole (MWC998-1)
  - \*17.0m at 1.64 g/t gold and 0.27% copper from 102.0m down-hole (16MYC0054)
    - including 5.0m at 2.95 g/t gold and 0.56% copper from 110.0m down-hole
  - \*8.0m at 2.24 g/t gold and 0.20% copper from 214.0m down-hole (16MYC0056)
    - including 4.0m at 4.01 g/t gold and 0.32% copper from 216.0m down-hole

## **Minyari Dome - Exploration Potential**

### Minyari Deposit Extensional Exploration and Resource Potential

The Company's 2016 drill results confirm the continuity of significant zones of gold-copper mineralisation extending beneath the near surface high-grade mineralisation, highlighting a significant Minyari deposit resource opportunity. In the western domain of the Minyari deposit there are only 9 drill holes testing the entire region deeper than 170m below the surface along the entire +300m strike length of the deposit; 6 of these drill holes generated highly significant gold mineralisation intercepts (e.g. Figure 1). Additionally, there remains the potential for further high-grade "reef style" gold mineralisation to be located beneath the eastern mineralisation domain.

### WACA Deposit Extensional Exploration and Resource Potential

There are only 10 drill holes testing the entire region deeper than 90m below the surface along the entire +550m strike length of the WACA deposit (Figure 4); 7 of these drill holes generated highly significant gold mineralisation intercepts. The delineation of potential high to very high grade WACA ore shoots, e.g. 4 to 60 g/t gold (refer to Figures 3 and 4), could potentially lead to the delineation of a high-grade gold WACA resource.

### Minyari Dome

In addition to the existing Minyari and WACA deposits, limited Phase 2 drilling (i.e. just 3 isolated RC drill holes) at the Judes prospect area, approximately 2km north of the Minyari deposit, resulted in significant silver anomalism; e.g. 72m @ 1.16 g/t silver from 212.0m down-hole in 16MYC0062 (Figure 8). Elevated silver values in the other 2 Judes drill holes, 16MYC0060 and 16MY0061, were also encountered. The silver levels in 16MYC0062 are similar to those encountered within or proximal (i.e. within 100 to 200m) of the Minyari and WACA deposits.

In addition, interpretation of the results of the 33 line-kilometre Minyari Dome Induced Polarisation (**IP**) survey is ongoing, however a number of anomalies and targets have already been identified within the Minyari Dome area which require drill testing.

#### **Citadel Project - 2016 Phase 2 Exploration Programme**

All outstanding assay results have now been received for the 2016 Citadel Phase 2 drilling programme with no material additional mineralised zones encountered. The Phase 2 programme consisted of 34 RC Drill holes completed for 5,215m and 1 Diamond Drill hole for 661.0m (refer to Table 4 for drill hole details). This drilling tested a number of greenfield exploration targets and, importantly, successfully identified a 4.8km long copper mineralised trend at Rimfire, situated 25km west of the Company's Calibre and Magnum gold-copper-silver±tungsten deposits, which provides a number of follow up targets for investigation in the upcoming year.

As previously reported, testing of several targets within the 20km long corridor of Induced Polarisation (IP) anomalies, incorporating the Calibre, Magnum and Corker deposits, did not discover any material mineralisation but neither did it appear to provide any satisfactory alternative explanation for the IP chargeability anomalies. Additionally, recent 3D isosurface modelling of both the Blue Steel and Meekus IP data suggests that these anomalies may be deeper than initially thought and that, on this basis, the Phase 2 drilling would not have been of sufficient depth to effectively test the IP anomalies. Given the successful 'proof of concept' survey for the IP exploration technique, whereby IP identified the Calibre, Magnum and Corker mineralisation, and the lack of false positives or 'red herrings' which would otherwise satisfactorily explain the anomalies, Antipa considers there are grounds to believe that further exploration within this very large anomalous trend may lead to further discoveries.

As previously reported, Rio Tinto Exploration Pty Limited (a wholly owned subsidiary of Rio Tinto Limited) now has until April to determine whether to proceed with its Farm-in to the Citadel Project area.

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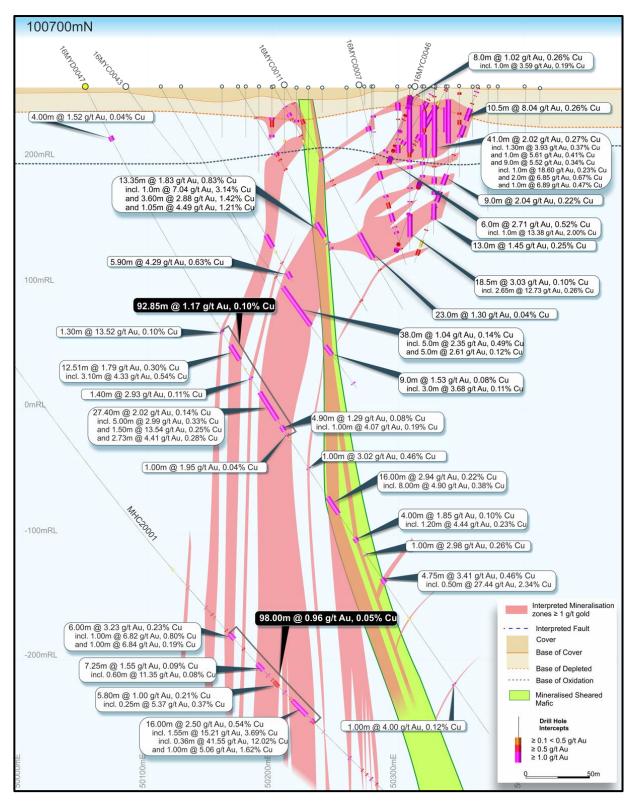


Figure 1: Minyari Deposit 100700 North interpreted (schematic) cross-section (looking north) showing drill holes, including 2016 Phase 2 drill hole 16MYD0047, with gold grade bars and interpreted gold-copper mineralisation domains (100m elevation grid).

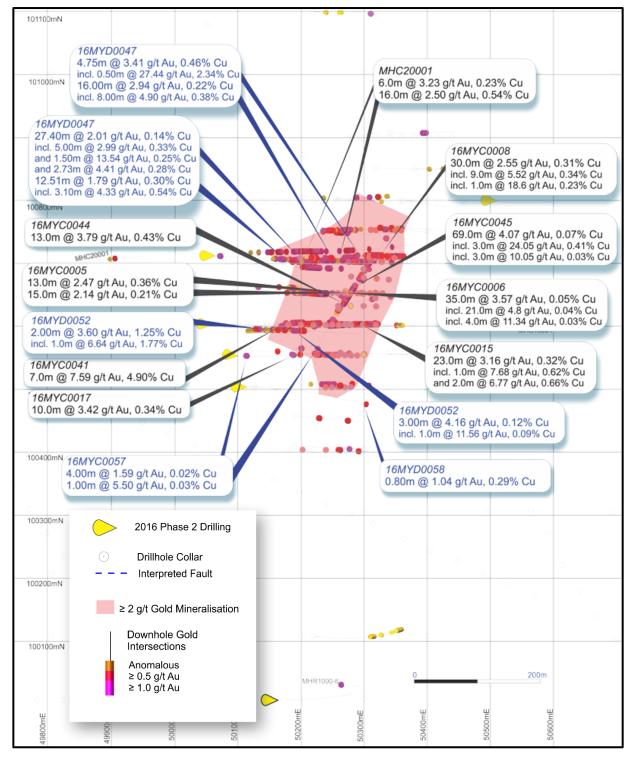


Figure 2: Minyari Deposit plan view showing drill hole locations and plan projection of approximate boundary of ≥ 2.0 g/t gold mineralisation with selected 2016 drill hole intercepts. Note: Labelled 2016 Phase 2 drill hole intercepts in blue.

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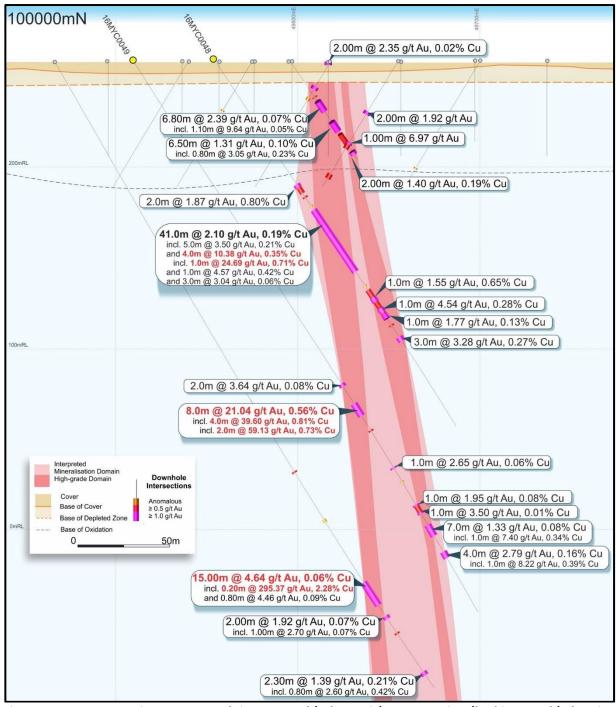
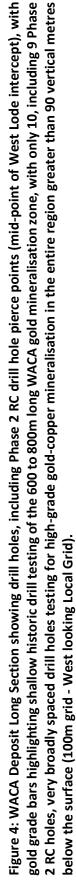
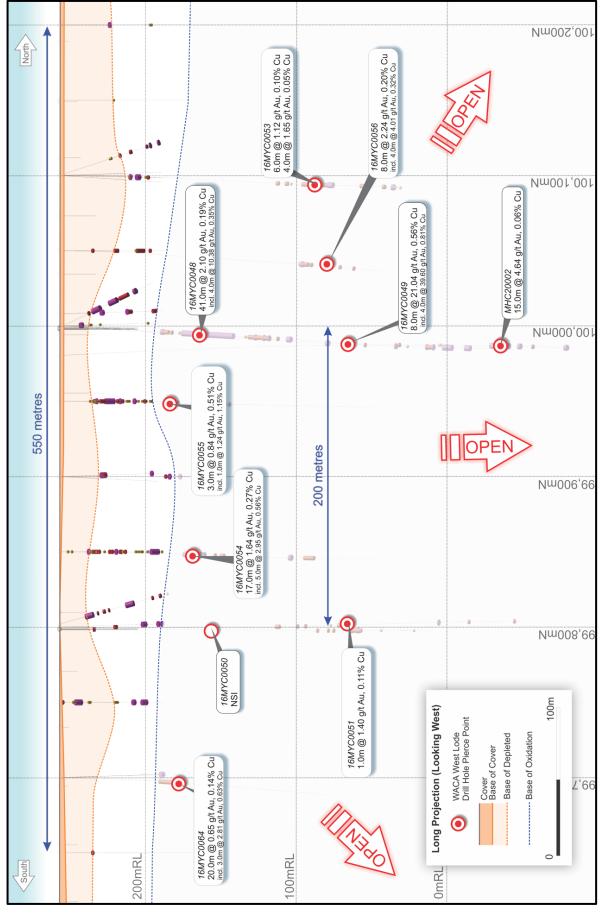


Figure 3: WACA Deposit 100000 North interpreted (schematic) cross-section (looking north) showing drill holes, including 2016 Phase 2 RC drill holes, with gold grade bars and interpreted gold-copper mineralisation domains (100m elevation grid).





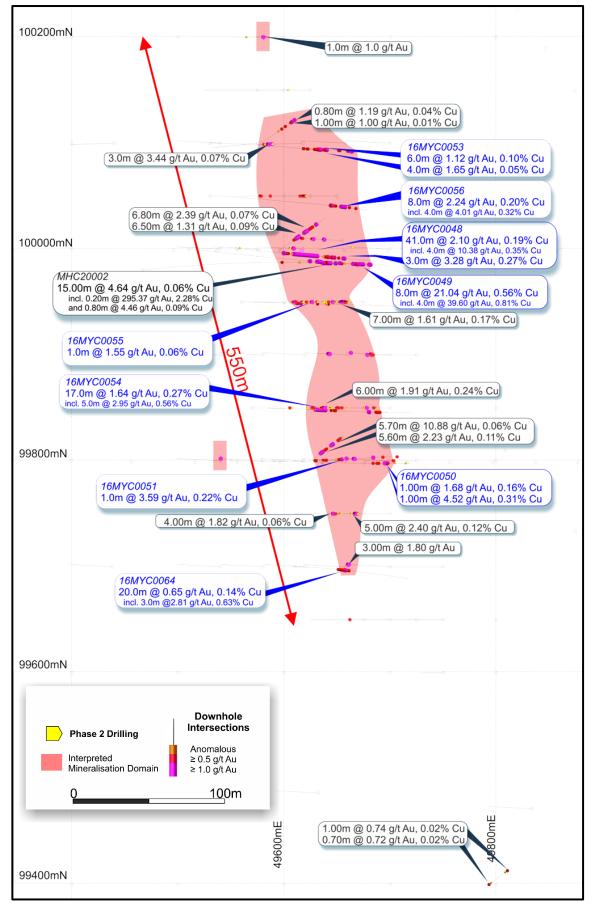


Figure 5: WACA Deposit plan view showing drill hole locations and generalized plan projection of approximate boundary encapsulating 1.0 g/t gold mineralisation. Note: Labelled 2016 Phase 2 RC drill hole intercepts in blue.

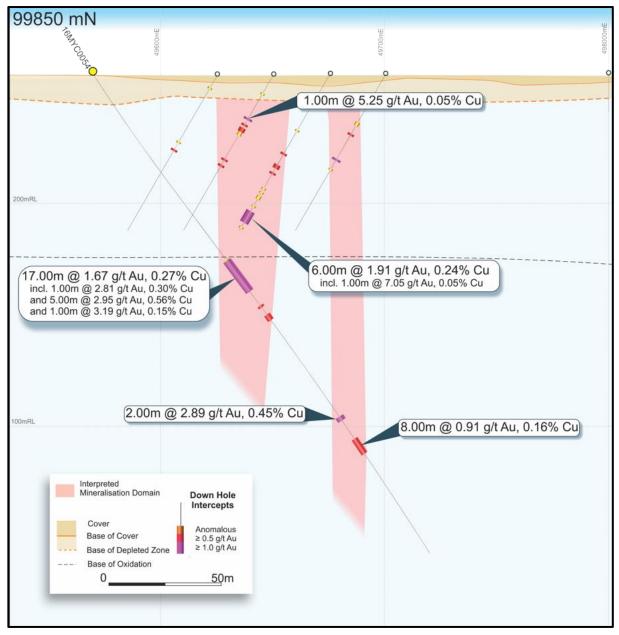


Figure 6: WACA Deposit 99850 North interpreted (schematic) cross-section (looking north) showing drill holes, including 2016 Phase 2 RC drill hole, with gold grade bars and interpreted gold-copper mineralisation domains (100m elevation grid).

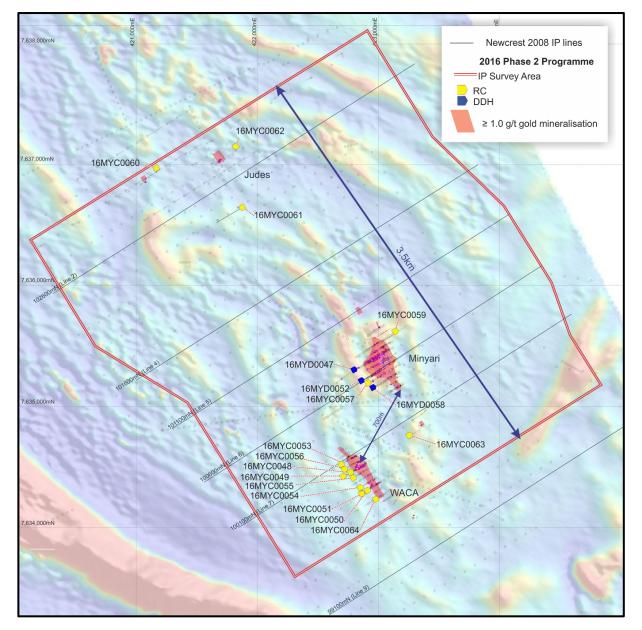


Figure 7: Minyari Dome plan view showing drill hole distribution and location of six 2008 Newcrest IP survey lines, 2016 Phase 2 Exploration Programme IP survey area (11 lines for 33 line-kilometres) and Phase 2 drill hole locations.

NB: Over Airborne magnetic image (50m flight-line spacing at an altitude of 30m; Pseudo-colour First Vertical Derivative) and Regional GDA94 / MGA Zone 51 co-ordinates, 1km grid.

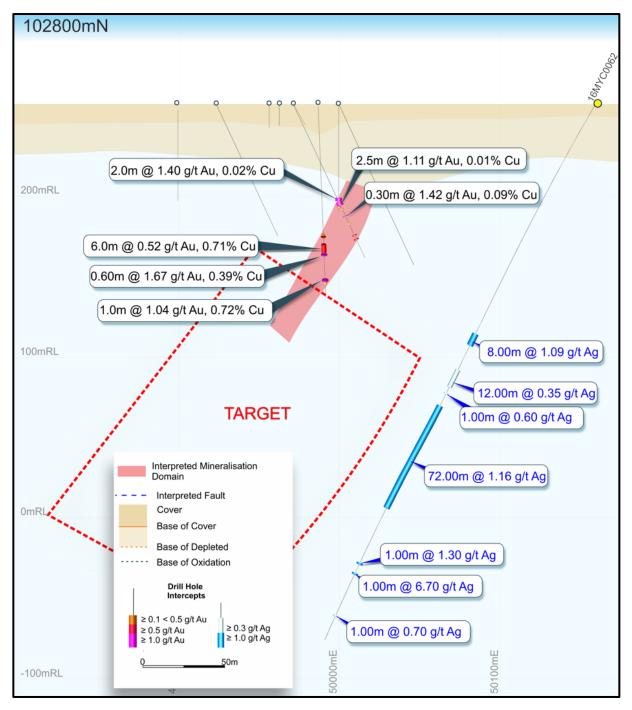


Figure 8: Judes East area 102800 North interpreted (schematic) cross-section (looking north) showing drill holes, including 2016 Phase 2 RC drill hole, with gold grade bars and interpreted gold-copper mineralisation domain, extensive "path-finder" silver intercepts and target area (100m elevation grid).

#### For further information, please visit <u>www.antipaminerals.com.au</u> or contact:

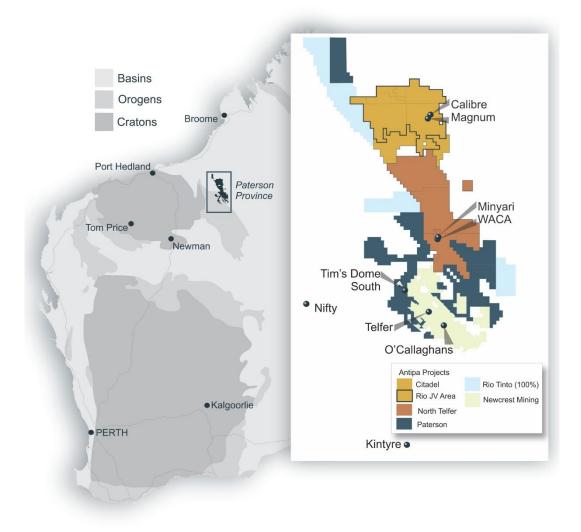
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#### **About Antipa Minerals:**

Antipa Minerals Ltd is an Australian public company which was formed with the objective of identifying under-explored mineral projects in mineral provinces which have the potential to host world class mineral deposits, thereby offering high leverage exploration potential. The Company owns a 1,335km<sup>2</sup> package of prospective granted tenements in the Proterozoic Paterson Province of Western Australia known as the Citadel Project. The Citadel Project is located approximately 75km north of Newcrest's Telfer gold-copper-silver mine and includes the gold-copper-silver±tungsten Mineral Resources at the Calibre and Magnum deposits and high-grade polymetallic Corker deposit. Under the terms of a Farm-in and Joint Venture Agreement with Rio Tinto Exploration Pty Limited ("Rio Tinto"), a wholly owned subsidiary of Rio Tinto Limited, Rio Tinto can fund up to \$60 million of exploration expenditure to earn up to a 75% interest in Antipa's Citadel Project.

The Company has an additional 1,310km<sup>2</sup> of granted exploration licences, known as the North Telfer Project which hosts the high-grade gold-copper Minyari and WACA deposits and extends its ground holding in the Paterson Province to within 20km of the Telfer Gold-Copper-Silver Mine and 30km of the O'Callaghans tungsten and base metal deposit. The Company has also acquired, from the Mark Creasy controlled company Kitchener Resources Pty Ltd, additional exploration licences in the Paterson Province which are now all granted and cover 1,573km<sup>2</sup> and the Company owns a further 138km<sup>2</sup> of exploration licences (including both granted tenements and applications), which combined are known as the Paterson Project, which comes to within 3km of the Telfer mine and 5km of the O'Callaghans deposit.



#### **Competent Persons Statement:**

The information in this report 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'. Mr Mason consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Various information in this report which relates to Exploration Results other than in relation to the details of the North Telfer Project 2016 Exploration Programme Phase 1 and Phase 2 information reported here is extracted from the following:

- Report entitled "North Telfer Project Update on Former NCM Mining Leases" created on 3 December 2015;
- Report entitled "High Grade Gold Mineralisation at Minyari Dome" created on 8 February 2016;
- Report entitled "Minyari Deposit Drilling to Commence May 2016" created on 2 May 2016;
- Report entitled "Minyari Phase 1 Drilling Commences" created on 2 June 2016;
- Report entitled "Further Historical High Grade Gold Intersections at Minyari" created on 14 June 2016;
- Report entitled "Minyari Reprocessed IP Survey Results" created on 5 July 2016;
- Report entitled "Minyari Phase 1 Drilling Update No. 1" created on 20 July 2016;
- Report entitled "Completion of Phase 1 Minyari Deposit RC Drilling Programme" created on 9 August 2016;
- Report entitled "Minyari Drilling Update No. 3" created on 17 August 2016;
- Report entitled "Minyari Drilling Update No. 4" created on 29 September 2016;
- Report entitled "Minyari Dome Phase 2 Exploration Programme Commences" created on 31 October 2016;
- Report entitled "North Telfer and Citadel Exploration Programme Update" created on 16 November 2016; and
- Report entitled "Minyari Dome Drilling Update No. 1" created on 16 December 2016.

Various information in this report which relates to Exploration Results other than in relation to the details of the Citadel Project 2016 Exploration Programme Phase 2 information reported here is extracted from the following:

- Report entitled "Citadel Project IP Survey Identifies Multiple Chargeability Anomalies along 20km Calibre Trend" created on 24 June 2016;
- Report entitled "Citadel Project 2016 RC Drilling Programme" created on 10 October 2016;
- Report entitled "Citadel Project RC Drilling Programme Commences" created on 28 October 2016;
- Report entitled "North Telfer and Citadel Exploration Programme Update" created on 16 November 2016; and
- Report entitled "Citadel JV Drilling Programme Update No. 2" created on 16 January 2017.

All of which are available to view on <u>www.antipaminerals.com.au</u> and <u>www.asx.com.au</u>. 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.

#### 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.

Hole ID	Deposit / Target Area	Cross Section (Local Grid North)	Northing (m)	Easting (m)	RL (m)	Hole Depth (m)	Azimuth (°)	Dip (°)	Assay Status
<b>Reverse Circulati</b>	on (RC) Drill ho	les							
16MYC0048	WACA	100,000	7,634,454	422,765	257	240.0	58.2	-57	Received
16MYC0049	WACA	100,000	7,634,430	422,726	257	357.0	58.5	-57	Received
16MYC0050	WACA	99,800	7,634,302	422,900	257	279.0	58.2	-60	Received
16MYC0051	WACA	99,800	7,634,281	422,866	257	345.0	58.2	-60	Received
16MYC0053	WACA	100,100	7,634,525	422,891	257	267.0	58.2	-60	Received
16MYC0054	WACA	99,850	7,634,334	422,857	257	261.0	58.2	-57	Received
16MYC0055	WACA	99,950	7,634,414	422,795	257	255.0	58.2	-57	Received
16MYC0056	WACA	100,050	7,634,482	422,717	257	261.0	58.2	-57	Received
16MYC0057	Minyari	100,550	7,635,201	422,926	257	279.0	58.2	-65	Received
16MYC0059	Minyari North	100,796	7,635,628	423,147	257	261.0	58.2	-60	Received
16MYC0060	Judes	102,990	7,635,628	423,147	257	375.0	238.2	-55	Received
16MYC0061	Judes	102,380	7,636,970	421,140	257	321.0	238.2	-65	Received
16MYC0062	Judes	102,800	7,637,150	421,802	257	375.0	238.0	-60	Received
16MYC0063	Minyari South	100,000	7,634,768	423,270	257	375.0	58.0	-65	Received
16MYC0064	WACA	99,700	7,634,228	422,970	257	207.0	58.0	-60	Received
Diamond Drill holes									
16MYD0047	Minyari	100,710	7,635,318	422,811	257	609.7	58.2	-63	Received
16MYD0052	Minyari	100,600	7,635,221	422,865	257	504.7	60.0	-64	Received
16MYD0058	Minyari	100,500	7,635,171	422,972	257	446.5	60.0	-62	Received

Table 1: Minyari Dome – 2016 Phase 2 Drill hole Collar Locations (MGA Zone 51/GDA 94)

#### Table 2: Latest 2016 Phase 2 High-grade Gold-Copper Drill Intercepts

≥ 5 gold grams-metres downhole intersections (i.e. "gmm" = grams per tonne gold x length of intercept in metres)

Hole ID	Deposit	From (m)	To (m)	Interval (m)	Gold (g/t)	Copper (%)
16MYC0057	MINYARI	60.00	64.00	4.00	1.59	0.02
16MYC0057	MINYARI	266.00	267.00	1.00	5.50	0.03
16MYD0047	MINYARI	44.00	48.00	4.00	1.52	0.04
16MYD0047	MINYARI	223.55	316.40	92.85	1.17	0.10
Bulk Intercept						
16MYD0047	MINYARI	223.55	224.85	1.30	13.52	0.10
16MYD0047	MINYARI	236.90	249.41	12.51	1.79	0.30
including	MINYARI	236.90	240.00	3.10	4.33	0.54
16MYD0047	MINYARI	281.00	307.40	27.04	2.01	0.14
including	MINYARI	281.00	286.00	5.00	2.99	0.33
including	MINYARI	292.50	294.00	1.50	13.54	0.25
including	MINYARI	304.90	307.63	2.73	4.41	0.28
16MYD0047	MINYARI	313.10	318.00	4.90	1.29	0.08
16MYD0047	MINYARI	381.00	397.00	16.00	2.94	0.22
including	MINYARI	381.00	389.00	8.00	4.90	0.38
16MYD0047	MINYARI	420.00	424.00	4.00	1.85	0.10
including	MINYARI	421.10	422.30	1.20	4.44	0.23
16MYD0047	MINYARI	459.00	463.75	4.75	3.41	0.46
including	MINYARI	459.00	459.50	0.50	27.44	2.34
16MYD0052	MINYARI	188.00	190.00	2.00	3.60	1.25
including	MINYARI	188.00	189.00	1.00	6.64	1.77
16MYD0052	MINYARI	307.00	310.00	3.00	4.16	0.12
including	MINYARI	307.00	308.00	1.00	11.56	0.09
Newcrest Hole	2012	Bulk Intercept				
MHC20001	MINYARI	540.00	637.00	98.00	0.96	0.05
including	MINYARI	540.00	546.00	6.00	3.23	0.23
including	MINYARI	614.0	630.00	16.00	2.50	0.54
16MYC0053	WACA	189.00	213.00	24.00	0.72	0.06
including	WACA	196.00	202.00	6.00	1.12	0.10
including	WACA	209.00	213.00	4.00	1.65	0.05
16MYC0053	WACA	258.00	260.00	2.00	4.26	0.30
16MYC0054	WACA	102.00	119.00	17.00	1.64	0.27
including	WACA	110.00	115.00	5.00	2.95	0.56
16MYC0054	WACA	188.00	190.00	2.00	2.89	0.45
16MYC0054	WACA	200.00	208.00	8.00	0.91	0.16

Hole ID	Deposit	From (m)	To (m)	Interval (m)	Gold (g/t)	Copper (%)
16MYC0056	WACA	196.00	203.00	7.00	0.78	0.12
16MYC0056	WACA	214.00	222.00	8.00	2.24	0.20
including	WACA	216.00	220.00	4.00	4.01	0.32
16MYC0064	WACA	78.00	98.00	20.00	0.65	0.14
including	WACA	89.00	92.00	3.00	2.81	0.63
16MYD0063	Minyari South	56.00	59.00	3.00	1.83	0.06

Notes (Intersection Table above):

- Intersection true widths are estimated to typically be approximately 60 to 70% of the downhole intersection interval.
- No top-cutting has been applied to assay results for gold and/or copper;
  - \* Unless specified otherwise where a 30 g/t gold top-cut has been applied.
- MHC20001 is a 2012 Newcrest Mining diamond drill hole (included as relevant to Phase 2 outcomes).

#### Table 3: Latest 2016 Phase 2 All Significant Gold-Copper Drill Intercepts

Hole ID	Deposit	From (m)	To (m)	Interval (m)	Gold (g/t)	Copper (%
16MYC0057	MINYARI	60.00	64.00	4.00	1.59	0.02
16MYC0057	MINYARI	266.00	267.00	1.00	5.50	0.03
L6MYD0047	MINYARI	44.00	48.00	4.00	1.52	0.04
6MYD0047	MINYARI	223.55	316.40	92.85	1.17	0.10
Bulk intercept with	n several discrete, cont	nuous high-grade zones i	ncluding:			
16MYD0047	MINYARI	223.55	224.85	1.30	13.52	0.10
16MYD0047	MINYARI	236.90	249.41	12.51	1.79	0.30
including	MINYARI	236.90	240.00	3.10	4.33	0.54
16MYD0047	MINYARI	267.15	268.55	1.40	2.93	0.11
16MYD0047	MINYARI	281.00	307.40	27.40	2.01	0.14
including	MINYARI	281.00	286.00	5.00	2.99	0.33
and	MINYARI	292.50	294.00	1.50	13.54	0.25
and	MINYARI	304.90	307.63	2.73	4.41	0.28
16MYD0047	MINYARI	313.10	318.00	4.90	1.29	0.08
including	MINYARI	315.00	316.00	1.00	4.07	0.19
16MYD0047	MINYARI	321.00	322.00	1.00	1.95	0.04
16MYD0047	MINYARI	353.00	354.00	1.00	3.02	0.46
16MYD0047	MINYARI	381.00	397.00	16.00	2.94	0.40
including	MINYARI	381.00	389.00	8.00	4.90	0.38
16MYD0047	MINYARI	420.00	424.00	4.00	1.85	0.10
including	MINYARI	421.10	422.30	1.20	4.44	0.10
16MYD0047	MINYARI	436.00	437.00	1.00	2.98	0.25
16MYD0047	MINYARI	459.00	463.75	4.75	3.41	0.20
including	MINYARI	459.00	403.73	0.50	27.44	2.34
16MYD0047		561.00	562.00	1.00	4.00	0.12
16MYD0052	MINYARI MINYARI	188.00	190.00	2.00	3.60	1.25
including	MINYARI					
-		188.00	189.00	1.00	6.64	1.77
16MYD0052	MINYARI	196.20	198.45	2.25	1.05	0.62
16MYD0052	MINYARI	258.00	260.30	2.30	0.62	0.23
16MYD0052	MINYARI	279.50	282.62	3.12	0.97	0.24
16MYD0052	MINYARI	307.00	310.00	3.00	4.16	0.12
including	MINYARI	307.00	308.00	1.00	11.56	0.09
16MYD0052	MINYARI	317.00	318.00	1.00	2.45	0.14
16MYD0052	MINYARI	341.10	343.20	2.10	0.50	0.11
16MYC0051	WACA	164.00	167.00	3.00	0.52	0.05
16MYC0051	WACA			2.00		0.03
16MYC0051	WACA	211.00 217.00	213.00 218.00	1.00	0.77 1.40	0.08
16MYC0051	WACA	285.00	218.00	1.00	3.59	0.11
16MYC0053	WACA	169.00	171.00	2.00	0.52	0.22
			171.00	2.00	0.52	0.19
16MYC0053	WACA	176.00				
16MYC0053 ncluding	WACA	189.00	213.00	24.00	0.72	0.06
-	WACA	196.00	202.00	6.00	1.12	0.10
and	WACA	209.00	213.00	4.00	1.65	0.05
16MYC0053	WACA	234.00	237.00	3.00	0.92	0.02
16MYC0053	WACA	251.00	253.00	2.00	0.53	0.01
16MYC0053	WACA	258.00	260.00	2.00	4.26	0.30
16MYC0054	WACA	102.00	119.00	17.00	1.64	0.27
including	WACA	105.00	106.00	1.00	2.81	0.30
and	WACA	110.00	115.00	5.00	2.95	0.56

and	WACA	118.00	119.00	1.00	3.19	0.15
16MYC0054	WACA	132.00	135.00	3.00	0.57	0.09
16MYC0054	WACA	188.00	190.00	2.00	2.89	0.45
16MYC0054	WACA	200.00	208.00	8.00	0.91	0.16
16MYC0055	WACA	89.00	92.00	3.00	0.84	0.51
16MYC0055	WACA	96.00	97.00	1.00	1.55	0.06
16MYC0056	WACA	196.00	203.00	7.00	0.78	0.12
including	WACA	197.00	199.00	2.00	1.41	0.29
16MYC0056	WACA	214.00	222.00	8.00	2.24	0.20
including	WACA	216.00	220.00	4.00	4.01	0.32
16MYC0064	WACA	78.00	98.00	20.00	0.65	0.14
including	WACA	89.00	92.00	3.00	2.81	0.63
16MYD0063	Minyari South	56.00	59.00	3.00	1.83	0.06
16MYD0060	Judes Area	211.00	212.00	1.00	2.06	0.04
16MYD0060	Judes Area	265.00	275.00	10.00	1.28 Silver	
16MYD0061	Judes Area	274.00	275.00	1.00	7.06 Silver	
16MYD0062	Judes Area	162.00	170.00	8.00	1.09 Silver	
16MYD0062	Judes Area	212.00	284.00	72.00	1.16 Silver	
including	Judes Area	238.00	262.00	24.00	1.74 Silver	
				0.00	2.00 ett	
including	Judes Area	272.00	280.00	8.00	2.00 Silver	

**Notes (Intersection Table above):** Table 2 Intersections are composited from individual assays using the following criteria:

Intersection Interval = Nominal cut-off grade scenarios:

- $\geq 0.5$  g/t gold which also satisfy a minimum down-hole intersection of  $\geq 1$  gmm; or
- $\geq$  1.0% copper which also satisfy a minimum down-hole interval of 1.0m.
- $\geq$  1.0 g/t silver which also satisfy a minimum down-hole intersection of  $\geq$  5 gmm; or
- NB: In some instances zones grading less than the cut-off grade/s have been included in calculating composites or to highlight mineralisation trends.
- No top-cutting has been applied to assay results for gold and/or copper,
  - \* Unless specified otherwise where a 30 g/t gold top-cut has been applied.
- Intersection true widths are estimated to typically be approximately 60 to 70% of the downhole intersection interval.

Hole ID	Target	Northing (m)	Easting (m)	RL (m)	Hole Depth (m)	Azim uth (°)	Dip (°)	Assay Status
Reverse-Circulat	ion (RC) Drill ho	les						
16ACC0051	Blue Steel	7,699,954	417,965	265	171.0	225	-60	Received
16ACC0052	Blue Steel	7,700,100	418,105	265	291.0	225	-60	Received
16ACC0053	Blue Steel	7,700,240	418,250	265	99.0	225	-60	Received
16ACC0054	Blue Steel	7,699,710	418,170	265	248.0	225	-60	Received
16ACC0055	Blue Steel	7,699,435	418,270	265	195.0	225	-60	Received
16ACC0056	Meekus	7,710,478	412,692	265	183.0	300	-60	Received
16ACC0057	Meekus	7,710,387	412,871	265	284.0	300	-60	Received
16ACC0058	Meekus	7,710,806	412,571	265	249.0	300	-60	Received
16ACC0059	Rimfire	7,696,997	396,365	265	99.0	0	-90	Received
16ACC0060	Rimfire	7,697,539	396,499	265	99.0	0	-90	Received
16ACC0061	Rimfire	7,697,700	396,091	265	123.0	0	-90	Received
16ACC0062	Rimfire	7,698,125	395,011	265	99.0	0	-90	Received
16ACC0063	Rimfire	7,698,842	394,779	265	99.0	0	-90	Received
16ACC0064	Rimfire	7,698,329	396,081	265	99.0	0	-90	Received
16ACC0065	Rimfire	7,698,108	396,639	265	99.0	0	-90	Received
16ACC0066	Rimfire	7,695,423	396,364	265	99.0	0	-90	Received
16ACC0067	Rimfire	7,698,663	392,504	265	99.0	0	-90	Received
16ACC0068	Rimfire	7,700,325	392,915	265	39.0	0	-90	Received
16ACC0069	Rimfire	7,700,325	392,915	265	99.0	0	-90	Received
16ACC0070	Rimfire	7,699,798	394,002	265	99.0	0	-90	Received
16ACC0071	Rimfire	7,699,503	394,714	265	99.0	0	-90	Received
16ACC0072	Rimfire	7,699,102	395,731	265	99.0	0	-90	Received
16ACC0073	Rimfire	7,698,925	396,224	265	99.0	0	-90	Received
16ACC0074	Katinka	7,703,465	387,202	265	99.0	0	-90	Received
16ACC0076	Corker	7,704,500	413,900	265	117.0	315	-60	Received
16ACC0077	Meekus	7,710,109	412,774	265	348.0	0	-90	Received
16ACC0078	Meekus	7,710,569	412,514	265	357.0	0	-90	Received
16ACC0079	Le Tigre	7,693,694	420,636	265	297.0	0	-90	Received
16ACC0080	Rufus	7,695,531	416,206	265	159.0	0	-90	Received
16ACC0081	Babushka	7,711,196	402,650	265	159.0	0	-90	Received
16ACC0082	Babushka	7,712,202	401,178	265	75.0	0	-90	Received
16ACC0083	Hansel	7,704,386	392,792	265	129.0	0	-90	Received
16ACC0084	Ballstein	7,707,432	392,527	265	153.0	0	-90	Received
16ACC0085	Ballstein	7,707,098	392,737	265	153.0	0	-90	Received
Diamond Drill ho	ole							
16ACD0075	Blue Steel	7,700,416	418,082	265	661.0	225	-65	Received

# Table 4: Citadel Project – 2016 Phase 2 Drill hole Collar Locations (MGA Zone 51/GDA 94)

## MINYARI DOME AREA

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

Criteria JORC Code explanation	Commentary
<ul> <li>Sampling techniques</li> <li>Nature and quality of sampling (e.g. cut channels, ran chips, or specific specialised industry standard measu tools appropriate to the minerals under investigation, down hole gamma sondes, or handheld XFF instrume- These examples should not be taken as limiting the br meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that at Material to the Public Report.</li> <li>In cases where 'industry standard' work has been don would be relatively simple (e.g. 'reverse circulation dr was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In cases more explanation may be required, such as whet is coarse gold that has inherent sampling problems. U commodities or mineralisation types (e.g. submarine to may warrant disclosure of detailed information.</li> </ul>	Imment functionMinyari Deposit:InterpretMinyari deposit has been sampled by 48 (including a Phase 1 drill hole abandoned at 12m i.e. 16MYC0023A and 1 Phase 2 drill hole) Reverse Circulation (RC) drill holes, totaling 8,310m, with an average maximum drill hole depth of 173m, and 3 (Phase 2) diamond drill holes totaling 1,561m (including RC pre-collars), with average maximum drill hole depth of 520m.Assays received for all 48 RC drill holes and all 3 diamond drill holes.The nominal drill hole spacing is across a number of east-west sections spaced 50m apart with an average drill hole spacing on each section of 50m.This ingWACA Deposit: • WACA deposit has been sampled by 9 (Phase 2) RC drill holes, totaling 2,466m, with an average maximum drill hole depth of 274m.• Assays received for all 9 (Phase 2) RC drill holes.• The nominal RC drill bole spacing is across six east-west sections spaced 50 to 100m apart with an average

Criteria	JORC Code explanation	Commentary
		<ul> <li>Diamond Drill Core Sampling:</li> <li>Sampling was carried out under Antipa protocols and QAQC procedures as per industry best practice.</li> <li>Diamond core was drilled with HQ and NQ2 size and sampled on intervals from 0.1 to 2.0m selected on the basis of geological boundaries.</li> <li>If the sample interval is less than 1.5m in length half the core was submitted for assay. If the sample interval is greater than 1.5m in length then quarter of the core is submitted for assay.</li> <li>Core samples were sent to MinAnalytical Laboratory Services Australia Pty Ltd in Perth, where they were dried, crushed, pulverised and split to produce material for assay.</li> </ul>
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).	<ul> <li>2016 Phase 2 Reverse Circulation Drilling <ul> <li>A total of 15 RC drill holes (excluding RC pre-collars for 3 diamond drillholes) were drilled totaling 4,457m with average maximum drill hole depth of 297m.</li> <li>All drill holes were completed using 140mm RC face sampling hammer drill bit from surface to total drill hole depths of between 2m to 375m.</li> <li>Drill holes were predominantly angled towards local grid east (058° Magnetic), with some drill holes directed to grid west (238° Magnetic) and some vertical drill holes, all 47 drill holes at an inclination angle of between -55° to -90° to "optimally" intersect the mineralisation or IP targets regions.</li> </ul> </li> </ul>
		<ul> <li>2016 Phase 2 Diamond Drilling <ul> <li>A total of 3 diamond drill holes were drilled at the Minyari deposit during the Phase 2 drilling programme totaling 1,561m (including RC pre-collars), with average maximum drill hole depth of 520m.</li> <li>Diamond drill holes were completed using HQ and NQ2 sized core. RC pre-collar depths range from 63 to 123m and maximum drill hole depths range from 446 to 610m.</li> <li>The core is oriented using a Reflex ACT electronic orientation tool.</li> <li>All 3 diamond drill holes were angled towards local grid east (058° Magnetic) and all drill holes were at an inclination angle of between -58° to -60° at the collar to optimally intersect the mineralisation.</li> </ul> </li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>RC Drill Samples <ul> <li>RC sample recovery was recorded via visual estimation of sample volume.</li> <li>RC sample recovery typically ranges from 90 to 100%, with only very occasional samples with less than 70% recovery.</li> <li>RC sample recovery was maximized by endeavoring to maintain a dry drilling conditions as much as practicable; the RC samples were almost exclusively dry.</li> <li>All samples were split on a 1m interval using a rig-mounted cone splitter. Adjustments were made to ensure representative 2 to 3kg sample volumes were collected.</li> <li>Relationships between recovery and grade are not evident and are not expected given the generally excellent and consistently high sample recovery.</li> <li>RC sample recovery and sample quality was recorded via visual estimation of sample volume and condition of the drill spoils.</li> <li>RC results are generated for the purpose of exploration and potentially for Mineral Resource</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		estimations.
		<ul> <li>Diamond Drill Core Samples</li> <li>Core recovery is routinely recorded as a percentage. Overall core recoveries averaged over 99.5% and there are no core loss issues or significant sample recovery problems except for occasional very localised/limited regions.</li> <li>Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</li> <li>Drillers used appropriate measures to maximise diamond sample recovery.</li> <li>Whilst no assays are currently available for these 3 diamond drill holes it is unlikely that any detailed analysis to determine the relationship between sample recovery and/or and grade will be warranted as the mineralisation is defined by diamond core drilling which has high recoveries.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>RC Drill Logging <ul> <li>All RC and diamond material is logged.</li> <li>Logging includes both qualitative and quantitative components.</li> <li>All logging is entered directly into a notebook computer using the Antipa Proprietary Logging System which is based on Microsoft Excel. The logging system uses standard look up tables that does not allow invalid logging codes to be entered. Further data validation is carried out during upload to Antipa's master Access SQL database.</li> <li>Geological logging of 100% of all RC sample intervals was carried out recording colour, weathering, lithology, mineralogy, alteration, veining and sulphides.</li> <li>Selected RC sample intervals were measured for magnetic susceptibility using a handheld Magnetic Susceptibility meter.</li> <li>RC samples are generally analyzed in the field using a Portable XRF Device (Niton) for the purposes of geochemical and lithological interpretation and the selection of sampling intervals.</li> <li>Downhole "logging" of a selection of 2016 Phase 1 RC drillholes (i.e. 33 drill holes totaling 2,341m) was undertaken as part of the Phase 1 programme using an OBI40 Optical Televiewer which generated an oriented 360 degree image of the drill hole wall via a CCD camera recorded digital image. The OBI40 system utilised also included a North Seeking Gyro-scope to measure drill hole location/deviation, and the downhole survey also measured rock density, magnetic susceptibility, natural gamma and included a borehole caliper device for measuring drill hole diameter. The combined dataset collected via the OBI40 Optical Televiewer downhole survey has multiple geological and geotechnical uses, including but not limited to the detection and determination of insitu lithological, structural and mineralisation feature orientations (i.e. dip and strike), determination and orientation of fracture frequency, general ground conditions/stability, oxidation conditions, ground-water table and clarity, etc.</li> </ul></li></ul>

Criteria	JORC Code explanation	Commentary
Sub-sampling		<ul> <li>Diamond Drill Core Logging <ul> <li>Logging includes both qualitative and quantitative components.</li> <li>All logging is entered directly into a notebook computers using the Antipa Proprietary Logging System which is based on Microsoft Excel. The logging system uses standard look up tables that does not allow invalid logging codes to be entered. Further data validation is carried out during upload to Antipa's master Access SQL database.</li> <li>Geological logging of 100% of all drill core was carried out recording colour, weathering, lithology, mineralogy, alteration, veining, sulphides and structure.</li> <li>Geotechnical logging of all core was carried out for Recovery, RQD and Fracture Frequency.</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material is stored in the Company's technical database.</li> <li>All drill holes were logged in full including the RC pre-collar component of the diamond drillholes.</li> <li>Snowden considers that the Company's logging is carried out in sufficient detail to meet the requirements of the reporting of exploration results and resource estimation and mining studies.</li> <li>Core was photographed both wet and dry.</li> </ul> </li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC Samples</li> <li>RC samples for all drill holes were drilled using a 140mm diameter face sampling hammer and split on intervals of 1.0m using a rig mounted cone splitter from which a 3 kg (average) sample which was pulverised at the laboratory pulverised to produce material for assay.</li> <li>Compositing of unmineralised regions (guided by Portable XRF / Niton field analysis) of between 2 to 4m was undertaken via combining "Spear" samples of the unmineralised sample intervals to generate a 3 kg (average) sample which was pulverised at the laboratory to produce material for assay.</li> <li>Field duplicate samples were collected for all RC drill holes.</li> <li>Diamond Drilling Core Samples</li> <li>Diamond core was drilled with HQ and NQ2 size and sampled on intervals from 0.1 to 2.0m selected on the basis of geological boundaries.</li> <li>Diamond core is sampled on a nominal 2.0m sample interval within unmineralised zones and on 0.1 to 1.0m intervals within the mineralised zones.</li> <li>Sample intervals are adjusted so that samples do not cross lithological boundaries and samples are collected from the same side of the core.</li> <li>Samples are collected from half-core (if &lt;1.5m) and quarter-core (if &gt;1.5m) using a diamond saw located at the Company's field facility.</li> <li>Samples are selected to weigh less than 3kg to ensure total preparation at the pulverisation stage.</li> <li>RC and diamond core sample preparation</li> <li>Sample preparation of RC and half or quarter diamond drilling core samples 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</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>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.</li> <li>The sample sizes are considered to be appropriate to correctly represent the sulphide style of mineralisation at Minyari, the thickness and consistency of the intersections and the sampling methodology.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>The sample preparation technique for RC and diamond drill core samples is documented by Antipa Mineral Ltd's standard procedures documents and is in line with industry standards in sample preparation.</li> <li>The sample sizes are considered appropriate to represent mineralisation.</li> <li>Sample preparation checks for fineness were carried out by the laboratory as part of its internal procedures.</li> <li>Analytical Techniques:         <ul> <li>A lead collection fire assay on a 50g sample with Atomic Absorption Spectroscopy undertaken to determine gold content with a detection limit of 0.005ppm.</li> <li>All samples were dried, crushed, pulverised and split to produce a sub–sample for a 25g sample which are 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).</li> <li>No geophysical tools were used to determine any element concentrations in this report.</li> <li>A handheld portable Niton XRF analyser (XL3t 950 GOLDD+) device is used in the field to investigate and record geochemical data for internal analysis. However, due to "spatial" accuracy/repeatability issues this data is not publicly reported.</li> <li>Field QC procedures involve the use of commercial certified reference material (CRM's) for assay standards and blanks. Standards are inserted every 25 samples. The grade of the inserted standard is not revealed to the laboratory.</li> <li>Field duplicates/repeat QC samples was utilised during the RC drilling programme with nominally two to three duplicate RC field samples per drill hole.</li> <li>Inter laboratory cross-checks analysis programmes have not been conducte</li></ul></li></ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections of the drilling have been visually verified by the Exploration Manager.</li> <li>For the Minyari deposit verification drill holes intersections have been compared to the equivalent corresponding historic drill hole intersection by compositing variable length samples into 1m intervals. The corresponding sample populations have been statistically compared using a mean grade and percentage differences for gold and copper in corresponding drill holes.</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data	<ul> <li>Accuracy and quality of surveys used to locate drill holes</li> </ul>	<ul> <li>The Verification drill holes are considered to be greater than 5m away from comparative historic drill holes as the location of the historic drill holes cannot be verified in the field.</li> <li>All logging is entered directly into a notebook computer using the Antipa Proprietary Logging System which is based on Microsoft Excel. The logging system uses standard look up tables that does not allow invalid logging codes to be entered. Further data validation is carried out during upload to Antipa's master SQL database.</li> <li>No adjustments or calibrations have been made to any assay data collected.</li> <li>km = kilometre; m = metre; mm = millimetre.</li> </ul>
points	<ul> <li>(collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collar locations are surveyed using a handheld Garmin 64S GPS which has an accuracy of ± 3m.</li> <li>The drilling co-ordinates are all in GDA94 MGA Zone 51 co-ordinates.</li> <li>The Company has adopted and referenced one specific local grid across the Minyari Dome region ("Minyari" Local Grid) which is defined below. References in the text and the Minyari deposit diagrams are all in this specific Minyari Local Grid.</li> <li>Minyari Local Grid 2-Point Transformation Data: <ul> <li>Minyari Local Grid 2-Point Transformation Data:</li> <li>Minyari Local Grid 47,400m east is 421,462.154m east in GDA94 / MGA Zone 51;</li> <li>Minyari Local Grid 113,000m north is 7,643,266.108m north in GDA94 / MGA Zone 51;</li> <li>Minyari Local Grid 113,000m north is 7,644,356.108m north in GDA94 / MGA Zone 51;</li> <li>Minyari Local Grid erid 113,000m north is 7,644,356.108m north in GDA94 / MGA Zone 51;</li> <li>Minyari Local Grid elevation is equal to GDA94 / MGA Zone 51.</li> </ul> </li> <li>The topographic surface has been defaulted to 257m RL.</li> <li>Rig orientation was checked using Suunto Sighting Compass from two directions.</li> <li>Drill hole inclination was set by the driller using a clinometer on the drill mast and checked by the geologist prior the drilling commencing.</li> <li>The topographic surface has been compiled using the drill hole collar coordinates.</li> <li>RC downhole surveys were undertaken in-hole during grilling using a 'Reflex EZ Trac Camera' device at 30 metre intervals with a final survey at the end of the drill hole.</li> <li>Downhole surveys were checked by the supervising geologist for consistency. If required, readings were re-surveyed or smoothed in the database if unreliable azimuth readings were apparent.</li> <li>Survey details included drill hole dip (±0.25° accuracy) and drill hole azimuth (±0.35 accuracy°) Total Magnetic field and temperature.</li> <li>Downhole "logging" of a selection of RC drillholes (i.e. 33 drill holes totaling 2,341m) was undertaken as part of</li></ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</li> </ul>	<ul> <li>Minyari Deposit 2016 RC Drilling</li> <li>The nominal drill hole spacing is thirteen east-west 'Minyari grid' sections spaced approximately 50m apart with an average drill hole spacing on each section between 20 to 50m.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>An orthogonal 180° azimuth three drillhole 'long section' was also completed.</li> <li>The section spacing is sufficient to establish the degree of geological and grade continuity necessary to support future Mineral Resource estimations.</li> <li>RC drill sample compositing has been applied for the reporting of exploration results.</li> </ul> <b>Phase 2 Minyari Deposit Diamond Drilling</b> <ul> <li>Nominal drill hole spacing three east-west sections spaced approximately 100 to 200m apart with just a single diamond drill hole each section.</li> <li>The diamond drill hole / section spacing is sufficient to establish the degree of geological and grade continuity required at this stage of the Company's evaluation of the Minyari deposit. <ul> <li>No sample compositing has been applied for the reporting of exploration results.</li> </ul></li></ul>
		<ul> <li>WACA Deposit 2016 Phase 2 RC Drilling</li> <li>The nominal drill hole spacing is seven east-west 'Minyari grid' sections spaced between 50m to 100m apart with only 1 to 2 drillholes on each section (9 Phase 2 RC holes in total).</li> <li>The section spacing, at this stage, is insufficient to establish the degree of geological and grade continuity necessary to support future Mineral Resource estimations.</li> <li>RC drill sample compositing has been applied for the reporting of exploration results.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The location and orientation of the Minyari and WACA deposit drilling is appropriate given the strike, dip and morphology of the mineralisation.</li> <li>Minyari deposit holes are angled towards local grid east or less frequently vertically to be perpendicular to the strike of both the dominant mineralisation trend and bedding, and at a suitable</li> </ul>
Sample security	• The measures taken to ensure sample security.	• Chain of sample custody is managed by Antipa to ensure appropriate levels of sample security.

Criteria	JORC Code explanation	Commentary
		<ul> <li>Samples are stored on site and delivered by Antipa or their representatives to Newman and subsequently by Centurion Transport from Newman to the assay laboratory in Perth.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Sampling techniques and procedures are regularly reviewed internally, as is the data.</li> <li>Consultants Snowden, during completion of the 2013 Calibre Mineral Resource estimate, undertook a desktop review of the Company's sampling techniques and data management and found them to be consistent with industry standards.</li> </ul>

## MINYARI DOME AREA

# 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	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Minyari and WACA deposit drilling and other exploration data is located wholly within Exploration License E45/3919 (granted).</li> <li>Antipa Minerals Ltd has a 100% interest in E45/3919.</li> <li>A 1% net smelter royalty payable to Paladin Energy on the sale of product on all metals applies to these tenement as a condition of a Split Commodity Agreement with Paladin Energy in relation to the Company's North Telfer Project.</li> <li>The North Telfer Project, including the Minyari deposit, is not subject to the Citadel Project Farm-in Agreement with Rio Tinto Exploration Pty Ltd.</li> <li>All tenements are contained completely within land where the Martu People have been determined to hold native title rights. To the Company's knowledge no historical or environmentally sensitive sites have been identified in the area being actively explored.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Minyari and WACA deposits were greenfield discoveries by the Western Mining Corporation Ltd during the early 1980's.</li> <li>Exploration of the Minyari Dome region has involved the following companies:         <ul> <li>Western Mining Corporation Ltd (1980 to 1983);</li> <li>Newmont Holdings Pty Ltd (1984 to 1990);</li> <li>MIM Exploration Pty Ltd (1990 to 1991);</li> <li>Newcrest Mining Limited (1991 to 2015); and</li> <li>Antipa Minerals Ltd (2016 onwards).</li> </ul> </li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• The geological setting is Paterson Province Proterozoic aged meta-sediment hosted hydrothermal shear, fault and strata/contact controlled precious and/or base metal mineralisation which is typically sulphide bearing. The mineralisation in the region is interpreted to be granite related. The Paterson is a low grade metamorphic terrane but local hydrothermal alteration and/or contact metamorphic mineral assemblages and styles are indicative of a high-temperature local

Criteria	JORC Code explanation	Commentary
		environment. Mineralisation styles include vein, stockwork, breccia and skarns.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>A summary of all available information material to the understanding of the Minyari Dome region exploration results can be found in previous WA DMP publicly available reports.</li> <li>All the various technical Minyari Dome region exploration reports are publicly accessible via the DMP's online WAMEX system.</li> <li>The specific WAMEX and other reports related to the exploration information the subject of this public disclosure have been referenced in previous public reports.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Reported aggregated intervals have been length weighted.</li> <li>No density or bulk density is available and so no density weighting has been applied when calculating aggregated intervals.</li> <li>No top-cuts to gold or copper have been applied (unless specified otherwise).</li> <li>A nominal 0.30 g/t gold or 0.10% copper lower cut-off grade is applied during data aggregation.</li> <li>Higher grade intervals of mineralisation internal to broader zones of mineralisation are reported as included intervals.</li> <li>Metal equivalence is not used in this report.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Minyari Deposit (Local grid)</li> <li>At the Minyari deposit the interpreted stratabound/reef hydrothermal alteration, vein and breccia (oxide and primary) related gold-copper mineralisation is interpreted to be dominantly east-northeast striking and in the Eastern Domain shallow to moderate south-southwest dipping and in the Western Domain moderate to steep south-southwest dipping, with drill holes generally being vertical or inclined between -50° and -60° toward the east or west.</li> <li>In general, the intersection angles for the variety drilling generations appear to be at a moderate angel to the overall mineralised zones. Therefore, the reported downhole intersections are estimated to approximate 60% to 80% true width dependent on the local geometry/setting.</li> </ul>
		<ul> <li>WACA Deposit (Local grid)</li> <li>At the WACA deposit the interpreted shear and strata controlled/hosted hydrothermal alteration, vein and breccia (oxide and primary) related gold-copper mineralisation is interpreted to be dominantly north-south striking and sub-vertical to steeply east dipping, with drill holes generally being inclined between -50° and -60° toward the east or west (NB: All 2016 Phase 2 WACA RC drill holes were inclined at between -57° to -60° to the east).</li> <li>In general, the intersection angles for the variety drilling generations appear to be at a moderate</li> </ul>

Criteria	JORC Code explanation	Commentary
		angel to the overall mineralised zones (other than for vertical shallow historic Aircore/RAB drill holes). Therefore, the reported downhole intersections are estimated to approximate 60% to 70% true width dependent on the local geometry/setting.
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>All appropriate maps and sections (with scales) and tabulations of intercepts are reported or can sometimes be found in previous WA DMP WAMEX publicly available reports.</li> </ul>
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 reporting of Exploration Results.	All significant results are reported or can sometimes be found in previous WA DMP WAMEX publicly available reports.
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>All meaningful and material information has been included in the body of the text or can sometimes be found in previous WA DMP WAMEX publicly available reports.</li> <li>The details of the Minyari Dome region historic Induced Polarisation survey, including IP Chargeability and resistivity anomalies, can be found in WA DMP publicly available WAMEX reports A81227 (2008), A86106 (2009) and A89687 (2010).</li> <li>The details of the Company's reprocessing, review and modelling of the Minyari Dome region historic Induced Polarisation survey, including IP Chargeability and resistivity anomalies, can be found in the Company's ASX report titled "Minyari Reprocessed IP Survey Results" created on 5 July 2016.</li> <li>Zones of mineralisation and associated waste material have not been measured for their bulk density; however, Specific Gravity ("Density") measurements will be taken from the Phase 2 diamond drill core.</li> <li>Multi element assaying was conducted variously for a suite of potentially deleterious elements including arsenic, sulfur, lead, zinc and magnesium.</li> <li>Geotechnical logging was carried out on all 3 Minyari deposit diamond drillholes for Recovery, RQD and Fracture Frequency.</li> <li>No Geotechnical logging (e.g. Recovery, RQD and Fracture Frequency) was obtained from the WAMEX reports.</li> <li>Downhole "logging" of a selection of Minyari deposit RC drillholes (i.e. 33 drill holes totaling 2,341m) was undertaken as part of the 2016 Phase 1 programme using an OBI40 Optical Televiewer which generated an oriented 360 degree image of the drill hole wall via a CCD camera recorded digital image. The OBI40 system utilised also included a North Seeking Gyro-scope to measure drill hole location/deviation, and the downhole survey also measured rock density, magnetic susceptibility, natural gamma and included a borehole caliper device for measuring drill hole diameter. The combined dataset collected via the OBI40 Optical Televiewer downhole survey data has multiple</li></ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material derived mainly from diamond drilling is stored in the Company's technical SQL database.</li> <li>No information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material was obtained from the WAMEX reports.</li> <li>No metallurgical test-work results are currently available for the Minyari Dome deposits; however, the Company has been collecting sample material from the Phase 1 and Phase 2 drilling programmes for metallurgical test-work planned to be completed during 2017.</li> <li>In addition, the following information in relation to metallurgy was obtained from WA DMP WAMEX reports:         <ul> <li>Newmont Holdings Pty Ltd collected two bulk (8 tonnes each) metallurgical samples of oxide mineralisation in 1987 (i.e. WAMEX 1987 report A24464) from a 220m long costean across the Minyari deposit. The bulk samples were 8 tonnes grading 1.5 g/t gold and 8 tonnes grading 3.57 g/t gold from below shallow cover in the costean. However, it would appear the Newmont metallurgical test-work for these two bulk samples was never undertaken/competed as no results were subsequently reported to the WA DMP;</li> <li>Newmont Holdings Pty Ltd also collected drill hole metallurgical samples for Minyari deposit oxide and primary mineralisation (i.e. WAMEX 1986 report A19770); however, subsequent reporting of any results to the WA DMP could not be located suggesting that the metallurgical test-work was never undertaken/competed.</li> <li>Newcrest Mining Ltd describe the Minyari deposit gold-copper mineralisation as being typical of the Telfer gold-copper mineralisation. In 2004 and 2005 (WAMEX reports A71875 and A74417) Newcrest commenced metallurgical studies for the Telfer Mine and due to the similarities with the Minyari mineralisation aportion of this Telfer metallurgical test-work expenditure was apportioned t</li></ul></li></ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Gold-copper mineralisation identified by the Company's 2016 Phase 1 and Phase 2 drilling programmes at both the Minyari and WACA deposits has been intersected over a range of drill defined limits along strike, across strike and down dip and variously remains open in multiple directions with both deposits requiring further investigation/drilling to test for lateral and vertical mineralisation extensions and continuity beyond the limits of existing drilling limits.</li> <li>All appropriate maps and sections (with scales) and tabulations of intercepts are reported or can sometimes be found in previous WA DMP WAMEX publicly available reports.</li> </ul>

## CITADEL PROJECT

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>2016 Reverse Circulation (RC) and Diamond Drilling <ul> <li>The drilling programme involved the completion of 34 (including two drill holes abandoned in the Permian cover sequence i.e. 16ACC0068 and 16ACC0082) Reverse Circulation (RC) drill holes, totaling 5,215m, with an average maximum drill hole depth of 153m, and 1 diamond drill hole (16ACD0075) totaling 661m (including 99m RC pre-collar).</li> <li>Assays available for all drill holes.</li> <li>The drilling programme investigated a number of targets including: <ul> <li>a targets primarily based on IP Chargeability anomalies;</li> <li>Rimfire area targets with varied geophysical target criteria (i.e. IP and/or magnetic and/or VTEM electromagnetic conductivity anomalism);</li> <li>1 drillhole testing the strongest magnetic high anomaly in the Citadel Project, i.e. 'Hansel' (NB: The Hansel RC drill hole failed to reach the target depth); and</li> <li>2 drillholes testing 2 geology targets, i.e. 'Katinka' and 'Corker' (NB: The Corker RC drill hole failed to reach the target depth); and</li> <li>2 drillholes testing 2 geology targets, i.e. 'Katinka' and 'Corker' (NB: The Corker RC drill hole failed to reach the target depth).</li> </ul> </li> <li><i>RC Sampling:</i></li> <li>RC Samples were drilled using a 140mm diameter face sampling hammer and sampled on intervals of 1.0m using a rig mounted cone splitter from which a 2 kg (average) sample which was pulverised at the laboratory to produce material for assay.</li> <li>Compositing of unmineralised regions (guided by Olympus portable XRF field analysis) of between 2 to 4m was undertaken via combining "Spear" samples of the unmineralised sample intervals to generate a 2 kg (average) sample which was pulverised at the laboratory to produce material for assay.</li> <li>Core sampling is on intervals from 0.1 to 2.0m and selected on the basis of geological boundaries.</li> <li>For sample intervals greater than 1.5m in length half core samples are submitted for assay.</li> <li>Blue Steel diamond core was drilled wi</li></ul></li></ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g.	<ul> <li>2016 Reverse Circulation Drilling         <ul> <li>A total of 34 RC drill holes (excluding 99m RC pre-collars for 1 diamond drillhole) were drilled totaling</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
	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).	<ul> <li>5,215m with average maximum drill hole depth of 153m.</li> <li>All drill holes were completed using 140mm RC face sampling hammer drill bit from surface to total drill hole depths of between 39m to 357m.</li> </ul>
		<ul> <li>2016 Diamond Drilling <ul> <li>A single (1) diamond drill hole was drilled at the Blue Steel target during the drilling programme with average maximum drill hole depth of 661.0m (including RC pre-collar).</li> <li>Diamond drill holes were completed using NQ2 sized core. RC pre-collar depth was 99m and maximum drill hole depth was 661.0m.</li> <li>The core is oriented using a Reflex ACT electronic orientation tool.</li> <li>The diamond drill hole was collared towards MGA 225° (magnetic) and at an inclination angle of -65° to optimally intersect the known mineralisation and "bedding" trends in the general (eastern) area and Blue Steel IP target region.</li> </ul> </li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>RC Drill Samples <ul> <li>RC sample recovery was recorded via visual estimation of sample volume.</li> <li>RC sample recovery typically ranges from 90 to 100%, with only very occasional samples with less than 70% recovery.</li> <li>RC sample recovery was maximized by endeavoring to maintain a dry drilling conditions as much as practicable; the RC samples were almost exclusively dry.</li> <li>All samples were split on a 1m interval using a rig-mounted cone splitter. Adjustments were made to ensure representative 2 to 3kg sample volumes were collected.</li> <li>Relationships between recovery and grade are not evident and are not expected given the generally excellent and consistently high sample recovery.</li> <li>RC sample recovery and sample quality was recorded via visual estimation of sample volume and condition of the drill spoils.</li> <li>RC results are generated for the purpose of exploration and potentially for Mineral Resource estimations.</li> </ul> </li> </ul>
		<ul> <li>Diamond Drill Core Samples</li> <li>Core recovery is routinely recorded as a percentage. Overall core recoveries averaged over 99.5% and there are no core loss issues or significant sample recovery problems except for occasional very localised/limited regions.</li> <li>Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</li> <li>Drillers used appropriate measures to maximise diamond sample recovery.</li> <li>Whilst no assays are currently available for the diamond drill hole it is unlikely that any detailed analysis to determine the relationship between sample recovery and/or and grade will be warranted as the mineralisation is defined by diamond core drilling which has high recoveries.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>RC Drill Logging <ul> <li>All RC and diamond material is logged.</li> <li>Logging includes both qualitative and quantitative components.</li> <li>All logging is entered directly into a notebook computer using the Antipa Proprietary Logging System which is based on Microsoft Excel. The logging system uses standard look up tables that does not allow invalid logging codes to be entered. Further data validation is carried out during upload to Antipa's master Access SQL database.</li> <li>Geological logging of 100% of all RC sample intervals was carried out recording colour, weathering, lithology, mineralogy, alteration, veining and sulphides.</li> <li>Selected RC sample intervals were measured for magnetic susceptibility using a handheld Magnetic Susceptibility meter.</li> <li>RC samples are generally analyzed in the field using a Portable XRF Device (Olympus) for the purposes of geochemical and lithological interpretation and the selection of sampling intervals.</li> </ul> </li> </ul>
		<ul> <li>Diamond Drill Core Logging <ul> <li>Logging includes both qualitative and quantitative components.</li> <li>All logging is entered directly into a notebook computers using the Antipa Proprietary Logging System which is based on Microsoft Excel. The logging system uses standard look up tables that does not allow invalid logging codes to be entered. Further data validation is carried out during upload to Antipa's master Access SQL database.</li> <li>Geological logging of 100% of all drill core was carried out recording colour, weathering, lithology, mineralogy, alteration, veining, sulphides and structure.</li> <li>Geotechnical logging of all core was carried out for Recovery, RQD and Fracture Frequency.</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material is stored in the Company's technical database.</li> <li>All drill holes were logged in full including the RC pre-collar component of the diamond drillholes.</li> <li>Core was photographed both wet and dry.</li> <li>In 2013 Snowden considered that the Company's logging is carried out in sufficient detail to meet the requirements of the reporting of exploration results and resource estimation and mining studies.</li> </ul> </li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul> <li>RC Samples</li> <li>RC samples for all drill holes were drilled using a 140mm diameter face sampling hammer and split on intervals of 1.0m using a rig mounted cone splitter from which a 3 kg (average) sample which was pulverised at the laboratory pulverised to produce material for assay.</li> <li>Compositing of unmineralised regions (guided by Portable XRF / Olympus field analysis) of between 2 to 4m was undertaken via combining "Spear" samples of the unmineralised sample intervals to generate a 3 kg (average) sample which was pulverised at the laboratory to produce material for assay.</li> <li>Field duplicate samples were collected for all RC drill holes.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>Diamond Drilling Core Samples</li> <li>Diamond core was drilled with NQ2 size and sampled on intervals from 0.15 to 1.25m selected on the basis of geological boundaries.</li> <li>Diamond core is sampled on a nominal 1.0m sample interval within unmineralised zones and on 0.1 to 1.25m intervals within the mineralised zones.</li> <li>Sample intervals are adjusted so that samples do not cross lithological boundaries and samples are collected from the same side of the core.</li> <li>Samples are collected from half-core using a diamond saw located at the Company's field facility.</li> <li>Samples are selected to weigh less than 3kg to ensure total preparation at the pulverisation stage.</li> <li>RC and diamond core sample preparation</li> <li>Sample preparation of RC and diamond drilling core samples was completed at ALS Laboratory Group in Perth following industry best practice in sample preparation involving oven drying, coarse crushing of the sample using a primary crusher down to crushed size of approximately 70% passing 2mm, followed by pulverisation of a rotary split 1 kg aliquot to a grind size of approximately 85% passing 75 μm via a ring mill pulveriser using a carbon steel ring set. The pulverised sample is then further split into a sub–sample/s for analysis.</li> <li>The sample sizes are considered appropriate to suitably represent sample material derived from this type of reconnaissance (geochemical) drill based exploration programme.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>The sample preparation technique for RC and diamond drill core samples is documented by Antipa Mineral Ltd's standard procedures documents and is in line with industry standards in sample preparation.</li> <li>The sample sizes are considered appropriate to represent mineralisation.</li> <li>Sample preparation checks for fineness were carried out by the laboratory as part of its internal procedures.</li> <li>Analytical Techniques:         <ul> <li>All samples were dried, crushed, pulverised and split to produce a sub–sample for a 0.25g sample which are 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 Inductively Coupled Plasma Atomic Emission Spectroscopy / Mass Spectrometry (ICP– AES / ICP-MS) for Ag, Al, As, Au, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Pd, Pt, Rb, Re, S, Sb, Sc, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr.</li> <li>Note that based on the analytical technique described above, the assay results for Au, Pd and Pt are considered semi-quantitative in nature and with the Au results being determined from only 0.25g of material dissolved sample material they must be treated with caution. The Au, Pd and Pt data are obtained by this method for the purposes of identifying low level geochemical anomalism.</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>A lead collection Fire Assay on a 30g sample with Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) undertaken to determine gold content with a detection limit of 0.001ppm (for samples grading &gt; 35 ppb Au).</li> <li>No geophysical tools were used to determine any element concentrations in this report.</li> <li>A handheld portable XRF analyser (Olympus Delta 50) device is used in the field to investigate and record geochemical data for internal analysis. However, due to "spatial" accuracy/repeatability issues this data is not publicly reported.</li> <li>Field QC procedures involve the use of commercial certified reference material (CRM's) for assay standards and blanks. Standards are inserted every 25 samples. The grade of the inserted standard is not revealed to the laboratory.</li> <li>Field duplicates/repeat QC samples was utilised during the RC drilling programme with nominally two to three duplicate RC field samples per drill hole.</li> <li>Inter laboratory cross-checks analysis programmes have not been conducted at this stage.</li> <li>In addition to Antipa supplied CRM's, ALS Laboratory Group includes in each sample batch assayed certified reference materials, blanks and up to 10% replicates.</li> <li>Selected anomalous samples are re-digested and analysed to confirm results.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections of the drilling have been visually verified by the Exploration Manager.</li> <li>All logging is entered directly into a notebook computer using the Antipa Proprietary Logging System which is based on Microsoft Excel. The logging system uses standard look up tables that does not allow invalid logging codes to be entered. Further data validation is carried out during upload to Antipa's master SQL database.</li> <li>No adjustments or calibrations have been made to any assay data collected.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>km = kilometre; m = metre; mm = millimetre.</li> <li>Drill hole collar locations are surveyed using a handheld Garmin 64S GPS which has an accuracy of ± 3m.</li> <li>The drilling co-ordinates are all in GDA94 MGA Zone 51 co-ordinates.</li> <li>The Company did not adopt or reference any specific local grid/s across the Citadel Project during this 2016 drilling Programme.</li> <li>The topographic surface has been defaulted to 265m RL.</li> <li>Rig orientation was checked using Suunto Sighting Compass from two directions.</li> <li>Drill hole inclination was set by the driller using a clinometer on the drill mast and checked by the geologist prior the drilling commencing.</li> <li>The topographic surface has been compiled using the drill hole collar coordinates.</li> <li>RC downhole surveys, for vertical drill holes &gt; 150m in depth and all angled drill holes, were undertaken in-hole during drilling using a 'Reflex EZ Trac Camera' device at 30 metre intervals with a final survey at the end of the drill hole.</li> <li>Downhole surveys were checked by the supervising geologist for consistency. If required, readings were re-surveyed or smoothed in the database if unreliable azimuth readings were apparent.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Survey details included drill hole dip (±0.25° accuracy) and drill hole azimuth (±0.35 accuracy°) Total Magnetic field and temperature.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole locations for all 2016 drill holes are tabulated in the body of this report.</li> <li>2016 RC Drilling <ul> <li>All RC drill holes were reconnaissance in nature and so a nominal drill hole spacing is not relevant. Where more than one drill hole was completed at a specific target area the hole spacing ranged from 200m to 400m and sometimes up to between 600 to 800m north-south and/or east-west.</li> <li>Due to the reconnaissance nature of the programme 26 of the RC drill holes were vertical.</li> <li>8 of the RC drill holes, all located at the Blue Steel and Meekus target areas, are angled towards MGA southwest (225° magnetic) or northwest (300° magnetic) to be approximately perpendicular to the strike of the known dominant mineralisation trends in the general (eastern) area and bedding, and at a suitable angle to the dip of the known dominant mineralisation.</li> <li>These RC drill holes were collared at an inclination angle of -60° to "optimally" intersect the known mineralisation trends in the general (eastern) area or IP target regions.</li> <li>The section spacing is insufficient to establish the degree of geological and grade continuity necessary to support future Mineral Resource estimations.</li> <li>RC drill sample compositing may have been applied for the reporting of some exploration results.</li> </ul> </li> <li>2016 Diamond Drilling <ul> <li>A single "isolated" diamond drill hole was completed at the Blue Steel target. The hole was located 316m away from the nearest drill hole.</li> <li>The Blue Steel diamond drill hole is angled towards MGA southwest (225° magnetic) to be approximately perpendicular to the strike of the known dominant mineralisation trends in the general (eastern) area and bedding, and at a suitable angle to the dip of the known dominant mineralisation.</li> </ul> </li> </ul>
		<ul> <li>the known mineralisation trends in the general (eastern) area and IP target region.</li> <li>The drill hole spacing is insufficient to establish the degree of geological and grade continuity necessary to support future Mineral Resource estimations.</li> <li>No sample compositing has been applied for the reporting of exploration results.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>At this stage, it cannot be determined with any certainty if any consistent and/or material bias exists in the 2016 RC drill hole sampling as a result of the drill hole location and/or orientation in relation to possible mineralised structures.</li> <li>At Blue Steel the orientated 2016 diamond drill hole appears to be at a reasonable orientation with respect to the general approximate strike, dip and morphology of bedding and the mineralised structures.</li> </ul>

Criteria	JORC Code explanation	Commentary
		• Both folding and multiple vein directions have been recorded via pre-2016 diamond drilling at several locations within the Citadel Project (i.e. Magnum, Calibre, Colt and Corker).
Sample security	• The measures taken to ensure sample security.	<ul> <li>Chain of sample custody is managed by Antipa to ensure appropriate levels of sample security.</li> <li>Samples are stored on site and delivered by Antipa or their representatives to Port Hedland and subsequently by Centurion Transport from Newman to the assay laboratory in Perth.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Sampling techniques and procedures are regularly reviewed internally, as is the data.</li> <li>Consultants Snowden, during completion of the 2013 Calibre Mineral Resource estimate, undertook a desktop review of the Company's sampling techniques and data management and found them to be consistent with industry standards.</li> </ul>

# CITADEL PROJECT

# 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	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The drilling is located wholly within granted Exploration Licenses E45/2874, E45/2876, E45/2877 and E45/2901.</li> <li>Antipa Minerals Ltd has a 100% interest in all tenements and there are no royalties on the tenements (other than WA State government royalties).</li> <li>The Citadel Project (excluding tenement E45/4561) is subject to the Citadel Project Farm-in Agreement with Rio Tinto Exploration Pty Ltd.</li> <li>E45/2876 and E45/2877 are contained completely within land where the Martu People have been determined to hold native title rights. No historical or environmentally sensitive sites have been identified in the area of work.</li> <li>E45/2874 and E45/2901 are contained completely within land where the Nyangumarta People have been determined to hold native title rights. No historical or environmentally sensitive sites have been identified in the area of work.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Magnum deposit was a greenfield discovery by Gindalbie-Croesus in 1997, with the Calibre and Corker deposits being greenfield discoveries by Antipa in 2012.</li> <li>Antipa has completed follow-up exploration of the Magnum deposit/area (between 2011 to 2014); however, there has been no other exploration of the other 2016 target areas or deposit region by other parties.</li> <li>Exploration of the Citadel Project region has involved the following companies:         <ul> <li>BHP Exploration (1991 to 1996);</li> <li>Croesus Gindalbie JV (1997 to 2001);</li> <li>Teck Cominco (Croesus Gindalbie JV) (2002 to 2003);</li> <li>NGM Resources (Croesus Gindalbie JV) (2004 to 2005);</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Glengarry Resources/Centaurus Metals (2006 to 2010);</li> <li>Antipa Minerals Ltd (2011 to September 2015); and</li> <li>Antipa Minerals Ltd and Rio Tinto Exploration Ltd (October 2015 to 2016).</li> <li>The geological setting is Paterson Province Proterozoic aged meta-sediment hosted hydrothermal shear, fault and strata/contact controlled precious and/or base metal mineralisation which is typically sulphide bearing. The mineralisation in the region is interpreted to be granite related. The Paterson is a low grade metamorphic terrane but local hydrothermal alteration and/or contact metamorphic mineral assemblages and styles are indicative of a high-temperature local environment. Mineralisation styles include vein, stockwork, breccia and skarns.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	• All meaningful and material Citadel Project exploration information has been included in the body of the text or can sometimes be found in previous public reports and various WA DMP (WAMEX) publicly available reports.
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Reported aggregated intervals have been length weighted.</li> <li>No density or bulk density is available and so no density weighting has been applied when calculating aggregated intervals.</li> <li>No top-cuts to gold or copper have been applied (unless specified otherwise).</li> <li>Intersections in this report are composited for the purposes of highlighting geochemical anomalism/trends from individual assays using the criteria below which are considered relevant for both the reconnaissance nature of the drilling programme and metal indicators for various known mineralisation styles within the Paterson Province.</li> <li>Nominal cut-off grade/s applied during data aggregation:         <ul> <li>≥ 250 ppm copper which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 0.05 g/t gold which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 0.20 g/t silver which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 150 ppm lead which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 150 ppm lead which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 150 ppm lead which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 150 ppm lead which also satisfy a minimum down-hole intersection of ≥ 1 metre; and/or</li> <li>≥ 100 ppm tungsten which also satisfy a minimum down-hole intersection of ≥ 1 metre.</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>composites or to highlight mineralisation trends.</li> <li>Higher grade intervals of mineralisation internal to broader zones of mineralisation (if any) are reported as included intervals.</li> <li>Metal equivalence is not used in this report.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>In the "eastern domain" of the Citadel Project the Magnum and Calibre deposits the interpreted hydrothermal alteration, vein and breccia related gold-copper mineralisation is interpreted to be dominantly approximately north-south striking and moderate to steep east-northeast dipping. AT corker stratabound semi-massive polymetallic precious and base metal mineralisation dips shallow to moderately to the east-southeast.</li> <li>In the areas of 2016 RC drilling located in the "western domain" of the Citadel Project the attitude of "bedding" and/or mineralisation was unknown.</li> </ul>
		<ul> <li>RC Drill Holes</li> <li>The RC drill holes in the eastern domain target areas were generally inclined at -60° toward the southwest or northwest. Therefore, downhole width is estimated to approximate 60% to 80% true width dependent on the local geometry/setting.</li> <li>The RC drill holes in the western domain target areas were vertical. Therefore, the relationship between downhole width and the true width is unknown.</li> <li>Diamond Drill Hole</li> </ul>
		<ul> <li>The Blue Steel diamond drill hole was inclined at -65° toward the southwest. In general, the intersection angles for the variety drilling generations appear to be at a moderate angel to the average attitude of bedding and mineralised zones. Therefore, downhole width is estimated to approximate 60% to 80% true width dependent on the local geometry/setting.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>All appropriate maps and sections (with scales) and tabulations of intercepts are reported or can sometimes be found in previous public reports and various WA DMP WAMEX publicly available reports.</li> </ul>
Balanced reporting	<ul> <li>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 reporting of Exploration Results.</li> </ul>	• All significant results are reported or can sometimes be found in previous public reports and various WA DMP WAMEX publicly available reports.
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>All meaningful and material information has been included in the body of the text or can sometimes be found in previous public reports and various WA DMP WAMEX publicly available reports.</li> <li>Zones of mineralisation and associated waste material have not been measured for their bulk density; however, Specific Gravity ("Density") measurements have been taken from diamond drill core for the Magnum, Calibre and Corker deposits.</li> <li>Multi element assaying was conducted variously for a suite of potentially deleterious elements including arsenic, sulfur, lead, zinc and magnesium.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Geotechnical logging was carried out for all Antipa diamond drillholes at Magnum, Calibre, Corker and Blue Steel for Recovery, RQD and Fracture Frequency.</li> <li>No Geotechnical logging (e.g. Recovery, RQD and Fracture Frequency) was obtained from the WAMEX reports.</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material derived mainly from diamond drilling is stored in the Company's technical SQL database.</li> <li>No information on structure type, dip, dip direction, alpha angle, beta angle, gamma angle, texture and fill material was obtained from the WAMEX reports.</li> <li>Preliminary Metallurgical test-work results are available for the Calibre deposit and these have been previously publicly reported.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Significant regions of gold-copper mineralisation identified by the 2016 drilling programmes remain open in multiple directions and require further investigation via additional drilling ± geophysical surveys to test areas more broadly for zones of higher grade mineralisation and the lateral and vertical mineralisation extensions and continuity beyond the limits of existing very broadly spaced reconnaissance (RC) drilling limits.</li> <li>All appropriate maps ± sections (with scales) highlighting areas of possible extensions and main geological interpretations have been included in the body of the text.</li> <li>Maps ± sections (with scales) highlighting areas of possible future drilling are currently not available.</li> </ul>