

# **ASX Announcement**

9 January 2019

# **Grants Creek & Nicolsons Exploration Update**

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to provide the following update on exploration at Nicolsons and Grants Creek.

### **Highlights – Grants Creek**

- Remaining assays from Grants Creek have returned additional high grade drilling results at Perseverance including:
  - » 6 m @ 4.96 g/t Au from 66 m inc. 1 m @ 11.2 g/t Au
- The new result is one of the deepest holes drilled to date, and supports continuing significant ore widths and high grades at depth at Perseverance.
- New results are in addition to previously reported\* high grade intersections which included:
  - » 5 m @ 9.25 g/t Au from 38 m inc. 1 m @ 37.1 g/t Au
  - » 3 m @7.55 g/t Au from 12 m inc. 1 m @ 10.61 g/t Au
  - » 3 m @ 7.79 g/t Au from 62 m inc. 1 m @ 14.7 g/t Au
  - » 2 m @ 5.55 g/t Au from 12 m
  - » 2 m @ 5.56 g/t Au from 61 m
  - » 2 m @ 5.19 g/t Au from 29 m
- Drilling at the Wilsons Reef prospect confirm multiple mineralised veins with first pass results including:
  - » 2 m @ 3.34 g/t Au from 40 m
  - » 3 m @ 3.15 g/t Au from 20 m
  - » 2 m @ 2.10 g/t Au from 2 m
  - » 0.3 m @ 5.46 g/t Au from 4.3 m
  - » 0.6 m @ 4.32 g/t Au from 5.4 m
- Modelling of the maiden Mineral Resource estimates for the Perseverance and Star of Kimberley deposits has commenced. Pantoro is aiming to define mineralisation suitable for open pit mining at Grants Creek by the end of 2019 and will take steps required for the grant of a mining lease immediately following completion of the Mineral Resource estimate.

### Highlights – Nicolsons

- Ongoing exploration and development at Nicolsons has continued to return significant results at the Northern end of the Anderson Lode including:
  - » 4.65 m @ 7.72 g/t Au
  - » 0.55 m @ 41.8 g/t Au
- Results are up to 100 metres north of existing working in the Anderson Zone and up to 450 metres below surface, which is approximately 130 metres below the current workings.
- Drilling from existing development in the Hall Lode has identified high grade mineralisation in a parallel lode in the footwall of the current workings with results including:
  - » 1.94 m @ 18.82 g/t Au.
- \* Reported in an announcement to the ASX on 1 November 2018 titled "Excellent Drilling Results from Grants Creek".

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t: +61 8 6263 1110 | e: admin@pantoro.com.au | w: www.pantoro.com.au PO Box 1353 West Perth WA 6872 | 1187 Hay Street, West Perth WA 6005 Commenting on the results, Managing Director Paul Cmrlec said:

"We are highly encouraged by the results from the first drill program at Grants Creek. These are the first three zones to be tested with modern drilling in this historical gold field which extends for several kilometres, demonstrating the untested potential of the area.

Nicolsons continues to provide additional high grade intersections at depth, and mining at Wagtail is progressing well with strong grades noted in early development. Operations at Halls Creek are well positioned to continue to deliver expected outcomes during 2019."

### **GRANTS CREEK EXPLORATION**

Pantoro's maiden drilling program at Grants Creek commenced in September 2018, aimed at evaluating the open pit potential at the historical production centres of Perseverance, Star of Kimberley and Wilsons Reef. All assays have now been received with further high grade assays returned.



### Perseverance

• 6 m @ 4.96 g/t Au from 66 m - inc. 1 m @ 11.2 g/t Au.

### **Wilsons Reef**

- 2 m @ 3.34 g/t Au from 40 m.
- 3 m @ 3.15 g/t Au from 20 m.
- 2 m @ 2.10 g/t Au from 2 m.
- 0.3 m @ 5.46 g/t Au from 4.3 m.
- 0.6 m @ 4.32 g/t Au from 5.4 m.

These results are in addition to results released on 1 November 2018 in an announcement titled "Excellent Drilling Results from Grants Creek", which included:

### Perseverance

5 m @ 9.25 g/t Au from 38 m - inc. 1 m @ 37.1 g/t Au. 3 m @7.55 g/t Au from 12 m - inc. 1 m @ 10.61 g/t Au. 3 m @ 7.79 g/t Au from 62 m - inc. 1 m @ 14.7 g/t Au. 2 m @ 5.55 g/t Au from 12 m. 2 m @ 5.56 g/t Au from 61 m. 2 m @ 5.19 g/t Au from 29 m. **Star of Kimberley** 2 m @ 11.04 g/t Au from 46 m - inc. 1m @ 20.3 g/t Au. 2 m @ 6.53 g/t Au from 24 m.

2 m @ 5.36 g/t Au from 10.3 m.

Samples have been submitted for metallurgical test work, and modelling for a maiden Mineral Resource estimate has commenced. Pantoro is aiming to be mining ready at Grants Creek by the end of 2019 and will take steps required for the grant of a mining lease immediately following completion of the Mineral Resource estimate.

### Perseverance

The Perseverance quartz reef is up to 7 metres wide at surface and forms a prominent ridge about 200 metres long. Drilling by Metminco in 2008 identified mineralisation to an average depth of 35 metres over a strike extent of 120 metres. The latest result of 6 m @ 4.96 g/t Au from 66 metres downhole and the previously released results of 3 m @ 7.79 g/t Au from approximately 55 metres below surface continue to support substantial widths of high-grade mineralisation at depth.





### **Wilsons Reef**

Wilsons Reef comprises two veins which outcrop at surface for approximately 140 metres and are between one and two metres wide with a sub vertical orientation. Historical records are scant, however alluvial workings in an adjacent drainage exposed three separate stock work zones within folded metasediments over a 200 metre wide zone in a creek.

First pass drilling results included:

- 2 m @ 3.34 g/t Au from 40 m.
- 3 m @ 3.15 g/t Au from 20 m.
- 2 m @ 2.10 g/t Au from 2 m.
- 0.3 m @ 5.46 g/t Au from 4.3 m.
- 0.6 m @ 4.32 g/t Au from 5.4 m.



#### **About Grants Creek**

The Grants Creek Project is located approximately 60 km north of Halls Creek and includes a number of advanced prospects with first mining recorded during the 1880's. Grants Creek has a large amount of historical drilling recorded, and Pantoro believes that there is strong potential to rapidly define a JORC compliant Mineral Resource.

Previous operator, Precious Metals Australia had lodged a Notice of Intent to mine with the Western Australian government during the 1990's, however their other mining and processing operations in the area ceased prior to commencement of the mine.

Grants Creek is an immediate growth opportunity for the company, with a focus on defining the next mining centre in the area as soon as possible. Recent review of historic exploration undertaken in the area has identified numerous surface geochemical anomalies in both soils and rock chips along strike of both the Perseverance and Star of Kimberley prospects.

## **NICOLSONS EXPLORATION**

Recent exploration at Nicolsons has been focused on extension of the ore zones currently being mined underground. Drilling and development has confirmed that the ore zone is plunging to the North, and that high grades continue down plunge at depth. Drilling to date has extended to approximately 450 metres below surface and remains open.



### Enquiries

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# Appendix 1 – Table of Drill Results – Grants Creek

| Hole ID   | Easting    | Northing    | RL      | Dip (degrees) | Azimuth<br>(degrees) | End of Hole<br>Depth (m) | Downhole<br>From (m) | Downhole To<br>(m) | Downhole<br>Intersection<br>(m) | Au gpt (uncut) |
|-----------|------------|-------------|---------|---------------|----------------------|--------------------------|----------------------|--------------------|---------------------------------|----------------|
| WLDD18007 | 388947.666 | 8029605.632 | 354.969 | -60           | 146                  | 31.2                     | 4.3                  | 4.6                | 0.3                             | 5.46           |
| WLDD18007 | 388947.666 | 8029605.632 | 354.969 | -60           | 146                  | 31.2                     | 5.4                  | 6                  | 0.6                             | 4.32           |
| WLDD18007 | 388947.666 | 8029605.632 | 354.969 | -60           | 146                  | 31.2                     | 14.7                 | 15.2               | 0.5                             | 1.14           |
| WLDD18007 | 388947.666 | 8029605.632 | 354.969 | -60           | 146                  | 31.2                     | 17                   | 18.1               | 1.1                             | 0.73           |
| WLRC18001 | 388913.264 | 8029604.79  | 352.884 | -60           | 147                  | 82                       |                      |                    |                                 | NSA            |
| WLRC18002 | 388928.546 | 8029613.718 | 354.352 | -60           | 147                  | 64                       |                      |                    |                                 | NSA            |
| WLRC18007 | 388946.974 | 8029607.22  | 355.007 | -60.7         | 139.04               | 60                       | 20                   | 23                 | 3                               | 3.15           |
| WLRC18008 | 388959.206 | 8029616.423 | 354.79  | -60           | 146                  | 70                       |                      |                    |                                 | NSA            |
| WLRC18010 | 388943.317 | 8029586.899 | 354.904 | -59.9         | 139.6                | 30                       | 2                    | 4                  | 2                               | 2.21           |
| WLRC18011 | 388956.066 | 8029596.102 | 354.966 | -60           | 146                  | 30                       |                      |                    |                                 | NSA            |
| WLRC18012 | 388968.292 | 8029603.737 | 354.803 | -60           | 146                  | 45                       |                      |                    |                                 | NSA            |
| WLRC18003 | 388936.318 | 8029618.82  | 354.295 | -60           | 147                  | 72                       |                      |                    |                                 | NSA            |
| WLRC18004 | 388952.879 | 8029620.206 | 354.526 | -72.6         | 153.3                | 60                       | 40                   | 42                 | 2                               | 3.34           |
| WLRC18005 | 388922.99  | 8029592.838 | 354.97  | -60           | 147                  | 48                       |                      |                    |                                 | NSA            |
| WLRC18006 | 388935.368 | 8029600.219 | 354.948 | -57.9         | 146.1                | 48                       | 23                   | 24                 | 1                               | 0.7            |
| WLRC18006 | 388935.368 | 8029600.219 | 354.948 | -57.9         | 146.1                | 48                       | 29                   | 30                 | 1                               | 0.98           |
| WLRC18009 | 388932.273 | 8029579.601 | 354.865 | -60           | 146                  | 30                       |                      |                    |                                 | NSA            |
| PERC18017 | 384,896.3  | 8,028,022.0 | 345.4   | -59.9         | 329.4                | 66.0                     | 45.0                 | 46.0               | 1.0                             | 1.54           |
| PERC18018 | 384,919.2  | 8,028,030.6 | 347.2   | -60.0         | 327.0                | 66.0                     |                      |                    |                                 | NSA            |
| PERC18019 | 384,943.1  | 8,028,032.7 | 348.4   | -59.2         | 342.2                | 80.0                     | 58.0                 | 59.0               | 1.0                             | 2.44           |
| PERC18019 | 384,943.1  | 8,028,032.7 | 348.4   | -59.2         | 342.2                | 80.0                     | 66.0                 | 72.0               | 6.0                             | 4.96           |
|           |            |             |         |               |                      |                          |                      | inc 1m @ 11.2 g    | g/t Au from 66m                 |                |
| PERC18023 | 385,018.5  | 8,028,059.5 | 348.7   | -58.7         | 323.8                | 90                       | 72.0                 | 73.0               | 1.0                             | 0.92           |
| PERC18023 | 385,018.5  | 8,028,059.5 | 348.7   | -58.7         | 323.8                | 90                       | 74.0                 | 75.0               | 1.0                             | 1.05           |
| PERC18024 | 385,037.9  | 8,028,078.6 | 348.3   | -60.0         | 327.0                | 100.0                    |                      |                    |                                 | NSA            |

# Appendix 2 – Table of Drill Results – Nicolsons

| Hole ID   | Easting  | Northing | RL      | Dip<br>(degrees) | Azimuth<br>(degrees) | End of Hole<br>Depth (m) | Downhole<br>From (m) | Downhole To<br>(m) | Downhole<br>Intersection<br>(m) | Au gpt<br>(uncut) | Est. True<br>Width |
|-----------|----------|----------|---------|------------------|----------------------|--------------------------|----------------------|--------------------|---------------------------------|-------------------|--------------------|
| NGC18244  | 10189.55 | 19757.48 | 2008.47 | 12.1             | 332.7                | 216.0                    | 173.10               | 175.05             | 1.95                            | 3.24              | 0.88               |
| NGC18158B | 10180.05 | 19755.49 | 2008.20 | 0.7              | 287.1                | 29.1                     | 26.89                | 27.18              | 0.29                            | 12.80             | 0.26               |
| NGC18245  | 10180.08 | 19755.51 | 2008.20 | -14.6            | 334.0                | 83.7                     | 46.55                | 47.70              | 1.15                            | 3.28              | 0.50               |
| NUD18046  | 10274.25 | 19624.99 | 2053.46 | -7.7             | 318                  | 346.6                    | 157.00               | 158.00             | 1.00                            | 1.31              | 0.65               |
| NUD18051  | 10279.05 | 19624.05 | 2053.47 | -34              | 230.6                | 228                      | 226.20               | 227.30             | 1.10                            | 3.14              | 0.82               |
| NUD18051  | 10279.05 | 19624.05 | 2053.47 | -34              | 230.6                | 228                      | 138.40               | 139.00             | 0.60                            | 3.34              | 0.45               |
| NUD18051  | 10279.05 | 19624.05 | 2053.47 | -34              | 230.6                | 228                      | 140.65               | 141.10             | 0.45                            | 6.26              | 0.34               |
| NUD18071  | 10295.85 | 19627.83 | 2054.82 | -46.3            | 342.1                | 502.1                    | 395.67               | 396.33             | 0.66                            | 3.70              | 0.50               |
| NUD18071  | 10295.85 | 19627.83 | 2054.82 | -46.3            | 342.1                | 502.1                    | 459.86               | 460.51             | 0.65                            | 1.69              | 0.60               |
| NUD18071  | 10295.85 | 19627.83 | 2054.82 | -46.3            | 342.1                | 502.1                    | 260.40               | 261.00             | 0.60                            | 1.66              | 0.17               |
| NUD18134  | 10188.49 | 19757.14 | 2007.08 | -37.4            | 346.8                | 180.7                    | 160.40               | 161.10             | 0.70                            | 6.70              | 0.16               |
| NUD18136  | 10188.49 | 19757.19 | 2007.07 | -28.5            | 351                  | 296.5                    | 103.80               | 104.00             | 0.20                            | 3.05              | 0.15               |
| NGC18242  | 10189.45 | 19757.46 | 2008.47 | 11.0             | 321.1                | 209.2                    | 106.00               | 106.50             | 0.50                            | 1.07              | 0.30               |
| NGC18243  | 10189.55 | 19757.48 | 2008.48 | 11.5             | 326.3                | 175.3                    | 63.58                | 64.15              | 0.57                            | 14.20             | 0.30               |
| NGC18243  | 10189.55 | 19757.48 | 2008.48 | 11.5             | 326.3                | 175.3                    | 155.60               | 158.50             | 2.90                            | 1.17              | 1.55               |
| NGC18244  | 10189.55 | 19757.48 | 2008.47 | 11.9             | 335.3                | 216.0                    | 197.00               | 197.70             | 0.70                            | 4.38              | 0.29               |
| NGC18251  | 10230.75 | 19592.61 | 2000.41 | -53.4            | 286.1                | 120.1                    | 92.40                | 93.00              | 0.60                            | 6.72              | 0.49               |
| NGC18251  | 10230.75 | 19592.61 | 2000.41 | -53.4            | 286.1                | 120.1                    | 104.55               | 105.50             | 0.95                            | 2.68              | 0.78               |
| NGC18257  | 10120.79 | 19454.83 | 2029.20 | 28.6             | 225.4                | 43.4                     | 41.80                | 43.20              | 1.40                            | 6.98              | 0.60               |
| NUD18080  | 10279.88 | 19623.44 | 2053.53 | -51.3            | 237.6                | 479.8                    | 304.30               | 305.40             | 1.10                            | 6.75              | 0.75               |
| NUD18122  | 10188.91 | 19757.23 | 2007.02 | -68.6            | 326.4                | 140.3                    | 104.70               | 107.10             | 2.40                            | 3.93              | 0.99               |
| NUD18128  | 10188.91 | 19757.23 | 2007.02 | -50.7            | 351.3                | 213                      | 170.35               | 175.00             | 4.65                            | 7.72              | 1.60               |
| NUD18128  | 10188.91 | 19757.23 | 2007.02 | -50.8            | 351.5                | 213                      | 179.65               | 180.50             | 0.85                            | 5.35              | 0.30               |
| NUD18132  | 10188.56 | 19757.24 | 2007.21 | -21.3            | 348                  | 210.00                   | 148.00               | 148.70             | 0.70                            | 2.57              | 0.20               |
| NUD18132  | 10188.56 | 19757.24 | 2007.21 | -21.3            | 348                  | 210.00                   | 154.45               | 155.00             | 0.55                            | 41.80             | 0.16               |
| NGC18260  | 10069.99 | 19488.79 | 2088.10 | -                | 92.0                 | 16.3                     | 2.70                 | 3.00               | 0.30                            | 15.10             | 0.28               |
| NGC18261  | 10075.14 | 19488.88 | 2088.10 | -                | 270.0                | 25.4                     | 9.54                 | 10.55              | 1.01                            | 4.71              | 0.95               |
| NUD18118  | 10083.13 | 19368.83 | 2050.21 | -20.4            | 133.4                | 178.5                    | 87.60                | 88.00              | 0.40                            | 7.33              | 0.31               |
| NGC18258  | 10071.35 | 19511.12 | 2088.04 | 0                | 91.8                 | 14.9                     | 3.00                 | 3.50               | 0.50                            | 21.70             | 0.47               |

| Appendix 2 – Table of Drill R | esults – Nicolsons ( | (Continued) |
|-------------------------------|----------------------|-------------|
|-------------------------------|----------------------|-------------|

| Hole ID  | Easting  | Northing | RL      | Dip<br>(degrees) | Azimuth<br>(degrees) | End of Hole<br>Depth (m) | Downhole<br>From (m) | Downhole To<br>(m) | Downhole<br>Intersection<br>(m) | Au gpt<br>(uncut) | Est. True<br>Width |
|----------|----------|----------|---------|------------------|----------------------|--------------------------|----------------------|--------------------|---------------------------------|-------------------|--------------------|
| NGC18259 | 10070.63 | 19501.79 | 2088.04 | 0                | 90.2                 | 17.6                     | 3.03                 | 3.50               | 0.47                            | 9.92              | 0.44               |
| NGC18263 | 10076.31 | 19511.00 | 2088.07 | 0                | 271.2                | 17.6                     | 12.40                | 14.34              | 1.94                            | 18.82             | 1.82               |
| NUD18109 | 10098.91 | 19333.17 | 2154.40 | -1               | 76                   | 132.7                    | 19.30                | 19.50              | 0.20                            | 22.10             | 0.18               |
| NUD18123 | 10185.05 | 19754.77 | 2006.83 | -78.9            | 271.4                | 101.5                    | 58.35                | 60.53              | 2.18                            | 2.49              | 1.13               |
| NUD18127 | 10188.91 | 19757.23 | 2007.02 | -57.6            | 345.7                | 176.66                   | 164.00               | 164.41             | 0.41                            | 5.53              | 0.20               |

# Appendix 3 – JORC Code 2012 Edition – Table 1 – Grants Creek Surface Drilling

## **SECTION 1: SAMPLING TECHNIQUES AND DATA**

| Criteria                  | JORC Code explanation   | Commentary  |
|---------------------------|---|---|
| Sampling techniques       | Nature and quality of sampling (eg 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   | <ul> <li>This information in this release relates to an Exploration update and results from<br/>surface Diamond exploration drill sampling and Reverse Circulation (RC) of the<br/>of the Perseverance and Wilsons Reef prospects at the Grants Creek gold project.</li> </ul>  |
|                           | instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.  | • RC – Rig-mounted static splitter used, with sample falling though a riffle splitter, splitting the sample in 87.5/12.5 ratio sampled every 1m   |
|                           | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.   | • RC samples 2-5kg samples are dispatched to an external accredited laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for  |
|                           | Aspects of the determination of mineralisation that are Material to the Public<br>Report.   | fire assay (40g charge).  |
|                           | <ul> <li>In cases where 'industry standard' work has been done this would be relatively<br/>simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which</li> </ul>   | <ul> <li>Diamond samples 2-5kg samples are dispatched to an external accredited<br/>laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75<br/>micron) for fire assay (40g charge).</li> </ul>  |
| 3 kg<br>exp<br>sam<br>nod | 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more<br>explanation may be required, such as where there is coarse gold that has inherent<br>sampling problems. Unusual commodities or mineralisation types (eg submarine<br>nodules) may warrant disclosure of detailed information. | • All core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with RHS of cutting line assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1.2m, with shorter intervals utilised according to geology to a minimum interval of15m where clearly defined mineralisation is evident. |
|                           |   | Core is aligned, measured and marked up in metre intervals referenced back to downhole core blocks.   |
| Drilling techniques       | • Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth  | RC – Reverse circulation drilling was carried out using a face sampling hammer and a 130mm diameter bit   |
|                           | of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).  | <ul> <li>Surface DD – HQ and NQ2 diamond tails completed on 3m rock roller precollars,<br/>all core has orientations completed</li> </ul>   |
| Drill sample recovery     | • Method of recording and assessing core and chip sample recoveries and results assessed.   | • All holes were logged at site by an experienced geologist. Recovery and sample quality were visually observed and weights recorded at the laboratory  |
|                           | Measures taken to maximise sample recovery and ensure representative nature of the samples.   | • RC- recoveries are monitored by visual inspection of split reject and lab weight samples are recorded and reviewed.   |
|                           | • 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.  | • DD – No significant core loss has been noted in fresh material. Good core recovery has generally been achieved in all sample types in the current drilling program.   |
| Logging                   | • Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.   | Geological logging is completed by a qualified geologist and logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide  |
|                           | • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  | <ul> <li>content and composition, quartz content, veining, and general comments.</li> <li>100% of the holes are logged</li> </ul>   |
|                           | The total length and percentage of the relevant intersections logged.   |   |

| Criteria  | JORC Code explanation   | Commentary  |
|---|---|---|
| Sub-sampling techniques<br>and sample preparation | If core, whether cut or sawn and whether quarter, half or all core taken.   | All RC holes are sampled on 1m intervals.   |
|   | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.   | RC samples are taken off the rig splitter, no significant water is encountered and are typically dry  |
|   | • For all sample types, the nature, quality and appropriateness of the sample preparation technique.  | Core samples were sawn in half utilising an Almonte core-saw, with RHS of cutting line sent for assaying and the other half retained in core trays on site for future analysis.   |
|   | Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples  | For core samples, core was separated into sample intervals and separately bagged  |
|   | <ul> <li>Measures taken to ensure that the sampling is representative of the in situ material</li> </ul>  | for analysis at the certified laboratory.   |
|   | collected, including for instance results for field duplicate/second-half sampling.   | Core was cut under the supervision of an experienced geologist, it was routinely     cut on the orientation line  |
|   | • Whether sample sizes are appropriate to the grain size of the material being  |   |
|   | sampled.  | All mineralised zones are sampled as well as material considered barren either<br>side of the mineralised interval  |
|   |   | • Field duplicates for RC samples were taken as part of this program.   |
|   |   | Half core is considered appropriate for diamond drill samples.  |
|   |   | <ul> <li>Sample sizes are considered appropriate for the material being sampled and<br/>weights are recorded and monitored by project geologists.</li> </ul>  |
| Quality of assay data and laboratory tests        | • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  | Assays are completed in a certified laboratory in Perth BVA. Gold assays are determined using fire assay with 40g charge. Where other elements are assayed  |
|   | <ul> <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 (eg standards, blanks, duplicates,</li> </ul> | using either AAS base metal suite or acid digest with ICP-MS finish. The methods<br>used approach total mineral consumption and are typical of industry standard<br>practice.   |
|   |   | No geophysical logging of drilling was performed.   |
|   | external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.  | <ul> <li>Lab standards, blanks and repeats are included as part of the QAQC system. In<br/>addition the laboratory has its own internal QAQC comprising standards, blanks<br/>and duplicates. Sample preparation checks of pulverising at the laboratory<br/>include tests to check that the standards of 90% passing 75 micron is being<br/>achieved. Follow-up re-assaying is performed by the laboratory upon company<br/>request following review of assay data. Acceptable bias and precision is noted in<br/>results given the nature of the deposit and the level of classification</li> </ul> |
|   |   | <ul> <li>RC drill samples from previous owners was fire assay with AAS finish. Review of<br/>historic records of received assays confirms this.</li> </ul>  |

| Criteria                              | JORC Code explanation  | Commentary   |
|---------------------------------------|--|--|
| Verification of sampling and assaying | • The verification of significant intersections by either independent or alternative company personnel.  | • Significant intersections are noted in logging and checked with assay results by company personnel both on site and in Perth.  |
|                                       | The use of twinned holes.  | • There were a number of holes which overlapped with historic drilling and results appear consistent based on preliminary review of the data.  |
|                                       | <ul> <li>Documentation of primary data, data entry procedures, data verification, data<br/>storage (physical and electronic) protocols.</li> </ul>   | <ul> <li>All primary data is logged digitally on tablet or on paper and later entered into</li> </ul>  |
|                                       | Discuss any adjustment to assay data.  | the SQL database. Data is visually checked for errors before being sent to an the companies database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept in onsite office. |
|                                       |  | Visual checks of the data re completed in Surpac mining software   |
|                                       |  | • No adjustments have been made to assay data unless in instances where standard tolerances are not met and reassay is ordered .   |
| Location of data points               | <ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole<br/>surveys), trenches, mine workings and other locations used in Mineral Resource<br/>estimation.</li> </ul>                                | <ul> <li>RC/DD drilling is downhole surveyed utilizing surveyed electronic single shot<br/>survey tool at collar, 10 metres then 30m thereafter. No Gyro DH surveys were<br/>undertaken on this program.</li> </ul>                      |
|                                       | Specification of the grid system used.   | Surface RC and Diamond drilling is marked out using GPS and final pickups using  |
|                                       | Quality and adequacy of topographic control.   | DGPS collar pickups.   |
| Data spacing and                      | Data spacing for reporting of Exploration Decults  | • The project lies in MGA 94, 2016 52.   |
| distribution                          | Data spacing for reporting of exploration results.     Whother the data spacing and distribution is sufficient to establish the degree of  | along strike spacing, over 3 lines   |
|                                       | geological and grade continuity appropriate for the Mineral Resource and Ore   | No compositing is applied to diamond drilling or RC sampling.  |
|                                       | <ul><li>Reserve estimation procedure(s) and classifications applied.</li><li>Whether sample compositing has been applied.</li></ul>  | • Core samples are both sampled to geology of between 0.15 and 1.2m intervals.<br>All RC samples are at 1m intervals   |
| Orientation of data in                | • Whether the orientation of sampling achieves unbiased sampling of possible   | No bias of sampling is believed to exist through the drilling orientation  |
| relation to geological                | structures and the extent to which this is known, considering the deposit type.  | Surface drilling is designed perpendicular to the interpreted orientation of the   |
| structure                             | <ul> <li>If the relationship between the drilling orientation and the orientation of key<br/>mineralised structures is considered to have introduced a sampling bias, this<br/>should be assessed and reported if material.</li> </ul> | mineralisation.  |
| Sample security                       | The measures taken to ensure sample security.  | • The chain of custody is managed by Pantoro employees and contractors. Samples are stored on site and delivered in sealed boxes and bags to the lab in Perth  |
|                                       |  | Samples are tracked during shipping.   |
| Audits or reviews                     | • The results of any audits or reviews of sampling techniques and data.  | <ul> <li>No audit or reviews of sampling techniques have been undertaken however the<br/>data is managed by an database consultant who has internal checks/protocols<br/>in place.</li> </ul>  |

## **SECTION 2: REPORTING OF EXPLORATION RESULTS**

| Criteria                                | JORC Code explanation  | Commentary  |
|---|--|---|
| Mineral tenement and land tenure status | Type, reference name/number, location and ownership including agreements or<br>material issues with third parties such as joint ventures, partnerships, overriding | The Tenement related to this drilling are 100% held by Pantoro subsidiary company Halls Creek Mining Pty Ltd. This is: E80/4952   |
|   | royalties, native title interests, historical sites, wilderness or national park and<br>environmental settings.  | • The tenements is in good standing and no known impediments exist.   |
|   | • 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.                         |   |
| Exploration done by other parties       | Acknowledgment and appraisal of exploration by other parties.  | • Excluding the historical mining, the first systematic company based exploration in the region prior to 1980 was completed by Australian Mineral Ventures N.L. with regional mapping and selected rock chips from old workings. Southern ventures continued to explore with phases of more comprehensive regional soil sampling and the completion of 26 RC holes for 636 metres at the known workings                     |
|   |  | <ul> <li>In 1991, Dominion Mining Limited ("Dominion") started work on the area as<br/>exploration licence E80/1343, with a focus on the historical Kimberley Star mine<br/>workings. The company completed reconnaissance mapping, aerial photography,<br/>satellite imagery interpretation, rock chip/channel sampling and costeaning.</li> </ul>   |
|   |  | • From 1994 - 1997 PMA Gold continued to explore the prospects of Perseverance (E80/1343), Star of Kimberley (M80/366) and Wilsons Reef (M Since 2002, Pacrim Energy Limited has held the tenure over the ground and again commenced work with a review of the historical data. From this work the company recommended that soil sampling, ground magnetic survey, geological mapping and rock- chip sampling be completed. |
|   |  | • As JV Partner with Pacrim, Metminco undertook drilling in 2008 and completed 20 holes with 14 of them at the perseverance prospect. The remaining 6 tested other regional targets away from the main trend lines.   |
|   |  | • Limited work was undertaken by Firestrike up until 2014.80/233).  |

| Criteria               | JORC Code explanation  | Commentary  |
|------------------------|--|---|
| Geology                | Deposit type, geological setting and style of mineralisation.  | • The local geology is summarised as gold hosting quartz reefs within deformed<br>and folded metasedimentary and metavolcanic rocks of Proterozoic age. The<br>oldest rocks of the complex were the Ding Dong Downs Volcanics and the<br>Sophie Downs Granite separated from the overlying Halls Creek Group by an<br>unconformity.   |
|                        |  | • The project area also covers part of the Lower Proterozoic Halls Creek Group sediments and sub-volcanics of the Lamboo Complex whilst the Biscay and overlying Olympio Formations comprise the Upper Halls Creek Group. Overlying this Group, the White Water Volcanics Formation is also present to the east of the Halls Creek Fault Zone, a major structural feature that trends northeast across the Grants Creek leases.   |
|                        |  | <ul> <li>The tenement covers an area of extensive carbonate alteration within greywacke<br/>sequences, felsic and mafic volcanics and arkosic arenites in the Halls Creek Mobile<br/>Zone. These Lower Proterozoic basic schists and metasediments are considered<br/>as the preferential hosts for auriferous quartz/ sulphide lode structures. The<br/>mineralized structures lie within an east- northeast trending link formation<br/>between two splays of the major regional north-east trending Halls Creek fault<br/>Zone. Gold mineralisation occurs in association with silver, lead, zinc and minor<br/>copper.</li> </ul> |
| Drill hole Information | <ul> <li>A summary of all information material to the understanding of the exploration<br/>results including a tabulation of the following information for all Material drill<br/>holes:</li> <li>» easting and northing of the drill hole collar</li> </ul> | A table of drill hole data pertaining to this release is attached.  |
|                        | <ul> <li>» elevation or RL (Reduced Level – elevation above sea level in metres) of the<br/>drill hole collar</li> </ul>   |   |
|                        | » dip and azimuth of the hole  |   |
|                        | » down hole length and interception depth  |   |
|                        | » hole length.   |   |
|                        | • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.            |   |

| Criteria  | JORC Code explanation   | Commentary  |
|---|---|---|
| Data aggregation methods                          | In reporting Exploration Results, weighting averaging techniques, maximum   | Reported drill results are uncut  |
|   | and/or minimum grade truncations (eg cutting of high grades) and cut-off grades<br>are usually Material and should be stated.   | • All relevant intervals to the reported mineralised intercept are length weighted to determine the average grade for the reported intercept.   |
|   | • 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.  | <ul> <li>All significant intersections are reported with a lower cut off of 1 g/t Au including<br/>a maximum of 2m of internal dilution. Individual intervals below this cut off<br/>are reported where they are considered to be required in the context of the<br/>presentation of results</li> </ul> |
|   | The assumptions used for any reporting of metal equivalent values should be clearly stated.   | No metal equivalents are reported.  |
| Relationship between<br>mineralisation widths and | • These relationships are particularly important in the reporting of Exploration Results.   | <ul> <li>Surface DD/RC drilling is perpendicular to the interpreted strike of the<br/>mineralisation.</li> </ul>  |
| intercept lengths                                 | If the geometry of the mineralisation with respect to the drill hole angle is known,     its actives abased be seen acted.  | Downhole lengths are reported.  |
|   | Its nature should be reported.<br>If it is not known and only the down hole lengths are reported, there should be a<br>clear statement to this effect (eg 'down hole length, true width not known').  | • Estimated true widths are not currently known due to the early stage of the drilling with orientations yet to be defined  |
| Diagrams  | • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.   | Appropriate diagrams are included in the report.  |
| 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.   | Diagrams show the location and tenor of both high and low grade samples.  |
| Other substantive<br>exploration data             | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | No other meaningful data to report.   |
| Further work                                      | The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  | • The results from this current program are the first undertaken in the area by HCM and will be used to validate the more recent historic drilling with a view to   |
|   | • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.   | conduct a preliminary Mineral Resource estimate.  |

# Appendix 4 – JORC Code 2012 Edition – Table 1 – Nicolsons Underground Diamond Drilling

## **SECTION 1: SAMPLING TECHNIQUES AND DATA**

| Criteria              | JORC Code explanation   | Commentary  |
|-----------------------|---|---|
| Sampling techniques   | • Nature and quality of sampling (eg 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   | • This release relates to results from an ongoing underground diamond drilling program at the Nicolsons underground deposit aimed at infilling and extending the current Mineral Resource   |
|                       | instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.  | The diamond drill core sampled is NQ2   |
|                       | <ul> <li>Include reference to measures taken to ensure sample representivity and the<br/>appropriate calibration of any measurement tools or systems used.</li> </ul>   | • All core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with one side assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1.2m, with shorter   |
|                       | Aspects of the determination of mineralisation that are Material to the Public Report   | intervals utilised according to geology.  |
|                       | <ul> <li>In cases where 'industry standard' work has been done this would be relatively</li> </ul>  | Core is aligned, measured and marked up in metre intervals referenced back to downhole core blocks.   |
|                       | simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which<br>3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more<br>explanation may be required, such as where there is coarse gold that has inherent<br>sampling problems. Unusual commodities or mineralisation types (eg submarine<br>nodules) may warrant disclosure of detailed information. | <ul> <li>Diamond drilling is completed to industry standard and various sample intervals<br/>based on geology (0.3m-1.2m) are selected based on geology.</li> </ul>   |
|                       |   | <ul> <li>Diamond samples - 0.8-2.5kg samples are dispatched to an external accredited<br/>laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75<br/>micron) for fire assay (40g charge). All core is logged and sampled according to<br/>geology, with only selected samples assayed. Core is halved, with RHS of cutting<br/>line assayed, and the other half retained in core trays on site for further analysis.<br/>Samples are a maximum of 1.2m, with shorter intervals utilised according to<br/>geology to a minimum interval of .3m.</li> </ul> |
|                       |   | <ul> <li>Visible gold is encountered and where observed during logging, Screen Fire<br/>Assays are conducted</li> </ul>   |
| Drilling techniques   | • Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger,  | Underground diamond drilling is completed utilizing NQ2 (standard tube)   |
|                       | Bangka, sonic, etc) and details (eg 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).  | Core is oriented routinely utilizing a Ezi-Mark orientation device  |
| Drill sample recovery | • Method of recording and assessing core and chip sample recoveries and results assessed.   | <ul> <li>All holes were logged at site by an experienced geologist. Recovery and sample<br/>quality were visually observed and recorded</li> </ul>  |
|                       | Measures taken to maximise sample recovery and ensure representative nature of the samples.   | • Diamond drilling practices result in high recovery in competent ground as part of the current drill program   |
|                       | • 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.  | • No significant core loss has been noted in fresh material. Good core recovery has generally been achieved in all sample types in the current drilling program.  |

| Criteria                                   | JORC Code explanation   | Commentary   |
|--|---|--|
| Logging                                    | <ul> <li>Whether core and chip samples have been geologically and geotechnically<br/>logged to a level of detail to support appropriate Mineral Resource estimation,<br/>mining studies and metallurgical studies.</li> </ul> | Geological logging is completed by a qualified geologist and logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition quarts content variance and composition.  |
|  | • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  | <ul> <li>Logging is quantitative and qualitative with all core photographed wet</li> </ul>   |
|  | The total length and percentage of the relevant intersections logged.   | 100% of the relevant intersections are logged  |
| Sub-sampling techniques                    | If core, whether cut or sawn and whether quarter, half or all core taken.   | Core samples were sawn in half utilising an Almonte core-saw, with one half used   |
| and sample preparation                     | • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled   | for assaying and the other half retained in core trays on site for future analysis.  |
|  | wet or dry.   | For core samples, core was separated into sample intervals and separately bagged for analysis at the cortified laboratory  |
|  | • For all sample types, the nature, quality and appropriateness of the sample   |  |
|  | preparation technique.  | <ul> <li>Core was cut under the supervision of an experienced geologist, was routinely<br/>cut on the orientation line.</li> </ul>   |
|  | <ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise<br/>representivity of samples.</li> </ul>   | All mineralised zones are sampled as well as material considered barren either   |
|  | Measures taken to ensure that the sampling is representative of the in situ material  | side of the mineralised interval   |
|  | collected, including for instance results for field duplicate/second-half sampling.   | • Field duplicates i.e. other half of core or 1/4 core has not been routinely sampled  |
|  | • Whether sample sizes are appropriate to the grain size of the material being sampled.   | Half core is considered appropriate for diamond drill samples.   |
| Quality of assay data and laboratory tests | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  | • Assays are completed in a certified laboratory in Perth WA. Gold assays are determined using fire assay with 40g charge. Where other elements are assayed  |
|  | • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and  | using either AAS base metal suite or acid digest with ICP-MS finish. The methods<br>used approach total mineral consumption and are typical of industry standard<br>practice.  |
|  | model, reading times, calibrations factors applied and their derivation, etc.   | <ul> <li>No geophysical logging of drilling was performed.</li> </ul>  |
|  | <ul> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates,<br/>external laboratory checks) and whether acceptable levels of accuracy (ie lack of</li> </ul>                                     | <ul> <li>Lab standards blanks and repeats are included as part of the QAQC system. In</li> </ul>   |
|  | bias) and precision have been established.  | addition the laboratory has its own internal QAQC comprising standards, blanks<br>and duplicates. Sample preparation checks of pulverising at the laboratory<br>include tests to check that the standards of 90% passing 75 micron is being<br>achieved. Follow-up re-assaying is performed by the laboratory upon company<br>request following review of assay data. Acceptable bias and precision is noted in<br>results given the nature of the deposit and the level of classification |

| Criteria                              | JORC Code explanation  | Commentary   |
|---------------------------------------|--|--|
| 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 are noted in logging and checked with assay results by<br/>company personnel both on site and in Perth. Diamond drilling confirms the<br/>width of the mineralised intersections.</li> </ul>  |
|                                       |  | There are no twinned holes drilled as part of these results  |
|                                       |  | All primary data is logged either digitally or on paper and later entered into the   |
|                                       |  | database. Data is visually checked for errors before being sent to an external database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept in onsite office.  |
|                                       |  | Visual checks of the data re completed in Surpac mining software   |
|                                       |  | • No adjustments have been made to assay data unless in instances where standard tolerances are not met and reassay is ordered .   |
| 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>  | • Drilling is surveyed using conventional survey. Downhole surveys are conducted during drilling using a Reflex survey tool. All holes are surveyed down the hole at 15m, 30m and every 30m thereafter. When the hole is completed, multishots are   |
|                                       |  | taken every 6m from EOH when tripping rods.  |
|                                       |  | <ul> <li>All underground development is routinely picked up by conventional survey<br/>methods and faces referenced to this by measuring from underground survey<br/>stations prior to entry into the database</li> </ul>  |
|                                       |  | <ul> <li>The project lies in MGA 94, zone 52. Local coordinates are derived by conversion:<br/>GDA94_EAST =NIC_EAST * 0.9983364 + NIC_NORTH * 0.05607807 + 315269.176<br/>GDA94_NORTH = NIC_EAST * (-0.05607807) + NIC_NORTH * 0.9983364 +<br/>7944798.421 GDA94_RL =NIC-RL +2101.799</li> </ul> |
|                                       |  | • Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use.  |
|                                       |  | Pre Pantoro survey accuracy and quality assumed to industry standard.  |
| 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> | • Drill hole spacing at Nicolson's underground is variable due to the nature of drilling fans from suitable underground drilling platforms. Spacing of centres is generally targeted at between 40 m by 40 m with infill as required.  |
|                                       |  | • The Competent Person is of the view that the drill/sample spacing, geological interpretation and grade continuity of the data supports the resource categories assigned.   |
|                                       |  | No compositing is applied to diamond drilling.   |
|                                       |  | <ul> <li>Core and face samples are both sampled to geology of between 0.3 and 1.2m intervals.</li> </ul>   |

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
| Orientation of data in<br>relation to geological<br>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>Drilling is generally perpendicular to the orebody other than the limitations introduced by the need to drill fans. All intervals are reviewed relative to the understanding of the geology and true widths calculated and reported in the tables attached in the body of the report.</li> <li>No bias of sampling is believed to exist through the drilling orientation</li> </ul> |
| Sample security   | The measures taken to ensure sample security.  | <ul> <li>The chain of custody is managed by Pantoro employees and contractors. Samples are stored on site and delivered in sealed boxes and bags to the lab in Perth</li> <li>Samples are tracked during shipping.</li> <li>Pre Pantoro operator sample security assumed to be consistent and adequate</li> </ul>  |
| Audits or reviews   | • The results of any audits or reviews of sampling techniques and data.  | • No audit or reviews of sampling techniques have been undertaken however the data is managed by an offsite database contractor who has internal checks/ protocols in place.   |

## **SECTION 2: REPORTING OF EXPLORATION RESULTS**

| Criteria                                | JORC Code explanation  | Cor | mmentary  |
|---|--|-----|---|
| 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> | •   | Tenement related to this drilling are 100% held by Pantoro subsidiary company<br>Halls Creek Mining Pty Ltd. This is : M80/359  |
|   |  | •   | Tenement transfers to HCM are yet to occur as stamp duty assessments are under review by the office of state revenue. The tenements lie on a pastoral lease with  |
|   |  |     | access and mining agreements .  |
|   |  | •   | The tenements are in good standing and no known impediments exist.  |
| Exploration done by other parties       | Acknowledgment and appraisal of exploration by other parties.  | •   | The deposits were discovered by prospectors in the early 1990s. After an 8,500 m RC program, Precious Metals Australia mined 23 koz at an estimated 7.7g/t Au from Nicolson's Pit in 1995/96 before ceasing the operation. Rewah mined the Wagtail and Rowdy pits (5 koz at 2.7g/t Au) in 2002/3 before Terra Gold Mines (TGM) acquired the project, carried out 12,000 m of RC drilling and produced a 100 koz rosource actimate. CPS Gold acquired TGM and drillod 4.000 m before |
|   |  |     | being placed in administration. Bulletin Resources Ltd acquired the project from  |
|   |  |     | Wagtail Deposits and completed regional exploration drilling and evaluation and completed a Mining Study in 2012 prior to entering into a JV with PNR in 2014   |

| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
| Geology       •       Deposit type, geological setting and style of mineralisation. | <ul> <li>Gold mineralisation in the Nicolson's Find area is structurally controlled within<br/>the 400 m wide NNE trending dextral strike slip Nicolson's Find Shear Zone<br/>(NFSZ) and is hosted within folded and metamorphosed turbiditic greywackes,<br/>felsic volcaniclastics, mafic volcanics and laminated siltstones and mudstones.<br/>This zone forms part of a regional NE-trending strike slip fault system developed<br/>across the Halls Creek Orogen (HCO).</li> </ul> |  |
|   | • The NFSZ comprises a NNE-trending anastomosing system of brittle-ductile shears, characterised by a predominantly dextral sense of movement. The principal shear structures trend NNE to N-S and are linked by NW, and to a lesser extent, by NE shears. Individual shears extend up to 500m along strike and overprint the earlier folding and penetrative cleavage of the HCO.  |  |
|   |   | • The overall geometry of the system is characterized by right step-overs and bends/jogs in the shear traces, reflecting refraction of the shears about the granite contact. Within this system, the NW-striking shears are interpreted as compressional structures and the NE-striking shears formed within extensional windows.  |
|   |   | <ul> <li>Mineralisation is primarily focussed along NNE trending anastomosing systems of NNE-SSW, NW-SE and NE-SW oriented shears and splays. The NNE shears dip moderately to the east, while the NW set dips moderately to steeply to the NE. Both sets display variations in dip, with flattening and steepening which result in a complex pattern of shear intersections</li> </ul>  |
|   |   | <ul> <li>Mineralisation is strongly correlated with discontinuous quartz veining and with<br/>Fe-Si-K alteration halos developed in the wall rocks to the veins. The NE shears are<br/>associated with broad zones of silicification and thicker quartz veining (typically<br/>white, massive quartz with less fracturing and brecciation); however, these are<br/>typically poorly mineralized. The NW-trending shears are mineralized, with the<br/>lodes most likely related to high fluid pressures with over-pressuring and failure<br/>leading to vein formation. Although the NE structures formed within the same<br/>shear system, the quartz veining is of a different generation to the mineralized<br/>veins.</li> </ul> |
|   |   | <ul> <li>Individual shears within the system display an increase in strain towards their<br/>centres and comprise an anastomosing shear fabric reminiscent of the pattern<br/>on a larger scale.</li> </ul>  |

| Criteria   | JORC Code explanation   | Commentary  |
|--|---|---|
| Drill hole Information   | • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:   | A table of drill hole data pertaining to this release is attached.  |
|  |   | • All holes with results available from the last public announcement are reported   |
|  | » easting and northing of the drill hole collar   |   |
|  | » elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  |   |
|  | » dip and azimuth of the hole   |   |
|  | » down hole length and interception depth   |   |
|  | » hole length.  |   |
|  | • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.                   |   |
| Data aggregation methods   | In reporting Exploration Results, weighting averaging techniques, maximum   | Reported drill results are uncut  |
|  | and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.  | • All relevant intervals to the reported mineralised intercept are length weighted to determine the average grade for the reported intercept. |
|  | • 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.            | No metal equivalents are reported.  |
|  | • The assumptions used for any reporting of metal equivalent values should be clearly stated.   |   |
| Relationship between<br>mineralisation widths and<br>intercept lengths | These relationships are particularly important in the reporting of Exploration<br>Results.  | Drilling from the underground is drilled from locations which mean there are variable dips and azimuths due to access limitations             |
|  | • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.   | • Downhole lengths are reported and true widths are calculated in both the section and plan view utiliising a formulae in excel               |
|  | • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').   | • True widths are calculated and reported for drill intersections which intersect the lodes obliquely.  |
| Diagrams   | • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. | Appropriate diagrams are included in the report.  |
| Balanced reporting   | • Where comprehensive reporting of all Exploration Results is not practicable,  | All holes available since the last report are included in the tables  |
|  | representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.  | • Diagrams show the location and tenor of both high and low grade samples.  |

| Criteria                           | JORC Code explanation   | Commentary   |
|------------------------------------|---|--|
| Other substantive exploration data | <ul> <li>Other exploration data, if meaningful and material, should be reported including<br/>(but not limited to): geological observations; geophysical survey results;<br/>geochemical survey results; bulk samples – size and method of treatment;<br/>metallurgical test results; bulk density, groundwater, geotechnical and rock<br/>characteristics; potential deleterious or contaminating substances.</li> </ul> | No other meaningful data to report.  |
| Further work                       | <ul> <li>The nature and scale of planned further work (eg 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</li> </ul>  | <ul> <li>As already note these drilling results are part of an ongoing program to define<br/>and extend the known resource. The dataset will be utilised in an update to the<br/>current Mineral Resource for the Nicolsons Find Deposit.</li> </ul> |
|                                    | geological interpretations and future drilling areas, provided this information is not commercially sensitive.  | • Further infill drilling will be planned on the basis of interpretation ot the results as they become available.  |

### **Exploration Targets, Exploration Results**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Scott Huffadine (B.Sc. (Hons)), a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Huffadine is a Director and full time employee of the company. Mr Huffadine is eligible to participate in short and long term incentive plans of and holds shares, options and performance rights in the Company as has been previously disclosed. Mr Huffadine has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Huffadine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Previously Announced Grants Creek Drilling Results**

The information is extracted from the report entitled 'Excellent Drilling Results from Grants Creek' created on 1 November 2018 and is available to view on Pantoro's website (www.pantoro.com.au) and the ASX (www.asx.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement.

#### **Forward Looking Statements**

Certain statements in this report relate to the future, including forward looking statements relating to Pantoro's financial position and strategy. These forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or achievements of Pantoro to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement and deviations are both normal and to be expected. Other than required by law, neither Pantoro, their officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward looking statements will actually occur. You are cautioned not to place undue reliance on those statements.