



**ASX Announcement**  
**10 October 2018**

## **Quarterly Production and Exploration Update**

Pantoro Limited (**ASX:PNR**) (**Pantoro**) provides the following update on operations at Halls Creek.

### **Quarterly Update**

- The September 2018 Quarter production results were impacted by unforeseen operational issues as outlined in an ASX announcement dated 28 August 2018, titled 'Halls Creek Operations Update'. Total production for the quarter was 9,524 ounces, slightly below the 10,000 to 11,000 ounces revised production target advised on 28 August 2018. Unit costs were directly impacted by the reduced production, which was the result of lower than expected grade in the processing plant. AISC is expected to be in the range of A\$1,850 to A\$1,930 per ounce. Costs are being finalised and will be provided in the quarterly report later in October.
- Drilling below and to the north of the 2005 level completed during August and September has revealed high grade intercepts at depth in the northern part of the current workings, demonstrating the continuity of high grade mineralisation at depth. Drilling supports a shallow plunge to the north with high grades up to 50 metres north and up to 80 metres below the 2005 Level and remains open, supporting the potential for extension of the deposit. The best drilling results below the 2005 Level completed to date include:
  - » 1.3 m @ 59.2 g/t Au.
  - » 2.18 m @ 56.03 g/t Au.
  - » 6.86 m @ 13.9 g/t Au.
  - » 3.6 m @ 10.67 g/t Au.
  - » 2.12 m @ 11.84 g/t Au.
  - » 0.8 m @ 34.8 g/t Au.
  - » 1.2 m @ 15.54 g/t Au.
  - » 5.5 m @ 14.68 g/t Au.

Mine planning at depth is underway to assess transition of capital mine infrastructure to the high grade areas identified at depth.

- All major capital projects were substantially completed during the quarter, with the exception of development of the Wagtail Underground Mine which is now being progressed on a 24 hour per day basis. Total site capital expenditure reduced throughout the quarter and is expected to remain lower during the coming quarter.
- Wagtail development is ongoing with first ore expected to be developed during the December 2018 quarter as planned.
- Additional drilling below the current Rowdies Mineral Resource continues to demonstrate high grade mineralisation at depth within the Wagtail ore system.
- High grade near-surface drilling results returned from Nicolsons South, between Nicolsons and Rowdies open pits.
- Grants Creek drilling commenced early in September 2018. The first phase of drilling is ongoing with initial assays pending.
- The Company's cash and gold position at the end of the quarter was \$19.3 million\*. The company undertook a

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\$13 million placement to professional and sophisticated investors at 20 cents per share, realising \$12.35 million after costs.

- A share purchase plan for existing shareholders with a registered address in Australia or New Zealand was undertaken subsequent to the placement at 20 cents per share. A total of \$705,000 was subscribed for and accepted subsequent to the end of the quarter by the company.

\* Includes \$17.0M cash, 42 ounces at mint, 1,362 ounces in safe and GIC @ \$1,644/oz.

## **Enquiries**

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## **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.

## **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.

## Nicolsons Mine

Nicolsons mine was the sole production source during the quarter, with mill feed supplemented by low grade stocks upgraded by the recently installed ore sorter. Wagtail development has been advanced and is now progressing on a 24 hour per day basis. Wagtail development is expected to reach the first ore level at 2200mRL and will start contributing to site production during the December 2018 quarter.

The detailed drilling program below and along strike of the 2005 Level in the Anderson Lode is progressing well with high grade results notes in the northern zones of the orebody.

Best results below the 2005 level to date include:

- » 1.3 m @ 59.2 g/t Au.
- » 2.18 m @ 56.03 g/t Au.
- » 6.86 m @ 13.9 g/t Au.
- » 3.6 m @ 10.67 g/t Au.
- » 2.12 m @ 11.84 g/t Au.
- » 0.8 m @ 34.8 g/t Au.
- » 1.2 m @ 15.54 g/t Au.
- » 5.5 m @ 14.68 g/t Au.

Drilling to date indicates that high grade mineralisation developed on levels above appears to be following a shallow plunge to the north. A number of the new high grade intercepts lie outside of the current Mineral Resource estimate indicating potential for further extensions as additional data becomes available. Drilling also indicates that the dip of the ore in the southern parts of the Anderson Lode has flattened, with a corresponding reduction in grade and width of the orebody in those areas.

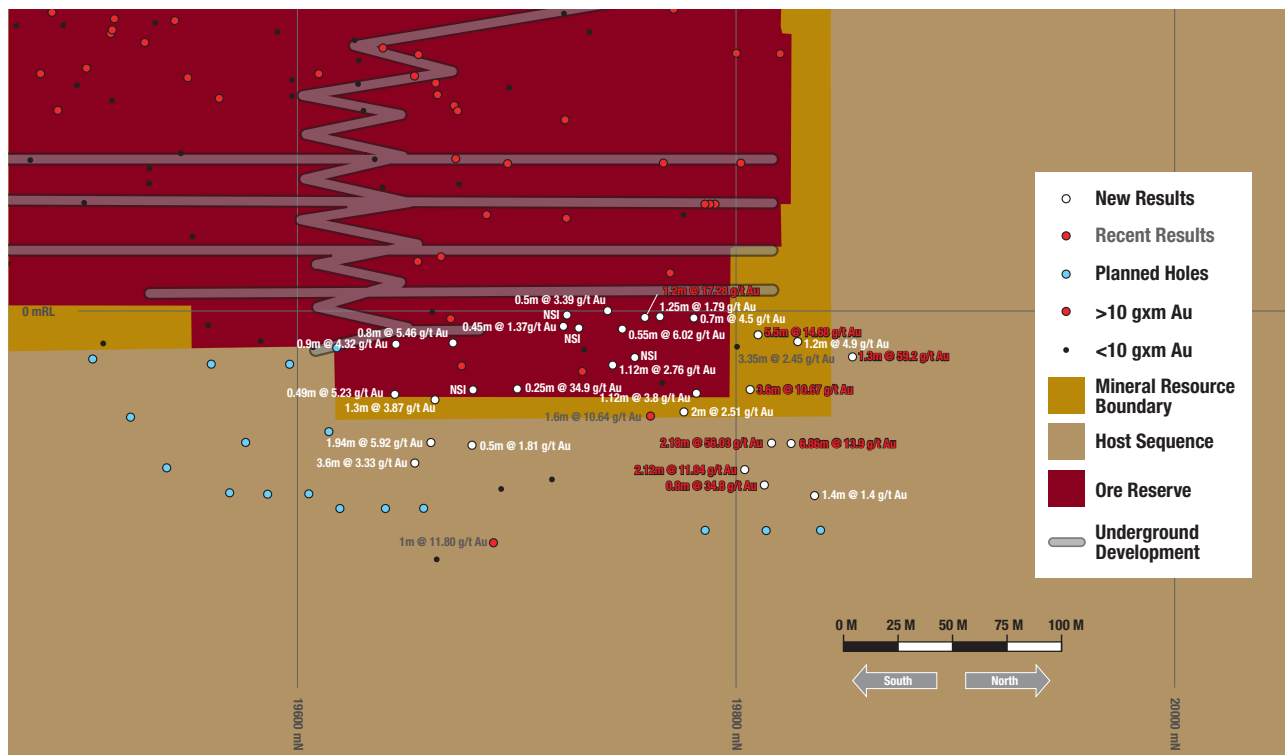
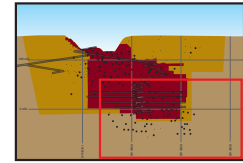
The detailed drilling program is ongoing with additional drilling planned to test depth and strike extensions to the north of the orebody, as well as deeper zones in southern parts of the Hall and Anderson Lode. Drilling in the southern parts of the orebody is designed to test for a steepening of the orebody which typically coincided with higher grade mineralisation in the upper levels of the mine.

As advised in the 28 August 2018 announcement, Nicolsons production continued to be impacted by dilution in longhole stopes in some areas of the mine, the transition from long hole stoping to cut and fill stoping, and lower than expected development ounces being mined from the Anderson Lode on the 2005 Level and below.

Areas within the mine including the southern end of the Hall Lode and the upper areas of the Johnston Lode have continued to be challenging during stoping operations. Partially oxidised material in the shear zone combined with discrete parallel structures in the footwall and hanging wall of the ore zones were the drivers to stope dilution. The site operational team is maintaining a focus on minimisation of dilution in the oxidised areas through modified mining methods as previously reported.

# Nicolson's Deposit

## Hall/Anderson Lode Schematic Long-Section



Development is currently progressing on the 1985 level (20 metres below the 2005). Development is approximately 80 metres from the expected high grade zone to the North of the deposit. Based on the results achieved to date, Pantoro is assessing options to transition the decline and other mine infrastructure further north to better service the higher grade mineralisation to the north on deeper levels.

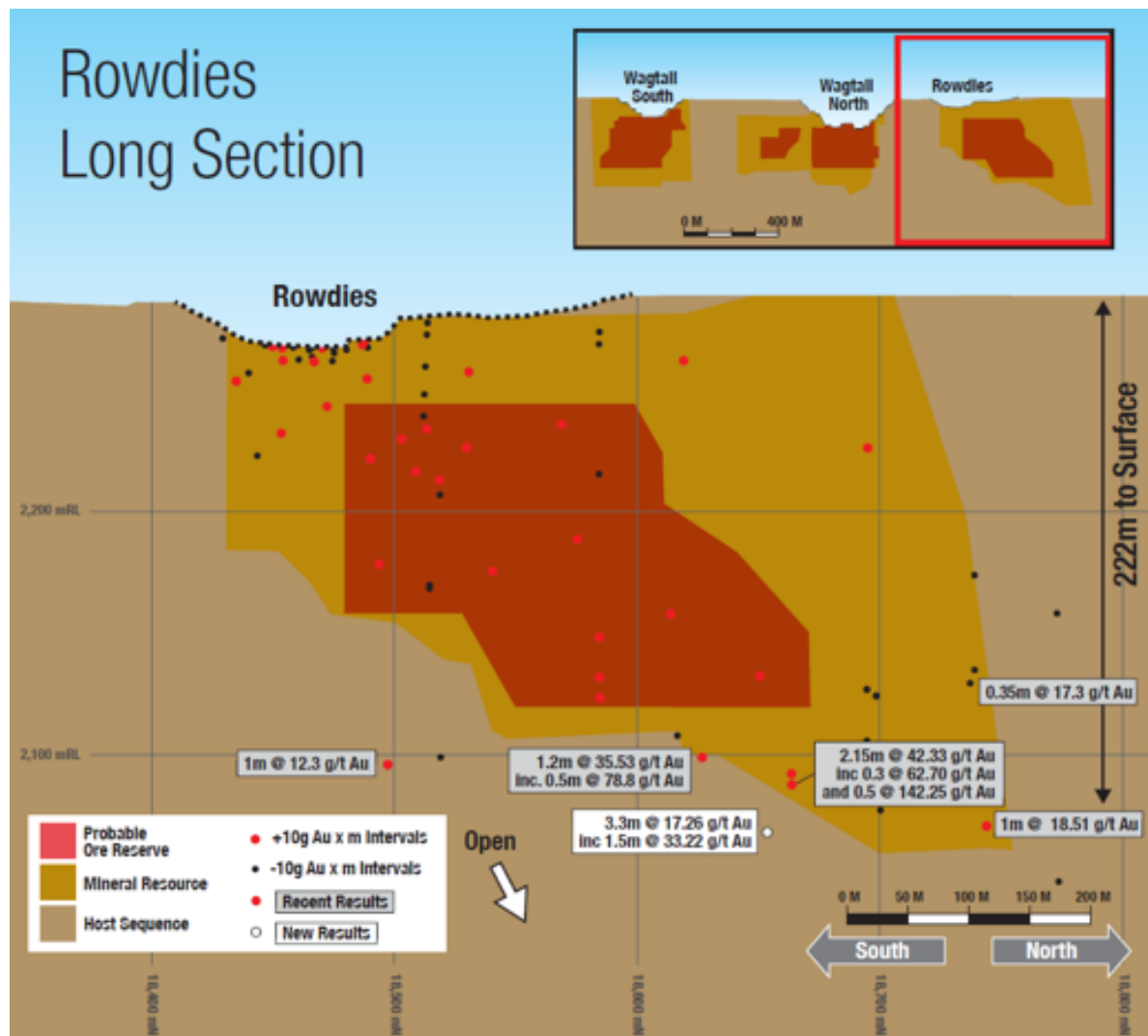
Development is underway in the lower zones of the Johnston Lode (between 2025 and 2085 mRL), and developed stocks in the Hall and Anderson Lodes are being mined during the assessment and expected transition of capital mine infrastructure to the north.

Production activities in the upper part of the Johnston Lode commenced subsequent to the end of the quarter, with the expected high grades from the zone being realised early in the month. The upper area of the Johnston Lode is being mined by conventional methods and is expected to contribute significant ounces to the production profile over the coming quarters.

### Wagtail Mine & Exploration

Pantoro is pleased to advise that drilling designed to test the depth continuation at Wagtail has returned another significant high-grade assay 225 metres below surface and outside of the current Mineral Resource in the Rowdies orebody. The drill hole which is the deepest drilled to date returned:

- 3.3 m @ 17.26 g/t Au inc 1.5 m @ 33.22 g/t Au from 256 m.



*Long section of Rowdies deposit*

The long section for the Rowdies Deposit, clearly demonstrates that drilling completed since estimation of the Mineral Resource in April 2018 continues to support depth extensions to the high-grade mineralisation.

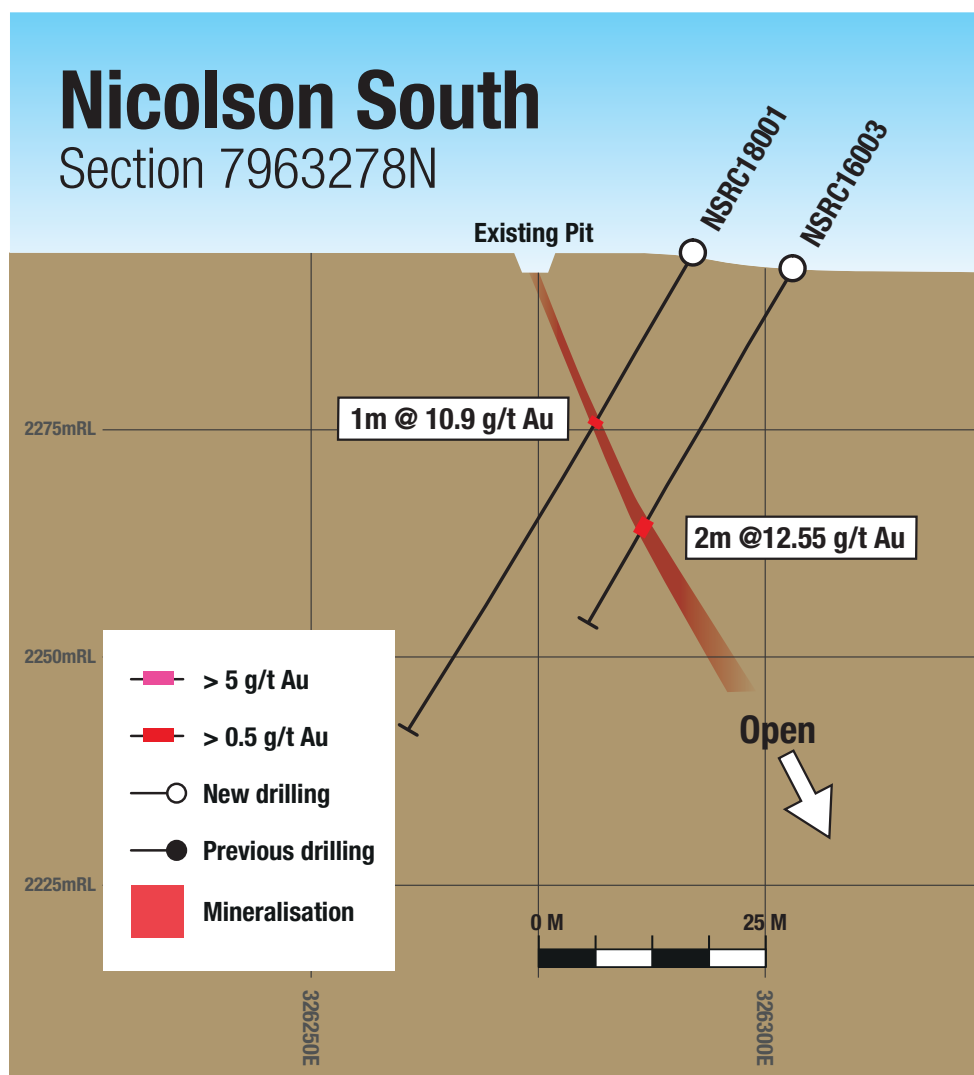
### **Nicolsons South Near-Surface Exploration**

Drilling of near-surface southern extension of the Johnstone Lode has returned a number of additional near surface results including:

- 1 m @ 10.9 g/t from 21 m.
- 2 m @ 12.55 g/t from 32 m.
- 2 m @ 7.9 g/t Au from 55 m.
- 1 m @ 9.68 g/t Au from 47 m.
- 2 m @ 3.42 g/t Au from 2 m.



Plan view of recent drilling between Nicolsons and Wagtail



## **Grants Creek**

Drilling at Grants Creek has progressed well throughout September. First pass drilling has been undertaken at the Perseverance, Star of Kimberley, and Moody's prospects.

Results are pending, with the first returns from the program expected during the coming weeks.

## **Enquiries**

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## Appendix 1 – Table of Drill Results

### NICOLSONS SOUTH SURFACE DRILLING

Hole ID	Easting	Northing	RL	Dip	Azimuth	End of Hole Depth	Downhole From	Downhole To	Downhole Intersection	Au gpt (uncut)	Est. True Width
NSRC18004	326,339.15	7,963,316.70	397.11	-59.8	273.4	93.0	39.00	40.00	1.00	3.17	0.77
NSRC18002	326,324.99	7,963,299.46	396.75	-59.3	275.8	83.0	55.00	57.00	2.00	7.90	1.55
NSRC16003	326,300.00	7,963,277.00	395.00	-60.0	266.8	45.0	32.00	34.00	2.00	12.55	1.55
NSRC18007	326,326.16	7,963,402.06	401.64	-62.9	265.2	75.0	51.00	55.00	4.00	1.52	2.89
NSRC18008	326,330.45	7,963,437.27	402.80	-62.3	268.8	74.0	10.00	11.00	1.00	1.48	0.74
NSRC18008	326,330.45	7,963,437.27	402.80	-62.6	267.7	74.0	47.00	48.00	1.00	9.68	0.73
NSRC18008	326,330.45	7,963,437.27	402.80	-62.6	267.7	74.0	52.00	53.00	1.00	1.14	0.73
NSRC18010	326,446.99	7,963,503.36	399.54	-62.2	273.3	82.0	72.00	73.00	1.00	4.77	0.74
NSRC18006	326,349.00	7,963,376.22	399.62	-63.1	274.6	90.0	75.00	76.00	1.00	1.78	0.73
NSRC18009	326,313.32	7,963,456.77	404.35	-60.9	269.1	50.0	5.00	6.00	1.00	1.06	0.75
NSRC18005	326,303.69	7,963,317.14	398.69	-60.5	267.4	64.0	0.00	1.00	1.00	1.50	0.75
NSRC18005	326,303.69	7,963,317.14	398.69	-60.5	267.4	64.0	2.00	4.00	2.00	3.48	1.50
NSRC18005	326,303.69	7,963,317.14	398.69	-59.5	270.7	64.0	29.00	30.00	1.00	1.39	0.77

### NICOLSONS UNDERGROUND DRILLING

Hole ID	Easting	Northing	RL	Dip	Azimuth	End of Hole Depth	Downhole From	Downhole To	Downhole Intersection	Au gpt (uncut)	Est. True Width
NGC18119	10,186.9	19,753.8	2,006.8	-22.7	284.3	49.9	25.8	27	1.2	17.28	1.18
NGC18121	10,180.9	19,749.5	2,007.4	-18.2	235.8	49.7	21.25	21.76	0.51	1.11	0.40
NGC18121	10,180.9	19,749.5	2,007.4	-18.2	235.5	49.7	23	23.7	0.7	1.08	0.54
NGC18121	10,180.9	19,749.5	2,007.4	-18.2	235.5	49.7	24	24.5	0.5	3.39	0.39
NGC18122	10,181.3	19,752.0	2,006.8	-46.9	249.9	50.8	20.7	21.35	0.55	6.02	0.44
NGC18124	10,183.3	19,749.6	2,007.5	-25.3	207.9	56.1	36.15	36.6	0.45	1.34	0.17
NGC18127	10,182.3	19,756.2	2,007.5	-21.8	293.5	96	21.45	21.7	0.25	2.62	0.24
NGC18127	10,182.3	19,756.2	2,007.5	-21.8	293.5	96	28.45	29.8	1.35	2.7	1.28
NGC18131	10,182.3	19,756.4	2,007.6	-16.3	310.1	150	27.1	28	0.9	2.28	0.73
NGC18131	10,182.3	19,756.4	2,007.6	-16.3	308.4	150	41.1	41.8	0.7	4.5	0.58
NGC18133	10,098.8	19,425.9	2,048.8	-25.5	97.4	83.9	36.4	37.1	0.7	1.35	0.70



## NICOLSONS UNDERGROUND DRILLING (CONTINUED)

Hole ID	Easting	Northing	RL	Dip	Azimuth	End of Hole Depth	Downhole From	Downhole To	Downhole Intersection	Au gpt (uncut)	Est. True Width
NGC18134	10,098.8	19,425.9	2,048.8	-24.5	111.4	51.7	39.45	40.3	0.85	9.68	0.81
NGC18135	10,098.8	19,425.9	2,048.8	-37.7	90.5	85.6	38.67	40	1.33	5.04	1.26
NGC18136	10,098.8	19,425.9	2,048.8	-33.6	58.1	70	43.7	43.9	0.2	19.8	0.16
NGC18137	10,098.8	19,425.9	2,048.8	-25.1	38.3	80.88	12.15	12.3	0.15	5.51	0.08
NGC18137	10,098.8	19,425.9	2,048.8	-25.5	39.9	80.88	46.3	47.2	0.9	2.38	0.51
NGC18137	10,098.8	19,425.9	2,048.8	-25.5	39.9	80.88	52	52.3	0.3	42.4	0.17
NGC18137	10,098.8	19,425.9	2,048.8	-25.5	39.9	80.88	56.7	57.55	0.85	4.55	0.48
NGC18140	10,132.4	19,664.7	2,107.8	17.5	341.5	49.2	10.3	11	0.7	5.81	0.22
NGC18140	10,132.4	19,664.7	2,107.8	17.5	353	49.2	29	30	1	1.03	0.16
NGC18140	10,132.4	19,664.7	2,107.8	17.5	353	49.2	31.8	42	10.2	17.67	1.68
NGC18125	10,183.0	19,749.6	2,007.3	-30.6	212.7	59.5	30.94	31.1	0.16	1.15	0.07
NGC18125	10,183.0	19,749.6	2,007.3	-30.6	212.7	59.5	33.3	33.42	0.12	1.06	0.05
NGC18146	10,207.6	19,661.7	2,008.2	-55	271.9	67.5	48.4	49.4	1	2.72	0.82
NGC18146	10,207.6	19,661.7	2,008.2	-55	272	67.5	55.6	56.2	0.6	1.26	0.49
NGC18146	10,207.6	19,661.7	2,008.2	-55	272	67.5	58.7	60	1.3	3.87	1.06
NGC18146	10,207.6	19,661.7	2,008.2	-55	272	67.5	61.95	62.2	0.25	8.16	0.20
NGC18147	10,215.7	19,667.9	1,988.8	-49	304.6	67.8	59.4	61.15	1.55	1	1.18
NGC18148	10,215.7	19,667.9	1,988.8	-40.6	320.9	89.6	67.68	68.2	0.52	1.21	0.34
NGC18148	10,215.7	19,667.9	1,988.8	-40.6	321	89.6	71.52	71.77	0.25	34.9	0.16
NGC18152	10,183.5	19,752.4	2,006.7	-63	235.5	89.2	34.5	35.62	1.12	3.13	0.63
NGC18152	10,183.5	19,752.4	2,006.7	-63.1	235.6	89.2	37.4	37.6	0.2	1.68	0.11
NGC18163	10,094.8	19,342.2	2,152.8	-53.5	319.6	103.2	73.7	74.8	1.1	6.23	0.65
NGC18164	10,093.2	19,340.6	2,153.0	-61.1	288.2	93	63.9	67.2	3.3	12.46	2.42
NGC18164	10,093.2	19,340.6	2,153.0	-61.6	287.1	93	73.8	74	0.2	2.47	0.15
NGC18164	10,093.2	19,340.6	2,153.0	-61.6	287.1	93	74.7	75	0.3	2.51	0.22
NGC18182	10,082.2	19,509.5	2,068.0	-0.5	207.9	22.6	4.6	4.8	0.2	5.33	0.07
NGC18182	10,082.2	19,509.5	2,068.0	-0.5	207.9	22.6	7	7.66	0.66	13.37	0.24
NGC18183	10,083.4	19,507.7	2,068.4	-0.1	203.9	33.4	12.23	15	2.77	15.59	0.84
NGC18154	10,186.9	19,753.9	2,006.8	-40.8	327.5	105.0	90.3	91.4	1.1	4.32	0.63

## NICOLSONS UNDERGROUND DRILLING (CONTINUED)

Hole ID	Easting	Northing	RL	Dip	Azimuth	End of Hole Depth	Downhole From	Downhole To	Downhole Intersection	Au gpt (uncut)	Est. True Width
NGC18154	10,186.9	19,753.9	2,006.8	-40.8	327.5	105.0	92.15	92.6	0.45	6.28	0.26
NGC18154	10,186.9	19,753.9	2,006.8	-40.8	327.5	105.0	95.2	95.4	0.2	7.25	0.11
NGC18154	10,186.9	19,753.9	2,006.8	-40.9	327.8	105.0	99.87	102.05	2.18	56.03	1.23
NGC18145	10,207.8	19,661.5	2,008.2	-51.9	244	68.9	47.8	48	0.2	4.88	0.15
NGC18145	10,207.8	19,661.5	2,008.2	-51.8	244.1	68.9	57.78	58.65	0.49	5.23	0.36
NGC18145	10,207.8	19,661.5	2,008.2	-51.8	244.1	68.9	63.46	63.73	0.27	6.29	0.2
NGC18149	10,207.7	19,661.8	2,008.1	-60.2	245.1	85.16	58.75	59	0.25	2.17	0.17
NGC18149	10,207.7	19,661.8	2,008.1	-60.3	245.1	85.16	65.1	68.7	3.6	3.33	2.38
NGC18149	10,207.7	19,661.8	2,008.1	-60.2	245.1	85.16	71.1	71.7	0.6	1.43	0.4
NGC18149	10,207.7	19,661.8	2,008.1	-60.2	245.1	85.16	72.6	72.8	0.2	1.7	0.13
NGC18142	10,207.7	19,661.7	2,008.2	-30.3	288	54.1	41.9	42.15	0.25	29.2	0.24
NGC18142	10,207.7	19,661.7	2,008.2	-30.3	288	54.1	44.4	45.2	0.8	5.46	0.77
NGC18143	10,207.5	19,661.5	2,008.2	-29.5	245.6	56.7	46.8	47.7	0.9	4.32	0.77
NGC18143	10,207.5	19,661.5	2,008.2	-29.5	245.6	56.7	50.1	50.7	0.6	3.81	0.52
NGC18240	10,189.2	19,757.4	2,007.5	-13.5	328.9	195	87.65	88.85	1.2	4.9	0.7
NGC18241	10,190.2	19,757.1	2,007.0	-14.6	334	148.5	111.5	112.8	1.3	59.2	0.90
NGC18191	10,189.5	19,757.5	2,006.9	-41.1	334.7	153.4	98	104.86	6.86	13.9	3.23
NGC18155	10,185.0	19,757.0	2,006.9	-35.6	332	112.2	71.4	75	3.6	10.67	1.89
NGC18153	10,184.9	19,756.9	2,006.9	-50.2	322.9	113.4	102	104.12	2.12	11.84	1.23
NGC18188	10,189.6	19,757.4	2,007.1	-50.6	324	130.8	111	111.8	0.8	34.8	0.45
NGC18239	10,189.0	19,757.4	2,007.5	-15.3	321.3	195	65.35	70.85	5.5	14.68	3.79
NGC18211	10,219.6	19,657.6	1,989.4	-11.4	276.1	70.5	49.06	51	1.94	5.92	1.92
NGC18201	10,207.5	19,661.8	2,008.3	-61	305.5	88.2	77	77.5	0.5	1.8	0.33
NGC18189	10,189.6	19,757.5	2,007.0	-45.4	333.1	139.6	127.2	128.6	1.4	1.4	0.67
NGC18138	10,132.0	19,661.1	2,108.8	27.4	303.2	40.7	11.2	11.7	0.5	4.52	0.3
NGC18138	10,132.0	19,661.1	2,108.8	27.4	303.2	40.7	16	16.4	0.4	26.7	0.24
NGC18139	10,131.3	19,663.5	2,108.7	25.3	318.1	31.7	6.15	7.7	1.55	16.31	0.8
NGC18139	10,131.3	19,663.5	2,108.7	25.3	318.1	31.7	20.6	21	0.4	17.7	0.21

## ROWDIES DRILLING

Hole ID	Easting	Northing	RL	Dip	Azimuth	End of Hole Depth	Downhole From	Downhole To	Downhole Intersection	Au gpt (uncut)	True Width
RDD18023	326,380.53	7,962,824.47	393.02	-54.0	291.0	291.6	256.00	259.30	3.30	17.26	2.63
RDD18023	inc 1.5 m @ 33.22 g/t from 256 m										
RDD18023	326,380.53	7,962,824.47	393.02	-53.7	291.5	291.6	260.70	261.30	0.60	1.47	0.48
RDD18024	326,380.92	7,962,824.47	392.99	-66.2	291.7	354.6	193.00	194.00	1.00	2.78	0.66
RDD18024	326,380.92	7,962,824.47	392.99	-66.5	299.2	354.6	339.40	339.60	0.20	2.94	0.13

## Appendix 2 – JORC Code 2012 Edition – Table 1

### SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>This information in this release relates to an Exploration update and results from surface Reverse Circulation (RC) and Diamond exploration and underground Diamond drill sampling of the of the Rowdies, Nicolsons south and Nicolsons underground prospects at the Nicolsons gold project.</li> <li>RC – Rig-mounted static splitter used, with sample falling through a riffle splitter, splitting the sample in 87.5/12.5 ratio sampled every 1m</li> <li>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 fire assay (40g charge). For underground diamond drilling completed in this program, samples were assayed in the site laboratory using BLEG analysis, before confirmatory assays were completed at BVA. Details are set out in the "quality of assay data and laboratory tests" section of this table.</li> <li>Diamond 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 fire assay (40g charge). For underground diamond drilling during this program, samples were prepared on site. Crushed samples were dispatched to BVA for assay. Details are set out in the "quality of assay data and laboratory tests" section of this table.</li> <li>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 of .0.15m where clearly defined mineralisation is evident.</li> <li>Core is aligned, measured and marked up in metre intervals referenced back to downhole core blocks .</li> <li>Visible gold is encountered at the project and where observed during logging, Screen Fire Assays are conducted</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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 of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>RC – Reverse circulation drilling was carried out using a face sampling hammer and a 130mm diameter bit</li> <li>Surface DD – NQ2 diamond tail completed RC Underground DD – NQ2 diamond</li> <li>all core has orientations completed</li> </ul>

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Drill sample recovery	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All holes were logged at site by an experienced geologist. Recovery and sample quality were visually observed and weights recorded at the laboratory</li> <li>RC- recoveries are monitored by visual inspection of split reject and lab weight samples are recorded and reviewed.</li> <li>RC drilling by previous operators is considered be to industry standard at the time</li> <li>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.</li> </ul>
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>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, quartz content, veining, and general comments.</li> <li>100% of the holes are logged</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All RC holes are sampled on 1m intervals, Wagtail diamond hole pre-collars are sampled on 2m composites with 1m splits retained for further assays as required</li> <li>RC samples are taken of the rig splitter, generally dry</li> <li>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.</li> <li>For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory.</li> <li>Core was cut under the supervision of an experienced geologist, it was routinely cut on the orientation line.</li> <li>All mineralised zones are sampled as well as material considered barren either side of the mineralised interval</li> <li>Field duplicates i.e. other half of core or ¼ core has not been routinely sampled</li> <li>Half core is considered appropriate for diamond drill samples.</li> <li>Sample sizes are considered appropriate for the material being sampled</li> <li>RC drilling by previous operators is considered to be to industry standard at that time.</li> </ul>

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Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>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 using either AAS base metal suite or acid digest with ICP-MS finish. The methods used approach total mineral consumption and are typical of industry standard practice.</li> <li>For the currently reported Nicolson's underground drilling all samples were prepared on site and analysed at the on site Laboratory utilizing samples of approximately up to 2 kg with a 500g pulverized pulp (P90 75 micron) assay by BLEG (bulk leach extractable gold) methodology following procedures established by an external accredited laboratory. This method determines cyanide recoverable gold only. All coarse jaw crusher rejects were retained and sent to a certified laboratory in Perth BVA. Gold assays are determined using fire assay with 40g charge. The methods used approach total mineral consumption and are typical of industry standard practice. Comparison of all fire assays compared to BLEG received to date show a positive bias towards the fire assay over the BLEG which is consistent with a total gold recovery versus a recoverable gold methodology.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Significant intersections are noted in logging and checked with assay results by company personnel both on site and in Perth.</li> <li>There are no twinned holes drilled as part of these results</li> <li>All primary data is logged digitally on tablet or on paper and later entered into the SQL 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.</li> <li>Visual checks of the data re completed in Surpac mining software</li> <li>No adjustments have been made to assay data unless in instances where standard tolerances are not met and re-assay is ordered .</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>RC/DD drilling is downhole surveyed utilizing surveyed electronic single shot survey tool at collar, 10 metres then 30m thereafter.. No Gyro DH surveys were undertaken on this program.</li> <li>Surface RC and Diamond drilling is marked out using GPS and final pickups using DGPS collar pickups. Underground is setout with conventional survey methods using local controls with front sight and back sight.</li> <li>The project lies in MGA 94, zone 52. Local coordinates are derived by conversion:  <math>GDA94\_EAST = NIC\_EAST * 0.9983364 + NIC\_NORTH * 0.05607807 + 315269.176</math>  <math>GDA94\_NORTH = NIC\_EAST * (-0.05607807) + NIC\_NORTH * 0.9983364 + 7944798.421</math>  <math>GDA94\_RL = NIC\_RL + 2101.799</math> </li> <li>Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use.</li> <li>Pre Pantoro survey accuracy and quality assumed to industry standard</li> </ul>

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Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>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.</li> <li>Surface diamond drilling in this initial phase has been on a nominal 50 m vertical and x 50m along strike spacing, closing to 25m in sections.</li> <li>No compositing is applied to diamond drilling or RC sampling with the exception of the Rowdies diamond precollars where 2 m composites are taken.</li> <li>Core samples are both sampled to geology of between 0.15 and 1.2m intervals. All RC samples are at 1 m intervals</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>No bias of sampling is believed to exist through the drilling orientation</li> <li>Surface drilling is designed perpendicular to the interpreted orientation of the mineralisation. Underground diamond drilling is often constrained by the availability of drill platforms as such where possible the orebody is drilled as closely to perpendicular as possible.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audit or reviews of sampling techniques have been undertaken however the data is managed by an offsite database consultant who has internal checks/ protocols in place.</li> </ul>



## SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Tenement related to this drilling are 100% held by Pantoro subsidiary company Halls Creek Mining Pty Ltd. These are: M80/359 and M80/362</li> <li>Tenement transfers to HCM are yet to occur as stamp duty assessments have not been completed by the office of state revenue. The tenements lie on a pastoral lease with access and mining agreements .</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration in Wagtail and Nicolson's includes work completed by various companies 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 resource estimate. GBS Gold acquired TGM and drilled 4,000 m before being placed in administration. Bulletin Resources Ltd acquired the project and conducted exploration work focused on Nicolson's and the 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.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Gold mineralisation in the Nicolson's Find area is structurally controlled within the 400 m wide NNE trending dextral strike slip Nicolson's Find Shear Zone (NFSZ) and is hosted within folded and metamorphosed turbiditic greywackes, felsic volcanics, mafic volcanics and laminated siltstones and mudstones. This zone forms part of a regional NE-trending strike slip fault system developed across the Halls Creek Orogen (HCO).</li> <li>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.</li> <li>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.</li> <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>

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		<ul style="list-style-type: none"> <li>Mineralisation is strongly correlated with discontinuous quartz veining and with Fe-Si-K alteration halos developed in the wall rocks to the veins. The NE shears are associated with broad zones of silicification and thicker quartz veining (typically white, massive quartz with less fracturing and brecciation); however, these are typically poorly mineralized. The NW-trending shears are mineralized, with the lodes most likely related to high fluid pressures with over-pressuring and failure leading to vein formation. Although the NE structures formed within the same shear system, the quartz veining is of a different generation to the mineralized veins.</li> <li>Individual shears within the system display an increase in strain towards their centres and comprise an anastomosing shear fabric reminiscent of the pattern on a larger scale.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>» easting and northing of the drill hole collar</li> <li>» elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>» dip and azimuth of the hole</li> <li>» down hole length and interception depth</li> <li>» hole length.</li> </ul> </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 style="list-style-type: none"> <li>A table of drill hole data pertaining to this release is attached.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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 style="list-style-type: none"> <li>Reported drill results are uncut</li> <li>All relevant intervals to the reported mineralised intercept are length weighted to determine the average grade for the reported intercept.</li> <li>All significant intersections are reported with a lower cut off of 1 g/t Au including a maximum of 2m of internal dilution. Individual intervals below this cut off are reported where they are considered to be required in the context of the presentation of results</li> <li>No metal equivalents are reported.</li> </ul>

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Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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 (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Surface DD/RC drilling is perpendicular to the interpreted strike of the mineralization. Underground drilling may intersect the lodes obliquely.</li> <li>Downhole lengths are reported and true widths are calculated in both the section and plan view utilising a formulae in excel</li> <li>Estimated true widths are calculated and reported for drill intersections which intersect the lodes obliquely.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Appropriate diagrams are included in the report.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>All holes available since the last report are included in the tables</li> <li>Diagrams show the location and tenor of both high and low grade samples.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No other meaningful data to report.</li> </ul>
Further work	<ul style="list-style-type: none"> <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 geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Nicolsons underground drilling results are part of an ongoing program to define and extend the known resource.</li> <li>The Wagtail drilling results are part of an ongoing initial program to define and extend the known Mineral Resource Follow up drilling has been planned at all prospects.</li> </ul>