#### **ASX Announcement**

25 February 2020

This announcement has been authorised to be lodged with the ASX by the Board of Directors of PNX Metals Limited.



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# Fountain Head Gold – Drilling Results and Project Update

- Fountain Head heap leach studies and development plans progressing on schedule
- Assay results from approximately 2,500m of RC drilling completed prior to end 2019 now received with further high-grade gold intersections reported, including
  - 2m at 14.57 g/t Au from 11m in FHRC127,
  - o 1m at 14.24 g/t Au from 53m in FHRC133,
  - o 3m at 8.54 g/t Au from 34m in FHRC145
- Additional 3,000m of RC drilling completed in 2020 to support metallurgical testwork, increase Mineral Resource confidence and mine development planning
- Diamond drilling for metallurgical testwork and geotechnical studies now underway
- Technical studies ongoing relating to pit dewatering and Project Environmental Impact Statement

PNX Metals Limited (**ASX: PNX**)<sup>i</sup> ("**PNX**", "the **Company**") is pleased to provide an update on the proposed Fountain Head gold heap leach development, within the Company's Hayes Creek Project, located in the Pine Creek region of the Northern Territory.

Drilling and technical studies at Fountain Head are progressing on schedule and on budget, as the Company assesses the feasibility of a heap leach operation as a low-cost, scalable option for generating early cashflow from existing gold resources.

Assay results have now been received for all RC drilling completed up to the end of 2019 with further high-grade gold intersections being reported (Table 2). 27 of the 30 RC holes drilled intersected gold mineralisation above the anticipated 0.5 g/t Au mining cut-off grade, demonstrating good geological continuity and increasing the Company's confidence in the Mineral Resource model. Importantly a number of holes intersected mineralisation outside of the proposed pit shell, including **3m at 8.54 g/t Au from 34m in FHRC0145** positioned approximately 100m to the northern boundary of the current Mineral Resource (Table 1) providing further opportunity for an increase in the mineralised envelope.

A further 31 RC holes for 3,048 metres were drilled at the Project in January and February, with all Priority 1 and 2 holes now completed and only minor time lost to wet weather. The majority of the Priority 1 holes drilled to date are located on the western side of the deposit and relate to the proposed first year of mining (see Figures 1 and 2), with Priority 2 holes relating to the second year of mining primarily located on the northern flank of the deposit. Numerous structural zones that typically host gold mineralisation were intersected as predicted by the geological model. Assay results are expected during March. Diamond drilling as part of a geotechnical study and open-pit mine design is also underway and expected to be completed in March.

Screen fire assays will also be completed on selected intersections to better understand the characteristics of the coarse, nuggetty gold mineralisation in addition to gold deportment and screen-size analysis.



Once all assays have been received, assessed and reported, an update to the Fountain Head Mineral Resource will be completed, this is targeted for April.

#### **Managing Director Comment**

PNX Managing Director James Fox said: "The Company's assessment of the Fountain Head heap leach operation has to date not been hindered by the NT wet season, with excellent drilling progress being made. We look forward to proving the viability of the project over the coming months and targeting development from the end of the year. This will pave the way for the generation of early cashflow and should aid the development of the broader Hayes Creek Project."

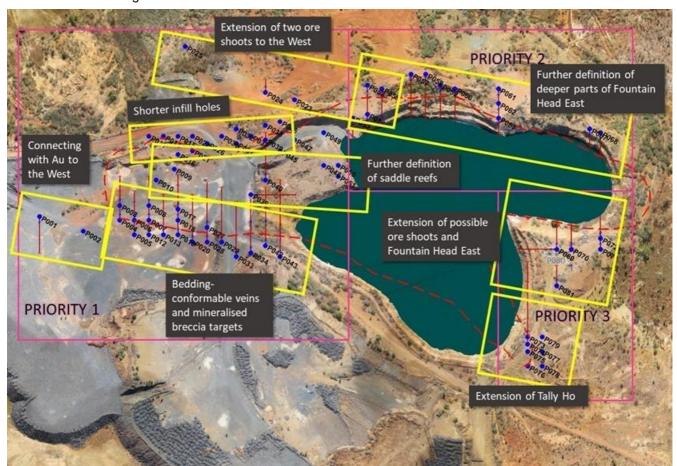
#### **Engineering and Process Design**

Two diamond drill holes have been completed and will provide samples for ongoing metallurgical testwork that includes bottle rolls and column tests. Materials testing including Crusher Work Index and Unconfined Compressive Strength testing have been finalised with the results highlighting moderate strength ore, as expected.

Preliminary results have been used to establish the design criteria for crushing, heap leaching and gold recovery from the leachate. Draft capital and operating costs are expected during March with these to be assessed and incorporated into the economic study.

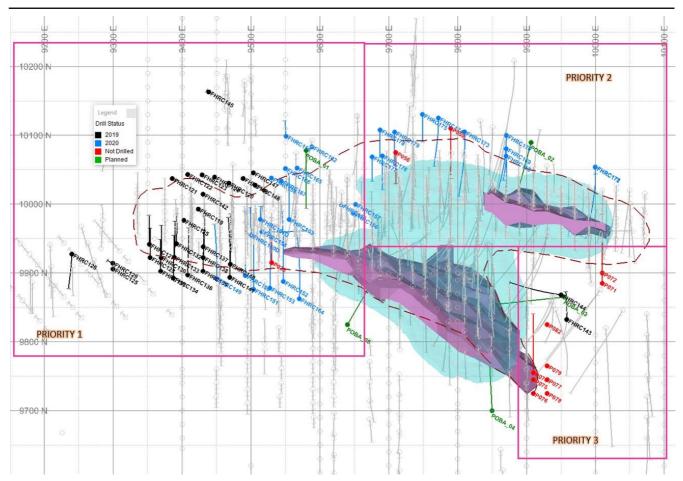
#### **Government and Environmental Approvals**

Studies to inform the EIS are ongoing and planned to be completed by April. The studies include hydrology, geochemistry, archaeology, flora and fauna and noise. The hydrological surface and groundwater modelling in particular will assist with pit dewatering design and a Mine Management Plan for the pit dewatering is expected to be submitted during March 2020.



**Figure 1:** Planned drilling at Fountain Head in relation to existing pit and resource (red outline shows current resource projected to surface) showing areas of priority and aim of drilling.





**Figure 2:** Fountain Head drill plan showing completed hole traces in 2019 (black) and 2020 (blue), plus planned diamond holes (green) and deferred holes (red). Blue shadow shows existing pit outline with hashed outline showing approximate boundary of current 0.7g/t Au resource cut-off projected to surface.

#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Charles Nesbitt, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Nesbitt has sufficient experience relevant to the style of mineralisation and the type of deposits 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 Nesbitt is a full-time contract Exploration Manager with PNX Metals Ltd and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears

For further information please visit the Company's website www.pnxmetals.com.au or contact us:

#### **James Fox**

Managing Director & CEO

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#### Fountain Head background

The Fountain Head Project hosts a Mineral Resource estimate in mid-2019 for Fountain Head of **2.58Mt at 1.7g/t Au for 138,000 oz Au** (Table 1) (reported in accordance with the JORC Code, 2012, see ASX release 11 July 2019 for full details including JORC tables).

Excellent gold recoveries with low reagent consumption were achieved from metallurgical testwork (see ASX release 7 November 2019) resulting in PNX accelerating studies and the approvals process for the development of a gold heap leach operation at Fountain Head.

Successful gold heap leach as a low-cost gold processing method may also lead to the development of other gold deposits in the region, many of which lie within PNX's project areas. Some of these deposits are currently considered "stranded" due to their modest grades and distance from existing processing infrastructure. PNX's longer-term aim is to evolve Fountain Head into a regional processing hub capable of monetising a pipeline of gold and base metals assets.

#### Fountain Head Resource Estimate

Independent mining consultants CSA Global Pty Ltd ("CSA Global") have estimated the Mineral Resource in accordance with the JORC Code<sup>1</sup>, which is summarised in Table 1.

**Table 1:** Fountain Head and Tally Ho Mineral Resources by JORC Classification as at 11 July 2019 estimated utilising a cut-off grade of >0.7 g/t Au which is consistent with the assumed open cut mining method (see PNX ASX release 11 July 2019).

JORC Classification	Tonnage (Mt)	Au (g/t)	Ounces (Koz)			
	Tall	у Но				
Indicated	0.94	2.0	59			
Inferred	-	-	-			
Total	0.94	2.0	59			
Fountain Head						
Indicated	0.50	1.5	23			
Inferred	1.15	1.5	55			
Total	1.64	1.5	79			
Total Fountain Head + Tally Ho*						
Indicated	1.43	1.8	83			
Inferred	1.15	1.5	55			
Total	2.58	1.7	138			

<sup>\*</sup> Due to the effects of rounding, the total may not represent the sum of all components

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 and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements referenced in this release continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

<sup>&</sup>lt;sup>1</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).



#### Fountain Head Drill Results Table

**Table 2:** PNX Drill hole assay summary Fountain Head Project. Significant results reported are those assaying at least 0.5 g/t Au over a 1m interval or greater.

Hole ID	Туре	Easting	Northing	RL	Dip	Azi	Total Depth		From	То	Interval	Au (g/t)
									2.00	3.00	1.00	0.74
5110.0110		770 000 0	0.540.000.0	105.0			70	and	30.00	35.00	5.00	0.86
FHRC119	RC	770,908.0	8,510,293.0	105.0	-90	0	70	incl	30.00	31.00	1.00	2.14
								and	53.00	54.00	1.00	1.39
FHRC120	RC	770,965.0	8,510,291.0	105.4	-90	0	45			NSI		
FHRC121	RC	770,910.2	8,510,350.2	101.0	-90	0	30		1.00	2.00	1.00	3.98
FHRC122	RC	770,925.0	8,510,340.0	101.0	-90	0	35		2.00	3.00	1.00	0.64
FHRC123	RC	770,941.0	8,510,329.0	105.0	-90	0	40		1.00	3.00	2.00	0.81
FHRC124	RC	770,956.1	8,510,311.5	105.0	-90	0	40		1.00	2.00	1.00	1.04
5110.0105		770 757 6	0.540.000.0	405.0			25		12.00	13.00	1.00	0.92
FHRC125	RC	770,757.6	8,510,308.8	105.0	-90	0	35		25.00	26.00	1.00	0.55
5110.010.0		770 704 6	0.540.000.0	405.0		222	400		45.00	46.00	1.00	0.95
FHRC126	RC	770,724.6	8,510,362.8	105.0	-60	220	100		48.00	49.00	1.00	0.51
									11.00	13.00	2.00	14.57
FUD C127	D.C.	770.040.4	0.510.300.0	105.0	60	40	00	incl	11.00	12.00	1.00	26.86
FHRC127	RC	770,818.4	8,510,300.0	105.0	-60	40	80		21.00	22.00	1.00	4.47
									26.00	27.00	1.00	3.19
									16.00	18.00	2.00	0.66
FHRC128	RC	770,805.5	8,510,288.1	105.0	-60	40	80	incl	16.00	17.00	1.00	0.90
									23.00	24.00	1.00	0.94
									44.00	45.00	1.00	3.98
								and	48.00	49.00	1.00	0.69
FHRC129	RC	770,762.0	8,510,315.0	105.0	-90	0	157	and	92.00	93.00	1.00	0.99
FINCIZS	NC	770,762.0	0,310,313.0	105.0	-90	U	157	and	127.00	129.00	2.00	1.59
								and	139.00	140.00	1.00	1.41
								and	151.00	152.00	1.00	0.52
									19.00	21.00	1.00	0.73
FHRC130	RC	770,820.8	8,510,275.2	105.6	-60	40	91	and	40.00	41.00	1.00	0.88
111110130	i i i	770,820.8	0,310,273.2	103.0	-00	40	31	and	51.00	52.00	1.00	0.77
								and	80.00	81.00	1.00	0.77
									8.00	9.00	1.00	0.53
								and	17.00	18.00	1.00	1.08
FHRC131	RC	770,807.9	8,510,259.9	105.5	-60	40	90	and	50.00	52.00	2.00	0.86
								and	55.00	56.00	1.00	0.57
								and	79.00	80.00	1.00	0.57
									1.00	2.00	1.00	0.56
FHRC132	RC	770,849.0	8,510,277.6	105.7	-60	40	85	and	14.00	15.00	1.00	0.50
0232		5,5 15.0	5,510,277.0					and	21.00	24.00	3.00	3.82
								incl	22.00	23.00	1.00	7.66



			I	1			1	1		1	I	1
								and	45.00	46.00	1.00	0.88
								and	54.00	55.00	1.00	0.96
									24.00	27.00	3.00	0.59
								incl	26.00	27.00	1.00	1.00
								and	42.00	43.00	1.00	1.13
FHRC133	RC	770,836.1	8,510,262.3	105.6	-60	40	97	and	53.00	54.00	1.00	14.24
								and	67.00	68.00	1.00	0.99
								and	77.00	78.00	1.00	0.58
								una	6.00	7.00	1.00	1.04
								and	35.00	36.00	1.00	1.42
									47.00	49.00	2.00	1.28
								and				
FHRC134	RC	770,823.2	8,510,247.0	105.5	-60	40	115	incl	47.00	48.00	1.00	1.90
								and .	62.00	63.00	1.00	2.56
								and	69.00	70.00	1.00	1.79
								and	98.00	100.00	2.00	0.82
								and	106.00	107.00	1.00	0.73
									45.00	48.00	3.00	1.72
FHRC135	RC	770,879.2	8,510,297.9	105.0	-90	0	55	incl	45.00	46.00	1.00	4.36
								and	52.00	53.00	1.00	1.00
									5.00	6.00	1.00	0.87
								and	38.00	40.00	2.00	1.05
FHRC136	RC	770,838.5	8,510,234.1	105.5	-60	40	127	and	44.00	47.00	3.00	2.01
111110130	i.c	770,030.3	0,510,254.1	103.3		40	127	and	50.00	52.00	2.00	0.81
								and	85.00	87.00	2.00	0.64
								and	112.00	113.00	1.00	0.84
									5.00	6.00	1.00	0.77
								and	48.00	52.00	4.00	5.95
FHRC137	RC	770,876.3	8,510,247.9	105.8	-60	40	103	incl	48.00	49.00	1.00	20.55
								and	94.00	96.00	2.00	3.56
								incl	94.00	95.00	1.00	6.55
								inici	5.00	6.00	1.00	0.92
								and	28.00	29.00	1.00	1.38
								and				
FHRC138	RC	770,866.7	8,510,236.5	105.8	-60	40	115	and	64.00	65.00	1.00	0.62
								and .	76.00	77.00	1.00	0.54
								and	89.00	90.00	1.00	0.57
								and	109.00	111.00	2.00	1.40
									38.00	39.00	1.00	0.57
								and	74.00	76.00	2.00	0.85
FHRC139	RC	770,853.8	8,510,221.2	105.7	-60	40	110	and	83.00	84.00	1.00	0.81
								and	100.00	101.00	1.00	0.76
								and	107.00	108.00	1.00	2.83
									2.00	3.00	1.00	4.03
								and	45.00	46.00	1.00	1.07
FHRC140	RC	770,890.8	8,510,203.0	105.9	-60	40	133	and	55.00	56.00	1.00	0.83
								and	77.00	79.00	2.00	1.43
								and	88.00	89.00	1.00	4.04



								and	93.00	94.00	1.00	0.53
								and	96.00	97.00	1.00	0.50
									8.00	11.00	3.00	2.25
								incl	11.00	12.00	1.00	5.29
								and	53.00	55.00	2.00	0.80
FHRC141	RC	770,877.9	8,510,187.8	105.8	-60	40	151	and	89.00	90.00	1.00	2.25
								and	92.00	93.00	1.00	0.97
								and	116.00	120.00	4.00	0.53
								and	131.00	132.00	1.00	0.88
FHRC142	RC	770,924.7	8,510,305.3	104.0	-90	0	45		16.00	17.00	1.00	1.86
									104.00	105.00	1.00	7.60
FHRC143	RC	771,211.0	8,509,826.0	108.3	-80	40	160	and	114.00	121.00	7.00	0.71
TTIKC143	KC .	771,211.0	8,303,820.0	108.3	-80	40	100	incl	119.00	121.00	2.00	1.60
								and	127.00	128.00	1.00	0.73
									2.00	3.00	1.00	0.69
FHRC144	RC	771,229.0	8,509,860.0	107.3	-60	310	140	and	104.00	105.00	1.00	0.83
								and	108.00	109.00	1.00	1.80
FHRC145	RC	771,027.8	8,510,412.1	97.0	-90	0	70		34.00	37.00	3.00	8.54
111111111111111111111111111111111111111	KC	771,027.0	0,310,412.1	37.0	-50	U	70	incl	34.00	35.00	1.00	23.72
FHRC146	RC	770,986.7	8,510,285.7	105.0	-90	0	55	NSI				
FHRC147	RC	771,008.5	8,510,280.5	106.5	-90	0	45	NSI				
FHRC148	RC	770,995.6	5 8,510,265.2	106.1	-90	0	50		0.00	1.00	1.00	2.06
1111/0140	NC.	770,333.0	0,310,203.2	100.1	-30	U	50	and	32.00	33.00	1.00	1.87

PNX Metals Limited | ABN 67 127 446 271

## **JORC Code, 2012 Edition – Table 1**

### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Samples are derived from Reverse Circulation (RC) chips which were cone-split for sampling</li> <li>All the RC chips used have been geologically logged by the onsite geologist</li> <li>Sampling intervals are at 1m intervals for RC chips. Samples were either submitted in 1m intervals</li> <li>Sample weights were typically 2-5 kg</li> <li>Magnetic susceptibility measurements were taken using KT-10 meter</li> <li>Field portable XRF measurements taken for 34 elements (Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Rb, Sr, Zr, Mo, Ag, Cd, Sn, Sb, W, Hg, Pb, Bi, Th, U, Pd, S, Ba, K, Cs, Sc, Se, Te, and Au) using an Niton XL3T 950 device</li> </ul>
Drilling techniques	<ul> <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> <li>All RC drilling was from surface with 5.25" bit with a face sampling hammer. Drilling was carried out by United Drilling Services Pty Ltd, Western Australia using a truck mounted Modern Sandvik DE840 Multipurpose Drill Rig</li> <li>A Relfex downhole survey instrument was used to take single shot positional surveys approximately every 30m downhole</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Sample recovery was estimated visually by inspecting the size of the sample collected, and recorded in the geological log at 1m intervals. Recovery of insitu regolith and fresh rock was excellent</li> <li>No relationship has yet been established between sample recovery and grade. The vast majority of RC samples were dry, but when samples became wet, there was unavoidable loss of fines (typically 5-10% of the sample weight). This has the possibility of introducing a sample bias. Geological logs include the wet or dry nature of the sample</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All RC chips have been geologically logged by the onsite geologist at 1m intervals and chip trays have been retained and photographed</li> <li>Log fields include lithology, colour, grainsize, texture, veining, sulphide mineralisation, alteration, strength, recovery and sample moisture</li> <li>Logs have been aided by the use of magnetic susceptibility and portable XRF measurements on each metre sample</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu 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>	operations
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	homogenized within the bowl, and a 200g sub-sample of the pulverized sample is submitted for conventional fire assay for gold (FA50)  • PNX submitted certified reference materials and duplicates samples

Criteria	JORC Code explanation	Commentary
		precision of the assay data
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>No specific twinned holes have been carried out as yet</li> <li>No external laboratory assays have been carried out</li> <li>All logging has been carried out using standardised logging codes to professional standards. All geological, geotechnical and sampling information has been entered into a digital database which has been validated for sample overlaps and missing data</li> <li>All hard copies of information are stored in a secure compound at site. Digital copies are held on site and at PNX's Adelaide office on a backed-up server</li> <li>No adjustments to assays have been made. Where gold assay data has been repeated by the lab, the average value has been reported in the significant intersection calculations</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Downhole surveys have been collected by at approximate 30m intervals downhole and manually adjusted where magnetic interference is encountered</li> <li>Drill collars have been surveyed using a differential global positioning system (DGPS), to a nominal +/- 20 cm accuracy in the XY direction. Downhole surveys were completed using a Reflex SS single shot camera</li> <li>Drill collar coordinates are typically recorded in GDA94 (MGA Zone 52), then transformed to Fountain Head Local Grid via Datamine Discover software, with +1000 m added to the RL value</li> <li>A hydrographic survey was conducted in January 2019 to obtain an accurate pit floor surface of the water-filled conjoined Fountain Head and Tally Ho open pits. Measurements were made using a remotely controlled hydrographic craft fitted with an RTK GPS and Ceducer sonar system. The remote craft recorded data over a 5 m grid plan of the pit extents</li> <li>A Terra 3D aerial drone was flown over the Project area in July 2014, producing a high quality DTM surface and a composited aerial photograph using a CanonIXUS127HS camera. Some vegetation artefacts can be seen</li> <li>The final DTM used in the resource model is a version of the Terra 3D DTM that has been updated with the 2019 hydrographic survey DTM, and then reduced in size to be manageable within the Datamine software</li> </ul>

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>At Fountain Head, the data spacing is irregular, although much of the drilling is along north-south lines using the Fountain Head Local Grid, dipping at -60°, towards azimuths of either 000° (dipping northward) or 180° (dipping southward). Drill line spacing is typically 20-40 m. On section, holes are spaced 5-30 m apart, with an average of approximately 15 m. There is a rapid decrease in drill data density outside the current resource area, lacking holes north and south, as well as at depth in the east and west.</li> <li>At Fountain Head East, line spacing is typically 20 m. Holes are spaced tightly along drill lines at around 5 m apart, in order to define the central mineralised shear. In this area, no drilling has tested rocks more than 125 m from surface.</li> <li>At Fountain Head West, drill line spacing is irregular and lines are either 10, 20 or 40 m apart. The areas with 40 m spacing would benefit from infill drilling, particularly in the far west of the resource.</li> <li>At Tally Ho, line spacing is typically 20 m, although there are at least 4 lines within the Tally Ho orebody with around 30 m spacing. Around 13 holes have reached depths of over 200 m below ground surface, down to around 350 m, targeting deep extensions to the orebody.</li> <li>The sample spacing is sufficient to establish the grade continuity of mineralised zones</li> <li>RC samples are collected at routine 1 metre downhole intervals, which is appropriate for RC drilling and for the thickness of the known mineralisation. The 1m samples, for intervals where mineralisation was interpreted to be likely, were submitted for assay.</li> <li>Four metre composite samples were taken over intervals where the drill hole was not expected to intersect mineralisation. The composite samples were collected by spear sampling the 1m bulk RC samples and combining the spear samples into composite samples over the four metre interval. Where the assays suggested that significant mineralisation may exist within the four metre composite sample, th</li></ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a</li> </ul>	<ul> <li>The drilling has been undertaken on sections orthogonal to the strike of the mineralisation. Given the folded nature of the stratigraphy at Fountain Head, and often conformable mineralisation, an effort has been made to drill orthogonal to the stratigraphy. This means holes on each section are often drilled at different orientations. For the most part, holes are drilled at a high angle to the mineralisation. Some</li> </ul>

Criteria	JORC Code explanation	Commentary
	sampling bias, this should be assessed and reported if material.	<ul> <li>holes, however, have been drilled down dip of the stratigraphy, and sub-parallel to the mineralisation. Holes at Tally Ho and Fountain Head East, where the mineralisation is more shear hosted and linear, have been drilled at a high angle to the mineralisation. Most drill holes are oriented to intersect mineralisation close to perpendicular to the interpreted orientation of the main zone of mineralisation.</li> <li>The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Logging, and sampling has been carried out by PNX personnel who are always on-site during drilling, and samples are submitted to the laboratory by the same people</li> <li>No third parties have been allowed access to the samples</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audits or reviews have been carried out at this point</li> <li>Visual comparison of the assay results with the field portable XRF shows an acceptable correlation with lab results</li> </ul>

### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Project comprises four granted Mineral Leases (MLs) totaling 879.67 hectares, all 100% owned by PNX. These include MLN4, MLN1020, MLN1034 and ML31124</li> <li>All mineral titles are situated within Perpetual Pastoral Lease 1111, NT Portion 695, known as Ban Ban Springs Station</li> <li>PNX has entered into an arrangement with the pastoral lease owners, which governs land access and other obligations for each party. No other landowner access agreements are in place</li> <li>Native Title has been extinguished over the Mineral Leases, and hence, Native Title issues will not affect the development and operation of these project tenements</li> <li>The Mineral Leases are in good standing and no known impediments exist</li> </ul>

Acknowledgment and appraisal of exploration by other parties.  Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Fountain Head and Tally Ho deposits have been subject to sporadic exploration over a long period of time. Drilling has taken place when the project has been owned by the following companies:         <ul> <li>PNX Metals (2018)</li> <li>GBS Gold International (2006 to 2008)</li> <li>Northern Gold (2004 to 2006)</li> <li>Dominion Mining Limited (DML) (1993 to 1994)</li> <li>Zapopan (1989 to 1991)</li> <li>NT Gold Mining (NTGM) (1988 to 1989)</li> <li>Destiny Prospecting (1987 to 1988)</li> <li>Australian Coal and Gold (1982).</li> </ul> </li> <li>The mineralisation at Fountain Head and Tally Ho occurs within the upper units of the Mount Bonnie Formation, the uppermost division of the South Alligator Group, open folded sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. These cyclic siltstone, mudstone and greywacke packages have been metamorphosed to greenschist facies.</li> </ul> <li>In the area, stratigraphy is folded along northwest-southeast axes that plunge shallowly to the southeast. The southeast-striking anticline has variable limb dips and the axis is faulted by northwest-southeast trending faults. The sequence has been intruded by preorogenic dolerite sills of the Zamu Dolerite and several late synorogenic to post-orogenic Proterozoic granitoids.</li> <li>Mineralisation at Fountain Head occurs in veins as either conformable anticlinal lodes (with flanking mineralisation) or subvertical "ladder vein" styled mineralisation associated with brittle failure sub-parallel to the fold axis, and is found within mudstones, greywackes and phyllite units. Sheeted quartz vein stock-works occur mainly in the axial zone with veins predominantly dipping northeast, and some saddle reefs occur in the axial zone).</li> <li>The Tally Ho deposit strikes sub-parallel to the Fountain Head deposit and consists of a linear zon</li>

Criteria	JORC Code explanation	Commentary
		<ul> <li>1989. In 1995, Dominion Mining Ltd carried out trial open pit mining at Fountain Head. The Tally Ho lodes were discovered in 2006 and the deposits were mined to approximately 50m below surface by GBS in 2007-2008, producing approximately 1.13Mt @ 1.65 g/t for 60,200oz</li> <li>See ASX release 11 July 2019 where PNX published the results of a new mineral resource estimate</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Mineralisation at Fountain Head occurs as conformable and crosscutting lodes within mudstones, greywackes and phyllite units of a NW /SE striking anticline that plunges to the SE. The lithological units are believed to belong to the Mount Bonnie Formation, within the South Alligator Group. Gold mineralisation is hosted by sub vertical shear related stock-works, fracture zones in grey-wackes and saddle reefs at lithological contacts. Most of the resource is in the hinge zone of the anticline with gold grade rapidly tapering off down dip on the limbs</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <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>	Refer to table and diagram in main announcement for drill summary details
Data aggregation methods	<ul> <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> <li>Reported results are interval length weighted</li> <li>No high cut-off grades have been applied</li> <li>Reported intersections are classified as significant if they occur at a minimum of 0.5 g/t Au, although mining cut-offs may be significantly lower or higher, depending on the depth of the intersection</li> </ul>

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>All significant intersections are quote as downhole widths</li> <li>Due to the folded nature of some mineralised zones, and unknown geometry of extensions to mineralisation, there is no clear relationship yet between intersected width and true width</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Refer to the main body of this announcement
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	All matters of importance have been included
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	All relevant information has been included
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further drill work will be focused on testing for dip extensions and strike extensions and to confirm grade and geological continuity implied by the current block model</li> <li>Further metallurgical work including materials handling and column tests will be conducted and incorporated in the assessment of Fountain Head heap leaching</li> </ul>