

## ASX Announcement

17 November 2022

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



Level 1, 135 Fullarton Road  
Rose Park, SA 5067  
Australia

Telephone +61 (0) 8 8364 3188  
Facsimile +61 (0) 8 8364 4288

info@pnxmetals.com.au  
www.pnxmetals.com.au

# New gold target zone identified between Fountain Head & Glencoe

- **Detailed drone magnetic survey has identified prospective targets within the same host stratigraphy of the nearby >1.2 Moz Cosmo gold mine between PNX's Glencoe & Fountain Head gold deposits**
- **Targets appear to have the same orientation as gold-rich sheeted-quartz veins in the Tally Ho deposit, and recently reported high-grade gold in surface rock chip samples from Glencoe**
- **Follow-up work program in planning to test the newly delineated sub-surface magnetic stratigraphy and lineament corridor by shallow drilling and geochemistry**

PNX Metals Limited (**ASX: PNX**) ("**PNX**" "the **Company**") is pleased to advise that a detailed drone-based magnetic survey has identified new targets for follow-up, highlighting the significant untested gold and base metals prospectivity of its 1,500 km<sup>2</sup> exploration tenure in the Pine Creek region of the Northern Territory.

The 1,238 line-km drone magnetic survey, flown by SensorEM, covered PNX's 100% owned zinc-gold-silver Hayes Creek, and Fountain Head and Glencoe gold projects. The images generated show much greater detail than previous surveys (Figures 1-3), and permit confident delineation of the folded and faulted magnetic stratigraphy, particularly where it is covered by transported sediments.

The survey was co-funded by Grants NT Geophysics and Drilling Collaborations program (refer ASX release 2 June 2022) and is part of the Northern Territory Government's 'Resourcing the Territory' initiative.

### Managing Director's Comment

PNX Managing Director James Fox said: "*The detailed drone-mag geophysical survey flown over the Fountain Head/Glencoe gold projects has highlighted new targets within the same prospective stratigraphy that hosts the nearby >1.2 Moz Cosmo Howley gold mine. The Hayes Creek zinc-gold-silver project survey has also generated much higher resolution images with several discrete magnetic responses similar to the known VMS deposits at PNX's Mount Bonnie and Iron Blow deposits, and these magnetic responses warrant further on-ground investigation.*"

### Glencoe & Fountain Head Flight Area

The drone-mag survey generated detailed images of an ~1.2 km wide package of highly magnetic rocks covered by transported sediment between Glencoe and Fountain Head (Figure 2). Based on the known regional geology, the magnetic units are interpreted to be iron-rich horizons within the Koolpin Formation that hosts several nearby gold deposits, including Cosmo-Howley (Agnico Eagle; 15.6 Mt at 2.6 g/t Au for 1,287,000 oz), Mount Porter (PNX; 0.68 Mt at 2.2 g/t Au for 48,200 oz Au<sup>1</sup>) and Golden Dyke (historic, PNX; 0.11 Mt at 7.66 g/t Au for 27,100 oz Au).

<sup>1</sup> Refer PNX ASX release 28 September 2022 for full details of the Mt Porter MRE including JORC tables

<sup>2</sup> Refer PNX ASX release 17 March 2022 for full details of the Glencoe surface rock chip samples including JORC tables

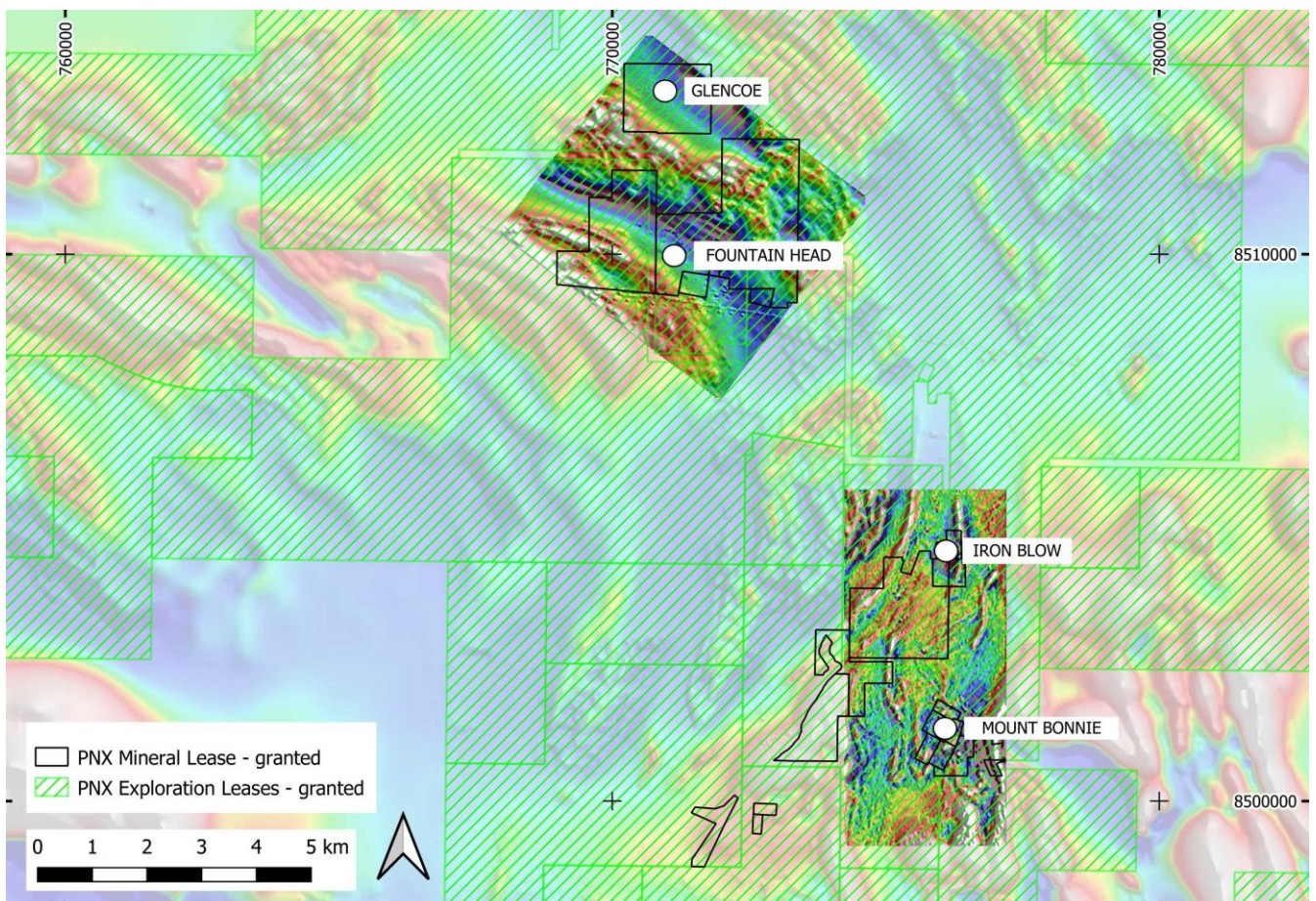
The new, much higher resolution magnetic images also show folds sub-parallel to the known anticlines at Fountain Head and Glencoe which are a common structural control to gold mineralisation in the Pine Creek area.

North-south trending faults which can be traced in the images, are most intense in a ~1.5 km wide corridor between Glencoe and Fountain Head and are subparallel to the Tally Ho gold lodes at Fountain Head and gold-bearing quartz veins at Glencoe.

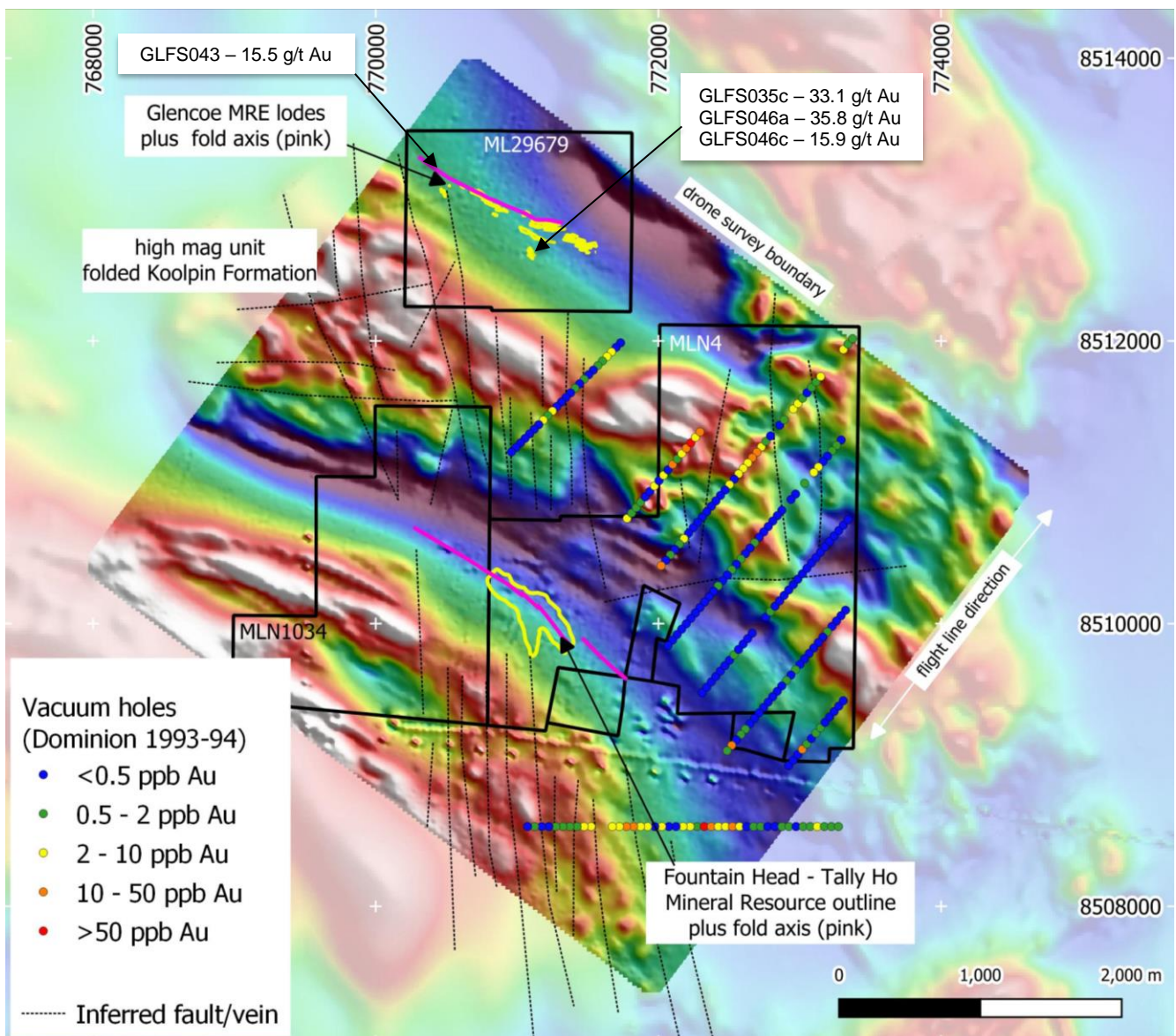
Surface rock chip samples<sup>2</sup> at the Glencoe gold deposit identified new gold-bearing quartz veins oblique to the main gold lodes; assays include;

- 33.1 g/t Au in GLFS035c,
- 15.5 g/t Au in GLFS043,
- 35.8 g/t Au in GLFS046a, and
- 15.9 g/t Au in GLFS046c.

The combination of prospective folded stratigraphy, oblique cross-cutting structures with the same orientation as known high-grade gold mineralisation at the Tally Ho deposit (part of Fountain Head), and similarly trending gold bearing quartz veins at Glencoe, all support this location as highly prospective for new gold mineralisation and warrants drill testing.



**Figure 1:** New magnetic imagery from recent drone survey over PNX's 100% owned Glencoe & Fountain Head gold, and Mt Bonnie & Iron Blow zinc-gold-silver deposits. Background image: regional Total Magnetic Intensity



**Figure 2:** Coloured Total Magnetic Intensity image for Fountain Head – Glencoe drone survey, inferred faults/veins, & historic vacuum drill gold results from 1993-94

There has been limited previous exploration in the new structural corridor identified between Glencoe and Fountain Head. Previous work included 8 lines of vacuum drilling completed in 1993-94 that identified anomalous levels of gold, arsenic (a pathfinder element for gold in the Pine Creek region), and base metals. These results are encouraging and were not followed up at the time.

#### Proposed follow-up

- Shallow RAB drilling within the north-south structural corridor between Glencoe and Fountain Head to obtain broad-spaced geochemical information relating to the bedrock situated under transported cover
- Recent RC drilling at Glencoe tested three target areas, including 10 holes positioned to test north-south-trending quartz veins consistent with the lineaments defined in the drone magnetics. Laboratory assay results are pending

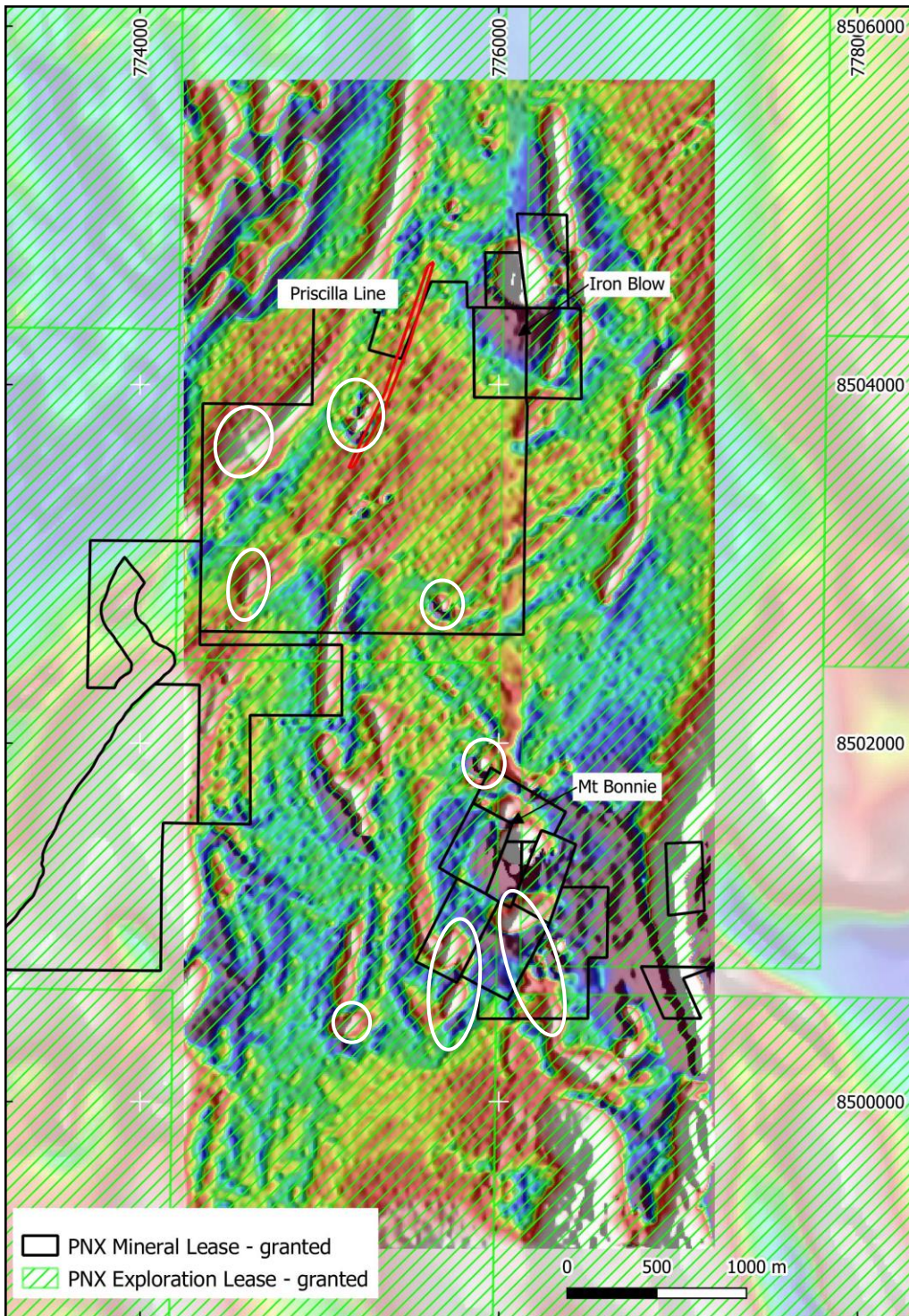
#### Hayes Creek Flight Area

Results of the Hayes Creek drone magnetic survey (Figure 3) show much greater detail than previous surveys and permit confident delineation of the folded and faulted magnetic stratigraphy where it is covered by transported

sediments. New discrete magnetic highs with similar responses to the Mt Bonnie VMS deposit are discernible in the drone-mag images.

The additional detail in the western part of the survey area shows that the Priscilla gold trend is displaced along a northwest-trending fault. Similar faults can also be seen elsewhere. This interpretation identifies numerous new target areas.

The new discrete magnetic highs with VMS potential will be field checked, and shallow RAB or aircore proposed to test any coincident drone-mag and geochemical targets.



**Figure 3:** Coloured Total Magnetic Intensity draped over first vertical derivative for Hayes Creek drone survey. Areas highlighted (white rings) refer to discrete magnetic-highs that warrant field assessment.



**Figure 4:** Drone-mag survey at Fountain Head

---

**Competent Person's Statement**

The information in this report that relates to exploration data is based on information compiled by Dr Michael Green, who is a full-time employee of PNX Metals Ltd. Dr Green is a Member of the Australian Institute of Geoscientists (AIG No: 4360) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Dr Green consents to the inclusion of this information in the form and context in which it occurs.

---

For further information please visit the Company's website [www.pnxmetals.com.au](http://www.pnxmetals.com.au), or contact us directly:

**James Fox**

Managing Director & CEO

Telephone: +61 (0) 8 8364 3188

# 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>○ <i>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.</i></li> <li>○ <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>○ <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>○ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new samples are reported in this announcement</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>○ <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>○ <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>○ <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>○ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>
Logging	<ul style="list-style-type: none"> <li>○ <i>Whether core and chip samples have been geologically and</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>○ <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>○ <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>○ <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>○ <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>○ <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>○ <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>○ <i>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.</i></li> <li>○ <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>○ <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>○ <i>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.</i></li> <li>○ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new assays are reported in the announcement</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>○ <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>○ <i>The use of twinned holes.</i></li> <li>○ <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>○ <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new assays are reported in the announcement</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>○ <i>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.</i></li> <li>○ <i>Specification of the grid system used.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>o <i>Quality and adequacy of topographic control.</i></li> </ul>	
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>o <i>Data spacing for reporting of Exploration Results.</i></li> <li>o <i>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.</i></li> <li>o <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>o No new drilling data are included in this announcement</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>o <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>o <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>o No new drilling data are included in this announcement</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>o <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>o No new assays are reported in the announcement</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>o <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>o No new assays are reported in the announcement</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>o <i>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.</i></li> <li>o <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>o The drone magnetic survey was flown over various mineral and exploration leases:</li> <li>o The Fountain Head Project comprises four granted Mineral Leases (MLN4, MLN1020, MLN1034 and ML31124), all 100% owned by PNX.</li> <li>o The Glencoe Project comprises a single, granted Mineral Lease ML29679, which is 100% owned by PNX.</li> <li>o The Fountain Head and Glencoe Mineral Leases sit within Exploration Leases EL25748 and EL23536 (90% PNX Metals/ 10% Agnico Eagle Australia Pty Ltd).</li> <li>o The Hayes Creek Project comprises 17 granted Mineral Leases; 14 are 100% owned by PNX (MLN212, MLN314, MLN342, MLN343, MLN346, MLN349, MLN405, MLN459, MLN811, MLN816, MLN1033, MLN1039, ML30512, ML30589) and 3 are subject to an agreement with Rockland Resources whereby PNX has 100% of</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>hard-rock rights, excluding uranium (ML29933, ML29937, ML30936).</p> <ul style="list-style-type: none"> <li>○ The Hayes Creek Mineral Leases sit with 4 Exploration Leases; 3 are 90% PNX Metals/ 10% Agnico Eagle Australia Pty Ltd (EL9608, EL23431, EL25748) and one is subject to an agreement with Rockland Resources whereby PNX has 100% of hard-rock rights, excluding uranium (EL10120).</li> <li>○ The surveys covered parts of the Ban Ban Springs (parcel number 695) and Douglas (parcel number 903) pastoral leases. PNX has existing arrangements with the pastoral lease holders, which governs land access and other obligations for each party.</li> <li>○ An Indigenous Land Use Agreement (ILUA) surrounds and follows the main access road, Ban Ban Springs Rd, situated in the western end of the resource and partially covering the resource. It is unclear at this stage what actions if any are needed</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>○ <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ Historic exploration results referred to herein are vacuum drill samples collected by Dominion Mining in 1993-94. These data were obtained from a database provided to PNX by Crocodile Gold Australia as part of the 2014 Burnside Agreement. Some of the data have been verified from public reports (CR1994-0670, CR1995-0075, CR1995-0755, CR1996-0593).</li> <li>○ The location of the vacuum holes is consistent with maps from historic reports, but have probable location errors up to 25 metres. The assay data have been used qualitatively only.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>○ <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ Fountain Head, Glencoe and Priscilla gold mineralisation is predominantly hosted by quartz veins in the axial hinges of anticlines. The host rock varies from greywacke, sandstone, siltstone and mudstone of the Palaeoproterozoic Mount Bonnie Formation or Burrell Creek Formation. Gold at Fountain Head (Tally Ho lodes) and Glencoe is also present in sheeted quartz veins oblique to the anticlinal axes.</li> <li>○ Mount Bonnie and Iron Blow zinc-gold-silver bodies are interpreted to be Volcanic-Hosted Massive Sulphide deposits (VHMS) in the Mount Bonnie Formation. These bodies have been folded and faulted during later deformation to form complex bodies.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>○ <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>metres) of the drill hole collar</i></p> <ul style="list-style-type: none"> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> <li>○ <i>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.</i></li> </ul>	
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>○ <i>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.</i></li> <li>○ <i>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.</i></li> <li>○ <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new assays are reported in the announcement</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>○ <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>○ <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>○ <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>○ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>○ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ No new drilling data are included in this announcement</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>○ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ The data reported in this announcement refer to magnetic surveys flown with a drone</li> <li>○ The survey was completed by SensorEM who provided PNX, via Southern Geoscience Consultants, with levelled data and various processed images</li> <li>○ The Fountain Head – Glencoe survey was flown along northeast-southwest 40 m-spaced lines at 30 m flight height.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>○ The Hayes Creek survey was flown along east-west, 40 m-spaced lines at a 40 m flight height.</li> <li>○ Both survey areas were flown with LiDAR prior to the magnetic survey to assist with precise flying of the magnetic survey at consistent heights and for post-processing requirements.</li> <li>○ SensorEM flew the survey using a DJI M300 RTK drone carrying a Geometrics MagArrow magnetometer</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>○ <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>○ <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>○ Refer to the main body of this announcement</li> </ul>