#### **ASX Announcement**

28 October 2021

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



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# Drilling underway at Glencoe; Mapping identifies coarse gold at surface at Glencoe South

- Drilling underway at Glencoe to test the 'Eastern Zone' extensional area, where highgrade rock chips were collected 400 metres east of the existing Glencoe gold deposit, including:
  - 6.02g/t Au in TGU5467,
  - 4.04g/t Au in TGU5459, and
  - o 3.05g/t Au in TGU5486
- Visible gold discovered at surface in sub-cropping quartz vein during geological mapping adjacent to the Glencoe south pit
- The gold-bearing vein has been mapped in discontinuous sub-crop ~50 metres with limited drilling along strike to date
- Trenching and costeaning of this location to occur subsequent to current drilling

PNX Metals Limited (**ASX: PNX**) ("**PNX**", "the **Company**") is pleased to advise that a 2,000m RC drill program has re-commenced at the Glencoe gold deposit ("**Glencoe**") which is located on a granted Mineral Lease approximately 170 km south of Darwin, and 3 km north of PNX's Fountain Head Gold Project in the Pine Creek region of the Northern Territory.

Drilling will predominantly focus on testing the 'Eastern Zone' extensional area, and increasing geological confidence within the current Mineral Resource Estimate (MRE) of 2.1Mt @ 1.2g/t Au for 79,000oz Au (Inferred Category) reported in accordance with the JORC Code 2012, (refer Table 1 and ASX release 28 April 2021).

Recently reprocessed magnetic data support the interpretation that the 'Eastern Zone' lies within a regional-scale shear zone which can be traced for over 1km to the southeast of the Glencoe gold deposit (Figure 2) (refer ASX release 23 September 2021). This structure remains largely unexplored and the newly identified surface mineralisation and underlying shear zone represent a potentially significant extension to the Glencoe deposit.

The drilling is expected to take approximately six weeks to complete, with assay results from the first holes due from the end of November 2021.

Significantly, during recent geological field mapping and sampling, numerous occurrences of coarse gold were detected at surface in a discontinuous sub-cropping quartz vein traced for over 50m along the northern margins of the South pit.

A further seven pieces of coarse gold associated with quartz vein material were identified in float samples (<5 cm depth) adjacent to this quartz vein (Figure 1), supporting the potential for extensions to the mineralisation at Glencoe beyond the current MRE in an area that has only seen limited drilling to date. Subsequent to the current RC drill program, trenching and costeaning at this location will occur to collect more robust geological observations and samples for assay.



#### **Managing Director Comment**

PNX Managing Director James Fox said: "We are excited to commence drill testing the 'Eastern Zone' extensional area, where newly identified surface mineralisation and the underlying shear zone represent a potentially significant extension to the Glencoe gold deposit. The discovery of coarse gold at surface directly adjacent to the south pit continues to support our view that mineralisation at Glencoe extends well beyond the limits of the current Mineral Resource Estimate. Drilling is expected to take up to 6 weeks with assays due from end of November 2021. We look forward to updating the market as results become available".



**Figure 1:** Coarse gold with quartz vein gangue found adjacent to the south pit at Glencoe, outside the MRE. Large piece shown is from a fragment of sub-cropping quartz vein material containing numerous <2 mm long gold flecks (see Figure 1 for location - GDA94 Zone 52 (771107, 8512661)).

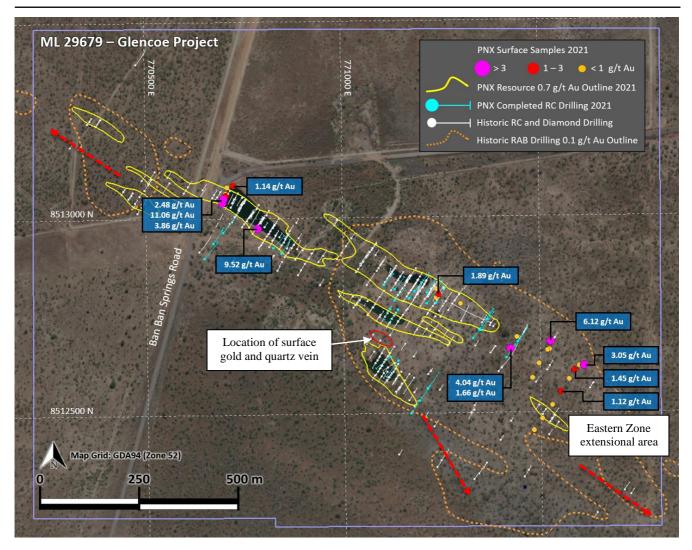
#### **Additional Work at Glencoe**

Three diamond drill holes for approximately 360m are being planned and will be used to provide further rock density data, structural information, and oxide/transitional material for ongoing geotechnical and metallurgical test work.

#### Positive PFS Supports Long-Term gold, silver zinc Project Development

PNX recently finalised an assessment of the technical and economic parameters to sequentially develop the Fountain Head Gold Project (which includes Glencoe) and Hayes Creek gold-silver-zinc Project highlighting a robust, multi-commodity development with a forecast unleveraged Pre-tax NPV8% of A\$171 million and a mine life of 10 years with undiscounted revenues of A\$972 million over the mine life (net of treatment, refining and transport charges) (refer ASX release 17 June 2021).





**Figure 2:** Glencoe Mineral Resource outline (yellow), gold target areas (orange), drill traces (white), locations of surface rock chip samples, and new surface gold discovered in sub-cropping quartz vein (red oval)

#### **About the Glencoe Development Opportunity**

Glencoe represents a 'bolt-on' asset that has significantly expanded the proposed Fountain Head development. Under the Sale and Purchase Agreement (executed 27 April 2021) with private company Ausgold Trading Pty Ltd, PNX has acquired Glencoe for a total consideration of \$1.875 million; of which \$1.175 million has been paid to date with the balance due by 31 December 2021 (refer to Key Terms in PNX ASX announcement 10 December 2020 for further information). The Company has received unconditional approval from the Foreign Investment Review Board for the acquisition.



#### Glencoe Mineral Resource Overview

The Glencoe MRE extends from surface to 120 m vertical depth, comprises a number of discrete lodes over a strike length of greater than 1.5 km, and remains open in all directions.

The Company announced a Mineral Resource Estimate<sup>1</sup> for Glencoe in April 2021 of 2.1Mt @ 1.2g/t Au for 79,000oz Au (Inferred Category) reported in accordance with the JORC Code<sup>2</sup>, 2012 (refer ASX release 28 April 2021).

Independent mining consultants H&S Consultants Pty Ltd estimated the Mineral Resource, summarised in Table 1. in accordance with the 2012 JORC Code.

**Table 1:** Glencoe Mineral Resources by oxidation zone and JORC Classification as at 26 April 2021 estimated using a cut-off grade of 0.7 g/t Au which is consistent with the assumed open-cut mining method.

JORC Classification	Oxidation	Tonnage (Mt)	Au (g/t)	Ounces (Koz)
	Oxide	0.5	1.3	20
Inferred	Transitional	0.3	1.2	11
	Fresh	1.3	1.1	48
To	otal	2.1	1.2	79

<sup>\*</sup> Due to the effects of rounding the totals 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 in the original market announcements 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.

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

The information in this report that relates to Exploration Results is based on information compiled by Mr Marco Scardigno, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Scardigno 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 Scardigno is a full-time employee and Resource Geologist 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 directly:

#### **James Fox**

Managing Director & CEO

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<sup>&</sup>lt;sup>1</sup> Refer PNX ASX release 28 April 2021 'New Glencoe Mineral Resource expands Fountain Head Development' including a summary report prepared by H&S Consultants Pty Ltd and JORC Table 1

<sup>&</sup>lt;sup>2</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).

## **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>Grab samples were collected from prospective lithologies in the field</li> <li>Sample information including lithological descriptions were also collected at the time of sampling</li> <li>Samples were not submitted for assay</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>	Drilling is not included in this announcement
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>	Drilling is not included in this announcement
Logging	Whether core and chip samples have been geologically and	All surface samples have been geologically described and logged by

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>the onsite geologist</li> <li>Log information includes lithology, colour, texture, veining, sulphides alteration and additional notes. Logging is qualitative in nature</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Drilling is not reported in this announcement</li> <li>No sample preparation has taken place</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (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> <li>No assaying has taken place</li> <li>No geophysical tools etc were used</li> <li>No quality control procedures were adopted</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No external laboratory assays have yet been carried out as no assaying has taken place</li> <li>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> </ul>

Criteria	JORC Code explanation	Commentary
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>GPS was used to locate the sample sites. Elevation for these points was obtained using the existing topographic DTM. GDA94 Zone 52 (771107, 8512661)</li> <li>Surface sample coordinates are recorded in GDA94 (MGA Zone 52), then transformed to Glencoe Local Grid via Datamine Discover software, using established reference points – Local Grid pegs have been located on-site, and confirmed the historic MGA-to-Local Grid transformation was correct within the expected accuracy.</li> <li>DGPS accuracy and the MGA-to-Local Grid transformation were further confirmed by georeferencing high-resolution aerial imagery.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The data reported here include surface samples for geochemical analysis, in which the goals were to further increase geological confidence and determine the specific rock types that are hosts to gold mineralisation. The samples were random and associated with a quartz vein</li> <li>No sampling compositing was used.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The surface sampling array is overall irregular; some samples were taken at exposed pit edges (West pit) while others in rough lines perpendicular to the strike of mineralisation (in the Eastern extension areas). The sample count is not large enough for use in statistical analysis.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Sampling and field geology has been carried out by PNX personnel onsite. The 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 on sampling techniques and data have yet been carried out.</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	<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,</li> </ul>	<ul> <li>The Glencoe Project is situated within a single, granted Mineral Lease ML29679 within a single, granted Exploration License EL25748 (90% PNX Metals/ 10% Kirkland Lake Gold Australia Pty</li> </ul>

Criteria	JORC Code explanation	Commentary
land tenure status	<ul> <li>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>	Ltd). Under the Sale and Purchase Agreement (SPA) (executed 27 April 2021) with private company, Ausgold Trading Pty Ltd, PNX has acquired Glencoe for a total consideration of \$1.875 million; of which \$1.175 million has been paid to date with the balance due by 31 December 2021 (refer to Key Terms in ASX announcement 10 December 2020 for further information). The Company has also received unconditional approval from the Foreign Investment Review Board for the acquisition.  The Glencoe Project area is situated within the pastoral lease of Ban Ban Station, parcel number 695. PNX has existing arrangements with the pastoral lease holders, which governs land access and other obligations for each party and will include Glencoe in this
		arrangement. 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.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Exploration and related activities at the Glencoe Project can be broadly categorized into the phases listed below.</li> </ul>
,		Magnum Resources Ltd/Magnum Gold NL 1985-1987 – Discovery, Drilling Programs (Auger, RAB, RC, DD) 1988 – Metallurgical Testwork 1989-1990 – 1 <sup>st</sup> Trial Mining 1995 – 2 <sup>nd</sup> Trial Mining (aborted early – material stockpiled)
		Australasia Gold 2006 – Optimisation and Scoping Study 2007 – Survey of the Glencoe Local Grid, IP/Resistivity Survey 2007-2008 – Drilling Programs (RC, DD)
		Crocodile Gold 2011 – Heliborne VTEM Survey
		Newmarket Gold NT 2012 – Processing Stockpiled Material

Criteria	JORC Code explanation	Commentary
		2016 – Environmental and Metallurgical Testwork
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Glencoe mineralisation is hosted by greywackes, sandstones, siltstones and mudstones of the Palaeoproterozoic Mount Bonnie Formation, and contained within complex quartz veining and shearing spatially associated with the axial regions of shallow plunging anticlines.</li> <li>Notable features: <ul> <li>The majority of the quartz vein mineralization occurs within sub vertical to steeply dipping fracture and shear zones, with previous workers also noting a possible association with more ductile carbonaceous mudstone in these zones. Veins range in width from millimetre scale up to several metres.</li> <li>A second style of quartz veining is interpreted as having a conformable or 'saddle reef' geometry, and occurs as stratabound bodies extending outwards from the discordant fracture-filled zones. This style is also described as favouring carbonaceous mudstone horizons, as well carrying higher gold values.</li> <li>Late-stage chlorite alteration, shearing and brecciation overprinting earlier veining is also a feature, including country rock breccias with a chlorite matrix. It is noted by previous work that this alteration also appears to enhance gold values in both veins and breccias</li> <li>Important features of the chemical environment of gold occurrence include:</li> <li>A strong association of gold with sulphides, dominantly pyrite and arsenopyrite.</li> <li>The occurrence of other metals in only trace amounts, most notably Cu and Bi.</li> <li>There is a close association between chlorite alteration and sulphide/gold/quartz vein development.</li> <li>Oxidation of sulphides has occurred in the weathered zone, and been replaced by iron oxide phases such as goethite and limonite occurring as fracture coatings and box works. This is inferred to have resulted in some gold re-distribution during an overprinting supergene event.</li> </ul> </li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> </ul>	Drilling is not included in this announcement

Criteria	JORC Code explanation	Commentary
	<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> <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>	
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>No weighting averaging techniques or minimum/maximum grade truncations (cut off/top cut) were applied</li> <li>The field 'Au ppb' is the routine Au assay value. The field 'Au g/t' is the average of the routine Au assay and any repeat Au assay grades for that sample</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	This announcement is for surface samples only, which do not inform the geometry of mineralisation.
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 relevant information has 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</li> </ul>	All relevant information has been included.

Criteria	JORC Code explanation	Commentary
	deleterious or contaminating substances.	
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>	Refer to the main body of this announcement