ASX Announcement

31 May 2023

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



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Multiple surface samples exceed 100 g/t gold at PNX's northern exploration leases

- Rock chip surface samples from PNX's new, untested C6 gold prospect, return very high-grade gold assays, including:
 - o 123.1 g/t Au in C6N23AB076,
 - o 143.4 g/t Au in C6N23AB077,
 - o 141.1 g/t Au and a peak value of 186.6 g/t Au in C6N23AB078,
 - o 160.5 g/t Au in C6N23AB083, and
 - o 119.1 g/t Au in C6N23AB084
- The C6 gold prospect is one of many high-priority but underexplored gold targets within kilometre-scale gold corridors identified across the northern part of PNX's Burnside exploration project
- Large geochemical anomalism, field mapping and high-grade surface rock chips support strong discovery potential; follow-up trenching and drill testing is planned
- PNX aims to discover and delineate additional 'stand-alone' gold deposits that can be processed through its proposed and EIS-approved Fountain Head Plant to be located approximately 25 km SE of C6

PNX Metals Limited (**ASX: PNX**) ("**PNX**" "the **Company**") is pleased to advise that very high-grade gold assay results have been returned from surface rock chip samples collected during follow-up work at its C6 gold prospect, part of the Burnside Northern Leases in the Pine Creek region of the NT, approximately 170 km from Darwin.

The Northern Leases host multiple kilometre-scale gold targets with the potential for economically significant gold mineralisation along the same structural corridor as Cosmo Howley (where modern mining has produced over one million ounces of gold) and numerous other gold deposits (refer ASX release 13 February 2023) (Figure 3).

Twenty-two (22) rock-chip samples were collected from quartz-gossan units that sporadically outcrop over an area of 140 m by 50 m along the northern extension of the C6 anomaly, providing new information about the host material and confirming the potential of the prospect.

Of the 22 samples, all returned elevated gold and 15 returned assays greater than 1 g/t gold including five samples over 100 g/t gold with a peak value of 186.6 g/t gold. Significantly, no drilling has been undertaken in the immediate vicinity of these new high-grade surface samples.

The C6 prospect is located approximately 25 km from PNX's Fountain Head and Hayes Creek zinc, gold, silver development Projects where Environmental approvals were recently granted for gold mining and processing at Fountain Head (refer ASX release 17 February 2023).



Managing Director's Comment

PNX Managing Director James Fox said: "These impressive gold assays from surface samples taken in a new, essentially untested area, strongly support our view that C6 has the potential for economically significant gold mineralisation.

The C6 corridor is characterised by an intense gold-in-soil anomaly with multiple >1 g/t gold soil values (maximum of 3.46 g/t) over a 1.2 km extent. The high-grade quartz-gossan gold samples were taken from the northernmost section of the anomaly which remains open in all directions. There has been no drilling in the immediate vicinity.

These assay results and field observations significantly upgrade the prospectivity of the C6 corridor and warrant an accelerated exploration program. Further mapping and sampling programs will start immediately, with costeans and aircore drilling to commence from late June to trace the near-surface extent and orientation of the mineralisation prior to RC drilling.

We look forward to reporting further information, including gold assay results from the drilling at Glencoe South."

Summary of Sampling Locations, Geology and Results

During follow-up field reconnaissance and mapping of the C6 prospect, twenty-two surface rock-chip samples were collected over an area of approximately 140 x 50 metres at the northern extent of a previously reported gold in soils anomaly (Figure 2).

The samples were taken from surface gossan with varying levels of quartz veining. The highest gold grades were reported from gossan-dominant samples. An example of this material is shown below in Figure 1.



Figure 1: Rock chip sample C6N23AB078 returned assays (including routine duplicate samples) of 186.6, 110.2 and 126.5 g/t Au

The surrounding topography is mostly flat with a metre-scale north-south-trending rise exposing a 30 to 40 metrewide domain with numerous north-south-trending quartz veins. The majority of the samples were collected 30 m west of this rise around two shallow prospecting pits approximately 0.5 m deep and 50 m apart that exposed the quartz-gossan. Adjacent to the quartz-gossan is sub-crop of quartz vein.

Bonanza gold grades exceeding 100 g/t Au were reported from five of the samples with a maximum grade of



186.6 g/t Au. Of the 22 samples taken 15 exceeded 1.0 g/t Au. Samples of quartz vein sub-crop and large float pieces were collected 30 m south and returned anomalous gold results up to 0.54 g/t Au.

Four samples were collected from the main rise, two of which were of a massive quartz vein that returned anomalous gold (maximum 0.33 g/t Au), whereas a sample of calc-silicate alteration (or dolerite) and a gossanous quartz vein returned 10.0 g/t and 7.3 g/t Au, respectively. These high-grade samples are 30 m east of the bonanza gold trend and 130 m south of two previous samples which returned 2.24 Au and 3.12g/t Au (refer ASX release 13 February 2023). More sampling is required along the main rise.

The lack of exposure in the area restricts any detailed geological interpretation, however the samples appear to sit on a regional north-south trend, subparallel to nearby quartz veins.

Summary of the C6 Prospect

The new samples are 1.5 km north of the historic C6 prospect and are interpreted to be part of the same northsouth gold corridor (historic results and reference reported in ASX release 13 February 2023). The C6 corridor contains the most intense of the historic gold-in-soil anomalies with multiple >1 g/t gold-in-soil values identified (maximum of 3.46 g/t Au).

Twenty RC holes have been drilled along the C6 corridor with the nearest 160 metres southeast of the new bonanza samples. Significant historic drill results are shown in Figure 2.

Proposed follow-up

These new high-grade gold results significantly upgrade the prospectivity of the C6 corridor and warrant an accelerated exploration program. The next steps will be:

- Expansion of surface sampling and mapping,
- Costeans (trenches) to better evaluate the extent and geometry of gold mineralisation, and
- Aircore drilling.

Mapping and sampling will start immediately with the costeans and drilling to commence upon receipt of typical Government approvals, expected from late June.

Exploration will also continue at the Brumby gold prospect, which is ~2.5 km further west, where there are also excellent historic results confirmed by recent PNX surface samples (refer ASX release 13 February 2023). Regional work will also continue to evaluate other historic gold anomalies and corridors in the Northern Leases.





Figure 2: Selected results from PNX rock chips (blue text) and historic drilling (black text) along C6 Corridor; yellow dashed lines represent interpreted gold trends.





Figure 3: Location of the northern leases within PNX's Burnside exploration project in relation to PNX's existing projects (background is a magnetic image)



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 <u>www.pnxmetals.com.au</u>, or contact us directly:

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Table 1: Rock chip samples collected in May 2023 from PNX's C6 gold prospect; those highlighted are above 10 g/t Au; Au1 = routine assay, Au2 and Au3 are laboratory duplicates; (-) denotes no duplicate assay performed by the lab. datum = GDA94, Zone 52

Sample No	Easting	Northing	Prospect	Lithology	Au1 g/t	Au2 g/t	Au3 g/t	Au Average g/t
C6N23AB076	753,755	8,539,666	C6 N	gossan with quartz vein stringer stockwork	128.7	117.3	-	123.0
C6N23AB077	753,754	8,539,666	C6 N	gossan with quartz vein stringer stockwork	140.4	146.5	-	143.4
C6N23AB078	753,757	8,539,667	C6 N	quartz vein – ferruginous breccia	186.6	110.2	126.5	141.1
C6N23AB079	753,755	8,539,666	C6 N	quartz vein	5.76	5.10	-	5.43
C6N23AB080	753,756	8,539,665	C6 N	gossan with quartz vein stringer stockwork	55.8	45.7	-	50.7
C6N23AB081	753,758	8,539,685	C6 N	gossan with quartz vein stringer stockwork	62.3	60.9	-	61.6
C6N23AB082	753,756	8,539,687	C6 N	quartz vein	11.5	11.3	-	11.4
C6N23AB083	753,761	8,539,700	C6 N	gossan with quartz vein stringer stockwork	159.1	181.2	141.2	160.5
C6N23AB084	753,767	8,539,699	C6 N	gossan with quartz vein stringer stockwork	129.0	109.1	-	119.1
C6N23AB085	753,766	8,539,702	C6 N	ferruginous quartz vein	38.1	40.5	-	39.3
C6N23AB086	753,761	8,539,710	C6 N	quartz vein stringer stockwork in siltstone	6.04	6.33	-	6.19
C6N23AB087	753,769	8,539,711	C6 N	ferruginous quartz vein breccia	1.02	1.16	-	1.09
C6N23AB088	753,756	8,539,712	C6 N	quartz vein	1.27	1.20	-	1.24
C6N23MG015	753,762	8,539,632	C6 N	quartz vein	0.28	0.34	-	0.31
C6N23MG016	753,759	8,539,644	C6 N	quartz vein	0.19	-	-	0.19
C6N23MG017	753,757	8,539,661	C6 N	quartz vein	0.54	-	-	0.54
C6N23MG018	753,770	8,539,677	C6 N	quartz vein	0.37	-	-	0.37
C6N23MG019	753,766	8,539,688	C6 N	quartz vein	0.20	-	-	0.2
C6N23MG020	753,795	8,539,695	C6 N	quartz vein	0.18	-	-	0.18
C6N23MG021	753,790	8,539,725	C6 N	calc-silicate alteration or mafic intrusive	10.1	9.77	10.1	9.97
C6N23MG022	753,790	8,539,730	C6 N	gossan with quartz vein stringer stockwork	7.30	7.38	-	7.34
C6N23MG023	753,789	8,539,767	C6 N	quartz vein	0.33	-	-	0.33

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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 pulverized 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 (e.g. submarine nodules) may warrant disclosure of detailed information. 	 Rock chip samples were collected by PNX's Exploration Manager and Northern Geological Consultants. 0.5 to 3 kg samples of prospective rock types were collected for laboratory analysis. Sample information, including lithological descriptions, were collected at the time of sampling. Gold mineralisation has been shown to be strongly related to quartz veins in the Pine Creek Orogen. Rock chip samples were submitted to Northern Australia Laboratory (NAL) in Pine Creek, Northern Territory for assay. No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of drill holes and historic soil anomalies shown in Figure 2.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	 No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of historic drill holes and soil anomalies shown in Figure 2.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximize sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of historic drill holes and soil anomalies shown in Figure 2.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. 	 No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of historic drill holes and soil anomalies shown in Figure 2.

Criteria	JORC Code explanation	Commentary
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of historic drill holes and soil anomalies shown in Figure 2.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 PNX rock chip samples were submitted to Northern Australia Laboratory (NAL) in Pine Creek, Northern Territory for assay. Samples were dried, roll-crushed to -2mm, split to 1kg and pulverized to -100µm in a Keegormill. Samples were assayed for gold only. NAL used the gold assay method FA40 (Fire Assay 40 g) with AAS finish. Detection limits are 0.01 ppm. Repeat gold assays (laboratory duplicate obtained from a new 40 g sample charge) were completed on 16 samples and a second repeat assay completed on 3 samples. Results given in the main text of the Announcement are the average of results where repeat assays were taken. All results have been rounded to two decimal places in ppm. All results, including repeat assays, are shown in Table 1 of the Announcement. The remaining pulp sample has been kept for future reference/assay. Due to their historic nature, the assay details for the drill samples are unknown.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data 	 Significant results in this Report have been verified by PNX's Exploration Manager and Northern Geological Consultants. No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of historic drill holes

Criteria	JORC Code explanation	Commentary
	 verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 and soil anomalies shown in Figure 2. All PNX rock chip data (field and assay) are received as MS Excel spreadsheets and are compiled for eventual storage in an MS Access database. All historic soil and drill data have been transcribed from statutory reports obtained from the Northern Territory Mines Department via their publicly available GEMIS system. Some of the drill collar and soil data are available on the Northern Territory Geological Survey's STRIKE system. It is not known whether any adjustments were made to the historic data.
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Rock chip sample and drill hole collar locations are quoted using the GDA94 datum (Zone 52). PNX rock chip sample locations were obtained using a handheld GPS at the time of sampling. There has been no concerted effort to locate the historic drill hole collars in the field.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 PNX's rock chip sampling and historic RC and Airtrack drilling are reconnaissance in nature and are not considered sufficient to establish the degree of geological and grade continuity appropriate for a Mineral Resource and Ore Reserve estimation. Sample compositing has not been applied.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 PNX rock chip sampling was limited by outcrop and it is not known whether the distribution of samples provides unbiased sampling of the gold mineralisation. Historic RC and Airtrack drilling provide limited information regarding the orientation of geological structures. It is not known whether the relationship between the drilling orientation and the orientation of mineralised structures has introduced sampling bias.
Sample security	The measures taken to ensure sample security.	 PNX rock chip samples were placed inside individual calico bags at time of collection and transported by PNX personnel to NAL upon completion of the sampling program.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits have been carried out at this point

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	 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. 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. 	 The Announcement covers granted Exploration Licences EL31839 and EL31099 (100% owned by PNX Metals Ltd), and EL10012 (90% owned by PNX Metals Ltd and 10% owned by NT Mining Operations Ltd (subsidiary of Agnico Eagle Australia)) (see ASX 14 August 2014 and 12 December 2016). All Exploration Leases are situated within Bridge Creek (Perpetual Pastoral Lease 1213, NT Portion 6299) and Mt Ringwood Stations (Perpetual Pastoral Lease 1212, NT Portion 6298). PNX has permission from the pastoral lease owners to access the areas. There are no formal landowner access agreements in place. There are no Native Title claims over the area. The tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Significant exploration in the area has been completed by four companies companies: WR Grace Australia (1980-1985) WMC Resources (1985-1990) Acacia Resources (1995–1999) Territory Uranium Corporation (2007-2012) Historic company reports with the data referenced in this Announcement are publicly available via the Northern Territory Mines Department's GEMIS system. No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of historic drill holes and soil anomalies. Reports used for historic data referenced in the Announcement are: CR1988-0138 (BYDC425-437) CR1989-0327 (BYDC545-551), Airtrack drilling CR1989-0387 soil sampling The Goodall Gold Deposit was discovered by WG Grace Australia and delineated and mined by Western Mining Resources.

Criteria	JORC Code explanation	Commentary
		• No other deposits are known in the immediate area, though there are many gold deposits within the Pine Creek Orogen.
Geology	Deposit type, geological setting and style of mineralisation.	 The area described in the Announcement is within the Central Domain of the Pine Creek Orogen. The geology comprises Paleoproterozoic metasediments. The stratigraphy in the project area, as shown in geological maps published by government geological surveys, is exclusively Burrell Creek Formation, which is part of the Finniss River Group. There is less than 50% outcrop in the project area. The Burrell Creek Formation has been moderately to tightly folded along multiple north-trending axes and metamorphosed to sub- to lower greenschist facies within the project area. Gold mineralisation is found in many stratigraphic units in the Pine Creek Orogen, including the Burrell Creek Formation. Gold dis either in or near quartz veins or along sedimentary beds within these fold axes. Other geometries of gold-bearing quartz veins, such as the Tally Ho lodes at Fountain Head, are also known. Gold-bearing quartz veins and associated sericite-chlorite-pyrite alteration overprint both the peak metamorphic minerals formed in the contact aureole around large granite bodies
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly 	 No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of drill holes shown in Figure 2.

Criteria	JORC Code explanation	Commentary
	explain why this is the case.	
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 No weighting methods or other aggregation methods have been applied.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	• All significant intersections in Figure 2 are quoted as downhole widths.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 No new drill results are reported in this announcement. Refer to PNX Metals' ASX release 13 February 2023 for details of drill holes shown in Figure 2.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	All matters of importance have been included.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	• All relevant available information has been included.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	• Details of planned work on the targets presented in this Announcement are included within the body of the report.