

10 April 2019

Mr. Alex Sutton Advisor – Geology, Listings Compliance Australian Securities Exchange 20 Bridge Street Sydney, NSW, 2000

Dear Alex,

Re-release of announcement with JORC Code, 2012 Edition – Table 1, Sections 1 and 2

As requested, the Company's announcement 'Hayes Creek test work identifies new process to materially increase gold/silver recoveries' dated 9 April 2019 has been re-released with the inclusion of Table 1 as an Appendix.

Kind Regards,

James Fox

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Hayes Creek test work identifies new process to materially increase gold/silver recoveries

- Innovative flotation and leaching test work on Iron Blow float tailings stream indicates potential for the recovery of approximately 13koz of gold and 1Moz of silver that would otherwise be lost to tails
- This test work will be advanced as part of the DFS and has the potential to increase the already robust economics of the Hayes Creek project as demonstrated by the 2017 PFS
- Drilling at Iron Blow complete with thick zones of massive sulphide mineralisation intersected within the eastern and western lodes - assays due from late April
- Studies underway to inform the Hayes Creek DFS including those required for Government and environmental approvals

PNX Metals Limited (ASX: PNX) ("PNX", "the Company") is pleased to advise that it has identified a new pathway to materially increase recoveries of gold and silver from the Iron Blow volcanogenic massive sulphide (VMS) deposit.

Iron Blow, along with the Mt Bonnie VMS deposit and the Fountain Head gold prospect, collectively comprise the Hayes Creek zinc-gold-silver project ("Project") in the Pine Creek region of the Northern Territory.

The recently completed optimisation test work will feed into the definitive feasibility study (DFS) as a new unit process designed to capture additional gold and silver from the Iron Blow float tails that would otherwise remain locked in the mineral lattice and therefore remain unrecoverable.

A newly trialled reagent to specifically target residual gold and silver in the rougher tails has achieved a first pass result of improved recoveries to a scavenger concentrate by 26.6% gold and 19.9% silver.

This scavenger concentrate stream was then subjected to three well known hydrometallurgical processes - intense cyanidation, ferric oxidation (at elevated temperatures), and pressure oxidation (POx) for extraction of gold and silver (see Table 1).

Intense cyanidation, the preferred treatment route at this stage, achieves additional recoveries of precious metals to solution and then to doré of at least 10.7% gold and 17.0% silver, which equates to approximately 13koz Au and 1Moz silver over life of mine at Iron Blow potentially creating a new revenue stream for the Project.

Managing Director Comment

PNX Managing Director James Fox said: "We are very pleased with the outcome of this test work as it is something we have been working on in the background for a while. To have identified a potential new revenue stream from material that would otherwise end up in tailings is excellent. Overall gold/silver recoveries have been improved by 10.7% and 17.0% respectively to a new final product being a doré bar, in addition to the zinc and precious metals



concentrates as proposed in the PFS. This incremental optimisation is continuing to demonstrate that the Hayes Creek Project is a technically, environmentally and financially viable project."

Hydrometallurgical Process	Au Extraction	Au to doré	Ag Extraction	Ag to doré	Iron Dissolution	Sulphide Destruction	Zinc Dissolution
	%	%	%	%	%	%	%
Option 1 - Intense Cyanidation	40.75	10.7	76.4	17.0	0	0	3.1
Option 2 - ATM FeSO4	53.50	13.9	100	26.0	54	ND	75
Option 3 - POx	84.55	22.0	100	26.0	26	66	99

Table 1 (ND = Not Detected)

Discussion

Of the three options tested, intense cyanidation has the lowest capital and operating costs. Whilst these costs have to be finalised for inclusion into the DFS, they typically only relate to minimal power and reagent usage (sodium cyanide and sodium hydroxide).

The Intense cyanidation process involves applying high cyanide concentrations to continuously leach the sulphides for an extended period of time (tested up to 72 hours) to drive the gold/silver extraction from the solids into a liquor stream which is then treated via the Merrill-Crowe process (zinc precipitation) to produce a gold/silver doré.

The highest gold liquor assay was observed after 32 hours of leaching suggesting some back precipitation of the gold, and with further optimisation intense cyanidation recoveries may be increased closer to 50% (from 40.75%, see Table 1), resulting in a potential for 13.3% gold recovery to doré vs the current 10.7%.

Intense cyanidation also has the advantage of no sulphide destruction and low zinc dissolution, meaning no zinc loss to evaluate in the concentrates as the leach tail can be recirculated back into the main float circuit.

Although POx demonstrates the highest gold/silver extraction it is at this stage likely to be uneconomic.

Iron Blow Drilling

Drilling at Iron Blow comprising two diamond holes for a total of 500m has been completed, with thick intervals of massive sulphide mineralisation intersected in the eastern and western lodes as predicted by the geological model. Geological logging and core processing is being finalised and the first assays are due from late April.

Hayes Creek DFS update

The DFS on the Hayes Creek Project has re-commenced, following the successful completion of a Pre-Feasibility Study (PFS) in July 2017 which confirmed the Hayes Creek Project to be a promising future low-cost, high margin zinc and precious metal mine that could create significant value for the Company's shareholders¹

The DFS is expected to provide increased confidence in all aspects of the Hayes Creek Project as well as investigate opportunities to improve mine life and overall project economics, thereby increasing the prospect of favourable development finance terms and structure.

The Hayes Creek Project is comprised of the Iron Blow and Mt Bonnie zinc-gold-silver deposits, and the Fountain Head gold prospect, located less than 3km apart on wholly owned Mineral Leases within the Pine Creek region of the Northern Territory, 170km south of Darwin (Figure 1).

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¹ Refer ASX announcement 12 July 2017 for full details. The material assumptions underpinning the production targets, and the forecast financial information derived from the production targets, continue to apply and have not materially changed.



In July 2018, the agreement with Newmarket to acquire four mineral leases at Fountain Head was completed, thereby securing the preferred site for the Project's proposed processing plant and tailings facility².

During the 2018 field season there was a renewed focus on regional exploration and as such the DFS progression was limited to studies relating to the Notice of Intent, Environmental Impact Statement (EIS) and ongoing metallurgical flotation test work. With increased investor interest in the project, in particular from new sophisticated investors, the DFS has re-commenced. The longest lead-time items relate to environmental and regulatory approvals with the submission of the EIS proposed for mid-2019. These approvals and finalisation of the DFS are expected to take until at least the first quarter of 2020, subject to no unforeseen delays.

The Hayes Creek Project is located in a favourable mining jurisdiction where the development scenario considers and utilises existing infrastructure that includes rail, road, high voltage power lines and water, further enhancing project fundamentals and lowering development risks.

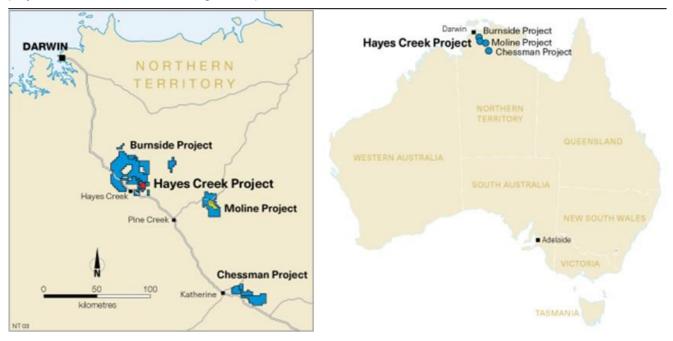


Figure 1: NT Project locations

Competent Persons Statement

The information in this document that relates to mineral processing, metallurgy, and engineering is based on information compiled by Mr David Readett, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy and Chartered Professional Metallurgical Engineer FAusIMM CP (Met). David Readett is employed by Mworks TDK Pty Ltd who have provided mineral processing, metallurgical and project management services to PNX Metals Ltd. Mr Readett has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Readett consents to the inclusion in the 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

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² Refer ASX announcement 31 January 2018 for further detail

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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 The samples used for metallurgical test work were obtained from diamond core cut in ½ or ¼ for sampling purposes Samples were selected at the time of drilling and original reporting of assay results based on appropriate representivity of the main mineralised zones at the Iron Blow VMS deposit All core was geologically logged by the onsite geologist and sampling has matched geological boundaries Magnetic susceptibility measurements were taken using KT-10 meter 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 500 device Mineralised intercepts have been verified using the field portable XRF instrument which gives a qualitative measure of the relevant elemental abundances
Drilling techniques	 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). 	 All sample material used in the metallurgical testwork was diamond core. Drilling was carried out by WDA Drilling Services Pty Ltd, using an Alton HD900 drilling rig A Camteq Proshot survey tool calibrated in 2016 was used at regular intervals (approximately every 30m downhole) as instructed by PNX's on-site geologist to monitor the downhole position
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise 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. 	 Core recovery was measured for each core run (typically 3 to 6 m), with core recoveries averaging about 98% No relationship is established between core recovery and grade, there is no reason to expect a sample bias exists
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate 	 All core was geologically and geotechnically logged by the onsite geologist

Criteria	JORC Code explanation	Commentary
	 Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 RQD was measured for each metre All core was photographed prior to cutting for assay Intervals with like geological characteristics were logged in detail, with sample boundaries corresponding to changes in geology Log fields include lithology, colour, grainsize, texture, veining, sulphide mineralisation, alteration, strength, recovery and sample moisture Logs have been aided by the use of magnetic susceptibility and portable XRF measurements on each metre sample
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. 	 Individual samples were placed in individual sample bags and clearly identified prior to submission to the laboratory for assay
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	between each sample, the samples are subjected to a four acid digest (considered a total digest for the elements of interest) and read using ICP-MS and OES for a suite of elements (lab methods G400 and G340 for ore grade samples). A sub-sample of the pulverized

Criteria	JORC Code explanation	Commentary
		 PNX submitted certified reference materials and duplicates samples every 25th sample and also submitted blank quartz material to check laboratory analytical and sample preparation quality at a rate of 3 blanks per 100 NAL have internal QAQC procedures, including certified reference materials, duplicates and blanks, results of which are reviewed by NAL prior to reporting to PNX Visual assessment of the standards, blanks and duplicates shows that a high degree of confidence can be placed in the accuracy and precision of the assay data The Flotation testwork and sample assaying were conducted at Nagrom Laboratory Kelmscott WA, and was directly supervised by BHM Process Consultants. The hydrometallurgical testwork and sample assaying were conducted at ALS Laboratory Balcatta WA and was directly supervised by BHM Process Consultants.
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 verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 No twinned holes have been carried out No repeat hydrometallurgical test work has been completed as yet External laboratory assays are routinely carried out No bias has been identified in any of the valuable elements to date 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 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 No adjustments to assays have been made. Where gold assay data has been repeated by the lab, the average value has been reported
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. 	 Downhole surveys have been collected by at approximate 30m intervals downhole and manually adjusted where magnetic interference is encountered in pyrrhotite bearing mineralisation The drill collars were located using a Garmin GPS Map 60 hand-held GPS unit and verified using a second unit. The drill hole locations are considered accurate to within 5m and will be picked up with differential GPS prior to resource estimation. All coordinates are quoted using the GDA94 datum and projected to MGA zone 52

Criteria	JORC Code explanation	Commentary
		 Topography has been accurately measured using a drone survey over the area in 2014
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. 	 The drill spacing is irregular, due to the irregular topography and historical mining activities; the overall drill spacing within the mineralised zone is approximately 20 x 20m, The sample spacing is sufficient to establish the grade continuity. Intervals are determined from geological contacts and then at metre intervals within a particular unit. Where isolated samples are less than one metre in width they have been cut to geological boundaries. No sample compositing has been carried out for reporting of assays Sample compositing was carried out to reflect the overall deposit as a whole for the test work to be representative
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. 	 The drill holes are oriented to intersect mineralisation close to perpendicular to the interpreted orientation of the main zone of mineralisation. The mineralisation may be folded in some areas, which could result in the possibility of drill holes being not optimally orientated Any biasing effect is yet to be determined
Sample security	The measures taken to ensure sample security.	 Logging, cutting 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 No third parties have been allowed access to the samples
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 No audits have been carried out at this point A visual comparison of the assay results with the field portable XRF shows an acceptable correlation with lab results

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 Iron Blow deposit is located within MLN214, MLN341, MLN343 and MLN349 which covers an area of some 51.07 hectares, The deposit and drilling is situated within Perpetual Pastoral Lease 1217, NT Portion 07122 known as Douglas Station. PNX have an access agreement with the station owner

Criteria	JORC Code explanation	Commentary
	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 Mineral Lease are in good standing and no known impediments exist A 'Sale and Purchase Agreement and Heads of Agreement for Farm In and Joint Venture Agreement' (Agreement) between PNX and Newmarket Gold NT Holdings Pty Ltd (Newmarket) was signed on 15 August 2014 for the 100% acquisition by PNX of the mineral leases containing the Iron Blow and Mt Bonnie deposits. Newmarket retains a 2% royalty on any silver and gold production from those deposits
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Previous exploration at Iron Blow has consisted of oxide mining, geological mapping, surface geochemical sampling and diamond drilling GBS and Newmarket carried out limited drilling in 2007 and 2011 respectively. Cores for these holes have been inspected and relogged (thereby verified) by PNX for consistency Newmarket completed an airborne EM (VTEM) survey over parts of the tenement package. Numerous conductive rocks prospective for base metals have been identified by PNX for further ground truthing and follow-up work
Geology	Deposit type, geological setting and style of mineralisation.	 Iron Blow and Mt Bonnie are stratabound base metal, silver and gold massive sulphide deposits. They are located within the Mount Bonnie Formation of the South Alligator Group, within the Pine Creek Orogen of the Northern Territory. Both deposits appear to be located at similar stratigraphic positions on opposite limbs of the roughly north-south trending Margaret Syncline Mineralisation is hosted within carbonaceous siltstones and mudstones within the lower portion of the Mount Bonnie Formation. It appears to have formed early in the basin development and has associated footwall alteration consisting of variable proportions of chlorite, amphibole, calcite, silica, and talc with associated vein and disseminated sulphides. The mineralisation appears to be consistent with a volcanic hosted massive sulphide deposit (VHMS) characteristics, or could possibly be related to carbonate replacement style. Further work is required to determine the exact association. The massive sulphide mineralisation is dominantly massive pyrrhotite with zones of coarse-grained, high-grade sphalerite, arsenopyrite, chalcopyrite, with lesser galena. Significant silver and gold grades are also present in previous drillholes within the massive sulphide and

Criteria	JORC Code explanation	Commentary
		 within adjacent quartz-veined and brecciated sediments containing significant disseminated and stringer sulphides, which is possibly the vent zone typical of VHMS deposits Mineralisation at both Iron Blow and Mt Bonnie is structurally complex and appears to be deformed by the regional deformation events. Structural mapping and logging is continuing to determine the precise nature, timing, and geometry of the mineralised 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 explain why this is the case. 	 Refer to previous releases by PNX which discuss location of drill holes, including 23 January 2017, 15 March 2017, 30 March 2017, and 12 July 2017.
Data aggregation methods	 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. 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. 	 Assay results previously reported are interval length weighted No high cut-off grades have been applied Results reported relating to this test work are appropriate with no averaging of results Intersections reported previously are based on sharp grade boundaries and may include narrow intervals of sub-ore grade mineralisation which would be considered as internal dilution if mined by open pit methods Reported intersections were reported as significant if they occur at a minimum of 0.7 g/t Au, calculated on an equivalence basis. This is consistent with the minimum cut-off grade reported in previous announcements. Mineralised intersections were observed to be coherent and have sharp grade boundaries, but may include narrow intervals of sub-ore grade mineralisation which would be considered as internal dilution if mined by open pit methods Higher grade mineralised zones were reported if coherent downhole intervals =>6g/t Au (equivalent) is encountered

Criteria	JORC Code explanation	Commentary
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'). 	 The core to bedding relationships suggest that the true widths of the sulphides are estimated to be approximately 60% of the downhole widths quoted, however further structural analysis and wireframe modelling will be required to confirm this The gross geometry of the mineralisation is two subparallel lodes trending north-south and dipping vertically or steeply east
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. 	 Refer to ASX releases in 'Drill hole information' for location of PNX drilling that relates to this test work
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 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. 	 Further metallurgical test work will take place to optimise these results focusing on the preferred hydrometallurgical route being Intense Cyanidation PNX are undertaking Definitive level studies looking at future project development, which is expected to be complete by early 2020