PNG Copper Announces Reconnaissance Sampling Returns Copper Results from Skarn Up to 7.41 % at Yokai prospect, Mt Suckling

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Highlights

- Reconnaissance exploration, in August this year, has located Cu-bearing skarn-like mineralisation from the southeast Urua-Omu area.
- Highlights from sampling include 7.41 % Cu (sub-outcrop) and 0.72 % Cu (outcrop) from a garnet-bearing skarn occurrence, noted over a 200 m x 50 m area.
- A gossanous float sample from the skarn zone assayed 0.22 % Cu.
- The presence of skarn associated with outcropping limestone in the area has long been speculated and these results have expanded the area of anomalous Cu and Au occurrence in the Urua-Omu area to at least 36 km^2.

Toronto, December 7, 2022 - PNG Copper Inc. (CSE: PNGC) ("PNG C" or the "Company") announces that it has received geochemical results from 25 rock samples and 7 panned concentrate samples collected during reconnaissance, in August this year, at Yokai prospect, Mt Suckling, Papua New Guinea. Highlights include 7.41 % Cu from sub-outcrop and 0.72 % Cu in outcrop, both samples collected from a garnet-bearing skarn occurrence noted over a 200 m x 50 m area. Five of the 6 samples collected from the skarn contained >0.10 % Cu. It is not known if the isolated outcrop samples are interconnected.

David Lindley, Interim CEO, said, "The occurrence of skarn was predicted and the success of the present programme in locating Cu-bearing skarn indicates that our understanding of the Urua-Omu porphyry system is improving. This understanding will continue to be refined with a diligent and scientific approach to exploration, ultimately leading to the targeting of successful drillholes."

Location and historical background. The Yokai area is located on the southeastern margin of a cluster of Cu-in-rock anomalies found in the Urua-Omu area. The area is of interest because extensive limestone (Late Oligocene-Middle Miocene Ada'u Limestone) crops out along the northern slopes of the east-west trending Yokai Valley. These limestones are older than the Late Miocene-Pliocene intrusive rocks found in the Urua-Omu area, and therefore potential exists for the development of Cu mineralised magnetite skarn. The reactive limestones have the potential to literally act as a blotting paper, soaking up ore-elements from circulating hydrothermal fluids from high-level intrusives.

Historical sampling of quartz vein float from Yokai Creek contained 0.37 % Cu. Visible gold was also present in panned samples in Yokai Creek, near its confluence with Waki Creek. Subsequently, an inversion anomaly was identified in the headwaters of Yokai Creek during inversion modelling of Total Magnetic Intensity data obtained during the 2010 low-level detailed airborne magnetic and radiometric survey of the Ada'u Valley. This modelling was designed to focus on deeper magnetic targets in preference to small and shallow sources, ideal for locating any magnetite skarn mineralisation associated with the Ada'u Limestone. The NNE-SSW trending anomaly, measuring 5 km x 3 km in size, was given a medium priority for followup. Most recently, petrology of 4 limestones from Omu and south of Urua provided the first indications of skarn mineralisation, when chalcopyrite-cuprite-chalcocite assemblages were observed in 3 samples and chalcopyrite in 1 sample.

Present exploration at Yokai. There were two components to the recent reconnaissance mapping and sampling at Yokai. The entire length of Yokai Creek was traversed and mapped and mineralised float was sampled. A total of 16 rock float and 7 panned concentrate samples were collected during this work. Four rock samples, all mesothermal quartz veins, contained >0.10 % Cu. These anomalous samples were collected from a 1.3 km interval of lower Yokai Creek (Figure 1). Anomalous Cu contents ranged from 0.13 to 2.04 % Cu. A panned concentrate from a small tributary on the southern banks of lower Yokai Creek contained an anomalous 0.25 g/t Au. Outcrop along Yokai Creek consists of pillow basalt of the Late

Oligocene-Middle Miocene Wavera Volcanics. This submarine volcanic unit is coeval with the similarly aged Ada'u Limestone. There are many field examples of the two units intermingling viz. the formation of submarine limestone-basalt breccias.

Figure 1: Reconnaissance sampling of lower Yokai creek, southeast Urua-Omu project area.

To view an enhanced version of Figure 1, please visit:
https://images.newsfilecorp.com/files/8090/147180_a53a132694efaac9_001full.jpg.

The second component of work involved traversing slopes on the northern fall of Yokai Valley, to explore for skarn associated with the nearby Ada'u Limestone. Scattered outcrop of skarn was discovered in a 200 m x 50 m area, located on steep slopes 250 m north of Yokai Creek. A total of 9 rock samples were collected from this zone. Garnet is present and the zone appears to be structurally controlled. Six samples were skarn: 5 were from outcrop and 1 sample sub-outcrop or scree adjacent to outcropping skarn (Figure 1). Five of the 6 skarn samples contained anomalous Cu values ranging from 0.10 to 7.41 % Cu. These rocks were described as consisting of a mineral assemblage of quartz-chlorite-epidote-garnet-pyroxene±sulphide. The remaining samples were described as rocks with quartz-sericite±sulphide or limonite-haematite-jarosite-quartz±sulphide, in one case with a gossanous appearance. Of these samples, 2 were outcrop and 1 was a float. The gossanous sample (float) assayed 0.22 % Cu.

Rock and panned concentrate samples collected during the Yokai reconnaissance work were dispatched to Australian Laboratory Services, Brisbane, Australia, for analysis on 5 September 2022. Gold analyses of panned concentrates were completed by aqua regia extraction on a 50 gm sample with Inductively Coupled Plasma Mass Spectrometry finish. Analyses of rock samples for base and other elements (33 elements total) were completed by four acid digestion of a 0.25 gm sample with Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry finish.

The Urua-Omu porphyry copper system

Summary. The Urua-Omu prospect remains highly prospective for porphyry copper discovery. High-grade Cu values, typically in excess of 0.10 % Cu and often greater than 1 % Cu, are present in both float and outcrop, as well as in drill intersections obtained during the 2011-2012 drilling of monzonite stocks. These Cu-bearing rocks define a 36 km^2 area straddling the east-west trending Keveri Fault and its flanking subsidiary structures (Figure 2). The late 2018 to September 2021 exploration programme completed by the Company was essentially restricted to Omu. However, this large area of interest remains at an early stage and includes relatively untested previously identified prospects (e.g. Urua) with well-defined grid soil, rock and trench geochemical anomaly, airborne and ground geophysical signatures and lithological and hydrothermal alteration assemblages similar to many other southwest Pacific porphyry projects when at a similar stage of exploration.

Key to understanding the geology and mineralisation of the Urua-Omu system is the significant vertical movement of tectonic blocks which has occurred within the broad trace of the Keveri Fault (Figure 2). Each block, relative to adjacent blocks, displays a contrasting erosional level. Only detailed specialist mapping of the Urua-Omu rock sequence in concert with careful petrological and fluid inclusion study will lead to an understanding of the system as a whole.

Cu-rich and Au-poor mesothermal carbonate-base metal veins - Omu block. The Omu system is Cu-rich and Au-poor. Indications are that the fault block containing Omu, with widespread occurrence of shear zone-hosted mesothermal carbonate-base metal veins, is at a moderately deep erosional level (Figure 2). Base metal sulphides at Omu are dominated by chalcopyrite (Cu-sulphide) with lesser sphalerite (Zn-sulphide). Carbonate minerals identified include Fe-, Mg- and Ca-carbonates. These types of veins form at mid-crustal levels between porphyry and epithermal environments. They are typically distal from a causative porphyry. Petrological study indicates that it is unlikely that the quartz diorite and tonalite porphyry rocks at Omu (the target of the Company's previous exploration) were causative to early magmatic hydrothermal fluid flow and late convective meteoric hydrothermal fluid circulation. The intrusive rocks are probably Late Miocene-Early Pliocene in age (15-2.5 million years) and are genetically related to the nearby similarly aged (and radiometrically dated) Suckling Granite and Mai'iu Monzonite.

Cu- and Au-rich mineralisation in a sub-volcanic setting - Urua block. The Urua system is Cu- and Au-rich. Cu and Au mineralisation at the surface and in subsurface at Urua is hosted in a diatreme breccia and drill-intersected monzonite stocks. Diatreme breccia crops out over a 1.7 km x 1.0 km area and contains wood and charcoal fragments. The breccias are a collapse deposit formed in the vent of an old volcano. Airfall volcanic deposits (accretionary lapilli tuff) are present in the surrounding area, and are likely to be derived from explosive eruptions from the Urua volcano. The presence of a sub-volcanic structure indicates the Urua block has undergone moderate dissection (Figure 2). The level of dissection and the presence of a volcanic structure and at depth multiphase monzonite stocks is highly prospective for porphyry copper search. Relative age relationships suggest the volcanic feature is Late Miocene-Early Pliocene in age (15 to 2.6 million years).

Figure 2: Geological map of the Urua-Omu project area, showing three distinct tectonic blocks, viz. Urua, Yokai and Omu blocks, each with different erosional levels and contrasting porphyry potential, necessitating unique approaches to exploration.

To view an enhanced version of Figure 2, please visit:
https://images.newsfilecorp.com/files/8090/147180_fig2pngc.jpg.

The Urua diatreme breccias are associated with coincident and anomalous Au-Cu-Pd soil values, anomalous Cu-Au values in rock (to 37 g/t Au) and trench, radiometric thorium and magnetic signatures, and a very strong induced polarisation chargeability anomaly (Figure 3). Two drillholes were completed at Urua in 2011-2012. Both holes were terminated at 300 m after intersecting about 70 m of diatreme breccia and multiple phases of monzonite rock. The holes contained numerous intersections of Cu-Au mineralisation. Maiden hole URD002 targeted Au- and Cu-bearing breccias in trench and float and the prominent chargeability anomaly, with a best result of 6.65 m @ 0.77 % Cu, 1.84 g/t Au from 208.85 m depth. Significant Au and Cu results were encountered at all levels in the hole (Table 1). Drillhole URD003 was completed from the same drill-pad as URD002, with an azimuth 45º east of URD002.

Porphyry copper related Cu-skarn - Yokai block. The Yokai block is the least dissected of the three blocks, and a cap of Late Oligocene-Middle Miocene Ada'u Limestone is preserved along the length of the block (Figure 2). The block is downthrown relative to adjacent blocks, thereby preserving the limestone cap intact. Porphyry-related skarn development is expected to occur within the limestone given it is older than the intrusive rocks at Omu and Urua. Recent petrological studies of 4 limestone samples from Omu and south of Urua provided confirmation of this when chalcopyrite-cuprite-chalcocite assemblages were observed in 3 samples and chalcopyrite in another. The presently reported reconnaissance sampling on the northern slopes of Yokai Valley, under cliffs of limestone, has located exposures and sub-outcrop of skarn mineralisation containing up to 7.41 % Cu. Deep drilling below the limestone cap rock will be required to explore for any porphyry orebody.

Figure 3: Urua with its coincident Au-Cu-Pd soil geochemistry, airborne geophysical signatures (thorium and magnetics) and chargeability.

To view an enhanced version of Figure 3, please visit:
https://images.newsfilecorp.com/files/8090/147180_a53a132694efaac9_003full.jpg.

Table 1: Urua exploration drilling results, 2011-2012.

Drill hole	Mineralisation From-To (m)	Width (m)	Grade Cu	Grade Au

	8.00 - 78.00 m	70.00 m	0.10 % Cu	-
	203.55 - 203.70 m	0.15 m	1.15 % Cu	0.26 g/t Au
		6.65 m	0.77 % Cu	1.84 g/t Au
	208.85 - 215.50 m	Incl. 1.10 m	2.16 % Cu	9.60 g/t Au
		Incl. 0.50 m	0.55 % Cu	13.59 g/t Au
URD002		& 0.60 m	3.49 % Cu	6.20 g/t Au
	244.10 - 246.10 m	2.00 m	0.31 % Cu	-
		12.30 m	0.13 % Cu	-
	264.60 - 276.90 m	Incl. 5.90 m	0.23 % Cu	0.6 g/t Au
		Incl. 2.10 m	0.50 % Cu	0.7 g/t Au
		Incl. 0.70 m	1.12 % Cu	1.16 g/t Au
	289.60 - 290.20 m	0.60 m	0.12 % Cu	0.42 g/t Au
	14.00 - 18.00 m	4.00 m	0.71 % Cu	0.25 g/t Au
	61.30 - 64.00 m	2.70 m	0.13 % Cu	-
URD003	95.00 - 99.60 m	4.60 m	-	0.33 g/t Au
	148.00 - 160.00 m	12.00 m	0.20 % Cu	-
		Incl. 4.00 m	0.84 % Cu	-
	237.80 - 246.00 m	8.20 m	0.14 % Cu	-

Cutoffs: Cu - 0.1 %; Au - 0.1 g/t

The technical information in this news release has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 and reviewed on behalf of the company by Ian David Lindley, Interim Chief Executive Officer of PNG Copper Corp, a Qualified Person. Dr. Lindley has First Class Honours and Ph.D. degrees in Geology, 44 years mining industry experience, and is a Fellow of the Australian Institute of Geoscientists.

About PNG Copper Inc.

PNG Copper Inc. is a mineral exploration company focused on acquiring, exploring, and developing quality mineral properties in Papua New Guinea. The Company's core values are respect for the Community, the Landowners, the environment and operating a safe workplace for its employees. The Company is also committed to best practice standards of Corporate Governance.

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Forward-looking information in this news release includes, but is not limited to, information concerning the drilling on PNG Copper property, procedures for mineral analyses, the Company's objectives, goals or future plans, statements. Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties which may cause actual results to differ materially from the statements made.

These assumptions include industry assumptions relating to, the price of copper, gold and other metals, currency and interest rate fluctuations, and assumptions concerning mineralization, mineral recoveries, the ability to conduct exploration activities in Papua New Guinea, and assumptions concerning COVID-19. Factors that could cause actual results to vary from the Company's stated expectations include, but are not limited to, mineral price and exchange rate fluctuations, increased competition and general economic and market factors, potential mineralization not being as anticipated, uncertainties inherent in the estimation of mineral resources, exploration and mine development plans, timing of the commencement of operations and estimates of market conditions, failure to identify mineral resources, failure to convert estimated mineral resources to reserves, the inability to complete a feasibility study which recommends a production decision, the preliminary nature of metallurgical test results, delays in obtaining or failures to obtain required governmental, environmental or other project approvals, political risks, uncertainties relating to the availability and costs of financing needed in the future, changes in equity markets, inflation, changes in exchange rates, fluctuations in commodity prices, delays in the development of projects, capital and operating costs varying significantly from estimates.

Although the Company believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law.

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