Norden Crown Identifies New Copper Porphyry, Epithermal Gold, Copper, Silver, Gold CRD Targets at Smart Creek

10.12.2024 | GlobeNewswire

VANCOUVER, Dec. 10, 2024 - Norden Crown Metals Corp. ("Norden Crown" or the "Company") (TSXV: NOCR, Frankfurt: 03E) has completed a field evaluation campaign at the Smart Creek Gold-Copper Project, including targeted geological mapping as well as opportunity recognition work at both the Smart Creek and Sunrise Mountain Claims, located in the Eocene Porphyry Belt of western Montana (Figures 1-4).

Norden Crown CEO Pat Varas stated "In addition to an excellent property-scale copper and gold metal endowment, our technical team has focused on a variety of porphyry-related mineralization styles in the Smart Creek / Sunrise project area and has concluded that the present erosion level offers several opportunities to test, high-grade copper and gold mineralized targets. The systems are well-preserved and have large alteration footprints, which demonstrate the potential for large deposits. This, combined with the abundance of reactive host rocks that can yield high grades indicates there is the potential for the discovery of ore deposits in the area that are best in-class."

At the Smart Creek Project, Norden Crown is focused on four robust zones of alteration and mineralization areas/domains that represent compelling exploration targets including the porphyry copper targets previously tested by Rio Tinto. Norden's team recognized preservation of the host stratigraphy, which provides the opportunity for additional porphyry (and related) targets, including structurally controlled/replacement style gold targets at the Sunrise mine (Figure 1).

In addition, exploration opportunities are recognized on the Smart Creek project with potential for carbonate replacement style mineralization (CRD) at the Smart Creek target and at Sunrise including copper, gold and silver replacement bodies near and associated with the historic Sunrise Mine, as evidenced by widespread marbleization and skarn development associated with manganese oxides and copper oxides in the carbonate metasedimentary rocks of the Helena formation.

The Smart Creek copper target remains a high-priority target with widespread, high grade copper oxides (and sulphides) which outcrop at surface. This mineralization is cut by numerous historic drill holes, with multiple copper intercepts from surface e.g., 109.73m @ 0.75% Cu; 18.74 g/t Ag(SMCR0022; see below) [1,2].

The Smart Creek Project was optioned from Rio Tinto (see August 20, 2024 News Release: https://nordencrownmetals.com/_resources/news/20240820.pdf). Smart Creek is accessible year-round via highway and gravel roads, and is located 100 km southeast of Missoula, Montana (Figure 1). Gold-Copper exploration potential is considered excellent at Smart Creek:

1. A total of 52 previous drill holes (7 at Sunrise, 45 at Smart Creek). Recent drilling in 2022 by Rio Tinto resulted in - copper assay results including a 109.73m @ 0.75% Cu and 18.74 g/t Ag intercept (drill hole SMCR0022; see NR dated August 20, 2024) [1,2].
2. Extensive high-grade oxide and sulfide copper mineralization throughout the property. Historical rock samples with copper grades ranging from below detection limits up to 5.64% Cu with historical mining at Smart Creek, Sunrise and at the Henderson Gultch placer mining operations[3,4].
3. Historic mining of a gold-copper replacement-style deposit at the Sunrise Mine[5].
4. Preservation of the porphyry-skarn-CRD-epithermal environments on the property. Geological mapping observations include exotic copper mineralization, high-sulfidation style gold showings, skarn/CRD replacements, and widespread porphyry-style, mineralization and veins. The property features multiple targets with limited drilling, untested by modern methods.
5. A large database of airborne magnetic/radiometric/Induced polarization and historic soil and rock sampling, RC and diamond drilling with significant, untested geochemical anomalies coincident with alteration zones (Figure 3)[2].

6. Superb reactive host rocks (Helena Formation calcareous metasedimentary rocks); porphyry intrusions associated with large alteration footprints at Smart Creek and Sunrise (Figures 1-4).

Figure 1. Smart Creek and Sunrise project situated 1 hour drive southeast of Missoula, in the well-endowed west-central part of Montana. The Smart Creek area is situated within a major gold-copper metallotect.

Figure 2. Smart Creek and Sunrise project showing targets, favorable host rocks and molybdenum soil anomalies.

Figure 3. Smart Creek and Sunrise project showing targets, favorable host rocks and molybdenum soil anomalies.

Figure 4. Quartz vein stockworks at Smart Creek in outcrop (3A) and drill core (3B). Copper oxides/carbonates in fractures cutting the Helena Formation metasedimentary rocks. Drill core (3C) and outcrop/hand specimen (3D).

Findings from 2024 Exploration Program

The Smart Creek project hosts significant mineralization corresponding to at least 3 related styles of copper and gold deposit models, including porphyry copper-gold (PCD; Smart Creek and Radio Tower), carbonate replacement deposits (CRD; Sunrise Mine and Smart Creek), structurally controlled epithermal gold (Sunrise Mine), and exotic or remobilized copper deposits formed by supergene processes (Smart Creek Exotic Copper Target; Figures 1-4). With the exception of the copper potential at Smart Creek, mineralization at Smart Creek is the result of magmatic-hydrothermal fluid flow driven and focused by Eocene intrusions and trapped by reactive Helena Formation carbonate-rich metasedimentary rocks which ultimately produced the following opportunities.

Target Opportunities

Smart Creek PCD Target:

Drilling by the previous operators did not attain target depth in the western margin of the Smart Creek area which is characterized by 1) significant copper (and molybdenum) soil anomalism, 2) a major induced polarization chargeability anomaly (Figures 1-4). Hence, the Mo soil anomaly adjacent to the extensive exotic copper has not been tested (Figure 2). Norden Crown has reason to believe that the grades may be high due to 1) the quality of the reactive carbonate host rocks (Helena Formation), 2) widespread skarn, marble and quartz veins which are consistent with the distal parts of a porphyry and 3) presence of an unreactive cap rock aquitard unit (Missoula Group). Cap rocks are known to increase grades in porphyry copper deposits by forcing fluids into more reactive adjacent units. An analogous mineralized system is the Resolution copper deposit (Arizona) where high grade carbonate and diabase host rocks are "super-charged" due to fluid flow channelized by unreactive quartzite[5,6]. This target at Smart Creek is untested by drilling.

Radio Tower Target:

A second porphyry copper opportunity has been recognized in the south part of the Sunrise mine area

(Figures 1-3). Norden Crown geologists have recognized intense marble alteration outcropping in an area underlain by anomalous Cu-Mo-Mn in reconnaissance soil data, as well as a strong IP chargeability high in a historic single geophysical reconnaissance line (Figure 3). The dimensions of the target are 1000m by 1300m defined by the alteration mapping, IP and limited soil data (Figure 3). The strong marble alteration zone is flanked by more distal dolomite alteration and the entire area is underlain by reactive Helena Formation banded carbonates. The Robinson Mine, in Eastern Nevada is an analogous magmatic-hydrothermal system and contains high-grade ore hosted by chemically reactive carbonate host rocks[6,7].

Sunrise Structurally-Controlled/Epithermal Gold:

Norden Crown geologists have evaluated rocks and historic mine material in the Sunrise Mine area (Figures 1-3). Alteration is characterized by vuggy silica associated with silicified -clast breccia and strongly sulphidized host rocks. Intense clay, limonite are the products of weathering of the widespread sulfides. Sunrise Mine area is an opportunity to develop targets with gold potential in the shallow porphyry environment, distal to the porphyry centers identified at Smart Creek and Sunrise South. Gold deposits commonly occur in structures and stratigraphic traps within the distal and/or shallow extensions of the porphyry environment.

Carbonate replacement Targets (2+ target areas):

Widespread marble and skarn alteration is mapped at both Smart Creek and Sunrise (Figures 1-3). Leakage characteristics in these rocks includes manganese oxides and copper oxides in fracture surfaces cutting the dominant Helena Formation host rocks. This is the distal signature of the CRD clan of deposits which commonly occur in porphyry environments inside the 5km region surrounding the heat and fluid source.

Smart Creek Copper Oxide Target:

The Smart Creek area is underlain by widespread copper oxides/carbonates at surface outcrops/subcrops as well as defined in RC drilling (Figure 1). This target area sits 1 km east of the Smart Creek hypogene porphyry target defined by IP chargeability and soil Mo and Cu (Figures 1 and 2). The dimensions of the copper oxide body measure 900m by 400m (plan) and up to 75m depth, defined by historic drilling (Figures 1-3). The direct analogy for the copper footprint at Smart Creek is the recently active Carlota mine in eastern Arizona (50 Mt @ 0.5% Cu[6,8,9]).

Exploration Plan

Initial work on the project will focus on further evaluation of the best anomalous zones with targeted mapping and sampling. Norden Crown plans to complete the following work prior to finalizing the positions of the initial drill holes:

Geological mapping

Detailed alteration mapping is planned focusing on zonation and alteration intensity as vectors to mineralized centers. Constrain the position of drill holes.

LiDAR

LiDAR will be acquired for Smart Creek and the Sunrise Mountain Area. These data will be used to constrain the locations of historic workings and complete structural/geological mapping which will allow Norden to focus on mineralized structures.

Induced Polarization Ground Geophysics ("IP")

IP Geophysics will be used in and around the Sunrise Mtn South area to further delineate the distribution of

sulphides in the target area which is characterized by intense marble alteration of favorable Helena Formation carbonate host rocks, as well as a 500m+ soil geochemical footprint.

Airborne EM (electro-magnetic) Geophysics

Airborne EM geophysics will be conducted property-wide and will contribute to targeting massive and semi massive copper/gold bearing sulphides in carbonate replacement geological environment.

Geochemistry

Norden intends to complete property wide sampling of the limestone host rocks and evaluate the metal and stable isotope signatures in limestones to vector toward targets and identify any alteration that is not visible to the naked eye. Norden will deploy ultraviolet (UV) evaluation of calcite veins to establish whether they are related to hydrothermal fluids which will also provide vectors toward mineralization. Infill soil sampling in key target areas will be used to constrain the position of the drill targets. Portable XRF sampling will be used in exotic copper environments to vector toward the source of the fluids and sulfide bodies.

The exploration work programs are planned to begin in H1 2025 with results expected prior to the Q3/Q4 drill campaign.

Notes

[1] Composite intervals are calculated using length weighted averages based on a combination of lithological breaks and copper, gold, and silver geochemical assay. All intervals reported are core lengths, and true thicknesses are yet to be determined. Mineral resource modeling is required before true thicknesses can be reliably estimated. Composite drill intercepts are reported at minimum copper grades of 0.1% copper to a minimum of 3.5 meters and include up to 3.5 meters of internal dilution.

[2] Data disclosed in this news release includes historical drilling results and surface rock sampling results as well as information derived from historic drill results. Neither the Qualified Person (described below) nor Norden Crown has undertaken any independent investigation of the sampling, nor have they independently analyzed the results of the historical exploration work in order to verify the results. Norden Crown only considers these historical data relevant as the Company is using this data as a guide to develop future exploration programs. The Company's future exploration work on the Project will include verification of the exploration data by its Qualified Person.

[3] There are a total of 38 surface rock samples at Smart Creek. The copper grade in these samples ranges from below detection limit to 5.64% copper with a mean value of 1.06% Cu.

[4] Emmons, W.H., and Calkins, F.C., 1913. Geology and Ore Deposits of the Philipsburg Quadrangle, Montana. United States Geological Survey Professional Paper #78.

[5] Hehnke et al., 2012, Geology and Exploration Progress at the Resolution Porphyry Cu-Mo Deposit, Arizona, Society of Economic Geologists, Inc. Special Publication 16, p. 147-166.

[6] The nearby mines provide geologic context for Nordin's Smart Creek Property, but this is not necessarily indicative that the properties host similar tonnages or grades of mineralization.

[7] Maher, D., 1995, Evolution of jasperoid and hydrothermal alteration at Veteran Extension in the Robinson (Ely) porphyry copper district, Nevada, MSc thesis; Oregon State University; 175 pages.

[8] https://kghm.com

[9] Niemuth, N.J., 1992, Arizona Copper Reserves Open-File Report 92-11 July, 1992, Arizona Department Of

Mines & Mineral Resources, 73 pages.

About Norden Crown

Norden Crown is a mineral exploration company focused on the discovery of copper, and gold deposits in exceptional, historical mining project areas in Western North America. The Company aims to discover new economic mineral deposits in mining districts that have seen little or no modern exploration. The Company is led by an experienced management team and an accomplished technical team, with successful track records in mineral discovery, mining development and financing.

Qualified Person

Daniel MacNeil, P.Geo, a Qualified Person as defined by National Instrument 43-101 Standards of Disclosure for Mineral Projects, has read and approved all technical and scientific information contained in this news release. Mr. MacNeil is a technical advisor for Norden Crown. He has not verified the data presented in this news release and as part of future exploration on the Project, new drilling will be conducted in order to verify exploration data.

On behalf of Norden Crown Metals Corp.

Patricio Varas, Chairman and CEO

For more information on Norden Crown please visit the Company website at www.nordencrownmetals.com or contact us at +1.604.922.8810 or info@nordencm.com.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Cautionary Note Regarding Forward-Looking Statements

This news release contains certain statements that may be deemed "forward-looking statements". Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential" and similar expressions, or that events or conditions "will", "would", "may", "could" or "should" occur. Forward-looking statements may include, without limitation, statements relating to the use of proceeds from the Private Placement and the planned exploration activities on the Property. Although Norden Crown believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance, are subject to risks and uncertainties, and actual results or realities may differ materially from those in the forward-looking statements. Such material risks and uncertainties include, but are not limited to: the proceeds of the Private Placement being used other than as described herein; competition within the industry; actual results of current exploration activities; environmental risks; changes in project parameters as plans continue to be refined; future price of commodities; failure of equipment or processes to operate as anticipated; accidents, and other risks of the mining industry; delays in obtaining approvals or financing; risks related to indebtedness and the service of such indebtedness; as well as those factors, risks and uncertainties identified and reported in the Company's public filings under Norden Crown's SEDAR+ profile at www.sedarplus.ca. Although Norden Crown has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements. There can be no assurance that such information will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Forward-looking statements are made as of the date hereof and, accordingly, are subject to change after such date. Norden Crown disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise unless required by law.

A photo accompanying this announcement is available at

https://www.globenewswire.com/NewsRoom/AttachmentNg/994b514e-d8f1-41d5-adbf-756cc8f39fe3

https://www.globenewswire.com/NewsRoom/AttachmentNg/21a72bdb-60b1-414c-95d3-07a835987b51

https://www.globenewswire.com/NewsRoom/AttachmentNg/64d626b1-af4e-4be1-8f1e-1b0cc1bc69bf

https://www.globenewswire.com/NewsRoom/AttachmentNg/476de5c0-0259-4e21-b532-92a9d0688bba