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#### **NEWS RELEASE**

JUNE 03, 2025

#### HANNAN INDENTIFIES TWO NEW ZONES OF GOLD MINERALIZATION AT PREVISTO AND EXPANDS THE FOOTPRINT TO 650 METRES STRIKE

**Vancouver, Canada -- <u>Hannan Metals Limited</u>'s ("Hannan" or the "Company") (TSXV: HAN) (OTCPK: HANNF)** is pleased to report recent mapping and channel sampling has significantly expanded the alkalic-type epithermal gold mineralization at Previsto by approximately 150 m to 200 m to 650 m of total strike length with multiple high-grade results.

The mineralization, which remains open along strike, sits at the northern edge of a 4 km by 4 km soil gold anomaly (>0.1 g/t Au). These results, featuring both high-grade structures and broader mineralized zones, suggest similarities to globally significant alkalic epithermal gold deposits.

#### **Key Highlights:**

- **Coherent gold mineralization** now extends over **650 m of strike length and up to 100 m width** within a 4 km × 4 km gold-in-soil anomaly within the Previsto Alkalic Intrusive Complex (Figure 2).
- **Zone extension** of approximately 150 m to 200 m southward from the original area through identification of the "Southern Zone" (Figure 3) with 8 panel samples averaging 0.3 g/t Au and 3 g/t Ag.
- **New parallel structures** identified 80 m west (Western Zone, Figure 4) of original high-grade zone within the expanded zone, including:
  - ° 21 m @ 0.46 g/t Au, 5.2 g/t Ag, including 3 m @ 1.87 g/t Au, 8.85 g/t Ag
  - 21 m @ 0.26 g/t Au, 5.8 g/t Ag
  - Individual high-grade veins up to 1.27 g/t Au, 17.6 g/t Ag
- **Exceptional high-grade results** from the central high-grade 100 m × 50 m area (previously reported) intersections include:
  - 135.2 m @ 1.3 g/t Au, 9 g/t Ag, including:
    - 3.0 m @ 12.7 g/t Au, 49 g/t Ag and
    - 3.0 m @ 11.2 g/t Au, 53 g/t Ag
  - 11.3 m @ 3.7 g/t Au, 18 g/t Ag including 1.7 m @ 23.4 g/t Au
  - 2.3 m @ 18.8 g/t Au and 66 g/t Ag
- **Maiden Drilling Program Continues at Belen**: First-ever drilling commenced at Vista Alegre, with drill hole HDDVA001 completed at 184.6 m (Figures 3 to 5). Up to 5,000 m of diamond drilling across 18 holes, targeting three distinct mineral systems, are planned for Belen.

**Michael Hudson, CEO, states:** "The expanded high-grade gold mineralization represents a significant milestone in our exploration of the Previsto project. Finding gold mineralization in bedrock over a 650 m strike builds substantial confidence in the scale of the system. We have identified multiple high-grade vein sets that demonstrate the exceptional potential of this area. What's particularly encouraging is the presence of these robust gold structures within broader halos of moderate-grade mineralization — a hallmark of globally significant alkalic epithermal systems.

"Our field teams continue to expand the Previsto Central with each month of work, revealing new mineralized zones and extending known structures. We've scheduled more detailed sampling programs specifically designed to better define these high-grade structures within the broader envelope of gold mineralization. The combination of scale, grade, and geological setting at Previsto makes this one of the most exciting projects in Hannan's portfolio, and we look forward to advancing this promising target toward drill testing.

"And not to be forgotten, drilling at Belen is now underway with our inaugural 5,000 m program across 18 diamond drill holes targeting three priority areas. At Vista Alegre, our first hole HDDVA001 has been completed at 184.6 m, testing a 600 m by 500 m high chargeability zone that coincides with strong gold-in-soil anomalies and surface mineralization grading up to 2.7 g/t Au and 44 g/t Ag. This represents the start of systematic drill testing across our 2.4 km long geophysical anomaly. Drillhole HDDVA002 is now underway.

"Following Vista Alegre, we'll advance to Sortilegio's 1.2 km long alkalic porphyry system and then Ricardo Herrera's substantial 1,000 m by 250 m chargeability anomaly with outcropping porphyry-style copper-gold mineralization. With first assay results expected in July 2025, we're simultaneously advancing multiple significant scale targets across the emerging Valiente 150 km mineral belt where we hold first mover advantage. The combination of active drilling at Belen and the expanding Previsto project, positions Hannan at an inflection point in demonstrating the true potential of Valiente."

#### **Technical Discussion**

#### Previsto Central Gold Mineralization Style

Gold mineralization is hosted within a brecciated, calcareous K-feldspar porphyry of syenitic protolith, which locally contains large xenoliths of sedimentary rocks. The mineralization displays several key features:

- 1. High-grade gold zones are associated with pervasive fine roscoelite (vanadium-rich potassic mica) and fine grey quartz veining with pyrite, occurring as both veinlets and stockwork.
- 2. Alteration assemblages include manganese oxides replacing vein and breccia fill, suggesting that unweathered mineralization contained rhodochrosite, a manganese carbonate mineral typically found in low-sulfidation epithermal systems.
- 3. Primary mineralization consists of 1% disseminated pyrite with trace chalcopyrite, pyrite veinlets, roscoelite veinlets, and fine jarosite veinlets (likely after pyrite).
- 4. Preservation indicators include a 1.3 m wide zone containing crystal-lined irregular cavities, suggesting minimal erosion of the intrusive body and potential preservation of the complete epithermal system.
- 5. The current structural interpretation suggests gold deposition was focused along late strike-slip faults where horizontal movement created extensional structures within a compressional regime (highlighted in Figure 4).

#### Gold mineralization at Previsto Central occurs in four distinct settings

1. High-Grade Vein Zones: Gold-rich roscoelite-adularia veins have been mapped over a 100 m × 50 m area within broader gold-anomalous rocks (>0.1 g/t Au). Initial mapping reveals a "Z"-shaped vein system indicative of dextral strike-slip movement. Peak gold grades occur in veins composed of dark

green, fine-grained roscoelite and granular adularia, with both vertical and horizontal orientations documented.

- 2. Moderate-Grade Stockwork Zones: Adularia/pyrite stockworks with brittle crackle textures typically yield assays of 0.1 to 1.0 g/t gold
- 3. Silver-Dominant Peripheral Zones: Distal portions of the system are characterized by silver-enriched quartz/adularia stockwork veins with <0.1 g/t gold.
- 4. Copper-Enriched Zones: Distinct copper mineralization has been identified separate from the goldmineralized channels, suggesting a metal zonation pattern. Gold-silver-tellurium mineralization predominates in upper elevations, while copper mineralization concentrates at lower elevations, consistent with a classic porphyry-epithermal transition.

#### **Emerging Clustered Epithermal - Porphyry Copper-Gold System**

Previsto represents both an extensive alkalic-type epithermal gold system and an emerging copper-gold porphyry district. Beyond the high-grade gold channels reported in this release, Hannan has defined a 4 km × 4 km gold-in-soil anomaly associated with two additional significant mineralized zones:

1. Porphyry Copper Zone: Located 1.3 km northwest of the gold mineralization, extensive channel sampling has identified consistent copper mineralization despite significant weathering and leaching, suggesting potential for higher grades in unweathered (hypogene) zones. Significant results from 768.7 m of channel sampling include:

- 48.0 m @ 0.12% Cu (CH15447)
- 107.0 m @ 0.09% Cu (CH15430)
- 126.0 m @ 0.22% Cu (CH14555)
- 192.0 m @ 0.17% Cu (CH15391)

2. Previsto East Target: Situated 2.6 km east of the reported gold mineralization, this 1,800 m  $\times$  400 m gold-copper porphyry-epithermal target features strongly anomalous gold in soils (up to 0.6 g/t Au) and mineralized boulders assaying up to 1.9 g/t Au.

The spatial relationship between these mineralized zones suggests a district-scale hydrothermal system with classic porphyry-epithermal zoning patterns. This multi-faceted mineralization, spanning several km, is characteristic of major alkalic gold-copper districts globally.

#### Maiden Drilling Program at Belen

Belen is located 23 km SW of Previsto Central. The initial phase of drilling at Belen consists of up to 5,000 m across 18 diamond drill holes designed to test the three primary target areas at Belen (Figures 5 to 10):

- Vista Alegre (First Priority): The first drill holes will test distinct sections of the 2.4 km long geophysical anomaly targeting two zones. HDDVA001, completed at 184.6 m (Figures 3 to 5), targeted the central 600 m long and 500 m deep high chargeability-low resistivity zone coinciding with strong gold-in-soil anomaly (up to 0.12 ppm Au) and gold mineralization in boulders correlating with Au-Ag-Te-As and variable copper (up to 2.72 Au and 44 g/t Ag).
- Sortilegio (Second Priority): The next phase drilling will investigate the 1.2 km long chargeability anomaly within the alkalic porphyry system. Drillholes will target the source of extensive surface soil copper anomalies coinciding with hydrothermal gold anomalous quartz-gossan boulders with elevated Au-Mo-Te. The chargeability response consists of three alkalic Cu-Au targets identified within the 1.2 km long trend.
- Ricardo Herrera (Third Priority): The final set of planned drill holes will target the core of the substantial chargeability anomaly that extends over 1,000 m by 250 m with outcropping porphyry-style copper-gold mineralization showing moderate to strong phyllic alteration, with drill pads positioned strategically to test the lateral extent of the mineralized system.

The drilling program is expected to take approximately 6 months to complete, with first assay results anticipated in July 2025.

Hannan Metals is committed to legal compliance, community respect, and environmental stewardship, emphasizing that all operations only proceed with proper authorization from local populations and with required environmental and archaeological certifications.

#### Key Characteristics of Alkalic Gold Systems

The gold mineralization at Previsto displays classic characteristics of alkalic-type epithermal gold systems, which are globally recognized for forming significant high-grade deposits. Notable examples include:

- **Porgera (Papua New Guinea)**: Regarded as one of the world's top ten producing gold mines with historic production of 16 million ounces of gold and almost 3 million ounces of silver
- **Cripple Creek (Colorado)**: Colorado's most prolific gold district with historic production exceeding 23 million ounces of gold

Alkalic gold deposits occur in diverse geological settings but typically form in localized extensional regimes associated with alkaline intrusive rocks. These systems are characterized by:

- Spatial association with high-K calc-alkaline to alkaline igneous rocks, commonly as diatremes or intrusive complexes
- Distinctive geochemical signature with enrichment in Ag, V, Te, Fe, F, K, Ba, and Mo, and typically elevated Au:Ag ratios
- Complex structural controls featuring multiple mineralizing events
- Extensive vertical continuity that can exceed 1,000bm (as demonstrated at Cripple Creek and Porgera)
- Diagnostic alteration assemblages including carbonate minerals and roscoelite (vanadium-rich mica)

#### **About the Valiente Project**

The 100% owned Valiente project is in central eastern Peru, east of the city of Tingo Maria (Figures 1 and 2). The area is characterized by steep topography on the eastern flank of the Central Cordillera with elevations between 800 m and 2,000 m above sea level (a.s.l.). The project was found in 2021 during an extensive greenfields prospecting program initiated by Hannan for back-arc porphyry copper-gold systems. The Company has been actively prospecting on the project since 2021 and has successfully gained social permits progressively in all areas of interest.

During 2021 Hannan staked and still holds 1,002 km<sup>2</sup> of 100% owned mining concessions at Valiente covering unexplored terrain for potential mineralized porphyry targets in central eastern Peru. The Valiente Project has rapidly evolved from a greenfields prospect to a multi-prospect opportunity.

Early surface prospecting identified two outcropping copper-gold porphyry targets and one epithermal target at Belen (see Press Release Feb 16, 2023). Porphyry areas quickly followed at Serrano Norte, Serrano and Pucacunga. The focus more recently has been on Previsto. At Previsto and Belen, a district-scale porphyry cluster within an area of 25 km by 10 km, with eight porphyry and/or epithermal targets now identified in more detail with up to 10 earlier stage targets awaiting further work.

The Company is executing a multi-year strategy to systematically explore and drill test its extensive land package in this emerging Miocene-aged linked porphyry-epithermal mineral belt.

#### **Technical Background**

All samples were collected by Hannan geologists. Samples were transported to ALS in Lima via third party services using trackable parcels and by company staff. At the laboratory, rock samples were prepared and analyzed by standard methods. The sample preparation involved crushing 70% to less than 2 mm, riffle split off 250g, pulverize split to better than 85% passing 75 microns. Samples were analyzed by method ME-MS61, a four-acid digest performed on 0.25g of the sample to quantitatively dissolve most geological materials. Analysis is via ICP-MS. Gold was analyzed in rock and soils by ALS in Lima using a standard sample preparation and 30g

fire assay sample charge. Soil samples were analyzed by a portable XRF (VANTA-VMR) using an inhouse protocol which includes routine use of CRM and field duplicates as well as 10% check samples analyzed by ALS Lima.

Channel samples are considered representative of the in-situ mineralization samples. At this stage true widths of mineralization are not known. Grab or panel samples are selective by nature and are unlikely to represent average grades on the property.

#### About Hannan Metals Limited (TSXV:HAN) (OTCPK: HANNF)

<u>Hannan Metals Limited</u> is a natural resources and exploration company focused on the discovery of large gold and copper mineralizing systems in new frontiers. Over the last decade, the team behind Hannan has forged a long and successful record of discovering, financing, and advancing mineral projects in Europe and Peru.

Mr. Michael Hudson FAusIMM, Hannan's Chairman and CEO, a Qualified Person as defined in National Instrument 43-101, has prepared, reviewed, verified and approved the technical contents of this news release.

On behalf of the Board,

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### THE VALIENTE PROJECT

#### BELEN

A 9 km long Miocene age trend with multiple porphyry stocks. Three key areas where the most advanced is the **Ricardo Herrera**. Also Vista Alegre and Sortilegio.

At Ricardo Herrera a mapped early diorite porphyry with a foot print of 850 m x 250 m associated with phyllic, intermediate argillic and relics of potassic alteration with veins of early biotite (EB), M-type and A-type.

#### SERRANO NORTE

**Early stage** most recent applications. Distinct<sup>100</sup> intrusive centers from remote mapping coupled with magnetic and BLEG anomalies..

#### PUCACUNGA

**2.5 km long** magnetic anomaly with strong BLEG results of Cu-Au in catchments. Mioceneage intrusive boulders in creeks.

Hannan Mining Licence

50 km

#### PREVISTO

Includes copper channels reported here. Three mapped porphyry intrusive centres and alkaline gold discovery within 25km2. Confirmed Miocene radiometric-age of intrusives. Gold, copper, molybdenum in boulders up to 25% Cu and 1.2 g/t Au. Trenching includes **69.1m @ 2.4 g/t Au** *incl. 26.0m @ 5.4 g/t Au and 27 g/t Ag.* 

#### DIVISORIA

High-grade hydrothermal zinc-lead -silver breccias and quartz-pyrite veins

#### SERRANO

Early stage project with distinct magnetic anomalies coupled with intrusive boulders of propylitic alteration and and Miocene radiometric ages. BLEG anomaly in catchments,

### Location map



### MAJOR DISCOVERY: New Miocene Alkaline Porphyry Copper-Gold Belt in Peru

Strategic Land Position: 1,002 km<sup>2</sup> of 100%-Owned Mining Concessions

**Pioneering Unexplored Terrain** 

#### Figure 1. Overview of the 1,002 km<sup>2</sup> Valiente project area in Peru.

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Figure 2. Map showing the vast 4x4 km gold anomaly at Previsto and the location the expanding gold discovery. The zone covers 600m, is up to 100 m wide and remains open along strike.



Figure 3. Overview of the gold discovery zone at Previsto Central. Recent fieldwork has outlined a coherent gold anomalous zone in alkalic intrusive rocks extending over 650m strike length and up to 100 m wide. High-grade gold structures occur within this zone, as shown in Figure 4.



Figure 4. Zoom in of gold discovery zone at Previsto. High-grade roscoelite-adularia veins mapped and sampled over 100 m x 50 m area, hosted in gold anomalous rock (>0.1 g/t Au). Initial mapping suggests "Z" shaped vein system indicative of dextral strike-slip movement.



Figure 5. Map showing the copper-gold targets in the Belen trend that will be tested in this drill program. The drill program commences at the Vista Alegre gold target reported here.



Figure 6. Map showing an overview of the Vista Alegre target. View towards the NE. IP chargeable bodies are interpreted to coincide with gold mineralization and will be drill tested in the drill program. The location of HDDVA001 is highlighted on the figure and cross sections are shown in Figure 4 and 5.



Figure 7. Map showing an overview of the Vista Alegre target. View towards the NE. IP chargeable bodies are interpreted to coincide with gold mineralization and will be drill tested in the upcoming drill program.



Figure 8. Map showing an overview of the Vista Alegre target. View towards the NE. Lower IP resistive (ie conductive) bodies are interpreted to coincide with gold mineralization and will be drill tested in the upcoming drill program.

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Figure 9. Map showing the IP chargeability anomalies at the Sortilegio target. View to the West.

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Figure 10. Map showing the Ricardo Herrera Cu-Au porphyry target. Comparing the mapped surface geology with the IP chargeability anomaly. View: looking down.