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NEWS RELEASE JANUARY 15, 2025

# Hannan Metals Discovers 1.2 km Chargeability Anomaly at Sortilegio Copper-Gold Porphyry, Valiente Peru

Vancouver, Canada – January 15, 2025 – Hannan Metals Limited ("Hannan" or the "Company") (TSXV: HAN) (OTCPK: HANNF) is pleased to report the identification of a 1.2 km long chargeability anomaly at the Sortilegio copper-gold porphyry prospect within the Belen area of the Company's 100%-owned Valiente copper-gold project in Peru (Figure 1).

#### **Highlights:**

- > **Significant 3D Induced Polarization ("IP") Discovery:** Advanced geophysical surveys have delineated an extensive 1.2 km chargeability anomaly extending to 500 m below surface:
  - Shallow Structural target High-chargeability anomalies mapped below the surface extend up to 600 m along north-south oriented structures, demonstrating spatial correlation with gossanous gold-mineralized float on surface. (Figures 4 to 8).
  - Deep Porphyry Target A major chargeability anomaly extends 1.2 km in strike length, commences at 850 m RL (250 m below surface) and extends to 600m RL (500 m below surface). (Figures 4 to 8)
- > Strategic Location and expanding copper-gold mineral district: Sortilegio is part of the expanding 9.3 km long copper-gold district at Belen marked by the Vista Alegre epithermal system and the Ricardo Herrera copper-gold porphyry (Figure 9).
- ➤ **Drill ready**: Sortilegio is now derisked and drill-ready with 13 platforms approved as part of the recently granted DIA permit (<u>reported here</u>). Drilling is anticipated to commence in Q2 2025.

**Michael Hudson, CEO, states:** "The discovery of this extensive 1.2 km chargeability anomaly at Sortilegio represents a significant milestone, exhibiting characteristics similar to global gold-rich and copper bearing alkalic porphyry systems.

"The Sortilegio target is part of our expanding Belen mineral district, where mineralization now extends over 9.3 km of strike length. This district includes the Ricardo Herrera copper-gold porphyry in the south, the Vista Alegre epithermal gold target, and the Sortilegio gold-copper target in the north. Each of these targets independently represent a potential company-making project.

"With 40 drill platforms now approved under our recently granted DIA permit, we are positioned to begin drilling in Q2 2025."

#### **Geophysical Interpretation**

The Sortilegio prospect features an exposed Miocene alkalic copper-gold porphyry system characterized by zoned and structurally controlled mineralization. Detailed geological mapping reveals a complex, multistage intrusive system with subtle cross-cutting relationships. High-grade mineralization is concentrated at the contact between K-feldspar megacrystic monzonite and the surrounding country rocks. The central mineralized zone measures

350 m  $\times$  350 m and contains high-density stockwork veining (>20 veinlets/m), surrounded by a peripheral zone of lower veinlet density (<20 veinlets/m). Systematic soil sampling on a 100 m  $\times$  100 m grid shows a central copper anomaly surrounded by a halo of gold, zinc, and lead values (Figures 2 to 3).

Recent 3D IP survey data has enhanced our understanding of the subsurface geology and strengthened our confidence in the drill program planned for Q2 2025. The survey identified two distinct types of anomalies:

- 1. **Shallow Structural Features**: High-chargeability zones mapped below the surface extend up to 600 m along north-south trending structures, coinciding with surface gossanous gold-mineralized float. The central anomaly is particularly significant (Figures 4 to 8), where near-surface chargeability features merge with a larger body at depth. These features are interpreted as structural pathways for mineralizing fluids.
- 2. **Deep Porphyry Target**: A major chargeability anomaly extends 1.2 km in strike length from 850 m RL (250 m below surface) to 600 m RL (500 m below surface). This anomaly remains open to both the north and south (Figures 4 to 8).

#### **Geophysical Survey Details**

The Induced Polarization ("IP") geophysical survey was carried out by GeoMad E.I.R.L, a Lima-based consultancy company. The survey employed a pole-dipole electrode configuration on single lines with electrode spacing at 100 m intervals. Four lines were surveyed with lengths varying between 1.2 km and 6.8 km. Equipment used included:

- Huntec 10Kw 20A transmitter
- > 10 channel ELREC PRO receiver
- > LECIA GS15 GNSS for station recording

#### **Technical Background**

All samples were collected by Hannan geologists. Samples were transported to ALS in Lima via third party services using traceable parcels. 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 preformed on 0.25g of the sample to quantitatively dissolve most geological materials. Analysis is via ICP-MS. Channel samples are considered representative of the in-situ mineralization samples and sample widths quoted approximate the true width of mineralization, while grab samples are selective by nature and are unlikely to represent average grades on the property. Gold was analyzed by ALS in Lima using a standard sample preparation and 30g fire assay sample charge.

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

<u>Hannan Metals Limited</u> is a resource and exploration company discovering and developing sustainable resources of metal needed to meet the transition to a low carbon economy. 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 reviewed and approved the technical disclosure contained in this news release.

On behalf of the Board,

#### **Further Information**

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"Michael Hudson"

Michael Hudson, Chairman & CEO

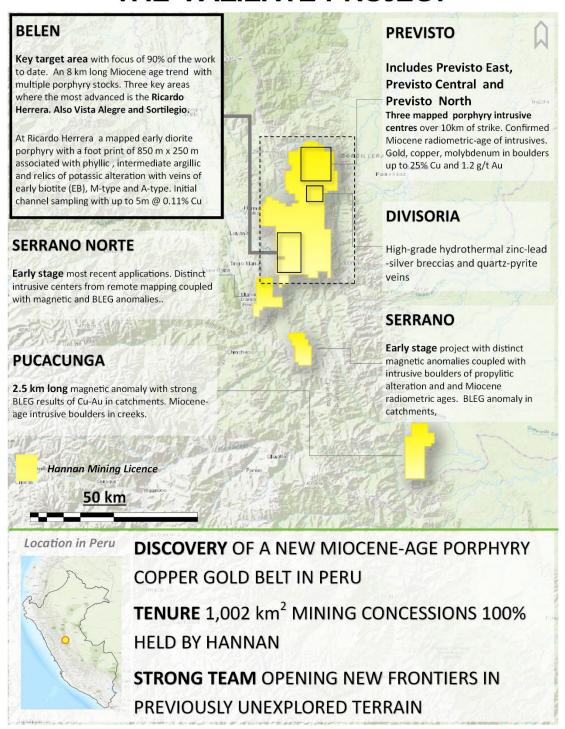
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## THE VALIENTE PROJECT





## Geology and magnetics over the Sortilegio copper gold porphyry project at Valiente

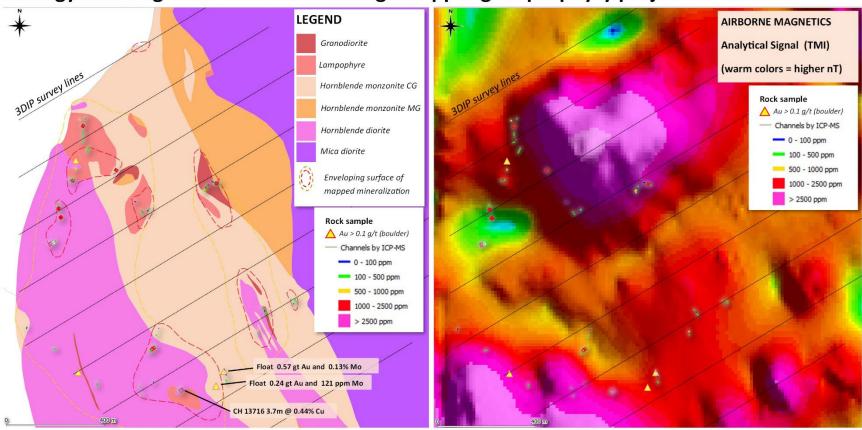


Figure 2. Detailed geological mapping at Sortilegio reveals a complex, multistage intrusive system where cross-cutting relationships are often indistinct. Zones of subtle mineralization, highlighted by red and yellow dashed lines, show coherent patterns. The most intense mineralization occurs at the contact between K-feldspar megacrystic monzonite and its country rocks. The core mineralized zone, measuring 350m x 350m, is characterized by high veinlet density (>20 veinlets/m) and is surrounded by a broader halo of lower veinlet density (<20 veinlets/m). The total mineralized footprint measures 1,500m x 600m.



### Soil geochemistry over the Sortilegio copper gold porphyry project at Valiente

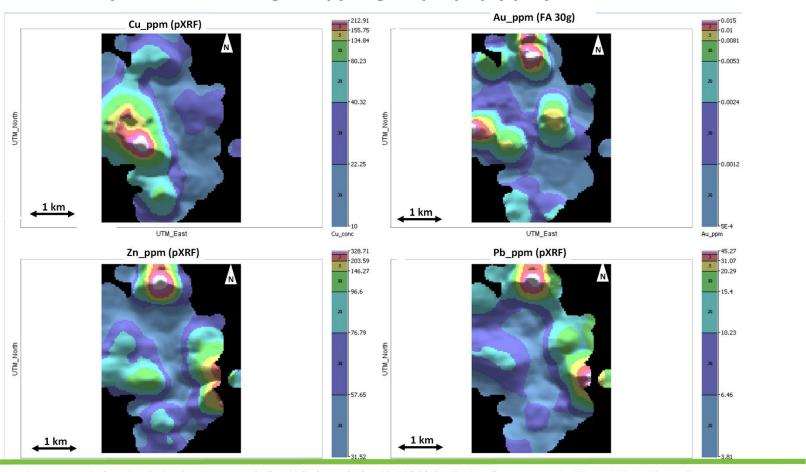
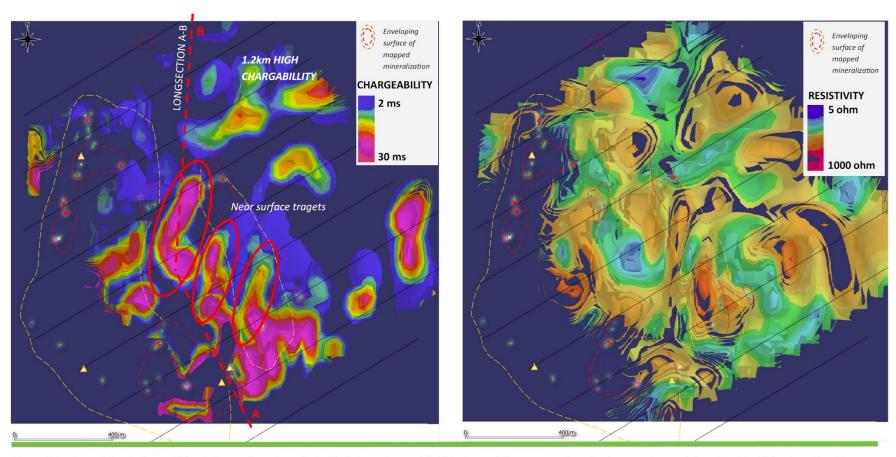


Figure 3. Soil geochemistry results from Sortilegio, showing copper (Cu), gold (Au), zinc (Zn) and lead (Pb) distributions from systematic 100 m x 100 m grid sampling.



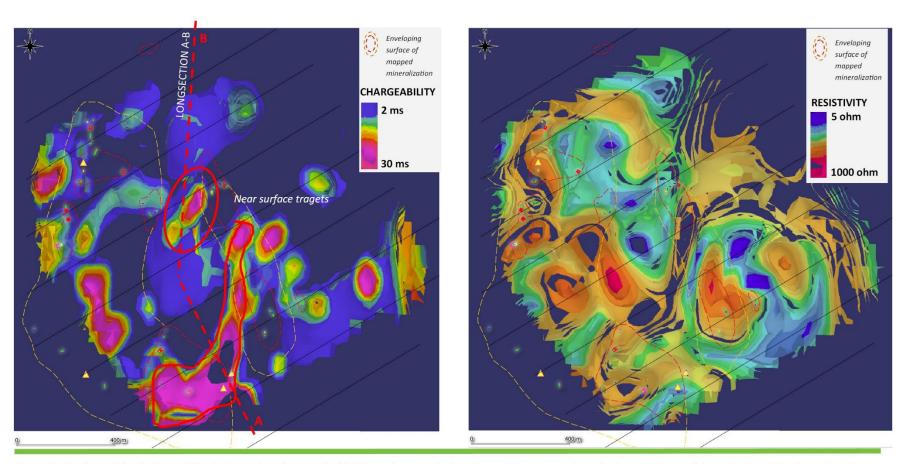
## IP Depth slice 1000 mRL (c. 100 m below surface)



**Figure 4**. Horizontal depth slice at 100 m below surface through the 3D IP inversion model. High chargeability are prominent in the central part of the grid with a N-S orientation. These correlate with resistivity highs and are interpreted to represent structural conduits of mineralizing fluids that correlate with with gossanous gold-mineralized float on surface.



## IP Depth slice 900mRL (c. 200 m below surface)



**Figure 5**. A horizontal depth slice at 200m below surface through the 3D IP inversion model. High chargeability are prominent in the central part of the grid with a N-S orientation. These correlate with resistivity highs and are interpreted to represent structural conduits of mineralizing fluids that correlate with with gossanous gold-mineralized float on surface.



### IP Depth slice 800mRL (c. 300 m below surface)

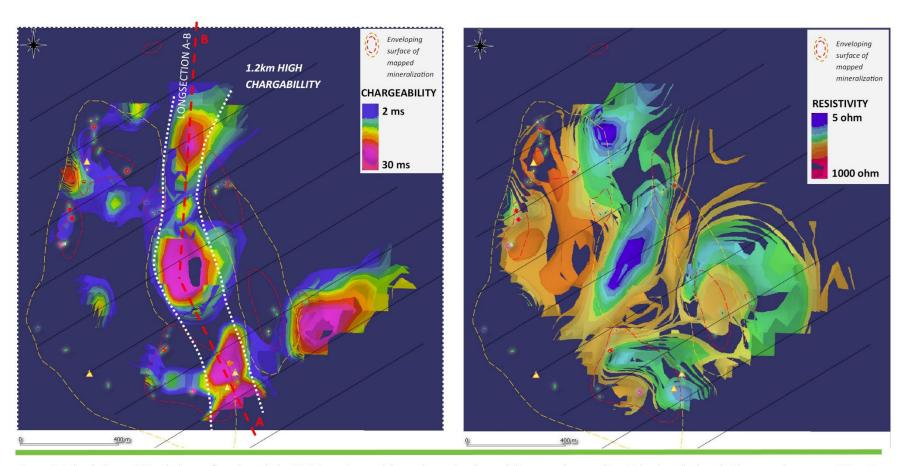


Figure 6. A depth slice at 300 m below surface through the 3D IP inversion model reveals a major chargeability anomaly extending 1.2 km in strike length. The anomaly starts at 850 m RL (250m below surface) and comprises three discrete high-chargeability zones, each exceeding 200m in diameter. The anomaly remains open along strike to both the north and south, with effective 3D IP imaging penetration reaching 600m RL (600m below surface).



### IP Depth slice 700mRL (c. 400 m below surface)

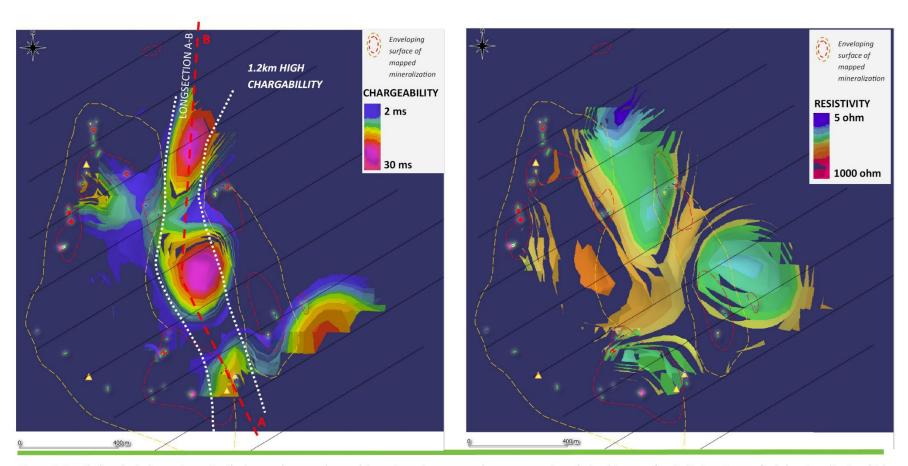
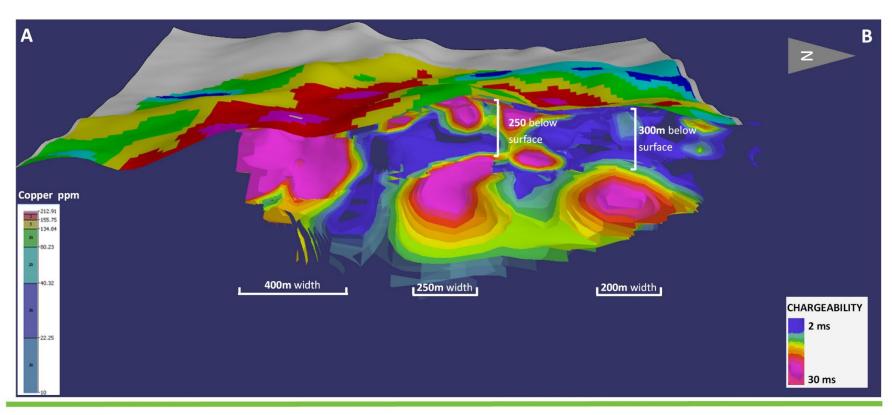


Figure 7: Detailed geological mapping at Sortilegio reveals a complex, multistage intrusive system where cross-cutting relationships are often indistinct. Zones of subtle mineralization, highlighted by red and yellow dashed lines, show coherent patterns. The most intense mineralization occurs at the contact between K-feldspar megacrystic monzonite and its country rocks.

The core mineralized zone, measuring 350m x 350m, is characterized by high veinlet density (>20 veinlets/m) and is surrounded by a broader halo of lower veinlet density (<20 veinlets/m).



#### **LONGSECTION ACROSS THE 3D IP SURVEY AREA AT SORTILEGIO**



**Figure 8.** North-South oriented long section across the 3D IP survey area, viewed towards the west. The figure illustrates deep chargeability targets, showing their depth from surface. Topography is overlain with copper soil sample results from portable XRF analysis. The southern target, which extends up to 400 meters in width and begins at surface, demonstrates strong correlation with surface copper anomalism.



Overview of Sortilegio (Cu-Au alkalic porphyry), Vista Alegre (Au-Ag epithermal) and Ricardo Herrera (Cu-Au porphyry) targets at Belen, Valiente

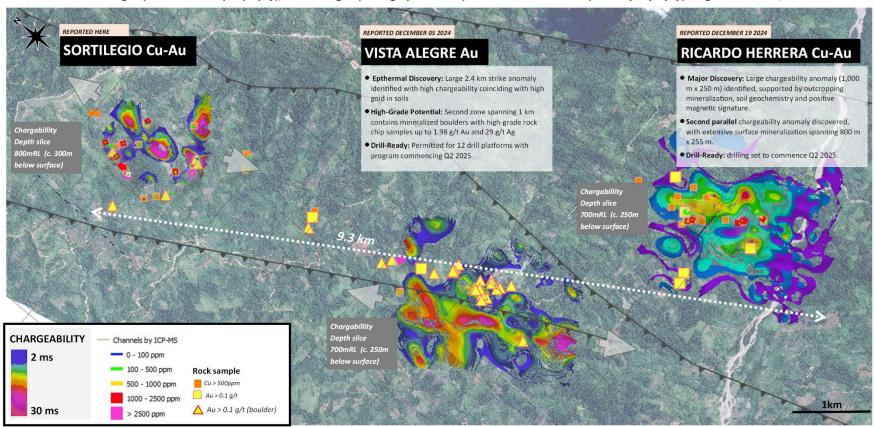


Figure 9. Spatial relationship between Vista Alegre (Au-Ag epithermal) and Ricardo Herrera (Cu-Au porphyry) targets at Belen, Valiente. The figure has been rotated, see the North arrow for orientation.