Hannanmetals

COPPER | SILVER | GOLD PERU

DEFINING LARGE MINERALIZING SYSTEMS IN PERU'S NEW FRONTIER AREAS

CORPORATE PRESENTATION FEBRUARY 2022

Hannanmetals TSXV: HAN J OTC: HANNF

Disclaimer

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Qualified Person: The qualified person for Hannan's projects, Michael Hudson, CEO for Hannan, and a Fellow of the Australasian Institute of Mining and Metallurgy, has reviewed and verified the contents of this presentation.



- 1. Hannan is a first mover in the highly prospective sub-Andean region of Peru
- 2. Secured dominant land positions in:
 - Huallaga Basin San Martin Project for sediment hosted copper-silver, and
 - Pachitea Basin Valiente Project for porphyry coppergold
- 3. Top 10 tenure holder in Peru
- 4. US\$35M joint venture agreement with JOGMEC on one third of ground position at San Martin

Overview

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SOCIAL MANAGEMENT ESG

Mission Critical

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Peru Top 10 Tenure Holder

Jannanme

"Some of the world's largest mining companies share our belief that big grassroots discoveries are best made within big land positions"

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Rank	Owner	sq km	Market Cap US\$M
1	FRESNILLO PERU S.A.C.	6816	5 800
2	SOCIEDAD MINERA VICUS EXPLORACIONES S.A.C. (AURANIA RESOURCES LTD)	4319	125
3	COMPANIA MINERA ARES S.A.C. (HOCHSCHILD MINING PLC)	4080	1 060
7	NEXA RESOURCES PERU S.A.A (incl COMPANIA MINERAL MILPO S.A.A)	3819	1 002
4	VALE EXPLORATION PERU S.A.C.	3776	110 340
5	COMPANIA DE MINAS BUENAVENTURA S.A.A.	3047	1 816
6	BHP BILLITON WORLD EXPLORATION INC. SUCURSAL DEL PERU	2968	194 164
8	NEWMONT PERU S.R.L.	2185	46 629
9	HANNAN METALS LTD	2154	27
10	MINERA BARRICK MISQUICHILCA S.A.	2151	35 674
11	RIO TINTO MINING AND EXPLORATION S.A.C.	1874	128 167

The top ten Peruvian tenure holders average US\$50B market capitalization and combined hold 18.0% of the tenure held in Peru

Top ranked Peruvian tenure holders at the end of April 2021, considering granted mining concession and application. The table highlights ranked area under tenure and market capitalization. Source: https://geocatmin.ingemmet.gob.pe/geocatmin/

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Capital Structure

TMX TSX Venture Exchange	HAN
OTEPink	HANNF
INSIDERS:	16%
SHARES ON ISSUE:	92.4 M
FULLY DILUTED:	111.5 M
RECENT PRICE:	C\$0.33 (16 Feb 22)
MARKET CAP:	C\$31.0 M
CASH:	C\$2.5 M
ENTERPRISE VALUE:	C\$28.5 M



Stock Options	Price	No. of Securities	Total Securities
Expiring January 23, 2023	\$0.25	3,295,000	
Expiring May 28, 2023	\$0.28	100,000	
Expiring July 21, 2023	\$0.44	250,000	
Expiring August 11, 2023	\$0.455	250,000	
Expiring September 4, 2023	\$0 <mark>.</mark> 13	250,000	
Expiring October 8, 2023	\$0.365	100,000	
Expiring December 2, 2023	\$0.435	100,000	
Expiring June 14, 2024	\$0.285	275,000	
Expiring October 4, 2024	\$0.285	30,000	
Expiring December 3, 2024	\$0.235	120,000	4,770,000
Warrants			
Expiring February 18, 2022	\$0.30	12,314,597	
Expiring July 13, 2022	\$0.35	2,000,000	14,314,597

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Directors & Officers



Michael Hudson (Chairman & CEO): B.Sc. (Hons), GDipAppFin, FAusIMM, MAIG



Lars Dahlenborg (President): MSC. MAIG



David Henstridge (Director): B.Sc. (Hons), FAUSIMM, MAIG, MGSAUST



Georgina Carnegie (Director): B.Com, AM Harvard



Ciara Talbot (Director): B.Sc. (Honours)



Nick DeMare (Director): CPA, CA



Mariana Bermudez (Corporate Secretary)

Hannan is managed by a group with careers built in the exploration industry.

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In recent years, the group has raised more than US\$100M for European and Peruvian exploration and development.

Hannan management is highly experienced with a long history of working in Peru.

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Hannan in Peru

SAN MARTIN

JV with the option to earn up to a 75% beneficial interest in the San Martin Project by spending up to US\$35,000,000 to deliver to the joint venture a feasibility study on 660 sq km

VALIENTE

At Valiente, 1,164 square kilometres of mining concession applications prospective for back-arc Miocene age porphyry copper-gold systems in central Peru

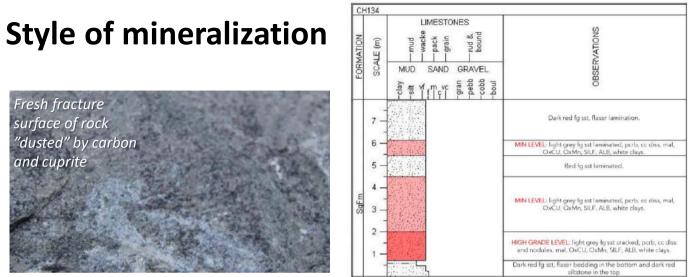


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WHY SED-HOSTED COPPER IN THE ANDES?

- Multiple failed rift basins formed during the breakup Pangea.
- Overlain by **intramountain and foreland basins** of Tertiary age. Now exposed due to Andean inversion.
- **Cu-Ag mineralization** focus at the J-C boundary, a basin redox boundary and unconformity.
- The mineralized window is ~500m wide
- Target styles include all sub-classes of SSC deposits
- At San Martin Project the mineralization has been basin wide.
- Historically very little exploration.



Characterized by "sulfur poor" copper minerals such as chalcocite and cuprite.

- The oxidizing Cu-Ag bearing fluids have precipitated within reduced organic rich shale facies with minor diagenetic pyrite. Strong evidence of a basin wide mineralizing process with high grades see in the same stratigraphic package over 100km.
- > The host rock is of the upper part of the Jurassic age Sarayaquillo Fm.

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The Cu-Ag shale is controlled by a facies change were the typical red Sarayaquillo sandstone transitions to a finely laminated organic rich shale facies within a fine-grained altered/bleached (Fe3+->Fe2+) rock package. Grades can be impressive, with the thickness of the higher-grade mineralized shale >3-4% Cu varying between 0.2-2m. The entire copper anomalous/bleached package is up to 5m thick.

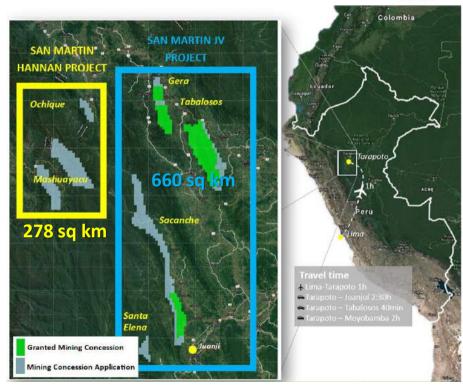
Context with Kupferschiefer

- ✓ Sediment-hosted stratiform copper-silver deposits are among the two most important copper sources in the world, the other being copper porphyries. They are also a major producer of silver. KGHM Polska Miedz's ("KGHM") three copper-silver sediment-hosted mines in Poland (the "Kupferschiefer") were <u>the leading silver producer in the world</u> and <u>seventh largest global copper miner</u> in 2020. Quoted resources in 2019 for KGHM were <u>1,518 Mt @ 1.86% copper and 55 g/t silver</u> from a mineralized zone that averages 0.4 metres to 5.5 metres thickness.
- ✓ Widths and grade (0.9 metre @ 1.9 % copper and 27 g/t silver) from 105 Hannan channel surface samples from San Martin (lower cut 0.5% copper), within an area about 8 kilometre long and 1 kilometre wide, compare with those found during the initial modern-day drill discovery of the <u>Kupferschiefer copper-silver deposits</u>.
 - ✓ In 1957 the discovery drillhole (Sieroszowice IG 1) intersected 2.0 metres @ 1.5% copper at the depth of 657 metres.
 - ✓ In 1959 the Lubin-Sieroszowice deposit, based on the results from 24 drillholes contained 1,365 Mt @ 1.4% copper and 26 g/t silver in indicated resources, with a thickness ranging between 0.2−13.1 metres in an area about 28 kilometres long and 6 kilometres wide between 400 to 1000 metres depth.
- ✓ Hannan's sampling, to date, has been confined to surface channel sampling.

San Martin Sediment Hosted Copper-Silver

- Well defined search space
- Basin wide
 mineralizing process
- High grade Cu-Ag mineralization in
 500m wide stratigraphic window

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Overview of ongoing exploration 2021

110 km

Juani

Mashuayacu and

Ochique

BLEG survey completed Systematic field work programmed

Sacanche North-

Lidar survey 190 sq km ongoing Permitting BLEG survey

Sacanche South

Lidar survey 172 sq km ongoing BLEG survey completed Permitting systematic field work

Gera

Lidar survey 55 sq km ongoing BLEG survey completed Permitting systematic field work

Tabalosos East

Drill permitting (DIA) initated in 9x3 km area Lidar survey 229 sq km ongoing BLEG survey completed Systematic soil survey and field mapping ongoing

Tabalosos South

Lidar survey 229 sq km ongoing BLEG survey completed Systematic field work is permitted Ongoing anomaly follow-up

The San Martin Cu-Ag Project

100% owned by Hannan

JOC

JOGMEC JV

© 2021 Geogle nage Landsat / Copernicus

Google Earth

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San Martin Sediment Hosted Copper-Silver

6810

SAND 17 17 c 17

Agua Callante Fre

Custalistey Fra. Reduced caratelone

 with diagonatic pyrite and hydrocarbons

Continuity

Hybrid red-bed style / reduced facies SSC with basin wide continutity



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Tabalosos Soil Sampling

100mR

Soil survey: 2.5x6km area ~2500 sample points 125 to 250 m line spacing 10-20 m sample spacing

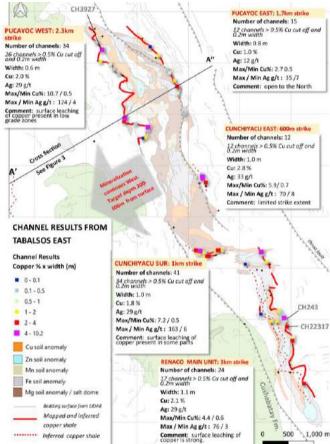
800mRL

✓ Systematic soil survey tracking the Cu-Ag shale under the thin overburden. Less than <1% of the bedrock is estimated to outcrop.</p>

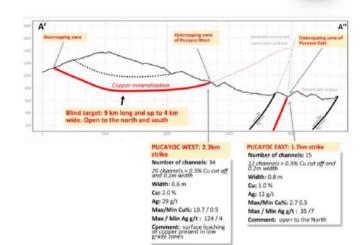
- ✓ Rapidly and advancing the project with the best mobile analytical technology available at lower cost compared to commercial laboratories.
- In-house QAQC programs and multiple analyzer units have doubled the sample rate without compromising data integrity.

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SSC TARGETING CONCEPT- TABALOSOS EXAMPLE



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Targeting high grade shallow dipping mineralization to build large tonnage mineable zones.



Hannan has approval from two local hamlets at Tabalosos to initiate work for an Environmental Impact Statement (Declaración de Impacto Ambiental, or "DIA") study.

The DIA is the primary environmental certification required to allow low impact mineral exploration programs, that include diamond drilling, to proceed in Peru;

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The area for the DIA allows for 40 drill platforms and covers an area approximately 9 kilometres long and 3 kilometres wide (2,700 hectares);

Final DIA and other approvals are anticipated during mid 2022.

Hannan in Peru

SAN MARTIN

JV with the option to earn up to a 75% beneficial interest in the San Martin Project by spending up to US\$35,000,000 to deliver to the joint venture a feasibility study on 660 sq km

VALIENTE

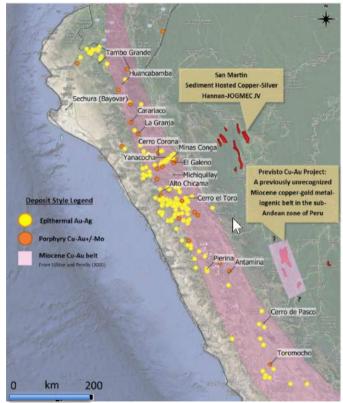
At Valiente, 1,354 square kilometres of mining concession applications prospective for back-arc Miocene age porphyry copper-gold systems in central Peru



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WHY BACK-ARC MIOCENE AGE COPPER GOLD?

- Back-arc settings are often overlooked in porphyry exploration due to distance from magmatic arc
- Long-lived crustal scale structures may "funnel" magmas hundreds of kilometers and porphyry deposits develop far inboard of the "conventional" settings.
- These are often high energy systems that can form big deposits such as Bajo de Alumbrera copper-gold porphyry in Argentina.
- The back-arc contains abundant reactive sedimentary rocks such as limestones, shales and evaporites.
- In Central Peru the largest porphyry deposits formed in the late Middle to early Late Miocene, in response to the change of subduction.



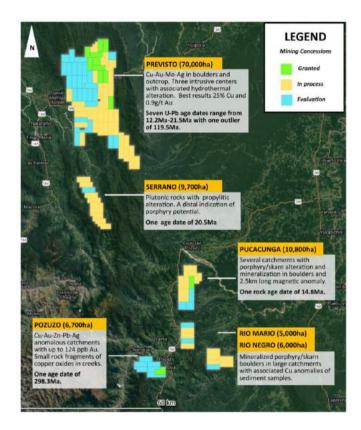
✓ Historically very little exploration.

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Valiente Radiometric Dating

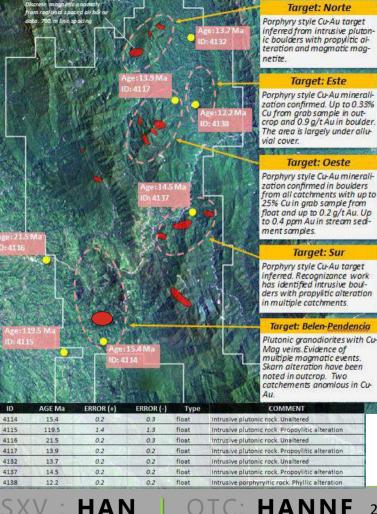
- Radiometric dating work by Hannan has identified a previously unrecognized Miocene copper-gold metallogenic belt in the sub-Andean zone of central Peru, with eight porphyry samples within an area of 140 by 50 kilometres yielding ages ranging from 21.5 Ma to 12.2 million years ("Ma"; early to mid-Miocene).
- ✓ This new district overlaps in age with the Miocene magmatic arc in the Western Cordillera of Peru, where some of Peru's largest porphyry copper+/gold and epithermal gold deposits were formed at the same time. This work 're-draws' the map of where such deposits can be found and verifies Hannan's assumptions that Valiente represents a new search space in a country thought to be mature in its exploration potential.
- The case for "young" porphyry deposits located in a back-arc setting, that is to say, far inboard of their volcanic arc contemporaries is best exemplified by the case of <u>Bajo de la Alumbrera</u> (pre-mining measured resource <u>695 Mt @ 0.51% Cu, 0.66 g/t</u> <u>Au</u>) in Argentina, which lies some 150 kilometres east of contemporaneous porphyry deposits in the Chilean Andes.

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Summary of Radiometric ages at Valiente

Mid to early Miocene ages confirmed 2021



21

Hannan is a first mover and the opportunity is:

- ✓ First systematic stream sediment survey in a new metalogenic province of Peru covering 140x50 km;
- Rapid identification of "low hanging fruit"e.g. mineralizing system which are exposed on surface and with good access;
- Avoiding areas with protection overlays such as environmetal or indidgenous title;
- Currently building up a porfolio of 5-7 porphyry-skarn targets 100% owned by Hannan;
- ✓ No historic drilling or detailed geophysics known

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Overview of the Valiente Cu-Au Project

All targets are early stage, applications are pending and observations are dominated by boulders with support in regional geophysics and stream sediments.

130 km

Valiente (70,000 ha)

Cu-Au-Mo-Ag in boulders and outcrop. Three intrusive centers with associated hydrothermal alteration. Best Au results 0.9 ppm Best Cu results 25 %

Serrano (9,700ha)

Plutonic rocks with propylitic alteration. A distal indication of porphyry potential.

18A

Pozuzo (6,700ha)

Cu-Au-Zn-Pb-Ag anomalous catchments with up to 124 ppb Au. Small rock fragments of copper oxides in creeks

Pucacunga (10,800ha)

Several catchments with porphyry/skarn alteration and mineralization in boulders and 2.5km long magnetic anomaly.

Rio Mario (5,000 ha) Rio Negro (6,000 ha)

Mineralized porphyry/skarn boulders in large catchments with associated Cu anomalies of sediment samples

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The Valiente Cu-Au Project

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100% owned by Hannan

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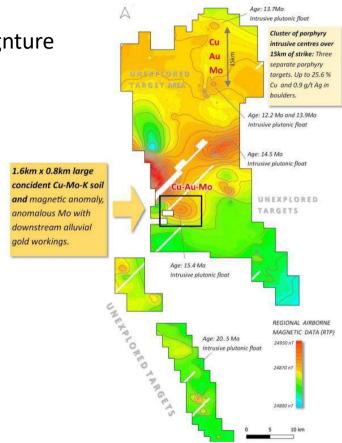
Valiente and Serrano Regional RTP Magnetics

Five intrusive targets with Cu-Au signture and counting. Not all magnetic.

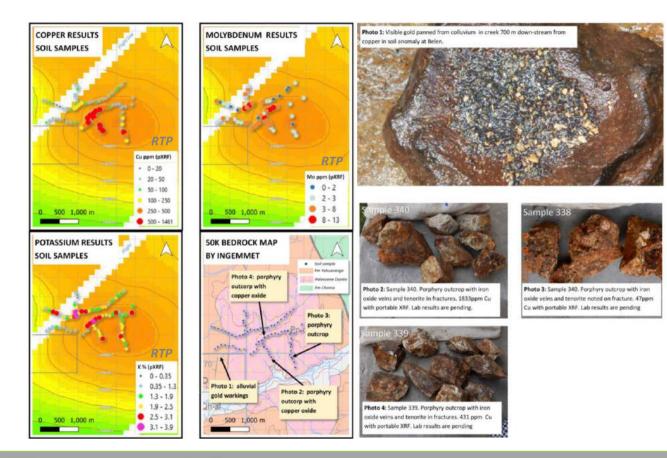
Belen Cu-Au 2022 discovery:

- Strongly leached and weathered sub-cropping porphyry with secondary copper oxides
- Alluvial gold extracted by artisanal miners located 700 metres down-stream
- A coincident 5 km by 5 km prominent magnetic high anomaly from regional airborne surveys
- Although laboratory results (including gold) are pending a strong multi-element association including molybdenum and potassium are evident in the soil data
- Laboratory data suggest strong Vanadium correlation with Cu-Mo (roscoelite?)

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The Belen Cu-Au-Mo-Ag Target



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Results Northern Valiente Cu-Au Project

Norte

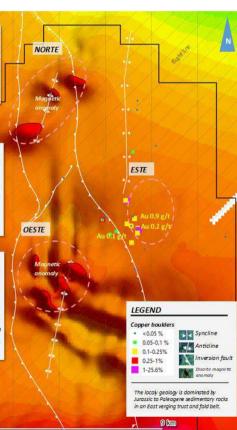
Porphyry style Cu-Au target inferred from intrusive plutonic boulders with propylitic alteration and magmatic magnetite.

Este

Porphyry style Cu-Au mineralization confirmed. Up to 0.33% Cu from grab sample in outcrop and 0.9 g/t Au in boulder. The area is largely under alluvial cover.

Oeste

Porphyry style Cu-Au mineralization confirmed in boulders from all catchments with up to 25% Cu in grab sample from float and up to 0.2 g/t Au. Up to 0.4 ppm Au in stream sediment samples.



Norte

Porphyry style Cu-Au target Inferred from intrusive plutonic boulders with propylitic alteration and magmatic magnetite.

August 1



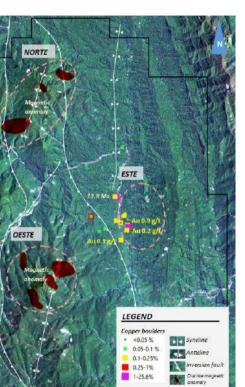
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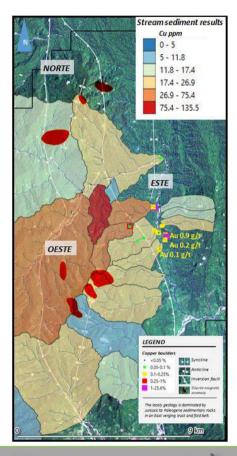


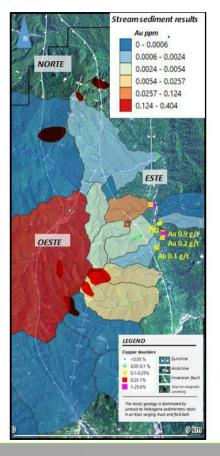
The localy geology is dominated by Jurassic to Paleogene sedimentary rocks in an East verging trust and fold belt.

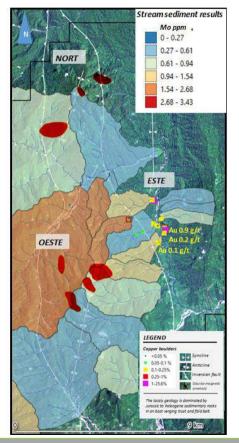
9.km

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Results Northern Valiente Cu-Au Project





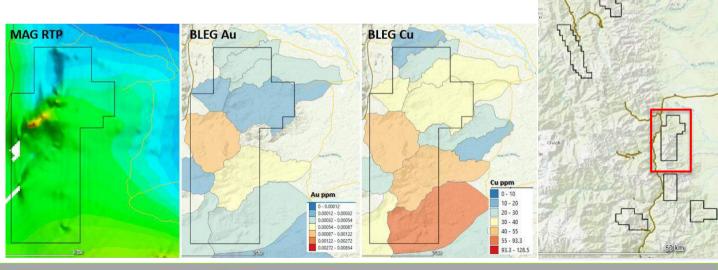


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PUCACUNGA Cu-Au Target

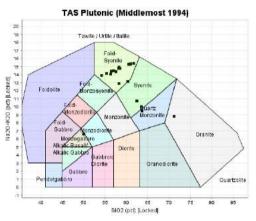
- ✓ 70 km south of Belen
- ✓ 15x6km large licence
- ✓ 14.8Ma U-Pb Zircon age
- ✓ Combined Cu-Au anomalies in BLEG catchments + intrusive boulders.
- ✓ Peak magnetic anomaly is 2.5km long

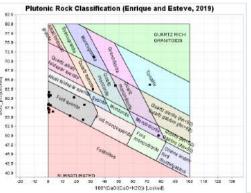


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Lithogeochemical review

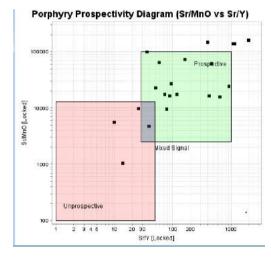
Only data from Valiente Norte Area





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- Foid syenite to foidites compositon
- Strong prospectivity ratio in all conventional "prospectivity diagrams"



Porphyry Prospectivity Diagram (Ahmed et al., 2019)

Porphyry Prospectivity Diagram (Sr/MnO vs Sr/Y)

• (Automatic Unit conversion will occur)

 Prospectivity diagram for porphyry Cu, skarn or epithermal mineralisation constructed using Sr/MnO and Sr/Y ratios.

 Three prospectivity fields for prospective, unprospective and mixed signals (overlap between prospective and unprospective fields).

⇒ Ahmed et al., 2019 Assessing copper fertility of intrusive rocks using field portable X-ray fluorescence (pXRF) data. Geochemistry: Exploration, Environment, Analysis. Vol. 20, pp. 81-97.

Budget and Timelines

2022 Programs underway

SAN MARTIN – JOGMEC JV US\$2M

- 2022 Aim: Continue to build basin scale project, determine continuity at varying scales
- Drill Tabalosos East to test conitinuity of mineralization at various scales

Valiente – 100 % HANNAN US \$2M CAD

- Active field program of 4-6 geologist
- Prospecting, mapping and soil sampling
- Social permitting and stakeholder management
- Aeromagnetics 200m over entire landholding
- First DIA Q2

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A 100% PERUVIAN TEAM DEDICATED TO DISCOVERY



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Contact Us

HANNAN METALS LTD INVESTOR RELATIONS (CANADA)



Mariana Bermudez - Corporate Secretary Tel: +1 (604) 685 9316 Fax: +1 (604) 683 1585

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