

HANNAN METALS

Discovery of large copper and gold mineralizing systems in new frontiers

February 2024



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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 January 2024

Overview

A copper-gold focused exploration company attracting the support of some of the largest players in the copper space

- ✓ Focus on new frontiers ripe for giant discoveries
- ✓ Drilling in Ireland, Chile and Peru 2023. Anticipating a pipeline of drill ready porphyry-skarn and epithermal targets over the next five years
- ✓ JOGMEC (JV) and TECK (9% equity) partnerships



Valiente (Peru): multiple (up to 18) major copper-gold porphyry, skarn, epithermal systems located in a new, unexplored Miocene belt (100% owned)

San Martin (Peru): high-grade sediment hosted copper-silver analogous to the Central African copper belt (JOGMEC JV)



Clare Project (Ireland): top-ranking target + resource in Europe's premier zinc district – drilling Q2 2023 (100% owned)



Cerro Rolando (Chile) a large, blind geophysical porphyry target – drilling Q3 2023 (earning 100%)

Capital Structure

INSIDERS: 14%

SHARES ON ISSUE: 109.4m

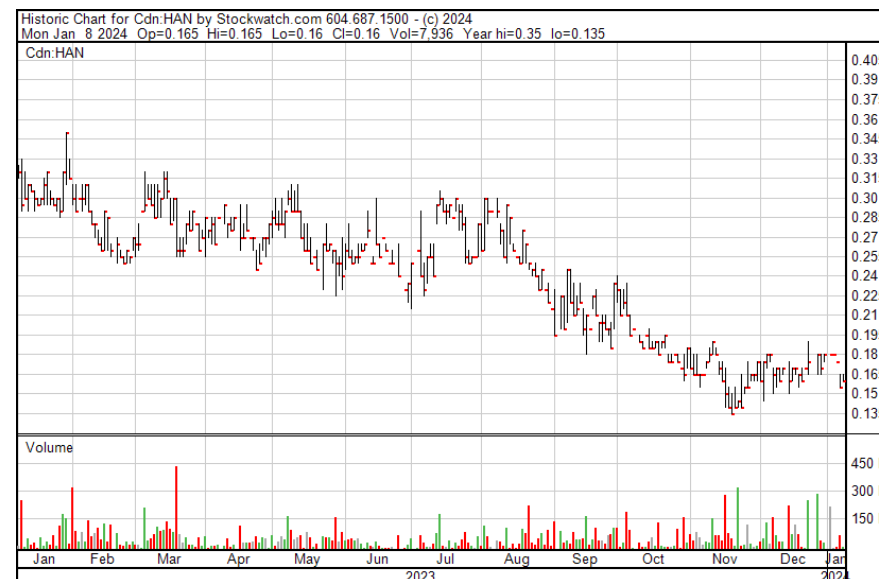
FULLY DILUTED: 121.9m

RECENT PRICE: C\$0.16 (08 Jan 24)

MARKET CAP: C\$19.6m

CASH: C\$1.9 M (Nov 30, 2023)

WARRANTS: 3.5m (\$0.35 May 26)



	Price	No. of Securities
Expiring June 14, 2024	\$0.285	275,000
Expiring October 4, 2024	\$0.285	30,000
Expiring December 3, 2024	\$0.235	120,000
Expiring December 28, 2025	\$0.28	3,848,000
Expiring March 1, 2026	\$0.28	150,000
Expiring August 22, 2028	\$0.25	4,510,000



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Peru: Big Company Land Position

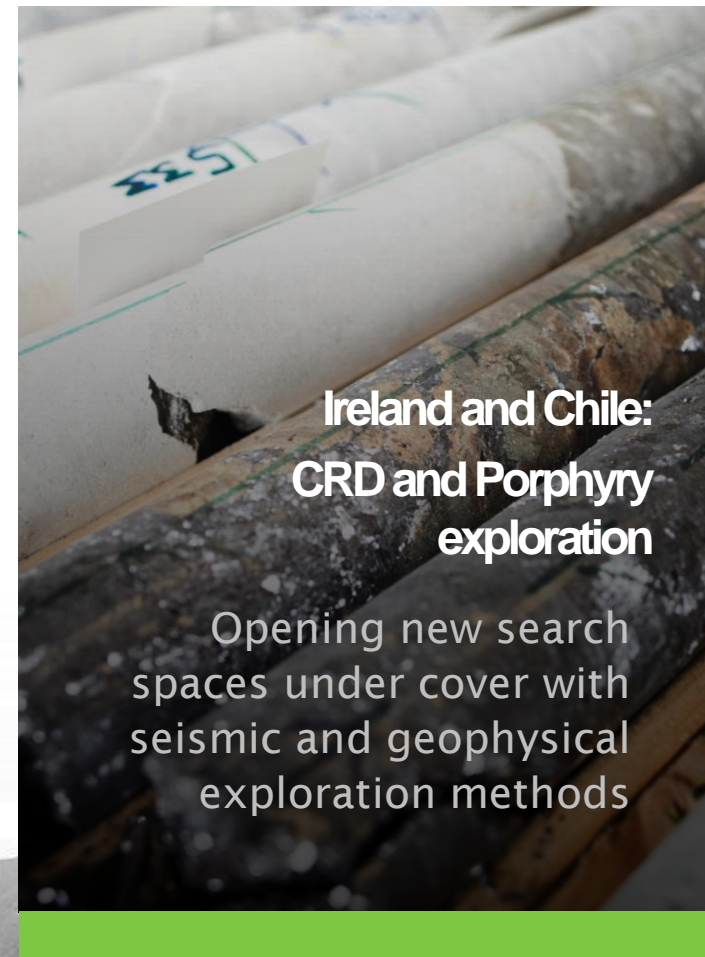
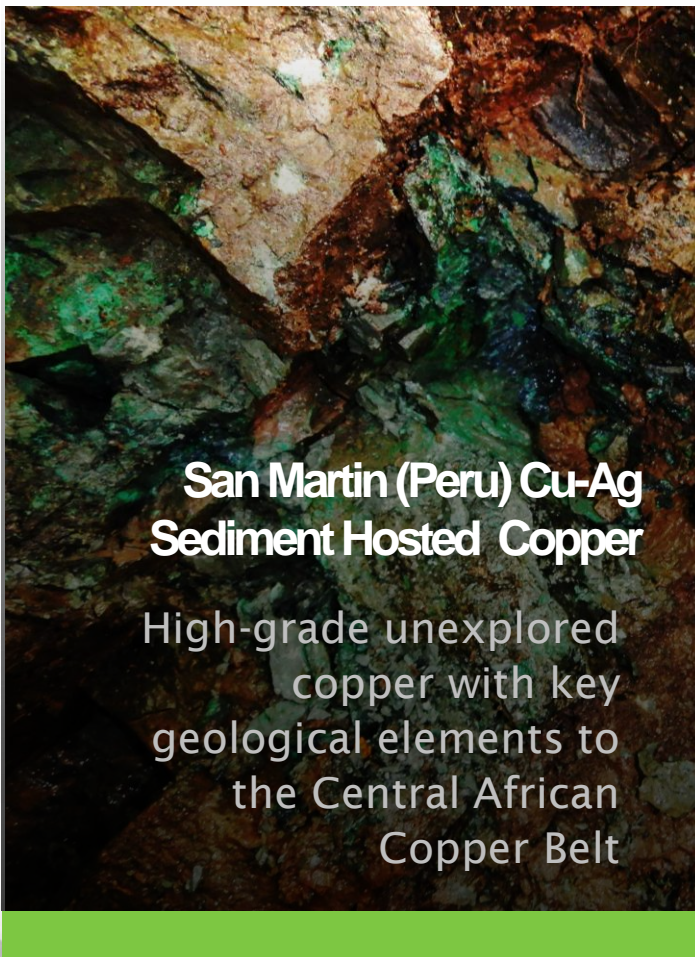
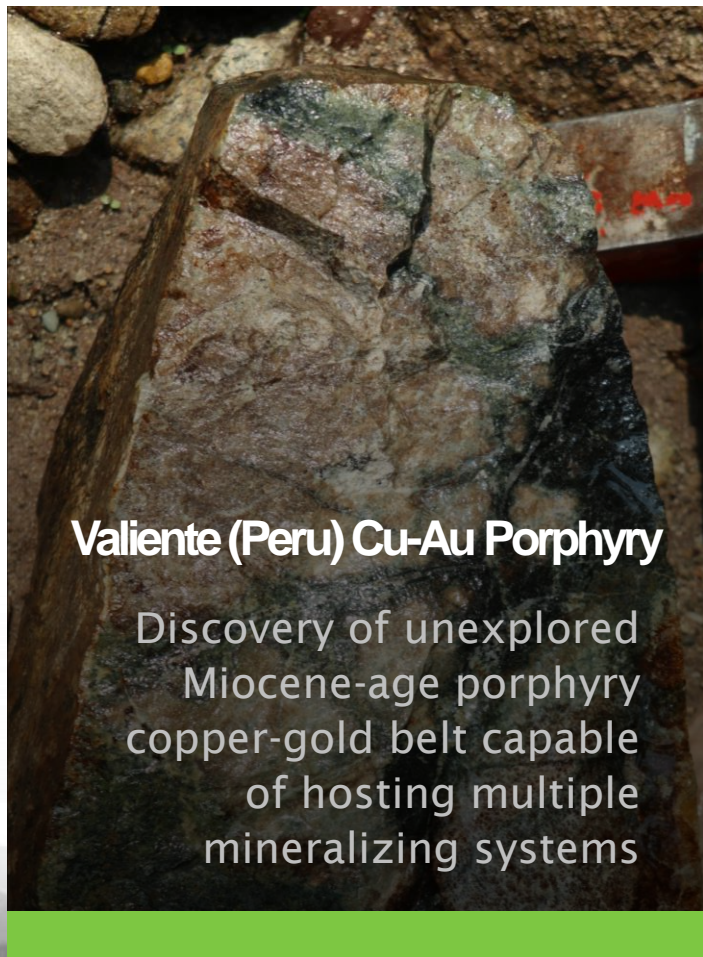
A top tenure holder in Peru

Hannan Tenure in Peru: 1,686 km²

2020 – 2021: Hannan launched a greenfields exploration program for porphyry and epithermal gold deposits in the high jungle areas of the Eastern Cordillera of Peru, which included regional database compilation, target generation, and field mapping. Hannan also conducted regional stream sediment sampling (fine clay fraction)



Proof of the concept



Investment opportunity

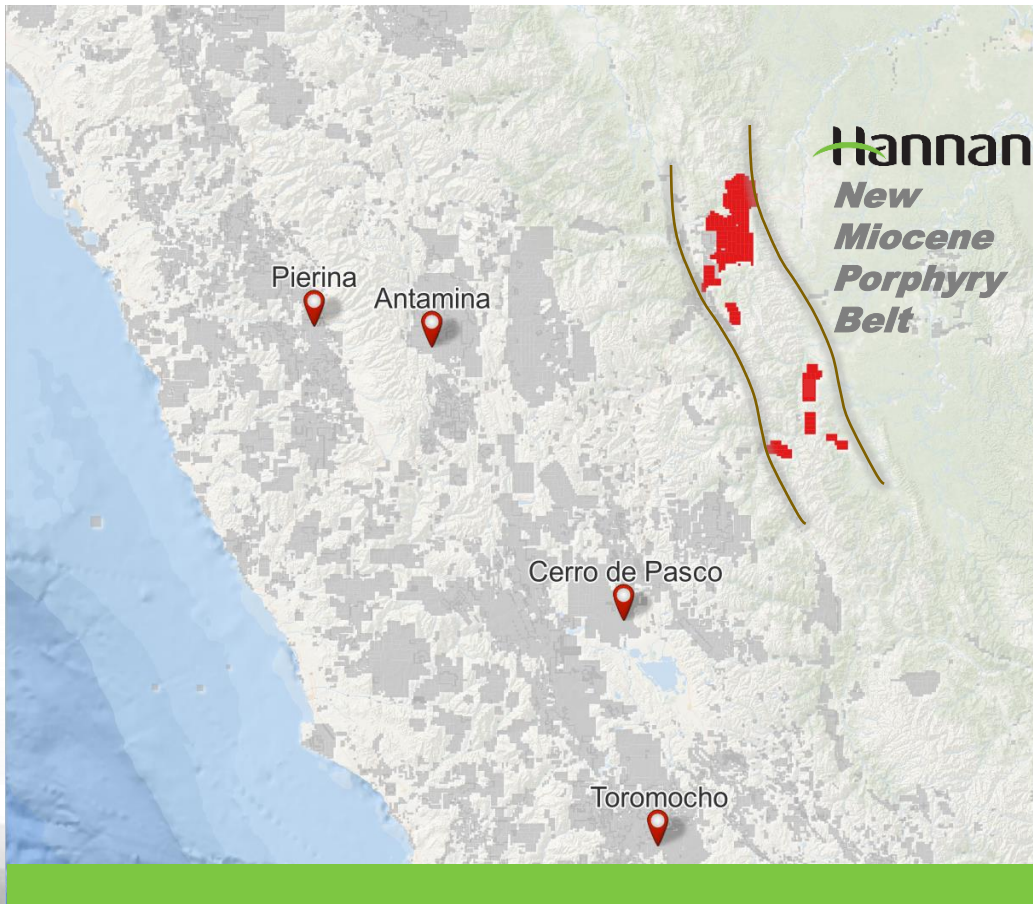
1. First mover and large land position with de-risked drill ready targets
2. Low hanging fruit with potential for giant discoveries
3. Exploration results recognized by strategic investment from Canada's largest mining company and a key joint venture agreement with the Japanese government (JOGMEC) at San Martin, Peru
4. Maiden drill permitting ongoing at both Valiente and San Martin projects in Peru.
5. Drill plans:

SAN MARTIN Q2 2024 / VALIENTE Q1 2025



Peru – Valiente: A World Class Opportunity

A unique opportunity 100 % owned by Hannan



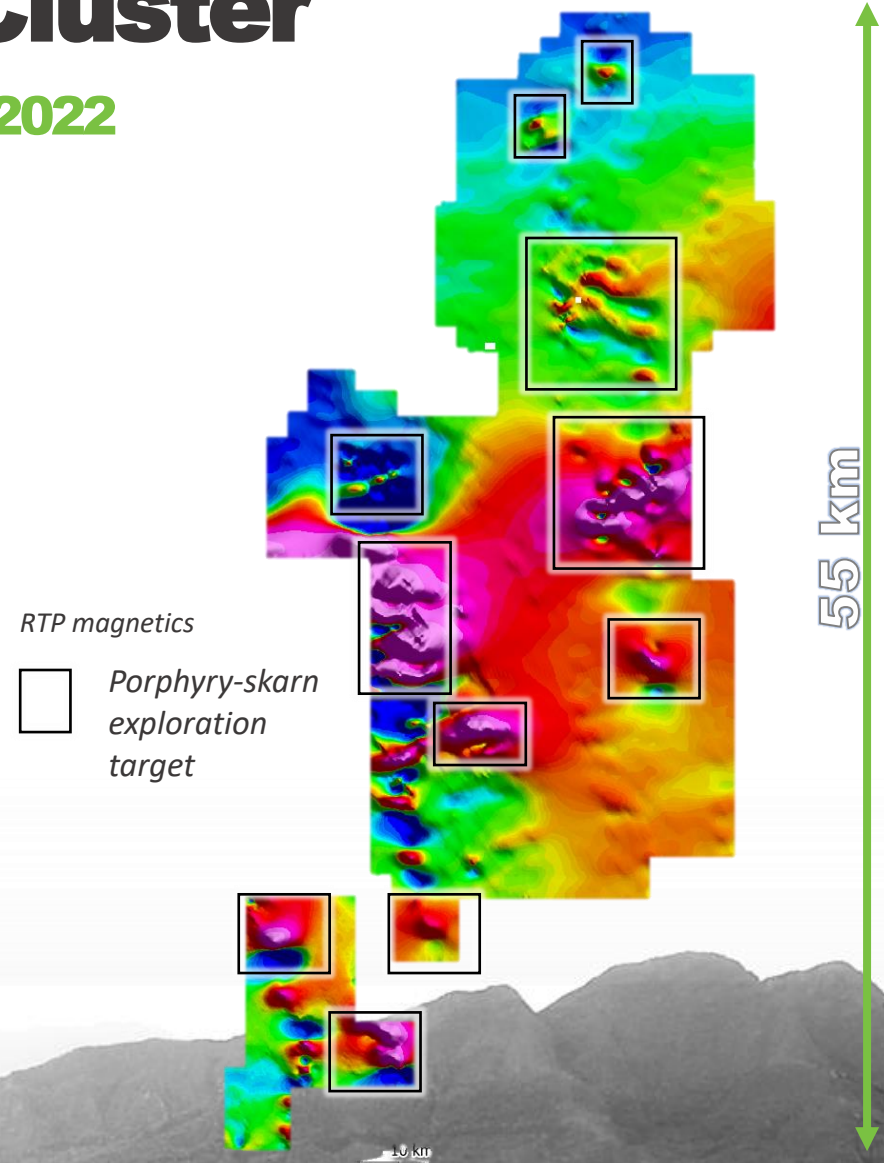
- ✓ The Valiente project is a new a porphyry-epithermal metallogenic belt discovered by Hannan in 2021 in the central eastern Andes.
- ✓ Located further east than most of the conventional Andean porphyry settings, similarities to the large Bajo de Alumbrera copper-gold porphyry in Argentina.
- ✓ Cluster of 18 Miocene porphyry intrusions from calc-alkaline to alkaline character across 150 km by 40 km belt
- ✓ Hannan's total tenure 1001 sqkm
- ✓ Plan to sequentially derisk, permit and drill multiple porphrys centres over the next 5 years



Peru – Valiente Porphyry Cluster

First low altitude airborne magnetic survey flown 2022

- ✓ A step change – mapping magnetic bodies in non-magnetic country rock
- ✓ Multiple intrusive events peaking at 21Ma, 15ma and 11Ma (Miocene-age – key timing in Andes)
- ✓ Mineralized porphyry/skarn/epithermal targets identified in at least 18 areas across the whole belt.
- ✓ Pipeline of exploration targets that will deliver sequential drill results over multiple targets over the next 2-5 years.

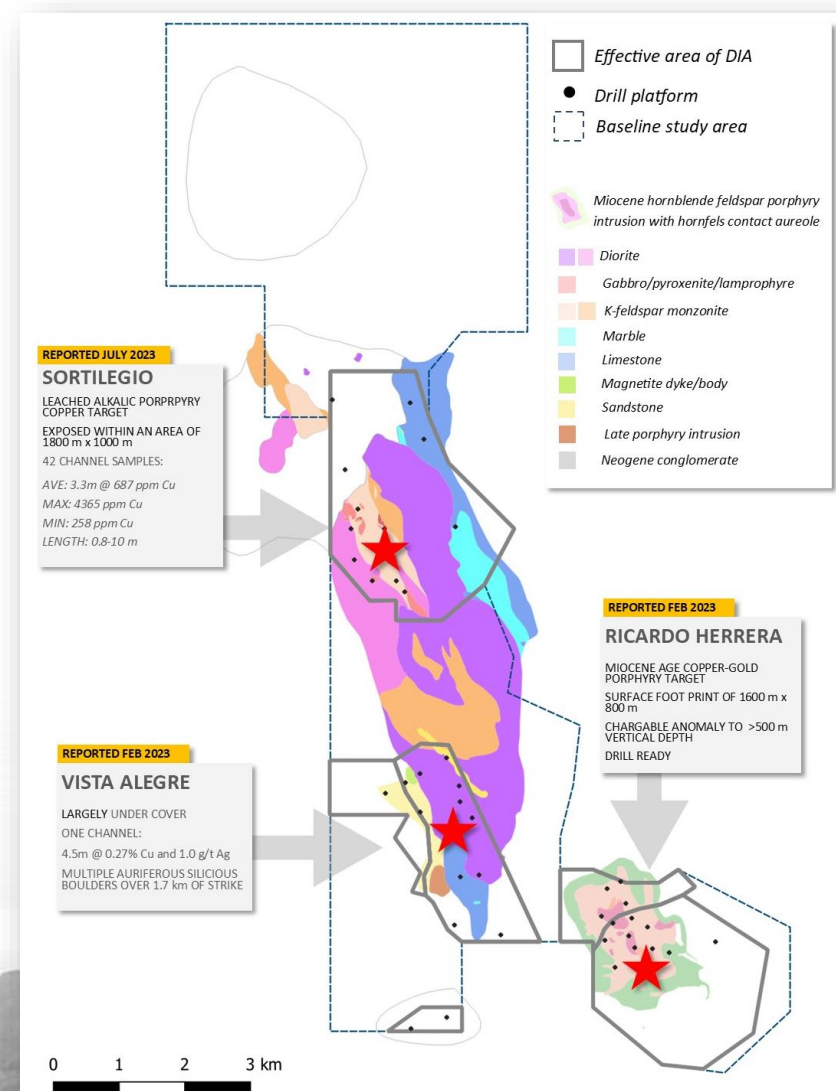




Peru – Valiente Belen Prospect

Maiden program is permitting multiple targets over 17 x 4 km corridor

- ✓ **Ricardo Herrera:** leached copper-gold porphyry, with well-developed quartz veining at upper topographic levels and evidence for an enriched chalcocite
- ✓ **Vista Alegre:** 1.8 km long gold-bearing epithermal target area identified by large gold mineralized boulders of quartz-pyrite and iron oxides as well as strongly gold anomalous soil samples, IP
- ✓ **Sortilegio:** high-grade system with assays up to 16.0% Cu and 4.4 g/t Au from a porphyry

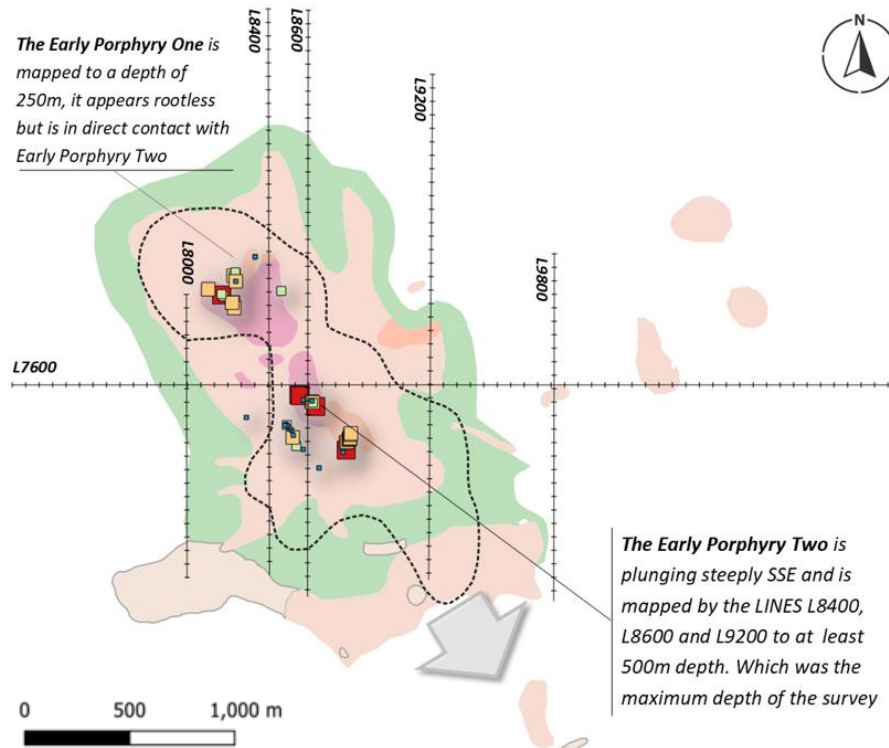




Peru – Valiente Ricardo Herrera Cu-Au Porphyry Target

Geology and IP results at Ricardo Herrera Cu-Au target

POLE-DIPOLE ORIENTATION STUDY AT RICCARDO HERRERA



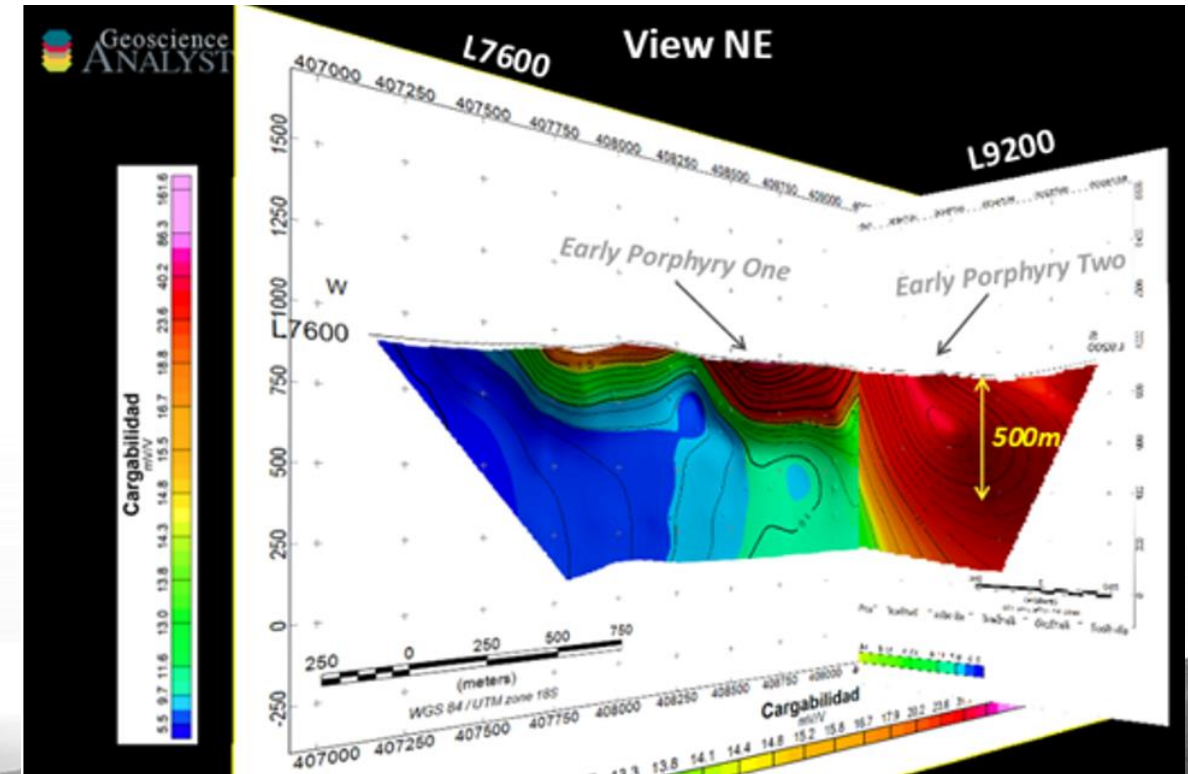
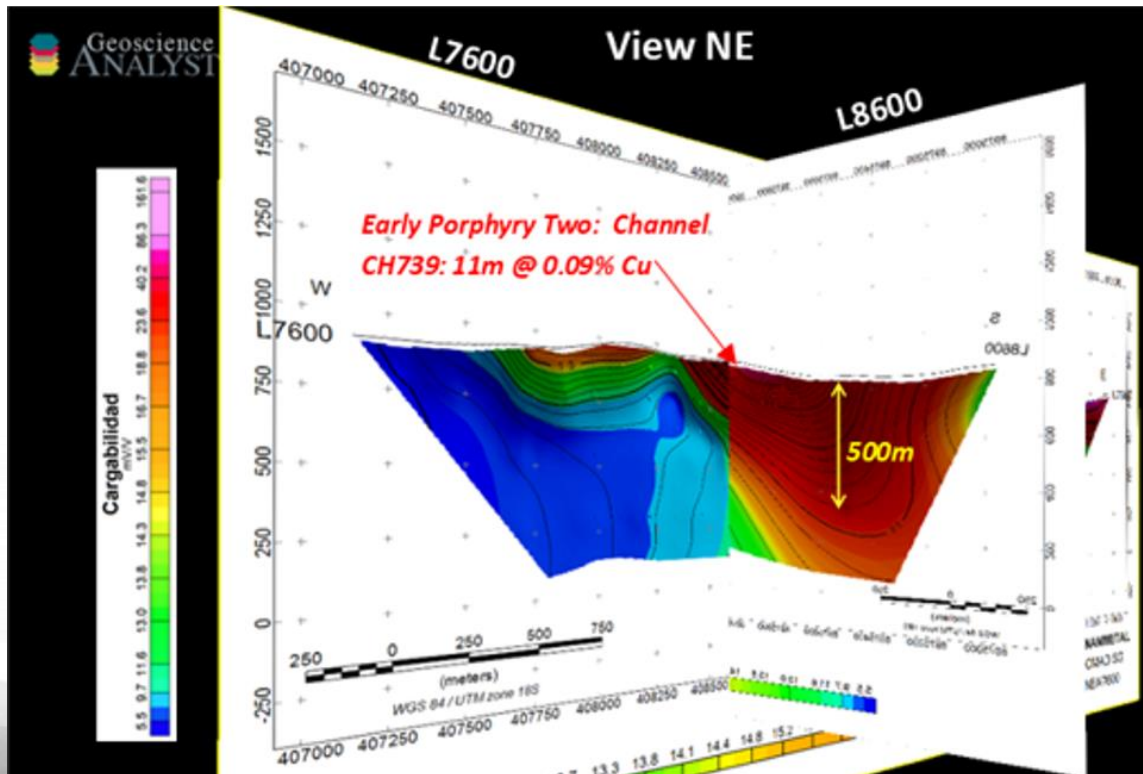
Alteration zone extends for 850 m x 250 m within a broad footprint of a copper anomalous and altered zone of intermineral hornblende feldspar porphyry stock of andesitic composition that extends over 1,600 m x 800 m

Multi-phase dioritic porphyry system intruding calcareous sandstones, mudstones and limestones.



Peru – Valiente Ricardo Herrera Cu-Au Porphyry Target

The IP Pole-Dipole geophysical survey defined a larger combined chargeable and resistivity zone over an area of 800 m by 600 m on surface, and to at least 500 m depth, to the maximum depth limits of the survey.





Peru – San Martin Cu-Ag Project

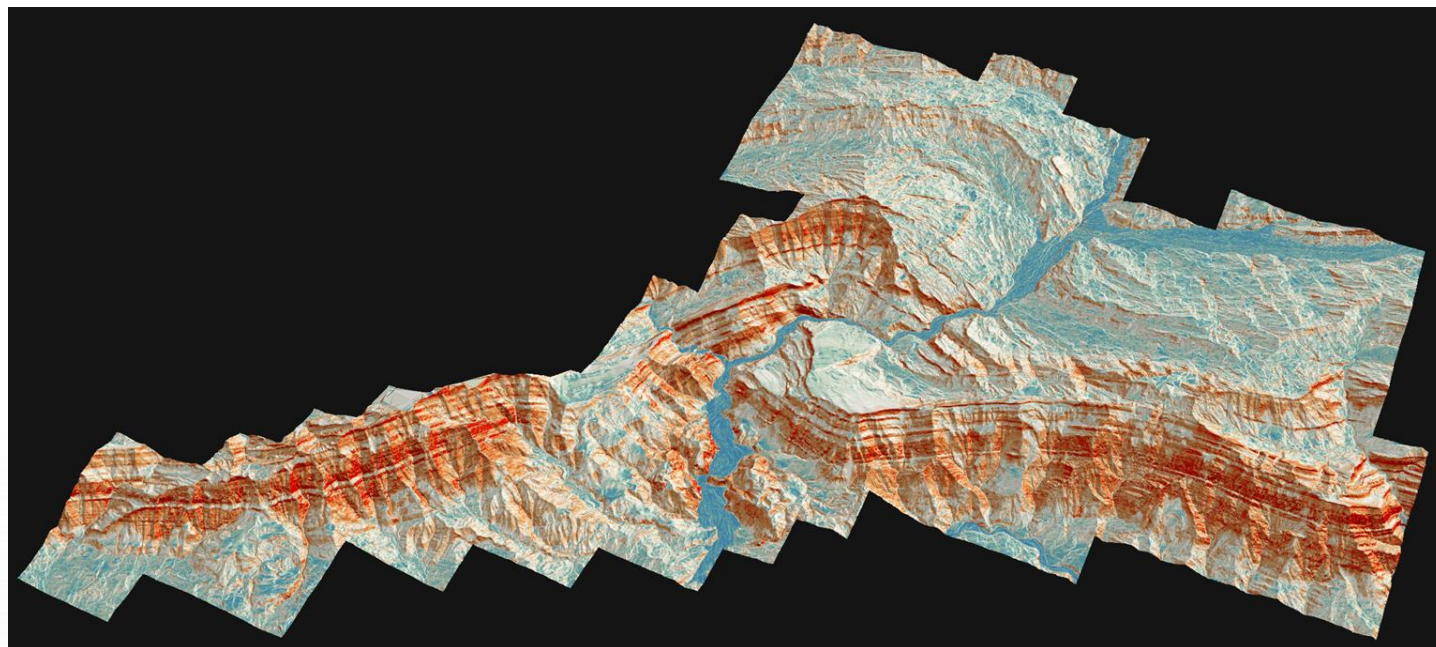
An emerging sediment hosted copper basin

Key geological elements for the development of giant deposits

Analogous to the Central African Copper Belt, the San Martin Project evolved as a salt rich intra-cratonic basin and was subsequently affected by compressional deformation

Two targets reduced shale and reduced sandstone target.

HANNAN LiDAR SURVEY



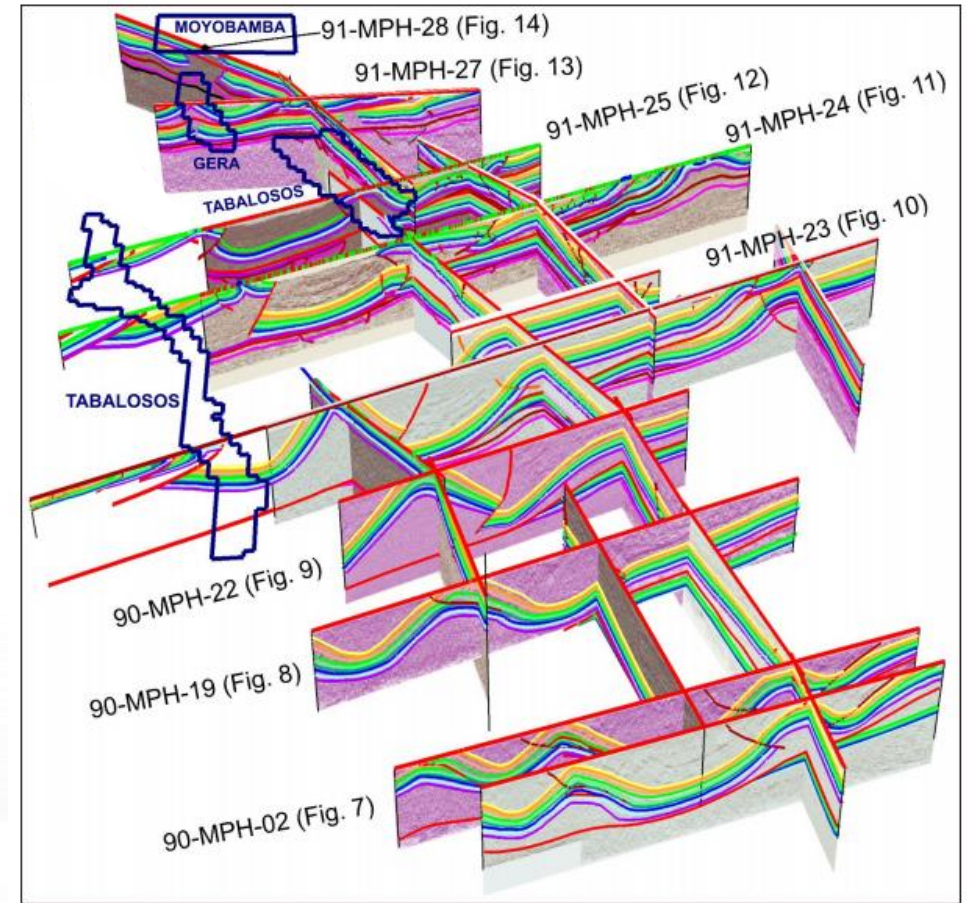


Peru – San Martin Cu-Ag Project

Geological de-risking

- Project has been de-risking with 2D seismic to understand basin evolution and fluid pathways
- LiDAR is used to map mineralization at low cost under the dense jungle canopy.
- Drill permitting ongoing –anticipated start is 2023 give the uncertain timeframes in Peru
- High grade copper silver mineralization across vast areas. *121 channels average:*

*2.05% Cu and 30g/t Ag
over 0.9m width*
(0.5% lower copper cut-off)





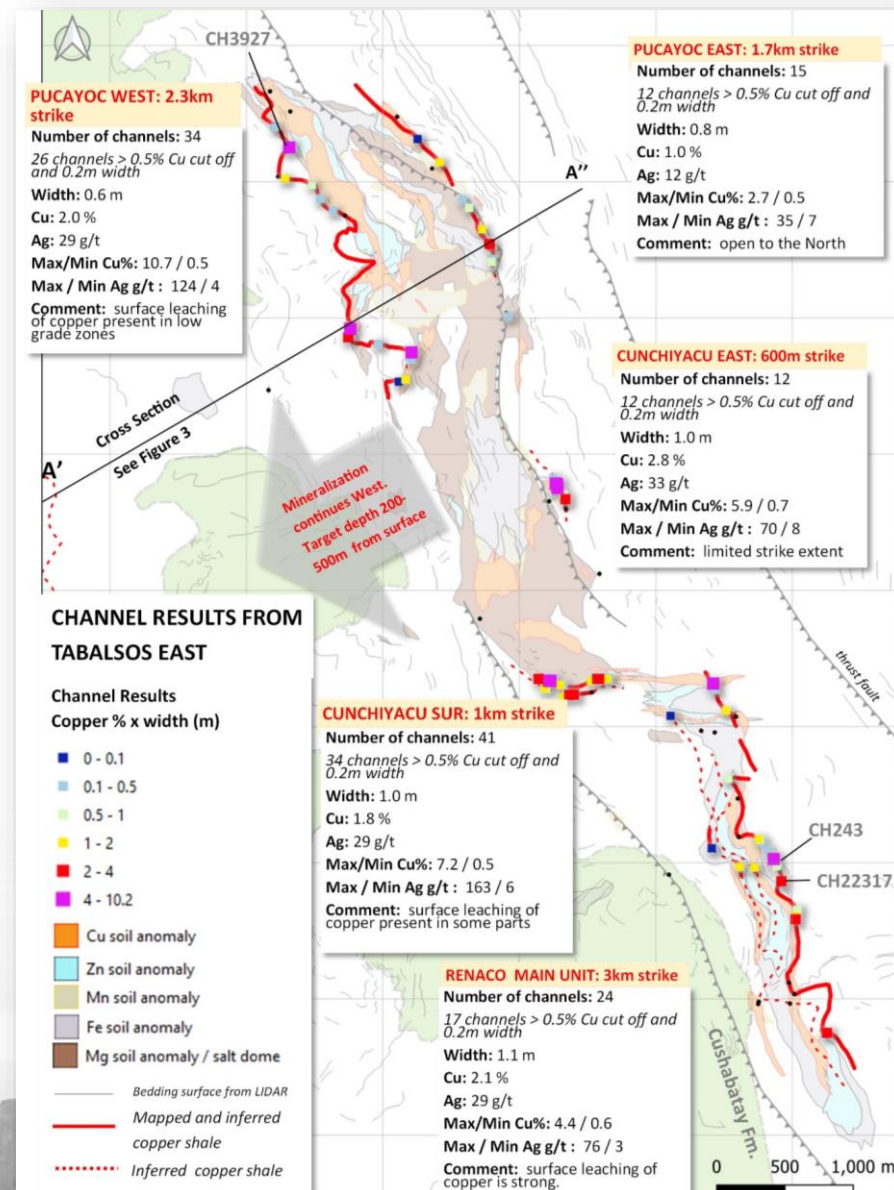
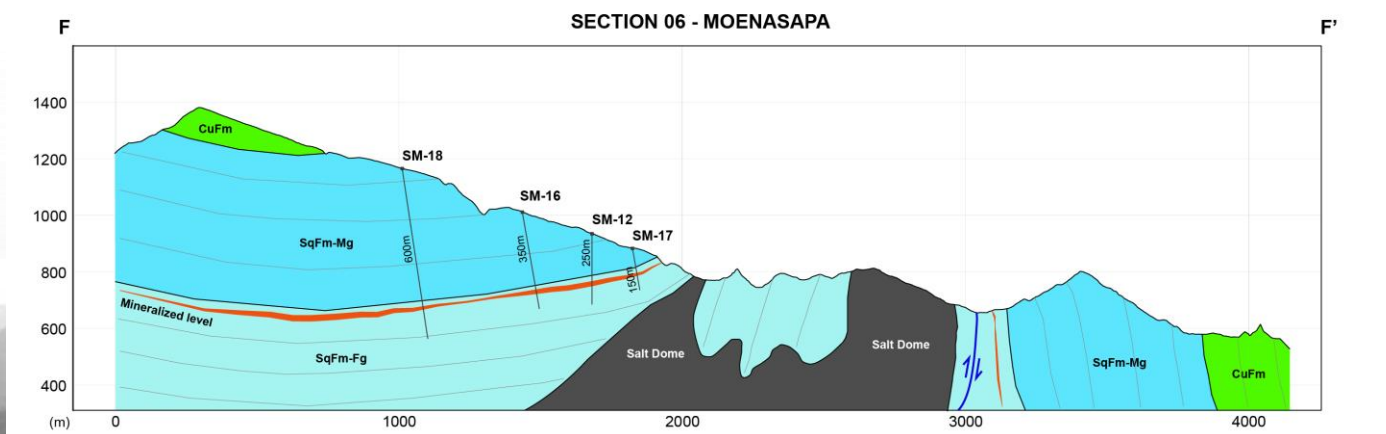
Peru – San Martin

Drill Program 2024 – Q2

2000m drill program – fully funded by JOGMEC

Outcropping high grade copper mineralization over 7 km of strike and down to a vertical depth of at least 500 meters

The copper-silver mineralized drill target averages 0.9 m thickness at 1.9 % copper and 27 g/t silver from 105 surface channels.





Peru – San Martin Cu-Ag Project

Reduced Sandstone Target Style

Highly sought after and prospective style of sediment hosted copper mineralization discovered in San Martin

Two key target areas Sacanche and Soritor.

Extensive zones of base metal gossans extending over >10km's and high-grade copper mineralization in sandstone boulders.

Social permitting granted/pending





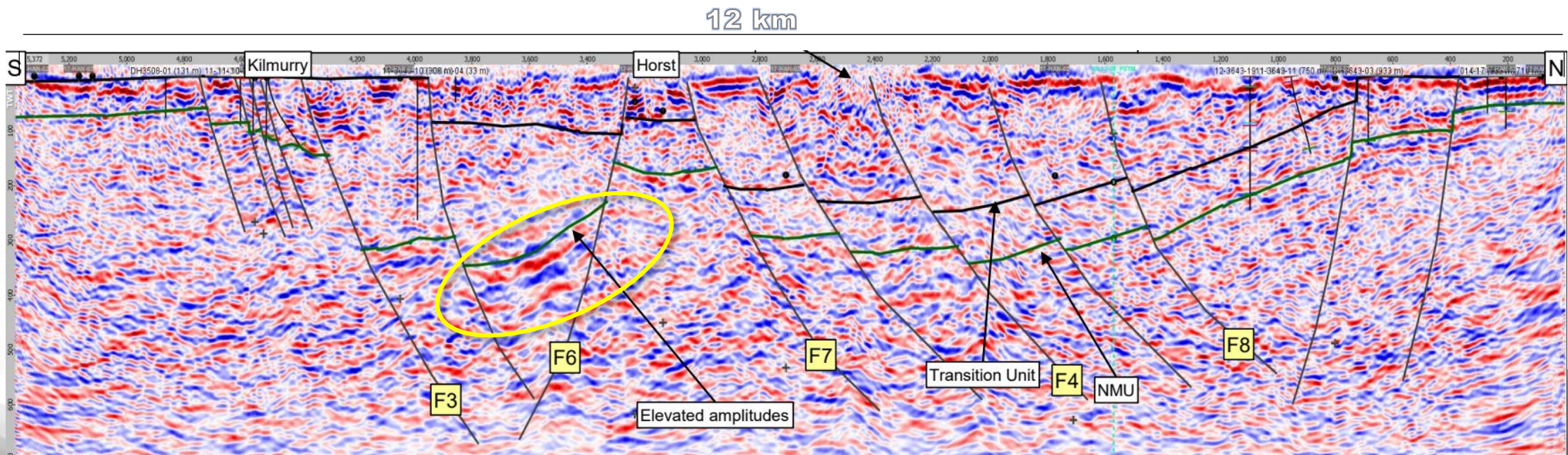
Ireland – the Kilmurry CRD Zn-Pb-Ag target

Polymetallic Carbonate Replacement Deposit

Europe's premier zinc province with worlds highest zinc endowment per km²

High amplitude reflectors at target depth potentially indicating massive sulphide

Drilling testing for the first time April 2023





Ireland – the Kilmurry CRD Zn-Pb-Ag target

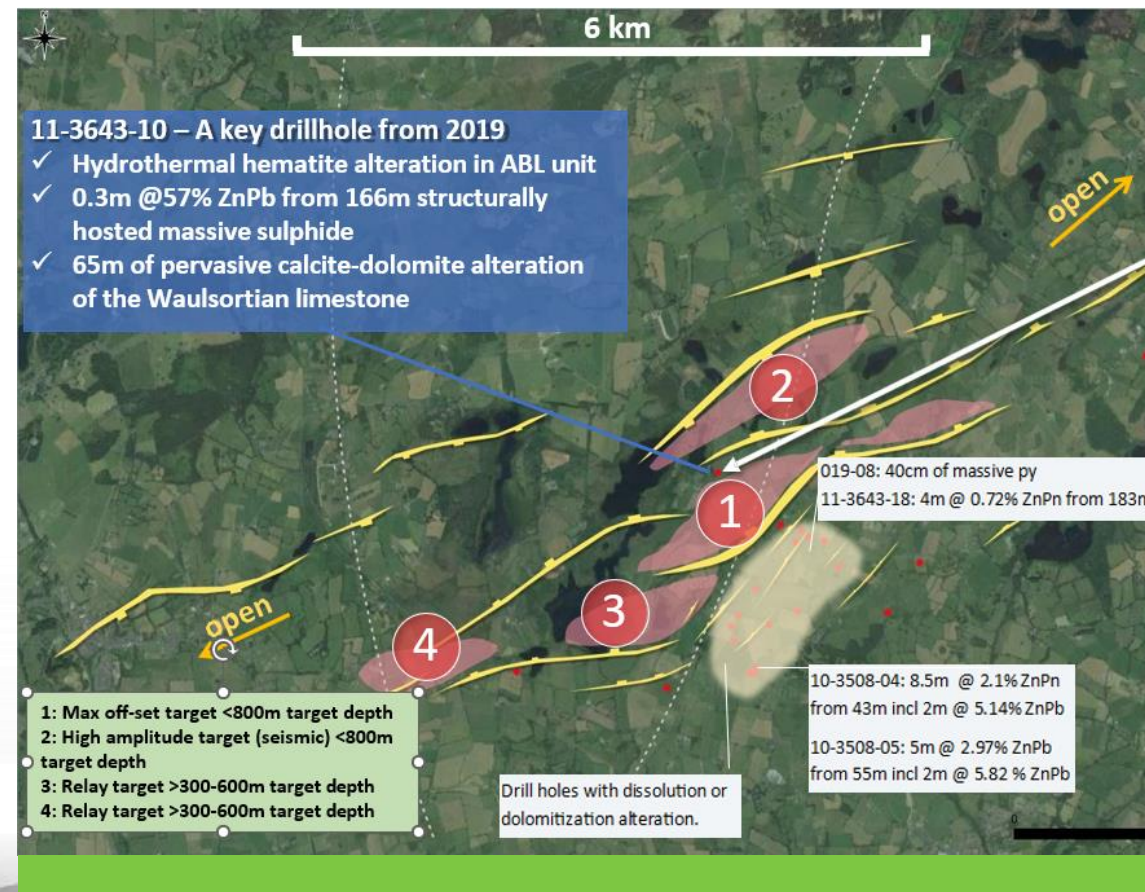
Polymetallic Carbonate Replacement Deposit

Syn-sedimentary fault relay zone mapped with over 6 km of strike with 2D seismic.

Extensive evidence historic records of an active mineralizing system in the footwall of the fault system

The hanging wall has never been drill tested

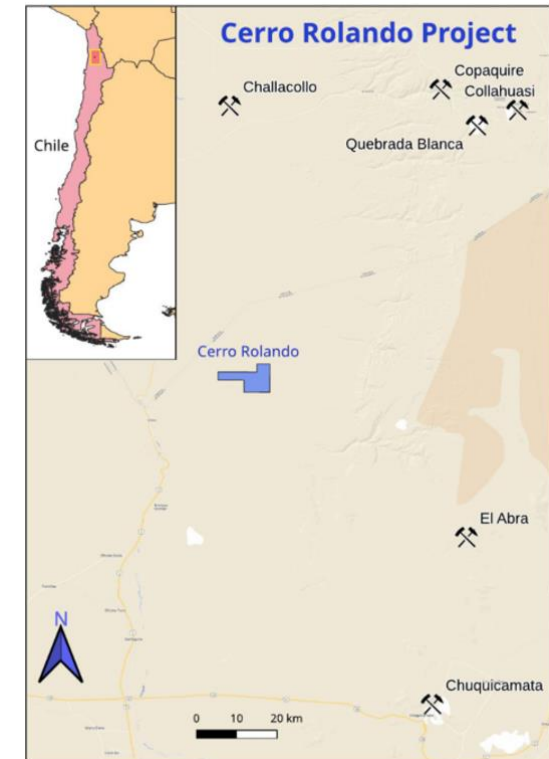
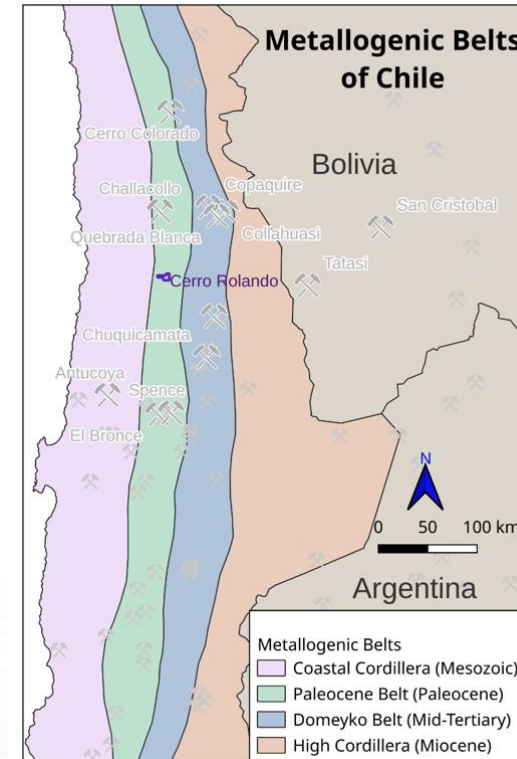
The scale and tenor of the fault systems equal or larger than the Lisheen deposits: pre-mining resource of 17.9 Mt @ 15.8% Zn, 2.6 % Pb



Chile – the Cerro Rolando Porphyry Project

Grass root opportunity in worlds premier copper province

- Letter of Agreement to acquire 100% interest in the Cerro Rolando Copper porphyry project.
- Located in the Palaeocene metallogenic belt of Chile
- Airborne EM data models a conductor at the base of 200-metre-thick cover over 1.2 km of strike.
- The conductor is interpreted to be a potential chalcocite enrichment blanket lying above a modelled magnetic body, interpreted to be the potassic core of a copper-bearing porphyry





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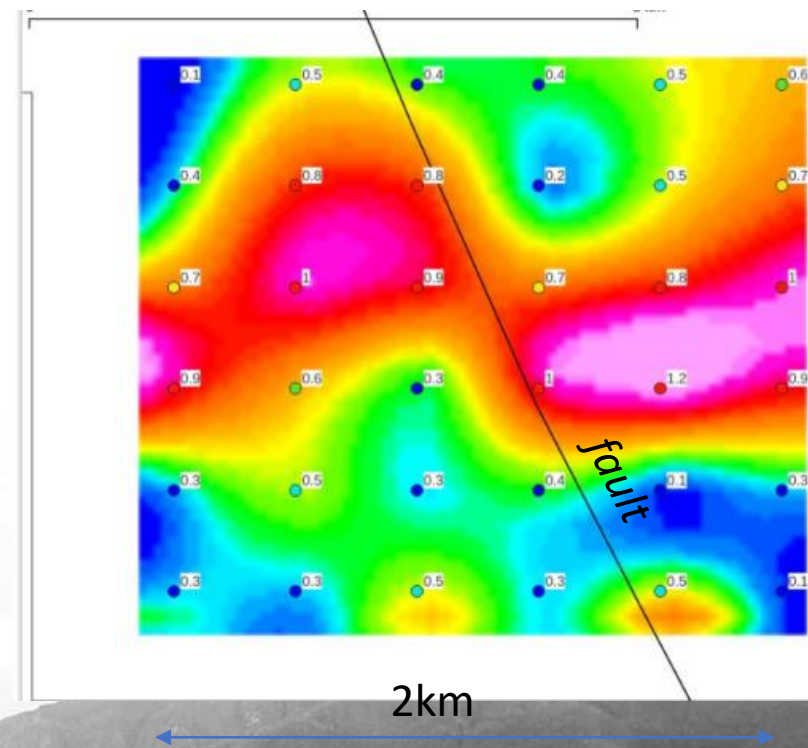
Completed initial geophysical surveys (MAG EM LOOP)

Complex area to survey and results not conclusive but we have developed a plausible geological model that can de-risked with high density seismic survey or shallow drilling.

Escondida analogy – Perched Enriched Sulphide mineralization / supergene mineralization within leached cap.

Coinciding strong magnetic anomaly modelled at +450m depth.

*EM MOVING LOOP RESULTS: upper conductor
"Interpretation offset perched sulphide blanket"*



Hannan 2024

Work Plan

SAN MARTIN – JOGMEC JV CDN \$2M

2024: Build basin scale project, determine continuity at varying scales

Drill Tabalosos East 2024 to test continuity of mineralization at various scales

VALIENTE – 100 % HANNAN CDN \$1M

Active field program of 8 person team:
Prospecting, mapping, soil sampling, trenching, geophysics and social permitting

IP Geophysics

First DIA commenced, establish multiple drill areas of multiple porphyry-epithermal targets over the next 5 years, each one a potential company-maker

OTHER – 100% HANNAN CDN

Kilmurry target in Ireland

Cerro Rolando in Chile

HANNAN METALS

Discovery of large copper and gold mineralizing systems in new frontiers

 **Hannanmetals**

TSXv: HAN

Contact

HANNAN METALS LTD
INVESTOR RELATIONS (CANADA)

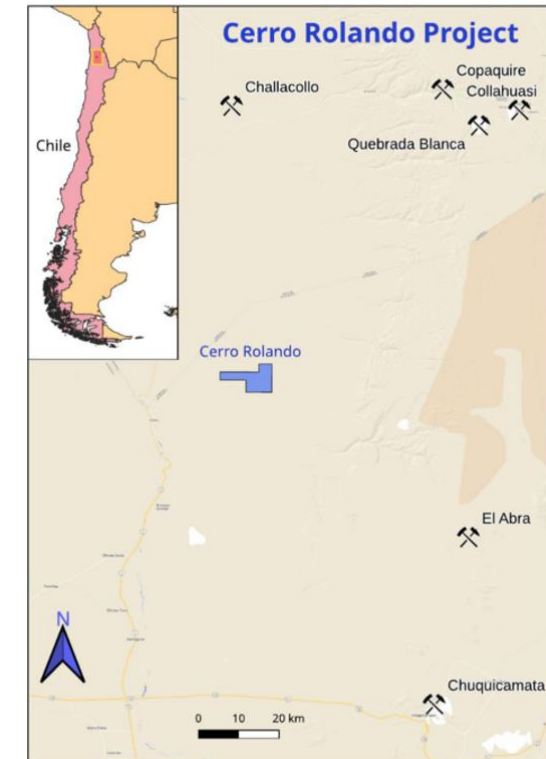
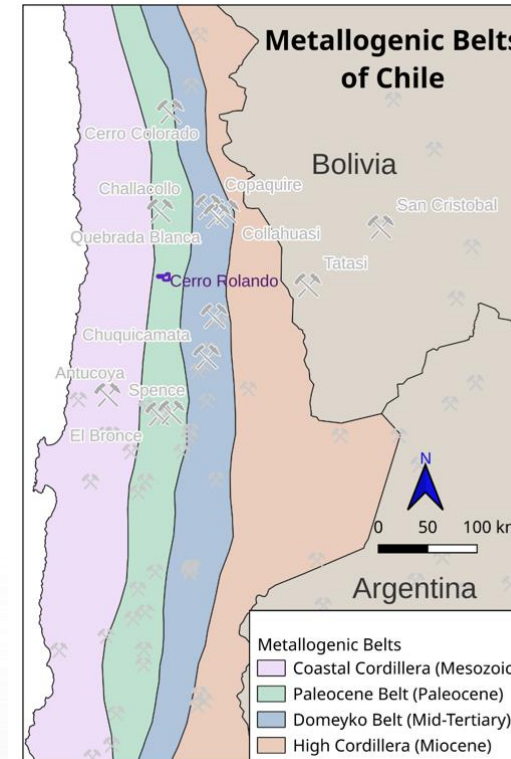


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Peru – San Martin Cu-Ag Project

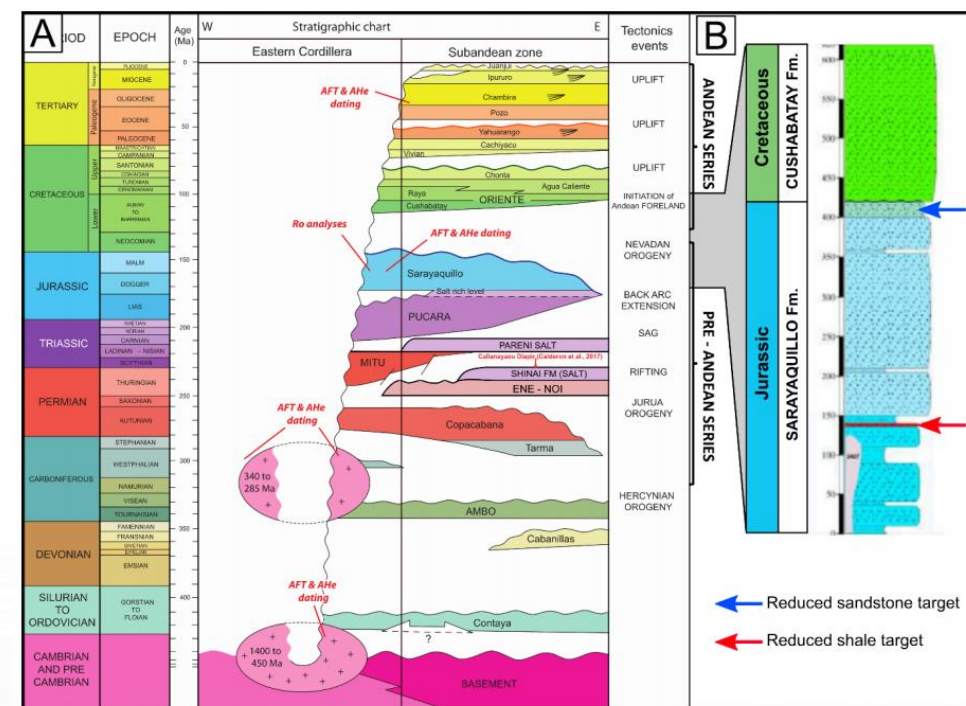
An emerging sediment hosted copper basin

Key elements for the development of giant deposits such as:

- the occurrence of regionally developed red bed deposits,
- a laterally extensive redox boundary,
- the occurrence of thick evaporite accumulations and
- an active petroleum system

Analogous to the Central African Copper Belt, the San Martin Project evolved as a salt rich intra-cratonic basin and was subsequently affected by compressional deformation

Two targets reduced shale and reduced sandstone target.



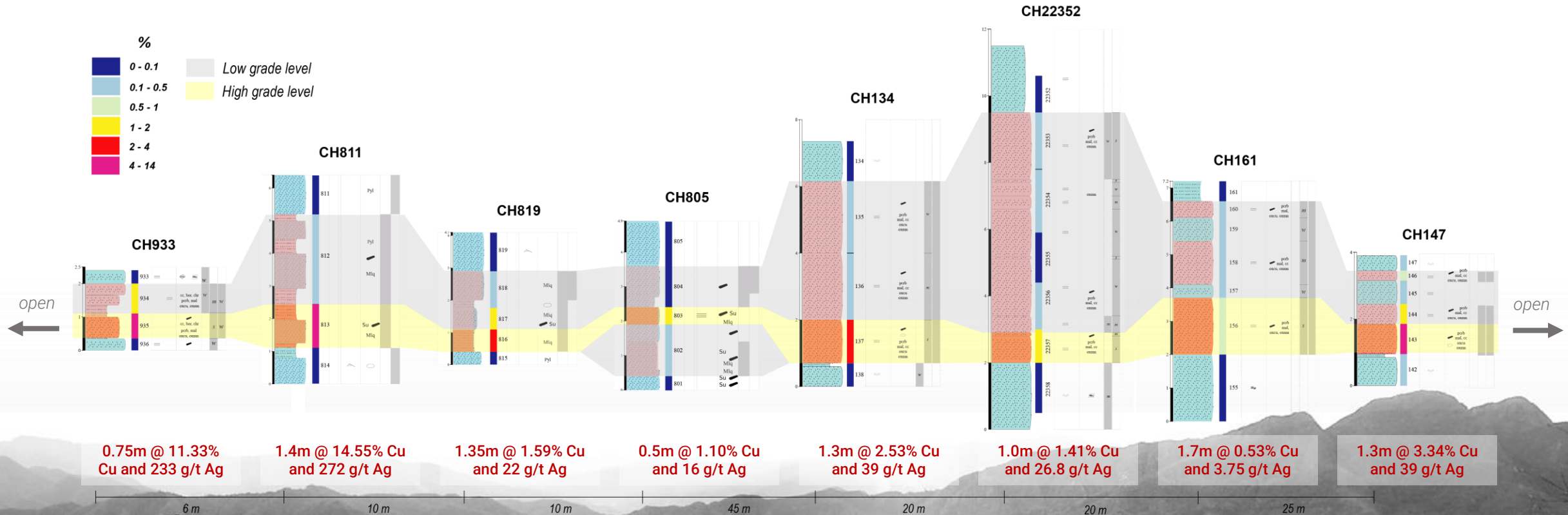


Peru – San Martin Cu-Ag Project

Reduced Shale Target Style

The Tabalosos target covers 25,000ha over 30 km of strike length.

Mineralization mapped on surface over 9km and inferred >20km.





Peru – Valiente Ricardo Herrera Cu-Au Porphyry Target

Typical porphyry
signature high
chargeability high
resistivity target

Exposed at surface
and confirmed with
surface mapping

