



Depósitos de ouro em greenstone belts no Quadrilátero Ferrífero: novas descobertas e avanços no conhecimento dos eventos mineralizantes

Gold deposits in greenstone belts at Quadrilátero Ferrífero: new discoveries and advances in knowledge of mineralizing events

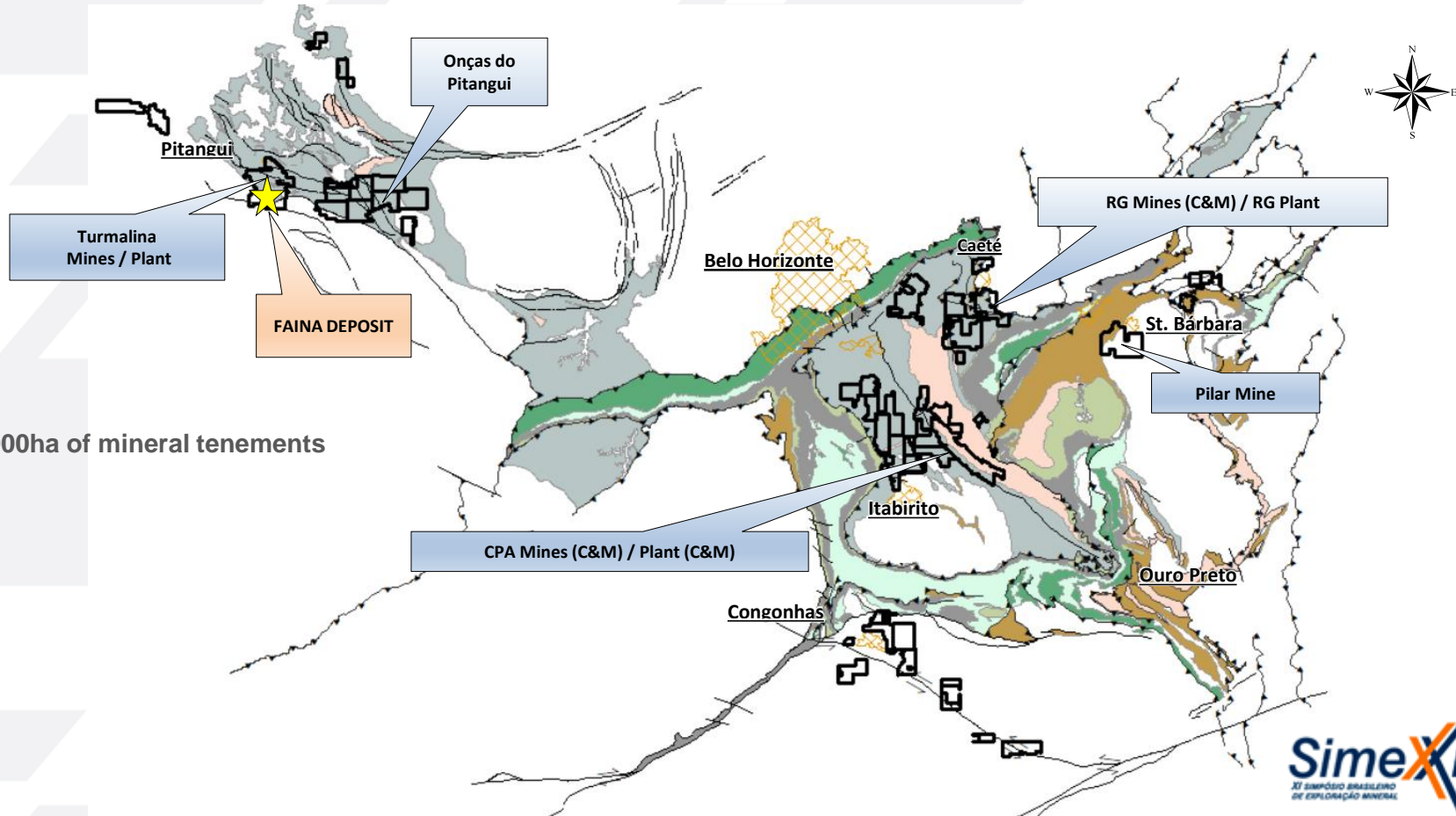
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Jaguar's Operations and Tenements



- 56,000ha of mineral tenements

Exploratory Cycle 2017 - 2023

Multielement geochemistry (48 elements)

- Soil (15,100 samples)
- Drillholes (49,100 samples)



Aeromagnetometry geophysics

- Flown lines: (5,350km)
- Area flown over: (24,000ha)



Geophysics Consultants (SGC)

- Processing, Integration, Inversion



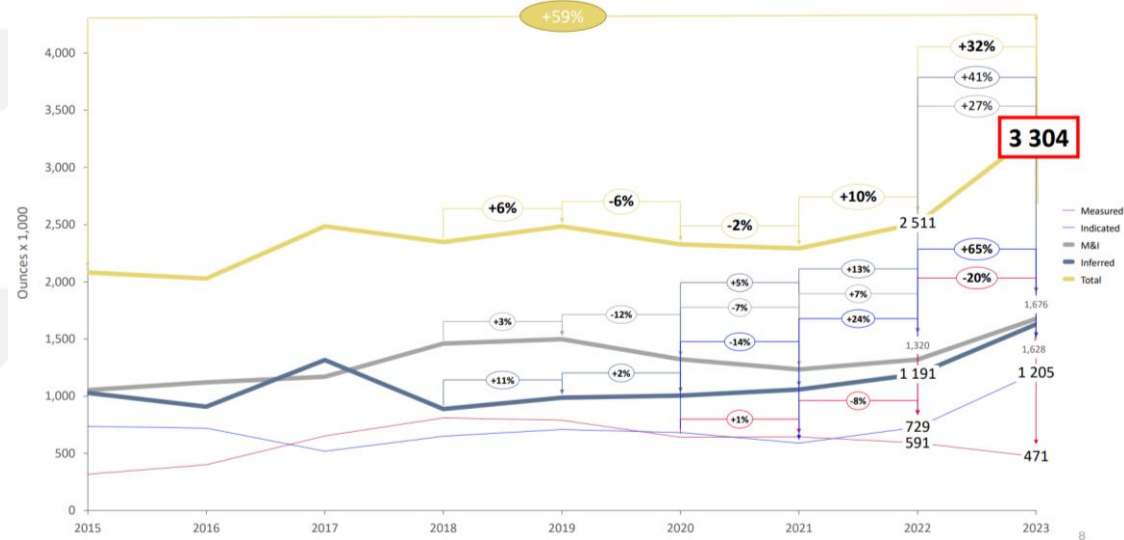
Structural Geology

- All DDH spatially oriented



Academic Studies

- Postdoc (1)
- Phd (5)
- Master's (12)
- Undergraduate (16)



Main Exploration Challenges in the QF

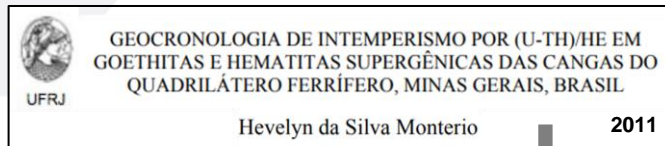
- Why invest in M.E and DDH spatial orientation?

- WEATHERING and TECTONICS

Mafic, ultramafic rocks and metapelites from the ocean floor

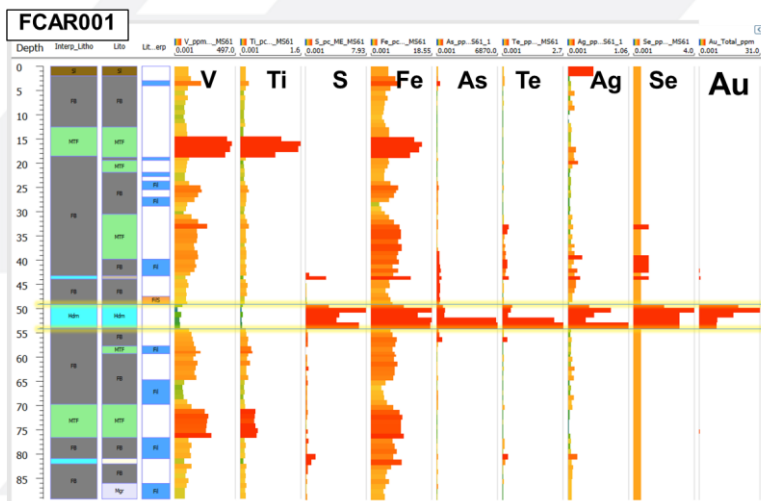
Lack of good outcrops - Vegetal Cover

Case study (M.E): Carrancas Target

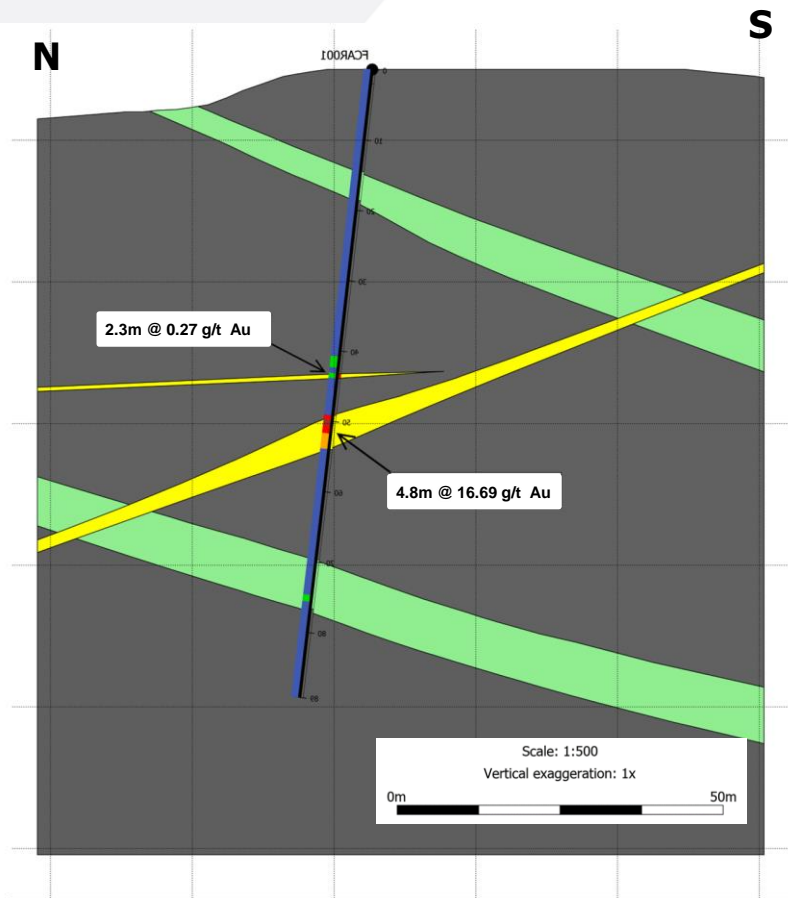
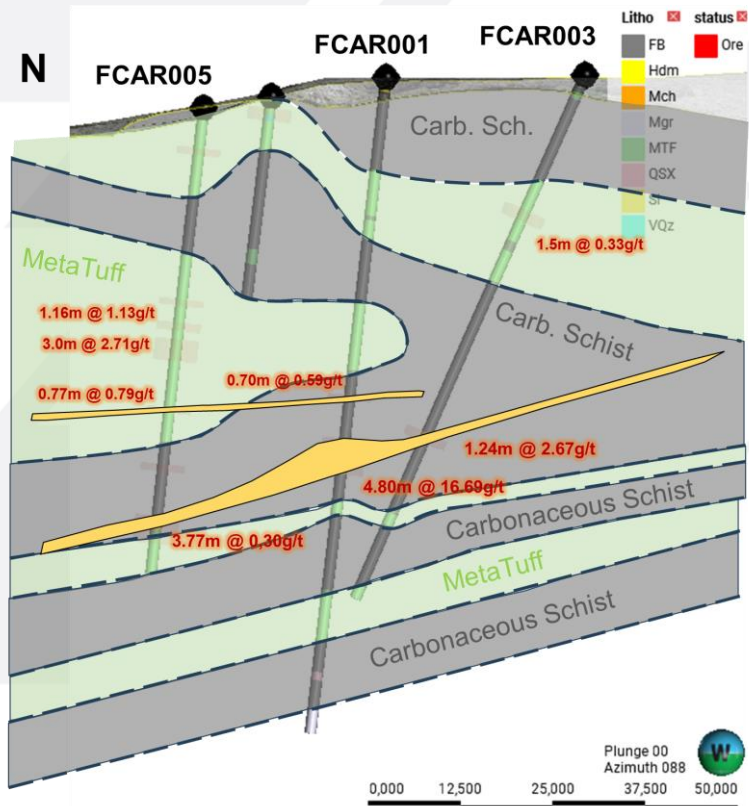


Canga Serra da Moeda: 17 - 22Ma

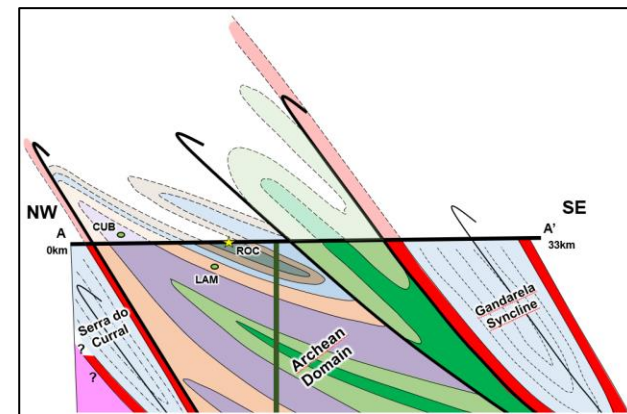
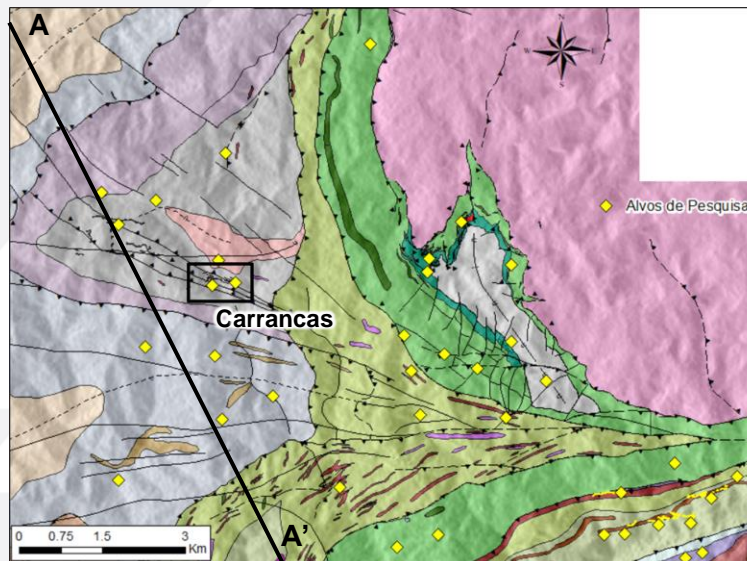
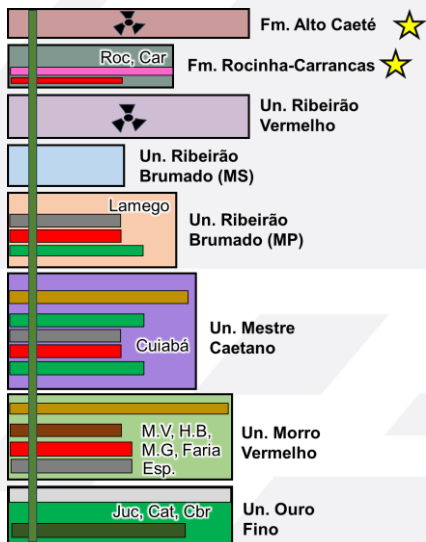
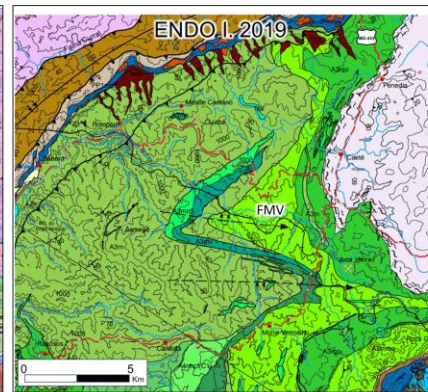
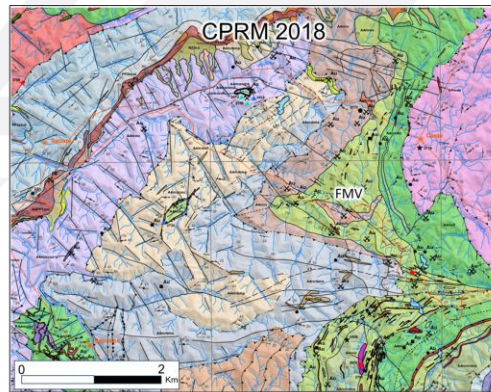
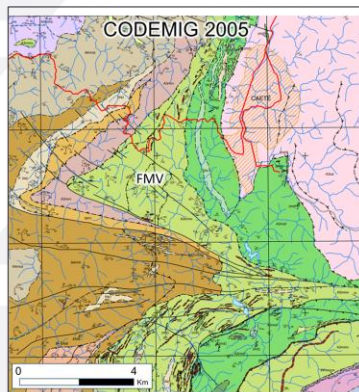
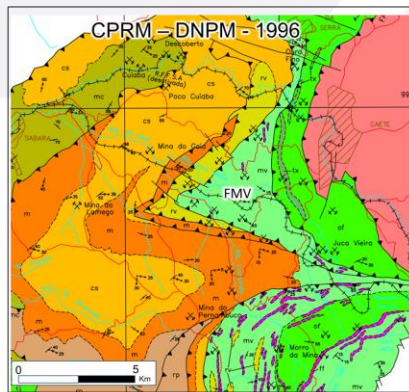
Canga Serra do Gandarela: 30 - 40Ma



Consequences of M.E Study



Consequences of M.E Study



Main Exploration Challenges in the QF

- Why invest in M.E, DDH spatial orientation?

- **TECTONIC**

Superposition of 3 tectonic events: **Structure**

(Variable)
(NE-SW, NW Vergence)
(N-S, W Vergence)

x

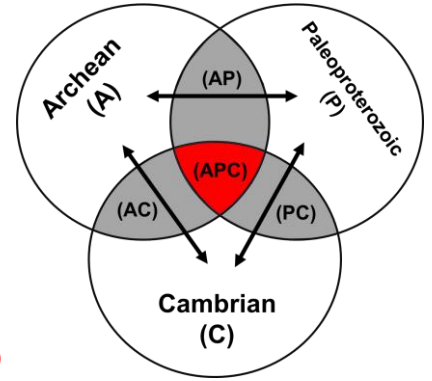
Fluids

(Au - As - W)
(Au Scavenging - Sb & Bi)
(Au - Pd - Mn)

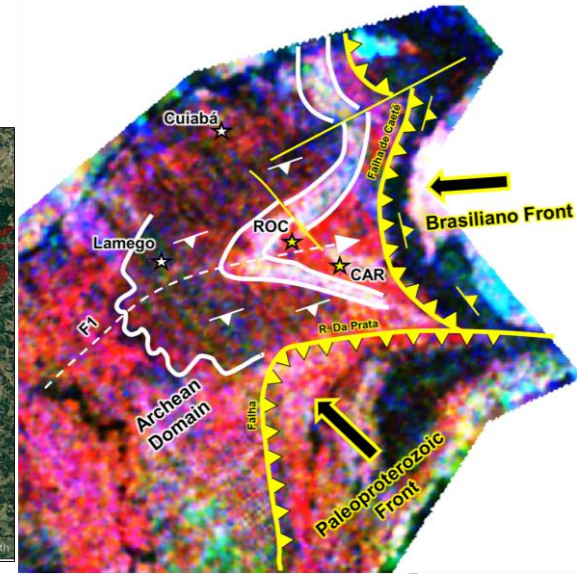
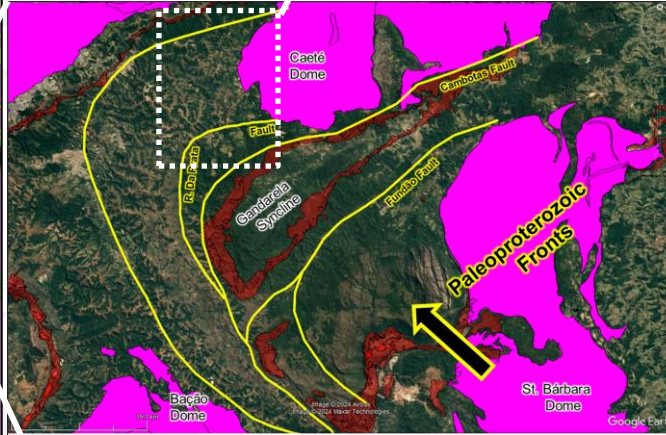
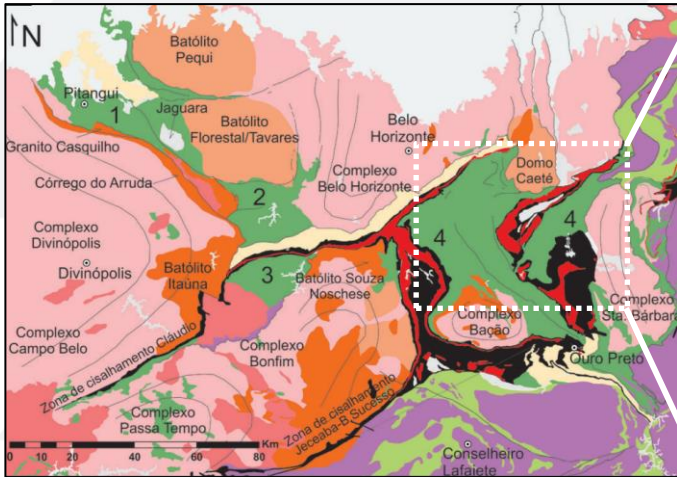
x

AGE

(Archean~2.6Ga)
(Paleoproterozoic~2.0Ga)
(Cambrian~500Ma)



STRUCTURAL ANALYSIS IS NECESSARY!!



Case study: Faina Structure & Fluid



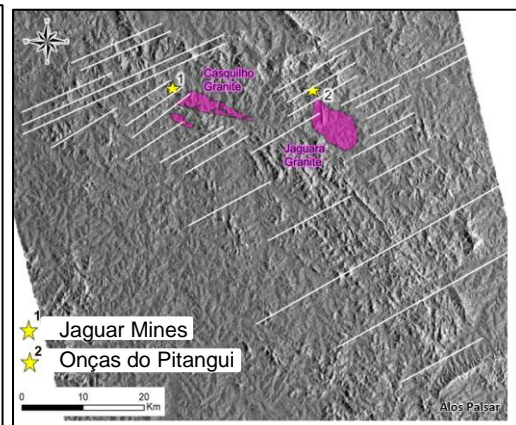
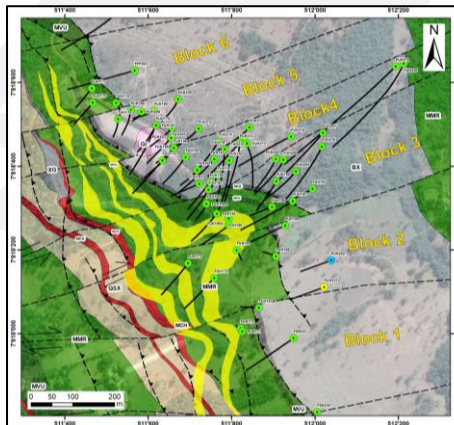
V SIMPÓSIO BRASILEIRO DE METALOGENIA

Academia e Indústria Mineral: Parceria para o Desenvolvimento da Sociedade

01 a 04 de outubro 2023 Gramado - RS

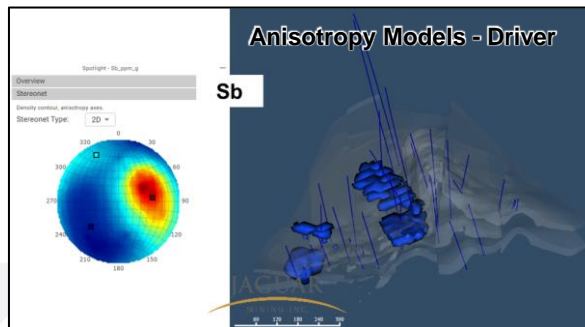
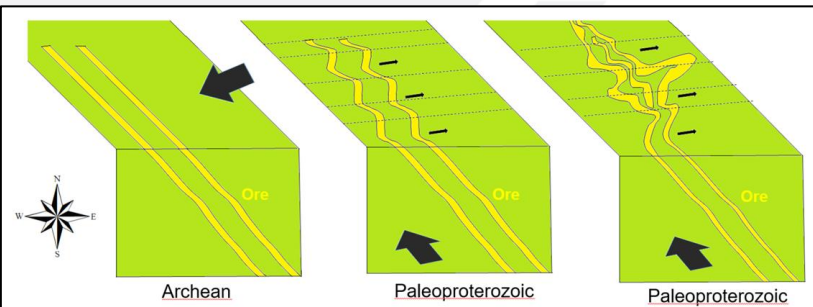
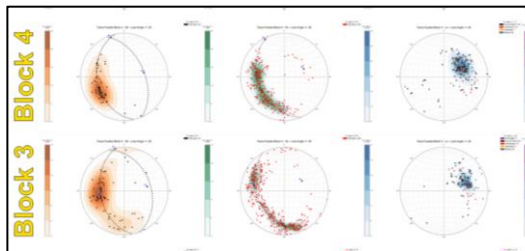
REMOBILIZAÇÃO E RECONCENTRAÇÃO AURÍFERA ASSOCIADA À TECTÔNICA PALEOPROTEROZOICA: ESTUDO DE CASO DO DEPÓSITO DE FAINA, GREENSTONE BELT PITANGUI, MINAS GERAIS.

GOLD REMOVALIZATION AND RECONCENTRATION ASSOCIATED WITH PALEOPROTEROZOIC TECTONICS: CASE STUDY OF THE FAINA DEPOSIT, GREENSTONE BELT PITANGUI, MINAS GERAIS.

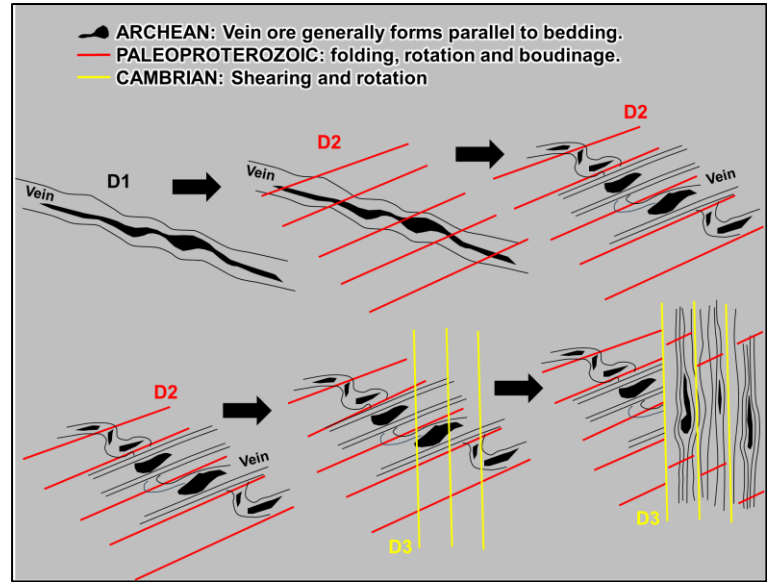
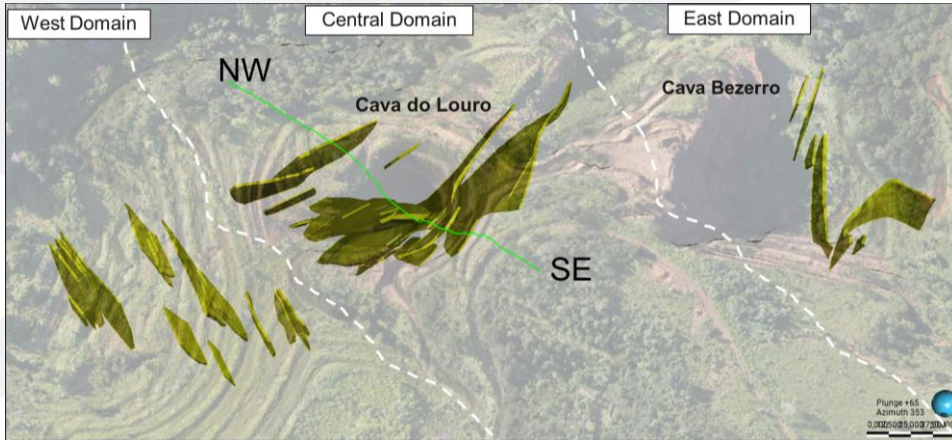
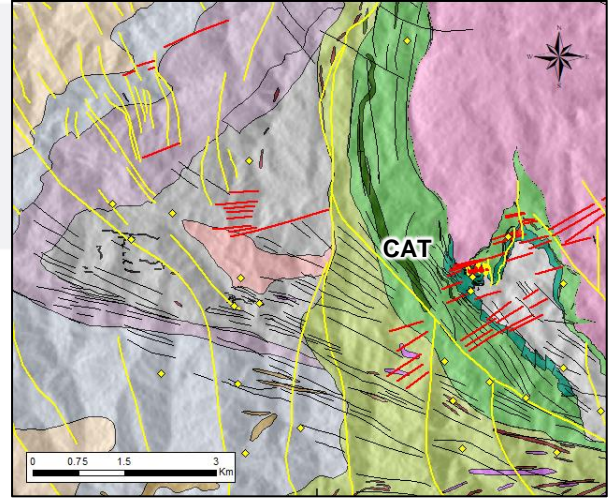


- Tectonic: NE-SW Regional Lineaments
- Stratigraphic: Fazenda Tapera Formation (2.1 Ga)
- Structural: Rotation of Previous Structures Around the New Axis
- Economic: New Fluid - Sb-Bi - Au Scavenging / Potassic Alteration
- Geochronological: Paleoproterozoic Ages Rb/Sr – Sm/Nd – Pb/Pb – Re/Os

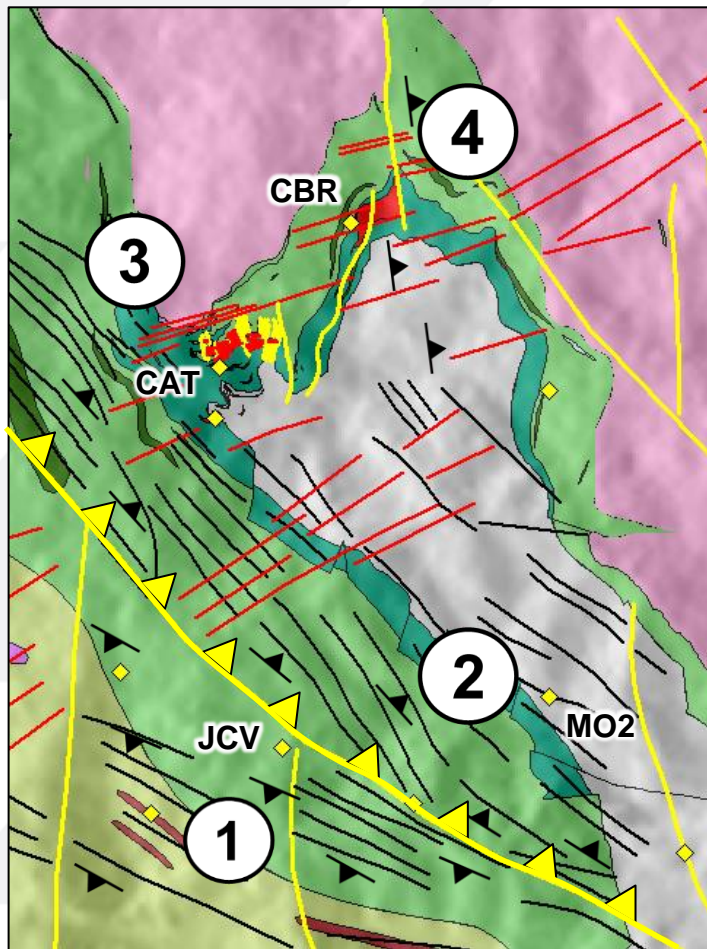
Evidences



Case study: Catita Structure



Case study:RG Structure



Lineaments

- D1 - Archean
- D2 - Paleoproterozoic
- D3 - Brazilian

Domains

1 Juca Vieira

Archean – Qtz Veins with Sulfides and VG, Silicification Zones, Mafic Host Rock.
Simple Structure – S1 NW-SE – DIP: 50°-70° **SW** – Shear Zone and Plunging ore.

2 Moita

Archean – Qtz Veins with Sulfides (?), Silicification Zones. Mafic Host Rock.

Simple Structure – S1 NW-SE – DIP: 30°-50° **NE** – Shear Zone and Plunging ore.

3 Catita

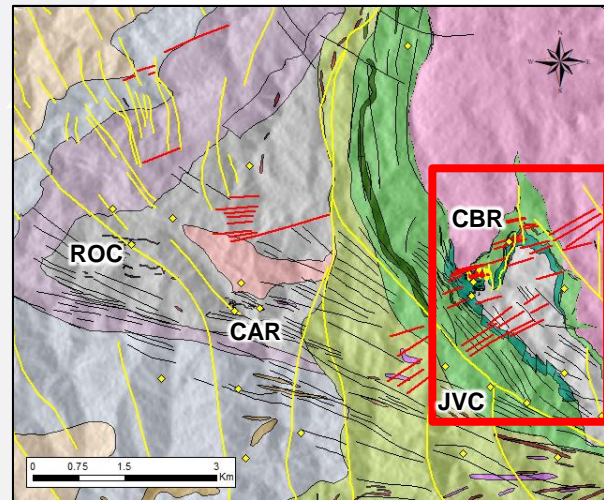
Archean, Paleoproterozoic, Brazilian – Qtz Veins with Sulfides, Mafic Host Rock

Complex Structure – Archean vein ore deformed by more 2 tectônicos events.

4 Cor. Brandão

Archean, Paleoproterozoic, Brazilian – Iron carbonate silica fluid in shear zone - Mafic Host Rock

Ore in late shear zone (DIP: 70°-90°) within a folded structure (Brazilian ?)





SimeXmin
XI SIMPÓSIO BRASILEIRO
DE EXPLORAÇÃO MINERAL

**XI BRAZILIAN SYMPOSIUM
ON MINERAL EXPLORATION**

Obrigado!