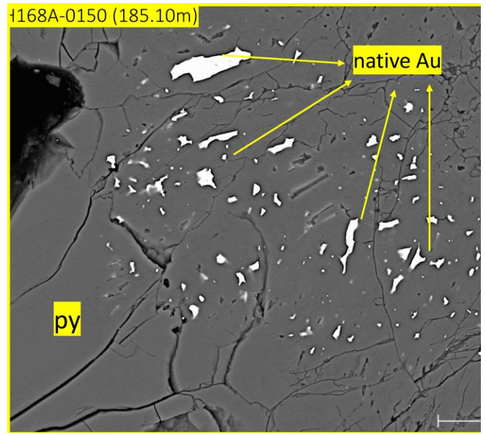


JAGUAR MINING INC.
PDAC EXPLORATION BREAKFAST

Schedule

1 Vernon Baker: Introduction

2 Jon Hill: Jaguar Exploration – FE-Quad / Jaguars Areas / Operations / Projects / Portfolio / MRMR - LOM / Strategy and Targets

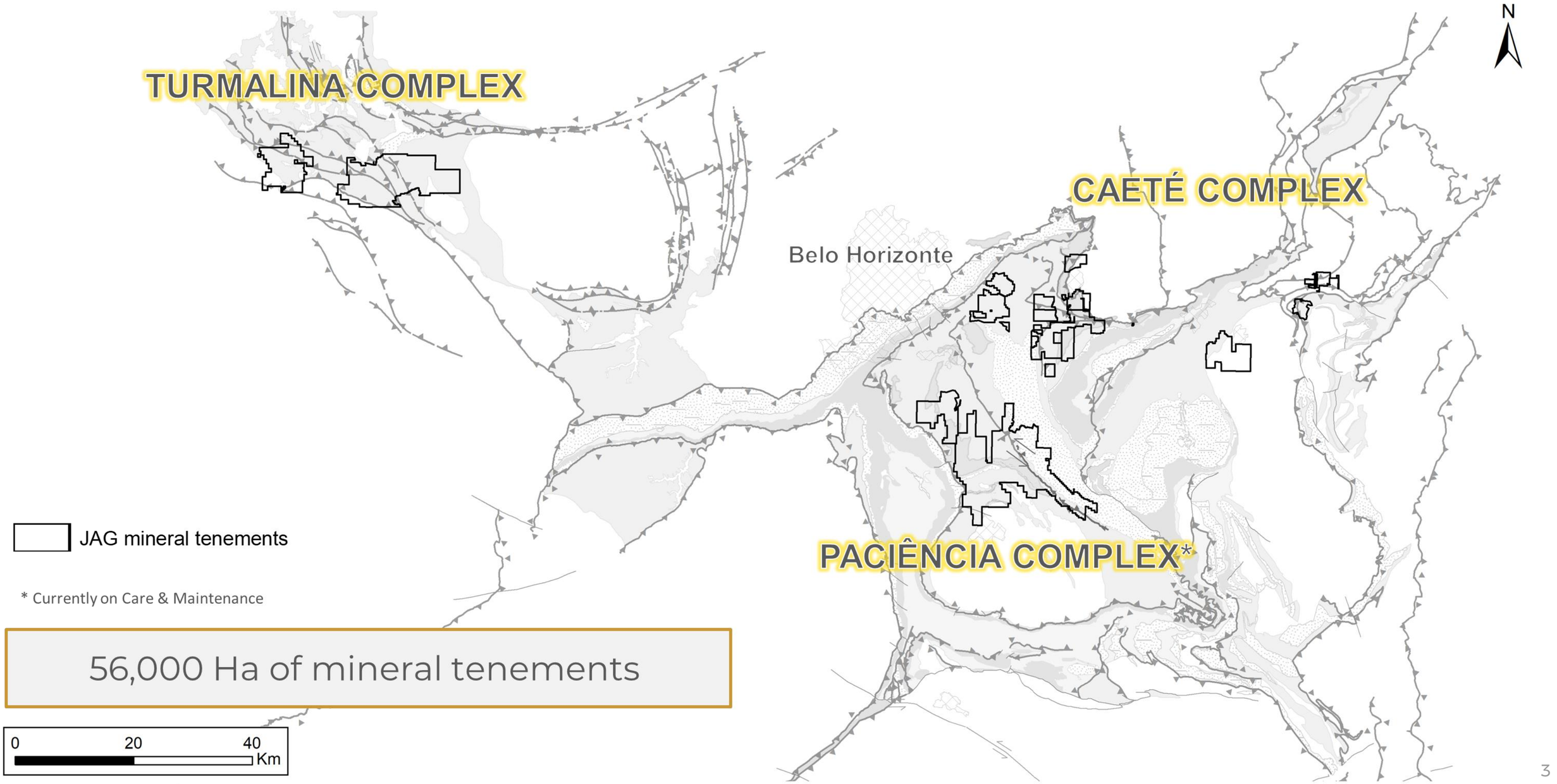
3 William Medina Leite Feres: Pilar with focus on BA

4 Gabriel Faria Gonçalves: Faina / MTL / Pontal

5 Leandro Rocha de Oliveira: Pitangui / CPA (Including Acurui)

6 Jon Hill: RG / Catita / CB / Carrancas / Wrap-up

LOCATION OF JAGUAR'S OPERATIONS AND TENEMENTS



MRMR – 2024 UPDATE

MINERAL RESERVES AND MINERAL RESOURCES (as at Dec. 31, 2023)

	PROJECT	TONNAGE Kt	AU GRADE g/t	CONTAINED AU Koz
P&P	Pilar	1,906	3.17	194
	Turmalina	1,323	3.38	144
	Faina	787	5.22	132
	Total	**4,015**	**3.64**	**470**
M&I*	Pilar	3,260	3.93	413
	Roça Grande	962	3.9	121
	Turmalina	3,295	4.08	432
	Faina	1,427	5.08	233
	Pontal	266	3.44	29
	Pitangui Project	3,423	4.07	448
	Total	**12,633**	**4.12**	**1,676**
INF	Pilar	2,771	3.87	343
	Roça Grande and C. Brandão	1,961	2.66	168
	Turmalina	1,271	3.26	133
	Faina	1,420	5.09	232
	Pontal, Pontal South and Zona Basal	1,609	2.65	137
	Pitangui Project	3,343	3.53	379
	Paciência	1,799	4.06	235
	Total	**14,175**	**3,58**	**1,628**

* M&I Resources are inclusive of 2P Reserves

MRMR HIGHLIGHTS

Consolidated Proven and Probable Mineral Reserves (2P) show net increase of 4% to 470 koz, (4,015 kt @ 3.64 g/t Au).

- **Faina Probable Mineral Reserves** added 132 koz (787 kt @ 5.22 g/t Au) to 2P Mineral Reserves inventory.

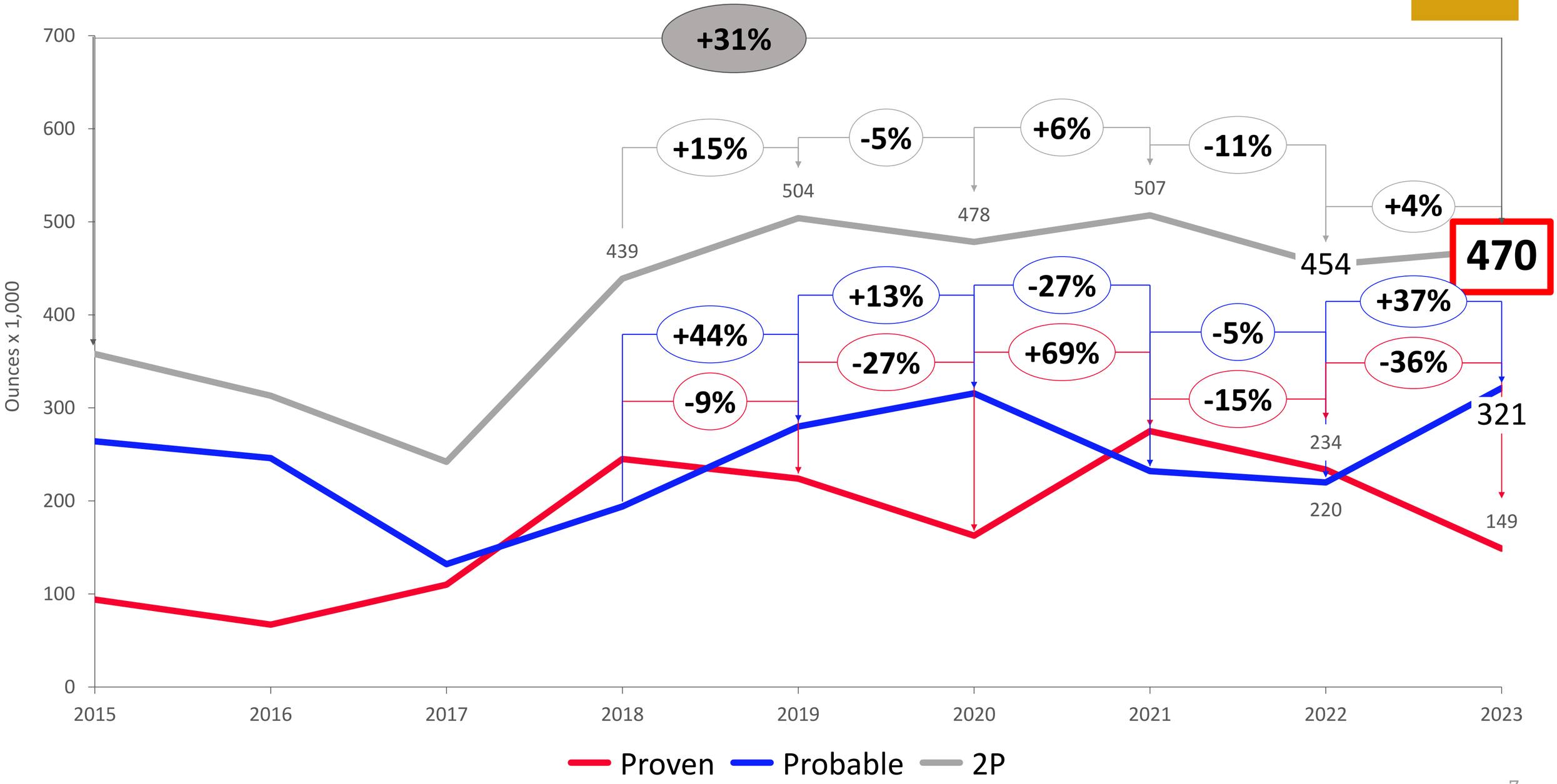
Consolidated Measured and Indicated Mineral Resources increased by 27% to 1,676 koz, (12,633 kt @ 4.12 g/t Au).

- **Onças de Pitangui Indicated Mineral Resources** added 448 koz, (3,423 kt @ 4.07 g/t Au).

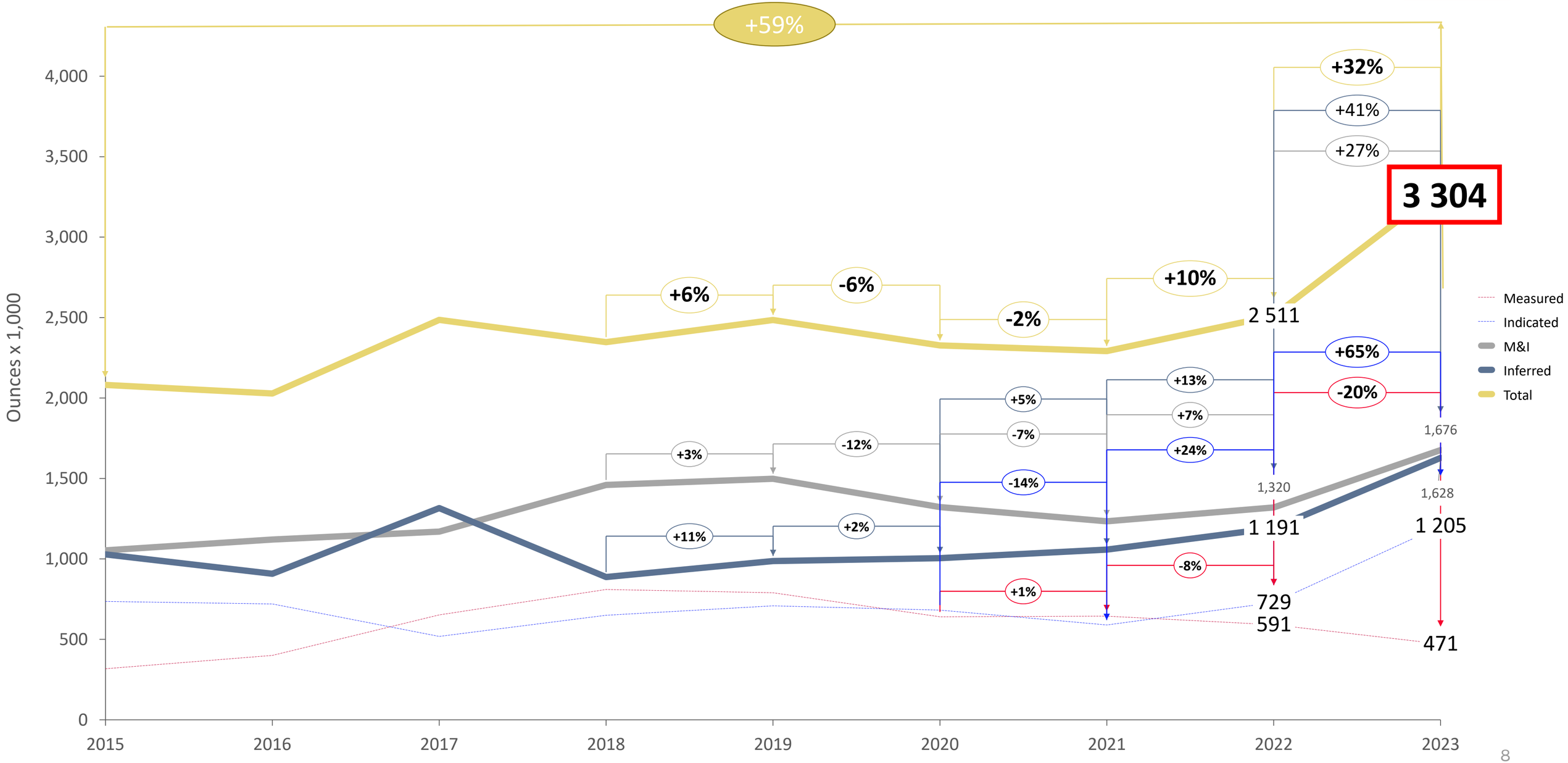
Consolidated Inferred Mineral Resources increased by 41% to 1,628 koz, (14,175 kt @ 3.58 g/t Au).

- **Onças de Pitangui Inferred Mineral Resources** added 379 koz, (3,343 kt @ 3.53 g/t Au) to the Company's inventory.

JAGUAR 2P RESERVES 2015 TO 2023

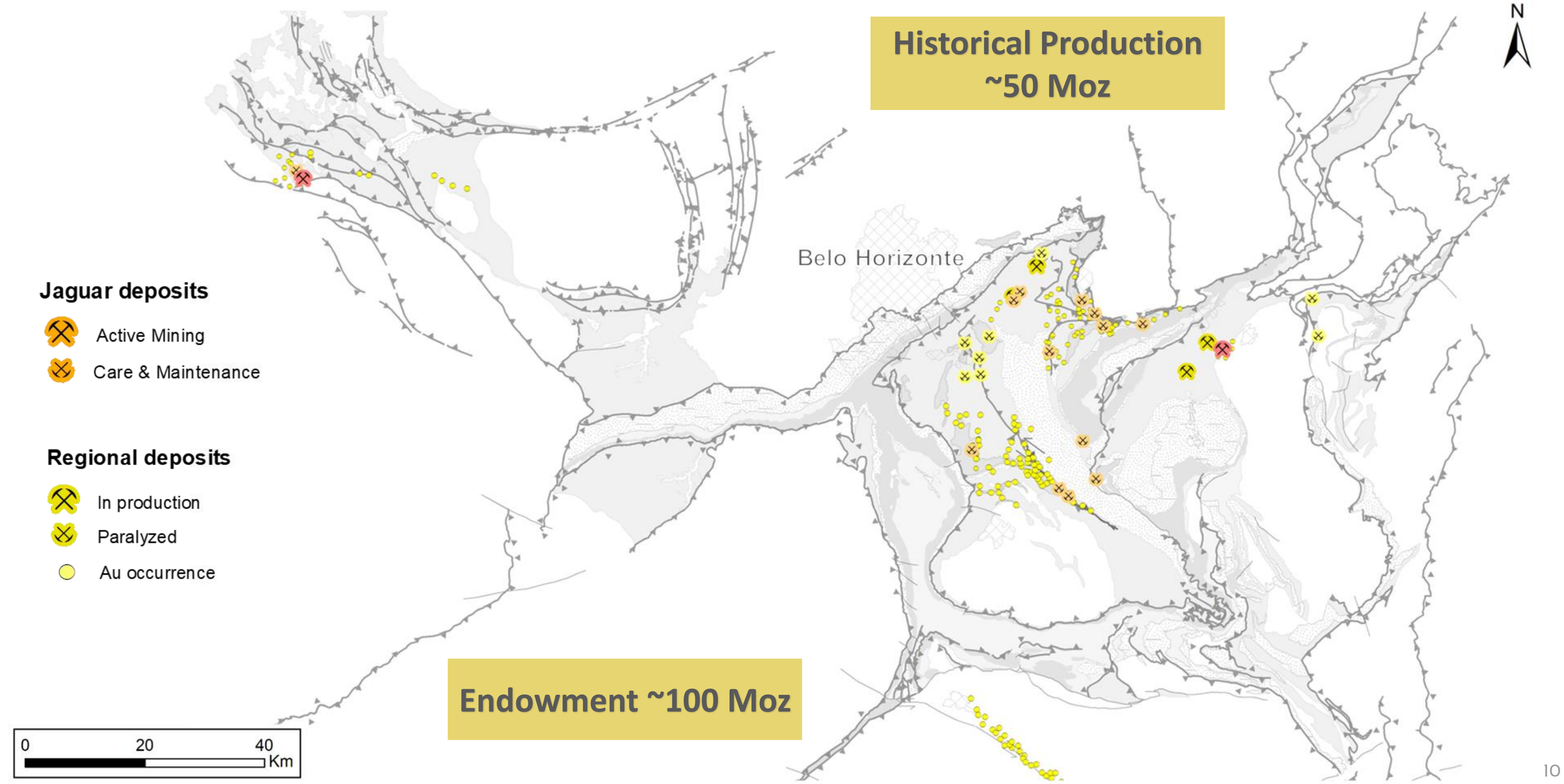


JAGUAR RESOURCES GROWTH 2015 TO 2023

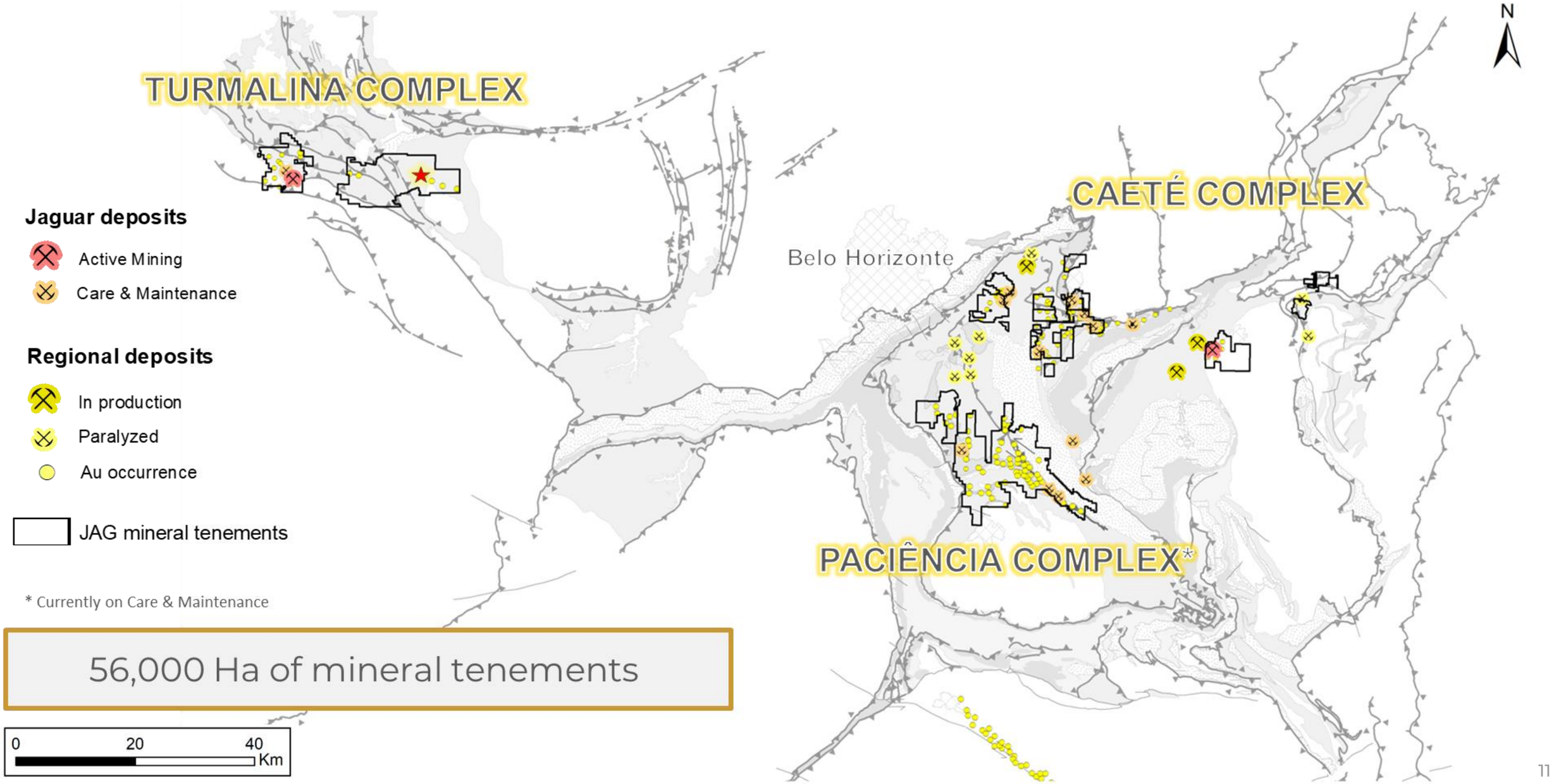


ADDITIONAL GROWTH OPPORTUNITIES

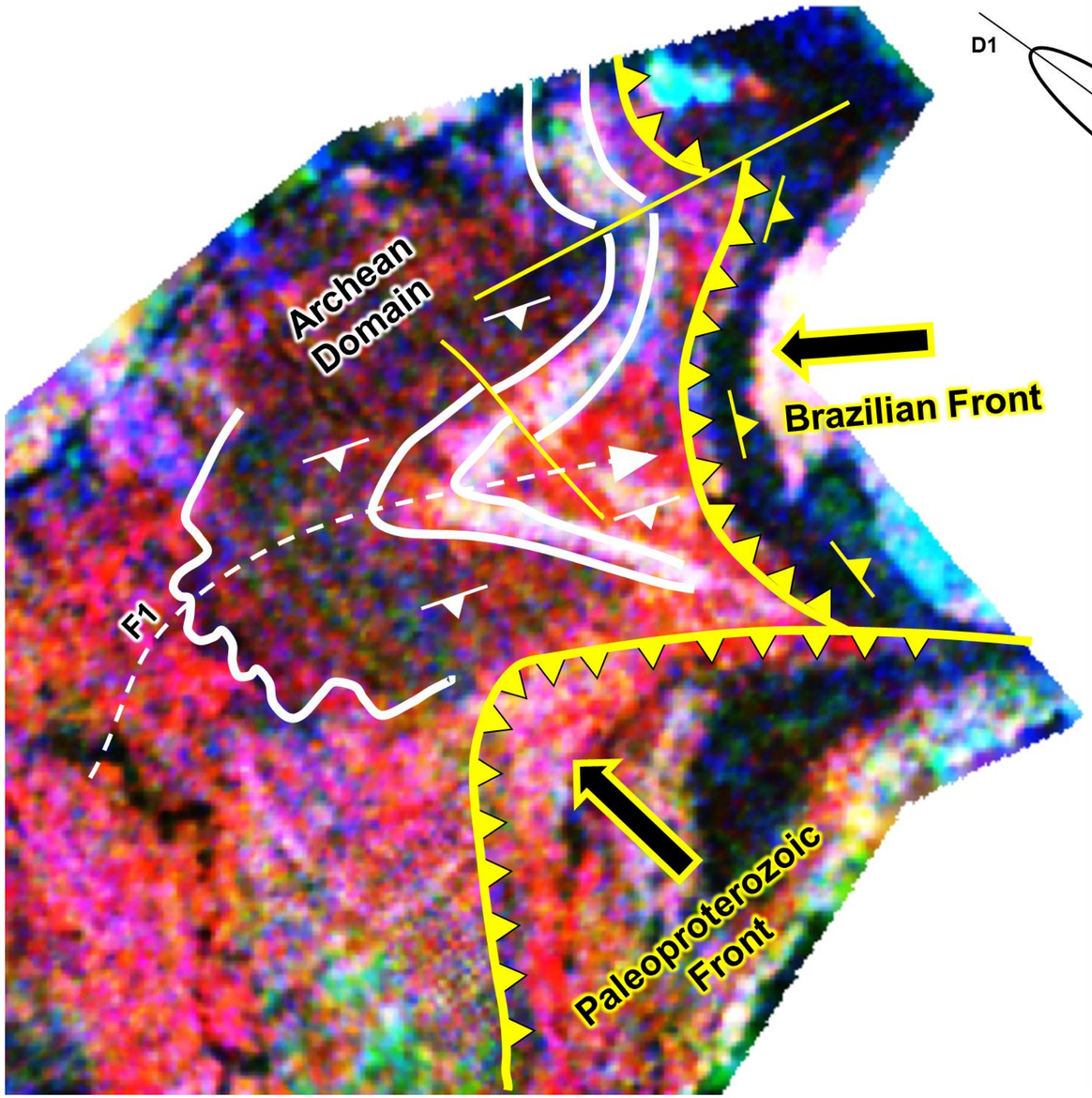
GROWTH OPPORTUNITIES – IRON QUADRANGLE

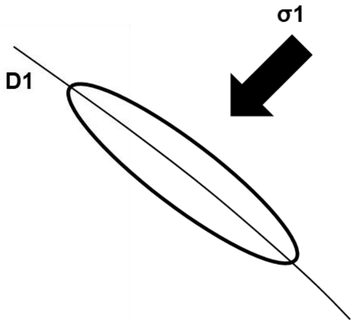


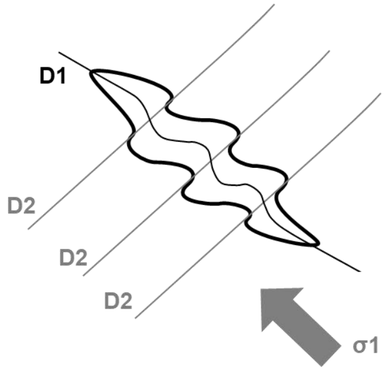
ADDITIONAL GROWTH OPPORTUNITIES

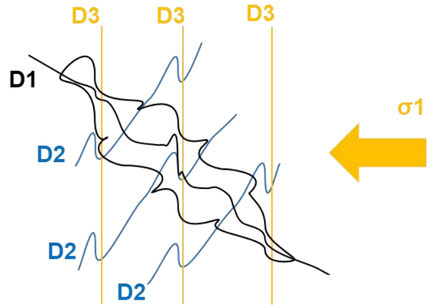


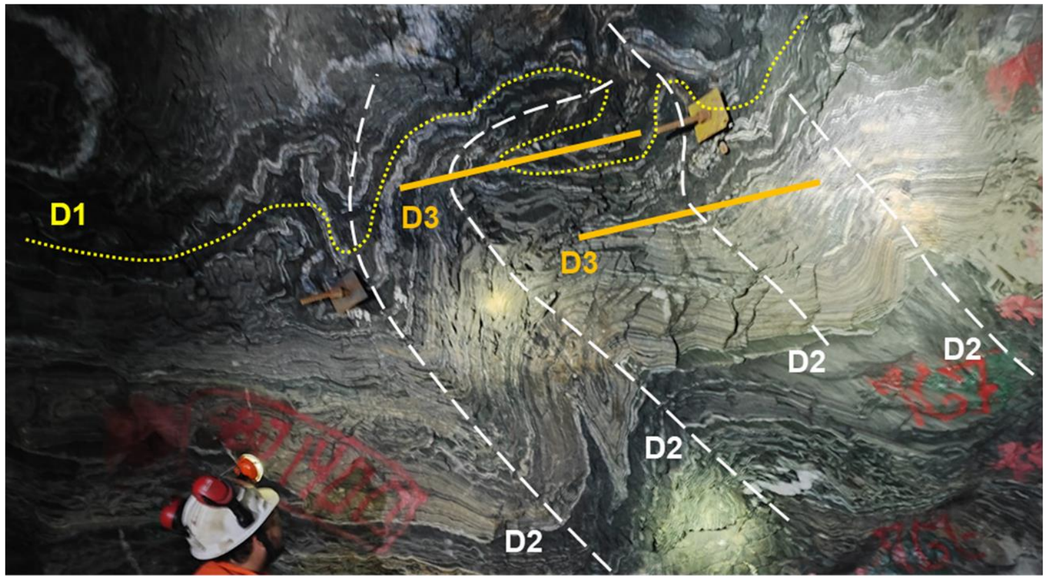
MULTIPHASE DEFORMATION = COMPLEX MINERALIZATION GEOMETRIES



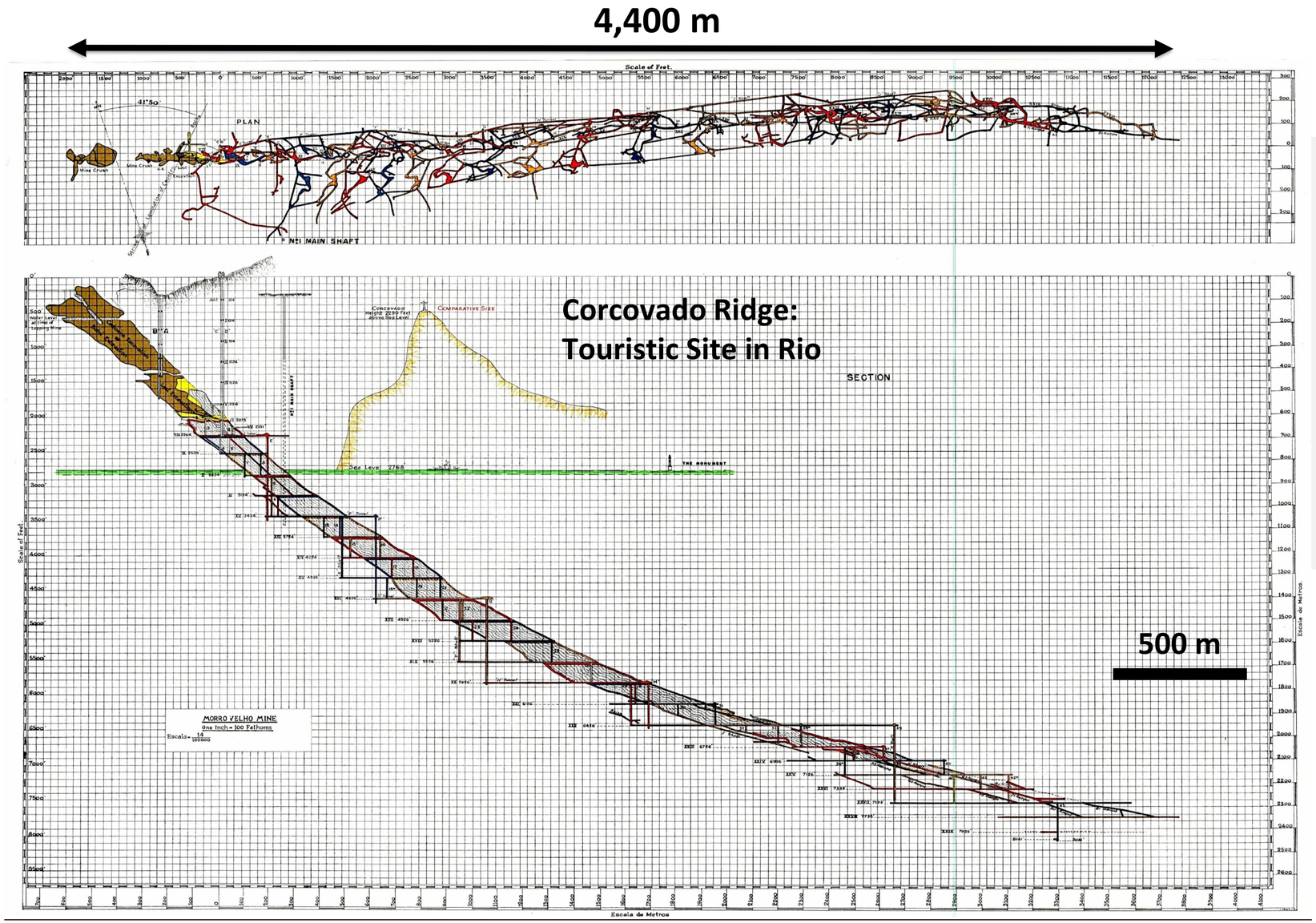








TARGETING HIGH-GRADE PLUNGE PERSISTENT MINERALIZATION

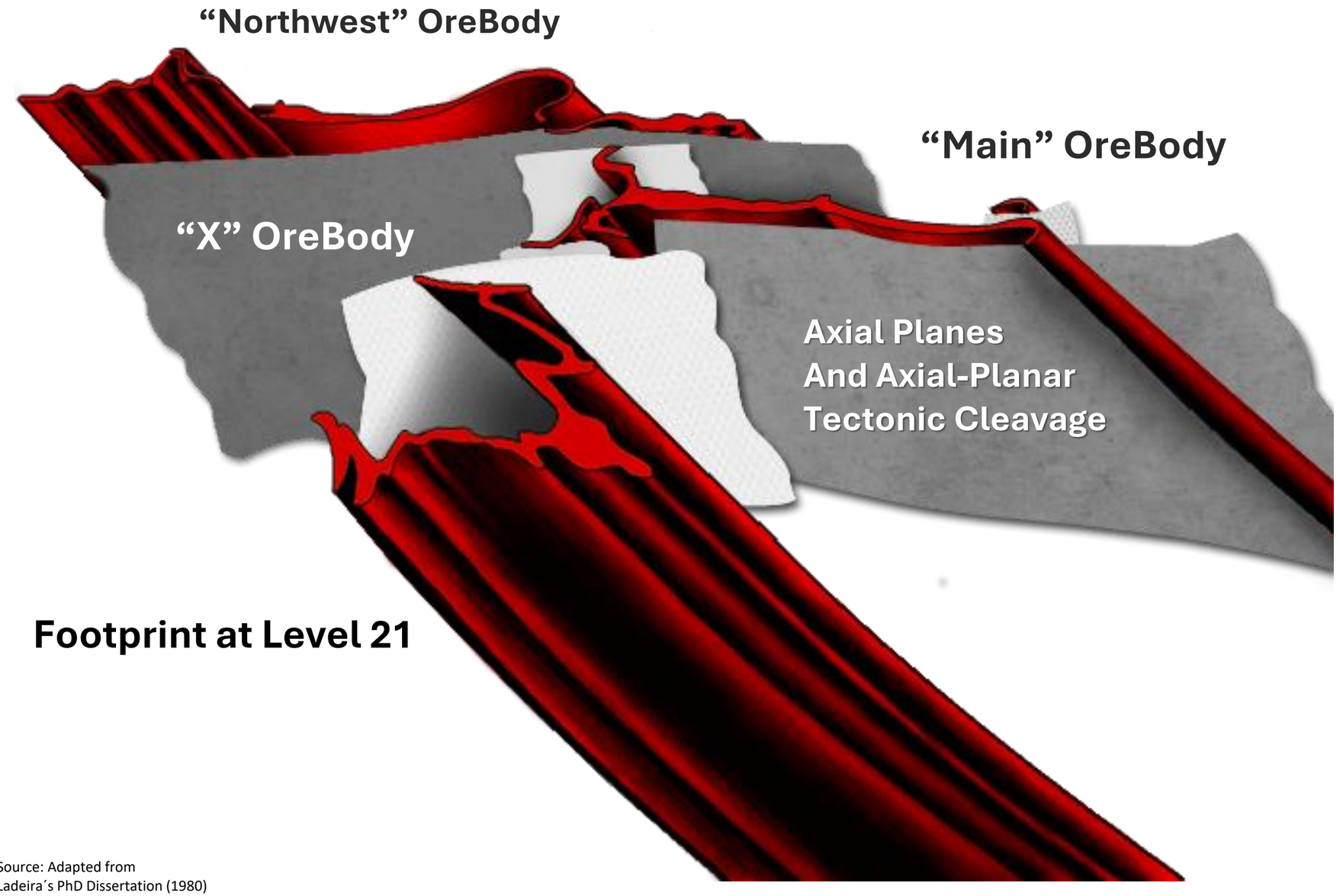


Longitudinal schematic section

The **Morro Velho Gold Mine**; showing shafts, drifts, the 29 operational levels, and the flattening of the plunge of the orebodies with depth.

HOLLOWOOD, B., 1955. The Story of Morro Velho (The Saint John d'El Rey Mining Company Limited). London, Private Circulation, Samson Clark & Co Ltd., 88 p.

TARGETING HIGH-GRADE PLUNGE PERSISTENT MINERALIZATION



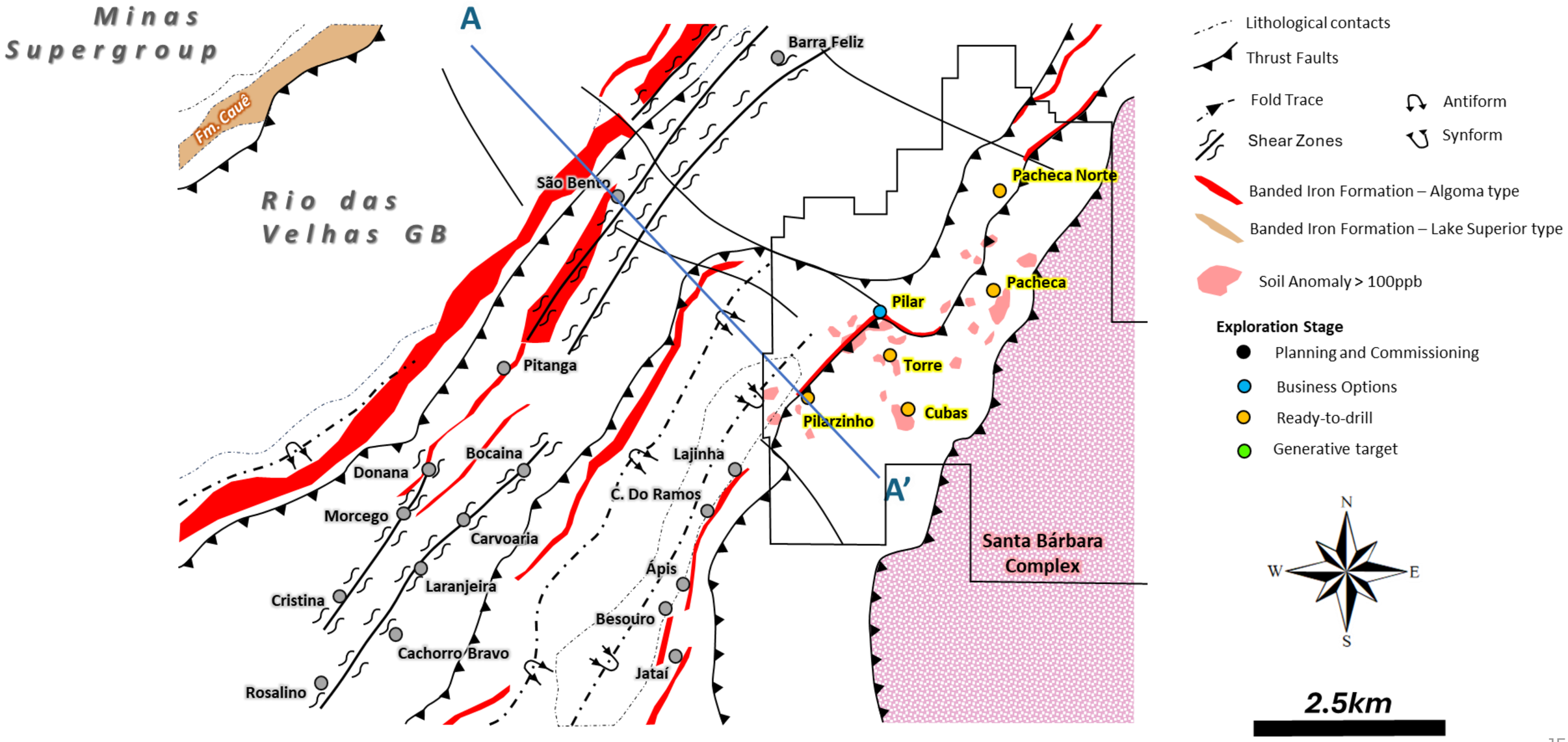
The “Plunge”, or the down-plunge continuities of the ore zones at the Morro Velho deposit

Orezones (at the hinges **and at the limbs**) have their continuities in depth mimicking the orientation of the fold axes!!

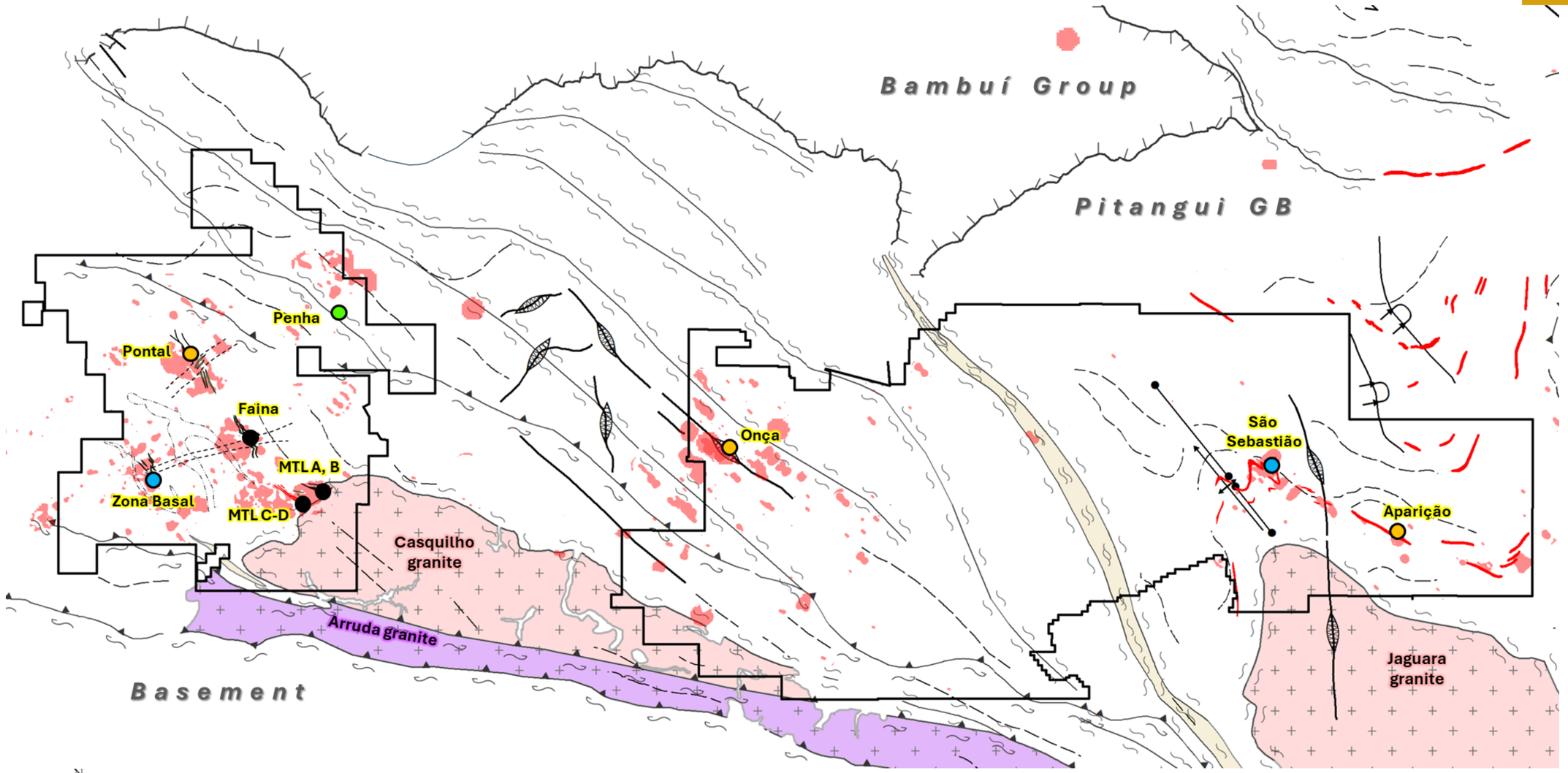
Or the intersection lineation (bedding and axial planar cleavage)!!

Source: Adapted from Ladeira´s PhD Dissertation (1980)

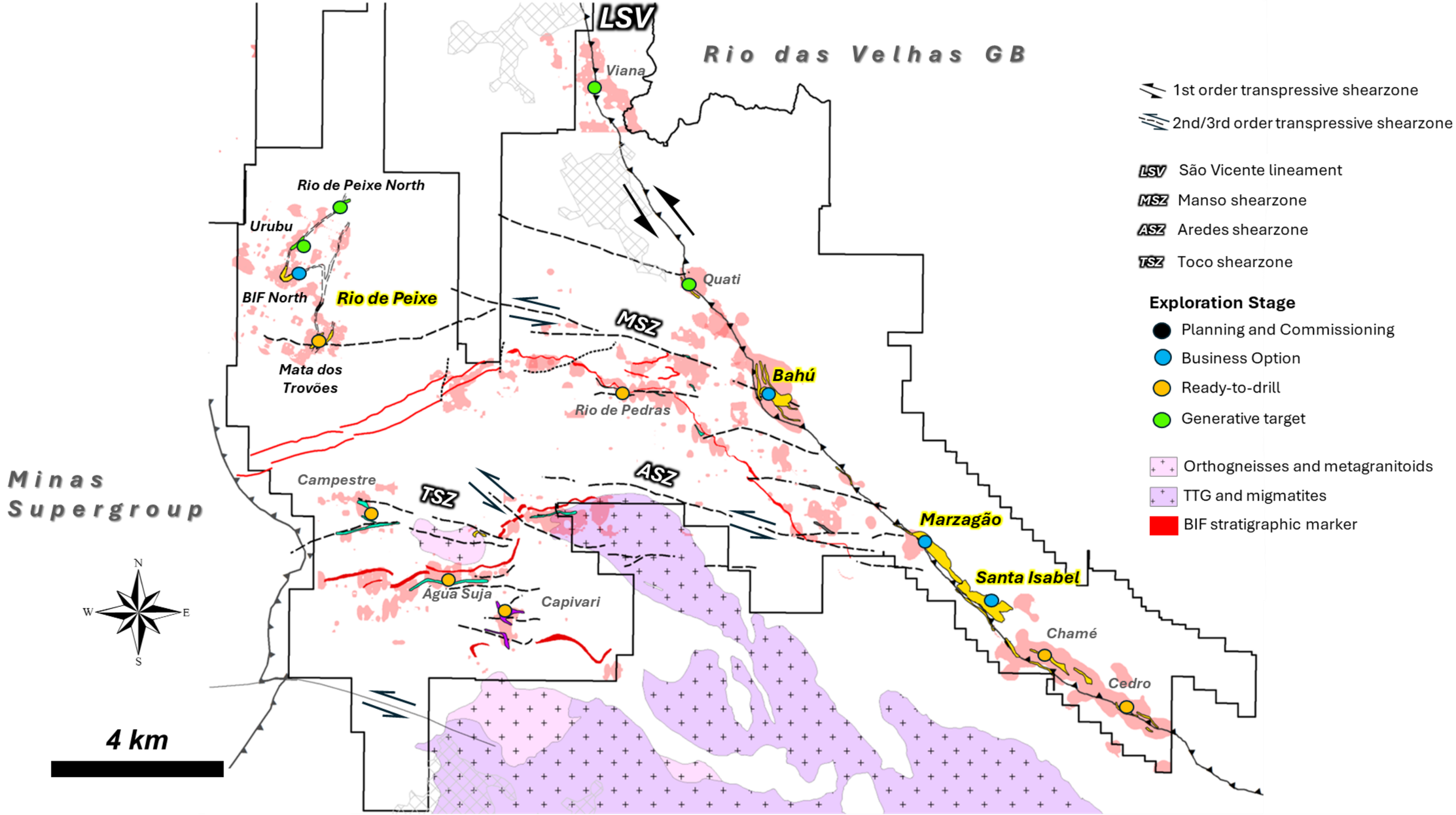
CAETÉ COMPLEX (PILAR AREA)



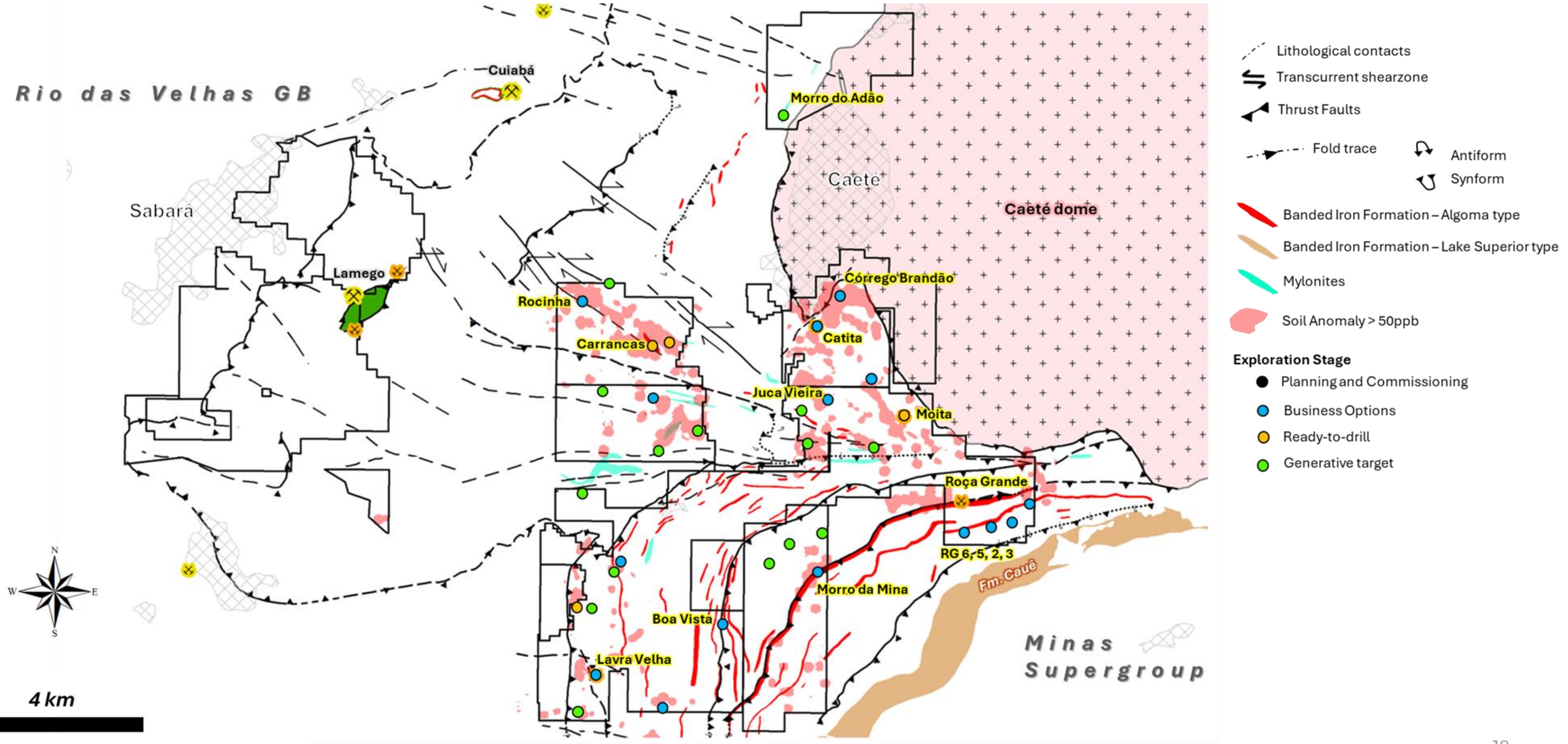
TURMALINA COMPLEX AND ONÇAS DE PITANGUI



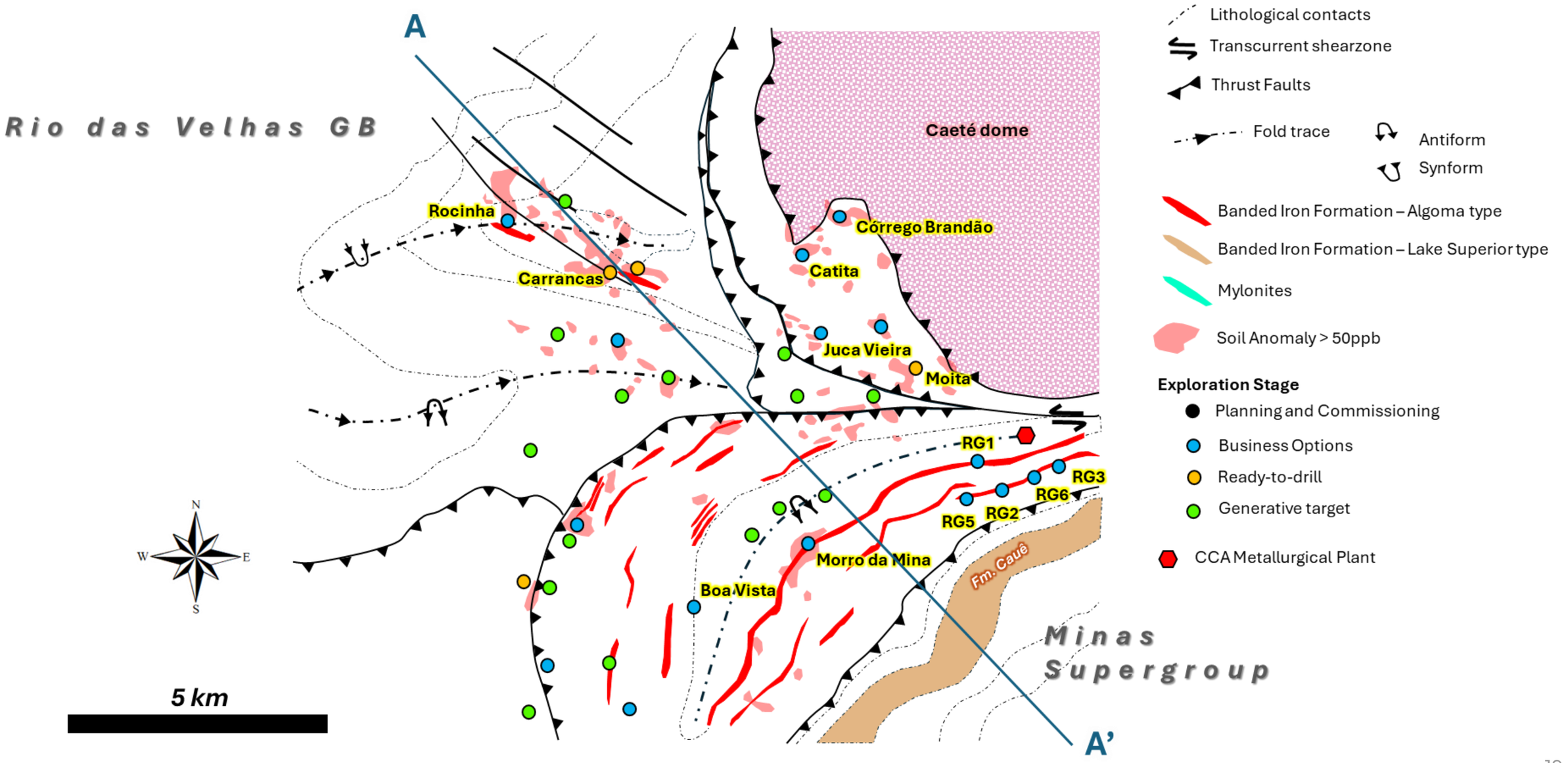
PACIÊNCIA COMPLEX



CAETÉ COMPLEX



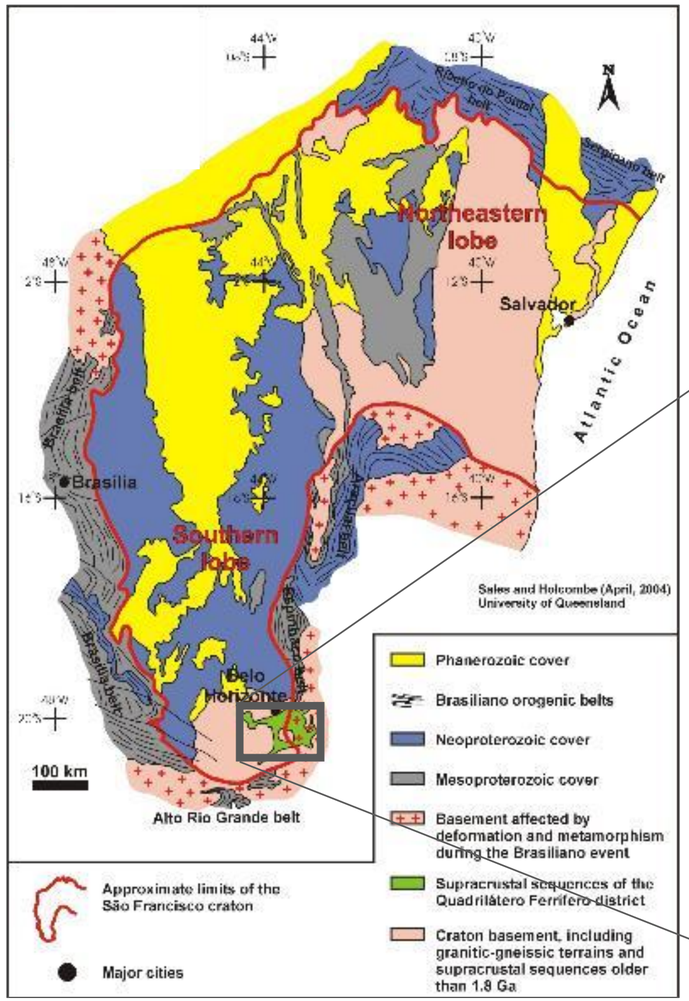
CAETÉ COMPLEX (ROÇA GRANDE AREA)

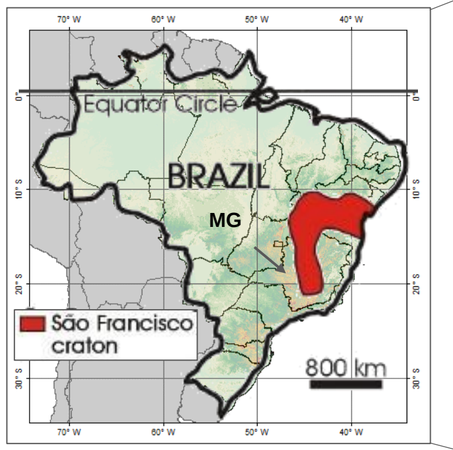


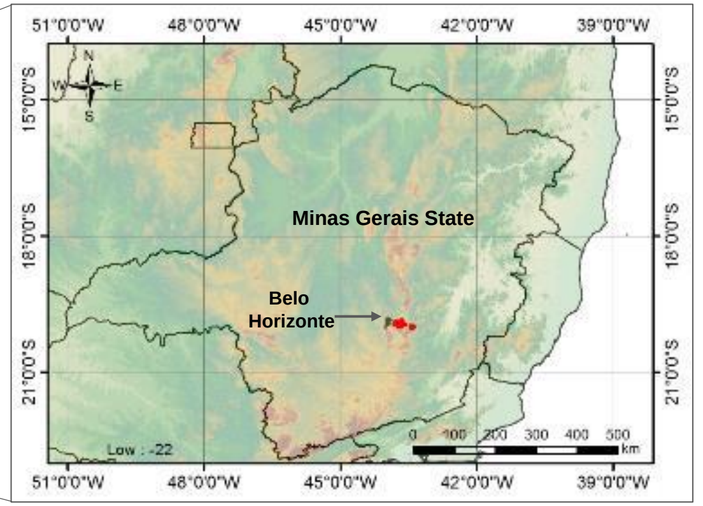
PILAR MINE

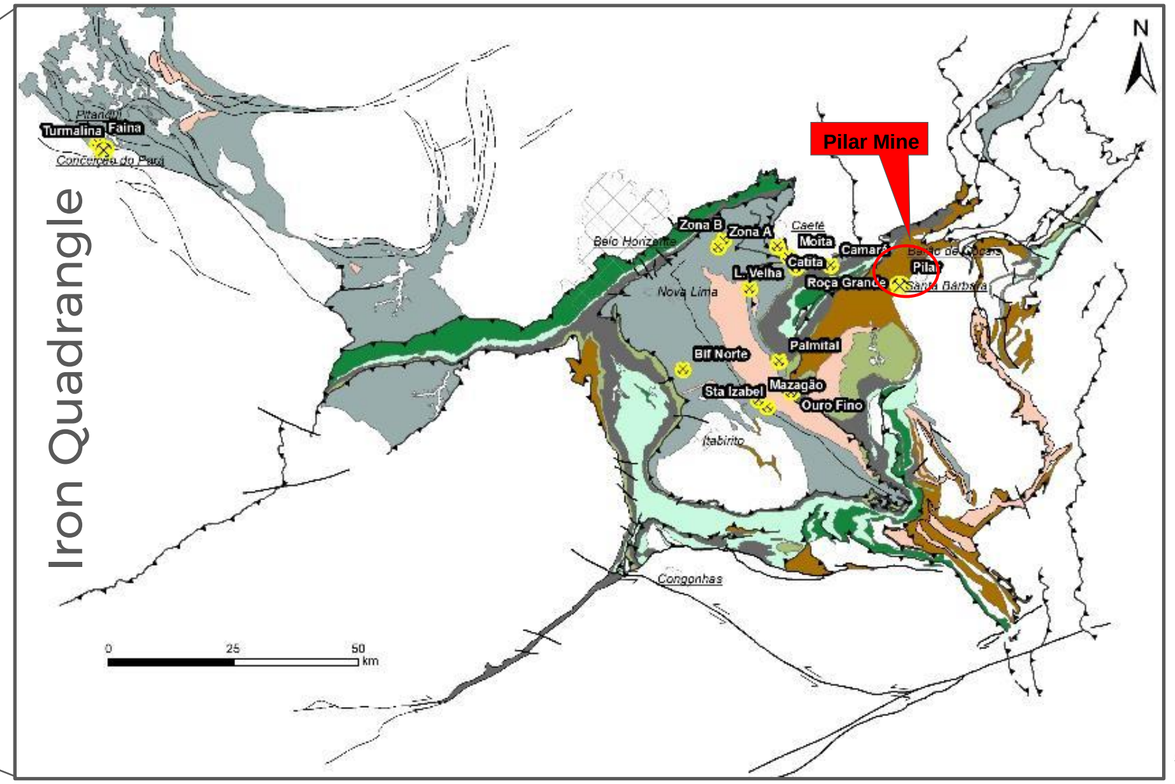
REGIONAL GEOLOGY

São Francisco Cráton



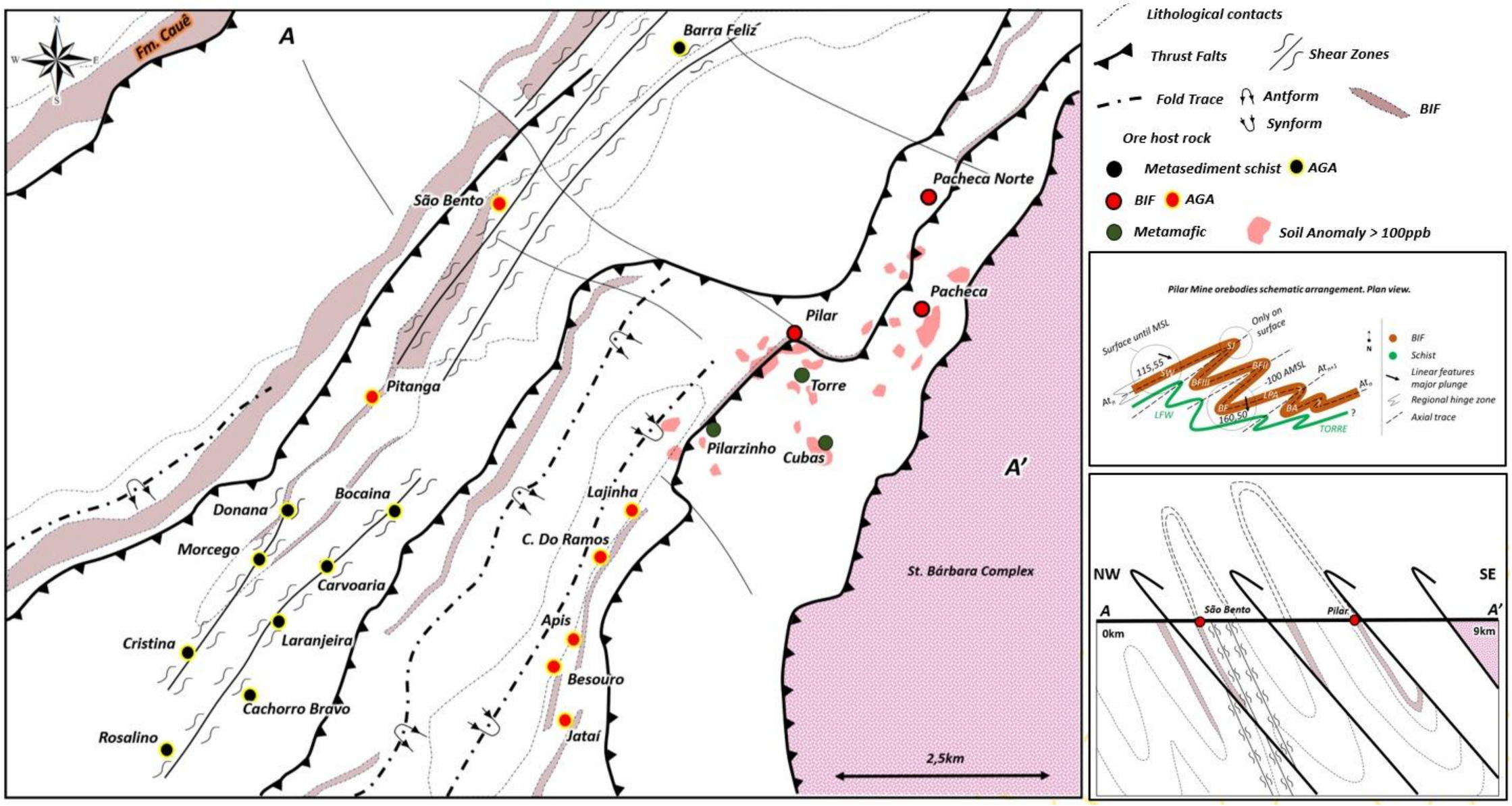






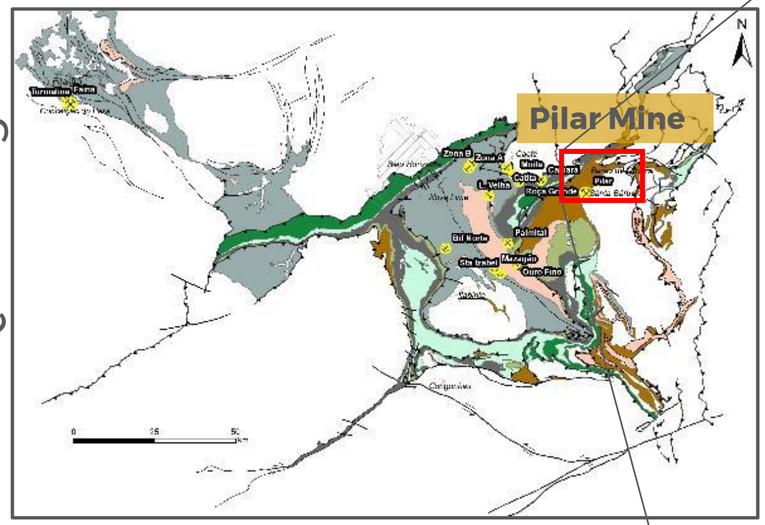
Adapted from CPRM (2019)

LOCAL CONTEXT



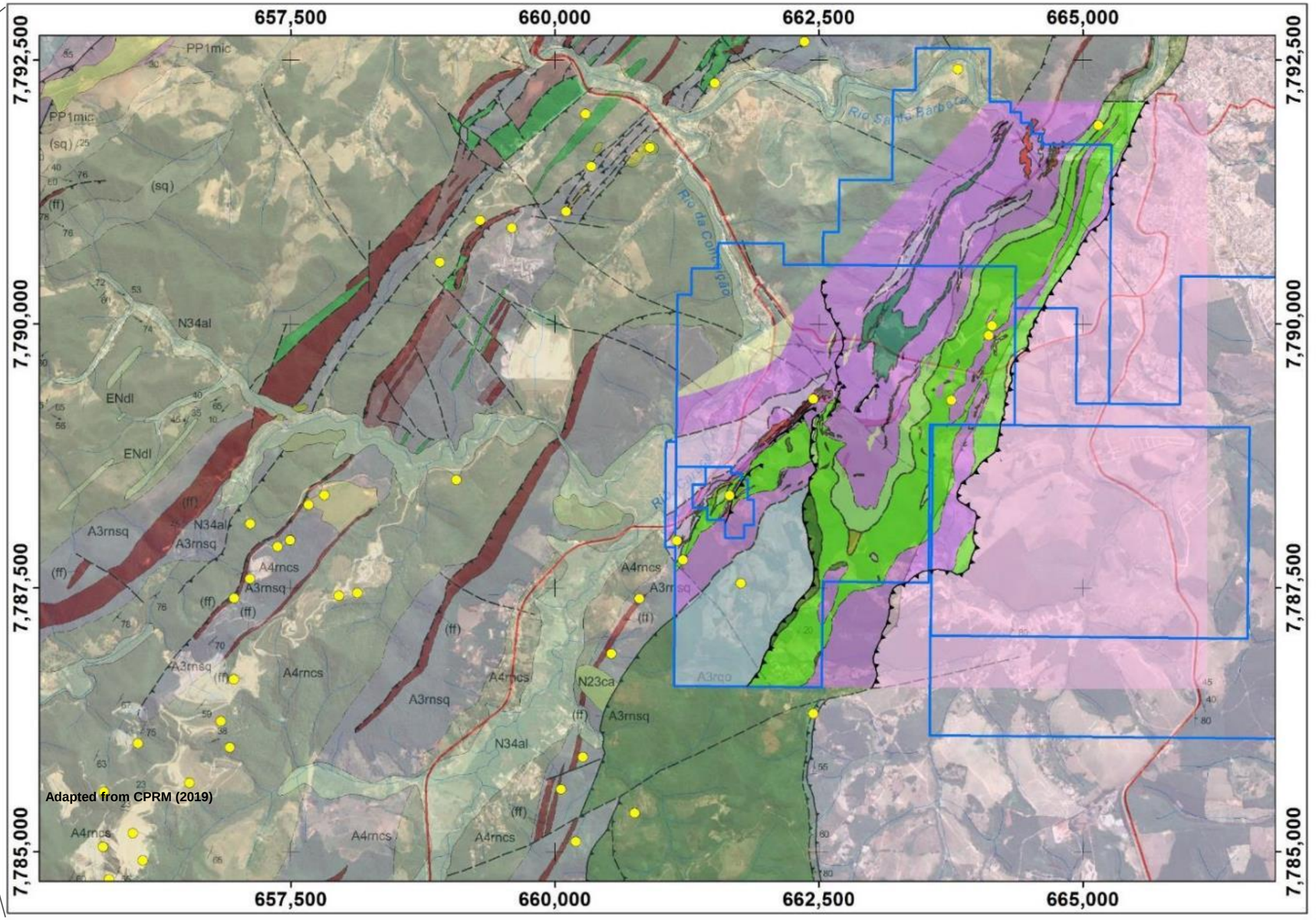
LOCAL CONTEXT

Iron Quadrangle

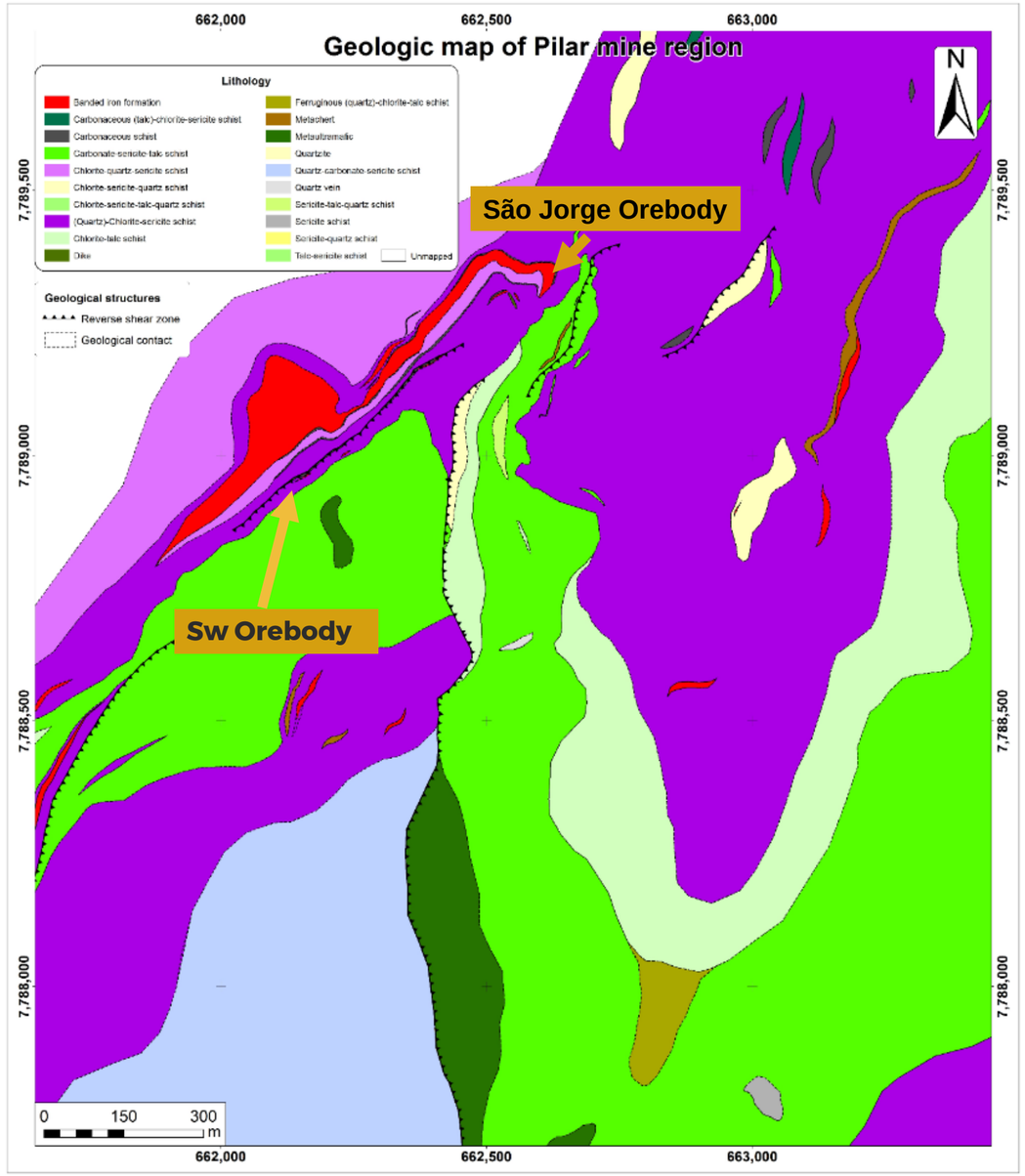


Lithology

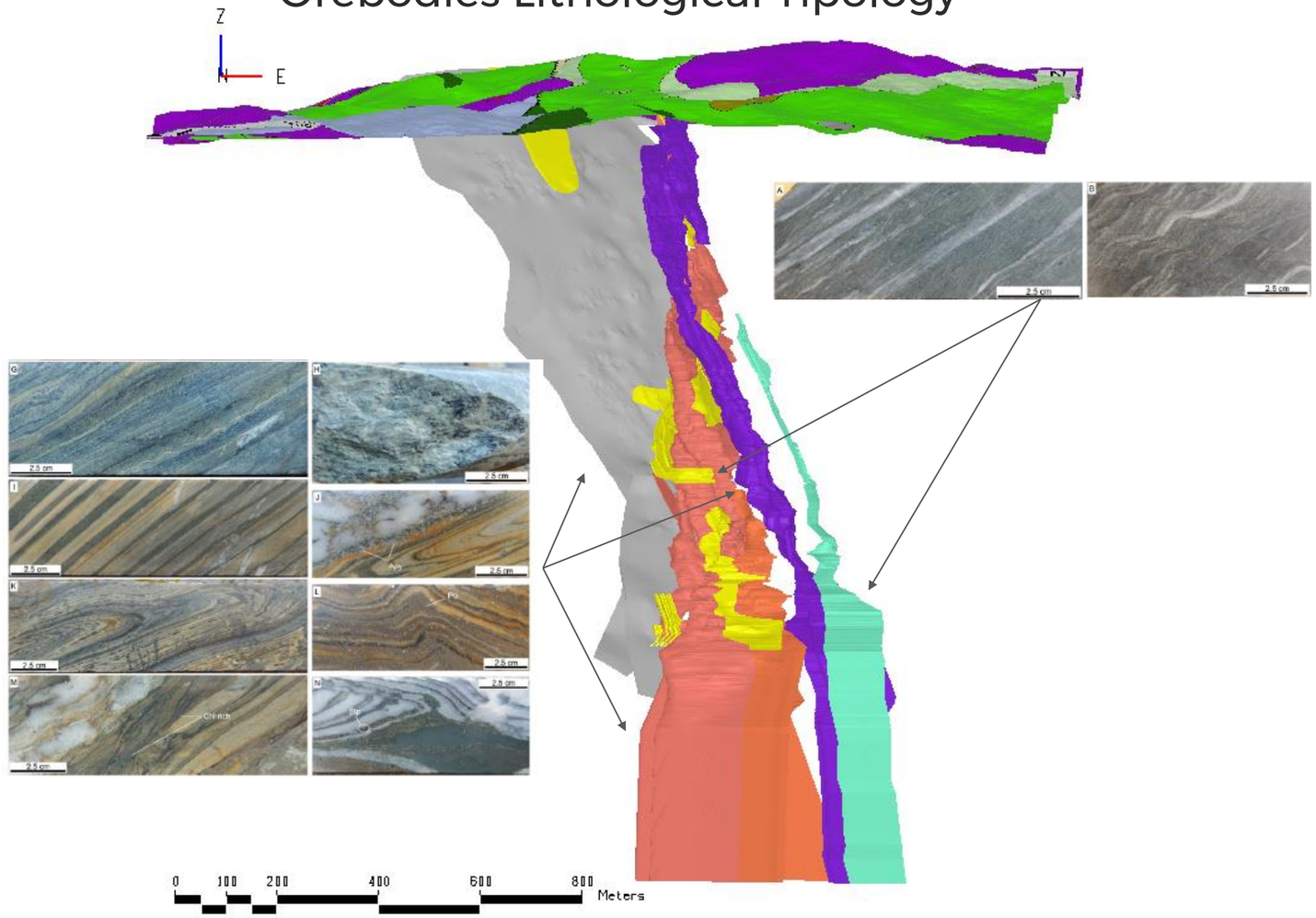
FF	Banded iron formation	(Q)CLTX Fe	Ferruginous (quartz)-chlorite-talc schist
(T)CLSX Cb	Carbonaceous (talc)-chlorite-sericite schist	GN	Gnaisse
XG	Carbonaceous schist	MCH	Metachert
CbSTX	Carbonate-sericite-talc schist	MUM	Metaultramafic
CLSQX	Chlorite-sericite-quartz schist	QCbSX	Quartz-carbonate-sericite schist
(Q)CLSX	(Quartz)-Chlorite-sericite schist	QTZ	Quartzite
CLQSX	Chlorite-quartz-sericite schist	VQZ	Quartz vein
(CL)STQX	(Chlorite)-Sericite-talc-quartz schist	SQX	Sericite-quartz schist
CLTX	Chlorite-talc schist	SX (Ko)	(Kaolinitic) Sericite schist



LOCAL CONTEXT



Orebodies Lithological Tipology



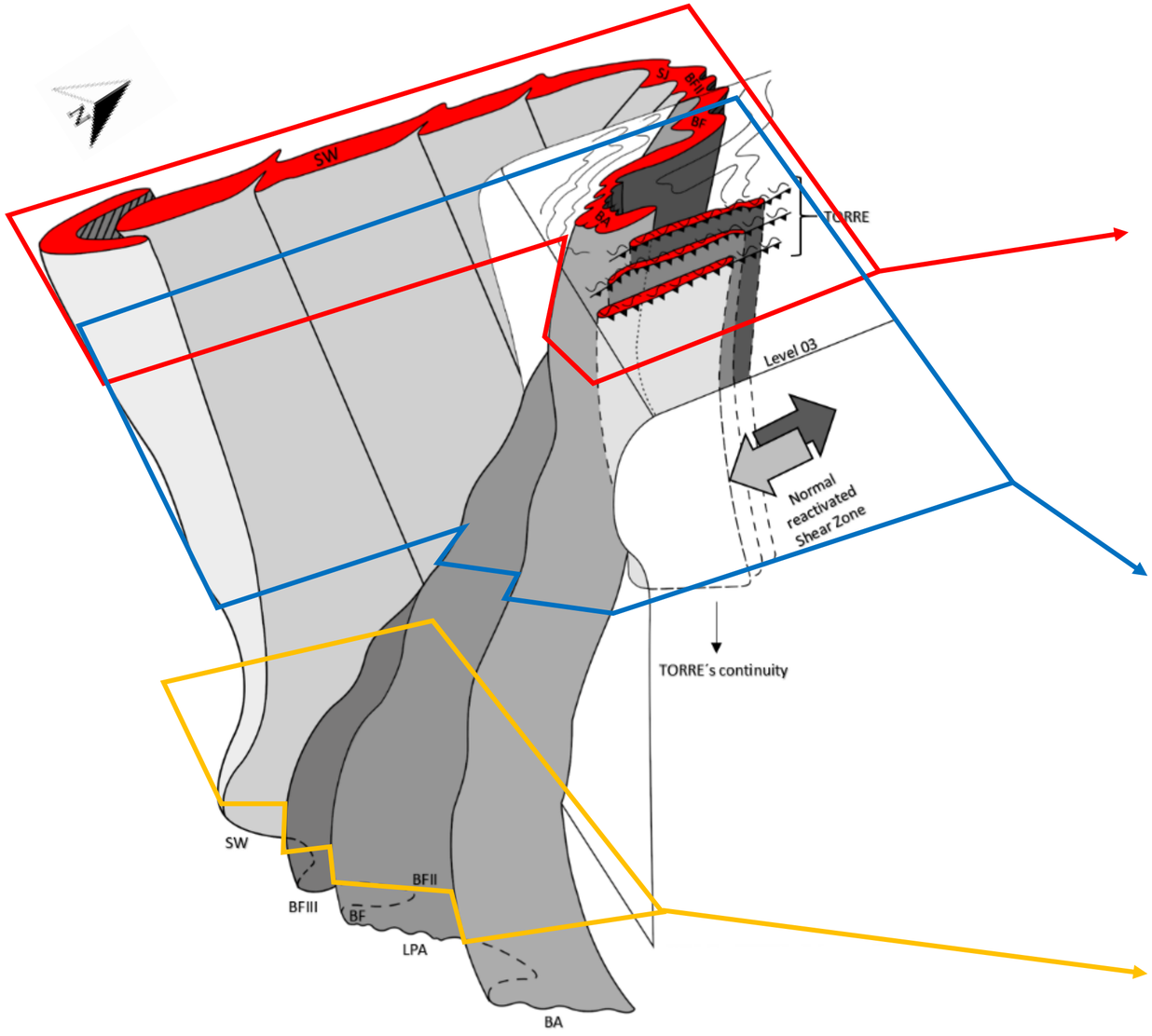
BIF´s Orebofies Tipology

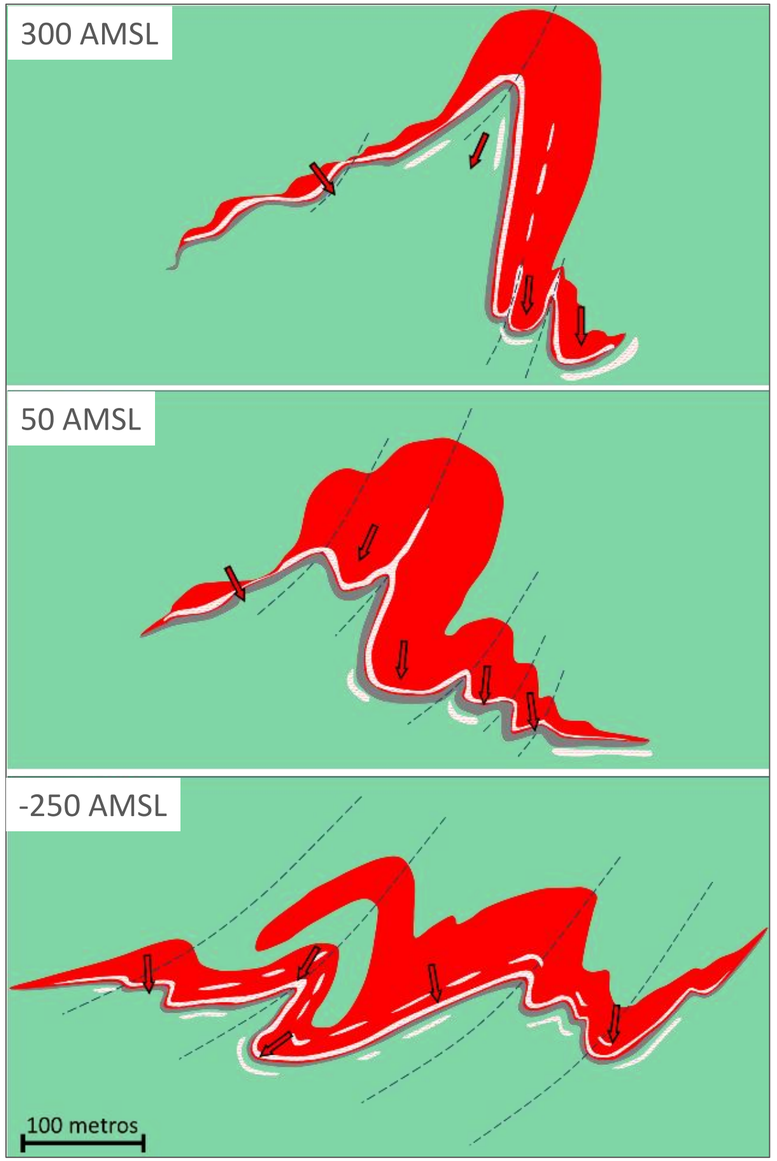
- **BA Orebody**
- **LPA, BF, BFII, BFIII Orebodies**
- **SW Orebody**

Schist´s Orebofies Tipology

- **Torre Orebody**
- **Footwall Lens Orebody**

STRUCTURAL SETTINGS

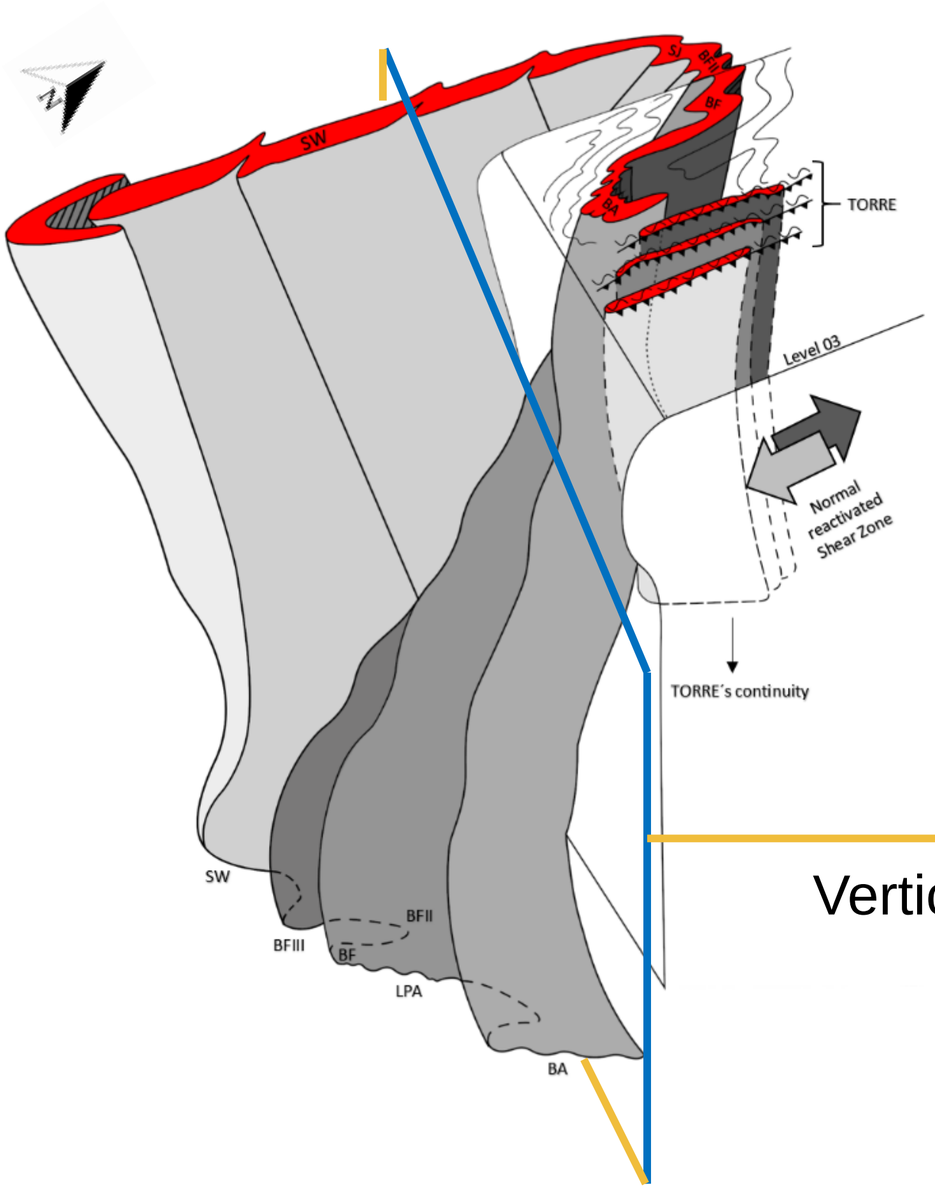




Pilar Mine structural framework

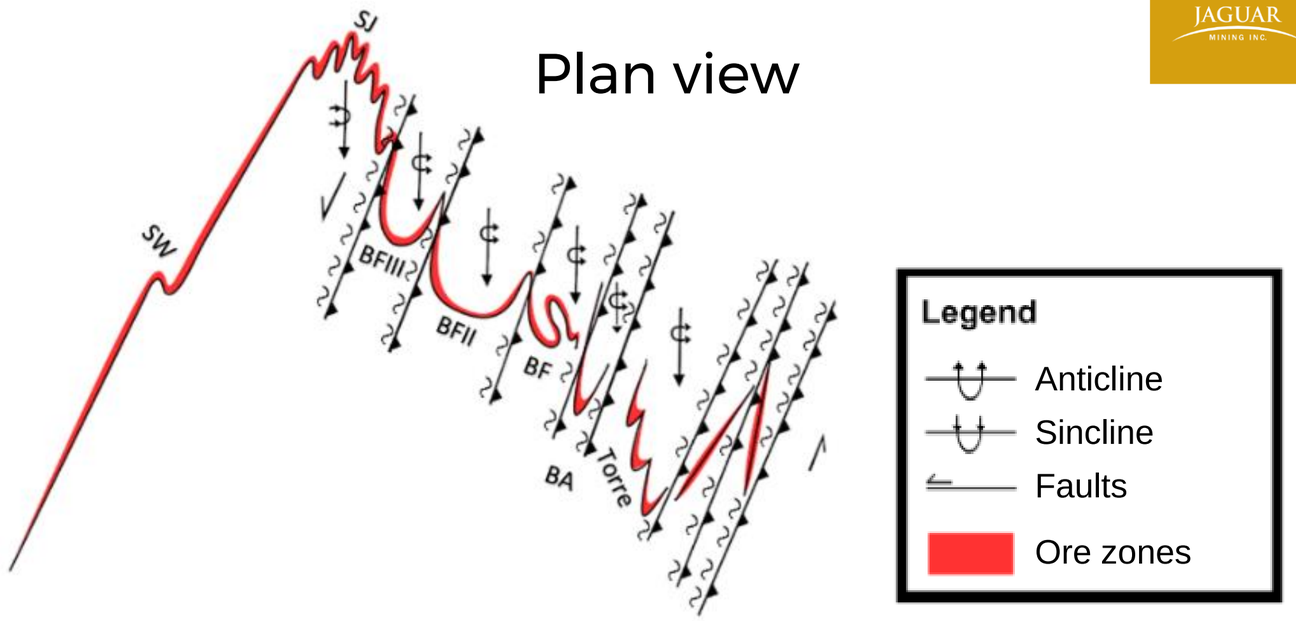
Polydeformed and refolded geometries: Fold axes plunging 32°(in depth)-to-65° to the South direction (from 130 to 180 azimuth trends). Folded limbs opening at greater depths.

STRUCTURAL SETTINGS

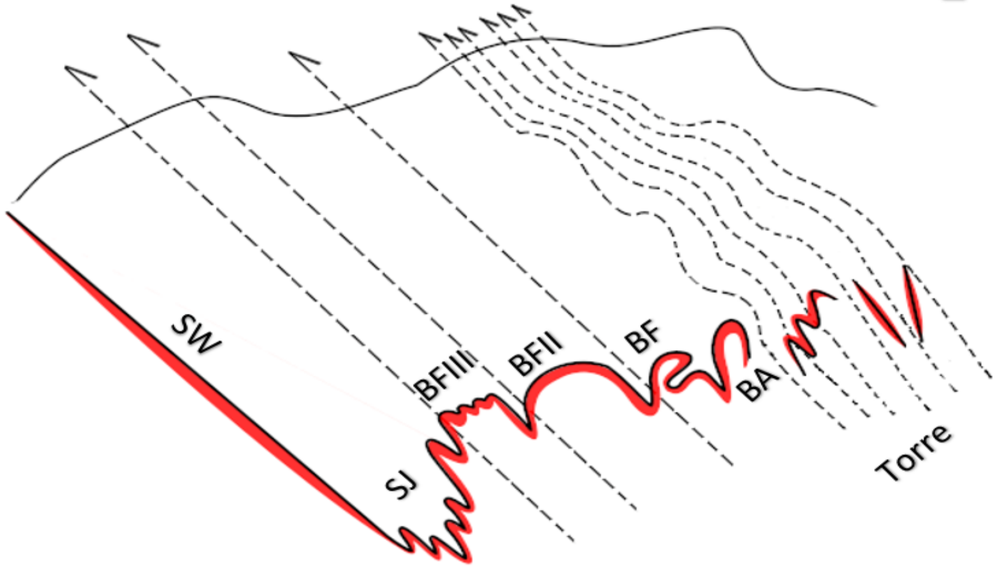


Vertical section view

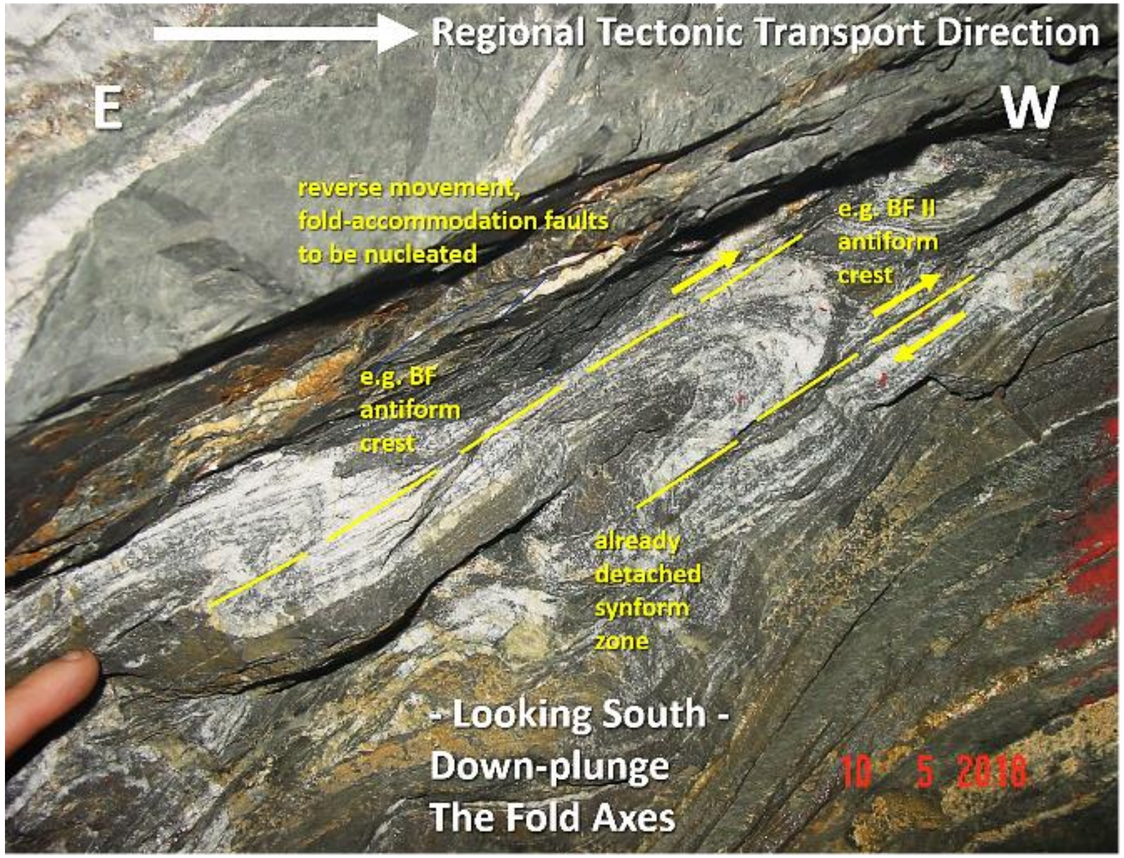
Plan view

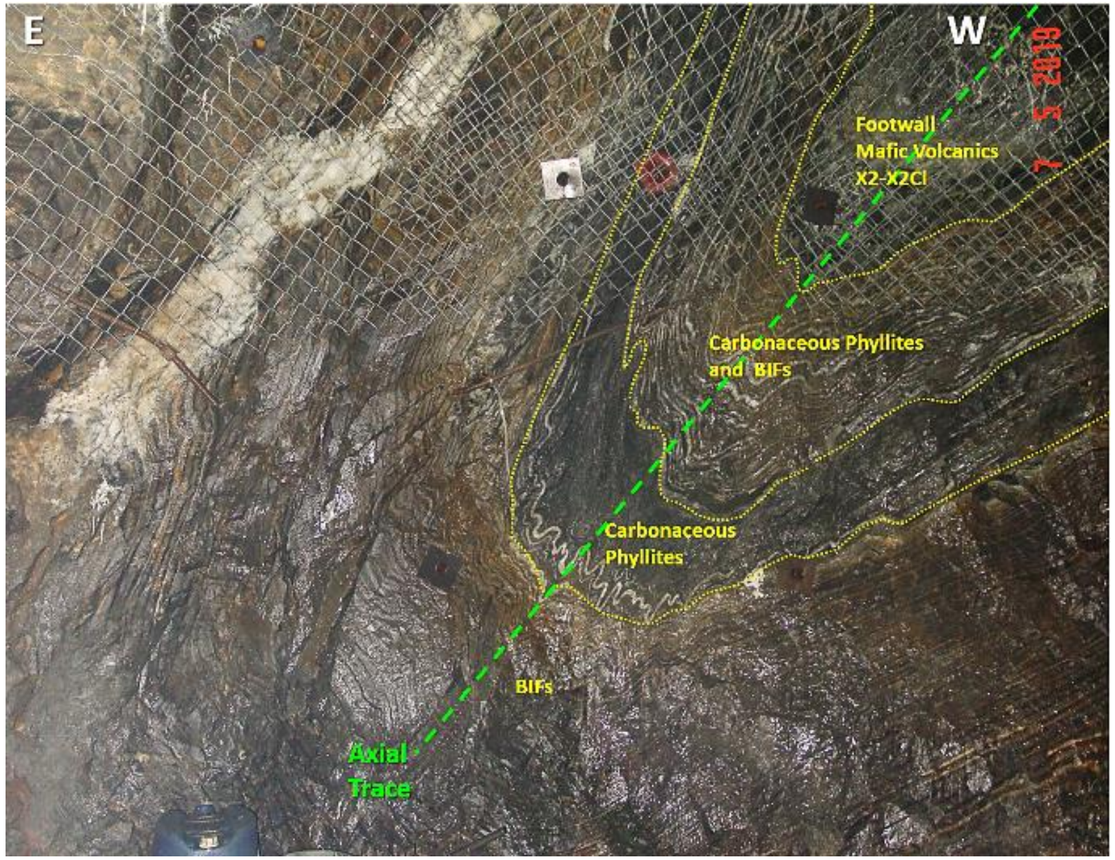


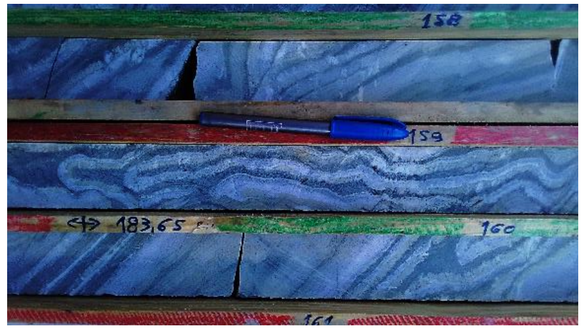
W E



STRUCTURAL SETTINGS





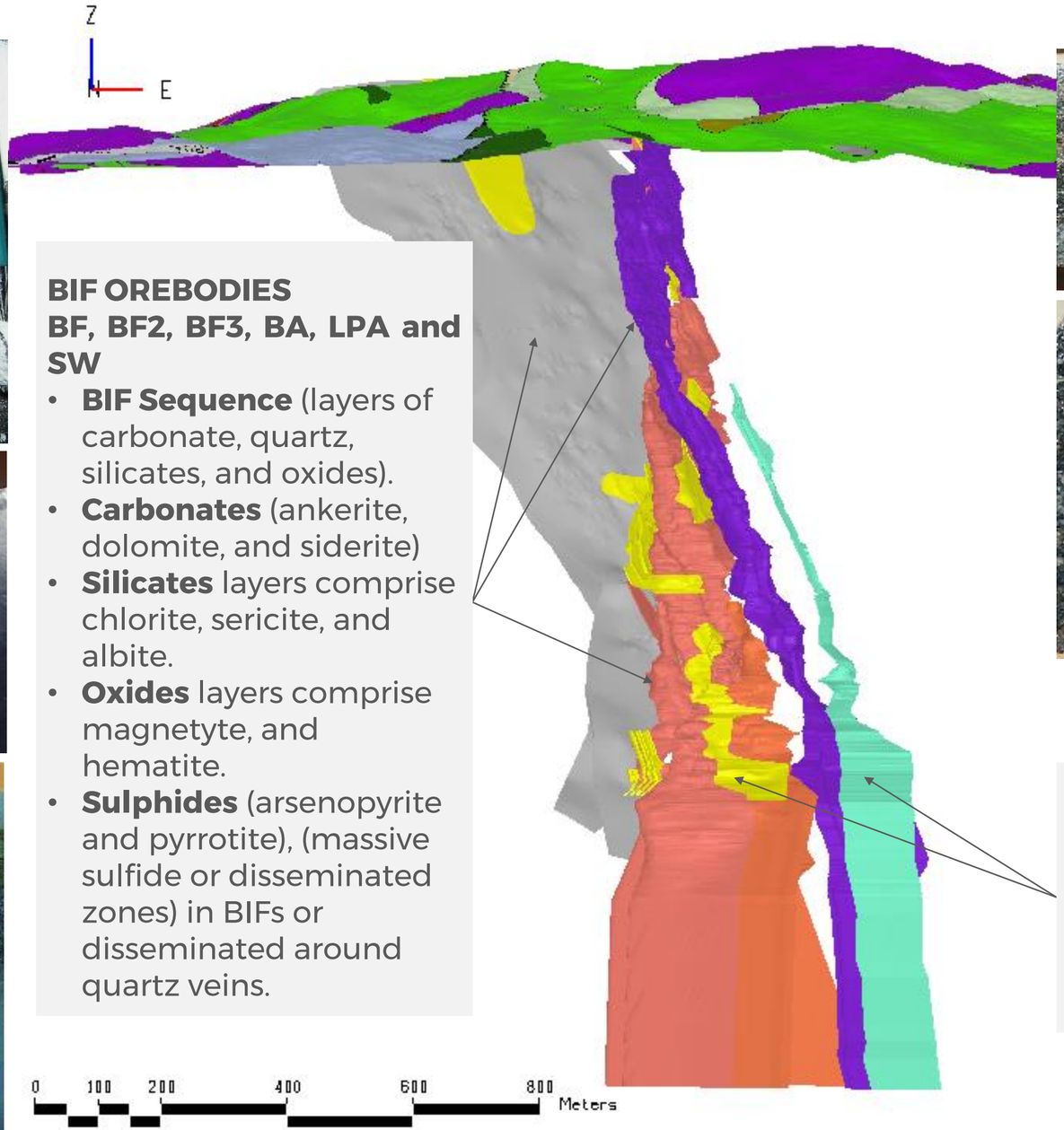


MINERALIZATION AND CONTROL


Silicification Feeders of the BIF-hosted mineralization


DDH PPL443 - VG in BF2 orebody


DDH PPL328A – VG in BF orebody



BIF OREBODIES
BF, BF2, BF3, BA, LPA and SW

- **BIF Sequence** (layers of carbonate, quartz, silicates, and oxides).
- **Carbonates** (ankerite, dolomite, and siderite)
- **Silicates** layers comprise chlorite, sericite, and albite.
- **Oxides** layers comprise magnetyte, and hematite.
- **Sulphides** (arsenopyrite and pyrrotite), (massive sulfide or disseminated zones) in BIFs or disseminated around quartz veins.


DDH PPL451 – Torre orebody


DDH PPL451 – Torre orebody

TORRE Mineralization

- **Hydrothermally altered Metamafic Schists** (quartz, chlorite, albite, carbonates, biotite and sericite)
- **Sulphides -** arsenopyrite and pyrrotite that occur disseminated or with quartz veins.

MINERALIZATION AND CONTROL

PPL1019 - 146.50 m – FFSi banded non-magnetic, with quartz and carbonate veinlets. Aspy
5.65 g/t of Au

PPL1019 – 147.25 m – FFSi brecciated non-magnetic, with quartz and carbonate veinlets. Aspy
23.13 g/t of Au

PPL1019- 147.75 m FFSi banded non-magnetic, with quartz and carbonate veinlets. Aspy
19.53 g/t of Au

PPL1019 – 148.70 m FFSi banded non-magnetic, with quartz and carbonate veinlets. Aspy
16.75 g/t of Au

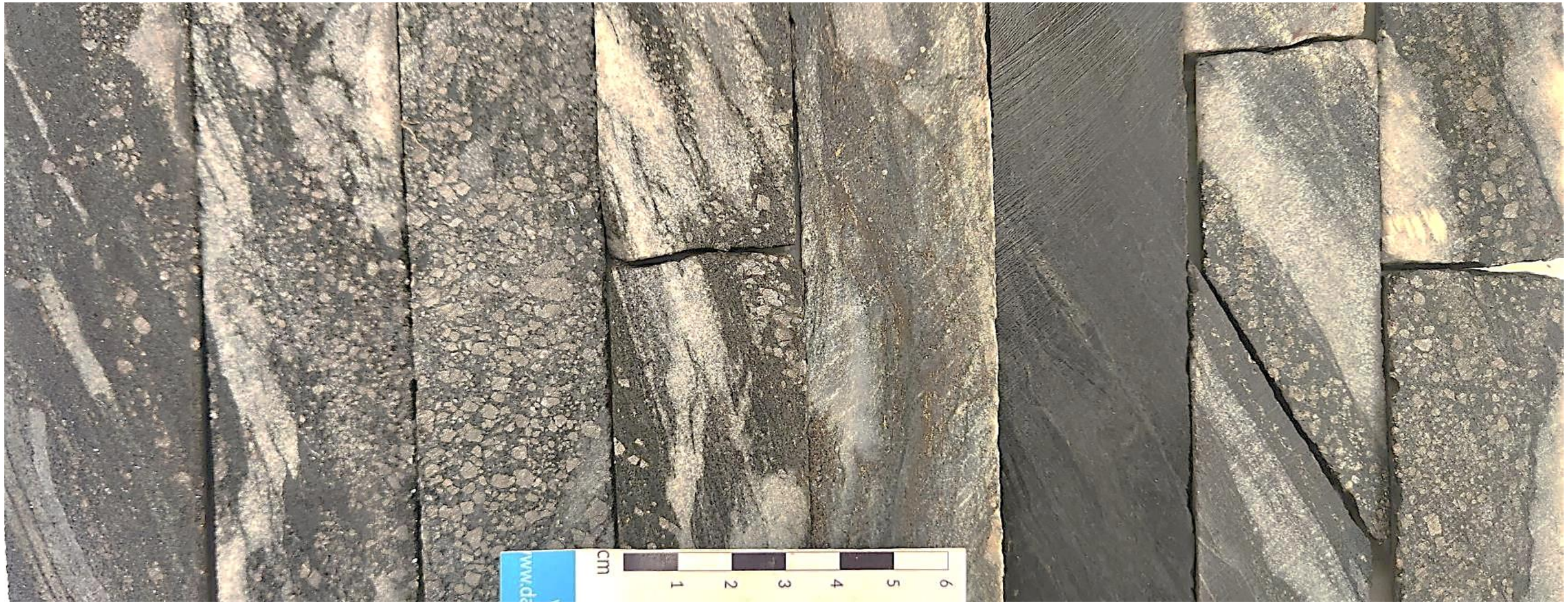
PPL1019 – 149.30 FFSi banded non-magnetic, with quartz and carbonate veinlets. Aspy
16.75 g/t of Au

PPL1019 – 149.70 m FFCb branded non-magnetic, with quartz and carbonate veinlets.
0.27 g/t of Au

PPL1019- 150.15 m FFCb brecciated non-magnetic, with quartz and carbonate veinlets. Aspy
2.27 g/t of Au

PPL1019 -151.30 m. FFSi brecciated non-magnetic, with quartz and carbonate veinlets. Aspy
2.27 g/t of Au

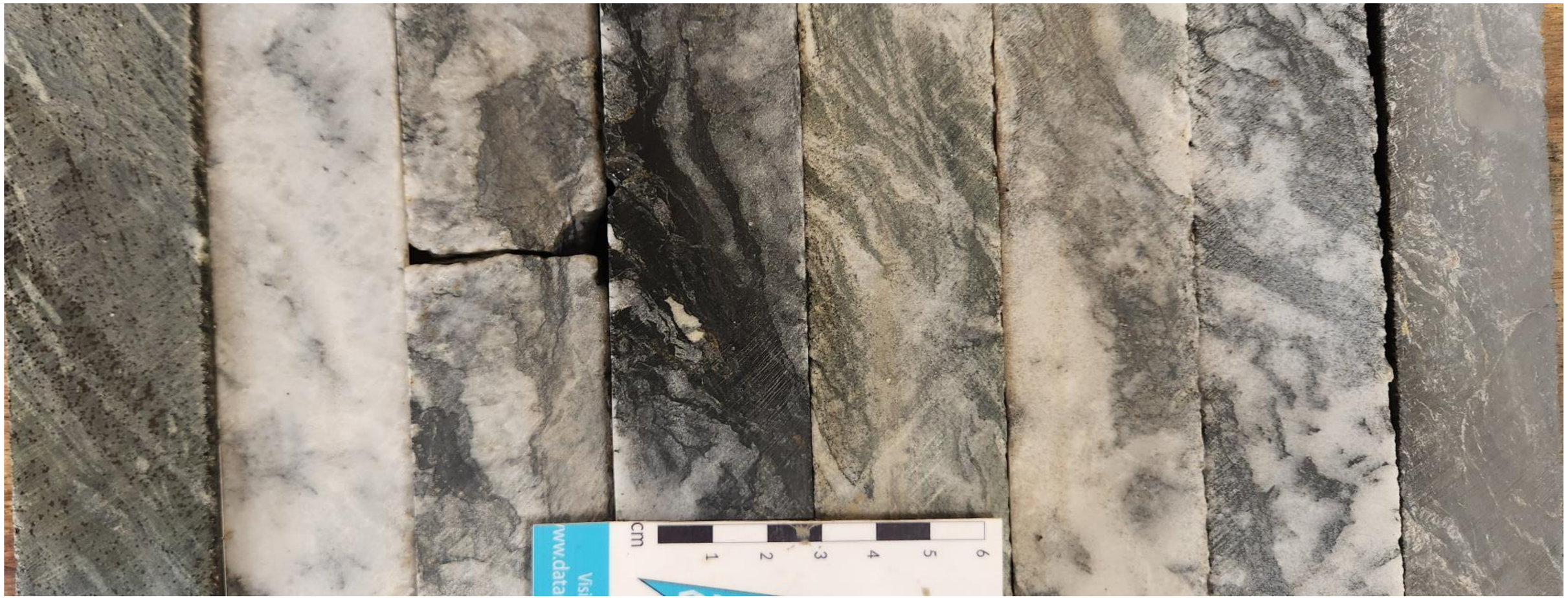
DDH PPL1019 - Orezone - 130.05 to 149.45 m – 11.50 m@ 7.38 g/t of Au - BIF Main ore zone



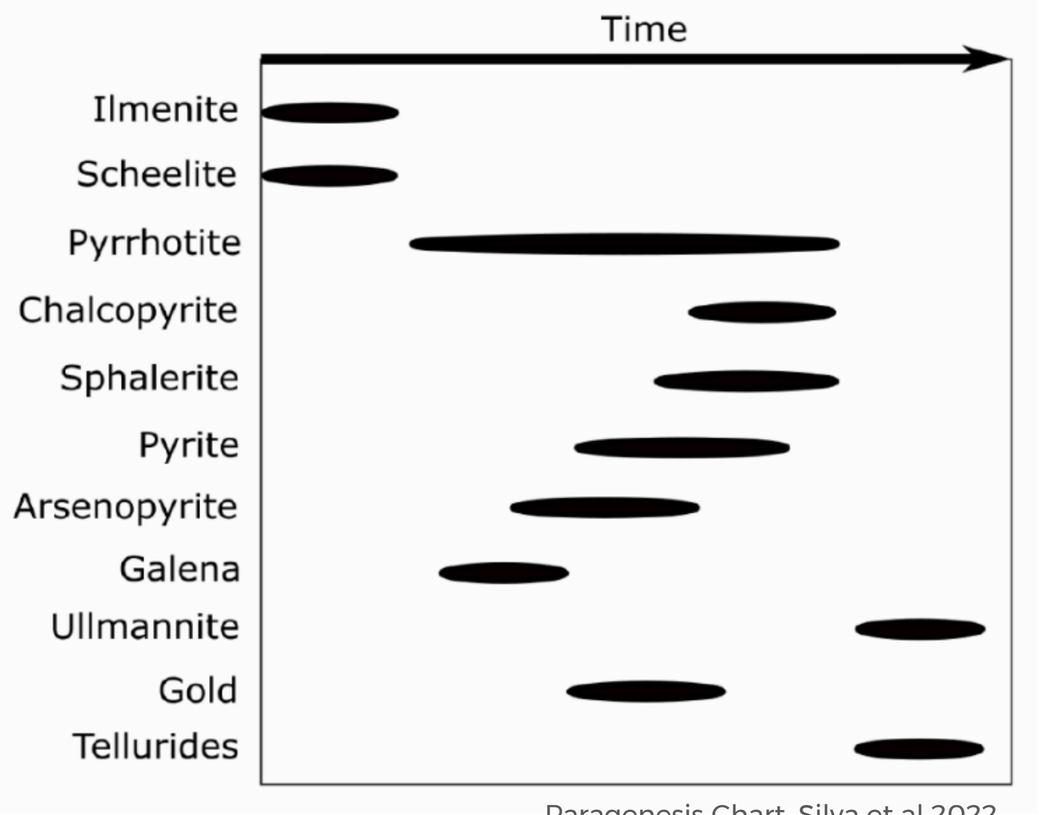
MINERALIZATION AND CONTROL

PPL1017 - 75.00 m – X2Cl - , quartz chlorite schist, non-magnetic, foliated . 0.29 g/t of Au	PPL1017 – 77.00 m – VQZ - white, sacaroidal vein. 0.54 g/t of Au	PPL1017- 77.90m Quartz sericite schist brecciated + quartz veinlets **3.40 g/t of Au**	PPL1017 – 78.9 Quartz sericite schist brecciated + quartz veinlets **8.56 g/t of Au**	PPL1017 – 79.9 Sericita Quartz sericite schist brecciated + quartz veinlets **2.38 g/t of Au**	PPL1017 – 80.95 m Quartz sericite schist brecciated + quartz veinlets **28.41 g/t of Au**	PPL1017- 81.90m Quartz sericite schist brecciated + quartz veinlets 0.92 g/t of Au	PPL1017 -82.90 m. XG – Carbonaceous Schist 0.0025 g/t of Au

DDH PPL1017 - Orezone - From 76.30 to 81.90 m / 2.90 m @ 7.86 g/t of Au / Torre Style



MINERALIZATION AND CONTROL

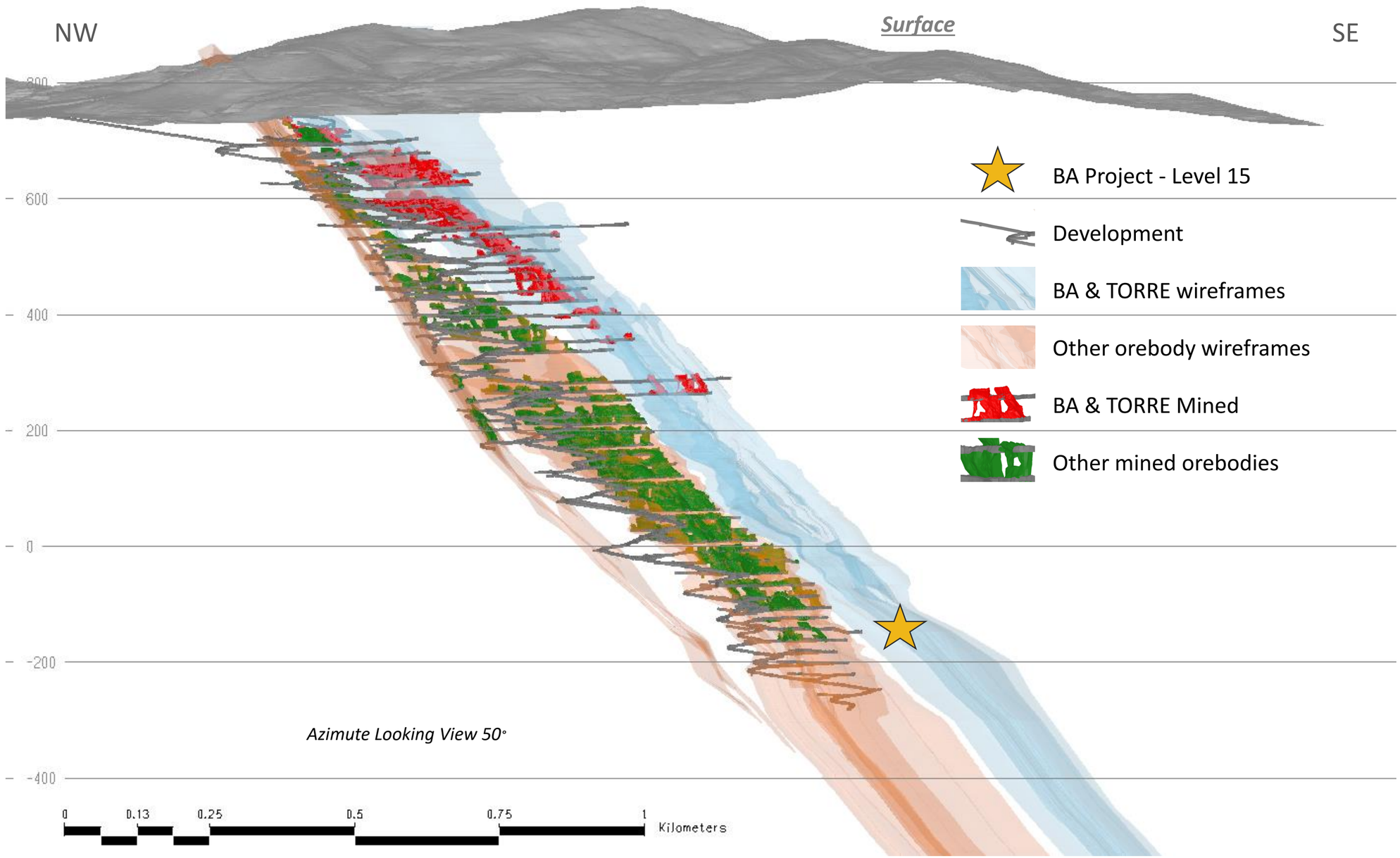


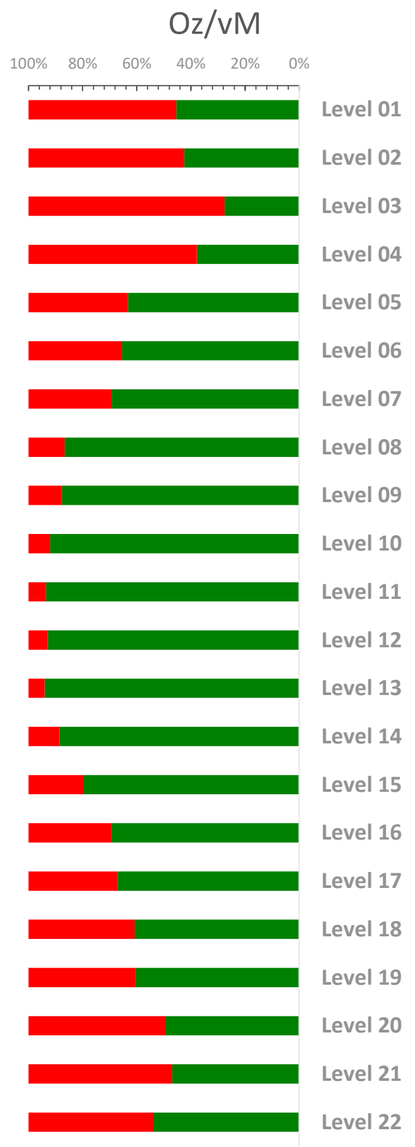
Paragenesis Chart. Silva et al 2022.

	Mineralized zones	BA	BF	BFIII	Torre
Phase 1	Lithological units that host Pilar mineralized zones	Carbonate-facies banded iron formations from the Lower domain			Schists from the Upper domain
Phase 2	Geochemical signature	Au-As		Au-Ag-S-Te	Au-As-W-S
	Au mean grade	3.7 ppm		1.4 ppm	1.1 ppm
Phase 3	Mineralogical signature	Qtz-Chl-Apy-Po		Qtz-Chl-Po	Qtz-Chl-Po-Apy-Cal Maybe Stp
	Minerals that covary negatively with gold	Stp-Cal		Stp-Cal	-
	Pyrrhotite structure type	Predominates hexagonal Po		Predominates hexagonal Po	Predominates monoclinic Po
Phase 4	Trace minerals associated with gold	-		Tellurides	Scheelite
	Gold occurrence	Native gold		-	Native gold
Phase 5	Gold within minerals structure	Sulfides		Sulfides Tellurides	Sulfides

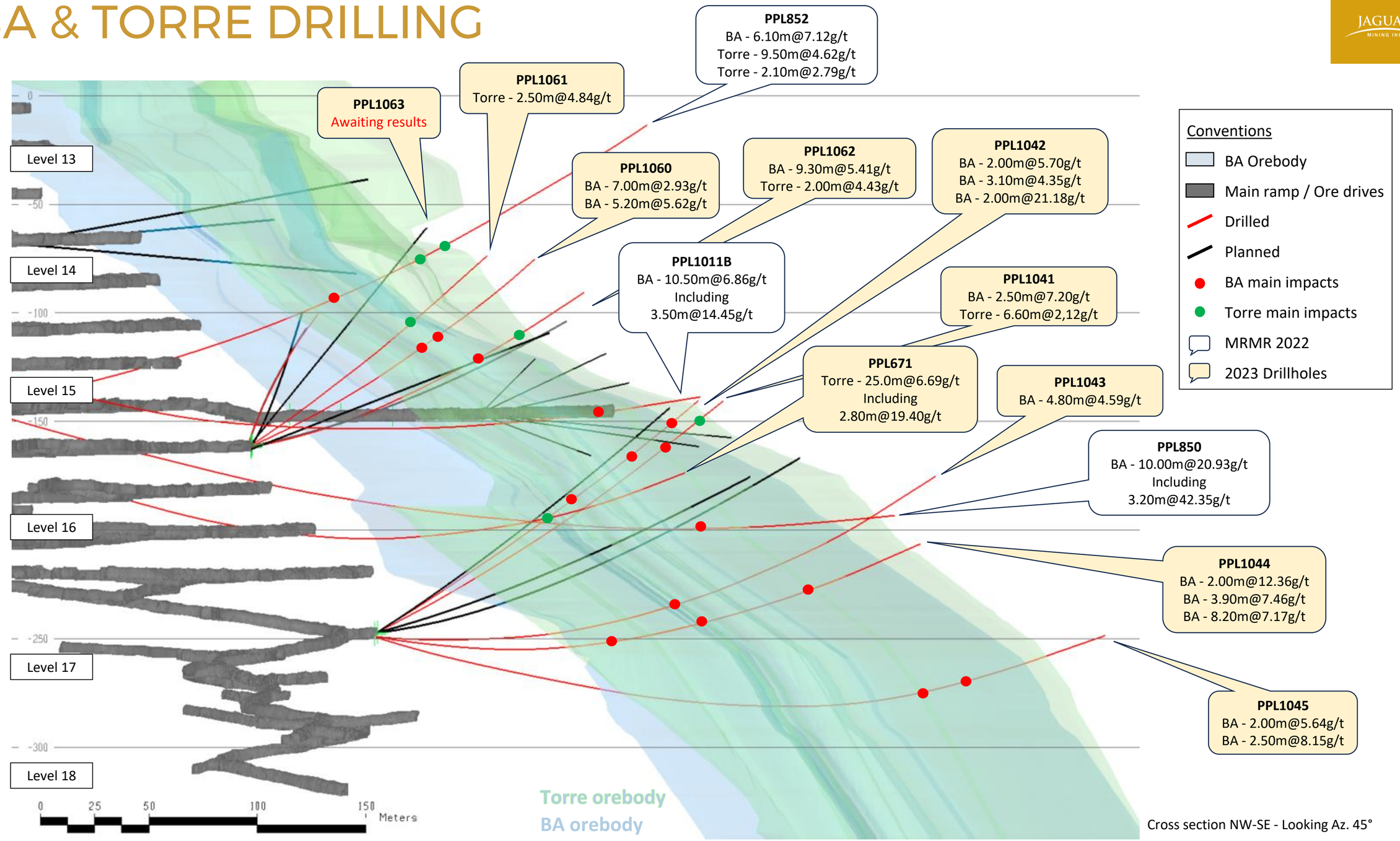
Summary Characteristics. Silva et al. 2022.

BA & TORRE OREBODIES



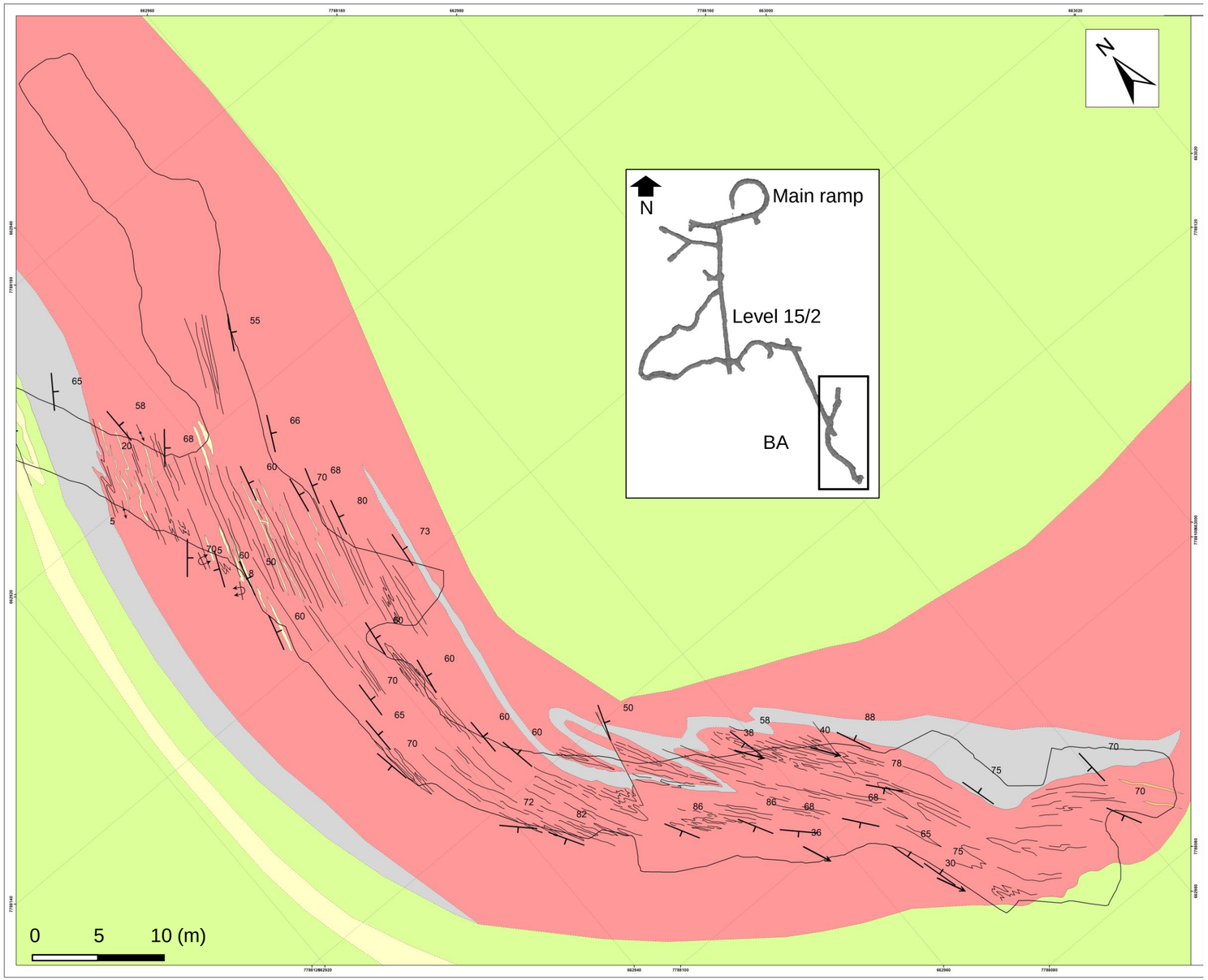


BA & TORRE DRILLING



Cross section NW-SE - Looking Az. 45°

LEVEL 15 - BA MAPPING



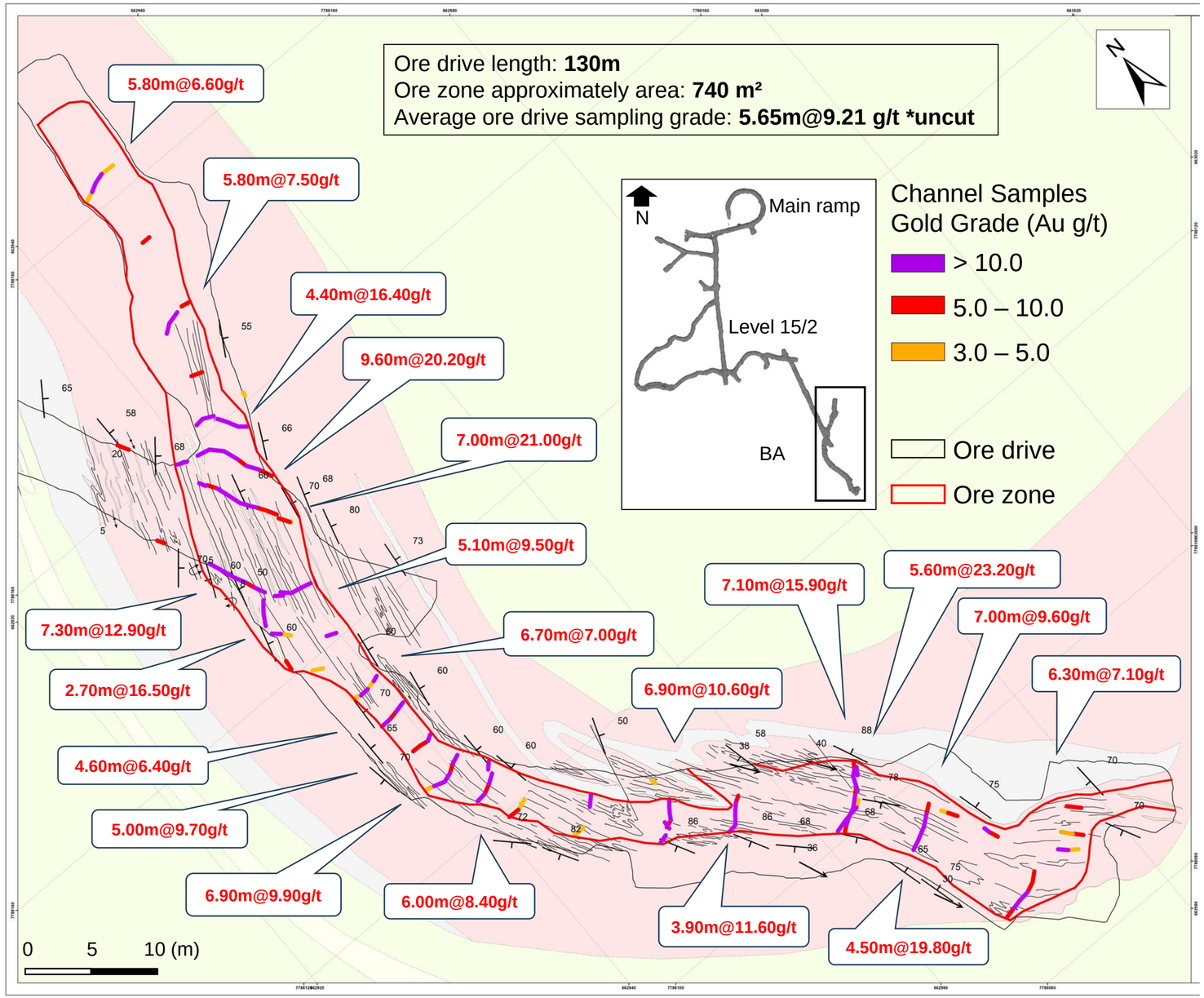
Lithology

- Quartz vein
  hydrothermal, ore-bearing, waste saccharoidal
- Banded Iron Formation
  oxide, carbonate and silicate facies
- Carbonaceous phyllite
  graphite schists, shales, phyllites
- Undivided schists
  chlorite-quartz-carbonate-sericite schist, talc schist, metachert

Structural convention

- Fold axis
- Intersection lineation
- Overturned antiform
- Bedding
- Structural trace
- Fault
- Contact inferred
- Contact certain

LEVEL 15 - BA SAMPLING



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Structural convention

- Fold axis
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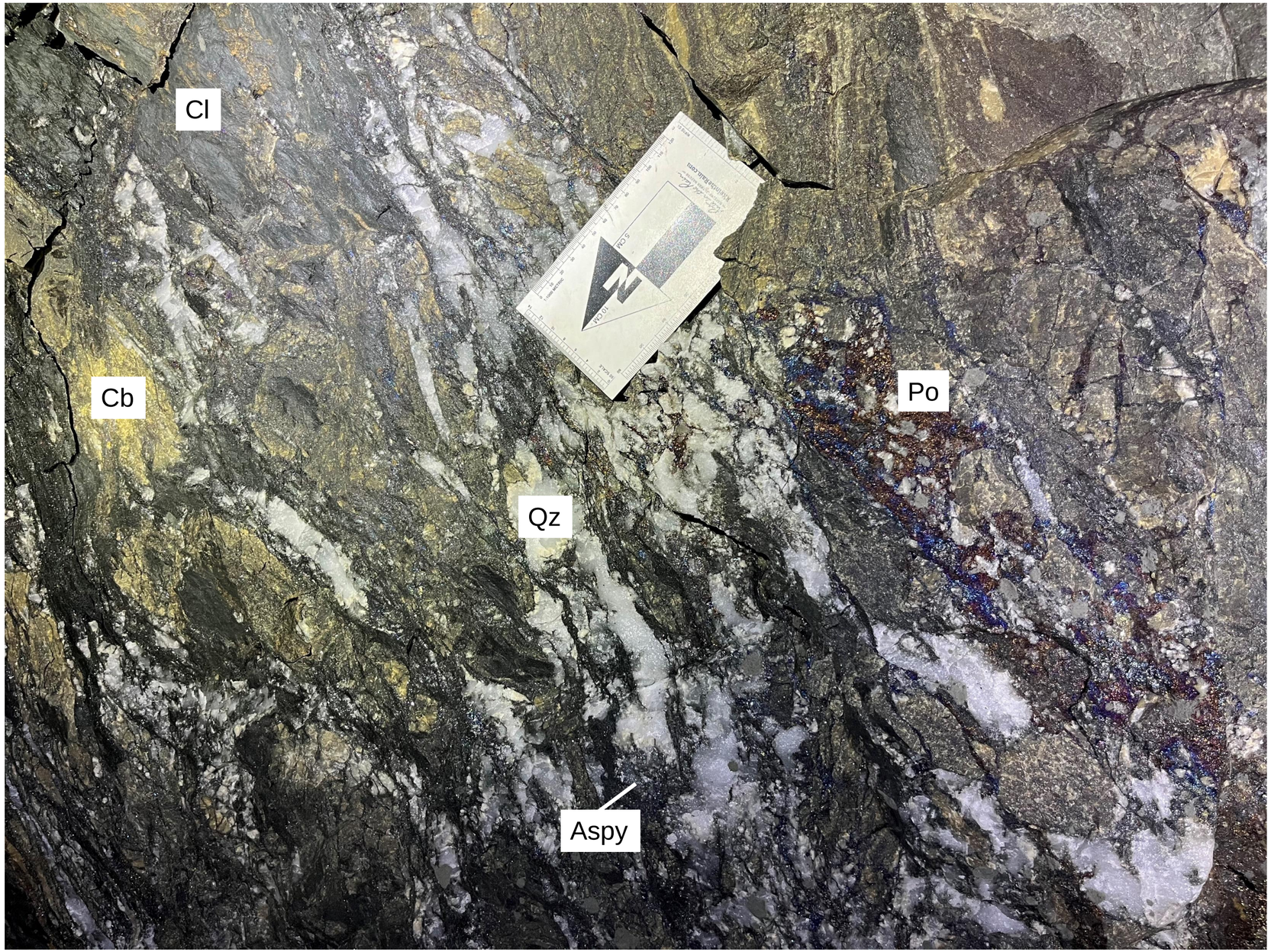
- Bedding
- Structural trace
- Fault
- Contact inferred
- Contact certain

BA GEOLOGY

PPL1041
2.50m@7.20g/t

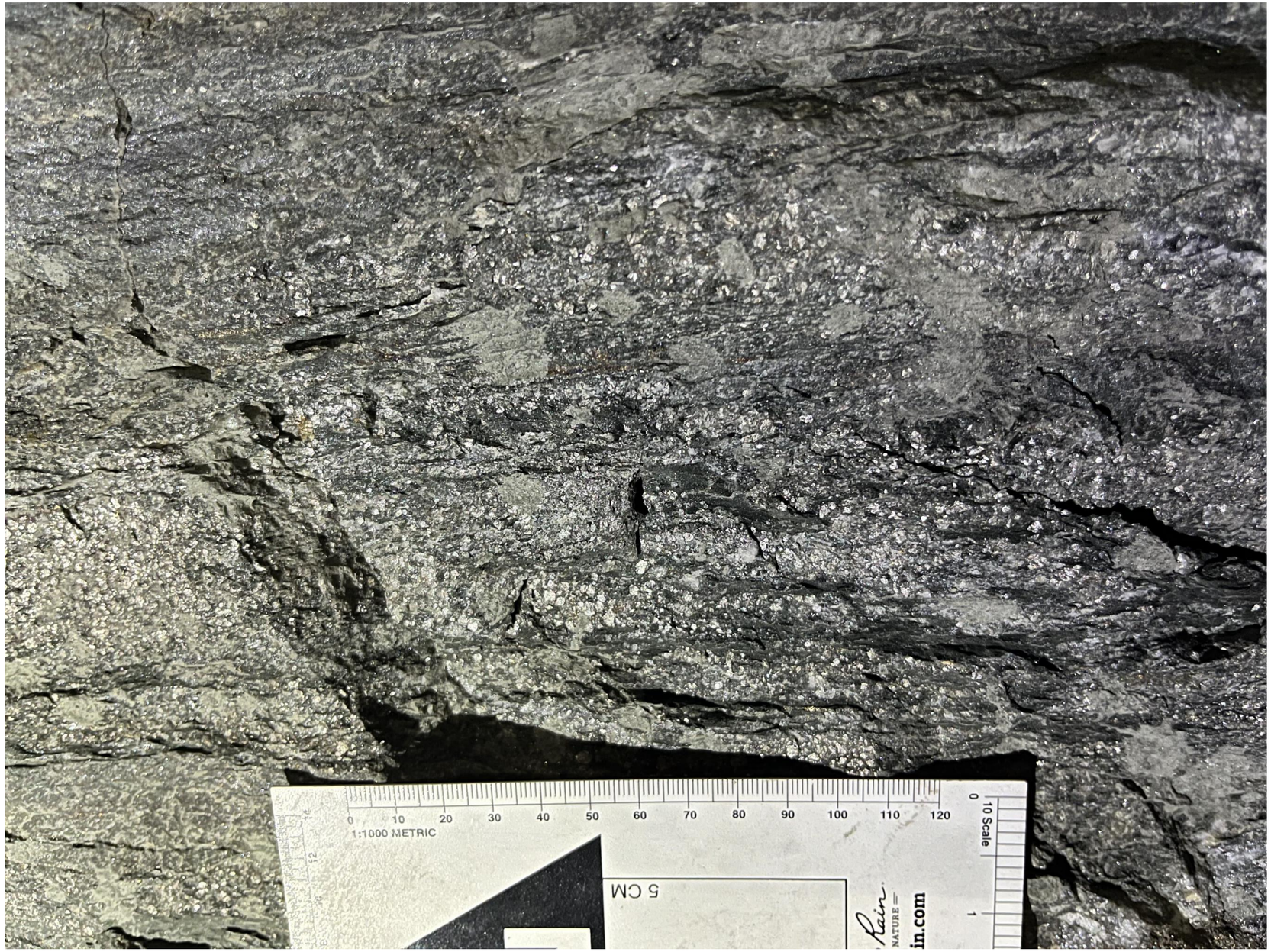
The whole orebody structure is confined and hosted by a BIF layer of mainly carbonate or silicate facies, surrounded by undivided metavolcanic and sedimentary schists.

BA GEOLOGY



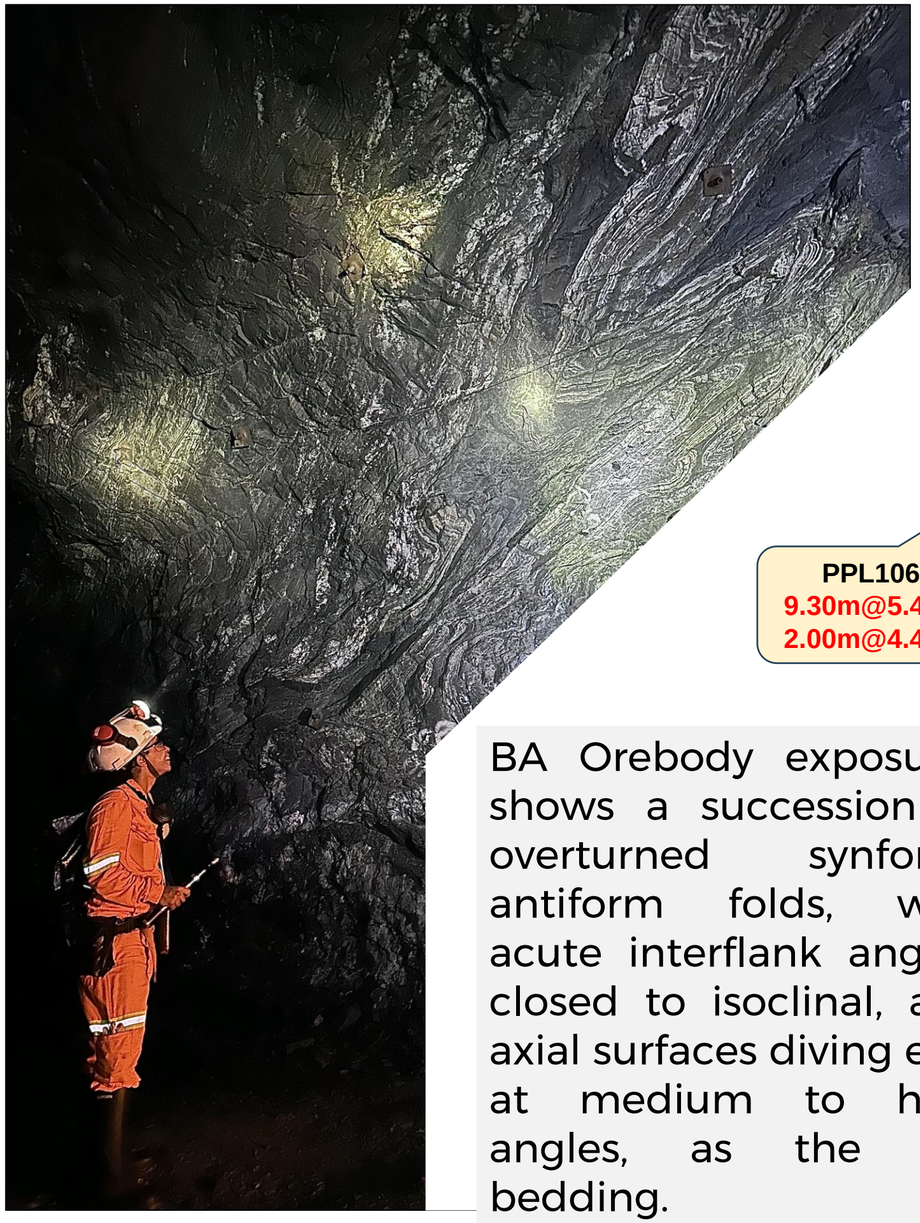
Au high grades occurs on hydrothermal alteration zones, where quartz veins and sulphides associates.

BA GEOLOGY



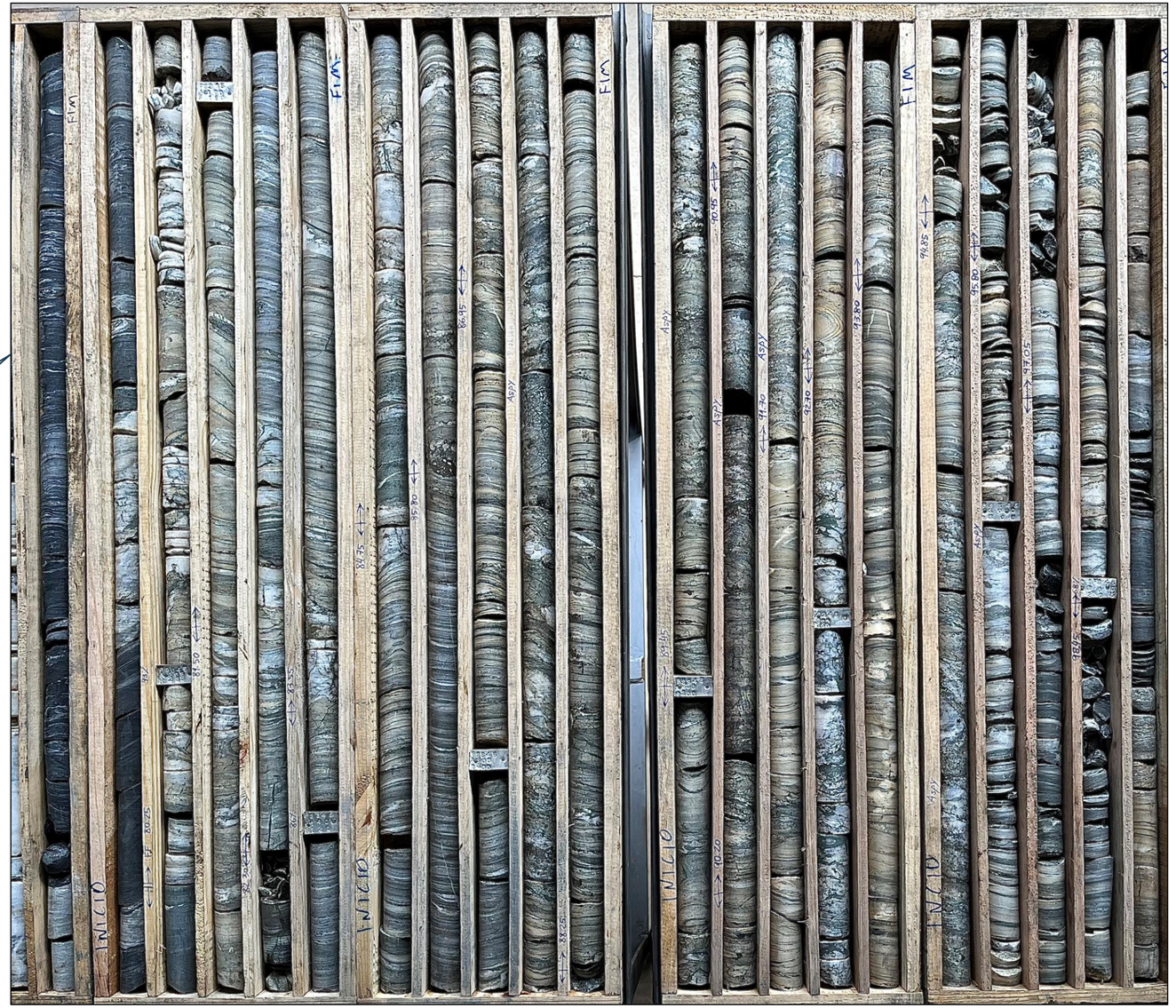
Arsenopyrite, the main ore mineral, occur as coarse subhedral grains, disseminated throughout the alteration levels.

BA GEOLOGY

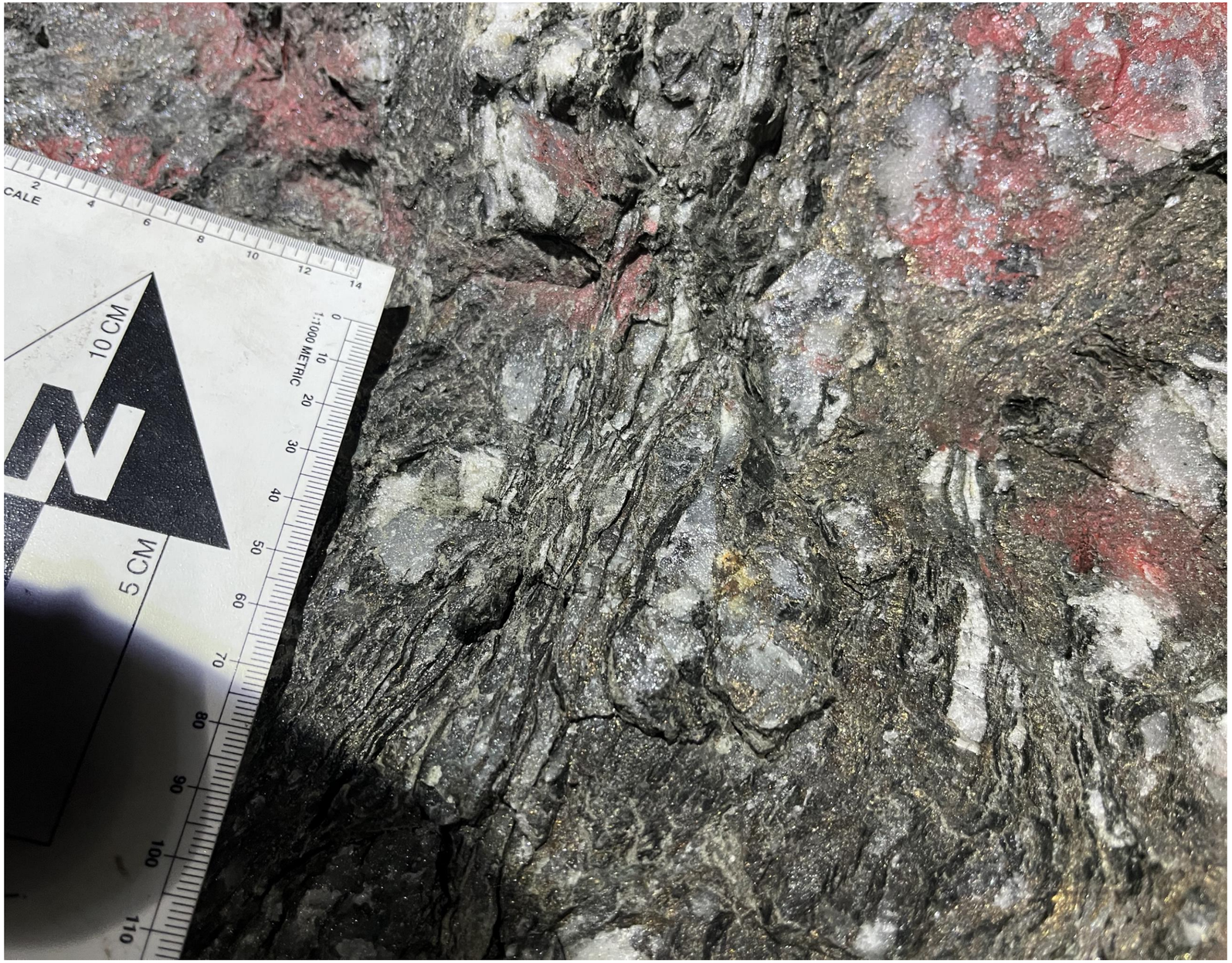


PPL1062
9.30m@5.41g/t
2.00m@4.43g/t

BA Orebody exposures shows a succession of overturned synform-antiform folds, with acute interflank angles, closed to isoclinal, and axial surfaces diving east at medium to high angles, as the BIF bedding.



BA GEOLOGY

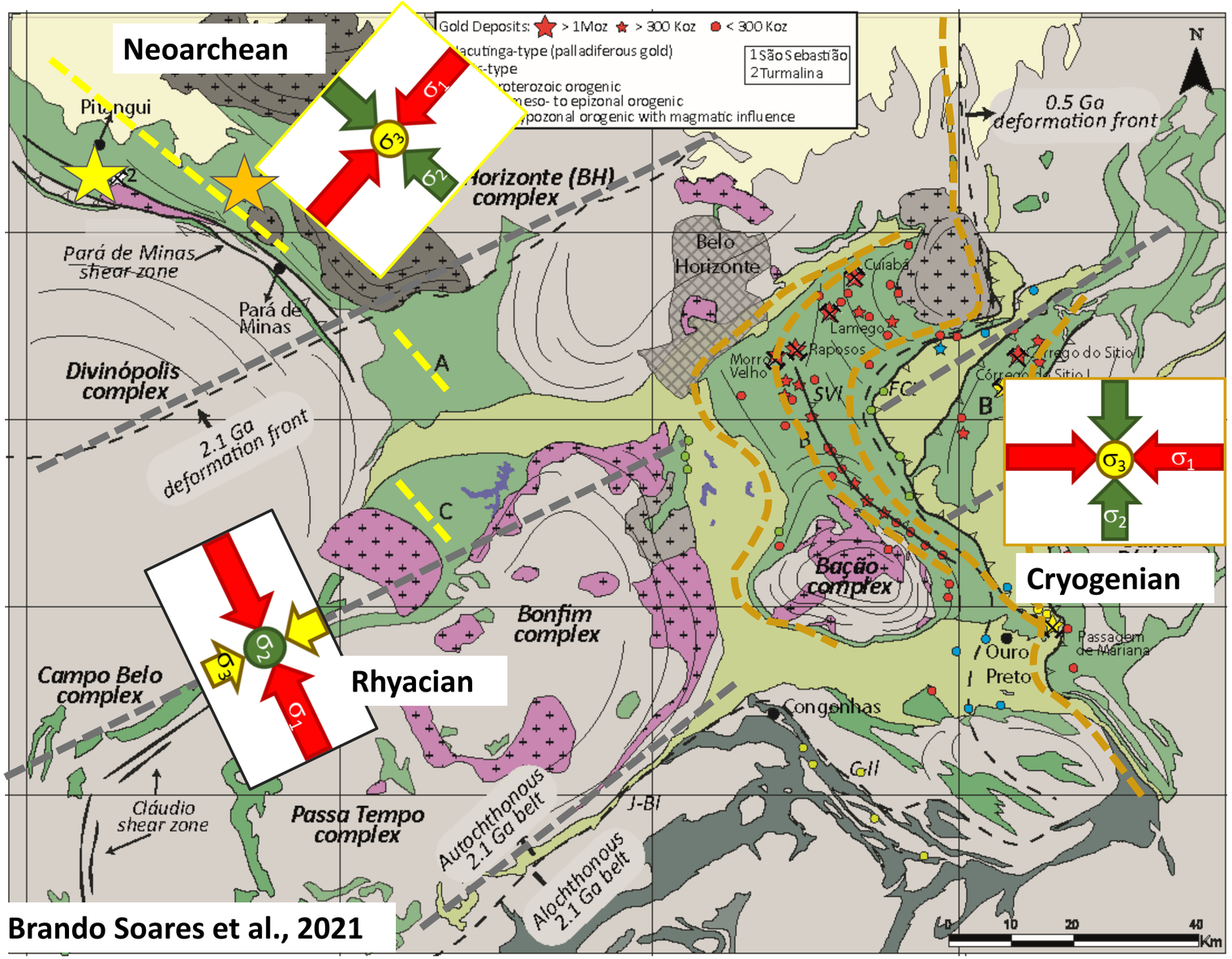


Fold axes plunge to south with medium to low angles and define the mineralization plunge, parallel to the stretching lineation on a constrictional strain system.

The structural arrangement, where strongly transposed folds and quartz-ribbon grains on a mylonitic fabric are associated, suggests a local shear zone, perhaps controlled by regional oblique strike-slip structures, associated and subparallel to large-scale folding axial plane.

TURMALINA COMPLEX

REGIONAL GEOLOGY TECTONICS



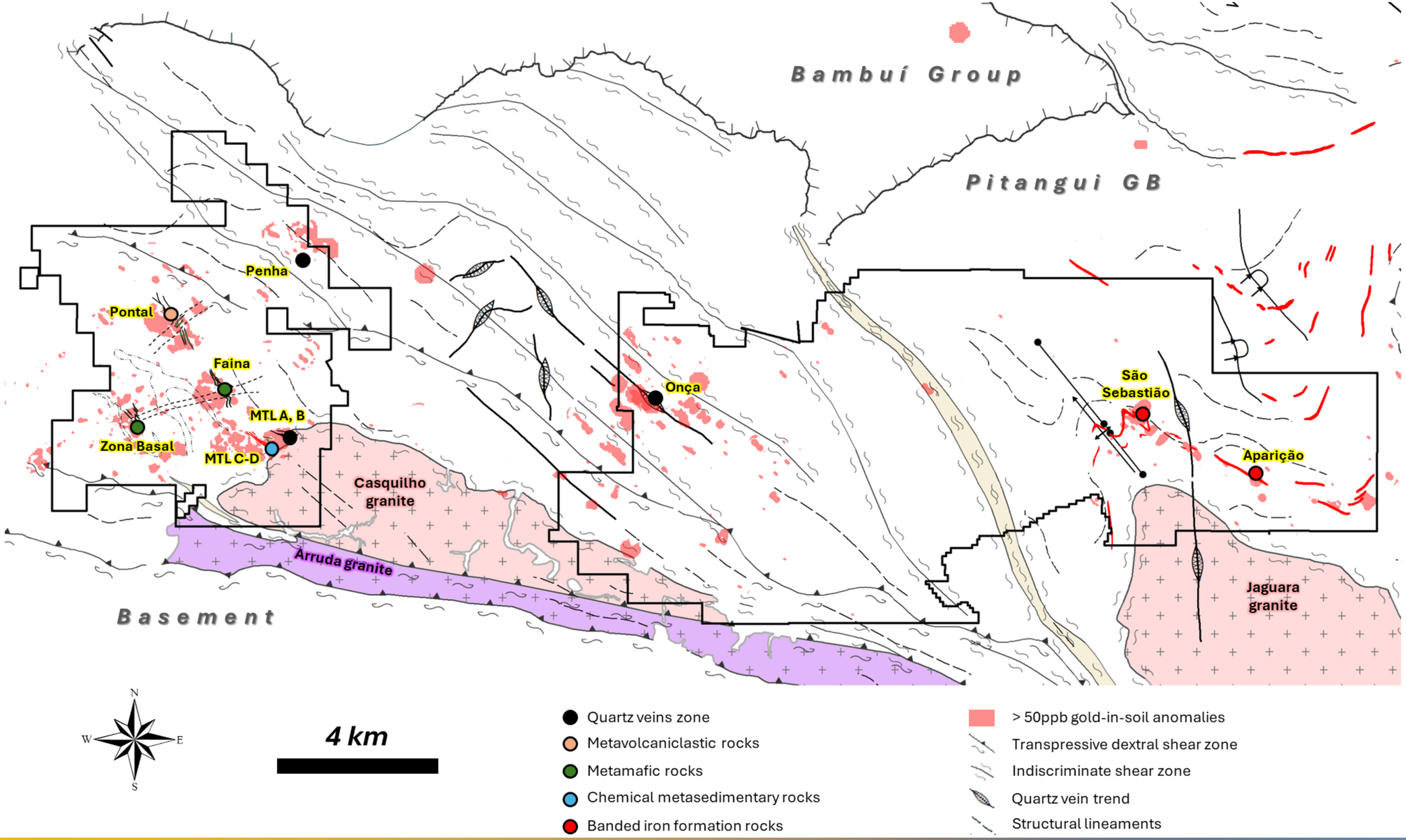
Brando Soares et al., 2021

Tectonic Event	Phase	Age (Ma)	Regimen	Tectonic Transport	Main Structures	References
Rio das Velhas orogeny	D1	2750-2735	Compressive, simple shear	NNE to SSW	NNW-striking, dextral transcurrent shear zone; ENE plunging, tight to isoclinal, 'z' intrafolial folds. E-striking, S-verging transpressive shear zone; S-verging tight to isoclinal folds. Inversion of the Nova Lima basin.	Baltazar & Zuchetti, 2007; Baltazar & Lobato, 2020.
	D2	2735-2700	Compressive, simple shear	ENE to WSW	NNW-striking thrust shear zones. Reactivation of D1 shear zones. NW-verging, ENE-plunging tight to isoclinal folds. ENE-plunging stretching/mineral lineation. Inversion of the Maquiné basin.	Baltazar & Zuchetti, 2007; Baltazar & Lobato, 2020.
Minas orogeny	D3	1946 ± 24 (MTL); 1988 ± 56 (S.S)	Compressive, simple shear	SE to NW	NE-striking, NW-verging thrusts. NW-verging tight to open folds. Stretching and mineral lineations plunging towards SE. EW- striking crenulation cleavage. Inversion of the Minas and Sabará basins.	Alkmim & Marshak, 1998; Tassinari et al., 2015; Brando Soares et al., 2021.
	DE	~2050	Extensional	WNW to ESE	Uplift of granite- gneissic basement as domes. Normal faults around the domes. Intermontana Itacolomi basins.	Alkmim & Marshak, 1998; Cutts et al., 2019.
Araçuaí orogeny	D4	700–450	Compressive, simple shear	E to W	NS-striking, W-verging thrusts. W-verging tight to isoclinal folds and open, normal folds. Stretching and mineral lineations plunging towards ESE. NS-striking crenulation cleavage. Inversion of the Itacolomi basin.	Chemale et al., 1994; Alkmim and Marshak, 1998; Endo and Machado, 2002; Dutra et al., 2019.

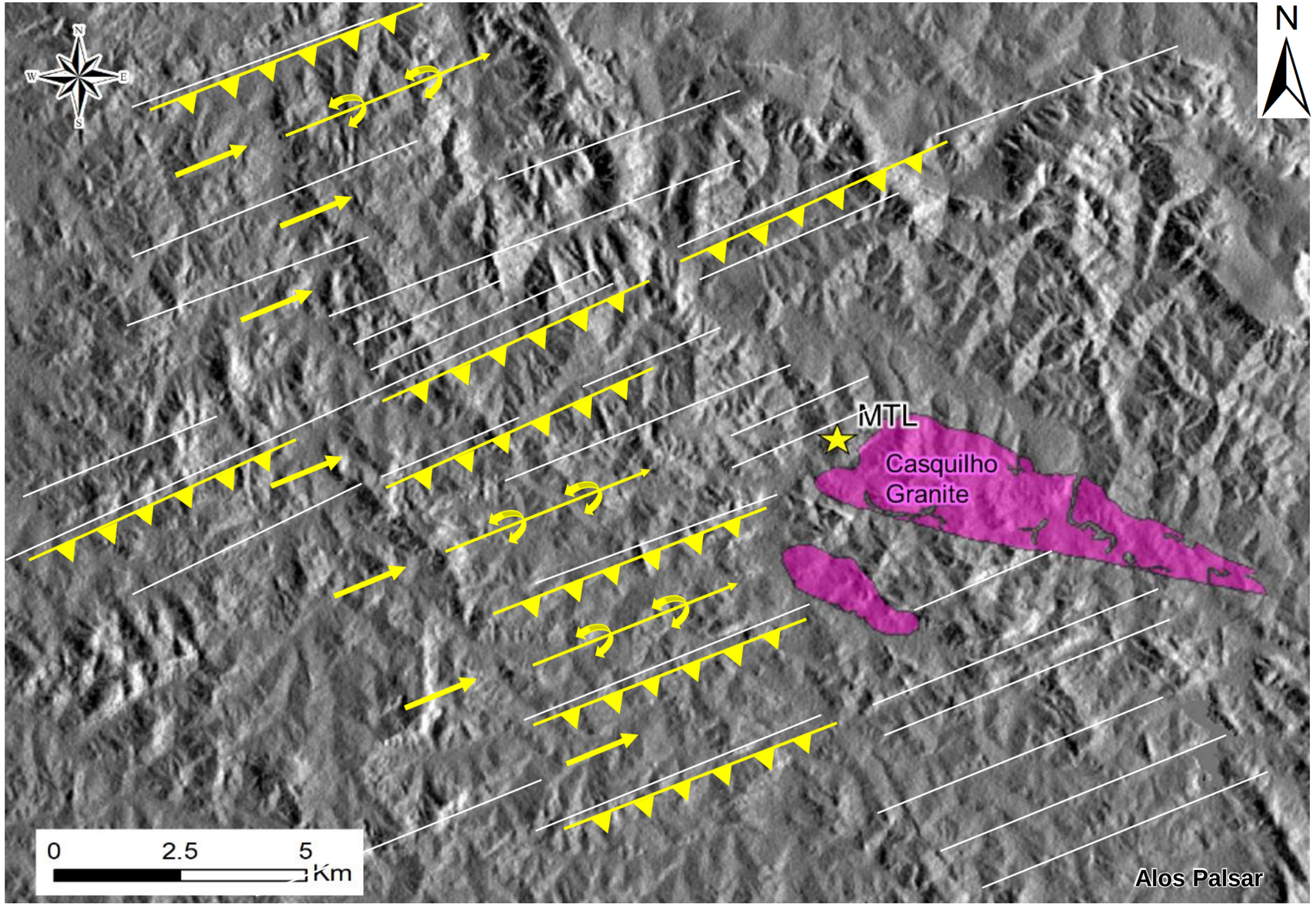
Adapted from Baltazar & Lobato, 2020.

MTL Onças de Pitangui Project

PITANGUI GREENSTONE BELT REGIONAL SHEAR ZONES



PALAEOPROTEROZOIC TECTONICS



What to expect for Paleoproterozoic?

Reactivation of previous structures (NW-SE)

Faults NE-SW with vergence to NW and dip to SW.

Fault propagation folds.

Fold axis and intersection lineations to NE.

Rotation of all previous structures around the new axis.

Evidences

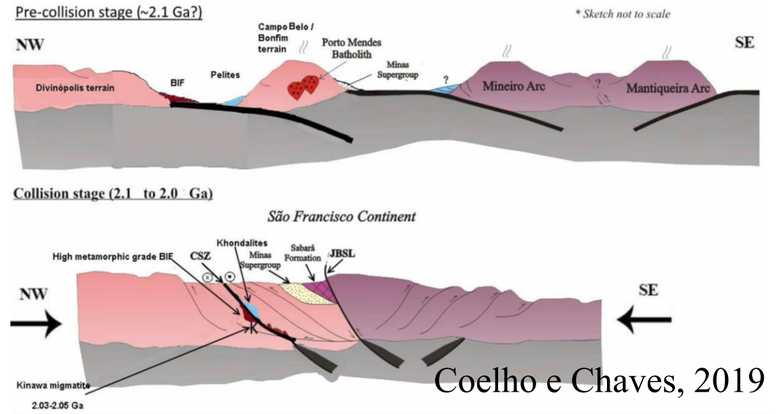
Regional Lineaments.

Fazenda Tapera Formation 2125 Ma (CPRM).

Rotation of Structures Around the New Axis.

Reset of Geochronological ages (<Zr).

Fluid Scavenging Bi – Sb - 270°.



Coelho e Chaves, 2019

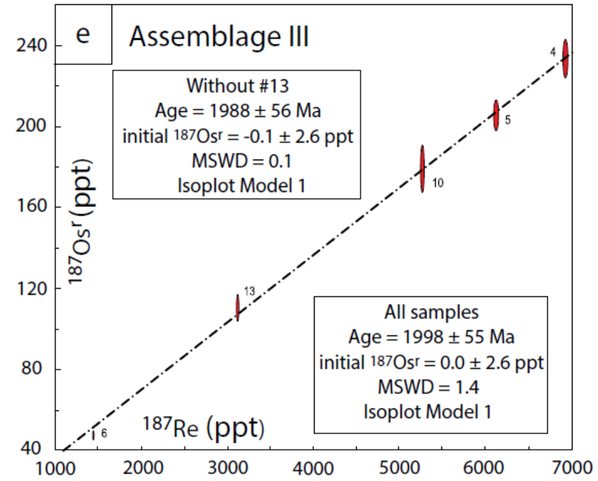
GEOCHRONOLOGY

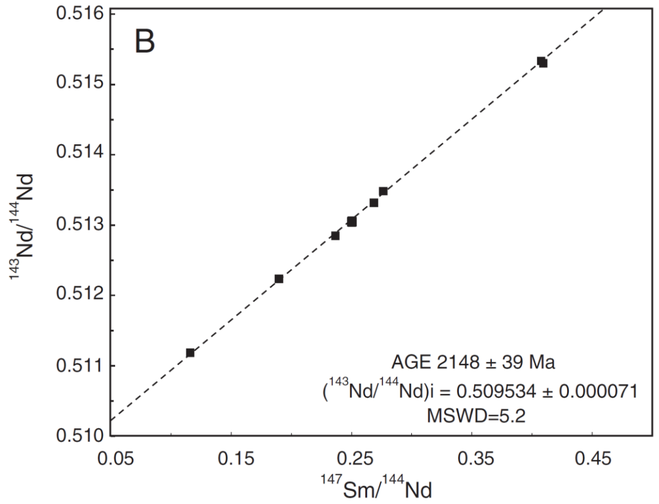
SCIENTIFIC COMMUNICATIONS

SULFIDE RECRYSTALLIZATION AND GOLD REMOBILIZATION DURING THE 2.0 GA STAGE OF THE MINAS OROGENY: IMPLICATIONS FOR GOLD MINERALIZATION IN THE QUADRILÁTERO FERRÍFERO AREA, BRAZIL

Mariana Brando Soares,[1,2,†] David Selby,[3,4] Laurence Robb,[5,6] and Atlas Vasconcelos Corrêa Neto[7]

Brando Soares et al., 2021





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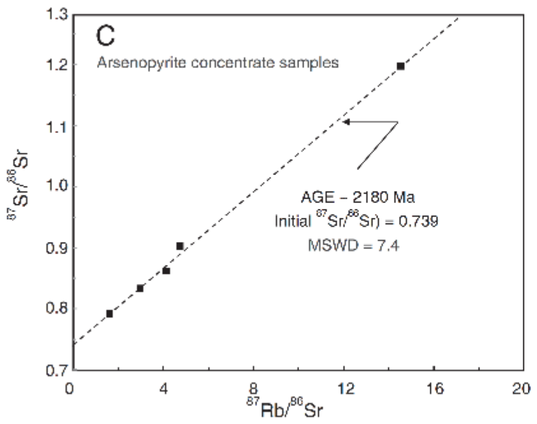
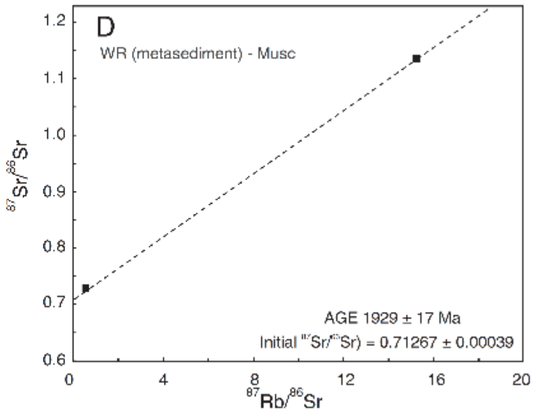
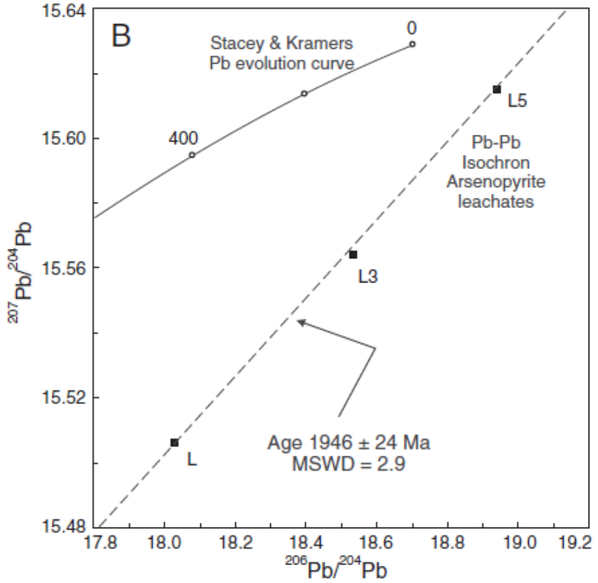
Geochronology and thermochronology of gold mineralization in the Turmalina deposit, NE of the Quadrilátero Ferrífero Region, Brazil

Colombo C.G. Tassinari [a,*], Antonio M. Mateus [b], Marta E. Velásquez [c], José M.U. Munhá [b], Lydia M. Lobato [d], Rosa M. Bello [a], Ana Paula Chiquini [a], William F. Campos [c]

***Tassinari et al., 2015**

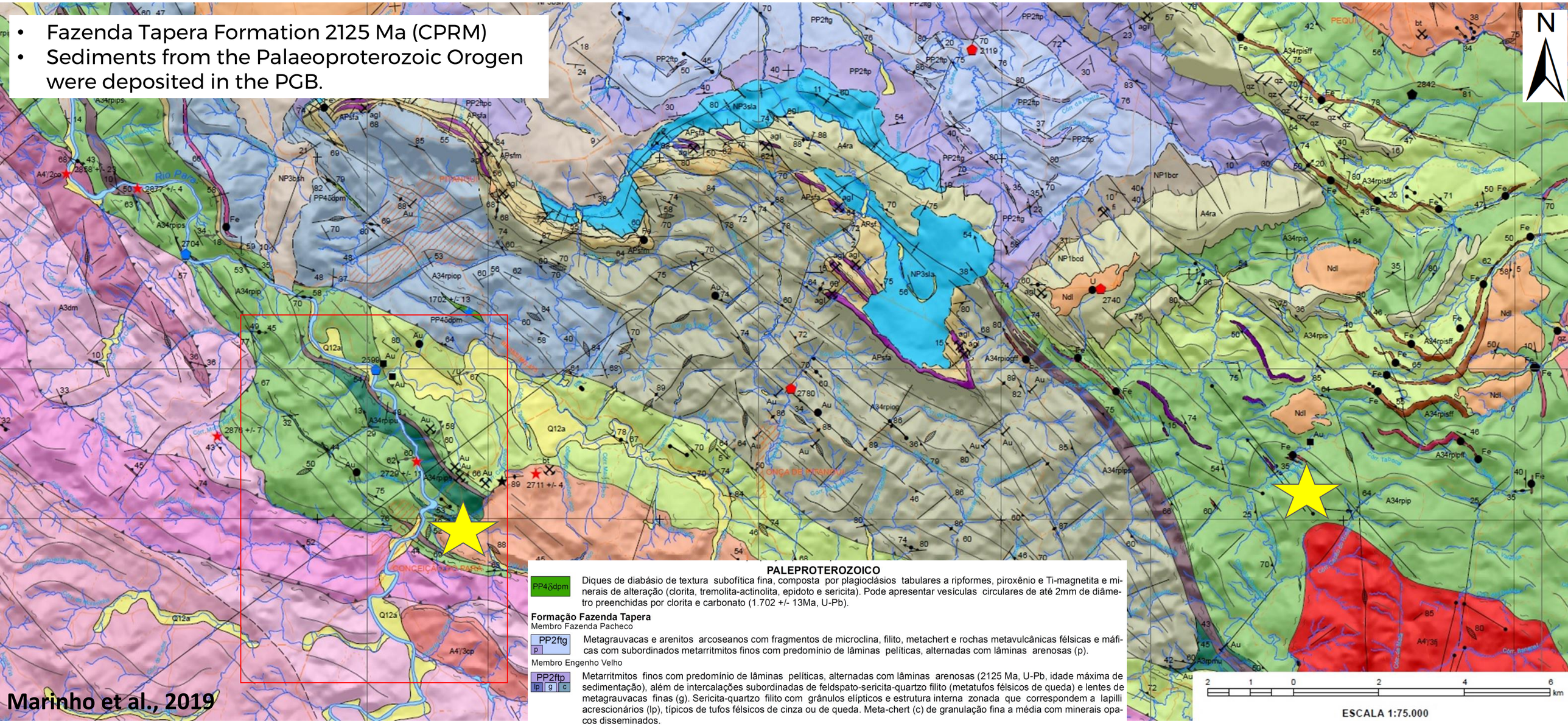






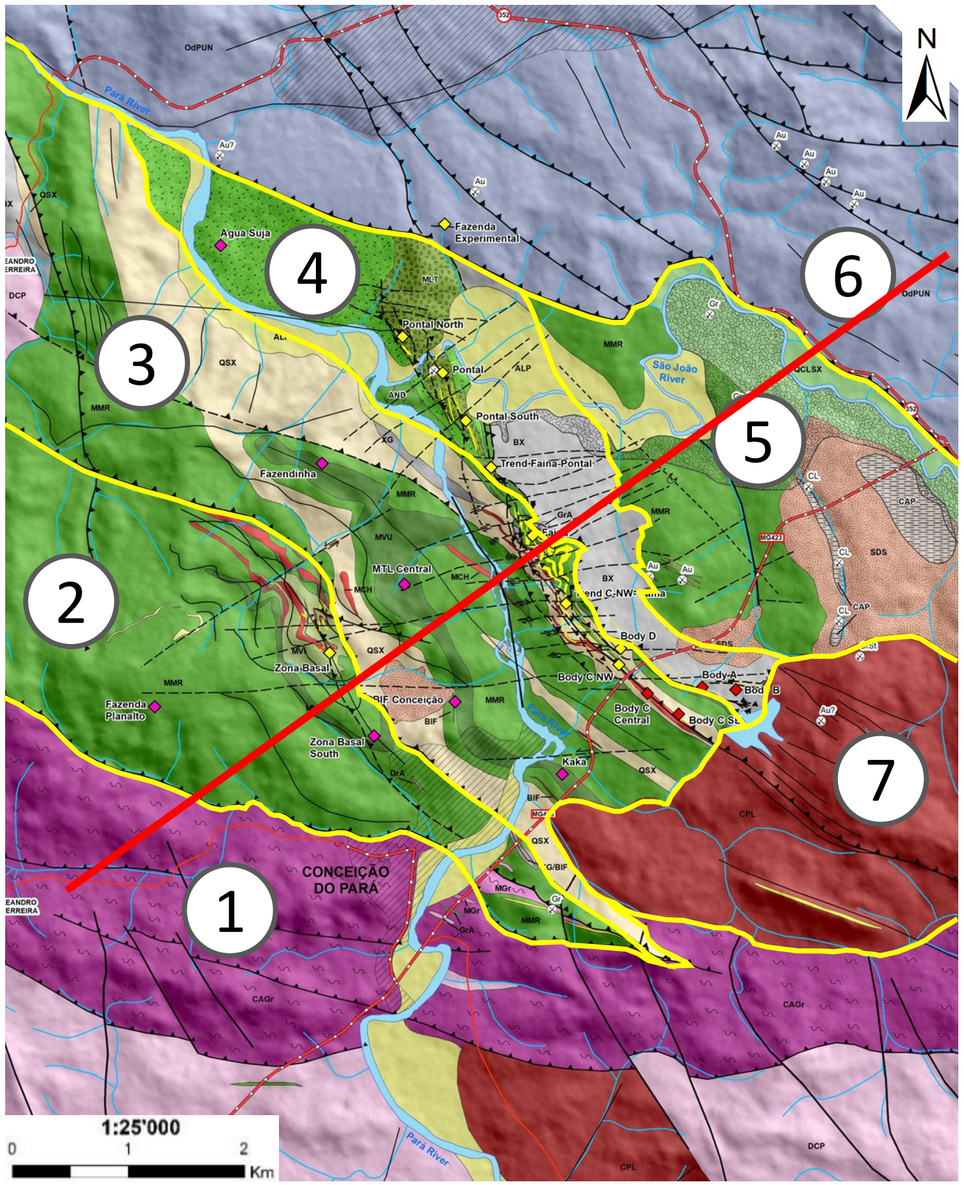
STRATIGRAPHIC EVIDENCE

- Fazenda Tapera Formation 2125 Ma (CPRM)
- Sediments from the Palaeoproterozoic Orogen were deposited in the PGB.



Marinho et al., 2019

MTL REGION'S GEOLOGICAL EVOLUTION



Legend

FANEROZOIC - CENOZOIC (0 - 66 Ma)

- ALP — ALLUVIAL PLAIN
- GRAVEL — Layer with a maximum thickness of 1,5 meters. Outcrop area of the São João River conglomerate.
- CAP — CLAY AND PEAT
- SDS — SANDSTONE — Immature sandy sediments with minor clasts, silt, and clay.

UNCERTAIN AGE

- QUARTZ VEINS

NEOARCHAEAN (2.5 - 2.8 Ga)

GRANITES UNITS

- GrA — GRANITE APOPHYSES
- MGr — MUSCOVITE GRANITE
- CPL — CASQUILHO PLUTON — Medium to coarse-grained (phaneritic) leucocratic and locally foliated biotite granite (2.711 ± 4 Ma).
- CAGr — CÓRREGO DO ARRUDA GRANITE — Mostly porphyritic, sometimes medium to coarse-grained (phaneritic), or mylonitic biotite monzogranite.

ONÇA DO PITANGUI UNIT

- OdPUN — META-GRAYWACKE / PHYLLITE — Interbedded metagraywackes, phyllites and [illegible]ceous phyllites.

RIO SÃO JOÃO UNIT

- QCLSX — QUARTZ-CHLORITE-SERICITE S[illegible] — Greenschist with porphyroblasts of sericite
- MMR — META-MAFIC ROCKS

ÁGUA SUJA - CASQUILHO UNIT

- AND — INTERMEDIATE VOLCANICS ROCKS / META-ANDESITE — Fine-grained (phaneritic) massive or laminated dark-coloured meta-andesite basalt. Sometimes with blue quartz and spaced pyroclasts.
- MTF — META-TUFF — Fine-grained laminated pyroclastic rock (as[illegible] < 2mm).
- MLT — META-LAPILLI TUFF / META-VO[illegible]GGLOMERATE — Medium to coarse-grained pyroclastic rock[illegible]sts between 2 - 64mm, with minor bombs > 64mm).
- BX / MCQ — BIOTITE-QUARTZ SCHIST / BIOTITE SCHIST — Meta-turbidites. Rhythmic biotite schist with rare metric intercalations of meta-conglomerates (debris flow).

RIO PARÁ UNIT

- XG/MCH/BIF XG — UNDIFFERENTIATED CHEMICAL SEDIMENTS
- MVU — META-ULTRAMAFIC ROCKS
- MMR — META-MAFIC ROCKS
- QSX — QUARTZ-SERICITE SCHIST — Fine-grained granoblastic/lepidoblastic quartz-sericite schist with medium to coarse-grained sericite quartzite.

BASAL UNIT

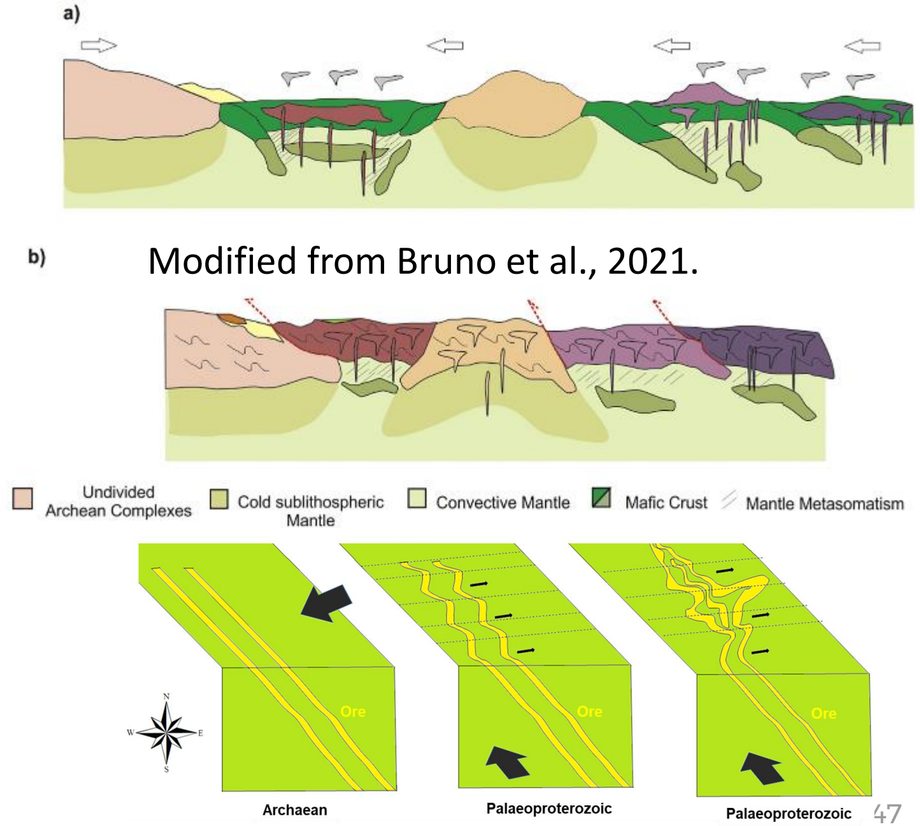
- XG/MCH/BIF XG — UNDIFFERENTIATED CHEMICAL SEDIMENTS — Associations of carbonaceous schists (XG), metacherts, and banded iron formations.
- MVI — UNDIVIDED METAMAFICS ROCKS — Transition between amphibolite and metachert[illegible] Presents rhythmic banding of metachert and nematoblastic mafic greenschist. Commo[illegible]ands are discontinuous, showing a chaotic texture between the metacherts and the m[illegible], suggesting a sedimentary reworking of the basin. Metric intercalations of amphibolites[illegible]lerts layers are common.
- MVU — METAULTRAMAFIC ROCKS — Talc schists and serpentine-amphibole-talc schists. Remains of ultramafic rocks rich in magnetite.
- MMR — METAMAFIC ROCKS — Mainly massive or foliated amphibolite with or without feldspar. Interbeds with meta-gabbros, meta-basalts, greenschists, and quartz amphibolites. Sometimes it corresponds to CLX, CLSX, and/or BACLX. When weathered, it shows shades of ocher, violaceous, rosy, and white from its kaolinite and quartz.

MESOARCH[illegible].8 - 3.2 Ga)

- DCP — DIVINÓPOLIS COMPLEX — Gneisses, migmatites, and/or medium to coa[illegible]med (phaneritic) granites.

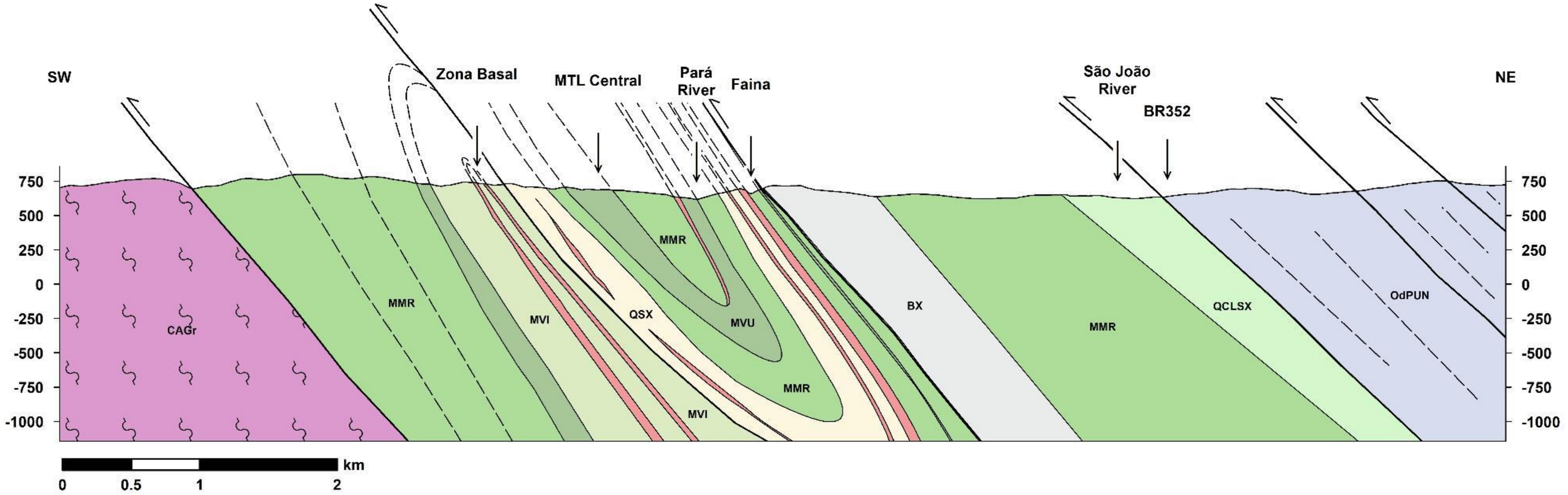
Mapped area is interpreted as an agglutination of Archaean nuclei, later intruded by Neoarchaean granitic plutons/apophyses.

Rhyacian orogeny is key factor for structural geology of regions not shielded by the Casquilho granite (the reactivation of Archaean structures).

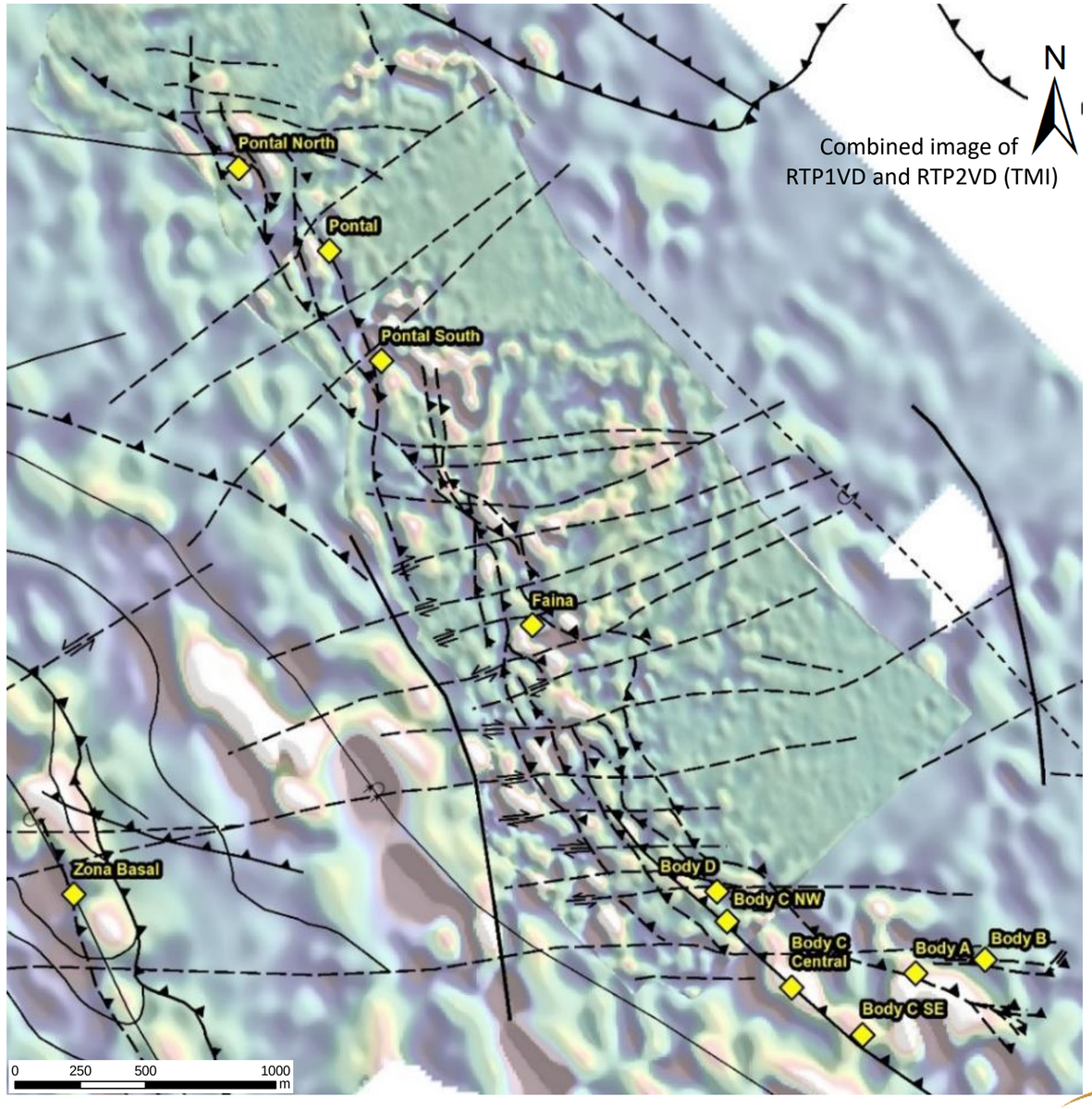


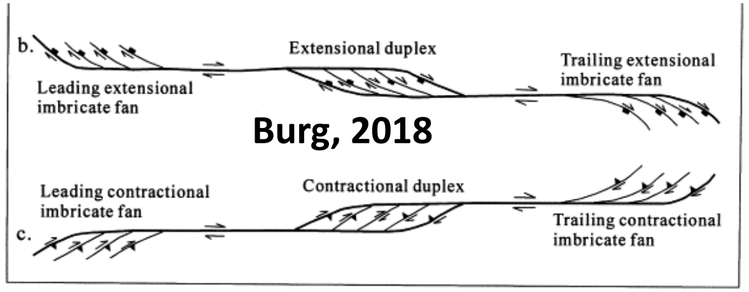
Modified from Bruno et al., 2021.

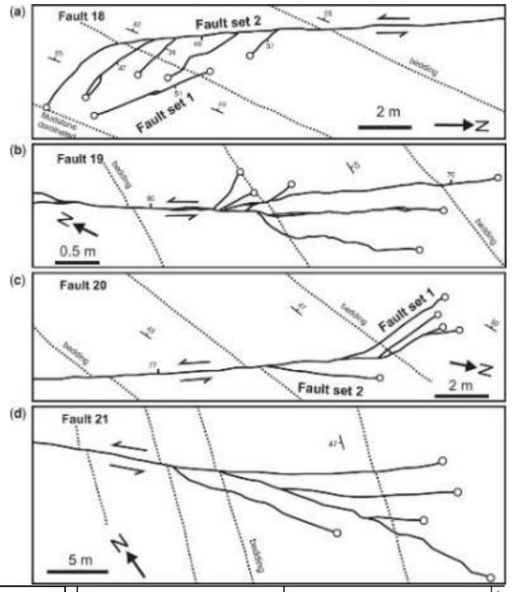
MTL REGION'S CROSS-SECTION

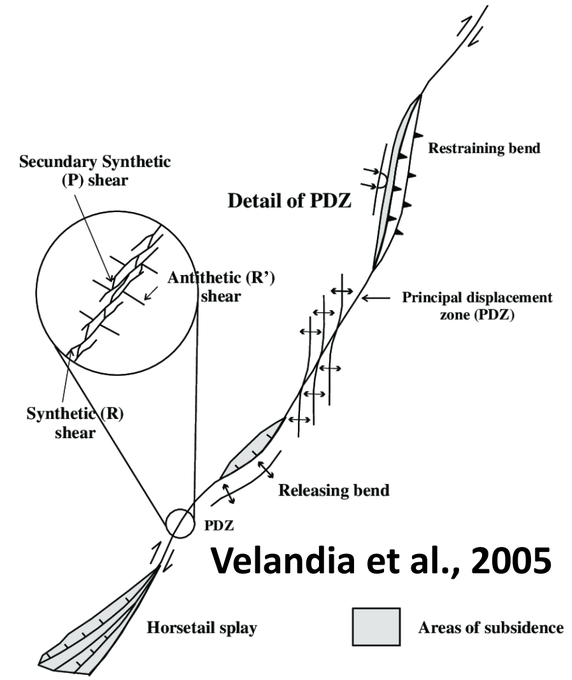


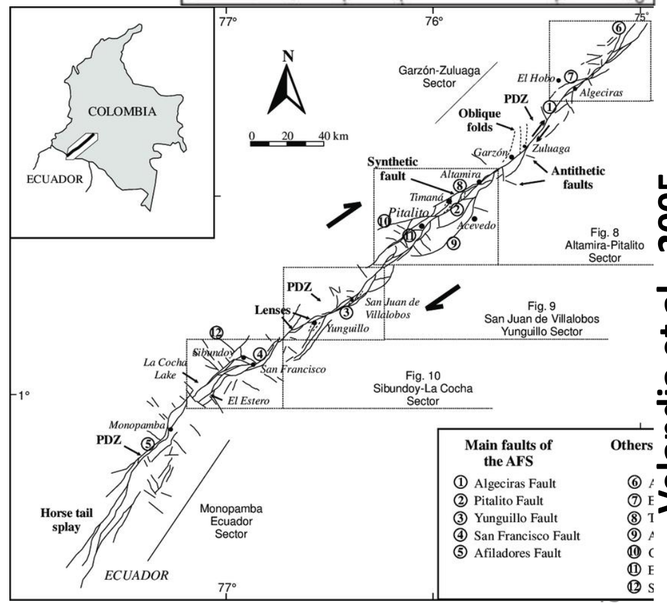
HORSE TAIL FAULT SYSTEM



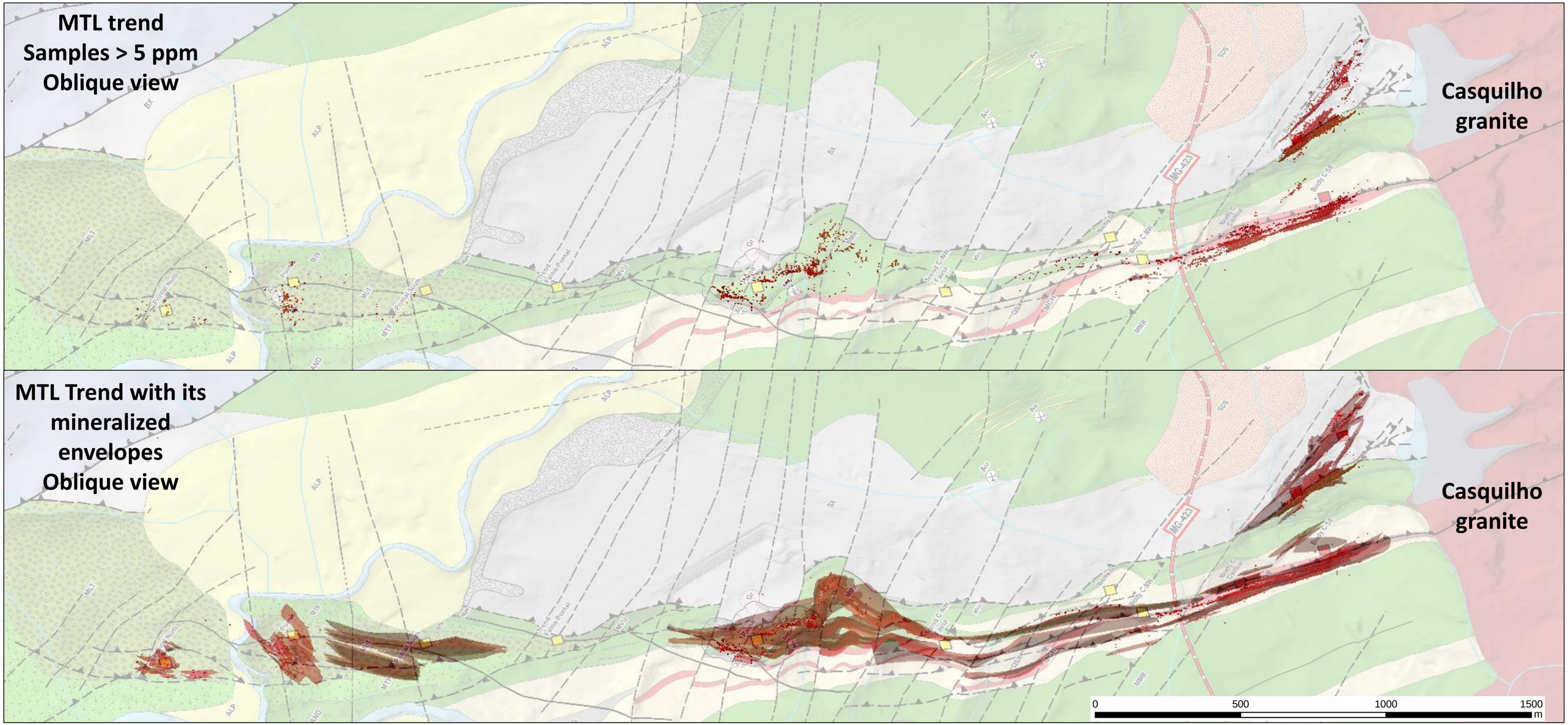




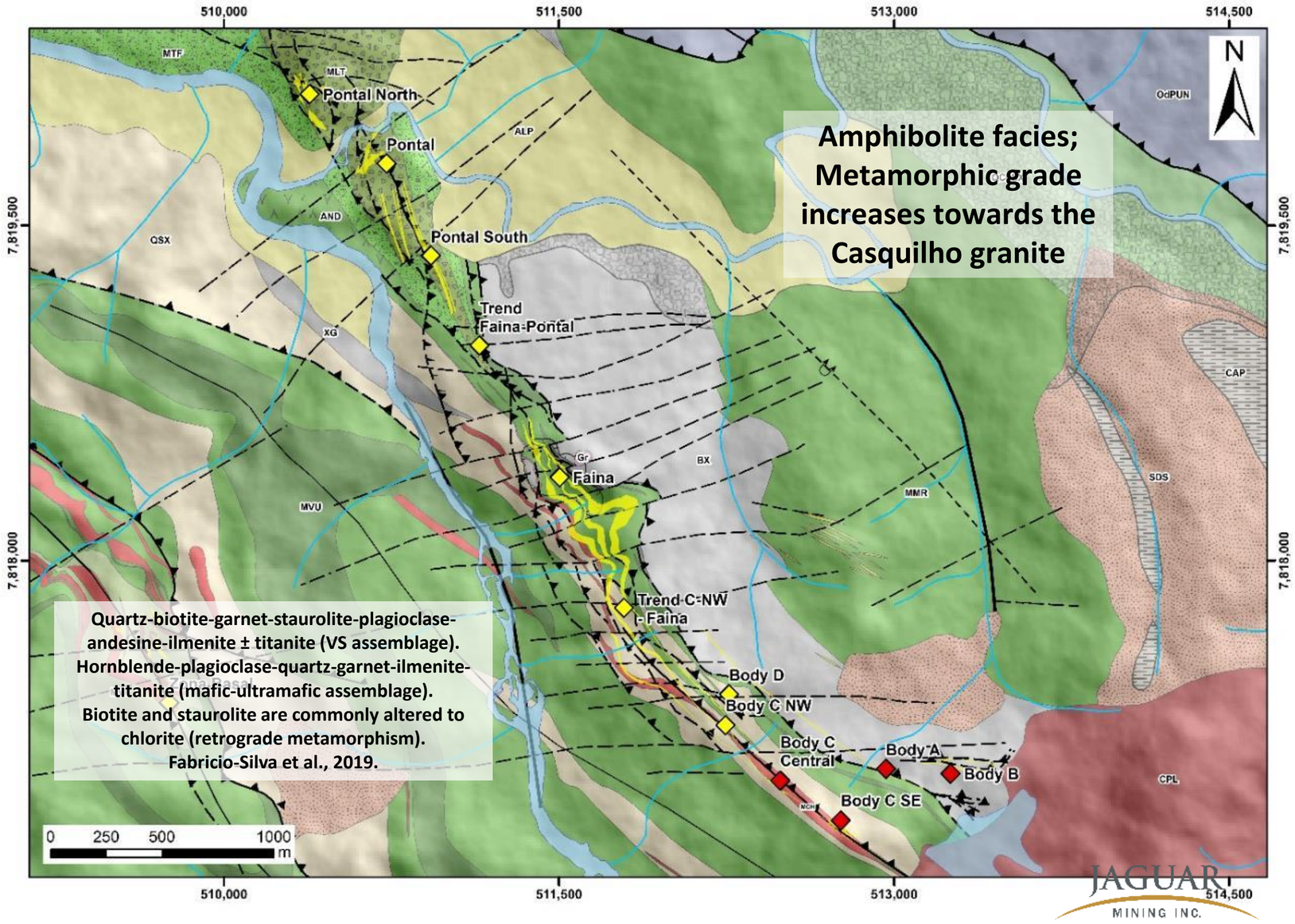


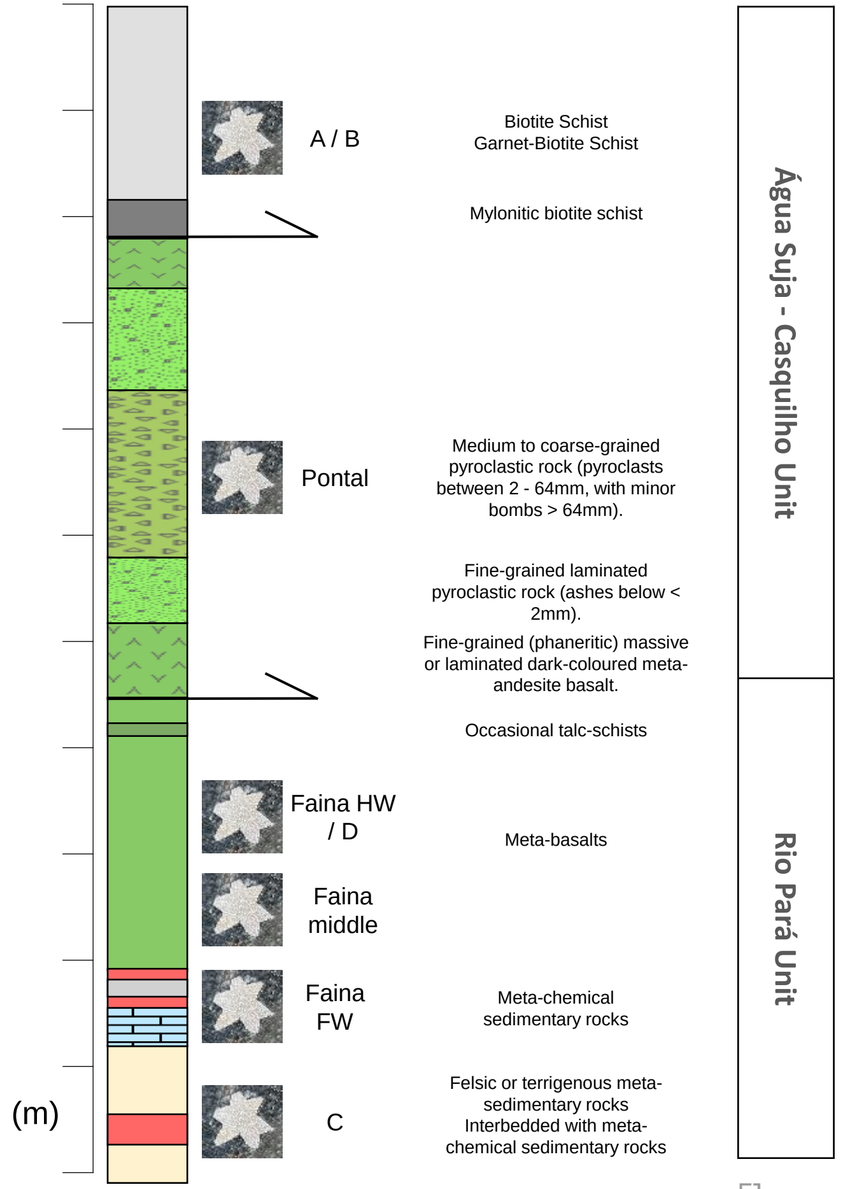


MTL TREND


MTL trend
Samples > 5 ppm
Oblique view
Casquilho granite
MTL Trend with its mineralized envelopes
Oblique view
Casquilho granite
MG-423
0
500
1000
1500
m

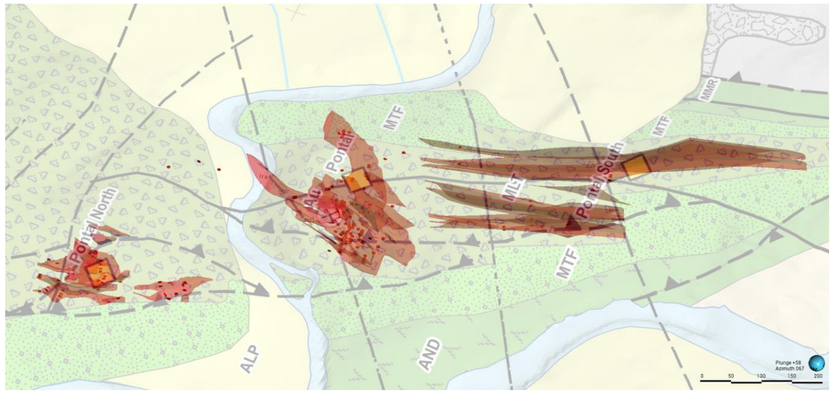
MTL TREND LOCAL GEOLOGY

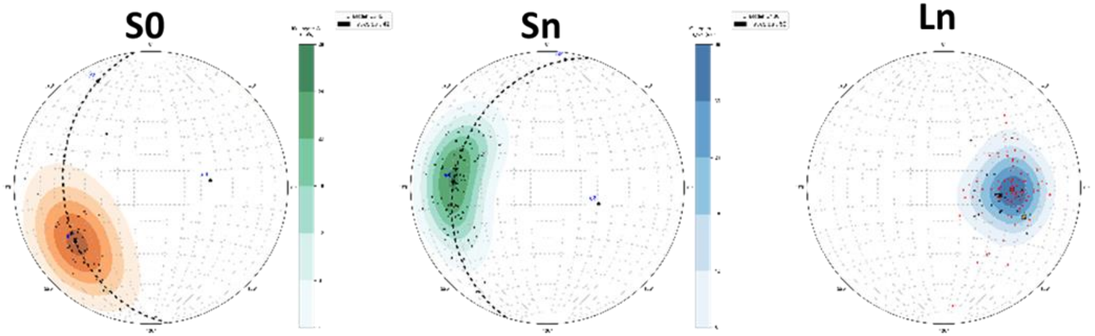




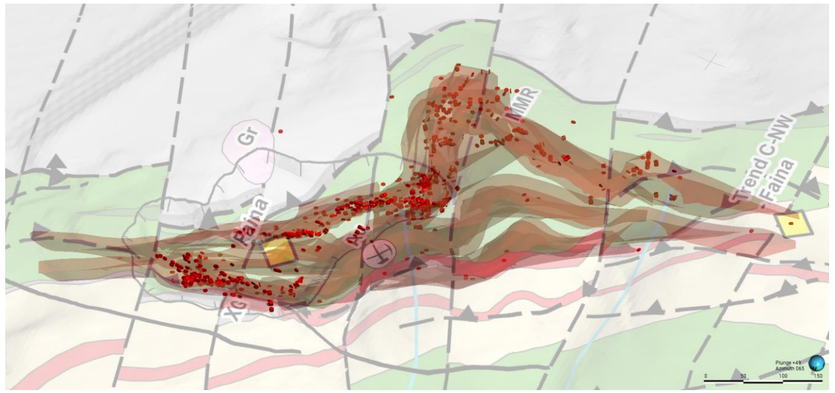
MTL TREND STRUCTURAL ANALYSIS

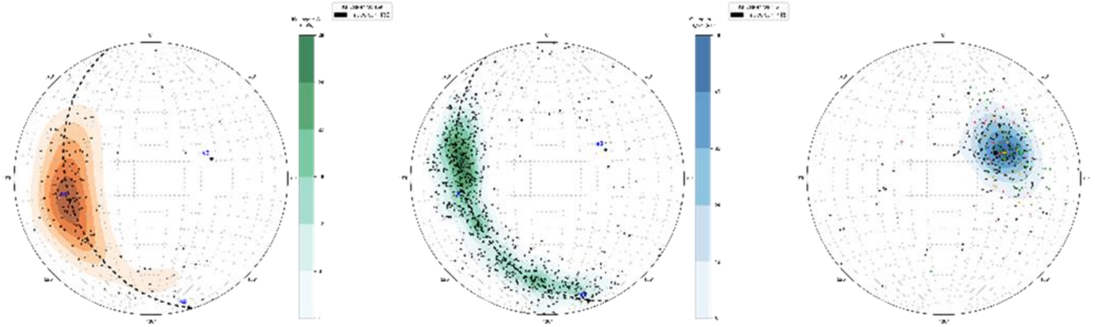
Pontal
Samples > 5 ppm Au
Oblique view, looking down plunge



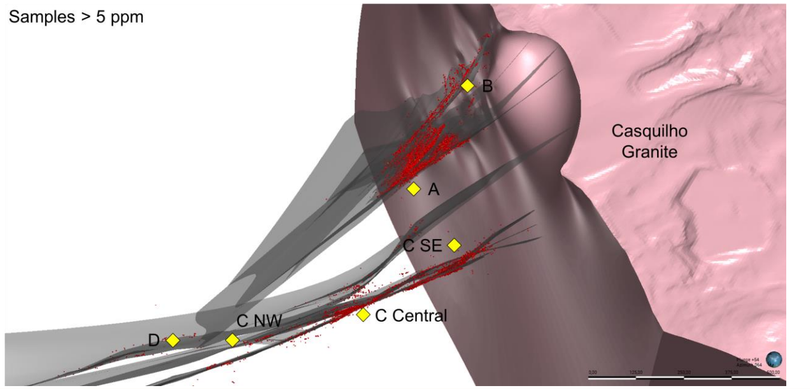


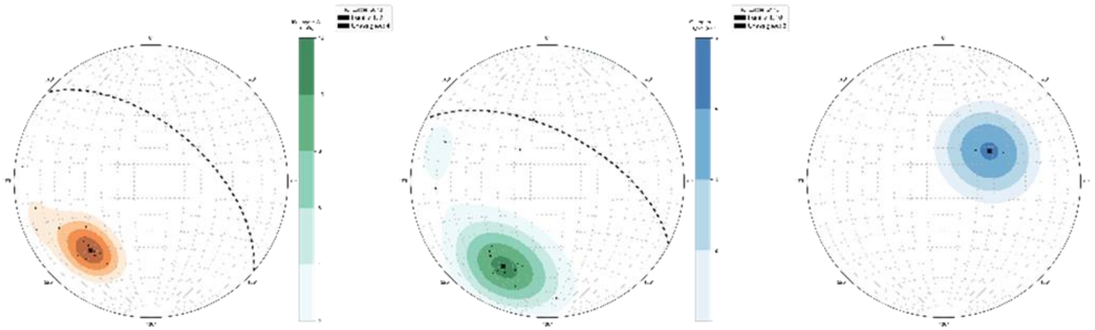
Faina
Samples > 5 ppm Au
Oblique view, looking down plunge





MTL
Samples > 5 ppm Au
Oblique view, looking down plunge





ECONOMIC GEOLOGY

Importance of structural geology for mineralization at MTL trend:

- Shear zone hosts the trend mineralization;
- It lies at an oblique angle (~10-30˚) with the NW-SE strike of beds;
- Orebodies shift in lithostratigraphy context throughout the shear zone;
- Thus, shifting host rocks, buffering reactions, and hydrothermal alteration haloes.

A & B orebodies (SE end of shear zone):

- Host rock: biotite schist;
- Estimated temperature of ~650˚C;
- Arsenopyrite + löllingite + pyrrhotite + Au (primary assemblage);
- Posterior Au remobilization by native Bi + Bi telluride;
- Garnet-rich distal halo (specially in B orebody).

C & D orebodies:

- Host rock: chemical metassediments (C);
- Host rock: metabasalts (D);
- Estimated temperature of ~650˚C;
- Arsenopyrite + löllingite + pyrrhotite + Au (primary assemblage);
- Posterior Au remobilization by aurostibite + berthierite + galena.

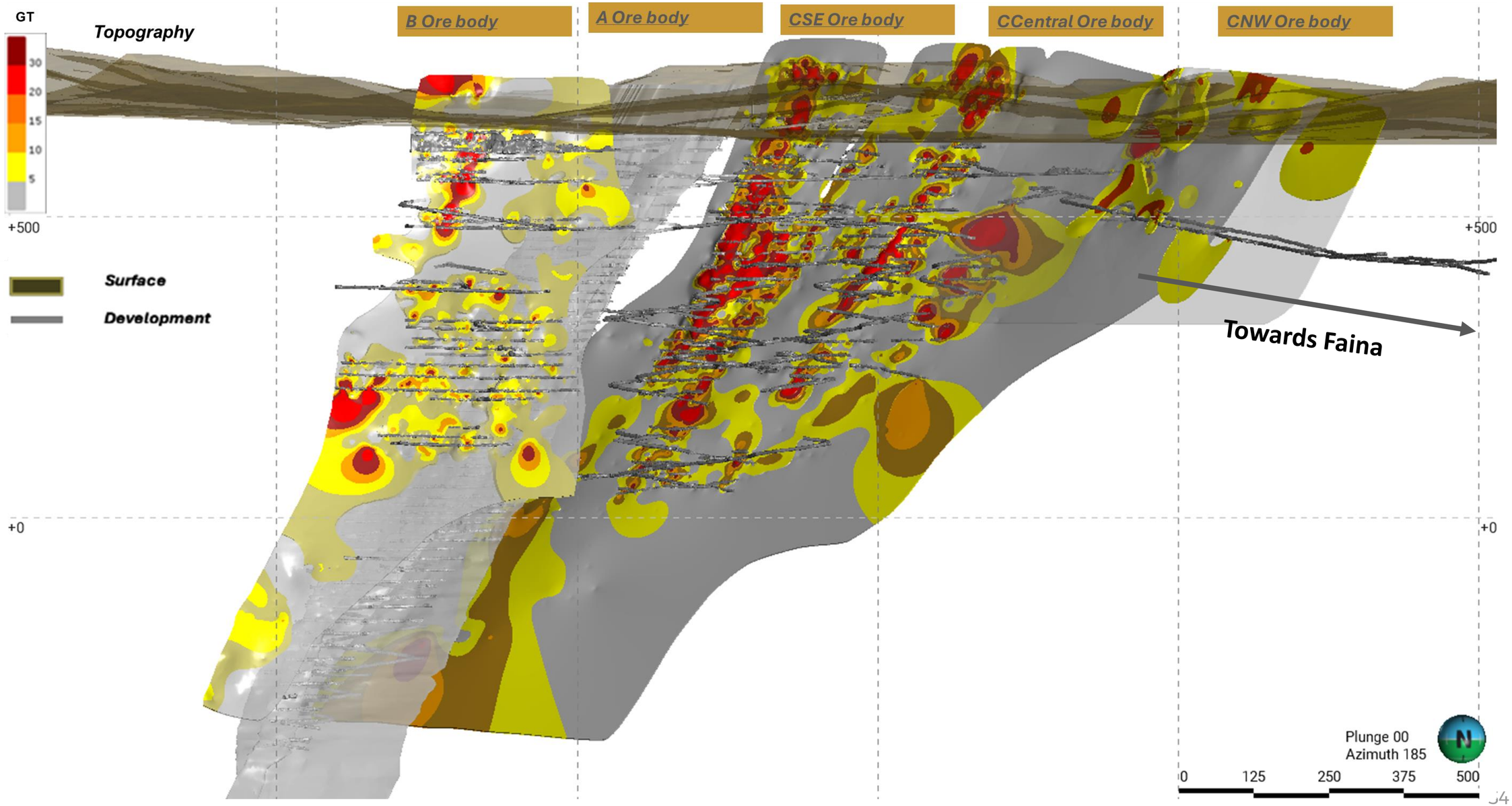
Faina:

- Host rock: metabasalts (HW / middle) and chemical metassediments (FW);
- Estimated temperature of ~450-500˚C;
- Arsenopyrite+ scheelite + Au (primary assemblage);
- Posterior Au remobilization by aurostibite + berthierite + stibinite.

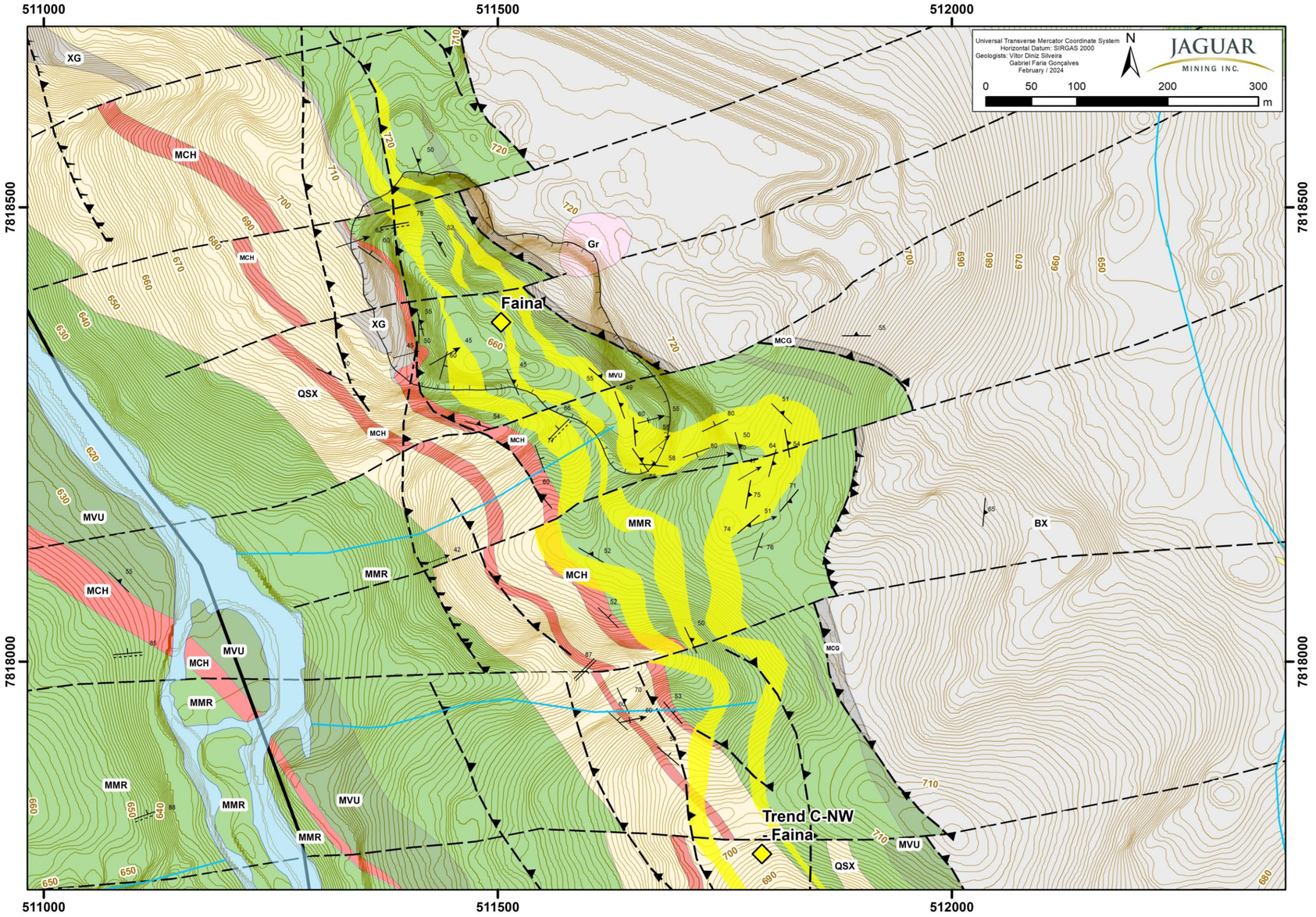
Pontal (NW end of shear zone):

- Host rock: volcanic agglomerates;
- Estimated temperature of ~300˚C (crustiform veins);
- Pyrite + pyrrhotite + Arsenopyrite + Au (primary assemblage);
- Posterior Au remobilization by berthierite + stibnite + tetrahedrite + native Sb.

TURMALINA MINE GT MODEL AND DEVELOPMENT



FAINA'S GEOLOGICAL MAP

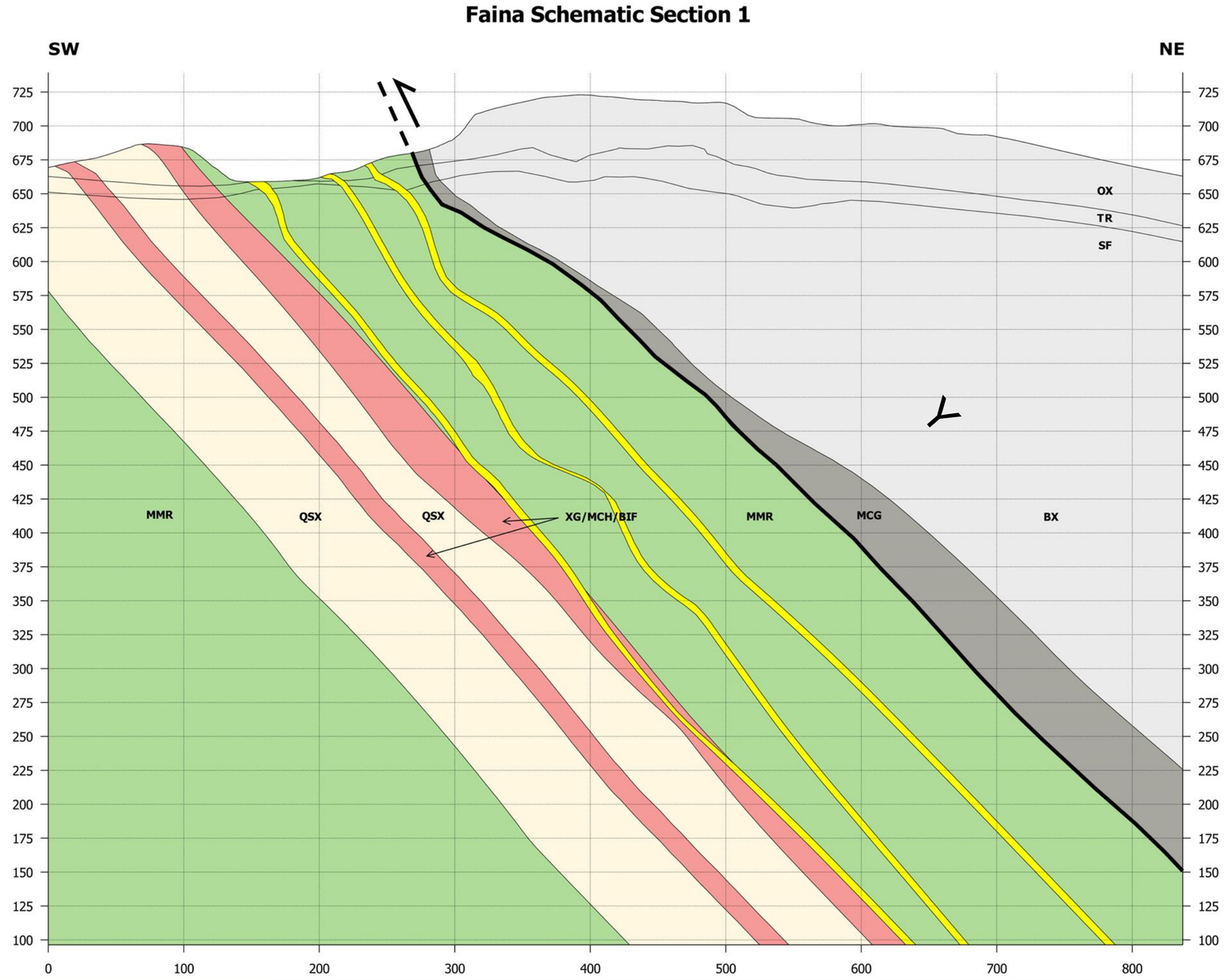


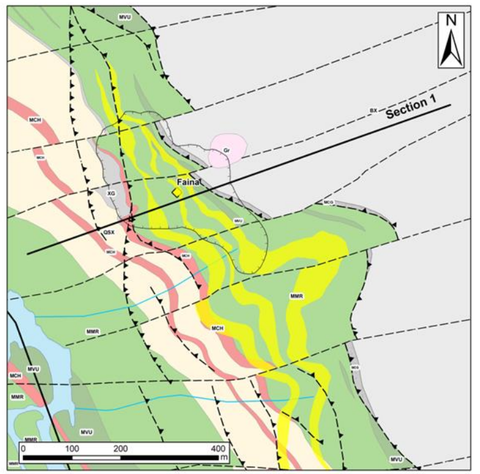
The declared resources (NI43-101) total 465 koz (2,847 kt @ 5.08 g/t Au).

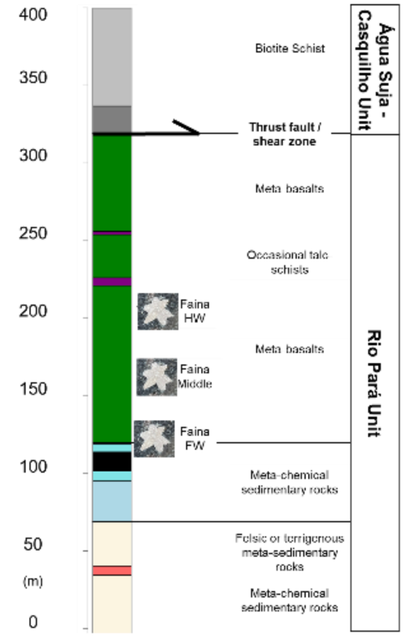
NW continuation of the Turmalina Complex mineralized trend.

- Mineralization envelope
- Granite
- Biotite schist
- Meta-conglomerate in biotite schist matrix
- Quartz-sericite schist
- Carbonaceous schists
- Chemical meta-sedimentary rocks (meta-cherts, BIFs, marbles, carbonaceous schists)
- Mafic-schists
- Ultramafic-schists

FAINA SCHEMATIC CROSS-SECTION







UNCERTAIN AGE

MINERALIZATION ENVELOPE

NEOARCHAEAN (2.5 - 2.8 Ga)

GRANITES UNITS

GrA GRANITE APOPHYSES

ÁGUA SUJA - CASQUILHO UNIT

BX MCG BIOTITE-QUARTZ SCHIST / BIOTITE SCHIST

Meta-turbidites. Rhythmic biotite schist with rare metric intercalations of meta-conglomerates (debris flow).

RIO PARÁ UNIT

QSX QUARTZ-SERICITE SCHIST

Fine-grained granoblastic/lepidoblastic quartz-sericite schist with medium to coarse-grained sericite quartzite.

XG/MCH/BIF XG UNDIFFERENTIATED CHEMICAL SEDIMENTS

Associations of carbonaceous schists (XG), metacherts, and banded iron formations.

MMR METAMAFIC ROCKS

Mainly massive or foliated amphibolite with or without feldspar. Interbeds with meta-gabbros, meta-basalts, greenschists, and quartz amphibolites. Sometimes it corresponds to CLX, CLSX, and/or BACLX. When weathered, it shows shades of ocher, violaceous, rosy, and white from its kaolinite and quartz.

MVU METAULTRAMAFIC ROCKS

Talc schists and serpentine-amphibole-talc schists. Remains of ultramafic rocks rich in magnetite.

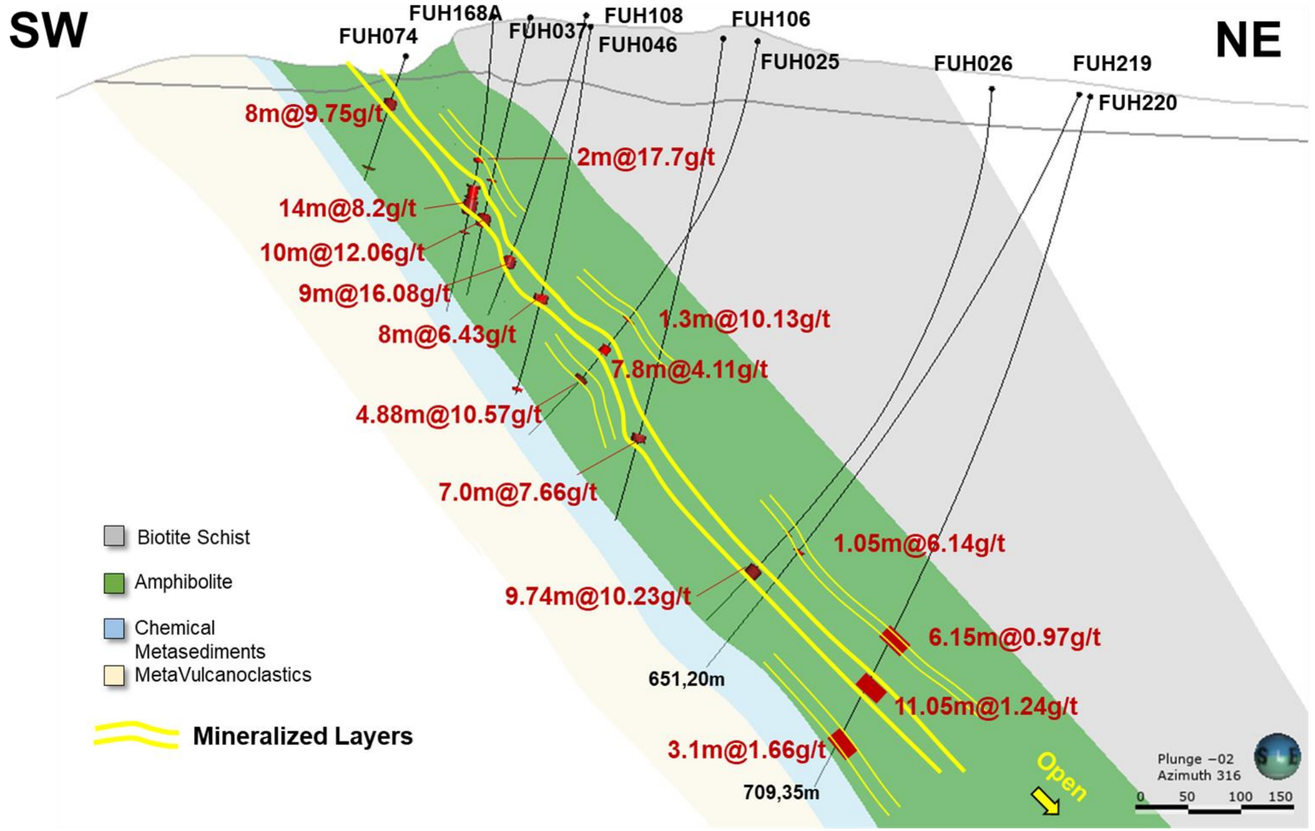
JAGUAR MINING INC.

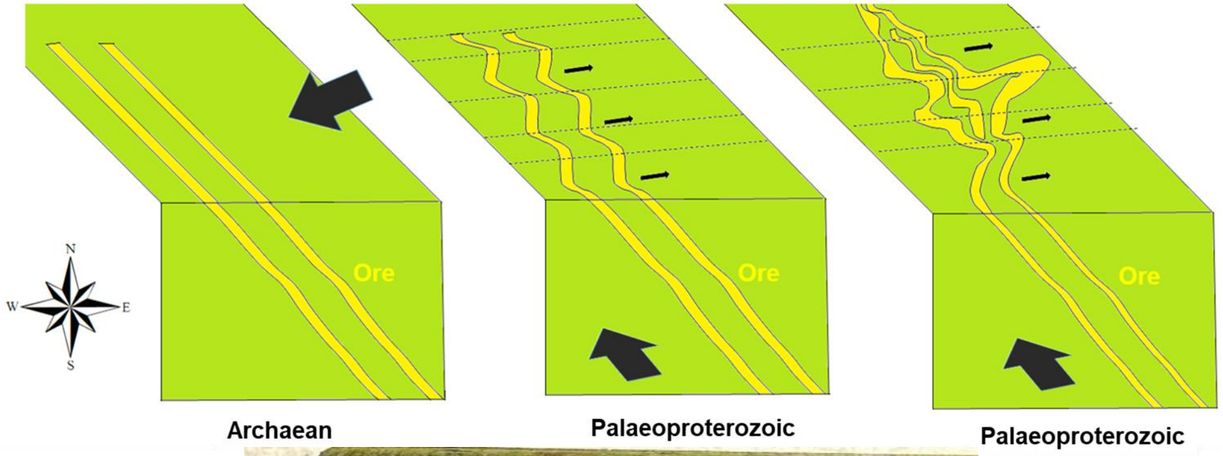
Cross section - Section along plane 160/90
Geologists: Gabriel Faria Gonçalves
Vítor Diniz Silveira

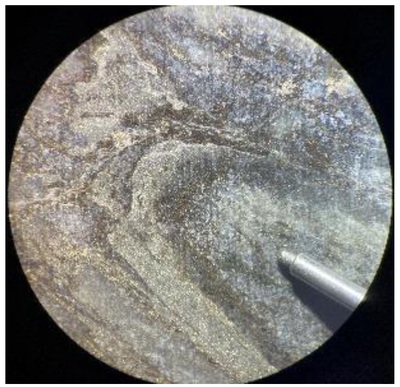
Vertical exaggeration: 1x

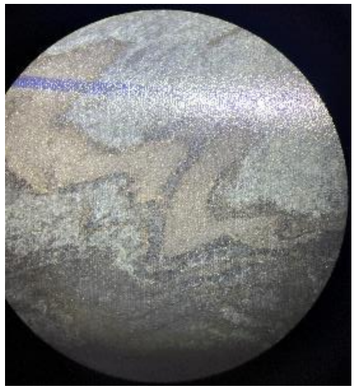
0m 50m

FAINA FOLDED DEPOSIT

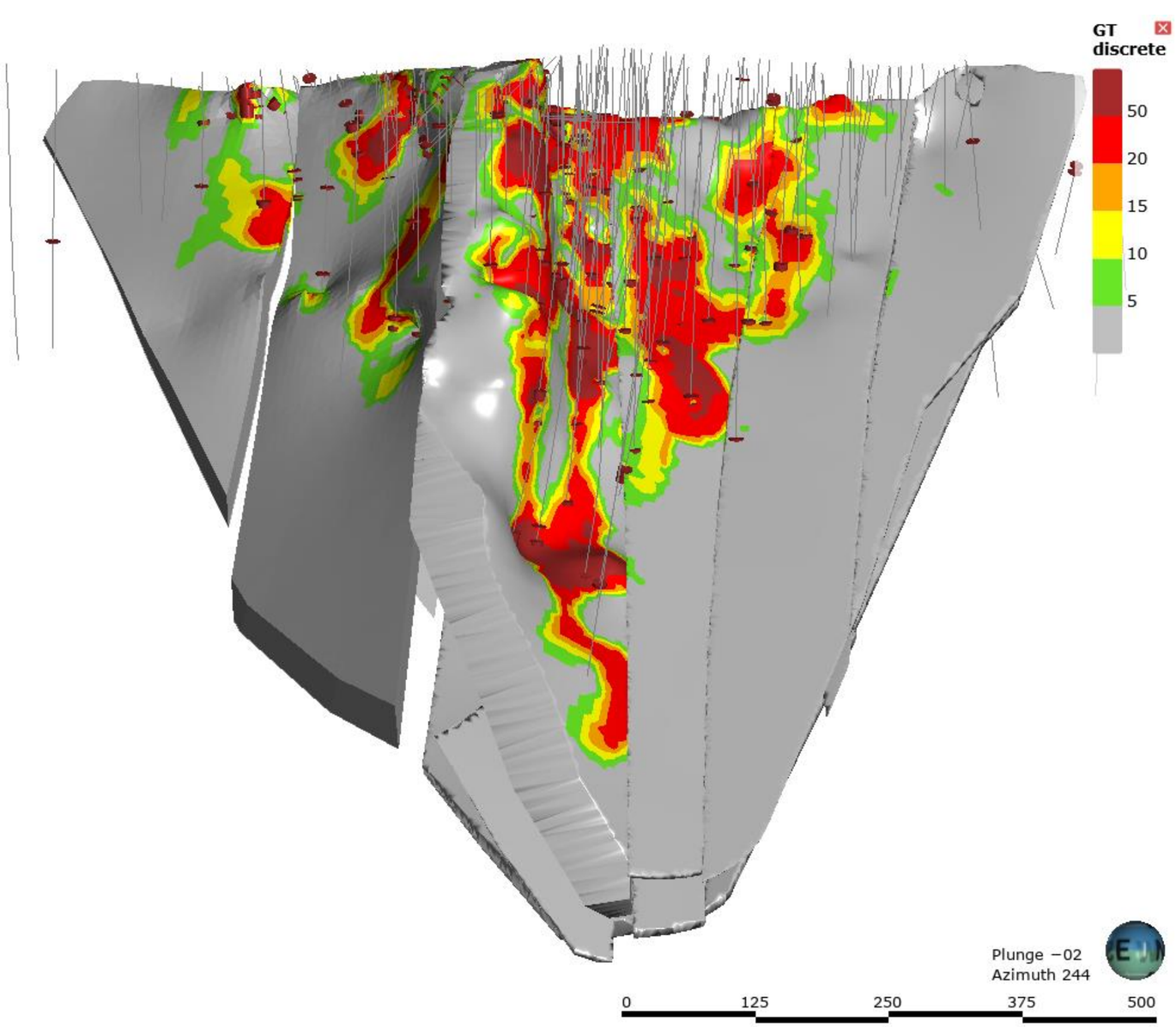


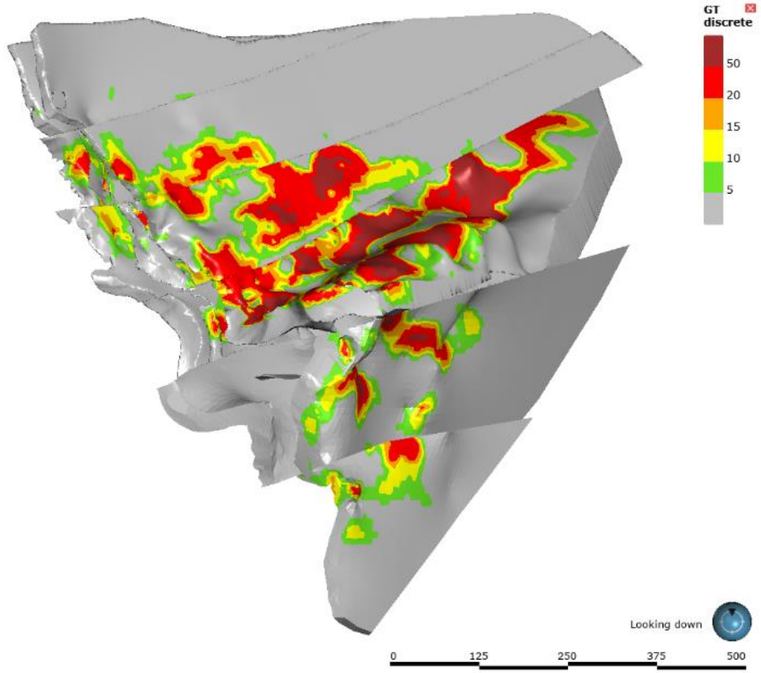


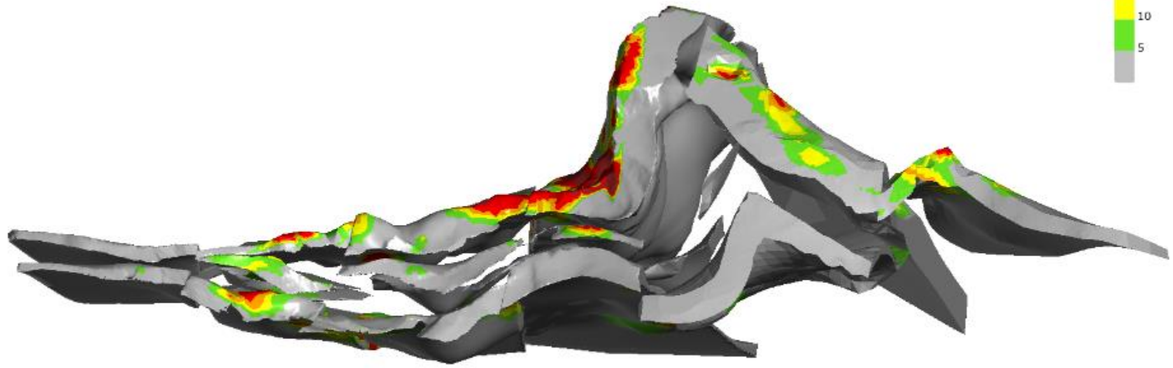


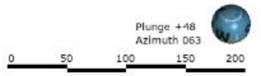


FAINA GT MODEL



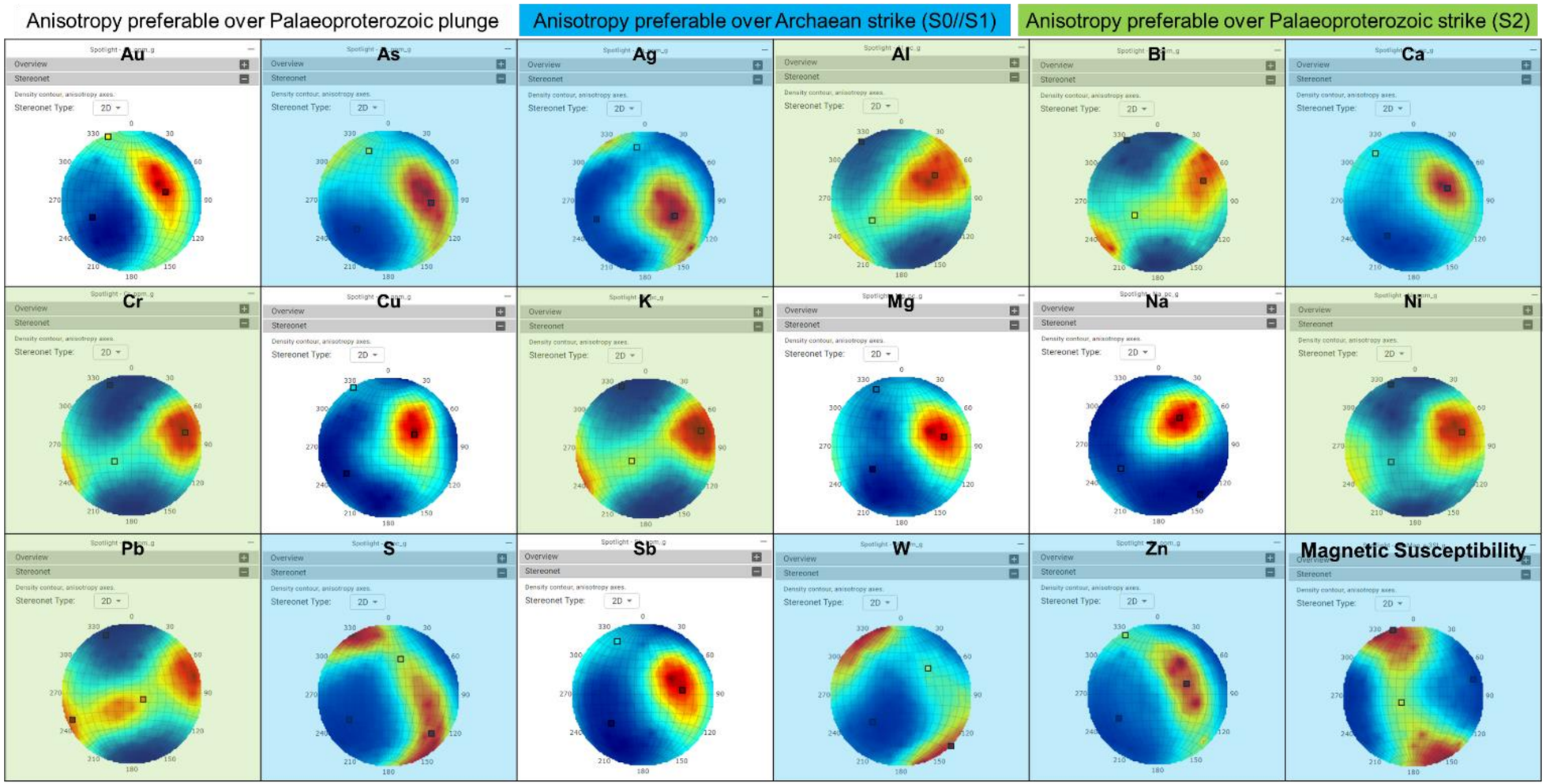






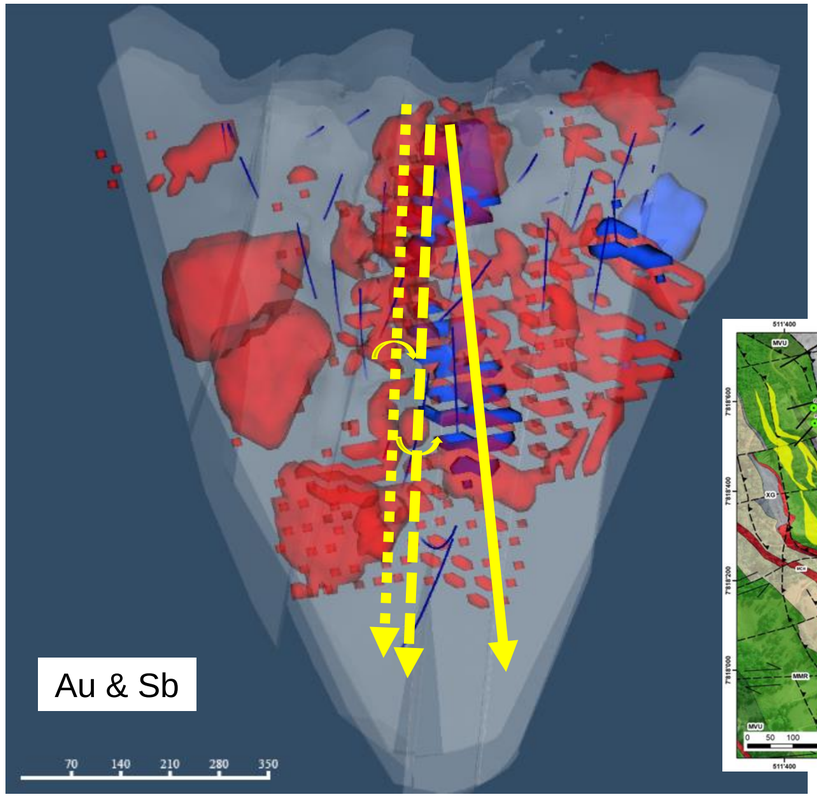
ABOUT SB USING DRIVER:

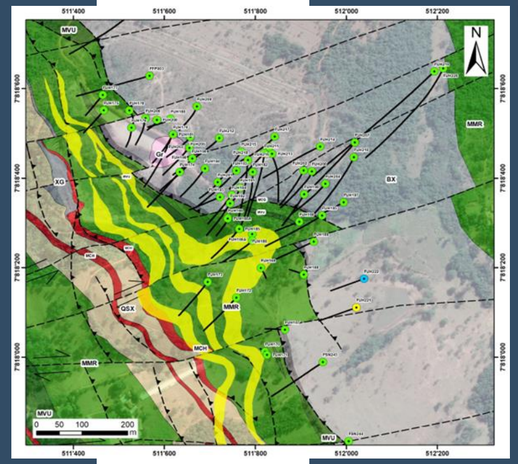
DRIVER provides good anisotropy analysis, which indicates plunge and/or strike trends for the variables based on assay data. Good for first studies of a new deposit/target and/or for first modelling ideas of structures.

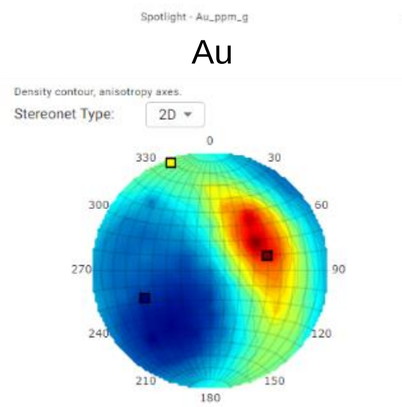


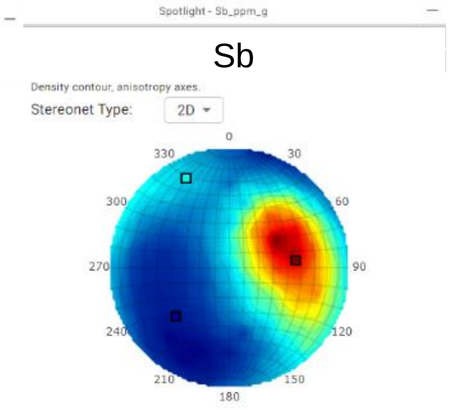
Global Anisotropy

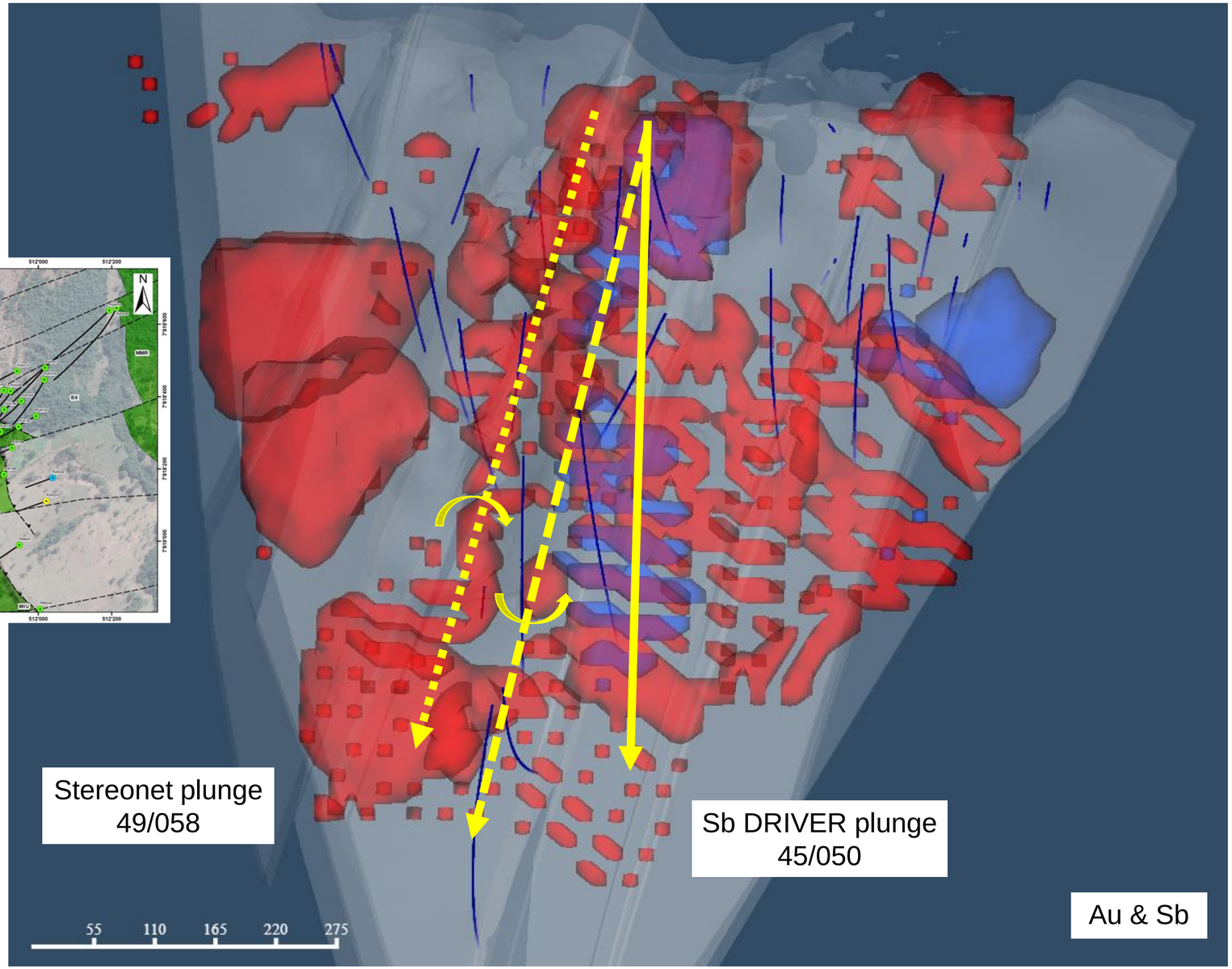
SCREENSHOTS OF SOME DRIVER'S MODELS



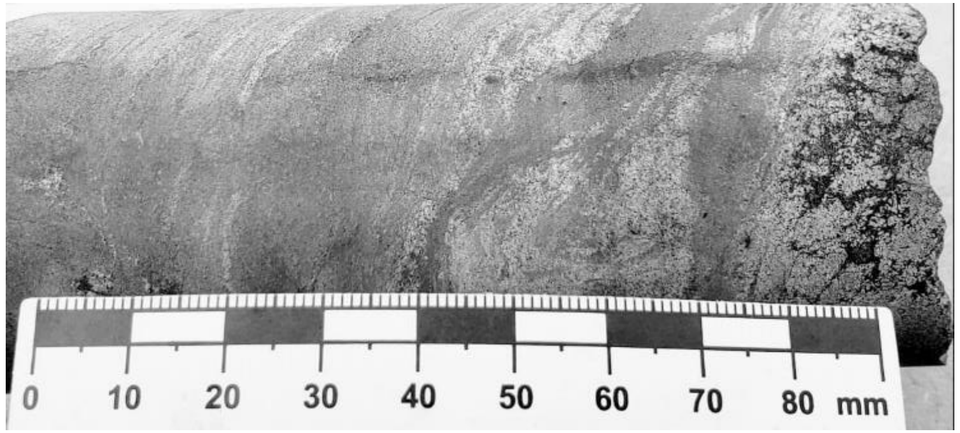


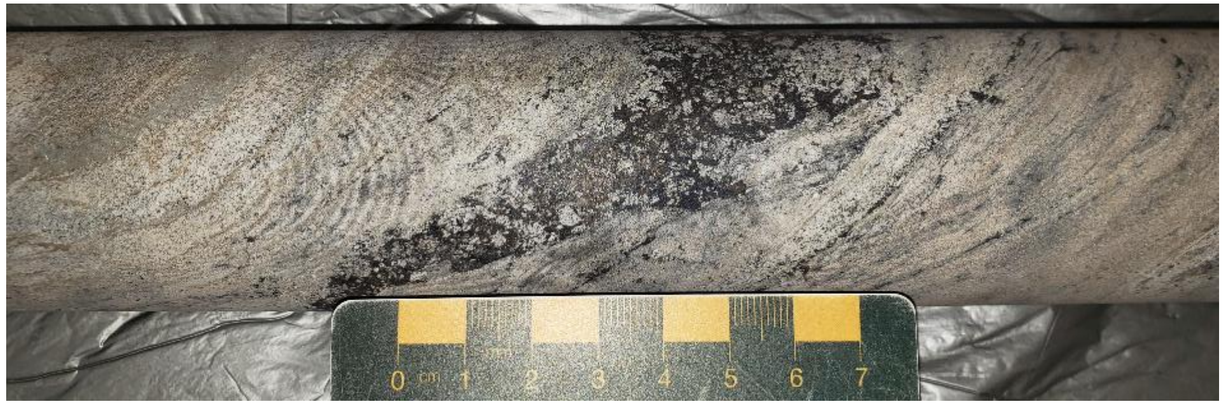


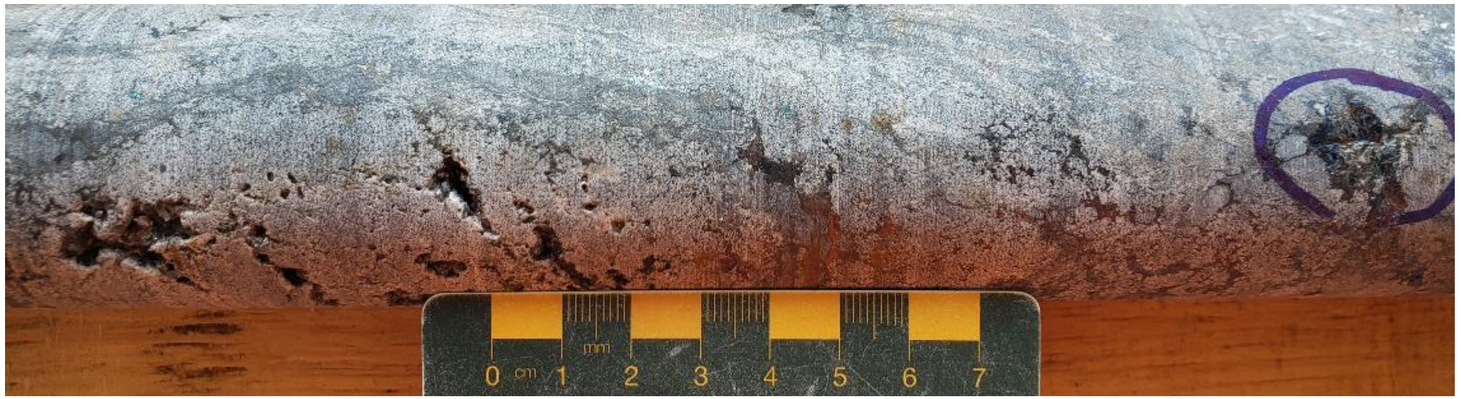




ANTIMONY SULPHIDE VEINS





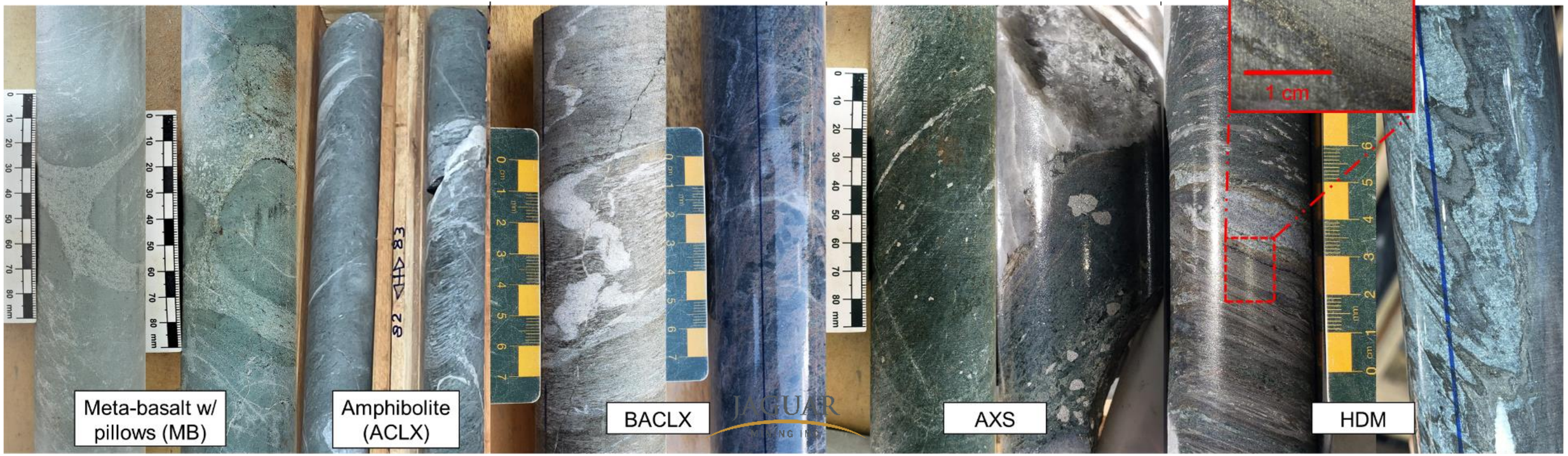


FAINA'S HYDROTHERMAL ALTERATION HALOES

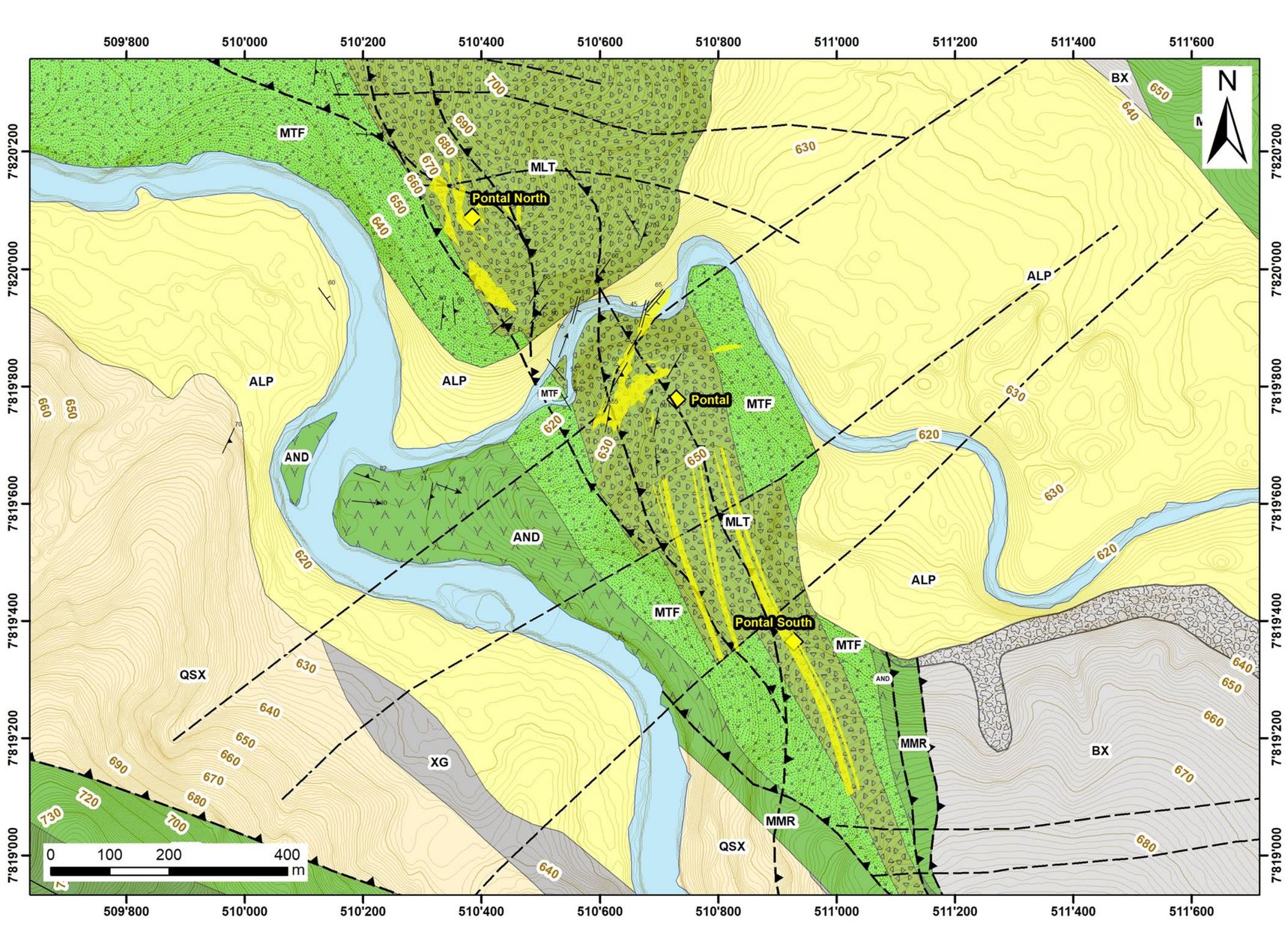
FAINA

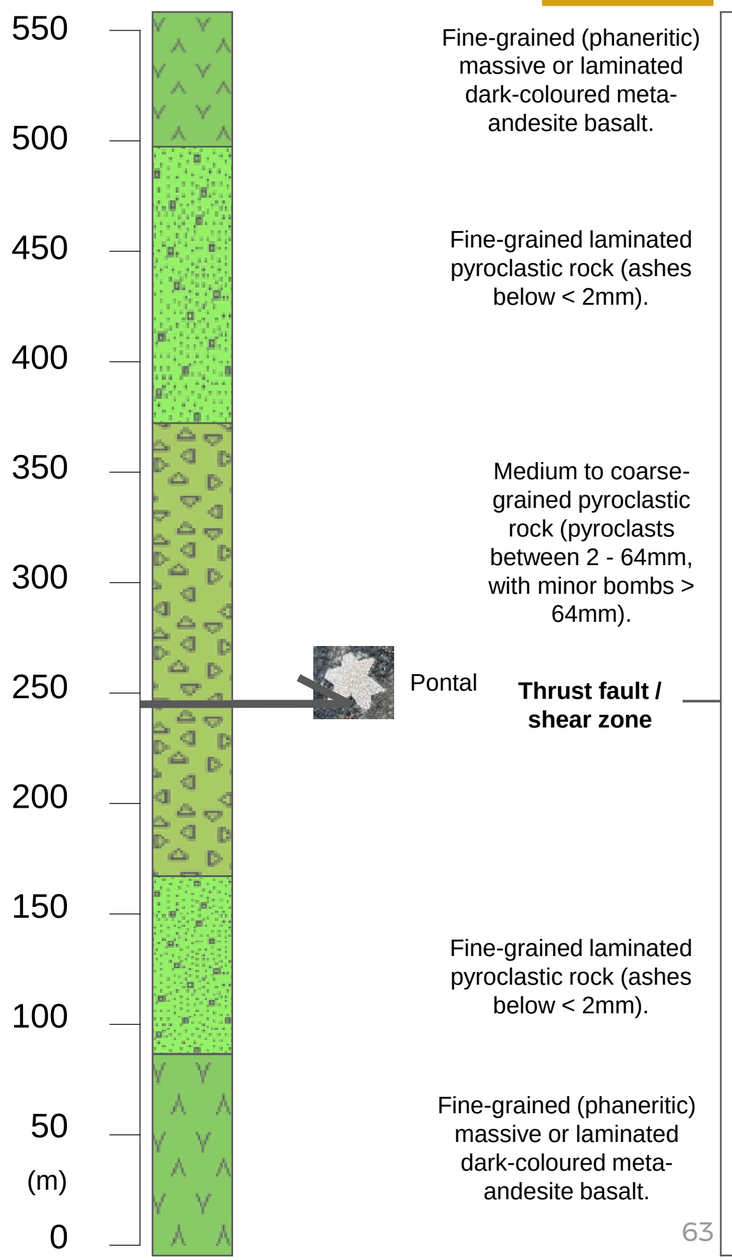
Distal alteration → Proximal alteration

↑K + ↑ CaCO3 + ↓SiO2	↑CaCO3 + ↓SiO2 + ↓Euhedral aspy	↑SiO2 + ↓Aspy	↑SiO2 + ↑Aspy + Au
Pristine host rock	Amphibolite facies metamorphism	Incipient silicification, carbonatic and potassic (biotite) alteration	Increasing silicification and progressive reduction of aspy crystal size	Very small aspy crystals in folded bands aggregates



GEOLOGICAL MAP OF PONTAL

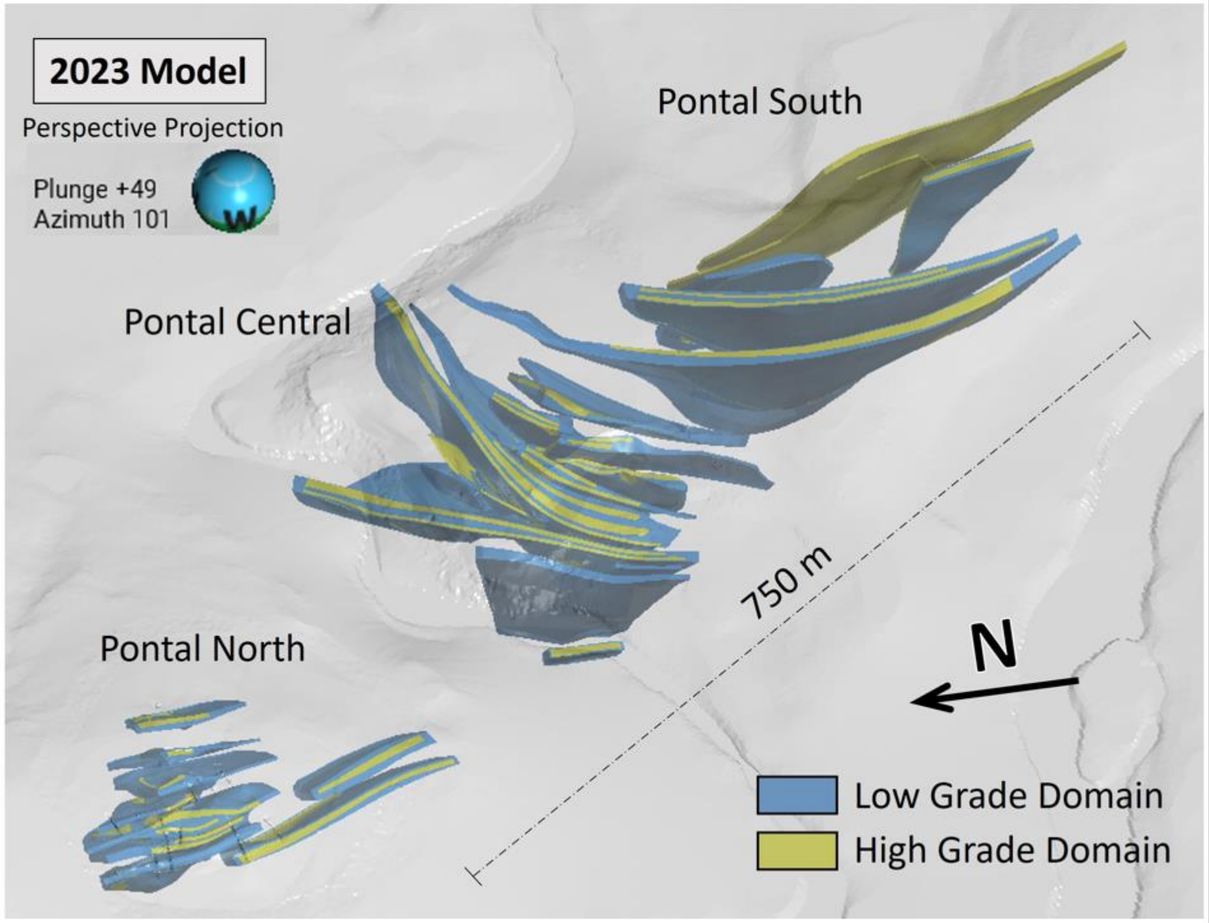




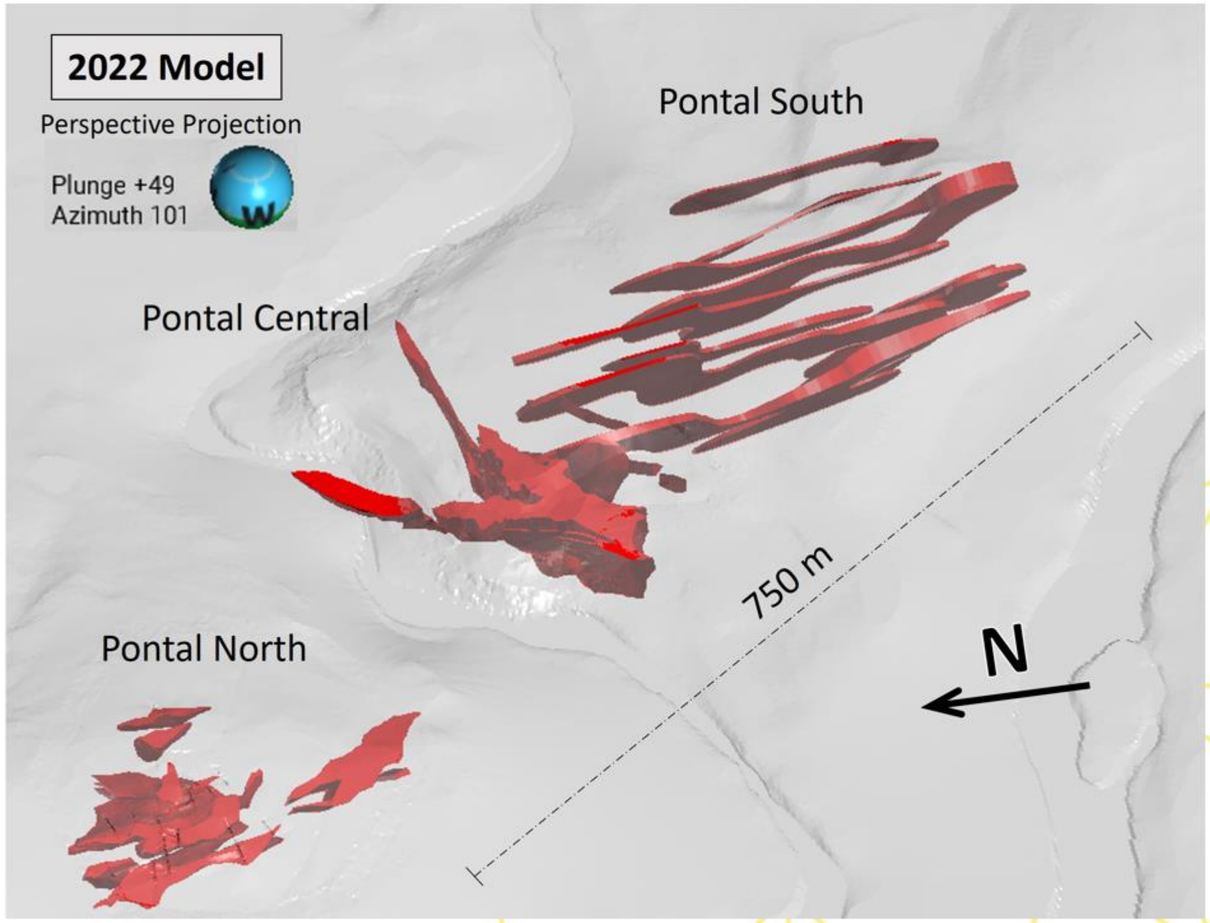
UPDATED GEOLOGICAL MODEL OF PONTAL

Pontal Gold Deposit - Longitudinal Projection of Geological Model

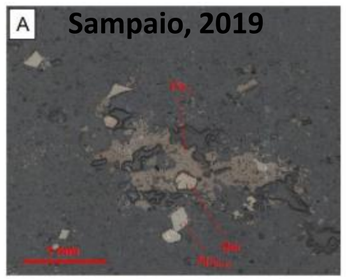
Longitudinal Projection of Model - 2023

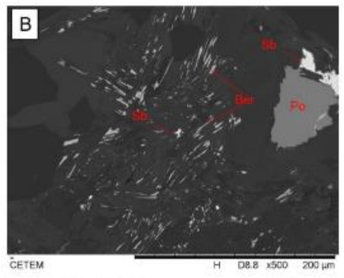


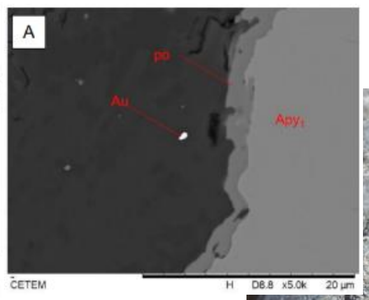
Longitudinal Projection of Model - 2022

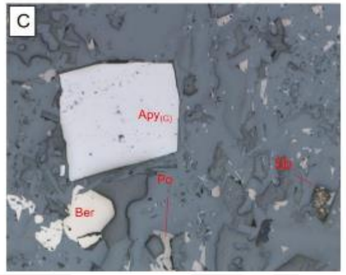


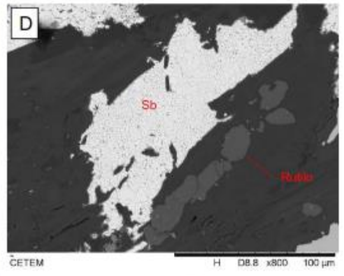
MINERALISATION OF PONTAL

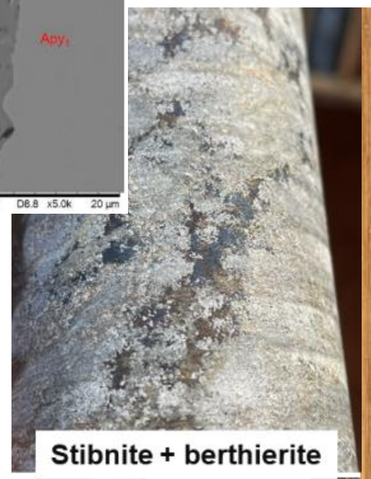


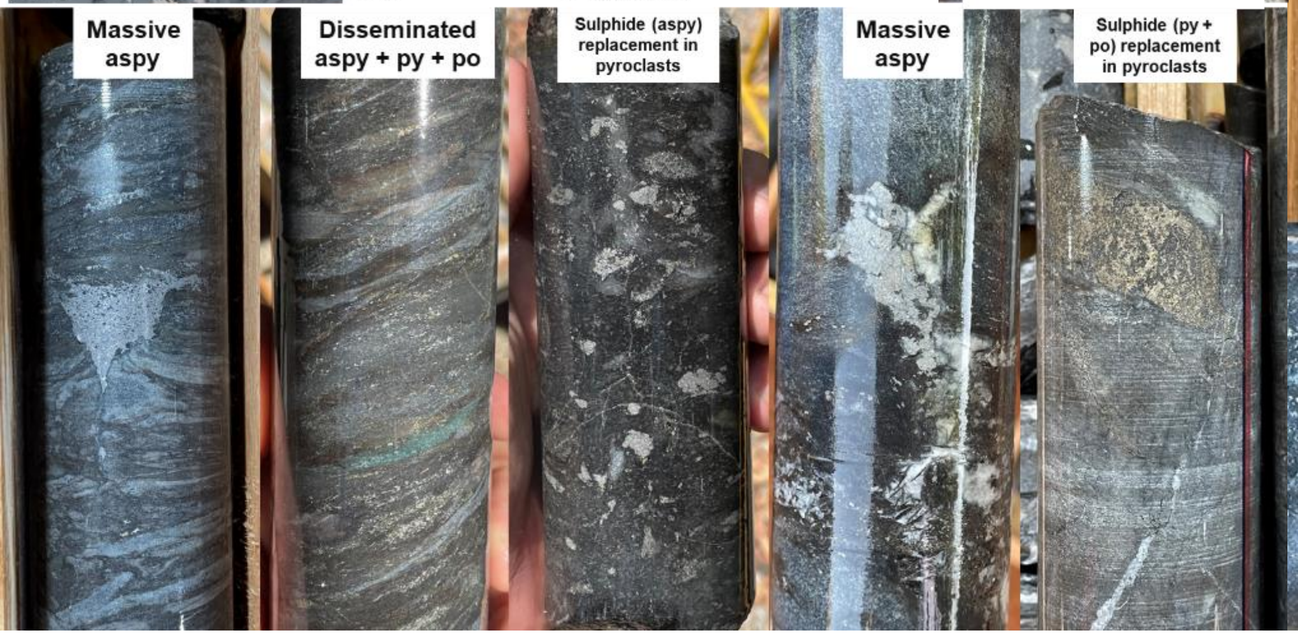


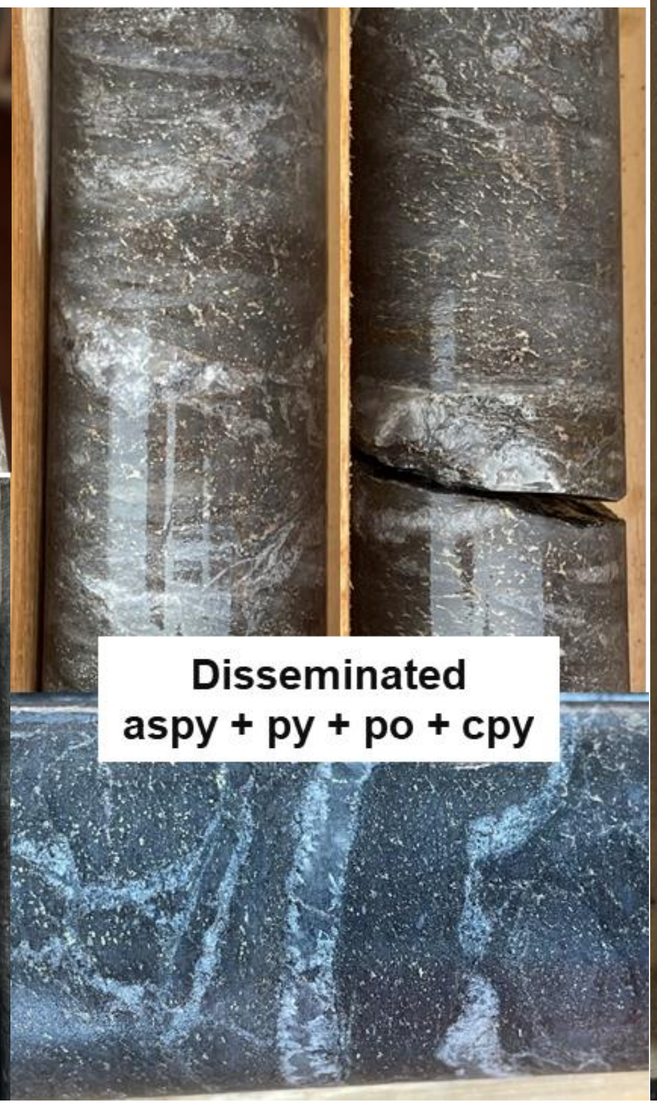




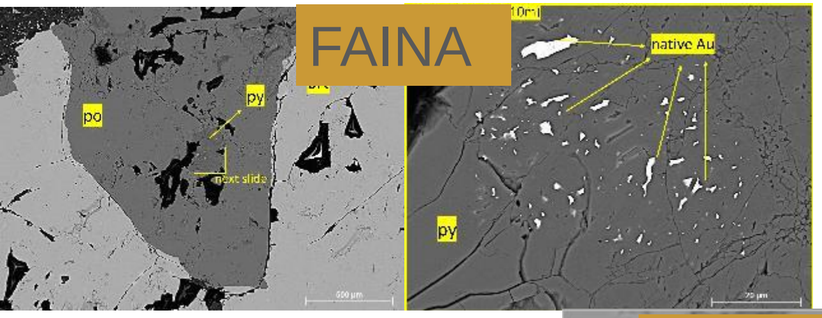


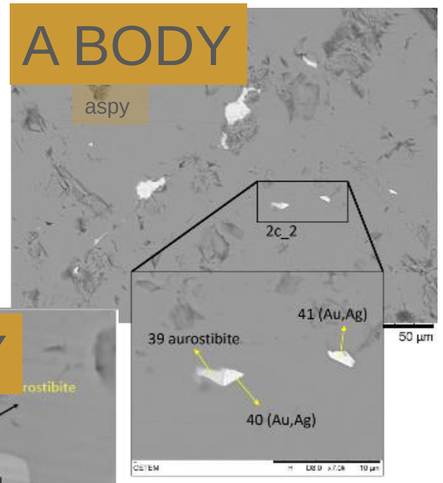


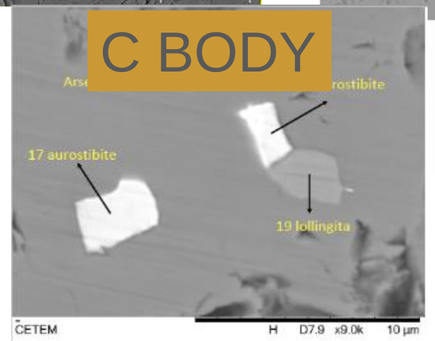




LMCE SCAVENGING: 2ND MINERALISATION EVENT



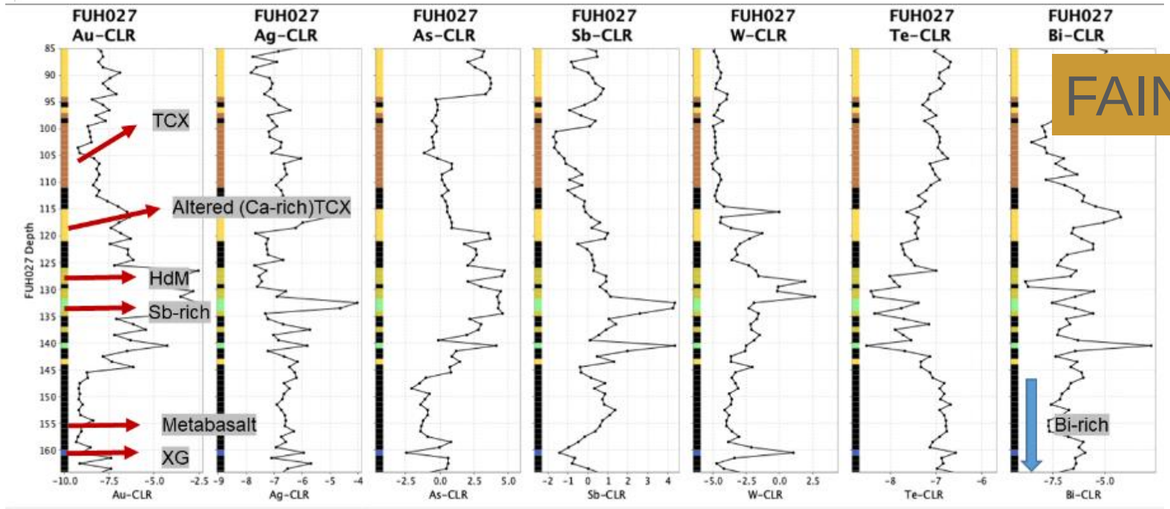




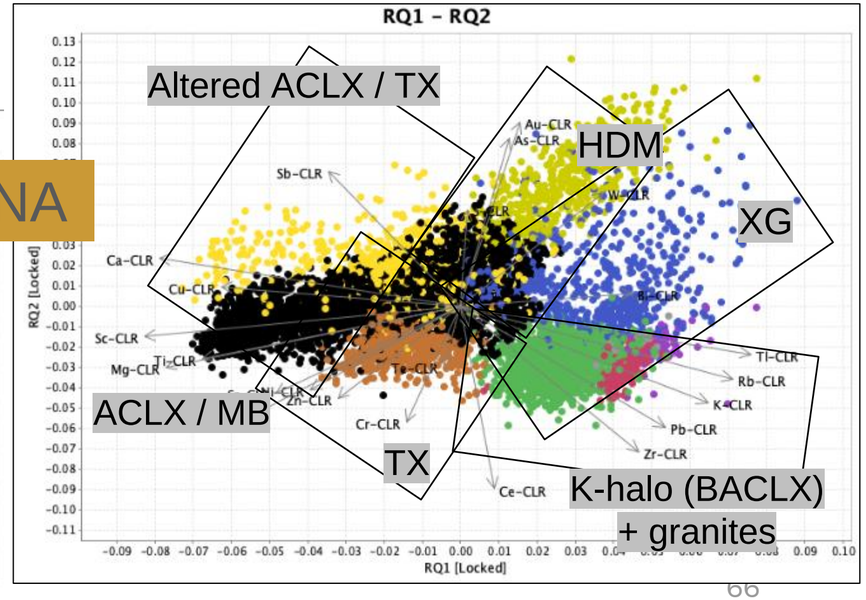
Brando Soares et al in prep., 2023

Some elements (As, Sb, Bi, Te, Hg, Tl, Pb) tend to form metallic melts because they are **LMCE** *(low-melting point chalcophile elements)*. If a hydrothermal system is particularly enriched in these elements, its melting temperature can drop down to 600 or 550°C, and small volumes of metal-rich partial melts can form. Heavy LMCEs (Hg, Tl, Pb, and **especially Bi**) are particularly good in arresting Au with them since they have similar geochemical behaviors but form stronger bonds. This arresting process is known as **scavenging**.

- ✓ **Metallic melts have remobilized trace elements from early sulphidation in PGB**
- ✓ **GOLD remobilization has occurred in the PGB (Palaeoproterozoic ?)**
- ✓ **Some sulphide phases have recrystallized under high T (aspy in A and C bodies)**
- ✓ **The scavenging has increased fineness and gold grades (gold refining)**

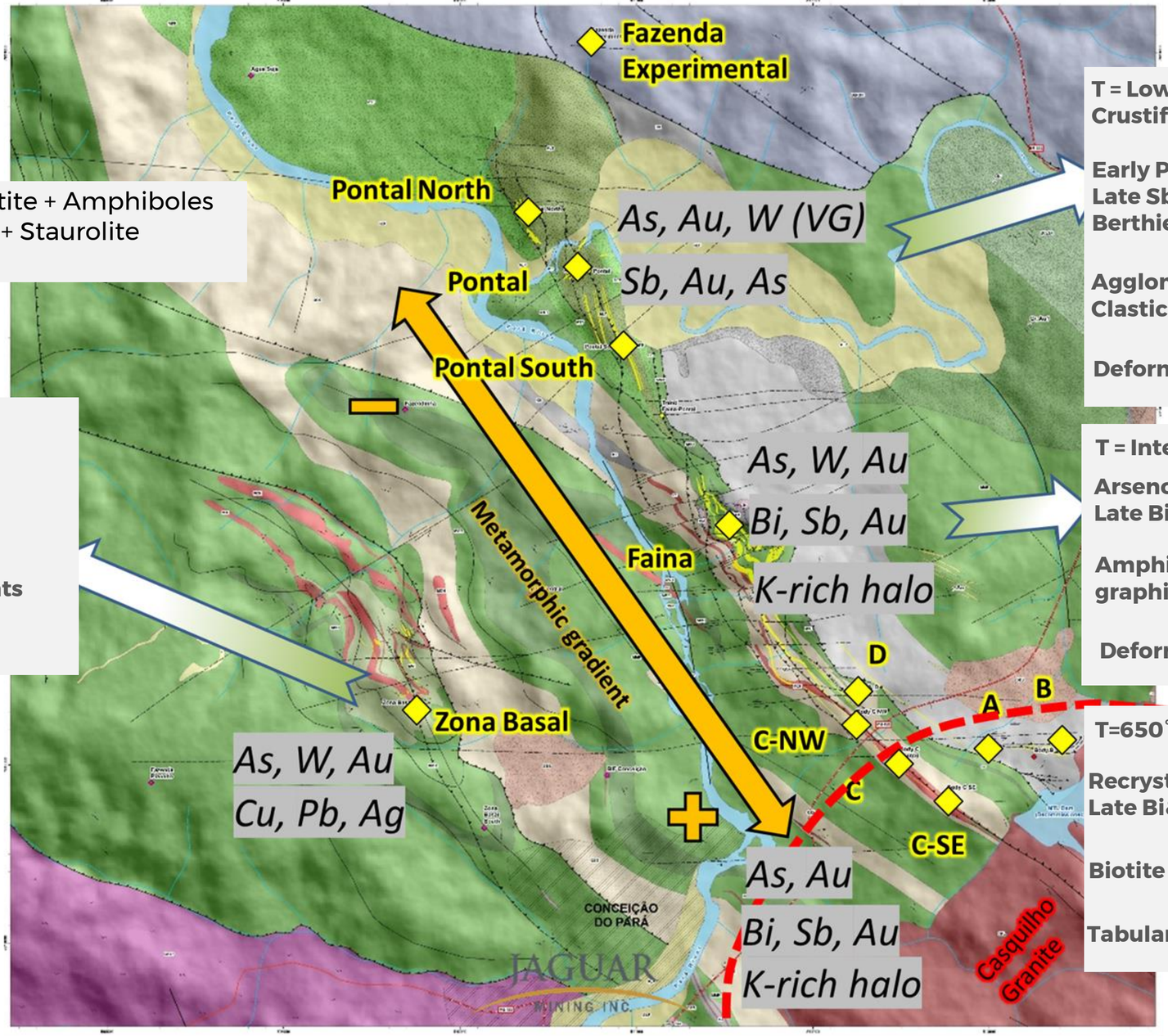


FAINA



CONCLUSIONS

Regional metamorphic mineral: Biotite + Amphiboles
Local metamorphic mineral: Garnet + Staurolite
Regional sulfide mineral: Pyrrhotite



T = Low (300˚?) sulfidation
Crustiform veins

Early Pyrite + Arsenopyrite + GOLD
Late Sb-rich veins (scavenger) with
Berthierite + Stibnite + Tetrahedrite + GOLD

Agglomerate / Conglomerate /
Clastic sediments

Deformed (Folded / Faulted)

T = Intermediary (450˚) and low (170˚)
Two clear stages, late Ag-rich event

Arsenopyrite + Scheelite + GOLD
Late chalcopyrite + Galena + SILVER

Mafic Rocks + Ca-rich Chemical Sediments

Deformed (Folded)

T = Intermediary (450-500˚?)

Arsenopyrite + scheelite +GOLD
Late Bi&Sb mineralogy (scavengers) + GOLD

Amphibolite / metachert interbedded with
graphite schist and talc-schist

Deformed (Folded / Faulted)

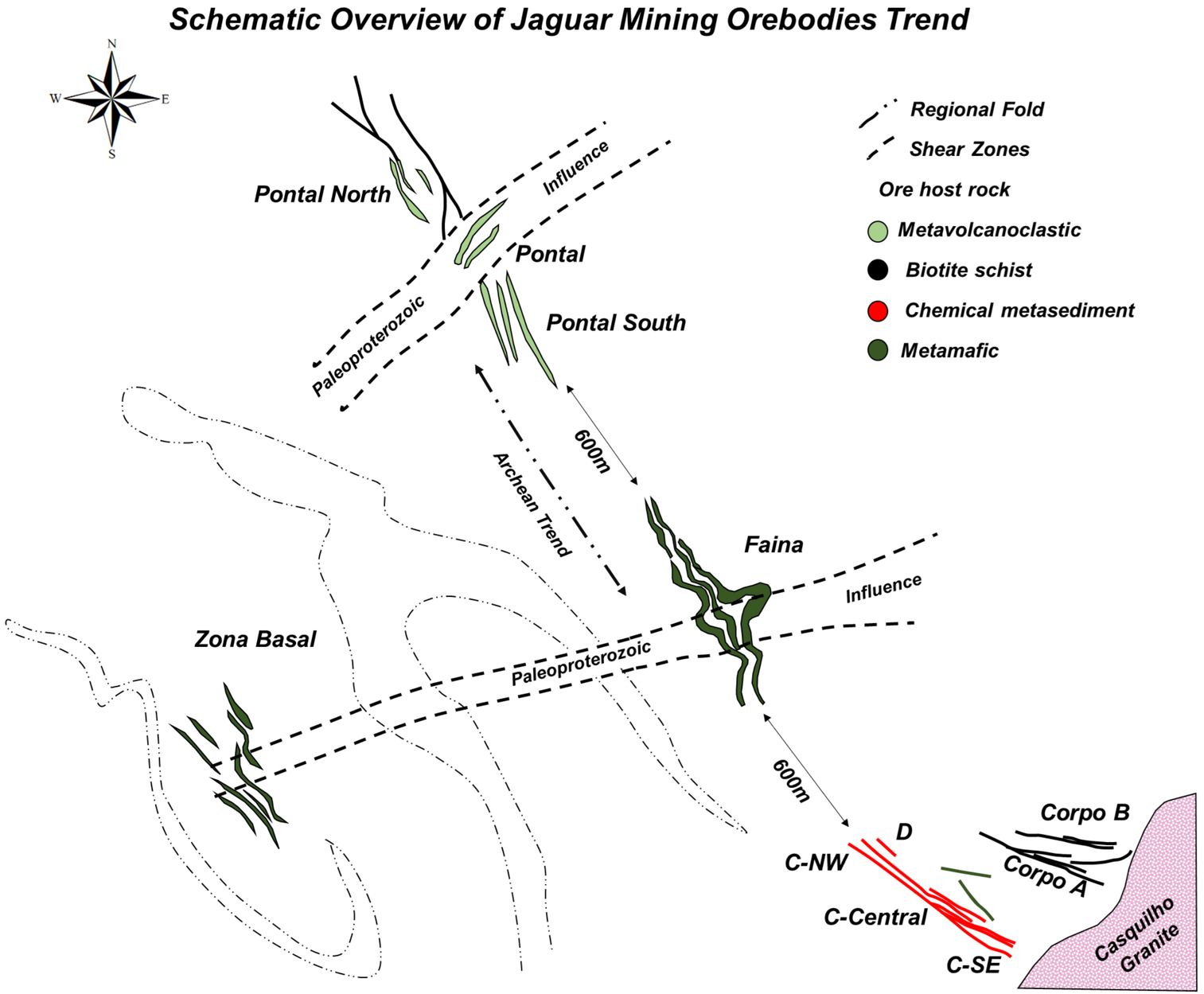
T=650˚

Recrystallized arsenopyrite + Löllingite + Au
Late Bi&Sb mineralogy (scavengers) + Au

Biotite Schist (A&B) + Chemical Sediments (C)

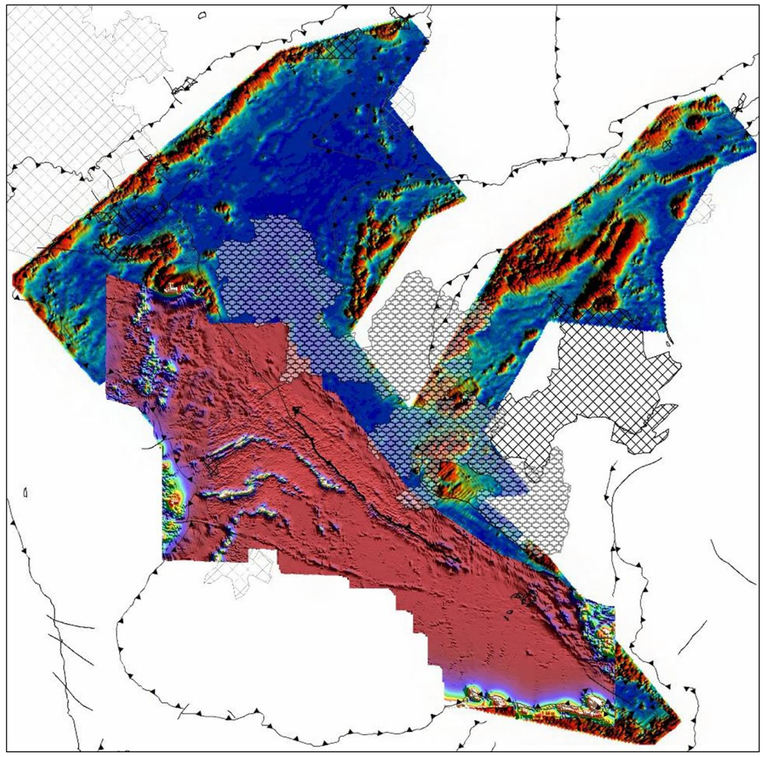
Tabular Shape + Late K-granite apophyses

CONCLUSIONS



PACIÊNCIA COMPLEX

REGIONAL GEOPHYSICAL SURVEYS

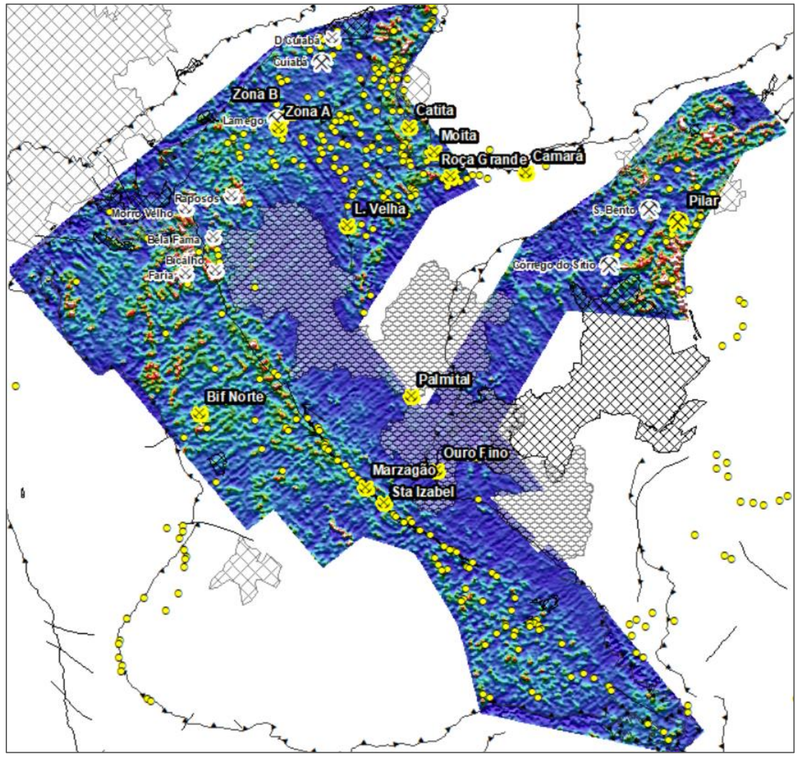


Airborne Magnetic and Gamma

Rio da Velhas GB and Central IQ

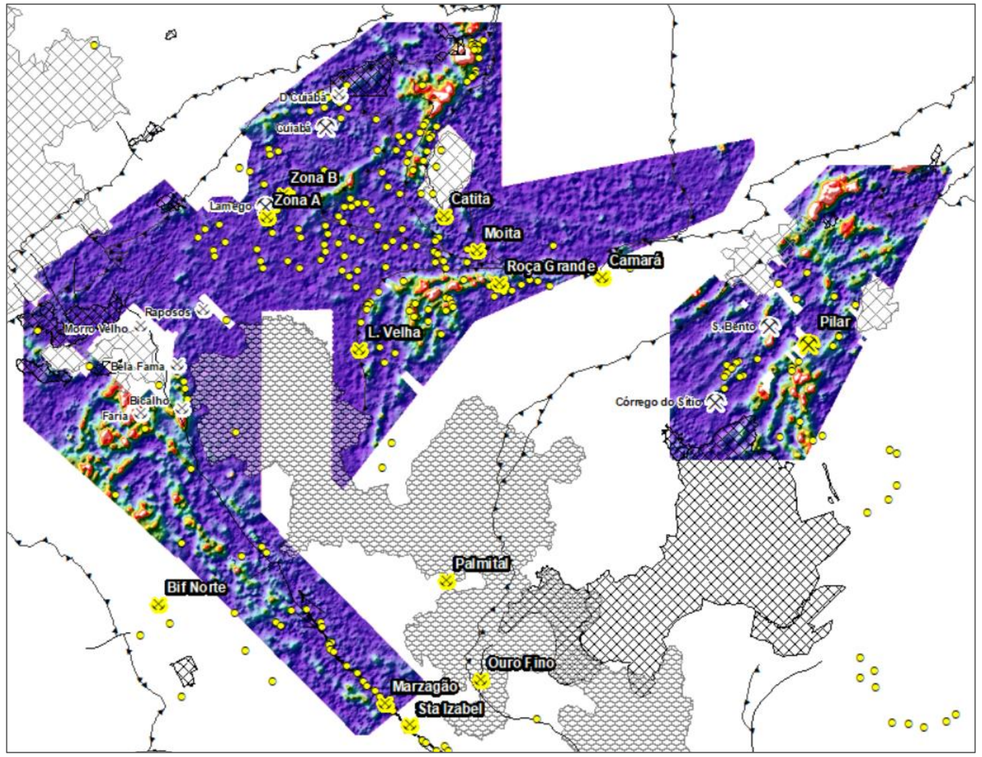
UAV drone magnetics

Acuruí and São Vicente lineament



Airborne Electromagnetic FDEM

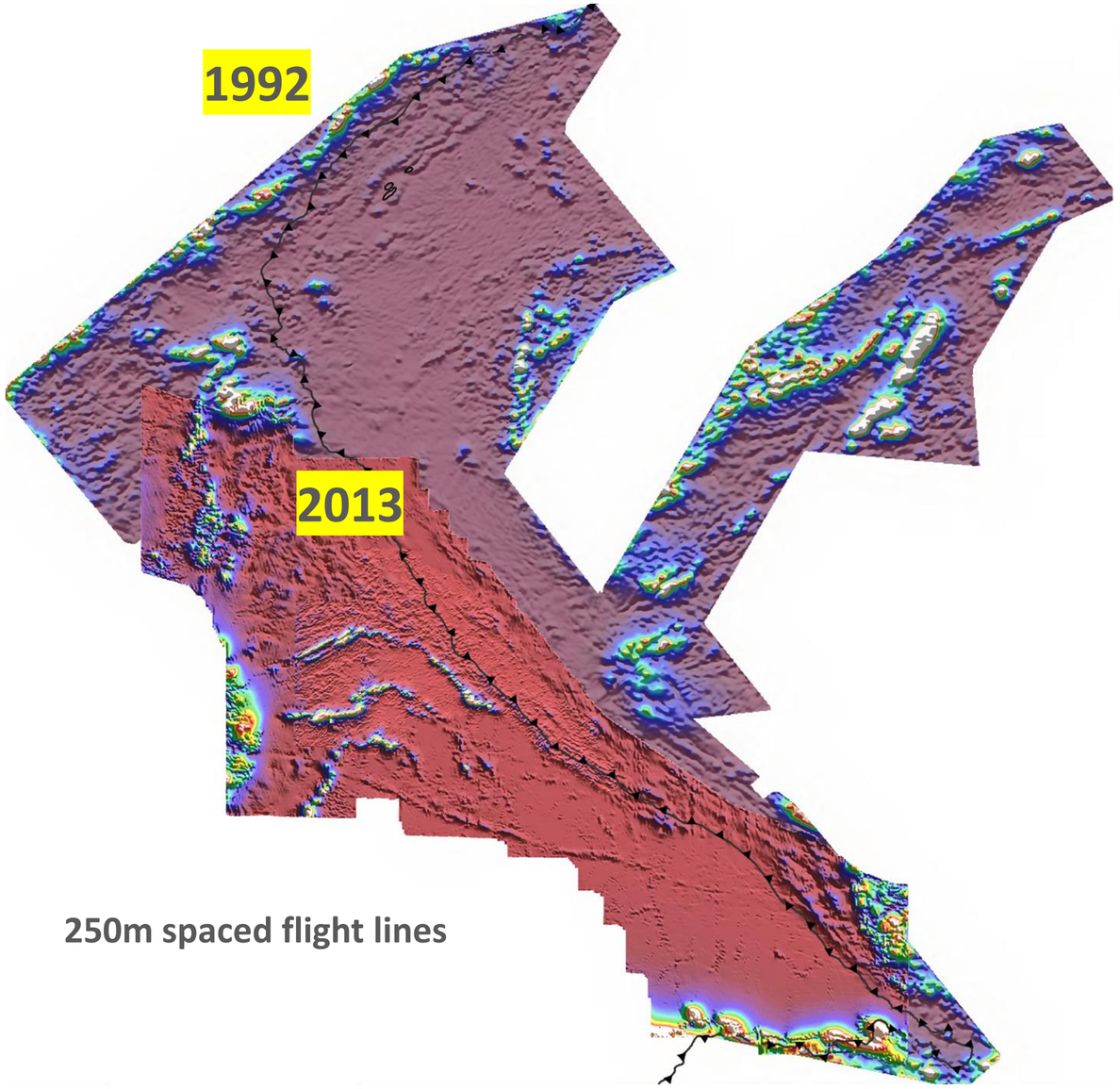
Frequency domain geophysics



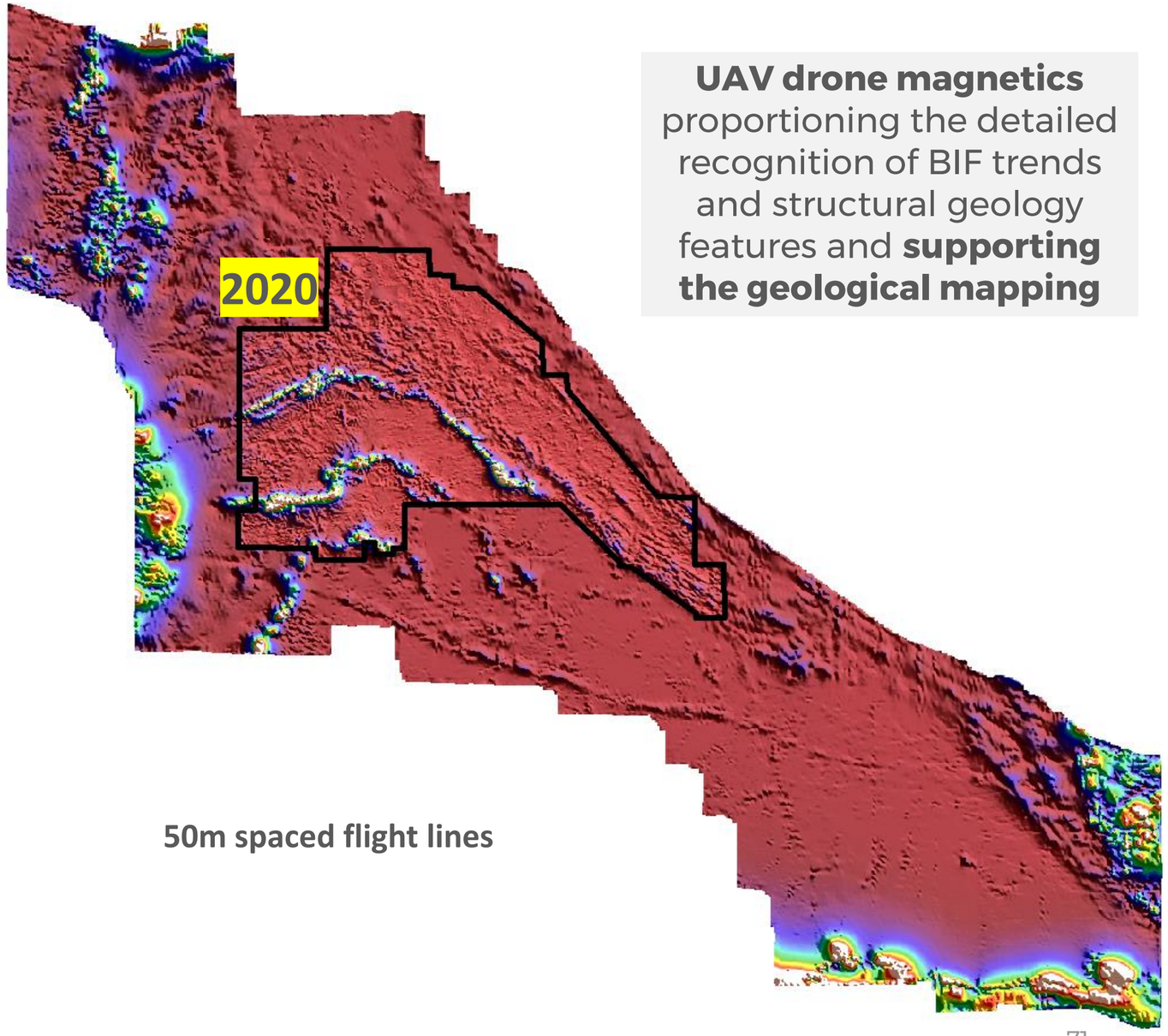
Airborne Electromagnetic TDEM

Time domain geophysics

REGIONAL ANALYTICAL SIGNAL MAGNETICS



250m spaced flight lines

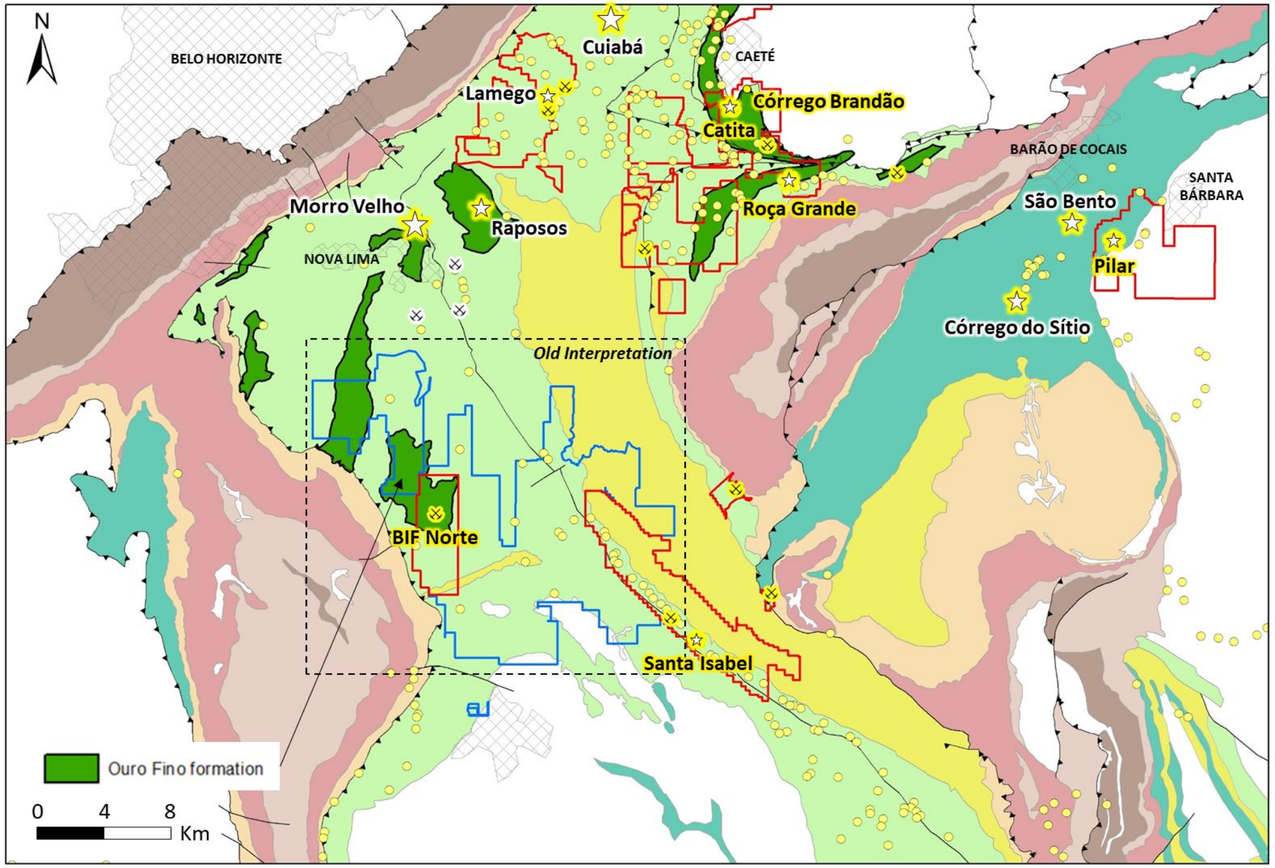


50m spaced flight lines

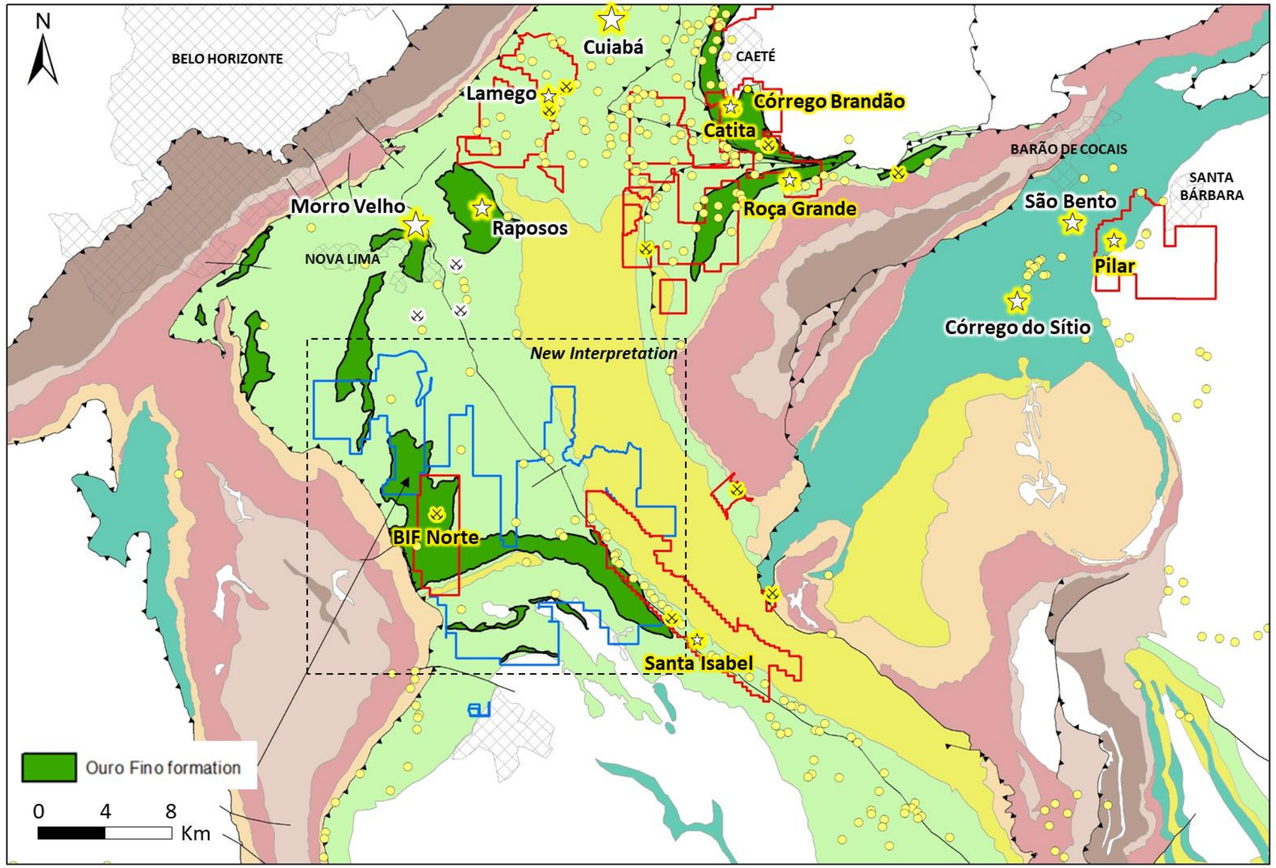
UAV drone magnetics proportioning the detailed recognition of BIF trends and structural geology features and **supporting the geological mapping**

GREENSTONE BELT EXTENSION IDENTIFIED

Before



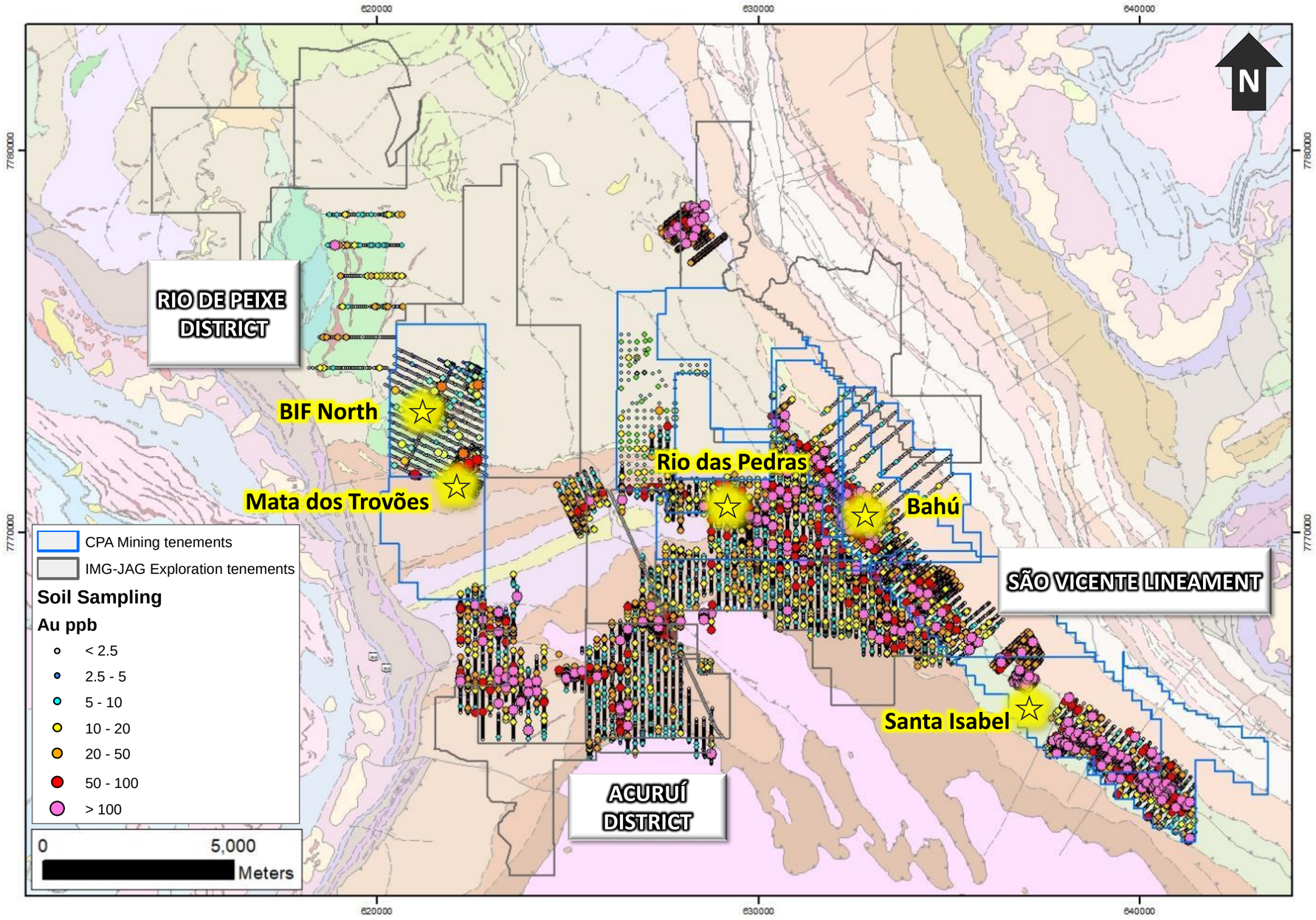
After



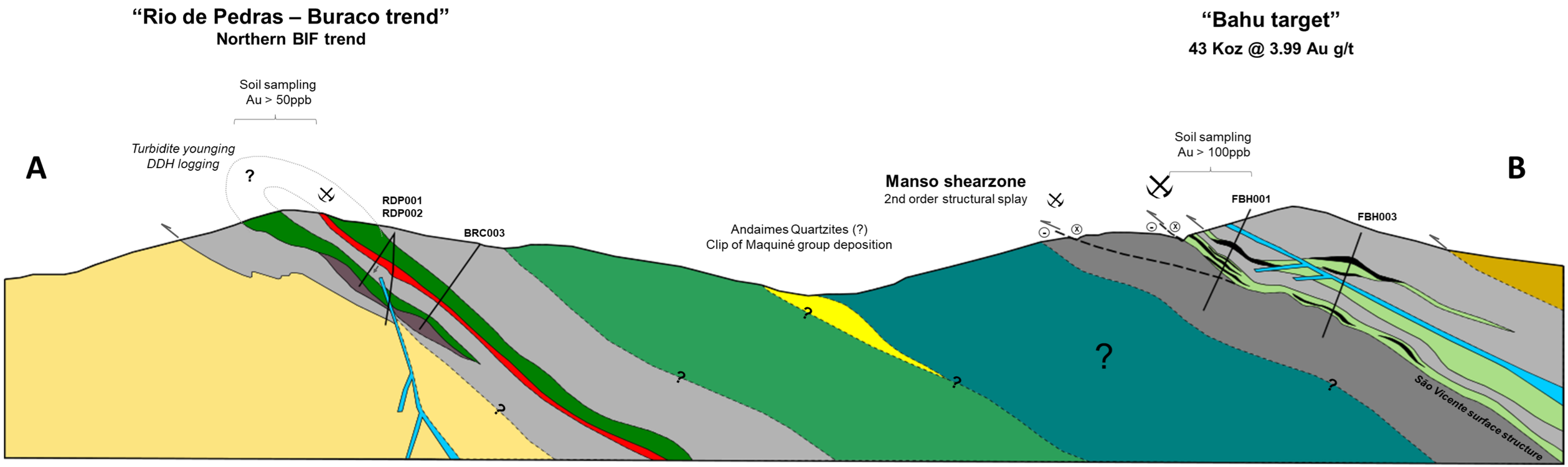
Identified greenstone belt extension 40km added strike potential
Ouro Fino Formation – correlated with Morro Vermelho Formation

Mafics – Ultramafics – Algoma-type BIF

REGIONAL SOIL SAMPLING COVERAGE



SCHEMATIC REGIONAL CROSS-SECTION



Lithology

- Graywackes – Turbiditic metapsammitic sequence
- Metapelites – Turbiditic sequence (top of Nova Lima Group)
- Algoma-type banded iron formations (BIF)
- Metamafics to metaultramafics – Chlorite schists, talc schists
- Metaultramafic to metamafic rocks (Lower unit of Nova Lima Group?)
- Quartz Veins
- Sericite Quartzites (Maquiné Group)
- Quartzites (Andaimes Fm)
- Sericite Quartz Schists – Metavolcanosedimentary to metavolcanoclastic rocks
- Carbonaceous to graphitic schists – Turbiditic Sequence (top of Nova Lima Group)
- Metaturbidites interbedded with metamafics (chlorite schists)
- Metandesites to metagabbros – intermediate-plutonic intrusive rocks

PACIÊNCIA COMPLEX

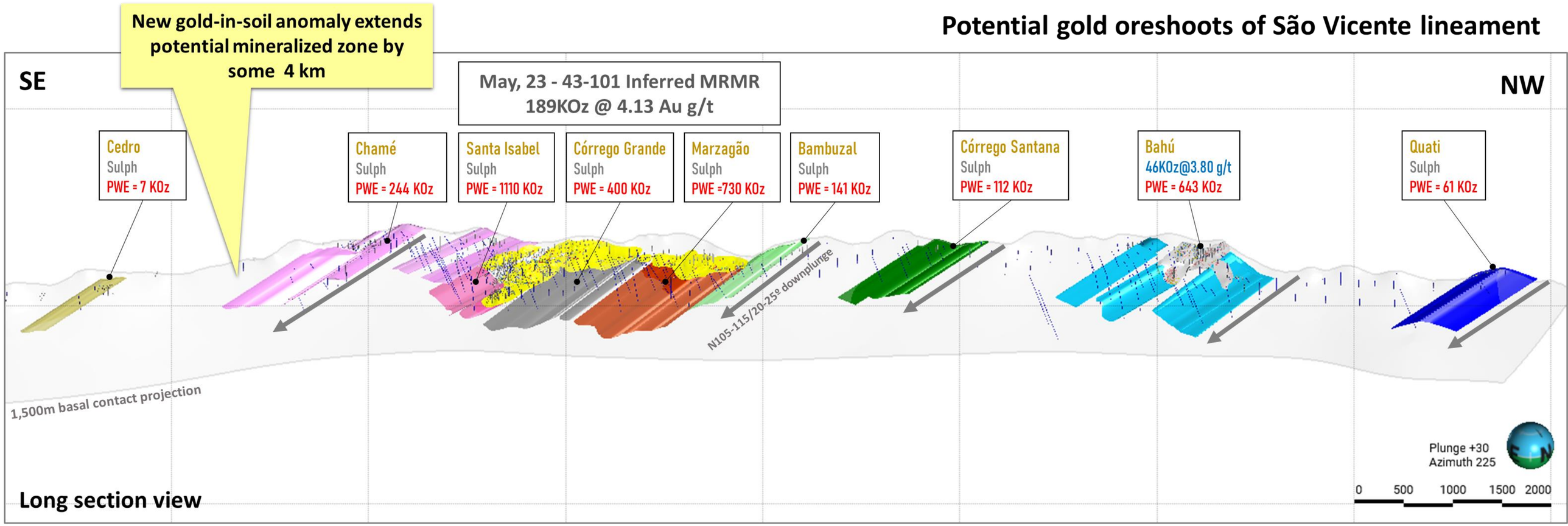
15

Kilometers
NW-SE trend

Colonial excavations along the main structure, with valid mining concession for **Jaguar Mining Inc.**

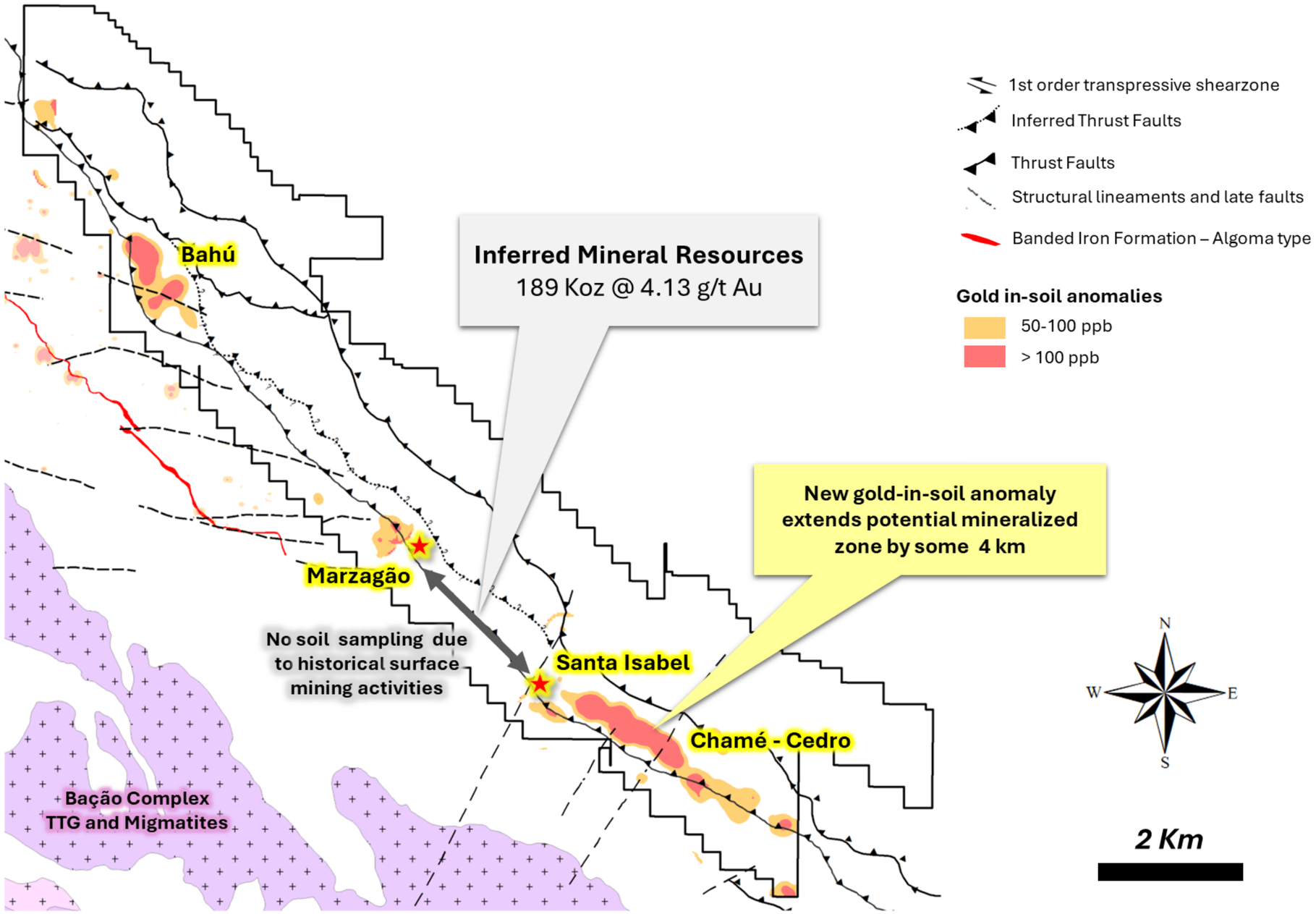
Care & Maintenance

3D MODELING OF POTENTIAL ZONES - PWE

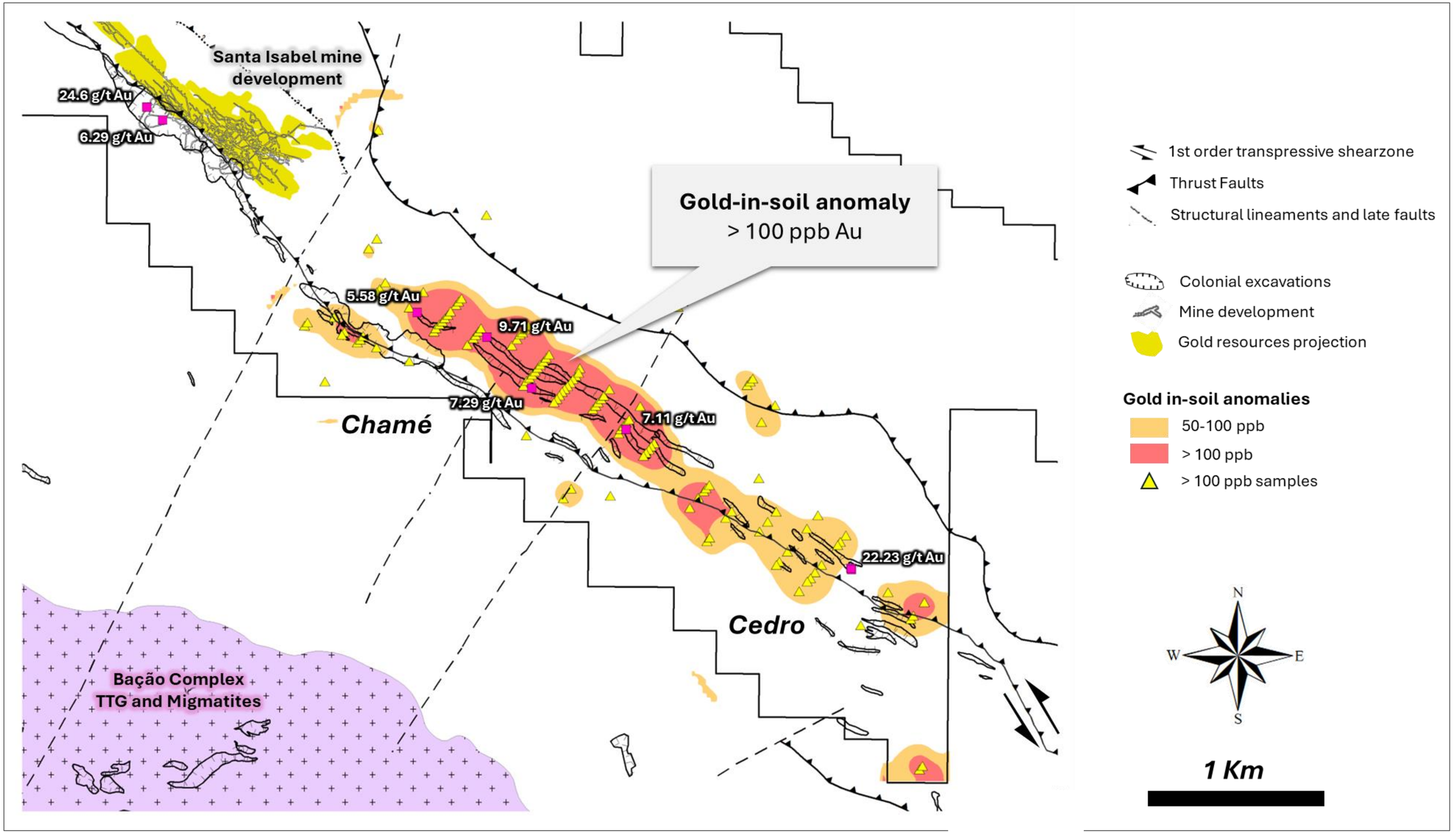


- **09 high-quality targets with high grade (> 15 Au GT) gold intersections** – 5-years drilling plans comprising the 15km trend of brownfield targets;
- **Tier 1 greenfield targets** between the orebodies without drilling, but with positive soil sampling and checked in the field with positive rocks chip sampling;
- **PWE endowment** method to provide a guide for the gold mineralization potential mineral resources and reserves estimation;
- Huge **potential of gold mineralization along the downplunge direction** – geological limits and structural control very well understood in old drillholes;

SOIL SAMPLING COVERAGE – SÃO VICENTE LINEAMENT



NEW GOLD-IN-SOIL ANOMALY – CHAMÉ TARGET

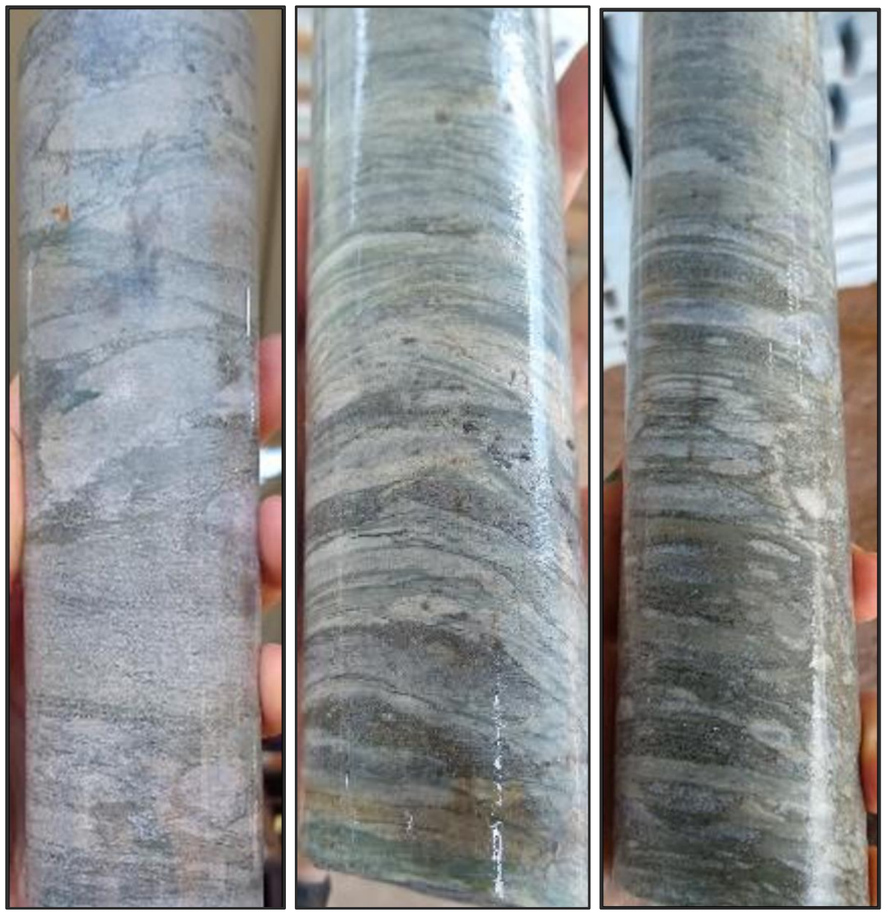


BAHU DEPOSIT - HOSTROCKS

Level 1

Quartz-sulfide-carbonate veins

2.58m@10.12 Au g/t
(FBH001 - 63.79-66.37m)



Level 2

Felsic volcanic agglomerate

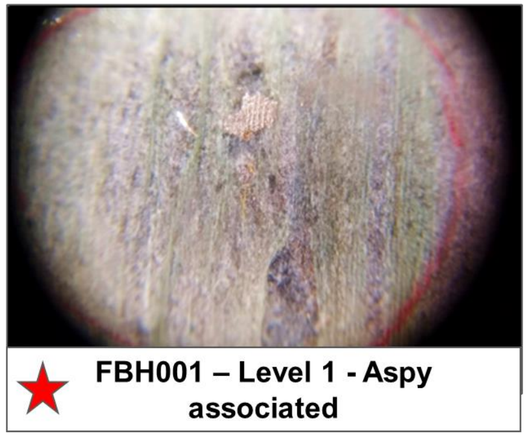
11.78m@1.89 Au g/t
incl. 5.97m@3.00 Au g/t
(FBH005 - 161.00-172.78m)

Level 3

Mylonite and smoky quartz veins

8.02m@2.82 Au g/t
3.96m@4.18 Au g/t
(FBH002 and FBH009)

BAHÚ DEPOSIT - VISIBLE GOLD

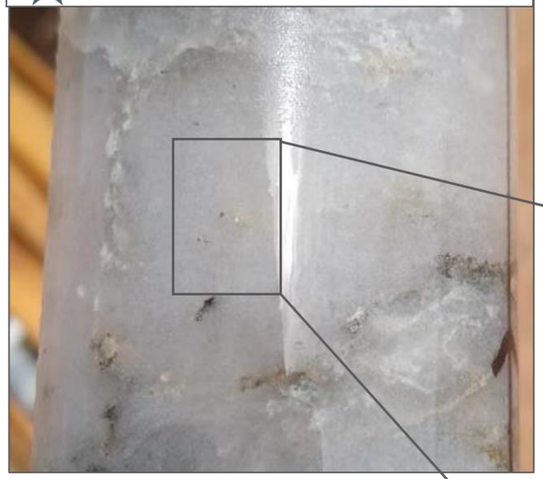


FBH001 – Level 1 - Aspy associated

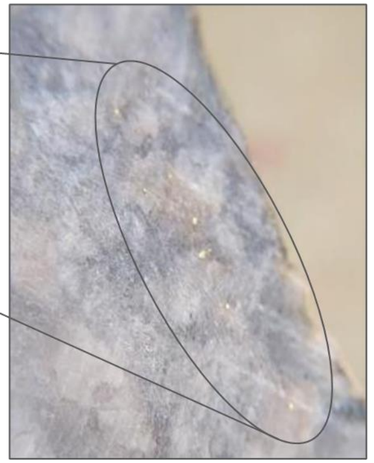
FBH005 - Level 2 - Po>Cpy

FBH009 - Level 3

FBH003 - Level 2

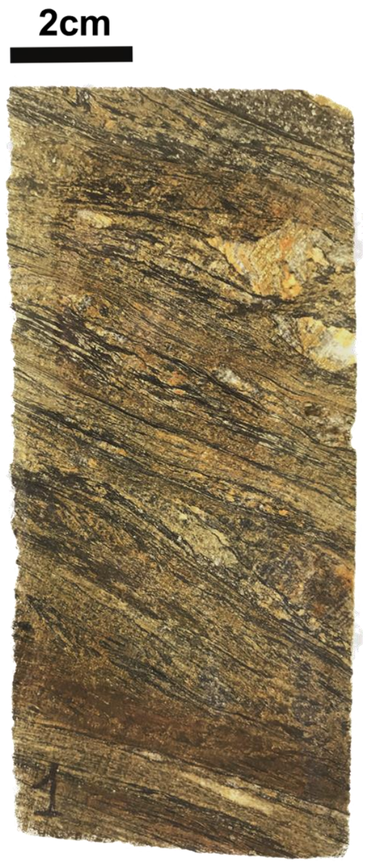


FBH007 - Level 1



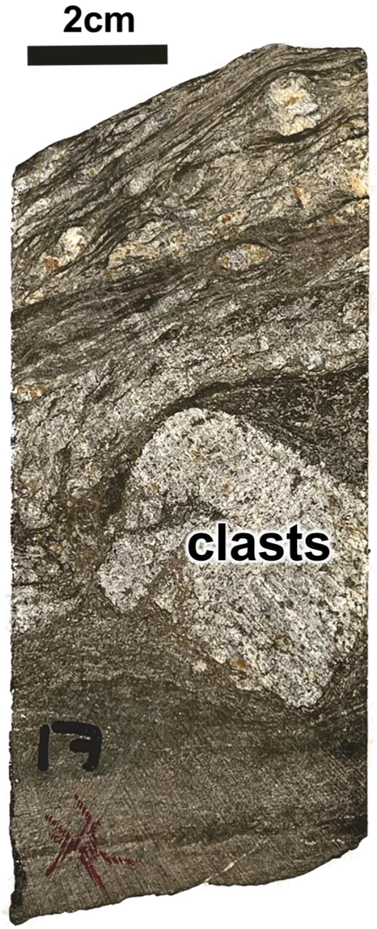
ACURUÍ PROSPECTS – GOLD HOST ROCKS

Tectonic and/or detritic features...

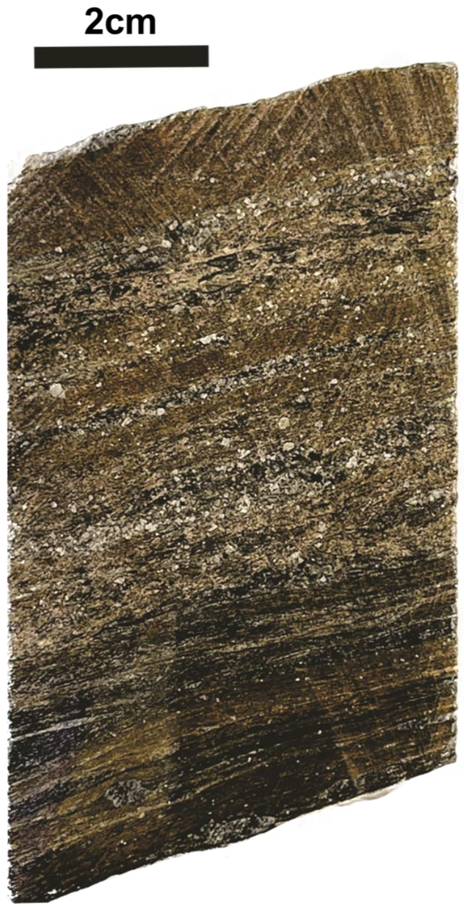


LP06 – 62,20m
RDP001-0054 (3.88 Au g/t)

LP38 – 67,80m
RDP005-0077 (4.93 Au g/t)



LP48 – 147,73m
RDP007A-0170 (2.51 Au g/t)



LP49 – 149,65m
RDP007A-0172 (0.85 Au g/t)

Rio das Pedras prospect

ACURUÍ PROSPECTS – GOLD HOST ROCKS

Quartz-sericite schist with millimetric euhedral disseminated and oxidized pyrites

CPT-RO-0033: 13.67 g/t Au

Campestre prospect

Brecciated quartz vein (smoky with saccharoid portions) with manganesiferous cement filling the fractures

ACU-RO-0407: 8.25 g/t Au

Água Suja prospect

Granite-gneiss rock (Bação complex suite) with millimetric disseminated fresh arsenopyrite

CAL-RO-0025: 3.04 Au g/t

Calado prospect

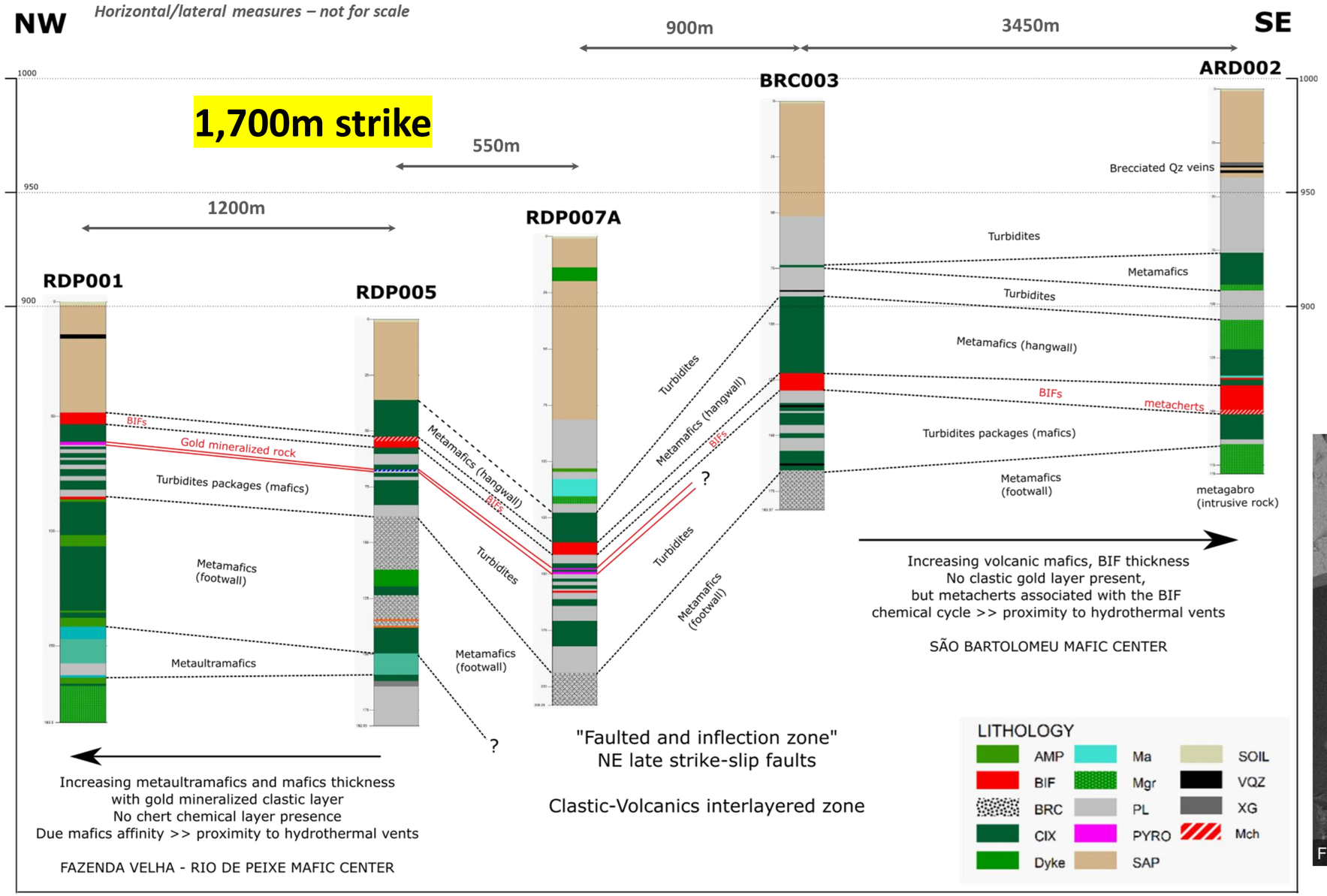
Tourmalinite with fractures filled by carbonatic material

2.08 Ga (U-Pb monazite)
Cabral, et al (in press)

ACU-RO-0340: 11.41 g/t Au

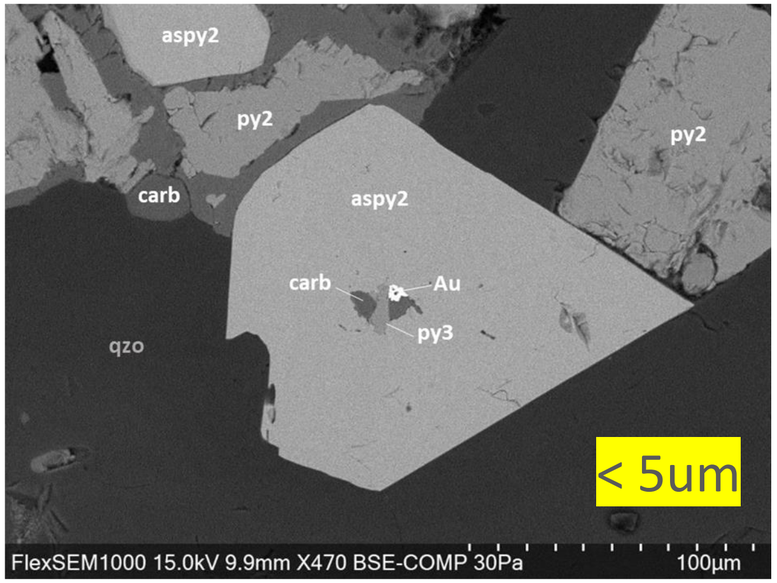
Capivari prospect

VECTORING THE BASE OF GREENSTONE BELT SEQUENCE



LATERAL STRATIGRAPHIC CORRELATIONS

Vectorizing the Greenstone Belt mafic-ultramafic rocks



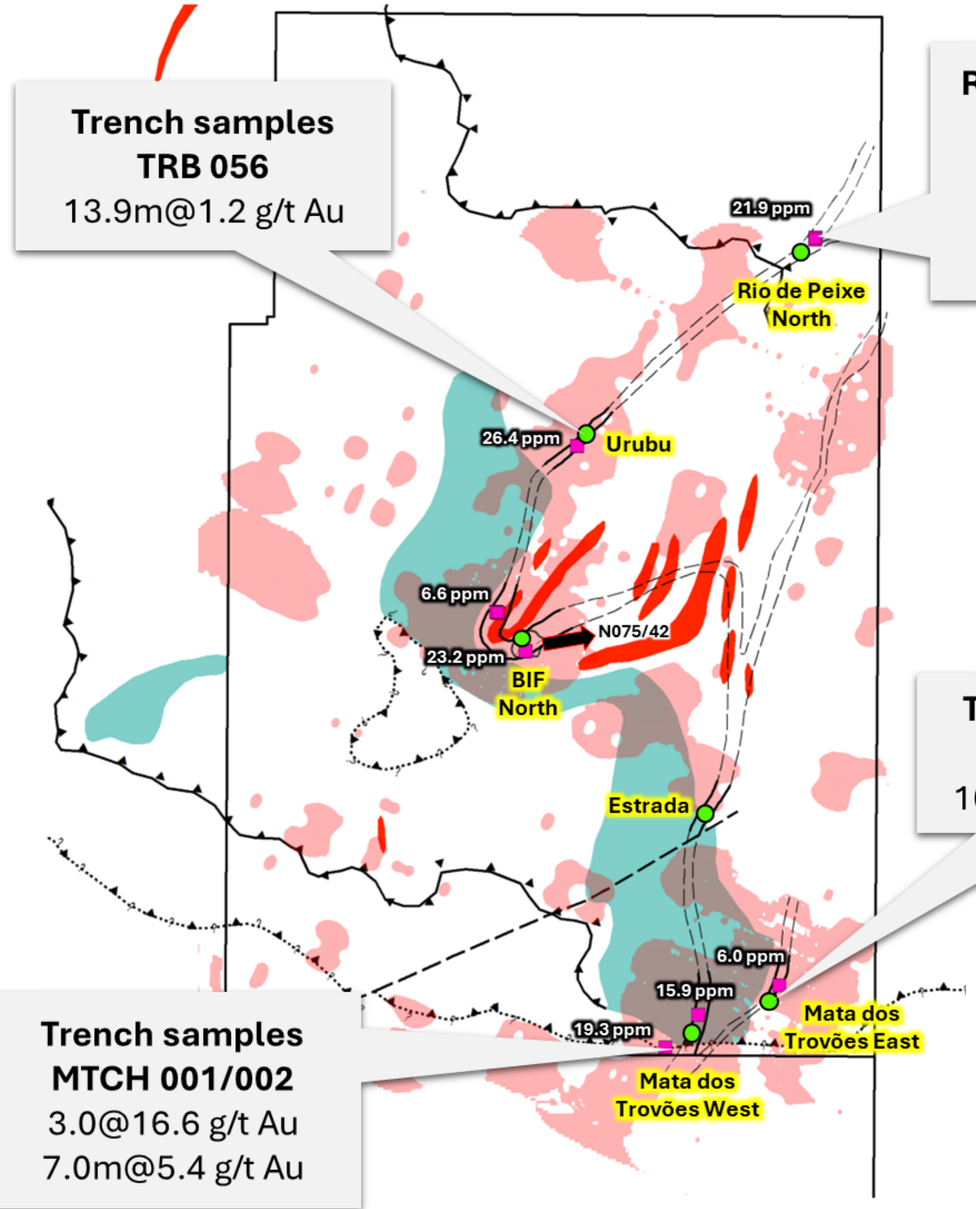
RIO DE PEIXE DISTRICT

Trench samples
TRB 056
13.9m@1.2 g/t Au

Rock chip samples
RP-RO-0029
21.9 g/t Au
RP-RO-0030
9.0 g/t Au

Trench samples
MTCH0022
10.4m@8.9 g/t Au

Trench samples
MTCH 001/002
3.0@16.6 g/t Au
7.0m@5.4 g/t Au



Structural shearzone corridor
Thrust Faults
Inferred Thrust Faults
Structural lineaments
Potential downplunge direction

Ultramafic rocks
Banded Iron Formation – Algoma type
Rock grab samples > 5 Au g/t
Soil Anomaly > 50 Au ppb

Exploration Stage
Generative target

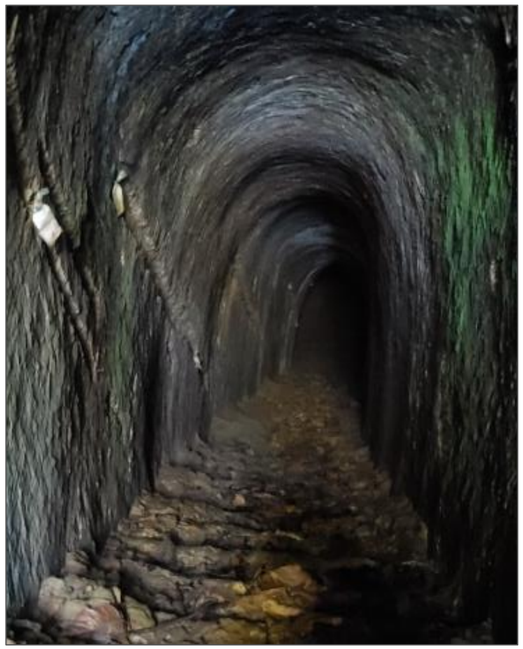
N
W
E
S

1 Km

RIO DE PEIXE TREND TARGETS – GOLD HOST ROCKS

RP-RO-0029
21.97 Au g/t

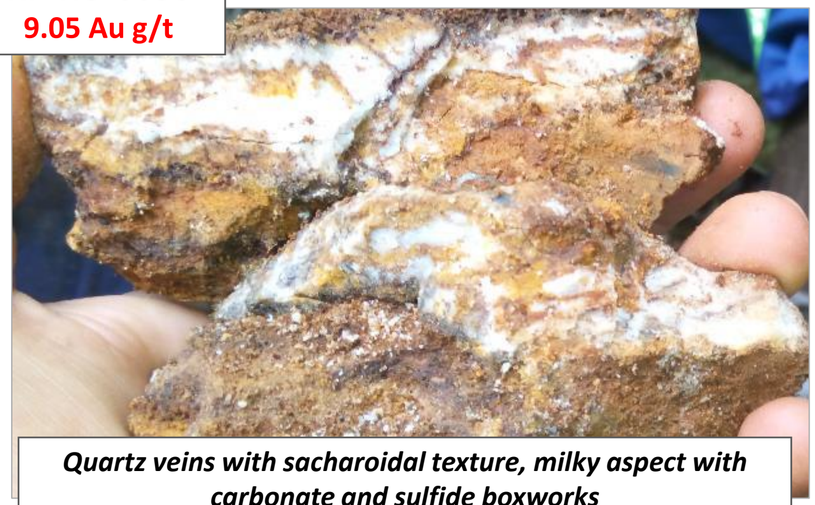
Metavolcanoclastic rock, with clasts from 1 to 4 cm composed by pelitic material, supported by semi-massive pyrite matrix, with small quartz and epidote veinlets



MT-RO-0034 – 26.39g/t

MT-RO-0024 – 15.91g/t

RP-RO-0030
9.05 Au g/t



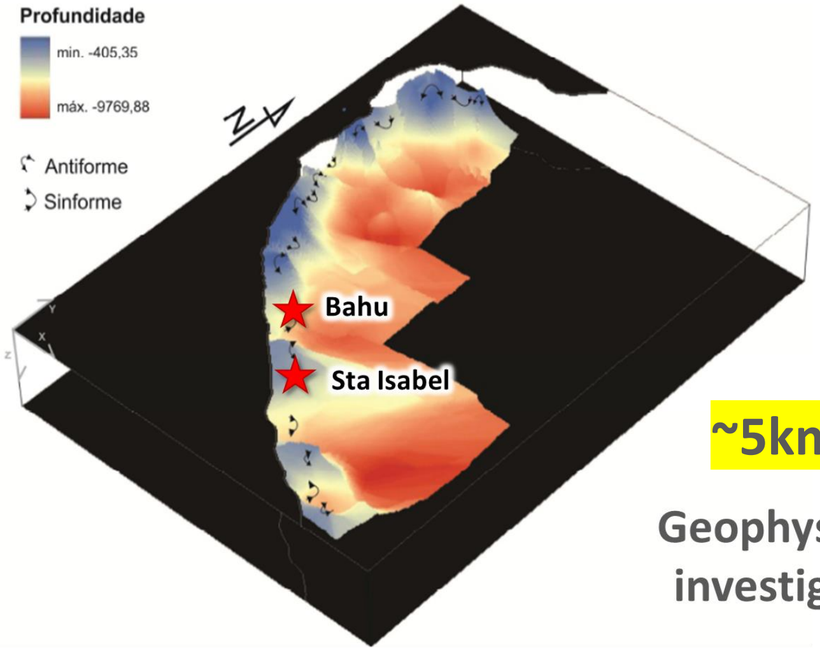
Quartz veins with sacharoidal texture, milky aspect with carbonate and sulfide boxworks

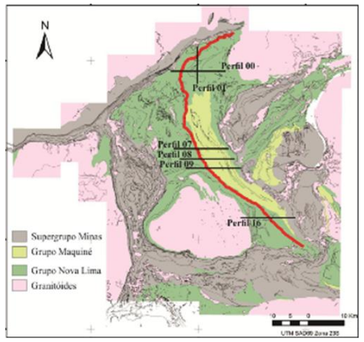
UB_RO_0011 – 4.17g/t

UB_RO_0024 – 22.05g/t

GEOPHYSICAL SURVEY – INTEGRATIONS AND POTENTIAL NEW SURVEYS

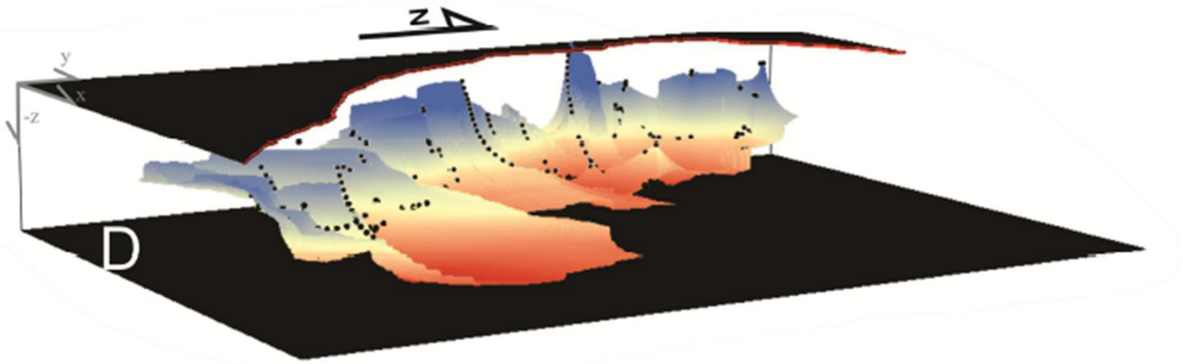
3D data inversion of regional gravity public data



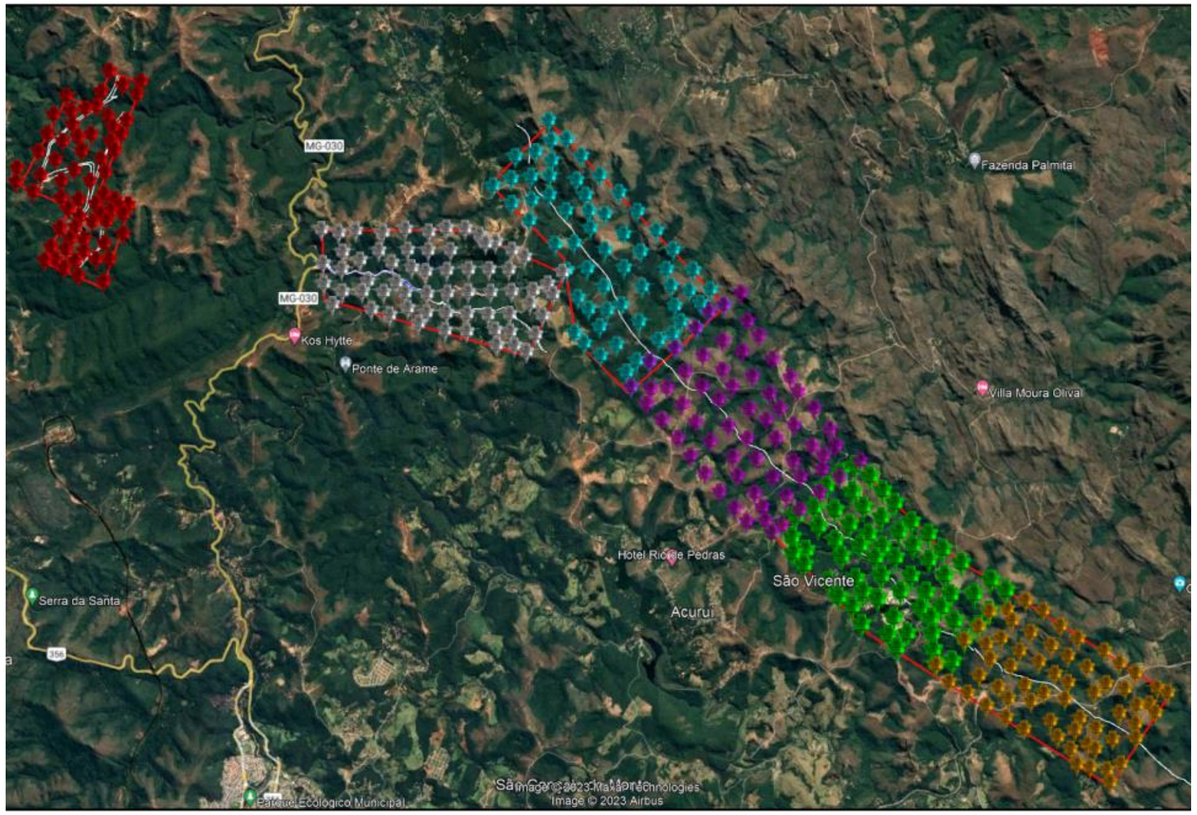


~5km downdip

Geophysics methods to investigation in depth

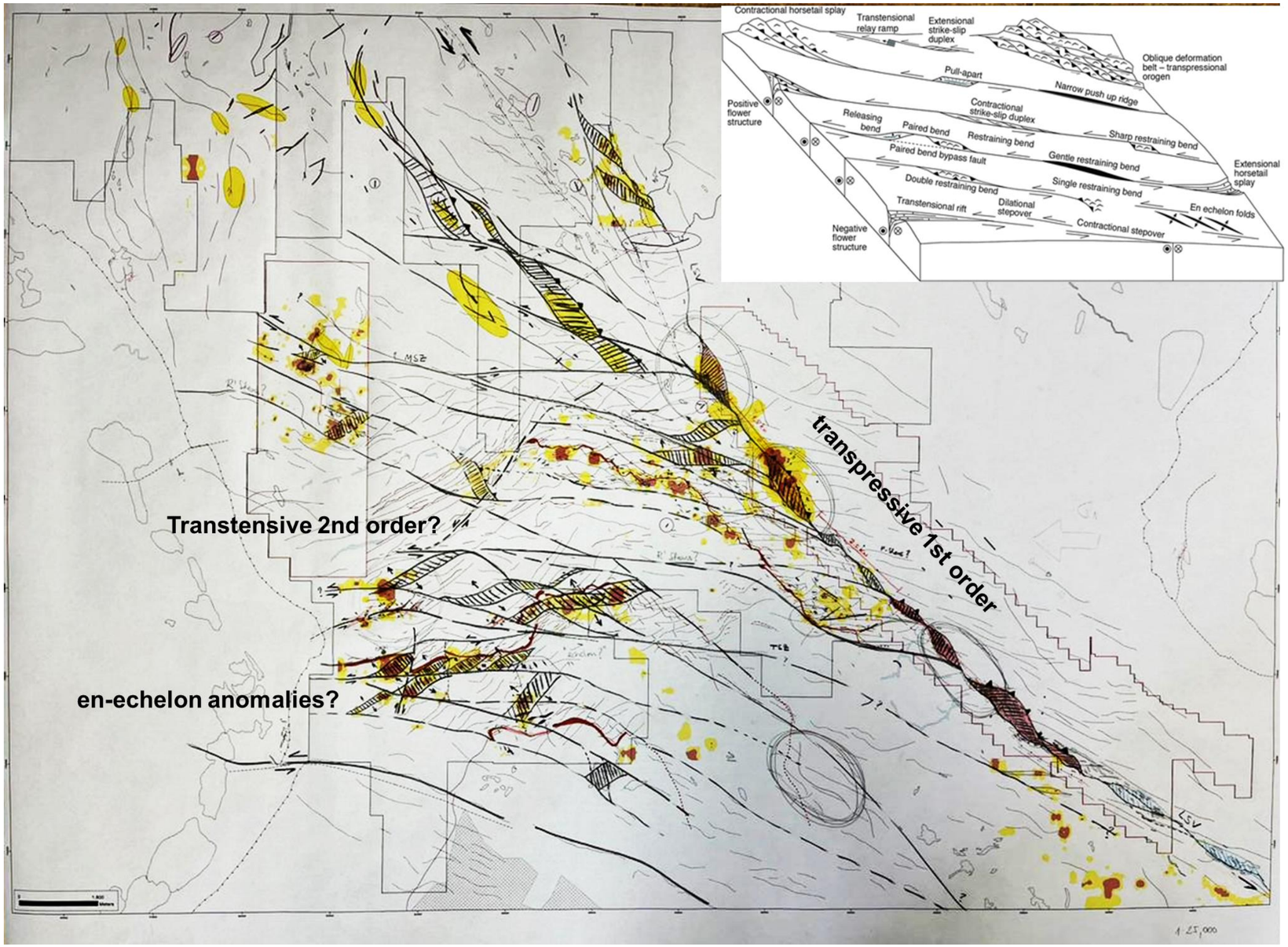


Ambient seismic noise tomography (ANT) 3D seismic velocity models



From traditional to innovative methods in geophysics

VECTORING FOR TRANSPRESSIVE DILATANT STRUCTURES



1st vertical derivative over 2nd vertical derivative (RTP)

Vectoring shallow structural lineaments to obtain correlation with dilatant jog structures.

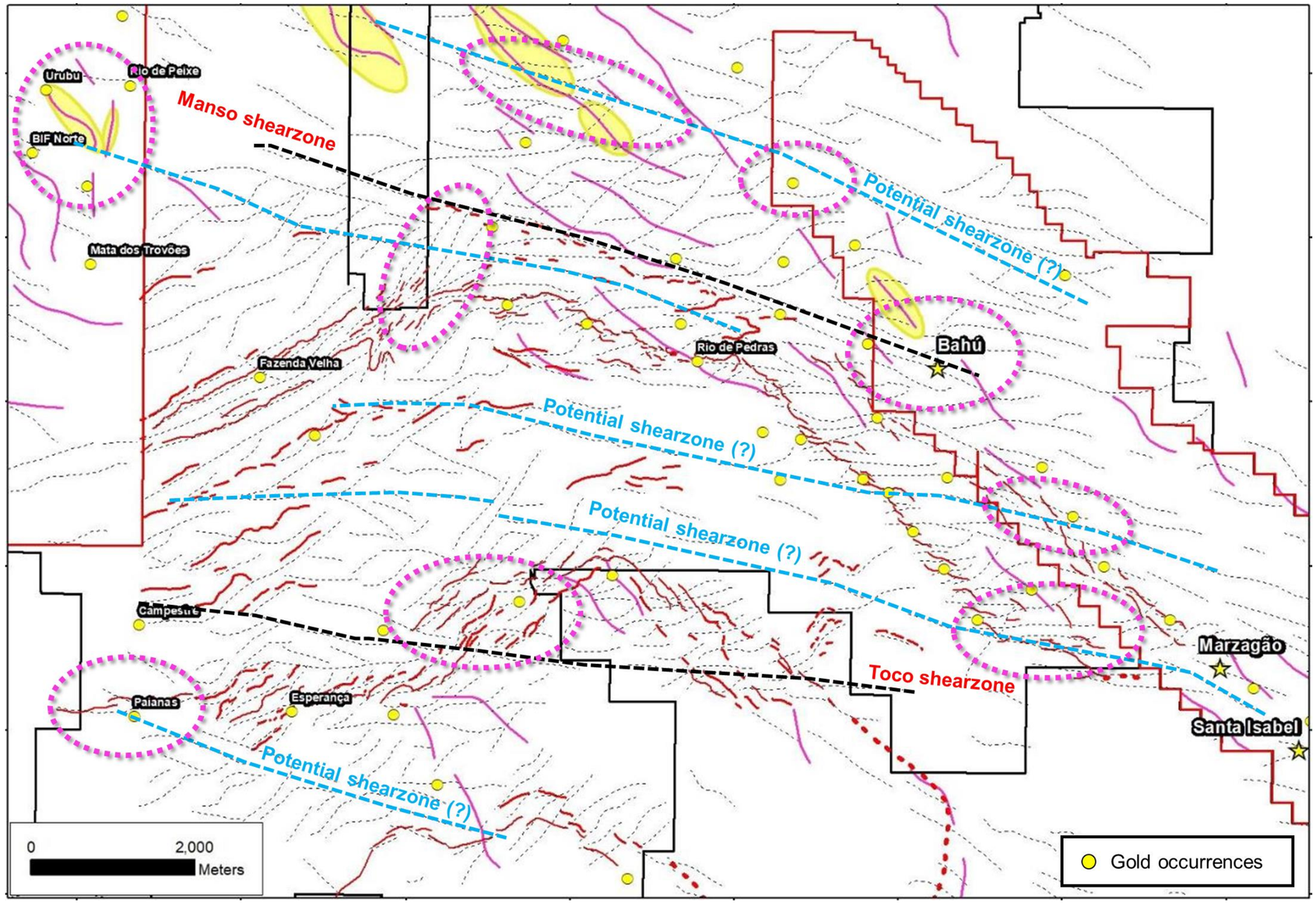
Use of FDEM/TDEM data over the lineaments.

Geochemical gold in-soil anomalies related with the 1st and/or 2nd VD.

Structural measurements versus gold anomaly recurrence along structural lineaments (e.g. LSV).

Radar satellite images to map ruptile and topographical alignments.

SHEAR ZONES AND JUNCTION OF STRUCTURES



1st vertical derivative over 2nd vertical derivative (RTP)

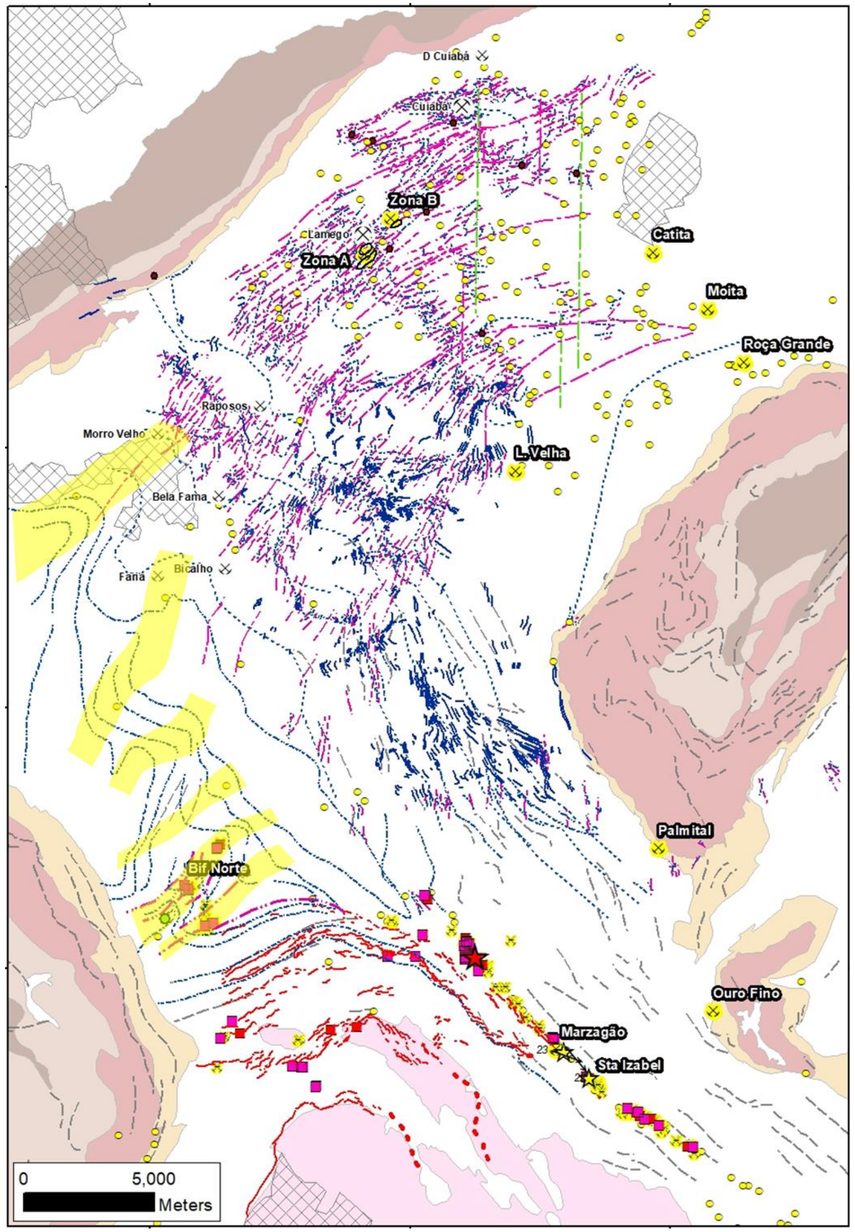
S-C mylonitic foliation pattern (drillcore, mapping).

Manso shearzone – Boa Viagem, Santana, Boa Vista targets.

Toco shearzone – Campestre, Queiróz targets.

1st and 2nd order junctions could serve as traps for fluids?

IQ CENTRAL - STRUCTURAL DATA INTEGRATION



Regional structural geology integration.

Definition of main foliation trace by events (D1, D2, D3, Dn...).

Revision of deposits, targets and prospects structural controls.

Definition of the structural geology footprint of big deposits.

SGB - Geological Survey of Brazil
CODEMIG - Geological Survey of Minas Gerais
Rod Holcombe consultancy

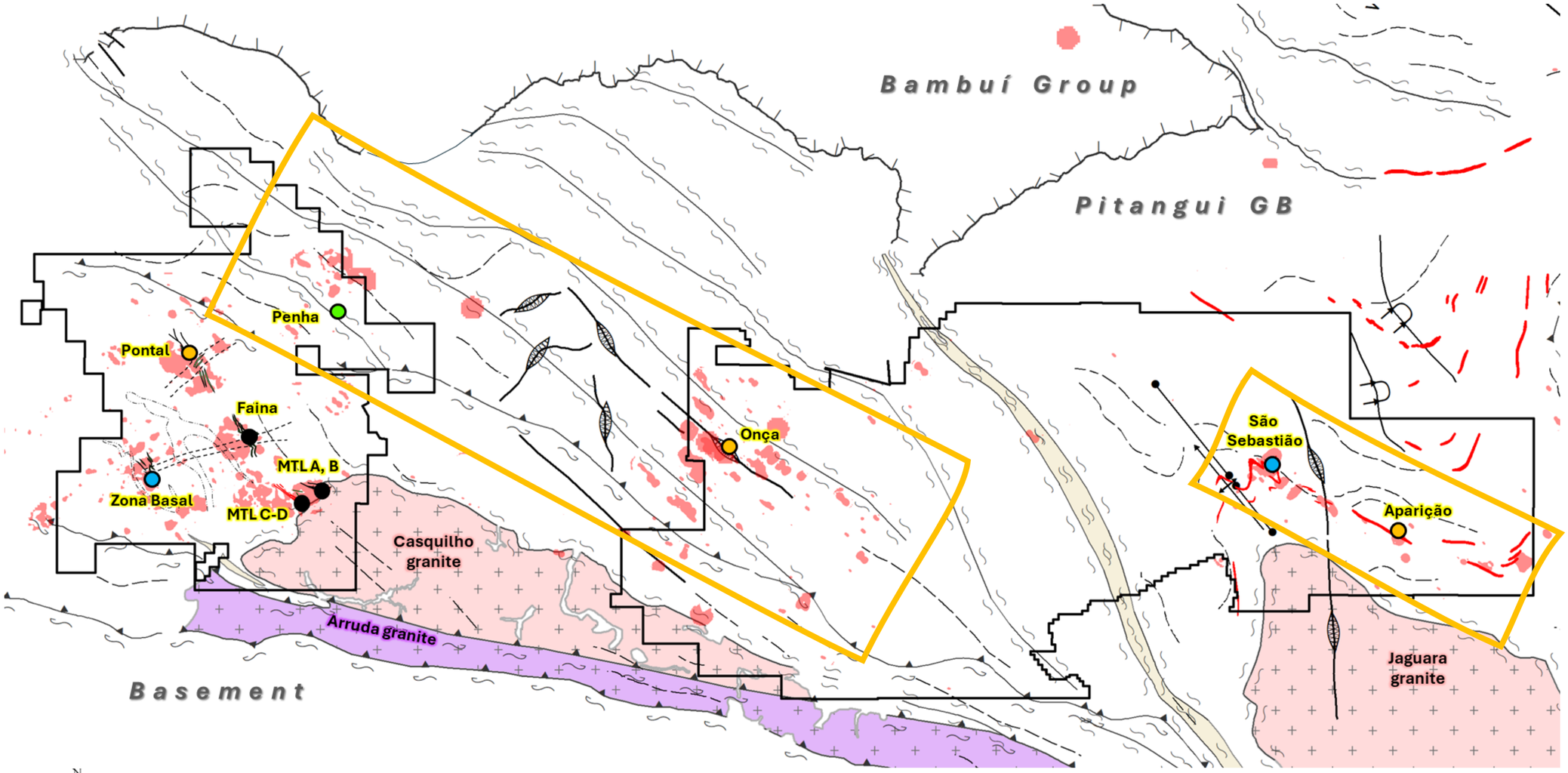
S_0 // S_1 foliation traces

S_2 axial plane traces

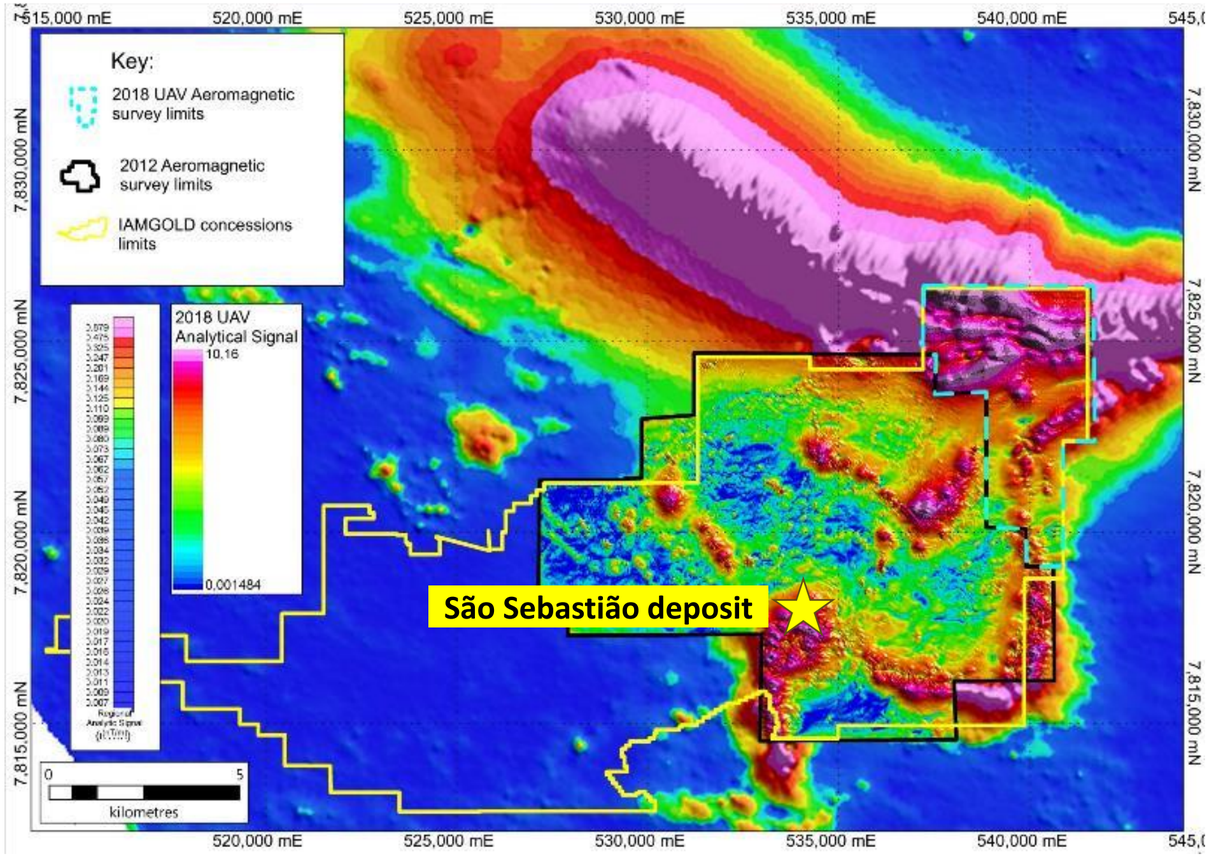
Potential F_2 gold zones

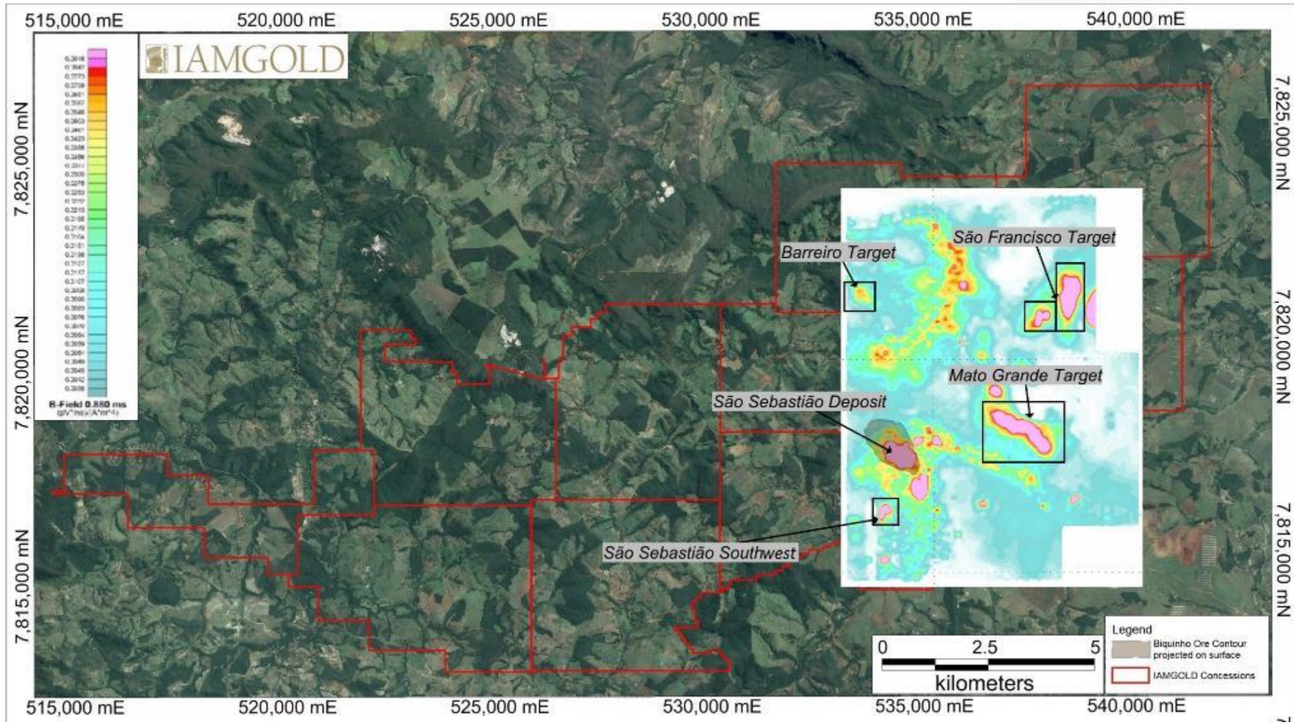
ONÇAS DE PITANGUI PROJECT

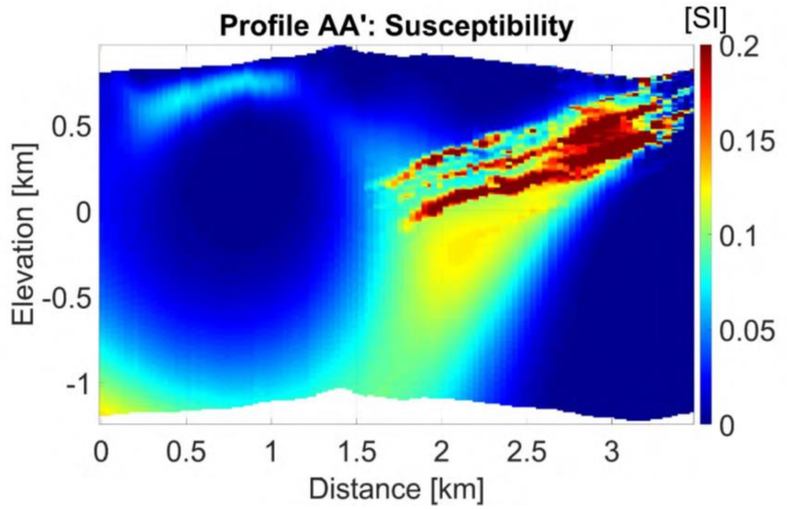
ONÇAS DE PITANGUI PROJECT – IAMGOLD TRANSACTION



REGIONAL GEOPHYSICS

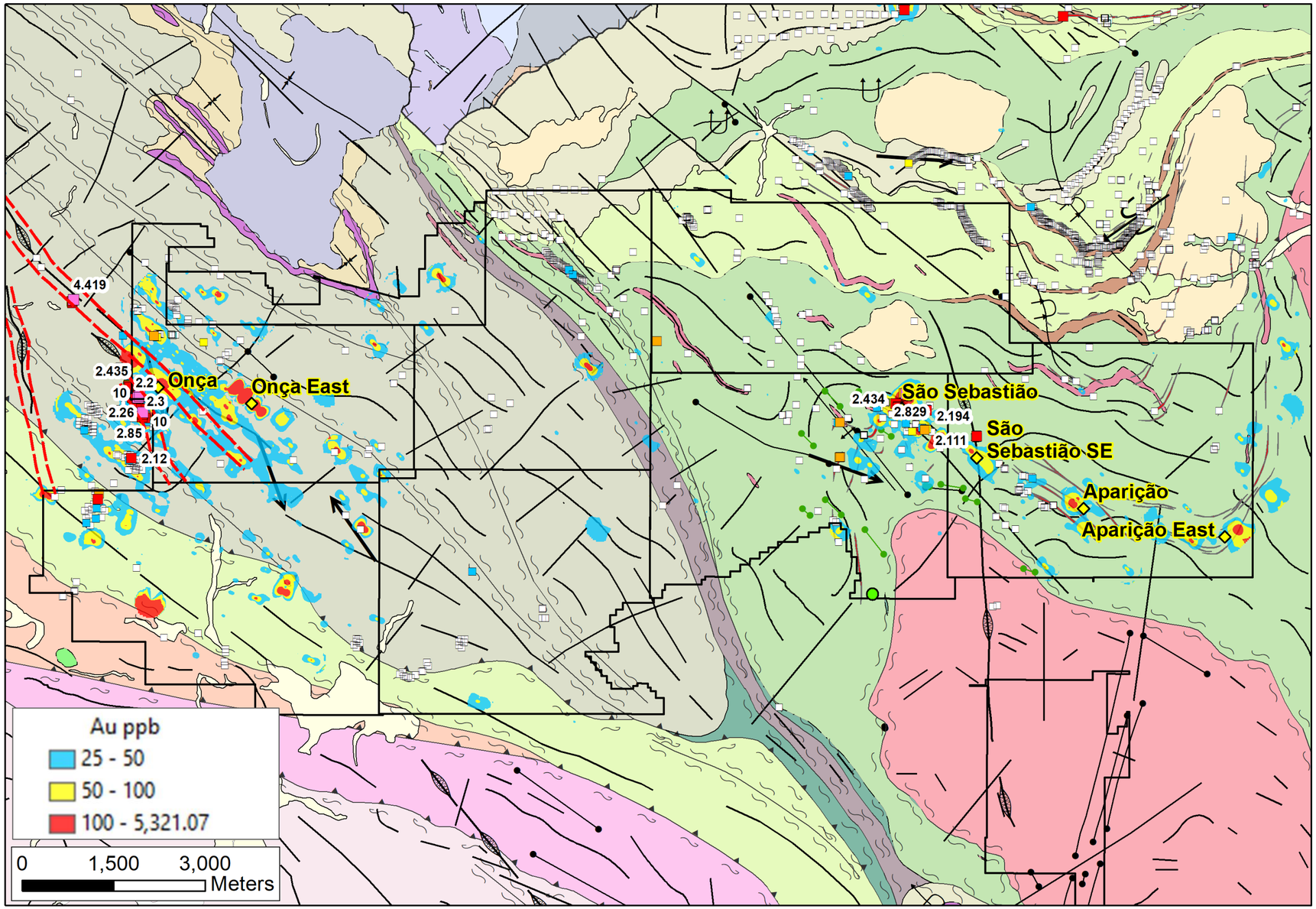






Airborne magnetics and gamma, UAV drone magnetics and VTEM helicopter aerial surveys, and several BHEM of generative targets.

REGIONAL SOIL SAMPLING COVERAGE



Gold-in-soil anomalies

Onça target has a much higher gold background than the Eastern Sector of Pitangui Greenstone Belt.

Many parallel Au anomalous trends were outlined in the NW-SE direction.

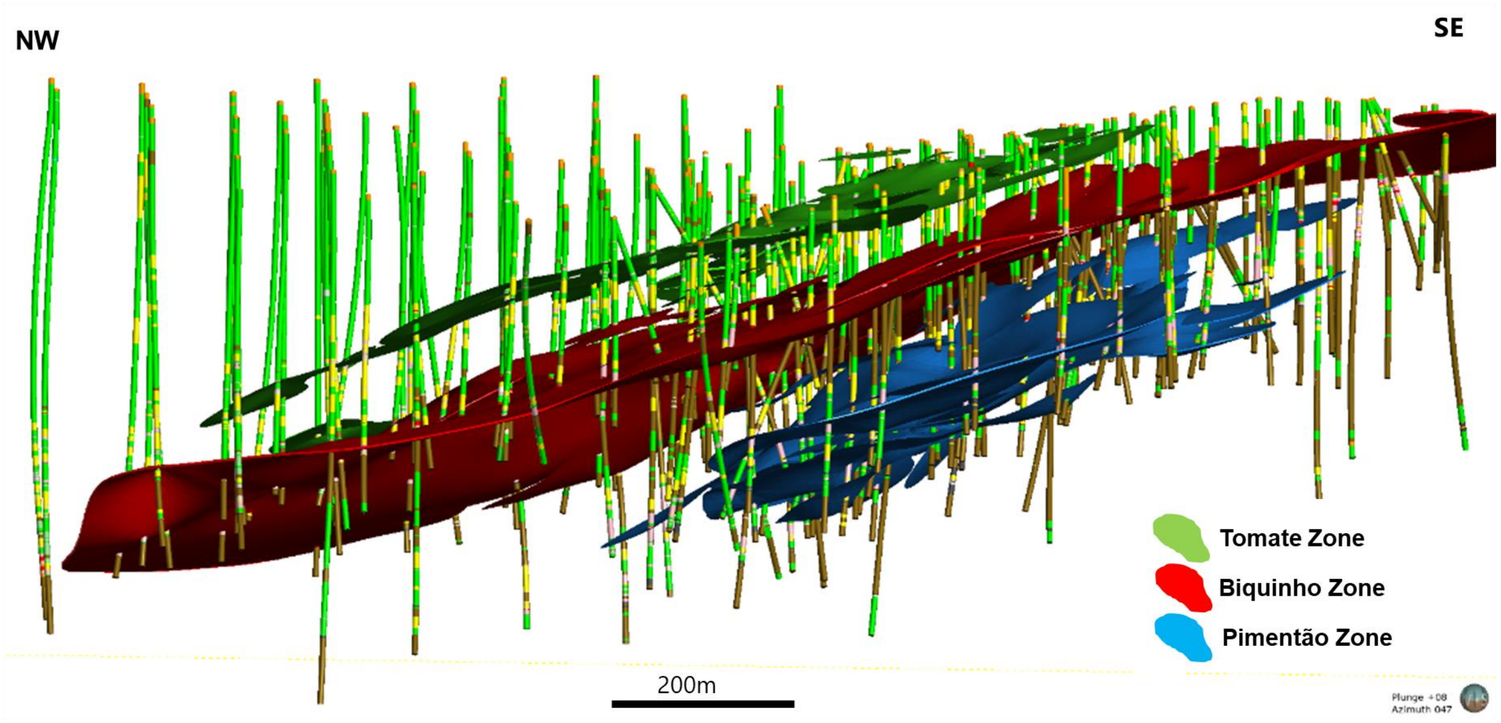
Rock chip anomalies >2 g/t Au

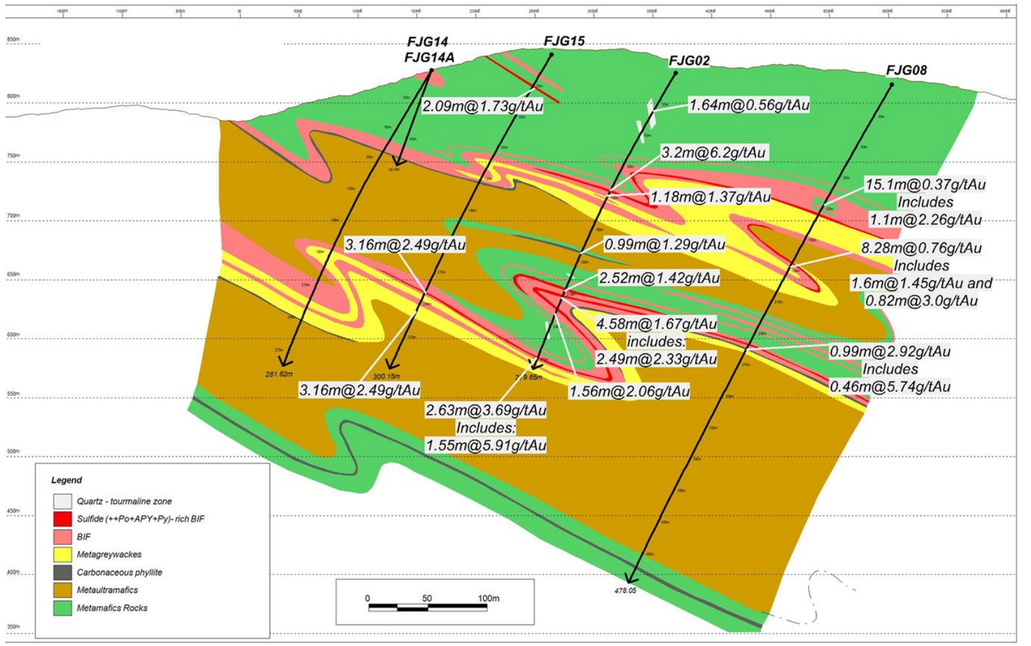
Onça and José Abreu prospect (not belonging to Jaguar) showing a strike extension to NW.

Onça East has potential to extends smoky quartz veins to SE.

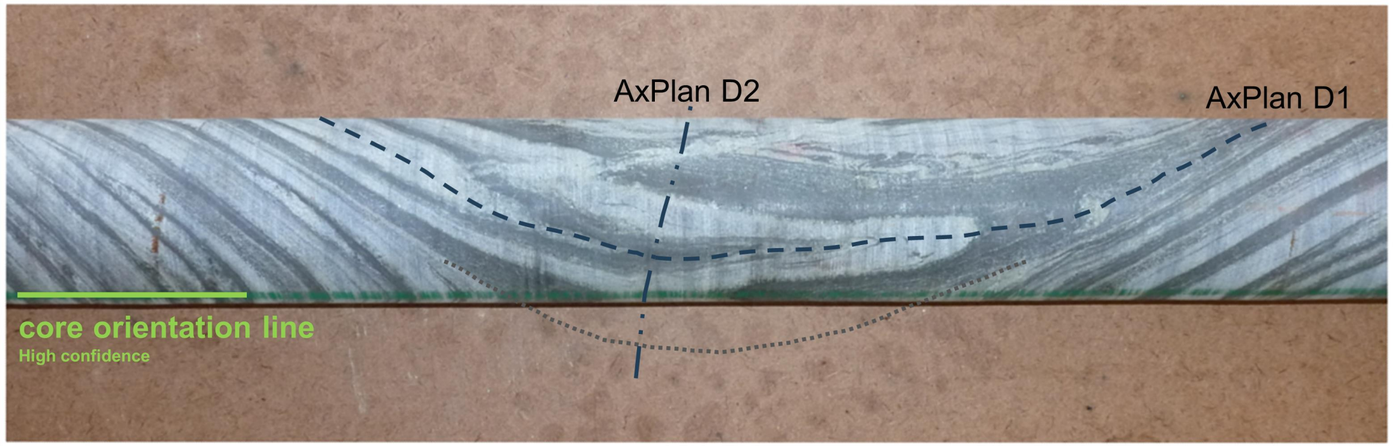
SÃO SEBASTIÃO GOLD DEPOSIT

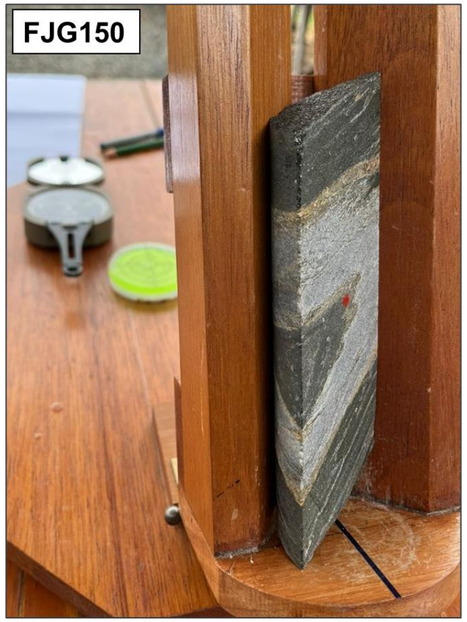
+150,000 m
258 DDH

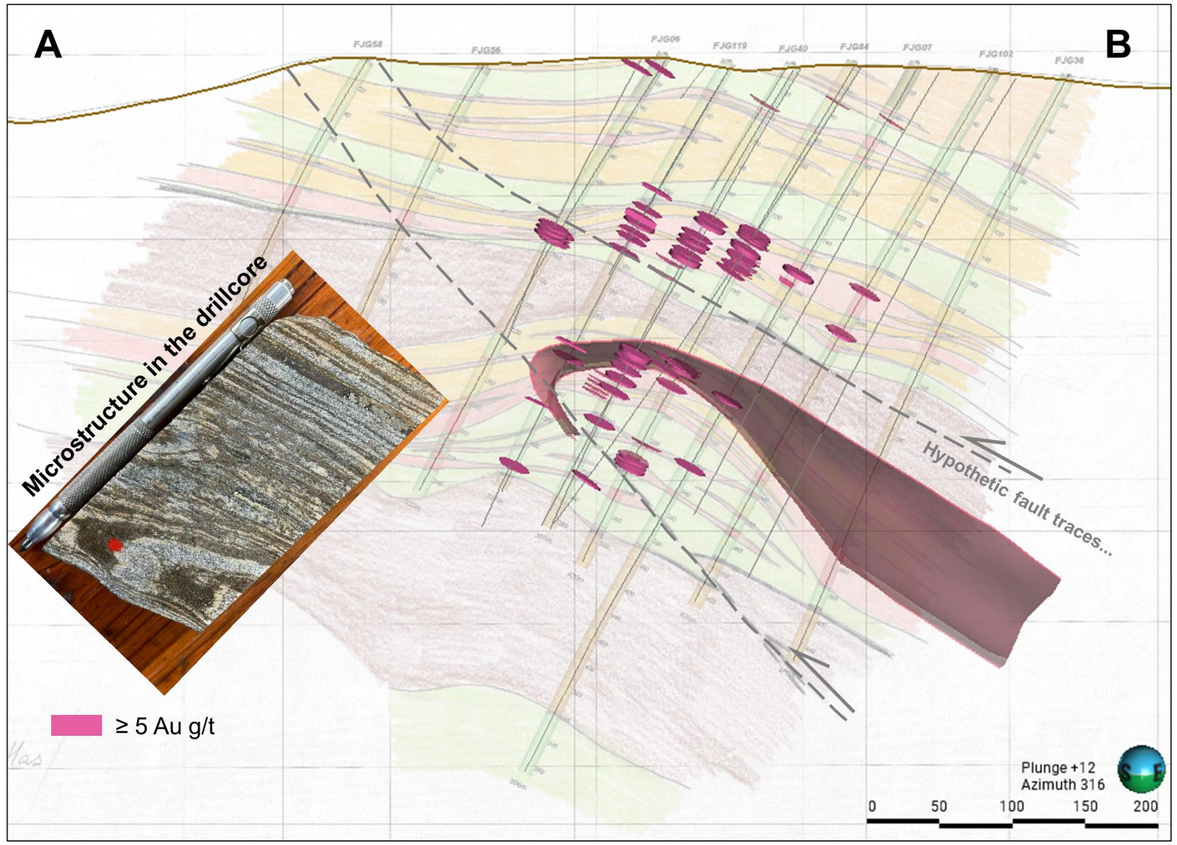




NEW COMPLEX PROJECT ?



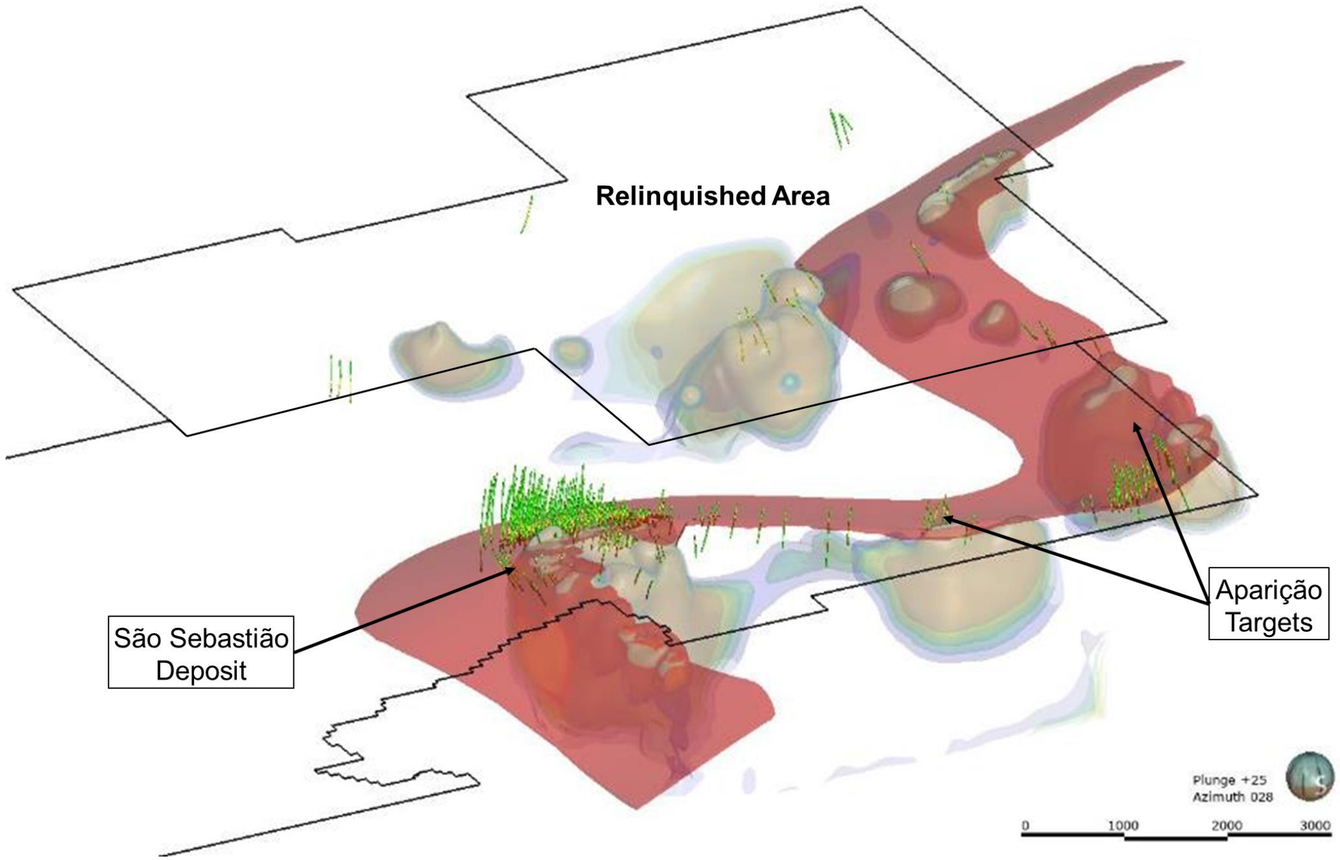


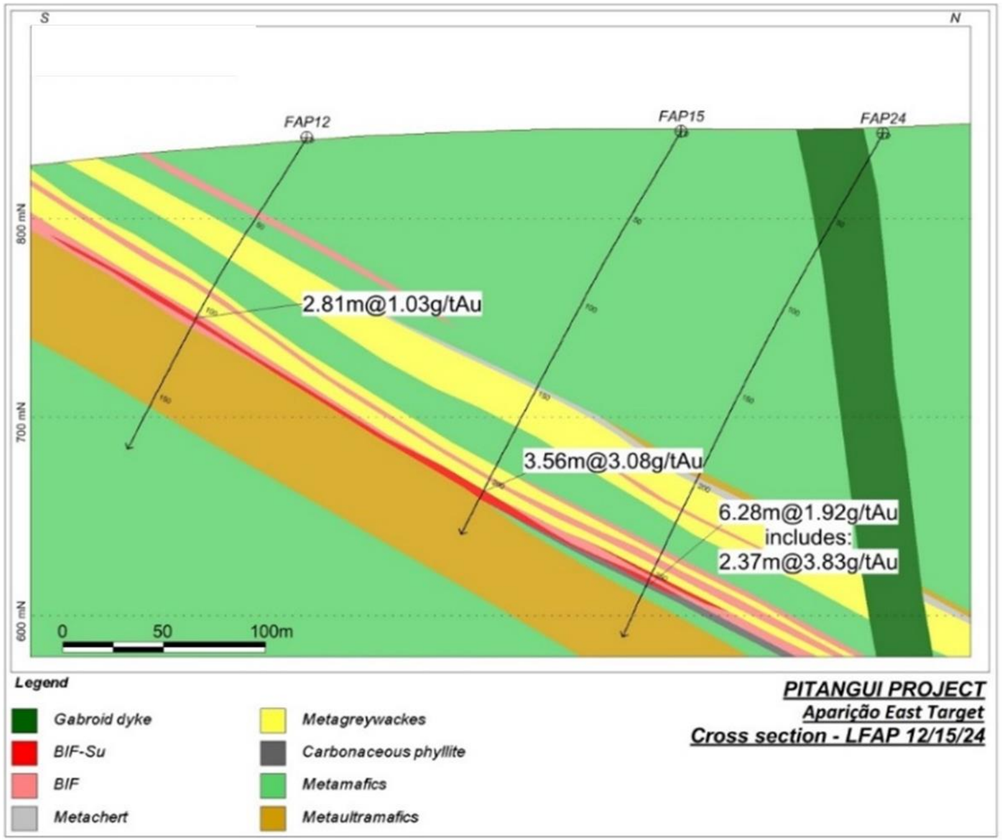


High-grade gold samples “coincidently” located near the fold axis (Pimentão zone)

Work in progress

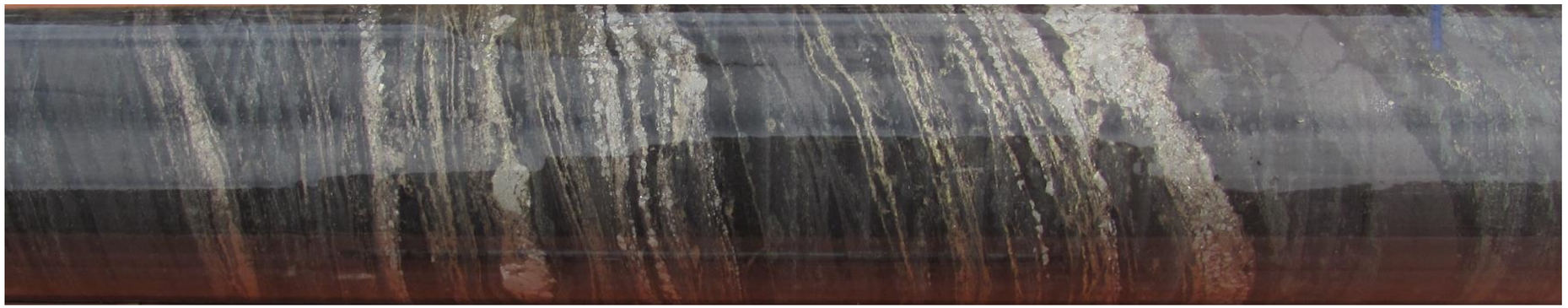
APARIÇÃO TARGET





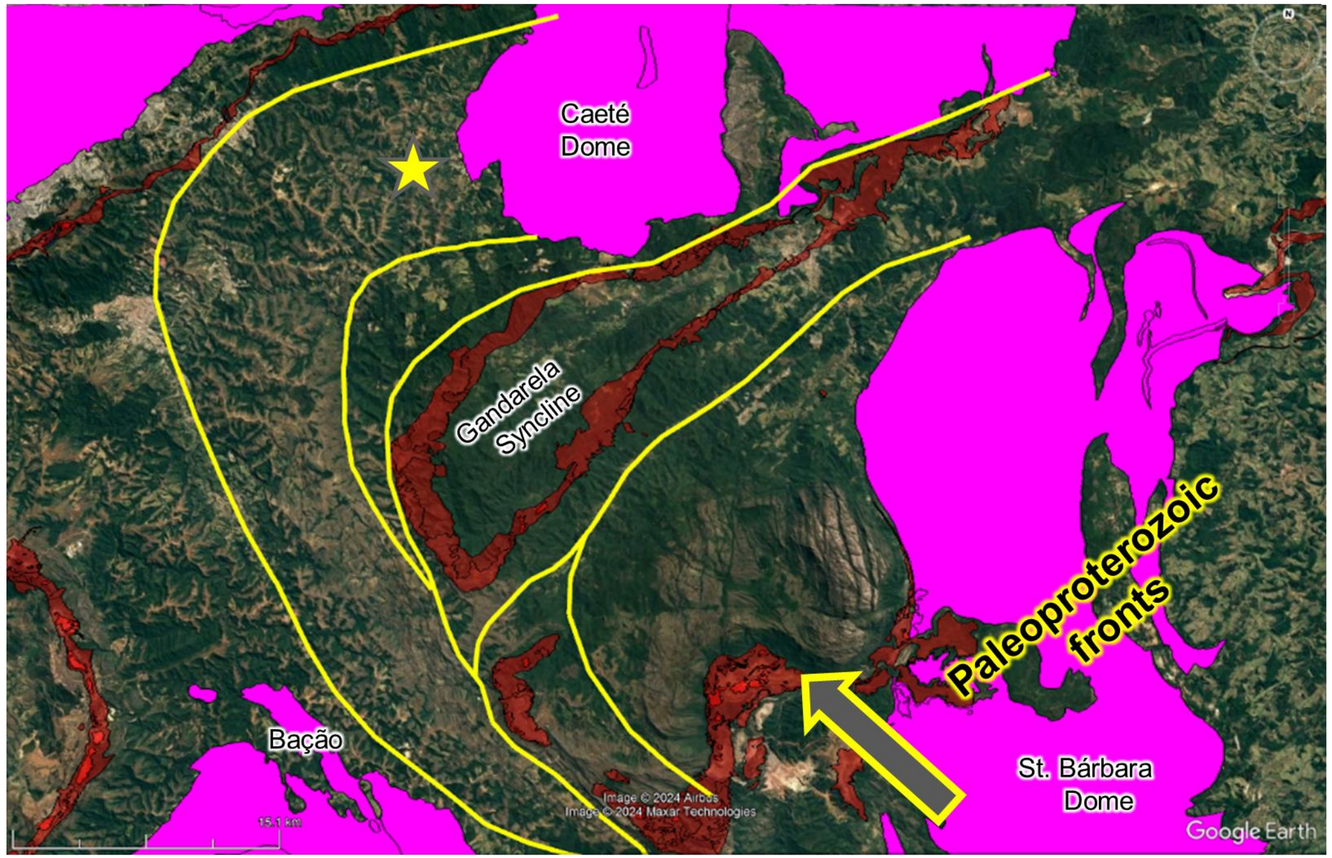
Drill Hole FAP29: 7.68m@2.01g/t Au
- includes: 1.88m@4.41g/t Au
- includes: 1.37m@5.05g/t Au

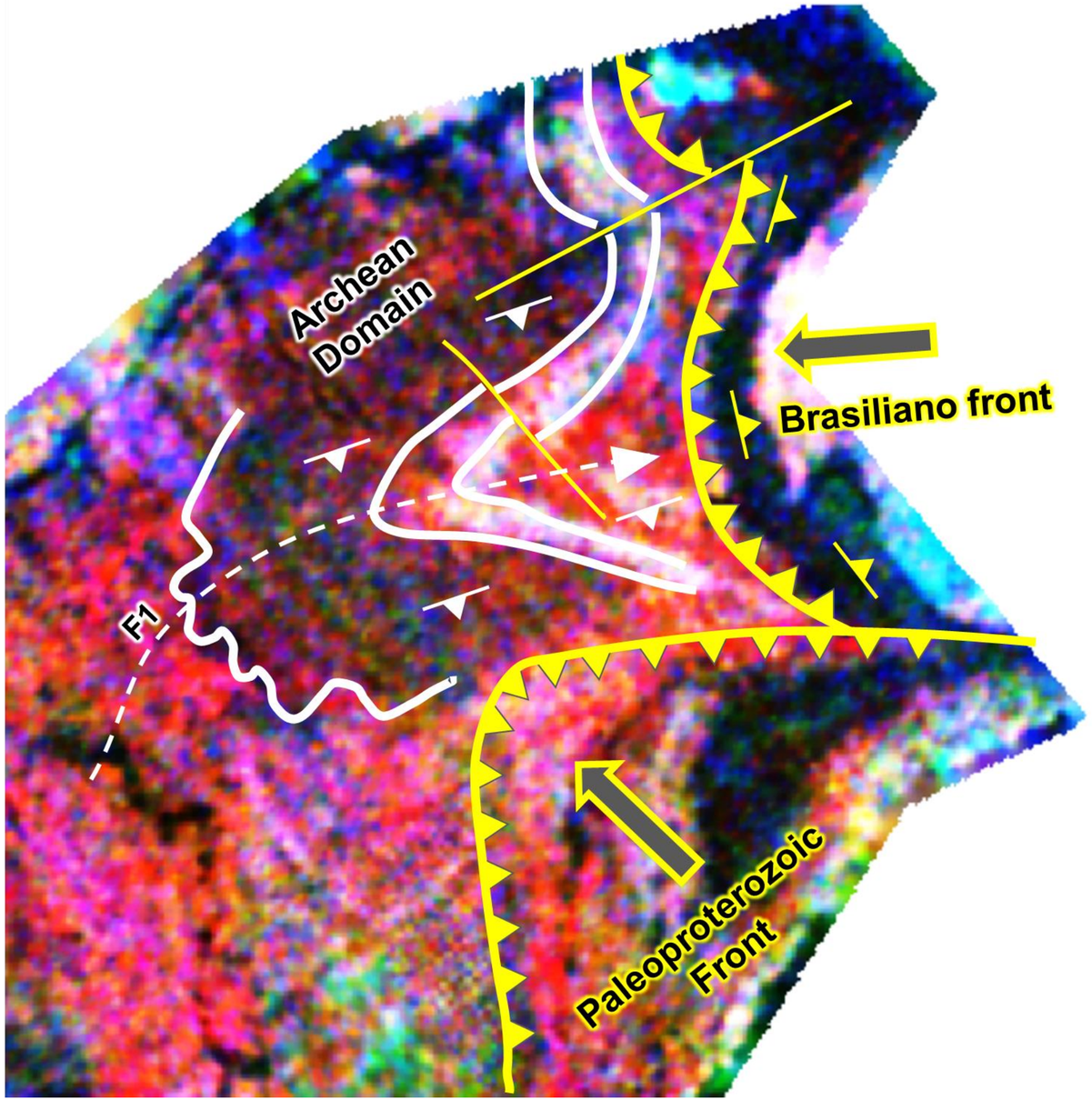
(196,50m): BIF with py bands + apy +/- cpy



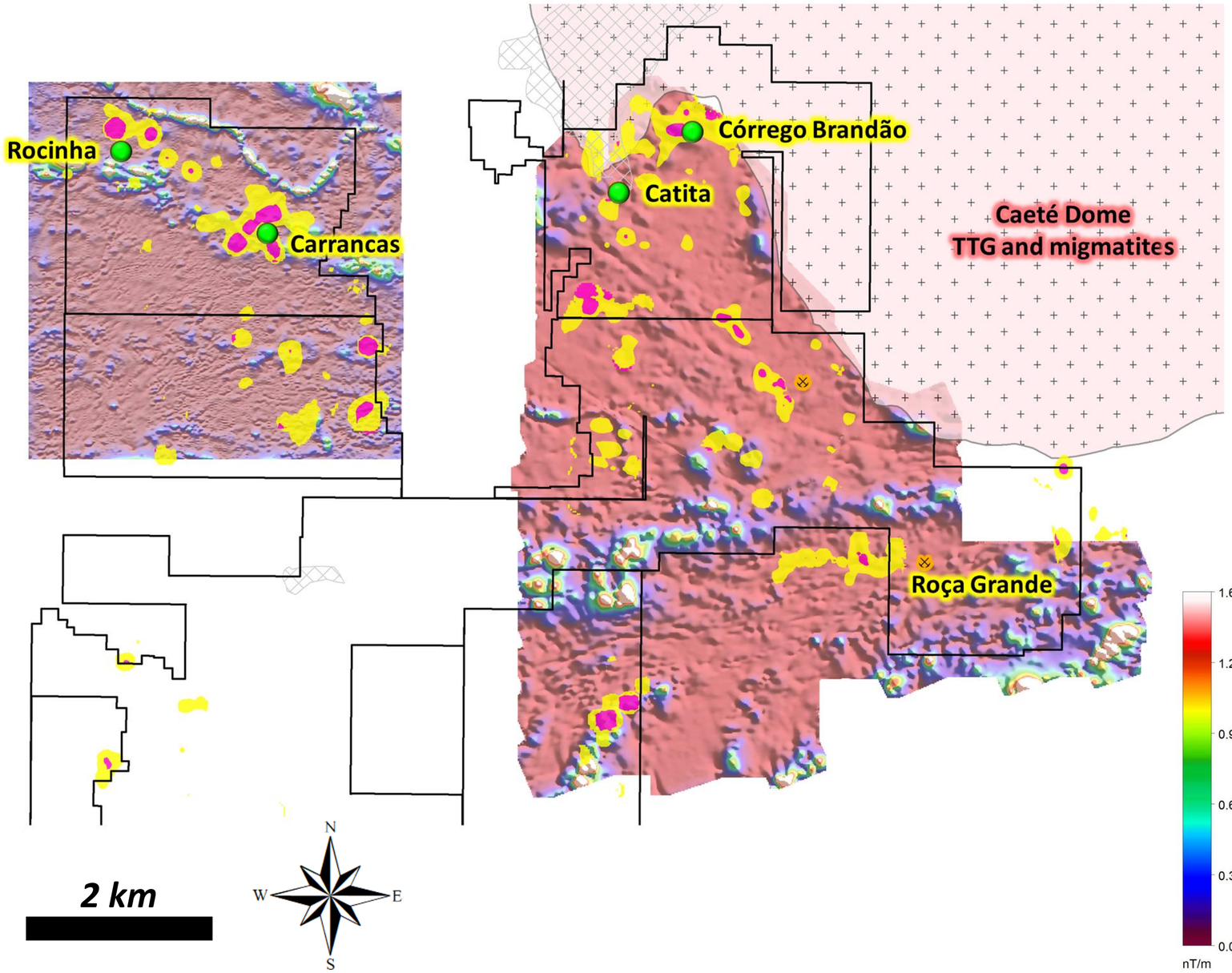
CAETÉ COMPLEX

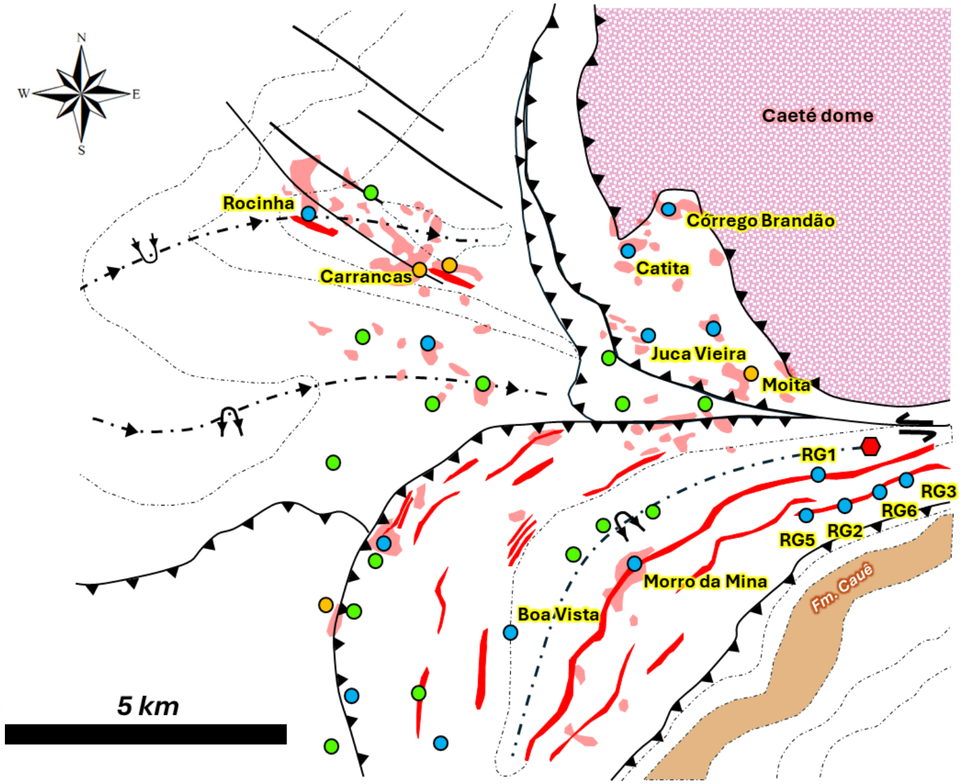
REGIONAL TECTONIC RE-INTERPRETATION





PROJECT LOCATION AND GEOPHYSICS



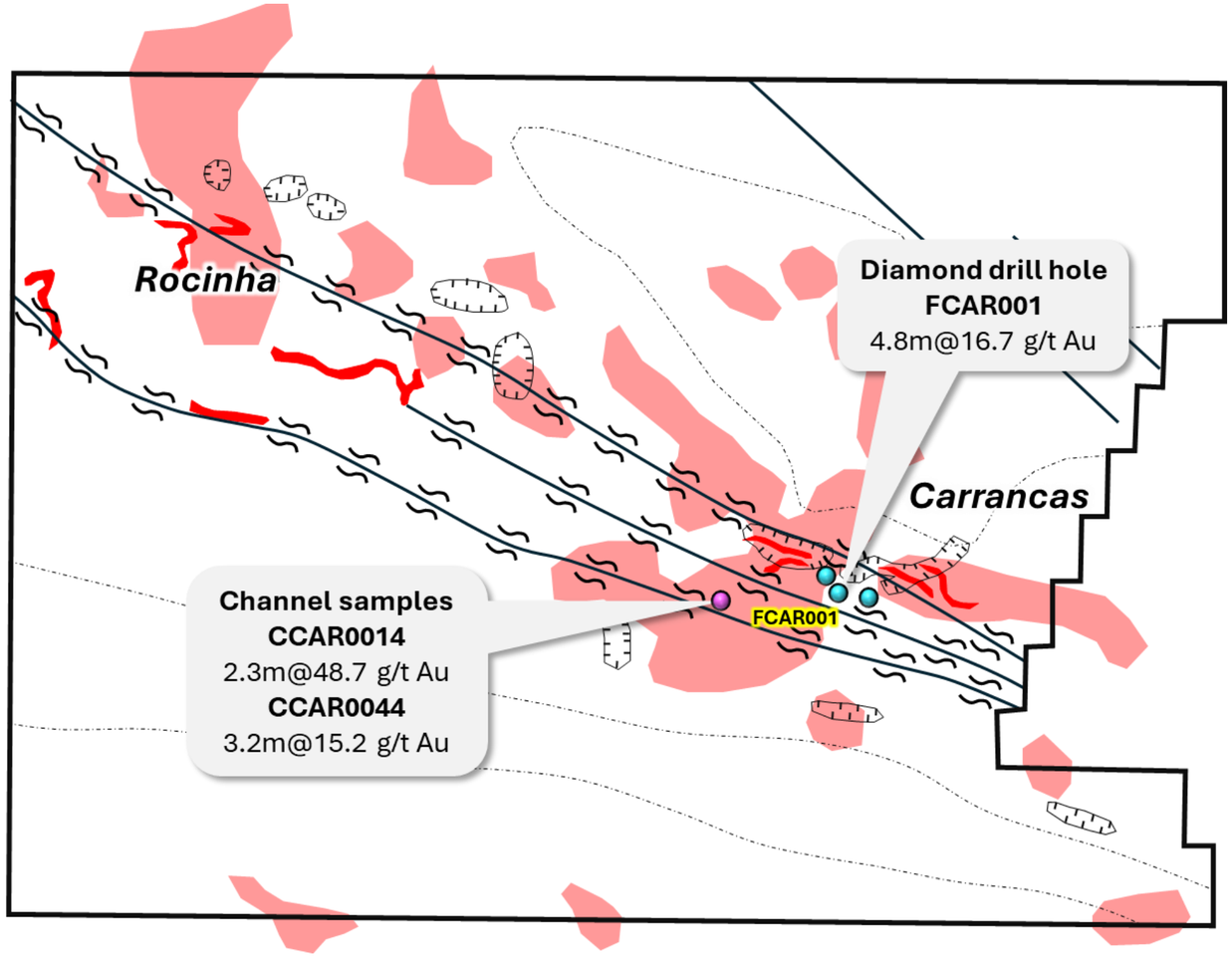


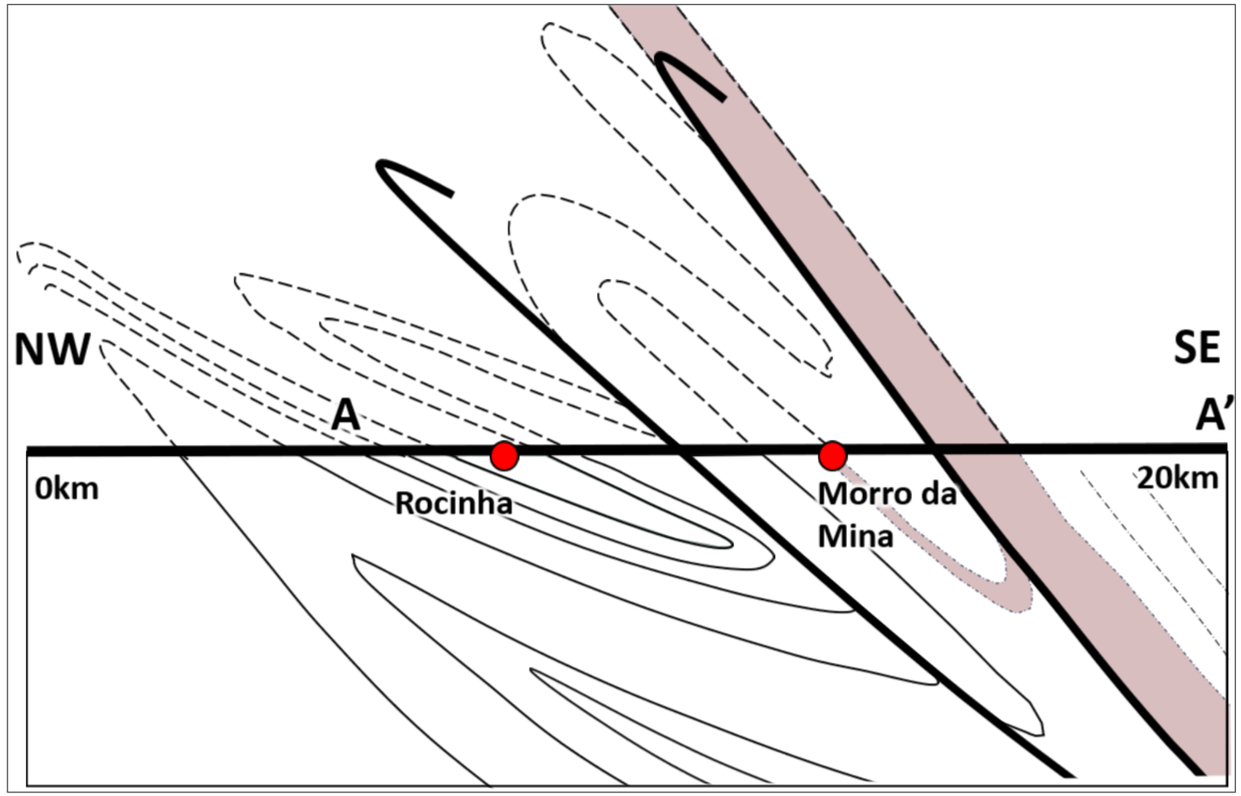
Gold-in-soil anomaly

Au ppb

- 100 - 300
- 300 - 16,470

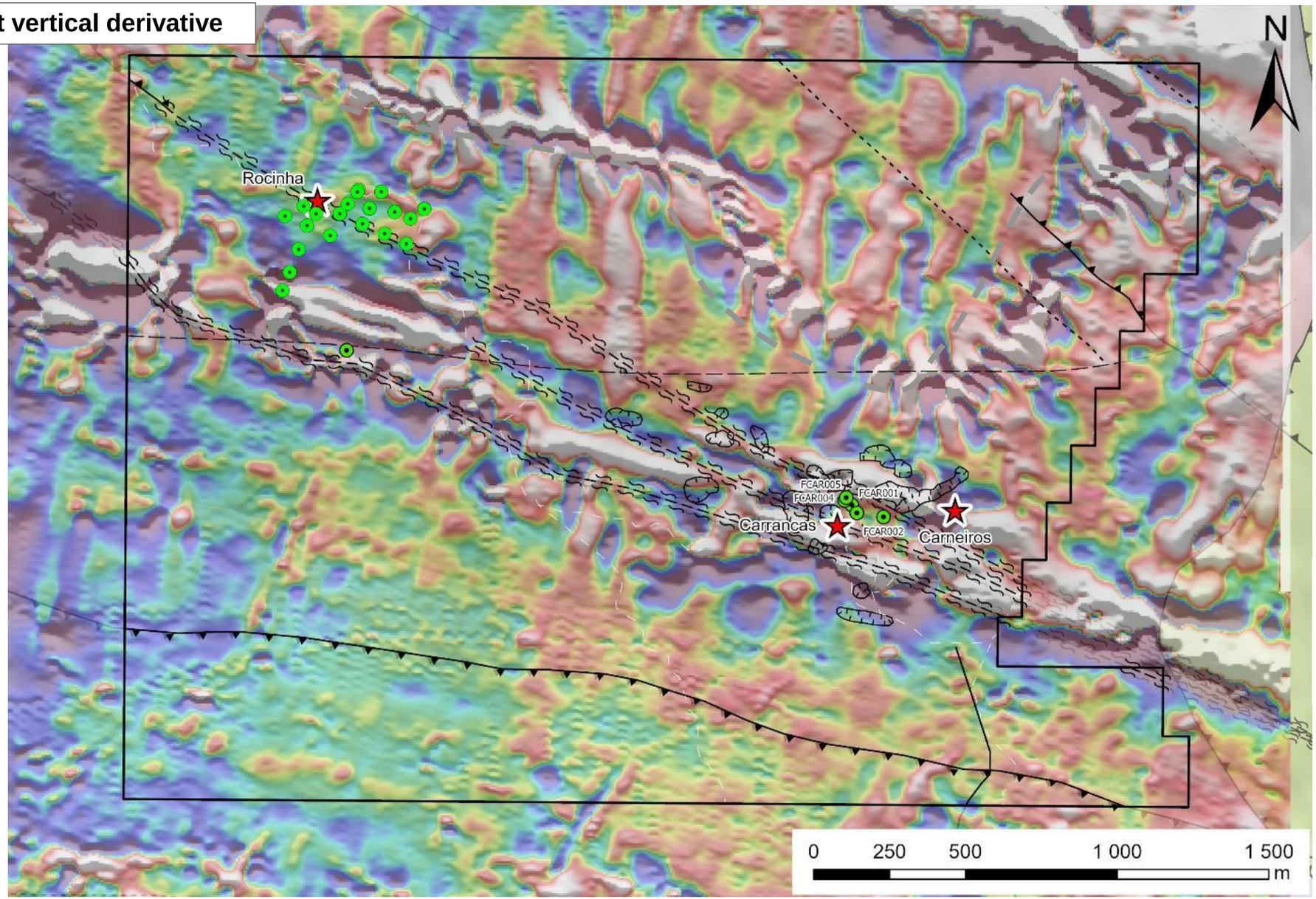
ROCINHA – CARRANCAS TREND



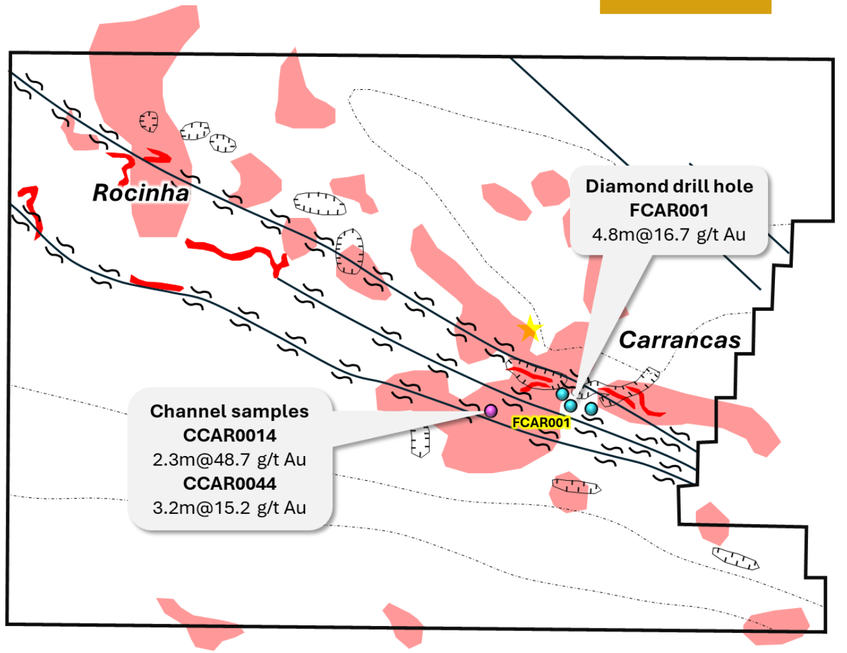


ROCINHA – CARRANCAS TREND

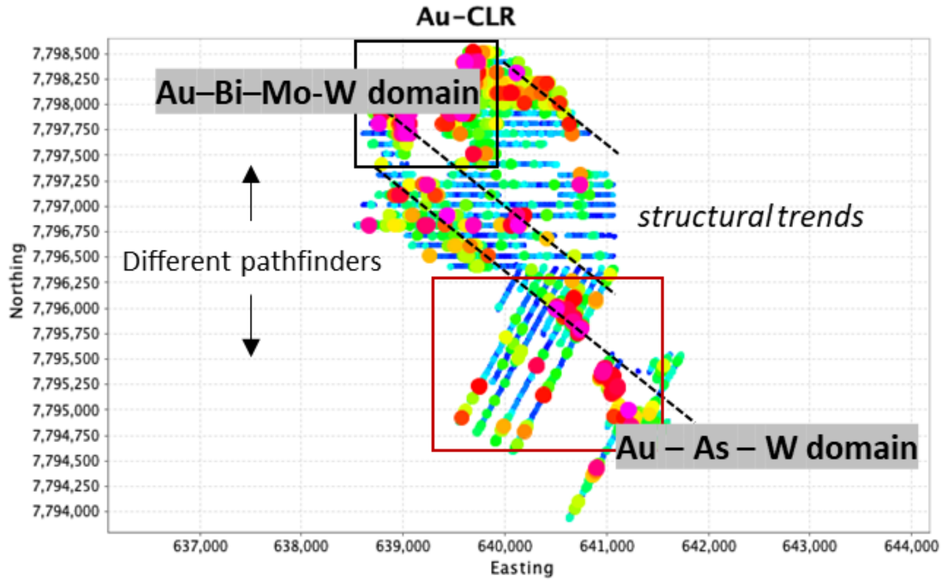
1st vertical derivative

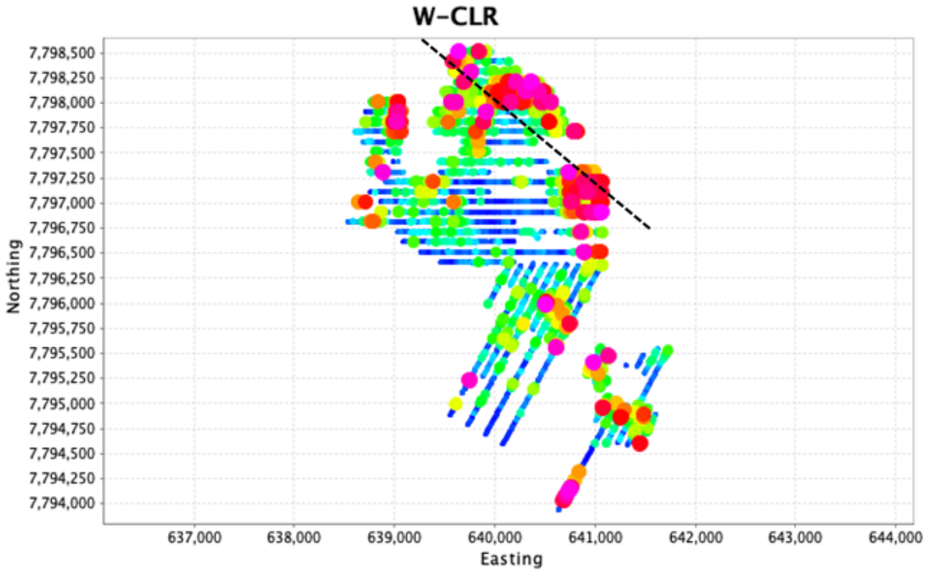


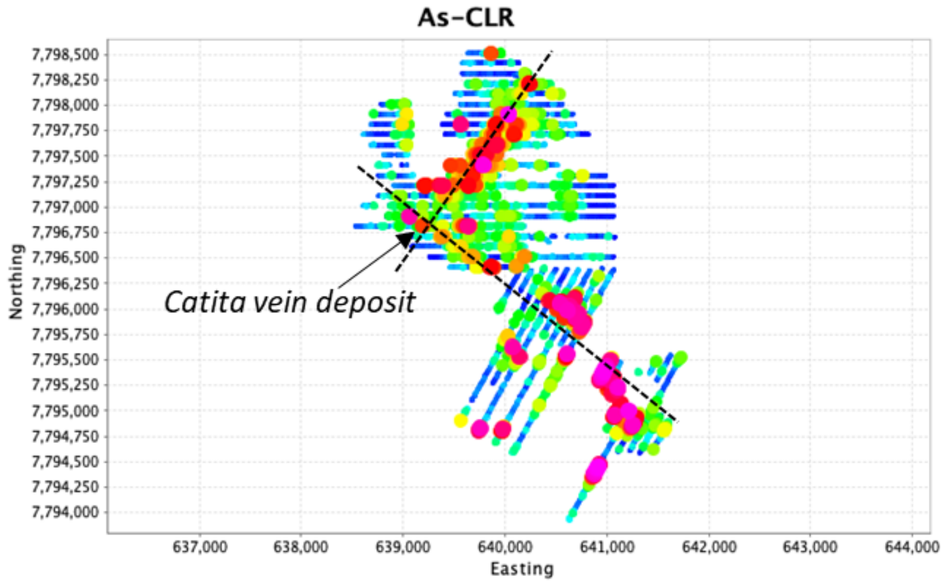
ROCINHA – CARRANCAS TREND - GOLD HOST ROCKS

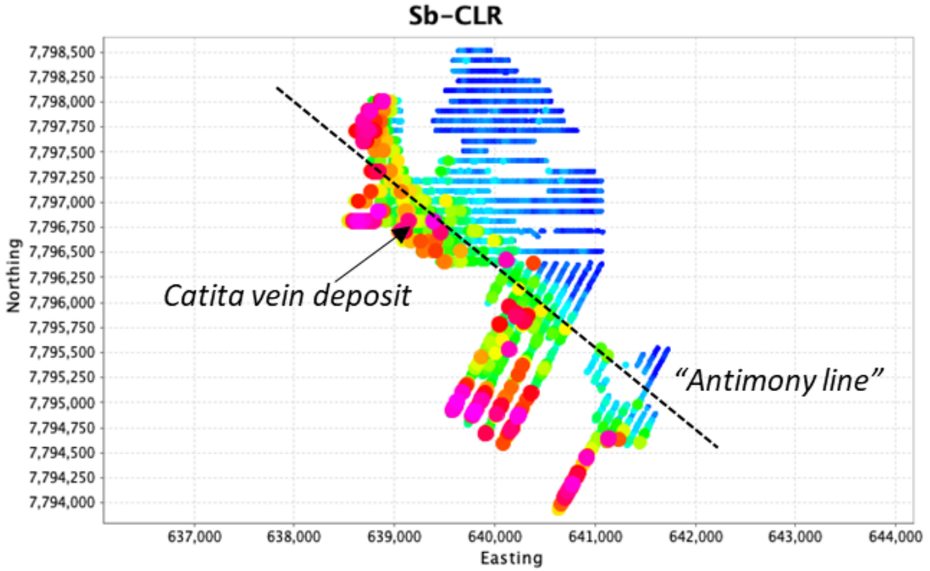


CÓRREGO BRANDÃO – CATITA TREND





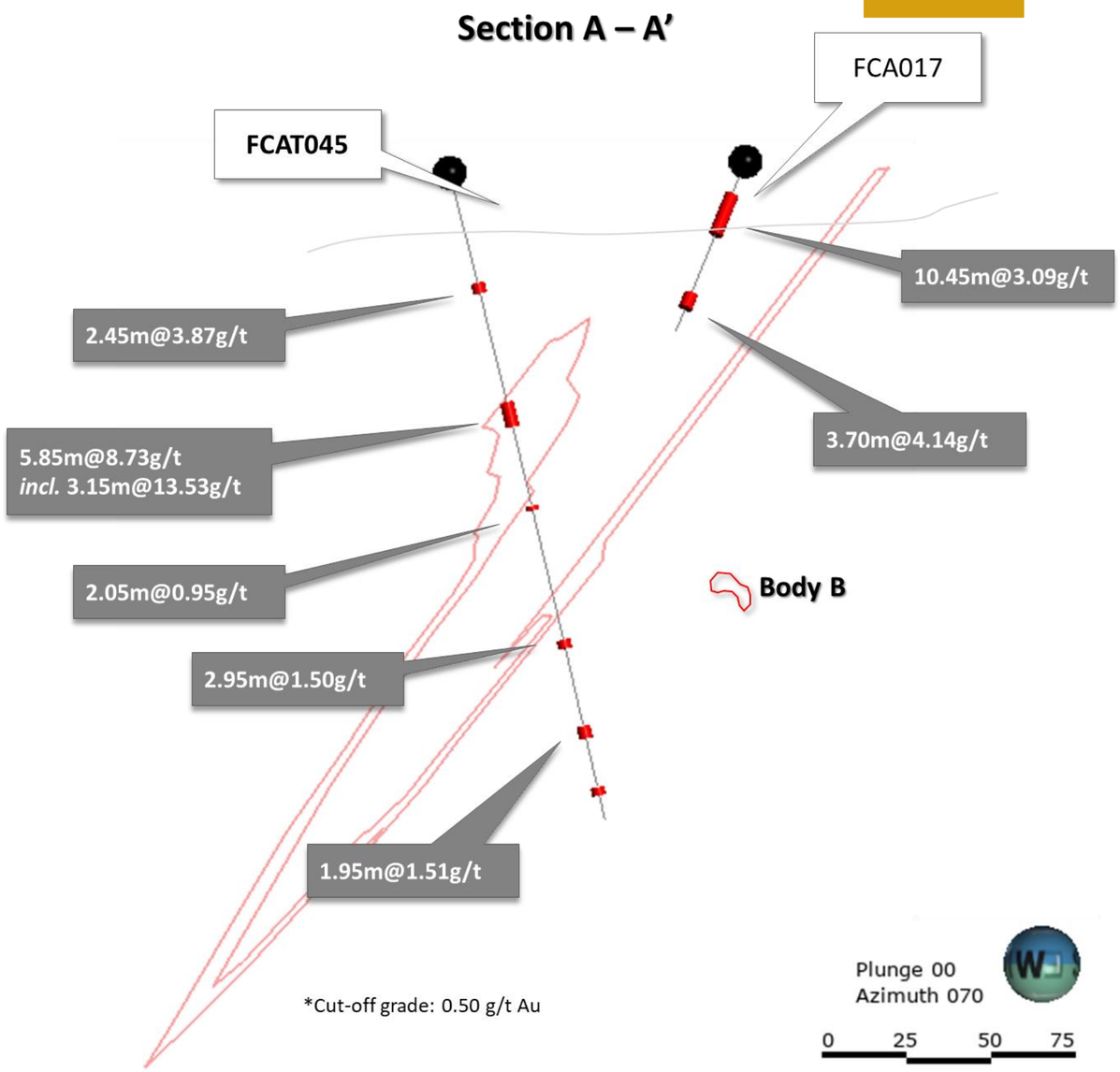




warm colors: higher abundance relative to respective element in CLR / **CLR:** Centered Log Ratio

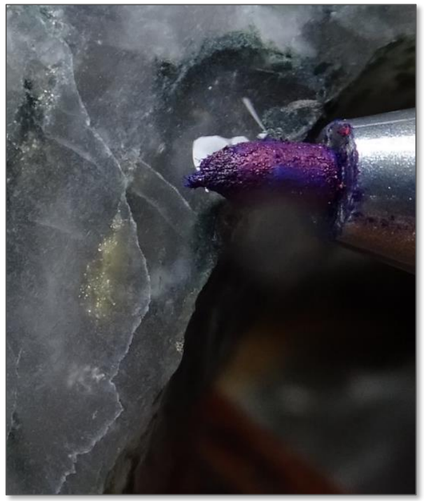
CATITA TARGET

Visible gold – 20g/t

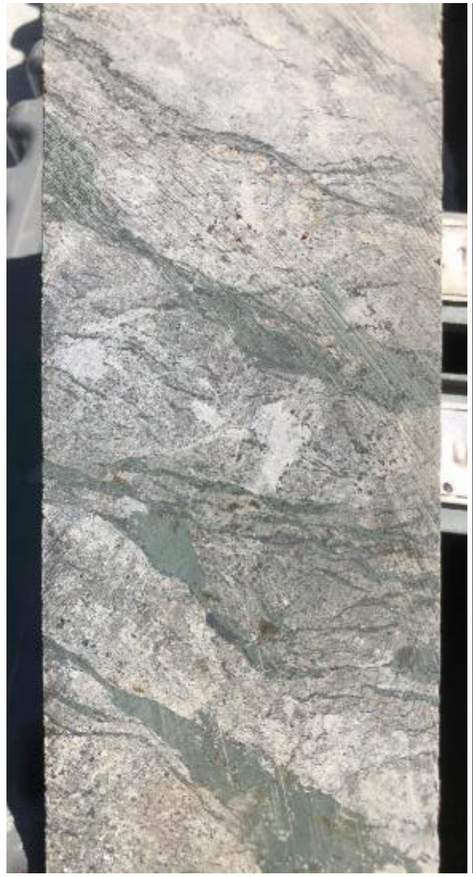


CÓRREGO BRANDÃO – CATITA TREND – GOLD HOST ROCKS

Catita host rocks



Córrego Brandão host rocks



Carbonatic alteration

11.35 g/t Au

24.1 g/t Au

Biotite-garnet alteration

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