

May 13, 2024

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## **Mirasol Identifies New Porphyry Targets at the El Potro Prospect and also Extends the VN-Zone by more than 3 km at the Sobek Copper-Gold Project in Vicuña District, Chile**

- *Two new porphyry target areas, have been defined and supported by coincident alteration, geophysics and geochemistry*
- *The size of the alteration and mineralization footprint suggests that the VN-Zone may represent a much larger porphyry system which extends for at least another 3km to the south*
- *A new copper porphyry target at El Potro prospect quickly advancing to drill ready stage*
- *The VN-Zone is located 7 km directly west of Filo Mining's Filo del Sol Project and the El Potro Zone is located 3 km from NGEx's Lunahuasi discovery*
- *Significant advancements were made despite delays due to unseasonable weather conditions and an abnormally short exploration season*

**VANCOUVER, BC, May 13, 2024** — Mirasol Resources Ltd. (TSX-V: **MRZ**) (OTC: **MRZLF**) (the “Company” or “Mirasol”) is pleased to report on the significant progress made from this seasons exploration activities and the emergence of new and highly-prospective target areas at both the VN-Zone at Sobek Central as well as the El Potro Zone at Sobek North, both within the flagship Sobek Copper-Gold Project (“Sobek” or “the Project”) in the Vicuña Copper-Gold-Silver District of northeast Chile.

The VN-Zone is a high-priority porphyry target situated in the southern portion of the Sobek Central block which appears to represent the northern most expression of a much larger hydrothermal porphyry system that extends for more than 3 kilometers to the south. Exploration this season has significantly increased the alteration and mineralization footprint of the VN-Zone to the south across the previously consolidated SQM property (“Rosita”) (press release dated March 4, 2024) and onto recently staked Mirasol claim blocks (“Sobek 46 South”).

At the El Potro prospect, located in the southeastern corner of the Sobek North block, a new magnetic high target (“Potro SE”) was identified from the original airborne-mag survey and the new target appears to be at a shallower depth than the previous resistivity target identified at EL Potro. Recent follow-up exploration has returned results as high as 1.8% copper and 87 ppm molybdenum from select grab samples directly overlying the magnetic anomaly at Potro SE. A systematic soil grid survey across the target also returned a coincident copper soil anomaly.

“The high-priority targets at Sobek continue to evolve as exploration advances. The potential expansion of the VN-Zone into a hydrothermal porphyry system with a much larger and stronger alteration footprint is a game-changer. The VN-Zone is now demonstrating significant size potential and is located 7km directly west of the Filo Del Sol Project on a similar parallel regional structure,” Mirasol’s President and CEO Tim Heenan stated. “Significant advancements were made this season, including the definition of new high-priority drill targets, despite the difficult conditions due to unseasonable weather in the high Andes and an abnormally early snow fall that has forced a shortened exploration season.”

Mr. Heenan added: “I am also very excited about the potential of the new copper porphyry target at the El Potro Zone. Potro SE is a shallow cylindrical shaped magnetic response in a similar geological setting as reported by NGEx at the Lunahuasi discovery just 3 kilometers to the east. Once the weather allows a final IP survey will be conducted over Potro SE to refine drill targeting. This is expected to be the first priority for drilling at the start of the spring drill campaign in the fourth quarter of 2024.”

### **Summary of Key Accomplishments from the 2023/24 Exploration Season at Sobek**

#### **Sobek Central: VN-Zone and south through Sobek 46 South**

- Access road up to the VN-Zone completed in January 2023.
- Staking of the new Sobek 46/47, and geological evaluation of the property, including initial reconnaissance exploration, ongoing detailed systematic soil sampling grid, confirming the presence of a very large porphyry related hydrothermal alteration system extending more than 3 kilometers south from the VN-Zone.
- At the VN-Zone, IP PDP geophysical lines through the VN-Zone for a total of 2,400 meters, generating compelling Resistivity and Chargeability anomalies, to aid in focusing the upcoming southern hemisphere spring drill program.
- Detailed geological mapping at the VN-Zone and Rosita.

#### **Sobek North: El Potro and Potro SE**

- New access road constructed up into the El Potro prospect.
- IP Gradient Array geophysical campaign, followed up by 14.5 kilometer of detailed IP PDP geophysical lines over the Gradient Array generated anomalies.
- Detailed systematic soil grid over the newly identified, near surface Potro SE copper-porphyry target.

#### **Rosita – SQM Consolidation Property Package**

- High level reconnaissance geological mapping and prospecting.
- Detailed stream sediment sampling. BLEG/-80# within the property to detect areas of potential interest.

Abnormal weather through out the season has caused difficult working conditions and significant delays. At least four weeks of the prime exploration season was lost due to unseasonable weather mid-season. Heavy rain and snowfall washed out access roads that required repair. Now, very untimely and heavy snowfall, almost two months earlier than last season, has halted plans to advance towards drilling at El Potro and also delays the construction of a new road to support the exploration and evaluation of the VN-Zone expansion onto the new Rosita and Sobek 46 properties.

With the recent advancements in exploration at Sobek and the promising results obtained from both the El Potro and VN-Zone targets, Mirasol Resources will soon be ready to continue with the previously initiated maiden drill program. Continuing efforts will focus on refining target prioritization and further delineation of mineralized zones.

## **High-Profile Vicuña Copper-Gold-Silver District**

Mirasol staked the Sobek Project in 2016 based on prospective local geology and attractive structural architecture prior to the 2021 discovery of the high-grade feeder zone at the Filo del Sol gold-copper deposit and the discovery of Lunahuasi. The continually expanded and consolidated Sobek Project is located on the same regional N-S trending structural corridor and just 3 km to the west of the Filo del Sol deposit and 3 km to the southwest of NGEx Mineral's discovery at Lunahuasi (formerly Potro Cliffs).

Sobek is located within a prospective geological environment with a compelling north-northeast trending mineralized structural corridor crosscut by a north-northwest trending deep-seated trans-cordilleran lineament. This is a common structural configuration hosting several southern Andes metal deposits in both Chile and Argentina.

[Figure 1: Vicuña District - Expanded Sobek Property including the SQM Rosita Property and the Sobek 46 South Staking](#)

### **Sobek Central - VN-Zone and Southward Expansion**

The VN-Zone was identified in early 2023 as a high-priority target after high-grade gold grab samples were collected during prospecting, with results of up to 5.0 g/t gold and 2,200 ppm copper from select grab samples (press release dated June 27, 2023). The exact in situ source of these high-grade veinlet hosted gold-copper values have not yet been located and it appears that the source may be further to the south where current exploration has extended the structural corridor into Rosita and Sobek 46 South. These robust gold results originate from sheeted Maricunga Type ("M") quartz-magnetite veinlets with argillized margins. These M veinlets contain anomalous values of copper mineralization (up to 2,220 ppm), which is considered typical in these Chilean gold-copper Maricunga Type porphyry deposits.

The property consolidation efforts of Mirasol in the Vicuña district continue and is exemplified by the expansion to the south of the VN-Zone, continuing further south from the previously incorporated Rosita block and now into the recently staked Sobek 46 South property. This block unexpectedly became available recently and Mirasol reacted quickly to gain possession of the claim area. Recent exploration to the south of VN-Zone, passing through Rosita and into Sobek 46 South, suggests that the actual VN-Zone may only represent the northern most expression of a much larger and stronger hydrothermal system which increases considerably in size and strength into the newly staked Sobek 46 South Zone. This is an exciting new area, clearly prospective for copper porphyry's and clearly justifies more exploration to define the best targets to be drilled prior to the end of the year.

The emerging porphyry target at Sobek 46 South, and potentially at Rosita, is associated with a very strong aerial MT sourced magnetic response where recent prospecting campaigns have reported copper mineralization in rockchips directly above the subsurface magnetic anomaly. Recent, and currently ongoing systematic soil sampling has also started to define what appears to be a strong and coherent copper/moly/gold soil anomaly coincident with the rockchip geochemistry overlying the MT Magnetic response. The completion of the entire soil grid has been impeded by the recent snowstorms in the entire Vicuña District. There is a large NNW-SSE trending mineralized structural corridor developing which is over 3 kilometers long with the actual width yet to be determined by further mapping and prospecting between now and the end of 2024.

[Figure 2: Sobek Central \(VN-Zone\), Rosita Geology/Geochemistry with Sobek 46 South \(large aerial MT sourced magnetic anomaly with coincident geochemical copper-results\)](#)

The VN- Zone prospect, located in along the southern border of Sobek Central, is a 1.3 by 1 kilometer zone, where several areas display different types of quartz veinlets hosted in dacitic outcropping host rock. These areas have been mapped as hypabyssal intrusive bodies with strong brecciation developed along the margins and geological contacts. The dacites are hosted in Paleocene aged conglomerates, sandstones, and dacite tuffs.

There are higher density veinlet zones situated within the VN-Zone, covering an area of approximately 150 meters by 100 meters, located in a NNW-SSE structural corridor enclosing most of these veinlet zone. Directly associated with the mineralized quartz veinlet zone is strong quartz-sericite-pyrite (phyllitic) alteration, typically showing medium-grained white mica flakes affecting the dacitic rocks and associated with silic. Samples analyzed by ASD show a high crystallinity of the white micas, consistent with these field observations.

The reported veinlet compositions and textures (Figure 3) are interpreted to be peripheral zones to a copper-gold porphyry system. The Maricunga type banded quartz-magnetite and the quartz "D" veinlets are typically located peripheral to the core of these Maricunga-style porphyry systems and are considered to be derived from hot magmatic fluids, as seen by the association with quartz-sericite-pyrite alteration and the presence of magnetite and tourmaline. Results from the MT sections (Figure 4 - line 1700) show a deep aerial sourced MT conductive anomaly with a cylindrical shape typical of these Maricunga type Copper- Gold porphyry bodies.

[Figure 3: Typical Sheeted Quartz-Pyrite and Quartz Magnetite Veinlets Exposed along VN-Zone Road Cut](#)

[Figure 4: Aerial MT Conductivity Anomaly - Line 1810 Cross Section \(cylindrical shaped anomaly at depth underneath the VN-Zone\)](#)

Two IP-PDP lines were completed over the VN-Zone revealing a less resistive surface response which may represent a 100-meter-thick leached cap zone (Figure 5). At further depth (350 meters), these resistivity values are extremely high reaching up to 30,000 ohm-m, potentially representing a silicified breccia body, although notably much larger than those mapped in outcrop at surface. The strong resistive anomaly is clearly structurally controlled. The underlying IP-chargeability values further at depth (300-500m) form a strong coherent anomaly up to 7 mV/V and are coincident with the MT defined conductive body (Figure 4). This IP-chargeability anomaly remains open at depth and could represent the upper most zones of a pyrite+/-chalcopyrite halo.

[Figure 5: IP-PDP Survey Sections over VN-Zone \(showing the structurally controlled IP-resistivity anomaly and the underlying coherent IP-Chargeability anomaly\)](#)

### **El Potro Prospect**

At the El Potro prospect, located at the southeastern corner of the Sobek North block, a strong aerial MT resistivity target (+30k Ohm) was previously reported with elevated values from rockchips collected from quartz veinlets within the older permo-triassic basement with results as high as 4.9% copper, 4.6 g/t gold and 163 g/t silver. Recently, a new and highly attractive magnetic high target (Potro SE) was identified from the original Airborne-Mag survey. There is also a notable IP-Chargeability anomaly emerging just to the north of the Potro SE magnetic anomaly which was identified while conducting an IP survey over the original El Potro airborne MT resistivity target.

The Potro SE IP-Chargeability anomaly appears to be directly associated with the strong cylindrical shaped Airborne Magnetic anomaly at 300 meters below the surface. The associated IP response may represent the sulfide halo peripheral to an intrusive (porphyry) center. Additional IP lines are planned to cross directly over the Airborne-Mag and geochemical anomalies to more precisely map out the chargeable zone. These lines have not been advanced due to recent heavy snowfall in the area, but Mirasol is confident that these lines can be completed before the end of May to have this target ready as a priority for drilling at the start of the spring drill campaign.

[Figure 6: Potro SE, RTP Airborne Magnetic Anomaly Cross Section \(cylindrical shaped magnetic feature with 3D mag-susceptibility depth slices and the emergence of a chargeability halo\)](#)

The recently advanced Potro SE target is located to the SE of the original El Potro target. Follow-up exploration has returned results as high as 1.8% copper and 87ppm moly from prospecting level rockchip sampling directly overlying this magnetic anomaly. These results are considered to represent a more typical porphyry style of veinlets and mineralization. A systematic soil grid across the new Potro SE target has also returned a coincident

and coherent copper soil anomaly. The Potro SE target is hosted in younger cretaceous aged sandstones, conglomerates, and andesites with moderate to strong propylitic alteration, with zones showing intense epidote, in association with calcite, chlorite, magnetite, and quartz veinlets with chalcopyrite, crystalline jarosite, and copper oxides. This alteration is interpreted to represent deep propylitic alteration associated with a concealed porphyry intrusion. The alteration outcrops over a 600 x 600m area on the far southeast side of Mirasol's claims. This geological setting is similar to that recently reported by NGen at their Lunahuasi project located just 3 kilometers to the east in Argentina.

[Figure 7: Potro SE, Copper Soil and Rockchip Sample Anomalies Overlaying a Structurally Controlled 700m Wide Circular Magnetic Response](#)

Both the new Potro-SE Mag/IP anomaly and the original previously reported El Potro MT-Resistivity anomaly represent compelling drill targets at the El Potro prospect. The new Potro SE target resides at a much shallower depth and has all the makings of a quality target including both rockchip and soil copper anomalies, a strong Air-mag cylindrical shaped anomaly, and a chargeable IP response halo which has yet to be fully defined. All of these coincident attributes clearly show why Potro SE is being considered the priority drill target at the El Potro prospect. Two or three additional geophysical lines of IP PDP are planned over the target, to map out the chargeability halo more precisely. Mirasol is confident that they can get these lines completed before the end of the season which generally extend through until late May or early June.

The El Potro target's are located on the west side of the Ventana Fault Zone within the hanging wall of this reverse fault. Filo Mining has reported a series of porphyries, with the Ventana Porphyry residing in the hanging wall and located at the intersection of the NNE trending Ventana Fault and intersecting NW-trending faults. The El Potro targets reside in a similar structural configuration although it is interpreted that the El Potro targets are hosted in more deeply eroded upthrown structural block, exposing deep propylitic alteration potentially associated with a porphyry at depth.

**About Mirasol Resources Ltd**

Mirasol is a well-funded exploration company with 20 years of operating, permitting and community relations experience in the mineral rich regions of Chile and Argentina. Mirasol is currently self-funding exploration at two flagship projects, Sobek and Inca Gold, both located in Chile and controls 100% of the high-grade Virginia Silver Deposit in Argentina. Mirasol also continues to advance a strong pipeline of highly prospective early and mid-stage projects.

**For further information, contact:**

Tim Heenan, President & CEO

or

Troy Shultz, Vice President Investor Relations

Tel: +1 (604) 602-9989

Email: [contact@mirasolresources.com](mailto:contact@mirasolresources.com)

Website: [www.mirasolresources.com](http://www.mirasolresources.com)

**Qualified Person Statement:** Mirasol's disclosure of technical and scientific information in this press release has been reviewed and approved by Tim Heenan (MAIG), the President for the Company, who serves as a Qualified Person under the definition of National Instrument 43-101.

**Forward Looking Statements:** The information in this news release contains forward looking statements that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in our forward-looking statements. Factors that could cause such differences include: changes in world commodity markets, equity markets, costs and supply of materials relevant to the mining industry, change in government and changes to regulations affecting the mining industry and to policies linked to pandemics, social and

environmental related matters. Forward-looking statements in this release include statements regarding future exploration programs, operation plans, geological interpretations, mineral tenure issues and mineral recovery processes. Although we believe the expectations reflected in our forward-looking statements are reasonable, results may vary, and we cannot guarantee future results, levels of activity, performance or achievements. Mirasol disclaims any obligations to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as may be required by applicable law.

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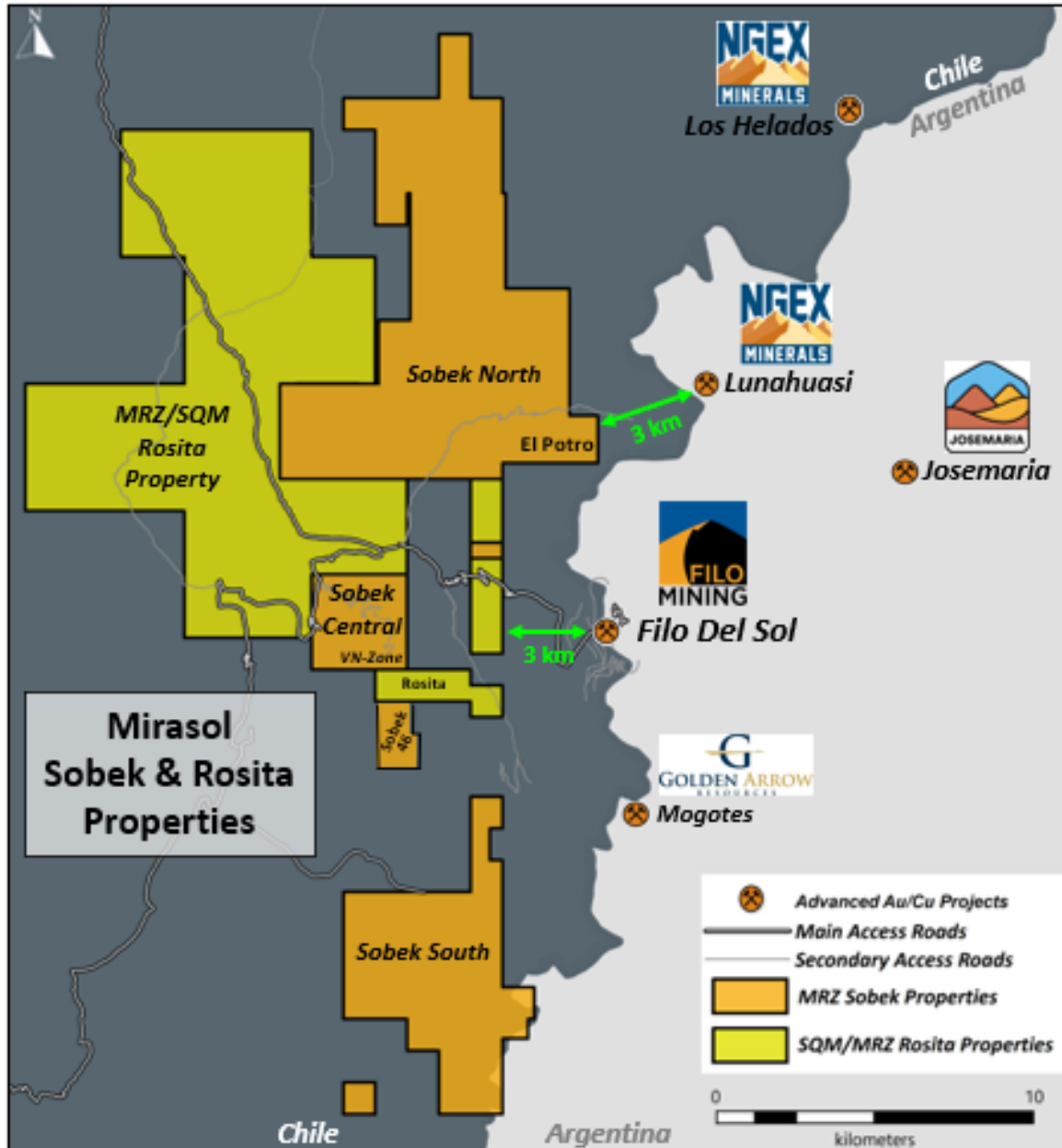
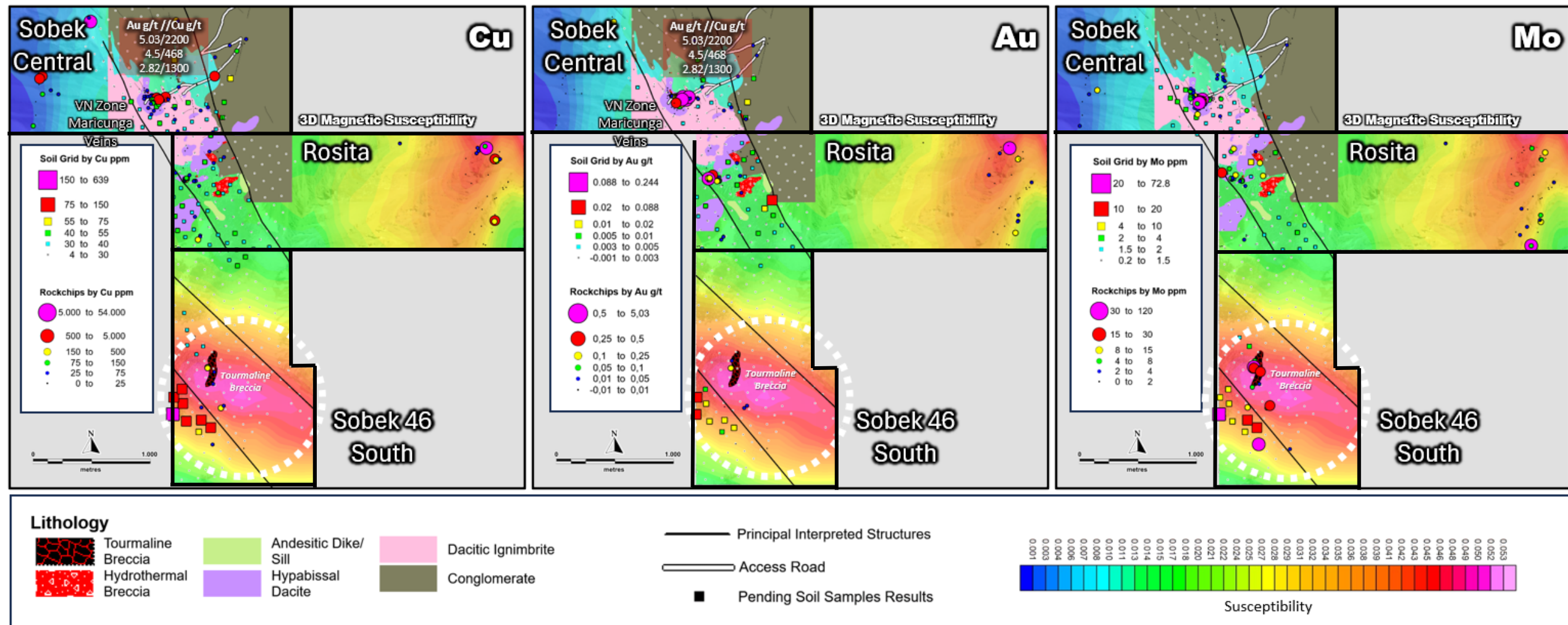


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**Figure 3: Typical Sheeted Quartz-Pyrite and Quartz Magnetite Veinlets Exposed along the VN-Zone Road Cut**



**(Far-right image shows narrow zones of high intensity veining)**

Figure 4: Aerial MT Conductivity Anomaly – MT Line 1810 cross section (cylindrical shaped anomaly at depth underneath the VN-Zone)

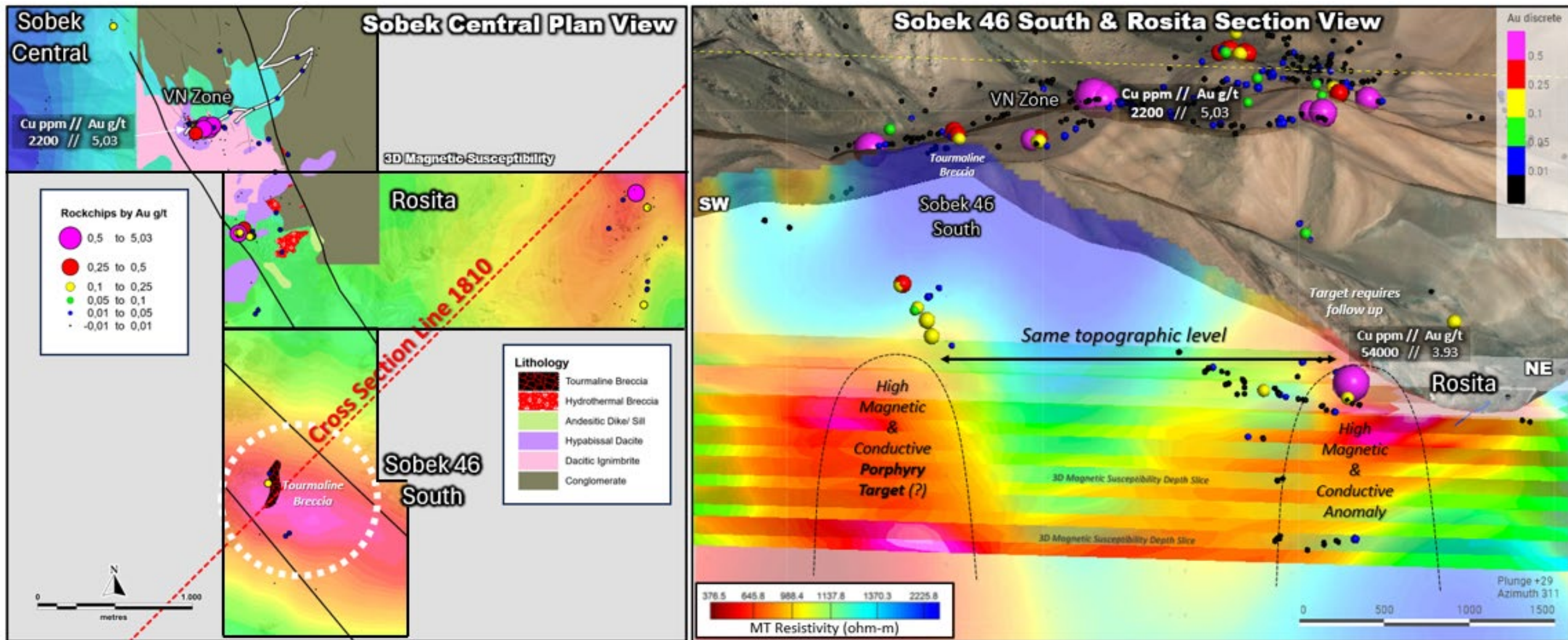


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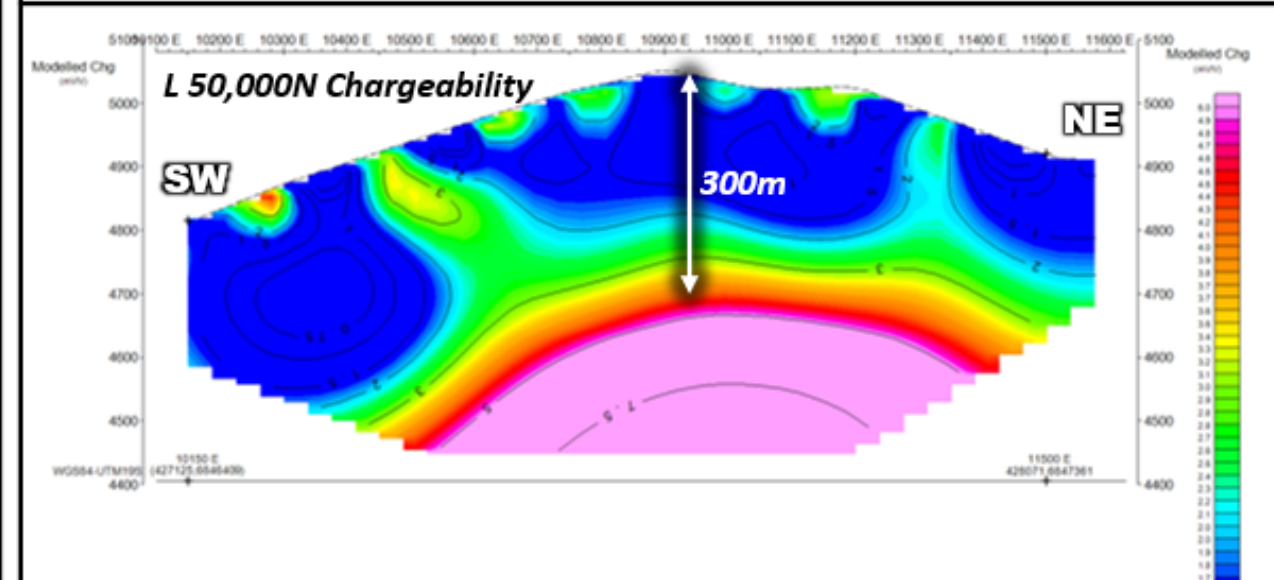
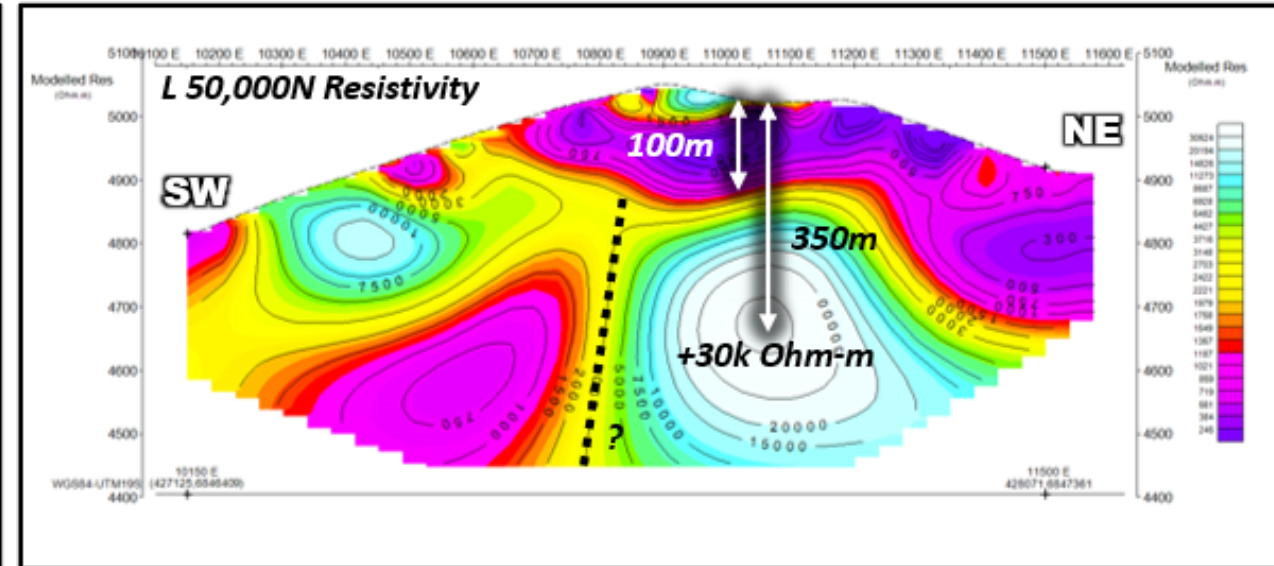
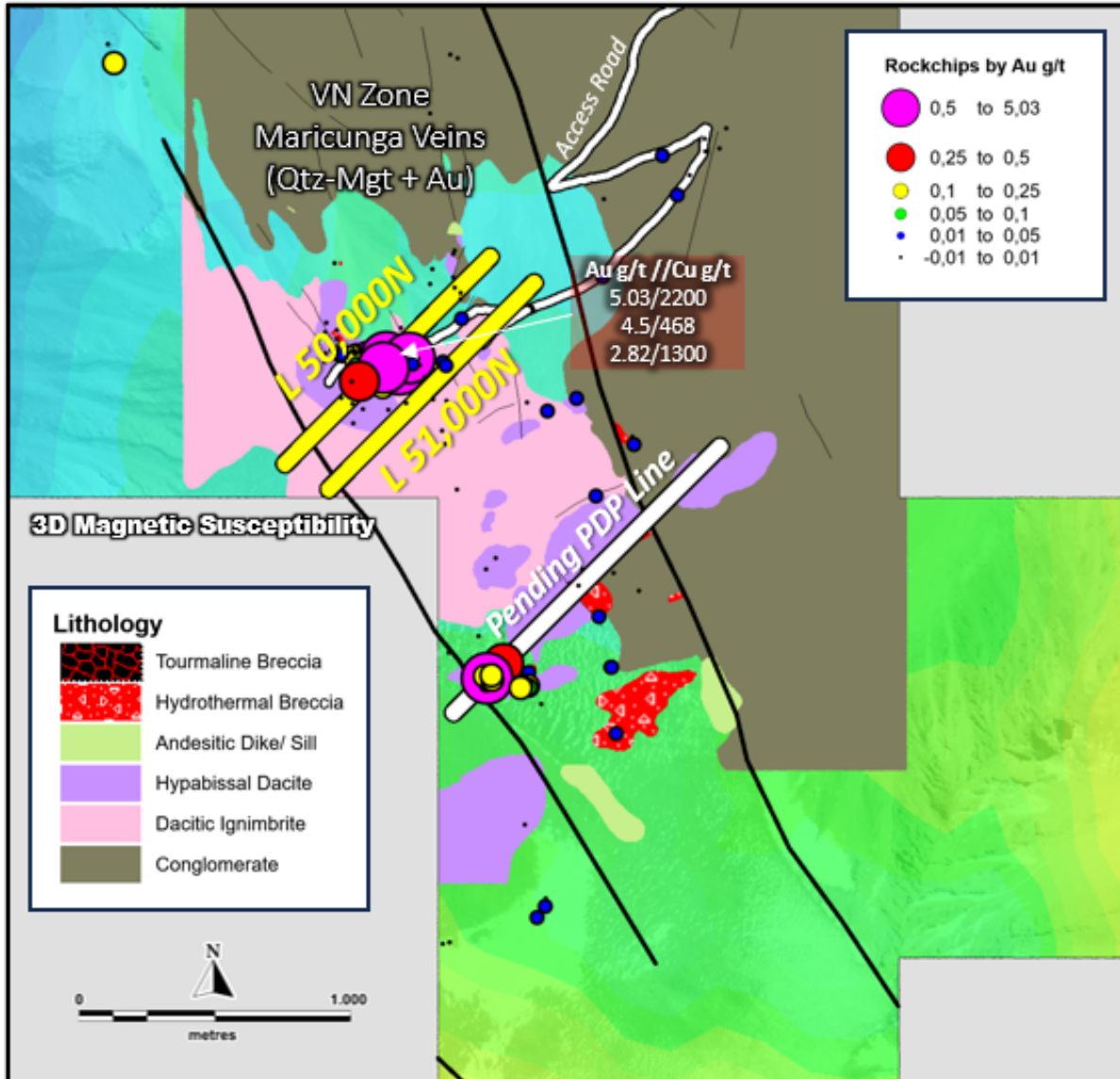
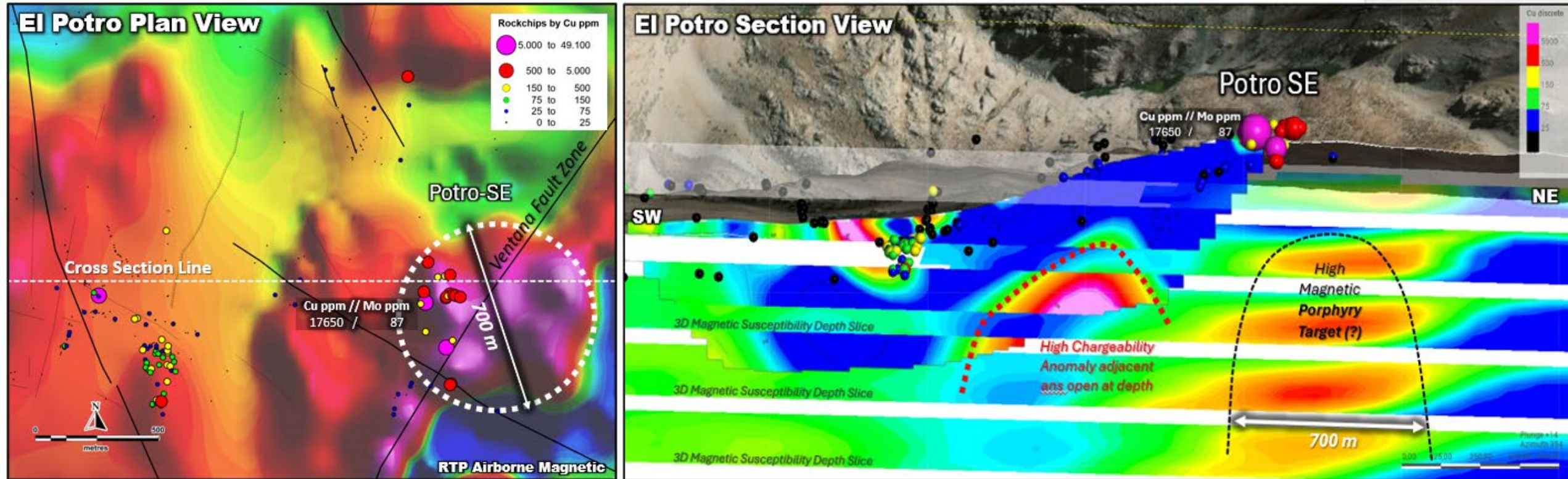


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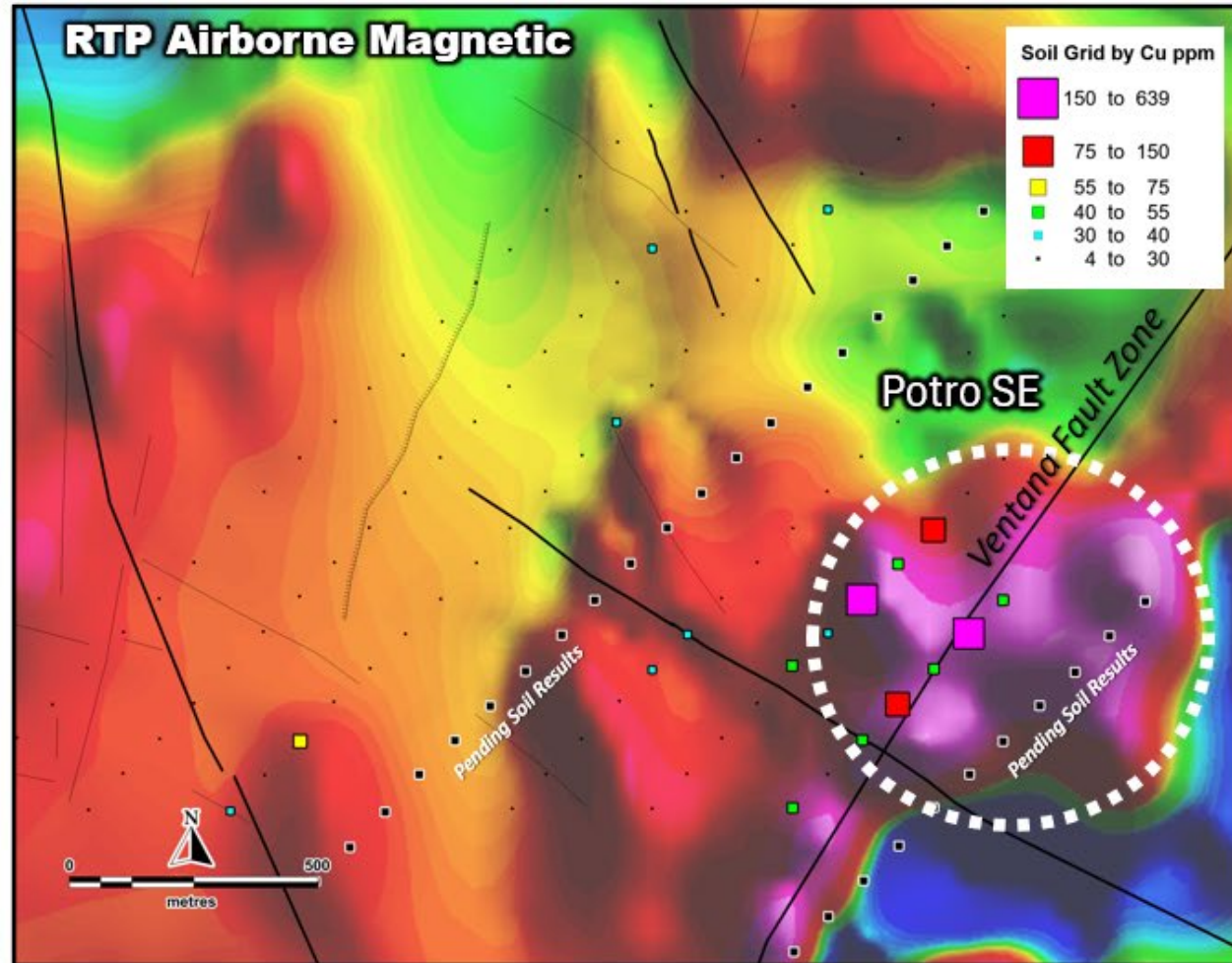
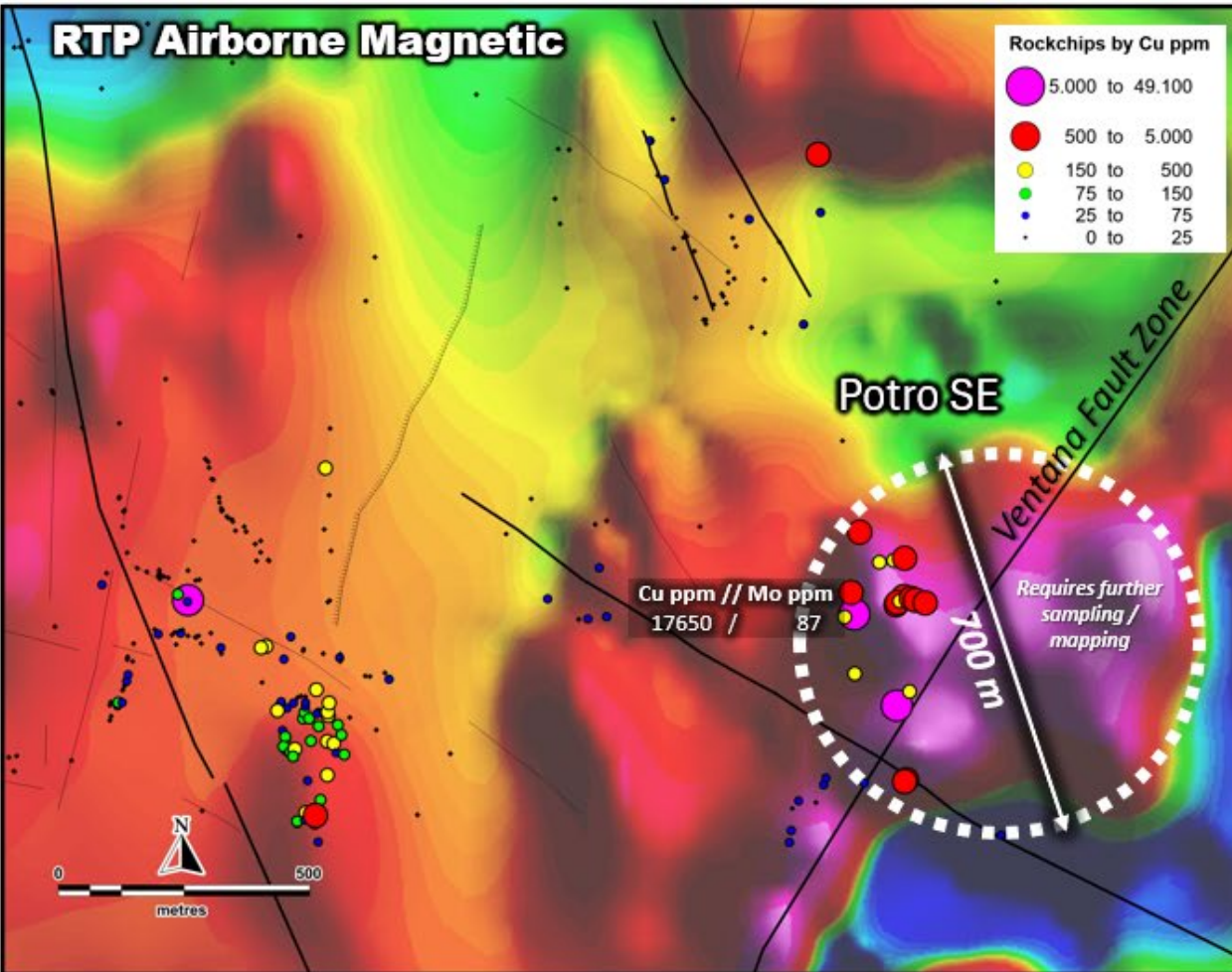


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