NI 43-101 TECHNICAL REPORT
MINERAL RESOURCE ESTIMATE FOR CHITA VALLEY PROJECT

Iglesia Department, San Juan Province - Argentina

Prepared for Minsud Resources Corp

Effective Date: January 17, 2025

Signature Date: February 14, 2025

Qualified Persons:

Mr. Esteban Manrique, MAIG, QP (Geo.)

Mr. Adam Johnston, FAusIMM, CP (Met.)

Mr. Michael Job, FAusIMM, CP (Geo.)

CERTIFICATE OF QUALIFIED PERSON

I, Esteban Manrique, registered as chartered professional (Geology) in Peruvian College of Engineers (License No. CIP 43395), do hereby certify that:

1. I am currently employed as a Senior Geologist with Mining Plus Peru S.A.C. with an office address at Avenida Jose Pardo 513, Office 1001, Miraflores, Lima, Peru.
2. This certificate applies to the Technical Report titled “NI 43-101 Technical Report Mineral Resource Estimate for Chita Valley Project, San Juan Province, Argentina” (the “Technical Report”) prepared for Minsud Resources Corp. (the “Issuer”), which has an effective date of January 17, 2025.
3. I am a graduate of 1992, Lima, Perú, with a B.S. degree in Geological Engineering and I am a chartered professional (Geology) Peruvian College of Engineers (License No. CIP 43395). Also, I am a registered member (Reg # 5296) of the of Australian Institute of Geoscientists (AIG), a professional geoscientists organization, headquartered in NSW Australia and whose membership is publicly available for review.
4. I have been practicing as a geologist since 1992, accumulating more than 32 years of experience. Throughout my career, I have worked as a junior and senior geologist in transnational mining companies such as Newmont and Barrick, among others, receiving various professional training courses. My experience is highlighted by the discovery of mineral deposits, including the Cu-Au-Mo porphyry "El Galeno" in Cajamarca, Peru, as well as the reinterpretation of the geological model of Barrick's Pierina mine. In addition, I have participated in geological exploration projects in Panama and Colombia. Since 2017, I have worked as a consulting geologist for Mining Plus.
5. I have read the definition of “Qualified Person” set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for those sections of the Technical Report that I am responsible for preparing.
6. I completed a personal inspection of the Property on two occasions: September 20, 2024, to September 25, 2024, and December 7, 2024, to December 11, 2024.
7. I am responsible for sections pertaining thereto in 1.1, 1.2, 1.3, 1.6.1, 1.7.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 23, 25.1, and 26.1.
8. I am independent of Minsud Resources Corp., as independence is defined in Section 1.5 of NI 43-101.
9. I have not had prior involvement with property, which is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.
11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Effective Date: January 17, 2025.

Signing Date: February 14, 2025

"signed"

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Esteban Manrique, MAIG QP (No. 5296)

CERTIFICATE OF QUALIFIED PERSON

I, Adam Johnston, state that:

1. I am a Chief Metallurgist at:
   Transmin Metallurgical Consultants,
   10 Cavendish Gardens,
   Fleet, UK.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report Mineral Resource Estimate For Chita Valley Project, San Juan Province, Argentina" (the "Technical Report") prepared for Minsud Resources Corp. (the "Issuer"), which has an effective date of January 17, 2025.
3. I am a "qualified person" for the purposes of National Instrument 43-101 ("NI 43-101"). My qualifications as a qualified person are as follows. I am a graduate of the Western Australian School of Mines with Bachelor of Minerals Engineering), 1995. I am registered as a Chartered Professional with the Australian Institute of Mining and Metallurgy. I have worked as a metallurgist for a total of 28 years since my graduation. My experience for the purpose of the Technical Report is in the metallurgical testing, plant design, and plant operations of base metal and precious metal ores.
4. I have not visited the Property.
5. I am responsible for Items 13 and Items 1.4, 1.6.2, 1.7.2, 25.2, and 26.2 of the Technical Report.
6. I am independent of the issuer as described in section 1.5 of NI 43-101.
7. I have had no previous involvement with the property.
8. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43- 101 and Form 43-101; and
9. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Effective Date: January 17, 2025.
Signing Date: February 14, 2025

"*signed*"

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Adam Johnston, FAusIMM CP (Metallurgy)

CERTIFICATE OF QUALIFIED PERSON

I, Michael Job, FAusIMM registered as a Fellow of the Australasian Institute of Mining and Metallurgy, member number 201978 do hereby certify that:

1. I am currently employed as a Principal Geology and Geostatistics with Cube Consulting Pty Ltd., with an office address at 1111 Hay St, West Perth, WA 6005 Australia.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report Mineral Resource Estimate for Chita Valley Project, San Juan Province, Argentina" (the "Technical Report") prepared for Minsud Resources Corp. (the "Issuer"), which has an effective date of January 17, 2025.
3. I am a Geologist and Geostatistician, with a Bachelor of Science degree, majoring in Geology from Macquarie University graduating in 1985, and a Master of Science degree, majoring in Geostatistics from the University of Alberta graduating in 2012. I am a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM), member number 201978. I have worked as an earth scientist/geologist/geostatistician for more than 39 years since my graduation from university.
4. Relevant experience has been gained from working in the gold and base metal mining and exploration industry in Australia, Africa and North America. This includes exploration, open pit and underground mining experience in various mining methods. I have been a mining industry consultant for over 18 years.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I have not completed a personal inspection of the Property.
7. I am responsible for sections pertaining thereto in 1.5, 1.6.3, 1.7.3, 14, 25.3, 26.3.
8. I am independent of Minsud Resources Corp., as independence is defined in Section 1.5 of NI 43-101.
9. I have not had prior involvement with property, which is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.
11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Effective Date: January 17, 2025.

Signing Date: February 14, 2025

“*Signed*”

Michael Job, FAusIMM (No. 201978)

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Forward Looking Statements

This Technical Report contains forward-looking information and forward-looking statements within the meaning of applicable Canadian and United States securities legislation which involve a number of risks and uncertainties. Forward-looking information and forward-looking statements include, but are not limited to, statements with respect to the future prices of copper, silver, gold and zinc, the estimation of mineral resources, the realisation of mineral estimates, rates of production, government regulation of mining operations, environmental risks, unanticipated reclamation expenses, title disputes or claims and limitations on insurance coverage.

Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking statements are based on the opinions, estimates and assumptions of contributors to this Technical Report. Certain key assumptions are discussed in more detail. Forward looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of Minsud Resources Corp. to be materially different from any other future results, performance or achievements expressed or implied by the forward-looking statements.

While these forward-looking statements are based on expectations about future events as at the effective date of this Technical Report, the statements are not a guarantee of Minsud Resources Corp.'s future performance and are subject to risks, uncertainties, assumptions, and other factors, which could cause actual results to differ materially from future results expressed or implied by such forward-looking statements. Such risks, uncertainties, factors, and assumptions include, amongst others but not limited to metal prices, mineral resources, capital and operating cost forecasts, smelter terms, labour rates, consumable costs, equipment pricing, accidents, labour disputes and other risks of the mining industry delays in obtaining governmental approvals or financing or in the completion of development or construction activities; shortages of labour and materials, tariffs and disruptions to international trade, the impact on the supply chain and other complications associated with pandemics. There may be other factors than those identified that could cause actual actions, events, or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events, or results not to be anticipated, estimated, or intended. There can be no assurance that any forward-looking statements contained in this Technical Report will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers are cautioned not to place undue reliance on forward-looking statements. Unless required by securities laws, the authors undertake no obligation to update the forward-looking statements if circumstances or opinions should change.

1 EXECUTIVE SUMMARY

Mining Plus Peru S.A.C. (Mining Plus) has been engaged by Minsud Resources Corp. to prepare a Technical Report in accordance with the National Instrument 43-101 (NI 43-101) standards of the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM). This report considers the Chita Valley Project, located in the Iglesia Department, San Juan Province, Argentina.

The primary purpose of this report is to provide all pertinent information regarding the Chita Valley Property, including a maiden Mineral Resource estimate for the Chinchillones Complex as prepared by Cube Consulting (Australia). The technical report was compiled by Mining Plus, based on a review of existing data and an on-site inspection.

1.1 Property Description

Minera Sud Argentina S.A. (MSA) is a joint venture between a wholly owned subsidiary of South32 Limited (South32) and a wholly owned subsidiary of Minsud Resources Corp. (Minsud). South32 owns 50.1%, while Minsud holds the remaining 49.9%. MSA owns and operates the Chita Valley Project.

The Chita Valley Project covers 19,923 ha and includes three contiguous property blocks (22 concessions) along with five adjacent concessions. These are all in the Iglesia Department, approximately 145 km northwest of the City of San Juan, in San Juan Province, Argentina. The property lies at elevations ranging from 3,000 to 3,800 meters above sea level. It is situated within the highly prospective Miocene metallogenic belt, nearby significant copper porphyry and epithermal deposits, including Altar (Aldebaran Resources) and Los Azules (McEwen Mining).

1.2 Geology and Mineralization

The Chita Valley Project is located in the highly prospective Andes region of Argentina, a transitional zone between the Frontal Cordillera and Pre-cordillera, within the Chilean-Pampean flat-slab segment of the Southern Central Andes and to the southeast of El Indio metallogenic belt, which hosts numerous porphyry and epithermal deposits.

A significant portion of the Chita Valley Project is covered by colluvial and alluvial material, beneath which the Agua Negra Formation has been identified. This formation consists of Carboniferous to Permian sedimentary rocks, including quartz sandstones, shales, and siltstones in a gently dipping synform.

To the east and west, the Agua Negra Formation is intruded by granitic bodies from the Colanguil Batholith such as the Chita Granite, Granodiorita de Tocota, and Bauchazeta Granite. This extensive batholith features a variety of rock types, including tonalites, granites, granodiorites, and microgranites.

Younger intrusions from the Miocene period, including andesitic to dacitic rocks and nested dome-diatreme complexes, occur beneath alluvial cover along the E-W Chita Valley transfer fault. These intrusions are closely linked to Cu-Mo (Au) porphyry and polymetallic epithermal mineralization.

The Chita Valley Project includes six exploration targets: Placetas, Placetas North, Link Zone, Chita South, Chita North, Minas de Pinto and the Chinchillones Complex deposit featuring diorite and quartz diorite porphyries.

The main structural controls include NS-trending faults, guiding hydrothermal fluid folds, NE-SW faults hosting high-grade polymetallic zones with magnetite depletion, E-W faults controlling breccias, paleochannels, and NW-SE faults with localized breccias and sinistral-slip kinematics. These structures influence the emplacement of intrusions, breccias, and mineralized zones.

Hydrothermal alteration is associated with porphyry and epithermal systems. These include potassic alteration, sericite-quartz-pyrite alteration, intermediate and advanced argillic alteration. These alterations are controlled by regional faults and fractures, highlighting interplay between tectonic and magmatic processes.

Chita Valley exhibits diverse mineralization styles, including Cu-Mo (Au) porphyry and Zn-Pb-Cu-Au-Ag epithermal deposits. These are structurally controlled, with variations in the sulfidation state evident in the epithermal polymetallic mineralization of the deposit, shaped by magmatic intrusions and hydrothermal fluids.

1.3 Exploration and Drilling

The Chita Valley Project has been explored for over five decades by various companies, including Direccion General de Fabricaciones Militares (DGFM), Exploration Barlow Inc. (Barlow), Minas Argentinas S.A. (MASA), Rio Tinto Mining and Exploration (Rio Tinto), Silex Argentina S.A. (Silex), Minsud Resources Corp. (Minsud), and Minera Sud Argentina S.A. (MSA). Exploration activities have included geological mapping, geochemical sampling, and geophysical surveys.

A total of 249 drill holes, covering 100,042 meters, has been completed between 1969 and 2024. This has primarily consisted of diamond drilling, while some holes have been reverse circulation. The Chinchillones Complex is the most extensively drilled area, with a spacing of 150 m x 150 m, reducing to 80-100 m in denser zones. Drill depths have averaged 640 m, reaching a maximum of 1,380 m. These drill holes have enabled geological interpretation and the preparation of a Chinchillones Complex maiden Mineral Resource estimate.

Chita South, the second most drilled target, has a spacing of 150 m x 150 m at shallower drill depths. However, its previous Mineral Resource estimate has not been reviewed or updated. This was due to a lack of sufficient information and materials that previously underpinned the prior Chita South Mineral Resource estimate. Future reviews and updates may support its inclusion again in the future. Other targets, such as Placetas, Placetas North, Link Zone, Chita North porphyry and Minas de Pinto, have seen limited drilling with wider spacing.

1.4 Metallurgy and Processing

Three phases of metallurgical testing were conducted on samples from the Chinchillones Complex to evaluate hardness, flotation performance, and concentration quality. Testing was conducted on composite samples from four mineralization domains:

- Domain 1, high-grade silver and gold-rich polymetallic intermediate sulfidation (IS) mineralization.
- Domain 2, high-grade copper and zinc rich polymetallic IS mineralization.
- Domain 3, porphyry-style high-grade copper with or without molybdenum mineralization.
- Domain 4, a mix of porphyry and IS mineralization.

Chalcopyrite and tennantite/enargite were identified as dominant copper minerals across all domains. Results showed significant challenges with arsenic content in concentrates (averaging 7% As) as well as elevated zinc levels in certain domains. Rougher flotation performance demonstrated significant variation between mineralization zones. Distinct metallurgical responses were observed in high-zinc domains (Domain 2) compared to low-zinc domains (Domain 1, 3 and 4). The high zinc geological domains exhibited lower copper recoveries and higher zinc concentrate content, low zinc geological domains had better flotation performance and higher copper recoveries.

Comminution testing indicated that mineralization is generally soft to moderately soft. Flotation testing demonstrated high copper recoveries (>80%) but underscored challenges in selectively separating zinc and arsenic-bearing minerals. Pilot plant test work confirmed concentrate grades of ~28% Cu, but with arsenic and zinc above smelter penalty thresholds. Hydrometallurgical studies showed promise for managing deleterious elements while achieving high metal recoveries.

Future work will focus on processing method optimization, improving arsenic mitigation, and evaluating economic trade-offs for potential treatment options. This metallurgical work underpins early-stage process development.

1.5 Mineral Resource Estimate

Cube Consulting Pty Ltd and GeoEstima SpA were engaged to conduct a maiden Mineral Resource Estimate (MRE) for the Chinchillones Complex. The Qualified Person (QP) responsible for this estimate is Mr. Michael Job, Principal Geology and Geostatistics at Cube. He has confirmed that the input data utilized is appropriate for a Mineral Resource Estimate, in accordance with NI 43-101 guidelines.

The deposit presents complex mineralization, incorporating Mo-Re overprinted by an intermediate and high sulfidation hydrothermal process. This leads to a polymetallic mineralization including Mo-Re from the porphyry background and Cu, Zn, Pb, and Ag with high As content introduced by intermediate and high sulfidation events.

3D models of lithology and alteration do not show a strong influence on Cu mineralization. Grades exhibit significant variability between both lithological and alteration domains making them unsuitable for estimation. A Cu-As-Ag high sulfidation envelope was thus constructed using a proxy based on Cu, As, Sb, S and Fe, allowing the flagging of high sulfidation signatures for both the drilling and block model. Mo and Zn-Pb grade shell envelopes were also constructed. The final estimation domains are various combinations of the High Sulfidation and Mo/Zn-Pb grade shells, defined by statistical similarities and domain boundary analysis.

The economic variables included in the estimate are Cu, Zn, Pb, Mo, Ag, and Au, along with the deleterious elements of As and Sb. S estimates were also included for waste rock characterization with bulk density also estimated.

Drill hole data underwent a compositing process in 6-meter intervals, using a spatial distance restriction capping strategy to manage skewed grade distributions. The approach employed Uniform Conditioning (UC) with Localized (LUC) post-processing to effectively handle grade variability pertinent to open-pit mining. This method strikes a balance between panel level estimation and local grade variation (selective mining units, SMU), mitigating risk of over smoothing and grade underestimation. Model validation included both visual and statistical comparison allowing the classification of the MRE as Indicated and Inferred based on the quality of copper estimation and drill hole spacing.

As of the effective date of January 15th, 2025, the Chinchillones Complex deposit is deemed potentially economically extractable via open-pit mining and a flotation process. It exhibits "reasonable prospects for eventual economic extraction" (RPEEE), confirmed by the spatial continuity of mineralization, with reporting above Net Smelter Return (NSR) cutoffs. The NSR calculation encompassed economic values of three concentrates: Cu, Mo and Zn. The calculation considers metal prices, metallurgical recoveries, processing costs, and applicable penalties. For the NSR calculations, the geological domains were separated into low and high zinc geological domains – most of the resource is within the low zinc geological domain, with the high zinc geological domain a smaller discrete zone. Copper concentrate would be sourced from both the low and high zinc geological domains, but it was assumed that zinc concentrate would only be sourced from the high zinc geological domain, with different recoveries and processing costs compared to the low zinc geological domain.

Due to the complex mineralogy at Chinchillones, standard NSR calculations based on fixed elemental grades were not sufficient to accurately determine the concentrate grades for Cu and Zn. Instead, mineralogy-based calculations were employed, assuming hybrid mineral compositions of the dominant minerals to determine concentrate grades for both low and high zinc geological domains. This approach enabled more precise estimations, with a constant Mo grade applied for the Mo concentrate. Metallurgical recoveries for the low zinc domain are 87% Cu, 40% Au, 65% Ag, 50% Mo. Metallurgical recoveries for the high zinc geological domain are 60% Cu, 40% Au, 70% Ag, and 55% Zn.

These recovery rates are simplified estimates of the recoveries applied to the model and reflect the recovery of potentially economic elements. Detailed recoveries, including those for deleterious elements, have also been factored into the NSR calculation and are detailed in Section 14.11.1.

The metal prices applied are as follows: copper at US$4.30/lb, gold at US$1,985.00/oz, silver at US$24.00oz, molybdenum at US$15.00lb, zinc at US$1.30/lb, and lead at US$1.00lb.

The low zinc geological domain considered US$10 per tonne ($9/t milling + $1/t G&A) and the high zinc geological domain considered US$11.65 per tonne ($10.65/t milling + $1/t G&A). An optimized pit shell was utilized to constrain Mineral Resource reporting using a US$1.90/t mining cost, the above milling/G&A costs and overall, 45-degree pit wall slopes. The NSR calculation incorporates commodity prices, metallurgical recoveries of economic and deleterious elements, and treatment and refining charges. Consistent with the CIM Definition Standards (CIM, 2014), the MRE has been classified and comprises an Inferred and Indicated Mineral Resource. Summarized in Table 1-1 and Table 1-2, this classification reflects the quality of data, spacing of drill holes, and the geological understanding of the project. It is reported in compliance with the requirements of the Canadian Securities Administrators' National Instrument 43-101 (NI 43-101).

Table 1-1: Chinchillones Mineral Resource Estimate as at 15 January 2025 (Economic Grades)

Domain	Classification	M Tonnes	CuEq (%)	Cu (%)	Au g/t	Ag g/t	Mo (ppm)	Zn (%)
Low Zinc	Indicated	147	0.36	0.27	0.11	8.7	46	-
	Inferred	494	0.31	0.22	0.09	7.8	108	-
High Zinc	Indicated	41	0.61	0.18	0.13	17.6	-	0.72
	Inferred	79	0.63	0.21	0.1	16.5	-	0.78
Total	**Indicated**	**188**	**0.41**	**0.25**	**0.11**	**10.6**	**36**	**0.16**
	Inferred	**573**	**0.36**	**0.22**	**0.09**	**9.0**	**93**	**0.11**

Table 1-2: Chinchillones Mineral Resource Estimate as at 15 January 2025 (Economic Metal)

Domain	Classification	M Tonnes	CuEq Metal kt	Cu Metal kt	Au k Oz	Ag M Oz	Mo Metal kt	Zn Metal kt
Low Zinc	Indicated	147	532	392	512	40.8	6.8	-
	Inferred	494	1,548	1,074	1,395	123.5	53.2	-
High Zinc	Indicated	41	244	74	162	22.7	-	291
	Inferred	79	501	170	255	42.1	-	616
Total	**Indicated**	**188**	**776**	**466**	**674**	**63.5**	**6.8**	**291**
	Inferred	**573**	**2,049**	**1,244**	**1,650**	**165.6**	**53.2**	**616**

Notes:

(1) Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is noted that no specific issues have been identified as yet.

(2) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve.

(3) The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines.

(4) The resource is reported above Net Smelter Return (NSR) cut offs – for the low zinc geological domain US$10/t (US$9/t milling + US$1/t G&A) and for the high zinc geological domain US$11.65/t (US$10.65/t milling + US$1/t G&A). An optimized pit shell was utilized to constrain Mineral Resource reporting that used a US$1.90/t mining cost, the above milling/G&A costs and with overall 45-degree pit slopes.

(5) The metal prices used for the NSR calculation in US$ are $4.30/lb Cu, $1,985/oz Au, $24/oz Ag, $15/lb Mo, $1.30/lb Zn. Metallurgical recoveries for the low zinc domain are 87% Cu, 40% Au, 65% Ag, 50% Mo. Metallurgical recoveries for the high zinc domain are 60% Cu, 40% Au, 70% Ag, 55% Zn.

(6) The copper equivalent (CuEq) grades use the metal prices and recoveries as used for the NSR calculation; for the low zinc domain CuEq_% = Cu_% +(Au_ppm x 0.3095) + (Ag_ppm x 0.0061) + (Mo_ppm x 0.0002). For the high zinc domain, CuEq_% = Cu_% +(Au_ppm x 0.4488) + (Ag_ppm x 0.0095) + (Zn_% x 0.277). Note that Zn is not recovered in the low zinc domain, and Mo is not recovered in the high zinc domain.

(7) The value contribution of each metal to the project can be derived from the NSR calculation. These are: Cu 67%, Ag 16%, Au 7%, Mo 5% and Zn 5%.

(8) The figures in the above tables may not add up due to rounding.

1.6 Conclusions

Based on the site visit and subsequent Chita Valley Project data evaluation, the following conclusions are provided. These represent relevant findings, as discussed throughout the document.

1.6.1 Geology and Drilling

- The Chita Valley Project is characterized by porphyry-style and hydrothermal mineralization, with multiple exploration targets supported by drilling, mapping, geophysical, geochemical, and structural indicators. Its relatively lower altitude (3,000 meters) and favorable climate allow year-round accessibility, while existing infrastructure and proximity to essential services may provide logistical advantages for future development.

- The latest drilling campaign conducted by MSA confirms that the Chinchillones Complex is a Cu-Mo (Au) porphyry deposit with overlapping polymetallic mineralization. The upper polymetallic zone hosts lead and zinc mineralization (>1%) between 200 m and 850 m, with gold and silver grades above 0.1 g/t Au and 10 g/t Ag up to 1,050 m, mainly associated with hydrothermal breccias. The porphyry zone shows continuous copper mineralization (>0.1% Cu) from 125 m to over 1,200 m, with the highest grades (>1% Cu) between 250 m and 1,000 m. Molybdenum grades exceed 500 ppm below 750 m, indicating deeper, underexplored potential. Both copper and molybdenum mineralization remain open down dip at depth.

- Mineralization at Chinchillones is geologically complex, with chalcopyrite, bornite, and tennantite/enargite as the primary copper minerals, while sphalerite, galena, and molybdenite are also present. Pyrite is the main metallic gangue mineral.

- Chita South, primarily drilled in previous years by Minsud, is a Cu-Mo porphyry characterized by copper oxides near the surface. It has supergene enrichment, chalcocite/digenite at depth, and primary chalcopyrite copper sulfides. Drilling has mainly focused on the supergene zone, while the primary sulfide zone remains unexplored and open at depth.

- The Chita Valley includes early-stage exploration targets where surface evidence is limited due to overburden. However, geochemical and geophysical anomalies, along with the geological context, indicate areas of interest for further exploration.

- Database reviews have identified no significant inconsistencies with some minor opportunities for improvement that should be addressed in future project stages.

- Historical drilling prior to Minsud (1969-2008) lacks QA/QC controls, the information on drilling and sampling procedures is also limited. Therefore, it should be used solely as reference data for exploration purposes.

- The drilling data are deemed adequate and reliable for Mineral Resource estimation. The QA/QC programs implemented provide a reasonable level of assay confidence, particularly for copper, gold, silver and molybdenum.

- All core, reject, and pulp samples developed by MSA between 2020 and 2024 are properly stored and inventoried in a modern warehouse located in San Juan city.

1.6.2 Metallurgy and Processing

- The presence of tennantite/enargite results in high arsenic levels in copper concentrates, likely posing processing or marketing challenges.

- Copper recovery to final concentrate is promising, ranging from 77-90% at grades of 28-41% Cu.

- Zinc contamination in copper concentrates from polymetallic domains is a significant issue that requires further optimization.

- The polymetallic nature of some domains may warrant separate lead and zinc circuits.

- Separation of arsenic-bearing and non-arsenic bearing copper minerals proved challenging due to fine intergrowth and residual collector issues.

- Initial pressure oxidation test work demonstrated viable hydrometallurgical treatment of arsenic-bearing concentrates. DPOX achieved excellent metal recoveries while producing environmentally stable residues.

1.6.3 Mineral Resource

- The MRE, prepared using appropriate input data in compliance with NI 43-101 guidelines, is classified into Indicated and Inferred categories. It demonstrates potential for economic extraction through open-pit mining and flotation processes.

1.7 Recommendations

Based on the site visit and subsequent Chita Valley Project data evaluation, the following recommendations are provided. These represent relevant findings, as discussed throughout the document.

1.7.1 Geology and Drilling

- Investigate deeper extensions of the porphyry system at Chinchillones, particularly in areas where Cu-Mo mineralization has not been fully delineated.

- It is recommended to review and organize the Chita South data and core material for re-inclusion in the mineral resources. This process should include further exploration to assess the sulfide potential, along with the systematic incorporation of sequential copper analysis to delineate the different zones of supergene and hypogene mineralization.

- A Titan DCIP & MT survey is recommended to provide high resolution resistivity and chargeability imaging at depth. This survey will aid in identifying and differentiating targets associated with potential mineralization, alteration, lithology, and structural features, providing valuable data for future exploration efforts.

- Increase density sampling in underrepresented areas. Use external controls or the paraffin method for precise results. Systematic sampling in randomly selected drill holes should also be implemented to compare with pseudo-selective results and minimize bias.

- Increase the insertion rate of control samples to 20% and align with industry standards. Ensure that the QA/QC process is thoroughly documented and supported by a complete, robust database.

1.7.2 Metallurgy and Processing

- Conduct a trade-off study to evaluate options for addressing high arsenic in copper concentrates. This should include selective flotation, concentrate blending, and hydrometallurgical processes, weighing their technical effectiveness, feasibility, and overall impact.

- Perform additional flotation optimization tests to reduce zinc misplacement to copper concentrates, especially for polymetallic domains.

- If flotation separation of arsenic-bearing copper sulfides from bulk concentrate is to be considered in future programs, a copper circuit collector other than 3418A should be considered.

- Reasonable marketing terms have been considered based on similar concentrates marketed in the region. As the project progresses, it is recommended to engage a concentrated marketing specialist to evaluate marketability and pricing, including potential penalties for deleterious elements. This assessment should examine regional smelter requirements, validate current assumptions against similar concentrate specifications in the market, and develop comprehensive marketing parameters for future project studies.

- Consider larger scale testing (e.g., locked cycle tests) to better simulate continuous operation and confirm metallurgical projections.

1.7.3 Mineral Resource

- Further work is recommended to better understand the mineralization controls and improve the estimation of domaining, particularly for some of the isolated higher-grade copper zones.

- Advanced argillic alteration currently is interpreted as small, isolated lenses. Establishing the connectivity between different alteration types would be beneficial and could help refine the estimation domains.

- Multi-variate geochemistry is recommended, and it is important to maintain the current assaying suite.

- Further investigation into the mineralization within the post-mineralization Dacite is needed. This may be due to inaccuracies in logging (such as incorrect interpretation) or the result of structural remobilization of sulfide mineralization.

2 INTRODUCTION

This Technical Report has been prepared for Minsud Resources Corp. by independent consulting firm Mining Plus Peru S.A.C. (Mining Plus). The report complies with the guidelines and standards set forth by National Instrument 43-101 (NI 43-101), which governs the disclosure of technical information in Canada.

The issuer of this report, Minsud Resources Corp., is a Canadian mineral exploration company focused on the discovery and development of mineral assets in Argentina. Its flagship project is the Chita Valley Property, located in San Juan Province, Argentina. The company has been publicly listed on the TSX Venture Exchange (TSX.V: MSR) since 2011.

2.1 Terms of Reference

Minsud engaged Mining Plus to update this Technical Report in accordance with NI 43-101 requirements. This update included a thorough review of the project database, compilation of relevant information, and site visit.

The primary purpose of this report is to provide all pertinent information regarding the Chita Valley Property, including Mineral Resource estimates for the Chinchillones Complex deposit, prepared by Cube Consulting of Australia. The entire report has been compiled by Mining Plus.

2.2 Report Responsibilities and Qualified Person

The following Qualified Persons (QPs) are responsible for specific sections of this report (Table 2-1), as defined under NI 43-101, and in compliance with Form 43-101F1 – Standards of Disclosure for Mineral Projects:

Table 2-1: Report Responsibility

Company	Qualified Person	Position	Report Responsibility
Mining Plus	Esteban Manrique	Senior Geologist	1.1, 1.2, 1.3, 1.6.1, 1.7.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 23, 25.1, 26.1.
Transmin Metallurgical Consultants	Adam Johnston	Contract Metallurgist	1.4, 1.6.2, 1.7.2, 13, 25.2, 26.2
Cube Consulting	Michael Job	Principal Geology and Geostatistics	1.5, 1.6.3, 1.7.3, 14, 25.3,26.3

2.3 Personal Inspection of the Property

Mr. Esteban Manrique, Senior Geology Consultant at Mining Plus and member of the Australian Institute of Geoscientists (MAIG), conducted a site visit to the Chita Valley Project on two occasions: September 20 to 25 and December 7 to 11, 2024. This trip verified geological data, reviewed surface conditions, and assessed site accessibility.

2.4 Effective Date

The effective date of this report is January 17th, 2025.

2.5 Information Source and References

The authors of this report conducted reasonable inquiries, and a site visit to verify the authenticity of the information provided.

All technical information, including geology, geophysics, and previous exploration reports, was supplied by the current tenement holder. It was warranted in writing that the information provided is complete, accurate, and true to the best of their knowledge. The report additionally draws on information from the NI 43-101 Technical Report and Updated Mineral Resource Estimate on the Chita Valley Project, San Juan Province, Argentina, prepared by P&E Mining Consultants Inc., dated February 7, 2018.

Mining Plus considers the open access to these records sufficient for adequately assessing the project. Historical data referenced in this report was used to expand, validate, or provide alternative assumptions to the information provided.

3 RELIANCE ON OTHER EXPERTS

Mr. Esteban Manrique, Qualified Person (QP) for this report, is not an expert in Argentine legal matters concerning mining claim assessment, mineral rights, or property agreements. He has not independently verified the legal status or title of the concessions or exploration permits associated with the Chita Valley Project.

Mr. Manrique has therefore relied fully upon information and opinions provided by Minsud.

The information in the following subsection is sourced from the document titled "*Informe Propiedades Mineras San Juan de Minera Sud Argentina S.A.",* prepared by Lopez Aragón, Estudio Jurídico, on December 17, 2024 (Aragon, 2024). Additional information was provided by Minsud, as shared by Ramiro Massa, President & CEO.

- Section 4.2 pertains to Mineral Tenure and Interest.
- Section 4.3 pertains to Mineral Rights in Argentina.
- Section 4.4 pertains to Surface Rights.
- Section 4.5 pertains to Royalties, Agreements, and Encumbrances.
- Section 4.6 pertains to Environmental Liabilities.
- Section 4.7 pertains to Permitting.

Mr. Manrique has fully relied on Minsud to provide complete information concerning the pertinent legal status of Minsud and its affiliates. This includes the Chita Valley legal title, agreements, and environmental and permitting information.

4 PROPERTY, DESCRIPTION AND LOCATION

4.1 Property Location

The Chita Valley Project is located approximately 145 km northwest of San Juan, and 36 km southwest of Bella Vista, within the Iglesia Department of San Juan Province, Argentina (Figure 4-1). This is within the highly prospective Miocene metallogenic belt; characterized by porphyry copper-molybdenum systems and polymetallic deposits. The project is additionally located near other significant copper porphyry projects, including Altar (Aldebaran Resources Inc.) and Los Azules (McEwen Mining Inc.).

The centre of the main deposit area is located at 30° 33’ South latitude and 69° 33’ West longitude (WGS84 datum).

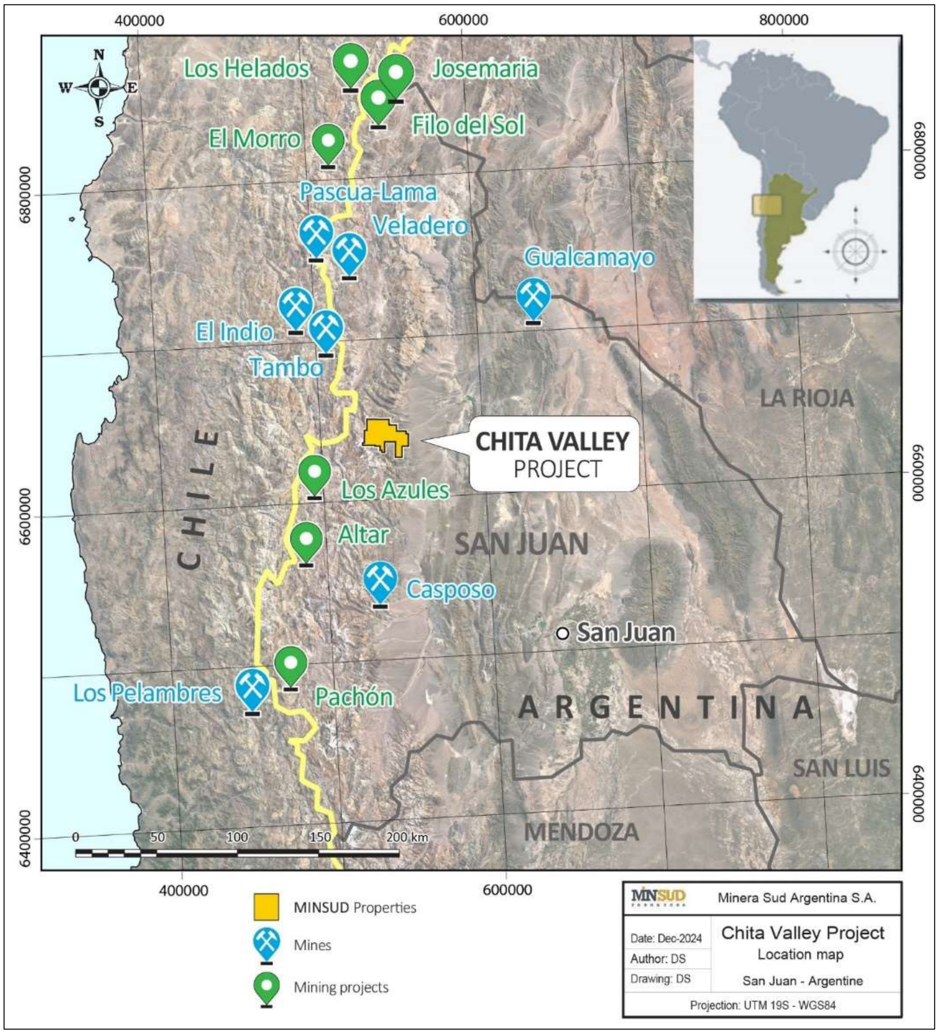


Figure 4-1: Location Map of Chita Valley Project (Source: MSA 2024)

4.2 Mineral Tenure and Interest

Minera Sud Argentina S.A. (MSA) is a joint venture between a wholly owned subsidiary of South32 Limited (South32). South 32 owns 50.1%, while a wholly owned subsidiary of Minsud Resources Corp. (Minsud), owns the remaining 49.9%. MSA then owns the Chita Valley Project consisting of three contiguous blocks of properties totaling approximately 8,350.86 hectares (ha).

- Chita
- Brechas Vacas
- Minas de Pinto

The project additionally includes five adjacent concessions totaling approximately 19,923.08 hectares (ha):

- Chita Este
- Chita North
- Chita South
- Brechas Vacas Oeste
- Fortuna I

There are no significant factors or risks identified that may impact access, title, or the right or ability to conduct work on the property, unless otherwise noted. All annual property payments are up to date as of December 2024. Mining rights are granted in perpetuity, contingent on the timely payment of annual fees. No environmental liabilities are currently known to exist on the property.

Table 4-1 summarizes the list of mineral concessions that make up the Chita Valley Project. Figure 4-2 shows the distribution of mineral concessions.

Table 4-1: List of Mineral Concessions in the Chita Valley Project

Item	Name	Type of concession	Title holders	Area (Ha)
1	Chita block	Mines	MSA	3,508.45
2	Brechas Vacas block	Mining Concessions	MSA	2,580.00
3	Minas de Pinto block	Mines /Mining Concessions	MSA	2,433.77
4	Chita Este	Exploration Permit	MSA	4,490.77
5	Chita North	Mining Concession	MSA	1,884.66
6	Chita South	Exploration Permit	MSA	1,304.24
7	Brechas Vacas Oeste	Exploration Permit	MSA	1,232.15
8	Fortuna I	Mining Concession	MSA	2,489.04
Total				**19,923.08**

Source: MSA 2024

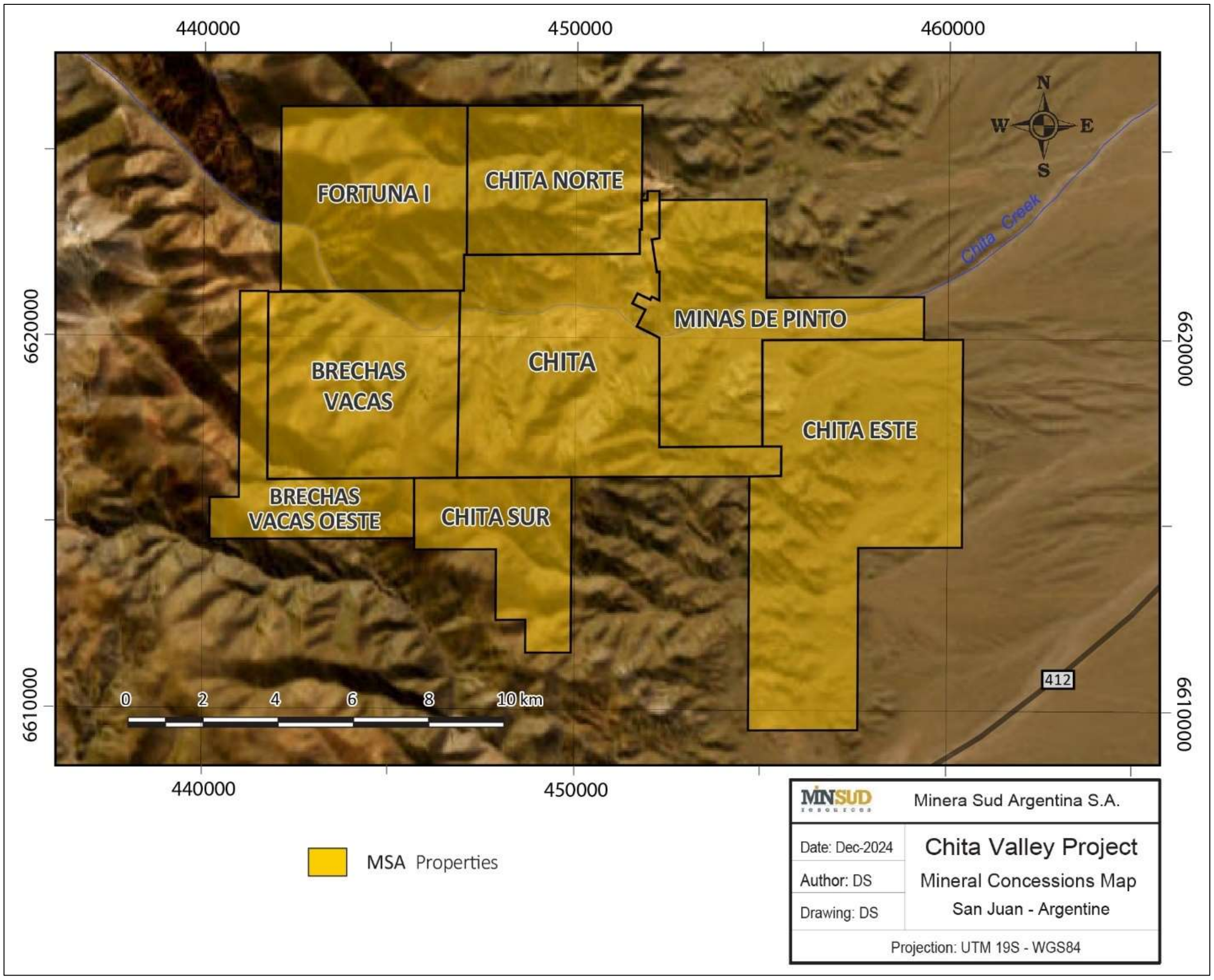


Figure 4-2: Mineral Concessions Map for Chita Valley Project (Source: MSA 2024)

MSA holds complete ownership of the main property blocks and adjacent properties. These were obtained through a series of purchase options and agreements as summarized below:

- Chita Block: MSA gained full ownership in 2012, including Chita I to Chita VI, Romina, Lucrecia, and Mabel. In 2022, MSA acquired the Mina Gabriela property (30 ha) within Chita IV. These properties are not subject to any Net Smelter Return (NSR) royalties.
- Brechas Vacas Block: Acquired by MSA in 2021, including Luis, Luis I, and Luis IV mining concessions. A 0.6% NSR royalty on the Brechas Vacas block of properties was granted to the Bastias family. MSA has the option to purchase 0.3% of a 0.6% NSR royalty for a one-time payment of US$ 400,000.

- Minas de Pinto Block: Acquired by MSA in 2023, comprising nine concessions: Arqueros, Don Marcos, Estrellita, Paulita, Paulita II, Pierina II, Pierina III, San Pablo, and San Urbano. These properties are not subject to any Net Smelter Return (NSR) royalties.

- Adjacent Properties:

    - Chita North & Chita South: Purchased from Troy Resources in 2014. These properties entail a 2% NSR, with the option to decrease by 1% for a one-time payment of US$ 750,000.

    - Fortuna I: Acquired from Teck Argentina in 2020, it carries a 2% NSR, with the option to decrease by 1% for a one-time payment of US$ 600,000.

    - Chita Este & Brechas Vacas Oeste: These properties were directly acquired from the government in 2007 and 2013 respectively. These properties are not subject to any Net Smelter Return (NSR) royalties.

Table 4-2 to Table 4-5 provides details of the concessions of Chita Valley Project.

Table 4-2: Chita Block - Detail of Mineral Concessions

Property	File Number	Mining Units	Type of Mineralization	Ha	Type	Annual Fee (ARS)
Mina Chita I	1124.0164-S-06	7	Disseminated	643.71	Mine	$322,791
Mina Chita II	1124.0165-S-06	7	Disseminated	658.14	Mine	$322,791
MD Chita III	1124.0166-S-06	7	Disseminated	611.89	Mine	$322,791
Mina Chita IV	1124.0167-S-06	7	Disseminated	459.76	Mine	$322,791
MD Chita V	1124.0374-07	9	Disseminated	873.43	Mine	$415,017
MD Chita VI	1124.0375-07	1	Disseminated	96.32	Mine	$46,113
Mina Mabel	305.076-R-88	2	Vetiform	12.00	Mine	$9,223
Mina Romina	305.079-R-88	5	Vetiform	23.19	Mine	$18,445
Mina Lucrecia	305.866-R-88	1	Disseminated	100.00	Mine	$46,113
Mina Gabriela	305.078-R-88	5	Disseminated	30.00	Mine	$23,057
Total Chita Block				**3,508.45**		

Source: MSA 2024

Table 4-3: Brechas Vacas Block - Detail of Mineral Concessions

Property	File Number	Mining Units	Type of Mineralization	Ha	Type	Annual Fee (ARS)
Mina Luis	545.798-B-94	6	Disseminated	600.00	Mining concession	$276,678
Mina Luis I	545.799-B-94	6	Disseminated	600.00	Mining concession	$276,678
Luis IV	1124.252-09	16	Disseminated	1,380.00	Mining concession	$737,808
Total Brechas Vacas Block				**2,580.00**		

Source: MSA 2024

Table 4-4: Minas de Pinto Block - Detail of Mineral Concessions

Property	File Number	Mining Units	Type of Mineralization	Has	Type of right	Annual Fee (ARS)
Arqueros	56-A-44	3	Vetiform	28.86	Mine	$13,834
Don Marcos	100.372-B-54	2	Vetiform	12.11	Mine	$9,223
Estrellita	258.751-P-84	1	Vetiform	6.00	Mine	$4,611
Paulita	258.752-P-84	2	Vetiform	12.00	Mine	$9,223
La Paulita II	243.114-P-87	24	Disseminated	2,267.30	Mine	$1,106,712
Pierina II	259.240-P-84	2	Vetiform	12.00	Mine	$9,223
Pierina III	259.311-P-84	2	Vetiform	12.00	Mine	$9,223
San Pablo	100.046-C-54	7	Vetiform	41.39	Mine	$32,279
San Urbano	100.088-C-54	7	Vetiform	42.11	Mine	$32,279
Total Minas de Pinto Block				**2,433.77**		

Source: MSA 2024

Table 4-5: Detail of Other Mineral Concessions

Mine	File Number	Mining Units	Type	Has	Type of right	Annual Fee (ARS)
Chita Este	1124.558-M-07	N/A	N/A	4,490.77	Exploration permit	N/A
Chita North	1124.311.M.16	19	Disseminated	1,884.66	Mining concession	$876,147
Chita South	414.503-I-04	N/A	N/A	1,304.24	Exploration permit	N/A
B. Vacas Oeste	1124.390-M-13	N/A	N/A	1,232.15	Exploration permit	N/A
Fortuna I	1124.022-T-14	25	Disseminated	2,489.04	Mining concession	$1,152,825
Total Other				**11,400.86**		

Source: MSA 2024

4.2.1 Work Required to Maintain Titles

In Argentina, the Mining Code permits both individuals and legal entities to acquire mining concessions. These concessions grant the right to explore and develop mineral deposits.

Mining rights are granted in perpetuity provided that an annual fee is paid, and investments are made for each stage of project activity.

The regulation that governs mining activities in Argentina is the Mining Code (Law N°1919), which establishes that discoveries are 'non-renewable', and therefore their use requires certain conditions. The granting procedure for the Chita Valley project is ruled by the "Código de Procedimientos Mineros de la Provincia de San Juan" (Law N°688-M).

When the Provincial State grants a concession to a third party, it retains original ownership. Rights expire if the concessionaire does not comply with the conservation conditions of the Mining Code (payment of royalties, capital investment, effective exploitation where applicable). Consequently, the State can re-grant the mining concession to another applicant.

In San Juan Province expired rights pass to the “Instituto Provincial de Exploraciones y Explotaciones Mineras” (IPEEM). If, after an established period of time no action is taken, it returns to the Mining Minister to grant to the next applicant.

Initial prospecting or exploration in an area requires an "exploration permit". Once granted this is held exclusively in order to carry out exploration activities.

To obtain an exploration permit, an application is made to the provincial mining authority. The clerk of mining will determine the exact date and time of application. Outcomes are recorded in the provincial mining register or mining cadastre in the order of submission.

The application for exploration must be accompanied by a minimum work program. Notably including an estimate of investment, equipment and a work plan.

4.3 Mineral Rights in Argentina

The mining industry in Argentina is regulated by the Federal Mining Code, enacted in 1886. However, under Argentine law, mineral deposits are owned by the provinces, the individual provinces regulate and administer the Federal Mining Code. Individuals and companies can obtain permits to explore, develop and extract minerals.

The Mining Code provides two basic types of mineral rights: the "Cateo" or exploration permit, which can lead to the creation of a “Manifestación de Descubrimiento” or Manifestation of Discovery (MD) when a sample containing mineralization is discovered or reported. These MDs then serve as the basis for acquiring the second mining concession or “pertenencia,” which eventually can become a “Mine” once the requirements of the Mining Code are fulfilled.

In Argentina, mineral rights are acquired by application to the government. A mineral property may go through several stages of classification during its lifetime. This begins with a Cateo (exploration permit). Once an application for a Cateo has been made, any mineral discoveries belong to the Cateo applicant. A Cateo consists of one to twenty units, each unit 500 ha in size. A fee, calculated per hectare, is required within five days of the Cateo’s approval.

The term of a Cateo varies based on size and begins 30 days after approval. A Cateo of one unit has a duration of 150 days and for each additional unit its duration is increased by 50 days. Larger Cateos may be split 300 days after approval, where half of the area in excess of four units must be relinquished. 700 days after approval, half of the remaining area must further be relinquished.

To move to the next stage a Cateo holder must report a mineral discovery. Upon approval this results in a Manifestacion de Descubrimiento for an area up to 3,000 ha. This area is comprised of Mining Units, with one Mining Unit being 100 ha in the case of a disseminated deposit and 6 ha in the case of a vein deposit. Once approved the holder may conduct a Mensura or legal survey. The property will generally stay in the Manifestacion stage until a Mineral Resource has been defined.

Once a concession is granted, the private party must comply with the following legal requirements:

i. Provide coordinates and a description of the "labour legal", i.e. the type of field work carried out to identify mineralization.

ii. Appoint a surveyor to carry out the survey of the mining concession.

iii. Provide a five-year investment plan, which must be at least 300 times the basic canon.

In general, the holder of a mining concession is given the opportunity to remedy any deficiencies identified.

Before any field work is carried out, the private party must submit an Environmental Impact Report ("EIR") or "Declaración de Impacto Ambiental" (DIA) detailing the measures to be taken to avoid environmental risks. There is a legal deadline of two years to submit a report detailing the fieldwork carried out and any required protective measures.

In San Juan Province, the Secretary of the Environment makes the initial assessment, and the Ministry of Mines issues a final decision.

A mining concession becomes a “Mine” once it gets a permit for exploitation on a commercial basis. The area of the mining concession is measured in smaller areas termed “pertenencias”.

An annual exploration canon fee due to the Province of San Juan is proportional to the mining units covered. These fees were increased by the Argentine government as of the first semester of 2015. Each disseminated mining unit covers 100 ha and costs ARP $46,113 per annum and each vein deposit mining unit covers 6 ha and costs ARP $4,611.30 per annum.

A surveyed (Mensurada) of a Mining Concession provides the highest degree of mineral land tenure and rights in Argentina. The Mining Concessions are perpetual, subject to the concessionaire´s compliance with payment of the yearly canon, compliance with the investment plan, the designation of a surveyor for measurement, regular exploitation and compliance with environmental regulations.

Mining rights in Argentina are separate from surface rights. The owners of the surface rights cannot prevent the granting of mining rights. They are, however, notified in accordance with the Mining Code and have a right to collect indemnity.

There are different sectorial permits that are required to conduct mining activities, but the most relevant ones are those associated with environmental permits. Ancillary permits exist for water usage, archeological research, hazardous waste, sewage and domestic waste.

The federal government creates minimum standards for environmental protection. The provincial and municipal governments then typically implement stronger regulations.

4.4 Surface Rights

On December 2022, MSA signed a trust agreement with the owners of the land where the central part of the Chita Valley Project is located. The property covers a surface area of 19,852 ha. Under the terms of this trust agreement, the owners of the land (the Trustors) agreed with MSA to grant a purchase option on the property for a cash payment of US$ 1,500,000 during a term of 15 years. This can be paid at any time during the life of the trust agreement. The purchase price turns into an obligation for MSA if the Ministry of Mining of the Province of San Juan approves the feasibility study of the Chita Valley Project (Figure 4-3).

To maintain the purchase option, MSA must make staggered payments (Maintenance Payments): from year one to year five, annual payments of US$ 20,000; from year six to year ten, annual payments of US$ 40,000; and from year eleven to year fifteen, annual payments of US$ 100,000.

No servitude for way, stay and camp is required due to the signed trust agreement.

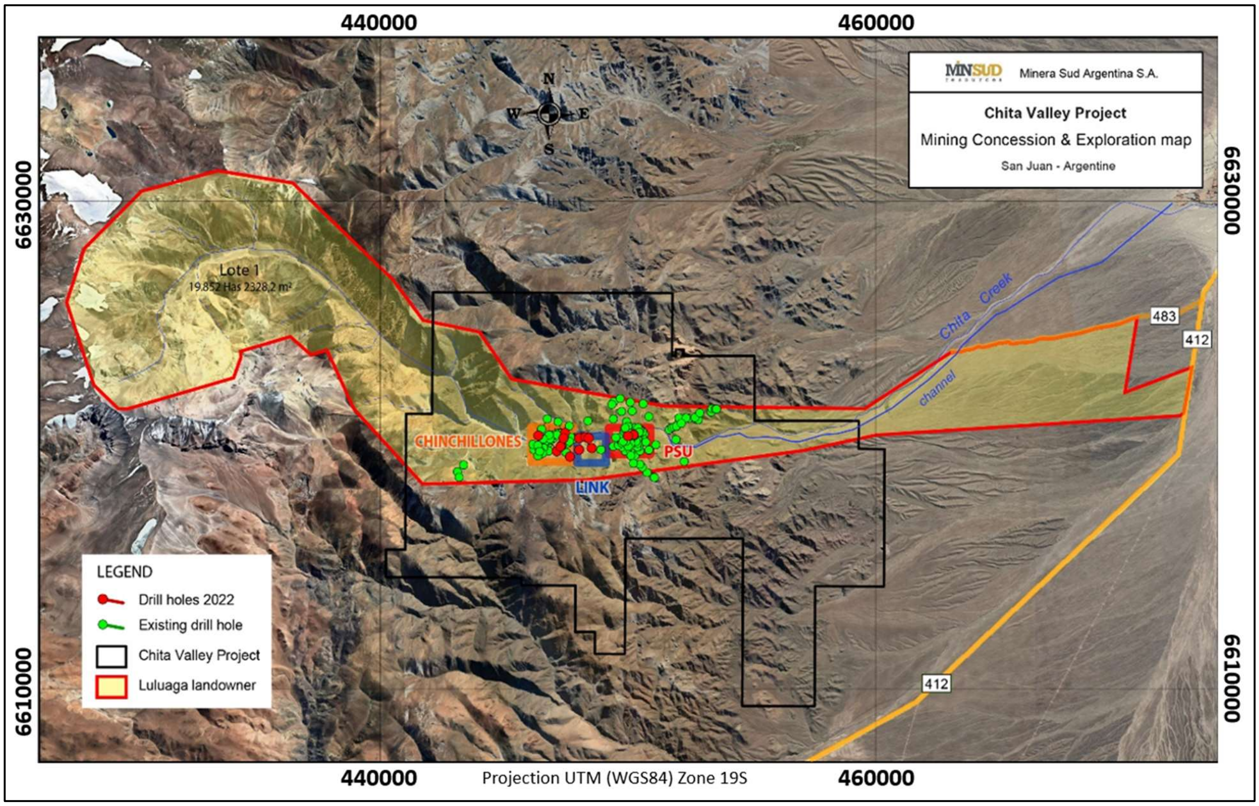


Figure 4-3: Trust Agreement Surface and Chita Valley Project (Source: MSA 2024)

4.5 Royalties, Agreements, and Encumbrances

The Brechas Vacas Block carries a 0.6% NSR royalty. This is payable to the Bastias family, with an option for MSA to buy back 0.3% of the royalty for a one-time payment of US$ 400,000.

Among the adjacent properties, Chita North and Chita South are subject to a 2% NSR on future production payable to Troy Resources Argentina Ltd, which can be reduced by 1% for a payment of US$ 750,000.

The Fortuna I property has 2% NSR on future production revenue payable to Teck Argentina Ltd, with an option to reduce it by 1% for a payment of US$ 600,000.

4.6 Environmental Liabilities

The main legal environmental requirements for San Juan Province applicable to a mining project can be summarized as:

i. Environmental legislation at the national level applicable to all productive activities, including mining.

ii. Specific environmental legislation for mining activity, i.e. National Law No. 24585 for Environmental Protection for Mining activity incorporated into the text of the Mining Code of the Nation.

iii. Environmental legislation at the provincial level - adherence to national laws and / or specific rules - applicable to all productive activities including mining; and

iv. Environmental legislation at the provincial level and / or municipal that are applicable to the activities developed by a mining project.

Failure to comply with environmental obligations can result in sanctions, including fines, temporary suspension of work or closure. These actions do not affect mining concession ownership.

There are no known environmental liabilities or additional permitting requirements other than the routine updates for drilling/surface trenching at the current stage of exploration.

The main legal environmental requirements applicable to a mining project are summarized in Chapter 20.

4.6.1 Hazardous Waste

The generation, handling, transportation, treatment and disposal of hazardous waste is regulated by the National Law Number 24051 to which the Province of San Juan adheres through Provincial Law No. 6665 and Regulations No. 1211-1207. MSA is registered as a generator of hazardous waste with the “Secretaria de Ambiente y Desarrollo Sustentable” of the Province of San Juan.

4.6.2 Health and Safety

Aspects related to labour safety and health of personnel are regulated by the Health and Safety Regulations for Mining Activities as National Decree No. 249 / 07 Annex I. All staff involved in the work must have insurance coverage of Occupational Risks (Aseguradora de Riesgos de Trabajo or ART) in accordance with the provisions of the National Law Number 24557.

4.6.3 Environmental Liabilities

At the present time, there are no known environmental liabilities at the Project at the exploration stage. Reclamation activities are comprised of re-grading drill pad sites and road construction for access.

4.7 Permitting

The mining law of Argentina distinguishes different stages in the process for developing mineral deposits. There are a number of permits necessary to perform prospection, exploration and exploitation activities. The most important being the Environmental Impact Report (EIR) or Declaración de Impacto Ambiental (DIA), a requirement governed by Article 253 of the Mining Code of the Nation.

The regulations relating to environmental protection for mining activities were established through enactment of the National Law Number 24585 of Environmental Protection for Mining Activity, incorporated as Title XIII of the Mining Code of the Nation. The Province of San Juan expressed adherence through the provincial Decree Number 1426/96.

In addition to the EIR, exploration activities require several sectoral permits, such as drilling permits, temporary water use for both domestic and drilling purposes, wastewater treatment, camp facilities, and waste management. There are also specific permits needed for transporting samples, archaeological prospecting, and collecting native flora or fauna specimens. Ensuring compliance with national and provincial environmental regulations—like managing solid and hazardous waste, protecting glaciers, and conserving native forests—is crucial for maintaining high environmental standards throughout the life of the project.

4.7.1 Environmental Permit for Exploring

The Chita Valley Project is primarily composed of three core mining concessions: Chita, Brechas Vacas, and Minas de Pinto. In all of them the EIR/DIA has been approved by the mining environmental authority of the Province of San Juan – Ministry of Mining. All subsequent updates requested by law have been filed on time. It should be noted that the EIR/DIA requires an update every two years (Article 256 of the Mining Code of the Nation).

The EIR for the Chita block is valid until 07-11-26 (Resolution No. 739-MM-24). The EIR for the Minas de Pinto block is valid until 15-08-26 (Resolution No. 538-MM-24) and the EIR for the Brechas Vacas block is valid until 03-05-25 (Resolution No. 369-MM-23). The company is also registered as a generator of urban and hazardous solid waste, with an environmental certificate valid until 04-10-26.

Additionally, the company complies with regulations on glacier protection, as no glaciers or snow patches are located within the mining concessions. The company adheres to the provincial requirements for native forest protection, with its mining concessions falling outside any high or medium conservation value areas.

It is necessary to apply for permits before execution of any exploration program for: extraction of water (camp consumption or any drilling program); transportation of samples, and final disposal of hazardous waste (solid, liquid, domestic or sewage).

There are no known environmental liabilities or additional permitting requirements other than the routine updates for drilling/surface trenching at the current early stage of exploration.

4.8 Significant Factors and Risks

There are no significant factors or risks that may affect access, title or the right or ability to perform work on the property other than those described.

At this initial stage, potential mitigation strategies have been identified to manage environmental and social risks. These risks include wetland areas and the proximity of a small stream (Chita creek). These will be the focus of further environmental planning to minimize potential impacts. Additionally, studies are currently underway by MSA to establish the baseline environmental conditions, with ongoing efforts to gather more detailed information. As the project moves forward, more thorough data will be collected and incorporated into future environmental assessments.

The importance of local communities has been recognized as another relevant factor. Continuous communication is maintained with these communities to promote transparency, address concerns, and build positive relationships.

Two archaeological sites have been identified: Pirca 1 (located near the edge of the wetland and Caparrosa Creek) and Pirca 2 (associated with Chita Creek). These sites are situated outside the exploration area but within the mining property.

The drilling exploration areas do not include glaciers or intangible zones. The absence of permanent glaciers and the location of the archaeological sites away from the exploration zones simplify environmental and social constraints. Nonetheless, further investigations will evaluate risks that may arise as the project progresses.

This early identification of risks reflects a commitment to responsible project development in alignment with regulatory and social expectations.

There is no other known significant factor, or risks that might inhibit the Company’s planned activities.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Property Access, Transport, Population Centers, and Mining Personnel

The project is accessible from the provincial capital of San Juan (total road distance of approximately 195 km). First travelling northwest on paved highways N40/P436 for approximately 160 km to the town of Iglesia. Then south on mostly unpaved road RP412 for approximately 10.5 km and finally west on unpaved local road for approximately 25 km (Figure 5-1). There are daily domestic flights to San Juan City from Buenos Aires, and also bus transport services from San Juan City to the town of Iglesia.

Regional infrastructure is well-developed with the modern city of San Juan approximately two hours' drive. The city offers modern hotels, an airport and other amenities. Local towns such as Bella Vista, Iglesia and Las Flores provide basic services including food, accommodation, automotive services, electricity, internet service, mobile phone coverage, education, medical facilities, recreational infrastructure and limited shopping.

A reliable power grid, including substantial solar and wind power generation capacity, ensures consistent energy supply. Well maintained road networks connect mining sites to major cities and ports. The province is strategically positioned, with key transportation access, including the national highway system and railway lines. Recent significant investment has improved road conditions and expanded infrastructure in mining regions.

While water scarcity poses challenges in certain areas, the provincial government has implemented an effective water management strategy to ensure adequate supply for mining operations.

Robust telecommunications infrastructure exists including fiber-optic networks. Suitable to provide reliable connectivity for mining sites. The San Juan provincial government actively fosters a favorable investment climate for mining companies, prioritizing sustainable practices and minimizing environmental impact.

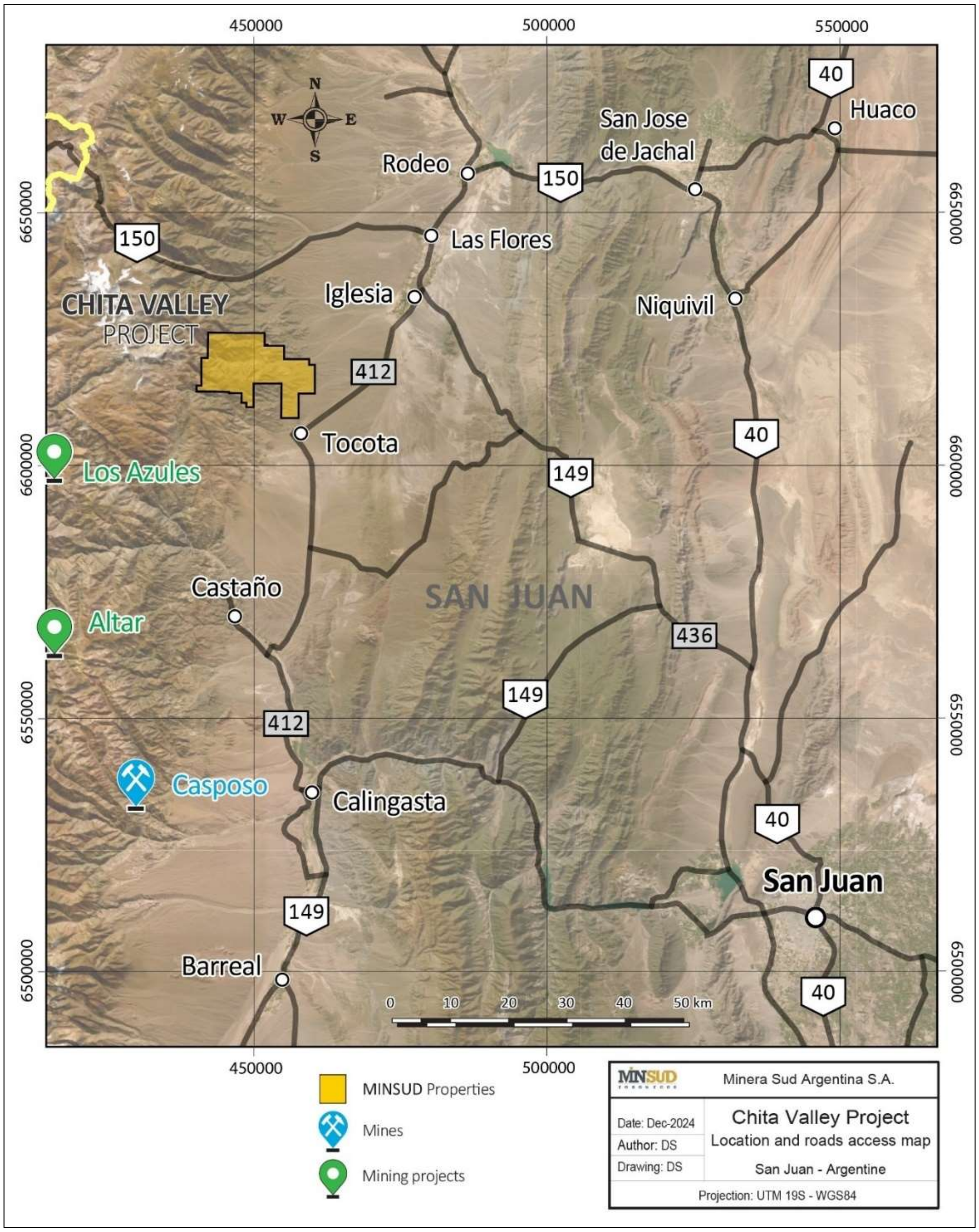


Figure 5-1: Location of Chita Valley Project, Nearby Towns, Roads and Mining Projects

5.2 Local Resources and Infrastructure

The project is a relatively new exploration development with minimal infrastructure currently on-site. In 2022 the company established a campsite for drill contractors that can accommodate approximately 30 people. This camp is in the center of the project, at an altitude of 3,000 m, approximately 35 km from the town of Bella Vista. There is additionally a second area with core logging facilities, a core cutting machine, office modules, warehousing and a meeting room. MSA personnel beyond the camp capacity are accommodated in cabins located in the town of Las Flores.

5.3 Physiography

The property is in the mountainous terrain of the Andean Frontal Cordillera, with elevations ranging from 3,000 to 3,800 meters above sea level (masl). The topography is characterized by moderately steep slopes leading to rounded ridges and peaks of varying steepness. Valleys are wide and U-shaped in the lower sections, with streams generally flowing from west to east. Vehicle access is possible to most of the property using a 4-wheel drive vehicle.

The property is in a region characterized by a cold and dry climate. This includes low annual precipitation, strong winds exceeding 120 km/h, and significant temperature variation. During summer, average temperatures reach 15°C, while in winter, they can drop to -15°C. The vegetation is well-adapted to the arid, high-mountain environment, dominated by xerophytic species such as jarillas, chilca, and cacti. At higher altitudes, vegetation becomes sparse, with hardy grasses like coirón prevailing. These climatic and ecological conditions, coupled with minimal snowfall, enable year-round operations and continuous site activities.

5.4 Power and Water

5.4.1 Power

The Chita Valley Property is in an area with well-established electrical infrastructure. The Bauchaceta Transformer Station, with a 132/33 kV line, and the Rodeo/Iglesia Transformer Station, with a 500 kV line, are situated approximately 20 kilometers east of the property. Additionally, the Tocota I mixed solar and wind power park and its associated substation, lie about 46 kilometers south of Bella Vista town. All options for providing connection to a regional electrical grid. These facilities step down voltage and distribute electricity to local consumers, making them a viable power source for mining operations at the Chita Valley Property.

5.4.2 Water

The Chita creek originates on the eastern flank of the Olivares Mountain Range, at an altitude exceeding 5,000 masl. It flows in a WNW-ESE direction until it reaches the intake and diversion structure, where the "Chita" channel begins (24 km long), supplying irrigation water to the towns of Bella Vista and Villa Iglesia. Its flow primarily depends on snowmelt, with rainfall playing a secondary role.

The highest flows occur during the snowmelt period of October to April. The lowest flows are observed in the autumn-winter period of May to September. The annual average flow, based on data from October 2021 to August 2023, is 103 l/s.

Two exceptional events were recorded, during which flow rates exceeded 1,000 l/s. On 13 January 2022, the flow reached a maximum of 1,055 l/s, and on 23 March 2023, it peaked at 1,152 l/s—more than 10 times the annual average. These events were attributed to significant rainfall, as recorded by a meteorological station in the Quebrada de Los Caballos.

Surface water quality monitoring has been carried out at various points along Chita creek, coinciding with the gauging stations. The analysis includes parameters such as conductivity, pH, temperature, dissolved oxygen, and the presence of various metals and metalloids. Overall, the water quality generally meets standards for irrigation and livestock use, though elevated levels of some metals and metalloids were detected in certain samples.

The primary elements exceeding one or more quality guidelines for human consumption, aquatic life protection, irrigation, or livestock drinking water (Annex IV of National Law No. 24.585/95) include Al, Zn, Cu, Fe, and Mn. To a lesser extent, U, As, Pb, and Mo were noted, with sporadic occurrences of Sb, Ag, Be, and Se.

5.5 Potential Location of Mine Facilities

Due to the early stage of the project development, no detailed studies have been carried out with respect to suitable locations for potential mine processing, waste, tailings storage facilities, potential waste disposal areas, heap leach pad areas or potential processing plan sides. The property area is sparsely populated and is currently only used for small-scale cattle ranching.

6 HISTORY

6.1 Pre-ownership History

The property encompasses several historical mineral prospects and mine workings. Small-scale production of gold, silver, lead, and arsenic occurred in the early 20th century.

Documented exploration activities commenced in 1968, led by the Argentine government organization Direccion General de Fabricaciones Militares (DGFM). This initial work included geological mapping, geophysical surveys, and drilling of eight holes totaling 1,310 m on a copper-molybdenum anomalous porphyry. The Chita South Porphyry monzodiorite intrusion was evaluated for its potential to host Cu-Mo porphyry-style mineralization (Mezzetti et al., 1969; Ruggiero, 1976; Mallimacci, 1976). This exploration program concluded in 1976.

In 1989, Exploration Barlow Inc. conducted a preliminary two-week geological study and sampling program in the Brechas Vacas area, now referred to as the Chinchillones Complex. This work highlighted significant potential for gold and silver mineralization, identifying mineralized breccia pipes and hydrothermal explosive breccia. Features commonly associated with epithermal precious metal deposits (Tanner, 1989).

In 1995, Minas Argentinas S.A. (MASA) undertook an exploration program. This included approximately 1,000 rock and soil samples for geochemical analysis (Rowell, 1995), and a 40 km geophysical survey grid comprising both induced polarization (IP) and resistivity methods (Ikola, 1996). Ten reverse circulation drill holes totaling 1,545 m were additionally made to test identified geophysical anomalies (White, 1996). MASA's findings indicated that fine-grained disseminated sulfides were not associated with significant gold deposits. While auriferous sulfide veinlets were identified, their abundance was insufficient to make the deposits economically viable.

In 2006, Silex Argentina S.A. (Silex) conducted a geological reconnaissance survey in the Minas de Pinto area, identifying the property's potential for low-sulfidation epithermal mineralization. Silex concluded the Chita area represents an intermediate setting between porphyry and epithermal systems, with some evidence of overprinting between the two.

Between 2006 and 2007, Rio Tinto conducted a reconnaissance exploration program in the Placetas Porphyry area within the Brechas Vacas Block property (Orts & Vazquez, 2007). The program included a collection of 62 surface rock samples. These exhibited copper and gold anomalies within a hydrothermally altered zone of porphyritic monzodioritic intrusions and intrusive breccias, presumed of Miocene age. The exploration confirmed the presence of a classic porphyry system characterized by anomalous copper, molybdenum, and gold. Reporting a 700 m diameter potassic core surrounded by a quartz-sericite-pyrite halo.

Following the initial findings, Rio Tinto implemented a follow-up program consisting of semi-detailed mapping; 289 soil samples were collected on a 50 m x 50 m grid over the porphyry's central core (850 m x 850 m). Petrographic microscopic studies were taken of 26 rock samples (Rio Tinto, 2007). The program culminated in the drilling of three diamond drill holes (PLCT0001 to PLCT0003), totaling 879.5 m. However, the results were not deemed sufficient, Rio Tinto concluded the program in 2007.

6.2 Ownership History

Minsud Resources Corp. (Minsud), the parent company of Minera Sud Argentina S.A. (MSA), acquired the historical exploration records for the Chita Valley Project. This included reports, maps, drill logs, and analytical data spreadsheets. However, no analytical or assay certificates are available for the earlier work. Between 2005 and 2009, Minsud focused on testing the Chinchillones Complex Vein System, located southwest of the main hydrothermal breccia.

It is important to note that earlier exploration programs did not adopt a systematic, multidisciplinary approach to target development. Partly due to the fragmented nature of the Chita Valley property. These were only consolidated into a unified exploration package after Minsud's acquisition.

Between 2013 and 2014, Minsud conducted a geochemical sampling program that included 19 mechanized saw drifts and a collection of 310 samples. The results confirmed the historical geochemical data reported by Silex, with high values for both precious and base metals. During the same period, Minsud completed a magnetometry geophysical survey covering the Minas de Pintos, Chita, and Chinchillones Complex sectors. The survey utilized north-south lines spaced at 100 m intervals along the creek length, enhancing the geological understanding of the area.

The 2014 drilling campaigns added 24 drill holes in the Chita South area and one in Chita North. These combined with historical holes totaled 35 holes. Between 2015 and 2017, approximately 42 additional drill holes were completed in the Chita North and Chita South areas, increasing the total to 75 drill holes.

In 2017, Bioleach Solvent Extraction Electrowinning diagnostic tests and initial column leach process tests were completed. These tests provided data on the metallurgical characteristics of mineralization in Chita South, improving the understanding of the project's potential.

In 2017 and 2018, the technical team completed planned longitudinal geological profiles along the main veins and conducted selective rock chip sampling in the Pulenta, Fatima, Yohana, and Candela veins of the Mina de Pinto area. The Carmen vein was systematically sampled using a diamond saw. Additionally, some historical legal workings were identified and rectified, with updated coordinates submitted to the Secretary of Mining.

In 2019, Minsud entered into a consolidated Earn-In Agreement (EIA) with South32 to advance the exploration of the Chita Valley Project. The agreement, originally signed on November 1, 2019, and subsequently amended, involved the following entities:

- Minera Sud Argentina S.A. (MSA): An Argentine subsidiary that owns 100% of the Chita Valley Project, including the Brechas Vacas, Chita, and Minas de Pinto property blocks.
- Minsud Resources Corp. (Minsud): A Canadian public company listed on the TSX, which owns 100% of Minsud Argentina Inc. (MAI).
- MAI: A privately held Canadian company that currently holds a 49.9% interest in MSA.
- South32: Currently holds a 50.1% interest in MSA.

Between 2019 and 2023, exploration activities on the Chita Valley Project were funded by South32 in accordance with the earn-in agreement. The Earn-in Agreement granted to South32 the right to acquire up to a 50.1% direct interest in MSA at the end of the 4-year earn-in period. On April 13, 2023, South32 exercised its earn-in right to acquire 50.1% of MSA.

On April 5, 2024, Minsud completed the issuance to South32 of a 50.1% ownership interest in MSA, which resulted in MAI's interest in MSA being reduced to 49.9%. Pursuant to its exercise of its earn-in right, South32 has subscribed for MSA shares representing a 50.1% ownership interest in consideration for South32's already funded capital contributions to MSA of CAD$27 million under the Earn-In Agreement. Simultaneously, on April 5, 2024, Minsud and South32 entered into a shareholders' agreement to govern the management and operation of MSA which will include further exploration and, if economically feasible and agreed by the shareholders, the development and exploitation of the Chita Valley Project.

Minsud will not be obligated to contribute any amount to an approved program and budget until the later of (i) the date on which the aggregate of the South32 Initial Capital Contribution and future amounts contributed and funded by South32 in respect of MSA approved programs and budgets equals CAD$42 million and (ii) April 5, 2026.

6.3 Prior Disclosure

Minsud engaged P&E Mining Consultants Inc. (P&E) in 2016 and 2018 to prepare independent National Instrument 43-101 (NI 43-101) compliant technical reports and Mineral Resource estimates for the Chita area within the Chita Valley Property.

The first resource estimate for the Chita South area, prepared in 2016, reported Inferred Resources of 31.5 million tonnes at a grade of 0.45% Cu. This was the first NI 43-101 report to present a resource estimate for the property, following an earlier report filed in 2011 when Minsud was listed on the Toronto Stock Exchange (TSX).

In 2018, P&E updated the resource estimate for the Chita South area, incorporating additional drilling data from 2015-2017. The revised estimate included 33.02 million tonnes of Indicated Resources at a grade of 0.43% Cu and 8.59 million tonnes of Inferred Resources at a grade of 0.40% Cu (P&E Mining Consultants Inc., 2018).

Table 6-1 presents the 2018 resource estimate at a 0.25% Cu cut-off. This prior disclosure is not considered current due to insufficient information and materials that previously supported the Chita South Mineral Resource estimate. It is provided solely for historical context and should not be relied upon for current project evaluations.

Initial reviews of the Chita South drilling data indicate that core samples from older drilling campaigns exhibit poor core box preservation. Financial constraints forced Minsud to stop paying for laboratory storage, resulting in the destruction of all reject and pulp samples. Moreover, Chita South and other historical cores were stored outdoors due to limited resources for building a core shed, leaving them exposed to weather damage. Additionally, these reviews have identified opportunities to improve supporting information and core materials related to the previous Chita South Mineral Resource estimate. Potentially allowing for its reconsideration in the future.

The resource estimates presented in Table 6-1 were prepared prior to this report and are not considered current Mineral Resource estimates. A comprehensive review and validation of the data and database integrity, along with potential re-estimation, are required to align with NI 43-101 requirements and meet the standards of a Qualified Person.

Table 6-1: Prior Mineral Resource Estimate for the Chita South Area

Category	Tonnes M	Cu %	Contained Cu	Au g/t	Ag g/t	Mo %
Indicated	33.02	0.43	310.8	0.07	2.28	0.018
Inferred	8.59	0.40	75.4	0.07	1.73	0.016

Source: P&G, Minsud 2018. Note: these are not considered current Mineral Resource estimates

6.4 Historical Mineral Resource and Mineral Reserve Estimate

No historical mineral resources or reserves have been identified for the Chita Valley Project prior to Minsud's involvement. Based on available information, there are no records of historical estimates for the property.

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional Geology

The Chita Valley project is located in the Iglesia-Calingasta-Uspallata depression. A transitional region between the Frontal Cordillera and the Pre-cordillera. Within the Chilean-Pampean flat-slab segment of the Southern Central Andes (Cahill & Isacks, 1992; Poma et al., 2017) and to the southeast of El Indio metallogenic belt (Figure 7-1).

In this region, the basement corresponds to the Upper Carboniferous-Lower Permian sedimentary rocks of the Agua Negra Formation (Cardo & Diaz, 2005), a 2 km thick sedimentary succession, formed in a back-arc marine-continental basin (Ramos et al., 1984). Folded and intruded by the composite Colanguil Batholith, emplaced in at least two main magmatic periods, from the Late Carboniferous up to the Lower Triassic (Llambias & Sato, 1995). All these rocks were affected by the middle Permian compressional phase known as the Gondwanan or San Rafael orogeny (Kleiman & Japas, 2009).

In Eocene times, the Incaic compressional phase deformed the western sector of the Frontal Cordillera, but not the eastern sector, where Chita Valley is located (Lossada et al., 2017). In this region, there is no evidence of deformation between the Triassic Choiyoi extension and Miocene deformation.

The last compressional event recorded in the Frontal Cordillera took place between 17 and 14 Ma, after an extensional event that affected the Valle del Cura sector to the north and the El Indio belt in Chile (Winocur et al., 2015; Murillo et al., 2017; Giambiagi et al., 2017; Velásquez et al., 2021). The compression is associated with a change in magmatism towards more silicic compositions, with calc-alkaline affinities and geochemical evidence of crustal thickening (Jones et al., 2016). Between 14 and 12 Ma, a change took place within the Frontal Cordillera from a compressional to a strike-slip regime. During this period, contraction migrates eastward and produces the Precordillera fold and thrust belt. Volcanism of the Cerro Tórtolas, dated in 14-12 Ma, seals the compressional structures in the sector of the Argentina-Chile border (Murillo et al., 2017). Following the model proposed by Allmendinger (1990), the Frontal Cordillera was uplifted passively over a deep ramp located in mid- or upper-crustal levels at these times (Figure 7-2).

Until 8 Ma, the Frontal Cordillera, including the Chita sector, was elevated associated with crustal thickening, while shortening took place in the Precordillera. This period partially overlaps with the deposition of Miocene rocks in the study area, including volcanic, volcaniclastic and minor sedimentary rocks of the Olivares Group, with ages ranging between ∼9 and 5 Ma.

Figure 7-1 shows part of the Miocene volcanic and intrusive rocks in the Central Andes of Argentina and Chile. Highlighting the location of porphyry and epithermal mineral deposits, including the Chita Valley Project. Additionally, Figure 7-2 presents a schematic section of the regional geology where the Chita Valley Project is located.

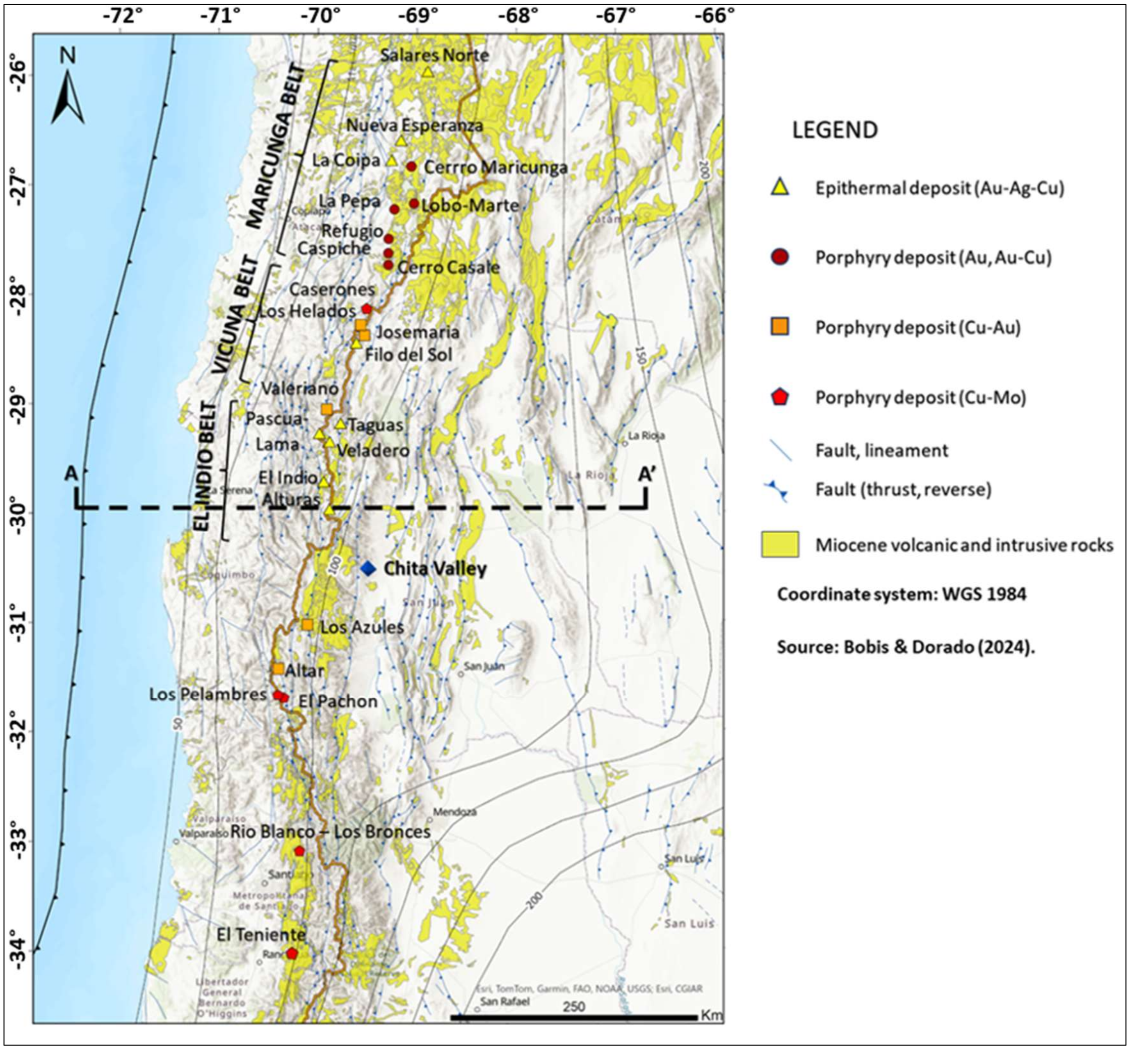


Figure 7-1: Miocene Volcanic and Intrusive Rocks of the Central Andes and Porphyry-Epithermal Deposits, Including the Chita Valley Project (Source: Bobis & Dorado, 2024)

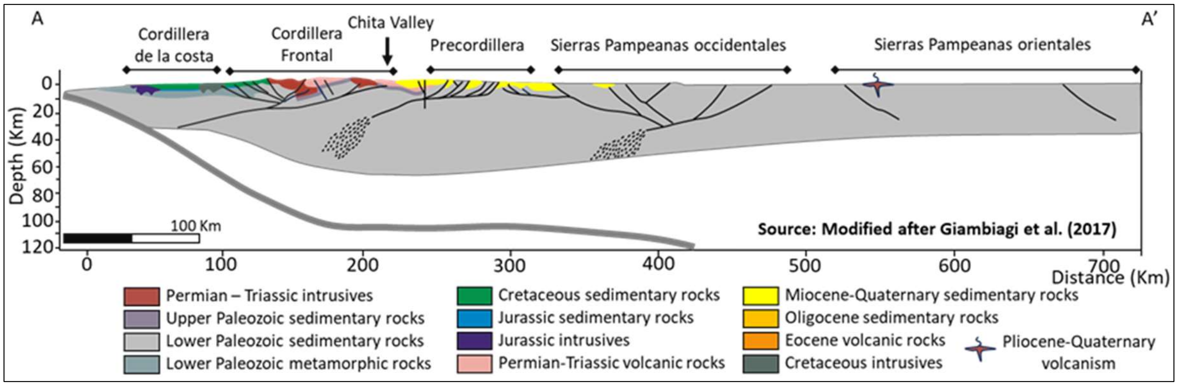


Figure 7-2: Location of Chita Valley Project Along a 30ºS Regional Cross-Section of the Andes (Source: MSA 2024)

Miocene to Pleistocene volcanic and sedimentary sequences in the Iglesia Valley area are known as Lomas del Campanario and Las Flores Formation (Iglesia Group). Lavas and subvolcanic intrusives, named Miocene and Tertiary Intrusives by Cardo & Diaz (2005), supporting geochemical and mineralogical indications of crustal thickening and the interaction of asthenospheric-derived magmas with heterogenous crust (Poma et al., 2017).

Structurally, the Iglesia-Calingasta-Uspallata depression represents the suture between the Chilenia and the Western proto-Gondwana terranes collision in the Palaeozoic. Structures re-activated as decollement surfaces during the Middle Miocene as a direct consequence of the increase in the compressional stress, due to the Juan Fernandez Ridge collision with the South American Plate and the related slab shallowing (Kay & Mpodozis, 2002).

7.2 Local Geology

The Chita Valley Project localizes in a thick-skinned thrust system that exposes Paleozoic and Triassic rock. Covered by Mesozoic and Cenozoic volcanic and sedimentary successions in the Frontal Cordillera. One of the most significant features of this region is the thick sedimentary succession represented by the Upper Carboniferous-Permian age Agua Negra Formation. Regionally made up by alternating sandstones, quartzites, lutites and conglomerates with limestones at the stratigraphic top.

The Agua Negra Formation, originally named by Polanski (1970), and dated by Aparicio (1969), was described by Costas (1967) as a sedimentary succession. Composed by a dark color lower section, composed by sub-greywackes and siltstones, presenting crossbedding, ondulites and an upper section made up of siltstones and sandstones. According to Gonzalez (1976), there are seven different transitional facies in the Agua Formation. Deposited in a littoral sedimentary environment, starting from base to top, with shallow marine and transitioning to continental fluvial deposits on top.

At the eastern border of the Olivares range, the Agua Negra Formation presents its maximum thickness, estimated to be 3400 m by Limeres (1985) in the Bauchaceta creek.

The Agua Negra Formation lies unconformably over the Silurian-Devonian San Ignacio Formation, while its top contact is with the volcanic and sedimentary rocks belonging to the Choiyoi Group.

The Agua Negra Formation is also intruded by Permo-Triassic granitoids, grouped regionally as the Colanguil Batholith, including the Tocota Granitoid and the Chita Granite (Cardo & Diaz, 2005). According to Cardo & Diaz (2005), there is centripetal zonation in the Colanguil Batholith, with the older intrusives located in the border and the younger to the center.

The Colanguil Batholith is composed of the Tocota, Chita, Agua Negra, Agua Blanca, Romo y Conconta plutons, presenting a general north-south tendency. The exception being the Chita and Agua Negra, presenting a northwest direction. Surrounding the Chita Valley project, the more prominent of these intrusive bodies are the Tocota and the Chita plutons, with Los Leones additionally cropping out in the Bauchaceta creek.

The Tocota pluton is the most meridional intrusive in the Colanguil Batholith, cropping out from the Castaño river to the south, until the Bacuchaceta creek to the north. It is composed of three successive intrusive pulses, presenting an irregular zonation, with the mafic and older facies located to the border of the intrusion, Fernandez (1996).

The Tocota pluton is composed of the Leoncito Tonalite, the La Fraguita Tonalite and the Rosados Microgranites, as well as numerous dikes. According to Cardo & Diaz (2005), all the lithological groups in the Tocota pluton lack penetrative deformation fabrics. Indicating it was emplaced by the end of the Gondwanic orogenesis, in a post-orogenic extensional regime.

The Chita Granite is part of the southern extension of the Colanguil Batholith in the Frontal Cordillera, cropping out in the Chita and the Agua Negra creeks. According to Sato (1987), it presents an oval shape with 9 km long by 4 km thick, intruding the Agua Negra Formation. It corresponds to medium grain granites, composed of quartz, orthoclase, plagioclase and scarce biotite, fluorite and zircon crystals. It is common to find miarolitic cavities and pegmatoid quartz, potassic feldspar, fluorite and epidote infilling the cavities.

According to Sato (1987), the Chita Pluton was emplaced around 1.3 km depth, based on fluid inclusions analysis. Sato & Kawahita (1988) dated this intrusion on 247 Ma.

In the Chita creek, there is an unconformable contact between the Chita Granite and the Choiyoi Group lithologies.

The Choiyoi Group, was originally defined by Fernandez et al. (1996) in the Castaño Viejo area to describe a volcanic-sedimentary succession, developed in an extensional structural regime (rift), with variable thickness, increasing from east to west and reaching up to 3000 meters. Dated as Permian to early Triassic in age. Sato & Llambias (1993) consider it to represent the effusive expression of the Colanguil Batholith.

According to Fernandez (1990), the Choiyoi Group is composed, from base to top, by the Castaño, La Chilca and Las Pircas formations.

The Castaño Formation lies unconformably over the Agua Negra and San Ignacio formations, comprising polymictic conglomerates, volcanic agglomerates, tuffs and andesitic lava flows to the base, sandstones, siltstones, agglomerates, ignimbrites, andesites, rhyodacites and dacites at the middle part of the stratigraphic succession and limestones, interbedded with volcanic rocks to the top.

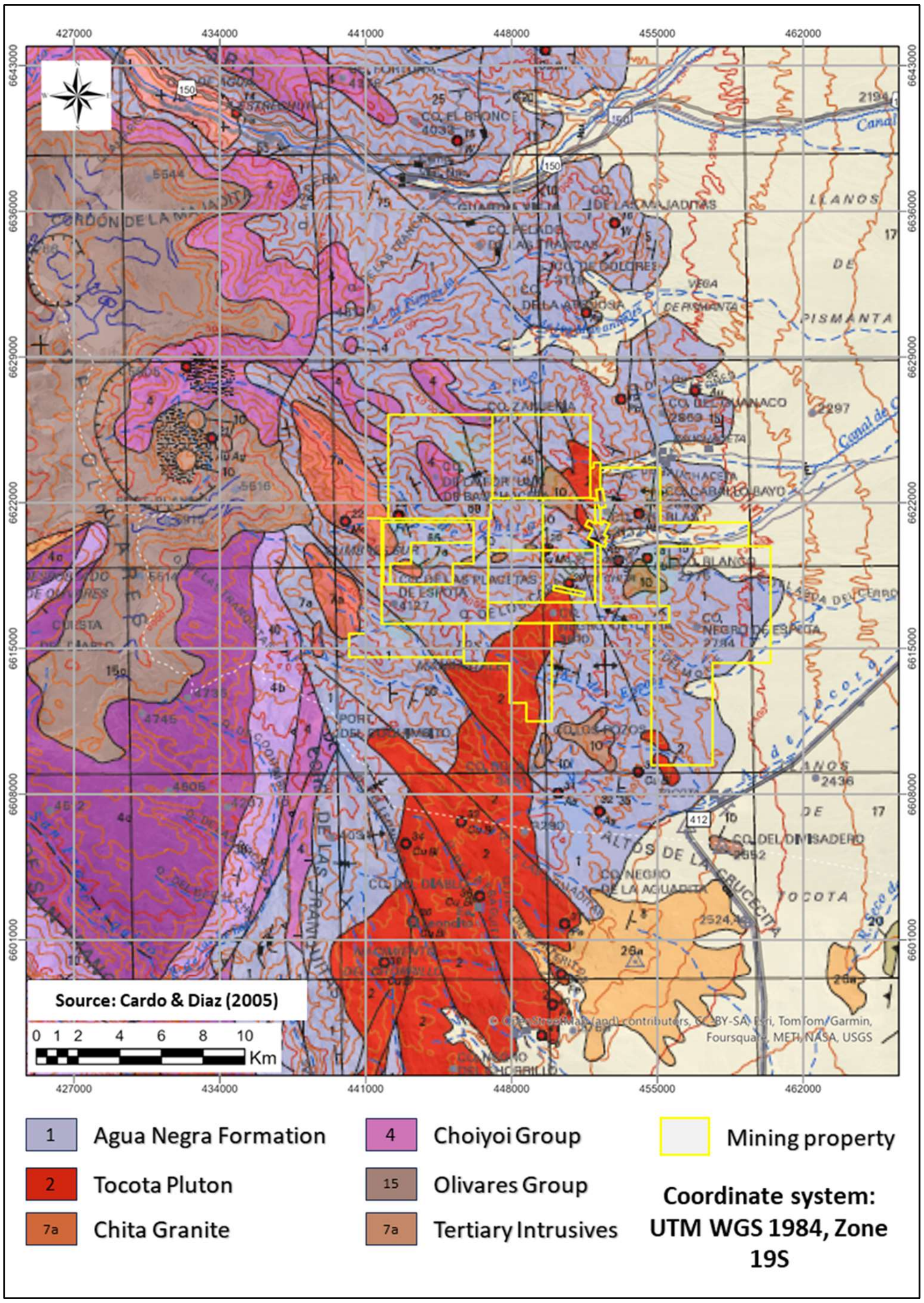
La Chilca Formation is composed of pyroxene-andesites, interlayered with basalts, dacites, rhyodacites and rhyolites, as well as by volcanic tuffs and agglomerates to the top.

Las Pircas Formation corresponds to a successive alternance of rhyolite and rhyodacites lava flows with ignimbrites, volcanic agglomerates, and tuffs.

Numerous Miocene subvolcanic intrusives and lava flows, ranging in composition from andesites to dacites and rhyodacites, has been described intruding the Paleozoic and Permo-Triassic units in Iglesia Valley, the Chita creek, El Divisadero hill, Cerro Negro, Cerro Puntas Negras and the Tocota creek (Cardo & Diaz, 2005; Poma et al., 2017). These rocks have been named as “Intrusivos Terciarios” by Cardo & Diaz (2005) and included within the Lomas del Campanario Formation by Poma et al. (2017). They are affected by hydrothermal alteration, associated with the porphyry-epithermal mineralization in the Chita Valley project.

To the west of the Chita Valley Project, one of the most prominent expressions of the Cenozoic-Pleistocene magmatism is represented by the Olivares Group. Originally described by Bastias (1991) in the headwaters of the Chita creek to group volcanic-sedimentary rocks, separated in the Poposa, Barrancas de Olivares and Volcancitos formations. The Poposa Formation is composed of andesitic lavas, while the Barrancas de Olivares corresponds to andesitic lavas, tuffs and volcanic breccias. The Volcancitos Formation is composed of andesitic lava flows.

The Olivares group lies discordantly over all the Paleozoic, Mesozoic and Cenozoic units. Figure 7-3 shows the Chita Valley local geology map, highlighting the main geological units in the area.



Source: Cardo & Diaz (2005)

Coordinate system: UTM WGS 1984, Zone 19S

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Figure 7-3: Chita Valley Local Geology Map Showing Main Geological Units in the Area (Source: Modified After Cardo & Diaz, 2005)

7.3 Property Geology

The oldest exposed rocks in the Chita Valley project correspond to the Agua Negra Formation, composed by alternating sandstones, lutites, shales and conglomerates. Deposited in a clastic littoral environment transitioning from marine at the base to continental fluvial to the top (Cardo & Diaz, 2005; P&E Mining Consultants, 2018). Regionally metamorphosed quartz-sandstones, presenting re-crystallization, have been mapped as quartzites by Minera Sud Argentina S.A. (MSA).

To the east and west of Chita Valley, the Agua Negra Formation is intruded by and in fault contact with the granite known as the Chita Granite, the Granodiorita de Tocota and the Bauchazeta Granite. Part of the Colanguil Batholith, and compositionally tonalites, granites, granodiorites, and microgranites (Sato, 1989).

Middle to Late Miocene magmatism in the project area, ranging from 8.8 to 7.1 Ma (U/Pb in zircon), occurs as clusters of porphyritic texture-subvolcanic intrusions andesitic to dacitic in composition. Largely under-cover (alluvial deposits) and a series of nested dome-diatreme complexes along the Chita Valley E-W transference fault (Figure 7-5). These intrusive complexes are associated with Cu-Mo (Au) porphyry and related polymetallic epithermal mineralization in at least seven areas. From Minas de Pinto to the east towards the Placetas to the west of the property.

A wide variety of breccia types has been recognized, including intrusion breccias. Typically related to the emplacement of an intrusive body and located on the margin of the body. Magmatic-hydrothermal breccias and pebble breccias (phreatomagmatic breccias) are polymictic, poorly sorted, and consist of angular to sub-rounded fragments. These fragments include shales, quartzites, and siltstones from the Agua Negra Formation, as well as rounded, altered igneous porphyries.

In the Chita Valley Project, six exploration targets (Placetas, Placetas North, Link Zone, Chita South, Chita North and Minas de Pinto) and one deposit (Chinchillones Complex), which hosts estimated mineral resources, have been identified. These areas form a geologically diverse zone characterized by volcanic, plutonic, and sedimentary rocks intruded by multiple porphyries and breccias. Exhibiting varied alteration and mineralization styles.

Below is a summary of the geological characteristics of the areas within the project:

- Felsic to mafic volcanic and volcaniclastic rocks, including tuffs, andesites and basalts. Crops out in the western part of the Chinchillones Complex and in the margin of the Chita North area, juxtaposed to the Agua Negra Formation, forming breccia contact zones or along high angle faults.

- Placetas area geology comprises an early stage of medium-grained porphyritic monzodiorite intrusion which generated intrusive breccias in quartzites, siltstones and shales of the Agua Negra Formation. Satellite quartz veins are thought to be associated with this event. Intermineral, medium grained, crowded texture diorite porphyry intrusions and post-mineral diorite dykes are also present.

Hydrothermal alteration in the Placetas area is characterized by a strong to moderate potassic alteration core, composed by magnetite, k-feldspar and biotite, surrounded by moderate to strong sodic alteration, composed by albite-tremolite and actinolite. In surface, mineralization is restricted to copper oxides along fractures and quartz veinlets. In the potassic core at depth, the quartz veining contains chalcopyrite, magnetite and pyrite as the main minerals. Little mineralization is found disseminated.

To the west of the Placetas area, coarse grained, pink color granites have been mapped, belonging to the Chita Granite.

- The Link zone geology is dominated by coarse to medium-grained dacitic porphyries and related phreatomagmatic breccias, presenting subrounded fragments of the dacite porphyries and quartzites and siltstones belonging to the Agua Negra Formation.

- Basement geology in the Chita South and Chita North areas is made up by the Agua Negra Formation. Dominantly shales and quartzites, intruded by medium grain andesitic to dacitic porphyries, composed by euhedral plagioclase, biotite, and amphibole phenocrysts in an aphanitic ground mass to the south and southwest. These subvolcanic bodies also intrude coarse grain granodiorites, belonging to the Tocota Pluton.

  At Chita North, andesitic and dacitic tuffs overlain the subvolcanic intrusives, covering the Agua Negra Formation. The andesitic tuffs are characterized by lithic fragments and plagioclase, biotite and amphibole crystals, while the dacitic tuffs present abundant quartz crystals.

  At Chita South and Chita North, at least three major phases of early mineral monzodiorite to diorite porphyry have been recognized. Presenting a core of potassic alteration, composed by k-feldspar, biotite and magnetite, associated with a quartz-veining stockwork. “A”-type anastomosing and discontinuous, less than 3 mm wide veinlets, presenting bornite, chalcopyrite, magnetite, molybdenite and pyrite, as well as parallel, continuous, and planar “B”-type veinlets, containing molybdenite, chalcopyrite and pyrite are also present.

  The potassic alteration is totally or partially overprinted by sericite-clay-chlorite alteration, and late stage “D”-type veining. Containing pyrite and chalcopyrite, crosscuts the early formed “B”-type veinlets.

  In the Chita South and Chita North areas, the argillic alteration resulted in a redistribution of copper, including a strong leaching process and the conversion of magnetite to hematite and then to pyrite. A thin supergene enrichment, generating chalcocite (digenite) and a transition zone, containing a mix of copper sulfides and oxides, caps part of the porphyry system, particularly in the Chita South area.

- Minas de Pinto geology, to the east of Chita Valley property, is dominated by several corridors of east-west trending, discontinuous quartz veins and vein stockworks with variable amounts of polymetallic sulfides. Crosscutting the Agua Negra Formation, but also to granodiorite, volcaniclastic and andesitic porphyries. Hydrothermal alteration affecting the host rocks of the epithermal veins in Minas de Pinto include silicification and strong argillic alteration in the Agua Negra Formation, the Tocota Pluton and the andesitic porphyries. The latter also presents moderate propylitic alteration.

Figure 7-4 presents the property geological map of the Chita Valley Project. The mapping of the property has primarily focused on the three core blocks of mineral concessions, conducted by MSA.

Figure 7-5 shows an east-west cross-section showing the variable exhumation and preservation of the porphyry-epithermal columns across the different prospects within the property.

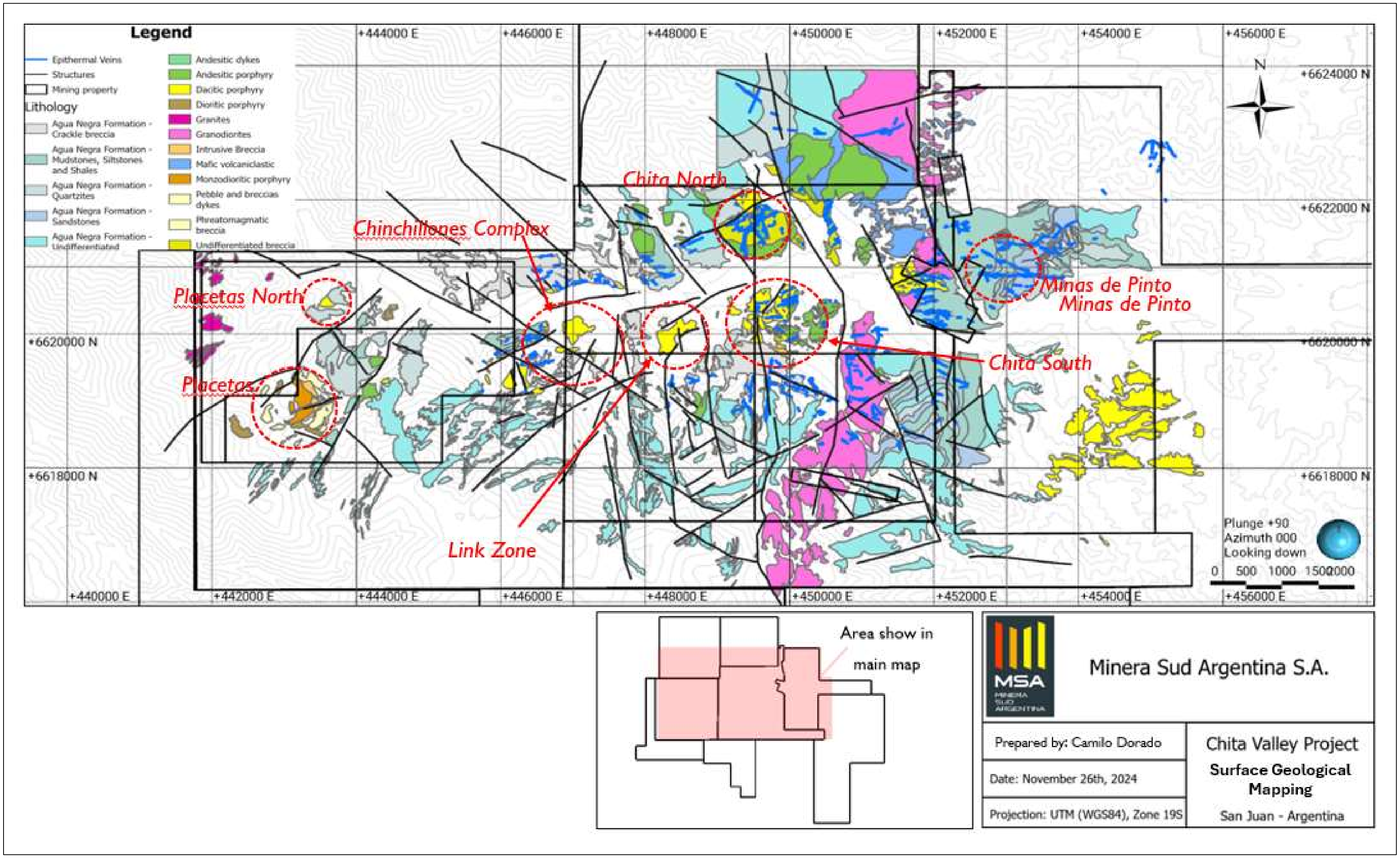


Figure 7-4: Chita Valley Property Geology Map Showing the Principal Intrusion Centers (Source: MSA 2024)

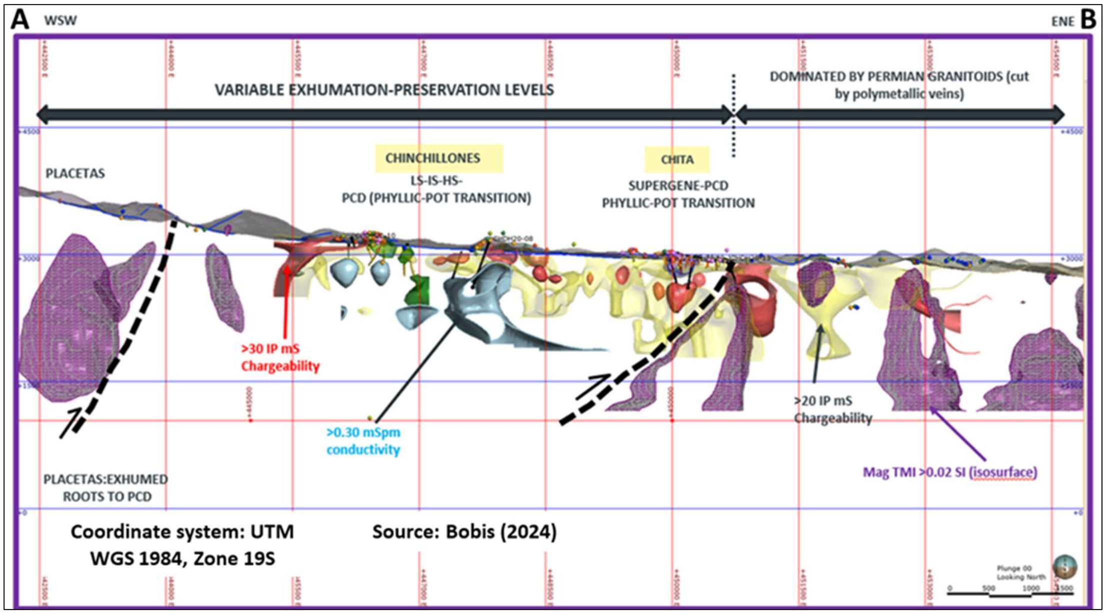


Figure 7-5: EW Cross-Section Showing Exhumation and Preservation of Porphyry-Epithermal Systems Across Various Prospects in the Property (Source Bobis 2024)

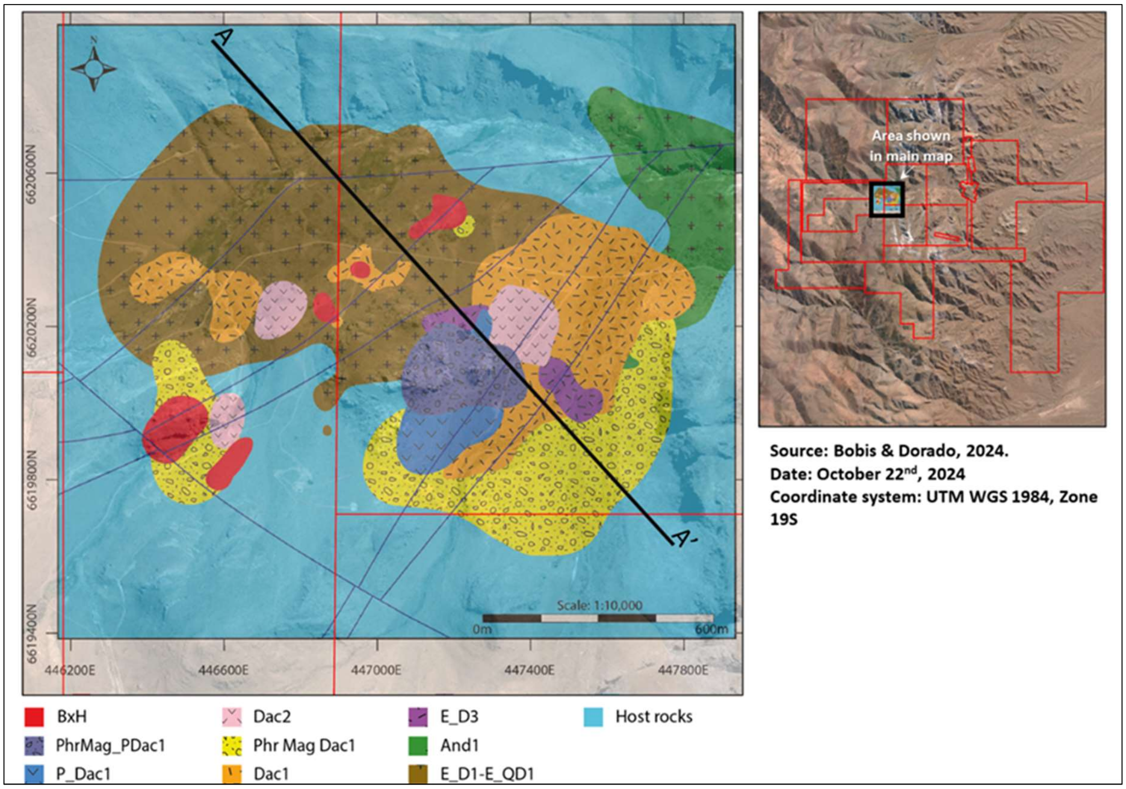
7.3.1 Chinchillones Complex geology

Chinchillones Complex geology is spatially and temporally related to composite and juxtaposed Late-Miocene intrusions and breccias emplaced into the sandstone, shale, and siltstone members of the Agua Negra Formation (Figure 7-6).

Magmatism and hydrothermal activity in the Chinchillones Complex generally follow and are largely controlled by a predominant NE trending structural corridor. The productive diorite to dacite porphyry intrusion complexes occur in an area around 2.5 km by 2.5 km, bounded to the north by the E-W transference fault. Controlling the Chita Valley creek and the east by a NS trending brecciated sandstone/quartzite ridge. The structurally controlled NE trending polymetallic mineralization transgresses these boundaries, presently open to the west, southwest and down-dip.

Careful age dating and detailed drill core logging and mapping have delineated three (3) main magmatic and hydrothermal cycles with an individual lifespan around 200,000 years. Encompassing a much longer magmatic-hydrothermal history of at least 1.4 Ma, from 8.7 to 7.3 Ma (Figure 7-7).

Each of these magmatic cycles is represented by different lithological-breccia components, recognized, and categorized through compositional and textural variations, interpreted to be suggestive of magma differentiation with time.



Source: Bobis & Dorado, 2024.
Date: October 22nd, 2024
Coordinate system: UTM WGS 1984, Zone 19S

Figure 7-6: Interpreted Geology Map from Chinchillones Complex Interpreted at 2650 RL (Source: Bobis& Dorado2024)

7.3.2 Lithology

A brief description of lithologies and their corresponding codes is provided below. An overview is found in Table 7-1.

Host rock: The Agua Negra Formation (Carboniferous to Permian sedimentary rocks intruded by porphyry-related mineralization at Chinchillones Complex and other Chita Valley targets). Consisting mainly of fine-grained, moderately sorted quartz sandstones with minor interbedded shales and siltstones. In the Chinchillones Complex area, these sedimentary rocks dip shallowly east-southeast and west-northwest. Forming a gently plunging north-northeast synform (Gibson, 2023).

7.3.2.1 Magmatic I Cycle (8.5 ± 0.2 Ma)

This cycle is characterized by early diorite to quartz diorite porphyries, including the following lithologies:

- (And1): Medium grain porphyritic-crowded, andesitic composition. Phenocrysts of plagioclase, biotite, amphibole, and quartz (<10%) surrounded by aphanitic groundmass. It commonly hosts D-type porphyry veinlets and less commonly B-type, which are crosscut by E-type (pyrite-sphalerite-tennantite) and associated advanced argillic alteration.

- (E_D1): Medium grain porphyritic-crowded diorite. Plagioclase, biotite, and amphibole phenocrysts in a phaneritic matrix. A and B-type veinlets stockwork up to 40% vol with an increase in molybdenite content characteristic of this intrusive.
- (E_QD1): Medium to coarse grain porphyritic diorite to quartz diorite. Plagioclase, quartz (<20%), amphibole and biotite phenocrysts (70% vol) in a phaneritic matrix. In the apical part of the intrusion, this body presents abundant D-type veining and up to 50% vol of quartz stockwork, predominantly A-type and less developed B-type veinlets.

7.3.2.2 Magmatic II Cycle (7.8 ± 0.1 Ma)

This cycle is characterized by three stages of magmatic activity:

- Phreatomagmatic breccia (Phr Mag_Dac1): Polyphase, matrix to clast supported, poorly sorted. Angular to rounded clasts of Agua Negra Formation, Cycle I and II lithologies. Including juvenile Dac1 in a rock-flour matrix. The diatreme breccia is heavily altered by advanced argillic minerals (illite-kaolinite-dickite + pyrophyllite) over sericite-quartz, with abundant matrix sulfides, forming hydrothermal breccias and E-type veinlets typical of the Chinchillones Complex' polymetallic epithermal mineralization.
- Intermineral porphyries (Dac1): Medium grain porphyritic of dacitic composition. Phenocrysts of plagioclase, quartz (>20%), biotite and amphibole surrounded by an aphanitic groundmass. The Dac1 porphyry is largely altered by sericite-quartz-pyrite and commonly overprinted by advanced argillic minerals (illite-kaolinite-dickite + pyrophyllite). Especially in the northeast of the Chinchillones Complex, with fewer B-type veins and abundant D-type veinlets.
- Early diorite porphyries:
    - (E_D3): Medium grain porphyritic, quartz diorite to tonalite. Phenocrysts of plagioclase, k-feldspar, quartz (10-20%) biotite, amphibole surrounded by microcrystalline matrix.
    - (E_D4): Medium grain porphyritic, diorite. Phenocrysts of plagioclase, biotite and amphibole surrounded by microcrystalline matrix.

7.3.2.3 Magmatic III Cycle (7.3 ± 0.1 Ma)

This cycle is characterized by two stages of magmatic activity:

- Phreatomagmatic breccia:
    - (Phr Mag P_Dac1): Polyphase, matrix to clast supported, poorly sorted. Angular to rounded clasts of all lithologies, including juvenile P_Dac1 in a rock-flour matrix.
    - (Phr Mag Dac2): Polyphase, matrix to clast supported, poorly sorted. Angular to rounded clasts of all lithologies, including juvenile Dac2 in a rock-flour matrix. Lacks P_Dac1 clasts.

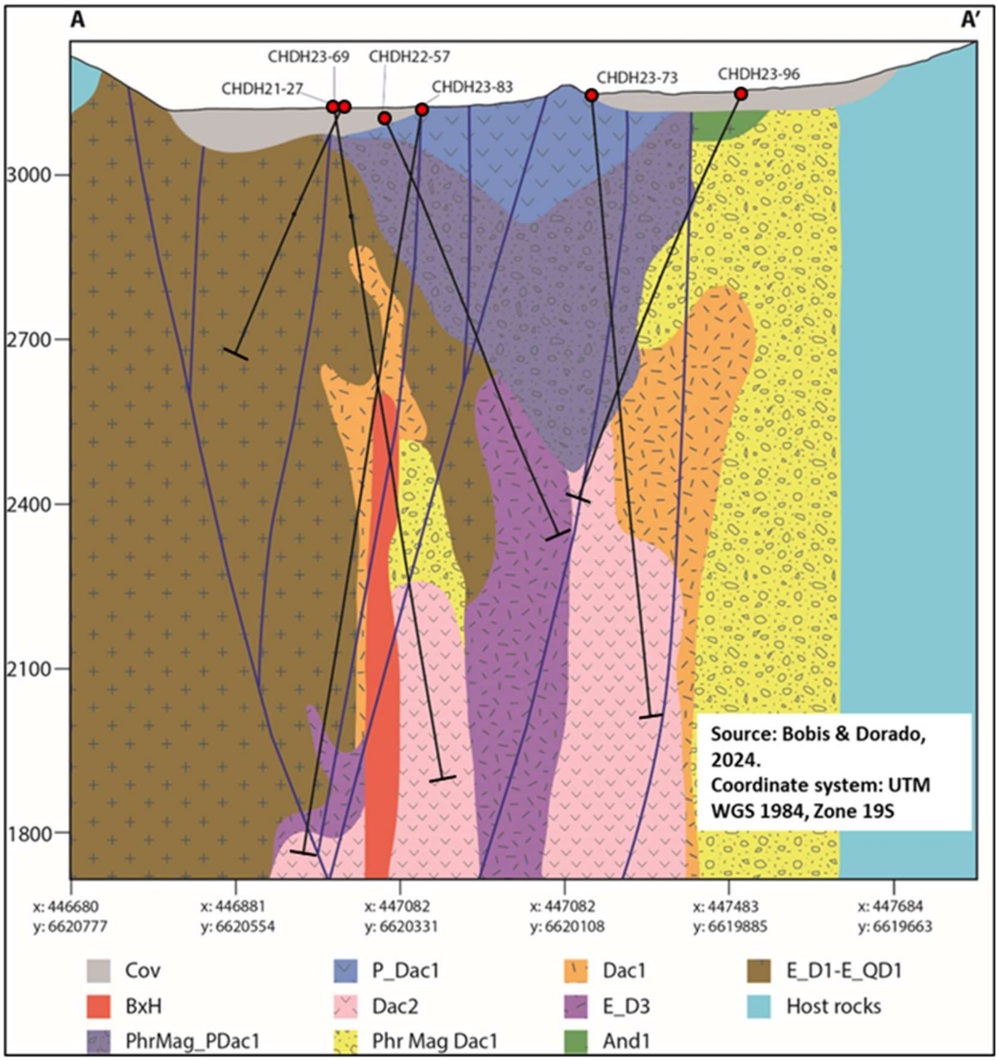
- Late-mineral porphyries:
    - (P_Dac1): Medium to coarse grain porphyritic, dacitic composition. Phenocrysts of plagioclase, quartz (>20%), k-feldspar and amphibole surrounded by an aphanitic groundmass.
    - (Dac2): Fine grain porphyritic, dacitic composition. Phenocrysts of plagioclase, quartz (>20%), k-feldspar and amphibole surrounded by an aphanitic groundmass. Dac2 and its diatreme breccia contain limited veining but host Cu, Cu-As, and Zn-Pb polymetallic epithermal mineralization in open spaces, disseminations, replacements, and along faults.
- Epithermal mineralization: This includes hydrothermal veins (Hy_Vn), and hydrothermal breccias (BxH).

Colluvium & alluvium (Cov): Since the Miocene, compressional events have uplifted the Chita Valley along Andean structures, causing varied exhumation and preservation. This tectonism has resulted in the Chinchillones Complex being largely concealed beneath up to 30m of colluvial and alluvial deposits. Containing clasts ranging from Permian granitoids to Miocene intrusives.

Table 7-1: Summary of Lithology Units and Codes

Event	Stage	Lithological Code
-	Colluvium & alluvium	Cov
Epithermal mineralization	Hydrothermal veins	Hy Vn
	Hydrothermal breccia	BxH
Magmatic III Cycle (7.3 ± 0.1 Ma)	Phreatomagmatic breccia	Phr Mag P_Dac1
		Phr Mag Dac2
	Late-mineral porphyries	P_Dac1
		Dac2
Magmatic II Cycle (7.8 ± 0.1 Ma)	Phreatomagmatic breccia	Phr Mag_Dac1
	Intermineral porphyries	Dac1
	Early diorite porphyries	E_D4
		E_D3
Magmatic I Cycle (8.5 ± 0.2 Ma)	Early diorite to quartz diorite porphyries	And1
		E_D1
		E_QD1

Source: MSA 2024



Source: Bobis & Dorado, 2024.
Coordinate system: UTM WGS 1984, Zone 19S

Figure 7-7: NW-SE Geological Section Showing Interpreted Lithological and Structural Interactions in the Chinchillones Complex (Source: After Bobis & Dorado, 2024)

7.3.3 Structures

The Chinchillones Complex area hosts mutually cross-cutting brittle fracture sets and faults associated with topographic lineaments (Gibson, 2023). Faults do not generate significant rock unit offsets. Measured faults vary from discontinuous zones to features extending for at least 2 km in length.

Faults are steep dipping to subvertical, with four main trends identified in the Chinchillones Complex:

- The NS trend is associated with the main alteration and mineralization. An increase in veining and the development of hydrothermal and phreatomagmatic breccias. These structures act as conduits for the hydrothermal fluids, which are responsible for the polymetallic mineralization and the emplacement of the dome-diatreme complex. The NE-SW faults display dextral-slip sense.

- The higher-grade NE-trending polymetallic zone is effectively mapped as a distinctive NE trending magnetite-depleted zone. Both the Chinchillones Complex and the Link zones are traversed by apparent and broad NE trending magnetite-depleted zones. Interpreted to reflect and outline texture-destructive alteration zones (i.e., phyllic to intermediate argillic).

- The NE-SW dominated faults appear cut by NS trending faults and folds manifested as silicified ridges, ribs, or ledges (quartzites-crackle breccias). These appear as a bounding structure to the intrusion complexes. The NS-trending structural grain is interpreted to form part of the thrust belt traversing the long axis of the Frontal Cordillera.

- East-southeast to west-northwest, controlling the Chita creek and concordant with a transference fault. Roughly perpendicular to the Andean trend. These structures are readily identified in topographic and magnetic lineaments and are characterized by well-developed fracture sets and breccias developed in sandstones. Sub-parallel quartz veins exist, particularly to the north of the so called “breccia ridge” zone and to the northern part of the Chita valley. Here semi-consolidated conglomerate deposits occur 20 m above the actual elevation of the riverbank, indicating a displaced paleochannel along the East-West trending south side-down fault.

NS faults and folds are a common feature in Chita and Chinchillones Complex, regionally interpreted as part of the thrust belt along the long axis of the Frontal Cordillera.

- In the Chinchillones Complex, the NS faults are not related to an increase in vein density. It however locally defines breccia contacts and associates with topographic lineaments but not with parallel fracture sets.

- NW-SE faults are characterized by moderate to well developing of fracture sets. Local breccia developments in the Agua Negra Formation show iron oxide staining, but not with intrusive bodies or hydrothermal alteration. To the north of Chinchillones Complex deposit, NW-SE faults present mutual crosscutting relationships with the E-W fault controlling Chita creek.

- Fault kinematic indicators showed a sinistral slip sense for these faults.

7.3.4 Mineralization and Alteration

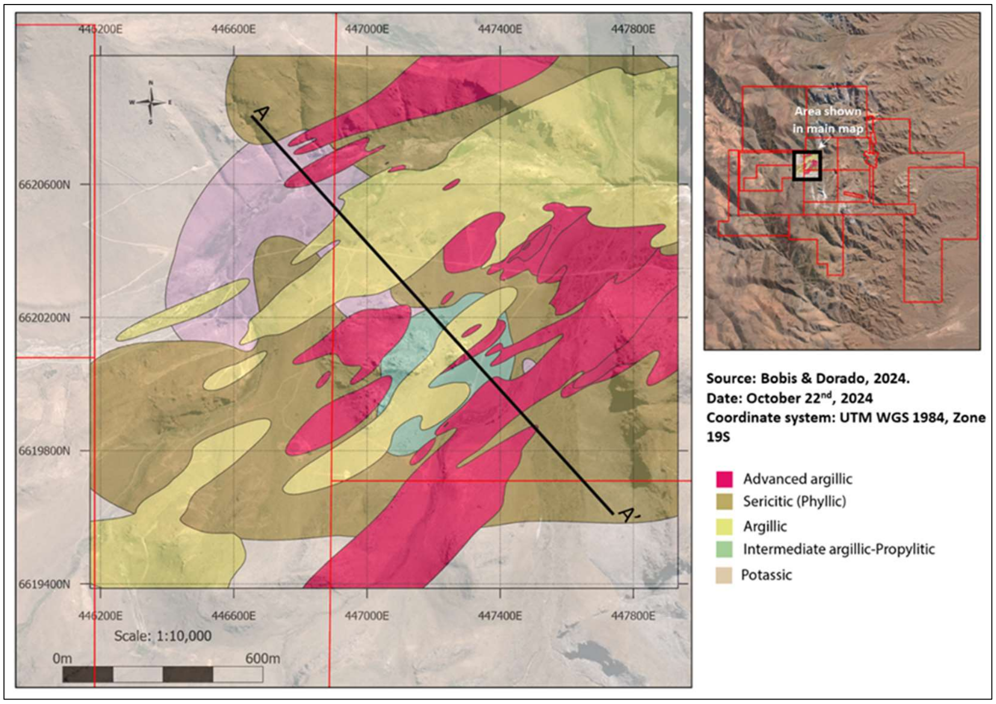
The sequence of magmatism, hydrothermal alteration, and mineralization in the Chinchillones Complex is associated to a complex composite set of intrusions and breccias. Structurally controlled and juxtaposed to one another, generating contrasting styles and mineral species. This is not always easily recognizable as discrete zones, but is traceable for about 2.5 km length, 2.5 km width and at least 1 km depth (Figure 7-8 and Figure 7-9).

Based on core logging descriptions and mineralogical, geochemical, and geochronological studies, three main cycles of magmatism and hydrothermalism are recognized (Figure 7-10).

- Cycle I: Cu-Mo (Au) porphyry-style mineralization (8.5 ± 0.2 Ma): Cycle I generated a potassic alteration assemblage affecting And1, E_QD1 and E_D1 intrusion phases. Particularly pronounced to the west of the Chinchillones Complex.

  The mineralogical assemblage includes k-feldspar, hydrothermal biotite, scarce magnetite, and albite, developed after primary feldspar, plagioclase, amphibole, and biotite. This event is accompanied by large volumes of early high-temperature UST's (unidirectional solidification textures), aplitic vein-dykes, and A-type veinlets with later B-type veining (Figure 7-11). The accompanying sulfides in this phase are dominated by pyrite, with minor chalcopyrite, molybdenite and bornite.

  Strong pervasive sericite (white mica-illite) alteration and related pyrite-rich D-type veining overprints the potassic assemblage and represents the culmination of this magmatic-hydrothermal cycle.



Source: Bobis & Dorado, 2024.
Date: October 22nd, 2024
Coordinate system: UTM WGS 1984, Zone 19S

Figure 7-8: Interpreted Alteration Map From Chinchillones Complex Interpreted at 2650 RL (Source: Bobis & Dorado, 2024)

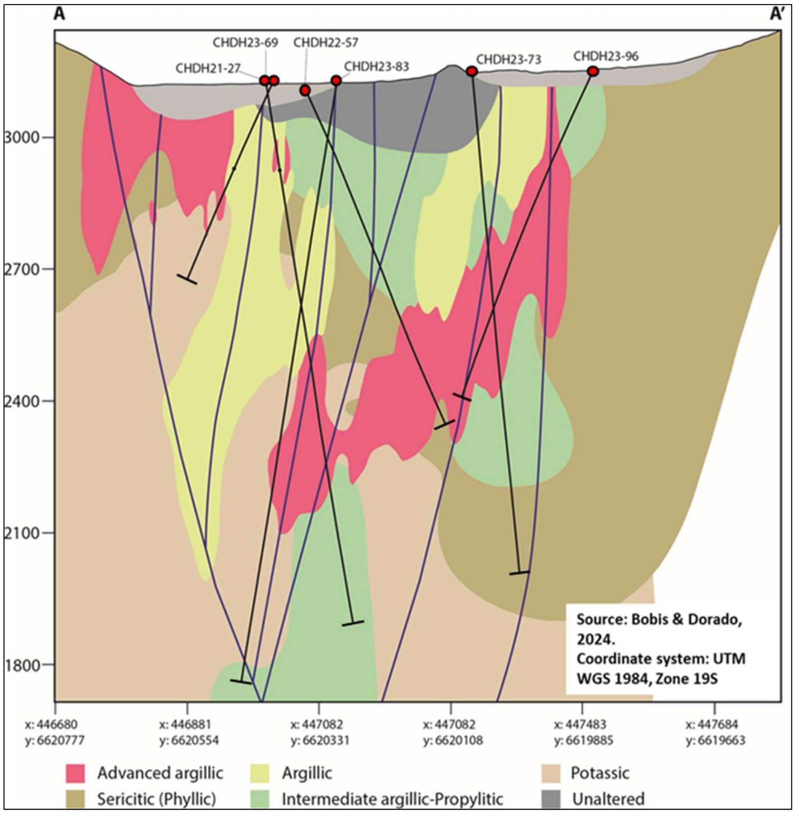


Figure 7-9: NW-SE Section Showing the Interpreted Alteration Assemblages and Structural in the Chinchillones Complex (Source: After Bobis & Dorado, 2024)

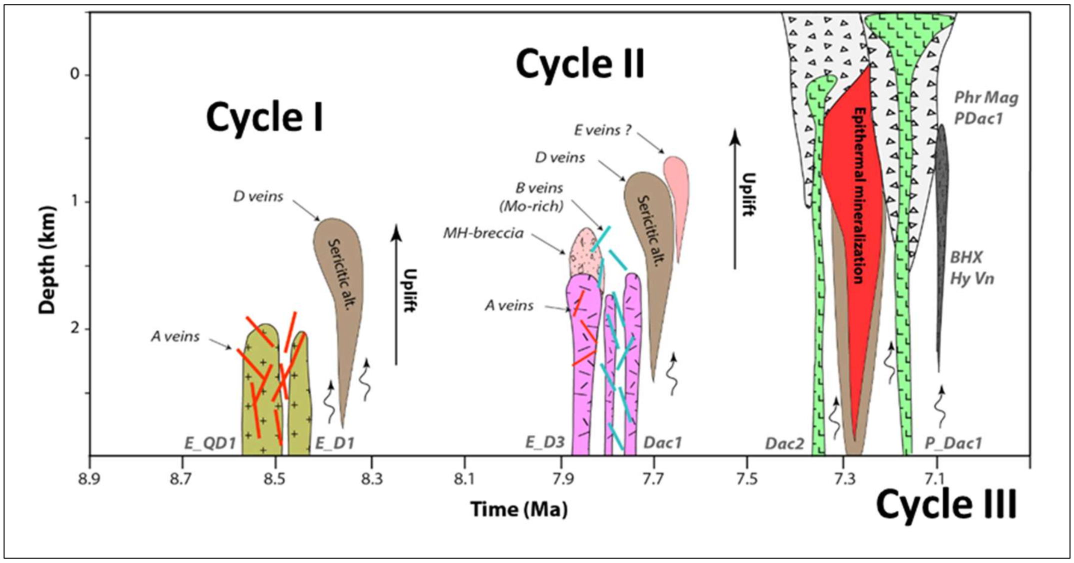


Figure 7-10: Synthesis of the Various Magmatic-Hydrothermal Cycles Characterizing the Chinchillones Complex (Source: After Osorio, 2024)

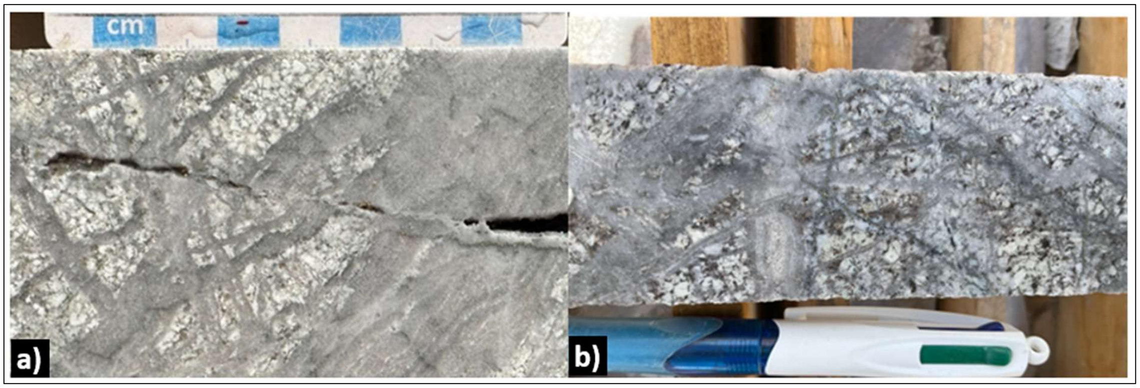


Figure 7-11: Cycle I Vein and Alteration Characteristics: a) A-Type and b) B-Type Associated with Pervasive Sericite Alteration and Remnants of Potassic Alteration

- Cycle II: Cu-Mo (Au)-Re porphyry-style (7.8 ± 0.1 Ma).

  The second magmatic-hydrothermal cycle is affiliated to the emplacement of E_D3 and E_D4 porphyries. These intrusion phases are affected by potassic alterations composed of secondary biotite, k-feldspar, occasional magnetite and associated early dark mica (EDM) halos accompanied by common A-type quartz-sulfide vein stockwork. Unlike the Cycle I event, the B-type veining density is higher with corresponding Mo grades (Figure 7-12). Pyrite, molybdenite and chalcopyrite are the characteristic sulfides in this event, with minor bornite.

  E_D3 and Dac1 porphyries and breccias are pervasively affected by sericitic (white mica – illite) alteration, overprinting the potassic assemblage and crosscut by later pyrite-rich D veins, interpreted as evidence of the thermal decline caused by tectonic-induced uplift and exhumation.

  It is important to note that core logging observations and Re-Os ages indicate the molybdenite-rich veins are slightly younger than the porphyry intrusions in this magmatic cycle. The E_D3 porphyry could be a host of a deeper and concealed porphyry.

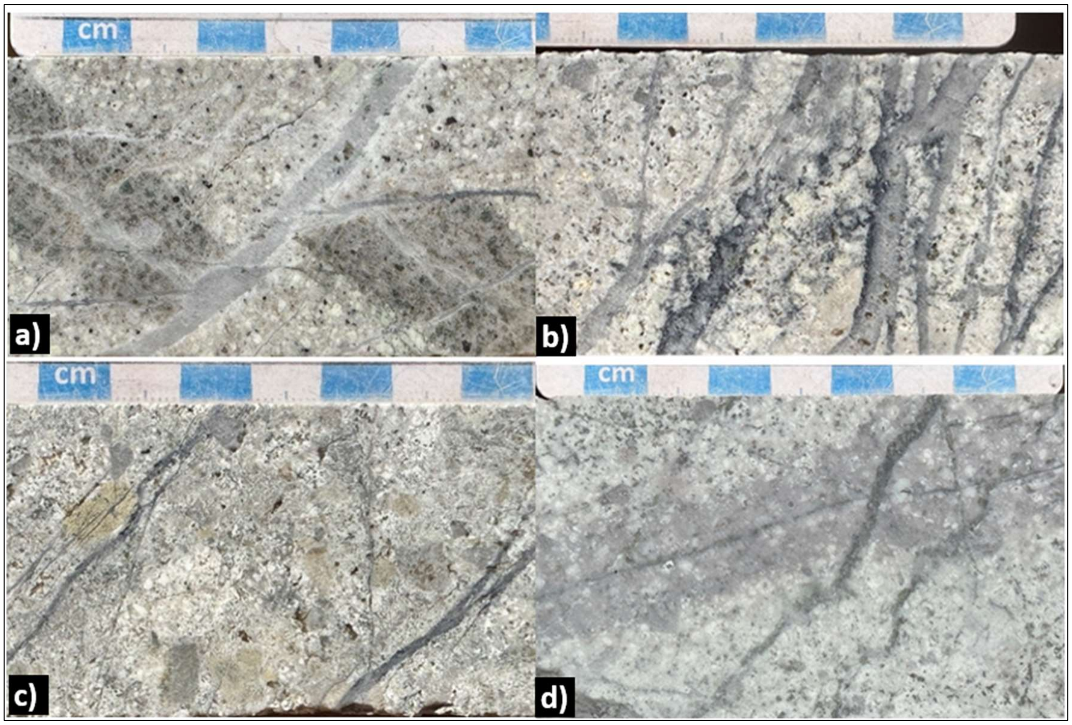


Figure 7-12: Cycle II Vein and Alteration Characteristics: Clockwise From Top Left: a) EDM Halos Cut by A-Type and B-Type Veinlets; b) and c) A-Type Crosscut by B-Type Veinlets; d) D-Type Veinlet

- Cycle III: Zn-Pb-Cu-Au-Ag polymetallic-epithermal mineralization (7.3 ± 0.1 Ma)

  The alteration-mineralization assemblages associated with the Cycle III magmatism clearly postdate the first and second cycle Cu-Mo (Au) porphyry style mineralization. Cycle III mineralization affected various intrusion phases and phreato-magmatic breccias, superimposed on earlier hydrothermal alteration and sulfides in all the host lithologies.

  The polymetallic Zn-Pb-Cu-Au-Ag epithermal mineralization has a strong structural control and occurs as disseminations, replacement of pre-existent sulfide assemblages, veins and breccias. Filling open spaces along structures (Figure 7-13).

  The Cycle III hydrothermal mineralization forms complex assemblages, evolving from higher-temperature and intermediate sulfidation at depth, stable under Cu-Mo porphyry conditions through intermediate sulfidation up-dip and along strike (Figure 7-14). The sulfides include disseminated, fine-grained pyrite-chalcopyrite associated to white mica (muscovite-illite) alteration and grading upward initially to a high-sulfidation assemblage. Composed by a predominance of tennantite-tetrahedrite, chalcopyrite, enargite, pyrite, digenite, bornite, chalcocite and covellite (with minor sphalerite, galena, hessite, krennerite and nagyagite). Associated with advanced argillic alteration minerals, including pyrophyllite, kaolinite, dickite and minor alunite, zunyite, and diaspore, occurring mainly as veins and breccias.

The more distal and cooler expression of this event is characterized by an intermediate-sulfidation assemblage composed of coarse-grained pyrite, different generations of Fe-rich and Fe-poor sphalerite, galena, chalcopyrite, and tetrahedrite-tennantite. This is alongside minor goldfieldite, hessite and clausthalite. These minerals are further accompanied by illite, kaolinite and montmorillonite alteration, carbonates, quartz, adularia, rhodochrosite and APS minerals (crandellite).

The sulfides within epithermal mineralization occur in varying proportions, often forming highly complex and intricate replacement textures.

Figure 7-14 shows the interpreted fluid evolution and migration path, transitioning from magmatic fluids stable in a Cu-Mo environment to very high sulfidation states, and finally to fluids dominated by intermediate sulfidation state sulfide species.

Figure 7-13: Cycle III Alteration-Mineralization Characteristics

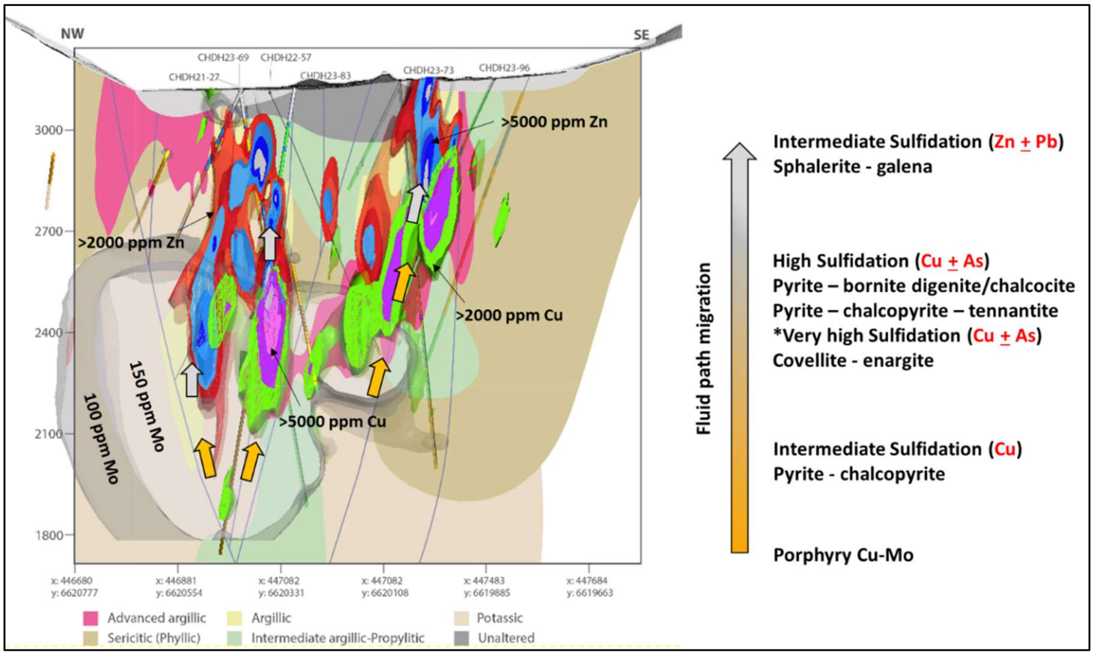


Figure 7-14: Interpreted Fluid Evolution and Sulfidation Pathways in the Chinchillones Complex (After Bobis & Dorado, 2024)

8 DEPOSIT TYPES

The Chita Valley Project hosts various types of mineralization, predominantly Miocene copper porphyry deposits. The most thoroughly documented mineralized zone being the Chinchillones Complex.

The Chinchillones Complex contains minerals of copper, gold, silver, zinc, lead, and molybdenum. This mineralization formed in a geological setting that transitions from basal subvolcanic porphyry Cu-Mo to the roots of a high-sulfidation epithermal. Progressing further still to an intermediate epithermal. Different levels of preservation of this general column of mineralization exist in the Chita Valley property, reflecting the differential character of exhumation and erosion processes in this part of the Frontal Cordillera. The porphyry Cu-Mo (Au) mineralization dates from 8.7 to 7.2 Ma, based on U-Pb geochronology. However, the absence of age data for the overlying epithermal systems leaves their connection to the porphyry uncertain.

8.1 High-sulfidation and Intermediate-sulfidation epithermal deposits

High- and intermediate-sulfidation epithermal deposits form in the transition between the surface and the shallow portion of a degassing calc-alkaline intrusion (Figure 8-1). Typically, in subaerial volcanic complexes in islands arcs and at continental margins. Compressional to mid-extensional subduction-related tectonic settings and back arc settings particularly in the intermediate-sulfidation developed in second order structures. Adjacent to crustal-scale fault zones and with local faults controlling the emplacement of sub-volcanic intrusions, occupying caldera ring and radial-diatreme faults as well as lithological disconformities.

A spatial and genetic relationship between high and intermediate-sulfidation epithermal deposits with porphyry Cu systems has been proved in some locations around the world. Found to overlay and flank the porphyry deposits.

The host rock is typically andesitic to dacitic volcanic and pyroclastic. This is alongside porphyritic intrusions, likely representing the roots of domes or feeders of maar-diatreme complexes. Mineralization sometimes extends into surrounding country rocks, including various sedimentary types. These deposits are mostly Cenozoic due to their low preservation potential, though examples from the Mesozoic, Paleozoic, and even Precambrian eras are known.

Mineralization styles include veins, hydrothermal breccia bodies, stockworks, disseminations or replacements, irregular stratabound bodies and vein-like masses or ledges. The irregular nature of the mineral bodies is determined by host rock permeability and the orientation of the structures that control fluid flow. Intermediate-sulfidation deposits also present crustiform, banding cockade and comb textures.

One of the common characteristics among the different high-sulfidation deposits globally is their zoning in the hydrothermal alteration assemblages. Typically formed by a residual silica core, surrounded by advanced argillic, composed by quartz, alunite, kaolinite, nacrite or dickite. Though in some cases also accompanied by pyrophyllite, APS (Aluminum-Phosphate-Sulfate minerals such as crandallite, hinsdalite, etc.), diaspore zunyite, andalusite, corundum, dumortierite and topaz. The roots of the silicic and quartz-alunite generally pinch downwards to a sericitic or argillic zone, surrounding the feeder zone.

The silicic and advanced argillic core of high-sulfidation deposits gradually transitions into argillic zones rich in illite and montmorillonite clays. It further transitions into propylitic zones, indicating less acidic conditions moving outward. Sulfide minerals also change with sulfidation state, which depends on sulfur content and temperature. In cooler, high-sulfur conditions, minerals like enargite/luzonite, chalcocite, covellite, and bornite form, along with gold and electrum. The enargite/luzonite stage is followed by pyrite, tennantite-tetrahedrite, chalcopyrite, and gold-silver tellurides. Indicating a lower sulfidation state. Sphalerite and galena may also appear but are generally scarce iron-poor sphalerite. The presence of Mn-carbonates such as rhodochrosite and manganocalcite are characteristic of the intermediate-sulfidation deposits.

8.2 Porphyry copper deposits

Porphyry Cu deposits form at convergent plate boundaries, linked to subduction related magmatism and subvolcanic intrusions. Commonly defining linear belts, some extending for hundreds of kilometers. Porphyry Cu deposits are formed at the top of oxidized, aqueous, sulfur and metal-rich composite plutons, which represent the supply chambers of the magma and fluids that form the stocks, dike swarms and associated mineralization (Figure 8-1). In the Andes, the porphyry deposits are generally Tertiary in age, while globally they range from Archean to Quaternary.

The associated porphyry intrusions in porphyry Cu deposits range in composition from diorite and quartz diorite through granodiorite to quartz monzonite. Exclusively of I-type and magnetite-series, typically metaluminous and medium-K calc-alkaline. They can however also fall within the high K calc-alkaline or alkaline fields. Commonly, porphyry Cu deposits involve multiple emplacements of successive intrusions and magmatic-hydrothermal breccias, some of which host high-grade mineralization due to enhanced permeability.

The hydrothermal alteration-mineralization in porphyry Cu systems spans vast volumes of rock and is zoned upward from early sodic-calcic (barren), propylitic (barren) and potassic at depth to chlorite-sericite, sericitic and advanced argillic near the surface. Mineralization is associated with sulfide-bearing quartz veinlets and disseminations. Predominantly within potassic alteration core of the system. Biotite, magnetite, K-feldspar and sodic plagioclase are the main minerals in the potassic alteration zone, affecting the early and intermineral porphyry phases. Commonly associated to molybdenite and low-sulfidation state copper sulfides. Typically, chalcopyrite and bornite but occasionally digenite and chalcocite, transitioning outward to chalcopyrite and pyrite.

The chlorite-sericite alteration zone, characterized by a partial to complete transformation of mafic minerals. Including amphibole and biotite (including hydrothermal varieties), into chlorite, the plagioclase into sericite-illite; and the magnetite into hematite, is accompanied by pyrite and chalcopyrite. This alteration overprints the potassic assemblage and is itself overprinted by quartz-sericite-pyrite alteration. Often separated in early, greenish-colored sericite (accompanied by chalcopyrite and bornite) and in a later, widespread, white-colored sericite. Commonly dominated by pyrite. The white sericite alteration zone may host significant mineralization, particularly when high-sulfidation assemblages, including bornite, chalcocite, and covellite, coat disseminated pyrite, generating hypogene enrichment. This is associated with structurally controlled fluids that create advanced argillic mineralogy, composed of quartz-kaolinite-pyrophyllite in the roots of the lithocap.

Porphyry deposits may present secondary supergene enrichment during tectonic uplift and the coeval erosional process, because of meteoric water percolation. Resulting in the oxidation of primary sulfides in the uppermost part of the deposit and the precipitation of secondary copper sulfides such as chalcocite, covellite and digenite. These supergene enrichment zones typically have significant copper grades.

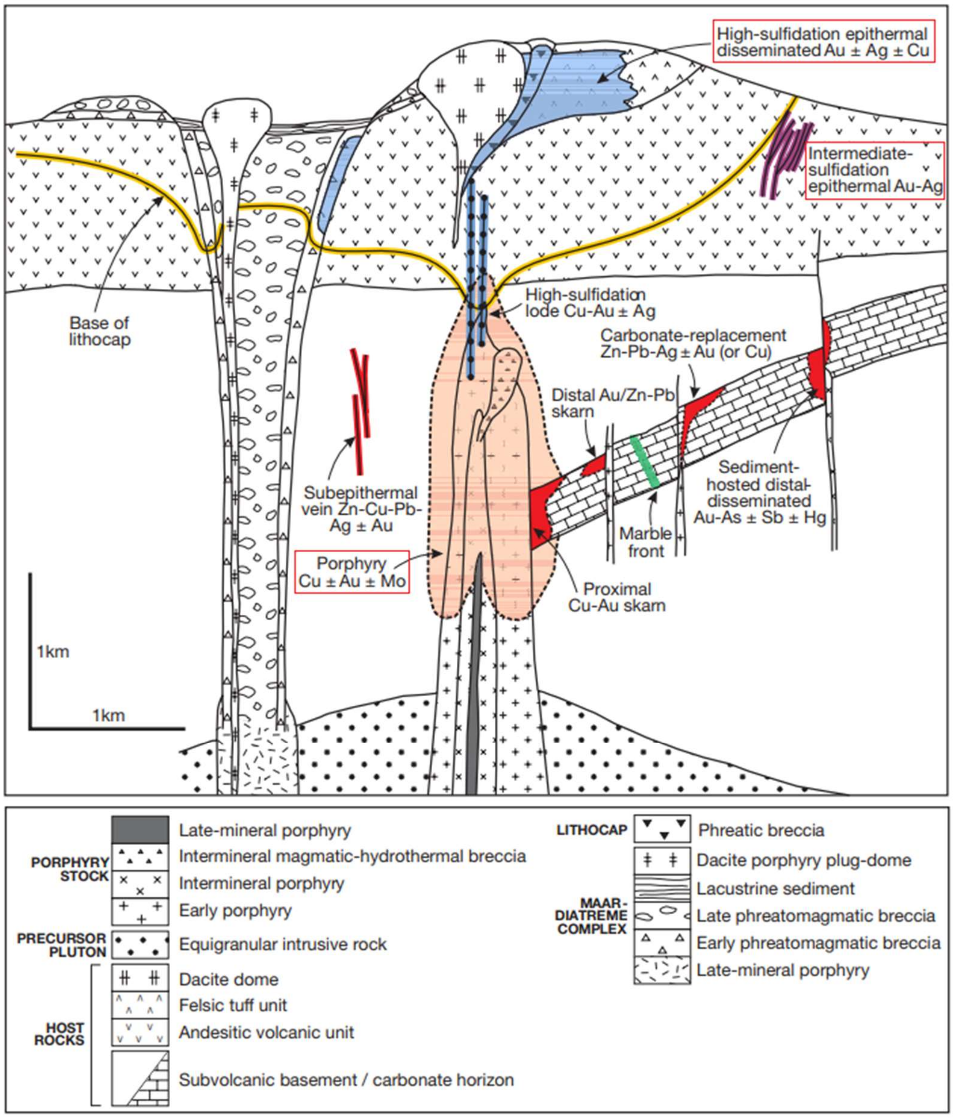


Figure 8-1: Anatomy of Porphyry Cu System Showing Spatial Interrelationships with an Overlying High- and Intermediate-Sulfidation Epithermal Deposits (Source: Sillitoe, 2010)

9 EXPLORATION

This section provides a high-level summary of all exploration work carried out in the Chita Valley Project from 1968 to 2024 (drilling information is detailed in Section 10). This summary utilizes portions and figures from the NI 43-101 technical report by P&E Mining Consultants Inc., dated February 7th, 2018. Additional information has been updated considering the years 2019 to 2024.

The Chita Valley Project has been explored by several companies. Direccion General de Fabricaciones Militares (DGFM) initiated exploration from 1968 to 1976, conducting geological mapping, geochemical sampling, and geophysical surveys. In 1989, Exploration Barlow Inc. (Barlow) completed a brief geological study in the Brechas Vacas area, identifying gold and silver potential. Minas Argentinas S.A. (MASA) followed in 1995 with rock and soil sampling and an IP/Resistivity survey. From 2006 to 2009, Silex Argentina S.A. (Silex) and Rio Tinto Mining and Exploration (Rio Tinto) conducted mapping, sampling, and reconnaissance programs to define porphyry and epithermal targets.

Minsud Resources Corp. (Minsud) took over in 2006, compiling historical data and conducting extensive mapping, geochemical sampling, trenching, and geophysical surveys through 2018.

Since 2019, Minera Sud Argentina S.A. (MSA) was formed as a joint venture between South32 Limited (South32) and Minsud. MSA has executed geophysical surveys and four drilling phases, identifying new mineralization targets.

9.1 Historical Exploration (1968 – 2006)

9.1.1 Direccion General de Fabricaciones Militares and Exploration Barlow (1968–1989)

DGFM conducted geological mapping, geochemical stream sampling, soil sampling, surface rock sampling and a geophysical survey in the Chita porphyry area.

In 1989, Exploration Barlow carried out a limited, two-week preliminary geological study and sampling in the Brechas Vacas area. Concluding that the property had potential for gold and silver mineralization. Due to the age of the data, detailed information regarding the analysis, laboratories, sample spacing, and other related aspects remains unknown.

9.1.2 Minas Argentinas S.A. (1995)

MASA conducted an exploration program, collecting approximately 1,000 rock and soil samples and a 40 line-km Induced Polarization (IP) and Resistivity program. No details of grid type or sampling are available.

9.1.3 Silex Argentina S.A. (2006–2009)

Silex executed a geological reconnaissance survey and geological map (1:10,000 and 1:500 scale) in of the Minas de Pinto area. This included surface channel and grab sampling (1,631 samples) and twenty-two diamond drill holes totaling 2.631 meters. This work allowed Silex to identify the Chita North, Chita Centro, Fatima Vein and Barba Vein targets (Minas de Pinto area). This indicated potential for low sulfidation epithermal mineralization in Minas de Pinto and an intermediate character between porphyry and epithermal style mineralization for the Chita area.

9.1.4 Rio Tinto Mining and Exploration (2006–2007)

Rio Tinto conducted an exploration program on the Placetas Porphyry, collecting 62 surface rock samples, 289 soil samples, and performing a semi-detailed mapping program. This work allowed Rio Tinto to identify anomalous copper and gold porphyry style mineralization centered in an intrusive body and related intrusive breccias. This was further tested by Rio Tinto with a diamond drilling program.

9.2 Minsud Exploration (2006 to 2018)

After acquiring the Chita, Brechas Vacas and Minas de Pinto properties, Minsud compiled historic data and completed field survey and sampling programs in the summers of 2007 and 2008.

In 2009, Minsud carried out a program of surface trenching, collecting 651 rock samples for geochemical analysis. 552 rock chip samples were additionally collected resulting in a total of 1,203 geochemical assay results.

From 2012 to 2018, Minsud carried out an early-stage exploration program considering Chinchillones Complex, Chita North, Chita South and Minas de Pinto. This included an orthophotograph base map generated from satellite imagery, a 40 km^2 ground magnetics survey (Figure 9-1), property wide surface geological mapping and general compilation of existing data at a 1:10,000 scale.

An additional conventional IP/Resistivity survey over the Chita South and adjacent Chinchillones Complex area was conducted in the second quarter of 2015 (Ensink, 2015).

Over the years several thousand surface rock and soil geochemical samples have been collected by various parties and analyzed for a wide range of elements. The analytical methods may vary between companies; however, the predominant method used for analysis by Alex Stewart was ICP-MA (39 elements) with three acid digestion (perchloric, nitric, and hydrofluoric acids) and Au4 50 (fire assay with 50 gr fusion). The laboratory is certified to ISO-9001 international standards.

Samples were predominantly collected by Minsud (later as MSA), with a smaller proportion attributed to other companies (Figure 9-2). The data for copper and molybdenum is illustrated in Figure 9-3 and Figure 9-4, respectively.

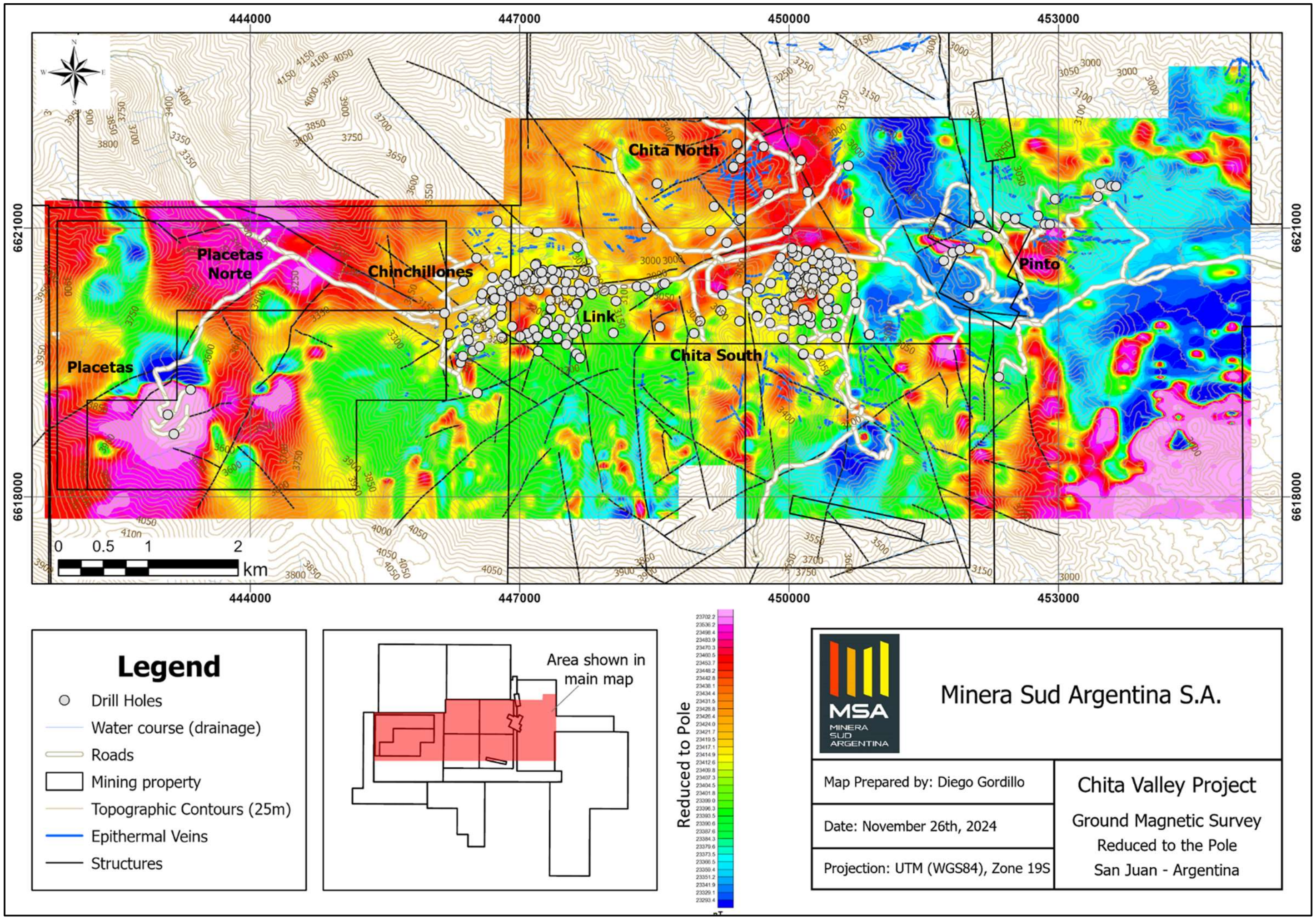


Figure 9-1: Chita Valley Ground Magnetic Survey, Reduction to Pole Contour Map (Source: MSA 2024)

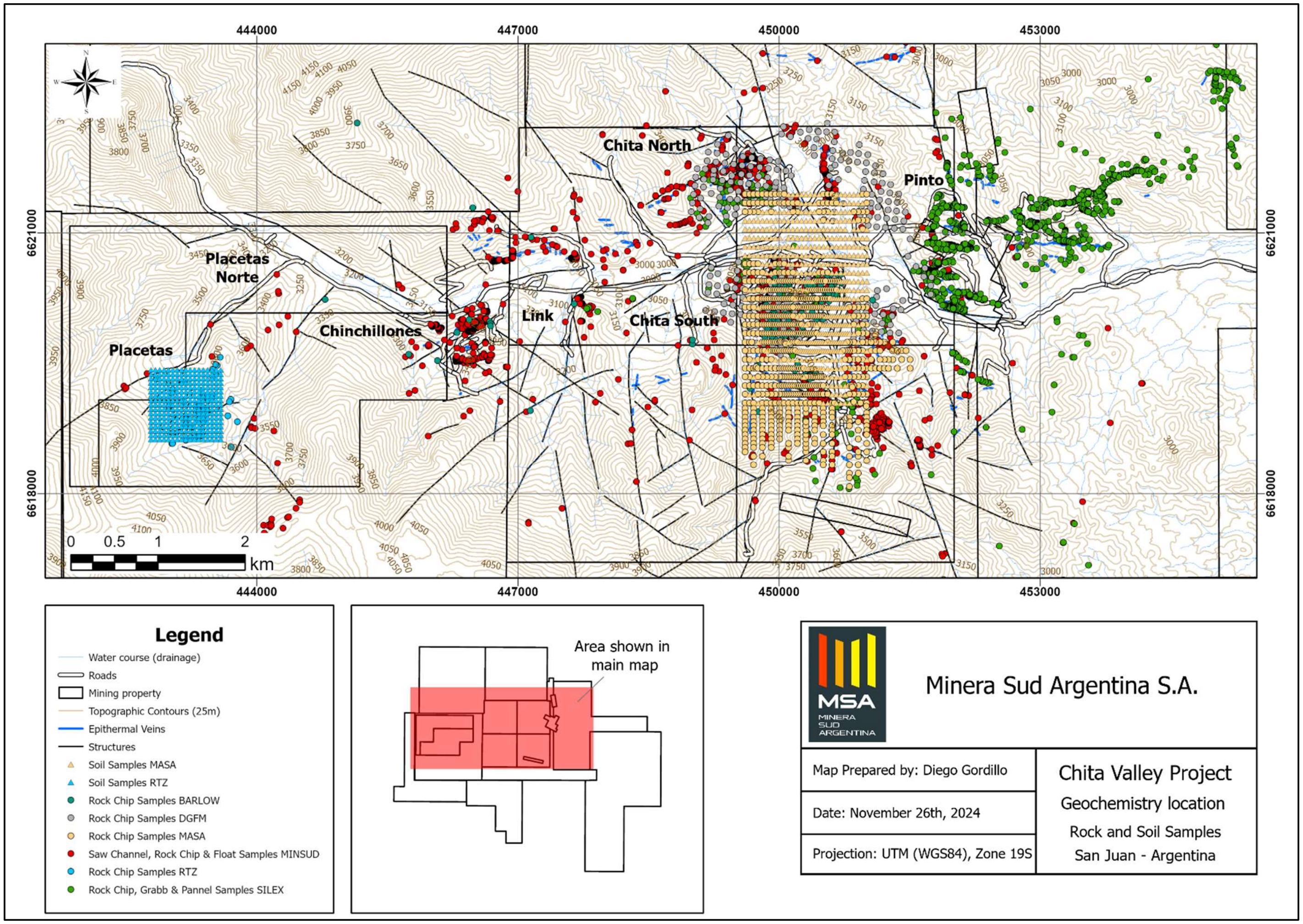


Figure 9-2: Chita Valley Surface Geochemistry Rock and Soil Sample Locations (Source: MSA 2024)

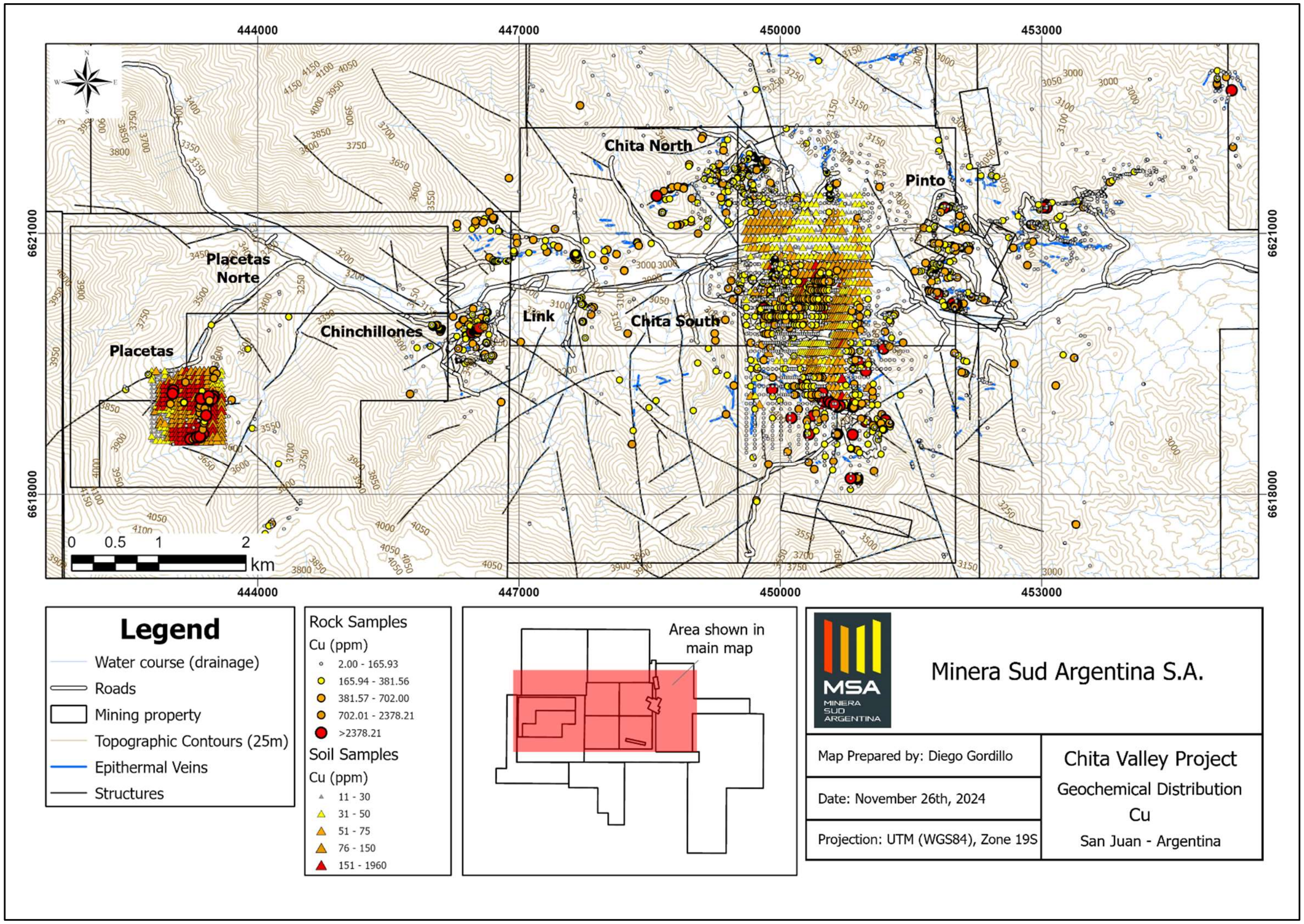


Figure 9-3: Chita Valley Surface Rock Geochemistry Copper (Source: MSA 2024)

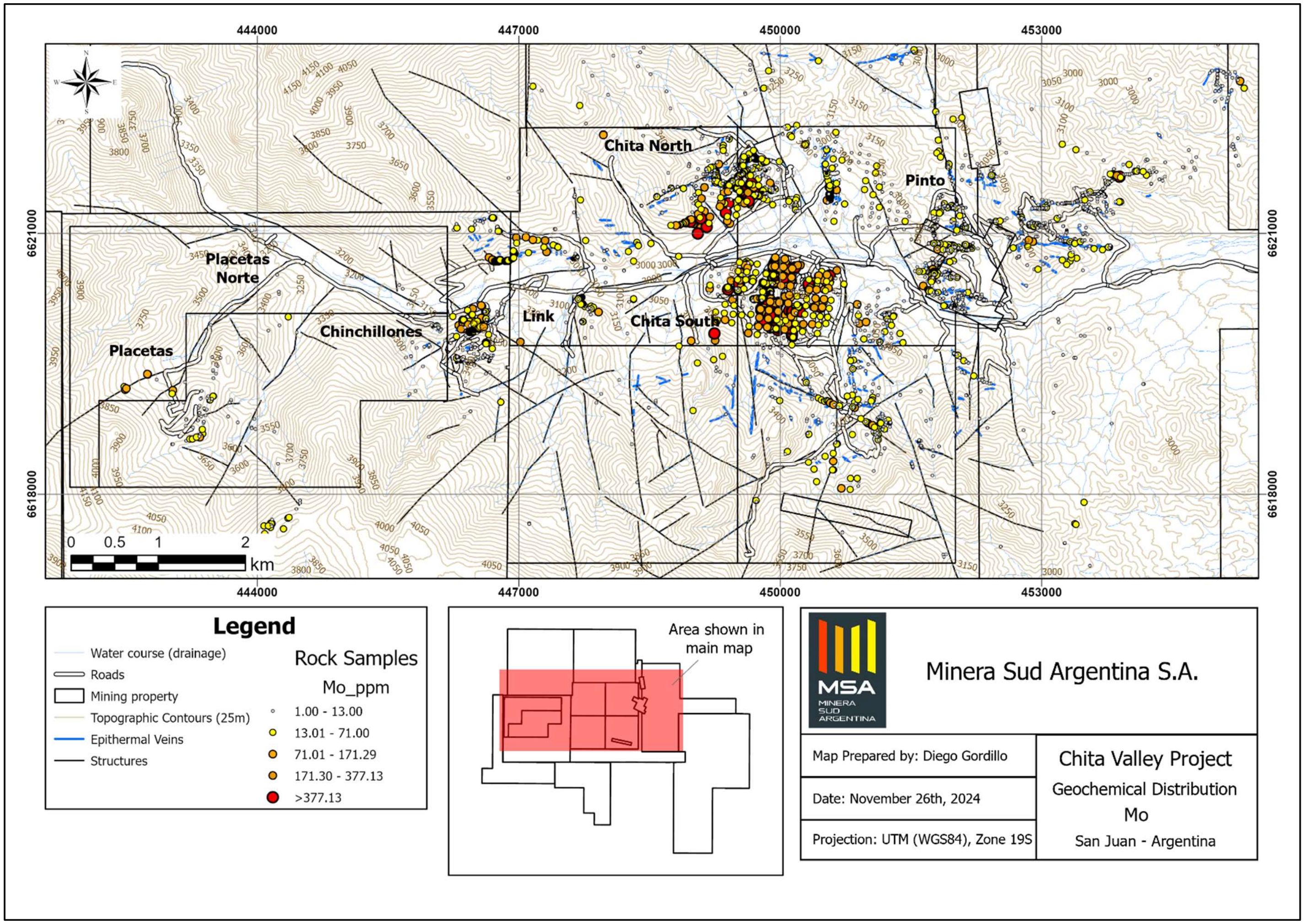


Figure 9-4: Chita Valley Surface Rock Geochemistry Molybdenum (Source: MSA 2024)

9.3 MSA. Exploration

Minera Sud Argentina S.A. ("MSA") is a joint venture signed in 2019 between South32 (50.9%) and Minsud (49.1%). It is in charge of exploration activities over the Property.

Throughout this period, several exploration works have been carried out, including drilling (Phases I, II, III, and IV) and PDIP geophysical profiles (Figure 9-5). The latter was conducted in two phases by Quantec Argentina, employing larger and deeper sections compared to those of 2015. The first took place in 2019, targeting the Chinchillones Complex. The second was conducted in 2020, further progressing the Chinchillones Complex while including the Chita North, Chita South, and Minas de Pinto targets. Figure 9-6 and Figure 9-7 show sections illustrating the behavior of chargeability and resistivity in relation to the targets. Additionally, this campaign allowed for the identification of new and untested chargeability anomalies, generating exploration targets with mineralization potential. This comprised corridors running from Chinchillones Complex to Chita North and then further to Chita South.

The chargeability and resistivity contours were a useful tool to determine hidden zones below cover. This was analyzed alongside geological mapping to plan drilling phases as detailed in Section 10.

9.4 Exploration Potential

The Chita Valley Project has significant exploration opportunities, supported by geological, geophysical, and geochemical features and exploration efforts. The integration of geophysical anomaly data and comprehensive geological mapping has been instrumental in refining drilling stages, improving target accuracy and the potential for new discoveries. Surface exploration and early drilling efforts have delineated six exploration targets (Placetas, Placetas North, Link Zone, Chita South, Chita North and Minas de Pinto) and one deposit (Chinchillones Complex). Future exploration should prioritize the following:

- Integrating geophysical, geochemical, and drilling data for 3D modeling.
- Targeting untested geophysical anomalies in the Chinchillones Complex and Chita North regions. Chargeability anomalies have been identified through PDIP surveys, indicating the potential for concealed mineralization.
- Targeting anomalies in the corridor between Chita North and Chita South that align with structural patterns.
- Targeting the Link Zone which presents potential within a NE Zn-Ag-Cu corridor. A high magnetic anomaly related to a dacitic porphyry body is supported by recent drilling results.
- Targeting the Placetas North area, a geophysical anomaly identified through pole-dipole (PDP) surveys covering approximately 2 km². This suggests the potential presence of an intrusive center at depth, aligning with the Chinchillones Complex geological model.

- The expansion of drilling campaigns into concealed and structurally intricate zones. Within both the Chita South and Chita North intricate structural intersections and alteration zones have been identified that retain significant promise.

- Systematic drilling activities should be implemented in the Minas de Pinto locality to assess possibilities associated with low-sulfidation epithermal systems.

- The Chinchillones Complex mineralization shows continued depth potential, providing additional opportunities for mineralization.

- Surface outcrop evidence indicates that the Dacites North area holds potential for dacitic bodies with phyllic alteration, suggesting the presence of dacite porphyry systems and stockwork zones associated with high-sulfidation mineralization.

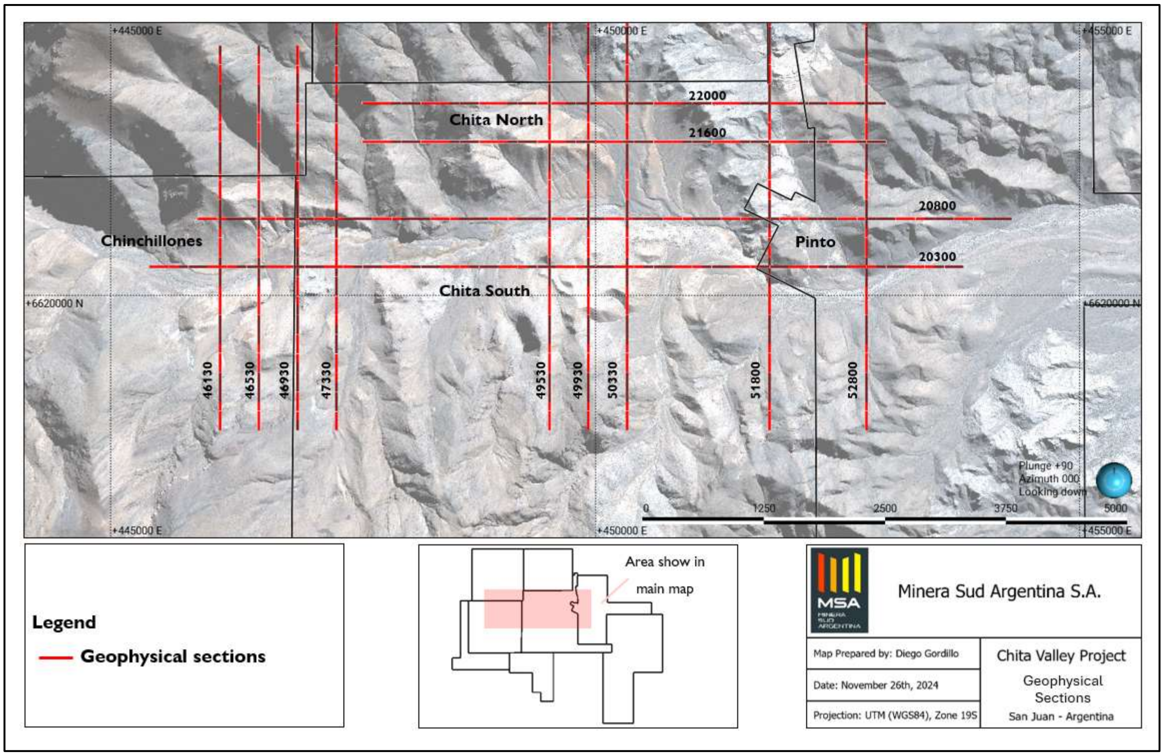


Figure 9-5: In brown, geological sections. In green lines, geophysical sections (Source: MSA 2024)

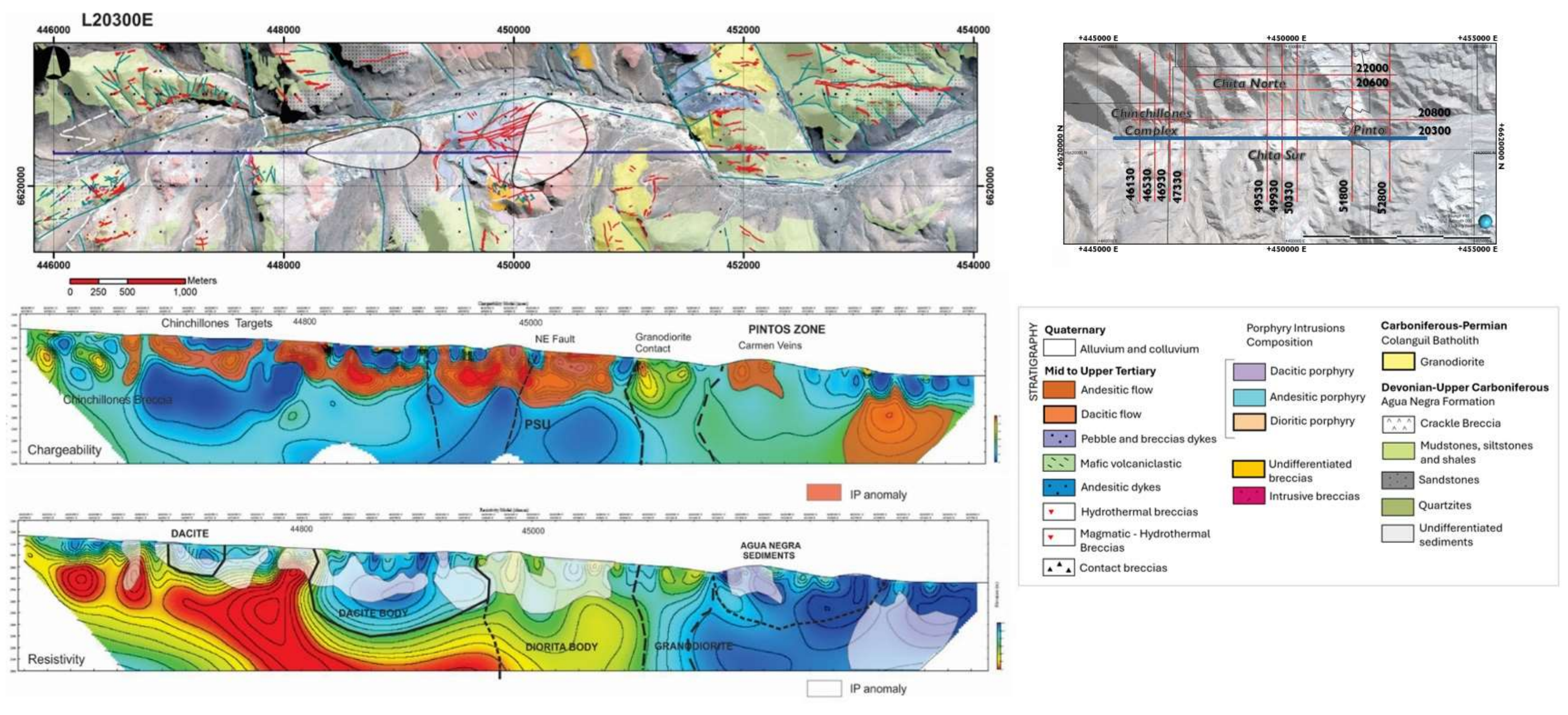


Figure 9-6: PDP Line E-W L20300 (Source: MSA 2024)

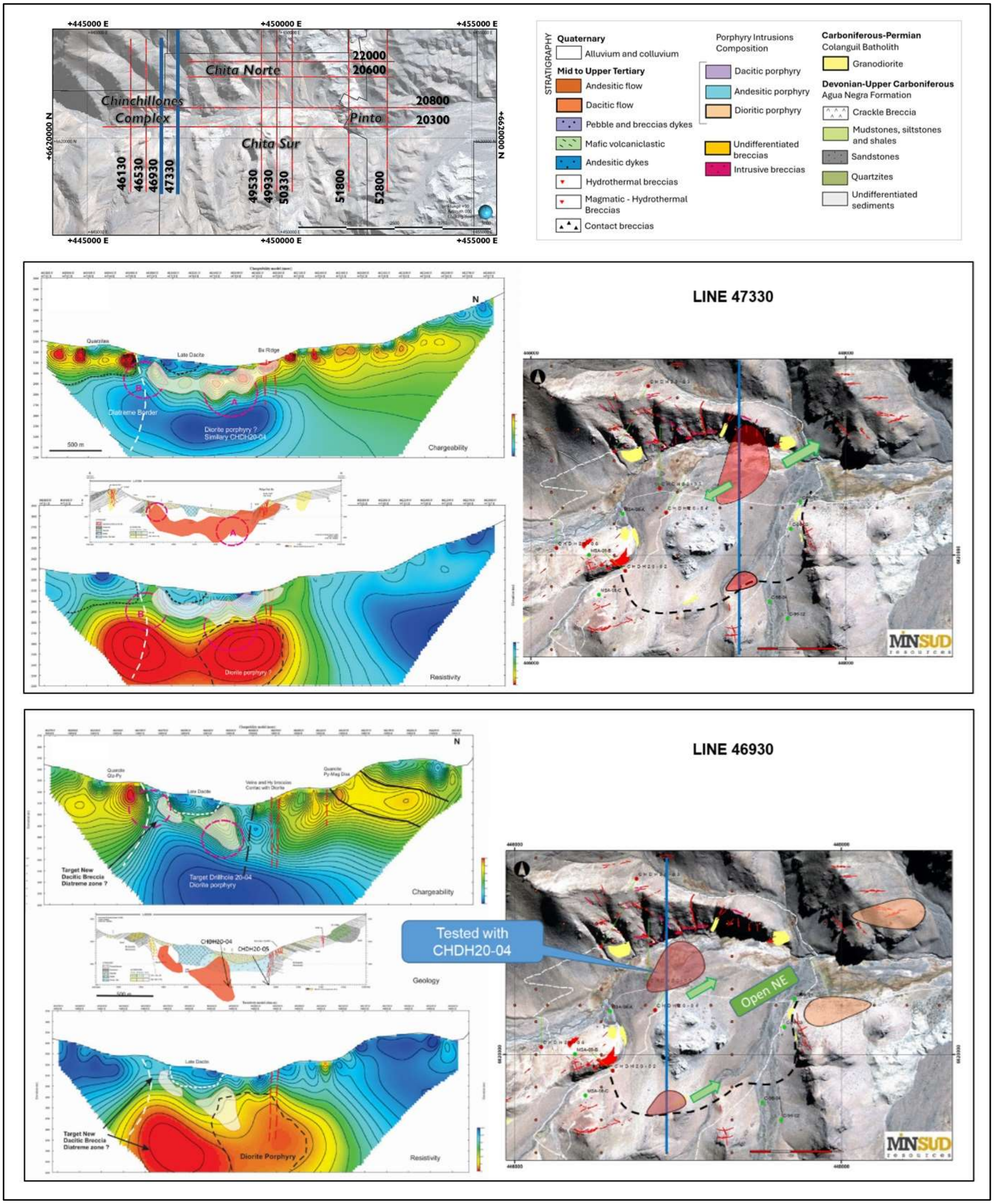


Figure 9-7: PDP N-S Line L46930 and L 47330 (Source: MSA 2024)

10 DRILLING

The drilling campaigns at the Chita Valley Project have spanned more than five decades. Focusing on porphyry systems, breccias, and vein-style mineralization. From 1969 to 2024, a total of 249 drill holes have been completed, amounting to 100,042 m. The drilling was primarily conducted using diamond drilling (DDH) methods, with a small portion completed using reverse circulation (RC).

Early programs conducted by Direccion General de Fabricaciones Militares (DGFM), Minas Argentinas S.A. (MASA), Rio Tinto Mining and Exploration (Rio Tinto), and Silex Argentina S.A. (Silex) identified key mineralized zones. Later, Minsud Resources Corp. (Minsud) conducted drilling primarily in the Chita South sector. Minera Sud Argentina S.A. (MSA) has since carried out advanced exploration in the Chinchillones Complex, refining geological models to support Mineral Resource estimation.

The drilling grid across the project area is irregular, with the Chinchillones Complex being the most extensively drilled, followed by Chita South.

In the Chinchillones Complex, drill spacing is approximately 150 x 150 m, extending to 200 m in peripheral zones. There are however areas with denser drilling, and spacing at approximately 80 to 100 m. The drill holes in this area are primarily oriented in NW and SE directions. Deep drill holes average 640 m and reach a maximum depth of 1,380 m.

In the Chita South area, drill spacing is approximately 150 x 150 m, with the most closely spaced zones reaching approximately 100 x 100 m. The majority of drill holes are oriented towards the SW, shallower drill holes average 160 m to a maximum depth of 317 m.

Other targets have undergone limited drilling and thus have widely spaced holes. Drilling in these areas is more concentrated in the Minas de Pinto, Link Zone and Chita North.

The main purpose of this technical report is to deliver a maiden Mineral Resource estimate for the Chinchillones Complex. The drillhole intersections, combined with geological interpretations, play a key role in supporting this estimate.

To ensure clarity and relevance, raw drillhole assay results are discussed in detail in Section 14. A selection of significant drillhole intercepts is highlighted in Table 10-3.

Table 10-1 presents a summary of drilling conducted on the property by various exploration companies, as compiled by Mining Plus. Some minor discrepancies were identified in comparison with previous technical reports and the reasons remain unclear. Figure 10-1 shows the distribution of drill holes by exploration company. The cut-off date for drilling data in this report is September 29, 2024.

Table 10-1: Drilling Summary in Chita Valley Project

Company	Year	Number of Holes	Type of Hole	Combined length (m)	Core Size diameter	Target Areas
DGFM	1969	5	DDH	1042.30	AQ	Chita North, Chita South
	1976	3	DDH	268.05	AX	Chita South
MASA	1996	10	RC	1,545.00	RC (133 mm)	Chinchillones Complex, Chita North, Chita South
Rio Tinto	2006	3	DDH	922.55	HQ	Placetas Porphyry
Silex	2008	22	DDH	2,638.10	NTW, BTW	Various Veins (Minas de Pinto)
Minsud	2008	3	DDH	846.75	HQ, NQ	Chinchillones Complex
	2011	8	DDH	1,795.00	HQ	Chinchillones Complex, Other targets
	2014	25	DDH	3,632.30	HQ	Chita North, Chita South
	2015	22	DDH	4,087.80	HQ	Chita North, Chita South
	2016	12	DDH	1,799.00	HQ	Chita South
	2017	8	DDH	1,036.00	HQ	Chita South
MSA	2020	18	DDH	9,376.60	PQ, HQ, NQ	Chinchillones Complex, Chita South
	2021	24	DDH	11,969.30	PQ, HQ, NQ	Chinchillones Complex, Chita South & Link Zone
	2022	23	DDH	15,835.80	PQ, HQ, NQ	Chinchillones Complex, Chita North & Link Zone
	2023	33	DDH	25,986.40	PQ, HQ, NQ	Chinchillones Complex, Chita North, Chita South, Link Zone
	2024	30*	DDH	17,260.60	PQ, HQ, NQ	Chinchillones Complex
Total		**249**	-	**100,041.55**	**-**	**-**

(*) Includes re-drilled holes due to operational issues.

Source: Mining Plus 2024

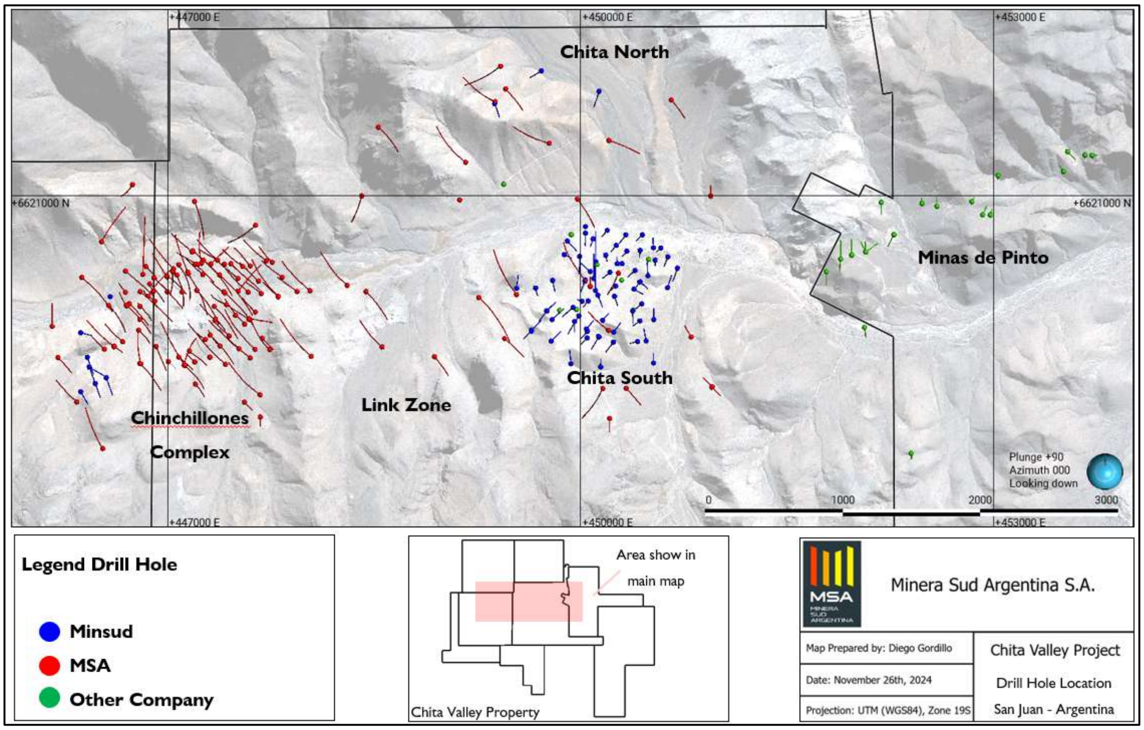


Figure 10-1: Drill Hole Locations at the Chita Valley Project in a Geological Map, with the Concessions Limit Outlined (Source: MSA 2024)

10.1 Historical Drilling (1969 - 2008)

Between 1969 and 2008, a total of 43 drill holes (33 DDH and 10 RC) were completed, totaling 6,416 m. These efforts were conducted by:

- DGFM (1969–1976) which conducted initial reconnaissance drilling targeting porphyry systems, breccias, and vein-style mineralization.
- MASA (1996) which focused on further reconnaissance and testing specific targets.
- Rio Tinto (2006) which conducted additional drilling, contributing to the understanding of porphyry and breccia-hosted mineralization.
- Silex (2008) completed 22 DDH, totaling 2,638.10 m in the Minas de Pinto area to evaluate the potential for low-sulfidation epithermal gold and silver mineralization. The drilling targeted several outcropping vein systems associated with historical artisanal mining sites, including the Maria, Fatima, Branca, Candela, Chita Centro, Argentina, Johana, Barba, Glenda, Carmen, Pulenta, and Amparo vein structures located in Minas Pinto.

These campaigns laid the foundation for subsequent exploration work and helped identify key targets.

DDH campaigns employed various core sizes, reflecting advancements in exploration techniques. Early campaigns conducted by DGFM in 1969 used AQ core size (27.0 mm), followed by AX core size (23.8 mm) in 1976. Both are considered suitable for initial reconnaissance and shallow drilling.

In 2006, Rio Tinto utilized HQ core size (63.5 mm), a standard widely adopted in mineral exploration due to its balance between core recovery and sample quality. Sampling was conducted at 2 m intervals with continuous sampling along the entire drill hole.

In 2008, Silex employed intermediate core sizes, including NTW (36.5 mm) and BTW (42.0 mm), to optimize core recovery in specific geological conditions.

In 1996, the drilling program conducted by MASA utilized a truck-mounted SK-25 reverse circulation (RC) rig with 133 mm diameter. Drilling and sampling procedures were consistent with industry standards. Samples were collected at 1 m intervals using a cyclone separator, followed by a Jones Riffle splitter to obtain a representative 1/8 portion for analysis.

All drill holes from this period used coordinates based on the Campo Inchauspe 1969 Datum (also referred to as POSGAR 69). No deviation survey data is available for these drill holes, and the procedures or specific details of the drilling campaigns remain undocumented.

10.2 Minsud Drilling (2008 to 2018)

Between 2008 and 2017, Minsud conducted a series of DDH campaigns designed to advance geological understanding and assess exploration potential. The primary focus was the Chita South target. A total of 13,196.85 m was drilled across 78 holes.

10.2.1 Drilling Methods

All drilling programs from 2008 to 2017 were conducted by Ecominera S.A. (Ecominera), based in San Juan. A Sandvik UDR 710 drill rig was utilized, capable of reaching a maximum depth of 600 m. The drill holes were completed using HQ (63.5 mm) or NQ (47.6 mm) diameters, depending on final depth. For the overburden zone, a 5.5” or 6.6” tri-cone bit was employed without sample recovery. The thickness of the overburden zone varied between 0 and 20 m, depending on the topographic location.

10.2.2 Drillhole Collar and Downhole Surveys

The collar locations for the 2008 and 2017 drilling programs were first surveyed by Minsud geologists and later by a surveyor after drilling was completed. Two 24-channel Trimble 5700 II (L1/L2) receivers and Zephyr Geodetic antennas were used. The accuracy achieved by the receivers in static surveys is: Horizontal: ±5 mm + 0.5 ppm / Vertical: ±5 mm. Two 14-channel Promark 3 RTK (L1) receivers were also used with static survey accuracies of ±5 mm. For kinematic surveys, the accuracy is ±12 mm + 2.5 mm horizontally and ±15 mm. All Minsud drill holes were surveyed using a consistent method and demarcated within the UTM coordinate system (WGS84 datum, Zone 19S).

As part of Minsud's work, all Chita South drill hole collars were verified for preservation. Where collars were missing, they were re-monumented following a standardized process. This process includes placing a standard PVC pipe to preserve the inclination and azimuth and preparing a concrete slab at the collar for location and identification. The PVC cap is marked with the drill hole ID, azimuth, inclination, total depth, and completion date.

The measurement of the deviation, inclination and orientation of the hole was obtained by using the Reflex-EZ-TRAC by trained Ecominera personnel. Readings were taken every 50 meters. These measurements began with the 2014 drill holes. No records are available for drill holes completed between 1996 and 2008 by previous exploration companies.

10.2.3 Drilling, Logging, Sampling and Recovery Factors

Details of all drill holes are systematically recorded in a spreadsheet database, including the project or prospect area, property information, hole identification, collar northing, easting, elevation, inclination, azimuth, drilling company, rig, driller, hole size, and pre-collar details. All processes described below have been standardized since 2008.

Cores were transported from the drilling sites to the Chita Valley camp on site, where they were photographed, and geotechnical parameters recorded. Upon receipt of cores, recovery and RQD were measured and checked for defects or missing drill sections.

A Minsud geologist prepared the quick log, which recorded main lithological units, types and styles of hydrothermal alteration, types and styles of mineralization, areas of poor core recovery, core loss, and significant structural features. This information was electronically shared on a daily basis with the technical and management team. After completing the quick log, Minsud geologists assigned sample intervals according to the characteristics of the drill core. A unique sample number was written on the core box. All sampling information was recorded, along with control, standard, duplicate and blank samples, in Excel spreadsheets.

Photographs of the core were taken before detailed core logging, which were recorded in the database according by drill hole.

Minsud geologists then performed detailed logging of the drill core, including lithology, hydrothermal alteration, mineralization and structure descriptions. To ensure consistency among core loggers, standardized codes and symbols were used for lithological units, hydrothermal alteration, mineralization, and structures.

After core logging, the core trays were transported to the core cutting and sampling area. The core was cut in half continuously using a Felkel diamond saw. Half of the core remained in the core box, and the other half was placed in a plastic bag, labeled with the sample number and a unique numbered label inside.

For field duplicate samples, the procedure involved cutting half of the core, and then cutting one half of the previously cut section again to obtain a quarter core (1/4).

Samples were predominantly taken at 1 m intervals during the 2008 - 2011 period. Subsequently this was at 2 m intervals, with a minimum sample length of 0.20 m and a maximum of 4.20 m. Sample recoveries were generally good, with an average recovery rate of 98%.

10.3 MSA Drilling (2020 - 2024)

The drilling exploration program carried out by MSA covers the period from January 2020 to September 2024. A total of 80,428.70 m was drilled across 128 across drillholes.

Drilling programs during this period were focused on the Chinchillones Complex. Aiming to determine the presence of a porphyry-type and epithermal mineralization. This was followed by testing the upward continuity of the diorite-hosted porphyry Cu-Mo (Au) mineralization after the re- examining of the historical drillholes. Successive campaigns were designed to determine and test the geometric continuity of near-surface high sulfidation mineralization and to establish a maiden Mineral Resource estimation.

Table 10-2 summarizes targets drilled by MSA, Table 10-3 highlights the most significant drill intercepts from the Phase IV diamond drilling program. Drill locations are shown in Figure 10-2, with a representative cross section in Figure 10-3.

Table 10-2: Minera Sud Argentina (MSA) Project List of Drilling Targets

Year	Target	Number of Holes	Combined length (m)
2020-2021	Chinchillones Complex	108	69,538.40
2021-2023	Link	6	3,711.50
2022-2023	Chita North	5	2,957.80
2020-2023	Chita South	9	4,221.00
Total		**128**	**80,428.70**

Source: MSA 2024

Table 10-3: Best drill hole intercepts in Chinchillones Complex Deposit

PHASE IV: Diamond Drilling Program – Summary of Analytical Results									
Hole ID	**From (mt)**	**To (mt)**	**Length (mts) (*)**	**Cu %**	**Au g/t**	**Ag g/t**	**Mo ppm**	**Pb %**	**Zn %**
CHDH24-119	74.00	94.00	20.00	**0.33%**	0.21	16.88	31	0.05%	0.17%
	376.00	379.00	3.00	0.24%	0.35	65.17	226	0.22%	**11.22%**
	404.00	414.00	10.00	**0.51%**	0.22	60.44	62	0.13%	**0.62%**
CHDH24-120	106.00	187.70	81.70	**0.36%**	0.13	6.47	37	0.00%	0.01%
	262.00	380.00	118.00	**0.55%**	0.20	3.91	44	0.01%	0.00%
including	262.00	283.85	21.85	**1.72%**	**0.74**	11.70	53	0.01%	0.00%
	470.00	490.00	20.00	**1.03%**	0.17	3.65	77	0.00%	0.01%
CHDH24-121	8.00	26.00	18.00	**0.43%**	0.31	41.02	29	0.07%	0.07%
	56.00	92.00	36.00	0.08%	0.08	11.81	88	0.09%	**0.31%**
CHDH24-124A	73.00	276.00	203.00	0.13%	0.09	12.80	74	0.05%	**0.41%**
including	134.00	170.00	36.00	0.14%	0.13	19.15	69	0.06%	**0.98%**

(*) Intervals reported in the above table are not true thickness and are based on a copper cut-off grade of 0.10%
Source: MSA 2024

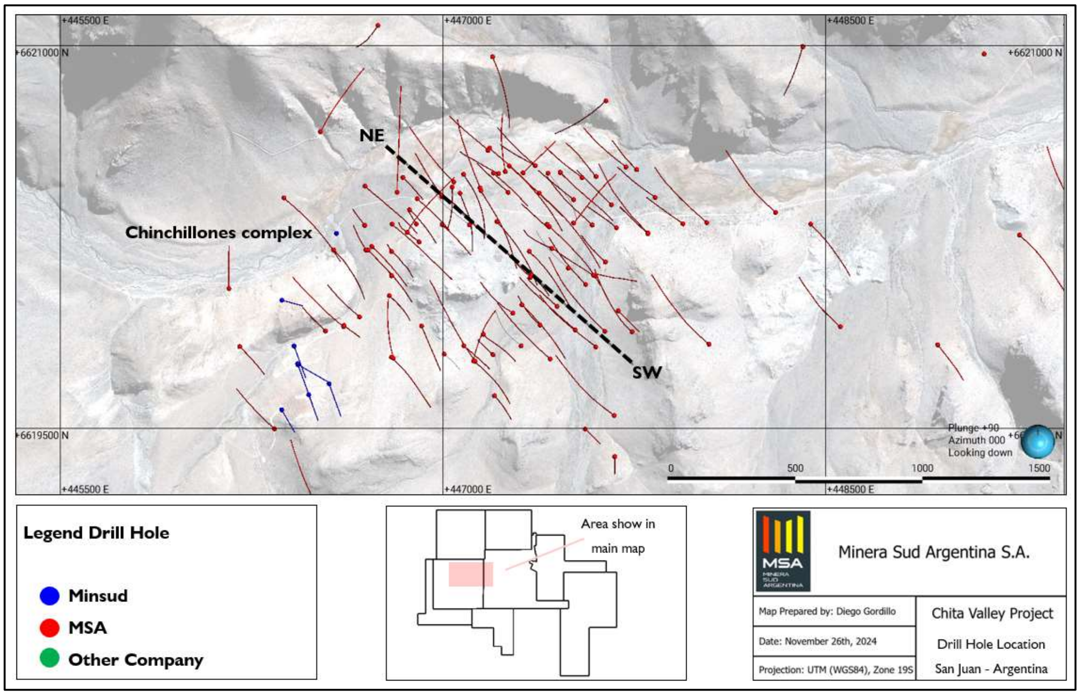


Figure 10-2: Drill Hole Locations (2008–2024) in the Chinchillones Deposit, Showing the Reference Section Line (Source: MSA 2024)

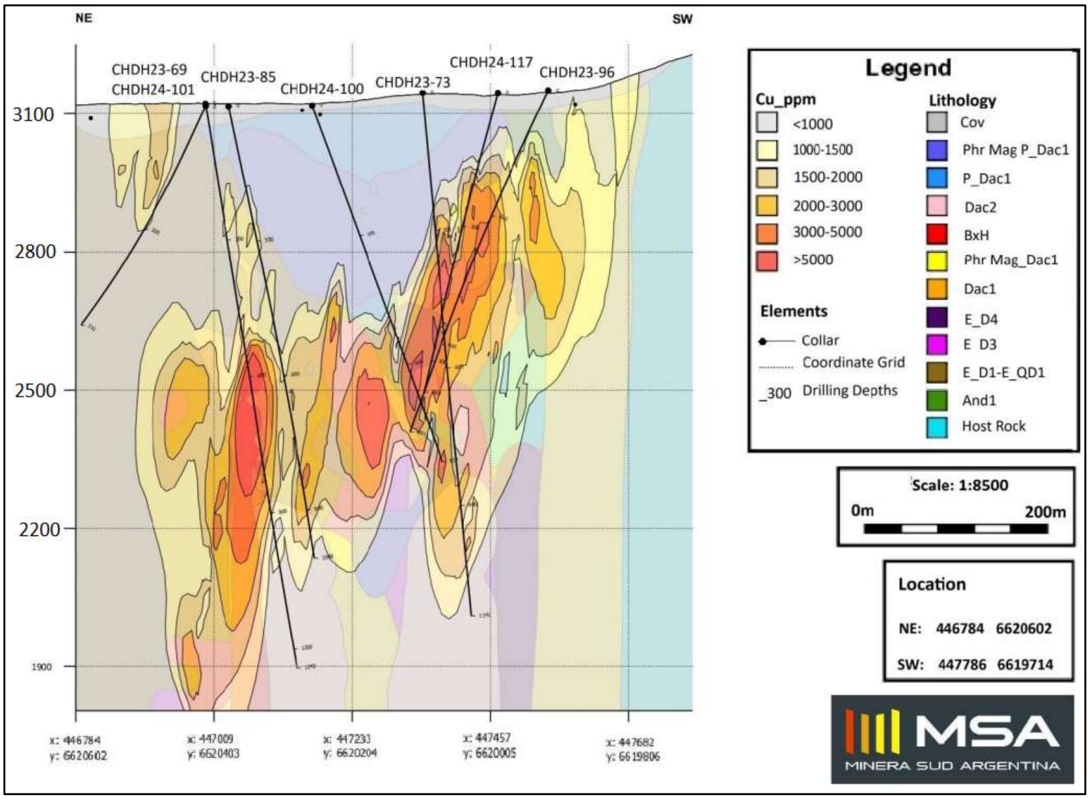


Figure 10-3: NE-SW Cross-Section Showing the Geological Model and Copper Grade Shells, Chinchillones Complex Project (Source: MSA 2024)

10.3.1 Drilling Methods

All drilling programs from 2020 to 2024 have been executed by Ecominera based in San Juan. A Sandvik UDR 710 rig with a maximum drilling penetration of 1,000 m was used, and for the deeper holes, an ED2000 rig with a capacity of up to 2000 m. All drillholes were drilled in PQ (85 mm), HQ (63.5 mm) and NQ (47.6 mm) diameter depending on final depth. For the overburden zone, a 5.5" or 6.6" tri-cone bit was used without sample recovery. The thickness of the overburden zone varies between 0 and 60 m. According to the Company's policy, drill holes with emerging water were cemented between a depth of 50 and 70 m.

10.3.2 Drillhole Collar and Downhole Surveys

The collar locations for the MSA drilling programs were first surveyed by MSA geologists and later verified by a professional surveyor. Two 24-channel Trimble 5700 II (L1/L2) receivers and Zephyr Geodetic antennas were used. The accuracy achieved by the receivers in static surveys is: horizontal: ±5 mm + 0.5 mm / Vertical: ±5 mm + 1 mm. Two 14-channel Promark 3 RTK (L1) receivers were also used with accuracies of ±5 mm + 1 mm horizontally and ±10 mm + 2 mm vertically. For kinematic surveys, the accuracy is ±12 mm + 2.5 mm horizontally and ±15 mm + 2.5 mm vertically. All MSA drill holes were surveyed using a consistent method and demarcated within the UTM coordinate system (WGS84 datum, Zone 19S).

After determining that a drill hole will not be extended to a greater depth, a length of standard PVC pipe is placed to preserve physical evidence of the general inclination and azimuth. A concrete slab is prepared at each completed drill hole collar to preserve location. The cap of this PVC pipe is inscribed with the drill hole ID, azimuth, inclination, total depth, and the drill hole completion date. The drill holes that exhibit surging water are cemented to an average depth of 70 m.

Measurement of the deviation, inclination and orientation of the hole is obtained by using the Reflex-EZ-TRAC by trained personnel of the drilling company (Ecominera). Readings are taken every 50 m. The data obtained with the EZ-TRAC are subsequently synchronized and added to the data collected with the IQ-logger, on an external IMDEX-HUB Platform for its chain of custody. The survey does not include any correction for magnetic declination.

The orientation of the drill core is measured using ACT equipment provided by Reflex and operated by Ecominera. Measurements are taken continuously along the entire core, with a line marking the bottom. This line is drawn on the platform by trained Ecominera personnel and supervised by MSA staff (Figure 10-4).

When core orientation could not be determined due to poor recovery, rotation, fault zones, or extreme fracturing, no orientation measurements were taken. This approach was adopted to maintain the quality and reliability of the core measurements.

Figure 10-4: Core Orientation Measurement at the Drill Hole (Source: MSA 2024)

10.3.3 Drill Hole Procedures

The details of all drill holes are carefully recorded in a spreadsheet and MX Deposit database (a central database). This includes project/prospect area; property information; drill hole identification; northing, easting, elevation; inclination, azimuth; drilling company, rig, driller; hole size; pre-collar; drilling details, drilling start date, end date; core start, end depth; and, supervising geologist. This is usually updated by the geologist in charge of the drilling rig. A flowchart is described below in Figure 10-5, illustrating the process:

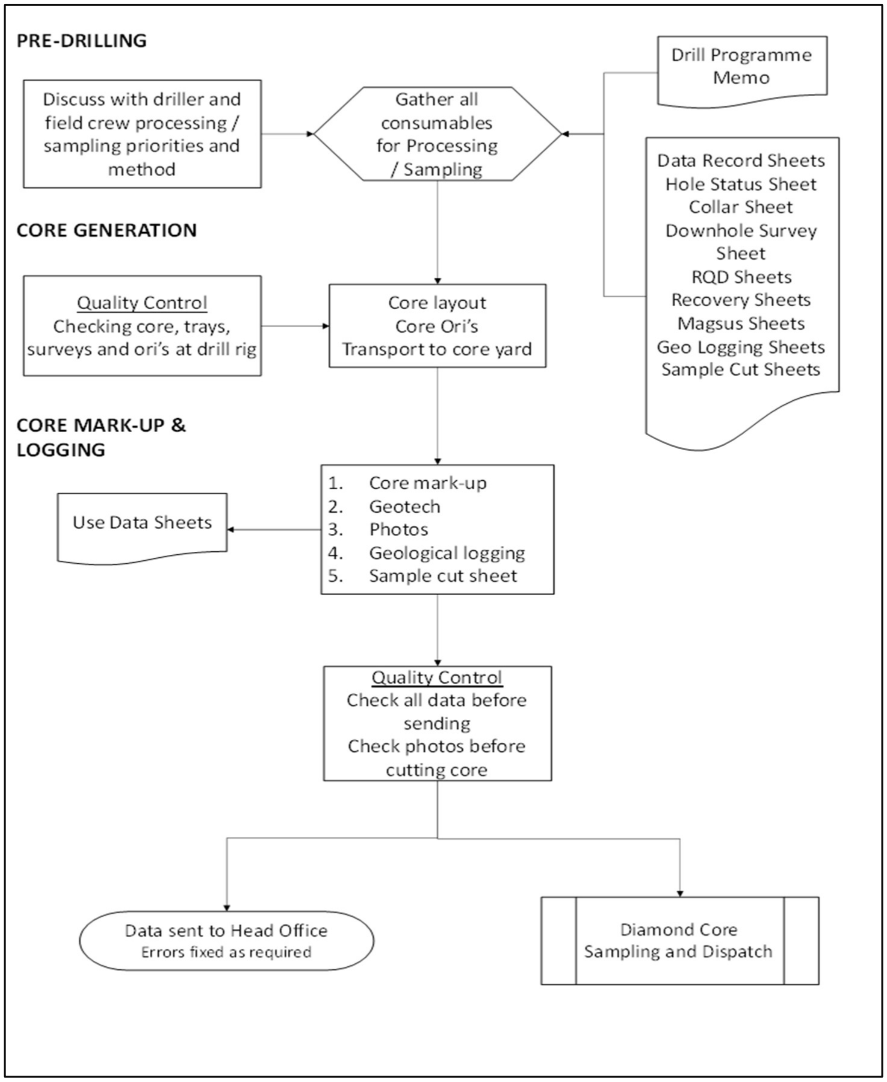


Figure 10-5: Core Processing Flowchart (Source: MSA 2024)

10.3.4 Drilling, Logging, Sampling and Recovery Factors

Cores are transported from drill sites to the Chita Valley camp where core is photographed, logged and geotechnical parameters recorded.

Upon receipt, a field technician places the oriented drill core on an orientation platform. Assembling the workable sections by joining the bottom line of the hole with the fractured section. If the core is oriented, the orientation line is marked using a straightedge. An appropriate logging interval (e.g. 3 m core per shift) is chosen based on the depth blocks. RQD and recovery measurements are then taken from the drilling interval.

A quick log is prepared by an MSA geologist, registering main lithological units, hydrothermal alteration, mineralization, recovery, loss, and significant structural features. This information is electronically shared on a daily basis with the technical and management team.

After completing the quick log, MSA geologists assign sample intervals according to drill core characteristics. A unique sample number is written on the core box. All sampling information is recorded, along with the control, standard, duplicate samples, and blank samples, in Excel spreadsheets and the MX Deposit database.

Photographs of the core are taken prior to detailed logging and stored in the database. Two images are captured: the first, taken before sampling, shows the dry core, the sample number, and two core boxes per photo. The second, taken after sampling, shows the wet core with one core box per photo, where the sample number is clearly visible, and a separator is placed between each sample to facilitate identification.

After photographing core, MSA geologists perform detailed and standardized drill core logging to ensure consistency regarding codes and symbols. This logging includes descriptions of lithology, hydrothermal alteration, mineralization, and structures, recorded directly in the MX Deposit database. Additionally, Excel spreadsheets are used as a backup.

Following core logging, trays are transported to the cutting and sampling area. The core is split using a Corewise automatic saw, 1 cm away from the orientation mark. Half of the core with the orientation mark is left in the core tray. The other half is placed in a plastic bag, pre-labeled with the sample number and containing a unique numbered tag inside. Sample recoveries were generally good, with an average recovery rate of 98.5%.

For field duplicate samples, the procedure is to cut half of the core and then cut half of the previously cut core again, thus obtaining 1/4 of the original core and comparing its analytical results with the primary sample, which corresponds to a half-core.

10.3.5 Structural Record

Throughout drill hole logging, various structural features of the rock are noted. All structural measurements are taken from a previously oriented core and collected according to magnetic north.

Measurements are made with the Index IQ logger platform. The structural interval is recorded with the drill hole identification, drill hole ID, starting depth, ending depth, interval (yes/no), measured structural feature (e.g., fracture, foliation, fault, lineation, vein, igneous structure, locations, etc.), vein source type, and temporality.

The measured orientation, composition of filling material, presence, intensity and dominant mineralogy of any alteration halo is also recorded.

10.4 Core Storage

For all drill holes completed by MSA, once photography and sampling are completed, the cut core boxes are stacked on pallets, with each pallet holding 40 boxes. The pallets are secured with strapping and shrink wrap before being transported to MSA's storage facility in San Juan.

Since 2022, each shipment has been individually contracted with a truck equipped with a sealed steel box and a boom or hydraulic crane. This setup ensures the careful loading of the palletized core boxes to prevent movement during transport. The truck's tight-fitting doors are securely closed and locked. Before departure, MSA geologists or security personnel conduct a final inventory of the material being transported.

The trip from the Chinchillones Complex Project to San Juan spans approximately 387 km and takes an average of 6 hours. Transport occurs 1 to 2 times per month, depending on the meters drilled.

Upon arrival at MSA's facilities in San Juan, a supervisor inspects the physical condition. Any damaged boxes or discrepancies are immediately reported to the Project Manager. If no issues are identified, the boxes are unloaded and properly stored on shelves. Similarly, pulp and reject samples are stored in a manner comparable to the cores. No major issues were identified during this process.

The core samples from MASA, Rio Tinto, Silex and Minsud are currently stored in an open area at the project site. However, these materials are not in good condition and show signs of poor core box preservation, particularly for the older drillholes.

The cores, pulps and reject samples from DGFM are under the responsibility of the Secretaría de Minería de Argentina and are securely stored at facilities in Mendoza.

10.5 QP Opinion

The historical drilling conducted prior to Minsud and MSA lacks documented procedures; therefore, no definitive opinion can be issued regarding its reliability. Given the proportion of these drill holes and their location, they should be considered informational and used exclusively for exploratory purposes. Further validation would be required for inclusion in Mineral Resource estimation.

The drilling campaigns prior to Minsud (2008-2017) followed adequate procedures; however, there are opportunities to enhance core storage, which was previously constrained due to financial limitations.

The drilling procedures used by MSA are considered reasonable and suitable for Mineral Resource estimation. There are no known issues with these procedures that would significantly impact the accuracy or reliability of the database supporting the Mineral Resource estimate in Chinchillones Complex Deposit.

Some opportunities for improvement have been identified, which are summarized in the Section 12.5.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

This section is based entirely on data obtained from drill hole sampling, including core samples and associated analytical results, as well as sample preparation conducted by various companies, including Direccion General de Fabricaciones Militares (DGFM), Minas Argentinas S.A. (MASA), Rio Tinto Mining and Exploration (Rio Tinto), Silex Argentina S.A. (Silex), Minsud Resources Corp. (Minsud), and the joint venture Minera Sud Argentina S.A. (MSA).

These efforts total 100,042 m drilled and 50,779 samples. It is important to note that surface sampling is used solely for exploration and new target identification. It is thus omitted from this section.

11.1 Historical Sampling (1969 - 2008)

In this initial period four companies (DGFM, MASA, Rio Tinto and Silex) drilled and sampled different target areas, totaling 3,798 samples. These samples were from the historical basis of the project but were not used as part of the current Mineral Resource estimation.

The information on the sampling and analytical procedures from this period is limited but is described below.

11.1.1 Core Cutting and Sampling

For DGFM, MASA and Silex no information is available on core cutting and sampling procedures. Rio Tinto cut drill samples on site and sent half of the core to the Alex Stewart laboratory in Mendoza.

11.1.2 Sample Transport and Security

There is no available information regarding the sample transport and security for any of these historical drilling campaigns.

11.1.3 Laboratory Sample Preparation and Analytical Method

11.1.3.1 Laboratory Accreditation

The laboratories recorded for the analyses include the Bondar Clegg Laboratory Group, with sample preparation in Mendoza, gold analysis in Coquimbo, Chile, and multi-element geochemical analysis in Vancouver, Canada, used by MASA. Additionally, Alex Stewart Argentina S.A. was used by Rio Tinto.

Bondar Clegg Co. Ltd. merged with ALS Chemex in 2001. They provided analytical data in 1996 that met the highest standards of the time, although it again predates ISO/IEC 17025.

In 1996, neither ALS nor Alex Stewart Argentina S.A. held certifications such as ISO 9001, ISO 14001, or ISO/IEC 17025. These standards were not yet widely adopted. Despite this, both laboratories were recognized for operating at high industry standards for the time.

The historical laboratory operated by DGFM (Government of Argentina) also predates the implementation of ISO/IEC 17025 standards.

11.1.3.2 Sample Preparation

For DGFM and Silex, no information is available regarding the sample preparation procedures.

In the case of MASA, samples were dried, crushed, and pulverized at the Bondar Clegg Laboratory in Mendoza. Full details of the preparation process are unavailable.

For Rio Tinto, samples were prepared at the Alex Stewart Assayers laboratory in Mendoza following procedure P6. This involved drying, crushing samples to <2 mm, slicing, and pulverizing 3 kg of material.

11.1.3.3 Analyses

For DGFM, analytical procedures for these programs are unavailable. In 2007, 305 pulp samples were acquired by Minsud and submitted to Alex Stewart Argentina S.A. for analysis.

For MASA, pulp splits were sent to Bondar Clegg laboratories for analysis, with gold assays conducted in Coquimbo, Chile. Multi-element geochemical analysis was performed in Vancouver, Canada.

For Rio Tinto, samples were analyzed using the following methods:

- Au430, which involves a 30 g fire assay with atomic absorption finish for gold (Au),
- ICPMA-39, a multi-acid digestion method using perchloric, hydrofluoric, nitric, and hydrochloric acids, followed by a 39 element ICP finish.

No further details are available regarding the chemical analyses.

11.1.4 Quality Assurance and Quality Control Procedure (QA/QC)

The quality control procedures implemented by Rio Tinto included the insertion of one control sample for every 10 samples (10% comprising blanks, standards, and duplicates). No further details regarding the QA/QC procedures or the QA/QC database are available.

11.2 Minsud Core Sampling (2008 to 2018)

The Minsud drilling campaign had a primary focus on Chita South, with in a total of 7,652 samples collected.

11.2.1 Cutting and Sampling

The sampling process began with the verification of drilled meters, marked in the core boxes using a wooden block that indicated drilling depth, meters drilled, and core recovery. The start and end depths were written on the top of the box, while the drill hole name was recorded on the front.

The samples were defined solely by geologists based on geological criteria. The number assigned to each sample was written in the core box.

Sample lengths were typically 2 m, except in areas of low recovery (loss zones, faults, etc.). Here sampling was conducted block by block. In areas such as breccias or mineralized hydrothermal veins, intervals were reduced to up to 0.5 m.

Once samples were defined, cutting was performed by trained personnel. Cores were split using an industry-standard rotary, diamond blade circular saw. All samples from 2008 to 2018 were taken at the project facilities.

Core samples collection was supervised by geologists, leaving the left side of the half core placed in the core boxes and taking the entire right side as the sample.

For duplicate samples, the procedure involved cutting half of the core and then cutting again the already split half, thus obtaining 1/4 of the core.

Half-core and duplicate samples, including all fragments, were placed in labeled plastic bags with the sample number and sealed with plastic security straps. A ticket with the sample number was attached to the neck of the bag. The sealed plastic bags were placed in pre-numbered polyester woven bags labeled with the laboratory address. The numbers of the first and last sample in the plastic bags were written on the polyester woven bag. While awaiting shipment, the polyester woven bags were stacked and stored in the loading area.

11.2.2 Sample Shipment and Security

Each collected sample was placed in a plastic bag with its corresponding identification, forming a package labeled with sample number, company name, and package number. Packages were stacked and stored in the loading area ahead of transportation to the laboratory. The chain of custody was maintained through a shipping log, which was initially completed manually and subsequently uploaded to a digital database to generate the laboratory shipping form.

Packages were loaded into company vehicles and transported directly to the laboratory by company personnel. The project site was located approximately 387 km from the ALS Minerals (ALS) laboratory in Mendoza. Transport was conducted two to three times per month, with approximately 500 samples per shipment.

ALS informed Minsud staff of any missing samples, torn bags, or other defects before entry into their record-keeping system.

11.2.3 Laboratory Sample Preparation and Analytical Method

11.2.3.1 Laboratory Accreditation

Minsud utilized two laboratories for the preparation and analysis of samples between 2008 and 2017. These were Alex Stewart Argentina S.A. and ALS Minerals. For all elements analyzed both laboratories are currently accredited to international standards, including ISO/IEC 17025. However, the specific accreditations in place during that period of remains unclear.

From 2008 to 2011, Minsud relied on Alex Stewart Argentina S.A. for sample preparation and analysis. The laboratory has been certified under ISO 9001 since 2006 and ISO 14001 since 2009. Reflecting a commitment to quality and environmental standards. ISO 17020 was only achieved in 2012, and therefore not applicable during earlier drilling campaigns.

Since 2011, Minsud transitioned to using ALS Minerals in Mendoza for sample preparation (now operating as ALS Patagonia S.A.). This facility has been accredited under ISO 9001 since at least 2008. After preparation, samples were sent for chemical assay analysis to ALS in Lima, Peru. The ALS Perú S.A. laboratory is accredited under ISO 9001:2008 and ISO/IEC 17025, ensuring compliance with international standards for quality and technical competence. The laboratory obtained its ISO/IEC 17025:2017 accreditation on March 1, 2010. Certifying competence in testing and calibration. This accreditation has been regularly renewed, with the most recent renewal achieved on July 26, 2022, and valid until March 1, 2026.

Both laboratories have consistently demonstrated a commitment to improving service quality and maintaining high standards. Aligning with the requirements for data reliability and integrity necessary for this report.

11.2.3.2 Sample Preparation

The sample preparation protocols for the various drilling programs are summarized as follows:

- 2008 to 2011: All drill core samples were delivered to the Alex Stewart Argentina S.A. laboratory in Mendoza. The sample preparation procedures (Codes P-5 and P-1) for drill core, rock, and chip samples were dry samples, crush to 80% passing 2 mm (#10 sieve), split sample to obtain 1 kg, and pulverize to 95% passing 106 microns or better.
- 2011 to 2017: All drill core samples were delivered to the ALS Minerals laboratory in Mendoza. The sample preparation procedures (Codes PREP-31 and PREP-31B) for drill core, rock, and chip samples were dry samples in ovens, crush to 70% passing 2 mm, clean the crusher with compressed air after each sample, then split samples using a Jones Riffle to obtain up to 250 g (PREP-31) or 1,000 g (PREP-31B).

11.2.3.3 Analyses

The following geochemical and assay methods were used by Alex Stewart Argentina S.A. and ALS Minerals:

Alex Stewart Argentina S.A. (2008-2011):

- ICP-MA-39: Trace-level analysis for multiple elements (37) using ICP-OES after digestion with perchloric, nitric, and hydrofluoric acids.

- ICP-ORE: Ore-grade analysis for 19 elements using four-acid digestion and ICP-OES. Copper, lead, and zinc >10,000 ppm was reanalyzed with a three-acid digestion.

- Ag4A-50: Silver assay by fire assay with a gravimetric finish. Silver >200 g/t was reanalyzed using a 50g sample.

- Au4-50: Gold assay by fire assay fusion with AA finish on 50g samples.

- LMCI40: Sequential copper leach analysis using sulfuric acid, cyanide leach, and four-acid digestion. Copper was analyzed by AAS at each stage.

ALS Minerals (2014–2017):

- ME-ICP61: Trace-level multi-element (27) analysis by ICP-AES after digestion with perchloric, nitric, and hydrofluoric acids. Results are corrected for spectral interferences.

- ME-OG62: Ore-grade multi-element analysis by four-acid digestion and ICP-AES, including correction for spectral interferences.

- Au-AA23 (30g) and Au-AA24 (50g): Gold assay by fire assay with AA finish.

- Au-GRA21 (30g) and Au-AA22 (50g): Gold assay by fire assay with a gravimetric finish.

11.2.4 Quality Assurance and Quality Control Procedure (QA/QC)

Minsud implemented and monitored a thorough QA/QC program for the diamond drilling campaigns conducted between 2011 and 2017. The QA/QC protocol established by Minsud included the insertion of control samples into every batch of approximately 20 samples. These control samples consisted of one certified reference material (CRM or standard), one coarse blank sample, and one crushed field duplicate. Additionally, check samples were submitted to a third-party laboratory for independent verification.

Table 11-1 presents a summary of the QA/QC sample insertion records compiled by Mining Plus. The data indicates that no QA/QC controls were implemented in 2008. In 2011, QA/QC controls accounted for approximately 7% of total samples. In the subsequent years, QA/QC insertion increased to approximately 10%. Check samples were limited to the 2015 period.

A total of 8,335 samples, including QA/QC samples, were submitted during Minsud's surface drilling program between 2011 and 2017 (Table 11-1).

Table 11-1: Minsud QA/QC Sample Insertion Records

Period	Blank		Duplicated			CRM	Umpire Check Sample	Primary	Total	%QA/QC
	Fine	Coarse	*Field	Coarse	Pulp					
2008	-	-	-	-	-	-	-	846	846	0%
2011	-	40	31	-	-	61	-	1,766	1,898	7%
2014	-	66	65	-	-	65	-	1,785	1,981	10%
2015	-	67	45	-	-	66	20	1,854	2,052	10%
2016	-	36	33	-	-	35	-	920	1,024	10%
2017	-	18	17	-	-	18	-	481	534	10%
Total	**-**	**227**	**191**	**-**	**-**	**245**	**20**	**7,652**	**8,335**	**8.2%**
Percentages %										
2008	-	-	-	-	-	-	-	100%	100%	0%
2011	-	2%	2%	-	-	3%	-	93%	100%	7%
2014	-	3%	3%	-	-	3%	-	90%	100%	10%
2015	-	3%	2%	-	-	3%	1%	90%	100%	10%
2016	-	4%	3%	-	-	3%	-	90%	100%	10%
2017	-	3%	3%	-	-	3%	-	90%	100%	10%
Total	**-**	**3%**	**2%**	**-**	**-**	**3%**	**0.2%**	**92%**	**100%**	**8.2%**

**Note: Quarter-core*

Source: Mining Plus 2024

11.2.4.1 Certified Reference Materials (CRM)

Minsud uses commercial CRMs to monitor laboratory accuracy. The CRMs were purchased from an internationally recognized company, Ore Research & Exploration Pty Ltd, based in Australia. Early in the exploration program Minsud used Geostats PTY Ltd of Australia. Each CRM sample was prepared by the vendor with a certificate of analysis for each standard purchased.

Two different standards were submitted and analyzed for gold, silver, copper, and molybdenum, as summarized in Table 11-2. During the 2017 drilling program, the standards used were OREAS 501b (STD LG-2) and OREAS 503b (STD HG-2).

In previous years, the standards utilized were STD HG-1 and STD LG-1, which appear to correspond to standards provided by Geostats Pty Ltd. However, certificates of analysis for these standards are not available. It is recommended that these certificates be obtained and included as part of the supporting documentation to ensure completeness and integrity of the QA/QC records.

Table 11-2: Minsud's Summary of QA/QC Standards (CRMs) and Best Values

Standard (CRM)	Reference Number	N° of Standard Samples	Best Value (CRM)			
			Cu (%)	Gold (ppm)	Silver (ppm)	Mo (ppm)
OREAS 501b	STD LG-2	89	0.26	0.248	0.778	99
OREAS 503b	STD HG-2	95	0.531	0.695	1.54	319

Source: Mining Plus 2024

Minsud evaluated standards using the certified mean and standard deviation values obtained during the round robin assaying for CRM certification. A batch failure was defined as any reported value exceeding three standard deviations (+/- 3SD) from the mean.

The results of Minsud's reviews for gold, silver, copper, and molybdenum using OREAS 501b and OREAS 503b standards were within control limits. Standard failures were minimal, and no significant issues or systematic biases were identified for copper, gold, or molybdenum. However, while silver did not present failures, it showed a negative bias of approximately -9.4%, suggesting a potential underestimation in silver. It is recommended this be investigated further.

Figure 11-1 provides an example of the results for the OREAS 501b standard.

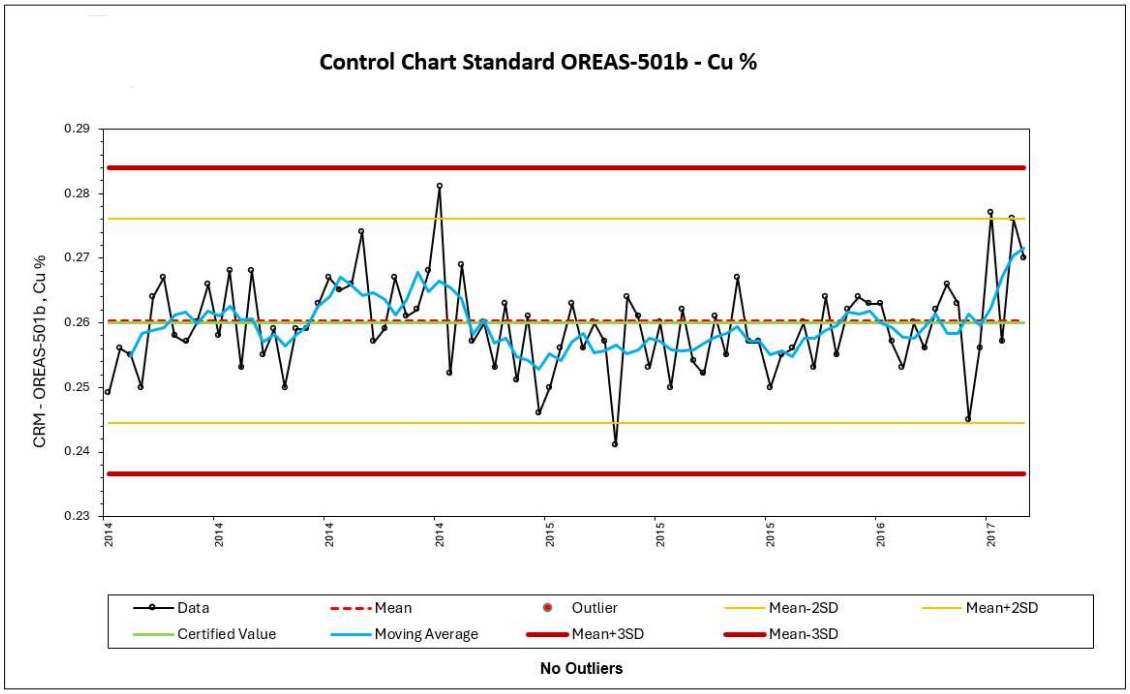


Figure 11-1: Minsud's Performance Review of Standard OREAS 501b for Copper (Source: Mining Plus 2024)

11.2.4.2 Performance of Blank Material

Coarse blank samples were used to monitor potential contamination during preparation and analysis. Initially, the blank material consisted of a locally sourced andesitic pillow lava from the pre-Cordillera, later replaced by a locally sourced barren mafic dyke. Blank samples were inserted at an average rate of 1 in 20 samples, with a total of 227 blanks submitted. Tolerance limits were set at 10 times the lower detection limit for each assay method: 0.05 ppm for gold, 2 ppm for silver, 1 ppm for copper, and 1 ppm for molybdenum.

In 2017, higher-than-expected copper values were observed in the blanks, with average values exceeding 0.01% Cu (Figure 11-2). During Minsud's review, it was unclear whether these values were due to contamination, as the blanks were not certified. The results indicated a trend suggesting a potential issue with control values above the 0.01% Cu threshold. Possibly related to the inherent value of the blank material rather than contamination; typically, being more random in both value and location.

As a result, the affected samples between standards were reanalyzed during Minsud's drilling campaign to ensure data integrity and address any potential concerns.

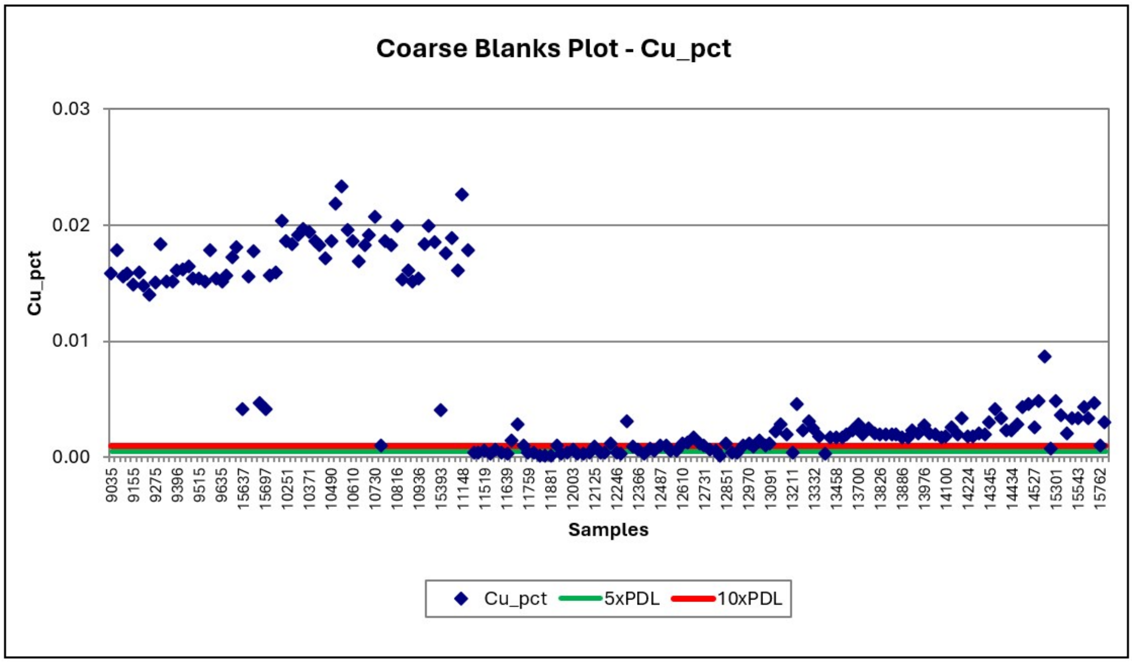


Figure 11-2: Minsud's Performance Review of Coarse Blanks for Copper (Source: Mining Plus 2024)

11.2.4.3 Duplicate Samples

Minsud collected quarter-core duplicate samples to monitor sample mix-ups and data precision. These duplicates were prepared by randomly selecting intervals, cutting them into quarters, then submitting one quarter as the original and another as the duplicate. Both were labeled with consecutive sample numbers and sent separately.

In total, 191 duplicate samples were collected. Accounting for 2% of all samples, with duplicates taken approximately once every 20 samples.

The copper results were considered the most relevant and as an example are shown in Figure 11-3. The precision results for copper are within the industry-accepted range.

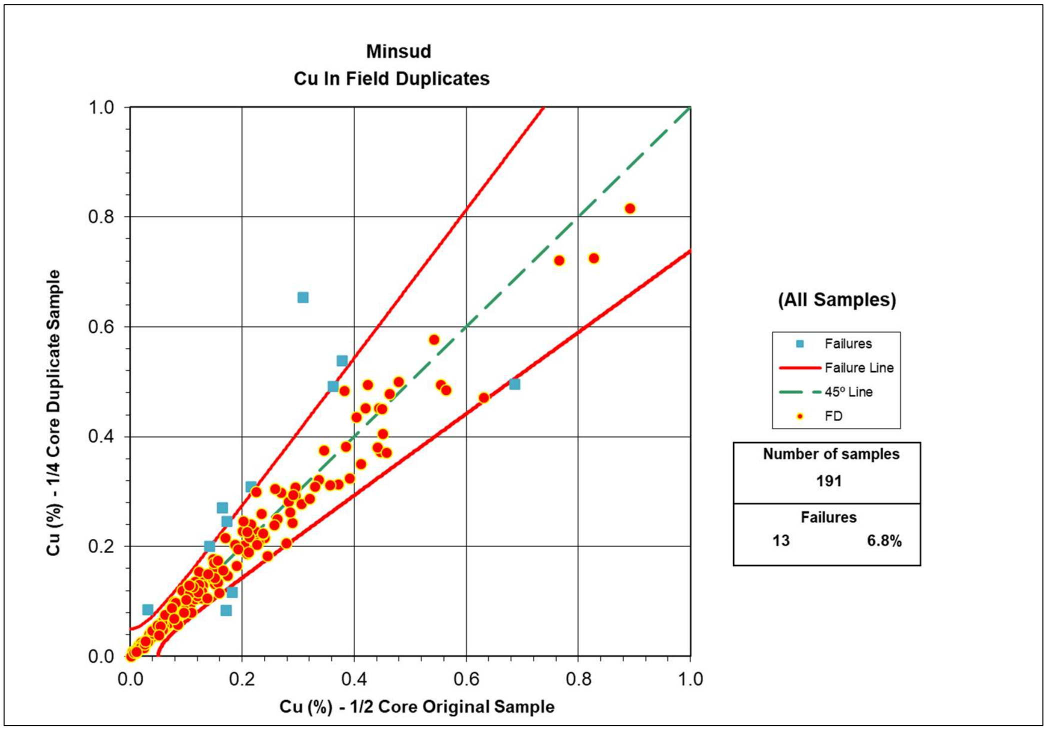


Figure 11-3: Analysis of Field Duplicate Performance (1/4 Core) for Copper – Minsud (Source: Mining Plus, 2024)

11.2.4.4 Umpire Check Sample

As part of its QA/QC program, Minsud conducted 20 umpire check assays. Submitting pulp check samples to a secondary laboratory of Alex Stewart Argentina S.A. At Alex Stewart, samples were analyzed for gold using fire assay with an AAS finish and for silver using 4-acid digestion followed by ICP-OES analysis. The results demonstrated a strong correlation (Figure 11-4).

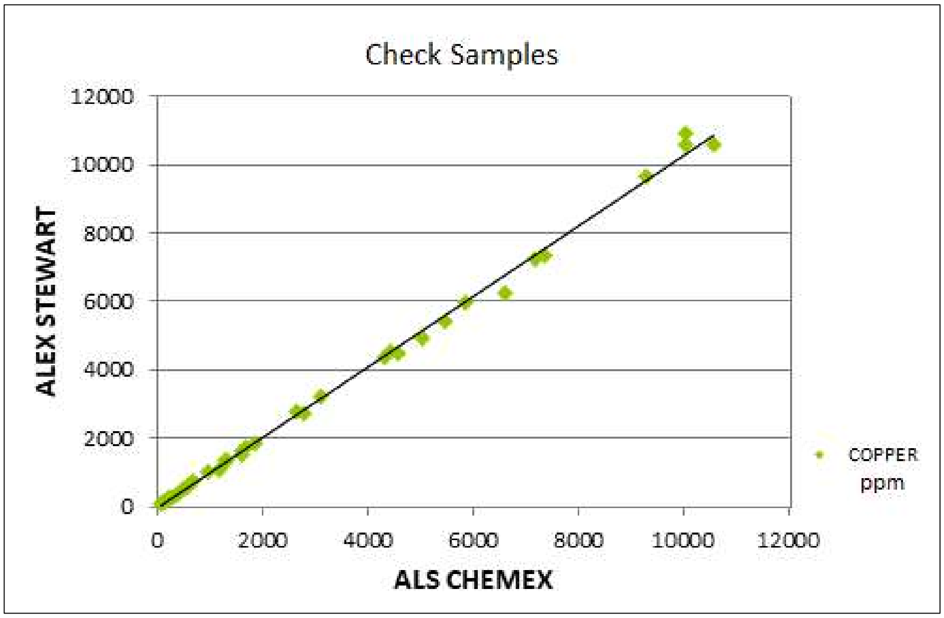


Figure 11-4: Minsud's Performance Review of Umpire Check Sample for Copper (Source: P&G, Minsud 2018)

11.3 MSA Core Sampling (2020 - 2024)

The total MSA drilling program included a total of 39,329 primary diamond core samples. All samples were cut and prepared on-site at the project area. Control samples (4,688 in total) were also included in the sampling stream, accounting for an average of 11%.

Sample preparation was carried out in accordance with the sampling procedure developed by MSA. The steps for cutting, sampling, transport, and storage are detailed below.

11.3.1 Core Cutting and Sampling

The sampling process began with control of the drilled core. The core boxes had a wooden block recording depth, meters, and recovery. This was provided by the drilling company and placed in a box with black marks on both sides. The beginning and end of the tray were written at the top of the box, the name was written on the front.

Samples were defined based on geological criteria. The number assigned to each was written on the core box with a permanent red marker and sequential numbering. At the end of the sample section, a red-painted wooden block was placed with the sample number at the top.

The sample lengths were usually 2 m, except in areas with low recovery (loss areas, faults, etc.). Here samples were block-to-block. Up to 0.5 m was considered in areas such as breccia or mineralized hydrothermal veins. Sampling was notably every 1 m for PQ diameter cores due to weight.

Cutting was carried out by trained MSA personnel. Cores were split using the industry-standard Corewise automatic circular diamond blade rotary saw (Figure 11-5). Generally, cut in the middle of the core, 1 cm away from the orientation mark.

Drill core samples were taken at defined intervals and supervised by the MSA geologists. The left side of the half-core was placed in the core-boxes while the entire right side was sampled.

For duplicate samples, the procedure involved cutting half of the core and then cutting half of the already cut core to obtain 1/4.

Half-core and duplicate samples, including all fragments, were placed in labelled plastic bags. Each had the sample number and was sealed using plastic security straps. A ticket with the sample number was tied to the neck of the bag.

The sealed plastic bags were placed in pre-numbered poly-woven bags labeled with the laboratory address. Typically, three samples were placed in each polyester woven bag. Depending on weight: samples weighed 0.5 kg to 5 kg. The first and last sample numbers of the plastic bags were additionally written on the poly-woven bag. While awaiting shipment, the poly-woven bags were stacked and stored in the loading area.

Figure 11-5: Corewise Automatic Cutter (Source: MSA 2024)

11.3.2 Sample Shipment and Security

Each of the collected samples was placed in a plastic bag with the corresponding identification. Three samples were then placed in a burlap sack. This sack was labeled with the sample numbers, company name, and package number. A plastic seal with fluorescent paint was placed on the bag closure to prevent tampering. If any bag showed irregularities, it was reported by the laboratory upon receipt. Packages were stacked and stored in the loading area while awaiting transport. The chain of custody records was maintained in a book kept in the samples area. It was completed manually and subsequently uploaded digitally to prepare the laboratory submission form.

Each shipping form consisted of an original and copy, along with the Transfer Guide issued by the Ministry of Mining. Authorizing the transfer of the samples to the laboratory. The shipping form was prepared by the geologist with all sample information signed and delivered to the carrier on the day of shipment.

Once the representative of the transport company received the original form, the shipping copy, and the shipping guide, packages were loaded for transport. Samples were always transported by the same supplier. A single truck was used to make a journey of approximately 387 km. Two shipments were made per month, with approximately 500 to 800 samples per shipment.

Once the laboratory staff entered the samples into their system, they electronically notified MSA of receipt. Any missing samples, broken bags, or defects were reported before being entered into the registration system.

11.3.3 Laboratory Sample Preparation and Analytical Method

11.3.3.1 Laboratory Accreditation

MSA utilized ALS Patagonia S.A. in Mendoza as the primary laboratory for sample preparation. This ISO 9001 accredited facility, prepared samples to be sent to ALS Perú S.A. in Lima, Peru.

Since 2019, ALS Perú S.A. has served as the main laboratory for all drilling programs conducted by MSA. The ALS Perú S.A. laboratory is accredited under ISO 9001:2008 and ISO 17025. Ensuring compliance with international standards. The latter accreditation has been valid since March 1, 2010, with the most recent renewal on July 26, 2022. It is valid until March 1, 2026.

11.3.3.2 Sample Preparation

The ALS sample preparation laboratory in Mendoza initiated its protocol by logging the samples into the Laboratory Information Management System (LIMS). This included labelling each sample bag with a barcode. The samples were then emptied into drying sheets and dried in ovens for 7 to 8 hours at 110 degrees Celsius.

After drying, sample preparation procedures PREP-31 and 31B were carried out as follows:

1. Crush samples to 70% passing a Tylor 9 mesh (2mm or better).

2. Clean crusher with compressed air.
3. Split the sample using a Jones Riffle until a 250 g sample (PREP-31) or a 1,000 g sample (PREP-31B) was left. From June 2023, Prep 31B was required at the suggestion of QP Steven Cook to recover a larger amount of pulp for storage.
4. Pack the sample and return the rejects to the original bag for storage.
5. Pulverize the sample from step 3 to 85% passing 75 microns or better.
6. Weigh the aliquots for assaying from step 5.
7. Run all checks on samples from step 5.

11.3.3.3 Analyses

The analytical protocols are outlined as follows:

- ME-MS61 and ME-MS61m: Multitrace analysis of 48 elements with a 4-acid digestion. A prepared sample (0.25 g) is digested with perchloric, nitric, and hydrofluoric acids to dryness. The residue is taken up in a volume of 12.5 mL of 10 % hydrochloric acid. The resulting solution is analyzed by ICP-AES. Results are corrected for spectral interelement interference.

- ME-MS61m: Since mid-February 2024 (drill hole CHDH24-99), Hg MS-42 analysis has been requested routinely for all samples.

- ME-OG62: For samples over-limit, analysis is with four acid digestion using conventional ICP-AES analysis for Ag, As, Cu, Mo, S, Pb, and Zn.

- Fire Assay Procedure Au-AA24 (50g): Gold is analyzed using a conventional fire assay fusion method with Atomic Absorption Spectroscopy (AAS). A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica, and other necessary reagents. A small amount of silver (6 mg) is added to facilitate the process, and the resulting lead alloy is cupelled to produce a precious metal bead.

- The bead is digested in 0.5 mL of diluted nitric acid in a microwave oven, followed by the addition of 0.5 mL of concentrated hydrochloric acid for further digestion. The resulting solution is cooled and diluted to a final volume of 4 mL with demineralized water. The solution is then analyzed by AAS against matrix-matched standards.

- Au-GRA21 Au-AA22 (50 g): Conventional gold assay by fire assay fusion, gravimetric finish.

11.3.4 Bulk Density Measurements

The Water Immersion Method was used for density determination being deemed appropriate for non-porous or very low porosity samples.

Density measurements were performed by MSA personnel for all drill holes. Measurements were systematically taken every 20 meters, below the coverage area and in consistent material. If the sample at the 20-meter interval corresponded to soft rock, a nearby compact rock was selected instead. The method was not used in leached, sand, or zones with more than 60% porosity. Generally corresponding to the first meters of each hole.

The density reading was one of the first measurements made with a completely dry sample from the previous day. The sample was not placed in an oven but was kept near a stove overnight. The location where the measurement was taken was marked with a blue cross on the side of the core box. The selected sample measured approximately 10 to 15 cm, consisting of solid and consistent material. The readings recorded by a technician included the dry and wet weight.

Measurements:

1. Select samples dried for more than 12 hours.
2. Assemble the scale and suspend the scale wire hook for freedom of movement within the bucket of water.
3. Zero the scale.
4. Weigh the air-dried sample on top of the scale (W1).
5. Place the sample in the wire cage within the bucket, zero the scale, and weigh the sample by fully submerging it in water (W2). If the digital reading on the scale is not stable, it indicates that the sample is porous and saturated with water. In this case, dry the sample thoroughly, then restart the sealing procedure before re-immersion.
6. The formula used for density calculation is Density = W1 / (W1 – W2).

11.3.5 Quality Assurance and Quality Control Procedure (QA/QC)

MSA implemented and oversaw a QA/QC program for diamond drilling from 2020 to 2024. MSA personnel introduced standards, blanks, and duplicates into the sample stream. The current QA/QC procedure involves reference samples in each batch of 35 samples. Specifically, each batch consists of 30 routine core samples and 5 reference samples. This includes 2 certified reference materials (in pulp format), 2 reference blanks (one fine and one coarse), and 1/4 core duplicate. While the laboratory was informed that reference materials were included, the specific standards being sent were not disclosed to ensure unbiased analysis.

In the latest program (2024), the number of control samples in each batch was increased to 1 QA/QC control sample every 5-6 drill core samples.

Most drilling conducted by MSA focused primarily on the Chinchillones Complex sector. A total of 44,570 samples (including QA/QC samples) from 130 drill holes (Table 11-3). Fine blanks were not present between 2020 and 2022 but were introduced in 2023. The table indicates a clear improvement in the QA/QC protocol over time, reflecting enhanced procedural rigor and adherence to industry standards.

Additionally, as part of the QA/QC program and for cross-checking results, an umpire laboratory check sample program was conducted, during which 554 pulp samples were selected between 2022 and 2024 and sent to a Bureau Veritas laboratory in Lima, Peru, to assess the precision and reproducibility of the analytical results obtained at the primary laboratory (ALS).

Table 11-3: MSA QA/QC Sample Insertion Records from 2020-2024

Period	Blank		Duplicated			CRM	Umpire Check Sample	Primary	Total	%QA/QC
	Fine	Coarse	Field*	Coarse	Pulp					
2020	-	164	164	-	-	165	-	4,572	5,065	10%
2021	-	237	236	-	-	236	-	6,572	7,281	10%
2022	-	269	270	-	-	268	59	7,344	8,210	11%
2023	145	328	473	-	-	469	257	12,875	14,547	11%
2024	319	89	423	-	-	433	237	7,966	9,467	16%
Total	**464**	**1,087**	**1,566**	**-**	**-**	**1,571**	**553**	**39,329**	**44,570**	**12%**
Percentages %										
2020	-	3%	3%	-	-	3%	0%	90%	100%	10%
2021	-	3%	3%	-	-	3%	0%	90%	100%	10%
2022	-	3%	3%	-	-	3%	1%	89%	100%	11%
2023	1%	2%	3%	-	-	3%	2%	89%	100%	11%
2024	3%	1%	5%	-	-	5%	3%	84%	100%	16%
Total	**1%**	**2%**	**4%**	**-**	**-**	**4%**	**1%**	**88%**	**100%**	**12%**

**Note: Quarter-core*

Source: Mining Plus 2024

11.3.5.1 Certified Reference Materials (CRM)

MSA uses commercial certified reference material (CRM) to monitor laboratory accuracy. The CRM were purchased from Ore Research & Exploration Pty Ltd, in Australia. The CRM is certified by Round Robin Assays where six to seven assay laboratories are selected to establish the grade means for copper, gold, silver, arsenic, and molybdenum. The procedures for certification are well documented and the statistical analysis of the certification process is completed by a third party.

Between 2020-2024, 1,571 CRM samples were submitted with an average frequency of 1 in 30. In the most recent drillholes the frequency increased to 1 in 20 samples. Typically, two to three different CRM were used. These standards were supplied in sealed 50 g plastic or aluminum packages.

Two ranges of standards were submitted and analyzed for Au, Ag, Cu, and Mo (Table 11-4).

Changes in standards were driven only by product discontinuation and availability. OREAS 501d and OREAS 503d were the most frequently used controls.

Table 11-4: MSA's Summary of QA/QC Standards (CRMs) and Best Values

Standard (CRM)	Grade	N° of Standard Samples	Assay (CRM)			
			Cu (%)	Gold (ppm)	Silver (ppm)	Mo (ppm)
OREAS 501c	Low grade	31	0.276	0.221	0.461	97
OREAS 501d	Low grade	669	0.272	0.232	0.664	95
OREAS 152c	Low grade	71	0.378	0.134	0.910	93
OREAS 503b	High grade	122	0.531	0.695	1.54	319
OREAS 503d	High grade	387	0.524	0.666	1.34	348
OREAS 503e	High grade	267	0.531	0.709	1.52	343
OREAS 628	High grade	24	1.74	0.868	10.2	23.70

Source: Mining Plus 2024

The 2020-2024 program results were assessed using ±3 SD limits. The standard deviation (SD) was provided by OREAS, where values between ±2 SD and ±3 SD indicated potential warnings. Values exceeding ±3 SD were classified as failures. Some examples of the OREAS 501d results for copper, gold, and silver are shown in Figure 11-6 to Figure 11-8.

Standard failures were minimal, and no significant issues or systematic biases were identified.

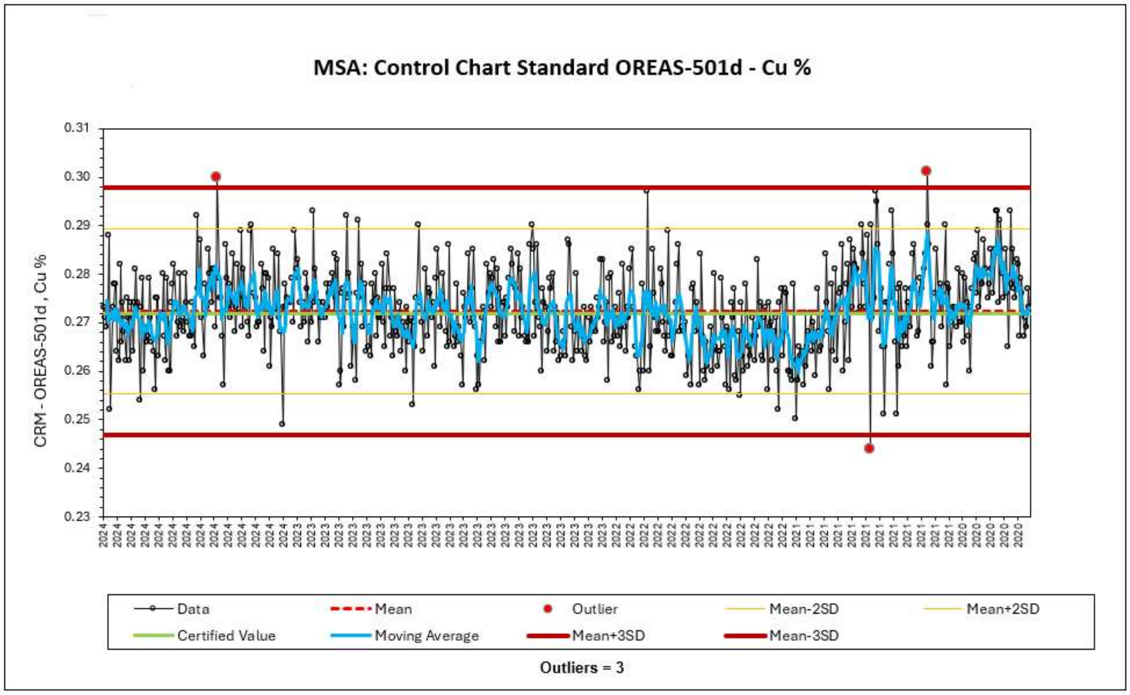


Figure 11-6: MSA's Performance Review of Standard OREAS 501d – Copper (Source: Mining Plus, 2024)

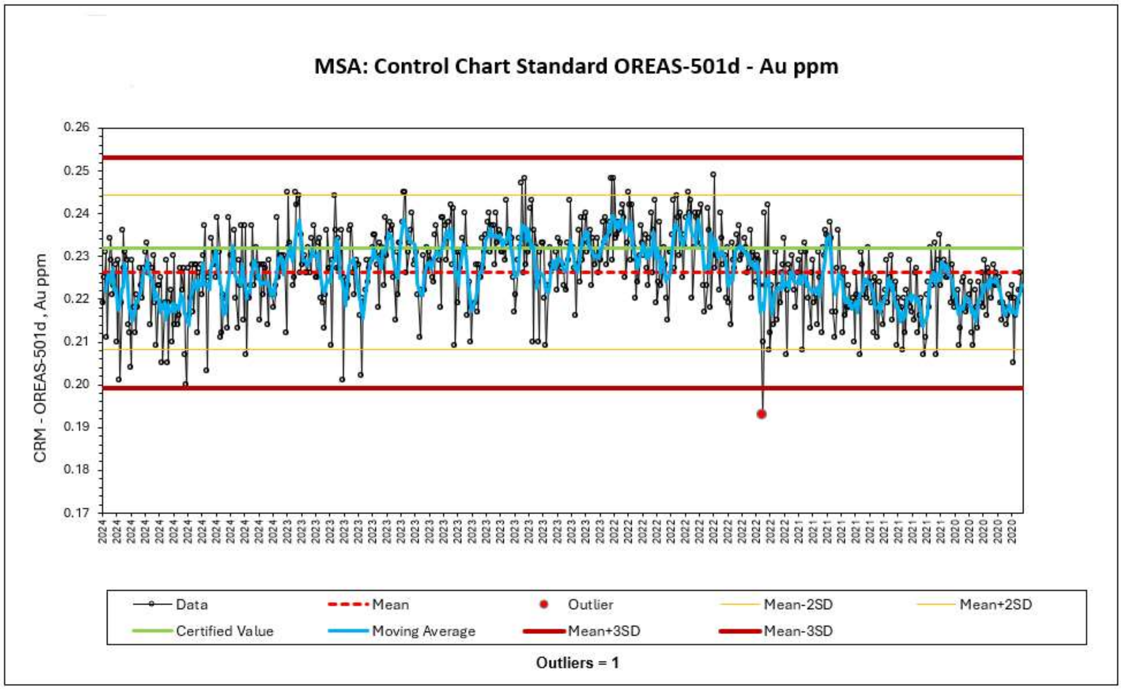


Figure 11-7: MSA's Performance Review of Standard OREAS 501d – Gold (Source: Mining Plus, 2024)

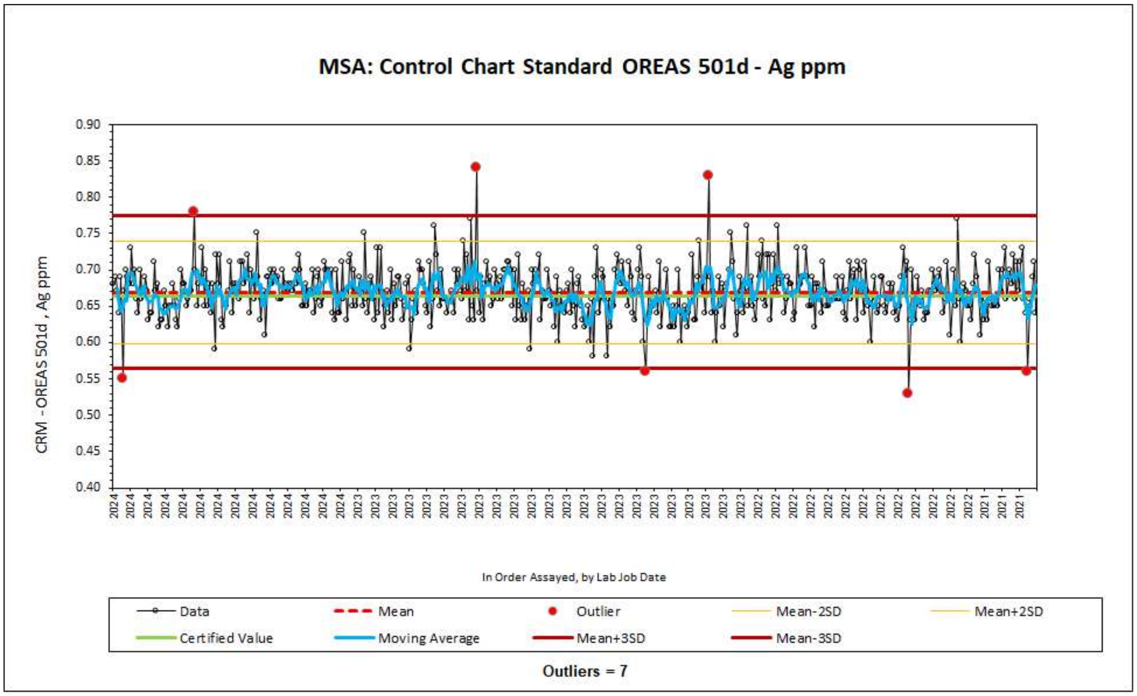


Figure 11-8: MSA's Performance Review of Standard OREAS 501d – Silver (Source: Mining Plus, 2024)

11.3.5.2 Blanks

The 2020-2024 QA/QC program utilized two types of blanks:

- OREAS 23b (464 samples), a certified fine blank made of granodiorite material, and two coarse field blanks:
- BLANK (998 samples), a granite material without certification or significant backing, and FB-01 (89 samples), consisting of certified white crystalline quartz.

In total, 1,551 blank samples were submitted, with an average insertion rate of one in 30.

FB-01 was used for grind control and inserted as 4 kg samples. The preparation process involved 30 tons of white crystalline quartz reduced to 1/4 inch. From this material, approximately 30 samples of 4 kg each were selected and analyzed by ALS Patagonia S.A.

Average values for Ag, Cu, Mo, Pb, and Zn were standardized within upper and lower limits. Au values were below detection, with 0.025 ppm set as the reference. The upper limits for these elements are summarized in Table 11-5 and were used limits to identify contamination.

For OREAS 23b is a fine pulp provided by OREAS and was used with +3SD as the maximum acceptable limit for contamination. This control has been included since 2023.

Figure 11-9 to Figure 11-11 present the analytical results of the BLANK control samples, organized by date. The maximum acceptable limit for contamination was set at 5 times the average for each analyzed element.

No significant contamination has been observed across all blank controls, occasional deviations are considered minor and not material.

Table 11-5: FB-01 Summary of Upper Limits for Contamination

Elements	Average (ppm)	+ 5 x Average (ppm)
Cu	17.69	88.45
Mo	3.02	15.1
Ag	0.0243	0.12
Pb	0.3333	1.67
Zn	1.37	6.85

Source: MSA 2024

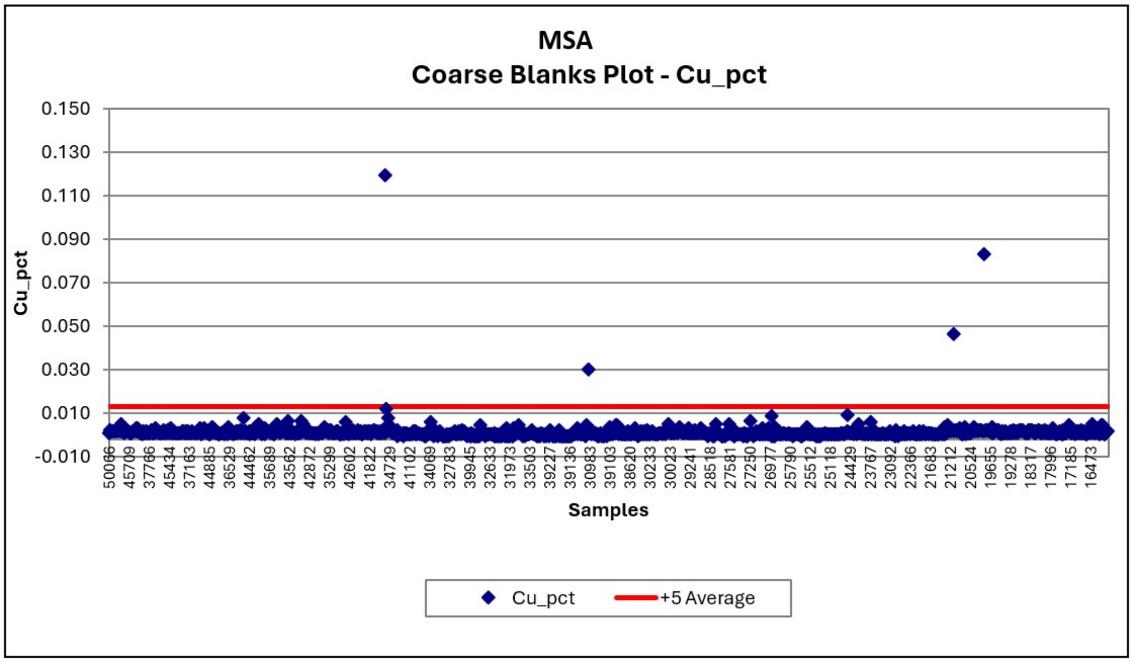


Figure 11-9: MSAd's Performance Review of Coarse Blanks: BLANK – Copper (Source: Mining Plus 2024)

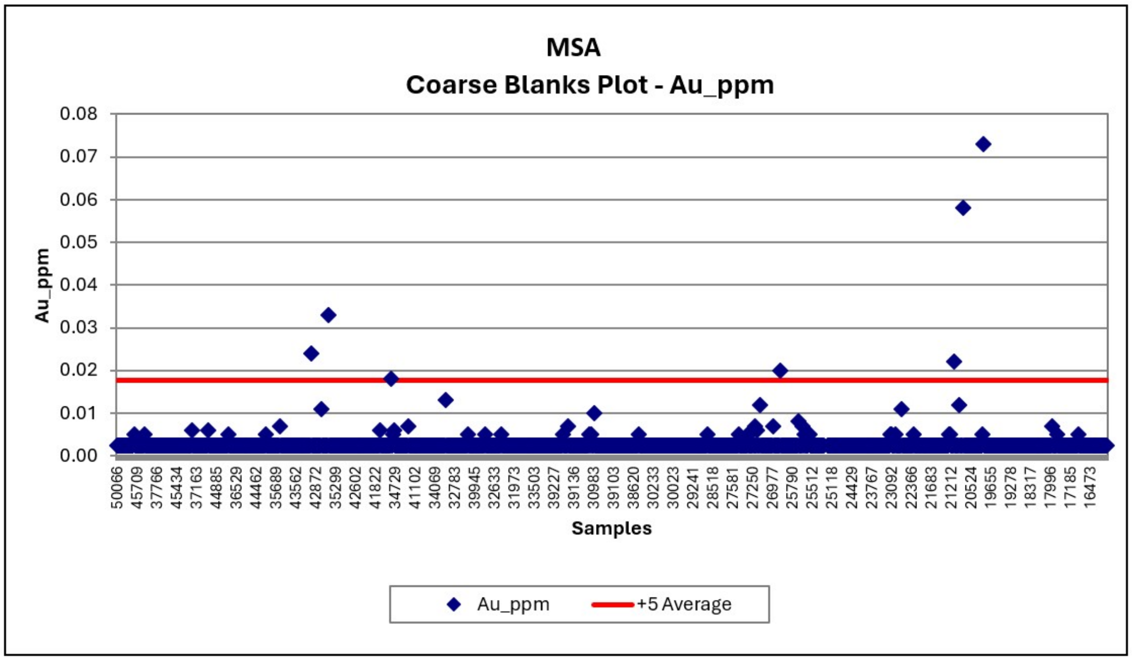


Figure 11-10: MSAd's Performance Review of Coarse Blank: BLANK– Gold (Source: Mining Plus 2024)

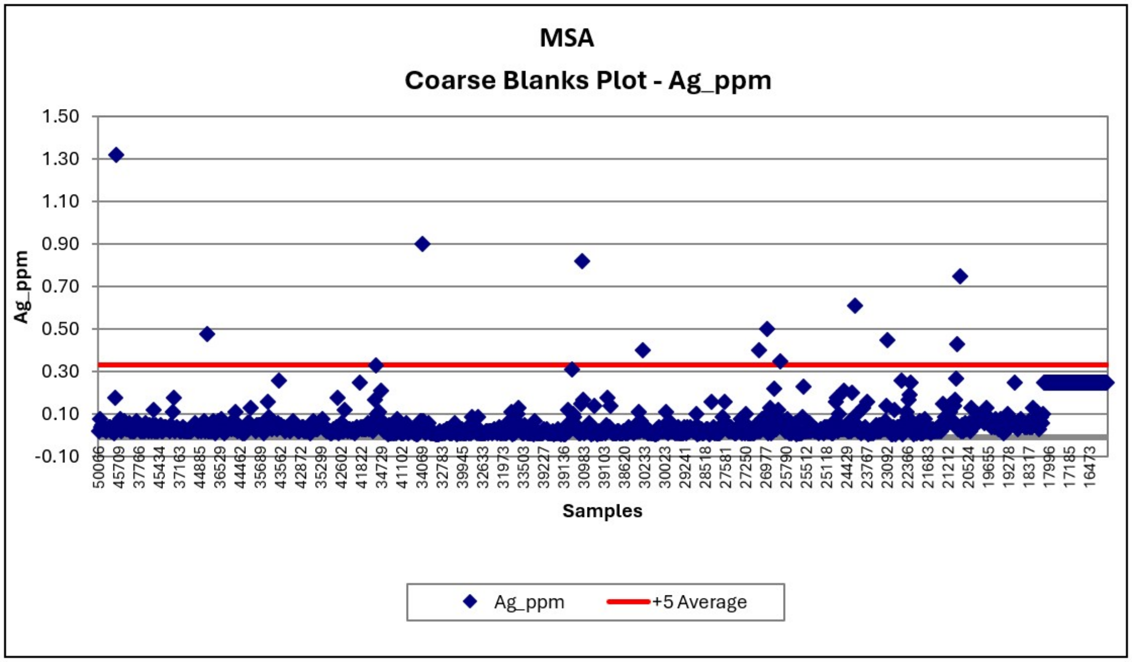


Figure 11-11: MSAd's Performance Review of Coarse Blanks: BLANK– Silver (Source: Mining Plus 2024)

11.3.5.3 Duplicates

Duplicate control is conducted using 1/4 core split "Field Duplicates," prepared at the project site. The primary purpose of the duplicates is to evaluate the precision of the sampling process. Ensuring consistency in sample collection and handling. The first sample of each duplicate pair is recorded as the original in the drillhole database.

Duplicates in the 2020 to 2024 drilling programs are made to the previous sample. On the control box, the number of the sample to be duplicated is placed just after the sample in question.

From 2020 to 2024, 1,566 field duplicate samples (1/4 core splits) were submitted, averaging 1 in every 30 core samples. These duplicates were evaluated using the hyperbola method, with an acceptance tolerance of 30%. The results, shown in Figure 11-12 to Figure 11-14, illustrate the performance of the main elements analyzed during the drilling campaign at the Chinchillones Complex. Copper and silver exhibited low precision, with failure rates exceeding 10%, while gold showed acceptable precision within the tolerance range. The low precision for copper and silver is attributed to the complex vein-hosted mineralization and the inherent variability of 1/4 core duplicates compared to original samples.

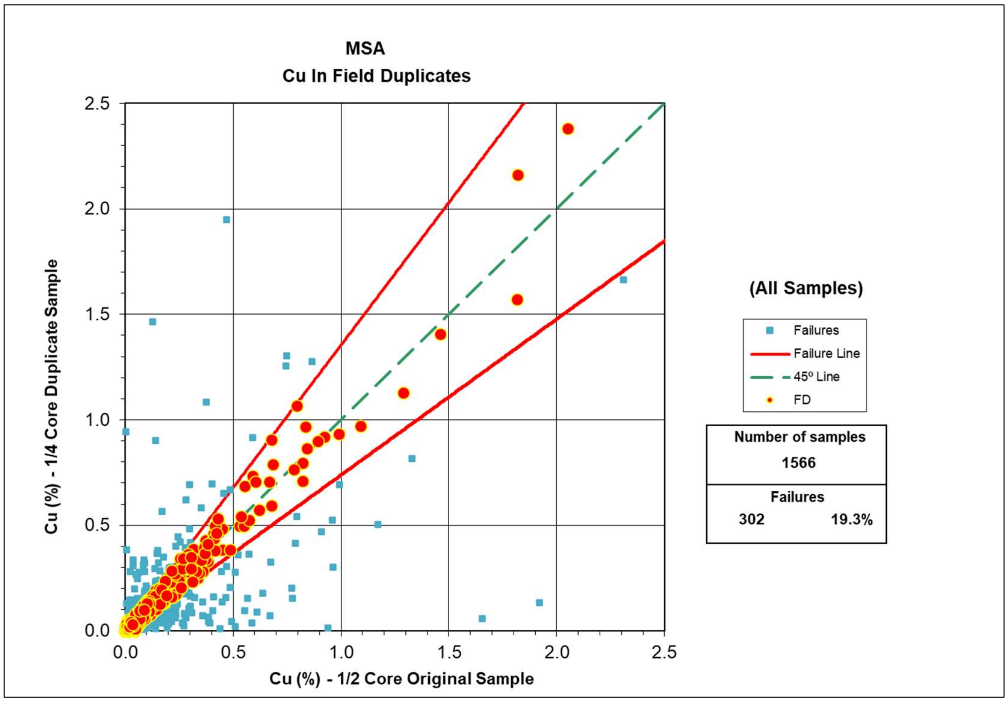


Figure 11-12: Analysis of Field Duplicate Performance (1/4 Core) for Copper – MSA (Source: Mining Plus, 2024)

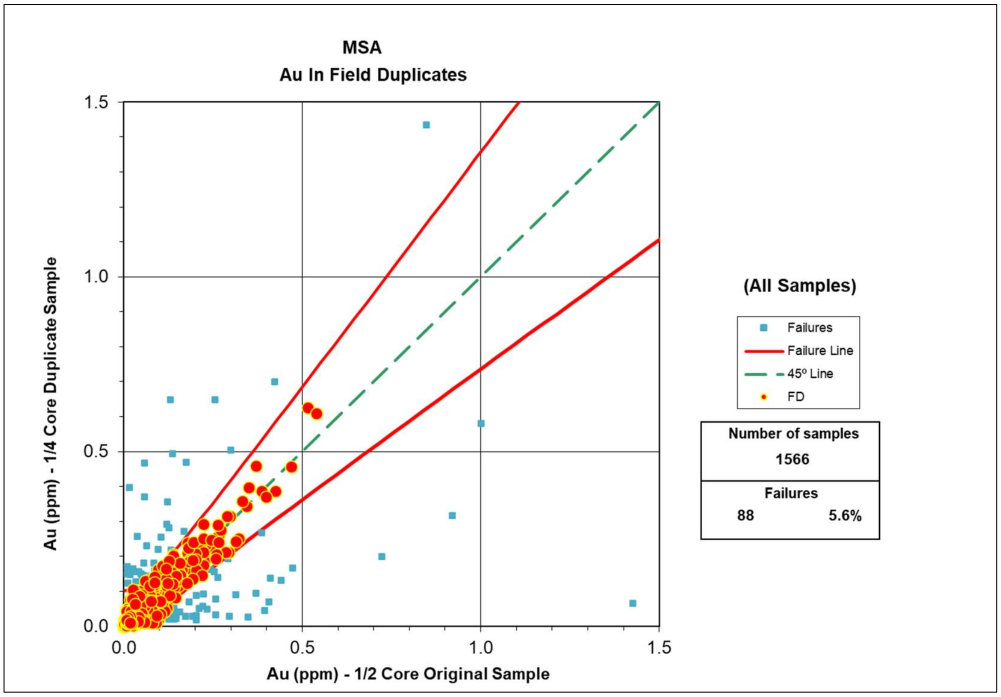


Figure 11-13: Analysis of Field Duplicate Performance (1/4 Core) for Gold – MSA (Source: Mining Plus, 2024)

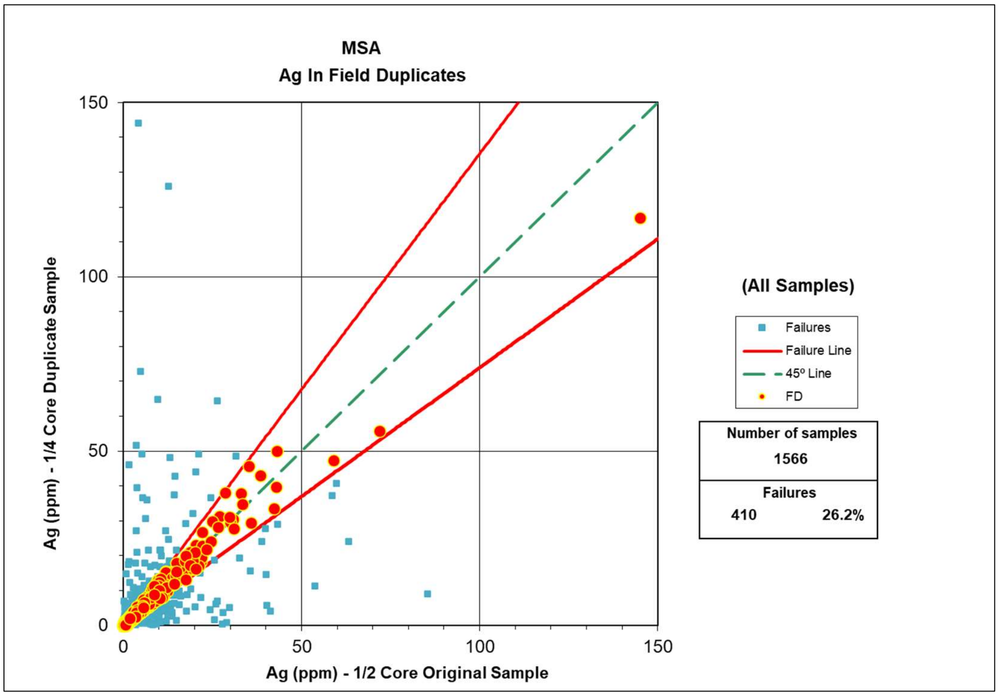


Figure 11-14: Analysis of Field Duplicate Performance (1/4 Core) for Silver – MSA (Source: Mining Plus, 2024)

11.3.5.4 Umpire Check Samples

ALS was the primary laboratory for MSA's drilling program, with sample preparation completed at its Mendoza facility and chemical analysis conducted at its Lima laboratory. To ensure accuracy and reproducibility, 553 pulp samples, representing 1% of the MSA assay database, were sent to Bureau Veritas in Lima for umpire analysis. The analytical methods were consistent between laboratories, and results showed no significant biases for copper, silver, gold, lead, zinc, or molybdenum.

Figure 11-15 shows an example of the copper assay results from the umpire check samples, demonstrating the overall consistency between the primary and umpire laboratory results.

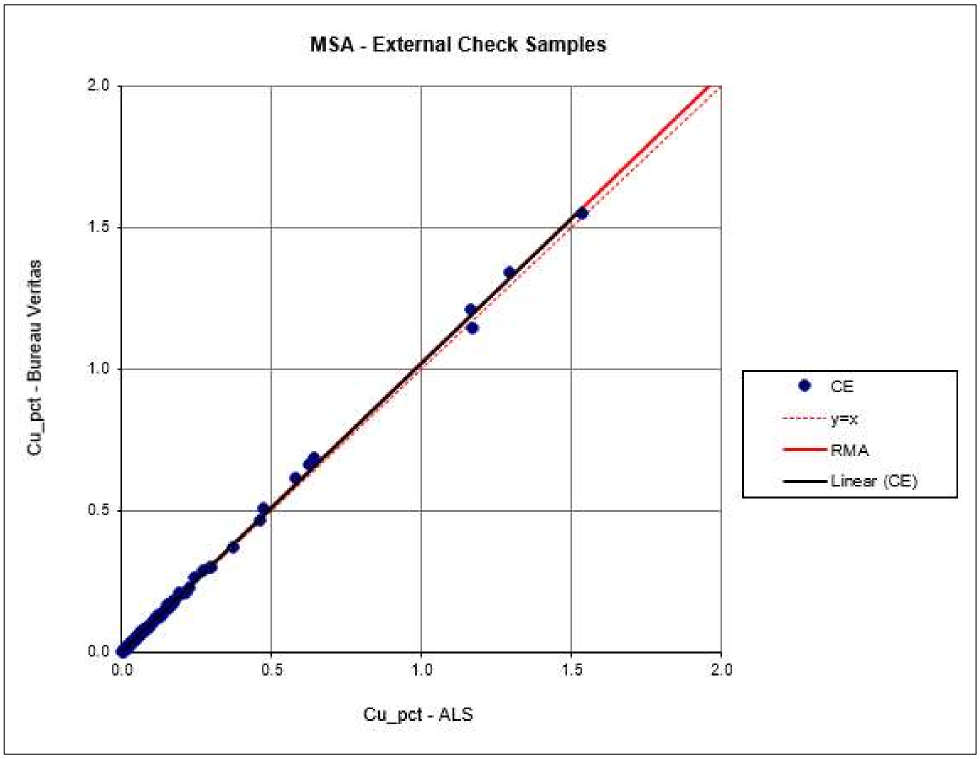


Figure 11-15: MSA's Performance Review of Umpire Check Sample for Copper (Source: Mining Plus, 2024)

11.3.5.5 QA/QC Conclusion

- The QA/QC results from earlier drilling campaigns, before MSA's involvement and current MSA QA/QC control, did not reveal any significant issues. The key findings from the QA/QC results of MSA’s drilling campaigns are as follows:

- QA/QC samples represented approximately 10–14% of total samples collected between 2020 and 2024. The program included Certified Reference Materials (CRMs), Field Duplicates (1/4 core), Coarse and Fine Blanks, and Check Samples.

- Accuracy of Analytical Results: CRMs (1,571 samples, ~4% of total) submitted between 2020 and 2024 showed minimal failures. No significant biases were observed, confirming the reliability of the results.

- Precision of Sample Preparation: Field duplicates (1,566 samples, 1/4 core, ~4% of total) indicated acceptable precision for gold, while copper and silver showed variability due to vein-hosted mineralization and the inherent variability of 1/4 core duplicates compared to original samples (1/2 core).

- Contamination Monitoring: Coarse blanks (1,087 samples, ~2% of total) and fine blanks (464 samples, ~1% of total) indicated no significant contamination during sample preparation, pulverization, or analysis.

- Umpire Check Samples: The results of the 553 pulp samples (~1% of total) confirmed the consistency of the analytical procedures, with no significant biases detected for copper, silver, gold, lead, zinc, or molybdenum, supporting the reliability of the primary laboratory assays.

11.4 QP Opinion

The QA/QC programs implemented provide a reasonable level of assay confidence, particularly for copper, gold, silver and molybdenum. The following recommendations are highlighted to enhance future exploration, data quality, and resource estimation efforts:

- The QA/QC program should be expanded to ensure control samples represent approximately 20% of total samples. This requires adding fine blanks, coarse blanks, reject duplicates, and pulp duplicates systematically to strengthen data quality and align with industry best practices.
- Using 1/4 core duplicates does not allow for proper duplicate assessment due to different sample support and mineralogical complexity. It is recommended to switch to 1/2 core duplicates for a better evaluation of sampling precision. A heterogeneity study should also be conducted to improve precision and accuracy in the sampling and analytic process.
- All fine and coarse blank materials should be certified to improve contamination assessment, and acceptance limits should be revised to align with industry standards. The current multi-element assay methods, often used in early exploration stages (multitrace), may have detection limits too low, complicating the contamination assessment. Therefore, it would be advisable to use a method suitable for ore analysis.
- Systematic umpire check samples should be prioritized to verify the reliability of analytical procedures. Earlier QA/QC results should also be validated to ensure consistency.

By addressing these areas, the QA/QC programs can support more reliable Mineral Resource estimations.

12 DATA VERIFICATION

The following provides an overview of the data verification steps undertaken by the independent consultant, and Qualified Person (QP), Mr. Esteban Manrique, Senior Geologist at Mining Plus Peru S.A.C. (Mining Plus) in preparation for this NI 43-101 Technical Report on the. The Chita Valley property, located in the San Juan province of Argentina, is operated by Minera Sud Argentina S.A. (MSA).

Mr. Esteban Manrique conducted two site visits (September 20th to 25th and December 7th to 11th, 2024). He inspected mineralized outcrops at the breccia located in the Chinchillones Complex and Chita South areas. In addition to visiting the core storage facility in San Juan. During these visits, he verified drill collar coordinates, reviewed historical core (2008 to 2017) drilled by Minsud Resources Corp. (Minsud), recent core (2020 to 2024) drilled by MSA, and standard operating procedures (SOPs). These procedures related to drilling, sampling, quality assurance/quality control (QA/QC), and database management. He additionally collected independent samples for third-party laboratory analysis.

Certain limitations were encountered during data verification. Specifically, it was not possible to directly observe drilling and sampling activities from historical campaigns (2008 and 2017). Verification instead relied on a detailed review of documentation, data records, and discussions with project personnel, confirming that Minsud implemented acceptable drilling and sampling procedures. No opinion can be provided on drilling procedures conducted prior to Minsud (1969–2008) due to limited information

Based on the procedures and discussions with personnel involved between 2008 to 2024, the QP considers the data from Minsud and MSA to be reliable and adequate for the purposes of this technical report. Supported by acceptable sampling protocols, QA/QC measures, and effective data management.

Although the drilling campaigns conducted prior to MSA between 2008 and 2017 were primarily focused on the Chita South target and have demonstrated reliable results, there are opportunities for improvement in the storage of core materials, which was previously constrained due to financial limitations faced by Minsud. Addressing these storage concerns would improve the quality of supporting information and core materials related to the previous Chita South Mineral Resource estimate, potentially allowing for its reconsideration in future resource updates.

The drilling conducted between 2020 and 2024 by MSA was primarily carried out in the Chinchillones Complex deposit. MSA's drilling procedures, data collection and storage of core, reject, and pulp samples from drilling in the Chinchillones Complex are considered robust and appropriate. There are no known factors that could materially impact the accuracy or reliability of the Mineral Resource estimate.

This section focuses mainly on the recent drilling conducted by MSA at the Chinchillones Complex deposit, which provided the main data for the resource estimation. The following section outlines the work performed, summarizing the key observations, conclusions, and recommendations.

12.1 Site Visit

Mr. Esteban Manrique, Senior Geologist at Mining Plus (MP), independent consultant, and Qualified Person (QP), conducted site visits as part of the data verification process. The site visits were carried out on two occasions: September 20th to 25th, 2024, and December 7th to 11th, 2024. Mr. Manrique reviewed geological interpretations, drilling data, and sampling procedures from both historical and recent exploration campaigns. He inspected key project facilities, including the core storage facility located in Mendoza. The main purpose of the site visit was to evaluate the:

- Geological and geographical context of the Chita Valley Property.
- Historical focus mainly on Minsud drilling and recent MSA drilling.
- Scope and progress of all exploration activities.
- Drill collar coordinates.
- Mineralized outcrops on the property.
- Mineralized and non-mineralized drill cores, historical and recent holes.
- Standard operating procedures (SOPs) related to:
    - Drilling, sampling, and analysis processes at all stages of sample preparation and analysis.
    - Core logging, re-logging, sampling methodologies, quality control protocols, and chain of custody procedures.
    - Database Management.
- Storage facilities for drill cores, rejects, and pulp samples.
- Collect independent verification samples of drill cores and pulp for analysis.

During the site visit, Mr. Esteban Manrique (QP) engaged in discussions with Mr. Diego Gordillo, the Exploration Manager of MSA. They reviewed and analyzed geological and mineralization controls, and also discussed drilling, sampling, and QA/QC procedures. In the QP's opinion, project management is effectively developing the interpretation of surface geology, structural features, alterations, and mineralization. By integrating surface geological data, drilling, logging, and sample analysis, the team is producing refined geological interpretations. They are furthermore successfully identifying drilling points and performing accurate logging and sampling.

12.2 Data Capture and Management Processes

The central MX deposit database (MSA drilling), is managed using a relational database. This system centralizes geological data related to drilling, sampling, and quality control on a secure server. The software incorporates built-in validation to minimize errors during entry. Access to the master database is controlled through multiple security levels, ensuring integrity.

12.2.1 Collar Verification

Most of the drilling was surveyed using a Differential GPS. This was referenced to the UTM coordinate system (WGS84 datum, Zone 19S). Historical drill data prior to Minsud was referenced to the Campo Inchauspe 1969 Datum (POSGAR 69); however, was excluded from verification due to its limited, sparse representation. Mr. Manrique verified drill collar locations for seven holes using a GARMIN GPSMAP 64s handheld GPS. There were no significant differences, and they are within acceptable limits (Table 12-1).

The drill collars are well-monumented with a concrete base and a PVC pipe indicating the direction and starting point of the drill hole. Each monument is clearly labeled with collar name, dip, azimuth, and final depth. (Figure 12-1).

Table 12-1: Comparison of the Collar Coordinate of Drillings from the Database vs Handheld GPS

		Handheld GPS		Database		Difference (m)	
Project	**Hole**	**East (m)**	**North (m)**	**East (m)**	**North (m)**	**East**	**North**
Chinchillones Complex	CH-DH 21-40	447,131.0	6,619,757.0	447,126.7	6,619,763.0	4.3	-6.0
	CH-DH 23-96	447,523.0	6,619,881.0	447,519.1	6,619,885.0	3.9	-4.0
	CH-DH 24-113	447,685.0	6,620,279.0	447,683.0	6,620,280.0	2.0	-1.0
	CH-DH 11-04	446,429.0	6,619,749.0	446,431.1	6,619,753.0	-2.1	-4.0
Chita South	PSU 14-06	449,647.0	6,620,020.0	449,643.1	6,620,018.0	-3.9	-2.0
	PSU 14-18	450,039.0	6,620,386.0	450,035.5	6,620,385.0	-3.5	-1.0
	PSU 15-39	450,130.0	6,619,972.0	450,134.3	6,619,972.0	4.3	0.0

Source: Mining Plus 2024

Figure 12-1: Location of the Collar: a) Chinchillones Complex and b) Chita South

12.2.2 Drill Core and Outcrop Inspection

Mr. Manrique inspected several mineralized and barren outcrops. He reviewed mineralized and non-mineralized intervals from three drill holes in Chita South and four drill holes in the Chinchillones Complex.

At Chita South, the QP reviewed drillings carried out in porphyritic rocks of andesitic composition, propylitized with intense stockwork and silica-clay veins. An old mining operation (Figure 12-2), featuring a 0.30 m NW-SE shaft in porphyry rock, was inspected, and a sample (Code: 012463) was collected.

At the Chita South Project, drill cores from sections PSU 14-06, PSU 14-18, and PSU 15-39, were reviewed. Detailed evaluations were performed considering both mineralized and barren sections. Samples were collected to verify the metallic element values.

At the Chinchillones Complex, Mr. Manrique examined the Breccia Chinchillones, an ENE-WSW elongated quartzite breccia outcrop measuring approximately 260 m by 100 m. This breccia consists of intensely fractured quartzite. The fractures are filled with authigenic and allochthonous oxides (Figure 12-3). Surface samples were collected using channels parallel to the breccia body. Pyrite, chalcopyrite, and molybdenite were observed in the adjacent ravine. To verify mineralization, two reference rock chip samples were collected (Codes: 012461 and 012462).

At the Chinchillones Complex, core intervals CH-DH 21-40, CH-DH 23-96, CH-DH 24-113, and CH-DH 11-04, were reviewed. Similar to the Chita South review, selected intervals included both mineralized and barren sections. Samples were collected to corroborate the values of the analyzed metallic elements.

Figure 12-2: Old Mining Work

Figure 12-3: Intensely Brecciated Quartzite Infilled with Authigenic and Allochthonous Oxides

12.2.3 Independent Check Sample

Mr. Manrique conducted an independent reanalysis of twenty-eight core samples (1/4 core), one reject, and one pulp. Additionally, three rock chip samples were collected from outcrops for further analysis: Sample 012463 from Chita South and Samples 012461 and 012462 from the Chinchillones

Complex. These samples were sent to the ALS Patagonia S.A. laboratory in Mendoza, Argentina, following the same preparation and analysis procedures as the primary samples.

The reanalysis assay results (Table 12-2) were generally consistent trend (Figure 12-4) with the original grades. Variations observed in the core samples may be attributed to the smaller sample size (quarter-core), which inherently increases imprecision. However, these differences are considered acceptable for both Chinchillones and Chita Sur, with the exception of drill hole CH-DH 23-96 from 322 to 324 meters, which exhibits significant discrepancies with no clear explanation.

The two rock chip samples collected from the Chinchillones Breccia returned notable metal values, sample 012463 reported 1.62% Cu, 169 ppm Ag, 1,820 ppm Pb, and 3,740 ppm Zn, while sample 012462 exhibited anomalous concentrations of the same elements. Similarly, the outcrop sample from Chita South contained significant silver, lead, and copper values. These results further support the presence of polymetallic mineralization in both areas.

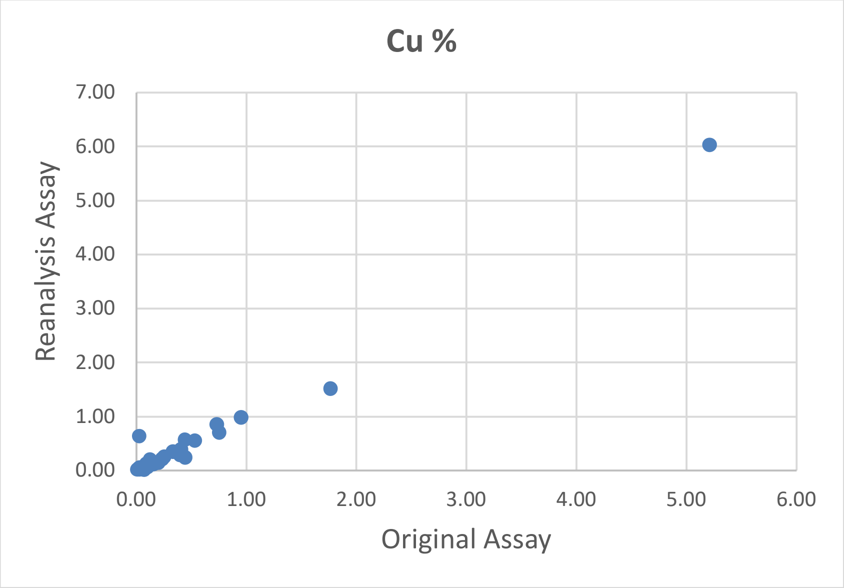


Figure 12-4: Copper Correlation Plot: Original Samples vs. Reanalysis by Mining Plus (Source: Mining Plus, 2024)

Table 12-2: Independent Reference Sampling from Drill Holes at Chita South and Chinchillones Complex

		Original Samples								Independent Check Samples				Relative Difference%		
Project	**Hole**	**Old Sample**	**From (m)**	**To (m)**	**Length (m)**	**Type**	**Cu %**	**Au g/t**	**Ag g/t**	**New Sample**	**Cu %**	**Au g/t**	**Ag g/t**	**Cu**	**Au**	**Ag**
Chita South	PSU 14-06	9303	44	46	2	Core	0.40	0.04	2.1	12470	0.29	0.039	1.56	-28%	0%	-26%
		9304	46	48	2	Core	0.41	0.05	1.8	12471	0.39	0.053	2.29	-5%	0%	27%
		9315	64	66	2	Core	0.09	0.18	14.0	12472	0.12	0.157	9.28	33%	-11%	-34%
		9337	104	106	2	Core	0.23	0.06	1.1	12473	0.21	0.104	1.28	-9%	67%	16%
	PSU 14-18	10515	10	12	2	Core	0.03	0.35	26.6	12467	0.04	0.232	27.9	33%	-34%	5%
		10531	38	40	2	Core	0.95	0.13	1.6	12468	0.98	0.112	3.99	3%	-15%	149%
		10553	78	80	2	Core	1.77	0.65	70.0	12469	1.52	0.466	54.6	-14%	-28%	-22%
	PSU 15-39	12578	148	150	2	Core	0.10	0.05	0.9	12464	0.10	0.04	1.12	0%	-20%	24%
		12598	184	186	2	Core	0.12	0.05	1.7	12465	0.20	0.049	2.5	67%	0%	47%
		12617	218	220	2	Core	0.20	0.07	3.8	12466	0.15	0.063	2.95	-25%	-14%	-22%
	Outcrop	-	-	-	-	Rock Chip	-	-	-	12463	1.62	2.22	169	-	-	-
Chinchillones Complex	CH-DH 21-40	27537	33	34	1	Core	5.21	1.40	19.2	12474	6.03	1.555	24.6	16%	11%	28%
		27572	94	96	2	Pulp	0.53	0.09	11.3	12475	0.55	0.11	10.9	4%	22%	-3%
		27741	396	398	2	Core	0.44	0.18	3.6	12476	0.24	0.18	2.67	-45%	0%	-26%
		27777	446	447	1	Core	0.44	0.28	2.6	12477	0.57	0.251	3.16	30%	-11%	22%
		27915	682	684	2	Core	0.13	0.04	2.2	12478	0.11	0.035	1.92	-15%	0%	-11%
	CH-DH 23-96	52148	58	60	2	Core	0.14	0.06	1.0	12479	0.12	0.041	0.91	-14%	-33%	-7%
		52239	322	324	2	Core	0.02	0.05	1.9	12480	0.64	0.69	19.85	3100%	1280%	945%
		52349	420	422	2	Core	0.05	0.48	5.1	12481	0.04	0.487	5.29	-20%	2%	3%
		52392	498	500	2	Reject	0.75	0.56	8.5	12482	0.71	0.623	8.82	-5%	11%	4%
		52525	738	740	2	Core	0.33	0.15	3.2	12483	0.35	0.15	3.11	6%	0%	-2%
	CH-DH 24-113	55368	46	48	2	Core	0.16	0.10	1.9	12484	0.13	0.235	1.62	-19%	140%	-13%
		55419	134	136	2	Core	0.06	0.03	0.3	12485	0.06	0.021	0.33	0%	-33%	-3%
		55452	186	188	2	Core	0.01	0.04	0.4	12486	0.02	0.038	0.49	100%	0%	14%
		55545	344	346	2	Core	0.25	0.07	4.4	12487	0.25	0.057	3.66	0%	-14%	-17%
		55702	604	606	2	Core	0.73	0.03	6.8	12488	0.85	0.059	6.09	16%	100%	-10%
	CH-DH 20-04	17028	17.5	18.5	1	Core	0.03	1.79	45.9	12489	0.02	0.802	17.65	-33%	-55%	-62%

		Original Samples								Independent Check Samples				Relative Difference%		
Project	Hole	Old Sample	From (m)	To (m)	Length (m)	Type	Cu %	Au g/t	Ag g/t	New Sample	Cu %	Au g/t	Ag g/t	Cu	Au	Ag
		17037	37.4	38.3	0.9	Core	0.03	0.97	263.0	12490	0.05	0.526	158	67%	-45%	-40%
		17060	78.8	79.8	1	Core	0.07	0.05	13.5	12491	0.01	0.052	8.09	-86%	0%	-40%
		17068	93.55	94.3	0.75	Core	0.02	0.10	5.2	12492	0.04	0.124	9.08	100%	20%	75%
		17079	112	112.5	0.5	Core	0.10	0.11	6.8	12493	0.06	0.186	6.74	-40%	73%	-1%
	Outcrop	-	-	-	-	Rock Chip	-	-	-	12461	0.06	0.069	3.78	-	-	-
		-	-	-	-	Rock Chip	-	-	-	12462	0.02	0.238	11.6	-	-	-

Source: Mining Plus 2024

12.3 Procedures for sample storage, preservation, and quality control

During the site visit, Mr. Manrique evaluated MSA's updated sampling procedures, reviewed standard operating procedures (SOPs), data management practices, and engaged with team members to assess implementation. All core, reject, and pulp samples developed by MSA between 2020 and 2024 are properly stored and inventoried in a modern warehouse located in San Juan city. Mr. Manrique concluded that the procedures for core cutting, sample collection and core shed storage were adequate. The QA/QC measures were acceptable, with some opportunities for improvement.

12.4 Geology Data Reviews

Mr. Manrique, with the support of the Mining Plus team, conducted a review of the drill hole database. The primary objective of the review was to identify and rectify potential errors in:

- Database structure.
- Spatial collar location.
- Downhole survey measurement.
- Geochemical analysis.
- QA/QC program results.

The drill holes from MSA were exported from the MX Deposit central database in CSV format. This data included drilling details, surface data (DXF), procedures, QA/QC database, laboratory assay certificates, and downhole survey measurement certificates. Additional supporting information, including quality control studies, audits, and core photographs were received.

The review focused on cross-validation of original data, analytical certificates, collar coordinates, downhole surveys, and density measurements against the drilling database. The summary of the review results is presented in Table 12-3. The main conclusions are summarized below:

Update of the surface topographic survey: It has been detected that the spatial position of the drill collar is systematically above the topographic surface. The differences were classified into three ranges:

    - Less than 10 m: 1 drill hole
    - Between 26 and 30 m: 65 drill holes
    - Between 31 and 33 m: 60 drill holes

- Collar elevations were adjusted to align with the existing topographic surface for Mineral Resource estimation. The current topographic survey has lower precision, so the discrepancy is not considered material. The differences are furthermore consistent across the dataset. Adjustments result in a uniform shift in geological interpretation without significantly impacting accuracy. However, updating the topographic survey is recommended for future estimations.
- Exclusion of planned azimuth and dip values in the survey table: It is recommended to exclude planned azimuth and dip values recorded at the start of downhole surveys. They often differ

from subsequent measurements taken with the Reflex EZ-TRAC tool. Significant discrepancies were observed in drill holes CHDH21-42 through CHDH23-86, impacting final trajectories. An error in the azimuth value for CHDH23-86 (documented as 3115 in the database but 312.38 in the ImdexHub file) highlights the need for improved data accuracy and decimal placement corrections.

- Implement systematic sampling and external density checks: Current density sampling, performed every 20 meters, selectively uses compact core samples and discards those with cavities or soft materials. To improve accuracy and remove potential bias, it is recommended to implement a systematic sampling procedure. Conduct external verifications using the paraffin method, which is more accurate and independent of the sample's nature.
- Data cleansing of recovery data: Duplicate drill holes were identified. It is recommended to cleanse the database to eliminate duplicates and ensure data integrity.

The main conclusion drawn from the review is that the database is considered acceptable and reliable for Mineral Resource estimation. There is some improvement opportunities described in Section 12.5 to consider for future drilling campaigns.

To report Measured Resources in the future, it will be necessary to update the topographic survey and enhance the QA/QC protocols. These improvements will provide greater certainty and support interpretation at higher confidence levels.

Table 12-3: Summary of MSA Drill Hole Database Review

Review		Comments
Database Structure		• No material problems were identified.
Collar Location	10% review of certificates	• 13 collar certificates (from 2020 to 2024) are not available; however, Minsud has provided an Excel spreadsheet template containing the drill hole coordinates. These coordinates have been cross-checked with the database records, revealing no significant discrepancies - only minor, millimetric differences.
	Site verification of XYZ	• No material problems were identified.
	Verification with topography surface	• Mining Plus found differences between the collars and the topography "DEM_2.5m_clip". All holes show differences, categorized into three groups: 1 hole with a difference of less than 10 m, 65 holes with differences between 10 and 30 m, and 60 holes with differences greater than 30 m. The reasons for this difference are unclear; however, the topography "DEM_2.5m_clip" was created using drone-based surveying and appears to have lower precision.
Downhole survey	10% review of certificates	• 13 downhole survey certificates are unavailable; however, Mining Plus has received downhole survey measurements downloaded from the ImdexHub website for each drill hole. These measurements have been reviewed and compared with the database records. While no material issues were identified, further review is warranted. The key highlights from the review are as follows: ○ Discrepancies have been detected in the recorded depth for drill holes CHDH21-26, CHDH21-40, and CHDH22-52. For example, drill hole

Review		Comments
		CHDH21-40 shows a recorded depth of 450 m in the database, while the files provided by ImdexHub indicate a depth of 477 m. o For drill hole CHDH23-86, the azimuth is recorded as 3115 in the database, whereas the ImdexHub file documents it as 312.38. This represents an error in the placement of decimal points, leading to discrepancies in the values. o For drill hole CHDH20-02, no supporting documentation has been found in the ImdexHub file. o Additional drill holes exhibit minor inconsistencies related to decimal rounding in azimuth and dip measurements.
	Kink check	• No material problems were observed. Mining Plus highlights: o 2 drill holes (CHDH21-42 through CHDH23-86) have failed the kink check due the initial records correspond to planned values, while subsequent downhole measurements were conducted using Reflex EZ-TRAC. However, 3D verification shows a significant change in the drill hole trajectory that should be reviewed; nonetheless, this is not expected to have a substantial impact on overall modelling and resource estimation.
	Holes with planned survey and holes without downhole survey	• No material problems were observed. Mining Plus highlights: o All drill holes have a downhole survey planned at the beginning of the measurements. These values often differ from those provided by Reflex EZ-TRAC. In Mining Plus's opinion, these planned values should be deleted and excluded from the survey database. o All drill holes include downhole survey measurements taken with the Reflex EZ-TRAC.
Sample Recovery		• 126 drill holes have sampling recovery information (100% of holes), with an average recovery of 98%. Minor inconsistencies have been identified: o Some drill holes are duplicated in the database (CHDH24-122, CHDH24-110, CHDH24-108 and CHDH24-106). o The drill hole CHDH23-69 is partially duplicated in the database (from 888 to 1242m). o There are intervals with a recovery of 0, with values for copper, gold, silver, molybdenum, and others are present. These intervals represent 0.03% of the database, and their impact is negligible. • No correlation is observed between the grades of copper, gold, silver, molybdenum, arsenic, and others with sampling recovery rates.
Density		• All the density sampling (3835 samples) has been carried out in-house by using the water immersion method, therefore, no certificates are available. • There are minor inconsistencies in the density database. In some drill holes, the maximum depth recorded in the collar database is exceeded in the density database (CHDH24-124A, CHDH24-121, CHDH24-109, CHDH24-105, CHDH23-92, CHDH23-78, CHDH23-77, CHDH22-60, CHDH22-56, CHDH22-54). • According to the "PROCEDURES MANUAL_231111.pdf," the collection of density samples is not systematic but selective, focusing on the most compact samples rather than those with higher porosity. This approach may introduce bias into the density measurements. • In Mining Plus's opinion, it is important to implement external checks for density using paraffin methods, as this technique provides greater accuracy independent of the sample's nature.
Chemical assays	Samples of the 10% of holes were compared with laboratory certificates	• From the samples reviewed minor inconsistences were detected as follows: o Discrepancies have been identified in two certificates compared to the database records. The re-analysis values have not been updated in the database.

Review		Comments
	(PDF/Excel) for the period from 2020 to 2024.	○ In certificates ME20296147 and ME22244692, samples 20914 to 20921 and 30923 to 30924 have been re-analysis, respectively, but the database has not been updated ○ Arsenic (As) records have been identified that exceed the detection limit values analyzed by the MS61 method and have not been analyzed by the OG62 method

Source: Mining Plus 2024

12.4.1 Mining Plus QA/QC Review

As a result of the QA/QC review for MSA drilling, Mining Plus highlights the following findings:

- Blanks: OREAS 23B and FB01 are considered suitable for gold analysis, given that their certified detection limit is lower than the laboratory limit. However, this condition is not met with other analyzed elements. Nonetheless, Mining Plus analyzed the behavior of copper, molybdenum, and silver, confirming the absence of contamination in fine and coarse blank controls.

- Certified Reference Materials (CRM) Controls: The primary laboratories maintain accuracy within acceptable ranges showing no biases.
- Sampling Precision: Sampling precision was evaluated through quarter-core field duplicates. Acceptable precision was observed for gold. However, the precision was lower for copper and molybdenum, due to the complexity of deposit mineralization. It is considered that the 1/4 core would not be suitable for evaluating precision.
- Umpire Check Samples: MSA carried out the check sample program with a second laboratory (Bureau Veritas in Peru). No significant biases or discrepancies were detected, demonstrating the consistency and reliability of the analytical results between the primary and umpire laboratories.

12.5 Recommendations

Based on the site visit and a review of the database, Mr. Esteban Manrique, Qualified Person (QP), provides the following recommendations:

Geological Interpretation

- Given its apparently isolated geomorphology, determine the lateral continuity of the mineralized body at the Chinchillones breccia:

Database Management and QA/QC Improvements

- Enhance the consistency of the database by addressing minor discrepancies.

- Compile and organize support files (e.g., certificates) for all drill holes to facilitate revision, comparison, and audits.

- Update the topographic survey to improve data consistency and geological interpretation.

- Remove planned deviation values recorded at the start of deviation measurements; they often differ from subsequent measurements taken with Reflex EZ-TRAC. Consolidate supporting documentation from ImdexHub to enhance data consistency and accuracy.

- Cleanse recovery data by eliminating duplicate drill holes. Review any intervals with 0% recovery and analytical values. Monitor this to ensure data integrity, even though no correlation between high grades and low recoveries was found.

- Implement systematic sampling for density measurements instead of selective sampling. Conduct external verifications using the paraffin method for greater accuracy.

- Update the database with the results of sample reanalysis to ensure consistency with certificates.

- Implement QA/QC reports that include monthly and annual evaluations at the end of each drilling campaign to monitor potential biases.

- Review the OREAS 501D and 503B certificates to assess discrepancies related to coding errors in chemical control results for Ag, Pb, Zn, and Sb in the 2020 and 2021 datasets.

- For future drilling campaigns:
  - The QA/QC program should be expanded to ensure control samples represent approximately 20% of total samples. This requires adding fine blanks, coarse blanks, reject duplicates, and pulp duplicates systematically to strengthen data quality and align with industry best practices.
  - Implement field with 1/2 core to ensure repeatability of results.

- It is recommended to review and organize the Chita South data and core material for re-inclusion in the mineral resources. This process should include further exploration to assess the sulfide potential, along with the systematic incorporation of sequential copper analysis to delineate the different zones of supergene and hypogene mineralization.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Three phases of metallurgical test programs were conducted on composites from the Chita Valley Project. The initial program (KM6595) was conducted to determine preliminary hardness characteristics and metallurgical performance to support a scoping level study. A follow-up program (KM6834) was initiated to produce arsenic-bearing copper concentrate for subsequent testing, including hydrometallurgical processing and separation of high and low arsenic copper concentrates. The third phase (KM7221) continued the metallurgical evaluation of the project. Testing was performed by ALS Metallurgy Kamloops in 2022 and 2024.

13.2 Sample Selection and Preparation

13.2.1 Initial Program (KM6595)

Samples consisting of 125 intersections of quarter drill core, with a total mass of 202.8 kg, were received by ALS Metallurgy (Figure 13-1). Upon receipt, the samples were homogenized into four composite samples representing different mineralization domains:

- Domain 1: High-grade Ag (+Au) -rich polymetallic IS
- Domain 2: High-grade Cu-Zn -rich polymetallic IS
- Domain 3: Porphyry High grade Cu +/-Mo
- Domain 4: Mix porphyry and IS

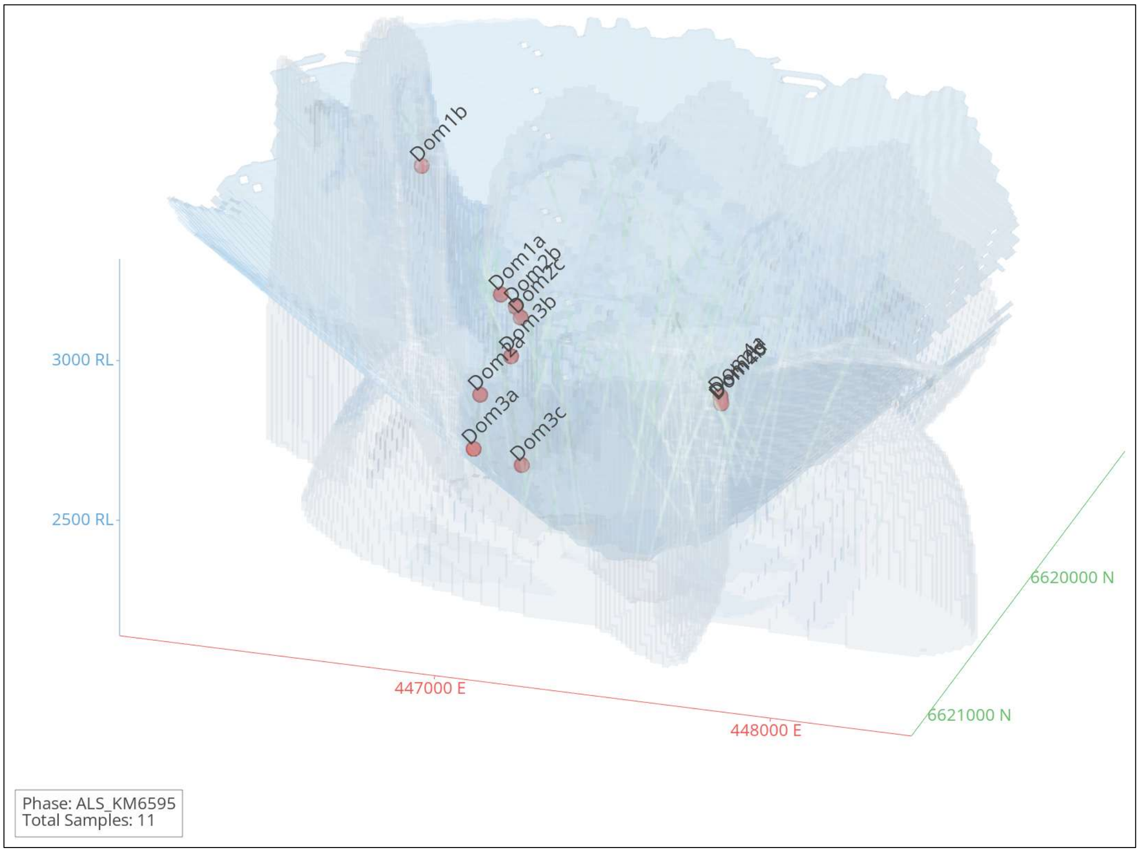


Figure 13-1: KM6595 Samples Location

13.2.2 Follow-up Program (KM6834)

Three composite samples were prepared for the follow-up program:

- Domain 1: Cu Only
- Domain 2: Polymetallic
- Domain 2B: Polymetallic

These samples were comprised of relatively finely sized assay rejects, which differed from the drill core used in the initial program.

13.2.3 Metallurgical Optimization (KM7221)

A total of nine samples were collected for analysis. Eight of these samples were obtained from continuous core sections, each measuring 30 meters in length, with a combined weight of 425.7 kg (). The ninth sample was sourced from geochemical reject material taken at a 10-meter interval. The samples were categorized according to the following domains:

- Samples 1, 2, 3, 5 and 6 – Cu-Au-As
- Sample 4 – Cu-Au (low As)
- Sample 7 – Mo-Cu
- Sample 8 and 9 (Assay Reject) – Zn Zone

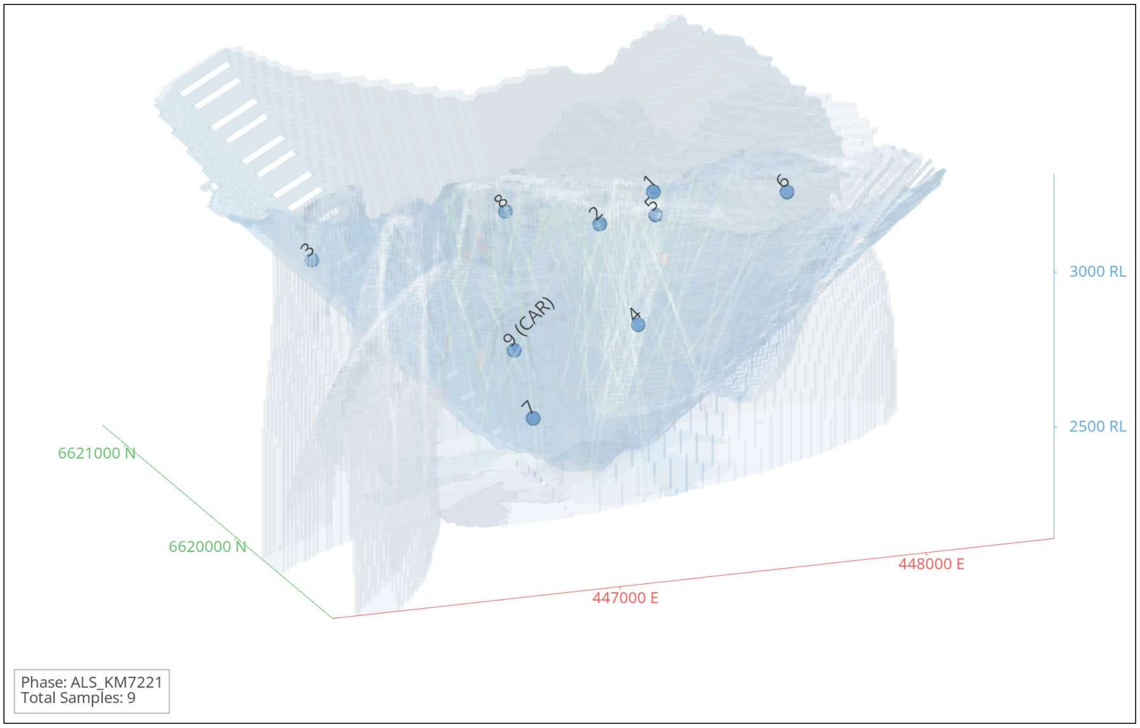


Figure 13-2: KM7221 Samples Location

13.3 Representativity Analysis

Figure 13-3 show how the distribution of the sample grades and rock properties compare to the resource that they should represent. The continuous line in the probability plots indicates the distribution of values in the drilling database, and the markers indicate the values of the samples used. It is generally accepted that if the samples cover similar ranges and distributions as the deposit, then the samples are expected to be representative.

In this case, these composites represent a reasonable spatial and mineralogical approximation of mineralization at this early study phase.

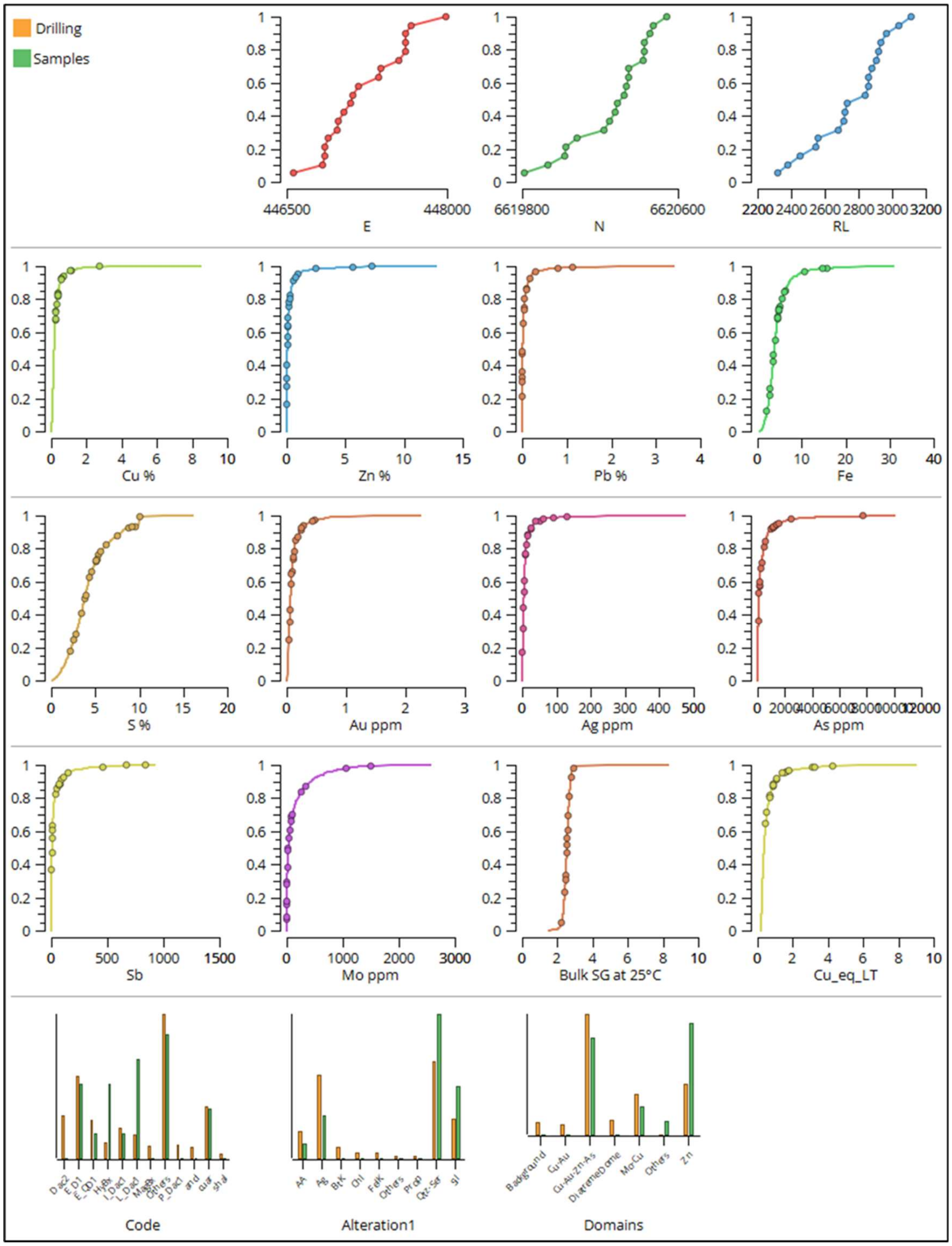


Figure 13-3: Resource Representativeness by Comparison of Sample Grades and Rock Properties

13.4 Heads Assays

Representative head samples were taken from each composite and analyzed for elements of interest. The results are summarized in Table 13-1.

Table 13-1: Average Head Assays of Domain Composites

Program	Domain	Type	Average Head Assays of Domain Composites									
			Cu (%)	Mo (%)	Pb (%)	Zn (%)	As (g/t)	Sb (g/t)	Fe (%)	S (%)	Ag (g/t)	Au (g/t)
KM6595	1	Polymetallic	0.36	0.003	0.23	0.66	1,015	98	4.6	5.48	62	0.26
KM6595	2	Polymetallic	0.72	0.001	0.55	3.53	1,575	195	8.3	12	49	0.23
KM6595	3	Only Cu	0.27	0.049	0.04	0.1	269	19	2.3	2.7	9	0.03
KM6595	4	Cu-Mo	0.58	<0,001	0.04	0.06	962	57	4.1	5.03	6	0.07
KM6834	1	Only Cu	0.35	0.001	0.02	0.03	780	25	5.8	7.05	6	0.09
KM6834	2	Polymetallic	0.14	0.002	0.13	0.39	300	20	3.4	4.34	11	0.1
KM6834	2B	Polymetallic	0.21	0.003	0.16	0.53	400	30	4.3	4.9	15	0.08
KM7221	1	Polymetallic	0.33	0.0003	0.02	0.11	1,175	66.8	6.3	7.6	23	0.18
KM7221	2	Polymetallic	0.54	0.0019	0.12	0.02	540	115	3.87	5.05	10	0.07
KM7221	3	Polymetallic	0.24	0.0042	0.02	0	131	4.72	2.71	3.68	3	0.29
KM7221	4	Cu-Au	1.18	0.004	0.1	0.01	135	10.6	3.23	4.08	10	0.29
KM7221	5	Polymetallic	0.26	0.0016	0.03	0	229	5.75	3.32	4.6	7	0.06
KM7221	6	Polymetallic	0.38	0.0005	0.13	0.02	884	233	11	>10.0	23	0.14
KM7221	7	Cu-Mo	0.33	0.13	0.1	0.04	137	6.38	2.01	2.59	4	0.1
KM7221	8	Only Zn	0.29	0.0098	0.07	0.01	232	7.14	5.4	6.11	17	0.25
KM7221	9	Only Zn	0.49	0.065	0.73	0.09	1,350	22.9	1.95	2.76	23	0.02

Additional analyses were performed to determine the proportion of copper, lead, and zinc present in oxide or secondary mineral forms. Results indicated that very little copper and zinc were in non-sulfide forms, but a significant presence of secondary copper minerals would be expected. The KM6834 samples showed higher levels of weak acid soluble copper compared to the KM6595 samples, which may be due to the finer particle size of the assay rejects used.

13.5 Mineralogy

Mineralogical characterization was performed using QEMSCAN Particle Mineral Analysis (PMA) protocols (Figure 13-4 and Figure 13-5). Key findings include:

- Chalcopyrite and tennantite/enargite were the dominant copper minerals in the composites shown in Figure 13-4.
- Over half the copper in KM6595 Domain 1 was measured in tennantite/enargite group minerals.
- All arsenic in the composites was measured in copper-arsenic sulphosalts, primarily tennantite.
- Pyrite content ranged from 4 to 17 percent across the composites.
- KM6834 Domain 1 contained pyrophyllite, a naturally hydrophobic non-sulfide mineral.

Copper deportment data showed that the ratio of copper minerals in the copper concentrate would likely be similar to that in the feed. Based on this, it was predicted that copper concentrates would grade between 3 and 7 percent arsenic.

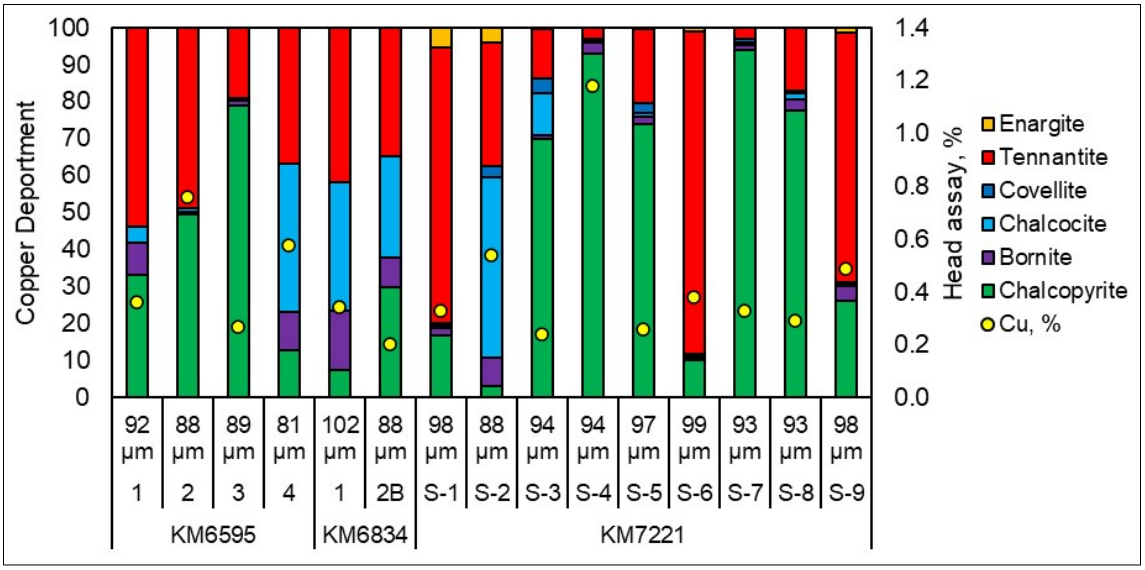


Figure 13-4: Copper Deportment

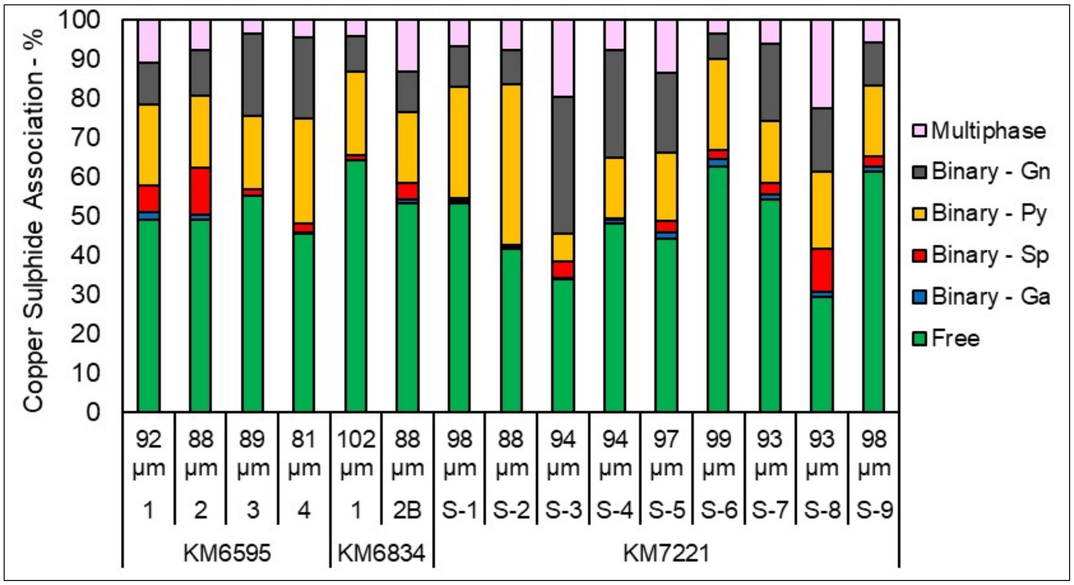


Figure 13-5: Copper Sulfide Association

13.6 Comminution Testing

SMC and Bond Ball Mill Work Index tests were conducted on each domain composite in the initial program. Results indicated that mineralization was either average or softer than average when compared to the database of global projects. The Bond Ball Mill Work Index results also indicated the ore to be moderately soft with regards to ball milling (Figure 13-6).

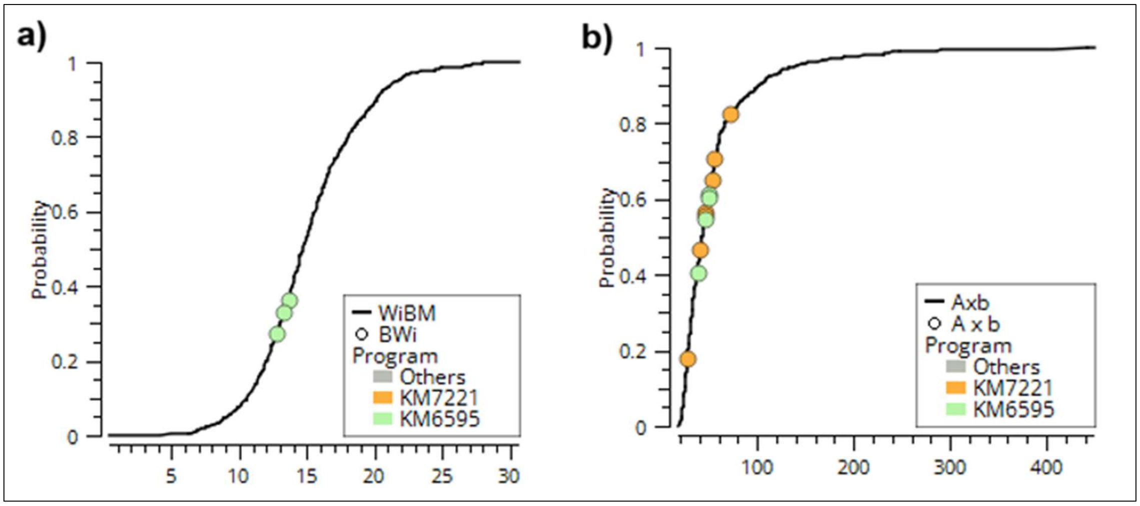


Figure 13-6: a) Bond Work Index - BWi, kWh/t and b) Axb

13.7 Flotation Testing

Flotation testing was conducted across two test programs to evaluate the metallurgical response of different composites and to investigate methods for producing marketable concentrates. The primary challenges addressed were copper recovery, zinc depression in copper concentrates, and arsenic mitigation.

13.7.1 Rougher Flotation

Extensive rougher flotation testing was conducted on samples from all domains to establish baseline performance, optimize primary grind size, and evaluate various reagent schemes. The primary objectives were to maximize copper recovery while minimizing the recovery of zinc and arsenic-bearing minerals.

13.7.1.1 Primary Grind Optimization

A series of optimization tests were conducted on primary grinding for rougher flotation. Multiple samples were characterized using QEMSCAN analysis and tested at various grind sizes ranging from 80 to 102 µm K80 to establish optimal processing conditions for each material type.

13.7.1.2 Reagent Optimization

Various collector and depressant combinations were tested to optimize rougher performance (Figure 13-7):

1. Collectors: Potassium Amyl Xanthate (PAX), sodium isopropyl xanthate (SIPX), and dithiophosphate (3418A)
2. Depressants: Sodium cyanide (NaCN), zinc sulphate (ZnSO4), sodium metabisulphite (SMBS)
3. pH modifiers: Lime and soda ash

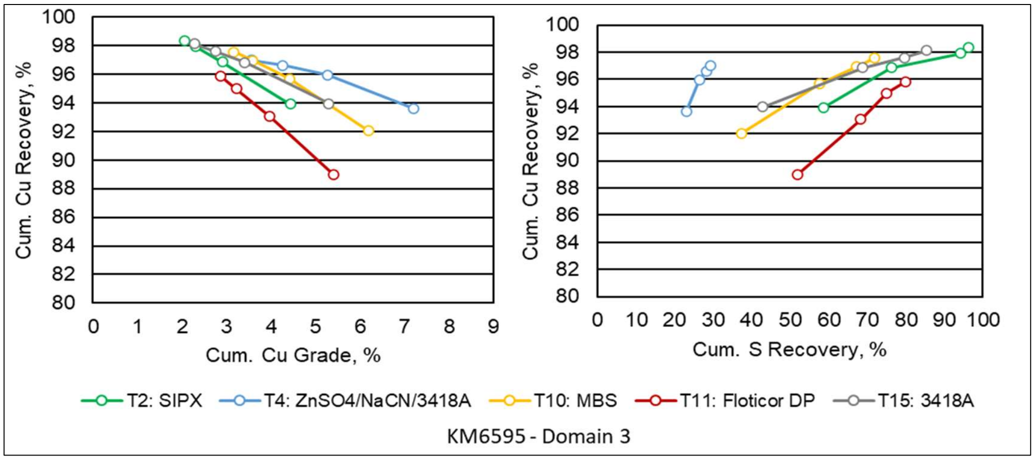


Figure 13-7: Summary of Reagent Scheme Evaluation for Rougher Flotation

The most effective reagent scheme for most samples was found to be:

- Collector: 20-30 g/t of 3418A
- Depressants: 15 g/t $ZnSO_4$ and 5 g/t NaCN in grinding
- pH modifier: Lime to maintain pH 9.5-10.0

However, it was noted that samples with high zinc content or significant clay minerals responded better to soda ash for pH modification.

13.7.1.3 Domain-Specific Performance

Rougher flotation performance demonstrated significant variations between mineralization zones, with distinct metallurgical responses observed in high-zinc domains compared to low-zinc domains (Table 13-2).

Table 13-2: Performance Comparison Between High and Low Zinc Domains

Dom	ID	Stream	Assay				Distribution, %			
			Cu %	Pb %	Zn %	Ag g/t	Cu	Pb	Zn	Ag
Low Zinc	6595 - T6	Cc Ro Bk	4.46	0.094	0.42	71.9	95.2	17.7	85.1	92.6
	Domain 4	Cc Ro Zn	-	-	-	-	-	-	-	-
High Zinc	7221-60R	Cc Ro Bk	3.21	1.23	5.88	170	82	82.7	64	75.6
	Sample 8	Cc Ro Zn	0.025	0.02	0.02	1	6.54	13.8	2.23	4.57

13.7.1.4 Mineralogical Factors Affecting Rougher Performance

QEMSCAN analysis of rougher concentrates and tailings provided insights into flotation behavior (Figure 13-8):

1. Liberation analysis showed that approximately 60-70% of copper minerals were liberated or in binary particles with other sulfides at the chosen grind size.
2. A Significant association between copper-arsenic minerals (enargite/tennantite) and other copper sulfides was observed, limiting potential for selective flotation.
3. Pre-activated sphalerite was identified, explaining high zinc recoveries even without copper sulphate addition.

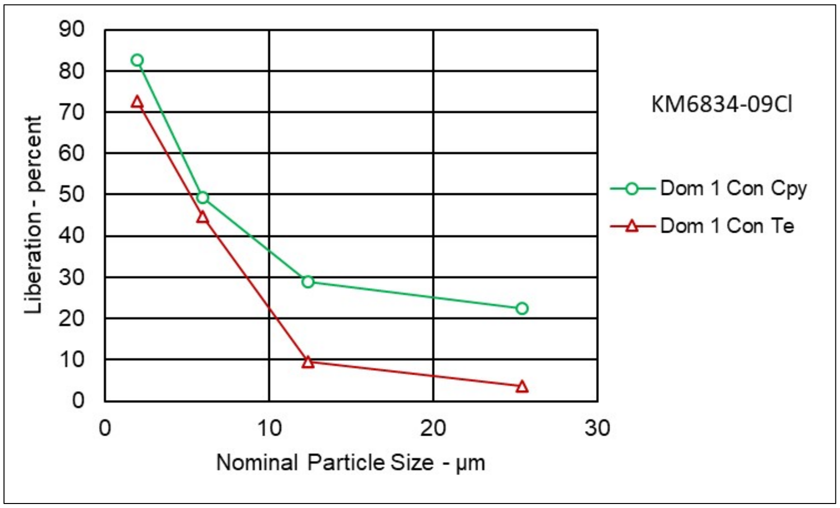


Figure 13-8: Mineral Liberation Analysis of Concentrate

13.7.1.5 Kinetic Flotation Studies

Kinetic flotation tests were performed to understand the flotation behavior of different mineral species over time (Figure 13-9).

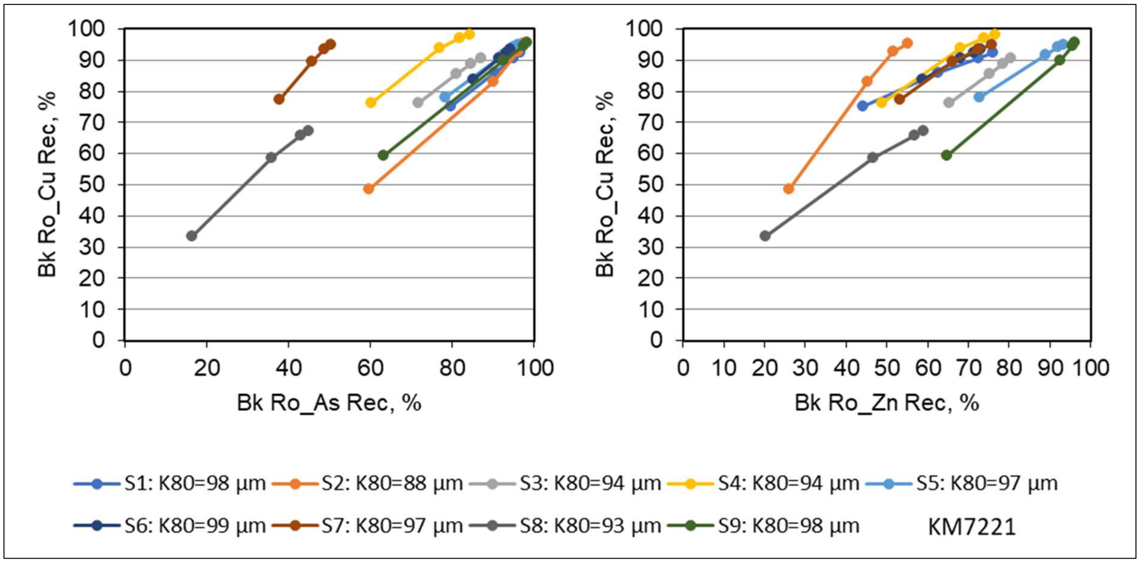


Figure 13-9: Cumulative Recovery vs. Flotation Time for Cu, Zn, Fe, and As

Key observations from kinetic studies included:

1. Rapid initial recovery of copper minerals, with >80% Cu recovered in the first 4 minutes
2. Significant early recovery of zinc, indicating pre-activation of sphalerite
3. Gradual increase in zinc and arsenic recovery over time, suggesting potential for selectivity improvement

13.7.1.6 Bulk Flotation Approach

Given the challenges with selective flotation, particularly for zinc-rich samples, a bulk Cu-Zn rougher flotation approach was also evaluated. This strategy aimed to maximize recovery of all sulfides in the rougher stage, deferring selectivity to the cleaning stages.

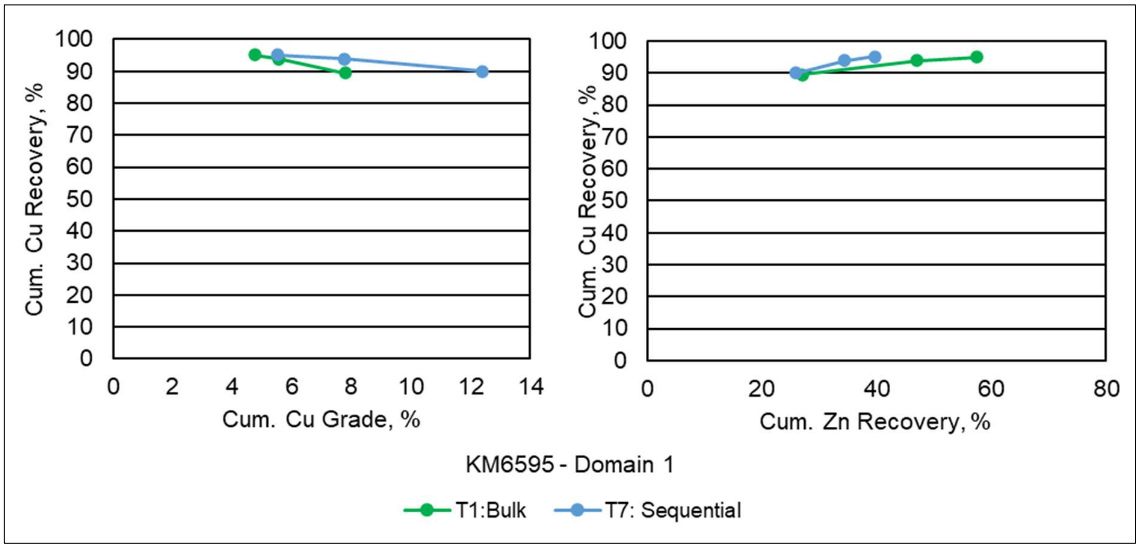


Figure 13-10: Comparison of Selective vs. Bulk Rougher Flotation Approaches

The bulk flotation approach showed promise for samples with high zinc content, allowing for higher overall recoveries and potentially simplifying the rougher flotation stage (Figure 13-10).

13.7.1.7 Discussion

Rougher flotation testing demonstrated that high copper recoveries could be achieved across all domains. However, the complex mineralogy, particularly the presence of copper-arsenic minerals and pre-activated sphalerite, presented challenges for producing selective rougher concentrates.

Key recommendations for future testing and process development include:

1. Further investigation of bulk flotation approaches, particularly for zinc-rich zones
2. Evaluation of alternative depressants for improved zinc rejection in selective flotation

3. Consideration of split conditioning or staged reagent addition to enhance selectivity
4. Additional mineralogical studies to better understand pre-activation mechanisms and mineral associations

These findings from rougher flotation testing formed the basis for subsequent cleaner flotation optimization and the development of strategies for managing high arsenic and zinc contents in final concentrates.

13.7.2 Cleaner Flotation

Cleaner flotation tests were performed to evaluate the ability to upgrade rougher concentrates and to investigate methods for zinc depression and arsenic mitigation (Figure 13-11).

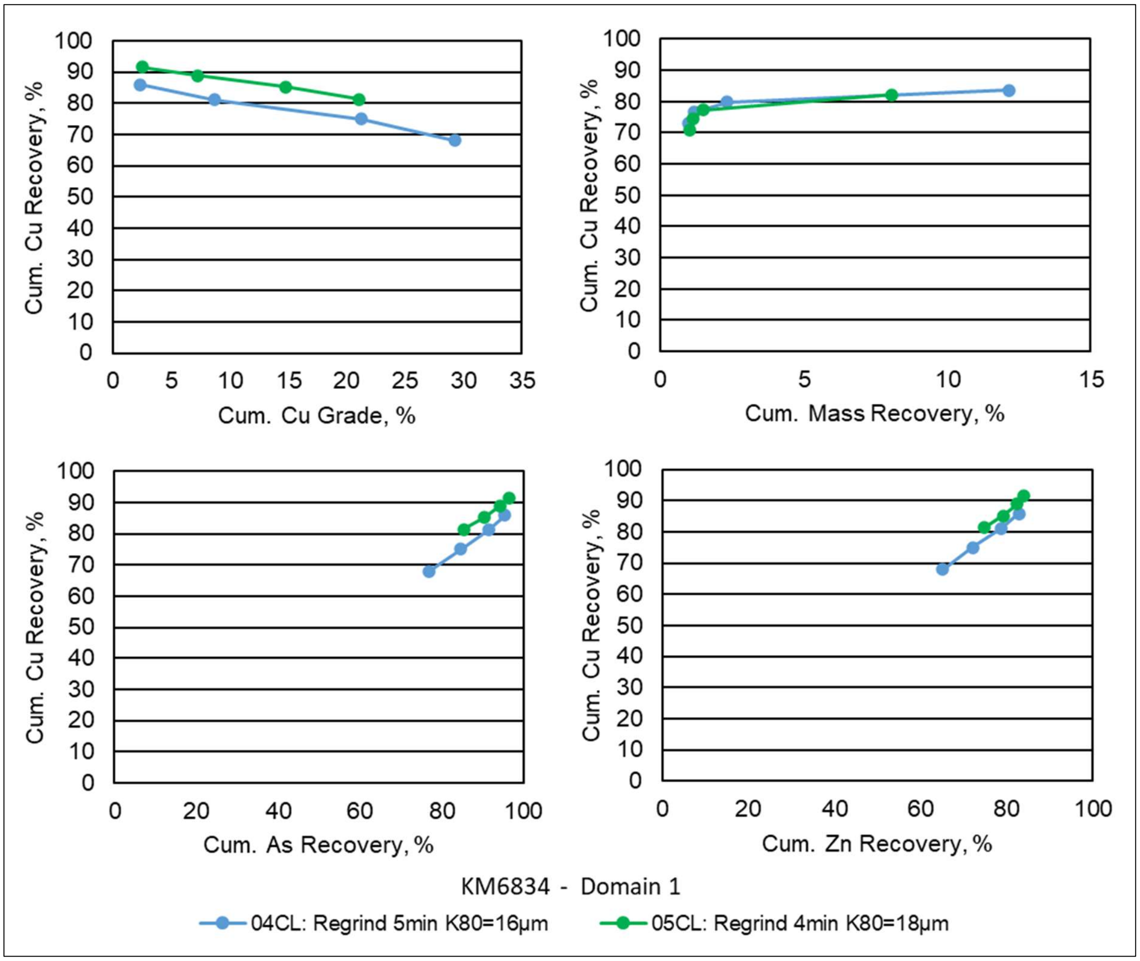


Figure 13-11; Copper Grade-Recovery Curves for Cleaner Flotation Tests

Notable observations from cleaner flotation testing include:

1. Final copper concentrate grades of 25-30% Cu were generally achievable.

2. Zinc grades in copper concentrates remained high for many samples, often exceeding 5% Zn.
3. Arsenic grades in copper concentrates typically ranged from 1-7%, with some samples exceeding 10% As.

13.7.3 Zinc Depression Studies

Various reagent schemes and flotation conditions were tested to minimize zinc recovery to copper concentrates (Figure 13-2):

1. Conventional zinc sulphate/sodium cyanide depression in grinding and regrinding stages
2. Bulk Cu-Zn flotation followed by selective cleaning
3. Controlled pulp potential methods
4. Alternative depressants include sodium sulphite and sodium sulfide

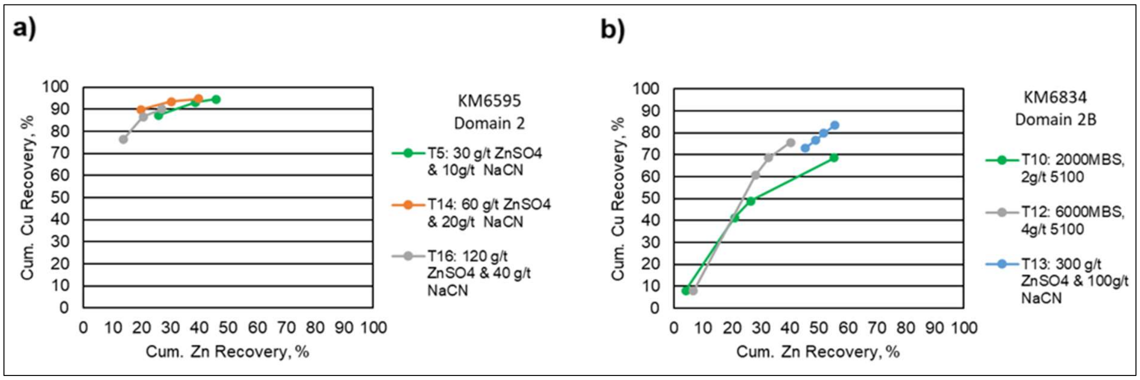


Figure 13-12: a) Zinc Recovery to Copper Concentrate vs b) Copper Recovery for Various Depression Strategies - Rougher

Results indicated that zinc depression was challenging, particularly for samples with high chalcocite/covellite content and pre-activated sphalerite. The most promising approach appeared to be bulk Cu-Zn flotation followed by selective cleaning, although consistently low zinc grades in copper concentrates were not achievable for all ore types.

13.7.4 Arsenic Mitigation Studies

Several strategies were investigated to produce a low-arsenic copper concentrate:

1. Controlled pulp potential flotation
2. High-intensity cyanidation in regrinding and cleaning stages
3. Selective flotation using specialty collectors

4. Magnetic separation of copper concentrates

While some reduction in arsenic content was achievable, producing a consistently low-arsenic (<0.5% As) copper concentrate proved challenging due to the fine intergrowth of arsenic-bearing copper minerals with other copper sulfides.

13.7.5 Pilot Plant Testing

A pilot plant campaign was conducted on a bulk sample from Domain 1 to validate bench-scale results and produce concentrate for downstream testing Table 13-3.

Table 13-3: Summary of Pilot Plant Operating Conditions and Metallurgical Performance

Piloting of Dom 1	Product	Wt %	Assay						Distribution, %					
			Cu, %	Pb, %	Zn, %	Fe, %	S, %	As, g/t	Cu	Pb	Zn	Fe	S	As
Open Circuit Cleaner	Test 9 Cu Con	0.9	31.7	0.34	2.13	11.9	30.5	7.02	80.7	9.1	61.3	1.9	4.1	87.3
Pilot Plant	P3 Con	0.9	27.3	0.21	2.08	10.1	27.3	6.68	80.3	4.4	78	1.6	3.3	93.7
	P4 Con	0.8	30.1	0.19	1.86	10.2	27.5	7.55	81.3	4.8	75.3	1.4	3.1	89.5
	P5 Con	0.9	27.2	0.12	1.95	11.4	27.7	6.88	83	10.3	64.8	1.9	3.6	91.5

The pilot plant confirmed the general trends observed in bench-scale testing, producing a final copper concentrate grading approximately 28% Cu, 7% As, and 2% Zn at 82% copper recovery.

13.8 Concentrate Leaching Studies

The deposit contains significant enargite and tennantite mineralization, resulting in flotation concentrates with elevated arsenic content. While such concentrates can be treated by smelting through blending with cleaner concentrates, or by roasting, hydrometallurgical processing offers an alternative that avoids arsenic penalties from smelters. This test work program evaluated the amenability of the pilot plant concentrates to high-pressure leaching processes.

The testing was conducted by Sherritt Technologies in Canada on two concentrate samples produced during pilot plant testing at ALS:

- Concentrate Sample 1:
  - High copper (27.1% Cu), low zinc (3.33% Zn) concentrate.
  - Notable arsenic content at 6.68%.
  - Gold and silver grades of 2.49 g/t and 387 g/t respectively.

- Concentrate Sample 2:
    - High zinc (22.7% Zn), moderate copper (10.6% Cu) concentrate.
    - Lower arsenic at 2.06%.
    - Higher precious metals at 3.83 g/t Au and 605 g/t Ag.

A range of hydrometallurgical conditions were evaluated:

- Traditional Pressure Oxidation (TPOX): High-temperature, high-pressure oxidation of sulfide concentrates using oxygen at autoclave conditions around 220°C, producing copper and precious metals while stabilizing arsenic.
- Dilute Pressure Oxidation (DPOX): Modified pressure oxidation process operating at lower pulp densities (20-40% solids) compared to traditional POX, improving metal recoveries and residue stability.

Results for Concentrate Sample 1:

- Both TPOX and DPOX produced stable residues meeting environmental criteria.
- DPOX achieved highest copper extraction at 99.1% versus 95.5% for TPOX.
- Gold and silver recoveries exceeded 99% and 98% respectively for DPOX.

Results for Concentrate Sample 2:

- TPOX produced unstable residues and poor precious metal recovery (80.2% Au, 18.2% Ag).
- DPOX achieved superior results with 93.2% Cu, 96.2% Au and 90.9% Ag recovery.
- Both processes achieved high zinc extractions above 97%.

All tests were unoptimized amenability studies. The DPOX process demonstrated the most consistent performance across both concentrate types, producing stable residues while maintaining high metal recoveries.

Further optimization work is recommended, focusing on hydrometallurgical techniques, including POX (pressure oxidation) and other lower-pressure alternatives. In order to select a process, an economic trade-off between all process alternatives is recommended.

13.9 Metallurgical Performance

Based on the limited cleaner flotation tests conducted, the following metallurgical performance was chosen as being reasonable basis for input to the Net Smelter Return (NSR) calculation for resource estimation (Table 13-4).

Table 13-4: Summary of Cleaner Flotation Results (KM6595)

Domain	Product	Weight %	Assays %		Recovery %	
			Cu	As	Cu	As
1	Cu Conc	1.1	29.8	7.08	77.8	-
3	Cu Conc	0.8	29	2.12	83.5	-
4	Cu Conc	1.3	41	6.55	89.5	-

The pilot plant testing on Domain 1 produced high-grade copper concentrates containing significant arsenic, at copper recoveries averaging about 82 percent. The average concentrate grade and recovery are summarized in Table 13-5.

Table 13-5: Average Pilot Plant Concentrate Grade and Recovery (KM6834 Domain 1)

Concentrate Assays - percent or g/t							
Cu	Pb	Zn	Fe	S	As	Ag	Au
28.2	0.17	1.96	10.6	27.5	7.04	404	2.92
Recovery - percent							
Cu	Pb	Zn	Fe	S	As		
81.6	6.5	72.7	1.6	3.3	91.5		

13.10 Deleterious Elements

Arsenic levels averaging above 2.1% were consistently observed in copper concentrates across all tested metallurgical domains. These elevated arsenic levels will incur smelter penalties, which have been incorporated into the NSR calculations using current market terms. Further process optimization or additional treatment steps may be beneficial to reduce such penalties.

Other potential penalty elements identified in the copper concentrates include antimony (0.2-0.9%), zinc (>3%), lead, mercury, tellurium, and fluorine. A detailed review of the concentrate assays by a concentrate marketing specialist is recommended.

13.11 Concentrate Characterization and Separation Testing

13.11.1 Mineralogical Analysis

Mineralogical analysis was conducted on both the copper concentrate produced from KM6834 Domain 1 and the P1 Off-spec concentrate. These analyses showed significant interlocking between the various copper mineral species, specifically between arsenic-bearing copper minerals and non-arsenic bearing copper minerals. Data indicates that regrinding to finer than 10µm would be required to improve liberation of non-arsenic bearing copper minerals from arsenic-bearing copper minerals and at this particle size flotation is inefficient.

13.11.2 Flotation Separation Tests

Attempts were made to separate arsenic-bearing copper minerals from non-arsenic bearing copper minerals by flotation. However, these efforts were unsuccessful, likely due to residual collectors from the pilot plant. A method to strip collectors using sodium sulfide and activated carbon, washing with water, followed by regrinding appeared to, at least in part, resolve this issue sufficiently to separate copper from lead in rougher flotation tests.

13.11.3 Magnetic Separation Tests

High gauss magnetic separation tests were conducted by Terragrandi on two samples of copper concentrate from KM6834 Domain 1, one at the produced sizing of 24µm K80 and another reground to 15µm K80. The tests were generally unsuccessful in separating arsenic-bearing copper sulfides from non-arsenic bearing copper sulfides.

13.12 Conclusions and Recommendations

1. The presence of tennantite/enargite results in high arsenic levels in copper concentrates, which will likely require additional processing or pose marketing challenges.

2. Copper recovery to final concentrate is promising, ranging from 77-90% at grades of 28-41% Cu.

3. Zinc contamination in copper concentrates from polymetallic domains is a significant issue that requires further optimization.

4. The polymetallic nature of some domains may warrant separate lead and zinc circuits.

5. Separation of arsenic-bearing and non-arsenic bearing copper minerals proved challenging due to fine intergrowth and residual collector issues.

6. Initial pressure oxidation test work demonstrates viable hydrometallurgical treatment of arsenic-bearing concentrates, with DPOX achieving excellent metal recoveries while producing environmentally stable residues.

Based on these findings, the following recommendations are made:

1. Conduct a trade-off study, incorporating technical, environmental and economic factors, to evaluate options for addressing high arsenic in copper concentrates, including selective flotation, concentrate blending, and hydrometallurgical processes.
2. Perform additional flotation optimization tests to reduce zinc misplacement to copper concentrates, especially for polymetallic domains.
3. If flotation separation of arsenic-bearing copper sulfides from a bulk concentrate is to be considered in future programs, a collector other than 3418A should be considered for use in the copper circuit.
4. Engage a concentrate marketing specialist to review the potential penalties and marketability of the copper concentrates.
5. Consider larger scale testing (e.g., locked cycle tests) to better simulate continuous operations and confirm metallurgical projections.

This test program has provided valuable insights into the metallurgical characteristics of the Chita Valley Project. However, additional test work is required to fully define the process flowsheet and expected metallurgical performance for each domain, particularly in addressing the challenges posed by the high arsenic content in the copper concentrates.

14 MINERAL RESOURCE ESTIMATES

14.1 Summary

Cube Consulting Pty Ltd of Perth, Australia (Cube) and GeoEstima SpA of Santiago, Chile (GeoEstima) were retained by Minera Sud Argentina S.A. (MSA) to produce a maiden Mineral Resource Estimate (MRE) for the Chinchillones Complex Cu-Mo (Au) porphyry deposit in the San Juan Province of Argentina. The Qualified Person (QP) responsible for this estimate is Mr. Michael Job, Principal Geology and Geostatistics at Cube Consulting.

The Chinchillones deposit can be described as early Cu-Mo (Au) porphyry-style mineralization with later Cu-Mo (Au)-Re porphyry-style mineralization. The porphyry-style mineralization was subsequently overprinted by an Intermediate and High sulfidation hydrothermal process. This leads to a polymetallic mineralization style including Cu-Mo-Re from the porphyry background and Zn, Pb, Cu, Au and Ag with high As content introduced by the Intermediate and High sulfidation event. Mineralization is mainly related to stockwork and micro-breccias. The inspection of grade patterns suggests a pull-apart structural pattern; high grades are concentrated close to the main structures, and a post-mineralization Dacite intrudes in the center between the two main structures.

The lithological and alteration 3D models provided do not strongly control Cu mineralization; grades can be highly variable within and across the lithological and alteration domains i.e. they are not suitable as ‘estimation domains.

Therefore, a Cu-As-Ag High sulfidation envelope was constructed using a proxy based on Cu, As, Sb, S and Fe, which allowed flagging high sulfidation signatures for the drilling and block model; Mo, Zn-Pb grade shell envelopes were also constructed. The final estimation domains are various combinations of the High Sulfidation and Mo/Zn-Pb grade shells, as defined by statistical similarities/differences and domain boundary analysis.

The estimated variables are the economic elements Cu, Zn, Pb, Mo, Ag, Au and the deleterious elements As and Sb. Sulfur (S) was also estimated to assist with waste rock characterization, and bulk density was also estimated, not assigned per lithology, alteration or estimation domain.

The estimation method was considered and discussed between Cube and GeoEstima before extensive Exploratory Data Analysis (EDA – also including variography), as different types of estimation techniques have different requirements. As the project is at a fairly early stage (this is the maiden MRE) with relatively widely-spaced drilling, then direct estimation by linear methods (e.g., Inverse Distance (ID) or Ordinary Kriging (OK)) of blocks that are small compared to the drill grid spacing will result in estimates that are over-smoothed and will not recreate the grade variability that will be experienced during production.

Estimating large blocks will result in lower estimation variances, but also implies very low selectivity, which is not ideal for mineral resource or mine planning studies. A number of ‘non-linear’ geostatistical techniques have been developed to address this problem, and Uniform Conditioning

(UC) with the now commonly used post-processing Localized version (LUC) was selected as suitable for this deposit.

UC requires estimation of grades via OK into 'panels' that are relatively large blocks that are close to the drilling grid spacing – in this case the panel size chosen was 60 mE x 60 mN x 20 mRL. The localization step was into Selective Mining Unit (SMU) scale blocks of 20 mE x 20 mN x 10 mRL – this avoids the issues with directly estimating via linear methods in these smaller block sizes.

Drill hole data was selected within the estimation domains, and composited to 6 m downhole, which is suitable given the panel and SMU size, without introducing over-smoothing of very long composites e.g. 10 m. Statistical analysis of the composites shows that all variables had a positively skewed distribution (i.e., relatively few samples of very high grade that contain a substantial amount of metal), so a capping strategy for these 'outliers' was required. In this case, 'spatial distance restrictions' were used, where high grade values were not capped or cut within a certain distance, but capped (or removed) beyond this distance for grade estimation.

For UC, variogram models in raw (untransformed) space are required – however, experimental variogram are generally more straightforward to interpret and model when the data is transformed to Gaussian (Normal Scores) space, so variography was undertaken in Gaussian space before the models were back-transformed into raw space for grade estimation. Most variogram models had low to moderate nugget effects (~10 to 35%), with low anisotropy in the major and semi-major directions, with ranges generally greater than 500 m.

Search neighborhoods consisted of ellipses that were about 90% of the ultimate variogram range, with the minimum, maximum and maximum number of samples per drill hole varying slightly between the different variables.

Model validation consisted of extensive visual comparisons of composites and the LUC estimate, and global and semi-local statistical analysis - it is Cube's opinion that the estimates for all variables in the Chinchillones deposit mineralized domains are valid and satisfactorily represent the informing data.

MRE classification was based on the quality of the copper estimation, by analyzing the slope of regression, which is a measure of the estimation conditional bias via OK – for all intents and purposes, the slope of regression is a proxy for drill hole spacing that also considers variogram and estimation quality. A drill hole spacing of 80 m x 80 m or less was considered appropriate for a classification of Indicated, with a drill hole spacing of up to 150 m x 150 m used for Inferred.

To establish reasonable prospects for eventual economic extraction (RPEEE – as required by CIM, 2014) a Net Smelter Return (NSR) was calculated per SMU block based on projected metal price assumptions, metal/mineral recoveries, payabilities, refining, treatment and roasting charges, concentrate transport costs and deleterious element penalties. Pit optimization studies were then conducted on the block model to define a pit shell to constrain the declared MRE.

For the NSR calculations, the geological domains were separated into low and high zinc domains – most of the resource is within the low zinc domain, with the high zinc domain a smaller discrete zone.

Copper concentrate would be sourced from both the low and high zinc domains, but it was assumed that zinc concentrate would only be sourced from the high zinc geological domain, with different recoveries and processing costs compared to the low zinc domain.

Therefore, the economic grades of the Mineral Resource Estimate (MRE) have been reported separately for the low and high zinc domains. The MRE for the low zinc geological domain is reported above a Net Smelter Return (NSR) of US$10/tonne, while the high zinc geological domain is reported above US$11.65/tonne, as shown in Table 14-1 (grades) and Table 14-2 (contained metal).

Table 14-1: Chinchillones Mineral Resource Estimate as at 15 January 2025 (Economic Grades)

Domain	Classification	M Tonnes	CuEq (%)	Cu (%)	Au g/t	Ag g/t	Mo (ppm)	Zn (%)
Low Zinc	Indicated	147	0.36	0.27	0.11	8.7	46	-
	Inferred	494	0.31	0.22	0.09	7.8	108	-
High Zinc	Indicated	41	0.61	0.18	0.13	17.6	-	0.72
	Inferred	79	0.63	0.21	0.1	16.5	-	0.78
Total	**Indicated**	**188**	**0.41**	**0.25**	**0.11**	**10.6**	**36**	**0.16**
	Inferred	**573**	**0.36**	**0.22**	**0.09**	**9.0**	**93**	**0.11**

Table 14-2: Chinchillones Mineral Resource Estimate as at 15 January 2025 (Economic Metal)

Domain	Classification	M Tonnes	CuEq Metal kt	Cu Metal kt	Au k Oz	Ag M Oz	Mo Metal kt	Zn Metal kt
Low Zinc	Indicated	147	532	392	512	40.8	6.8	-
	Inferred	494	1,548	1,074	1,395	123.5	53.2	-
High Zinc	Indicated	41	244	74	162	22.7	-	291
	Inferred	79	501	170	255	42.1	-	616
Total	**Indicated**	**188**	**776**	**466**	**674**	**63.5**	**6.8**	**291**
	Inferred	**573**	**2,049**	**1,244**	**1,650**	**165.6**	**53.2**	**616**

Notes:

(1) Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is noted that no specific issues have been identified as yet.

(2) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve.

(3) The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines.

(4) The resource is reported above Net Smelter Return (NSR) cut offs – for the low zinc geological domain US$10/t (US$9/t milling + US$1/t G&A) and for the high zinc geological domain US$11.65/t (US$10.65/t milling + US$1/t G&A). An optimized pit shell was utilized to constrain Mineral Resource reporting that used a US$1.90/t mining cost, the above milling/G&A costs and with overall 45-degree pit slopes.

(5) The metal prices used for the NSR calculation in US$ are $4.30/lb Cu, $1,985/oz Au, $24/oz Ag, $15/lb Mo, $1.30/lb Zn. Metallurgical recoveries for the low zinc domain are 87% Cu, 40% Au, 65% Ag, 50% Mo. Metallurgical recoveries for the high zinc domain are 60% Cu, 40% Au, 70% Ag, 55% Zn.

(6) The copper equivalent (CuEq) grades use the metal prices and recoveries as used for the NSR calculation; for the low zinc domain CuEq_% = Cu_% +(Au_ppm x 0.3095) + (Ag_ppm x 0.0061) + (Mo_ppm x 0.0002). For the high zinc domain, CuEq_% = Cu_% +(Au_ppm x 0.4488) + (Ag_ppm x 0.0095) + (Zn_% x 0.277). Note that Zn is not recovered in the low zinc domain, and Mo is not recovered in the high zinc domain.

(7) The value contribution of each metal to the project can be derived from the NSR calculation. These are: Cu 67%, Ag 16%, Au 7%, Mo 5% and Zn 5%.

(8) The figures in the above tables may not add up due to rounding.

14.2 Recommendations

- Further work to understand the controls on mineralization to improve the estimation domaining, in particular for some of the apparently 'isolated' higher grade copper zones.
- Investigation into the mineralization that is apparently within the post-mineralization Dacite is required – this may be due to inaccuracies in logging (i.e., incorrect interpretation), or may be the result of structural remobilization of the sulfide mineralization.

14.3 Data Used

The drill hole data used for the estimate was extracted from the database as a series of *.csv format files, suitable to import into the various software packages used for the estimate.

MSA project geology staff created lithological and alteration models in Leapfrog Geo software for Chinchillones Complex. These are described in Section 14.4 below. The wireframe solids were exported from Leapfrog in Surpac or *.dxf format for subsequent use in Datamine and other software packages.

14.3.1 Resource Database

The database for the Chinchillones MRE was closed off on 14 October 2024, and consisted of 134 diamond drill holes (DD) for 82,104 m. Only eight holes for 1,762 m were drilled prior to 2020, with 126 holes for 80,342 m drilled since 2020 by MSA. Figure 14-1 shows the location of the holes at the project – pre-2020 drill traces in blue, post-2020 drill traces in red.

Holes drilled to the north-west of the central post-mineralization Dacite (shown in green in Figure 14-1) are generally oriented towards the south-east, dipping at 70° to 80°, and those to the south-east of the diatreme are drilled towards the north-west, also dipping at 70° to 80°. The hole spacing in the well-drilled part of the deposit is on an approximate 80 m x 80 m grid, stepping out to greater than 150 m centers at the edge of the deposit.

The RL position of the collars in the data provided were often well above or below the very detailed topographic surface, many > 30 m. Therefore, the collar positions in RL were pressed to the topographic surface where required.

A summary of the drilling by year and number of assays is shown in Table 14-3. Over 85% of the raw assay intervals lengths were 2 m, with only 0.3 % of the sample intervals greater than 2 m.

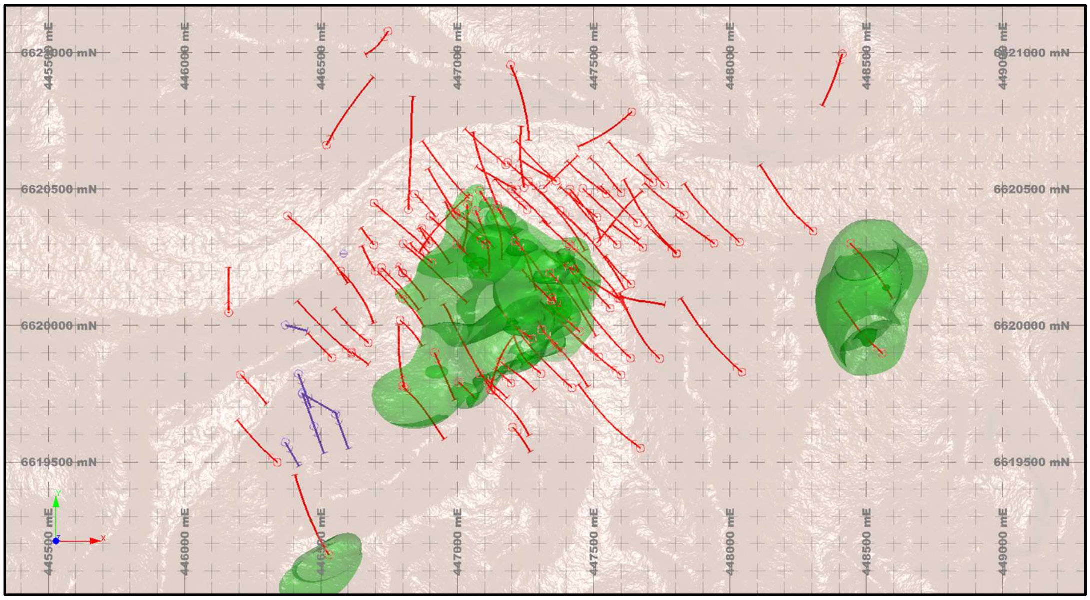


Figure 14-1: Plan View of the Location of Drill Holes Used in the Estimation of Resources Coloured by Drilling Campaign (Source: Cube, 2024)

Table 14-3: Summary of the Records in the Database for Each Variable by Year

Date	Hole Number	Metres	Cu	Ag	As	Au	Sb
Pre 2020	8	1,762	1,736	1,736	1,736	1,736	1,736
2020	18	9,377	4,577	4,577	4,577	4,577	4,577
2021	24	11,969	6,574	6,574	6,574	6,484	6,574
2022	23	15,836	7,372	7,372	7,372	7,372	7,372
2023	33	25,986	13,065	13,065	13,065	13,065	13,065
2024	28	17,174	8,005	8,005	8,005	8,005	8,005
Total	**134**	**82,104**	**41,329**	**41,329**	**41,329**	**41,239**	**41,329**

Date	Hole Number	Metres	Mo	Re	Zn	Pb	S	Bulk Density
Pre 2020	8	1,762	1,736	-	1,736	1,736	1,736	-
2020	18	9,377	4,577	2,830	4,577	4,577	4,577	443
2021	24	11,969	6,574	6,574	6,574	6,574	6,574	571
2022	23	15,836	7,372	7,372	7,372	7,372	7,372	764
2023	33	25,986	13,065	13,065	13,065	13,065	13,065	1,253
2024	28	17,174	8,005	8,005	8,005	8,005	8,005	803
Total	**134**	**82,104**	**41,329**	**37,846**	**41,329**	**41,329**	**41,329**	**3,834**

Source: Cube, 2024

14.3.2 Unsampled Intervals

There were no unsampled intervals in the mineralized domains, although assays were still pending for the deeper part of hole CHDH24-102 at the database cut-off date. These samples were treated as null (not zero) and were ignored during estimation.

The only part of the drill holes not regularly sampled was in the non-mineralized cover sequence. Only very basic estimation was undertaken for some variables in the cover, with very low (essentially zero) values applied to the non-sampled intervals. For some variables, the cover was not estimated at all, and low default grades were applied to the cover sequence.

14.4 3D Geological Model

MSA project geology staff created lithological and alteration models in Leapfrog Geo® software for Chinchillones - these are described below. The mineralization models (estimation domains) were constructed by GeoEstima.

14.4.1 Lithological Model

The project's geology staff developed a lithological model considering the quartzite host rock intruded by a set of inter-mineralization and post-mineralization pulses.

The central modelled units (with abbreviations used for the figures in this Section of the report) are:

- Pre or syn-mineralization
    - Quartzite (HOST ROCK)
    - Andesites (AND)
    - Dacites (ED1_EQD1)
    - Phreatomagmatic Dacite (PHR_DAC)
    - Hydrothermal breccias (BxH)
- Post-mineralization
    - Phreatomagmatic Dacitic Porphyry (PHR_P_DAC) – ‘post-mineralization Dacite’
    - Felsic Intrusive (Felsic)
    - Quaternary cover (COV)

A cross-section of the lithology model is shown in Figure 14-2 with a plan view shown in Figure 14-3.

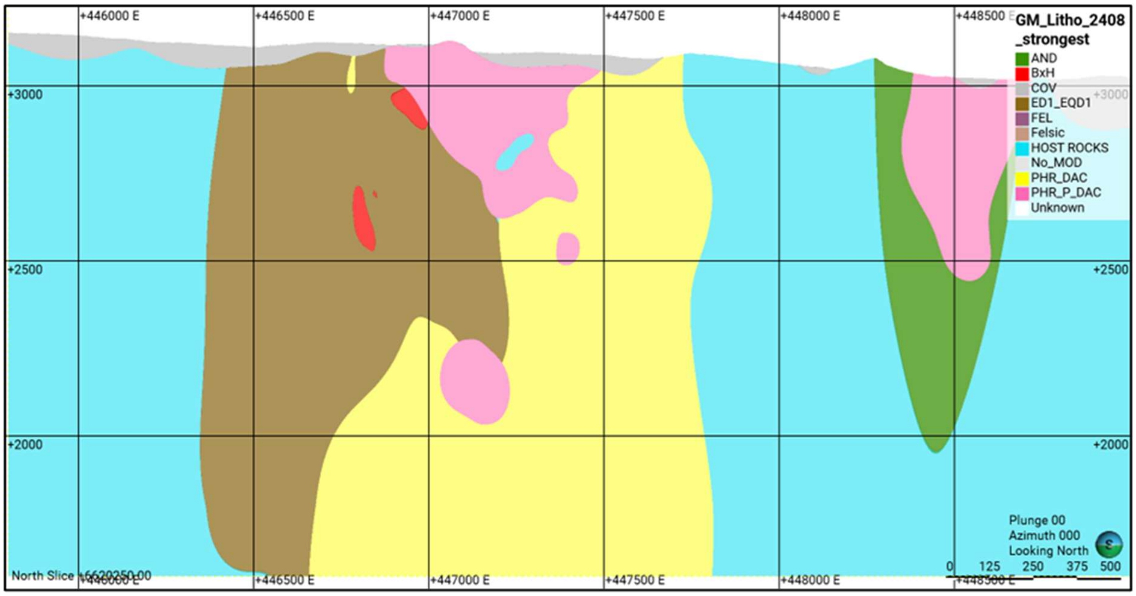


Figure 14-2: Lithology Model Cross-Section 6,620,250 mN, Looking North (Source: Cube, 2024)

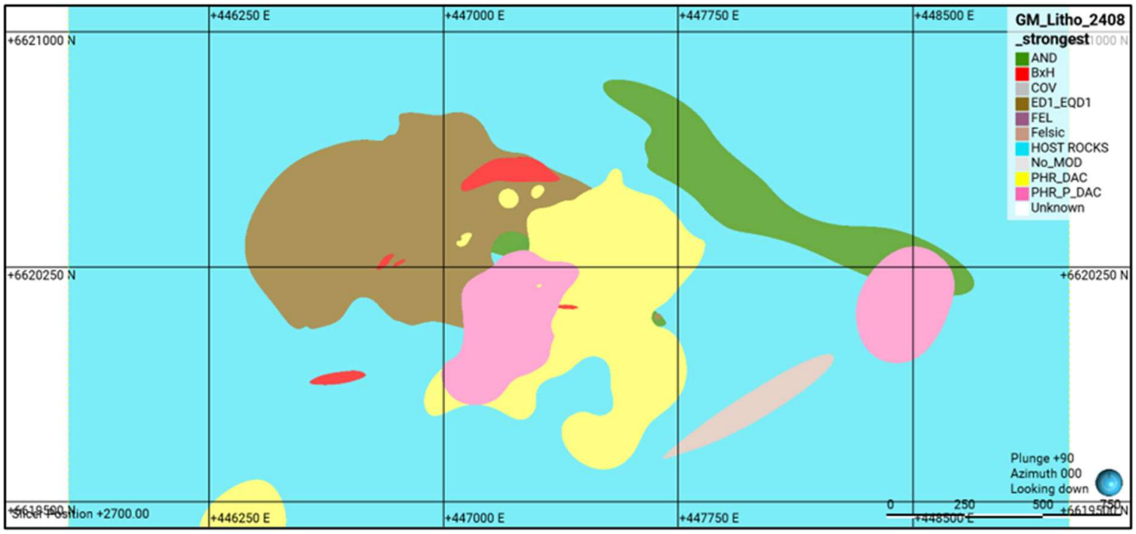


Figure 14-3: Lithology Model Plan View 2,700 mRL (Source: Cube, 2024)

Dacites and hydrothermal breccias mostly host copper mineralization. The dacitic porphyry and related phreatomagmatic units (post-mineralization Dacite) are considered post-mineralization; therefore, high grades present in these rocks should be investigated. This could be the result of later-stage structural re-mobilization or may be due to inconsistencies in the geological logging.

As can be seen in Figure 14-4 and Table 14-4, the lithological domains do not strongly control Cu mineralization; grades can be highly variable within and across the lithological domains.

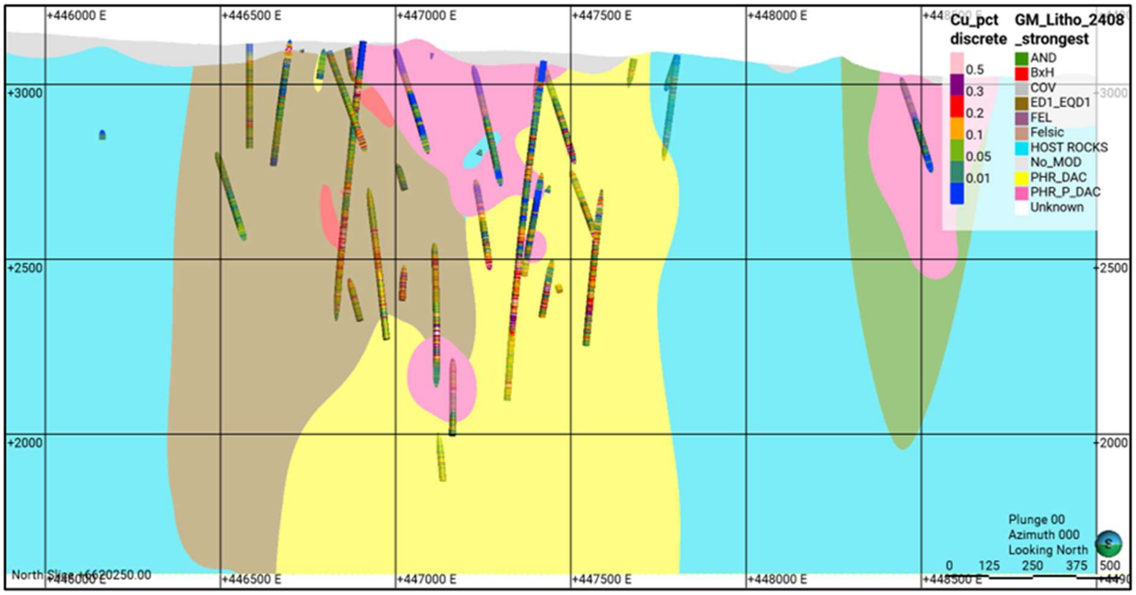


Figure 14-4: Lithology Model and Cu Grades, Cross-Section 6,620,250 mN, Looking North (Source: Cube, 2024)

Table 14-4: Cu (ppm) Grades by Lithological Domain

Code	Lithology	Count	Minimum	Maximum	Mean	Std. Dev.	CV
1	Host Rock	10,231	2.7	103,500	946	3,406	3.60
2	Phr Dacite	11,170	4	211,000	2,154	5,174	2.40
3	Phr Dacitic Porphyry	5,035	0.6	39,700	776	1,960	2.53
4	Dacite	7,560	18.7	142,500	1,343	2,937	2.19
5	Andesite	1,139	4.9	67,600	1,086	3,218	2.96
6	Hydro Breccia	888	23.9	97,600	3,670	7,092	1.93
7	Felsic	80	1.7	933	55	134	2.45
8	Cover	422	2.6	4,960	286	481	1.69

Source: Cube 2024

Even though the hydrothermal breccia has the highest mean Cu grade, this lithology is broken into small, discontinuous lenses and contains few samples. Spatial examination of the breccias shows that one of the lenses is associated with a high copper zone, but other lenses are a mix of low and high copper grades. Conversely, there are very high localized Cu zones outside the breccias.

The numeric codes shown in Table 14-4 are those used for sample selection and block model coding.

14.4.2 Alteration Model

The alteration model is based on clay zonation based on data from a TerraSpec analyzer. The units from the core of the deposit to the outer edge are:

- Argillic (Advanced, Intermediate, Low)
- Phyllic - Argillic
- Phyllic
- Potassic (at depth)
- Least Altered

Cu distribution does not correlate well with alteration in most cases. Figure 14-5 presents a cross-section of the model and Cu grades, indicating high variations in grade within and across the domains. Table 14-5 shows the Cu statistics by alteration domain; potassic (and least altered) presents the lowest grades, advanced argillic the highest, while the others have similar mean grades.

The numeric codes shown in Table 14-5 are those used for sample selection and block model coding.

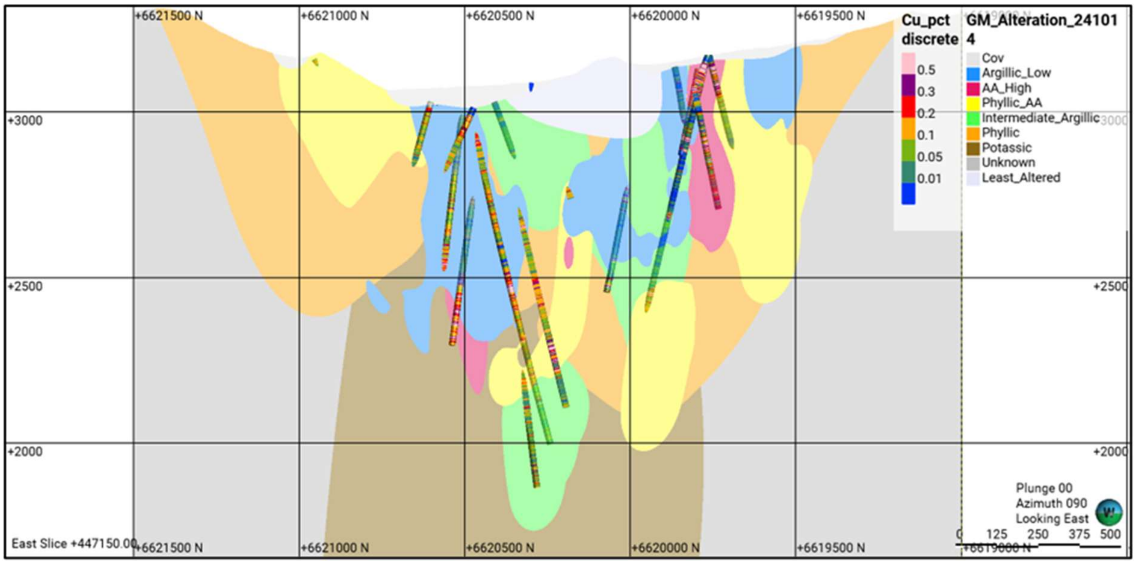


Figure 14-5: Alteration Model and Cu Grades, Cross-Section 447,147 mE, Looking East (Source: Cube, 2024)

Table 14-5: Cu (ppm) Grades by Alteration Domain

Code	Alteration	Count	Minimum	Maximum	Mean	Std. Dev.	CV
1	Advanced Argillic	3,982	15.2	211,000	3,918	8,465	2.16
2	Argillic Intermediate	3,076	1.4	29,100	697	1,545	2.22
3	Argillic Low	13,114	1.7	103,500	1,163	3,014	2.59
4	Phyllic- Argillic	7,648	4.5	113,500	1,562	3,608	2.31
5	Phyllic	6,193	2.2	79,100	883	2,180	2.47
6	Potassic	1,534	20.6	23,300	1,217	1,333	1.10
7	Least Altered	556	0.6	3,180	28	157	5.70
8	Cover	422	2.6	4,960	286	481	1.69

Source: Cube 2024

Spatial examination of the copper distribution shows that higher grade zones are associated with the advanced argillic, but these higher-grade zones can extend well beyond the advanced argillic alteration boundary i.e. it is not suitable as a hard domain boundary for estimation. For example, Figure 14-6 shows high Cu grades with the advanced argillic alteration zones, but there are equally high copper grades below in the Phyllic – argillic alteration zone.

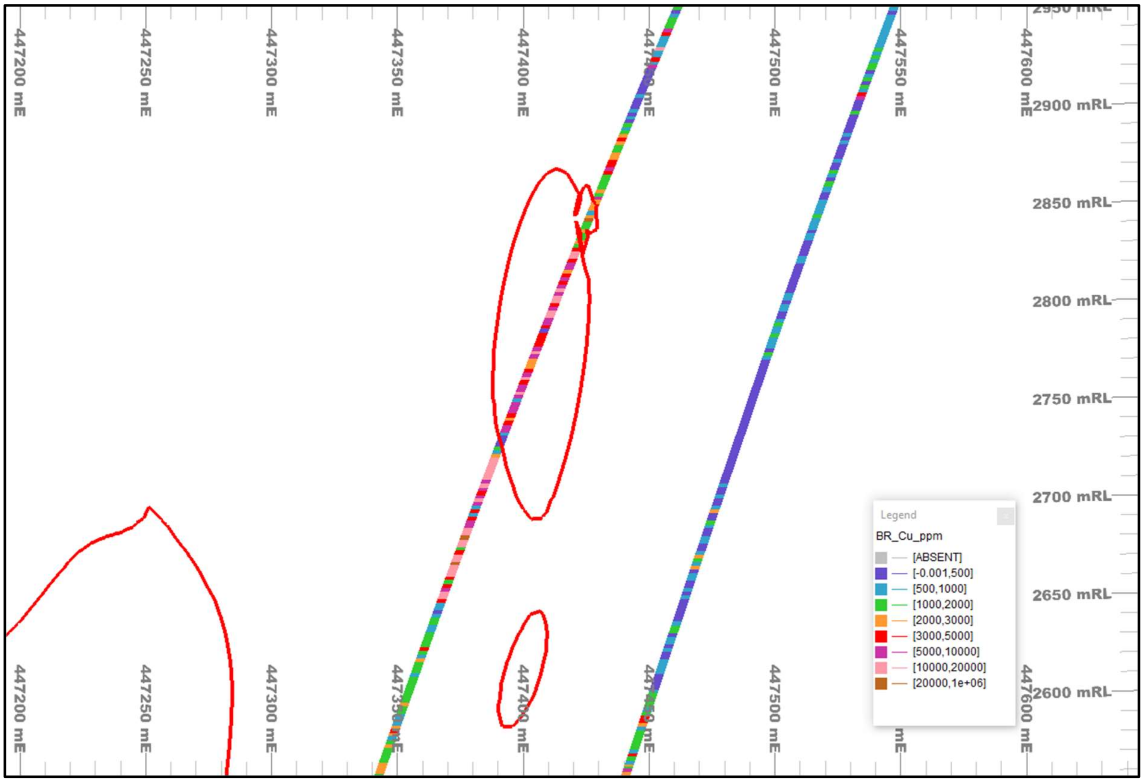


Figure 14-6: Oblique Cross-Section Centred on Hole CHDH23-96 (Source: Cube, 2024)

The lithological and alteration models themselves are insufficient for Mineral Resource domaining, and would result in poddy, discontinuous estimates. Therefore, mineralization models (estimation domains) were constructed to represent the different mineralization styles within the deposit, as discussed in the next section.

14.4.3 Mineralization Model (Estimation Domains)

The distinction between geological domains and resource estimation domains is commonly misunderstood. Geological domains are areas or volumes of a geological feature, such as lithology or alteration, while estimation domains define areas or volumes of 'similar' statistical characteristics. Due to the complexity of any mineralizing system, it is unlikely that a single geological feature would be suitable to define an estimation domain. More commonly, a combination of geological characteristics is required to define suitable estimation domains.

The mineralization models developed for this study were based on:

- Structural model surfaces
- Cu-As-Ag high sulfidation envelope
- Mo envelope
- Zn-Pb envelope

14.4.3.1 Structural Interpretation

The inspection of grade patterns suggests a pull-apart structural pattern. High grades are concentrated close to the main structures, and in the center between the two main structures, the post-mineralization Dacite intrudes. Figure 14-7 shows a plan view, including the interpreted structures, Cu grades, and post-mineralization intrusions.

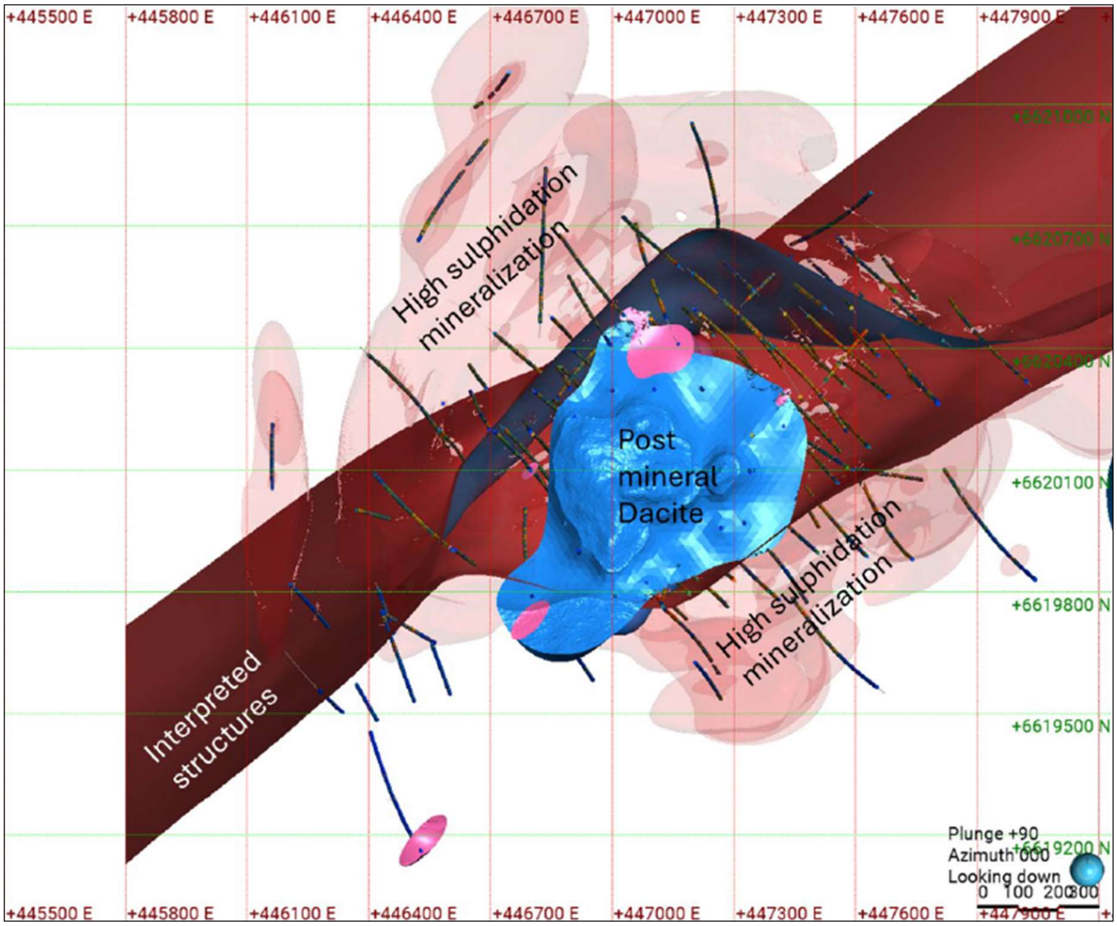


Figure 14-7: Structural Interpretation, Plan View (Source: Cube, 2024)

14.4.3.2 Cu-As-Ag High Sulfidation Envelope

This envelope was constructed using a high sulfidation index (HSI) based on Cu, As, Sb, S and Fe, (Townley, 2015). The index has a strong correlation with Cu, As and Sb (Figure 14-8 and Figure 14-9), and due to the very high ranges of the variables, to facilitate handling, the natural logarithm was applied:

$$HSI = \ln [(Cu + As + Sb + S)/Fe] + 15$$

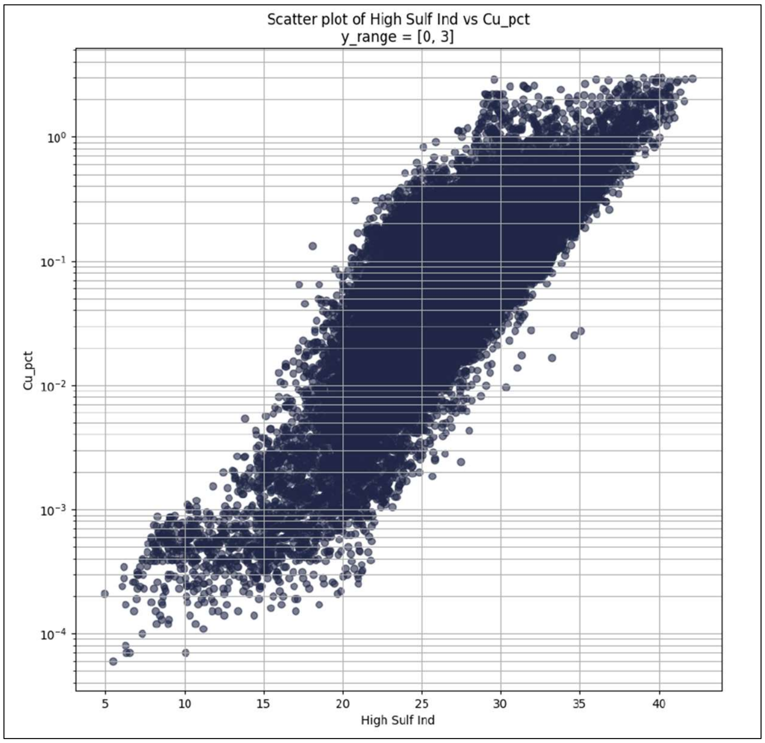


Figure 14-8: Scatter Plot of HSI and Copper (Source: Cube, 2024)

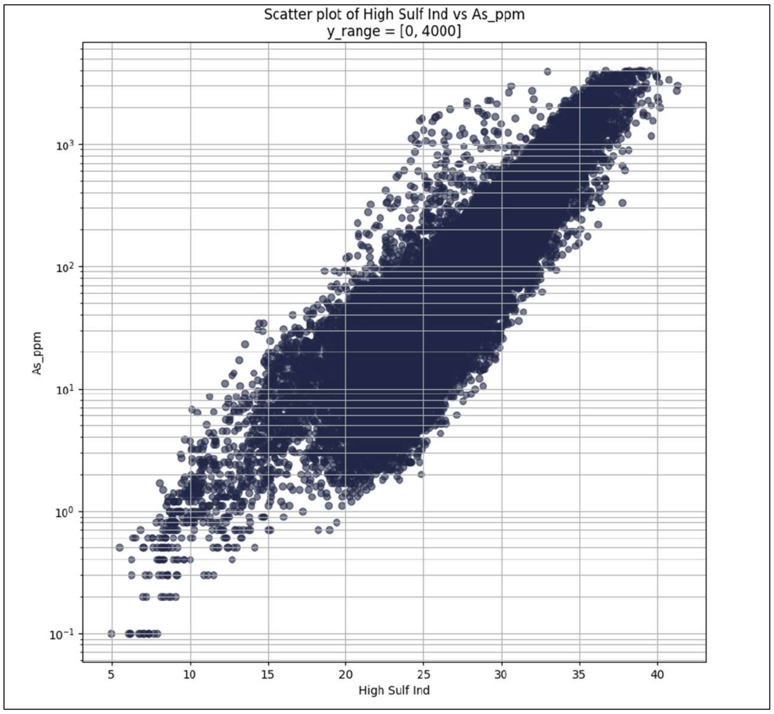


Figure 14-9: Scatter Plot of HSI and Arsenic (Source: Cube, 2024)

A threshold of 25 was defined to model the envelope representing the high sulfidation event. Figure 14-10 presents a section of the model and the Cu grades, and this envelope is dominant in the upper part of the deposit.

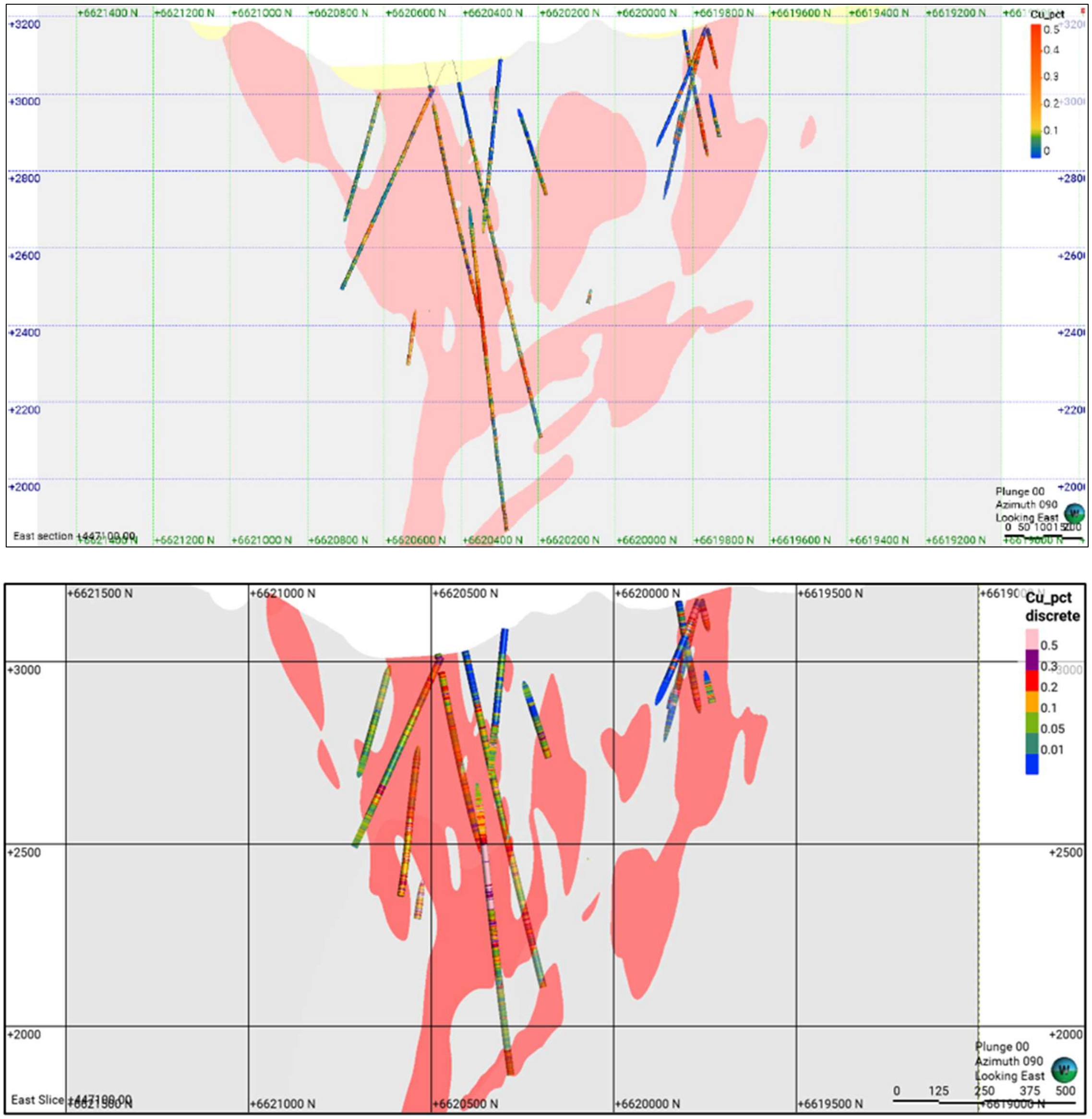


Figure 14-10: High Sulfidation Envelope Cross-Section 447,100 mE, Looking East (Source: Cube, 2024)

14.4.3.3 Molybdenum Envelope

The Mo envelope was built on a 200 ppm threshold based on a break on the probability plot curve (Figure 14-11). Mo mineralization is present in the deeper part of the deposit (Figure 14-12 and Figure 14-13).

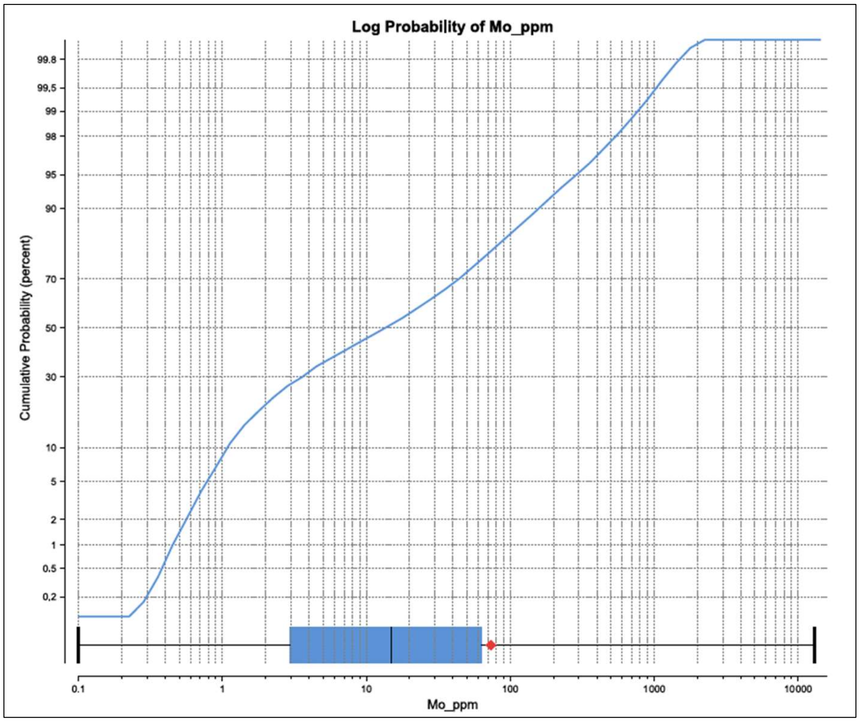


Figure 14-11: Molybdenum Log-Probability Plot (Source: Cube, 2024)

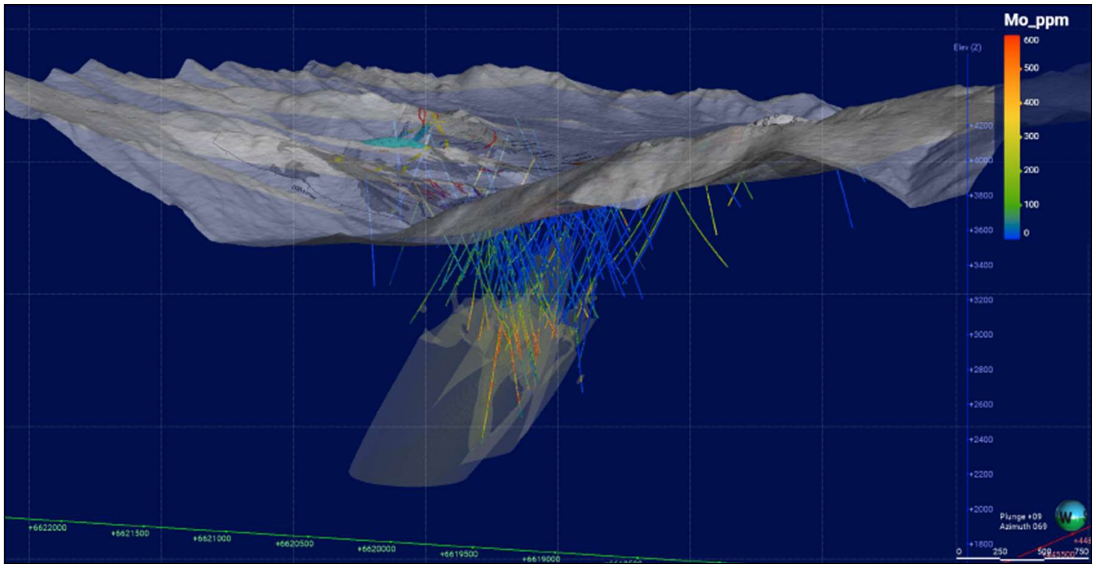


Figure 14-12: Mo Distribution in the Deeper Part of the Deposit (Source: Cube, 2024)

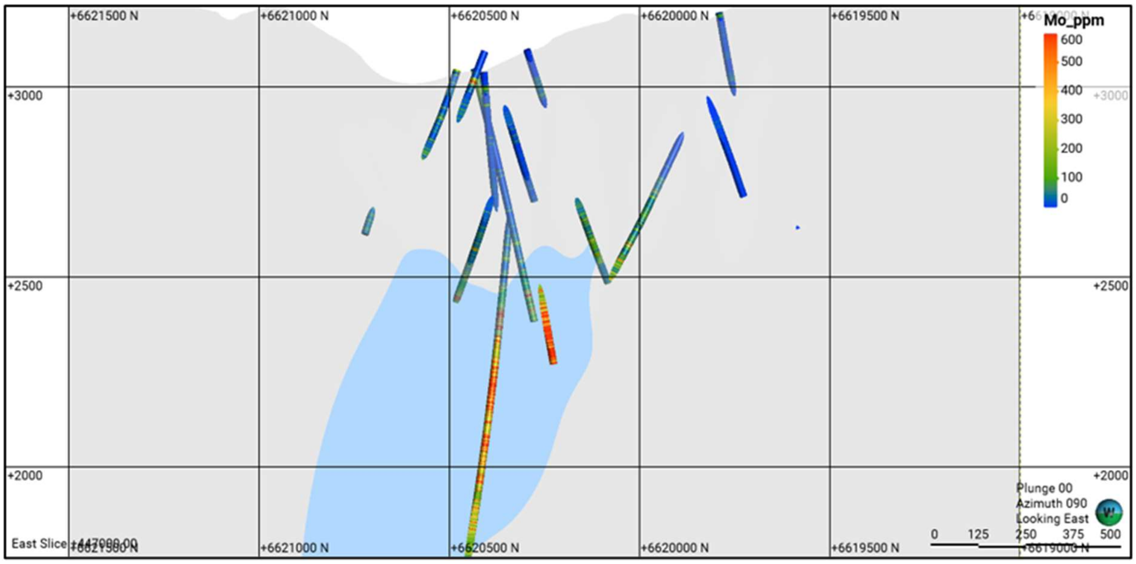


Figure 14-13: Mo Envelope Cross-Section, 447,000 mE, Looking East (Source: Cube, 2024)

14.4.3.4 Zinc-Lead Envelope

The Zn-Pb envelope was constructed using a Zn threshold of 2,000 ppm based on a break in the log probability plot curve (Figure 14-14). The Zn high grades are usually contained in the high sulfidation envelope, but not strictly (Figure 14-15).

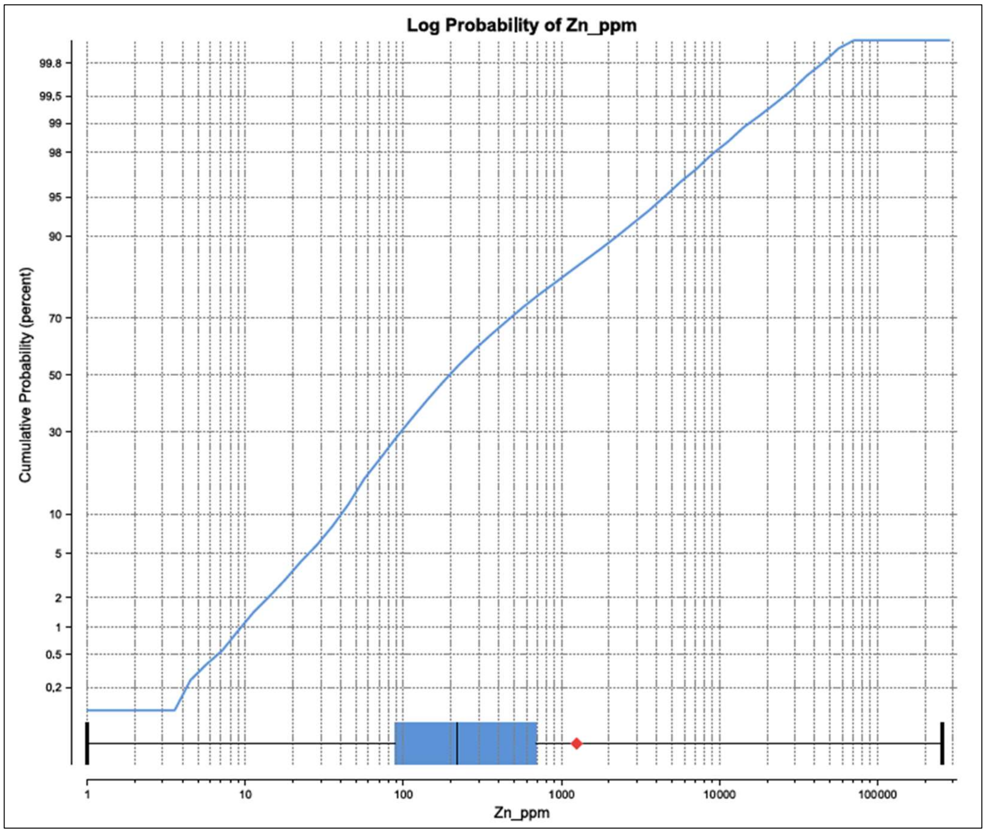


Figure 14-14: Zinc Log-Probability Plot (Source: Cube, 2024)

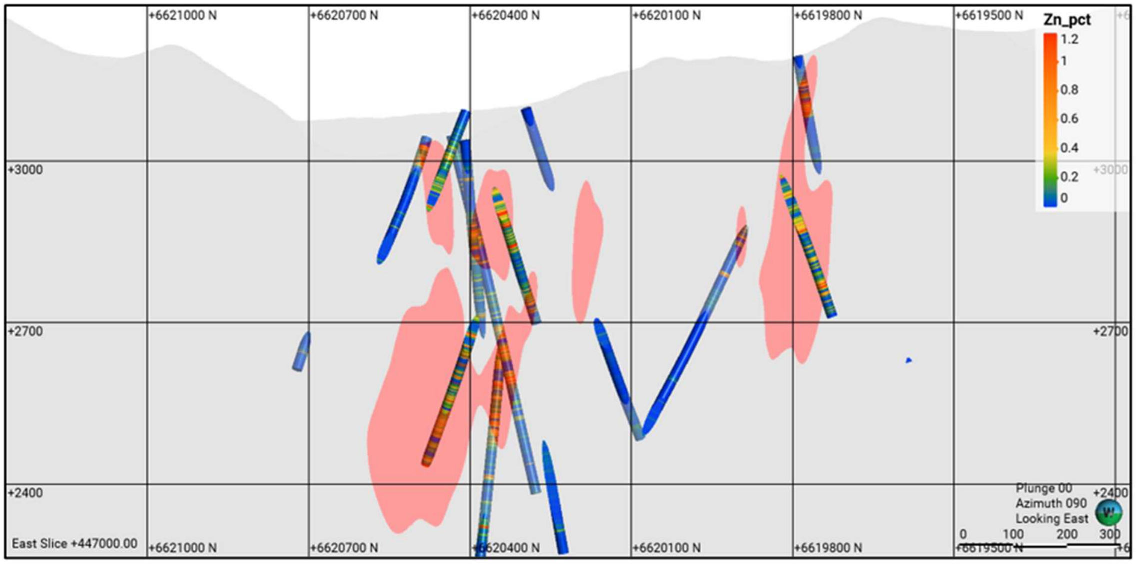


Figure 14-15: Zn Envelope, Cross-Section 447,000 mE, Looking East (Source: Cube, 2024)

14.4.3.5 Final Mineralization Model

Using the high sulfidation and Mo envelopes, a mineralization model was built, producing three domains for Cu, Mo, Re, Ag, As, Au and Sb (with some interaction with the Zn-Pb envelope) – see Figure 14-16:

- HS (High sulfidation only).
- HS-Mo (Mo porphyry overprinted by high sulfidation – 'overlap').
- Mo (Mo porphyry only).
- High Zn (for Zn and Pb only).

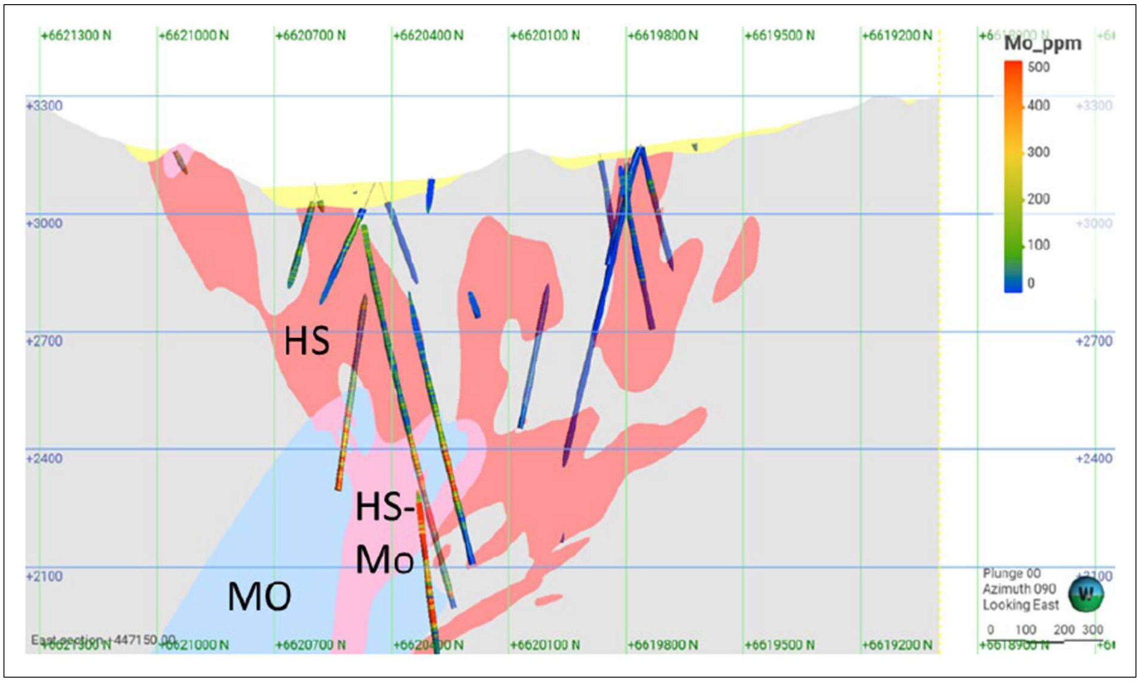


Figure 14-16: Mineralization Model (Source: Cube, 2024)

The numeric estimation domain names and codes and groupings of variables used for the estimation domains are shown in Table 14-6 and Table 14-7, these codes were used for sample selection and block model coding, and appear throughout this report e.g., for tables of statistics, variography and model validation.

The final domains (hard boundaries) to be used were defined by statistical similarities/differences and by boundary contact analysis. For example, the contact analysis plot for Mo between the HS-Mo and MO domains (pink and blue domains in Figure 14-16) showed that there was not an abrupt change in the Mo grade profile across the boundary (Figure 14-17), so these domains were combined into a single estimation domain (MODOM=45 – see Table 14-6). The mean Mo grade, shown by the horizontal dashed line in Figure 14-17 is also very similar between the Hs-Mo and MO domains.

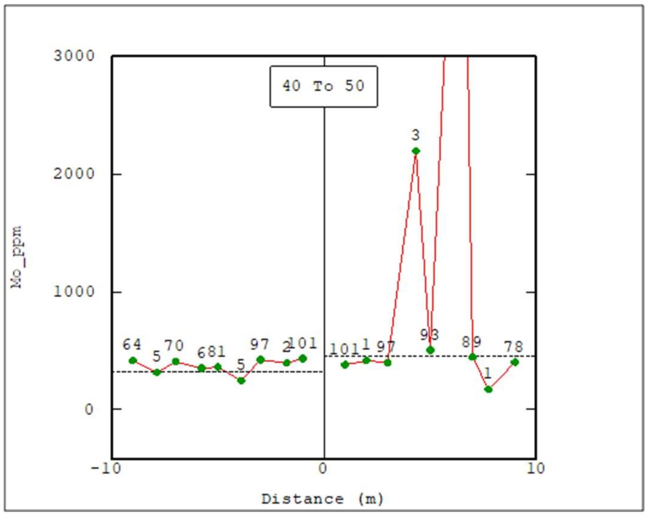


Figure 14-17: Contact Analysis Plot Between Hs-Mo (40) and MO (50) domains (Source: Cube, 2024)

Table 14-6: Estimation Domain Names and Codes for Cu, Mo and Re

Domain Name	Variables	Domain Name	Variables
CUDOM	**Cu**	**MODOM**	**Mo, Re**
10	Cover	**10**	Cover
20	Outside min. Domains ‘Background’	**20**	Outside min. Domains ‘Background’
30	Hi Sulf. (HS)	**30**	Hi Sulf. Cu
40	HS Mo overlap	**45**	HS Mo overlap + Early Mo
50	Early Mo (MO)		

Source: Cube 2024

Table 14-7: Estimation Domain Names and Codes for Zn, Pb, Ag, As, Au, Sb and S

Domain Name	Variables	Domain Name	Variables
ZNDOM	**Zn, Pb**	**ASDOM**	**Ag, As, Au, Sb, S**
10	Cover	**10**	Cover
20	Outside min. Domains ‘Background’	**20**	Outside min. Domains ‘Background’
25	HS outside High Zn zone	**35**	HS Cu + HS Mo overlap
30	High Zn	**50**	Early Mo
50	Early Mo		

Source: Cube 2024

14.5 Statistical Analysis

14.5.1 Domain Coding and Compositing

Samples were selected within the domain solid wireframes, with the raw Cu assay sample lengths for all mineralized domains combined (CUDOM 30, 40 and 50) shown in Figure 14-18. The minimum sample length was 0.3 m and maximum 4.3 m, with a mean of 1.86 m, with the majority of the samples (~85%) being 2 m.

The block sizes used for estimation (as discussed later) were 60 mE x 60 mN x 20 mRL for the panel and 20 mE x 20 mN x 10 mRL for the SMU. Therefore, a composite size of 6 m downhole was chosen, which results in approximately four samples vertically per panel and two composites vertically per SMU. A range of composite sizes were tested, from 2 m to 10 m, with the Coefficient of Variation (CV) plotted against increasing composite size (Figure 14-19), with the rate of change somewhat stabilizing at 6 m. Weighting by density was not used during compositing.

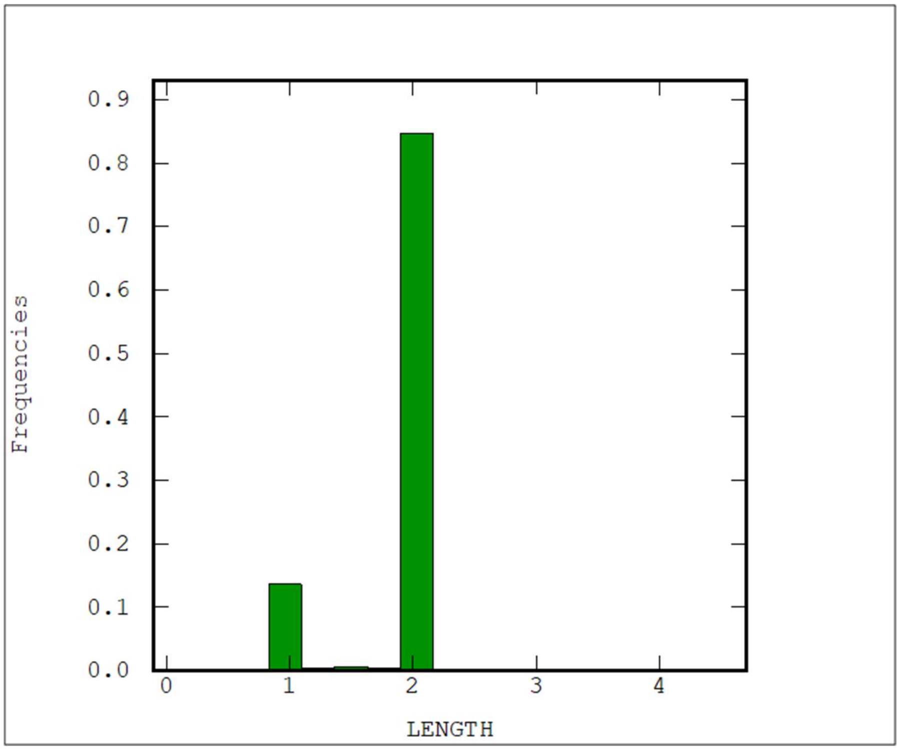


Figure 14-18: Raw Sample Lengths, Cu Samples within Mineralized Domains (Source: Cube, 2024)

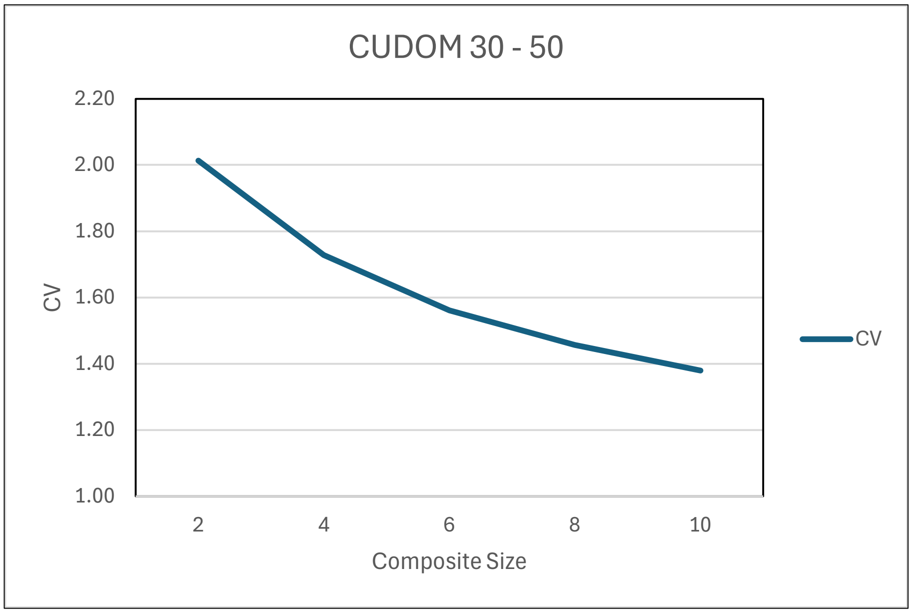


Figure 14-19: Change of Coefficient of Variation with Increasing Composite Size (Source: Cube, 2024)

14.5.2 Domain Basic Statistics

The basic statistics for the Copper, Molybdenum, Zinc and Arsenic domain groups are shown in Figure 14-8 to Table 14-11. Histograms and Log-Probability Plots for the mineralized Cu domains are shown in Figure 14-20 to Figure 14-22.

All variables in all domains are positively skewed, indicating that very few high-grade samples (outliers) contain a substantial amount of metal in the deposit. Capping of these outliers is discussed in the next section.

Table 14-8: Basic Statistics for Cu

Variable	CUDOM	Count	Min.	Max.	Mean	Std. Dev.	Variance	CV
Cu_ppm	10	138	6.1	6595	420	703	49,4700	1.67
Cu_ppm	20	3,522	1.1	10,937	416	615	378,067	1.48
Cu_ppm	30	6,593	36.1	50,700	1,710	2,796	7,818,472	1.64
Cu_ppm	40	772	96.7	30,650	2,619	3,042	9,254,584	1.16
Cu_ppm	50	588	83.3	18,860	1,165	1,164	1,354,682	1.00

Source: Cube 2024

Table 14-9: Basic Statistics for Mo and Re

Variable	MODOM	Count	Min.	Max.	Mean	Std. Dev.	Variance	CV
Mo_ppm	10	138	0.485	524	22.9	59	3,469	2.57
Mo_ppm	20	3,522	0.243	554	18.7	34	1,153	1.82
Mo_ppm	30	6,593	0.457	785	32.7	43	1,853	1.32
Mo_ppm	45	1,322	40.4	4,746	376.2	376	141,498	1.00
Re_ppm	10	120	0.001	0.029	0.003	0.005	0	1.82
Re_ppm	20	3,204	0.001	0.347	0.007	0.016	0	2.38
Re_ppm	30	6,072	0.001	0.267	0.012	0.018	0	1.58
Re_ppm	45	1,293	0.005	1.265	0.074	0.081	0.007	1.09

Source: Cube 2024

Table 14-10: Basic Statistics for Zn and Pb

Variable	ZNDOM	Count	Min.	Max.	Mean	Std. Dev.	Variance	CV
Zn_ppm	10	138	10.20	9,717	365	865	747,387	2.37
Zn_ppm	20	3,843	4.00	35,285	492	1,199	1,438,379	2.44
Zn_ppm	25	5,012	2.67	23,373	622	1,155	1,333,332	1.86
Zn_ppm	30	2,092	16.67	109,900	5,649	8,262	68,266,812	1.46
Zn_ppm	50	588	13.33	11,747	656	1,358	1,843,639	2.07
Pb_ppm	10	138	10.40	4,088	184	439	192,442	2.38
Pb_ppm	20	3,843	0.92	7,816	113	324	105,175	2.87
Pb_ppm	25	5,012	0.75	6,882	183	365	133,170	1.99
Pb_ppm	30	2,092	7.90	66,507	1,456	2,786	7,759,680	1.91
Pb_ppm	50	588	1.33	4,480	164	473	224,001	2.88

Source: Cube 2024

Table 14-11: Basic Statistics for Ag, As, Au, Sb and S

Variable	ASDOM	Count	Min.	Max.	Mean	Std. Dev.	Variance	CV
Ag_ppm	10	138	0.035	46	2.82	5.263	27.7	1.87
Ag_ppm	20	3,522	0.007	94	2.11	4.273	18.26	2.03
Ag_ppm	35	7,324	0.097	649	7.52	15.733	247.53	2.09
Ag_ppm	50	588	0.063	101	2.66	5.285	27.93	1.99
As_ppm	10	138	2.067	2,268	234.5	386	149,308	1.65
As_ppm	20	3,522	0.133	4,088	37.1	111	12,301	2.99
As_ppm	35	7,324	3.033	20,210	277.7	610	371,659	2.20
As_ppm	50	588	1.133	1,771	27.7	101	10,102	3.63
Au_ppm	10	138	0.003	1.79	0.046	0.155	0.024	3.35
Au_ppm	20	3,516	0.003	1.15	0.033	0.042	0.002	1.29
Au_ppm	35	7,302	0.003	2.18	0.082	0.109	0.012	1.32
Au_ppm	50	585	0.003	0.27	0.028	0.026	0.001	0.93
Sb_ppm	10	138	0.228	978	13.52	83.0	6,896.2	6.14
Sb_ppm	20	3,522	0.083	524	3.40	13.8	189.3	4.05
Sb_ppm	35	7,324	0.210	2,503	29.88	85.8	7,368.5	2.87
Sb_ppm	50	588	0.187	273	4.17	18.4	336.9	4.41
S_pct	10	138	0.005	4.5	0.82	1.173	1.376	1.43
S_pct	20	3,522	0.005	11.4	2.54	1.769	3.129	0.70
S_pct	35	7,324	0.020	36.8	4.48	2.113	4.463	0.47
S_pct	50	588	0.190	9.7	2.03	1.325	1.755	0.65

Source: Cube 2024

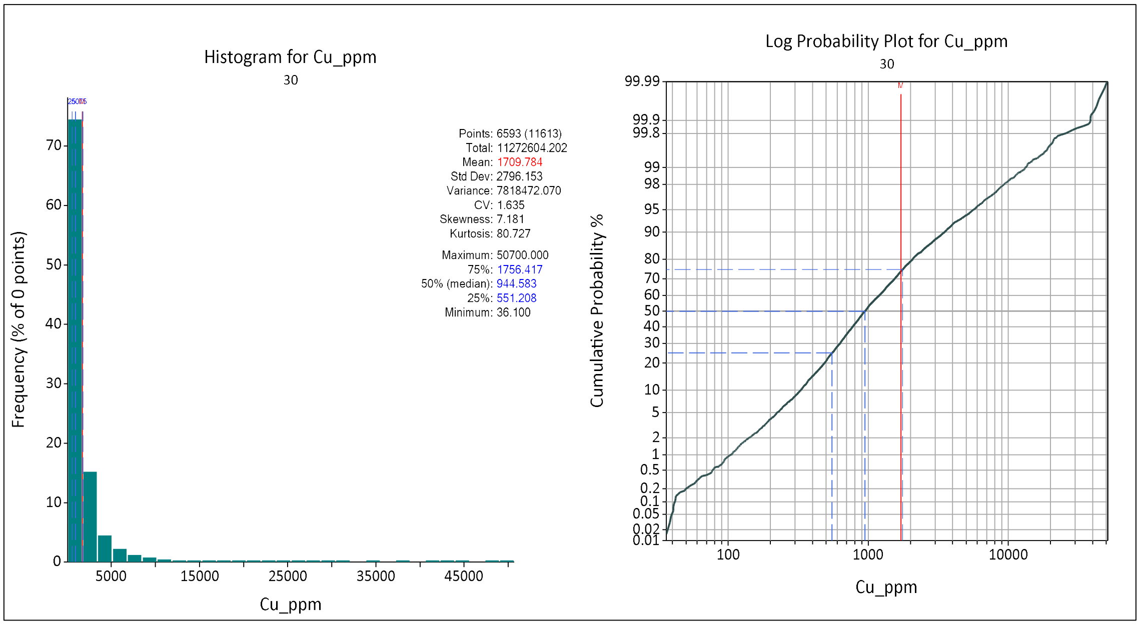


Figure 14-20: Histogram and Log-Probability Plot for Cu, CUDOM 30 (Source: Cube, 2024)

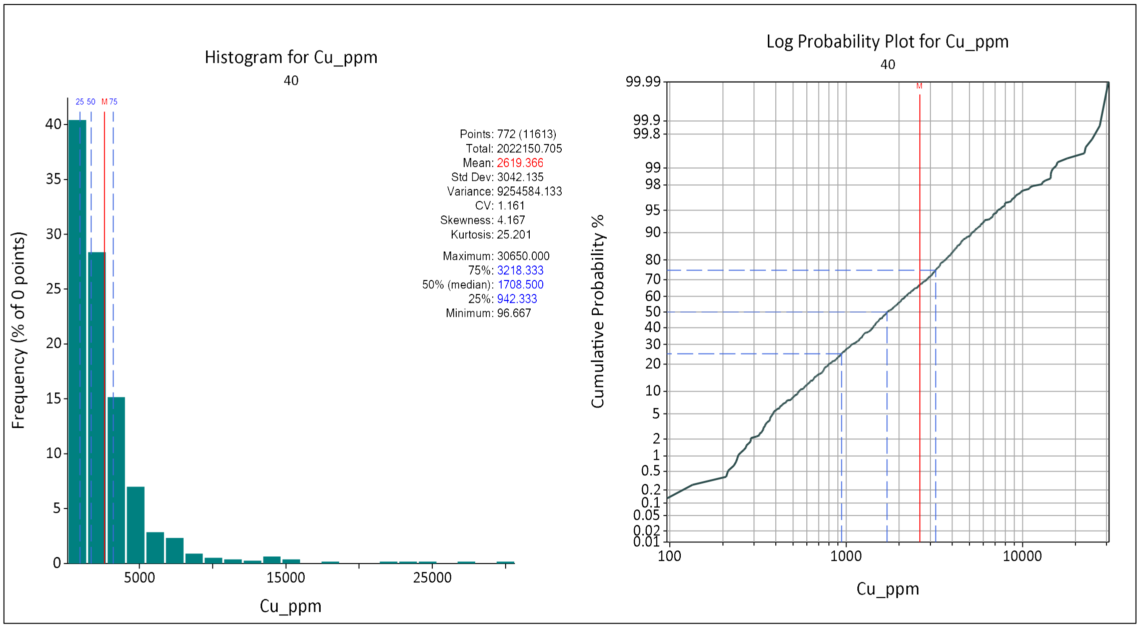


Figure 14-21: Histogram and Log-Probability Plot for Cu, CUDOM 40 (Source: Cube, 2024)

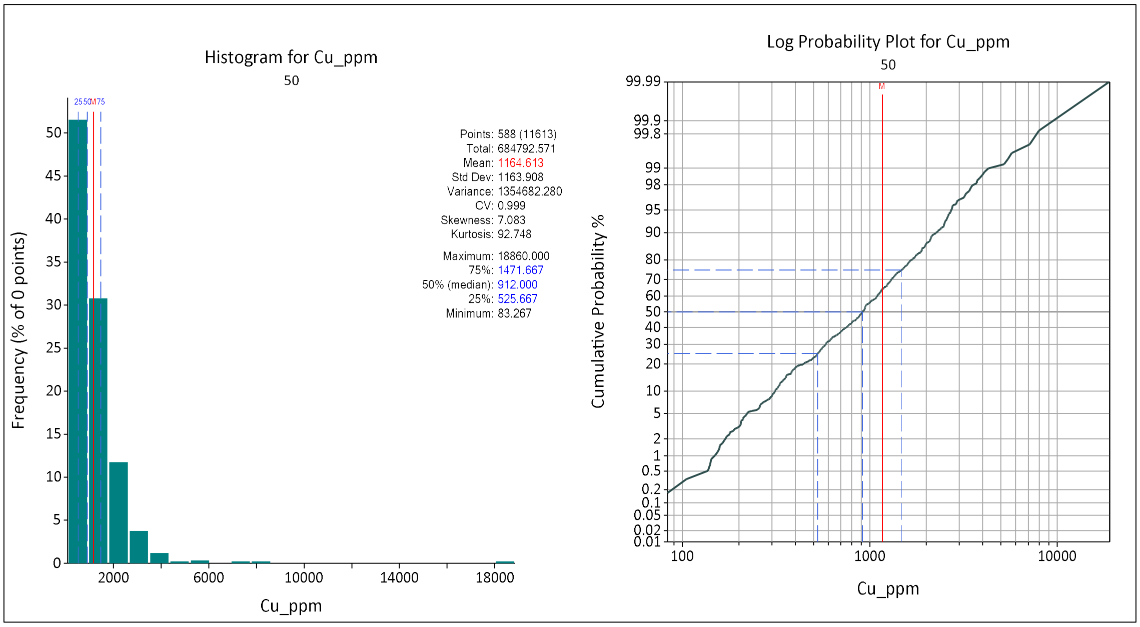


Figure 14-22: Histogram and Log-Probability Plot for Cu, CUDOM 50 (Source: Cube, 2024)

14.5.3 Evaluation of Outliers

Grade caps for the estimate were chosen per estimation domain, based primarily on examination of the grade distribution for each variable, (i.e. noting the point at which the upper tail of the distribution loses support), and also considering the variability of the domain.

However, to honor the high grades locally, the estimate was run using a 'distance limited threshold' (DLT) spatial restriction technique. For this DLT, uncapped grades were used for blocks within a selected distance of the grades above the cap, but beyond this distance, capped grades were used, with some extreme samples above the threshold removed for antimony in the deeper part of the deposit.

The thresholds selected are shown in Table 14-12 – values in this table marked with an asterisk (*) were removed beyond the selected distance, not capped.

Table 14-12: High Grade Threshold Restrictions

Chinchillones Threshold Caps					
CUDOM					
	10	**20**	**30**	**40**	**50**
Cu_ppm	1,500	2,500	22,000	15,000	4,000
MODOM					
	10	**20**	**30**	**45**	
Mo_ppm	100	200	200	2,000	
Re_ppm	0.014	0.016	0.016	0.8	
ZNDOM					
	10	**20**	**25**	**30**	**50**
Zn_ppm	500	3,000	10,000	55,000	4,500
Pb_ppm	100	1,200	3,000	15,000	1,500
ASDOM					
	10	**20**	**35**	**50**	
Ag_ppm	N/A	20	N/A	15	
As_ppm	N/A	N/A	N/A	200	
Au_ppm	N/A	N/A	N/A	0.15	
Sb_ppm	N/A	N/A	N/A	90*	
S_pct	1	9	15	6.5	

Source: Cube 2024

For all variables in the Cu, Mo and Zn domains, a distance of 30 m was used for restricting the high grades (i.e. within two panels). For the As domain variables, distance restrictions of 120 m x 120 m x 40 m were used in the broad low-grade domain, with Ag the only variable restricted at a distance of 30 m in the high-grade domain

14.6 Non-Linear Estimation Methods

At relatively early stages of the development of a Mineral Resource, the drill hole pattern can be broad. Direct estimation by linear methods (e.g., Inverse Distance (ID) or Ordinary Kriging (OK)) of blocks that are small compared to the drill grid spacing will result in estimates that are over-smoothed, will distort the grade-tonnage curve (Vann and Guibal, 1999), and will not recreate the grade variability that will be experienced during production (Coombes, 2016).

Estimation of large blocks will result in lower estimation variances, but also implies very low selectivity, which is not ideal for mineral resource or mine planning studies. There are a number of 'non-linear' geostatistical techniques that have been developed to address this problem, with the two most used in the industry being Uniform Conditioning (UC) and Multiple Indicator Kriging (MIK).

The selection of non-linear methods is not an arbitrary choice and is dependent on the grade geometry of mineralization. There are some basic checks that can be done to test whether a grade distribution is diffusive (i.e. where grade tends to move from lower to higher values and vice versa in a relatively continuous way) or mosaic (i.e., where grade transitions are abrupt and non-gradational). UC is a suitable method where the grade distribution is diffusive, although this does not rule out the use of MIK.

The main check is to examine ratios of indicator variograms. When the cross-variogram of two of the indicators is divided by the variogram of the lower grade indicator, a measure of the diffusivity between the thresholds is measured. If the quotient has a slope, this indicates that the grade is transitioning in a gradational fashion. If the ratio stays constant, i.e. plots as a relatively flat line, it means that the cross-variogram between two indicators is similar to the variogram of the indicator at the lower cut-off, and the diffusion model may not be applicable.

Figure 14-23 below shows the cross and simple indicator variograms for a range of indicators – the right diagonal shows the indicator variograms at various threshold grades, and the remainder of the matrix shows the quotient of the indicator cross-variograms and variograms. The cross variograms do show reasonable structure, which suggests that UC (or the now commonly used post-processing Localized version (LUC) – see Grade Estimation section below) would not be unreasonable.

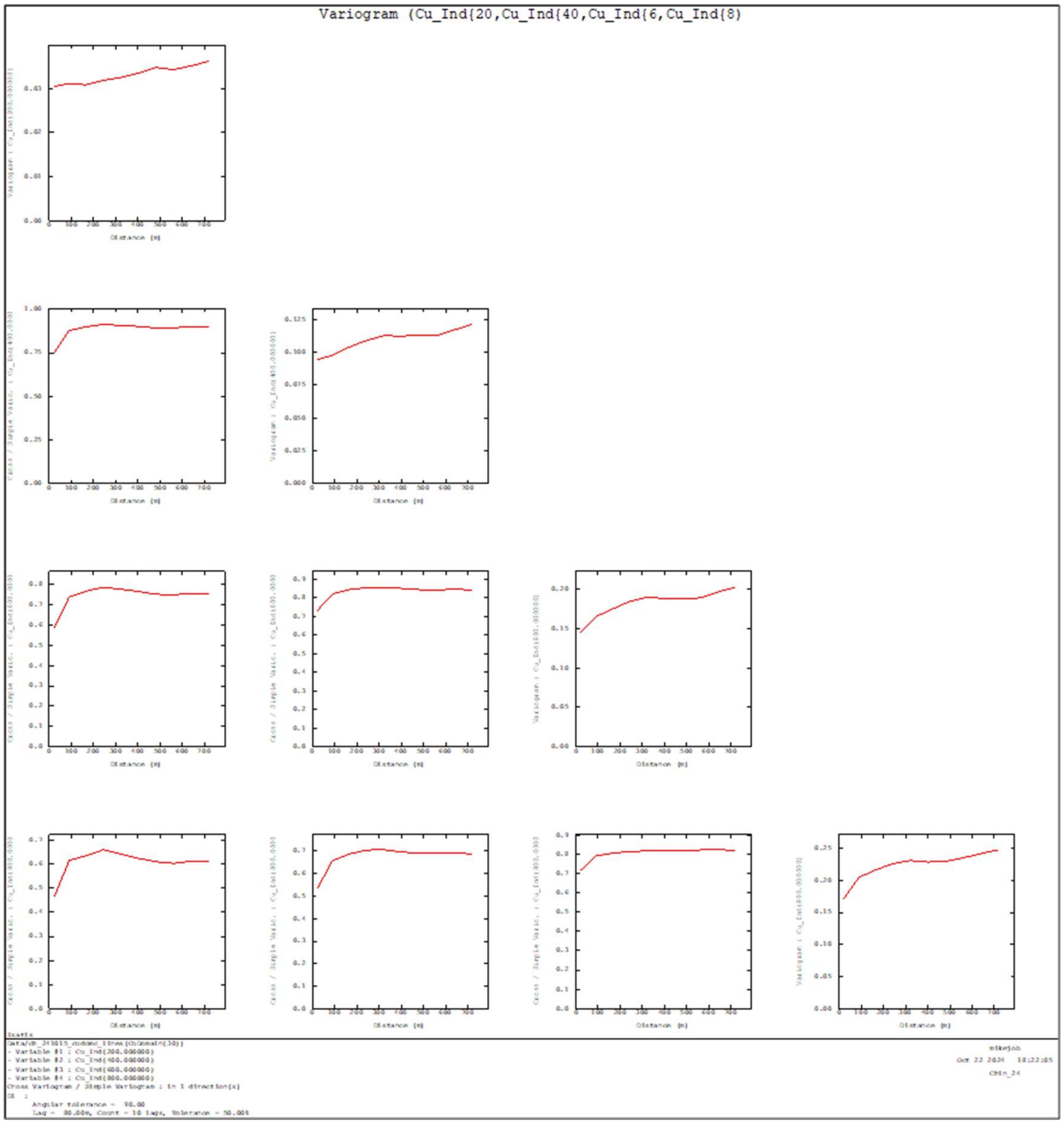


Figure 14-23: Indicator Variograms, Cu at 200, 400, 600 and 800 ppm Thresholds (Source: Cube, 2024)

14.7 Geostatistical Analysis

Variography for UC was performed in Supervisor and Isatis software, with the composite data transformed to normal scores (via the Gaussian anamorphosis process), and the variogram models back-transformed to original units. The Gaussian anamorphosis used here was also subsequently used for the discrete Gaussian change of support model required for Uniform Conditioning.

Note that declustering weights (using a moving window of 200 mE x 200 mN x 12 mRL) were used for the anamorphosis, but these weights were not used for the variogram calculation, interpretation and modelling (see Rossi and Deutsch, 2014).

All variograms were modelled with a nugget effect and two or three spherical structures. The nugget and sills shown in the tables in this section are normalized to a variance of one but were converted to actual variances per variable and per domain for estimation.

14.7.1 Copper Domains

For the two main mineralized domains (CUDOM 30 and 40), the main direction of continuity was towards the north-east, with the semi-major direction dipping very steeply towards the south-east. This is sub-parallel to the interpreted structures and post mineralization dacite discussed in Section 14.4.3. The nugget effect is moderate at 30 to 40%, with ranges in excess of 500 m in the main direction.

The variogram parameters are shown in Table 14-13, with figures for the three mineralized domain shown in Figure 14-24 to Figure 14-26.

Table 14-13: Copper Variogram Parameters

Variable	CUDOM	Datamine	Nugget	Range			Sill	Structure
		3,1,3	(C0)	Major	Semi	Minor		
Cu_ppm	**10**	0,0,-30	0.258	56	71	29	0.558	1
				210	154	84	0.104	2
				518	263	94	0.079	3
Cu_ppm	**20**	-90,30,-90	0.191	34	69	34	0.348	1
				235	230	252	0.299	2
				441	365	304	0.162	3
Cu_ppm	**30**	140,70,180	0.393	35	36	17	0.348	1
				168	162	24	0.139	2
				611	500	158	0.12	3
Cu_ppm	**40**	140,70,180	0.342	313	658	31	0.196	1
				476	660	99	0.287	2
				510	670	200	0.174	3
Cu_ppm	**50**	180,90,-150	0.295	347	41	249	0.277	1
				447	457	362	0.219	2
				871	702	372	0.209	3

Source: Cube 2024

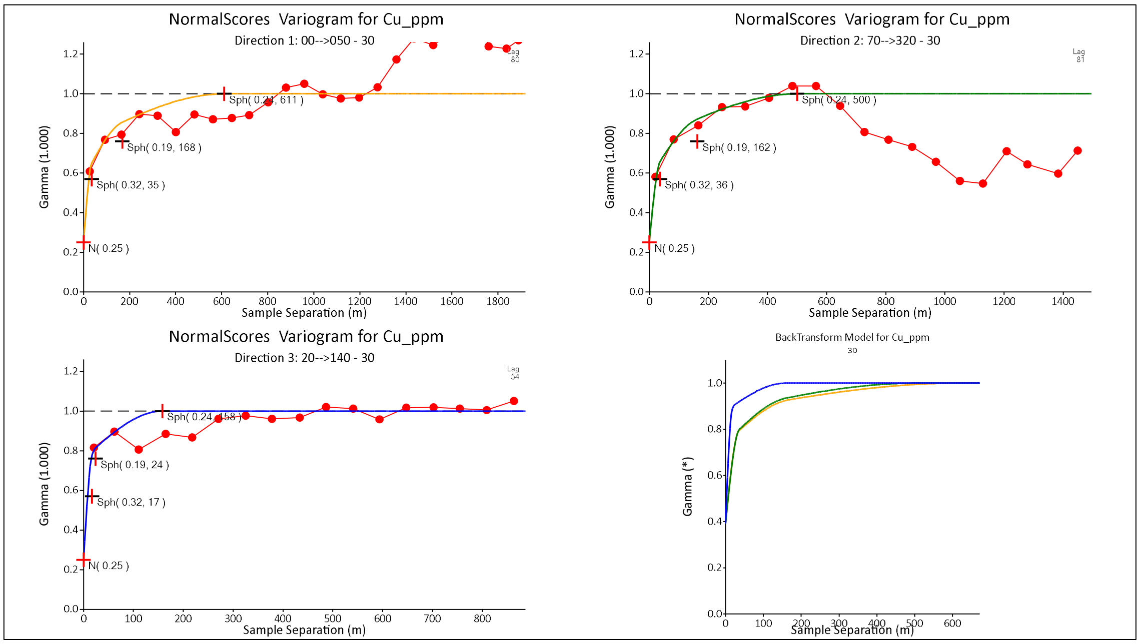


Figure 14-24: Experimental and Model Variograms for Copper, CUDOM=30(Source: Cube, 2024)

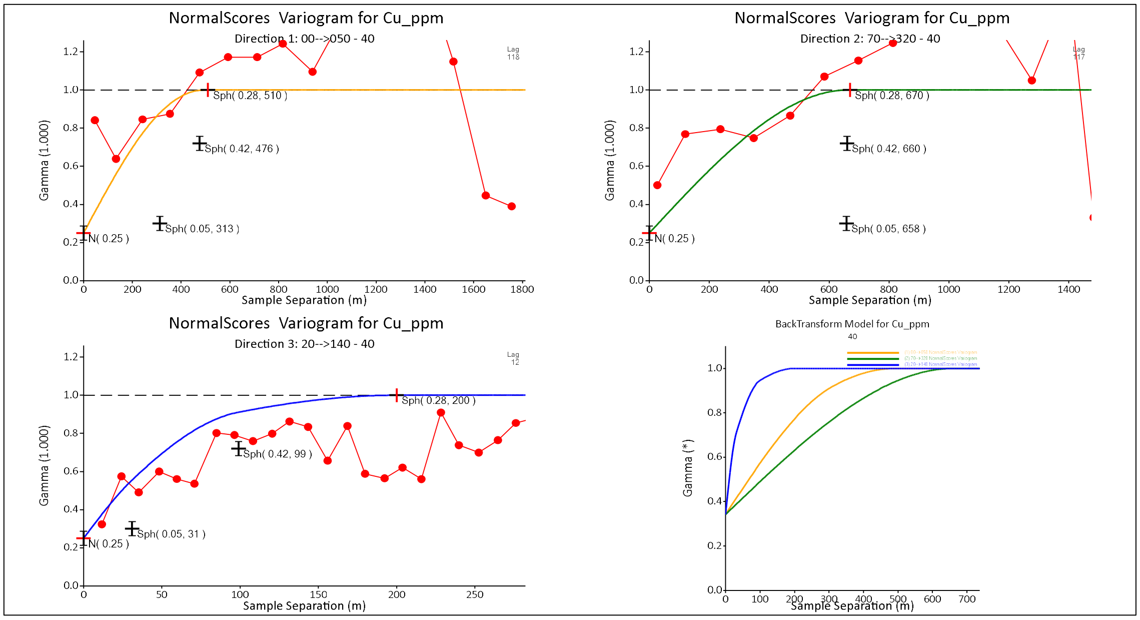


Figure 14-25: Experimental and Model Variograms for Copper, CUDOM=40 (Source: Cube, 2024)

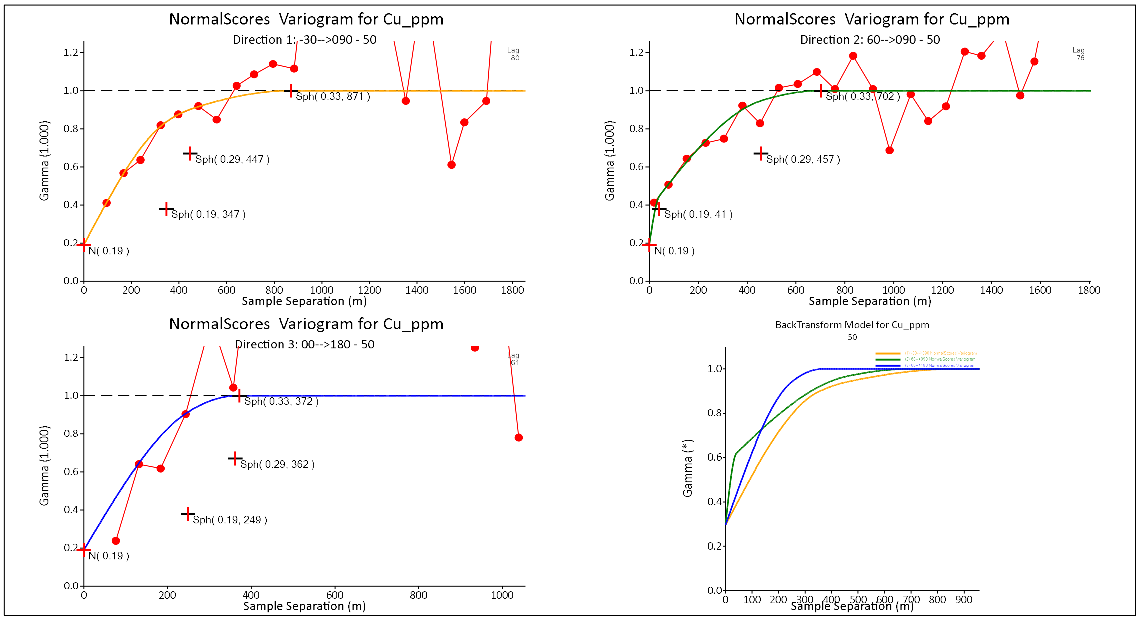


Figure 14-26: Experimental and Model Variograms for Copper, CUDOM=50 (Source: Cube, 2024)

14.7.2 Molybdenum Domains

The variogram parameters for Mo and Re are shown in Table 14-14. The nugget effect for most domains is low at about 15%, with ranges in the major and semi-major directions in excess of 500 m.

Table 14-14: Mo and Re Variogram Parameters

Variable	MODOM	Datamine	Nugget	Range			Sill	Structure
		3,1,3	(C0)	Major	Semi	Minor		
Mo_ppm	**20**	-45,120,0	0.121	103	102	81	0.382	1
				422	579	523	0.231	2
				1494	1106	623	0.267	3
Mo_ppm	**30**	160,90,-160	0.162	37	44	33	0.202	1
				135	203	234	0.248	2
				871	613	322	0.388	3
Mo_ppm	**45**	0,30,0	0.179	145	38	46	0.416	1
				539	271	158	0.241	2
				1053	425	168	0.165	3
Re_ppm	**20**	-45,120,0	0.151	90	81	101	0.506	1
				249	173	161	0.177	2
				565	605	373	0.166	3
Re_ppm	**30**	160,90,-160	0.15	52	72	156	0.417	1
				218	277	215	0.212	2
				612	513	216	0.221	3
Re_ppm	**45**	0,30,0	0.434	80	23	95	0.214	1
				354	256	218	0.315	2
				493	420	229	0.036	3

Source: Cube 2024

14.7.3 Zinc Domain

The variogram parameters for Zn and Pb are shown in Table 14-15. The nugget effect for most domains is low to moderate at about 15% to 40%, with ranges in the major and semi-major directions in excess of 500 m.

Table 14-15: Zn and Pb Variogram Parameters

Variable	ZNDOM	Datamine	Nugget	Range			Sill	Structure
		3,1,3	(C0)	Major	Semi	Minor		
Zn_ppm	**20**	140,90,120	0.311	14	20	48	0.353	1
				67	219	116	0.172	2
				421	264	235	0.164	3
Zn_ppm	**25**	0,0,-110	0.359	39	34	20	0.327	1
				186	155	217	0.161	2
				508	355	310	0.153	3
Zn_ppm	**30**	60,60,-90	0.401	14	31	21	0.409	1
				70	67	37	0.163	2
				392	164	93	0.027	3
Zn_ppm	**50**	180,90,120	0.27	64	87	219	0.265	1
				355	268	234	0.271	2
				818	414	327	0.194	3
Pb_ppm	**20**	140,90,-150	0.389	24	24	77	0.284	1
				122	125	280	0.182	2
				641	619	398	0.144	3
Pb_ppm	**25**	-50,70,0	0.35	29	37	59	0.353	1
				327	397	325	0.182	2
				783	855	377	0.115	3
Pb_ppm	**30**	60,60,-90	0.318	17	86	46	0.418	1
				62	103	75	0.16	2
				221	162	86	0.105	3
Pb_ppm	**50**	180,90,120	0.163	42	95	80	0.302	1
				500	330	434	0.31	2
				1037	561	450	0.226	3

Source: Cube 2024

14.7.4 Arsenic Domains

The variogram parameters for Ag, As, Au, Sb and S are shown in Table 14-16. The nugget effect for most domains is low to high at about 10% to 70%, with ranges in the major and semi-major directions varying from 100 m to 500 m for the mineralized domains (ASDOM 35 and 50).

Table 14-16: Ag, As, Au, Sb and S Variogram Parameters

Variable	ASDOM	Datamine 3,1,3	Nugget (C0)	Range			Sill	Structure
				Major	Semi	Minor		
Ag_ppm	**20**	0,0,0	0.28	29	29	29	0.146	1
				101	101	101	0.574	2
Ag_ppm	**35**	330,-90,270	0.339	51	46	143	0.416	1
				486	540	30	0.246	2
Ag_ppm	**50**	0,0,0	0.09	42	42	42	0.083	1
				387	387	387	0.827	2
As_ppm	**20**	150,-70,270	0.518	17	85	17	0.278	1
				163	13	129	0.205	2
As_ppm	**35**	330,-90,270	0.394	45	45	44	0.414	1
				313	298	213	0.192	2
As_ppm	**50**	0,0,0	0.684	16	16	16	0.19	1
				72	72	72	0.127	2
Au_ppm	**20**	350,0,270	0.249	25	217	154	0.373	1
				396	25	24	0.379	2
Au_ppm	**35**	330,-90,270	0.295	59	59	50	0.441	1
				624	624	371	0.264	2
Au_ppm	**50**	0,0,0	0.324	47	47	47	0.353	1
				663	663	663	0.324	2
Sb_ppm	**20**	0,0,0	0.628	49	49	49	0.099	1
				174	174	174	0.272	2
Sb_ppm	**35**	0,0,0	0.445	29	29	29	0.112	1
				103	103	103	0.442	2
Sb_ppm	**50**	0,0,0	0.71	8	8	8	0.118	1
				24	24	24	0.172	2
S_pct	**20**	-90,60,-130	0.074	97	102	41	0.25	1
				532	345	296	0.217	2
				1068	941	475	0.46	3
S_pct	**35**	0,0,20	0.223	28	28	32	0.361	1
				105	305	162	0.124	2
				913	635	482	0.292	3
S_pct	**50**	0,0,-50	0.163	23	23	52	0.304	1
				351	351	318	0.533	2

Source: Cube 2024

14.8 Block Model and Estimation

14.8.1 Block Model Extents and Attributes

A block model was created in Datamine, with the block model definitions shown in Table 14-17. The panel block size was chosen to be compatible with the drill hole spacing and the geometry of the mineralization, and in this case is slightly smaller than the drill hole spacing in easting and northing in the well-drilled part of the deposit. The SMU size was chosen as a realistic selective mining unit for the deposit.

Table 14-17: Block Model Parameters

	Easting (X)	Northing (Y)	RL (Z)
Minimum Coordinate	445,000	6,618,700	1,600
Maximum Coordinate	449,020	6,622,000	3,900
Panel Block Size	60	60	20
SMU Block Size	20	20	10

Source: Cube 2024

The mineralized domains, lithology, alteration and topographic solids and surfaces were used to code the volume block models, which were checked on screen to ensure that the coding was correct. The numeric codes used are the same as those shown in Section 14.4.3 above. The block volumes for the domains for both the Panel and SMU models were within 0.7% of the main mineralized domain wireframe volumes for all deposits.

These panel and SMU volume models were exported to Isatis for estimation, with grade estimates at the SMU scale exported from Isatis back to Datamine for final model compilation.

14.8.2 Grade Estimation

14.8.2.1 Localized Uniform Conditioning (LUC)

Uniform Conditioning (UC) is a geostatistical method that aims at deriving the local conditional distributions (conditional to the neighboring information) of SMUs (selective mining units or small blocks) within larger estimated blocks (or panels). The UC method conditions the local distribution of grades of SMUs to the estimated grade of the panel.

The idea is to calculate the tonnage and metal content of SMU volumes inside a panel conditional to the kriged value of the panel using the discrete Gaussian Change of Support (CoS) model. Essentially UC builds a grade tonnage curve within the panels, but the spatial location of SMUs above a certain cut-off is unknown. The panel grade is estimated by ordinary kriging (OK), and in this case, the OK estimate using the distance limited threshold was used.

UC results in a grade tonnage curve of SMU volumes within each panel, but the spatial location of SMU volumes is not defined. Post processing or localization discretizes the UC grade tonnage curve based on a ranking estimate of the SMU volumes. The ranking estimate, usually performed by OK, provides a likely spatial location for the SMU volumes, and the UC grade tonnage curve for the SMU volumes is honored (see Abzalov, 2006).

Bried kriging neighborhood analysis (KNA) was performed for copper in Domains 30 and 40 – this showed that improvement in kriging metrics (Slope of Regression and Kriging Efficiency) levelled out beyond 24 to 28 samples, but negative kriging weights increased significantly in Domain 40 beyond 30 samples.

The search neighborhoods for all variables for the OK panels estimates are shown in Table 14-18 to Table 14-21. The high-grade threshold spatial restrictions as discussed in Section 14.5.3 were applied.

Table 14-18: Search Parameters and Estimation Plan for Copper

Variable	CUDOM	Datamine	Range			No. of Samples		Sectors Used	Max. Samp per hole	Disc.
		3,1,3	Major	Semi	Minor	Min.	Max.			
Cu_ppm	**10**	0,0,-30	500	500	100	6	24	4	4	10x10x4
Cu_ppm	**20**	-90,30,-90	800	700	400	6	24	4	4	10x10x4
Cu_ppm	**30**	140,70,180	700	600	300	6	24	4	4	10x10x4
Cu_ppm	**40**	140,70,180	650	550	250	6	24	4	4	10x10x4
Cu_ppm	**50**	180,90,-150	900	700	400	6	24	4	4	10x10x4

Source: Cube 2024

Table 14-19: Search Parameters and Estimation Plan for Molybdenum and Rhenium

Variable	MODOM	Datamine	Range			No. of Samples		Sectors Used	Max. Samp per hole	Disc.
		3,1,3	Major	Semi	Minor	Min.	Max.			
Mo_ppm	**10**	0,0,-30	500	500	100	6	24	4	4	10x10x4
Mo_ppm	**20**	-45,120,0	1000	800	400	6	24	4	4	10x10x4
Mo_ppm	**30**	160,90,-160	600	500	350	6	24	4	4	10x10x4
Mo_ppm	**45**	0,30,0	800	400	350	6	24	4	4	10x10x4
Re_ppm	**10**	0,0,-30	500	500	100	6	24	4	4	10x10x4
Re_ppm	**20**	-45,120,0	500	500	300	6	24	4	4	10x10x4
Re_ppm	**30**	160,90,-160	500	500	200	6	24	4	4	10x10x4
Re_ppm	**45**	0,30,0	450	400	200	6	24	4	4	10x10x4

Source: Cube 2024

Table 14-20: Search Parameters and Estimation Plan for Zinc and Lead

Variable	**ZNDOM**	**Datamine**	**Range**			**No. of Samples**		**Sectors Used**	**Max. Samp per hole**	**Disc.**
		3,1,3	**Major**	**Semi**	**Minor**	**Min.**	**Max.**			
Zn_ppm	**10**	0,0,-30	500	500	100	6	24	4	4	10x10x4
Zn_ppm	**20**	140,90,120	300	250	200	6	24	4	4	10x10x4
Zn_ppm	**25**	0,0,-110	500	400	350	6	24	4	4	10x10x4
Zn_ppm	**30**	60,60,-90	300	200	150	6	24	4	4	10x10x4
Zn_ppm	**50**	180,90,120	800	400	300	6	24	4	4	10x10x4
Pb_ppm	**10**	0,0,-30	500	500	100	6	24	4	4	10x10x4
Pb_ppm	**20**	140,90,120	400	400	300	6	24	4	4	10x10x4
Pb_ppm	**25**	-50,70,0	600	600	300	6	24	4	4	10x10x4
Pb_ppm	**30**	60,60,-90	250	250	250	6	24	4	4	10x10x4
Pb_ppm	**50**	180,90,120	800	400	350	6	24	4	4	10x10x4

Source: Cube 2024

Table 14-21: Search Parameters and Estimation Plan for Silver, Arsenic, Gold, Antimony and Sulfur

Variable	**ASDOM**	**Datamine**	**Range**			**No. of Samples**		**Sectors**	**Max. Samp per hole**	**Disc.**
		3,1,3	**Major**	**Semi**	**Minor**	**Min.**	**Max.**	**Used?**		
Ag_ppm	**20**	0,0,0	400	300	200	10	24	N	5	9x9x3
Ag_ppm	**35**	330,-90,270	400	400	200	10	32	N	5	9x9x3
Ag_ppm	**50**	0,0,0	400	400	400	10	24	N	5	9x9x3
As_ppm	**20**	150,-70,270	330	220	190	10	32	N	5	9x9x3
As_ppm	**35**	330,-90,270	400	400	200	10	32	N	5	9x9x3
As_ppm	**50**	0,0,0	400	400	400	10	32	N	5	9x9x3
Au_ppm	**20**	350,0,270	400	300	200	10	32	N	5	9x9x3
Au_ppm	**35**	330,-90,270	400	400	200	10	32	N	5	9x9x3
Au_ppm	**50**	0,0,0	400	400	400	10	24	N	5	9x9x3
Sb_ppm	**20**	0,0,0	400	400	200	10	32	N	5	9x9x3
Sb_ppm	**35**	0,0,0	400	400	400	10	32	N	5	9x9x3
Sb_ppm	**50**	0,0,0	400	400	400	10	24	N	5	9x9x3
S_pct	**20**	-90,60,-130	800	800	400	6	24	4	4	10x10x4
S_pct	**35**	0,0,20	600	500	300	6	24	4	4	10x10x4
S_pct	**50**	0,0,-50	300	300	250	6	24	4	4	10x10x4

Source: Cube 2024

For the ranking estimate, OK was performed using the same variograms as the panel estimate, with slightly larger search ellipses but the same sample numbers. This ensures every SMU within an estimated panel receives a ranking grade.

Only a single search pass was used for the panel OK – for unestimated panels at the very edge of the mineralized domain, and for the non-estimated part of the background domain, default values were applied. These default grades were based on actual estimated grades at the edges of the non-estimated blocks, or on the Q50 of the composites within the domain and are shown in Table 14-22.

Table 14-22: Default Grade Values for Non-estimated Panels

Chinchillones Defaults for Non-estimated Panels					
CUDOM					
	10	**20**	**30**	**40**	**50**
Cu_ppm	50	120	120	N/A	500
MODOM					
	10	**20**	**30**	**45**	
Mo_ppm	1	2	2	90	
Re_ppm	0	0.001	0.002	0.025	
ZNDOM					
	10	**20**	**25**	**30**	**50**
Zn_ppm	10	70	70	2,500	100
Pb_ppm	5	30	30	1,000	50
ASDOM					
	10	**20**	**35**	**50**	
Ag_ppm	0.84	1.08	3.6	1.41	
As_ppm	76.18	18.82	109.25	9.68	
Au_ppm	0.01	0.02	0.05	0.05	
Sb_ppm	2.5	1.51	7.69	1.04	
S_pct	0.1	0.5	2	2	

Source: Cube 2024

For the copper mineralized domains, 99% of the panels were estimated for Domain 30, 100% for Domain 40 and 88% for Domain 50. Note that Domain 50 extends to depth, well beyond drilling, and the default values were only needed at the periphery of the domains.

LUC was used for estimation of all variables in all domains, except for sulfur, which used the panel OK estimate, and for the cover sequence. For the cover, either a basic panel OK estimate was used (with a horizontal search) or for the arsenic domain grouping, the default values were applied.

14.8.3 Density Estimation

Over 3,800 bulk density determinations are available for the project – the determinations were made via the water displacement method using ~10 to 15 cm sticks of core across all lithology and alteration types in the deposit. Anomalous values (< 1.5 [two values] and > 4.5 t/m^3 [three values]) were removed from the data set. Statistical analysis shows that mean value and coefficient of variation is similar for all lithologies and alteration types (Table 14-23 and Table 14-24), with the exception of the post-mineralization Dacite (ROCK =3) that has a slightly lower density.

Table 14-23: Bulk Density Values by Lithology

ROCK	Count	Minimum	Maximum	Mean	Std. Dev.	Variance	CV
1	878	1.53	3.946	2.642	0.178	0.032	0.067
2	1075	1.593	3.806	2.545	0.165	0.027	0.065
3	531	1.591	2.946	2.476	0.16	0.026	0.065
4	675	1.682	4.103	2.556	0.185	0.034	0.072
5	108	2.103	2.968	2.564	0.177	0.031	0.069
6	72	2.122	2.889	2.629	0.144	0.021	0.055
7	8	1.873	2.822	2.326	0.365	0.133	0.157
8	8	2.105	2.49	2.271	0.132	0.018	0.058

Source: Cube 2024

Table 14-24: Bulk Density Values by Alteration

ALTDOM	Count	Minimum	Maximum	Mean	Std. Dev.	Variance	CV
1	372	1.599	3.51	2.589	0.205	0.042	0.079
2	343	1.617	2.968	2.484	0.158	0.025	0.064
3	1138	1.53	4.103	2.56	0.182	0.033	0.071
4	717	1.591	3.806	2.574	0.176	0.031	0.068
5	572	2.086	3.684	2.61	0.166	0.028	0.064
6	152	2.048	3.44	2.497	0.182	0.033	0.073
7	53	2.219	2.76	2.504	0.095	0.009	0.038
8	8	2.105	2.49	2.271	0.132	0.018	0.058

Source: Cube 2024

Given these statistics, assignment of bulk density per rock type would be a reasonable approach. However, swath plots of the density (for all lithologies combined) show a definite trend, with the density values increasing to the north (Figure 14-27), but relatively constant in Easting and RL. Therefore, a kriged estimate of the density would reflect this trend better than assigning default density values for the lithologies.

The contact plot between the post-mineralization Dacite and the surrounding lithologies shows a gradational transition of bulk density across the contact (Figure 14-28), and therefore the density for all lithologies (except for the cover) were combined into a single domain for estimation.

The variogram and search parameters are shown in Table 14-25 and Table 14-26 respectively. Estimation of bulk density was via OK into the panel sized blocks (60 mE x 60 mN x 20 mRL).

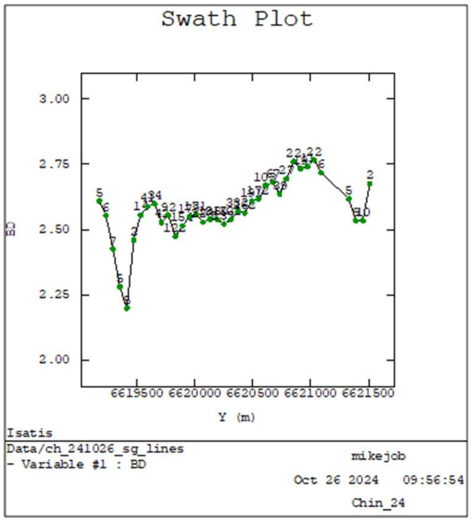


Figure 14-27: Swath Plot of Bulk Density by Northing (Source: Cube, 2024)

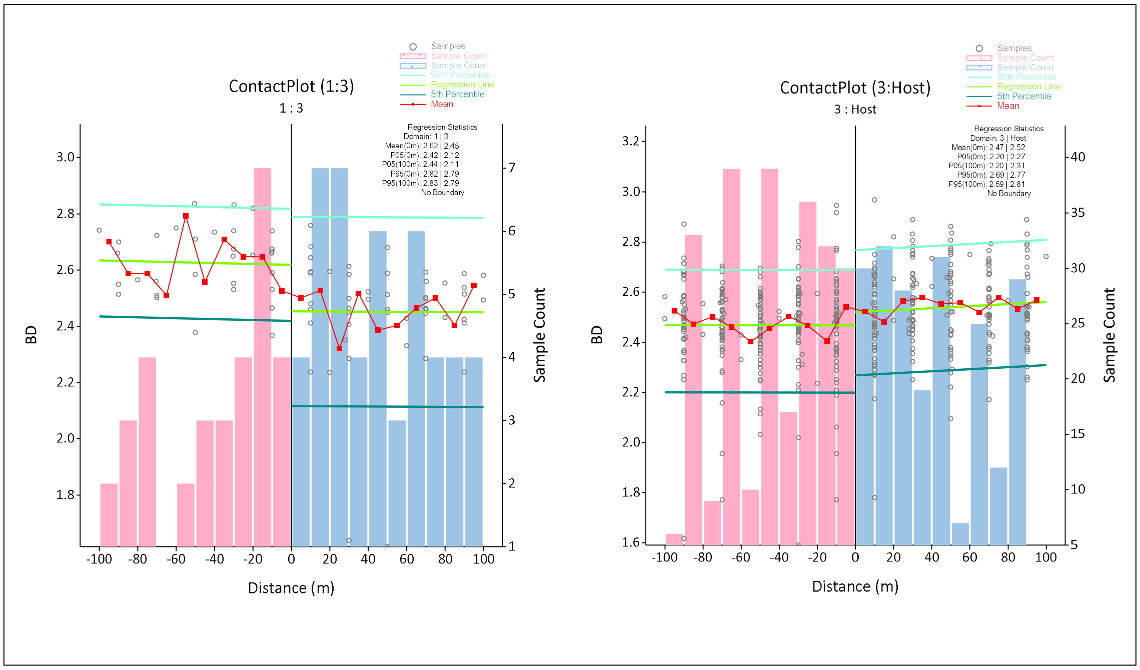


Figure 14-28: Contact Plot for Density Between Post-mineralization Dacite (ROCK=3) and Surrounding Lithologies (Source: Cube, 2024)

Table 14-25: Bulk Density Variogram Parameters

Variable	SGDOM	Datamine 3,1,3	Nugget (C0)	Range			Sill	Structure
				Major	Semi	Minor		
BD_t/m3	1	-160,90,90	0.33	30	67	49	0.181	1
				161	76	139	0.289	2
				1425	1217	605	0.2	3

Table 14-26: Search Parameters and Estimation Plan for Bulk Density

Variable	SGDOM	Datamine	Range			No. of Samples		Sectors Used?	Max. Samp per hole	Disc.
		3,1,3	Major	Semi	Minor	Min.	Max.			
BD_t/m^3	1	-90,60,-130	800	800	400	6	12	4	4	10x10x4

14.9 Model Validation and Sensitivity

Model validation was completed to check that the grade estimates within the model were an appropriate reflection of the underlying composite sample data, and to confirm that the interpolation parameters were applied as intended. Checks of the estimated grade with the corresponding composite dataset were completed using several approaches involving both numerical and spatial aspects as follows:

- **Visual** inspection of the estimated block grades viewed in conjunction with the sample data.
- **Global**: Comparison of the mean block grade estimates to the mean of informing composite grades, per domain.
- **Local**: Using swath plots in Easting, Northing and RL comparing the estimates to the sample data.

14.9.1 Visual Validation

The block model was extensively checked against the sample composites for all variables in all domains in cross-section plan and 3D. Examples of cross-section and plans for copper are shown in (Figure 14-29 and Figure 14-30) , and for arsenic in (Figure 14-31 and Figure 14-32).

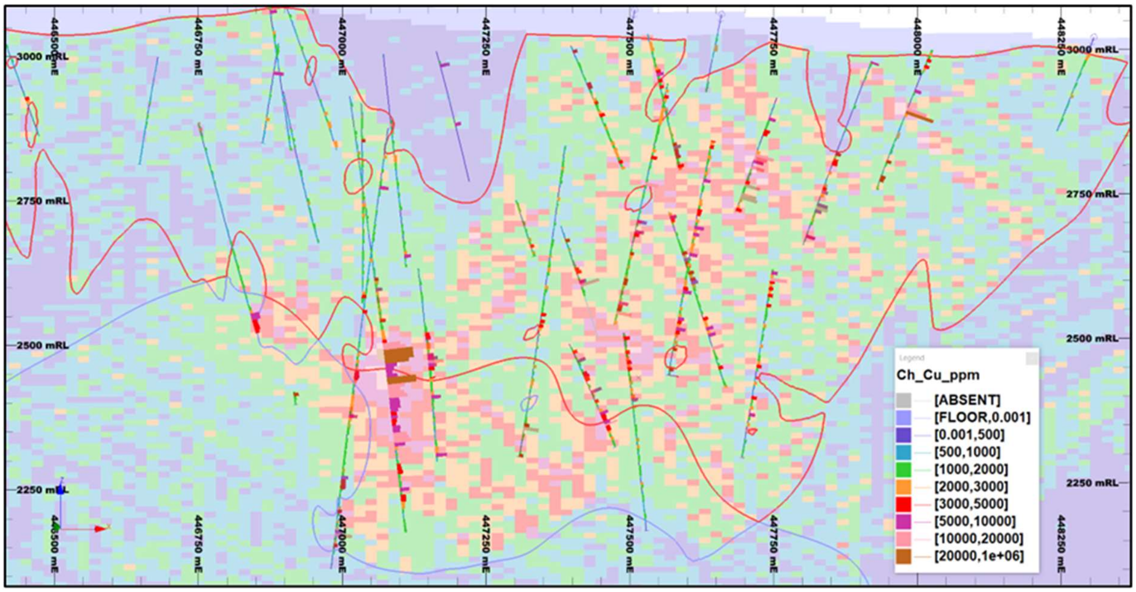


Figure 14-29: Cross-Section Showing Model and Composites for Cu, 6,620,360 mN Looking North (Source: Cube, 2024)

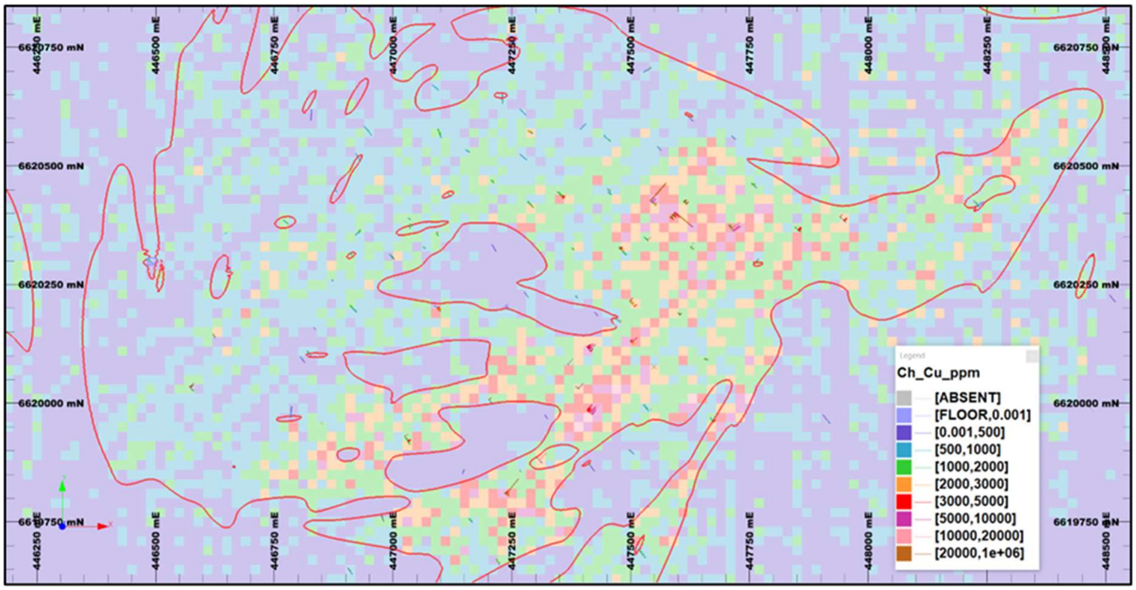


Figure 14-30: Plan View Showing Model and Composites for Cu, 2,800 mRL (+/- 20 m) (Source: Cube, 2024)

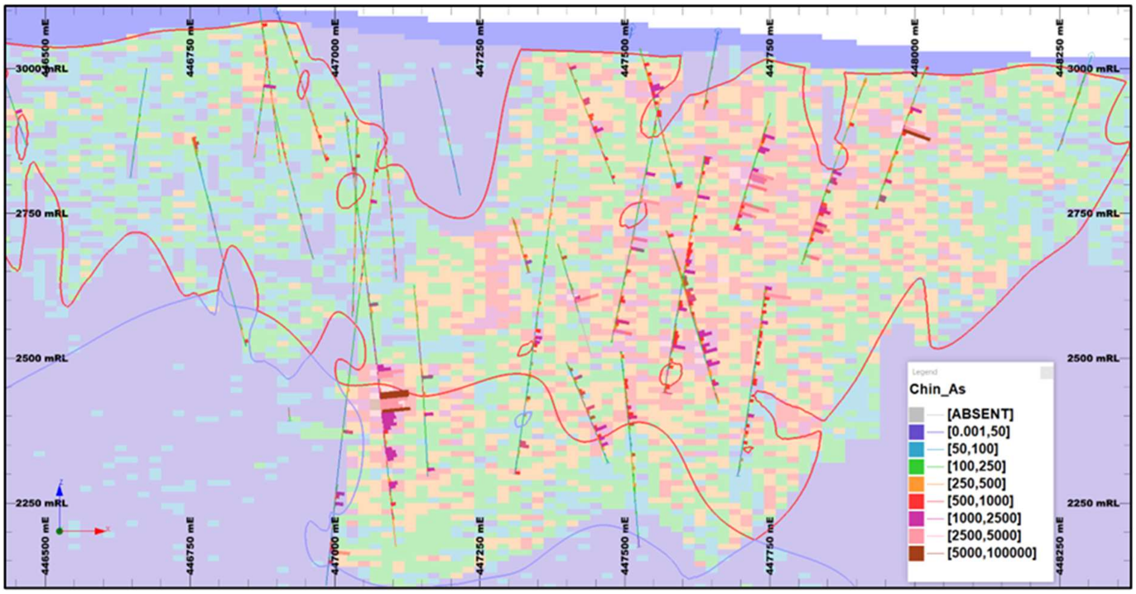


Figure 14-31: Cross-Section Showing Model and Composites for As, 6,620,360 mN (+/- 40 m) Looking North (Source: Cube, 2024)

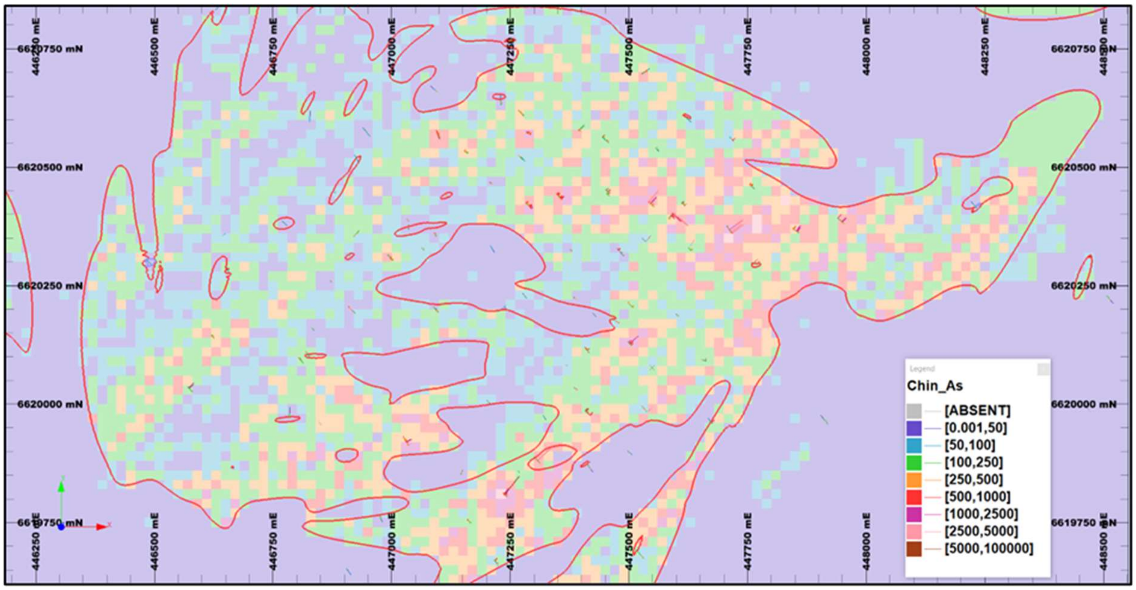


Figure 14-32: Plan View Showing Model and Composites for As, 2,800 mRL (Source: Cube, 2024)

14.9.2 Global Validation

14.9.2.1 Global Statistics

Table 14-27 shows a global comparison of the raw and declustered (200 mE x 200 mN x 12 mRL grid window) composites mean with the global estimate mean and also with a 'Restricted' model mean. The restricted model is within 100 m of the drill holes – this was required, as for the outer edges of the mineralized domains, the drilling is relatively sparse with lower grades of the economic and deleterious variables than the core of the deposit.

Consequently, relatively few, lower grade holes inform a substantial volume of the model, even within the mineralized domains. Therefore, domain-wide global comparisons of the composite mean grade and model mean grade will not be reliable.

For the mineralized domains (not Domain Number 20 for all groupings in Table 14-27, this is the very extensive background domain), the declustered composite mean grade and mean grade of the restricted model show reasonable correlation. The exception to this is for Domain 50 (for most variable groupings, this is the deeper, early molybdenum zone), which is sparsely drilled.

The mineral resource classification (see Section 14.10) also reflects the uncertainly in Domain 50 – only 5.7% of the domain volume is classified as Indicated or Inferred.

Table 14-27: Composite v. Model Mean Grades

Variable	Domain Name	Domain Number	Raw Mean	Declustered Mean	Global Model	Restricted Model	Restricted/ Declustered
Cu_ppm	CUDOM	20	416	425	329	351	83%
Cu_ppm	CUDOM	30	1,710	1,581	1,404	1,527	97%
Cu_ppm	CUDOM	40	2,619	2,373	2,263	2,487	105%
Cu_ppm	CUDOM	50	1,165	1,135	872	1,023	90%
Mo_ppm	MODOM	20	18.7	21.1	22.3	18.1	86%
Mo_ppm	MODOM	30	32.7	34.9	37.9	35.7	102%
Mo_ppm	MODOM	45	376.2	357.3	350.1	408.1	114%
Re_ppm	MODOM	20	0.007	0.007	0.004	0.004	57%
Re_ppm	MODOM	30	0.012	0.012	0.008	0.008	69%
Re_ppm	MODOM	45	0.074	0.076	0.069	0.076	100%
Zn_ppm	ZNDOM	20	492	480	399	419	87%
Zn_ppm	ZNDOM	25	622	627	588	597	95%
Zn_ppm	ZNDOM	30	5,649	5,441	5,704	5,653	104%
Zn_ppm	ZNDOM	50	656	608	690	529	87%
Pb_ppm	ZNDOM	20	113	113	92	103	91%
Pb_ppm	ZNDOM	25	183	177	160	168	95%
Pb_ppm	ZNDOM	30	1,456	1,402	1,452	1,459	104%
Pb_ppm	ZNDOM	50	164	148	175	120	81%
Ag_ppm	ASDOM	20	2.11	2.00	1.87	1.88	94%
Ag_ppm	ASDOM	35	7.52	6.74	5.96	6.50	96%
Ag_ppm	ASDOM	50	2.66	2.61	1.79	2.29	88%
As_ppm	ASDOM	20	37.1	37.2	35.2	35.9	97%
As_ppm	ASDOM	35	277.7	254.3	239.1	258.1	101%
As_ppm	ASDOM	50	27.7	27.5	25.9	25.6	93%
Au_ppm	ASDOM	20	0.033	0.032	0.030	0.030	94%
Au_ppm	ASDOM	35	0.082	0.075	0.067	0.074	99%
Au_ppm	ASDOM	50	0.028	0.028	0.030	0.031	111%
Sb_ppm	ASDOM	20	3.40	3.34	3.21	3.09	93%
Sb_ppm	ASDOM	35	29.88	28.38	25.44	28.12	99%
Sb_ppm	ASDOM	50	4.17	4.09	2.67	2.96	72%
S_pct	ASDOM	20	2.54	2.65	2.34	2.54	96%
S_pct	ASDOM	35	4.48	4.35	4.35	4.41	101%
S_pct	ASDOM	50	2.03	2.14	2.18	2.08	97%

Source: Cube 2024

14.9.2.2 Change of Support

Grade-tonnage curves comparing the distribution of the grades of the theoretical Change of Support (CoS) and the actual LUC estimate also assist in assessment of the estimate – the curves for the mineralized copper domains are shown in Figure 14-33.

These charts also contain the grade-tonnage curve for the drill hole composites – it can be seen that at cut-offs above 2,000 ppm Cu, the LUC model and theoretical CoS agree well for Domains 30 and 40, with the tonnages for the model less than for the composite data, which is an expected outcome.

For Domain 50 however, the correspondence between the LUC and CoS is not as good as for the other mineralized domains, as this domain at depth contains significant volume, but is very sparsely drilled.

The grade tonnage curves for the other variables in the mineralized domains show good comparison between the actual LUC and CoS.

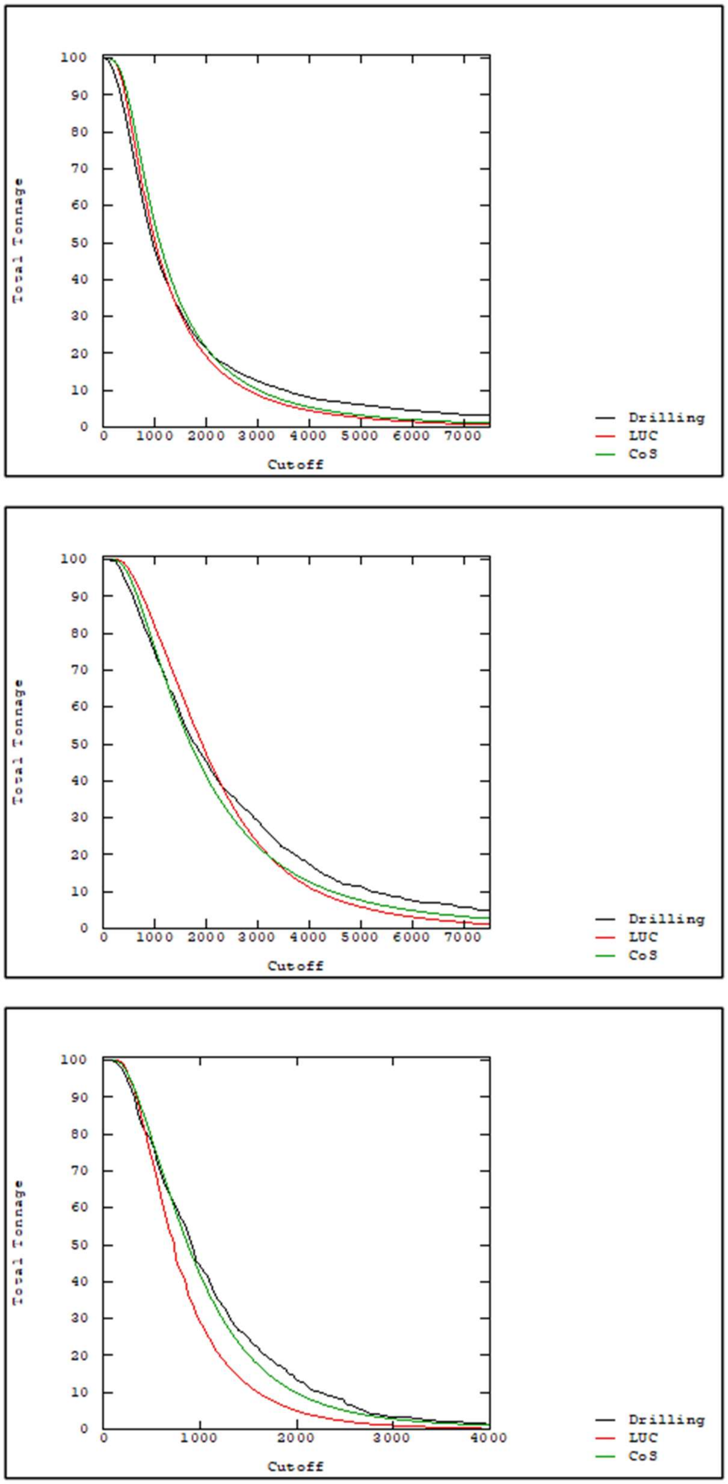


Figure 14-33: LUC and CoS Grade Tonnage Curves. CUDOM 30 (Top), 40 (Middle) 50 (Bottom) (Source: Cube, 2024)

14.9.3 Local Validation

Swath plots were prepared for all variables in the mineralized domains (not the Background domain) in 60 m Northing, 60 m Easting and 40 m RL slices. The swath plots for copper are shown in Figure 14-34 to Figure 14-42.

For the outer edges of the mineralized domains, the drilling is relatively sparse with lower grades of the economic and deleterious variables than the core of the deposit. Therefore, the model grades shown in the swath plots were restricted to within 100 m of the drill holes.

The model for copper shows very good conformance with the declustered drilling (using a 200 mE x 200 mN x 12 mRL grid window) and moderate conformance with the non-declustered drilling. The swath plots for all the other estimated variables also show very acceptable comparisons between the sample composites and resulting model estimates.

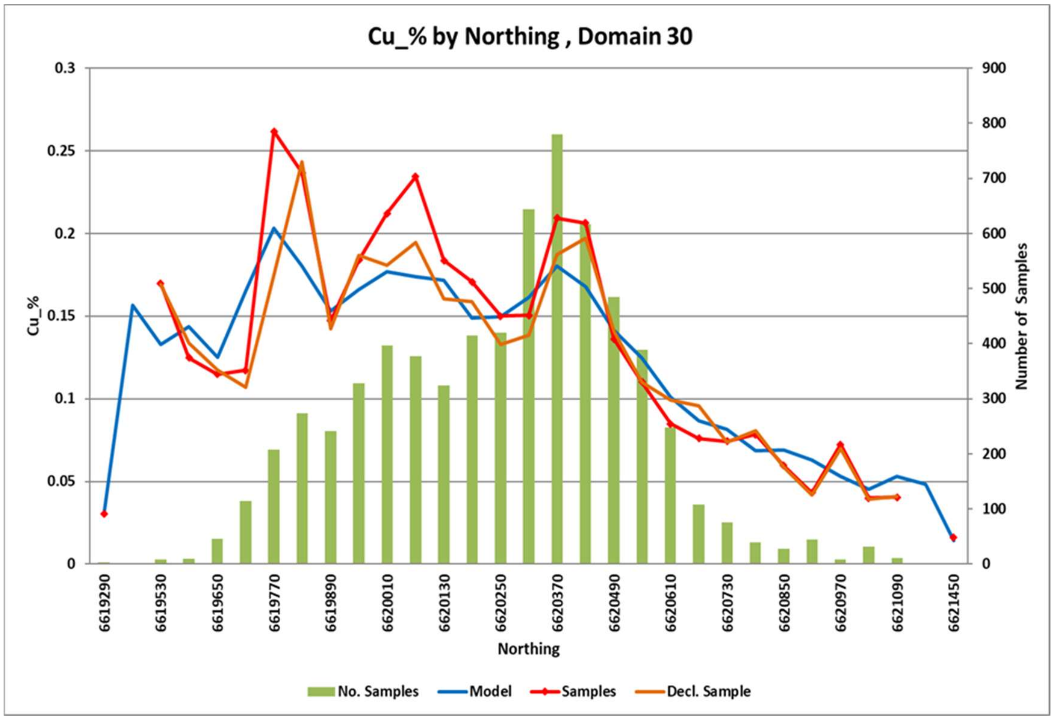


Figure 14-34: Swath Plot for Cu in Northing, Domain 30

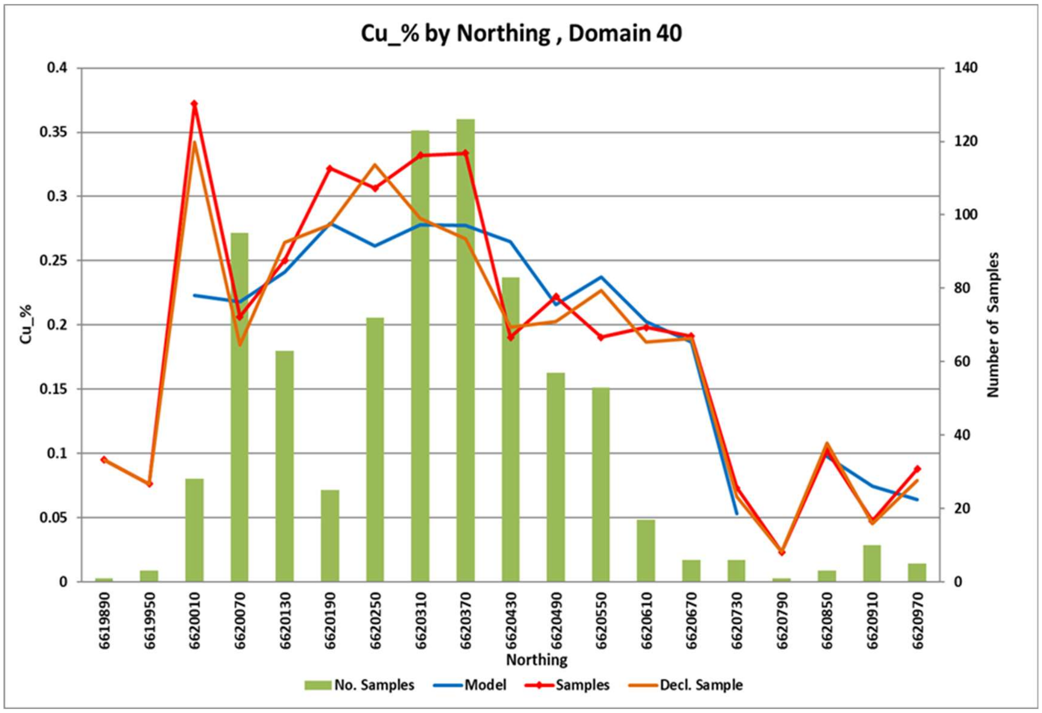


Figure 14-35: Swath Plot for Cu in Northing, Domain 40

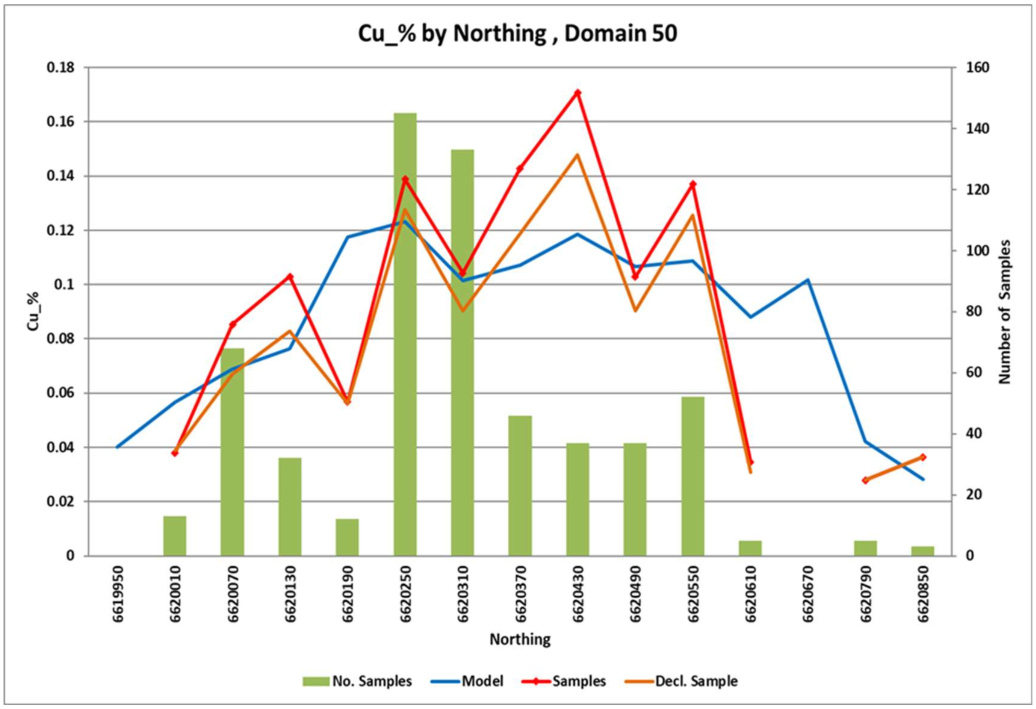


Figure 14-36: Swath Plot for Cu in Northing, Domain 50

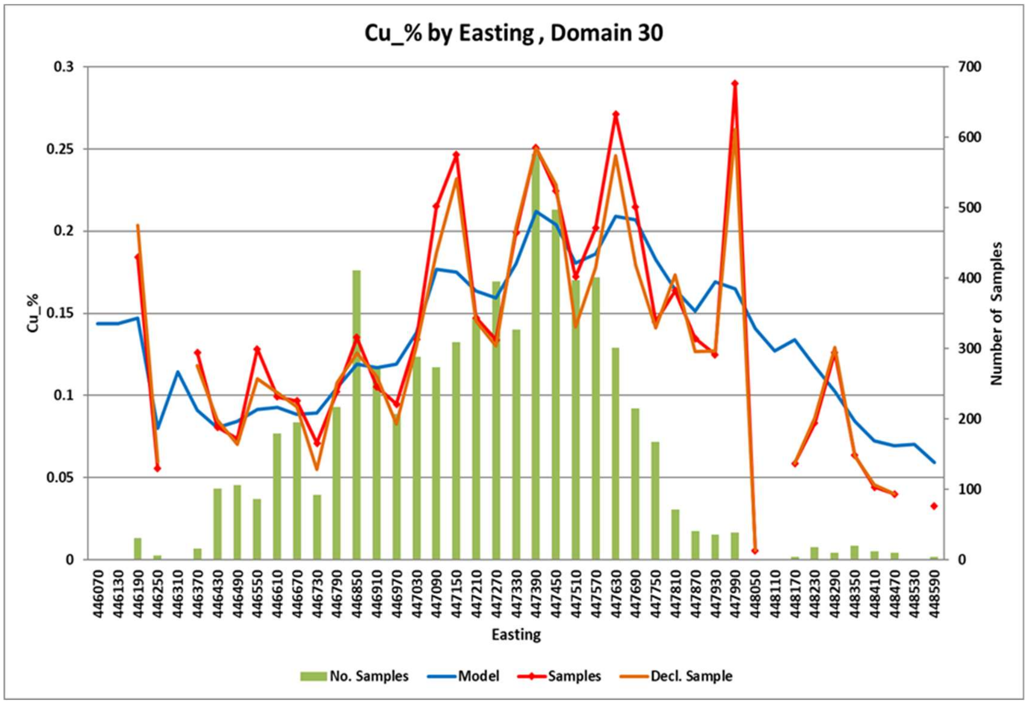


Figure 14-37: Swath Plot for Cu in Easting, Domain 30

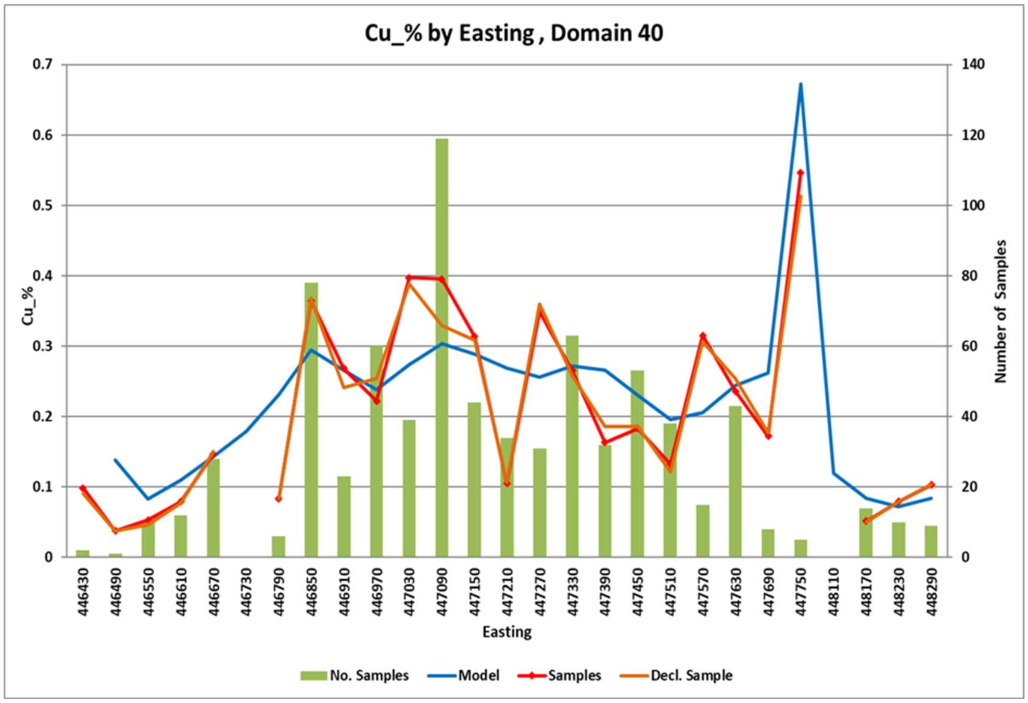


Figure 14-38: Swath Plot for Cu in Easting, Domain 40

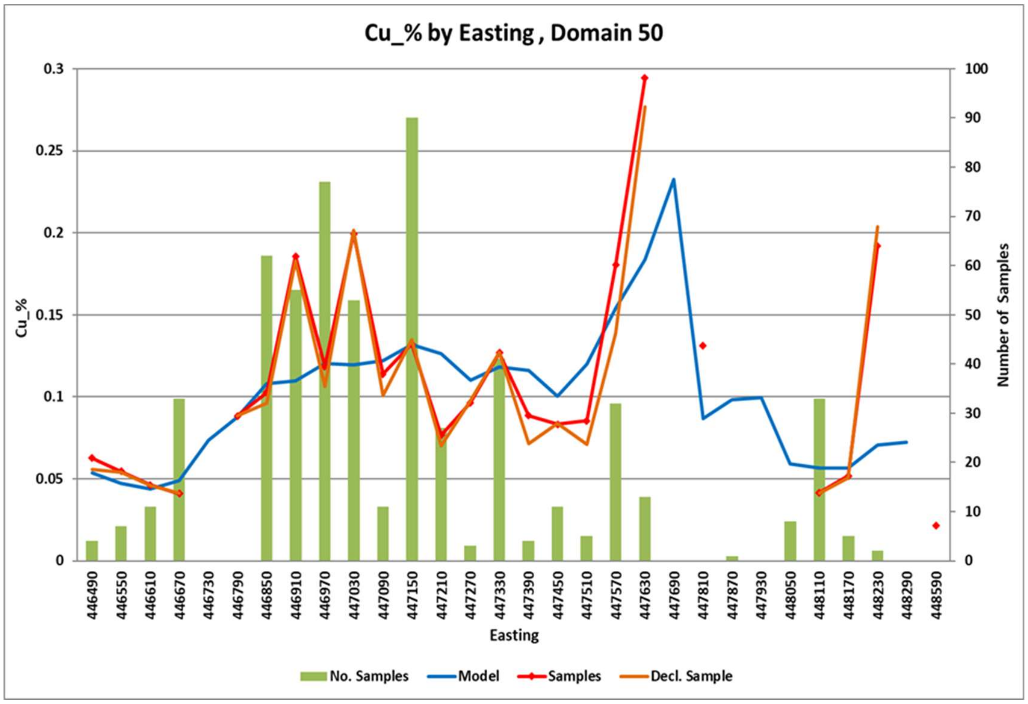


Figure 14-39: Swath Plot for Cu in Easting, Domain 50

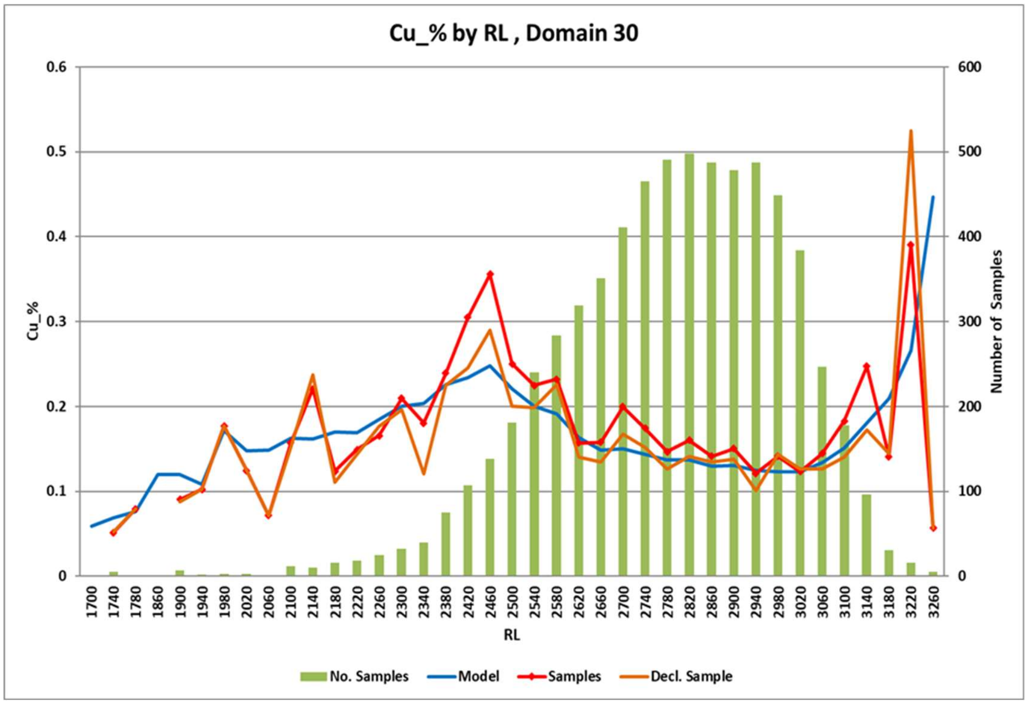


Figure 14-40: Swath Plot for Cu in RL, Domain 30

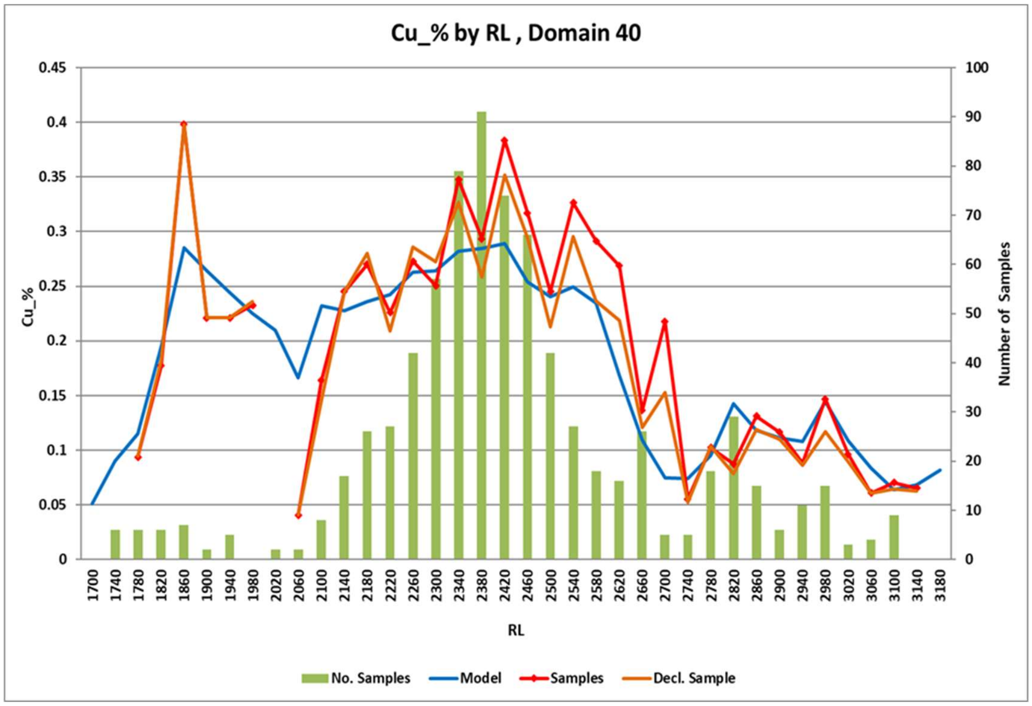


Figure 14-41: Swath Plot for Cu in RL, Domain 40

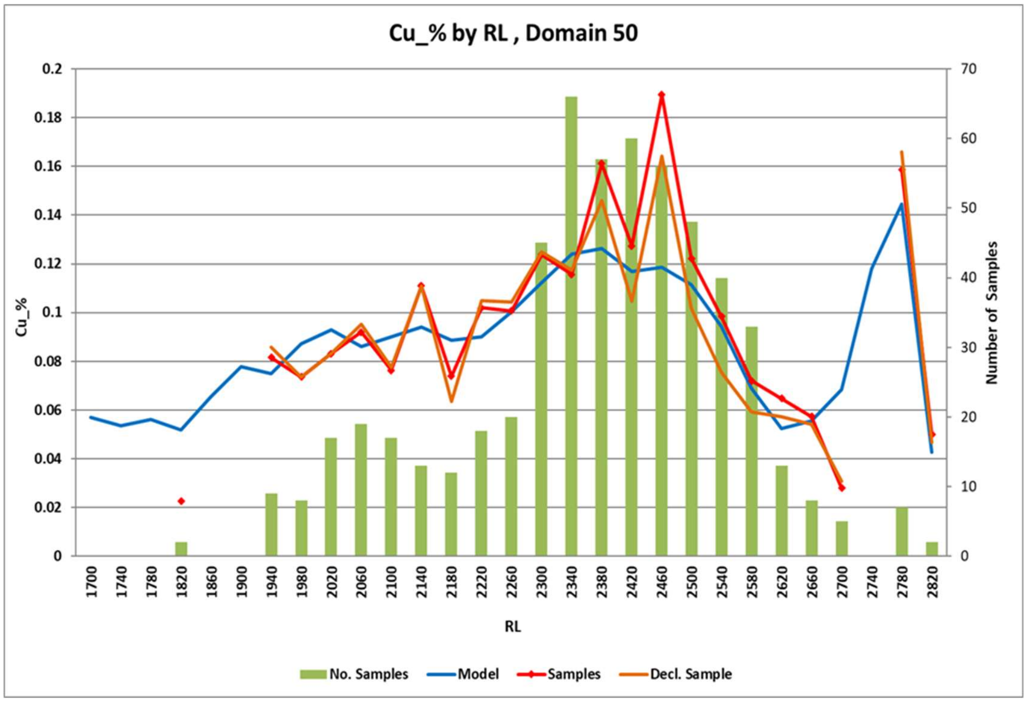


Figure 14-42: Swath Plot for Cu in RL, Domain 50

14.9.4 Validation Summary

It is Cube’s opinion that the estimates for all variables in the Chinchillones Complex deposit mineralized domains are valid and satisfactorily represent the informing data.

14.10 Mineral Resource Classification

To study the impact of the drilling grid on the quality of the copper estimation, a scatter plot of the slope of regression, a measure of the estimation's conditional bias, versus the drilling grid was produced (Figure 14-43).

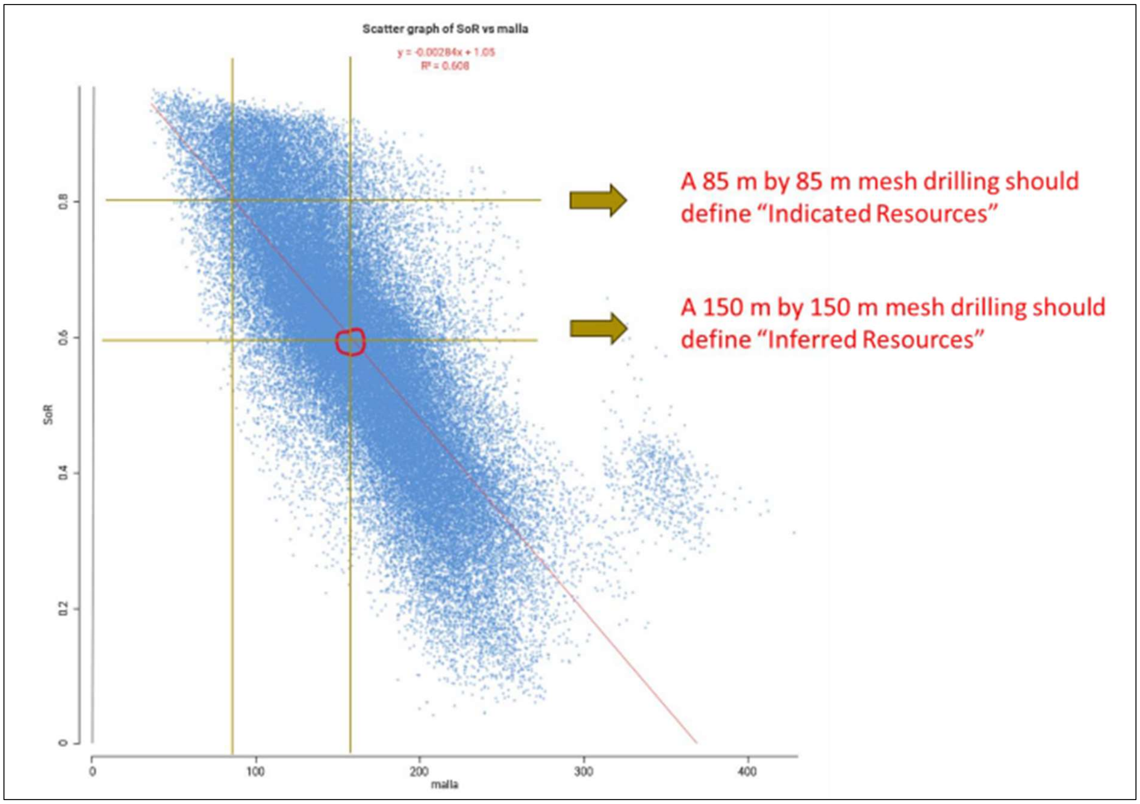


Figure 14-43: Copper Slope of Regression versus Drilling Grid (Source: Cube, 2024)

The plot indicates that a drilling grid of 80 to 85 m should be appropriate to define Indicated resources, and a drilling grid of 150 m is applicable for Inferred resources.

An estimate of the drill hole spacing was made, and the Grid Smoothing function in Isatis used to remove isolated blocks. The result was very satisfactory – the resulting classification is shown in Figure 14-44.

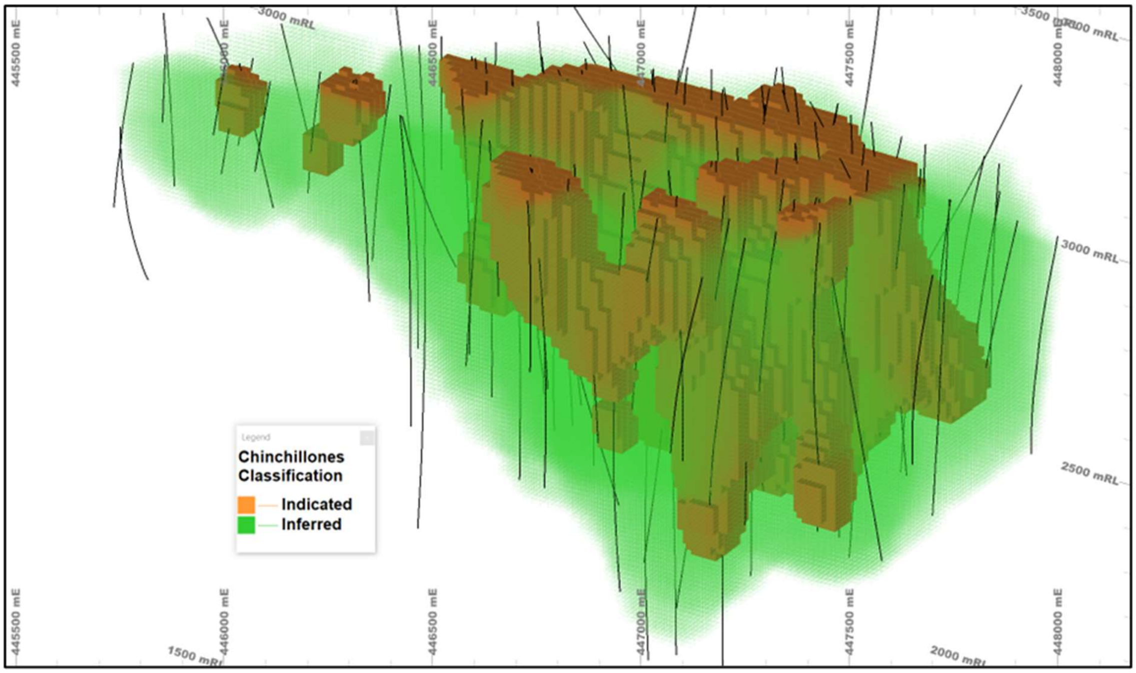


Figure 14-44: Oblique View of the MRE Classification, Indicated (Orange) and Inferred (Green) Only Shown (Source: Cube, 2024)

14.11 Mineral Resource Statement

The economic grades of the Mineral Resource Estimate (MRE) have been reported separately for the low and high zinc domains. The MRE for the low zinc geological domain is reported above a Net Smelter Return (NSR) of US$10/tonne, while the high zinc geological domain is reported above US$11.65/tonne, as shown in Table 14-28 (grades) and Table 14-29 (contained metal).

Table 14-28: Chinchillones Mineral Resource Estimate as at 15 January 2025 (Economic Grades)

Domain	Classification	M Tonnes	CuEq (%)	Cu (%)	Au g/t	Ag g/t	Mo (ppm)	Zn (%)
Low Zinc	Indicated	147	0.36	0.27	0.11	8.7	46	-
	Inferred	494	0.31	0.22	0.09	7.8	108	-
High Zinc	Indicated	41	0.61	0.18	0.13	17.6	-	0.72
	Inferred	79	0.63	0.21	0.1	16.5	-	0.78
Total	**Indicated**	**188**	**0.41**	**0.25**	**0.11**	**10.6**	**36**	**0.16**
	Inferred	**573**	**0.36**	**0.22**	**0.09**	**9.0**	**93**	**0.11**

Table 14-29: Chinchillones Mineral Resource Estimate as at 15 January 2025 (Economic Metal)

Domain	Classification	M Tonnes	CuEq Metal kt	Cu Metal kt	Au k Oz	Ag M Oz	Mo Metal kt	Zn Metal kt
Low Zinc	Indicated	147	532	392	512	40.8	6.8	-
	Inferred	494	1,548	1,074	1,395	123.5	53.2	-
High Zinc	Indicated	41	244	74	162	22.7	-	291
	Inferred	79	501	170	255	42.1	-	616
Total	**Indicated**	**188**	**776**	**466**	**674**	**63.5**	**6.8**	**291**
	Inferred	**573**	**2,049**	**1,244**	**1,650**	**165.6**	**53.2**	**616**

Notes:

(1) Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is noted that no specific issues have been identified as yet.

(2) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve.

(3) The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines.

(4) The resource is reported above Net Smelter Return (NSR) cut offs – for the low zinc geological domain US$10/t (US$9/t milling + US$1/t G&A) and for the high zinc geological domain US$11.65/t (US$10.65/t milling + US$1/t G&A). An optimized pit shell was utilized to constrain Mineral Resource reporting that used a US$1.90/t mining cost, the above milling/G&A costs and with overall 45-degree pit slopes.

(5) The metal prices used for the NSR calculation in US$ are $4.30/lb Cu, $1,985/oz Au, $24/oz Ag, $15/lb Mo, $1.30/lb Zn. Metallurgical recoveries for the low zinc domain are 87% Cu, 40% Au, 65% Ag, 50% Mo. Metallurgical recoveries for the high zinc domain are 60% Cu, 40% Au, 70% Ag, 55% Zn.

(6) The copper equivalent (CuEq) grades use the metal prices and recoveries as used for the NSR calculation; for the low zinc domain CuEq_% = Cu_% +(Au_ppm x 0.3095) + (Ag_ppm x 0.0061) + (Mo_ppm x 0.0002). For the high zinc domain, CuEq_% = Cu_% +(Au_ppm x 0.4488) + (Ag_ppm x 0.0095) + (Zn_% x 0.277). Note that Zn is not recovered in the low zinc domain, and Mo is not recovered in the high zinc domain.

(7) The value contribution of each metal to the project can be derived from the NSR calculation. These are: Cu 67%, Ag 16%, Au 7%, Mo 5% and Zn 5%.

(8) The figures in the above tables may not add up due to rounding.

14.11.1 Net Smelter Return Calculation

Mineral Resources are reported based on a Net Smelter Return (NSR) basis, with three concentrates produced, Cu, Mo and Zn. A summary of the metal prices and metallurgical recoveries applied in the NSR calculation are summarized in Table 14-30 below.

Many NSR calculations assume fixed elemental grades in the concentrate, or at a fixed grade of the main element in the concentrate, and derivation of the other grades based on elemental recoveries and in-situ (i.e. block model) grades. However, due to the complex nature of mineralogy at Chinchillones, this second approach yielded incorrect results for the Cu and Zn concentrates. Instead, elemental grades in the Cu and Zn concentrates were based on mineralogy-based calculations that assumed mineral compositions are hybrids of the major mineral present. For the Mo concentrate, however, a constant Mo grade was assumed.

Therefore, recoveries used for the NSR in this case are not for elemental grades, but a combination of elemental and 'simplified' mineral species recoveries. For example, rather than including enargite, tennantite and tetrahedrite for the arsenic bearing minerals, a single Cu-Fe-As-Sb-S mineral is substituted. These mineral recoveries are shown in Table 14-30.

Note that different recoveries and concentrate grades apply to the high zinc domain (ZNDOM=30, shown as 'ZnCon Value' column in Table 14-30) compared to the general Cu and lower zinc domains. The majority of the tonnes and metal of the MRE are outside the high Zn domain (85%), with only 15% of the MRE tonnes within the high Zn domain.

In addition to the parameters in Table 14-30 the NSR calculation accounted for economic element payability terms, refining, treatment and roasting costs, transportation costs, moisture content and deleterious element penalty costs.

Table 14-30: Summary of NSR Metal Prices and Recoveries

Item	Unit	CuCon Value	ZnCon Value
Price Basis			
Copper Price	US$/lb	4.30	4.30
Gold Price	US$/oz	1,985.00	1,985.00
Silver Price	US$/oz	24.00	24.00
Molybdenum Price	US$/lb	15.00	15.00
Zinc Price	US$/lb	1.30	1.30
Lead Price	US$/lb	1.00	1.00
Processing			
Variable Milling Cost	US$/t milled	9.00	10.65
G&A			
Variable G&A Cost	US$/t milled	1.00	1.00
Copper Concentrate		**All zones except High Zn**	**High Zn Zone Only**
Cu-S Mineral Recovery	%	87%	60%
Au Recovery	%	40%	25%
Ag Recovery	%	65%	45%
Cu-Fe-As-Sb-S Mineral Recovery	%	80%	35%

Item	Unit	CuCon Value	ZnCon Value
Galena Recovery	%	10%	50%
Sphalerite Recovery	%	60%	25%
S Recovery	%	5%	5%
Gangue Grade	%	5%	5%
Molybdenum Concentrate		**All zones except high Zn**	**High Zn Zone Only**
Mo Recovery	%	50%	
Mo% in MoCon	Grade %	55%	
Zinc Concentrate		**All zones except High Zn**	**High Zn Zone Only**
Sphalerite Recovery	%		55%
Au Recovery	%		15%
Ag Recovery	%		25%
S Recovery	%		5%
Cu-As-S Mineral Recovery	%		20%
Cu-S Mineral Recovery	%		25%
Galena Recovery	%		10%
Gangue Grade	%		5%

14.11.2 Open Pit Optimization

The basic set of cost parameters used for pit optimization are shown in Table 14-31.

Table 14-31: Pit Optimization Parameters for Constraining Mineral Resource Pit Shell

Item	US$/tonne
Mining Cost (Ore and Waste)	$ 1.90
Variable Milling Cost (Low Zn Domain)	$ 9.00
Variable Milling Cost (High Zn Domain)	$ 10.65
G&A Cost	$ 1.00

In the absence of any geotechnical data, a constant overall pit wall slope of 45° was used – this is a commonly used parameter for early project stage pit optimization. The resulting shell is shown in Figure 14-45 – the pit shell reaches a depth of 1,000 m below surface and is approximately 2,000 meters across.

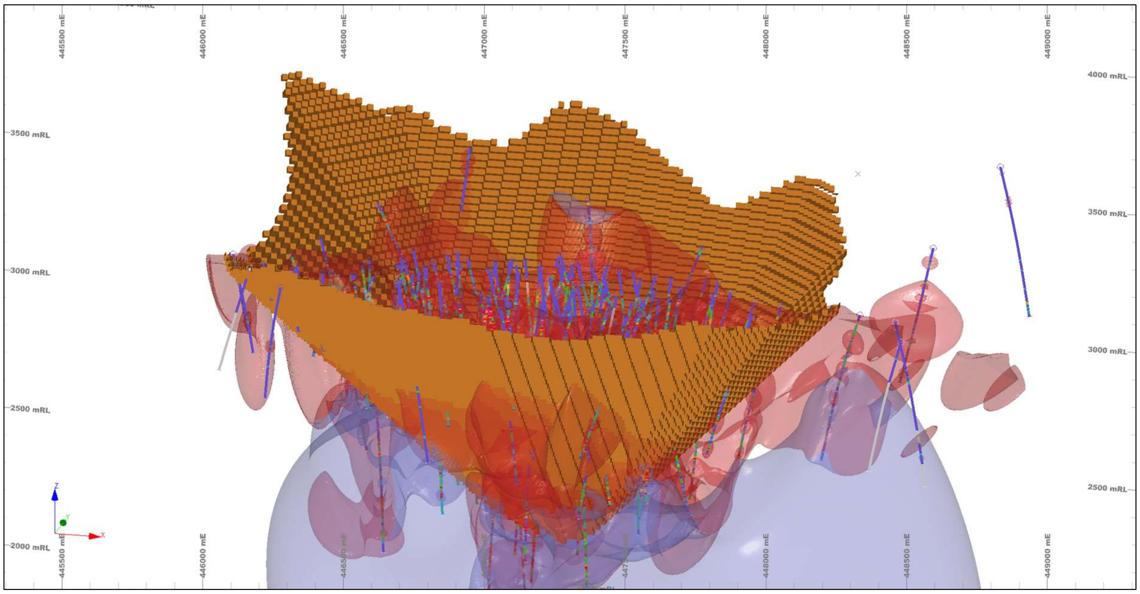


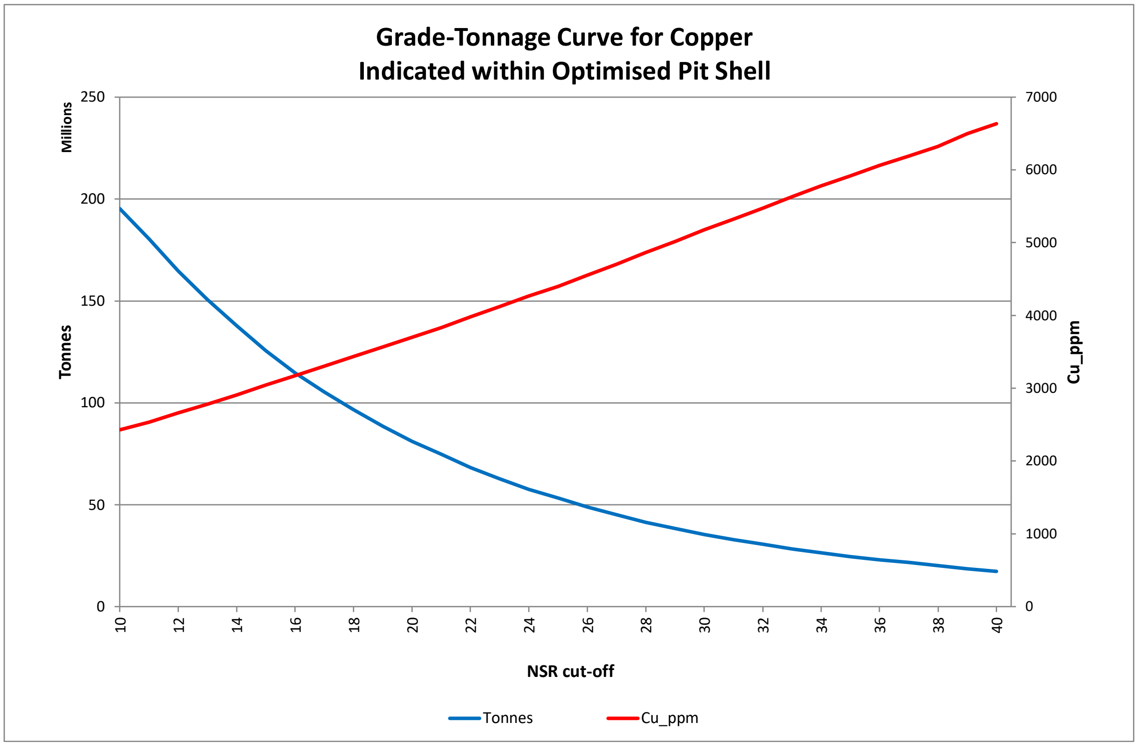
Figure 14-45: Oblique View, Optimized Pit Shell. Red = High Sulfidation Domain, Blue = Molybdenum Porphyry Domain (Source: Cube, 2024)

14.12 Grade Sensitivity Analysis

The sensitivity of the Cu grades at varying NSR cut-offs is shown in Table 14-32 and the grade tonnage curves in Figure 14-46 and Figure 14-47. All of these numbers are reported from within the constraining optimized pit shell.

Table 14-32: NSR Cut-Off Sensitivity of Mineral Resource within Constraining Pit Shell

Indicated				Inferred			
NSR cut-off	Mt	Cu %	CuEq %	NSR cut-off	Mt	Cu %	CuEq %
10	195	0.24	0.41	10	589	0.21	0.36
12	165	0.27	0.44	12	482	0.24	0.39
14	138	0.29	0.48	14	394	0.26	0.42
16	115	0.32	0.51	16	322	0.28	0.45
18	97	0.34	0.54	18	263	0.30	0.48
20	81	0.37	0.58	20	217	0.33	0.52
22	68	0.40	0.61	22	179	0.35	0.55
24	58	0.43	0.64	24	147	0.38	0.58
26	49	0.46	0.68	26	121	0.40	0.62
28	41	0.49	0.71	28	100	0.43	0.65
30	36	0.52	0.75	30	83	0.46	0.69



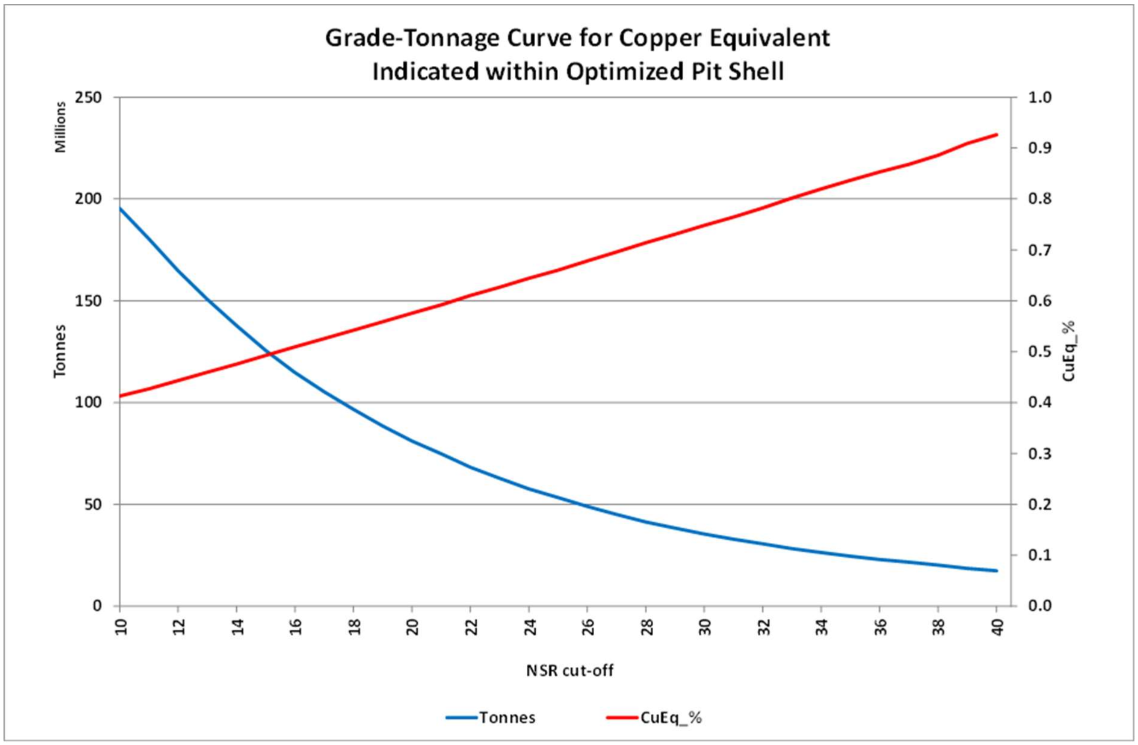


Figure 14-46: Grade Tonnage Curve for Cu above NSR Cut-offs, Indicated only (Source: Cube, 2024)

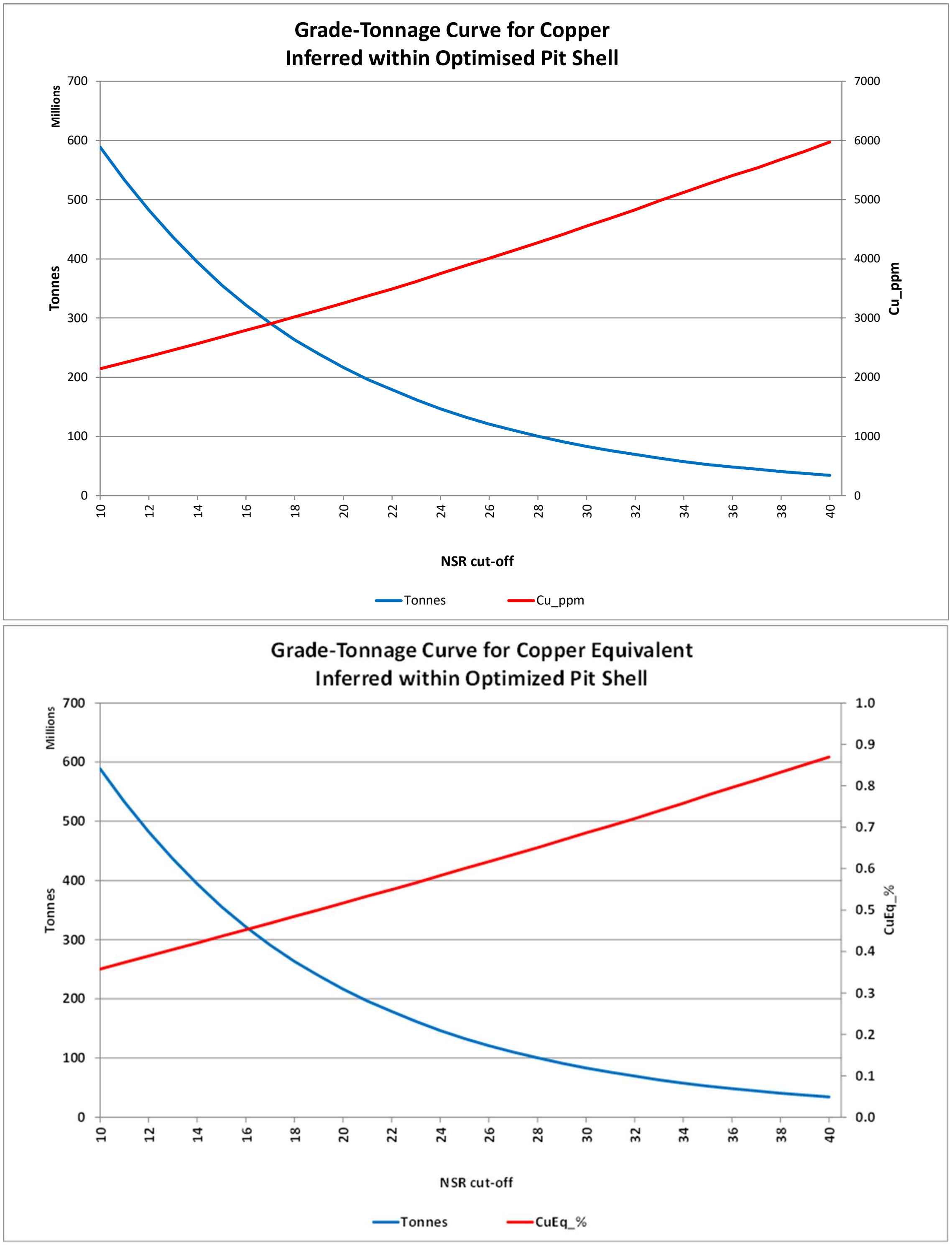


Figure 14-47: Grade Tonnage Curve for CuEq above NSR Cut-offs, Inferred only (Source: Cube, 2024)

14.13 Mineral Resource Risk Assessment

Factors that may affect the confidence in the mineral resource estimate can be attributed to uncertainties in the items listed below:

- Sampling and drilling methods, data processing and handling.
- Geological and mineralization domains, and geological and grade continuity assumptions within these domains.
- Resource estimation process including parameters such as threshold capping values, search neighborhood, variogram models.
- Metal price assumptions, metal recovery assumptions, concentrate marketability, payability and penalty terms used to inform the Net Smelter Return calculation.
- Input parameter assumptions used for the optimized pit that constrains the estimate.
- Assumptions used to generate the cut-off grade.
- Assumptions regarding the continued ability to access the site, retain mineral and obtain surface rights titles, obtain environment and other regulatory permits, and maintain the social license to operate.

The above uncertainties were considered in Mineral Resource classification criteria and in the opinion of the QP all issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

14.14 Recommendations

Further work to understand the controls on mineralization to improve the estimation domaining, in particular for some of the apparently ‘isolated’ higher grade copper zones. For example, the central drill hole shown in Figure 14-48 is CHDH23-69, which has an intercept of 210 m @ 12,166 ppm Cu. In this case, the intercept is almost entirely associated with advanced argillic alteration (red outline in Figure 14-48), but as discussed in Section 0, not all advanced argillic contains high grade copper.

The holes to the west (CHDH23-83) and east (CHDH23-77) are both less than 70 m from CHDH23-69 but only contain intercepts of ~2,600 ppm and ~4,300 ppm Cu respectively. It is unlikely (but possible) that the advanced argillic alteration consists of small, isolated lenses (as currently interpreted), and establishing connectivity between the alteration types would be beneficial and may help refine the estimation domains. Multi-variate geochemistry would likely assist in this investigation, and it is recommended that the current assaying suite be maintained.

Investigation into the mineralization that is apparently within the post-mineralization Dacite is required – this may be due to inaccuracies in logging (i.e., incorrect interpretation), or may be the result of structural remobilization of the sulfide mineralization.

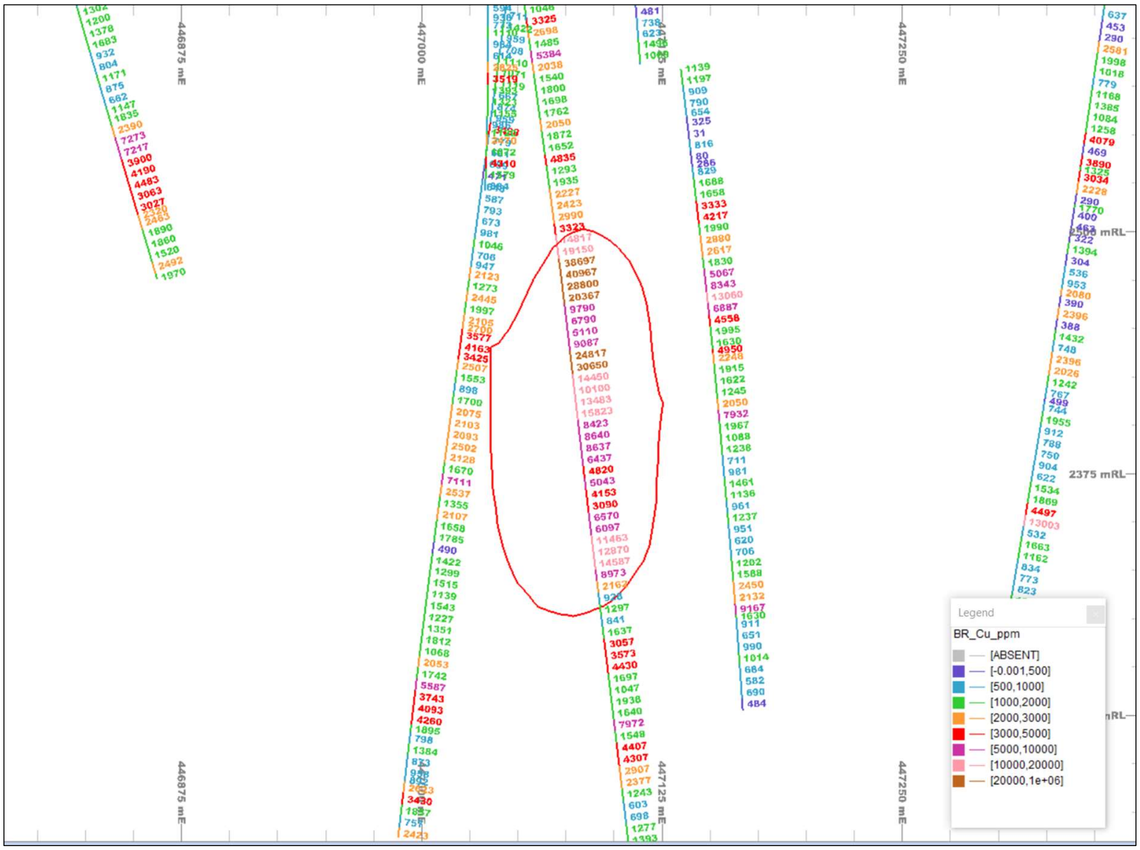


Figure 14-48: Cross-Section 6,620,350 mN, Centered on Hole CHDH23-69 and Showing Advanced Argillic Alteration outline in red, Looking North (Source: Cube, 2024)

15 MINERAL RESERVE ESTIMATES

There are no current mineral reserves estimated for the Chita Valley Project.

16 MINING METHODS

This section is not applicable to the Chita Valley Project.

17 RECOVERY METHODS

This section is not applicable to the Chita Valley Project.

18 PROJECT INFRASTRUCTURE

This section is not applicable to the Chita Valley Project.

19 MARKET STUDIES AND CONTRACTS

This section is not applicable to the Chita Valley Project.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable to the Chita Valley Project.

21 CAPITAL AND OPERATING COSTS

This section is not applicable to the Chita Valley Project.

22 ECONOMIC ANALYSIS

This section is not applicable to the Chita Valley Project.

23 ADJACENT PROPERTIES

This section outlines information about properties adjacent to the subject property. It is based on publicly available disclosures made by their respective owners or operators. Mining Plus has not conducted site visits to these neighboring properties, nor has it independently verified the accuracy or reliability of the information. Furthermore, this publicly disclosed data may not accurately represent the mineralization or geological characteristics of the Chita Valley Project.

The properties closest to the Chita Valley Project are in early exploration stages. There are no active mining projects in the immediate vicinity. Most of the properties are located over 300 km away including significant porphyry deposits, such as Los Azules and Altar, beyond this distance. A summary of the most relevant information about the nearest properties is provided below.

Espota Project – Golden Arrow Resources

In 2023, Golden Arrow Resources entered into an option agreement to acquire a 100% interest in the Espota Gold Project, covering approximately 30 km² in San Juan Province, Argentina.

The Espota Project consists of two exploration permits ("Cateos"). These total 2,887.3 ha along the eastern margin of the Andean Cordillera Frontal (Front Range), at elevations between 2,700 to 3,200 meters above sea level. The project benefits from year-round exploration access and is located approximately 38 kilometers from the town of Bella Vista. Accessible via 25 kilometers of provincial highway and 13 kilometers of secondary gravel road.

Golden Arrow has initiated a reconnaissance surface exploration program across the property, identifying a 1 km² zone with multiple shear zone-hosted breccias and veins displaying quartz-tourmaline-hematite alteration and gold-silver mineralization. Initial channel sampling of breccia bodies in this area returned an average best interval of 27.7 m at 1.57 g/t gold. This included notable results of 9.64 g/t gold over 0.80 m and 33.06 g/t gold over 0.95 m.

Don Julio Project – Sable Resources

The Don Julio Project within the Cordillera Frontal, covering 69,350 ha in San Juan Province. The project encompasses the Don Julio cluster, which includes several porphyry-style targets (La Gringa, Morro-Poposa, Punta Cana, Tocota, and Colorado), intermediate sulfidation targets (Lodo, San Gabriel, and Colorado), and skarn targets (Fermin). Additionally, the property includes the Los Pumas area and substantial unexplored terrain.

Since 2018, Sable Resources has conducted systematic surface work, including geological mapping, rock and talus sampling, UAV-Mag surveys, IP geophysics, and GroundMag studies. Drilling campaigns have been carried out during three field seasons: 3,101 m in 11 holes during 2018–2019, 4,294 m in 9 holes during 2021–2022, and additional drilling during 2022–2023.

In 2021, Sable entered into an Earn-In Agreement with a subsidiary of South32 Limited to jointly explore the Don Julio Project.

Both the Espota and Don Julio projects show potential for regional-scale exploration. The mineralization observed on these properties may be related to the same geological events that contributed to the formation of the Chinchillones Complex deposit. This highlights the potential for a broader mining district in this part of San Juan Province.

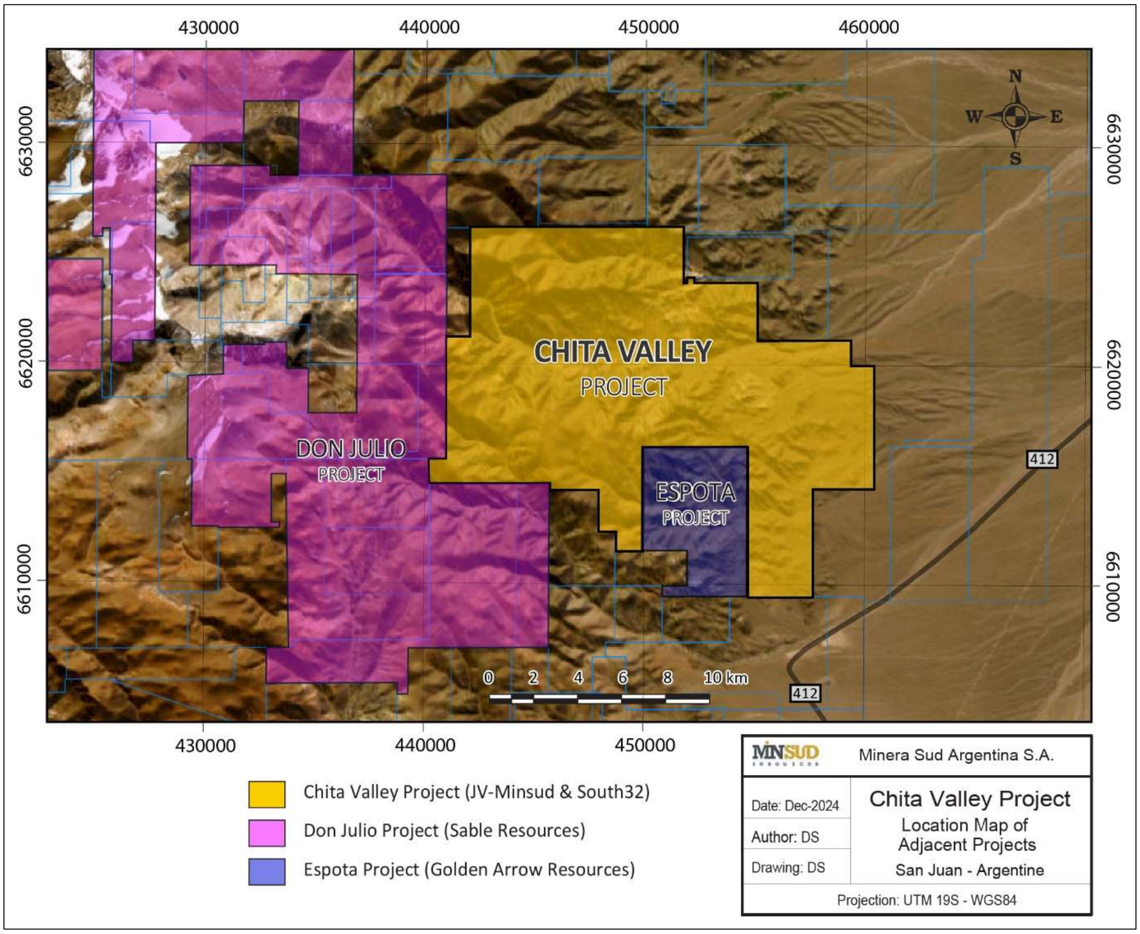


Figure 23-1: Location Map of Adjacent Projects (Source: MSA 2024)

24 OTHER RELEVANT DATA AND INFORMATION

No other relevant data or information is available for this report at this time.

25 INTERPRETATION AND CONCLUSIONS

Based on the site visit and the subsequent evaluation of the data available for the Chita Valley Project, the following conclusions have been drawn:

25.1 Geology and Drilling

- The Chita Valley Project is characterized by porphyry-style and hydrothermal mineralization, with multiple exploration targets supported by drilling, mapping, geophysical, geochemical, and structural indicators. Its relatively lower altitude (3,000 meters) and favorable climate allow year-round accessibility, while existing infrastructure and proximity to essential services may provide logistical advantages for future development.

- The latest drilling campaign conducted by MSA confirms that the Chinchillones Complex is a Cu-Mo (Au) porphyry deposit with overlapping polymetallic mineralization. The upper polymetallic zone hosts lead and zinc mineralization (>1%) between 200 m and 850 m, with gold and silver grades above 0.1 g/t Au and 10 g/t Ag up to 1,050 m, mainly associated with hydrothermal breccias. The porphyry zone shows continuous copper mineralization (>0.1% Cu) from 125 m to over 1,200 m, with the highest grades (>1% Cu) between 250 m and 1,000 m. Molybdenum grades exceed 500 ppm below 750 m, indicating deeper, underexplored potential. Both copper and molybdenum mineralization remain open down dip at depth.

- Mineralization at Chinchillones is geologically complex, with chalcopyrite, bornite, and tennantite/enargite as the primary copper minerals, while sphalerite, galena, and molybdenite are also present. Pyrite is the main metallic gangue mineral.

- Chita South, primarily drilled in previous years by Minsud, is a Cu-Mo porphyry characterized by copper oxides near the surface. It has supergene enrichment, chalcocite/digenite at depth, and primary chalcopyrite copper sulfides. Drilling has mainly focused on the supergene zone, while the primary sulfide zone remains unexplored and open at depth.

- The Chita Valley includes early-stage exploration targets where surface evidence is limited due to overburden. However, geochemical and geophysical anomalies, along with the geological context, indicate areas of interest for further exploration.

- Database reviews have identified no significant inconsistencies with some minor opportunities for improvement that should be addressed in future project stages.

- Historical drilling prior to Minsud (1969-2008) lacks QA/QC controls, the information on drilling and sampling procedures is also limited. Therefore, it should be used solely as reference data for exploration purposes.

- The drilling data are deemed adequate and reliable for Mineral Resource estimation. The QA/QC programs implemented provide a reasonable level of assay confidence, particularly for copper, gold, silver and molybdenum.
- All core, reject, and pulp samples developed by MSA between 2020 and 2024 are properly stored and inventoried in a modern warehouse located in San Juan city.

25.2 Metallurgy and Processing

- The presence of tennantite/enargite results in high arsenic levels in copper concentrates, likely posing processing or marketing challenges.
- Copper recovery to final concentrate is promising, ranging from 77-90% at grades of 28-41% Cu.
- Zinc contamination in copper concentrates from polymetallic domains is a significant issue that requires further optimization.
- The polymetallic nature of some domains may warrant separate lead and zinc circuits.
- Separation of arsenic-bearing and non-arsenic bearing copper minerals proved challenging due to fine intergrowth and residual collector issues.
- Initial pressure oxidation test work demonstrated viable hydrometallurgical treatment of arsenic-bearing concentrates. DPOX achieved excellent metal recoveries while producing environmentally stable residues.

25.3 Mineral Resource

- The MRE, prepared using appropriate input data in compliance with NI 43-101 guidelines, is classified into Indicated and Inferred categories. It demonstrates potential for economic extraction through open-pit mining and flotation processes.

26 RECOMMENDATIONS

The following recommendations aim to address data gaps, improve resource estimation, and enhance environmental and social management. These measures will support the advancement of the Chita Valley Project in future stages and align with industry best practice.

26.1 Geology and Drilling

- Investigate deeper extensions of the porphyry system at Chinchillones, particularly in areas where Cu-Mo mineralization has not been fully delineated.

- It is recommended to review and organize the Chita South data and core material for re-inclusion in the mineral resources. This process should include further exploration to assess the sulfide potential, along with the systematic incorporation of sequential copper analysis to delineate the different zones of supergene and hypogene mineralization.

- A Titan DCIP & MT survey is recommended to provide high resolution resistivity and chargeability imaging at depth. This survey will aid in identifying and differentiating targets associated with potential mineralization, alteration, lithology, and structural features, providing valuable data for future exploration efforts.

- Increase density sampling in underrepresented areas. Use external controls or the paraffin method for precise results. Systematic sampling in randomly selected drill holes should also be implemented to compare with pseudo-selective results and minimize bias.

- Increase the insertion rate of control samples to 20% and align with industry standards. Ensure that the QA/QC process is thoroughly documented and supported by a complete, robust database.

26.1.1 Metallurgy and Processing

- Conduct a trade-off study to evaluate options for addressing high arsenic in copper concentrates. This should include selective flotation, concentrate blending, and hydrometallurgical processes, weighing their technical effectiveness, feasibility, and overall impact.

- Perform additional flotation optimization tests to reduce zinc misplacement to copper concentrates, especially for polymetallic domains.

- If flotation separation of arsenic-bearing copper sulfides from bulk concentrate is to be considered in future programs, a copper circuit collector other than 3418A should be considered.

- Reasonable marketing terms have been considered based on similar concentrates marketed in the region. As the project progresses, it is recommended to engage a concentrated marketing specialist to evaluate marketability and pricing, including potential penalties for deleterious elements. This assessment should examine regional smelter requirements, validate current assumptions against similar concentrate specifications in the market, and develop comprehensive marketing parameters for future project studies.

- Consider larger scale testing (e.g., locked cycle tests) to better simulate continuous operation and confirm metallurgical projections.

26.1.2 Mineral Resource

- Further work is recommended to better understand the mineralization controls and improve the estimation of domaining, particularly for some of the isolated higher-grade copper zones.

- Advanced argillic alteration currently is interpreted as small, isolated lenses. Establishing the connectivity between different alteration types would be beneficial and could help refine the estimation domains.

- Multi-variate geochemistry is recommended, and it is important to maintain the current assaying suite.

- Further investigation into the mineralization within the post-mineralization Dacite is needed. This may be due to inaccuracies in logging (such as incorrect interpretation) or the result of structural remobilization of sulfide mineralization.

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