43-101 Technical Report: Updated Mineral Resource and Reserve Estimates for the San Martin Mine, Querétaro State, México

Effective Date: April 30, 2024
Report Date: September 04, 2024

Prepared for:
STARCORE INTERNATIONAL MINES LTD

STARCORE INTERNATIONAL MINES LTD

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IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report for Starcore International Mines Ltd. (SIM) by Erme Enriquez, CPG (QP). The quality of information, conclusions, and estimates contained herein is consistent with the scope of Mr. Enriquez services based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by SIM subject to the terms and conditions of its contract with Mr. Enriquez, who allows SIM to file this report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party’s sole risk.

CERTIFICATE OF QUALIFIED PERSSON

I, Erme Enriquez, CPG, do hereby certify that:

1. I am independent of the issuer applying all the tests in section 1.5 of NI 43-101.
2. I am a graduate of the Universidad de Sonora having obtained the degree of BSc in 1983 and from Colorado School of Mines obtained the degree of MSc in 1996, both in Geological Engineering.
3. I am a registered member of the Association of Professional Geologists, CPG 11214. I am also a Fellow of the Society of Economic Geologists (SEG) and a member of the Asociación de Ingenieros de Minas Metalurgistas y Geólogos de México (AIMMGM).
4. I have been employed in the mining industry continuously since 1983. Since 1985 I have performed resource and reserve estimating in several commodities, including experience in gold and silver and base metals deposits. My experience is summarized as follows:
    - Underground production geologist to Exploration Manager for Luismin-Wheaton River from 1983 to 2003.
    - Exploration Manager Mexico, Capstone Mining…………..…………….2003-2004
    - Director Exploration and Development Canasil Resources….………2004-2022
    - Consulting Geologist……………………………………………………..…………2004-present
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation of my professional association and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I personally inspected the San Martin Mine May 13 through May 17, 2024. I have been a reviewer of earlier reserve reports on the San Martin Mine from 1998 to 2002 for Minas Luismin, S. A. de C. V. (former owner of the mine).
7. I have had prior involvement with the property that is the subject of this Technical Report as a QP author of an earlier (2018, 2019 and 2022) NI 43-101 Technical Report.
8. I have read the instrument and Form 43-101F. The Technical Report titled ***"43-101 Technical Report: Updated Mineral Resource and Reserve Estimates for the San Martin Mine, Queretaro State, Mexico, as of April 30, 2024"***, which was prepared from information available as of April 30, 2024, and has been prepared in compliance with the instrument and form. I am responsible for all items of this report.
9. As of the date of this certificate and as of 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 required to be disclosed to make the report not misleading.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 4th day of September 2024

Erme Enriquez, CPG BSc, MSc

11214
ERME ENRIQUEZ

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LIST OF ACRONYMS AND ABREVIATIONS

Abbreviation	Description Unit
3D	Three Dimensional
AA	Atomic Absorption
Au	Gold
AuEq	Gold equivalent
Ag	Silver
CCD	Counter-Current Decantation
CFE	Comisión Federal de Electricidal (Owned by the Federal Government)
CIM	Canadian Institute of Mining
cm	Centimetre
CMPB	Compañía Minera Peña de Bernal
CPG	Certified Professional Geologist
CRF	Cemented Rock Fill
COO	Chief Operating Officer
E	East
ep	epidote
Fe	iron
FA	Fire Assay
FSE	Frankfurt Stock Exchange
g	gram
g/t	grams per tonne
gpt	grams per tonne
ha	hectare
HQ	drill core size (63.5 mm)
ICP	Inductively Coupled Plasma
INEGI	Instituto Nacional de Estadística y Geografía
IP	induced polarization
K-spar	Potassium feldspar
kg	kilogram
km	kilometer
kVA	Kilo-Volt Ampere
kW	Kilowatt
l	litre
LOM	Life of Mine
m	meter
m.a.s.l.	metres above sea level
mm	millimetre
m^2	square meter
m^3	cubic meter
M	million
Ma	Million years
MX$	Mexican peso
N	North
NE	Northeast

Abbreviation	Description Unit
NI 43-101	National Instrument 43-101 Standards of Disclosure for Mineral Projects
NQ	drill core size (47.6 mm)
NSR	Net Smelter Return
NW	Northwest
OK	Ordinary Kriging
Ox	oxide
oz	troy ounce
oz/t	ounce per tonne
PENBER	Peña de Bernal
PENBER LAB	Peña de Bernal Lab
P.Eng	Professional Engineer
P.Geo	Professional Geologist
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
Qtz	Quartz
QP	Qualified Person
S.A. de C.V.	Sociedad Anónima de Capital
Variable	
SE	Southeast
SEMARNAT	Secretaría del Medio Ambiente y Recursos Naturales
Ser	sericite
SG	specific gravity
SRM	standard reference material
SIM	Starcore International Mines LTD
SW	Southwest
ton	tonne
TSX	Toronto Stock Exchange
US$	United States dollar
UTM	Universal Transverse Mercator
W	West
WGM	Watts, Griffis & McQuat, Ltd
WGS	World Geodetic System
%	Percent
°C	degree Celsius

Gold equivalent

AuEq(g/t)= Au(g/t)+(Ag(g/t)/82.0)

Contained ounces

oz Au=[(Au g/t X tonnes)/1000]X 32.1504

1.0 SUMMARY

1.1 Introduction

Starcore International Mines Ltd. (SIM or the Company) has prepared this technical report for the purpose of supporting the public disclosure of the fiscal year end 2023 updated estimates of Mineral Resources and Mineral Reverses at the San Martín gold mine (SM). Starcore, headquartered in Vancouver, Canada, owns SM located in the central part of Mexico.

The technical report outlines the technical basis establishing mineral resource and reserves for SM. The reserves underpin a mid-life, medium-grade mining operation in Mexico. There is good potential to continue to add mine life with successful conversion drilling and near-mine exploration potential. The Company's exploration programs include several untested targets with geological similarity to the main deposit at SM.

Erme Enriquez (QP) was retained by STARCORE International Mines Ltd. (SIM) to complete an independent technical audit and to update the mineral resource and reserve estimates for the San Martin Mine (SM) located in Queretaro State, Mexico. The Mineral Reserve update has been performed by the San Martin’s mine personnel, all employees of SIM. SIM also provided the sections on geology, mining methods, project infrastructure, market studies and contracts, capital and operating costs, and economic analysis and a part of the conclusions and recommendations.

Erme Enriquez is a Qualified Person under NI 43-101 and have no affiliation with SIM except that of independent consultant/client relationships. Mr. Enriquez has been an employee of Luismin-Wheaton River, first owner of San Martín Mine, for more than 21 years and he participated in the supervision of the exploration and exploitation of San Martin from 1997 to 2003. Mr. Enriquez is responsible for assembling all items of the technical report and for preparing the Mineral Resource Estimate.

This report presents the results of QP efforts and is intended to fulfill the Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 (“NI 43-101”). This report was prepared in accordance with the requirements and guidelines set forth in Companion Policy 43-101CP and Form 43-101F1 (June 2011), and the mineral resources and reserves presented herein are classified according to Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards - For Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on May 10, 2014. The mineral resource and mineral reserve estimates reported here are based on all available technical data and information as of April 30th, 2024.

1.2 Property Description and Ownership

The San Martin mine is located 47 kilometres, in straight line, northeast of the Queretaro City, Queretaro State, on local road No.100 and about 250 kilometres NW of Mexico City, near the towns of Bernal, Tequisquiapan and Ezequiel Montes. The San Martin underground mine has been in continuous operation since 1993.

The San Martin mine complex consists of eight mining claims that cover 12,991.7805 hectares. The total annual land-holding costs are estimated to be US$240,000 dollars. All mineral titles and permits are held by Compañía Minera Peña de Bernal, S. A. de C. V. (CMPB), a direct, wholly owned subsidiary of SIM. A 3.0% net smelter return royalty (NSR) is payable to Servicio Geológico

Mexicano ("SGM"- Mexican Geological Survey) on the claims San Martin Fracc. A, Title 215262, San Martin Fracc. B, Title 215263 and San Martin Fracc. C, Title 215264.

1.3 History

The deposit was discovered in the 18th century and high-grade Mineralization reportedly was exploited by the Spaniards for approximately 40 years; however, no production records exist. The first records show the Ajuchitlán Mining and Milling Company produced an estimated 250,000 tonnes at a grade of 15 g Au/t and 100 g Ag/t from1900 to 1924.

In 1982, the Mexican government, through the Council of Mineral Resources (CRM) staked a mining claim of 6,300 hectares which covered the area of the mine in its central part. In 1986 Minas Luismin negotiated with the CRM an option in the mining claims of his property for a payment of US $ 250,000 dollars and a royalty of 5%, which latter was reduced to 3% in 1996. Luismin was bought by Wheaton River in 2003 and operated the mine until 2008, when SMI acquired the 100% of the rights to the property. The San Martin mine has been operated by CMPB since 2008 to date.

1.4 Geology and Mineralization

The San Martín gold-silver district has classic, medium-grade gold-silver epithermal vein deposits characterized by low sulfide mineralization and adularia-sericite alteration. The San Martin veins are typical of most other epithermal silver-gold veins in Mexico, as they are located mostly in the Upper Cretaceous black limestone and calcareous shales of the Soyatal-Mezcala Formation. The sediments are covered by Tertiary subvolcanic rhyolite flows, pyroclasts and epiclasts.

Mineralization at San Martín occurs in an epithermal, low-sulfide, quartz carbonate, fracture-filling vein that strikes approximately N40°-60°E and 50°-90°SE.

The structure of San Martin was known at various stages of research and adopted various names: San José I, San José II, San Martín, Cuerpo 28, Cuerpo 29, Cuerpo 30, Cuerpo 31, Cuerpo 32 and Cuerpo 33. The structure itself is offset by several northeast-striking faults that separate the oreshoots. The structure behaves vertically in the San José and San Martin areas and becomes flatter from Cuerpo 28 to 31 (Mantos like structure) and the mineralization follows the planes of the folded rocks.

The San Martin vein itself is known to be 2 km underground. It has a width of 1.5 to 30 meters and an average of approximately 4.0 meters. A secondary mineralized vein is in both the footwall and the hanging wall of the San Martin structure. The Mineralization in San Martin is classified into two parts: 1) the clean mineral, it is relatively easy to recover and 2) the carbonaceous mineral, which is under investigation for its recovery.

1.5 Exploration

In 2023, SIM spent US$704,000 (including property management costs) on exploration in the 29 and 30 Zones and the San Martin Zone. The underground exploration drilling program focused on the San Martin vein and covered a total of 5,807 meters in 38 holes, sending a total of 1,290 samples for analysis.

Since the acquisition of the San Martin Mine in 2018 ahead of the 2023 exploration span of time, SIM has completed 1807 diamond drill holes totaling 182,604 meters in the entire San Martin

Mine. Diamond drill holes were drilled from underground drilling stations and 15,700 samples were collected and sent for analysis in that time.

With the new geological model, recently implemented, the understanding and exploration of the deposit will be more efficient and easier to do, since the geological interpretations will be made faster.

1.6 Metallurgical Test Work

Significant metallurgical in-home test work has been completed on ore samples from various parts of the ore deposit. Detailed summaries of historical metallurgical test work programs can be found in various reports written by metallurgical department. Later metallurgical test work programs were undertaken to support the current process plant design.

Significant metallurgical test work programs have been completed since the process plant decides to investigate the carbonaceous mineral.

Chemical analysis and assays, gravity tests, flotation bench scale tests, leach tests and other tests are completed at the onsite metallurgical laboratory. Any grindability, mineralogy, deportment studies or specialized tests are completed at external laboratories as required. The process plant has been generally treating ore feed grades of approximately 1.6 g/t Au and achieving approximately 86% average gold recovery. The life of mine average gold and silver metallurgical recoveries are 86% and 55%, respectively. Select samples of carbonaceous mineral from San Martin were recently assessed at PENBER's on-site metallurgical laboratory and confirmed good metallurgical response of ore via the existing treatment route. Additional metallurgical test work as part of the site's ongoing geometallurgical procedure is recommended to further characterize the ore from this new future mining zone.

1.7 Mineral Resource Estimate

Starcore International provided the QP with a Leapfrog Geo (Leapfrog) project that included the drill hole database, wireframes of the domain boundaries, and a complete block model. The author reviewed all aspects of the resource model, made some minor adjustments, and reported Mineral Resources. The Mineral Resources estimate uses available drill hole data as of April 30, 2024. The Mineral Resource estimate is based on a validated resource database containing 101,807 assays from drill holes and 48,287 assays from stopes underground.

A total of seven Mineralization domains representing hydrothermal events were defined in Leapfrog, while sub-block model estimates were completed within Leapfrog Edge, using Inverse Distance approach. The block model was constrained by three dimensional (3D) wireframes encompassing the zones of Mineralization. The block parent size is 2 m x 2 m x 2 m. Blocks were classified considering local drill hole spacing, geological continuity, geostatistical spatial continuity and proximity to existing development. Class groupings were based on criteria developed using continuity models (variograms) and modified to reflect geological understanding and to ensure cohesive classification shapes. Wireframe and block model validation procedures were completed including but not limited to statistical comparisons with composites, inverse distance squared (ID^2) estimate, wireframe to block volume confirmation, swath plots, visual reviews in 3D, longitudinal, cross section, and plan views. The estimate has an effective date of April 30, 2024.

Mineral Resources are reported inclusive of Mineral Reserves at a block cut-off grade of 1.29 g/t Au equivalent, assuming underground mining methods.

Mineral Resources summarized in Table 1.1, are inclusive of Mineral Reserves, depleted by the mining activities to April 30, 2024, and have been classified in accordance with the 2014 CIM Definition Standards.

The mineral resource estimation for the San Martin Mine was completed following the requirements of Subpart 1300 of Regulation S-K ("Subpart 1300") and align with Canada's National Instrument 43-101 ("NI 43-101") for which original estimates were prepared. The modeling and estimation of the mineral resources were completed on September 04, 2024, under the supervision of Erme Enriquez, QP.

In the years prior to mining by CMPB reserve and resource estimates were based on the assumptions and subject to rules defined by Luismin many years ago. In recent years, with the involvement of various professionals, it was recognized that mining method was changing due to factors such as:

- A greater percentage of production coming from narrow to wide steeply dipping vein structures.
- Sub-horizontal Mantos mineralised structures that were somewhat narrower than historical Mantos.
- Reopening and scavenging of the footwall Mineralization in old stopes, where lower grade Mineralization was not mined during times of lower gold prices.

Based on the above mining changes and incorporating mining experience over the last eight years some of the original Luismin assumptions have been modified to improve tonnage and grade estimation for reserves. The assumptions used in this estimate are:

- A gold price of US$1891 per ounce.
- A silver price of US$23.06 per ounce.
- Operating costs of US$75.85 per metric dry tonne.
- Average metallurgical recoveries for clean mineral are 86% for gold and 55% for silver.
- Average metallurgical recoveries for carbonaceous mineral are 70% for gold and 55% for silver.
- Using the above price and cost assumptions the resultant calculated cutoff grade is approximately 1.29 g/t Au equivalent.
- Specific gravity of 2.6 g/cm^3 has been applied to all calculated mineralised volumes.
- Mining dilution is applied to in situ mineralised zones, and recovery factors are applied to these diluted blocks using the following factors:
  a) Mining dilution of 15% of zero grade in horizontal mineralised zones (Mantos) mined by room and pillar.
  b) Mining dilution of 15% of zero grade in steeply dipping mineralised zones mined by cut and fill. This dilution factor is modified by first applying a minimum 1.5-meter mining width to narrow zones.
  c) Remnant pillars left in room and pillar stopes are typically 15% of the total tonnage, i.e., 85% extraction. This recovery factor has been applied to all zones.

In addition to these factors reserve grades are lowered to reflect mined grades in ore blocks that have sufficient historical production to establish that mined grades are similar than estimated from exploration data. The reserves and resources estimated in this report are based on data available up until April 30, 2024.

The mineral resources reported here are classified as Measured, Indicated, and Inferred according to CIM Definition Standards.

Total Measured and Indicated Mineral Resources at the San Martin mine, estimated by SIM, are about 1,157,312 tonnes at a grade of 2.62 g Au/t and 19 g Ag/t. Inferred Mineral Resources are not known to the same degree of certainty as Mineral Reserves and do not have demonstrated economic viability. Inferred resource is a summary of resources is in Table 1-1.

Table 1-1: Mineral Resources Estimate, San Martín Mine

Category	Tonnage	Grade			Metal Content		
		Au (g/t)	Ag (g/t)	Au-Eq (g/t)	Au (Oz)	Ag (Oz)	Au-Eq (Oz)
Measured	**510,754**	**2.60**	**20**	**2.85**	**42,731**	**329,724**	**46,752**
Indicated	**646,559**	**2.63**	**19**	**2.86**	**54,665**	**390,899**	**59,432**
Measured + Indicated	**1,157,312**	**2.62**	**19**	**2.85**	**97,396**	**720,623**	**106,185**
Inferred	**728,433**	**2.05**	**15**	**2.23**	**47,972**	**355,856**	**52,312**

- *Mineral resources have been classified into measured, indicated and inferred, in accordance with the CIM definitions and standards.*
- *Tonnage is expressed in tonnes; metal content is expressed in ounces. Totals may not add up due to rounding.*
- *Measured, Inferred and inferred resource cut-off grades are based on a 1.29 g/t gold equivalent.*
- *Metallurgical Recoveries were 86% gold and 55% silver.*
- *Minimum mining widths were 1.5 meters.*
- *Dilution factors is 15%. Dilution factors are calculated based on internal stope dilution calculations.*
- *Gold equivalents are based on a 1:82 gold:silver ratio. Au Eq= gAu/t + (gAg/t ÷ 82)*
- *Price assumptions are $1891 per ounce for gold and $23.06 per ounce for silver.*
- *Mineral resources are estimated exclusive of and in addition to mineral reserves.*
- *Resources were estimated by SIM and reviewed by Erme Enriquez CPG.*
- *Inferred Mineral Resources are part of a Mineral Reserve whose quality or grade has been estimated based on limited geological evidence and samples. The expected mineral resources have not proven to be economically viable and should not be converted into mineral resources. It is reasonable to expect, although not guaranteed, that the majority of Inferred Mineral Resources can be upgraded to Indicated Mineral Resources through continued exploration.*

1.8 Mineral Reserve Estimate

Mineral resources presented here are classified as proven and probable according to CIM definition standards. SIM's Mineral Reserve Estimate for the San Martín Mine is effective April 30, 2024. The Mineral Reserve Estimate covers the San Jose I, San José II, San Martin, Cuerpo 28, Cuerpo 29 and Cuerpo 30 areas of the mine and ore reserves in the mill area. All stops are in easily accessible areas of active mining areas. The ore is processed in an on-site mill, flotation circuit and Merrill Crowe process capable of processing 730 tonnes per day.

Measured and Indicated Mineral Resources in Mining Areas have been converted to Proved and Probable Mineral Reserves as defined by the CIM. Derived minerals are classified as waste. Depending on the chosen mining method, dilution is applied to the measured and indicated resource blocks, generally 15%. Mining stops have been established based only on measured and indicated resources that exceed the calculated cut-off value and have an acceptable potential for economic profit after applying certain conversion factors:

- Cut-off values: 1.29 g/t AuEq including payables.
- Minimum mining width: 1.5 m
- External dilution cut and fill method: 15%.
- Gold equivalent: 1:82
- Gold price: $1,891 USD/oz .
- Silver price: $23.06 USD/oz.
- Gold recovery: 86 %
- Silver recovery: 55 %

The proven and probable mineral resources of the San Maerin Mine through April 30, 2024, are summarized in Table 1-2. Reserves do not include mineral resources reported in section 14 of this report.

Total Proven and Probable Mineral Reserves at the San Martin mine as of April 30, 2024, estimated by Geology staff and reviewed by QP, are 1,258,360 tonnes at a grade of 2.38 g Au/t and 18 g Ag/t (Table 1-2). This total includes Proven reserves of 548,373 tonnes grading 2.39 g/t Au and 19 g/t Ag along with Probable reserves of 712,987 tonnes grading 2.38 g/t Au and 17 g/t Ag.

Table 1-2: Proven and Probable Mineral Reserves, Effective Date April 30, 2024

Category	Tonnage	Grade			Contained Metal		
		Au (g/t)	Ag (g/t)	Au-Eq (g/t)	Au (Oz)	Ag (Oz)	Au-Eq (Oz)
Proven	545,373	2.39	19	2.61	41,845	325,003	45,809
Probable	712,987	2.38	17	2.58	54,453	385,432	59,154
Proven + Probable	1,258,360	2.38	18	2.59	96,298	710,435	104,962

- *CIM Definitions Standards on Mineral Resource and Reserves have been followed.*
- *Mineral Reserves have an effective date of April 30, 2024.*
- *Reserve cut-off grades are based on a 1.29 g/t gold equivalent.*
- *Metallurgical Recoveries were 86% gold and 55% silver.*
- *Mining Recoveries of 90% were applied.*
- *Minimum mining widths were 1.5 meters.*
- *Dilution factors is 15%. Dilution factors are calculated based on internal stope dilution calculations.*
- *Gold equivalents are based on a 1:82 gold - silver ratio. Au Eq= gAu/t + (gAg/t ÷ 82)*
- *Price assumptions are $1891 per ounce for gold and $23.06 per ounce for silver.*
- *Resources were estimated by SIM staff and reviewed by Erme Enriquez C.P.G.*
- *Reserves are exclusive of the measured and indicated resources.*
- *Tonnage is expressed in tonnes; metal content is expressed in ounces. Totals may not add up due to rounding.*
- *Resources were estimated by SIM and reviewed by Erme Enriquez CPG.*

1.9 Project Infrastructure

The San Martin Mine includes the following major infrastructure:

- Main access road
- Underground mine
- Process plant

- Main grid power line
- Maintenance shop
- The Mine Office
- Head office building
- Fixed plant maintenance
- Assay Laboratory
- Ore Stockpile
- Warehouse and laydown area
- Short term concentrate container storage
- Permanent camp and kitchen facilities
- Greenhouse
- Communications and IT systems
- Security access control at the main gate along the access road and at the process plant. Only authorized personnel are allowed on site.
- Waste storage facilities.

1.10 Mineral Processing

- The San Martin process plant currently treats ore via a conventional cyanidation process and has been in commercial production since 1994.
- The process plant has consistently processed ore and currently treats ore at a throughput rate of 627 t/day.
- Gold recoveries since 2008 has been an average of 86% for gold and 55% for silver.
- Material flowsheet changes in the process plant are expected due to the treatment of ore from the carbonaceous mineral of the mine.

1.11 Environmental Permits

All environmental permits at the mine are in good standing. The most recent permit requested was the extension of storage of material in the tailings dam, which expired in May 2024. A new extension of the permit was requested in that same month and the response from SEMARNAT has been positive, obtaining the permit for 10 more years starting in September 2024, that is, the new permit for tailings storage will expire in September 2034. This is excellent news for continuing with the mine's operations, since the authorities have been very tight-lipped with any kind of permits related to mining.

1.12 Conclusions and Recommendations

The orebodies on the San Martin property are remarkably familiar to the crew, who have experience working there. Design and operation of the mine must continue to maintain the rate of waste development sufficient to keep the mine's planned production volumes. Since almost all the ore mined comes from veins of historical, recent, or current production, it is highly unlikely that significant changes in ore metallurgy will occur during the life of the current reserves. The following are some uncertainties that could significantly affect the mineral resources identified in this report and the potential life of the mine.

- Variations in commodity prices

- Metallurgical recovery
- Exchange rates
- Processing assumptions
- Dilution assumptions
- Mining assumptions

QP believes that the San Martin Resource and Reserve estimates presented here comply with the requirements and guidance of Companion Policy 43-101CP and Form 43-101F1 (June 2011) and that Canada has classified the Mineral Resources and Reserves presented here. Institute of Mining, Metallurgy and Petroleum (CIM) - Definition Standards for Minerals and Mineral Resources prepared by the CIM Standing Committee on Mineral Definitions and approved by the CIM Council on 10 May 2014. These resources and reserves form the basis of the yes . mining takes place in the San Martin mine.

QP is not aware of any significant technical, legal, environmental, or political issues that could adversely affect the extraction and processing of the resources and assets located at the San Martin Mine. Mineral resources are unconverted minerals that do not show economic viability. There is no assurance that all or part of the estimated mineral resources will be converted into a mineral reserve.

QP believes that mineral concessions in the SIM-controlled San Martin mining area remain highly prospective, both along strike and dip of the current mineralization.

SIM's San Martin mine has an extensive mining history with known gold and silver bearing breccia vein systems. Continued exploration has revealed the potential for additional resources both within the project and in and around the mine. After SIM took control of the San Martin mine, the new mining areas allowed SIM to increase its production, providing more mineral sources for the plant. SIM's operations management continues to improve efficiency, reduce costs, and research and implement low-cost mining technologies.

San Martin's approved exploration budget for 2024 includes 5,810 meters of drilling valued at approximately $560,000.

QP recommends continuing to convert all resource models from 2D polygons to 3D block models. Considerable progress was made in this regard between 2022 and 2024. Additional modeling should be done to define the mineralized breccia areas as they were the input to the economic material found in current operations and may continue to produce additional tons to support the mine plan. In the future, the work programs should focus on areas that are being investigated to extend the useful life of mine.

Recommendations for further work:

- Continue the advance of the underground exploration at Body 30, the exploration of Bodies 28 and 29 with drifting at the central zone and the exploration of San José FW at the southern area.
- Continue to collect specific gravity measurements and refine current estimation of specific gravity to have a more reliable measure.
- Implement procedure of duplicate channel samples in stopes and drifts, to ensure the grade and thickness and to serve as duplicates of channel samples.
- Implement procedure for standard and duplicate samples, in channel samples and drill core as well. The certified standards will give greater certainty to the QA/QC procedure for the evaluation and greater reliability in reserves and resources.

- Perform detailed model reconciliation on stopes. A strict control in rebates will help to have a reliable number at the end of the year.
- Carry out a study of fluid inclusions to determine the origin of the fluids that formed bodies 28 to 31, as well as review the areas of San Martin and San Jose.
- Complete a geological and structural model for future work to support the estimation domains. The QP notes that there is a large amount of multi-element data that could support a geochemical model to better understand the impact of elements such as antimony, arsenic, mercury, etc., on the gold distribution and recoveries.

2.0 INTRODUCTION

2.1 Issuer and Terms of Reference

Starcore International Mines LTD (“SIM”) is a Canadian based mining and exploration company actively engaged in the exploration, development, and production of mineral properties in Mexico. SIM is headquartered in Vancouver, British Columbia with management offices in Mexico City, Mexico, and is listed on the Toronto (TSX:SAM), Frankfurt (FK:V4JA) stock exchanges and OTCQB Markets. The company has one currently active mining property in Mexico, the San Martín Property in northeast Queretaro State. SIM has retained Mr. Enriquez to complete an independent technical audit and update of the mineral resource and reserve estimates for the San Marín Mine Project (the “Project”) located within the Municipality of Colón. This report presents the results of Mr. Enriquez efforts and is intended to fulfill the Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 (“NI 43-101”).
This report was prepared in accordance with the requirements and guidelines set forth in NI 43-101 Companion Policy 43-101CP and Form 43-101F1 (June 2011), and the mineral resources and reserves presented herein are classified according to Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards - For Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on May 10, 2014. The mineral resource and mineral reserve estimates reported here are based on all available technical data and information as of April 30, 2024.

2.2 Sources of Information and Previous Technical Reports

In preparation of this report, various historical engineering, geological and management reports compiled about the Mine or site were reviewed and supplemented by direct site examinations and investigations. All the data files reviewed for this study were provided by CMPB in the form of hard copy documents, electronic .pdf reports, .xls files, email correspondence, and personal communication with management and personnel from San Martin Mine. Work completed by SIM includes several years of underground mining, drilling, and sampling, trenching, metallurgical testing, and geophysical surveying.

A portion of the information and technical data for this study was obtained from the following previously filed NI 43-101 Technical Reports:

Spring, V., McFarlane, G.R., 2002, A Technical Review of the Tayoltita, Santa Rita, San Antonio, La Guitarra and San Martin Operating Silver and Gold Mines in Mexico. Watts, Griffis and McOuat NI 43-101 report prepared for Wheaton River Minerals Ltd.

Spring, V. (2005), An Audit of the Mineral Reserves/Resources Tayoltita, Santa Rita, San Antonio, and San Martin Mines as of December 31, 2004. For Wheaton River Minerals LTD.

Gunning, D. R. and Whiting, B., 2009, Reserves and Resources in the San Martín Mine, Mexico, as of July 31, 2009. For Starcore International Mines LTD.

Gunning, D. R. and Campbell, J., 2011, Reserves and Resources in the San Martín Mine, Mexico, as of July 31, 2011. For Starcore International Mines LTD.

Campbell, J., 2012, Reserves and Resources in the San Martín Mine, Mexico, as of July 31, 2012. For Starcore International Mines LTD.

Gunning, D. R., 2013, Reserves and Resources in the San Martín Mine, Mexico, as of July 31, 2013. For Starcore International Mines LTD.

Gunning, D. R. and Campbell, J., 2014, Reserves and Resources in the San Martín Mine, Mexico, as of July 31, 2014. For Starcore International Mines LTD.

Enriquez, E., 2018, Reserves and Resources in the San Martin Mine, Queretaro State, Mexico, as of April 30, 2018. For Starcore International Mines LTD.

Enriquez, E., 2019, Reserves and Resources in the San Martin Mine, Queretaro State, Mexico, as of September 30, 2019. For Starcore International Mines LTD.

Enriquez, E., 2022, 43-101 Technical Report: Updated Mineral Resource and Reserve Estimates for the San Martin Mine, Querétaro State, México. For Starcore International Mines LTD.

2.3 Qualified Person

Erme Enriquez, CPG, has over 40 years of professional experience as geologist, both as an employee and a consulting geologist and has contributed to numerous mineral resource projects, including silver, gold, and polymetallic resources throughout Mexico past fifteen years. Mr. Enriquez is responsible for the full content of this report.

As Qualified Person, Mr. Enriquez conducted an on-site inspection of the San Martín property during May 13 to 17, 2024. While on site, Mr. Enriquez reviewed SIM's current operating procedures and associated drilling, logging, sampling, quality assurance and quality control (QA/QC), grade control, and mine planning (short, medium, and long term) procedures, also inspected the laboratories at the San Martín facilities as well as the underground operations and plant.

Mr. Enriquez met with Mr. Martin Aguilar, who is the general mine manager and with Javier Lozano (Chief Geologist) and Mr. Yizhar Ovalle (GIS Geologist) and Mr. Alejandro Ortiz (mine geologist), all personnel of the geology department, to review the new geologic model , sampling methods and types, modeling (resources, reserves, and grade control), prior to inspecting the procedures in the mine and office for collecting and handling the data. Once the geology department processes were reviewed, Mr. Enriquez discussed with Mr. Cruz Avilés, chief of the mine planning and survey department, the process for short, medium, and long-term mine planning. Reconciliation was discussed with both departments and the plant supervisors. Mr. Enriquez also met with Susana González, chief of the Environmental Department, to obtain information regarding permits and environmental liabilities in the unit. The assay laboratory was toured, and the procedures were reviewed with Georgina Luján, chief of the assay laboratory . With Mr. Martin Cabello (chief of plant) toured mineral processing facilities and discussed the new pilot tests for recovering the carbonaceous mineral.

2.4 Units and Currency

All units used in this report are in a metric system. Tonnages are shown as tonnes (1,000 kg), linear measurements as metres (“m”), or kilometres (“km”) and precious metal values as grams (“g”). Grades are grams of gold per tonne (“Au g/t”), and grams of silver per tonne (“Ag g/t”). All economic data is quoted in US dollars (“US$”). When peso amounts required conversion into US dollars, the peso exchange rate used was MX$18.00 pesos equivalent to US$1.00 as this was the rate used in the January to April 2024 mine operating budget.

3.0 RELIANCE OF OTHER EXPERTS

The author of this report is Qualified Person for those areas as identified in the Certificates of Qualified Person attached to this report. In preparing this report, the author relied heavily on various geological maps, reports and other technical information, mostly unpublished proprietary information collected on-site and provided to the author by SIM.

Much of the original information is in Spanish and English, with translations from Spanish to English of key and relevant technical documents provided by SIM. For this current report, most of the technical information was translated by geologist employed by SIM, although legends and annotations on many of the maps and sections are in Spanish or have been translated to English. I occasionally checked a few key parts of the translations and found them good.

From my experience on this report and the other earlier reports I have done for other companies, I believe the translations provided to us are credible and generally reliable, but I cannot attest to their absolute accuracy.

Overall, the technical information I reviewed is very well-documented, comprehensive and of good technical quality. It clearly was gathered, prepared, and compiled by various competent technical persons, but not necessarily Qualified Persons as currently defined by NI 43-101. In recent years, the voluminous information collected by SIM has been carefully reviewed by Mr. David R. Gunning, P. Eng. and Joseph W. Campbell, P. Geo. who are a Qualified Persons as defined by NI 43-101.

Because I am not expert in land, legal, environmental, and related matters, I have relied (and believe there is a reasonable basis for this reliance) on various other individuals who contributed the information regarding legal, land tenure, corporate structure, permitting, land tenure and environmental issues discussed in this report. Specifically, David Gunning and Joseph Campbell, both experienced independent Qualified Person as defined by NI 43-101.

This report summarizes the Mineral Resource and Reserve estimates for the San Martin mine, effective as of April 30, 2024, using the procedures which have been audited by both PAH and WGM in the past. These procedures have been verified by David R. Gunning, P. Eng. And Joseph W. Campbell, P. Geo, whom virtue of their education and experience is an independent Qualified Persons as defined by NI 43-101.

The information, conclusions, opinions, and estimates contained here are based on:

- information available to the author at the time the report was prepared.
- assumptions, conditions, and qualifications as outlined in this report.
- production and expenditure data, reports, and other information supplied by CMPB and other third-party sources.

CMPB reported to the author that, to the best of its knowledge, there is no known litigation that could potentially affect the mine operations.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Description

The San Martin mine is an underground gold-silver mining complex that has been in operation since 1993. It produces gold-silver by using the Merrill–Crowe Process technique for removing gold from the solution obtained by the cyanide leaching of gold and silver ores. The mine operates 365 days per year on a 24 hour per day schedule. Mining and ore processing operations are currently in production and the mine is considered a production stage property.

4.2 Property Location

The San Martin Mine is located 47 km in a straight line to the NE of the city of Queretaro, 10 km NW of Ezequiel Montes, 4 km SW of the Peña de Bernal and 25 km to the NW of Tequisquiapan, in the State of Querétaro. Territorially, it is located within the municipality of Colón, at the UTM coordinates of 398,350E and 2292,700N and an average elevation of 2,130 m.a.s.l. (Figure 4-1).

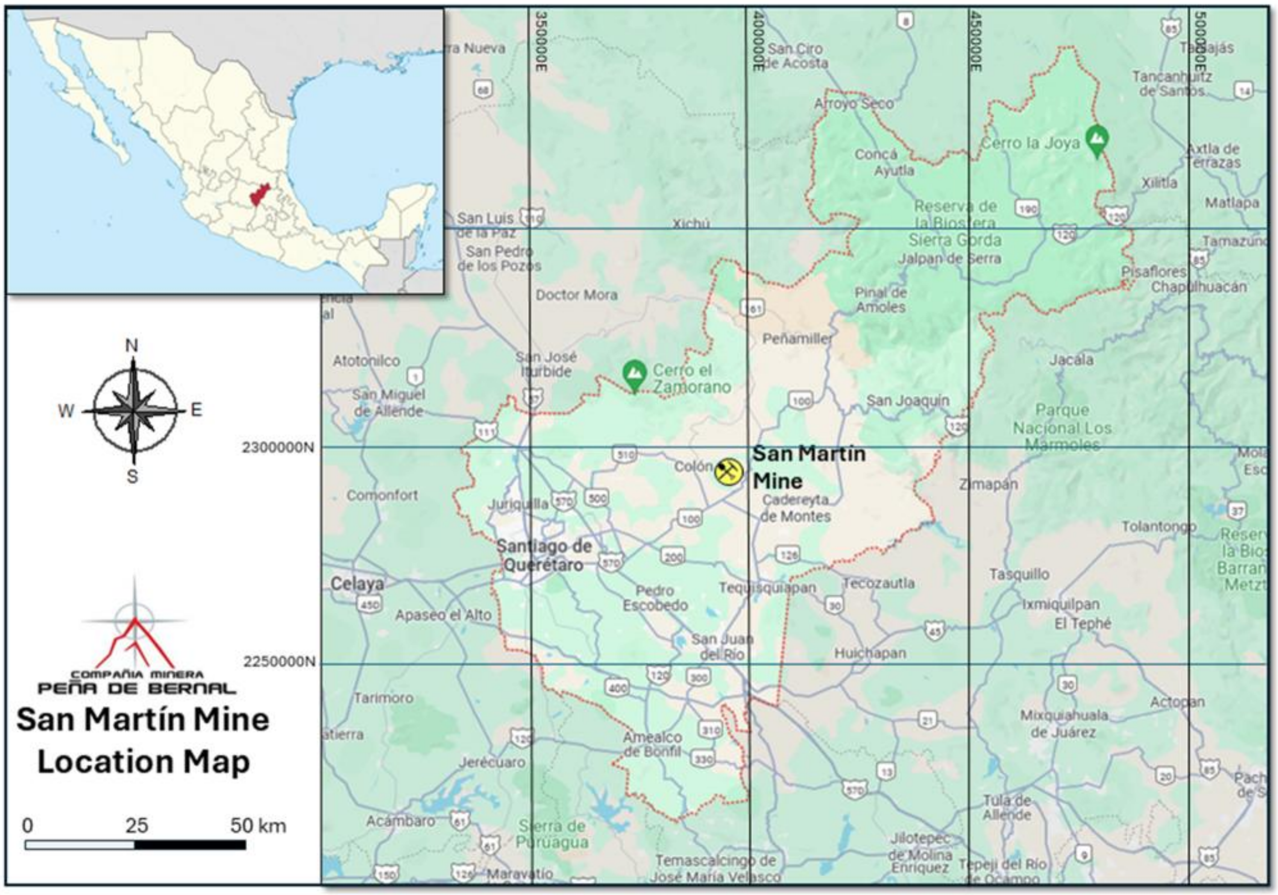

Figure 4- 1: San Martin Mine Location Map

4.3 Mineral Concessions and Agreements

Compañía Minera Peña de Bernal S.A. de C.V. (CMPB), a wholly owned SIM subsidiary, holds eight mining concessions covering 12,991.7805 hectares at the San Martin Mine in the State of Querétaro (Figure 4-2). Claims are indicated by its Title number. Right payments are done twice a year, every semester. The San Martin Mine presently consists of two underground mines, San José and San Martin. The San Martin mine is approximately 800 meters NNE of the San José mine. Minas Luismin, SA de CV (former owner of the mine) began mining in late 1993 on the San José deposit, with an open pit operation that was later abandoned and mining continued underground methods over the San José and the San Martin oreshoots.

Mining regulations in Mexico provides that all concessions are to be valid for a period of 50 years. Taxes are based on the surface area of each concession and the time of expedition of the title and are due in January and June of each year. All tax payments have been paid by SMI to date. Currently, annual claim-maintenance fees are the only federal payments related to mining claims, and these fees have been paid in full to January 31, 2024. The current annual holding costs for the San Martin mining claims are estimated at US$240,000 Dollars (Table 4-1).

Table 4- 1: San Martin Mines Concessions Controlled by CMPB

Concession Name	Exp.	Title	Term of Cocession		Hectares	2024 Annual Taxes (Pesos)	
			From	To		1st Sem	2nd Sem
San Martin 2	321.1/6-72	**191134**	29/04/1991	28/04/2041	190.7972	$36,034	$36,034
San Martin	321.1/6-71	**191423**	19/12/1991	18/12/2041	132.0818	$24,945	$24,945
La Trinidad	6/1.3/276	**204824**	13/05/1997	12/05/2047	2,610.7224	$493,061	$493,061
San Martin Fracc. A.	6/1.3/00409	**215262**	14/02/2002	13/02/2052	37.1099	$7,009	$7,009
San Martin Fracc. B.	6/1.3/00411	**215263**	14/02/2002	13/02/2052	22.8901	$4,323	$4,323
San Martin Fracc. C	6/1.3/00412	**215264**	14/02/2002	13/02/2052	3,182.5646	$601,059	$601,059
San Martin 3	6/1.3/00410	**215301**	14/02/2002	13/02/2052	60.0000	$11,332	$11,332
San Martín Cuatro	065/15357	**221844**	02/04/2004	01/04/2054	6,755.6145	$1,275,903	$1,275,903
Total					**12,991.7805**	**$ 2,453,666**	**$ 2,453,666**

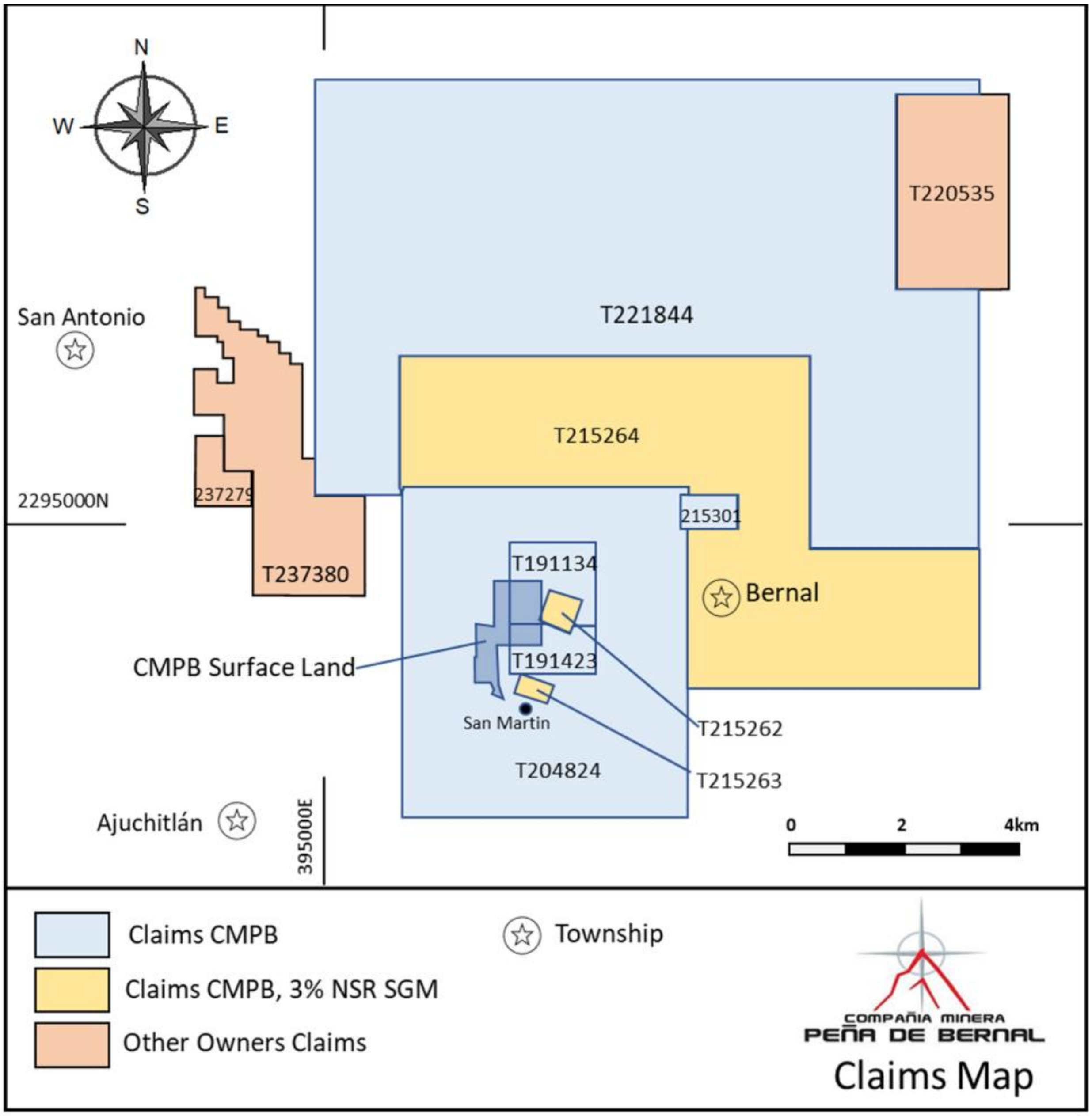

Figure 4- 2: San Martin Mine and Surrounding Area Property Map

SMI acquired the San Martin Mine ("San Martin") from Goldcorp Inc. ("Goldcorp") in February 2008. Goldcorp is a Canadian mining company listed on both Canadian and United States Stock Exchanges. Goldcorp bought the San Martin Project in February 2005 with the take-over of Wheaton River Minerals Ltd., who had bought San Martin in the take-over in 2002 of the Mexican mining company Minas Luismin S.A. de C.V. ("Luismin"). SMI paid US$24 million in cash and issued 4,729,000 common shares to Luismin at a deemed value of CDN$0.50 per share in consideration for the shares of Bernal.

San Martin is owned and operated by Compañía Minera Peña de Bernal, S.A. de C.V., a wholly owned subsidiary of SMI.

The San Martin Mine is operated by Compañía Minera Peña de Bernal, S. A. de C. V. (CMPB), a direct, wholly owned subsidiary of SIM. A 3.0% net smelter return royalty (“NSR”) is payable to Servicio Geológico Mexicano (“SGM”- Mexican Geological Survey) on the claims San Martin Fracc. A, Title 215262, San Martin Fracc. B, Title 215263 and San Martin Fracc. C, Title 215264.

SIM’s gold and silver is trading by ITALPREZIOSI, in Arezzo, Italy, Italpreziosi is one of the main operators in the production, refining and trading of precious metals, and the production and trading of investment gold. Contract with Italpreziosi has been signed June 2013 and in force to date.

All part of the logistics for the delivery of the product is contracted with the company IBI International Logistics Inc.

4.4 Permits and Environmental Liabilities

SIM holds all environmental and mine permits needed to conduct planned exploration and mining operations on the San Martin mine, and reports that it is following all environmental monitoring requirements and applicable safety, hygiene, and environmental standards. Environmental permitting and liabilities are discussed in greater detail in Section 20 of this report.

QP knows of no existing or anticipated significant factors which might affect access, title, or the right or ability to perform work on the San Martin mine.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The roads through which the San Martín mine is accessed are paved and they are in good condition all year long. It can be reached by highway No. 57 between the cities of Querétaro and San Luis Potosí. Access to the San Martin mine can be conducted also from Mexico City through highway 57D, for 160 kilometers, until reaching the City of San Juan del Río, Queretaro. From here, take the HW 120, for 19 km until the City of Tequisquiapan, and continue for 16 km more until the village of Ezequiel Montes. From here take the road to the junction with the # 100 highway, take this to the NE and 1.5 km more to enter the mine facilities.

From the City of Querétaro take Highway 45D for approximately 22 km to the SE and then take Highway No. 100 to the NW for 36 kilometers until reaching the junction with the entrance to the mine in the town of San Martin. This same road leads to the magical town of Peña de Bernal, which is the company's employee camp.

There are constant flights from the City of Querétaro to various destinations in the United States, particularly Chicago, Atlanta, Dallas, Houston, San Antonio, Denver; San Francisco, New York, Boston, Indianapolis, Washington, Austin and Detroit and other domestic destinations, although these change from season to season.

5.2 Climate

The climate in the mine area is semi-dry, described by generally low rates of precipitation. During the year, the temperature generally varies from 5 ° C to 30 ° C and rarely drops below 2 °C or rises above 33 °C.

The warm season lasts for two to three months, from April to June, and the average daily maximum temperature is over 28 °C. The hottest month is May with temperatures over32 °C. The cool season lasts around three months, from December to February, and the average daily maximum temperature is less than 24 °C. The coldest days of the year is in January, with an average minimum temperature of 5 °C and an average maximum of 23 °C. The normal yearly temperature is 19°C.

The rainy season lasts six months, from June to November, with an average total accumulation of 509 millimeters. The dry season lasts from December to May.

5.3 Local Resources and Infrastructure

The City of Querétaro is the closest major population center to the San Martín Mine Project, with a population of approximately 2.37 million inhabitants. Querétaro is an agricultural, commercial, tourist and mining center with all the associated municipal amenities, including an international airport with numerous regional flights to other major Mexican cities and the United States.

At each of the mine sites, the water required is supplied from the dewatering of the mines. Industrial water for the cyanide plant is recycled, and additional water (60,000 m^3/y of fresh water) is obtained from a nearby wells.

The total capacity of the plant is a 1100 tpd facility capable of treating sulfides containing Au-Ag ores using a Merrill-Crowe processing circuit to produce doré bars.

Electrical power from the Federal Electricity Commission (34 kV) supplies both the plant and mine, and satisfies power demand, which averages about 1.1 megawatts. Two emergency generators, one of 500 kW and other of 200 kW, provide power to the mill in case or outages.

An upgrade to the tailings dam was completed in 2010, when dry stacking of the tailings began, and current capacity is sufficient for many years of production.

Apart from offices, dining room, warehouses, shop, and other facilities, CMPB also provides dormitories and limited housing facilities for employees working on a rotational schedule at the townships of Ezequiel Montes and Bernal. Much of the labor work force lives in the San Martin town and nearby communities. The area has a rich tradition of mining and there is an ample supply of skilled personnel sufficient to man both the underground mining operations and the surface facilities.

CMPB has negotiated access and the right to use surface lands sufficient for many years of operation. Sufficient area exists at the property for all needed surface infrastructure related to the LOM plan, including processing, maintenance, fuel storage, explosives storage and administrative offices. There exists enough capacity in existing tailing impoundments for tailings disposal.

5.4 Physiography

The relief and landforms of Mexico have been influenced by the interaction of tectonic plates. The resulting relief patterns are so complex that it is often claimed that early explorers, when asked to describe what the new-found lands were like, simply crumpled up a piece of parchment by way of response.

Figure (5-1) shows Mexico’s central part of the physiographic regions. The core of Mexico (both centrally located, and where most of the population lives) is the Transmexican Volcanic Belt (TVB), a high plateau rimmed by mountain ranges to the west, south and east. Coastal plains lie between the mountains and the sea. The long Baja California Peninsula parallels the west coast.

The San Martin Mine falls in the convergence of the Central Plateau (CP), Sierra Madre Oriental (SMO) and Volcanic Axis or Transmexican Volcanic Belt.

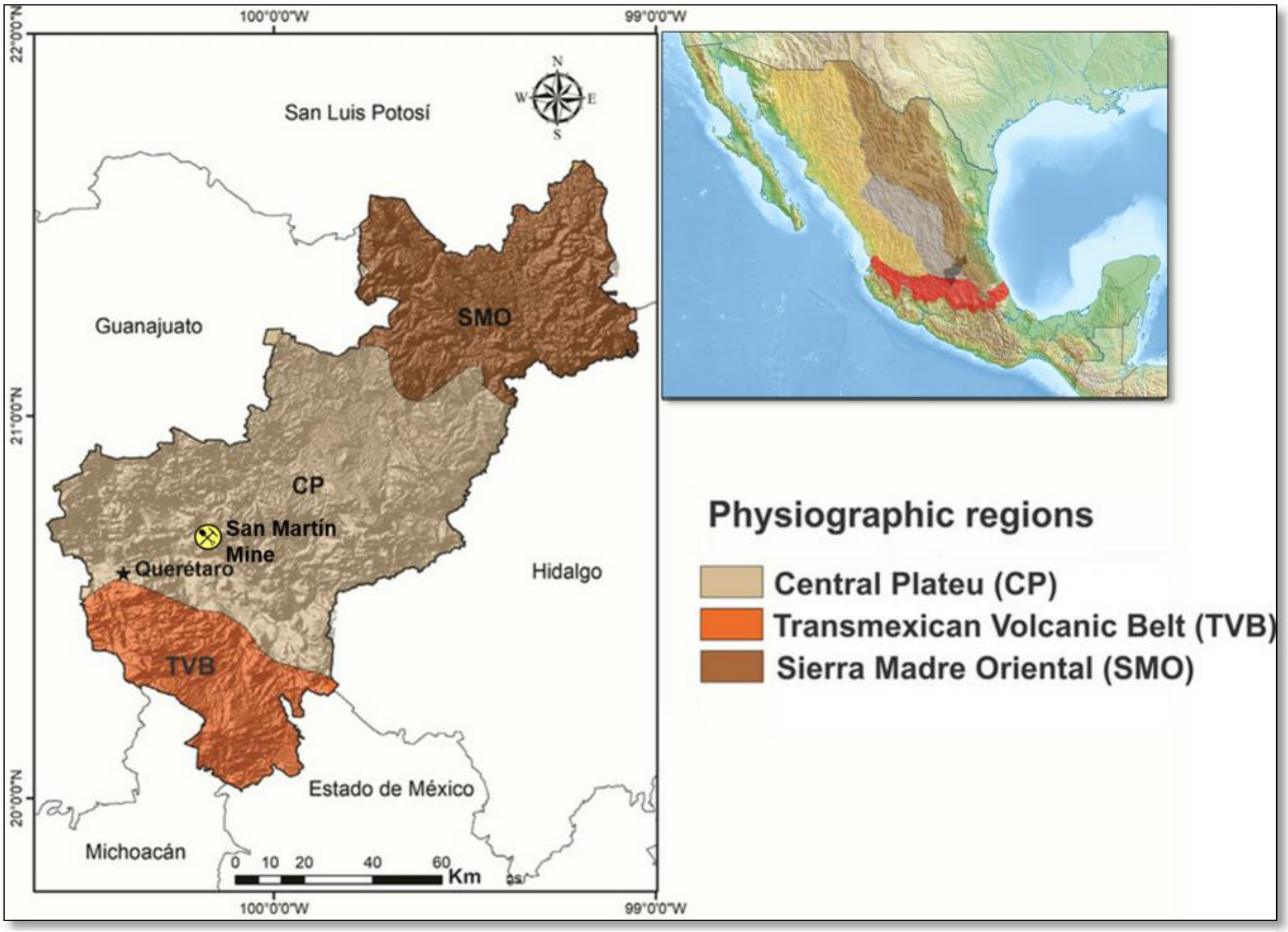

Figure 5- 1: Physiographic map of Mexico showing the location of the San Martin Mine between the Transmexican Volcanic Belt and the Sierra Madre Oriental, within the Central Plateau (after Raisz, 1964)

6.0 HISTORY

Mining in the San Martín district extends back to at least 1770 when the mines were first worked by the Spanish, particularly by Don Pedro Romero de Terreros, Count of Regla. Spaniards worked in the district for 40 years, however, there is no production records available for that time. During those days, silver and gold production accounted for 80% of all exports from Nueva España (New Spain), although, by the late-eighteenth century silver production collapsed when mercury, necessary to the refining process, was diverted to the silver mines of Potosí in present day Bolivia.

Most of the production came prior to the 1910 Mexican Revolution with San Martin district being an important producer. The first records show the Ajuchitlán Mining and Milling Company produced an estimated 250,000 tonnes at a grade of 15 g Au/t and 100 g Ag/t during 1900 to 1924.

The first modern stake was with 1982, when the Mexican government declared a 6,300 ha National Reserve over the area surrounding the Peña de Bernal. Luismin entered into an agreement to explore in the claims of CRM in 1986 for a payment of US $ 250,000 dollars and a royalty of 5%, which later was reduced to 3% in 1996. In1988 geological reconnaissance and exploration program initiated. Geological works concluded in 1992 and by the end of 1993 the decision was made to start the open-pit mining in the San José area, at a rate of 300 tpd.

The operation of the San José pit only lasted a couple of years, when it was discovered that the deposit was not a "Carlin type", as had been thought, but that it was a tabular structure in form of vein that continued to deepen and laterally along its strike. Then it was decided to start the underground mining, on the same San Jose structure and on the oreshoot of San Martin, which ultimately turned out to be the one with the largest number of reserve and resources.

In the year 2000, the exploitation begins in the San Martín body, called "Tronco" due to its verticality. In 2001, at the same time, the exploration of high-grade gold bodies called "Mantos" began. The first of these oreshoots was the Body 28.

The mine is currently mined at 630 tpd and the capacity of the mill is 1100 tpd. The mining method is cut and filled with dry backfill. The exploitation in the Body 28 is currently room and pillars filled with a mixture of backfill and 5% cement.

San Martin has produced over 8.03 million tonnes with average grades of 2.68 g/t Au and 40 g/t Ag, for a total of 719,047 oz of gold equivalent.

Historical production at the San Martín Mine for the years 1993 to April 30, 2024, is shown in Figure 6-1 and roughly estimated in Table 6-1.

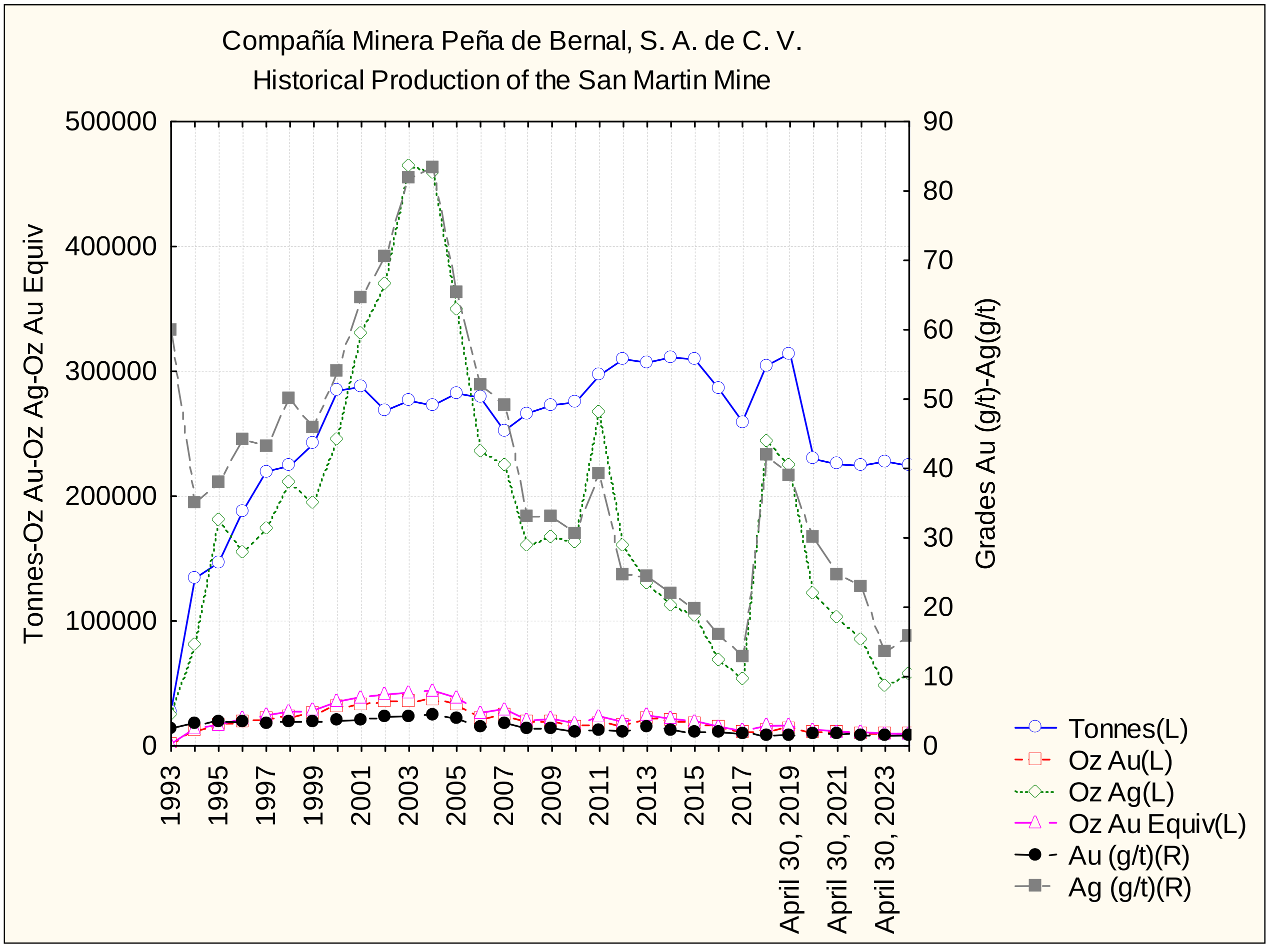

Figure 6- 1: Graph showing the history of production for the San Martin Mine, from 1993 to April 2004

Table 6- 1: Summary of production for the San Martín Mine (from 1993 to April 30, 2024)

Year	Tonnes	Grade		Productiom		
		Au (g/t)	Ag (g/t)	Oz Au	Oz Ag	Oz Au Eq.
1993	28,267	2.53	60	1,387	24,463	1,707
1994	134,118	3.19	35	13,179	81,605	14,298
1995	146,774	3.40	38	16,172	180,459	17,068
1996	187,691	3.40	44	19,553	155,160	21,620
1997	219,827	3.27	43	22,016	174,013	24,570
1998	224,279	3.45	50	23,680	210,680	27,539
1999	242,295	3.46	46	25,852	194,110	29,624
2000	284,490	3.61	54	31,209	245,310	35,571
2001	287,520	3.76	65	32,773	330,217	38,068
2002	268,451	4.26	71	35,634	370,406	41,124
2003	276,481	4.29	82	36,438	464,947	42,692
2004	272,734	4.47	83	36,935	458,681	44,377
2005	282,392	3.92	65	32,814	349,071	38,543
2006	278,914	2.82	52	22,004	235,806	26,529
2007	252,400	3.34	49	25,232	224,714	29,606
2008	266,600	2.50	33	18,733	159,877	21,367
2009	272,856	2.43	33	19,171	167,827	21,696
2010	275,290	2.03	30	15,492	163,489	18,156
2011	296,845	2.14	39	17,694	267,237	23,736
2012	309,796	2.09	25	16,197	160,678	19,213
2013	306,941	2.66	24	22,247	129,861	24,425
2014	311,210	2.35	22	20,062	112,010	21,755
2015	309,565	2.09	20	17,903	104,767	19,319
2016	286,278	1.94	16	14,606	68,463	15,547
2017	259,709	1.69	13	11,563	54,287	12,246
2018	304,446	1.55	42	13,103	244,164	16,123
April 30, 2019	314,347	1.62	39	13,651	224,544	16,393
April 30, 2020	229,830	1.85	30	11,752	121,825	13,112
April 30, 2021	225,504	1.63	24.7	10,475	103,424	11,797
April 30, 2022	224,438	1.58	22.99	10,028	85,360	11,165
April 30, 2023	227,811	1.47	13.49	9,402	48,066	9,968
April 30, 2024	224,307	1.5	15.82	9,412	57,961	10,094
TOTALS	**8,032,406**	**2.68**	**40**	**626,369**	**5,973,481**	**719,047**

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The following interpretations in relation to regional geology and local geology are based on reports, publications, documents, theses and on works done by geologists from Compañía Minera Peña de Bernal.

The San Martin deposit is located near a triple convergence zone (Figure 7-1) between the provinces of the Trans-Mexican Volcanic Belt (Demant, 1978; Aguirre-Díaz et al., 1998; Siebe et al., 2006), the Mesa Central (Nieto-Samaniego, et al., 2005) and the fold and thrust belt of the Sierra Madre Oriental (Suter, 1987; Bartolini et al., 1999).

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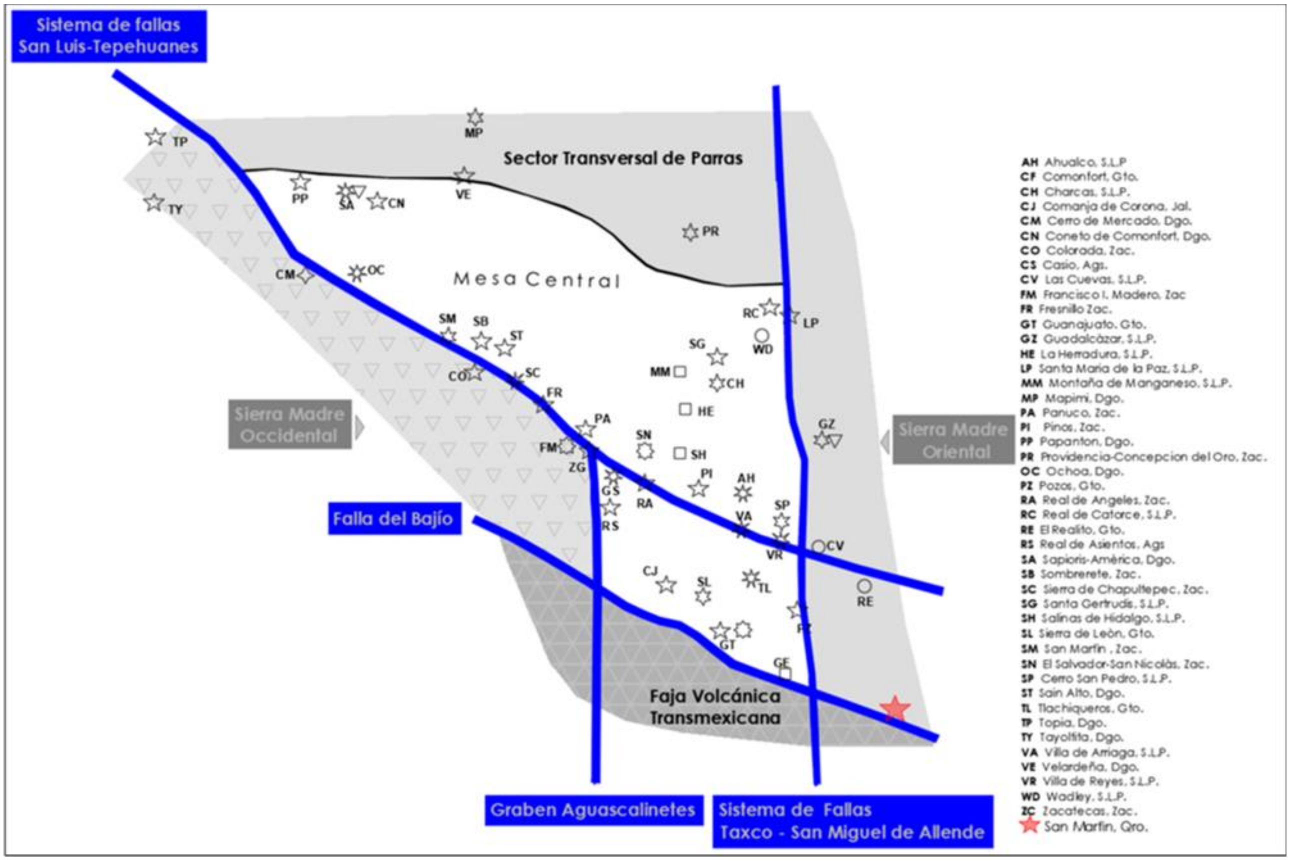


Figure 7-1: Map showing the location of the San Martin deposit in reference to the proximity of the convergence point of the morphotectonic provinces of Mexico (Simplified by Nieto-Samaniego et al., 2005).

The Mexican Fold and Thrust Belt (MFTB) is part of the Late Cretaceous-Paleogene Cordilleran orogeny in Mexico (Coney et al., 1980; DeCelles et al., 2009). It is a NW-SE thin-skinned fold and thrust belt, located in eastern Mexico (Campa-Uranga, 1983; Eguiluz et al., 2000; Fitz-Diaz et al., 2012; 2018). In central Mexico, the MFTB consists of deformed Cretaceous carbonate rocks. This deformation is accommodated by folding and reverse faulting with tectonic transport to the ENE (Fitz-Diaz et al., 2012). Previous works document the stratigraphy (Carrillo-Martínez, 2000; Dávila-Alcocer et al., 2009; 2013; Ortega-Flores et al., 2014) and the tectonic structures. Also, studies on the kinematics and timing of the deformation have been published (Fitz-Diaz et al., 2011a, 2011b, 2012, 2014; Garduño-Martínez et al., 2015; Vásquez-Serrano et al., 2018).

The (MFTB) in the central portion is covered by different rock events of volcanic origin, within these the first volcanic event is represented by rocks product of pyroclastic spills associated with the Sierra Madre Occidental Province (SMO), which has pyroclastic deposits that in some regions accumulate more than 1000m thick and that extend from the northwest to the center of Mexico, in the vicinity of the Trans-Mexican Volcanic Belt; The volcanic paroxysm of the SMO was during the Oligocene that in the area of Chihuahua and Durango has been named as the Upper Volcanic Group (McDowell and Keizer, 1977; McDowell and Clabaugh, 1979); It consists of pyroclastic flows and the emplacement of dome structures of rhyolitic compositions; The ignimbritic deposits of felsic composition cover an important area from the vicinity of San Miguel de Allende to the surroundings of the San Martín District (Pérez-Venzor et al., 1997; Aguirre-Díaz and López-Martínez, 2000; 2001). The geotectonic environment recognized for such province is a continental volcanic arc (Rodríguez-Ríos, 1997). After the ignimbritic rocks, volcanism began related to the formation events of the Trans-Mexican Volcanic Belt around 10 Ma; They are associated with the generation of volcanoes and calderas, distributed throughout the geological province and close to the San Martín District, such as the Amezcala Caldera, Amealco Caldera, Huichapan Caldera, El Zamorano Volcano, San José Volcano, Cimatario Volcano (Aguirre-Díaz, 1996; Aguirre-Díaz, LópezMartínez, 1998) depositing andesitic lava spills and pyroclastic flows of various compositions and ages from 12 Ma to the present.

7.2 Local Geology and Stratigraphy

The local geology in the San Martin District has been described in detail by Aguillon-Robles, et al., 2006 and Nuñez-Miranda, 2007. Below is a description of the Stratigraphy that has been identified in the region (Figure 7-2).

7.2.1 Las Trancas Formation

It was recognized by Segerstrom (1961a) in the surroundings of the town of Bernal, located just 5 km north of the Sab Martin mine, where it has at its base a lens of red limestone 2 to 3 m thick, followed by 100 to 200 m of phyllitized red shales with intercalations of coarse-grained bentonite layers, up to 30 cm thick and varying in color between gray, green and purple. Segerstrom (1961a), based on ammonites of the genus Paradontoceras, assign it to the middle and upper Portlandian. However, Carrillo and Suter (1982) have assigned an age from Kimmeridgian to Barremian based on fossils that they collected in these sediments. About its stratigraphic position, it underlies the limestones of the El Doctor Formation in angular discordance.

7.2.2 The Doctor Formation

Wilson et al., (1955) defined four facies in the type locality of this formation: The Cerro Ladrón facies made up of massive reef limestones that occupies the central part of the bioherm. The Socavón facies deposited on the pre-reef side consists of clastic limestones made up of calcarenite and thickly stratified calcareous conglomerate. The San Joaquin facies is composed of thickly bedded, dark gray intra-basinal limestone with black chert nodules. The La Negra facies composed of thin-bedded limestone with black chert lenses and shale sheets that were deposited in the deep part of the neritic zone. Segerstrom (1961a) assigns the El Doctor Formation to the Middle Albian-lower Cenomanian, based on ages determined from abundant macro- and microfossils. It has been identified from the Peña de Bernal 4.5 km to the NE by the cut of the new Bernal-Tolimán highway; the contact is not primary, but rather through thrust faults, while in the contacts of the Trancas Formation attached to the Peña de Bernal does not outcrops.

7.2.3 Soyatal-Mexcala Formation

Segerstrom (1961a) describes the Soyatal Formation as predominantly limestone, with numerous intercalations of shale, siltstone and sandstone. However, in the upper part of the formation the strata become predominantly clastic, so they are assigned to the Mexcala Formation. Kiyokawa (1982) determines an age from Turonian to late Campanian, based on the presence of calcareous nannoplankton (in Suter, 1987). The Soyatal-Mexcala Formation is the unit hosting the San Martin deposit, within the thin-stratified wavy limestones with intercalations of shale. It also presents marl lenses and in the lower part it is notable to see changes to dark (carbonaceous) tones. , this entire unit is found riding a massive unit of ocher to dark gray massive shales which would be equivalent to the upper part of the Mexcala Formation sequence (Figure 7-2).

7.2.4 Lower Tertiary Continental Sediments

The sediments outcrop towards the northeastern part of the studied area; The unit consist of conglomerates with 2-30 cm fragments of limestone, black chert and some from the Trancas formation, from rounded to sub-rounded, in a matrix of caliche or reddish clays. It has some intercalations of reddish silt-clay sediments. They rest unconformably on the limestones of the Soyatal Formation. Its thickness is very variable; ranges from 20 m to 1.0 m. The age of the unit is tentatively placed in the Lower Tertiary in the late Eocene to early Oligocene.

7.2.5 Cerro Azul Epiclastics

Cerro Azul epiclastics overlying the lower Tertiary conglomerates appears a package of sandy sediments of greenish to cream color, which consist of rounded to subrounded grains of quartz of 1 to 3 mm, in a chloritized silty-sandy matrix. It occurs in layers from 20 cm to 1 m thick, sometimes with cross stratification. Its best exposure is in the northeast of the area, to the west of Cerro Azul.

7.2.6 Cerro Azul Ignimbrite

The packages of this unit are mainly composed of welded, reddish rhyolitic ignimbrite, with 30% 1-3 mm phenocrysts of quartz > sanidine > biotite in a devitrified matrix. Its thickness at Cerro Azul is about 45 m, overlying the horizon of the unwelded pale orange ash ignimbrite described in the previous paragraph and underlying a 2 m thick very thinly welded horizon, without phenocrysts.

7.2.7 Cerro Azul Andesite

This unit is greenish gray in color, vesicular in parts and with tonsils filled with silica. It is a fine-grained dark gray rock with 1 mm micro-phenocrysts of plagioclase (anorthite and albite), and pyroxene crystals (augite) bordered by amphibole, some altered to Fe oxides in a pilotaxitic texture (see Figure 7-10), it has a texture plagioclase microcrystalline (albite, oligoclase), oxidized olivines, a high percentage of Fe and Ti oxides. This andesite intrudes into the Cerro Azul Ignimbrite.

7.2.8 El Matón Ignimbrite

It consists of a rhyolitic ignimbrite, pink in color, with 40% phenocrysts, 2-4 mm of anhedral quartz > euhedral sanidine > euhedral biotite, in a devitrified matrix, with lithic isolates and a eutaxitic texture formed by the collapse of pumice; It also contains glass chips, the minerals are broken, ranging from subeuhedral to anhedral. It is completely welded, except towards its base where it is unwelded to partially welded. In the mine area there are two small outcrops in which it is silicified, partially argillized.

7.2.9 Lienzo Charro Debris Avalanche

This unit is made up of subangular to subrounded fragments, 2–60 cm, of a light gray, porphyritic rock, with 15% phenocrysts of feldspar and subordinate quartz, very isolated phenocrysts of biotite, in a very fine crystalline matrix. It also presents isolated clasts of phyllites. Some of the fragments have a puzzle structure.

7.2.10 San Martín Debris Avalanche

It consists of a thick package of a debris avalanche, with angular to subangular fragments, from 2 cm to several meters, with a puzzle structure, in a sandy matrix with injection zones of the completely broken material. The fragments are of a dark brown and gray andesite with hornblende.

7.2.11 Andesite San Martín

These are lava flows, light gray to dark gray in color, sometimes brown, with a porphyritic texture, with 20% of 1-2 mm phenocrysts of plagioclase and hornblende in a glassy matrix. It may have some olivine crystals. Sometimes it presents with a fluid texture and isolated flow bends (see Figure 7-3).

7.2.12 La Loma Andesite Conglomerate

It is made up of a conglomerate with rounded to sub-rounded clasts, from 10 to 40 cm of light gray andesite, with some of vesicular black basalt, also appearing small fragments of 1-3 cm of black obsidian.

7.2.13 Intrusive Rocks

The Peña de Bernal intrusive corresponds to a body that extends over 3.5 km with an orientation N40ºE and covers an area of ~4.8 km². It is a highly crystalline and very resistant rock, gray to light gray in color when fresh and brown when weathered. It is composed of up to 80% crystals and 20% glassy matrix; phenocrysts make up to 30% of the total. The mineralogy includes plagioclase + orthopyroxene + hornblende + biotite + sanidine + quartz + Fe-Ti oxides + apatite + zircon, compositionally it corresponds to a dacitic rock. The age of Peña de Bernal is 8.7 ± 0.2 Ma. Its location corresponds to a column of an endogenous dome.

The bodies of intrusive origin or subvolcanic location for the mine area, at least 4 different compositional varieties have been identified, these events correspond to late events which within the mine have a clear relationship in the proximity to fault zones, therefore It is deduced that these rises due to pre-existing weaknesses for their ascent and are located within the Soyatal-Mexcala Formation.

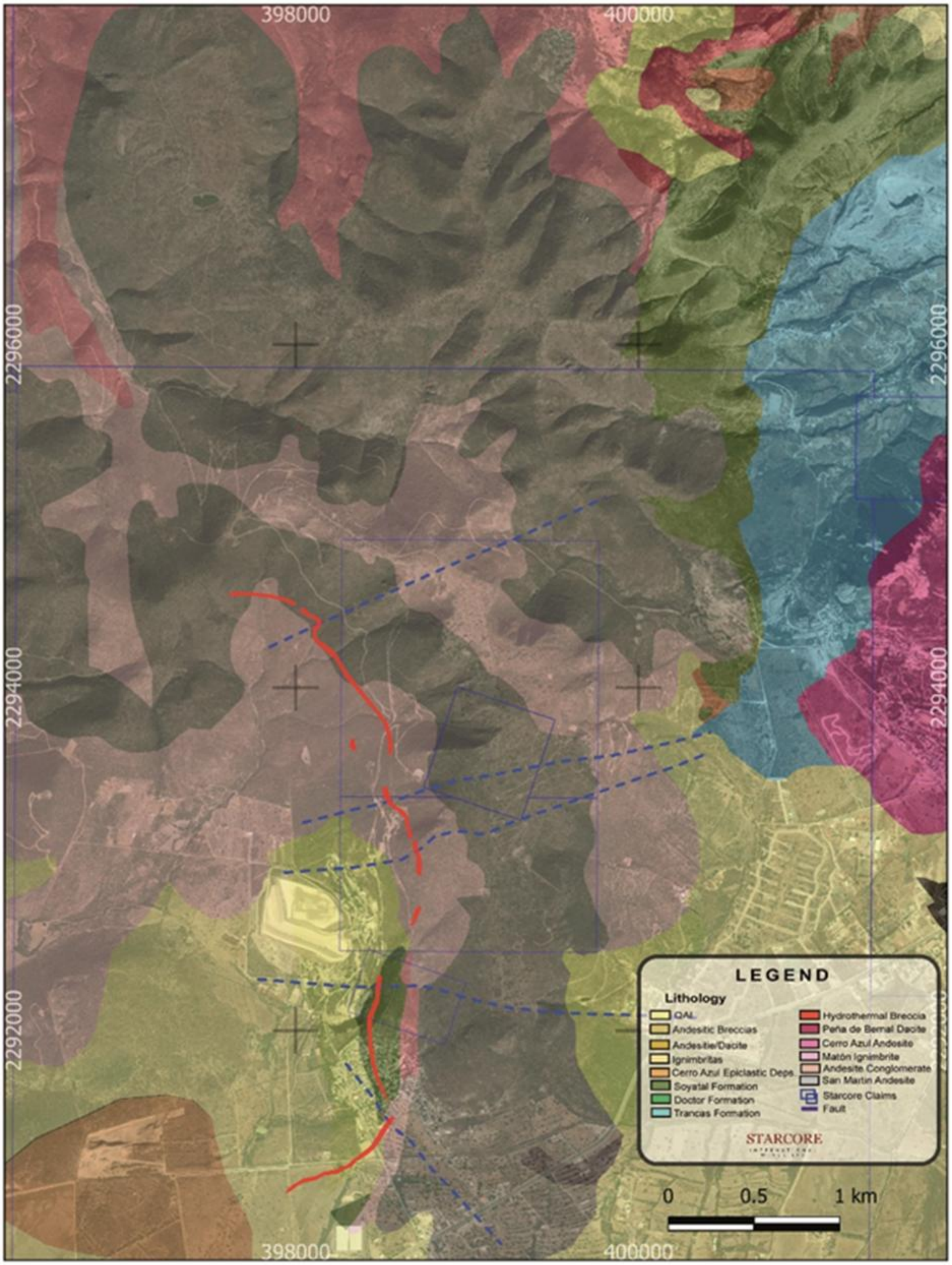


Figure 7-2: Geological Map of the San Martin mine. The Breccia of San Martin appears projected as Breccia Hydrothermal on the map, which does not appear on the surface due to the Tertiary volcanic cover (SM Geology Department).

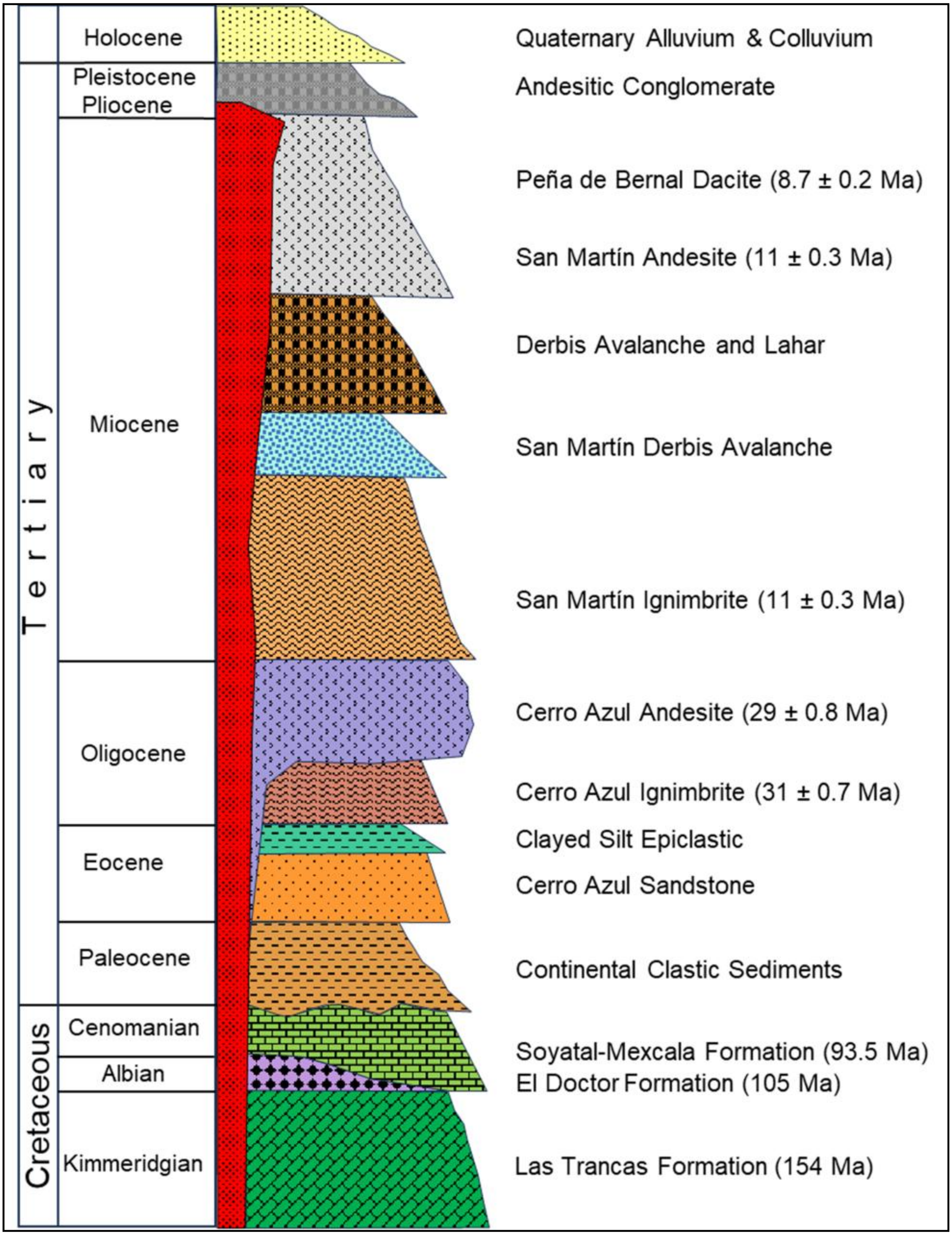


Figure 7-3: Stratigraphic column of the San Martín District

7.3 Structural Geology

7.3.1 Regional Deformation

The SMO presents important levels of deformation, which is why it is difficult to study. Composed of folds of all types and rocks, which due to their plasticity were folded, as well as regional faults that demonstrate the tectonic activity in that entire area.

The sedimentary rocks of the SMO correspond based on their classification to the Huayacocotla sector, this is located in the SE end of the folded chain of the SMO (Eguiluz de Antuñano et al., 2000).

In a very general way, the Huayacocotla sector presents features of fault bend-fold type deformation. The deformation is considered thin skinned, consistent with the descriptions of Suter (1987). This sector, unlike other sectors of the Sierra Madre Oriental, has in its detachment levels rocks more competent to deformation in contrast or unlike the evaporitic levels that represent the Transversal Parras sectors and the Monterrey Saliente Sector.

More recent work to the north of the study area by Fit-Diaz et al. 2012, describes and exemplifies the large-scale structures within the wedge of the Mexican Fold and Thrust Belt (MFTB). Figure 7-4 shows the location of a cross section and exemplifies an acceptable and partially schematic representation of the kilometer-scale structures of the outcrop area of the Chilar detachment, located in the town of the municipality of Tolimán, which is located 160 km NW of the SM mine.

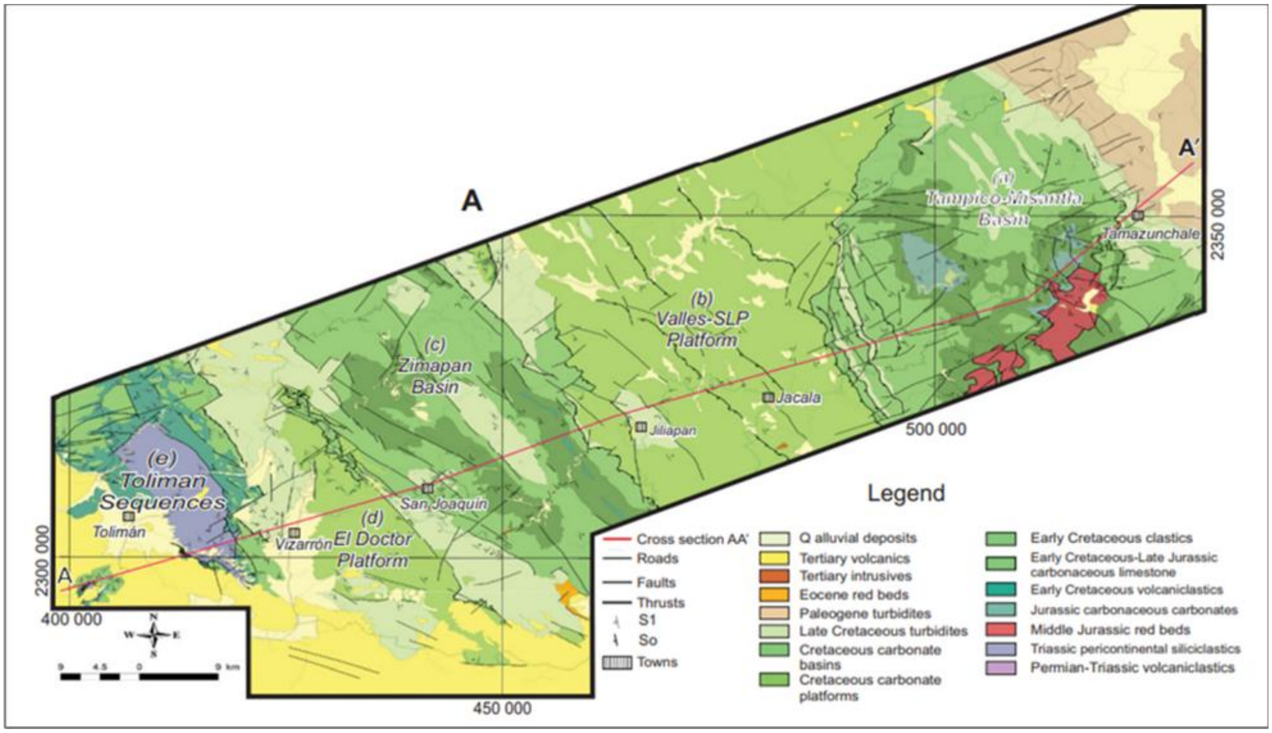


Figure 7-4: Simplified geological map showing the location of cross-section A–A', (modified from Fitz-Díaz et al., 2011)

Each zone described according to its units shows various arrangements or structural styles, however, all of them show that the tectonic transport or vergence towards the NE as shown in (Figure 7-5).

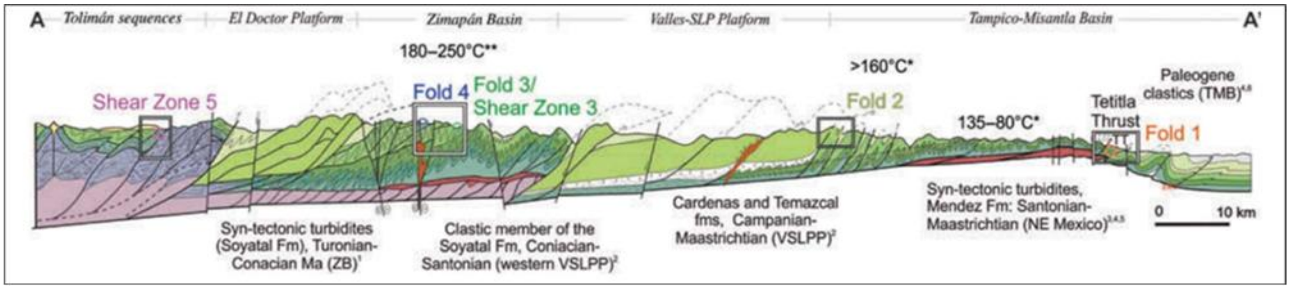


Figure 7-5: Admissible and partly schematic regional cross section of the Mexican fold-and-thrust belt (cross-section A–A') showing the variation of deformational style within the wedge (modified from Fitz-Díaz et al., 2011.

7.3.2 Local Deformation

Over time, different ideas of the geological model have been generated at the San Martin deposit according to the availability of information. At the beginning of the mine, historically there was a hypothesis about the mineralization related to a volcanic dome of dacitic/andesitic composition, proposed by Motilla (1993), which was generated syngenetically to the different stresses of the Laramide orogeny. Ranking (2008) did a study with a structural approach, pointing out and classifying events from different thrusts (which in the end were not entirely convincing) where he establishes events and directions of compressive deformation, always relating the mineralization product of thrusting. However, he did not agree that the deposit had an epithermal relationship, which does not make sense since it was notable to observe TH> 300º, low salinities and epithermal boiling textures present in the deposit. In 2019 field work was carried out with field data, and a relationship was shown of an anticline fold that correlates with a massive package of shales at the bottom of the gap for the area between San Martin and San Elena, however, the position of Santa Elena, today with magnetic study interpretations, shows clear N-S trend which fragment Santa Elena from the original position of the continuity of San Jose, which attributes its position by displacement and rules out the possibility of a folding anticline. Starting in 2022, the SM geology team worked hand in hand with the consultant and Dr. Riccardo Aquè on a simplification and recoding of the mine's historical database, construction of a three-dimensional geological model attached to real structural styles of the mine, construction of sections of the mine where currently with more information a new model is generated which is described in this report.

The context of structural geology in the San Martin deposit has previous works prepared by personnel from the Minas Luismin company. Rankin (2008) conducted works with some ideas of structural styles with greater detail and foundations than the Luismin's geologists, however; those were not entirely conclusive. Recently Riccardo Aquè from 2020 to date has been working in collaboration with personnel from the geology department of SM to provide innovative ideas of the essence and structural styles for the San Martin deposit.

The San Martin concessions show that great part of the area have been covered by a Middle-Late Tertiary rocks of epiclastic and bimodal volcanic deposits. Locally, in the mine area and in the central and northern area of the concessions, there are windows with outcrops of the Mesozoic cover and it has been possible to collect structural data (Figure 7-6).

The area located to the south of the mining concessions and which is within the influence of the mine in the San Jose I and San Jose II pit, it has been possible to see the outcrops of light gray limestone with thin stratification 10-25cm thick with intercalations of horizons of clays 2-5cm thick and which present a significant undulation with inclined folds and vergence to the NW. The stratification of the limestones presents a variable inclination depending on the elevation ranging on average from 60º - 50º at high or nearby levels to the surface and dipping to the SE for San Jose I, while for San Jose II dips to the NE. The limestones present specific and inclined folds with vergence to the NW, this sequence occurs riding on the massive shales of the Soyatal-Mexcala Formation, with a variety of colors in many of the outcrops and occasionally green to reddish tones, its stratification is lamellar, fissile in appearance and greasy to the touch.

The shales are deformed, generating inclined folds and sometimes chevron-type folds with vergence to the NW, they present an inclination of 60º-70º, dipping to the SE in San Jose I (Figure 7-7) and for San Jose II it changes its dip to the NE, The contact between these two formations is abrupt and is given by a thrust fault. In the area of the San Jose pits it presents a high, almost vertical angle, however; At lower depths, the main dip of the fault becomes softer, the contact of the thrust presents the area of greatest fracturing within the limestone, which left the rock fractured and prepared, to later be injected with hydrothermal fluid and generate the mineralized breccia, this contact is consistent with both the limestones of the Soyatal Formation and the massive shales of the Soyatal-Mexcala Formation.

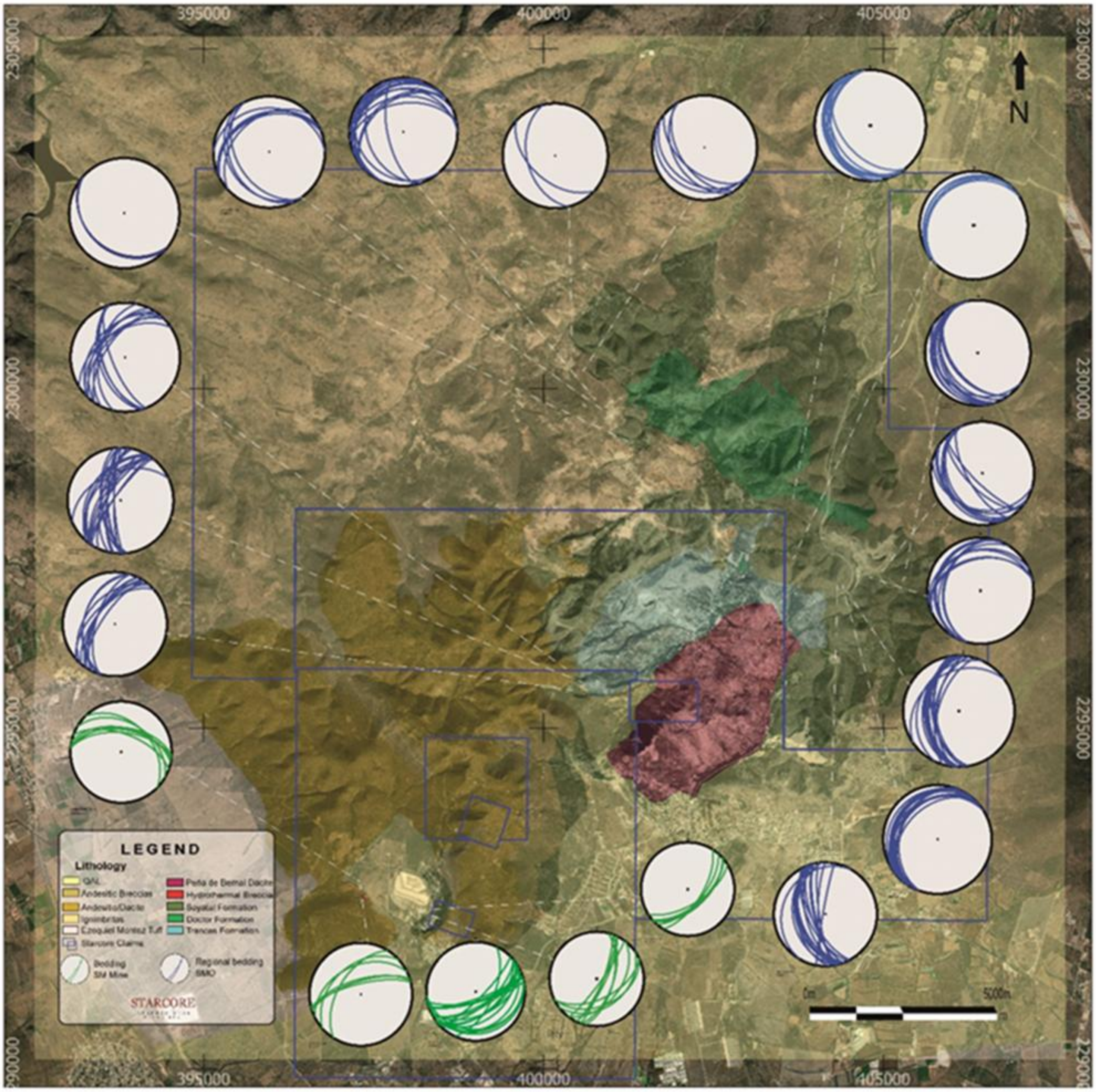


Figure 7-6: Geological map of the San Martin mine showing the general orientation and dip of the Jurassic and Mesozoic rocks, projecting an opposite vergence for the San Martin mine area with respect to the general vergence of the Sierra Madre Oriental (SM Geology Department).

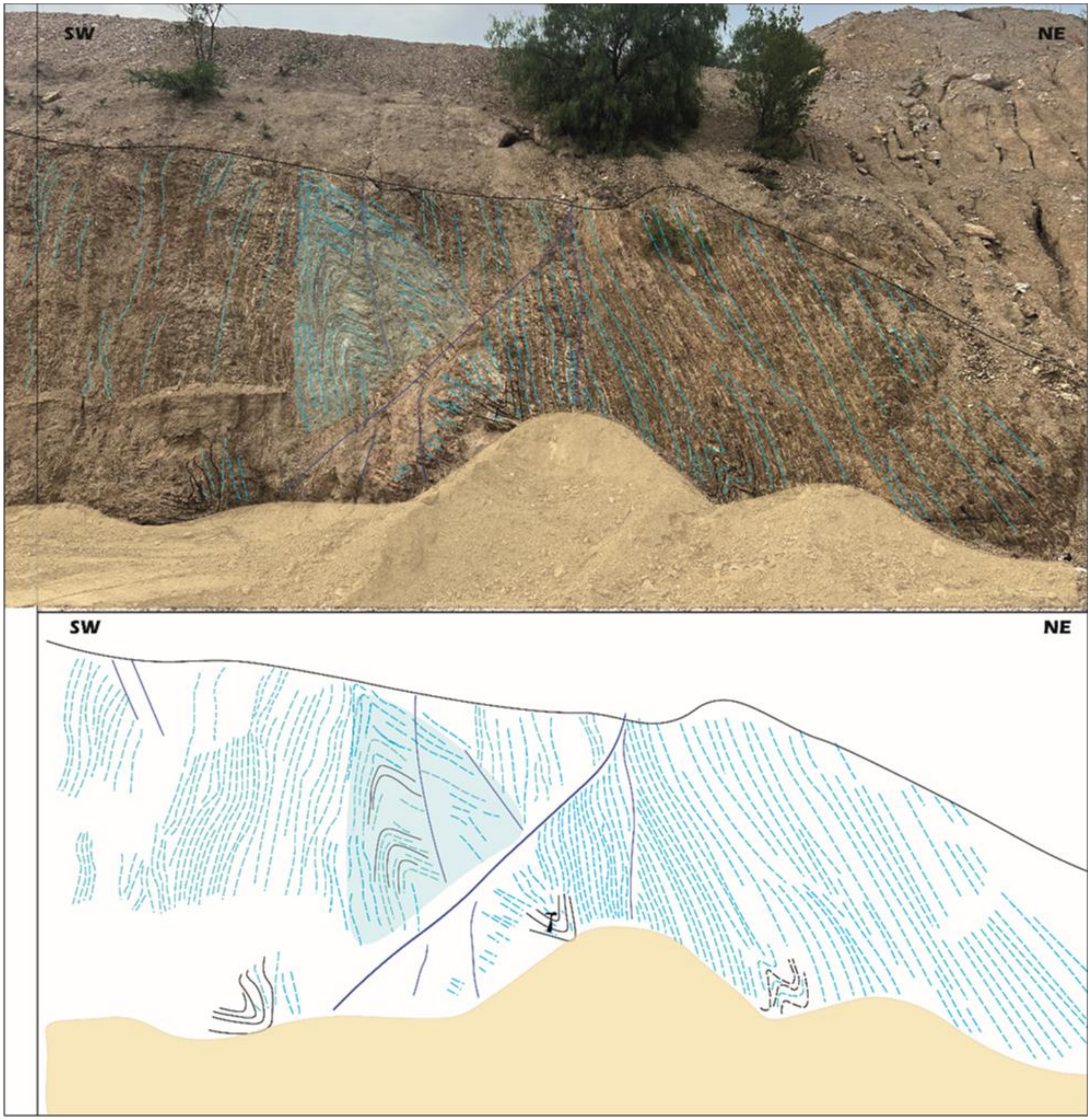


Figure 7-7: Slope section of the Tajo San Jose II terrace, with massive ocher-colored shales, with a 70º inclination of layers and chevron-type folds with tectonic transport to the SW and locally to the W (SM Geology Department).

The areas of San Jose I, San Jose II, San Martin, Area 28 and Area 29, the stratification data along the access ramps are concordant. The stratification of the different mine-levels dips to the SE and NE, depending on the area of the mine, but its folds are undoubtedly with vergence to the NW and SW, (Figure 7-8). In all areas it is normal for the most pronounced inclinations to occur in the upper zone of the contact of the main thrust, however, at lower elevations, both the main contact of the thrust and the stratification begin to become more sub-horizontal.

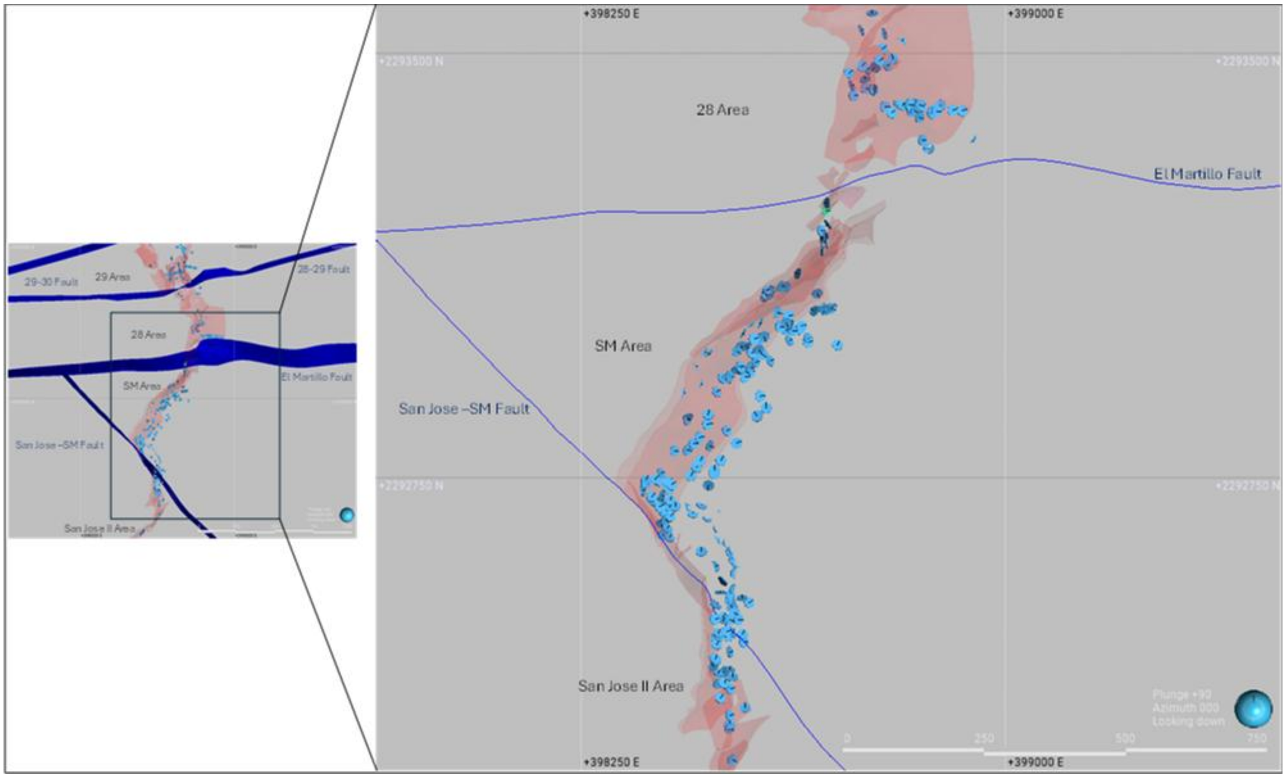


Figure 7-8: General plan-view of the San Jose II, San Martin, and Area 28 levels at elevation 2100 m.a.s.l., showing distribution of structural data of stratification of the limestones, which obey an orientation like the strike of the mineralization and with dip to the SE and NE (SM Geology Department).

In the Chicarroma area, located at the SW contact of the Peña de Bernal intrusive, it is possible to see outcrops of slaty shales with intercalations of sandstones with very wavy thin stratification. They have a brown to ocher hue color and are overlaid by the limestones of the Soyatal Formation. In general, the inclination of the rock packages is pronounced of 70º-55º dipping normally to the NW. The general vergence is towards the SE and is in accordance with the regional deformation of SMO and in contrast to the opposite vergence of the area of the San Martin mine.

Cerro Azul zone corresponds to the northern part of the concessions where it is possible to see outcrops from the Middle Cretaceous (El Doctor Fm) to Late Cretaceous (Soyatal Formation), they have variable inclinations, and usually this area is covered by bimodal rocks from the Middle-Late Tertiary. However, the erosion windows that expose outcrops of Mesozoic sediments deformed by an imbricated stack of thrusts with a shallow to moderate inclination, the thrusts show a NE-SW to NNW-SSE trend with a vergence towards the SE.

In the Las Cruces Area, towards the NE area of the concessions, there are interesting outcrops of road cuts that expose the sequences of the Soyatal Formation (Old Bernal - Tolimán Highway) where it is possible to see tight inclined and recumbent folds, with clear vergences towards the SE (Figure 7-9).

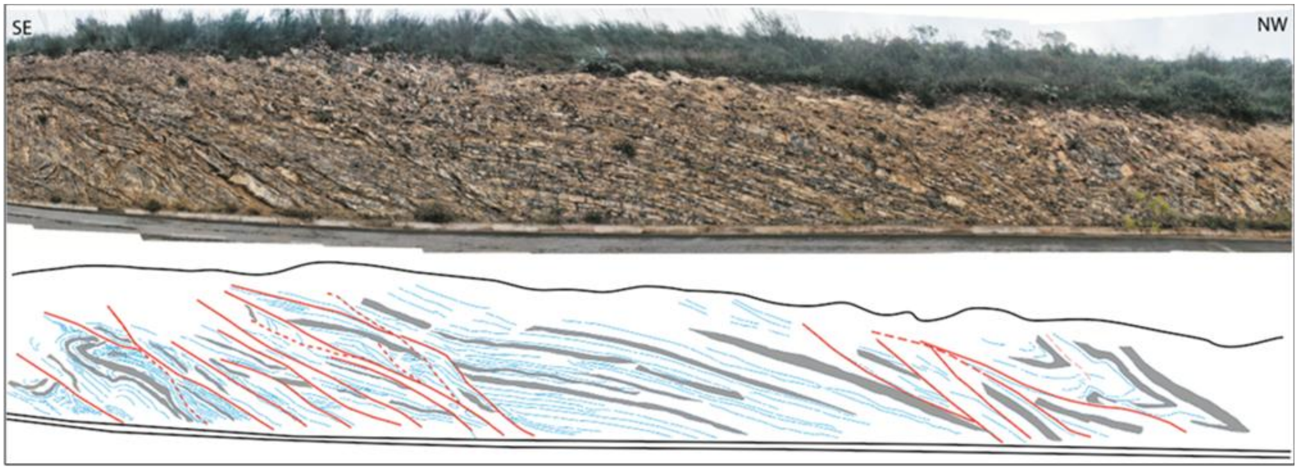


Figure 7-9. Section of the old Bernal-Tolimán highway, showing tight and inclined folds with tectonic transport to the SE. The limestone layers with intercalations of wavy shales exposing recumbent and tight folds are cut by shears and minor thrusts to the sequence of layers and folds (SM Geology Department).

Within the outcrops it is possible to see later thrust events, abruptly cutting the limestone sequence with tight recumbent folds (Figure 7-10).

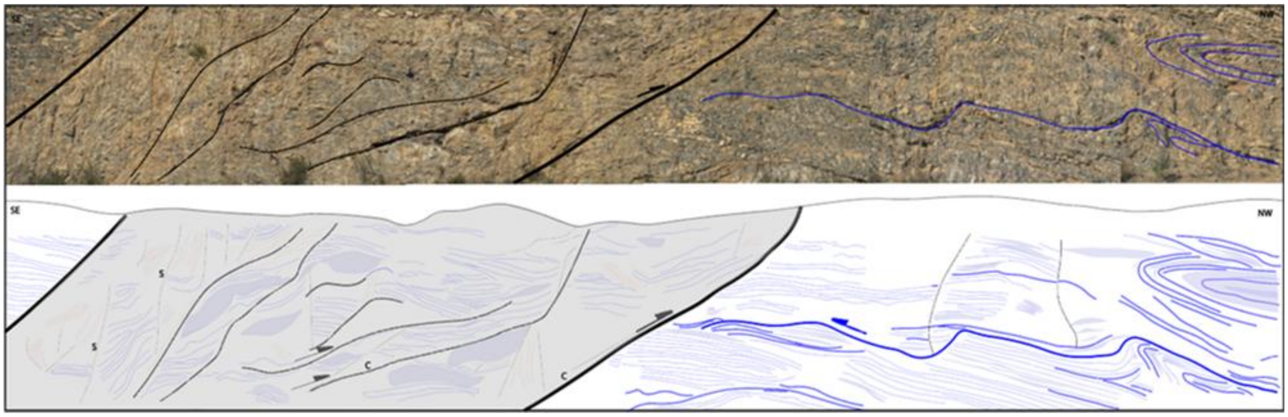


Figure 7-10: Section of the old Bernal-Tolimán highway, showing sequences of undulating limestone with intercalations of shales and tight, recumbent folds with vergence to the SE, abruptly cut by thick Thrusts with opposite inclination, presenting S-C type factory structures (SM Geology Department).

For the northern part of the SM area there are some cuts of great interest, since they are on the new Bernal-Tolimán highway, they expose outcrops with abrupt contacts by thrusts that raise the sequences of the El Doctor Formation, with respect to the classic lenses of marls that are immersed within the thin-stratified and undulating limestone sequences of the Soyatal Formation. Section of the new Bernal-Tolimán highway, showing abrupt contacts of a lens of ocher-colored marl-like clayey limestones and in its proximity to the contact with the thrust it appears to have a carbonaceous appearance, these marls show intense deformation with recumbent and tight folds with verging to the NE, this lens is overlain by thin limestones with intercalations of shales with a semi-horizontal inclination, its contact is by shear. Both packages are shown to be wedged by a strong thrust fault that brings into contact the massive limestones of the El Doctor Formation, which present a sub-horizontal inclination. The thrust has an inclination contrary to the regional and clearly late deformation (Figure 7-11). Again, the main vergence of the thin limestones and the marl lenses present a clear vergence to the NE.

It should be noted that the tectonic transport of the surface areas: Chicarroma, Cerro Azul, Las Cruces (Old Bernal-Tolimán Highway) and the new Bernal-Tolimán highway; present a vergence to the NE and SE respectively, which corresponds to the opposite vergence of the mine zone.

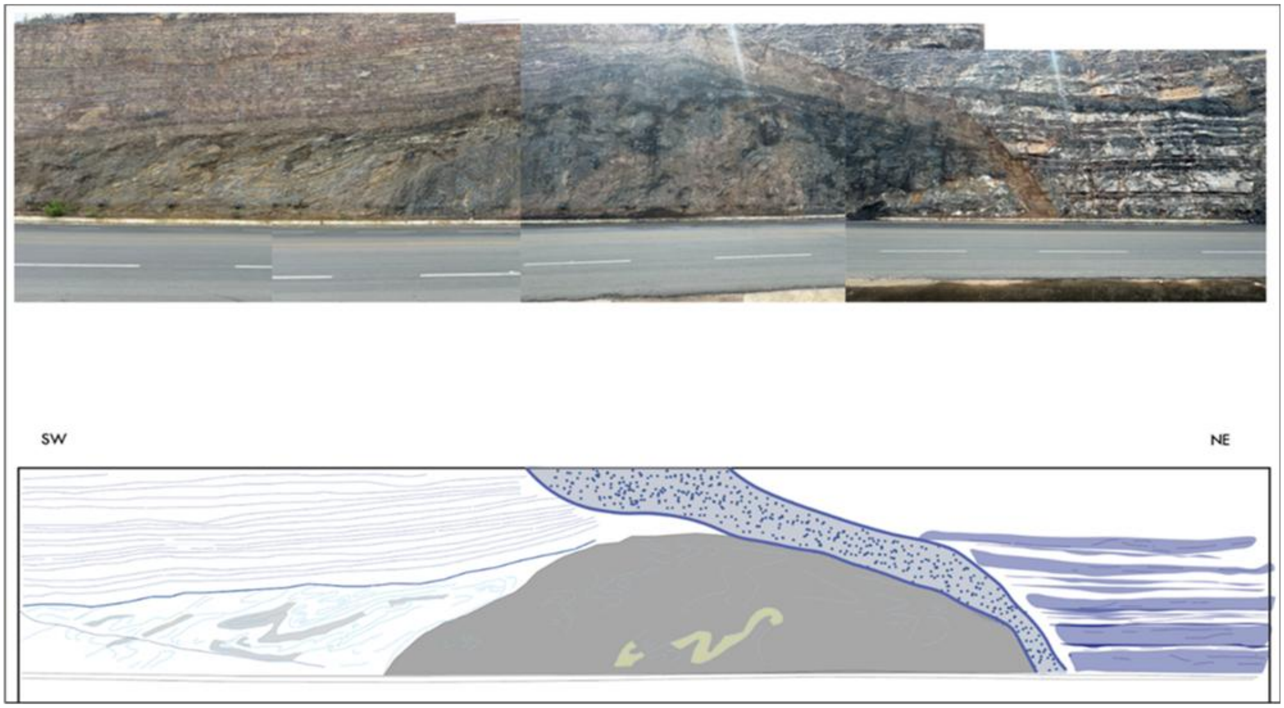


Figure 7-11: Section of the new Bernal-Tolimán highway, showing abrupt contacts of a lens of ocher-colored marl-like clayey limestones and in its proximity to the contact with the thrust (SM Geology Department).

7.3.3 Structural Interpretation

Within the area of influence of the San Martin mine, the structural features, but above all the emphasis of the opposite vergence in contrast with the regional deformation of the Sierra Madre Oriental, which is common in many fold belts and thrusts of "thin skinned”, most folds and thrusts have a defined and consistent vergence, however; the thrust or reverse fault that tilts opposite to the regional vergence trend of deformation is called “Back Thrust” as noted in the case of the SM deposit.

In general, a representative type section for the San Martin deposit is shown, but realistic and applicable due to the above described, which shows some styles of fold arrangements with general vergence in the direction of the deformation of the SMO in this sector, in addition to point out the San Martin Back Thrust (Figure 7-12).

Within the road outcrops north of the concessions it was possible to see big thrusts with opposite inclination, however, they were only seen as local late reverse faults that cut the regional deformation with SE vergence, and not as large domains that show opposite deformation.

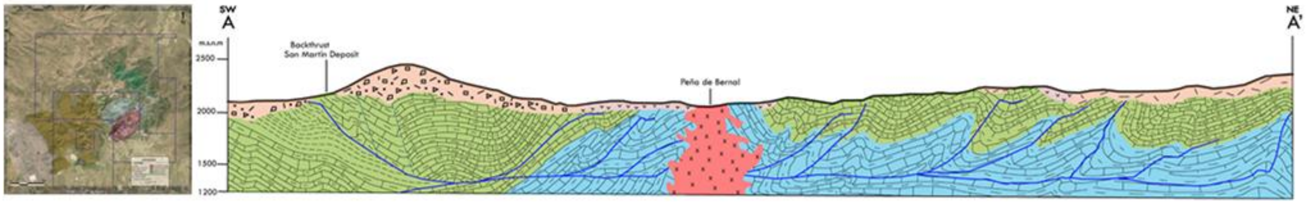


Figure 7-12: Representative but realistic figure of the regional deformation of the SMO and the opposite vergence of the Back Thrust of the San Martin deposit. There is a hiatus of the El Doctor Formation in the vicinity of Peña de Bernal, since the Trancas Formation, overlain by the Soyatal Formation, is exposed (modified from Geologic chart F14C67 of SGM, 2007)

7.3.4 San Martin Mine

The SM mine within the current and historical operating zones was segmented by areas for geological, operational and cost control, each area has different elevations and characteristics. The areas are cut by late extensional faults which moved, rotated and displaced several blocks. The areas correspond to the Santa Elena area, San Jose I area, San Jose II area, San Martin area, Area 28, Area 29, Area 30, Area 31, Area32 and Area 33 (Figure 7-13).

7.3.5 Geological Settings Structural

The mineralization in San Martin presents a general orientation NNW-SSE, however, specific areas present changes in strike as in the San Jose I area and the San Martin area, these changes in orientation are given by late extensional deformation states with a lateral component strong sinister, which moved the original position of the thrust to N050º orientations, while for the Santa Elena area, some previous works argued that due to the position it could be represented as a fold (from San Martin-Santa Elena), however ; More exhaustive data eliminated this theory, recently reprocessing of the mine's magnetometry has been done, where in the South Central part, magnetic structural lineaments appear that overlap or coincide with visible faults in the mine, and that superficially coincide with natural streams, and due to the N012º orientation of the "Sara" lineament system which would correspond to extension faults with a right lateral component, making it the most logical explanation to accommodate the changes in direction and displacements between San Jose I and Santa Elena. This area has little information (due to the volcanic cover) and lack of direct exploration.

In the areas of Santa Elena, San Jose I, San Jose II, San Martin, Area 28 and Area 29, except in Area 30 – Area 33, the main contact of the thrust is known (both by direct work and by DDH).) and is represented by the contact of the massive shales of the Mezcala Formation, and the undulating limestones with intercalations of shales of the Soyatal Formation. The San Martin Area, Area 28 and Area 29 present the best examples since it is where there is more data and evidence to make adequate interpretations. In a very general way, the thrust in the southern zone (San Jose I to San Martin) exposes pronounced slopes in the upper levels, at greater depth and with evidence in the northern zone of San Martin the angle of the thrust tends to become low angle (<20º), vertically

San Martin presents a column of mineralization of almost 500 m, area 28 and area 29, present identical geometric arrangements with inclinations of 35º-22º in the main thrust of the deposit, however for the Central-Northern part of the Area 29, the thrust begins to appear at a lower angle and is in contact with a lens of dark carbonaceous limestones of the Soyatal Formation, from this point to the North (Area 33) said contact is not detected or explored, since from the Central-North zone of San Martin and at high levels of the thrust, imbricated structures begin to take off, which, for areas 28 and 29, exploration and historical mining have focused on these structural arrangements, leaving the thrust forgotten. main thrust, despite this, there is evidence that both the imbricated arrangements and the main thrust are decreasing their inclination towards the North (Figure 7-13). The historical developments from Area 30 to Area 33 correspond to stack-type arrangements in contact with the Roof Thrust and are found at high levels and very detached from the Main Thrust with vergence opposite to the regional deformation.

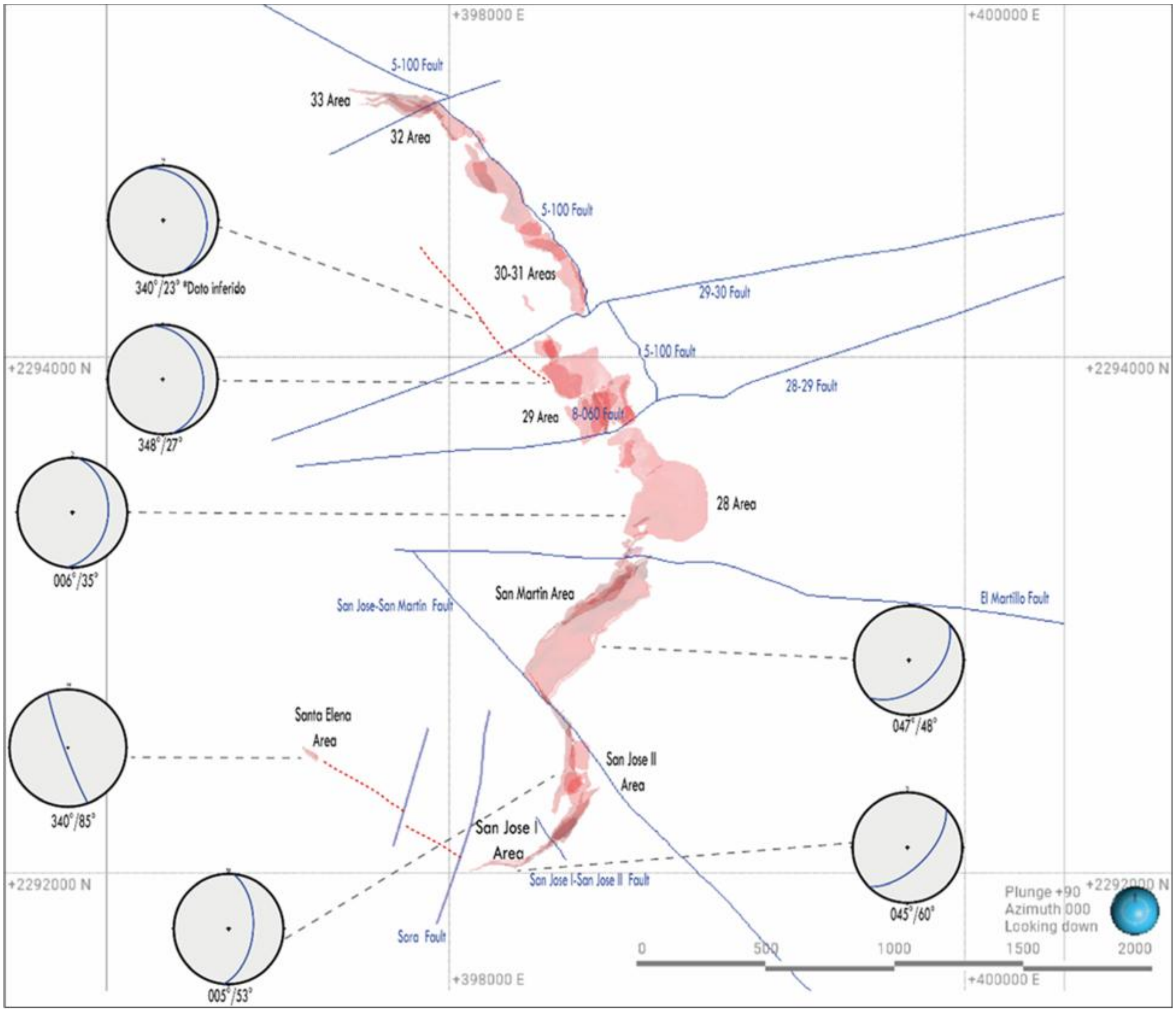


Figure 7-13: General plan showing the different areas of the mine, and part of the main thrust, an interpretation is made based on magnetic guidelines for the SE area and for the Central-North area from Area 29 to areas 30-33. In a red slanted line, this trace shows the main unexplored thrust. Note gradual South-North decrease of the inclination of the main Back Thrust of the San Martin mine (SM Geology Department).

San Martin, exposes more complete outcrops of the deposit, since the thrust in this area throws dips of 60º-45º dipping towards the SE in the middle-high zone of the thrust, however; at depth in the Central-North zone its dip tends to become up to 20º in its basal zone (Fig. 14), contrasting the inclination with respect to the southern basal zone of San Martin which maintains pronounced dips, Thear Faults type structures would explain these changes from pitch to depth in a simple way. The Central-North zone of San Martin at high levels of the thrust begins to show duplex-type structural arrangements. Furthermore, at the highest level of the thrust (high zones) and very distal from the contact of the main thrust, it corresponds to an area with completely horizontal mineralization. with the presence of high values of gold and silver, presence of boiling features, hydrothermal textures which would correspond to a stack-type structure in contact with the Roof thrust (Figure 7-15).

Geologically, the stack is associated with stacking of imbricated layers, historical DDH codes prove that the stacks are related to fractured limestone stacks with marl packages and a strong control of low angle faults associated between the horsts. In the San Martin mine, this stack (historically called “Manto”) was the historical guide for exploration and exploitation, since the characteristics present the hydrothermal breccia as a white breccia with angular fragments composed of a silica cement (65%) and calcite (35%) with different stages of breccia, always observed interesting cockade-type textures, colloform partially or in segments, this because it is a breccia unlike the typical banded quartz veins in the literature, in addition to the presence of Free gold was possible to observe in the high areas and probably when observing these characteristics they can intrinsically be associated with boiling environments perhaps controlled by an ancient water level.

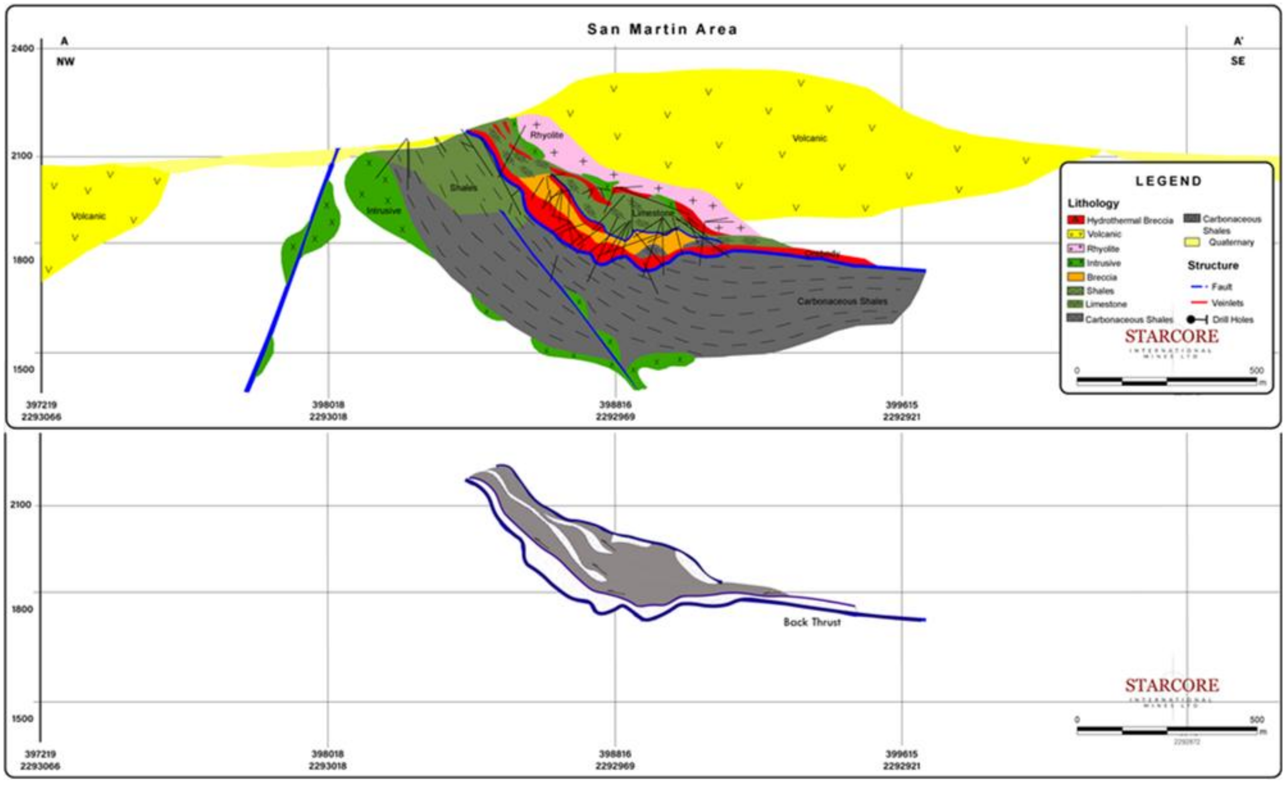


Figure 7-14: NW-SE cross section of the SM area looking to the N, showing the abrupt contact of the shales being thrust by the limestones of the Soyatal Formation in contact with the hydrothermal breccia (SM Geology Department).

The structural arrangements embedded in the San Martin area present a relatively attractive economic grades of Au g/t and Ag g/t, for this reason, the contact with the Back thrust in the high levels of this area is abandoned or relegated and works of exploitation in the imbricated structures and the stack, these arrangements are distal to the lithological contact of the main thrust. A general plan is shown with the location of the cross sections that will be explaining the different areas of the San Martin deposit (Figure 7-15).

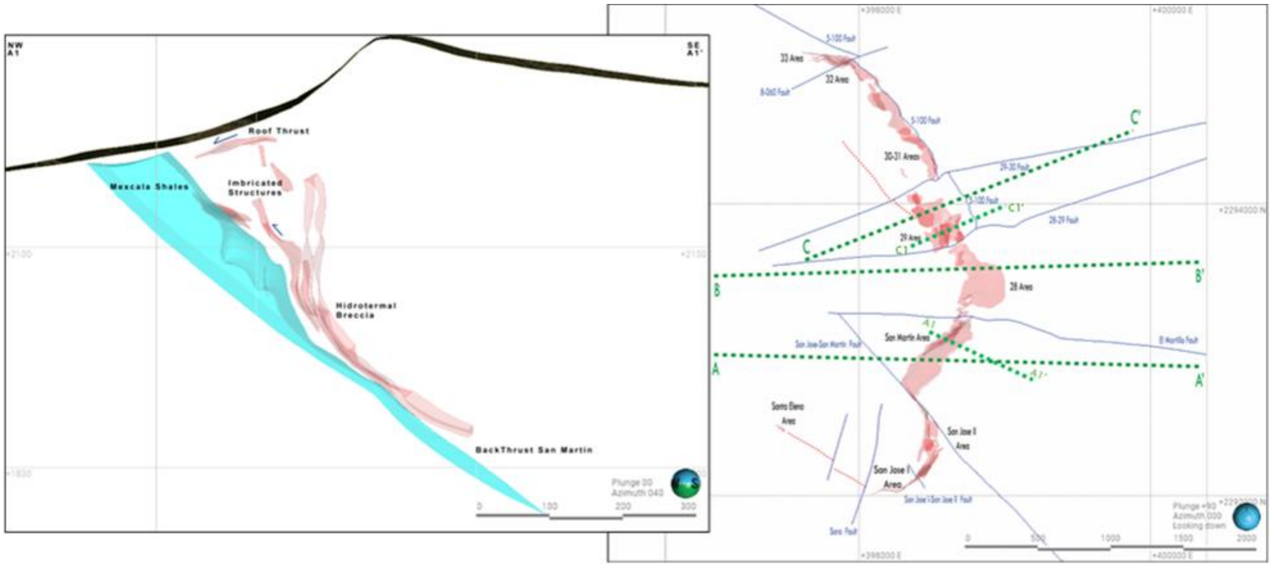


Figure 7-15: Left Figure shows a simple type of section of the three-dimensional modeling of the structures of the SM area and, exemplifying the structural features, only the shales of the Mexcala Formation are placed as context (Back Thrust with opposite vergence). Right figure shows a general plan locating section A1-A1' (SM Geology Department).

Usually, in a large part of the SM mine, it is noticeable to see late faults parallel to the mineralization (minor faults) on the W edge. These minor faults are not included in the general plans of the mine, however, they show displacement and they give the appearance as if the roof thrust did not stick or did not join in many cases with the opposite Main Thrust (contact of the Mexcala Formation shale and the Hydrothermal gap, giving the appearance as if the thrust was broken by late fault.

For area 28 the structural styles look very complete, only the gradual change to a less low angle of both the main thrust and the imbricated structures compared to the San Martin area (Figure 7-16). The contact with the main thrust in the basal zones becomes subhorizontal, and lithologically the rocks in basal zones of the thrust are carbonaceous shales being overthrown by carbonaceous limestones. At higher levels, the main thrust becomes more vertical and is in contact with limestones of gray in contact with ocher colored shales are in contact with light gray limestone. The main thrust contact is developed and exploited in Area 28.

The duplex-type arrangements are expressed by packages of fractured limestone in contact with reddish-pink marls, limestone breccias, carbonaceous marls, all these contacts have semi-vertical faults in contact. The contact of the semi-vertical fault with the rocks generated deformation (fractured areas or prepared areas) which were later affected by hydrothermal fluids and correspond to the mineral breccias in the imbricated structures. These types of structures are detached from the main Back Thrust of the mine (Figure 7-16).

In the San Martin mine the compressional deformation is complex, however, the late extensional events also affected two different events, Figure 7-16 shows the first event of N-S extensional faulting in echelon with increasingly lower blocks towards the E, this distorts the original compressive structure. Furthermore, on the W edge of Area 28, there is a normal extensional fault which cuts the roof thrust with respect to the main thrust, giving the appearance of a thrust broken by fault.

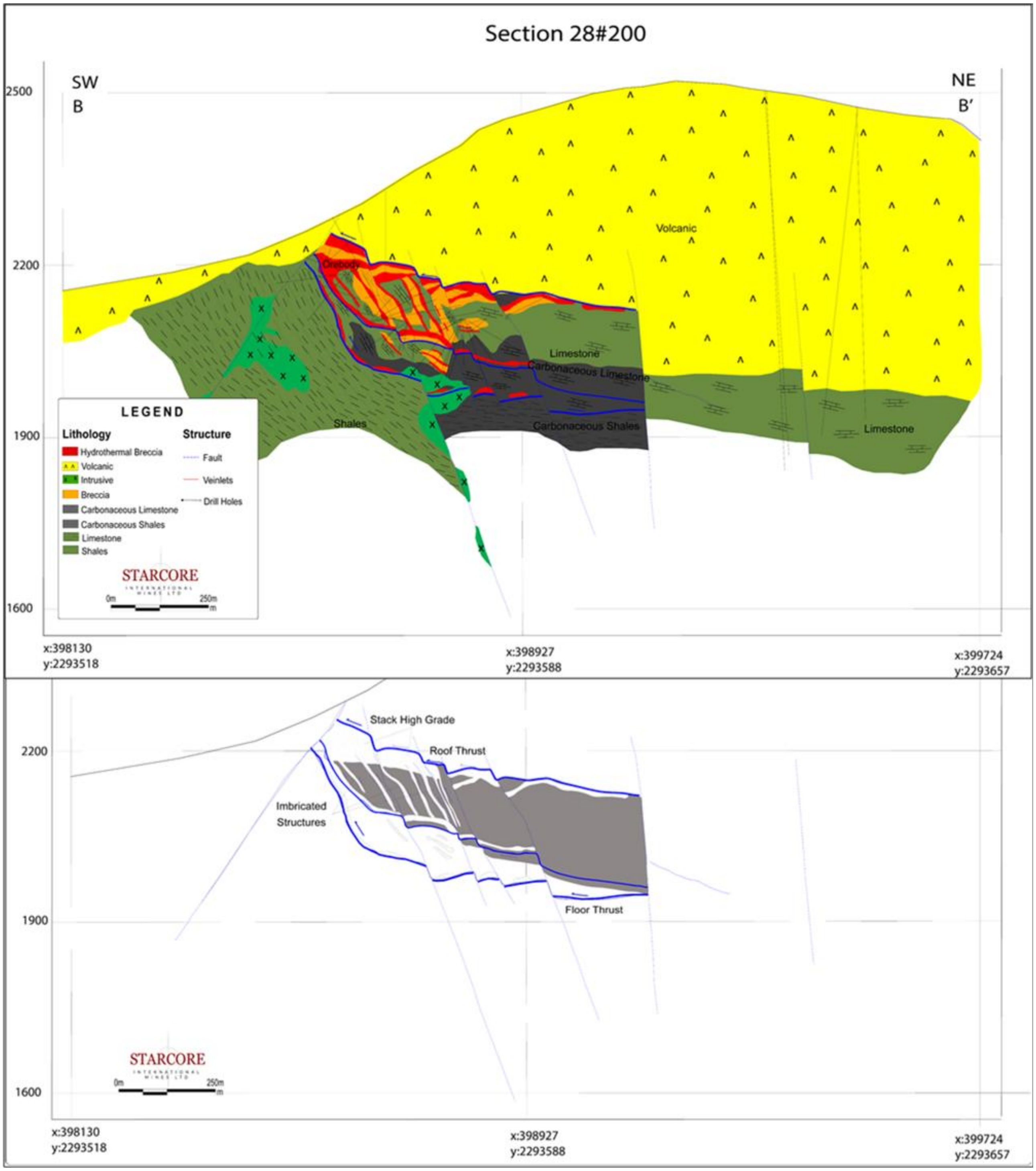


Figure 7-16: Upper figure shows main thrust with a decrease in its inclination compared to Area SM, in contact with limestones of the Soyatal Formation and lenses of dark carbonaceous limestones, in the high zone imbricated arrangements are shown with vergence to the NW and the most Distal and high on the thrust is the high-grade stack; the thrust is cut or broken by minor faulting at bore W. Figure below shows the approach to structural arrangements (SM Geology Department).

Within Area 29, the structural arrangements and styles are similar to those of Area 28, unlike the angle of the main thrust decreasing, in the Central-North zone there was a lot of leakage of high-grade mineralization towards the imbricated structures and the stack. , while economic values within the main Back Thrust begin to decrease. It was in the Central zone of area 29, where historically the main thrust of the mine, which had been developed from the southern zone to the Central zone of Area 29, stopped being explored. The presence of limestone and carbonaceous marls between the main thrust and the imbricated structures increase notably (Figure 7-17).

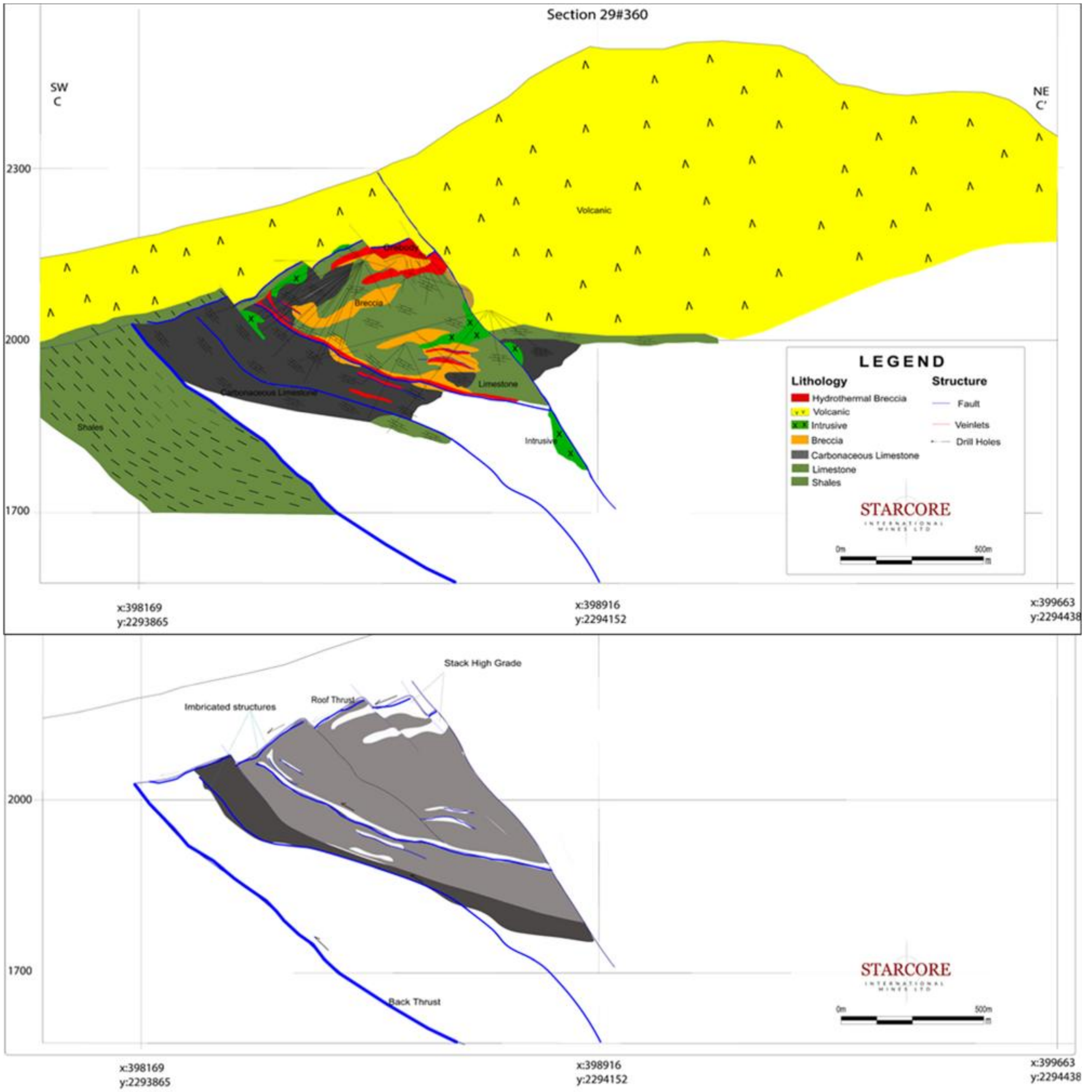


Figure 7-17: Upper figure shows main thrust, duplex-type structural arrangements, these are more lying in the northern zone of Area 29 and with vergence to the NW and in the upper zone of the high-grade horizontal stacking. Figure below shows the approach to structural arrangements (SM Geology Department).

For the southern zone of Area 29, the duplexes present more pronounced inclinations in the southern zone of area 29 (Figure 7-18), these arrangements are composed of limestones, marl horst, carbonaceous marls, and carbonaceous limestones, in addition to limestone breccias. , it is notable that further to the W, the presence of carbonaceous rocks is more noticeable. The rocks and folding always show tectonic transport to the W, and breccia zones are generated at the contacts of the faults. In the different areas of the mine, it has been possible to see a late compressional deformation event, which cuts all the sedimentary sequences, in addition to the mineralization (Figure 7-19). It is common to develop gaps in shear zones, and fold hinges.

Within the shear zones, fold hinges, gaps are seen. In general, at least two compressive events have been identified in the San Martin mine, a first event that caused the deformation that left the rocks prepared for subsequent Tertiary volcanism. medium will cause rises of intrusive bodies with rise of hydrothermal fluids that permeated the back-thrust zone and subsequently a late compressive event that cuts the sedimentary sequences and early compressive deformation in addition to cutting the mineralization, at least in the area of influence of the mine there have been no recorded strong faults that segment blocks of this type, but also minor faults that have these characteristics.

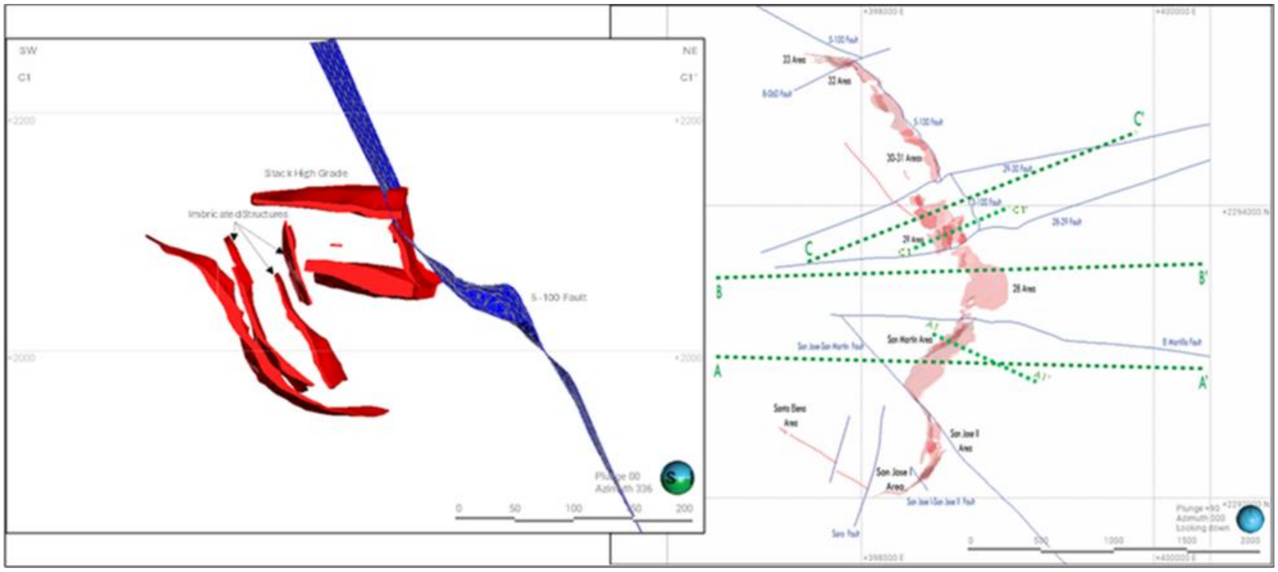


Figure 7-18: Left figure corresponds to a simple type of section-oriented SW-NE looking N, of the southern zone of Area 29, showing the three-dimensional solids of the mineralization without lithology to highlight the arrangements. Right figure shows the orientation of the section.

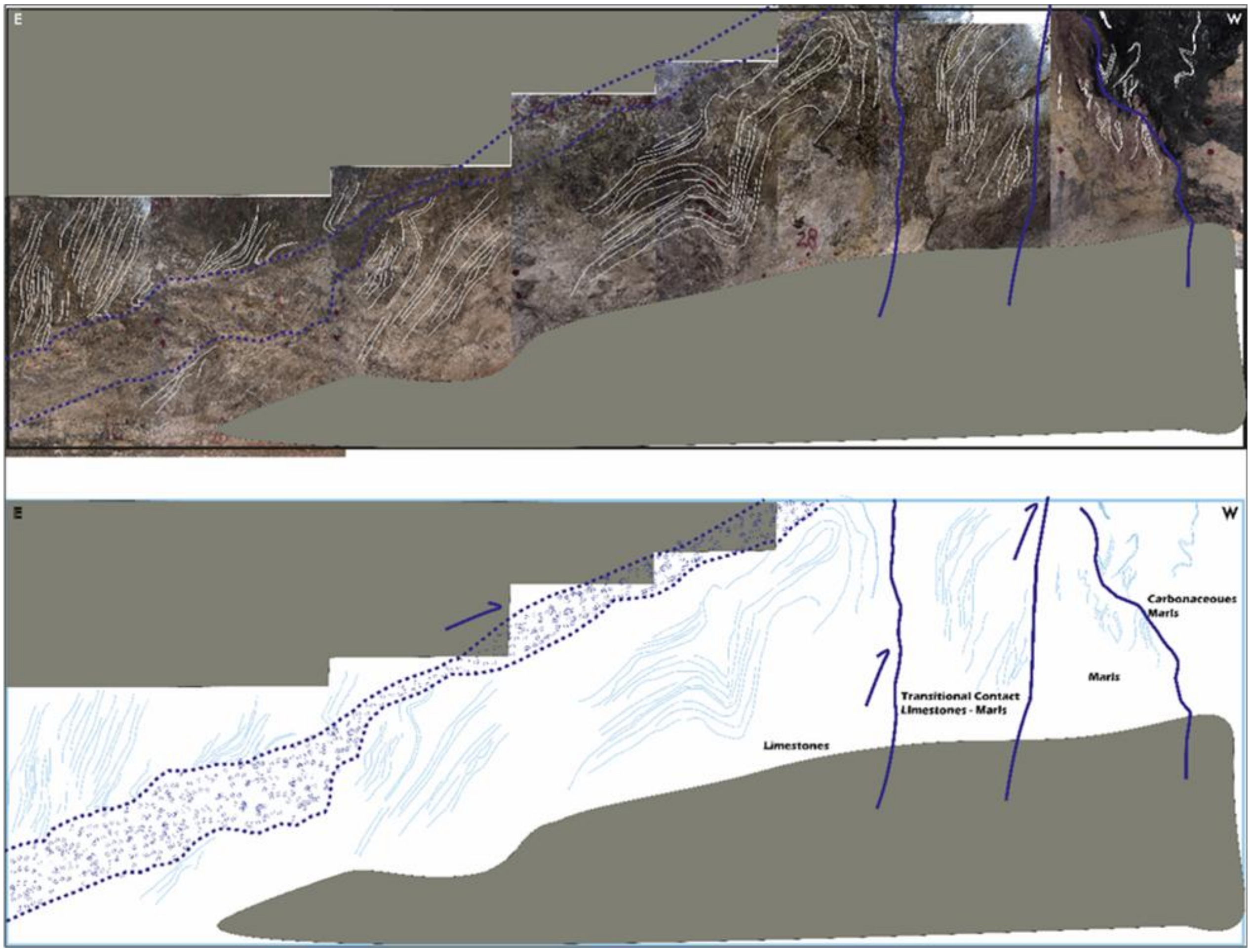


Figure 7-19: E-W profile looking south located in the southern zone of Area 29, showing the tight folding styles of the limestones, in contact with the horst limit faults that present the imbricated structures, in contact with limestones, marls and carbonaceous loams. Late compressional faults cut the lithological sequence and mineralization.

7.3.6 Extensional Deformation

The San Martin mine area is dominated by two fault systems: the NNW-SSE and the ENE-WSE. These two systems are correlational with the fault systems that generate the Querétaro Graben, the first NNW-SSE system is associated with the Taxco San Miguel de Allende Fault system, also based on a regional tectonic scheme due to its orientation it can be considered the province of Basin & Range which would be the oldest, however locally in the Querétaro graben there are recent records of this system (1998), that is, this event is active, while the ENE-WSW System belongs to faulting. strike of the intra-arc system associated with the FVTM and due to its orientation, it is parallel to this morphotectonic province. At least in the Graven area of Querétaro the NNW-SSE system is active, however, in the mine the NNW-SSW extension structures have not been active.

One of the strong extensional faults in the San Martin mine corresponds to Fault 5-100, this fault is parallel to the mineralization, which is well modeled from Area 29 to Area 33, it is a normal fault and has a jump of fault of almost 150m, this NNW-SSE fault presents inclinations of 70º dipping to the E, it is older than the oblique faulting (NNE-SSW and NE-SW), however, more recent than the mineralization, since it cuts and displaces both the late Cretaceous-middle Tertiary sequences in addition to the hydrothermal breccias (Fig. 13) and have an affinity or contemporary relationship with the Taxco San Miguel de Allende fault system. It has been identified that this faulting presents minor faults of the same style, with clear displacements of blocks falling to the E, this is observed in the cross sections.

The faulting from San Jose I to Area 28 are normal faults oriented NW-SE, their main characteristic is their lateral sinistral component, these measurable displacements can reach up to 250m of sinistral displacement (displacement between San Jose II and San Martin), their vertical displacement is less, at least between San Martin and Area 28 there is 20m of vertical displacement, however between San Jose II and San Martin, presumably there is an erosive cut in San Jose II, which makes it difficult to measure.

The ENE-WSW system is the youngest event in the mine and is the system in charge of segmenting the mine into different areas. This faulting is also extensional and presents an echelon arrangement from the Center zone of the mine towards the North of ENE-WSW faults, dipping to the north, it presents normal fault jumps from 130m to 150m, its lateral sinistral component for these faults is minor.

Finally, for the area from Santa Elena to San Jose I, the faults in this area are interpreted by magnetic lineaments and have a NNE direction, theoretically they would have a right lateral component.

7.3.7 Deformation Stages in San Martin deposit

In the SM deposit, the complexly deformed rocks that show refolded folds and overprinting planar fabrics are often interpreted as the result of polyphase deformation and described in a scheme of deformation phases (D1, D2…Dn). The following is a chronology is deformation events in the deposit.

Phase D1

The deformation begins within the mine area, it originates with compressive stresses with a NW-SW direction, these stand out and are responsible for the inclination of the layers to the SE and NE, stratification parallel to the main thrust, this event generates fracturing hydraulic, shear, non-cylindrical folding, and inclined thrusts with NW vergence, where this direction of deformation is contrary to the deformation of the Sierra Madre Oriental, the limestones of the Soyatal Formation slide and thrust the shales of the Mezcala Formation, generating in the contact zone intense fracturing within the limestones, however; The deformation in the shales is more noticeable, since inclined folds and recumbent folds with tectonic transport to the NW can be seen. It is notable to observe examples of kink-type folds in this lithology. The deformation in this zone appears as a Back Thrust, which in the southern zone behaves in a vertically inclined manner, and from the Central zone it tends to become more low-angle towards the North. This thrust exposes duplex-type structures from the Central zone to the North zone, these, as well as a stack-type structure formed at the high levels of the thrust, having as contact a low-angle fault in the upper zone of the thrust. The compressive pulses are not constant and present relaxation periods, where from these events there is reactivation of extension faults, this type of reactivation generates opening and expansion zones so that later injection of hydrothermal fluids reaches preparation areas of old fracturing. and intense within the limestone breccia, for this, the shales function as a seal or lithological trap accentuating the mineralization within the breccia; Subsequently, the exact repetitions of the compressive pulses – extension (relaxation) are unknown, however; The compressive events become progressive and transpressive again where they present tectonic transport to the NW, creating different states of brecciation, which explains young breccias cutting and deforming the 2nd stage of brecciation related to mineralization, the mineralization always sticks with zones of weakness ancient already prepared by compressive deformation, the parallelism in many of the compressive structures and mineralization is notable, but it is also largely possible to be associated with the time of reactivation of the faulting. The origin of the intrusive responsible for mineralization must be distal and has not been identified; furthermore, the alternatives remain open: mineralization occurs at the end of compression or alternates with polyphase compression (compression-relaxation). At the end of the compressive events, lower average folds have been detected with vergence to the NE, there is a system of NNE-SSW faults with vergence to the NE of a very low angle shear (<20º) cutting all the events, therefore that the stresses of this event may be NNE-SSW since regional deformation is probably contemporaneous with D2.

Phase D2

Later the deformed Mesozoic sequences and the mineralized Back Thrust are unconformably covered by the first event of Middle Tertiary Volcanism (30ma), this event is post-mineral. Being a first pyroclastic event covering a large part of the mine area as sedimentary volcano sequences and presence of dacitic to andesitic clasts as well as fragments of clastic rocks. After this event, the following columns corresponding to the basal zone of the Middle Tertiary are distinguished by rhyodacitic, dacitic, rhyolitic and ignimbrite spills from the Sierra Madre Occidental.

Phase D3

Phase D3 begins the NNW-SSE faulting related to the Taxco San Miguel de Allende fault, which due to its orientation is related to the Basin and Range province. This extensional faulting event has nothing to do with the reactivation faulting of extension by relaxation. of polyphase deformation related to mineralization. This event presents faults parallel to the thrust with a pronounced inclination and dipping to the E, this post-mineral extensional event is the oldest.

Subsequently, the other younger faulting related to the intra-arc system associated with the orientation of the FVTM and heading ENE-WSW begins to cut absolutely everything described above and generates the blocks and areas that make up the mine. This event is responsible for segmenting and distorting the original structure, generating blocks with movements, displacements, and slight rotation.

Phase D4

For this late event of deposits and spills of more intermediate affinity and coming from the FVTM. For the Late Tertiary, the volcanic spills and covers are more andesitic and are located in the northern area of the concessions such as the Cerro Azul area, where spills of more intermediate composition have been identified, these cover and bury again both the sequence of the Mesozoic, the first Middle Tertiary event of spills and finally the aforementioned fault systems.

Phase D5

The last stage of the late Tertiary is possible to see important sites throughout the entire faulting generated, such as the Peña de Bernal Dacite. Another type of subvolcanic body ascent activity within the mine area is that there are several subvolcanic events and it is possible to separate them based on their composition. One of the largest bodies is a rhyolitic dam, which is always seen aligned with the post-mineral faults. This dyke located in the San Martin areas, up to Area 33, is seen being located within the sedimentary sequences and attached to the Mineralization presents specific oxidation alterations and slight argillic alteration. In addition, there are at least three events of intermediate composition, identified in the mine that cut the sedimentary sequences, cut the mineralization and their rise occurs through the entire fault network in the mine area, the most recent events being in the mine area.

Concluding points

- The simplest deformation history possible for a region is preferable and should only be complicated by additional phases of deformation if required by compelling evidence.
- A sound understanding of the structural complications that can occur during natural progressive deformation is required for such an evaluation.
- Overprinting relations form repeatedly during progressive deformation and are by themselves not evidence of polyphase deformation.

7.4 Area Descriptions

The San Martin deposit is divided by regional extension faults into ten well-defined areas: 1) Santa Elena. 2) Saint Jose I; 3) Saint Jose II, 4) San Martin, 5) Area 28; 6) Area 29; 7) Area 30, 8) Area 31; 9) Area 32; and 10) Area 33.

There are Areas with important characteristics to explore underground within the mining infrastructure, which would correspond to open extensions of known structures and that are short-term targets.

In addition, there have been identified targets with geophysical anomalies, away from the mine infrastructure.

Areas San Jose I, San Jose II

The San Jose zone is in the southern part of the deposit, it is divided into two parts by a left lateral fault, the mineralization extends along the strike for over 800 m. The shallow part was exploited with an open pit. At depth mineralization has been followed for over 140 metres. The upper part of the structure is composed of a massive white breccia of quartz and calcite, with thicknesses of 8 to 15 meters. The mineralization at depth changes at least in the San Jose II area, this is due to the presence of fractured marls, which function as a host rock and generates a banded and clayey mineral. For the San Jose II area, in addition to the previous characteristics, argillization has been identified in some areas. The basal part of the area has not been sufficiently explored so there is a wonderful opportunity for potential at depth (Figure 7-20).

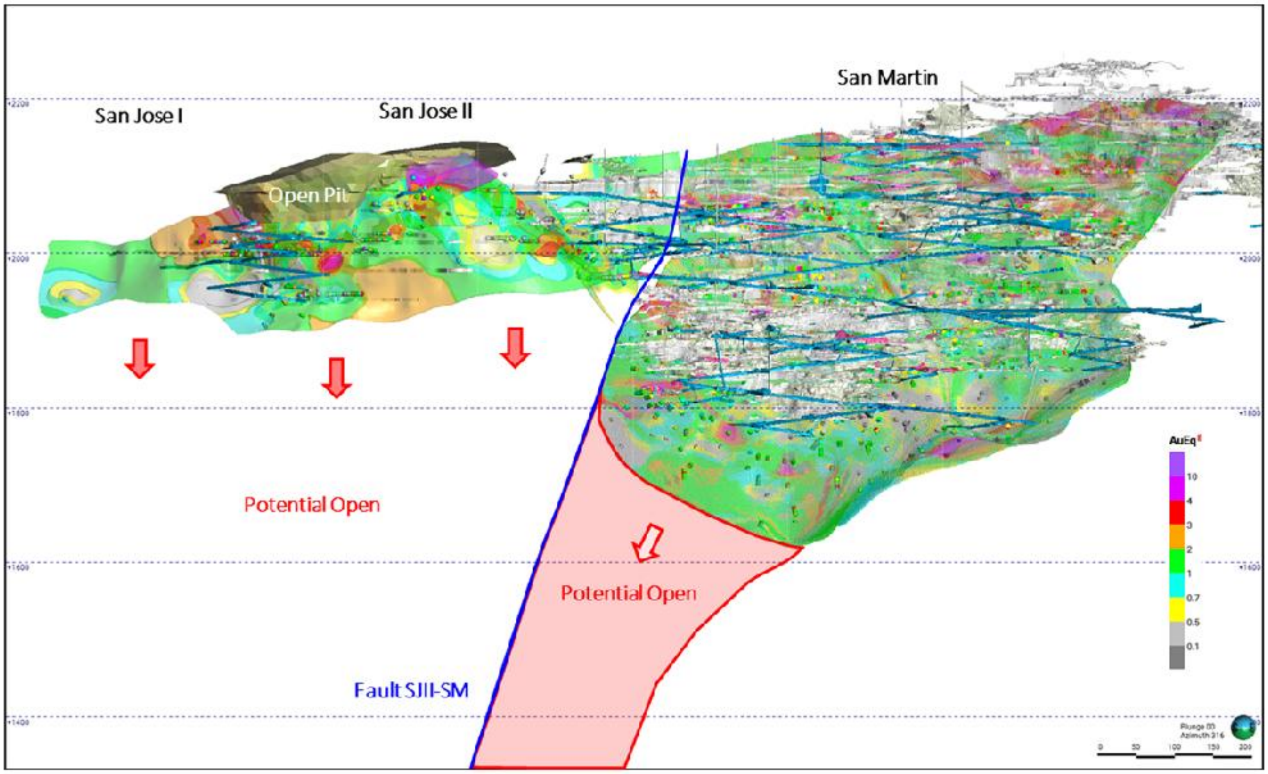


Figure 7-20: San Jose I-San Martin longitudinal section showing the depth potential of the San Jose I, San Jose II and San Martin areas.

San Martin Area

This zone corresponds to the area with the greatest development, exploration and information, it has a longitudinal extension of 700m and a vertical distance of 500m. At depth after the mining infrastructure there are 120m explored with BDD, which shows a clear trend of values that increase from the center to the south of the structure. The last holes that intercept the mineral structure have economic values that leave open the potential at greater depth (Figure 7-20).

Area 30

This area is located in the northern portion of the San Martin deposit, here exploration and mining were developed mainly in the central-eastern part. During 2023, the extension of some structures cut by fault zones in area 29 in the W portion was drilled, values of economic interest were intercepted after the fault zone, already within area 30, leaving the potential open for at least 1 km towards the northern portion of area 30 to area 33. In addition to the potential that exists by exploring the contact between the shales and limestones of the Soyatal formation known in the other areas in the westernmost part of the mine (Figure 7-21).

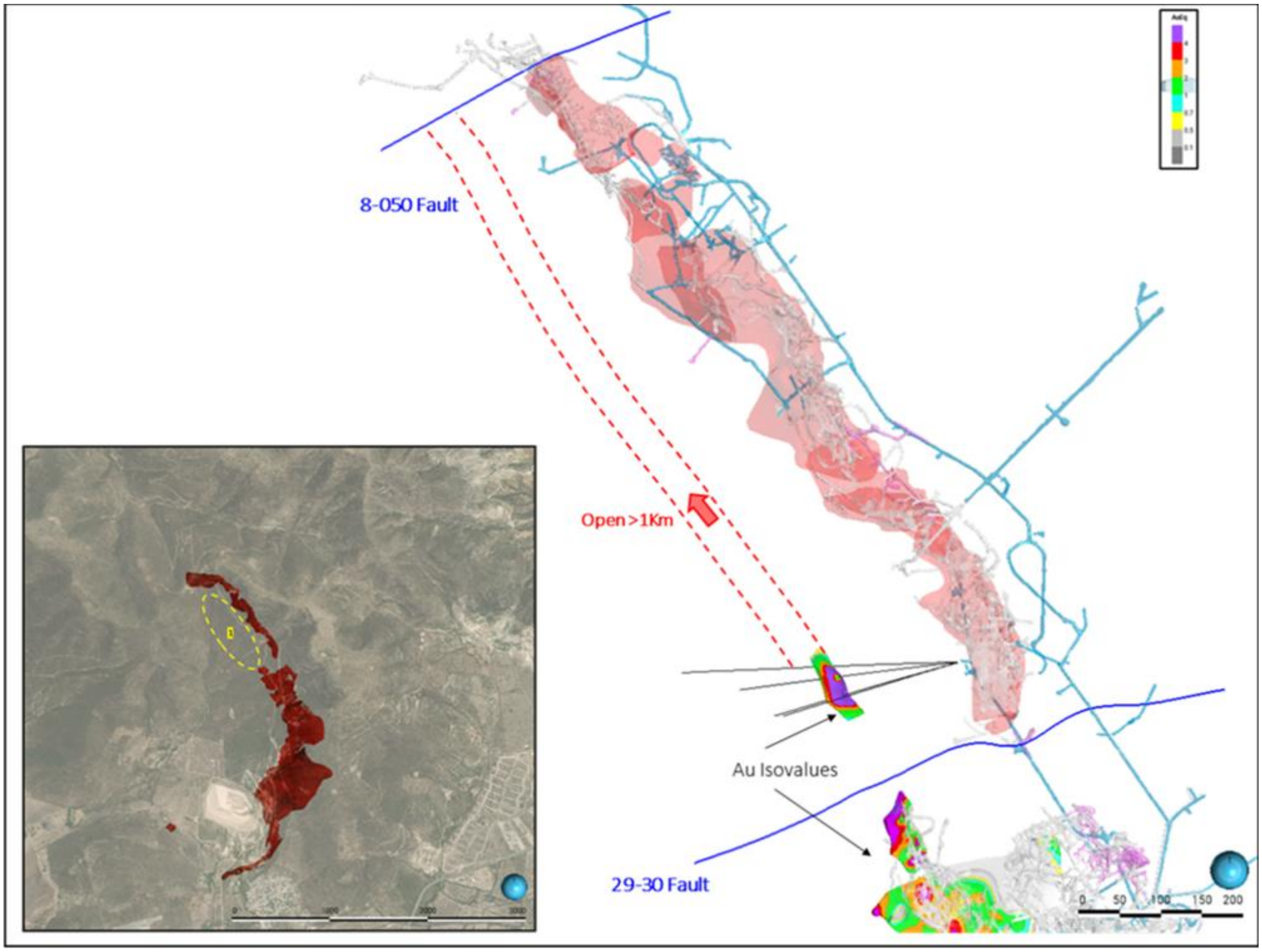


Figure 7-21: General plan-view of Areas 30-33, showing the projection of the interconnected structures.

7.5 Mineralization

The mineralization of the San Martin deposit is given in the lithological contact of a massive shale-limestone package. The progressive deformation to the NW generated fracturing and later the continuous compressive deformation will cause stages or episodes of brecciation, with injection of hydrothermal fluids from an intrusive body identified at depth. This limestone sequence is over-thrusting the shales and at its contact a tabular-looking breccia has been generated which has hydrothermal origin. In San Jose and San Martin Areas the white breccia cemented by crystalline quartz and calcite has thicknesses of the order of 5m -20m. Later it presents a silicified zone with the presence of jasper and slight oxidation (halo of decrease in economic values), it has dimensions of 5m-10m, and later in its contact with the sterile limestones can be seen a tectonic or hydraulic gap.

The mineralization has a linear corridor of 3.1km and its general orientation is NNW-SSE, however, in greater detail the main orientation of the mineralized areas is the following: Santa Elena N305°, for the San Jose I area it is N060°, San Jose II is N-S, San Martin N050°, Areas 28, 29, 30, 31 and 32 have an N330° and Area 33 has an E-W orientation. The gap of the main thrust dips to the E but presents a gradual change in its inclination which is more vertical in the southern area of the mine (San Jose I, San Jose II, San Martin Areas) with inclinations of 60°-45°. However, for Areas 28, 29 the inclinations are between 35°-22° and for Areas 30-33 the inclination becomes smaller (<25°).

In the lower areas of the mining infrastructure, particularly in the areas of San Jose I and II, visibly the appearance of the breccia becomes different, for these areas the host rock has a lot to do with it, since the massive contact of the shales is in contact with large lenses of marl and was where the mineralization originated, acquiring aspects of banded clays with white to reddish colors, this area presents light-medium argillic alteration.

Another structural zone related to mineralization occurs in the areas detached from the lithological contact, which appear as duplex-type structural arrangements, which form thin veins of quartz-calcite.

From the San Martin Area to Area 33, there is a horizontal zone of mineralization that the first explorers call it “Manto”, which may correspond to a mineralized stack-type structure, which is made more noticeable by its almost horizontal inclination towards the north of the mine. This area corresponds to the high levels of the thrust and is controlled by a low-angle fault on the roof of the mineralization, frequently in contact with Tertiary volcanic rocks. For this area, it is common to observe areas of hydrothermal-type textures.

The areas that have greater prospecting and development at depth (San Martin, Area 28, Area 29) have something in common, and that is, in their basal areas, the stratigraphy becomes carbonaceous, for this reason the mineral that is located in those levels it appears carbonaceous.

7.5.1 Brecciation Stages

The San Martin unit has a detailed study of geochemistry and fluid inclusions (Nuñez-Miranda, 2007) where the selected samples present several stages of brecciation and are cemented by calcite, quartz and clinozoisite, where three stages of brecciation and hydrothermal cementation were determined. and a 4th stage of supergene enrichment that have been recognized.

Stage 1

This stage of brecciation is related to hydraulic fracturing since the monogenetic clasts of the sedimentary rocks are mostly angular and present intense partial to total silicification around the veinlets that cement the breccia. The cementing of the breccia presents two stages: the first is made up of veinlets in bands of quartz in fine anhedral crystals, intergrowth with bands of calcite. The second stage is formed by veinlets that cut perpendicular to those of the first stage and are made up of intercalated bands of quartz and calcite. Metallic mineralization, in this stage, does not contain economical gold and/or silver mineralization.

Stage 2

Stage 2 breccia is related to the main phase of mineralization. It is distinguished by presenting a breccia with monogenic clasts of limestone and encasing shale, mixed with clasts from the breccia of the stage 1, cemented by a lattice of calcite veinlets and quartz in a lesser proportion that show a milky white to light gray color. Clinozoisite in moderate to abundant quantity, intergrown in quartz and calcite veinlets that show crustiform and comb-type textures. The presence of adularia has been scarce and sometimes its crystals are replaced by calcite. The cement of the breccia presents banded texture of crustiform, colloform and cockade type.

Stage 3

This stage is distinguished by presenting clasts made up of fragments of the crustiform silica and calcite cementing that appear in the 2nd stage of breccia. These clasts are always angular, with remarkably diverse sizes, from less than 1 cm up 20 cm, minerals like clinozoisite are very scarce.

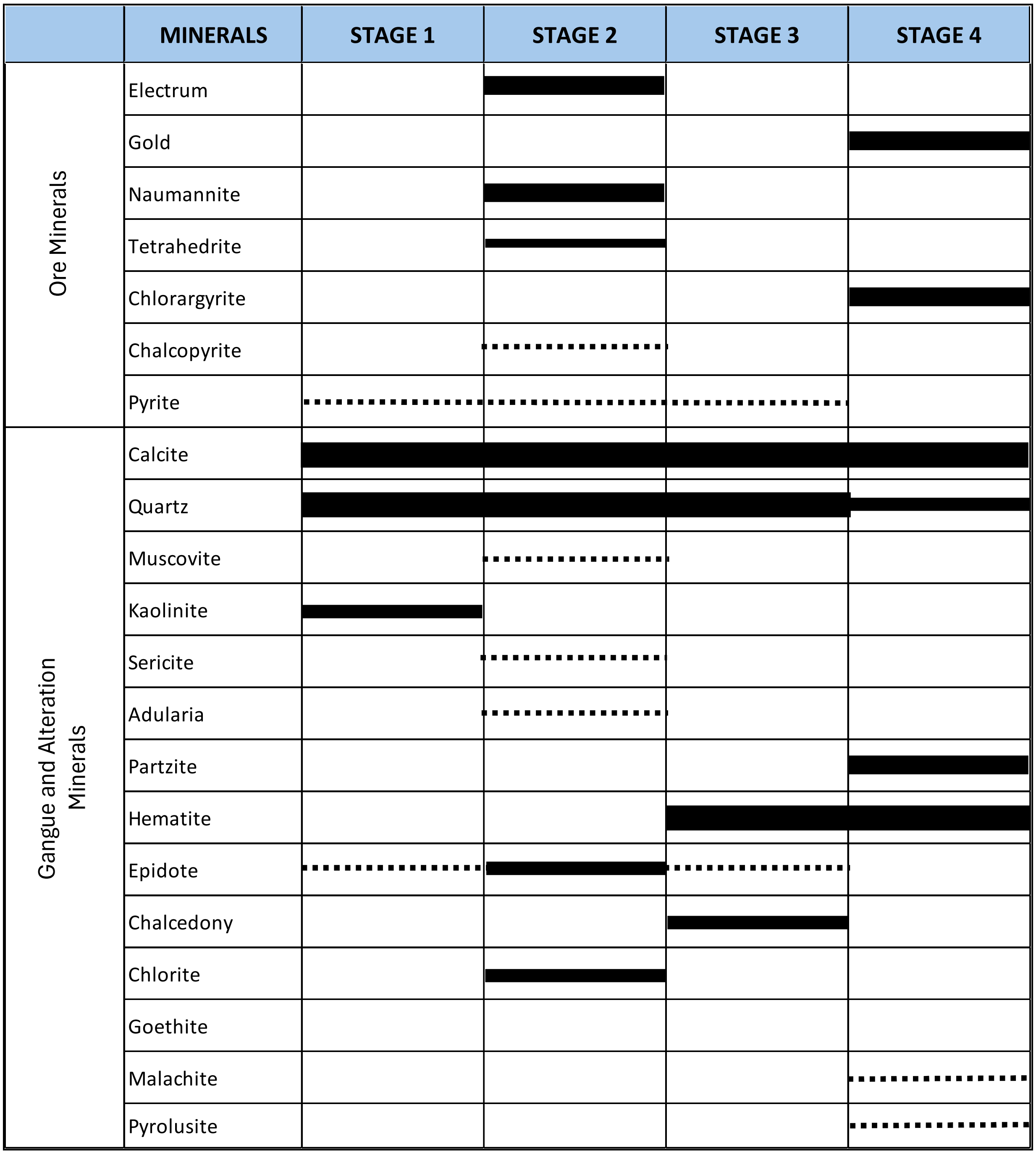
Stage 4

Brecia in this stage is made up of minerals formed by the supergene alteration of the metallic minerals of the three previous stages and thin veins of calcite that in some parts form druses that vary from white to translucent honey in color. At this stage, free gold with a skeletal texture is present, in addition to the presence of chlorargyrite.

It is suggested that the overpressure of the fluids together with the movement of the structure gave rise to many breccias. At the time of the formation of the breccias, hydrothermal boiling could occur when the pressure dropped suddenly, giving rise to abundant colloform textures. Textures like bladed calcite and adularia replaced by calcite have been observed that suggest the boiling of the hydrothermal fluid as one of the mechanisms that acted in the formation of this deposit.

Exploration has been concentrated along the NE trending breccia zone however evidence of a northerly trend in area 30 and 31 leads to suspect possible other structures together with 2.0 g Au/t to 30 g Au/t over widths that vary from 1.5 to 17.0 m but averaging 4.0 m.

The mineralized oreshoots show various stages of brecciation and cementation, with four major stages of hydrothermal breccias and supergene alteration that filled fractures and late cavities. The metallic mineralization is formed by electrum, naumannite, tetrahedrite, pyrite and chalcopyrite as hypogene minerals, and free gold, partzite, chlorargyrite, malachite, hematite, goethite-limonite as supergene minerals. Gangue minerals are quartz, chalcedony, and calcite, with minor amounts of adularia (Figure 7-3). Quartz and calcite occur in all the four stages cementing the breccia fragments of rock and older vein. Chalcedony, quartz, and calcite associated with the economic mineralization usually show saccharoidal, crustiform, colloform, cockade and comb textures. Stage one is barren of silver and gold. The main Ag-Au Mineralization occurred in the second stage of brecciation, associated to colloform and chalcedony quartz. Stage three is carrying low grade and is abundant. The late stage of Mineralization is characterized by native gold content, chlorargyrite and abundant partzite, because of the supergene alteration. Mineralization occurs as native gold, electrum, naumannite (AgSe) and argentojarosite ($AgFe^3(SO_4)2(OH)_6$) associated principally with quartz and lesser calcite. The silver contained in argentojarosite is not recoverable with cyanidation.



	MINERALS	STAGE 1	STAGE 2	STAGE 3	STAGE 4
Ore Minerals	Electrum		━		
	Gold				━
	Naumannite		━		
	Tetrahedrite		━		
	Chlorargyrite				━
	Chalcopyrite		┈		
	Pyrite	┈	┈	┈	
Gangue and Alteration Minerals	Calcite	━	━	━	━
	Quartz	━	━	━	━
	Muscovite		┈		
	Kaolinite	━			
	Sericite		┈		
	Adularia		┈		
	Partzite				━
	Hematite			━	━
	Epidote	┈	━	┈	
	Chalcedony			━	
	Chlorite		━		
	Goethite				
	Malachite				┈
	Pyrolusite				┈

Figure 7-22: The paragenetic sequence of the San Martin gold-silver deposit (Modified after Miranda, 2007)

8.0 DEPOSIT TYPES

The San Martin deposit is composed by a tabular, vein-like subvertical mineralised structure that becomes to a sub-horizontal mineralised structure or “manto-like” close to surface. This mineralised structure is recognized for over 2 km along strike, with thicknesses between 1.5 and 17 metres and 400 m of vertical extent or “favorable zone”. In general, the Mineralization is hosted in the contact of limestone-shale of Soyatal-Mezcala Formation and associated to a silicified rhyolitic dike.

For many years it was thought that Mineralization was associated with a dome of rhyolitic composition, and that the structure was repeated towards the east part of that dome. New observations have detected that Mineralization is associated with the stratification of the rocks of the Soyatal-Mezcala formations, which form an anticline fold of dimensions of up to one kilometer. The Mineralization hosted in the east Limb of the fold, with the hinge zone having the Mineralization of Areas 28 to 31 and eroded in its central part.

Homogenization temperatures (Th) indicate that Mineralization of the second stage occurred between 220 °C and 260 °C, with an average Th of 243 °C. Salinities range from 0.5 to 2.5 wt. % NaCl equiv., with an average of 1.9 wt. % NaCl equiv. (Nuñez-Miranda, 2007). San Martin is a low sulfidation deposit hosted within a breccia structure with, at least, four stages of formation.

Low sulphidation epithermal veins in Mexico typically have a well-defined, sub-horizontal ore horizon about 300 m to 500 m in vertical extent where the bonanza grade ore shoots have been deposited due to boiling of the hydrothermal fluids (Buchanan (1981), Enriquez (1995). Neither the top nor the bottom of the San Martin ore horizon has yet been reached but, given that high gold-grade Mineralization occurs over a 400-m vertical extent from the top of the San Martin oreshoot to below Level 10 in the general mine, it is likely that erosion has not removed a significant extent of the ore horizon due to a capping of rhyolites on top of the structure.

Camprubí et al., 2003b, established that the age of the deposits in Mexico is between 40 Ma and 23 Ma. The age for the San Martin deposit, using K-Ar method, is 27.5 Ma, being this is one of the youngest deposits in Mexico.

Low sulphidation deposits are formed by the circulation of hydrothermal solutions that are near neutral in pH, resulting in little acidic alteration with the host rock units. The characteristic alteration assemblages include illite, sericite and adularia that are typically hosted by either the veins themselves or in the vein wall rocks. The hydrothermal fluid can travel either along discrete fractures where it may create vein deposits, or it can travel through permeable lithology such as a volcanic rocks, limestone, or shale, where it may deposit its load of precious metals in a vein deposit. In general terms, this style of Mineralization is found within the San Martin district.

Figure 8-1 illustrates the spatial distribution of the alteration and veining found in a hypothetical low sulphidation hydrothermal system.

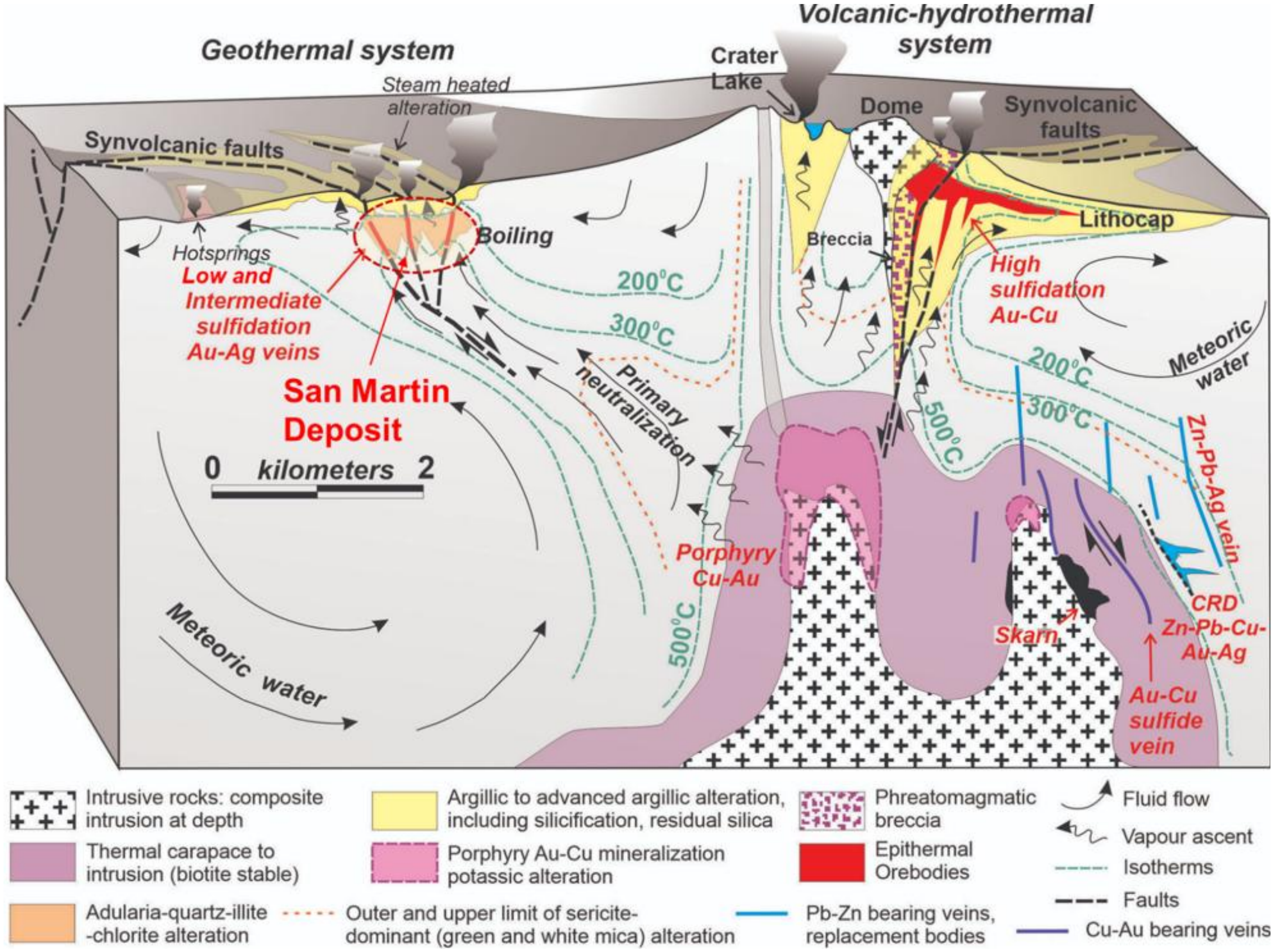


Figure 8- 1: Schematic cross section showing the key geologic elements of the main epithermal systems and their crustal depths. Modified from figures by Hedenquist and Lowenstern (1994), Hedenquist et al. (2000) and Rhys, et.al. 2020

9.0 EXPLORATION

Exploration at San Martin is concentrated along the strike length of the breccia zone. In-house diamond drilling initially assesses selected targets, which is followed by underground development that outlines Mineral Reserves. Target selection is assisted by structural, geochemical, and geophysical surveying that has included magnetics, induced polarization and resistivity. The resistivity surveys have been particularly successful in outlining the quartz breccia and several promising resistivity anomalies, detected since 1998, to the northeast remain to be tested.

Exploration is being conducted in three areas: 1) North Area: over the extension of Bodies 32 and 33. 2) Central Area: exploration of the extension of Body 28 to the east.

San Martin is a mature mining district with a long history of exploration. The data, methods, and historical activities presented in this section document actions that led to the first and continued development of the mine but are not intended to convey any discussion or disclosure of a new, material exploration target as defined by NI 43-101. Exploration outside of the current operation is in conducted by geologists of the mining unit and incorporated into the geologic model that is still under construction. New drilling was included in the update of the geological resource model to support the mineral reserves and mineral resources. Drilling results added for the model update provide local refinement of the geologic interpretations and grade estimates, but do not materially alter these interpretations and estimates on a district-wide scale.

The mine has been extensively explored from surface using geologic mapping, vein mapping and vein sampling. Underground exploration consisted of diamond drilling, geologic level mapping, vein level mapping, vein sampling and drift and stope development. Historical underground development includes 69,102 meters of drift and raise, and 82,664 meters of preparation and accessing ramps. Channel samples are collected from drifts and stopes to conduct the exploration with drifting and grade control in stopes.

9.1 Channel Samples

Channel samples are collected using the following guidelines:

- During level mapping, geologists paint sample locations on the back or development face to guide samplers.
- Samples are collected by chiseling out the painted area, ideally cutting 10 cm wide sample.
- The sample widths range from 0.2 m to 1.5 meters as maximum.
- The sample's weight is usually between 1.0 and 2.5 kg. The sample is broken into small pieces of around ¼ inch to 1.0 inch as maximum.
- Sampling is conducted as perpendicular to the vein strike as possible and the true width is measured by sighting the vein dip and tilting the measuring tape accordingly.
- Stope and face samples are collected at 2.0 metres intervals across the strike of the structure. Wallrock and vein material are sampled separately. When dictated by geological features, samples are taken at closer intervals.
- Sampling along cross cuts is conducted continuously.

Sampling is subject to numerous sources of error, particularly to the differential hardness of material being sampled, and the tendency to include disproportionate volume of softer rock. Diligent of systematic collection of channel samples generates a large data set which in most cases is statistically representative, but never completely free of errors or potential bias. The collection of channel samples has been seen underground it was noted that the procedure follows accepted engineering practices for channel sampling set up by the geology department. The author concludes channel samples procedures used in the mine result in samples which are representative of the Mineralization and meet industry best practices guidelines for this type of sampling. The resulting data is sufficient to support the estimation of reserve and resources.

9.2 Geophysical Surveys

9.2.1 Natural and Controlled Source Audio Magnetotellurics

Starting in 1993, studies of indirect methods for exploration began, Teck Resources and Minera Cascabel conducted CSAMT measurements. Subsequently, Zonge Engineering from 1998 to 2007 compiled the information generated by Teck Resources and Minera Cascabel and extended the exploration area of the CSAMT measurements to the northwest of the San Martin mine and the 1993 exploration program. The 1993 CSAMT identifies zones Structurally controlled with high grade silver mineral, in mantle-like form. The extent of the measurements identifies anomalies like those seen in 1993 that are interpreted as mantle-type structures. Later in 2007, it continued to extend measurements for CSAMT and combined with NSAMT measurements, they concluded that there are key features at depth that could be drilling targets.

9.2.2 Magnetic and Radiometric

McPhar Geosurveys Ltd (Canada) in 2005 carried out measurements through a helicopter flight of 2,145 km of lines oriented N0°, in a block of 216 km² and 230 km of orthogonal mooring lines spaced at 1 km. Magnetic acquisition was carried out using an optically-pumped Caesium sensor (Scintrex CS2, 1pT/20Hz resolution) hanging 30 meters below the aircraft platform. Radiometric data were acquired using a Pico-Envirotec GRS-410 512-channel gamma-ray spectrometer with 33.6 liters of “downward looking” NaI sensor complemented by 4.2-liter “upward looking” sensor. This sensor system was located inside the aircraft cabin. Sampling was at 10 Hz for the magnetic data and 1Hz for the radiometric ones.

9.2.3 Resistivity and Induced Polarization

In 2012 TMC Geophysics made two grids using a pole-dipole array in a 3D configuration. In addition, plans and sections of the inverted resistivity and chargeability model are made. The study was conducted in two areas, San Jose and the North Area. San Jose is located approximately 1.8 km SE of the northern zone and consists of seven lines separated every 100 m and its length varies between 800 and 1,600 m. The North Area, located in the northern portion of the property, consists of 21 lines spaced every 100 m, with lengths varying from 1,400 m to 2,200 m.

9.2.4 Reinterpretation of geophysical data

During December 2023 and January 2024, a reinterpretation of the historical data held in the Magnetometry mine was conducted by McPhar Geosurveys Ltd in 2005, through measurements obtained with a helicopter flight (Figure 9-1). The main objective of the data reprocessing work was to provide support and support for the exploration conducted by Starcore in the areas surrounding the mine and more regional areas that are within the limits of the mining concessions. The reprocessing was conducted by geophysical consultant Paolo Constantini. Within his work, he generated a magnetic inversion in the historical information, this is because in the QA-QC review of the data, he detected an anomaly in the survey of a set of lines during July 11 and 12, the date on which that there was a magnetic storm event that influenced the results obtained. Furthermore, in recent years the analysis of the NATURAL & CONTROLLED SOURCE AUDIO-FREQUENCY MAGNETOTELLURIC GEOPHYSICAL SURVEYS studies conducted by Zonge Engineering between 1998 and 2007 and Resistivity and Induced Polarization surveys conducted by TMC Geofisica in 2012.

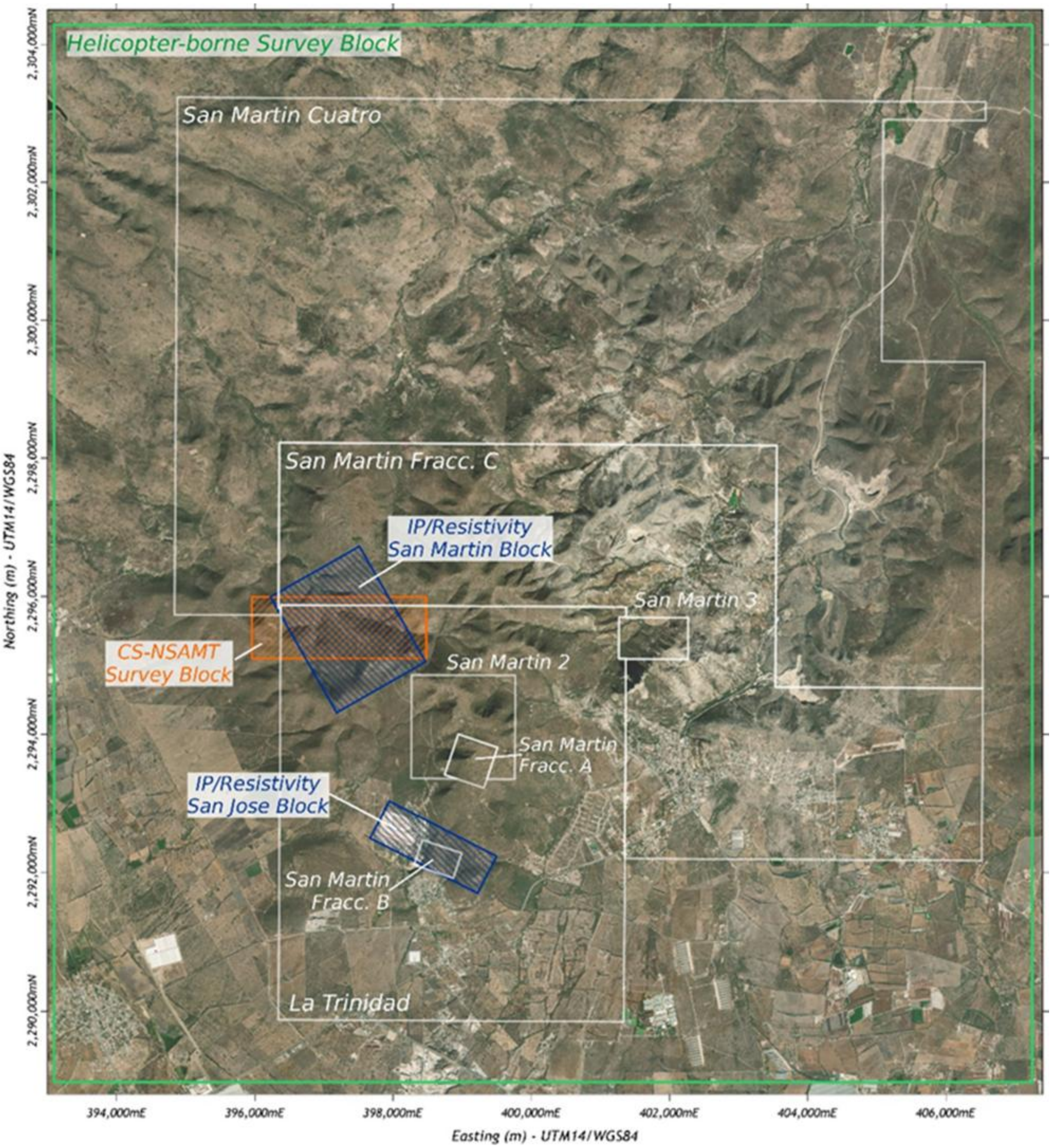


Figure 9.1: Map of San Martin Mine showing the historical geophysical works conducted at the mine. Blue: IP/Rho; Orange: ATM Block

The line-based data were gridded using a kriging algorithm; the result is the Total Magnetic Intensity map, in nanoTesla. The gridded TMI map was then improved by applying a decorrugation algorithm, which consists of directional and anisotropic diffusion filters (micro-levelling), to enhance trends and reduce residual line-effects. The final TMI map was then used for computing several transforms, typically used in potential field processing. Among them the most significant are:

Reduction to the Pole

Reduction to the Pole (RTP): except at the magnetic poles (where the Earth's magnetic field is vertical, the magnetic anomalies have a dipolar character which makes then non symmetrical over symmetrical sources. RTP is a mathematical transformation used to remove these effects, converting observed magnetic data to what would be measured if the field were purely vertical, like at the magnetic poles. By doing so, RTP helps in simplifying magnetic anomalies, making them more interpretable Therefore, when analyzing magnetic data in low and intermediate-latitude regions. with pronounced dipolar anomalies, the RTP transform should be considered a necessary step for enhancing interpretability of the data. At San Martin, the present magnetic field has an inclination greater than 48° and, as such, it does not justify a preponderance of negative anomalies without. assuming that remaining magnetization is present.

Vertical Gradient

The Analytic Signal Amplitude (ASA): a transformation of magnetic survey data that is particularly useful for interpreting data acquired at low latitudes and in the presence of remanent magnetization. The ASA is calculated from the total magnetic intensity (TMI) and its components, and it is a non-negative quantity that is independent of the direction of magnetization. The ASA is then a powerful tool for interpreting magnetic data acquired in the presence of remanent magnetization. In practice, the ASA highlights the and boundaries of magnetic sources and can assist in identifying geological structures. The ASA map, as seen in Figure 7, provides further evidence that the main negative magnetic anomalies are locations caused by reverse-polarity sources rather than by low-susceptibility units (sedimentary formations) as assumed by previous assessments of the magnetic dataset.

Inverse Modeling

The residualized TMI data were then employed for a three-dimensional (3D) inversion exercise using a 3D correlation imaging algorithm. The inversion process involves computing the polar (or charge) occurrence probability function in three dimensions. This type of inversion procedure, often referred to as probability tomography or correlation imaging in the literature, typically produces 3D distributions of cells whose values (ranging from -1 to 1) indicate the probability of encountering a magnetic source. Magnetization (susceptibility) can be calculated from these values through iterative procedures, although this is not performed due to its computational cost and the fact that it adds, in practice, no further information from an exploration standpoint. Correlation imaging responses depend exclusively on the data, without any interpreter's bias and frequently making them more reliable and efficient than conventional gradient optimization-based inversion 3D algorithms. In this context, correlation imaging has produced results exhibiting good resolution and consistent geological distributions.

In 2023, a susceptibility study will be conducted on samples collected from volcanic and intrusive rocks taken from boreholes and samples from inside the mine. Readings were taken with a Bartington MS2 instrument with an MS2E test.

Susceptibility measurements were primarily focused on areas of mineralization, introducing a sampling bias. A limited number of samples collected near mineralization cannot accurately represent the magnetic susceptibility of the volcanic and intrusive center. Judging from the intensity of the magnetic anomalies, the expected susceptibility associated with the andesitic complex are significantly higher.

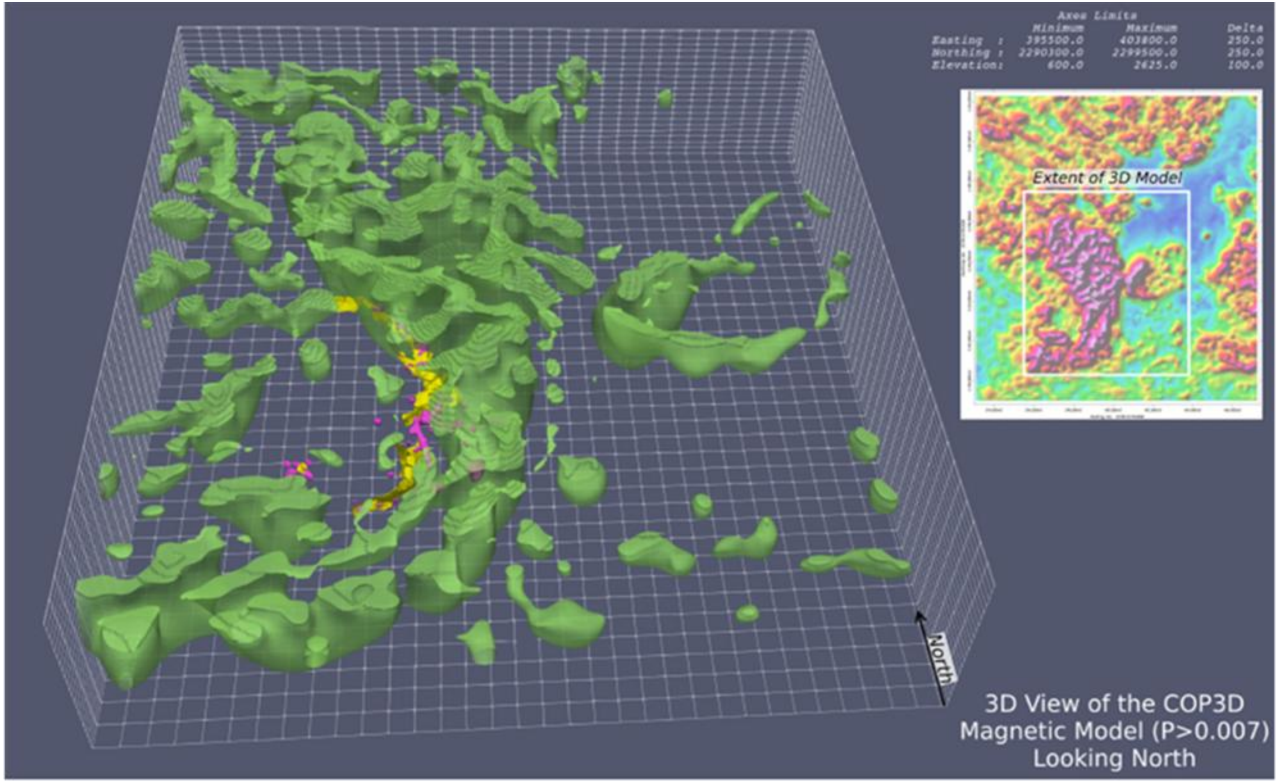


Figure 9.2: 3D View of the Correlation Imaging Model; Green: Magnetic Bodies; Yellow: Mineralized panels; Magenta: intersected intrusive and sub-intrusive. The inset shows the model's extent over the ASA map

Magnetic Susceptibility

The easternmost andesitic and dacitic samples (LYDO-10 & DCSM-38), acquired along the belt of magnetic anomalies, are either unaltered or weakly propylitized, indicating that as one moves eastward, within the andesitic complex, the extent of alteration decreases. At Santa Elena and San Jose, specimens DO-08 and SE18-17, sampled from small dike-like bodies situated along the mineralized belt reveal demagnetization and evidence of argillic alteration. Sample DC29-042, an argillic-altered dacitic lithotype taken from a drill core at approximately 260 meters BGL, exhibits a high susceptibility. Despite the alteration evidence, magnetite preservation can be attributed to the reduced sulfur content of low-sulfidation fluids, which plays a critical role in preserving magnetite and restricting the development of sulphide minerals like pyrite. Additionally, the lower sulfur content in these fluids contributes to a reduction of oxygen fugacity, further inhibiting magnetite dissolution.

Based on the analysis of each of the studies and the reprocessing conducted for the magnetic inversion, Paolo Constantini highlights various areas with exploration potential within the Starcore concessions close to the San Martin Mine and more regional targets outside the mine. in the northern portion. The targets identified with the new analysis conducted are 5, 3 of them due to geophysical anomalies that reflect structural traps that could be mineralized, and the remaining two targets generated through circular characteristics in the anomalies.

Target Zone H-P 1

This zone is located in the NNW extension of the mineralized bodies that are close to magnetic anomalies. This magnetic anomaly has similar characteristics to the one located in the mine which has an extension of 3 km long. The anomaly identified for this target has a length of 2.2 km. Furthermore, if the last mines located in area 33 below the surface were projected along the magnetic anomaly, there would be an elevation difference of maximum 400 m.

Target Zone H-P 2

This target is characterized by a magnetic anomaly located in the SW portion of the mine, in addition to the contact between shales and limestone breccias. In this area there are some drill holes which have cut mineral breccia. However, there is a large area yet to explore.

Target Zone H-P 3

A possible mineralization could be present at the topmost section of the NE-striking intrusive body, where it intergrades with the sedimentary formations. This zone is well-defined by a prominent magnetic anomaly and a corresponding potassium enrichment along the same NE orientation. The presence of these geological features indicates a potential for skarn mineralization in the area.

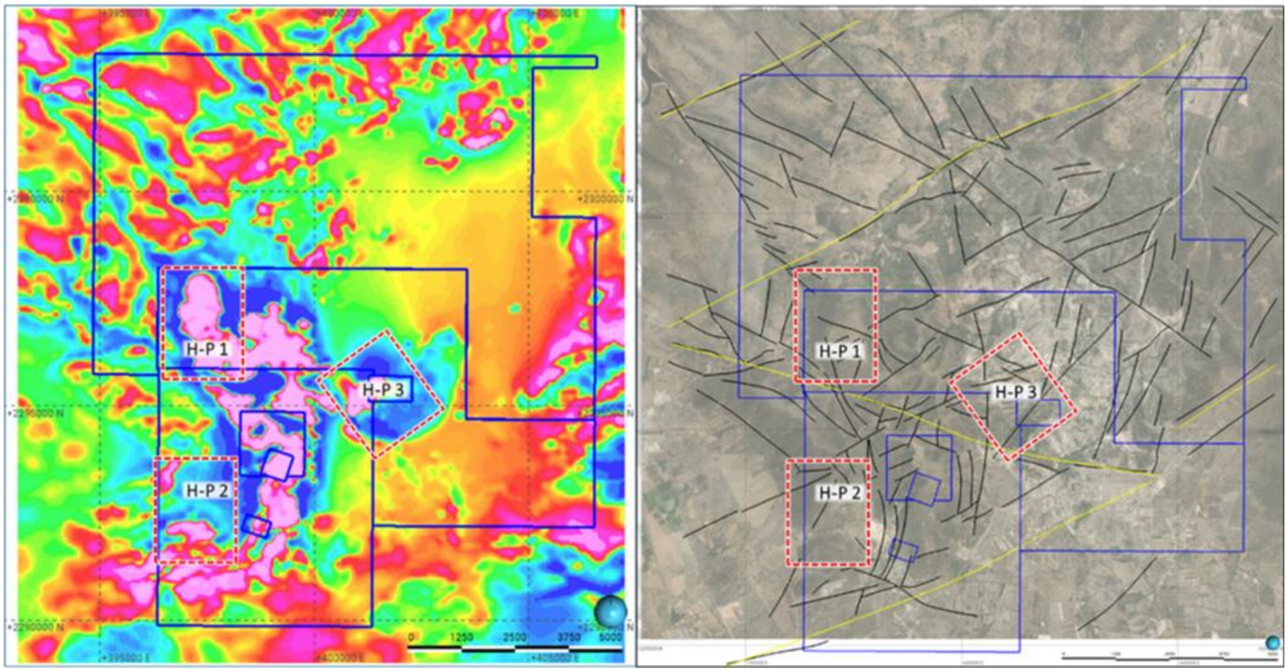


Figure 9.3: Location of targets, in the image on the left total Magnetic Field and on the right important guidelines

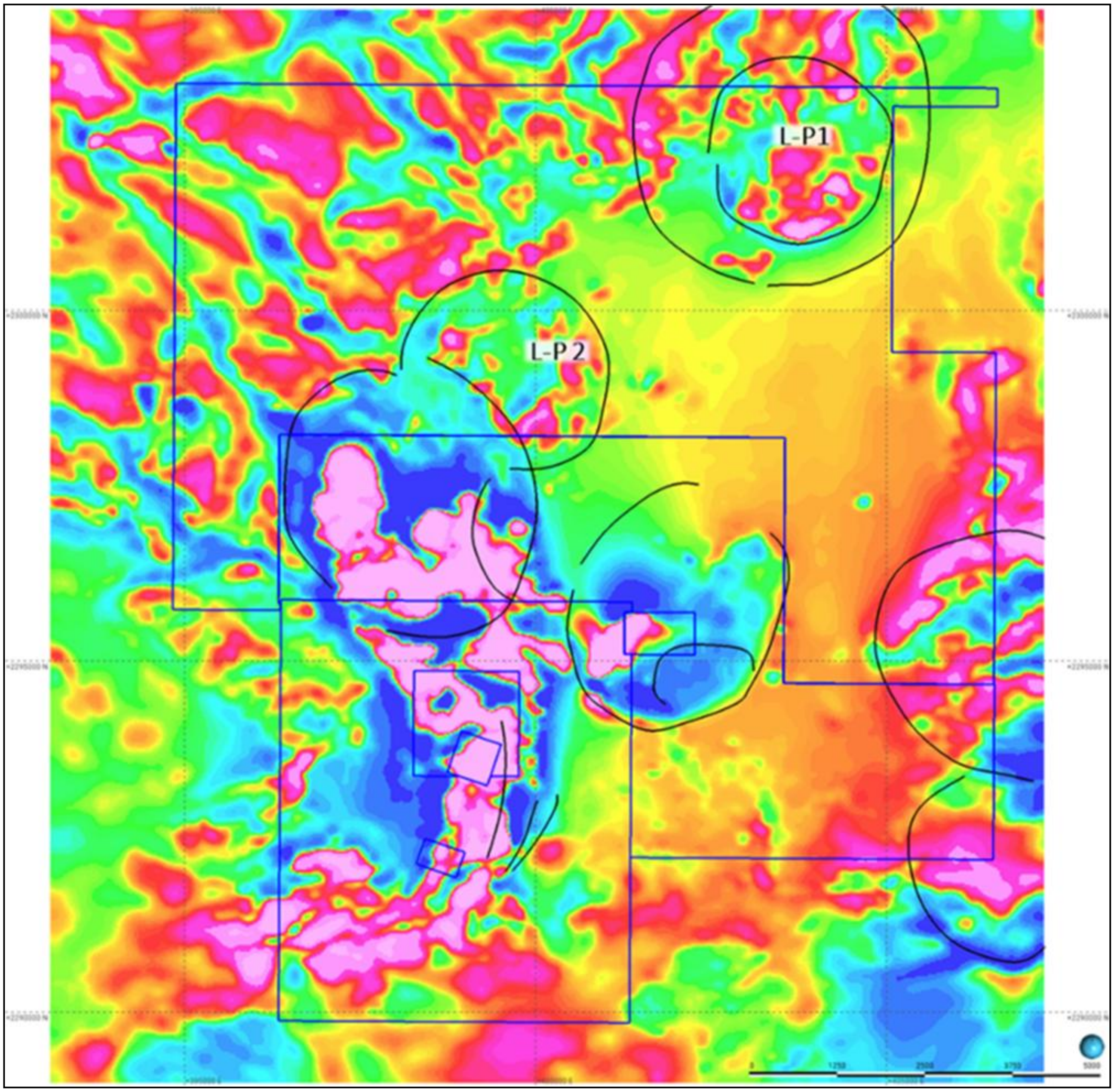


Figure 9.4: Targets obtained through circular anomalies related to intrusive or volcanic rock zones

9.3 Exploration Potential

The objective and purpose of all the studies and analyzes is to generate exploration targets that support and increase the life of the mine. Currently, with an exhaustive analysis and interpretation of the data, there are seven targets of greatest relevance for medium and long-term exploration. These Targets are found throughout the mine and correspond to: 1) Santa Elena; 2) San Jose at depth; 3) San Martin at depth; 4) Area 30 W; 5) North geophysical anomaly; 6) Eastern Portion of the Mine; and 7) Circular arrangements in geophysical anomalies NE portion of the mine and with respect to the more distal anomaly zones of the mine. The company plans to conduct geophysical studies in greater detail to delimit and interpret said anomalies.

10.0 DRILLING

Historic exploration drilling statistics for the period of 1988-2024 are summarized in Table 10-1. These results were proportionated by CMPB and summarized here, however; the data has not been independently verified by the author.

The drill hole database for the SM contains 1989 drill holes completed between 1988 and April 2024, representing 251,096 meters of drilling. This includes condemnation, district exploration, geotechnical. Minas Coremin, S. A. de C. V. (MICO), a subsidiary of Luismin-Wheaton River, drilled the property since 1988 to 2007. SMI acquired the mine in February 2008 and since then the performance of drilling has improved significantly.

These low-grade to barren holes are not in the immediate mining areas and are not used for resource estimation. Some of the drill holes used for geologic modeling are summarized in Table 10-1.

The goals of drilling by MICO, for the period of 1988-2007, was to trace the breccia structure from the San José open pit to the north-northwest, resulting in the discovery of the San Martin orebody and the San José II structure. The misconception of the type of deposit resulted in starting the exploitation of the San Martin with an open pit. The idea, at that time, was to mine out 180,000 tonnes of ore and shut down the mine at the third year. The San Martin giant breccia was discovered with the pit and then the concept of exploration was reviewed by Luismin.

Most of the drilling was done from underground. The author has no information about the holes done from surface but represent less than 2% of the total. Figure 10-1 shows the swarm of historical holes that have been performed in the San Martin Mine.

Table 10- 1: Summary of drill hole programs performed by MICO and CMP

Year	Company	Total		% of Total
		Holes	Meters	
1988-2007	Minas Coremin, SA de CV	379	68,492	27
2008-Apr 2022	Compañía Minera Peña de Bernal, SA de CV	1,807	182,604	73
	Totals	**2,186**	**251,096**	**100**

10.1 Collar and Downhole Surveys

Upon completion of a drill hole, collar locations are surveyed using the surveyors for underground and Global Positioning System (GPS) units for surface holes . All coordinates are based on UTM mine grid system. Historically, downhole surveys were not systematically performed. For historical holes lacking surveys, the collar azimuth and dip are used for the entire length of the hole. Survey data are part of the district-wide database and are used in the modeling process to locate drill hole intercepts. Final reports for collar and downhole surveys are included in the drill hole log files. Original survey records are stored in a secure facility. Spatial locations of the drill holes are visually confirmed in the resource modeling software.

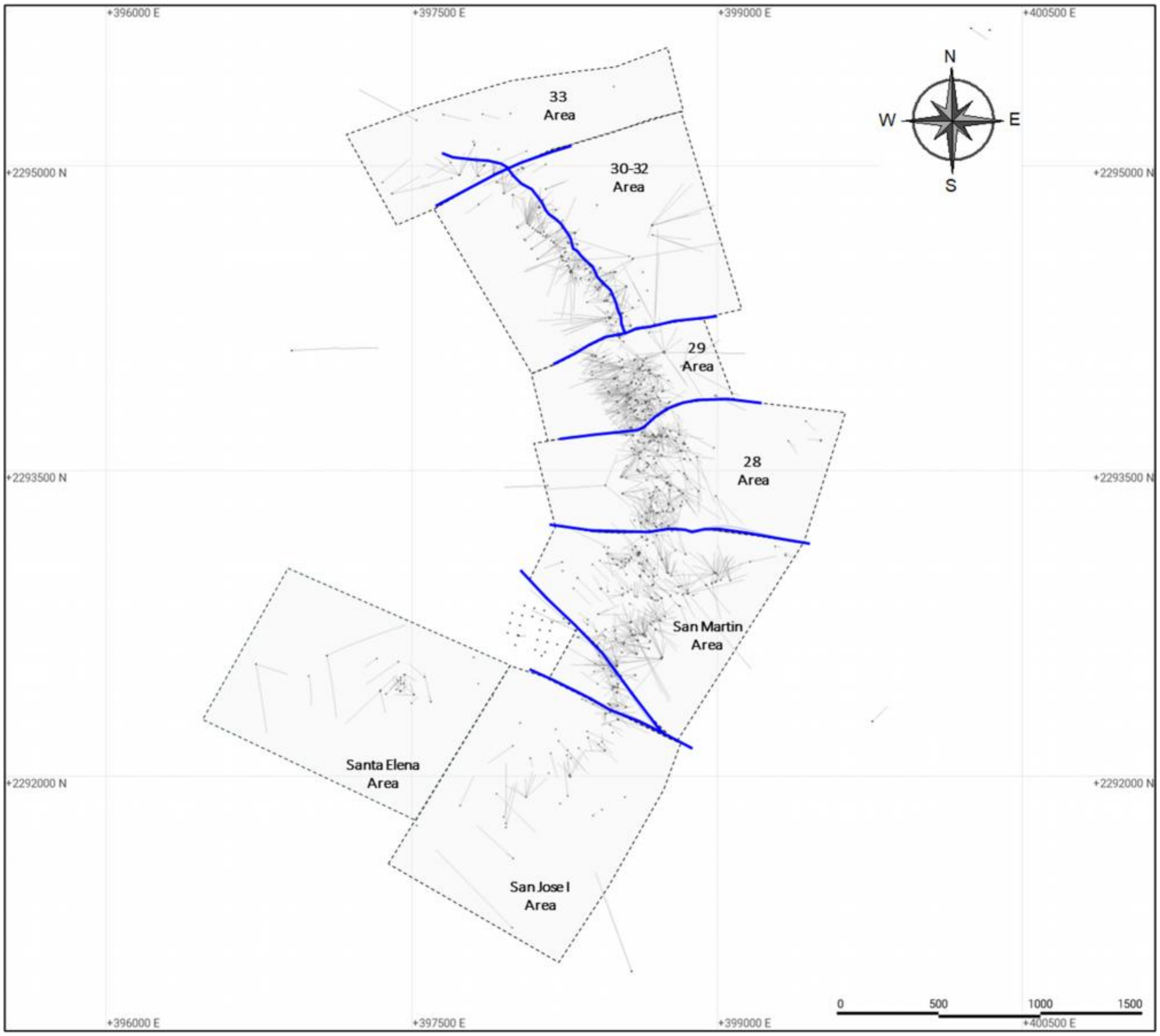


Figure 10- 1: Map showing the swarm of drill holes done at the entire San Martin mine

10.2 Drill Core Sampling

Diamond drill core samples are taken according to the following criteria:

- Drill core is split using a core saw.
- Samples are taken from the core sections with visible structure (breccia) or Mineralization, and 1.5 meters of the surrounding wall rock.
- Rock within the breccia structure is sampled independently.
- Information is recorded in the drill logs for each sample includes depth, width, core angle and ore/rock type.

10.3 Geological Logging Procedure

Core logging procedures used at the San Martin mine were developed under the ownership of MICO and recently by CMPB. Historical logging was done on paper and includes information regarding rock types, structure, Mineralization, and alteration.

Currently, geological logging is done on laptop computers. Since 2008, all information is entered into a drill hole database. Information collected includes lithology, structures, alteration type and intensity, mineral assemblage, texture, level of oxidation, core recovery and rock quality designation (RQD). No high-resolution photographs are taken for each or set of boxes. Completed logs are validated, approved, and then printed out and stored on-site for each drill hole. The logging protocols are summarized in Figure 10.2.

10.4 Drilling Programs and Results

Since acquisition of the San Martin Mine in 2008, and through the 2024 exploration season, SIM had completed 1807 diamond drill holes totaling 182,604 m on the entire San Martin Mine (Tables 10-1). Historical diamond drill holes by area are shown in Table 10-2. A total of 2186 diamond drill holes have been performed in the San Martin Mine, for a total of 251,096 metres. Holes were drilled from underground drill stations and 45,320 samples were collected and submitted for assay to the PENBER LAB.

Table 10- 2: Drilling Summary for the San Martin Mine (as of December 2024)

Area/Structure	Diamond Drill Holes	Metres
Presa de Jales	25	2,202
Santa Elena	51	7,150
San Jose	127	15,335
San Martin	632	71,674
Area 28	374	24,996
Area 29	491	57,494
Area 30	205	27,196
Area 31	177	20,745
Area 32	66	11,886
Area 33	18	4,081
Area Oriente	10	5,065
Area Norte	1	506
Chicarroma	3	458
Cerro Azul	6	2,308
Total	**2,186**	**251,096**

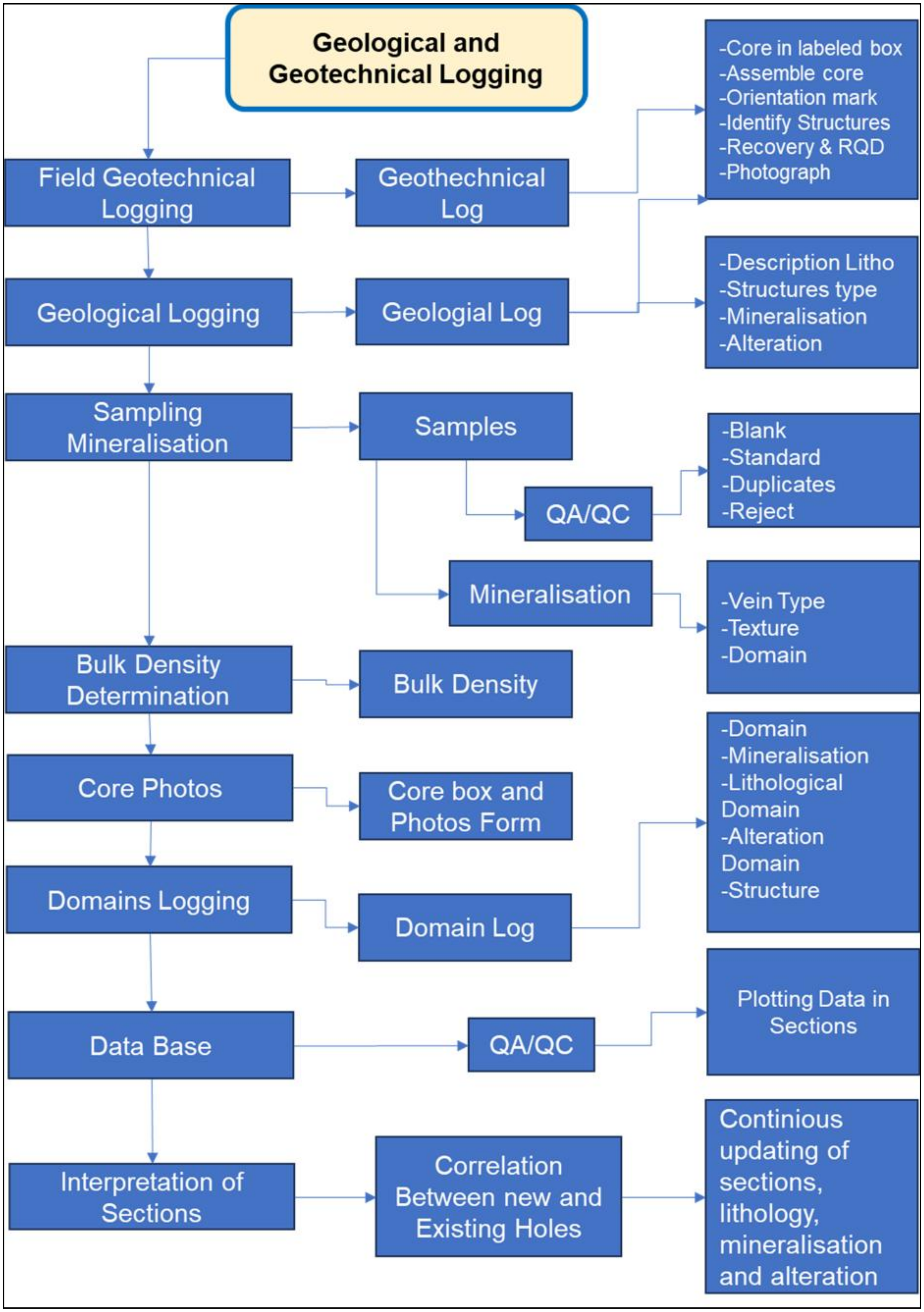


Figure 10- 2: CMPB Geological and Geotechnical Core Logging Flowchart

10.5 SM Drilling Program Results Highlights 2023

In 2022, SIM conducted an underground drilling program at San Martin, with the objective to continue exploring the San José, San Martin, Cuerpo 28, 29 and 30 and the deep part of the San Martin Area. Figures 10-3 and 10-4 shows typical drilling sections at San Martin and Cuerpo 29 areas, respectively.

SIM is using, as a main laboratory, the prep lab of ALS Minerals located in Querétaro, México. After preparation, samples are shipped to the ALS Laboratory in Vancouver, Canada, for analysis. Drilling was conducted by Desarrollos Integrales Neval S.A. de CV ("Neval"); one Neval drill rig in operation underground. Neval is a contract drilling company and is independent of PENBER. In 2023, SIM continued to drill the San Martin property, with the objective infill and extend the structure at depth and along strike (NW-SE). Table 10-3 show some of the highlights results from San Martin Area and 29 Orebody.

Table 10- 3: Highlights from drilling at San Martin and 29 Orebody areas

Drill Hole ID	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Gold (g/t)	Silver (g/t)
DC29-263	29 FW-2	143	147.4	4.4	4.13	3.16	23
	29 FW-2	160.95	167.75	6.8	6.77	4.70	10
DC29-213	29 FW-2	114.6	121	6.4	5.37	3.38	16
DC29-280	29 FW-2	13.45	14.8	1.35	1.68	3.99	62
DC29-185	29 FW-2	133.15	137	3.85	3.30	1.52	2
DC2924-557	29 FW-1	58.55	61.75	3.2	3.19	4.25	15
DC29-361	29 FW-1	93.7	96.4	2.7	2.70	1.58	14
DC2924-556	29 FW-1	58.6	61.15	2.55	2.40	2.47	7
DC2924-560	29 FW-1	69.9	75.55	5.65	4.06	2.83	11
DCSM-101	SM-01	53.85	58.65	4.8	4.78	1.57	7
DCSM-100	SM-02	59.3	62.65	3.35	1.82	1.35	6
	SM-01	62.65	71.45	8.8	4.79	1.76	8
DCSM-090	SM-02	264.15	265.75	1.6	1.55	0.79	2
	SM-01	267.2	269.3	2.1	0.92	1.33	7
DCGP-44	SM-02	94.3	108.9	14.6	8.37	2.57	10
	SM-01	108.9	122.4	13.5	7.35	1.92	8

10.6 In the Opinion of the QP

- The exploration programs completed at San Martin (drilling, sampling, logging, and drifting) are appropriate for geologic resource modeling.
- The data spacing, and distribution is sufficient to establish de degree of geological and grade continuity proper for mineral reserve and resource estimation.
- The engineering programs and the geotechnical data are proper to support the design of the underground mine workings, according to the established design and criteria for the mine plans.

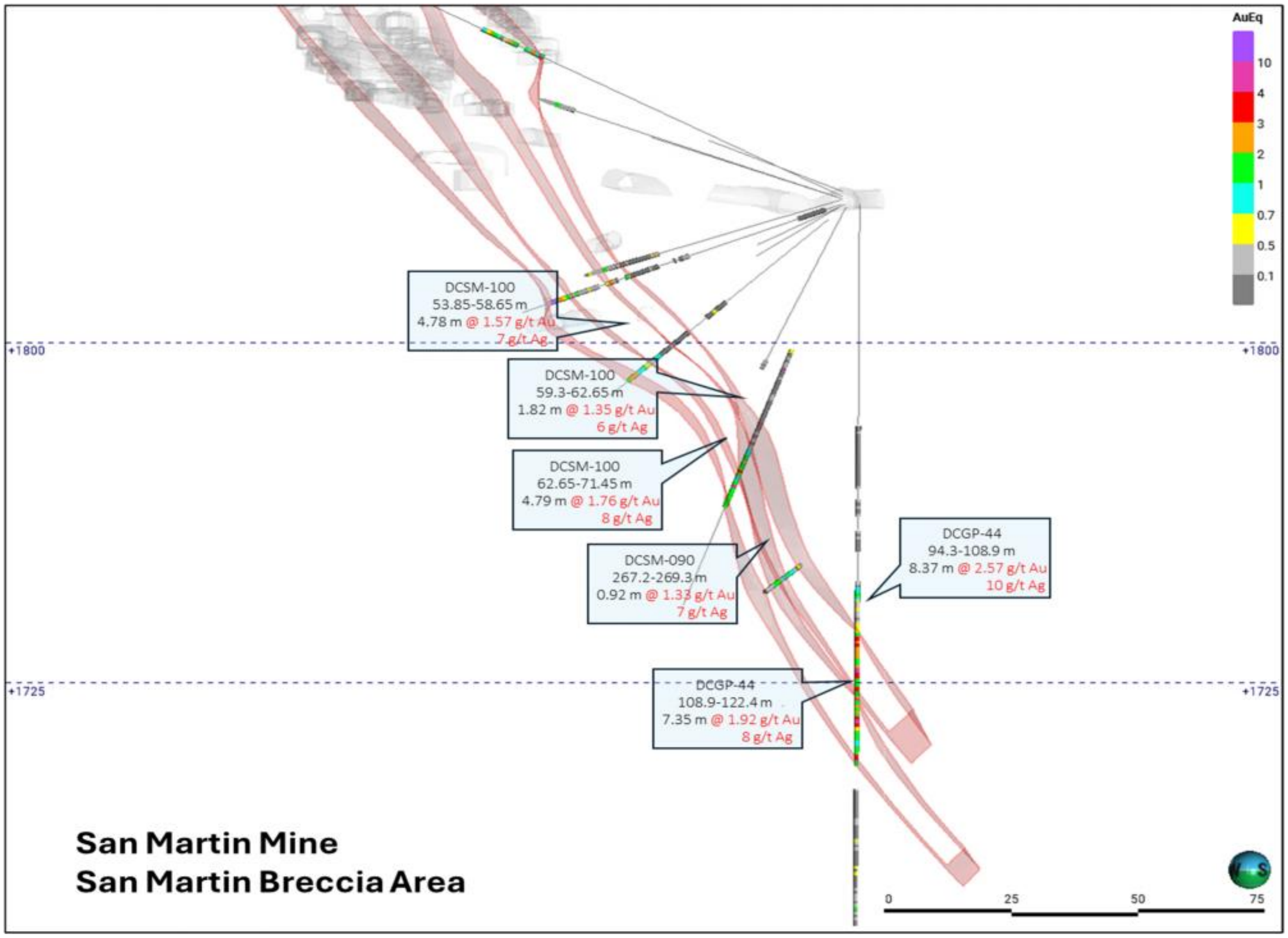


Figure 10- 3 Cross section of typical San Martin Area, San Martin Structure, showing some of the drill holes and results

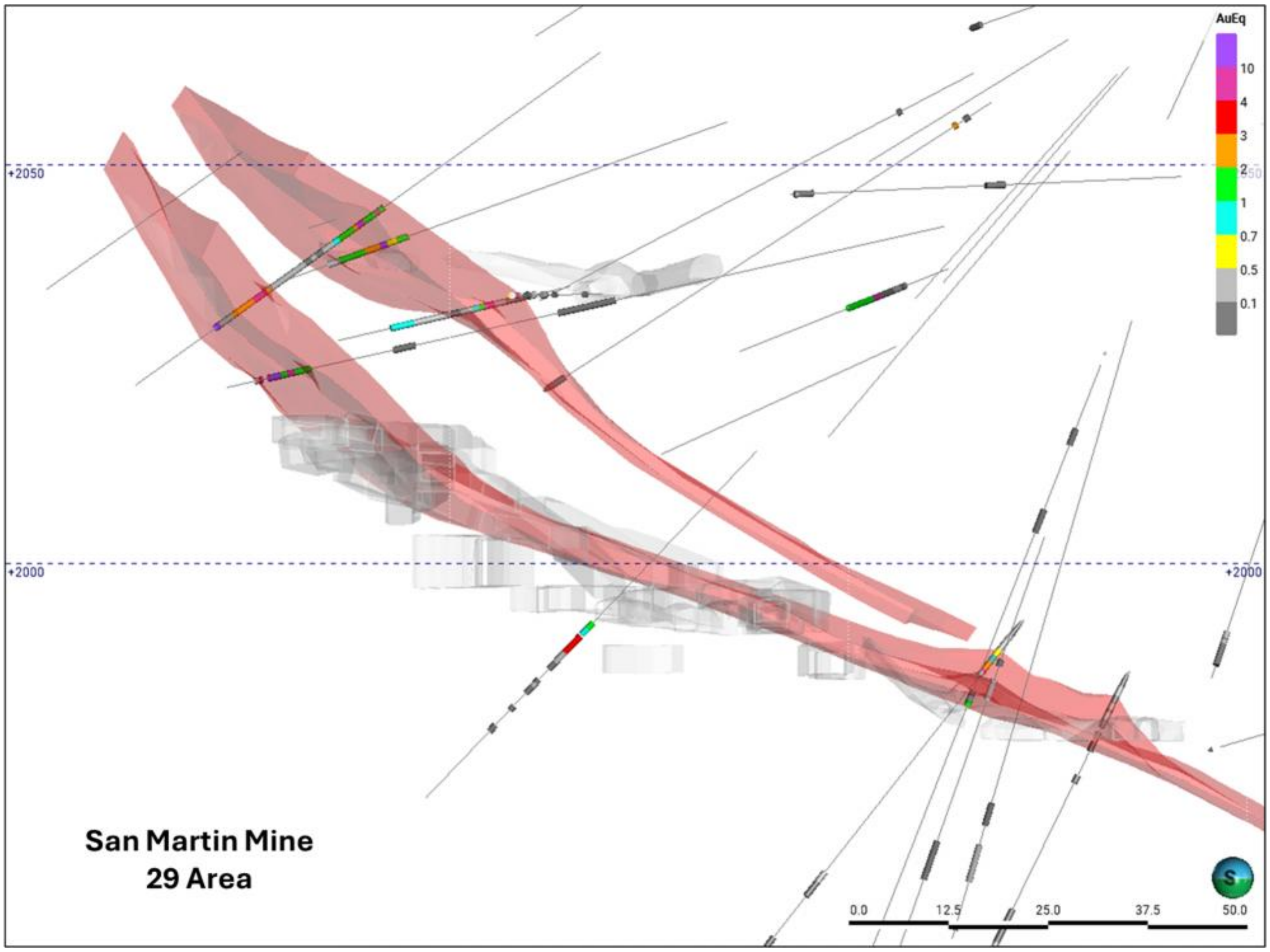


Figure 10- 4: Cross section showing the drill holes and results on Cuerpo 29 Area

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sample preparation, analyses, and security followed by CMPB meet industry frequent practice standards and are adequate to support the estimation of Reserve and Resources. The quality control (QC) sampling results throughout the campaigns and laboratories are typical of an operation given the amount of throughput and data handling.

Core assays are complete by PENBER Lab, and some checks are sent to ALS Chemex in Vancouver, Canada, and the channel and mill samples are assessed also in the PENBER Lab facility.

No modifications have been done in the last years. The samples received in the laboratory are dried before entering the preparation process. A primary size reduction is made up to 1/8 inch. The sample is divided into smaller portions using a Jones crusher until a sample of 150 g is obtained, which is considered representative of the first sample volume.

The sample is reduced in size in a ring sprayer to a size smaller than 150 meshes, then is homogenized, and placed in an envelope previously labeled with the folio number tagged by the Department of Geology, including the date.

From the sample in the envelope, 20 g are taken and homogenized with the mixture of fluxes to be cast and obtain the lead button that has captured the gold and silver values. This button with values is placed in a cup to remove the lead and obtain a gold and silver button at the end of the process.

The button of gold is weighed, and a chemical attack is made to dissolve the silver, the residue is pure gold that is weighed and, in this way, obtain the gold and silver grades present in the mineral sample. This analysis of gold and silver in mineral samples has a detection limit of 0.1 g/t Au and 3.0 g/t Ag.

CMPB's internal QA-QC includes adding one duplicate, one reference and one blank to every 20 samples. A sample of sterile (white) material is crushed before starting the size reduction process. The degree of reduction is verified by passing the total of the sample through the # 6 mesh; 80% of the sample must pass, otherwise the breaker opening is adjusted. This process is done in the first sample and then every 20 samples. Similarly, every 20 samples in the crusher will pass a sample of sterile material, in addition to cleaning the equipment with compressed air, including the Jones quartz that is used to divide the sample into small portions.

Continuing with the reduction process, after passing the sample through the ring sprayer, it passes through the 150 mesh, through which 80% of the total weight must pass. To avoid contamination, compressed air is used to clean the equipment and every 20 samples a sterile material is sprayed.

The pulverized sample is taken to furnace in batches of 42 samples each. At the beginning of each batch a blank is placed, in the position number 21 a standard of known value is placed and in the position number 42 a duplicate of the sample corresponding to the position number 22 is placed.

In-home made and validated standard is used on site, with a grade of 1.93 g/t Au and 40.5 g/t Ag.

When performing the gold and silver test and the relationship between these two elements is less than 4, it is considered to repeat the assay of the sample by adding silver nitrate (inaccurate) to increase the ratio and prevent the encapsulation of the silver.

The third-party laboratory that has been used is ALS Chemex, with the prep lab located in Querétaro City.

In the past, personnel of Inspectorate laboratories in Vancouver have inspected the mine lab facilities and has provided procedures, flux recipes and feedback on all laboratory equipment. The mine has been awarded the Mexican Quality Award which is like International Standards ISO 9001 for quality control in the overall mining operations and with the award *Certificate of Clean Industry* by SEMARNAT.

11.1 Sample preparation and Analysis

11.1.1 Underground Channel Samples

Stope and development channel samples are collected by sampling support staff, controlled by the Geology Department, who are instructed to take the sample in the transect lines marked with red paint by the geologist. Sampling is regularly supervised by the geologist or the leader of the sampling crew that also belong to the geologic staff. Samples are broken in various size pieces (approx. ¼ inch to 1.0 inch), is mixed, and bagged in plastic bags. The sample is transported to the on-site laboratory for preparation and analysis. Channel samples are prepared and then analyzed by the PENBER Lab for Au and Ag. Gravimetric fire assay is used to determine Au and Ag grade. The results are reported in a clear mode and sent by email to all departments involved in the process (Geology, Mine, Mill and Planning).

11.1.2 Diamond Drill Core Samples

Drill core samples are taken at regular intervals, according to the physical aspect of the core. This includes all types and stages of breccia and host rock, occasionally. The sample is prepared by splitting the core a diamond saw. The process is supervised by the geological staff to ensure the integrity of the core splitting and sampling. Half of the core is used for the sample, with its identifying ticket, and the other half stays in the core box with its identifying ticket. Sample is crushed to ½ inch and bagged and tagged with the same ticket as the piece remaining in the core box. The samples are transported to the PEBER facilities for preparation and analysis. Au and Ag are analyzed by fire assay and gravimetric finish.

11.2 Security, Storage, and Transport

The channel sampling pulps and rejects are obtained from the assay laboratory and are stored in a secured area at the complex of the San Martin mine, in a closed and locked building.
The core is stored at the San Martin mine complex, in a closed building. Core is stacked in plastic boxes which are resistant to humidity and dust. The pulps and rejects are stored in closed areas and are individually packed in plastic bags to avoid contamination. The mine facility is guarded by security personnel 24/7.

11.3 Quality Control / Quality Assurance (QA/QC)

The protocols for the insertion of CRMs, duplicates and targets in a formal and controlled manner began in 2021, the assay information available at the San Martin Mine began in 1988 to the present.
Pre 2006
There is no information about the procedure that was used for Quality Control.
Pre-October 2021

During these years, quality controls were conducted with blank inserts, duplicates and standards generated in the mining unit. However, this procedure was carried out intermittently.

October 2021-2024

Starting in October 2021, the implementation of best practice procedures about QA-QC protocols begins. It begins with the acquisition of CMRs, the development of procedures for the insertion of duplicates, targets and CMRs. And it begins with checking the results obtained in the quality analysis.

This method is implemented in diamond drilling samples analyzed at the PENBER LAB and corresponds to the insertion, every 10 samples of a blank, duplicate or CMRs, generating a total of 10% inserts in each shipment made. .

From 2023 to the present, duplicate analysis has been made in the ALS Chemex. This process is conducted in two stages: 1) Pulps are sent to analyze at PENBER LAB results from recently drilled holes and 2) an analysis is generated by choosing intervals of interest to verify the historical results of samples.

With the implementation of the insertion, errors generated in the sampling, preparation or labeling process were detected and corrected. With the continuous monitoring and review of these protocols, these types of errors have been considerably reduced (Table 11-1).

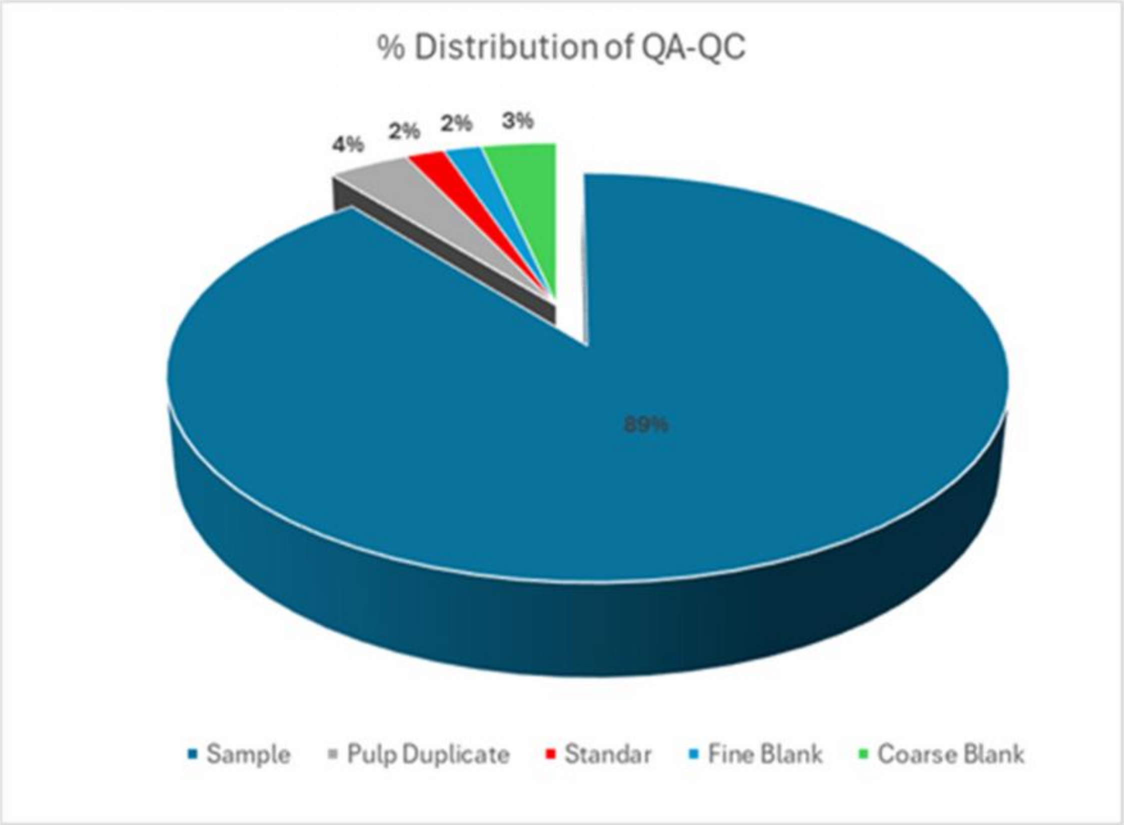


Figure 11- 1: Insertion frequency samples

Table 11- 1: Reference Material

Reference Material					
Year	**Grade Au**	**Estándar Type**	**Mean**	**Reference Source**	**Au STD**
2021-2023	Low	Oxh163	1.313 +/- 0.008 ppm	Rock-Labs	0.026
	Medium	Oxk160	3.674 +/- 0.024 ppm	Rock-Labs	0.078
	High	OxP154	15.260 +/- 0.084 ppm	Rock-Labs	0.27
2024	High	OxP172	15.057 +/- 0.115 ppm	Rock-Labs	0.356

11.3.1 Standards

The CMRs during this period correspond to materials got from the RockLabs laboratory. Four different types of standards were used based on the grades in the deposit: 1) Oxh163, 2) Oxk160 and 3) OxP154, 4) OxP172, all with Au contents. In total 280 CMRs were used. The details of the geochemical values are shown in the following table.

Standards

Oxh163

For this standard, 101 inserts were made, 57.42% of the results were within the variation parameters of ±3 times the standard deviation, the other 42.57% exceeded these limits. It had a variation towards higher values. The furthest value of these variations is 2.17 g/t Au, that is, 0.85 g/t above the standard value (Figure 11-2).

Oxk160

This reference material had 86 inserts in this period, 86.04% of the samples are within the limits of ±3 times the standard deviation, only 13 results exceeded the third limit.

OxP154

In this material, 73 inserts were made, of which only two present atypical data, with values of 18 g/t Au and another with 14.13, most of the rest of the samples are within the limits of ±1 standard deviation.

OxP172

20 standard es inserts have been made, most of the samples fall within the limits of ±1 of the standard deviation. Only one sample obtained an anomalous value without exceeding the limits of ±3 standard deviation.

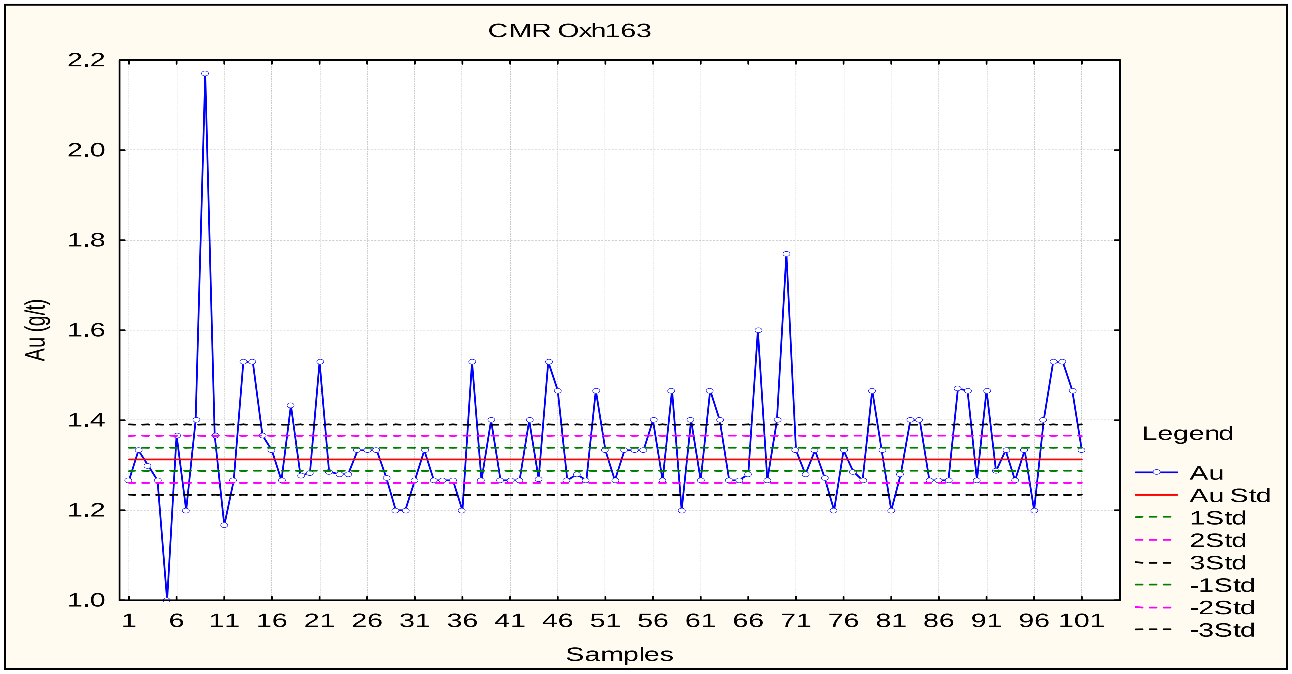


Figure 11- 2: Control Chart for Gold Assays from the Standard Reference Sample Oxh 163

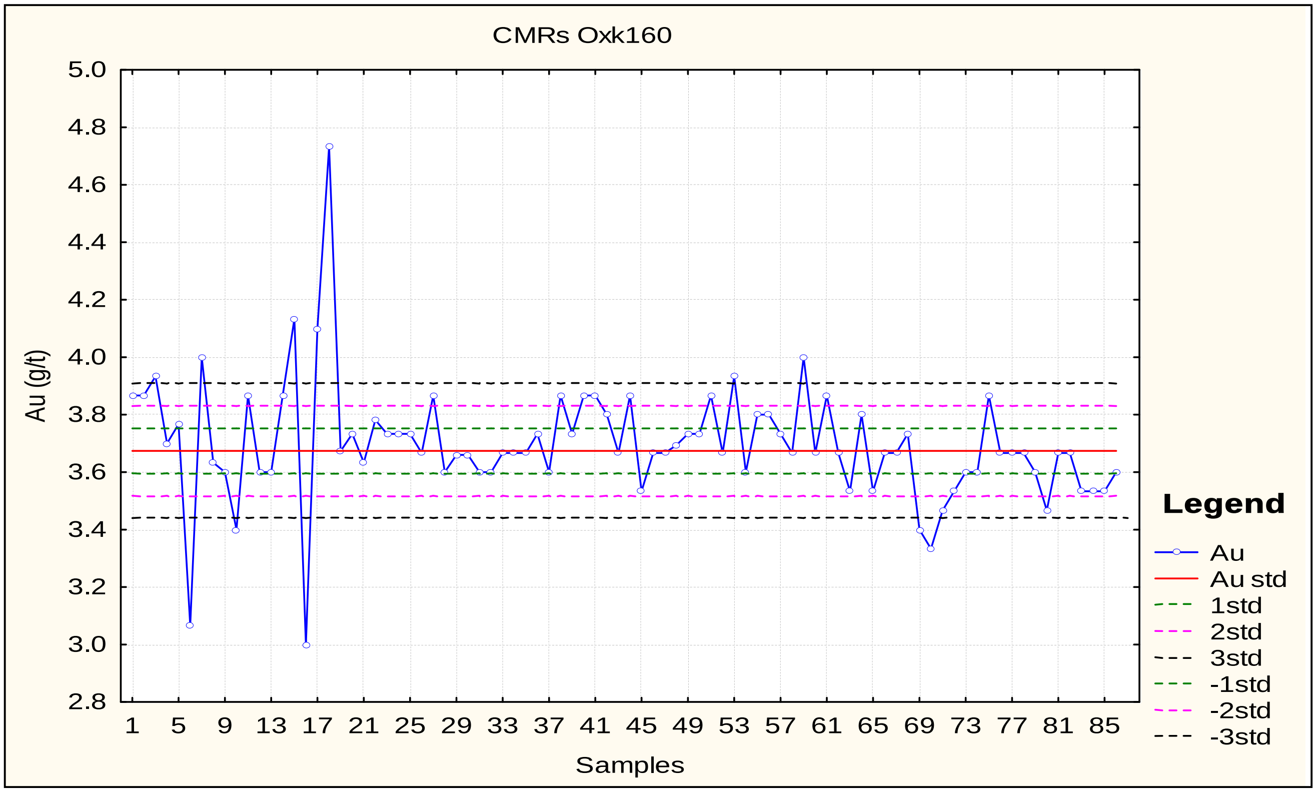


Figure 11- 3: Control Chart for Gold Assays from the Standard Reference Sample Oxk 160

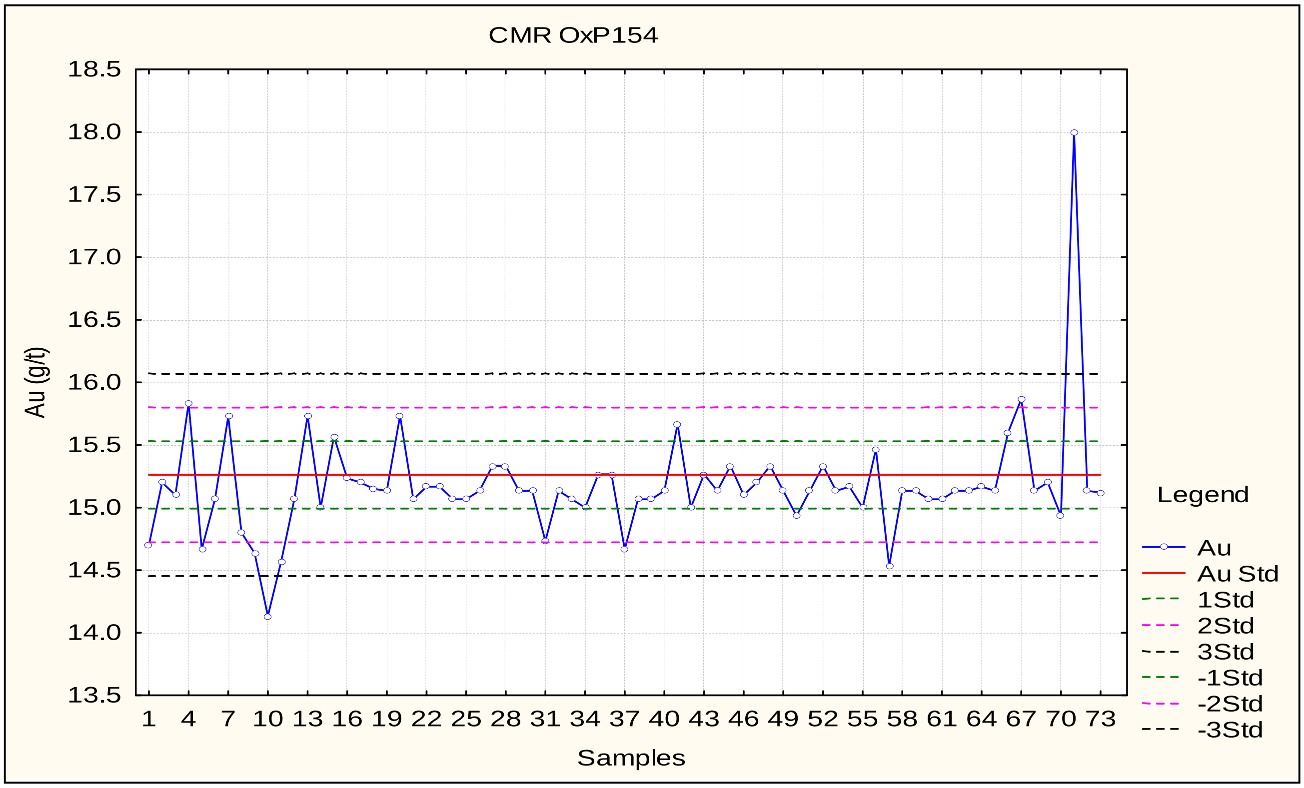


Figure 11- 4: Control Chart for Gold Assays from the Standard Reference Sample OxP 154

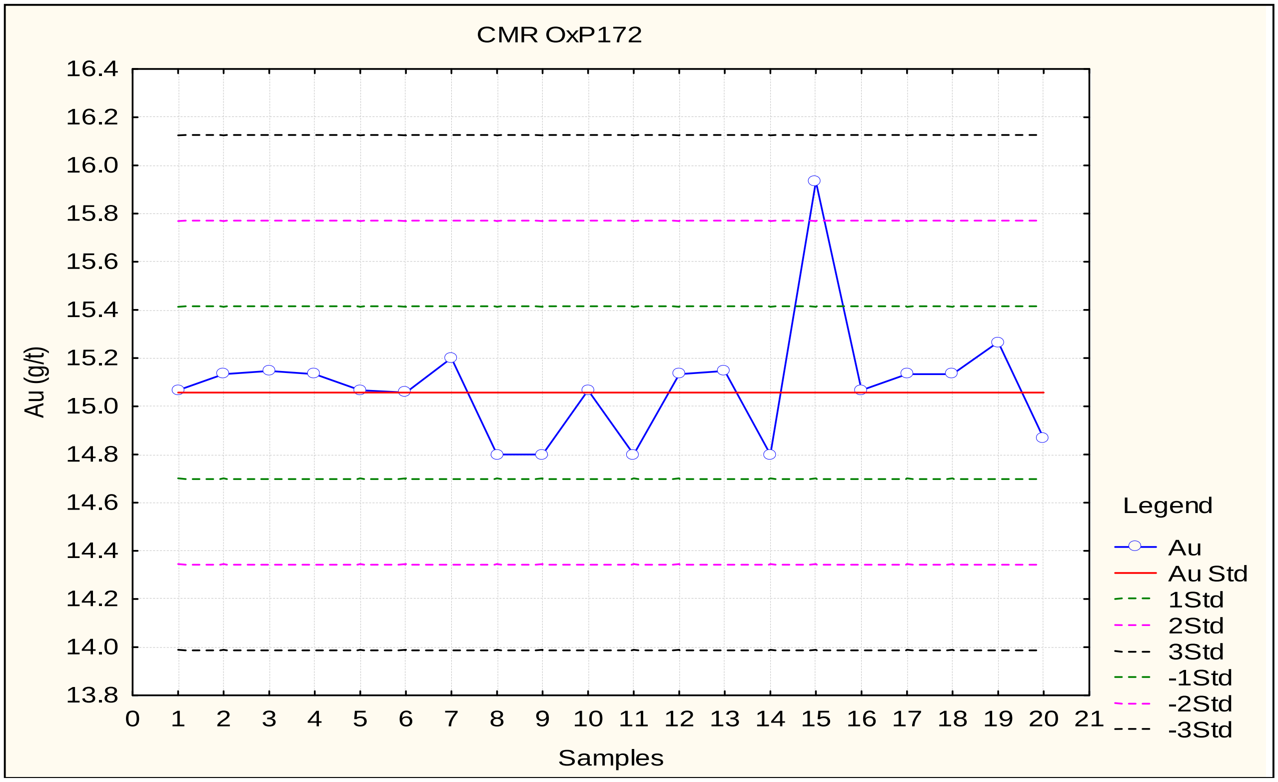


Figure 11- 5: Control Chart for Gold Assays from the Standard Reference Sample OxP 172

11.3.2 Blanks

Since 2021, the insertion of sterile material has begun. This material is obtained from a completely sterile volcanic rock. Two types of targets are used in quality control, coarse targets, and fine targets. Both targets are obtained from the same material, generating them from homogenization, taking a part and grinding it to a smaller size. In both cases there are no important variations and they remain within the designated limits.

11.3.3 Duplicates

Analysis repetitions or duplicates are taken from a sample after or one before where the insert sheet was placed or a sample is chosen at random and the sheet defined as duplicate is assigned (Table 11-2). Technically, the process consists of placing an empty bag properly labeled with the label showing the sample number for its duplicate (Figures 11-6, 11-7, 11-8 and 11-9.

Table 11- 2: Summary of Control Samples Used for Exploration Programs from 2021 to 2024

Type	Number of Samples	Percentage
Sample	14,108	89%
Pulp Duplicate	590	4%
Standar	281	2%
Fine Blank	276	2%
Coarse Blank	548	3%
Total	**15,805**	**100%**

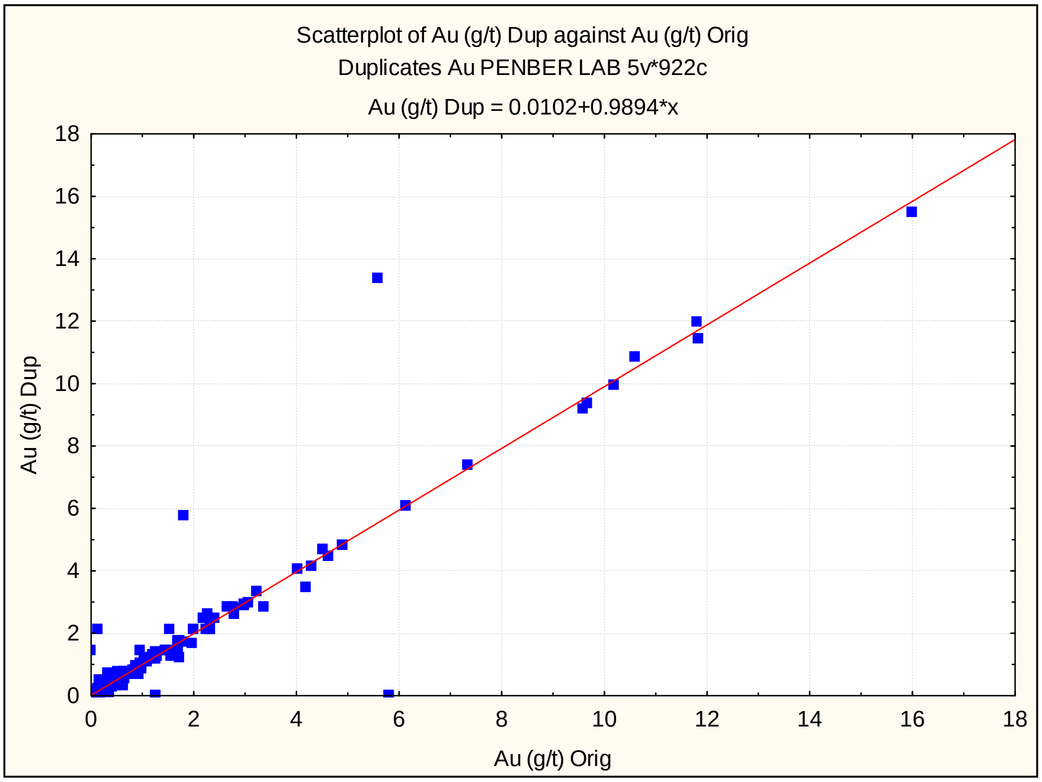


Figure 11- 6: Gold Duplicates, PENBER Laboratory

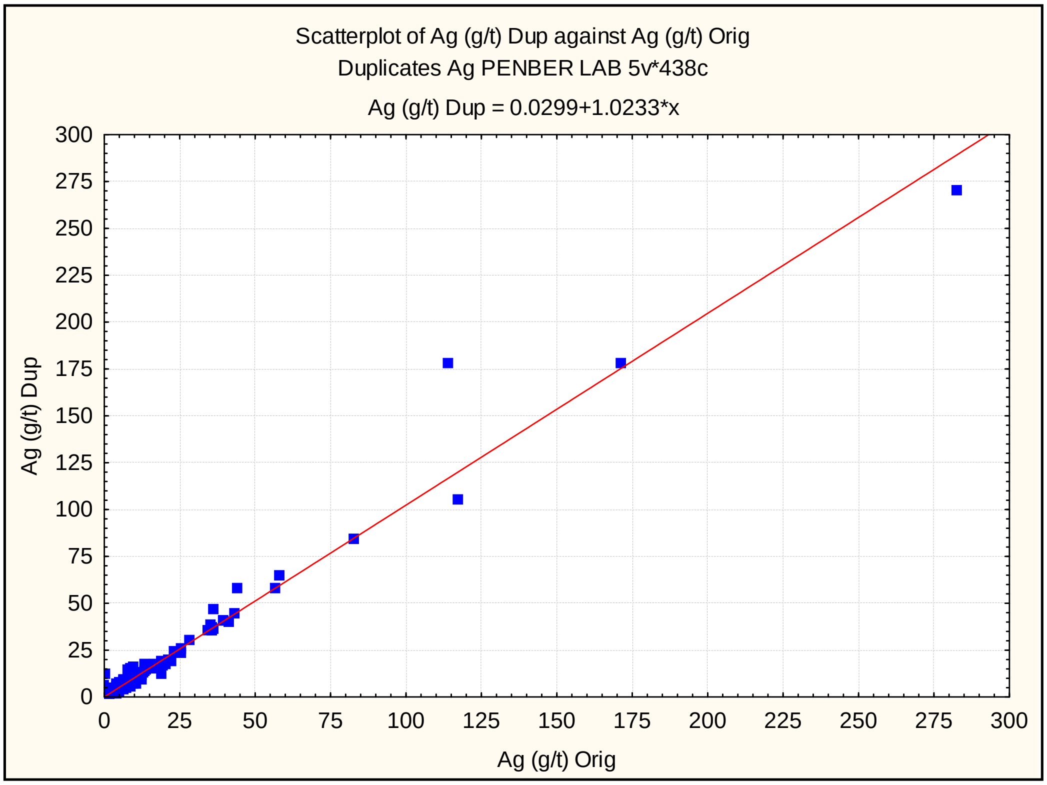


Figure 11- 7: Silver Duplicates, PENBER Laboratory

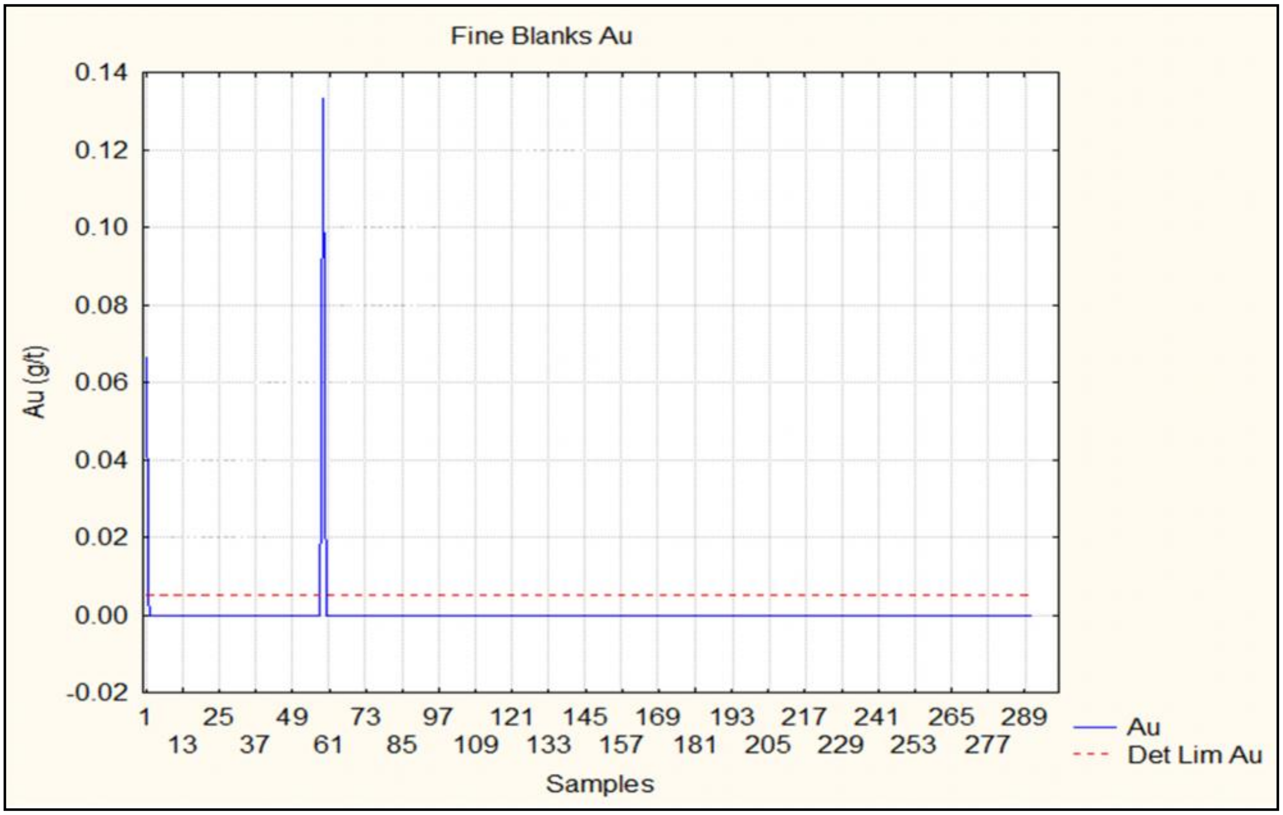


Figure 11- 9: Gold blanks, PENBER LAB

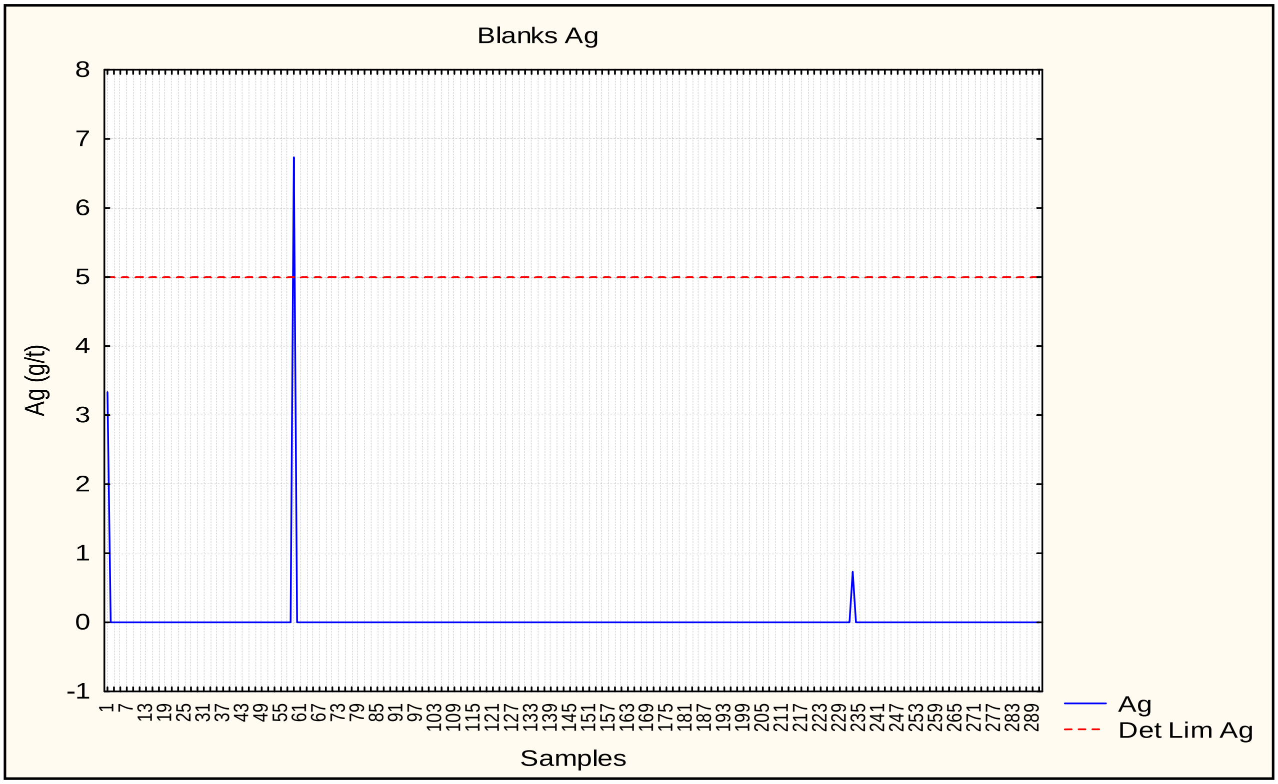


Figure 11- 8: Silver blanks, PENBER Laboratory

11.3.4 Duplicates In Another Laboratory

Based on the protocols and verification of the analyzes conducted with the PENBER LAB, selection of old boreholes with economic values within the domains to be estimated is conducted. Duplicate samples of the current borehole are also taken. Over 383 samples have been retested at the ALS CHEMEX Laboratory, considering both old drilling and current drilling. The variation observed between the ALS CHEMEX Laboratory and the PENBER LAB Laboratory has an acceptable degree of certainty (Figure 11-10 and Figure 11-11.

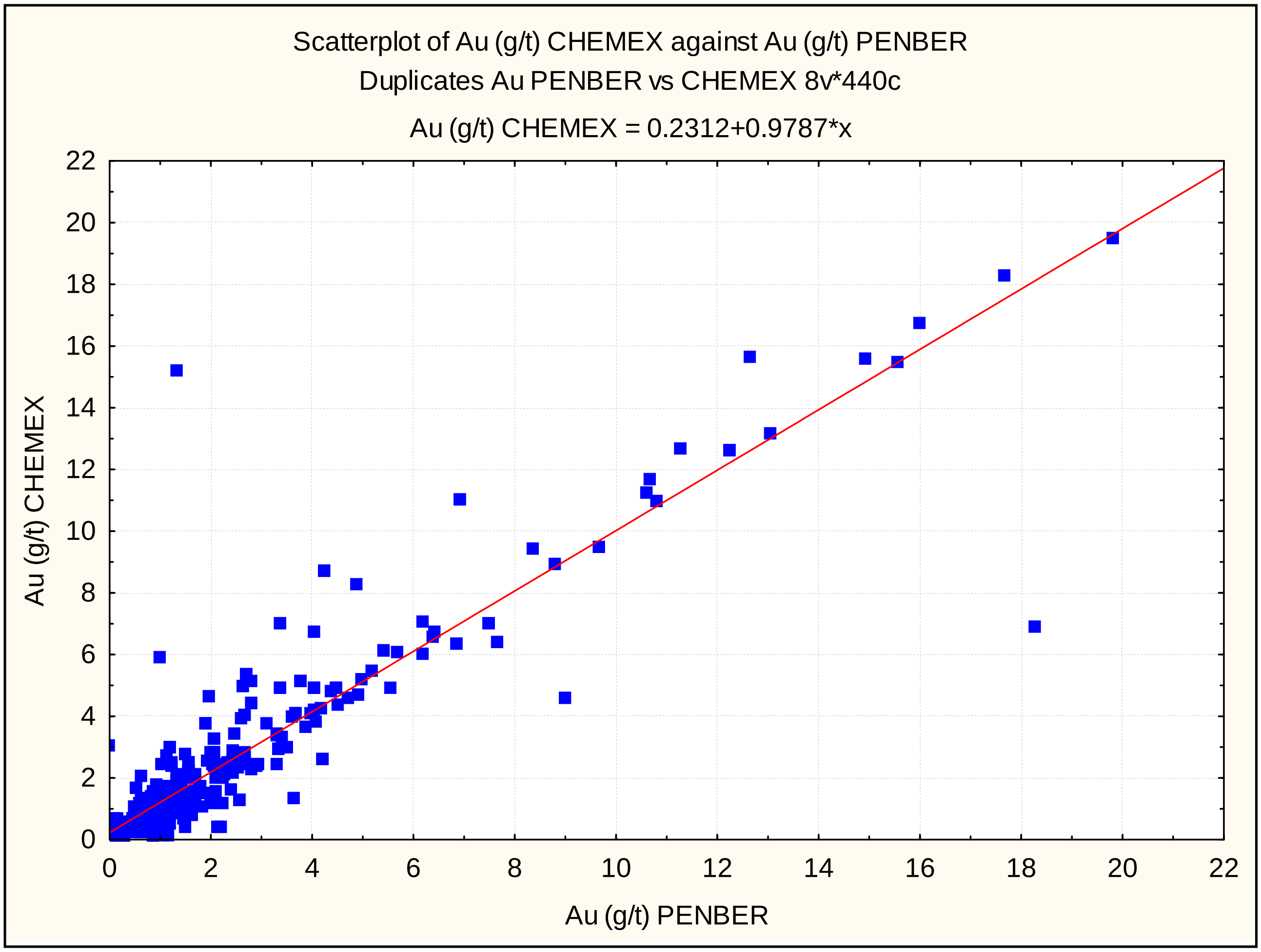


Figure 11- 10: Gold Duplicate Samples PENBER LAB and ALS Chemex

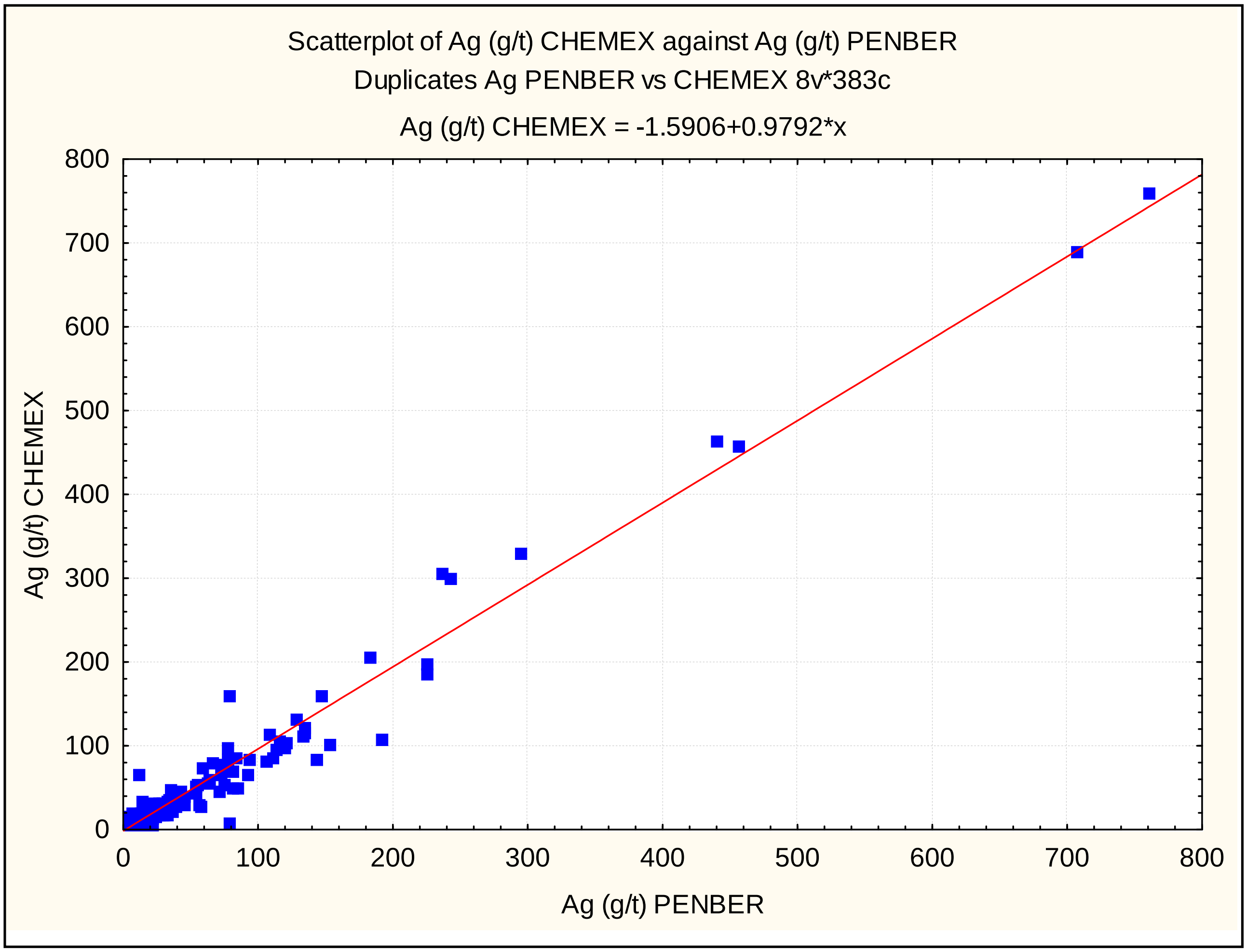


Figure 11- 11: Silver Duplicates Samples PENBER LAB and ALS Chemex

11.4 QP Opinion

QP is not aware of any drilling, sampling or recovery factors affecting the reliability of the samples. It is QP's opinion that the sample preparation, security, and analytical procedures followed by SIM are fit for the purpose of this Technical Report.

12.0 DATA VERIFICATION

The mineral resource estimate presented in report Section 14 is based on the following information provided to Mr. Enriquez by SIM with an effective date of April 30, 2024:

- ✓ Discussions with SIM personnel.
- ✓ Personal investigation of the San Martin Mine office.
- ✓ An underground database received as .xls files.
- ✓ Production channel sample database revised on May 14, 2024.
- ✓ Modeling blocks for veins San José, San José II, San Martin, Cuerpo 28, Cuerpo 29, Cuerpo 30.
- ✓ Reserves and Resources in the San Martín Mine, Mexico, as of July 31, 2014, and authored by Gunning, D. R. and Campbell.
- ✓ Polygonal 2-dimensional long sections for veins San José, San Martin, Cuerpo 28, and Cuerpo 29 with resource and reserve calculations.
- ✓ Reserves and Resources in the San Martin Mine, Queretaro State, Mexico, as of April 30, 2018, and authored by Erme Enriquez.
- ✓ Reserves and Resources in the San Martin Mine, Queretaro State, Mexico, as of September 30, 2019, and authored by Erme Enriquez.
- ✓ Reserves and Resources in the San Martin Mine, Queretaro State, Mexico, as of April 30, 2022, and authored by Erme Enriquez.

The on-site laboratory (PENBER LAB) has undergone a variety of improvements since SMI took over management of the operation in February 2008. Comparison of the on-site laboratory to commercial laboratories is conducted on an ongoing basis. The results of this analysis are presented in the July 1, 2009, NI43-101 report and for both gold and silver the variability of results were acceptable for a producing mine, thus supporting confidence in the results of the on-site lab. No other verification has been done since then.

Historically (since 1993 to 2003), the San Martin mine has been using a specific gravity of 2.7 to convert volume in cubic metres to metric tons (the tonnage factor). Under suggestion of Mr. Gunning and M. Whiting, the geological staff started to implement, a specific gravity testing procedure on diamond drill core and mine material.

Following an examination of drill core and wall rock conditions in stopes, the "Method of Archimedes" (dry mass in grams divided by water displacement in milliliters method) was chosen as a reasonable and time effective procedure. There is not a significant amount of void space, so the costlier and time-consuming methods of pre-coating drill core are not recommended.

A selection of drill core from the San Martin and Guadalupe veins was evaluated and a new specific gravity was recommended. The SG of 2.55 g/cm^3 was used prior 2014 Resource and Reserves. Subsequent testing more recently has shown values between 2.6 and 2.8. These new data have resulted in the use of 2.6 g/cm^3 for estimates in 2014 and later.

12.1 Results SRM at PENBER

On a normal day at the PENBER laboratory, the QP has sent three samples with reference material from certified standards. The results of those three samples are shown in Table 12-1

Table 12- 1: SRM assay results at PENBER Lab

Sample ID	Sample weight (g)	Assays	
		Au (g/t)	Ag (g/t)
PENBER 16005	*10.0*	*0.700*	*37.000*
Certified CDN ME 1601	***11.0***	***0.613***	***39.600***
PENBER 16006	*10.0*	*1.000*	*79.800*
Certified CDN ME 1603	***9.5***	***0.995***	***86.000***
PENBER 16007	*10.0*	*0.600*	*54.400*
Certified CDN ME 1406	**11.0**	**0.678**	**57.10**

12.2 Comment on Data Verification

As a confirmation of the mineral reserve and resource process, third party consultants have been hired to perform verification studies. The San Martin mine was last reviewed in June 2022. The study included database checks and concluded that data base supporting the geological information of the San Martin deposit reserves and resource estimate is complete and follows mining industry standards.

The QP has been involved in two of the recent audits of the San Martin mine, including reviews of stope, drifts, and drill hole data. The data has been verified and no limitations have been identified.

In summary, data verification for the San Martin mine has been performed by mine site staff and external consultants contracted by SIM. Based on reviews of this work, it is the QP opinion the San Martin mine, stope, drifts and drill hole database and other supporting geologic data, align with the accepted industry practices and are adequate for the use in this level of study.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Mineral reserves and mineral resources are evaluated to be processed using cyanidation process by dynamic leaching. The process consisted essentially of leaching in cyanide solution followed by solid-liquid separation, with the solid residues being washed as efficiently as possible, and the leach liquor being treated by zinc cementation to recover the precious metals. While this process is extremely efficient and fairly cheap; it does have limitations in the treatment of low-grade ores and certain complex ore types. For example, ores with a high content of clay or carbon, are usually difficult to filter, and losses of soluble gold or silver in the residues can be unacceptably high.

Because of the historical production for Plant, the liberation characteristics of the material and later response to cyanidation are within typical design criteria and known by the operations personnel. There are no geological, lithological, or mineralogical changes in the process plant feed anticipated for the envisaged future production as compared to earlier operations. Historical operational results support the existing process flowsheet with some adjustments such as adding oxygen gas from the beginning of the process, this has increased the recovery of precious metals by up to 2%.

Mineral reserves and mineral resources are evaluated to be processed using cyanidation process by dynamic leaching. The mill is currently running at 627 tons per day, it presents a series circuit that includes Crushing, Grinding, Leaching, a System of Countercurrent Washing by Decantation, Filtration, Tailings Deposit and Merril Crowe for the recovery of silver and gold values, in addition to the smelter area. The plant flowchart is illustrated in Figure 13-1.

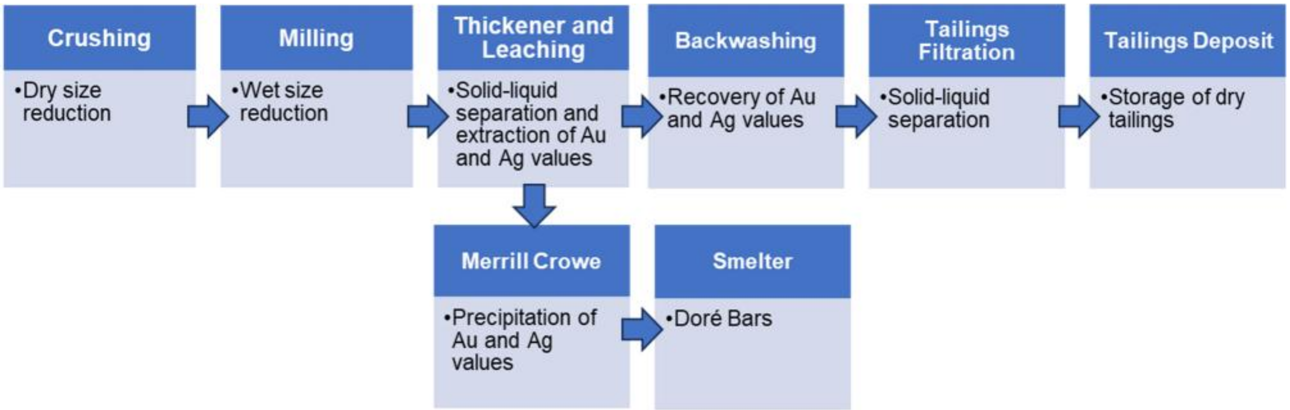


Figure 13-1: Plant flow chart (from Processing Department)

13.2 Process of the Benefit Plant

Process plant is an agitated cyanide leach plant that produces Au-Ag doré by using Merryll-Crowe circuit. The facilities of the plant are designed to process gold and silver ore at a rate of 627 tpd, with the capacity of 1,100 tpd, in a series circuit that includes crushing, milling, leaching, a system of countercurrent washing by decantation and Merrill Crowe for the recovery of the silver and gold values, Figure 13-1.

The flow diagram of the plant consists of the following processes:

- Crushing and transport
- Storage and claim
- Primary and secondary milling
- Dynamic leaching with gaseous oxygen injection
- Counter-current washing circuit by decanting.
- Precipitation of values (Merrill Crowe)
- Precipitate drying.
- Refinery
- Filtering of tailings

- Storage of dry tailings
- Reagent preparation systems and their distribution

In the crushing area, the ore is reduced to ¼ in., to be fed to the primary ball mills and later to the secondary vertical mill to obtain a 70% product at 74 microns. This is fed to the dynamic leaching circuit where oxygen is injected. The dissolved values are recovered by precipitating them with zinc powder in the Merrill Crowe process and melting to obtain doré bars with a purity of 99.3%.

The tailings are filtered before being deposited in the dam (Figure 13-2). The recovered solution is returned to the process.

The filtered tailings are transported to the deposit to be stored, a tailing banding system is used to be compacted and wind erosion is minimized. Later, when one side of the slope is formed, reforestation with flora of the region is conducted to avoid rain erosion (Figure 13-3).

In mid-2012, a decrease in mill recoveries was detected. The problem was that carbonaceous mineral was being fed in high quantities and the recovery of gold fell 75.2% and 60.5% in June and July, respectively. The metallurgical investigations showed that the ore could be recovered with the following treatment:

a) A low temperature roast of the carbonaceous ore
b) A conversion to Carbon in Leach processing

The organic matter in the carbonaceous mineral affects the leaching process, however, this type of mineral has always existed in the San Martin body and in the body Cuerpo 29 and its exploitation never caused problems in the chemical treatment in the past. This mineral was fed to the mill between 10% and 15% of the total daily processed mineral, between the years 1998 and 2003.

A processing flow sheet dated April 2024 is presented in Figure 13-4.

Figure 13-2: General view of the process plant at San Martin

13.2.1 Crushing Area

The first part of the beneficiation process consists of a reduction in the size of the ore coming from the mine. A hopper with a capacity of 80 tons is installed and a closed circuit of breakers that allows the reduction up to 1/4 ". The first reduction, which is from 12" to 4" is made by a jaw crusher, the second reduction, at 1/4" is done in a cone crusher, then all the ore is screened and sent to the pile stock of the grinding area.

13.2.2 Grinding Area

In this section there is a primary grinding conducted by a ball mill with dimensions of 9'x9', which aims to reduce the ore allowing the release of gold and silver particles, here begins the dissolution of values by adding sodium cyanide and lime to keep the basic pH. Following this stage there is a secondary grinding conducted by a Vertimill VTM-200 mill which reduces the ore to a size of 74 microns.

13.2.3 Chemical Treatment Area

Here is carried out, as a first step, a solid-liquid separation to recover the solution rich in gold and silver values. The leaching of the values that are still present in the solids is conducted in the leaching tanks obtaining recoveries of 88% for gold and 54% for silver. It is worth mentioning that this area has had significant changes reducing residence times. This has been achieved by the development of metallurgical tests conducted in the SM complex. The process is based on the addition of gaseous oxygen to the process, allowing a temporary oxidation of the metals of value which leads to a rapid formation of the complex of gold-silver-cyanide.

13.2.4 Tailings Filtration Area

After the gold and silver values have been leached, the solids are sent to the tailings filtration area, where solution is recovered and sent back to the process and the solids are discharged with a humidity of 20% to be deposited in the tailings dam.

13.2.5 Merrill-Cowe Area

The value-rich solution from the chemical treatment area is clarified by a filtration system, the solids present are kept in the filter medium producing a clean solution. Subsequently, the oxygen present in the solution is removed by means of a vacuum column. Once you have an oxygen-free solution and a minimum of solids, zinc powder is added to it, generating an oxide-reduction reaction called cementation of gold and silver. This metallic sludge is kept in filter presses from which they are recovered to be dried and sent to the smelter.

13.2.6 Smelting Area

The process of obtaining doré bars is conducted in electric induction furnaces using a graphite smelting pot, to obtain gold and silver bars with a purity of 99.3%. What was achieved by changing the conventional refining method that consisted of oxidation by decomposition of sodium nitrate, which had a drawback, such an aggressive oxidation that damaged the smelting pot, making it impossible to reach purities above 98%. Now days, in the San Martin unit, doré is refined by creating an atmosphere rich in oxygen gas, which causes the elimination of impurities to be more selective, reducing damage to the smelting pot by 80%.

13.2.7 Research Laboratory Area

Part of the research conducted at PENBER facilities is on methods for processing the carbonaceous mineral found in the deposit. Research is focused on two objectives: one is to use flotation to separate the carbonaceous matter in the concentrate and leach the flotation tails, and the second is to use activated carbon in the leaching tanks and recover the gold and silver values in an ADR plant For these activities PENBER already has the ADR plant to carry out pilot tests in the month of July, 2024.

13.3 Comment on Mineral Processing and Metallurgical Testing and Recoveries

In the opinion of the QP, the metallurgical process is proper to set up reasonable processing methods for the different Mineralization styles encountered in the deposit. Geometallurgical samples are carefully selected to represent future ores and recovery factors have been confirmed from production data collected from ore processed in underground.

13.4 Metallurgical Testing and Recovery

Metallurgical research is aimed at improving the recovery of gold and silver, reducing the process time, and reducing costs. In the San Martin ore, a reduction in the process time has been obtained without undermining the metallurgical recovery, currently working with a treatment time of 35 hours, which has helped reduce cyanide consumption, reducing costs.

To achieve this process time, the addition of oxygen in gaseous form was implemented in the grinding area. Currently, a mixture of reagents that increase the recovery of gold and silver values is being investigated, the goal is to reach 93% gold extraction. In the tests conducted, this result has been reached, so the process of validation and repeatability of results will begin with an external laboratory before conducting tests directly at the Processing Plant. The smelter area is part of the process, which is why an investigation was started to reduce the impurities in the doré bars. The tests conducted have led us to produce bars with a purity of 99.3% industrially so far this year 2024 and so the consumption of fluxes and crucibles was reduced, which led the pant to lower the smelter costs. The San Martin ore, in some of its areas, has a characteristic of refractoriness caused by the presence of carbonaceous material. Tests have been conducted with different processes and reagents, achieving gold extractions of 82%.

The metallurgical research has given preliminary positive results in the laboratory and a pilot test will be conducted in July, this to determine if the carbonaceous mineral is feasible to be recovered industrially. If the pilot test is positive, the deposit's resources will increase substantially.

13.5 Data Adequacy

The data provided by SMI conforms to the industry standards and is within the accuracy of this study and verified for use in this study. Historic production from multiple oreshoots at the San Martin mine proves the capacity of the plant to process the mineralised material. As a result, the processing and associated recovery factors are considered appropriate to support mineral reserve and mineral resource estimation and mine planning.

Figure 13-3: Dry tailings being collected and hauled to the tailings pond

Figure 13-4: Reforestation of the northern part of the tailings pond, north sector

13.6 Comments on Section 13

The San Martin Mine has a long history of successful operation and processing and has plans to continue. The QP is of the opinion that the level of metallurgical testing is proper for the duration of the LOM plan and is unaware of any processing factors or harmful elements that could affect the potential economic extraction of metal from the SM mines ore.

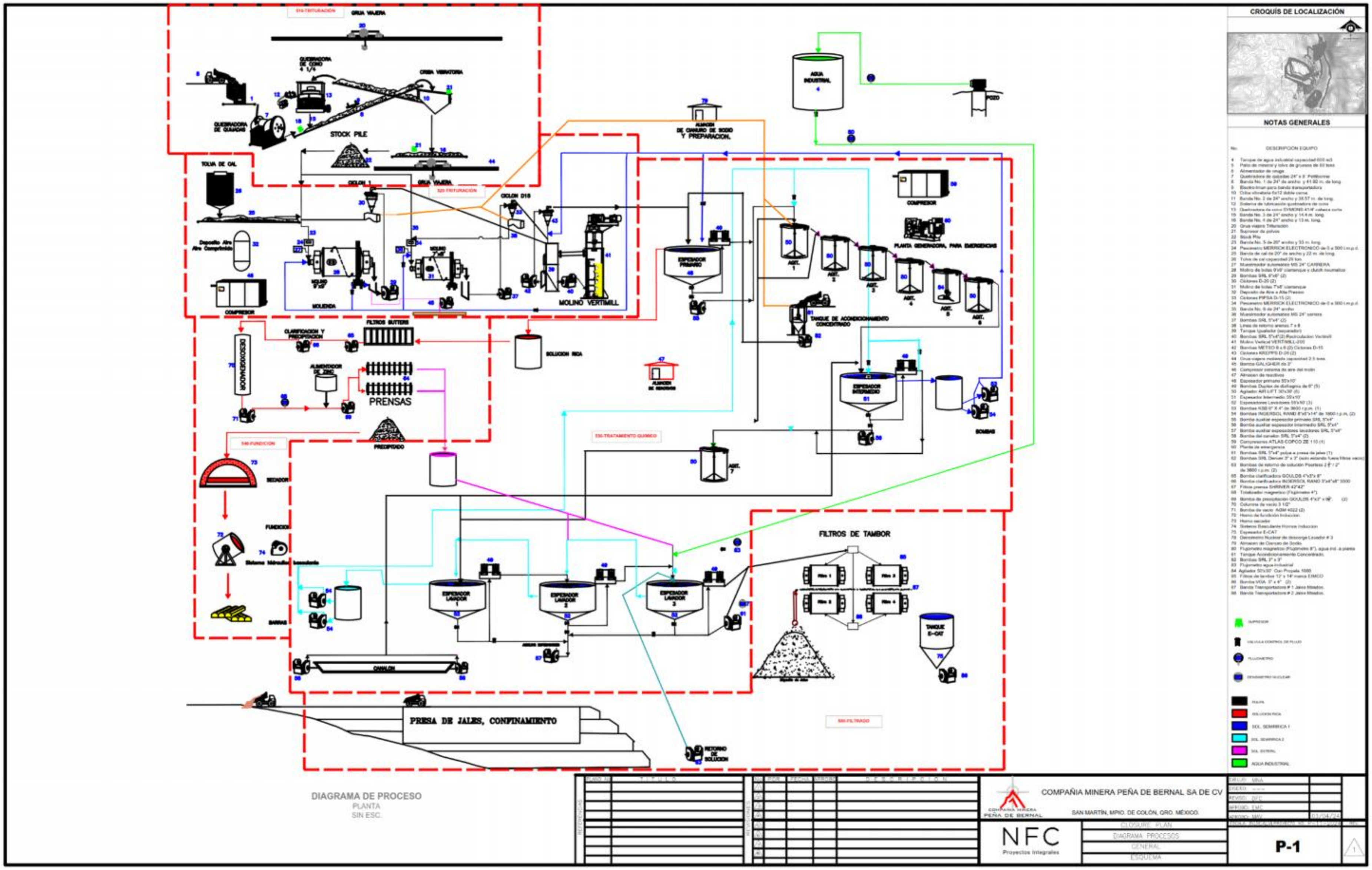


Figure 13-5: Flowsheet of the mill process at San Martin Mine

14.0 MINERAL RESOURCE ESTIMATES

14.1 Introduction

The estimate of Mineral resources is based on information from 568 drill holes, 5,427 sample channels and domains generated from the geological information obtained from drilling and the developments that exist within the San Martin mine. Considering the amount of information existing in the areas evaluated in this resource calculation, two techniques were used: 1) block model estimation where there is a greater volume of information from both boreholes and channel sampling and 2) method of three-dimensional polygons for areas of mining developments and stopes. Of the total number of structures that exist in the San Martín Mine, only nine of them were estimated with a block model. Each of these nine structures is equivalent to a domain within which the resource calculation was conducted, the software used for this estimation is Leapfrog Edge. Two of the domains correspond to the San Martin Area, one to the Area of 28, five to the area of 29 and one to the area of 30. For the calculation with three-dimensional polygons, the channel samples and some isolated borehole sections were used, yielding a total of 65 blocks. 25 blocks belong to San Jose I, 20 blocks to San Jose II, 12 blocks to the San Martin Area and 8 blocks to Area 28. Table 14-1 shows the distribution of blocks by type of technique used.

Table 14- 1: Veins Modeled using 3D Block Modeling Methods

Area	Structures Models	Estimation Technique	
	Leapfrog	Block Model	3D Polygonal
San Jose I	6	0	25
San Jose II	3	0	20
Area San Martin	18	2	12
Area 28	12	1	8
Area 29	23	5	0
Area 30-33	11	1	0
Total	**73**	**9**	**65**

14.2 3D Block Model Method

SIM staff constructed the vein models using Leapfrog software. The structures were modeled using a linear interpolation methodology between drilllholes and channel samples. Cross-sections orthogonal to the strike of the vein were used to select intervals from drillholes representing the vein material. Points representing the hanging wall and footwall contacts were extracted by the software to interpolate hanging wall and footwall surfaces on a vertical plane where the Z direction represents vein width. These surfaces were used to delineate each vein solid. The surfaces were evaluated in 3-dimensions to ensure that both the down dip and along strike continuity was maintained throughout the model. Figures 14-1 and 14-2 show 50m thick sections oriented perpendicular to drilling through the San Martin vein system.

QP validated the vein model by loading the wireframes into Leapfrog. The vein areas reviewed to ensure the volumes were valid, had no open holes, were properly terminating against crossing veins and topography. Additionally, drillholes were reviewed to ensure all drillholes intersecting the vein included a vein intercept. If this was not true, QP added the vein intercept to the drillhole using drillhole logs in conjunction with gold and silver grade. If the drillhole lacked both lithology and grade intervals, the vein intercept was assigned a value of 0.001 g/t for both gold and silver at the intersection of the vein.

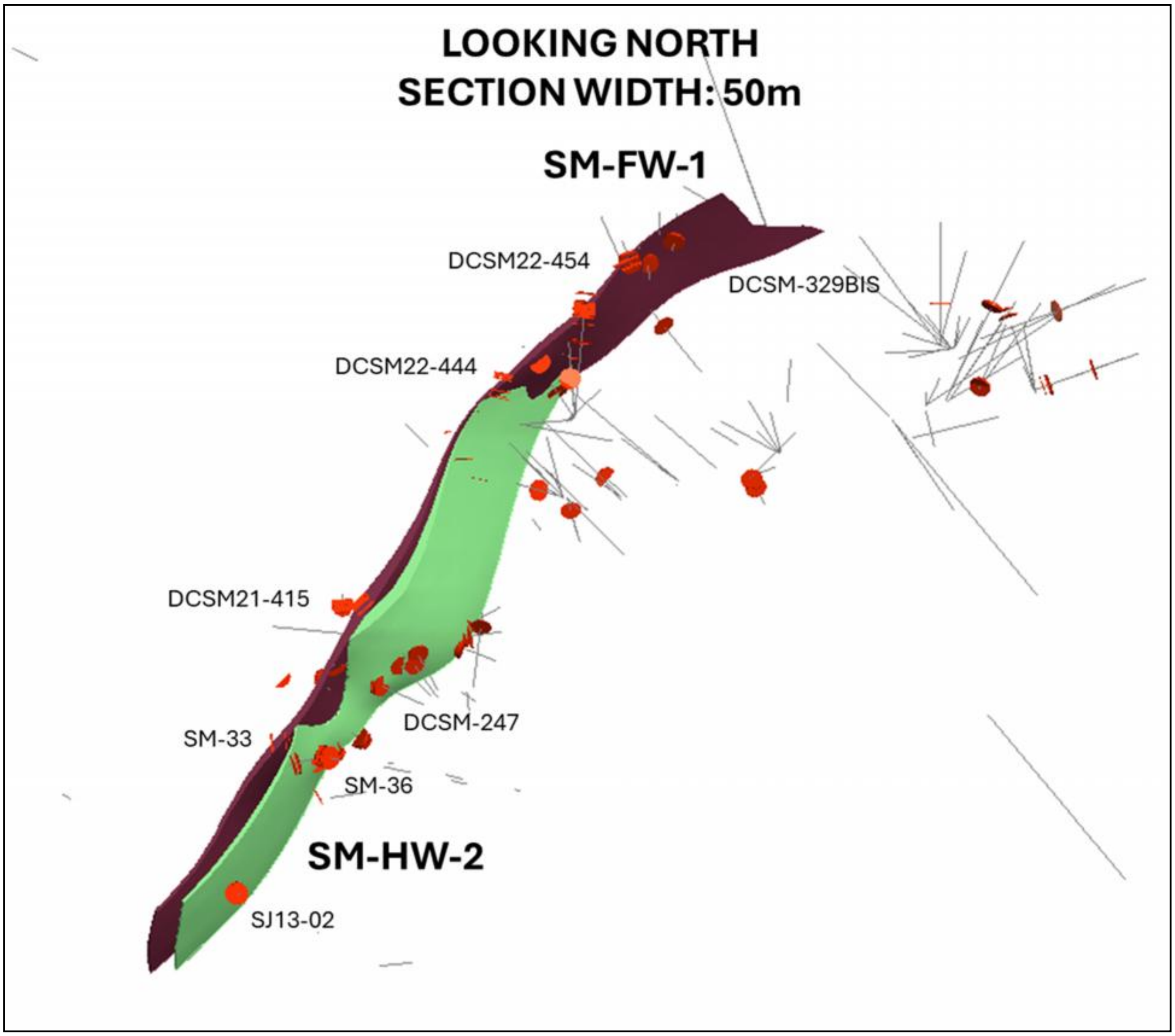


Figure 14-1: Cross Section of the San Martin Vein System and Vein Selections

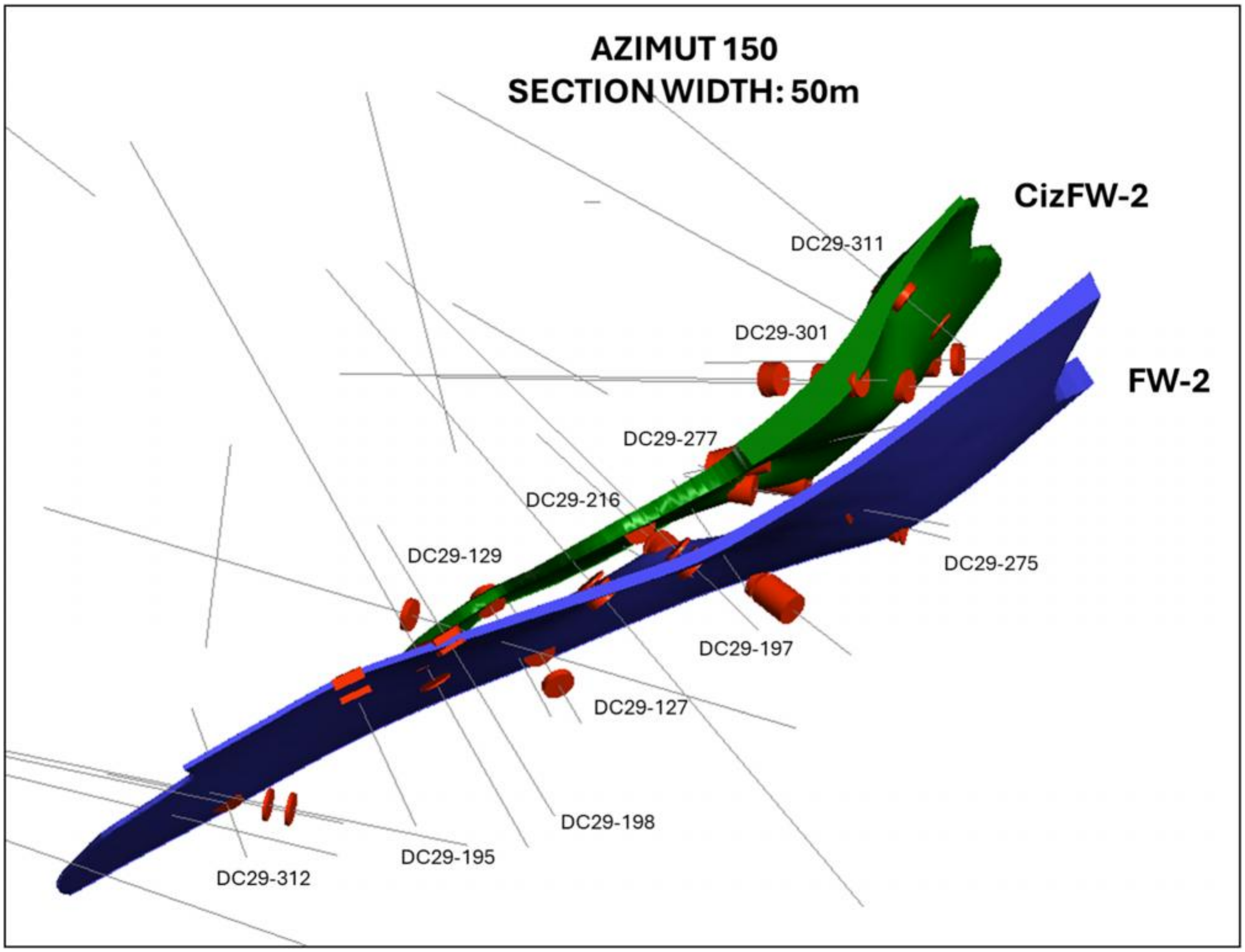


Figure 14-2: Cross Section of the San Martin Vein System and Vein Selections

14.3 Block Model-Based Mineral Resource Estimation

The database used in resource estimation was updated to April 30, 2024. To generate the domains, the database of drill holes, channel samples, geological mapping of mine levels, geological sections, mining topography and geological interpretation of each area.

To compile all this data and generate the domains in three dimensions, Leapfrog Geo software was used and Leapfrog Edge was used for geostatistics, estimation and block modeling. Three block model prototypes were created for each structural regime. The model prototypes are not rotated along strike and down dip and encompass the entire vein. A block size of 2m x 2m was determined to be an appropriate size along strike and down dip. The blocks for thickness were sub-blocked to the thickness of the vein wireframe. A summary of the block model parameters is shown in Table 14-3. As a validation, the veins wireframe volume was compared to the volume of the coded vein in the block model. The differences in volume never exceed +/- 0.2%.

Within this report, two domains were considered to exemplify the methodology conducted in this calculation.

Table 14- 2: San Martin Block Model Parameters

Block Model	Origin (Upper Right Corner)			Rotation		Block Size (m)			Number of Blocks			Sub Blocking			Minimum Block Size (m)		
	X	Y	Z	Z (1st)	X (2nd)	X (Along Strike)	Y (Down Dip)	Z (Thickness	X	Y	Z	X	Y	Z	X	Y	Z
Block Model-SM	398261.24	2292431.702	2246.943	N/A	N/A	2	2	2	397	433	341	1	1	1	1	1	1
Block Model_28 Area	398574.04	2293499.720	2267.163	N/A	N/A	2	2	2	74	82	96	1	1	0.5	1	1	0.5
Block Model_29 Area	398349.05	2293655.900	2160.000	N/A	N/A	2	2	2	136	230	114	1	1	0.5	1	1	0.5
Block Model_30-32 Area	398299.33	2294161.370	1944.420	0	337.61	1	2	1	60	70	60	N/A	N/A	N/A	1	2	1

14.4 Sample Database

The samples considered for the calculation correspond to channel samples and drilling samples, which were reviewed and verified with QA/QC conducted during the DDH, as well as duplicates sent to an external laboratory. Table 14-3 shows the distribution of the DDH samples and channel samples considered.

Table 14- 3: Distribution of the DDH samples and channel samples considered

Structure	Drillhole		Sample Channel	
	No. Drillhole	Meters	No. Channel	Meters
SM-FW-1	278	2,127.45	4165	13,053.65
SM-HW-2	146	1,051.66	705	1,845.80
28-CLVS	12	286.05	69	99.8
29-FW-1	53	225.3	299	646.4
29-FW-2	30	93.66	109	239.4
29-FW-3	8	33.85	30	33.4
29-CizFW-2	30	125.05	24	33.5
29-CizFW-3	8	34.6	26	30.9
30-Cbn	3	15	0	0
Total	**568**	**3,992.62**	**5,427**	**15,982.85**

14.5 Geological Interpretation and Modeling

The three-dimensional construction of the geological and mineralization model is based on the historical compilation of information. This information was reviewed, reanalyzed and corrected by the geology team to obtain a better reinterpretation of the mine. The geological models were built with information from logging, underground mine geological mapping, drill hole intercepts with Au and Ag assays, and production channel sample assays. In addition, for the interpretation, the experience obtained over the years of the behavior of the mineralized breccia was considered, outlining the mineral solids with important faults seen in mining developments.

The geological model is divided into 7 blocks, each delimited by important faults and giving rise to each of the areas of the mine. Due to this, individual domains were generated for each of the areas, as shown in Figures 14-3 and 14-4, which shows the total number of structures modeled for the San Martin Mine and highlights the areas that have the evaluated domains.

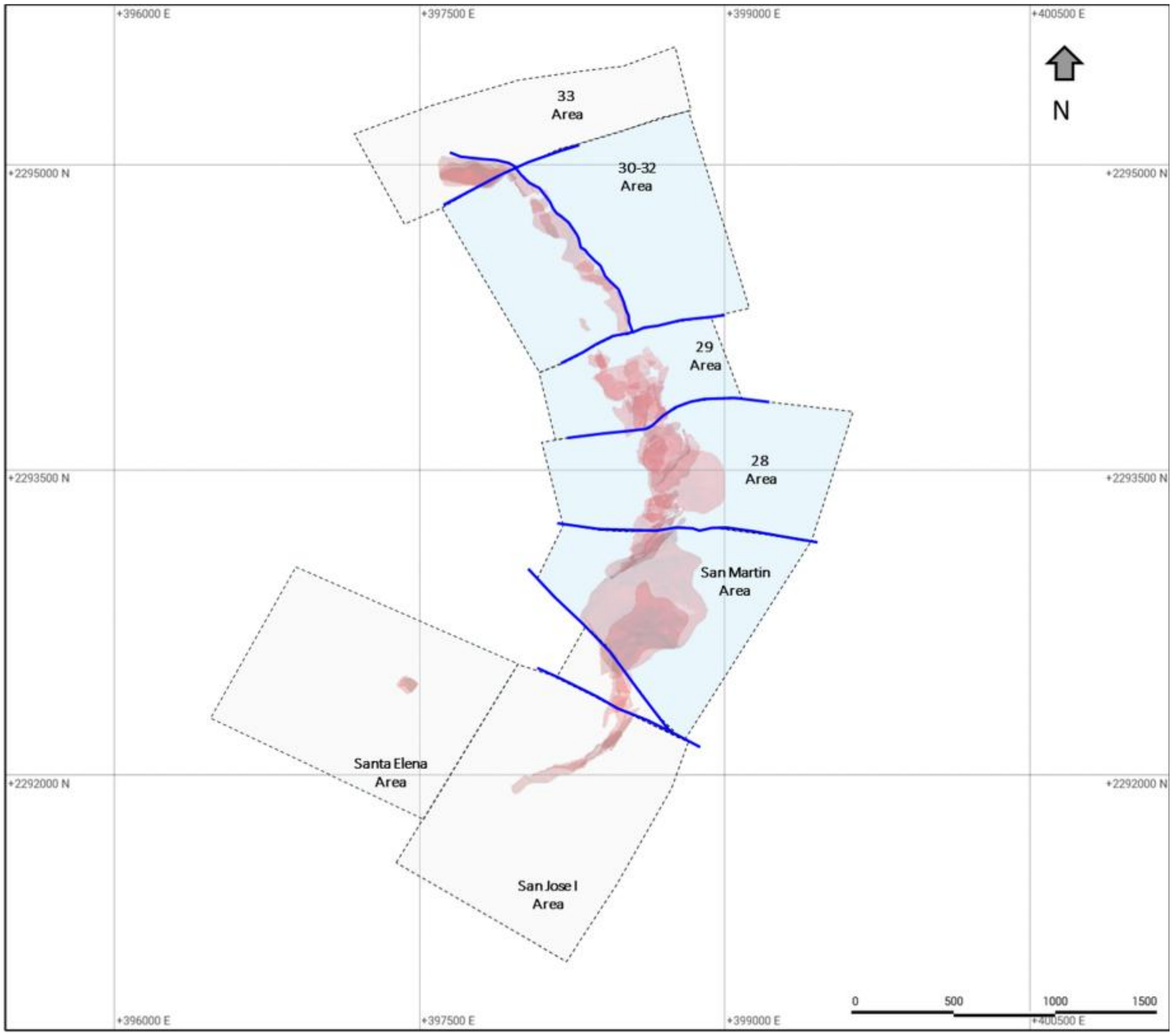


Figure 14-3: Plan-View Location of Structure geological mineralized by Mine Zone

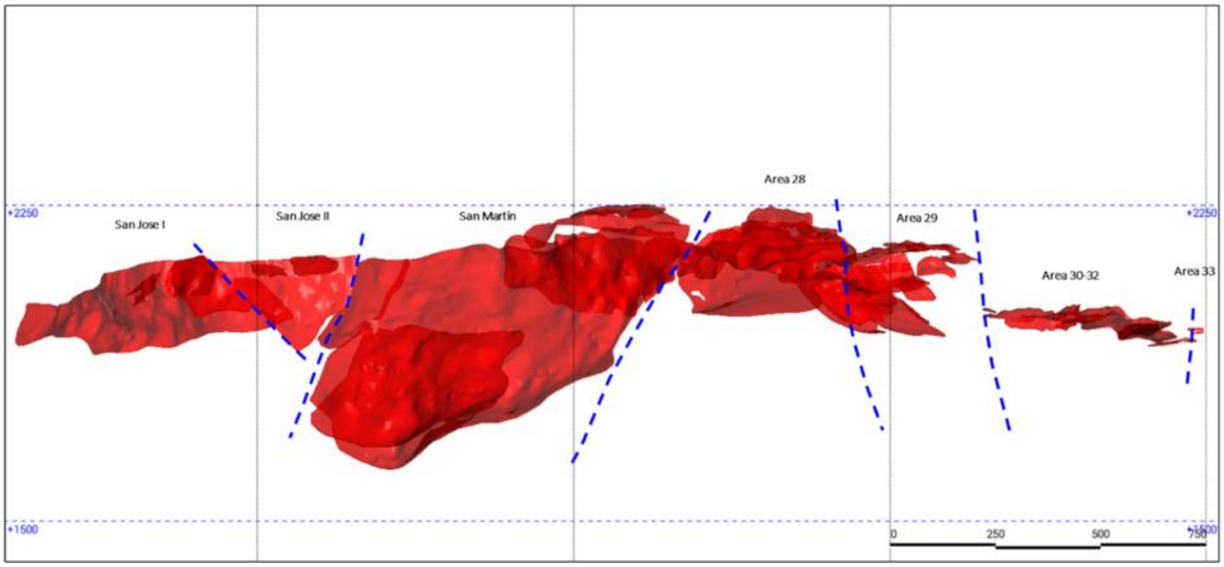


Figure 14-4: Longitudinal Section of structure, geological and mineralized by zone

Figures 14-5 and 14-6 shows the domains used to calculate resources. They correspond to nine domains evaluated in the Areas of San Martin (2 domains), Area 28 (1 domain), Area 29 (5 domains) and Area 30 (1 domain).

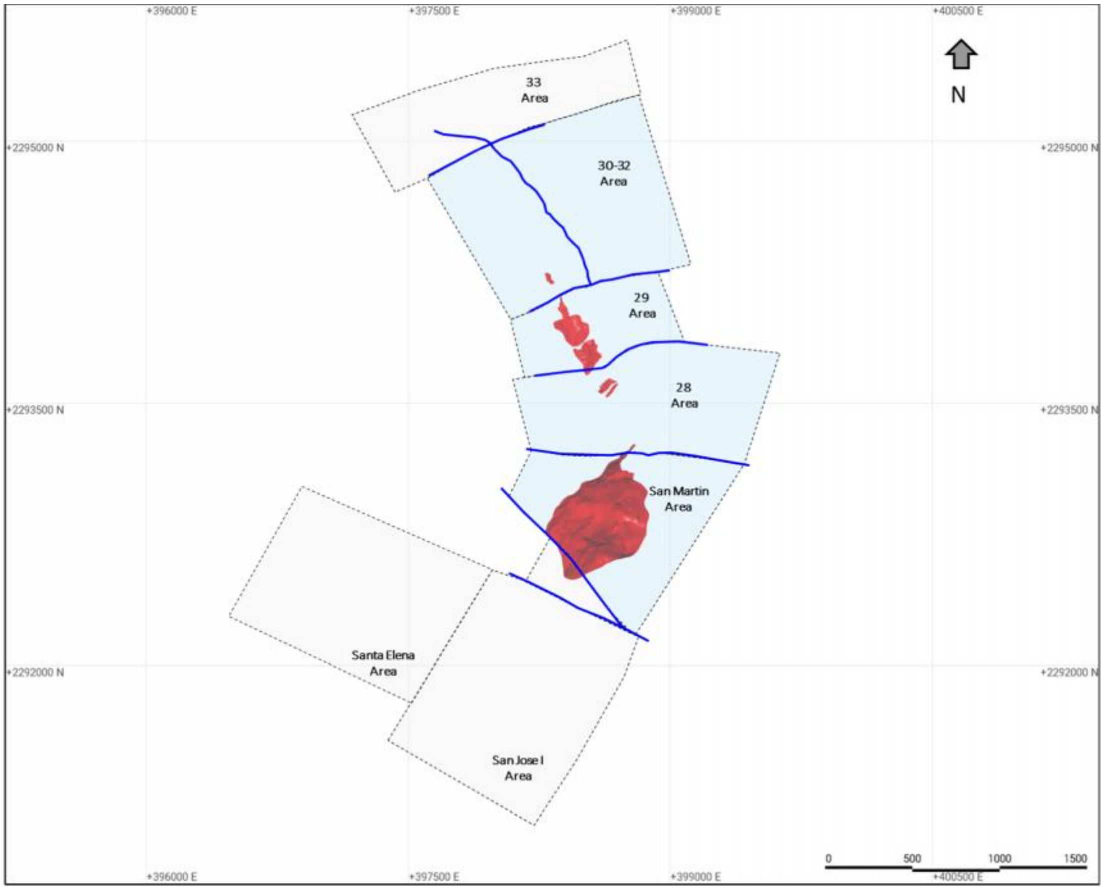


Figure 14-5: Plan-View Location Estimation Domains

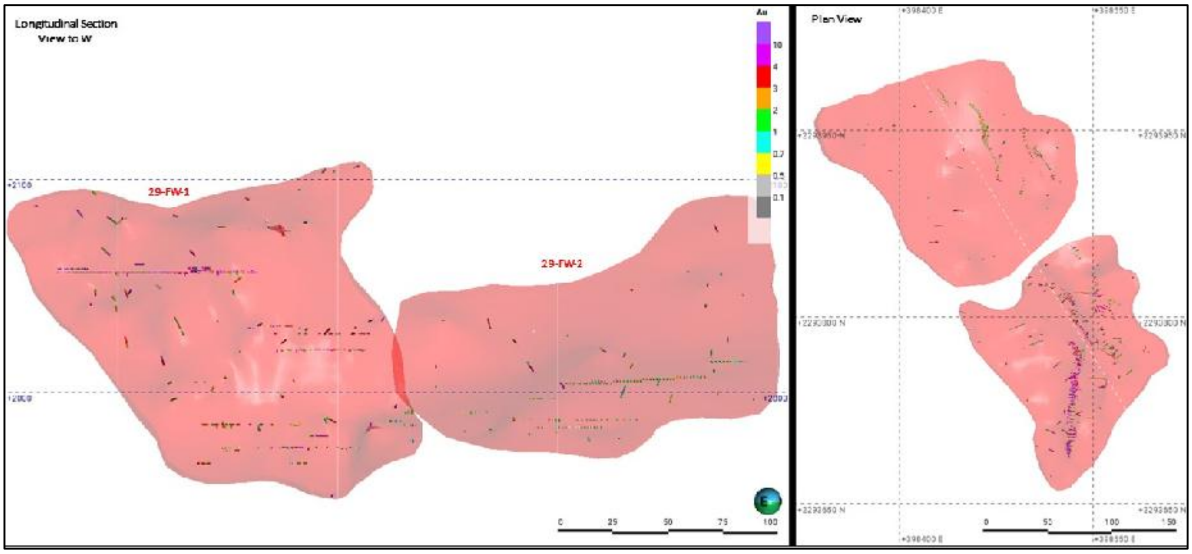


Figure 14-6: Longitudinal Section and Plan-view SM-FW-1 Domain and sample estimation

14.6 Sample Data Analysis

The sampling database used for resource estimation was analyzed both in three-dimensional spatial distribution, mineral grade, and statistics within each of the domains, to determine areas that could be outside or inside the analyzed domain. The individual analysis of each of the domains used in the resource estimation shows that there is a hard limit between the mineralized domain and its exterior, this by seeing a significant change in Au and Ag values between the interior and exterior of the domain (Figure 14-7). Based on this defined limit, the generation of composites is conducted, restricting it to the domain used for the estimation.

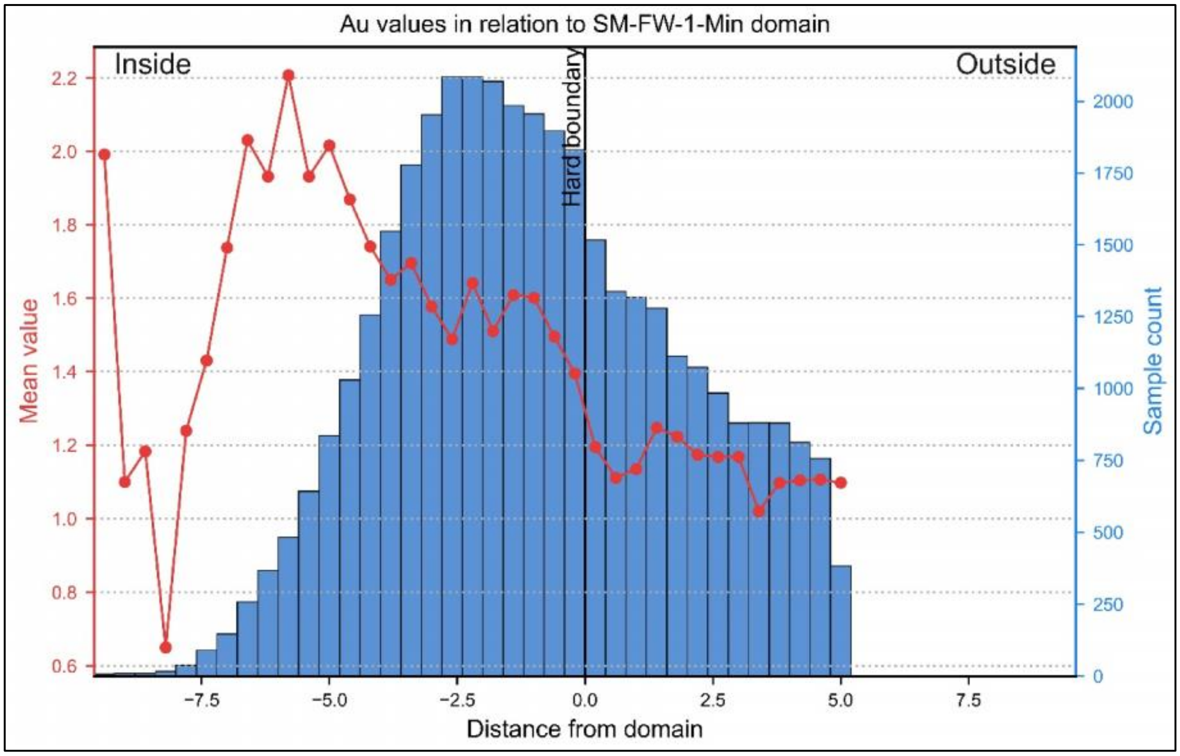


Figure 14-7: Values distribution shows a hard boundary in San Martin Area

14.7 Composite Sample Preparation

A review was made of the distribution of the thicknesses of the samples in each of the domains, also verifying the thickness of each of the structures evaluated, where the thickness that best suited each of them is 1 m. For the SM-FW-1 domain the minimum thickness is 0.1 m and the maximum 8 m before the composite, for the 29-FW-1 domain the minimum thickness is 0.1 and the maximum 4.95 m before the composite. The composites were generated by restricting them to the limit of the evaluated domains, in the case of the residual thickness it was added to the last interval (Figures 14-8 and 14-9).

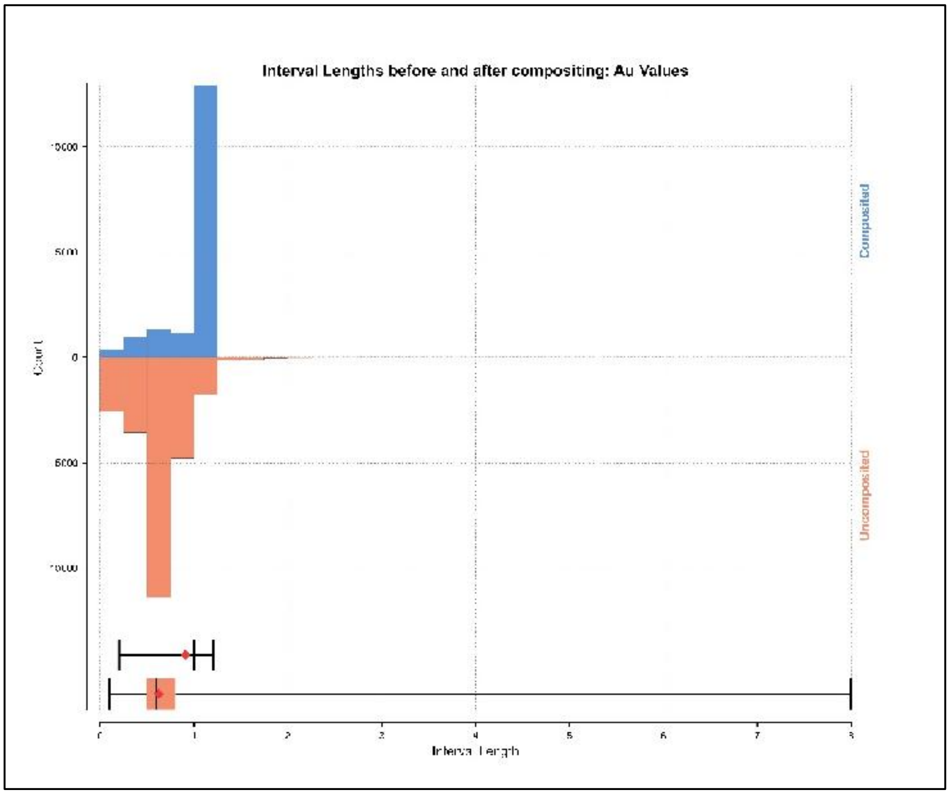


Figure 14-8: Interval lengths before and after composting: Au Values SM-FW-1

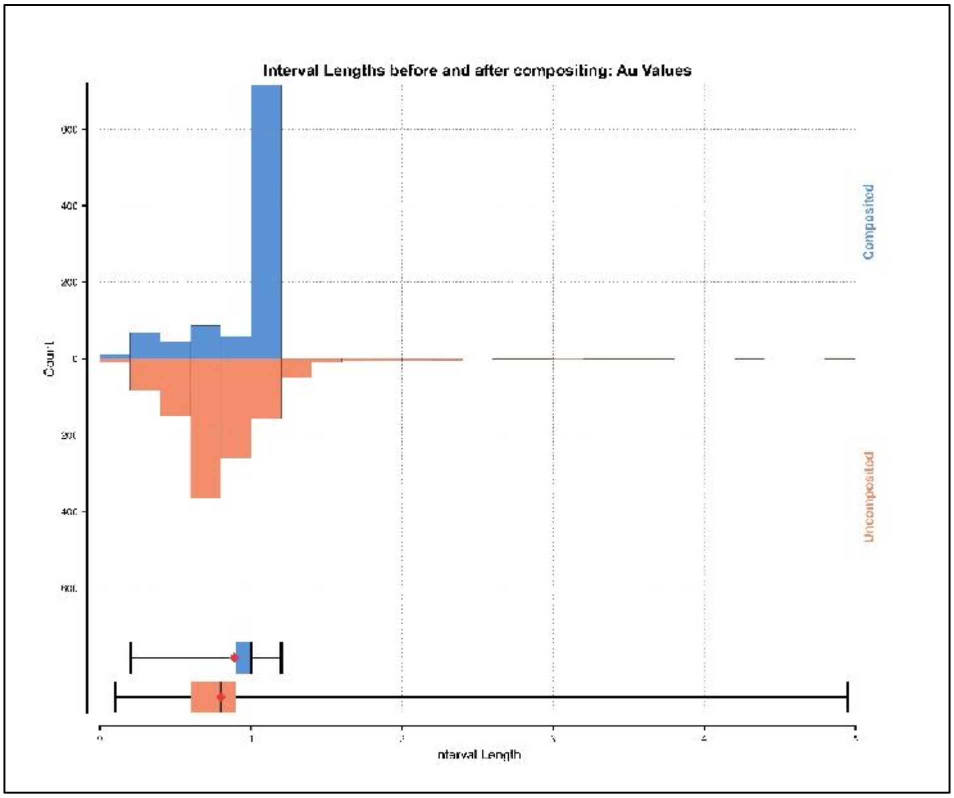


Figure 14-9: Interval lengths before and after composting: Au Values 29-FW-1

14.8 Outlier Values

To obtain the Outlier values and determine the capping, an analysis was conducted on the data population within each of the domains. The outliers for Au and Ag were calculated based on the inflection point of the cumulative probability plot and the spatial distribution of the sample outliers.

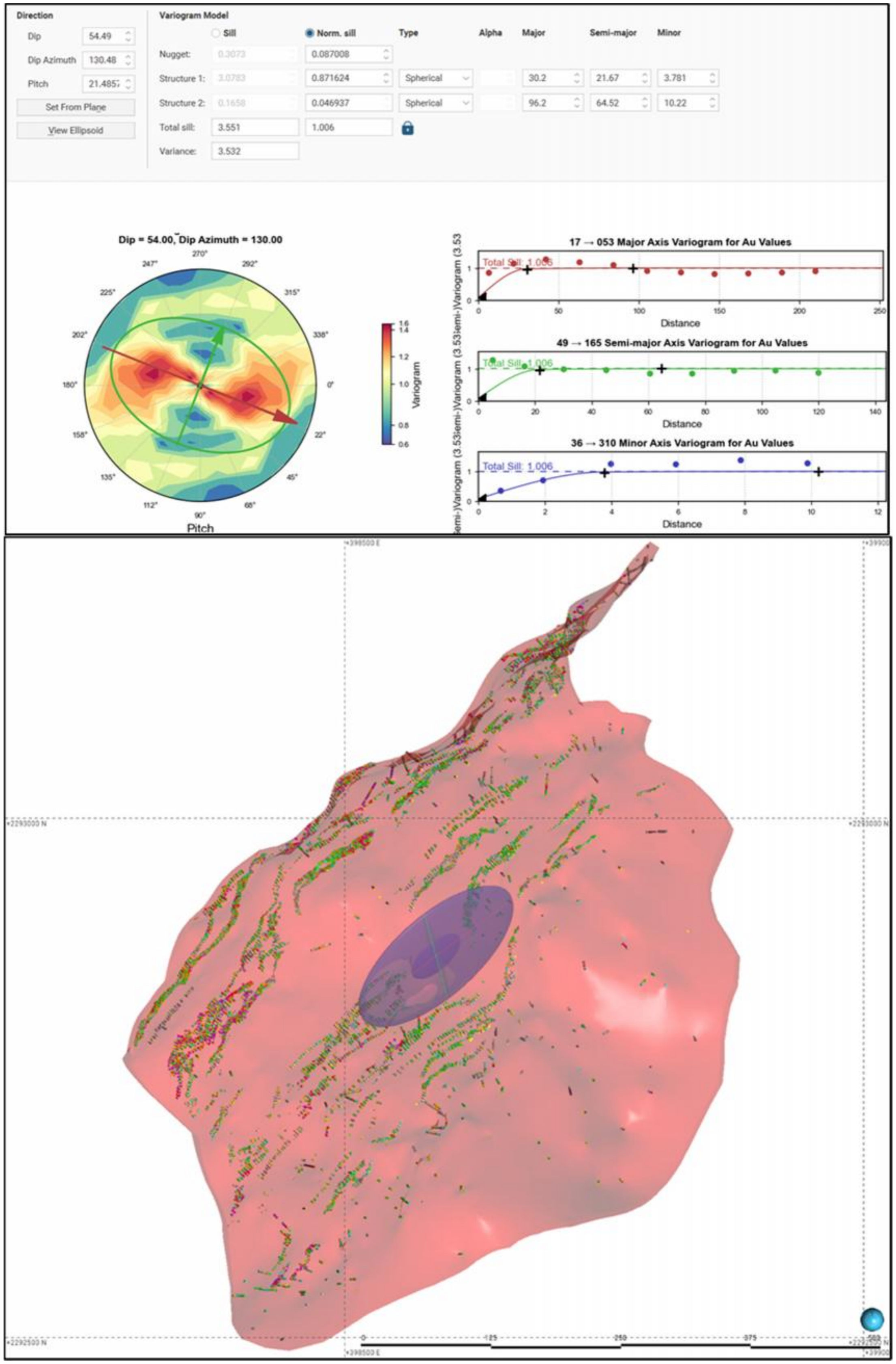
The following Table 14-4 shows the distribution of the capping conducted by domain for Au and Ag.

Table 14- 4: Capping Limits and Statistics for Silver and Gold by Vein Weighted by Length

Vein	Metal	Count	Cap	No. Capped	% Capped	Mean	Std. Dev.	CV	Maximum
SM-FW-1	Au (g/t)	A restriction outlier of >=15 g/t Au and >=100 and maximum distance of 5 m was used for this domain.							96.20
	Ag (g/t)	16656	100	335	2%	14.88	21.05	1.41	1520
SM-FW-2	Au (g/t)	3275	4.57	106	3%	0.87	1.03	1.18	82.2
	Ag (g/t)	3275	70	107	3%	12.95	16.28	1.25	380.25
28-CLV-SUP	Au (g/t)	2200	15	388	18%	5.46	5.38	0.98	316.72
	Ag (g/t)	2200	150	628	29%	73.58	58.86	0.79	2654.78
29-FW-1	Au (g/t)	985	10	212	22%	4.34	3.72	0.85	182.69
	Ag (g/t)	985	100	72	7%	26.6	27.89	1.04	2317.1
29-FW-2	Au (g/t)	383	6	18	5%	1.39	1.5	1.07	26.26
	Ag (g/t)	383	100	43	11%	42.28	34.21	0.8	704
29-FW-3	Au (g/t)	77	8	12	16%	3.06	2.73	0.89	21.54
	Ag (g/t)	77	80	25	32%	50.34	27.63	0.54	1514
29-FWCZ-2	Au (g/t)	166	8	21	13%	3.57	2.59	0.72	37.2
	Ag (g/t)	166	80	24	14%	31.49	26.95	0.85	164.6
29-FWCZ-3	Au (g/t)	80	12	20	25%	5.58	4.68	0.83	93.47
	Ag (g/t)	80	12	20	23%	5.58	4.68	0.83	655.6
30-CBN-W	Au (g/t)	16	15	4	25%	4.83	6.1	1.26	49.89
	Ag (g/t)	16	100	2	13%	29.95	36.25	1.21	185.2

14.9 Variography

General search trends were found using the radial bases tool in leapfrog Edge, variograms were calculated for Au and Ag in the different domains in which this technique could be used. Another method that was used for the search ellipsoid was to use the general trend of the domain and or the distribution of the values within the domain. The nugget value was set with the downhole variograms. Figures 14-10 shows the variogram model of SM-FW-1 and Figure 14-11 shows the Variogram Model for the 29-FW-1.



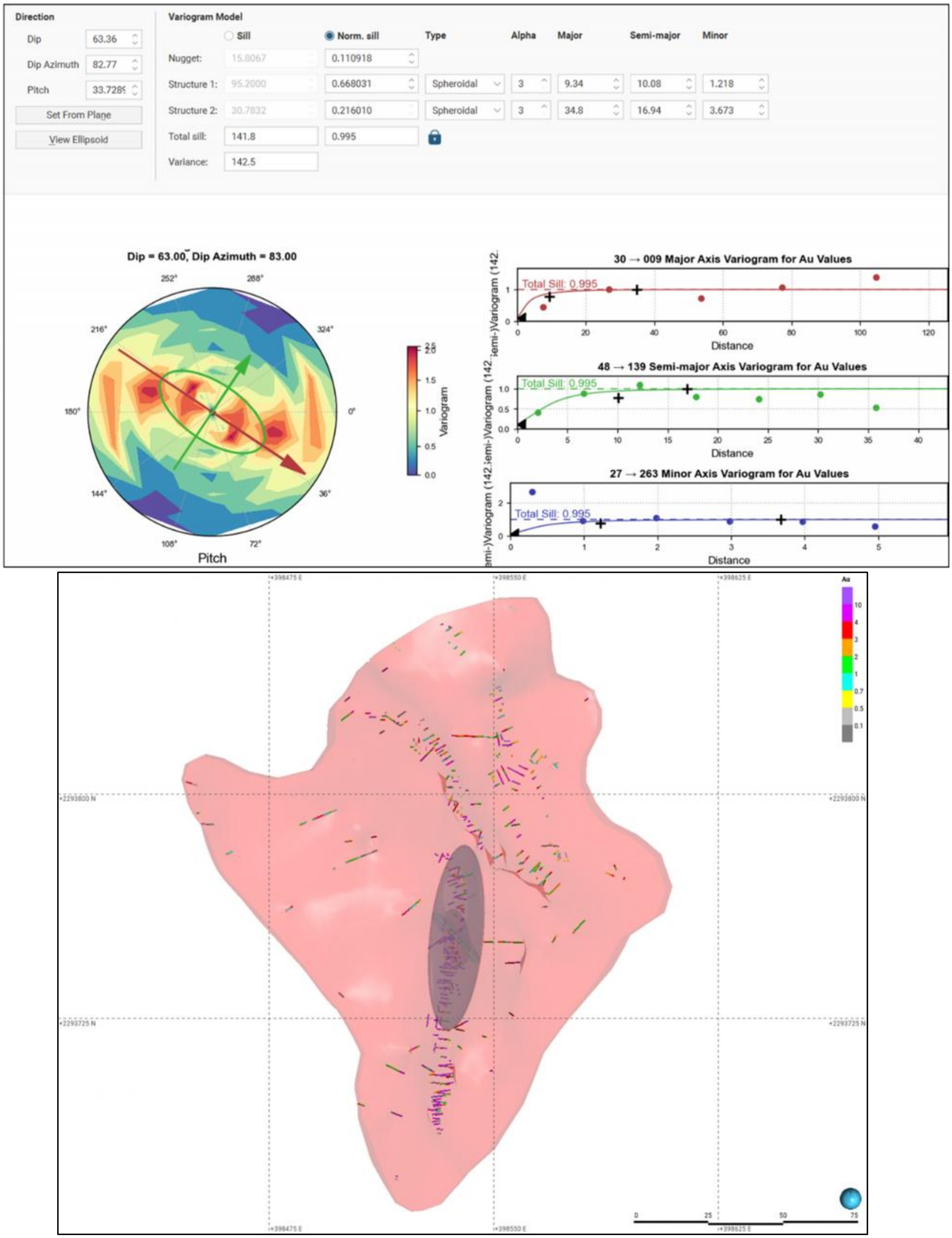
Direction

Dip	54.49
Dip Azimuth	130.48
Pitch	21.4857

Variogram Model

	○ Sill	● Norm. sill	Type	Alpha	Major	Semi-major	Minor
Nugget:	0.3073	0.087008					
Structure 1:	3.0783	0.871624	Spherical		30.2	21.67	3.781
Structure 2:	0.1658	0.046937	Spherical		96.2	64.52	10.22
Total sill:	3.551	1.006					
Variance:	3.532						

Figure 14-10: Variogram Model for the SM-FW-1



Direction

Dip: 63.36
Dip Azimuth: 82.77
Pitch: 33.728

Variogram Model

	○ Sill	● Norm. sill	Type	Alpha	Major	Semi-major	Minor
Nugget:	15.8067	0.110918					
Structure 1:	95.2000	0.668031	Spheroidal	3	9.34	10.08	1.218
Structure 2:	30.7832	0.216010	Spheroidal	3	34.8	16.94	3.673
Total sill:	141.8	0.995					
Variance:	142.5						

Figure 14-11: Variogram Model for the 29-FW-1

14.10 Density

The resource database includes over 270 density measurements. in holes throughout the mine. An average of the densities measured in multiple boreholes is presented in Table 14-5. The mine has run for over 30 years using a similar density.

The San Martin staff apply a factor of 2.6 tonnes/m^3 to convert volume to tonnage. This is considered reasonable for the type of deposit and is based on long production experience and historic measurements.

Table 14- 5: Summarized densities in holes from the entire San Martin Mine

HOLE ID	TYPE OF MINERALISATION	DENSITY Tonnes/m^3
DCSM22-468	Bx_Min	2.5
DCSM22-469	Bx_Min	2.5
DCSM22-470	Bx_Min	3.2
DCSM22-471	Bx_Min	2.6
DC2822-254	Bx_Min	2.4
DC2822-255	Bx_Min	2.6
DC2822-257	Bx_Min	2.6
DCSM22-472	Bx_Min	2.5
DCSM22-473	Bx_Min	2.6
DCSM22-475	Bx_Min	2.5
DC3322-16	Bx_Min	2.6
DCSM22-476	Bx_Min	2.5
DC3222-17	Bx_Min	2.4
DC3222-18	Bx_Min	2.6
DC3223-19	Bx_Min	4.6
DCSM23-477	Bx_Min	2.4
DC2823-263	Bx_Min	2.4
DC2923-532	Bx_Min	2.6
DC3223-22	Bx_Min	2.5
DC3223-23	Bx_Min	2.7
DC2823-267	Bx_Min	2.6
DC2823-269	Bx_Min	2.5
DC2823-270	Bx_Min	2.7
DC2823-271	Bx_Min	2.6
DC2823-272	Bx_Min	2.6
DC2823-273	Bx_Min	2.6
DC2823-274	Bx_Min	2.5
DC2923-538	Bx_Min	2.8
	AVERAGE DENSITY	**2.6**

14.11 Resource Estimation Process

Four block models are conducted to estimate the nine estimated domains. The block models are divided based on the different areas, so a block model is generated in San Martin that covers the SM-FW-1 and SM-HW-2 domains. For the area of 28, another block model is generated that covers the domain of 28-Clvs, some more for the area of 29 where it covers 5 domains 29-FW-1, 29-FW-2, 29-FW-3, 29 -CizFW-2 and 29-CizFW-3 and a model is made for the 30-32 area for the 30-W-Cbn domain. except for the 30 Area model, no rotation was applied to the block models. To define the size of the blocks, the spacing of the holes, the size of the composite and the type of mining were used. Sub-blocks were used in the first three areas mentioned. The size of the parent blocks used was 2 m x 2 m x 2 m and the sub-block is 1 m x 1 m and in Z different measurements were used depending on the area.

The estimator used for the different domains was inverse distance weighting to the second power (ID2). Based on the distribution and the best representation of mineral continuity, this method was chosen (Table 14-6).

Channel samples and borehole samples were used to generate and estimate the domains. The union of both databases was conducted, various passes are generated for each of the domains. The difference between passes is made up of the search distances. The first pass is based on the data provided by the variography, the second and third passes the distance is increased, Figures 14-12 and 14-13.

Table 14- 6: Estimation parameters for the SM-FW-1 and 29-FW-1 domains

Estimation Domain	SM-FM-1			29-FM-1	
Pass	Pass 1	Pass 3	Pass 3	Pass 1	Pass 2
Maximum	50	96.2	150	34.8	80
Intermadiate	30	64.52	80	16.94	40
Minimum	5	10.22	40	3.67	8
Dip	54.49	54.49	54.49	63.36	63.36
Dip Azimith	130.48	130.48	130.48	82.72	82.77
Pitch	21.48	21.48	21.48	21.48	21.48
Minimum Sample	3	3	3	3	3
Maximum Sample	18	18	18	18	18
Drill Hole Limit					
Max Sampe pre Drill Hole	3	3	3		
Value Clipping Upper (Au g/t)	15	15	15	10	10
Value Clipping Upper (Ag g/t)	100	100	100	100	100

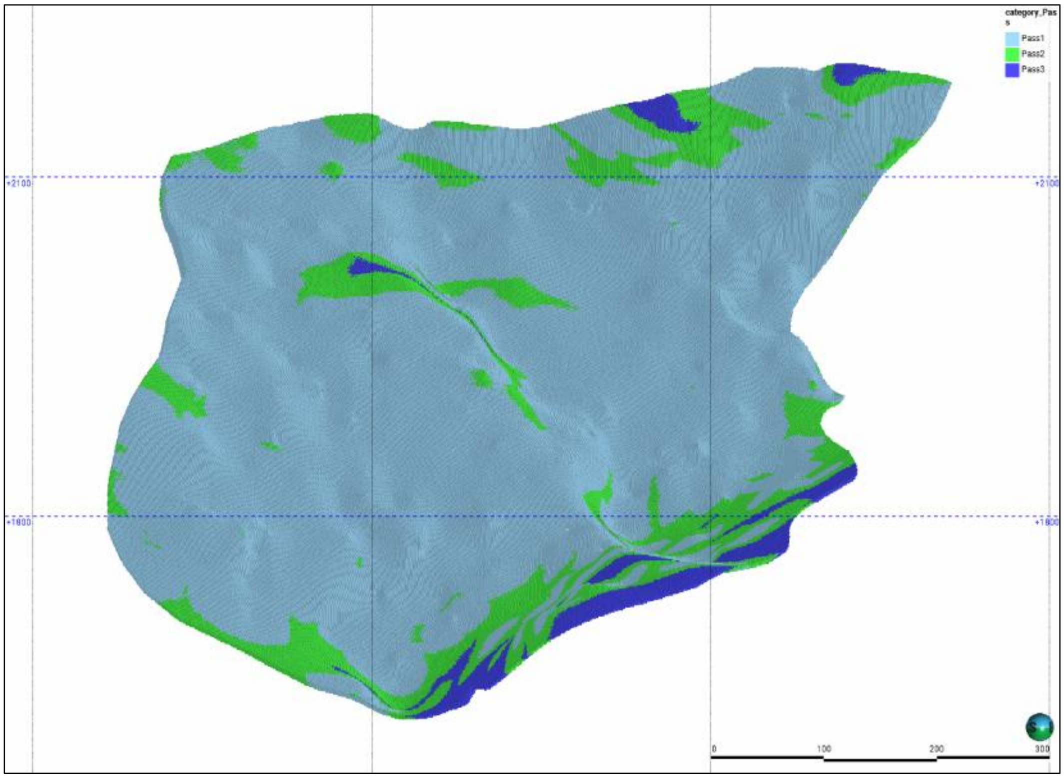


Figure 14-12: Longitudinal Section Estimation Passes for the SM-FW-1 domain

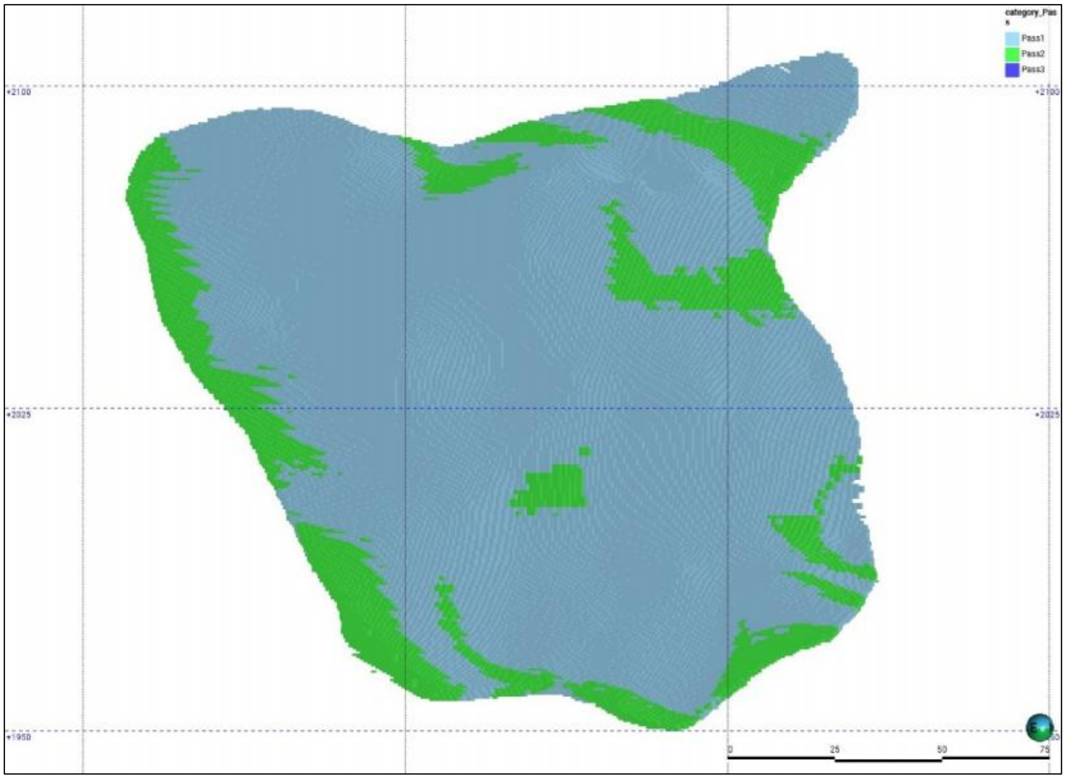


Figure 14-13: Longitudinal Section Estimation Passes for 29-FW-1 domain

14.12 Block Model Validation

The validation process for each of the evaluated domains includes:

- Comparison of domain volume and block model volume.
- Visual review of mineral grade versus mineral grade of composites in cross sections and plans across the domain.
- Validation through comparison of block model estimation with ID and nearest neighbor in swath plots. This review is done on the X, Y and Z axes.

Figures 14-14, 14-15, 14-16 and 14-17 are examples of a longitudinal section and swath plots of the SM-FW-1 and 29-FW-1 domains.

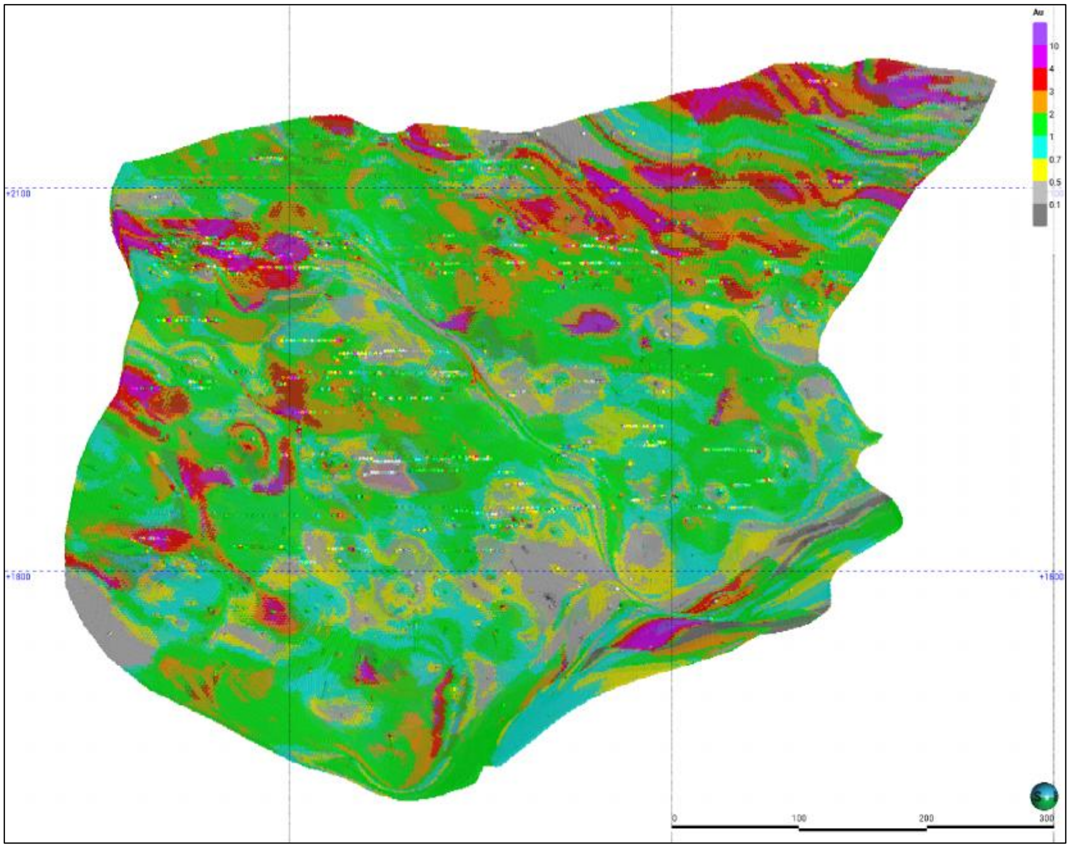


Figure 14-14: SM-FW-1 block model and values of composite samples

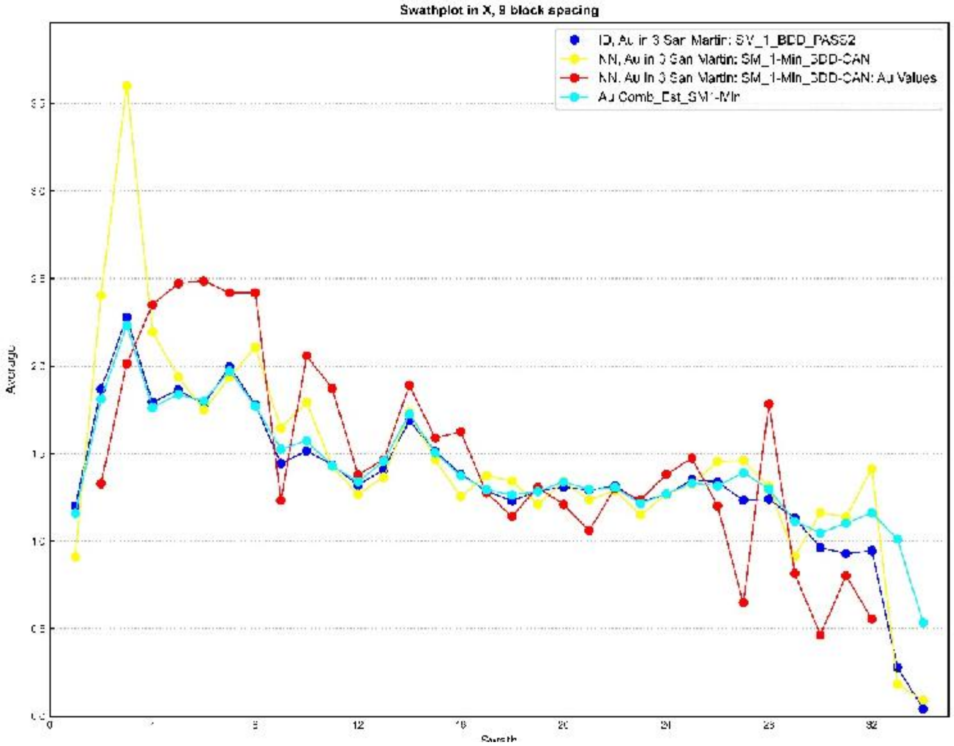


Figure 14-15: Swath Plot across the X-axis of the SM-FW-1 domain, Au values

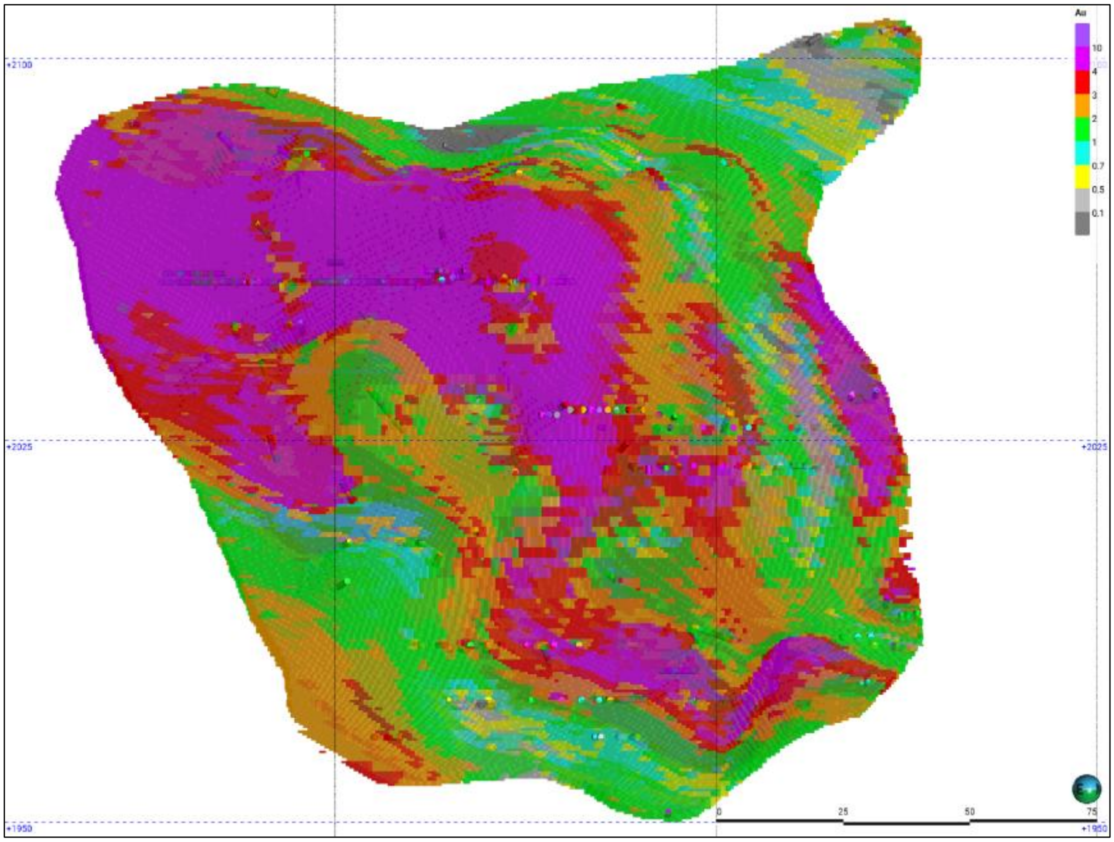


Figure 14-16: 29-FW-1 Block Model and Composite Sample Values

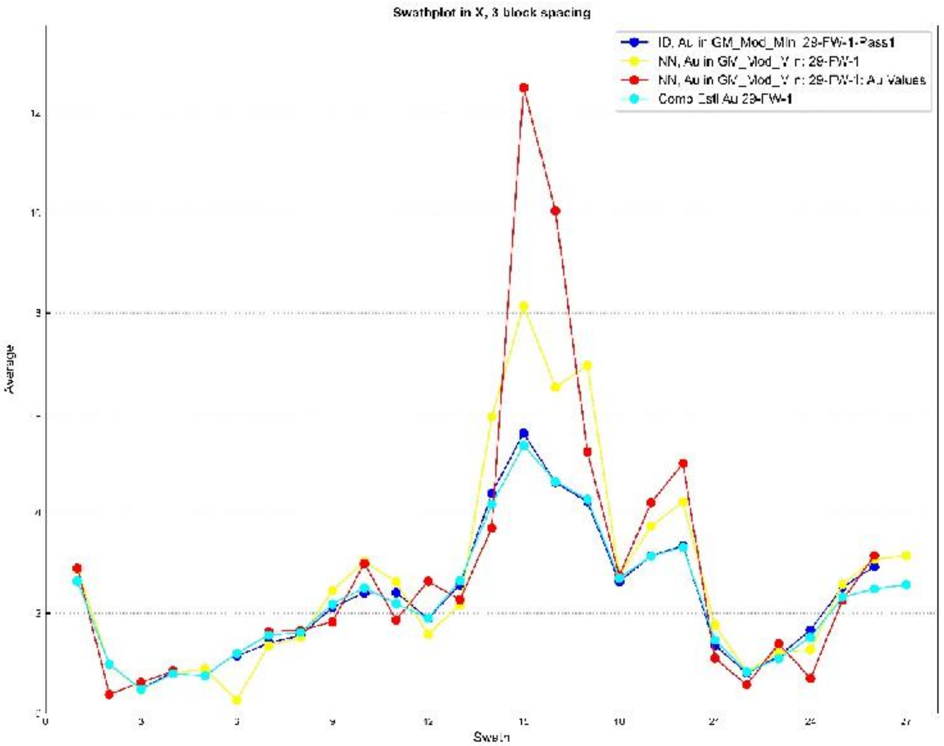


Figure 14-17: Swath Plot across the X axis of the 29-FW-1 domain, Au values

14.13 Mineral Resource Classification

The classification of mineral resources was based on different parameters for each of the domains evaluated. The ranges of the variograms that are indicative of the continuity of the mineral were used, the distances between holes were used for each of the domains, the continuity of the known geological bodies through production developments and the number of samples evaluated for each block.

In the case of the SM-FW-1 Domain, the measured resources considered the blocks at a distance of ≤15 m from boreholes and channel samples. For the indicated resources, blocks with a distance of ≤25 m from boreholes and channel samples were considered. For inferred resources, blocks with a distance ≤110 m were taken.

In the case of Domain 29-FW-1, the measured resources considered the blocks at a distance of ≤12.5 m from boreholes and channel samples. The indicated resources were considered blocks with a distance of ≤25 m from boreholes and channel samples (Figures 14-20 and 14-21). The Inferred resources were taken blocks with a distance ≤70 m.

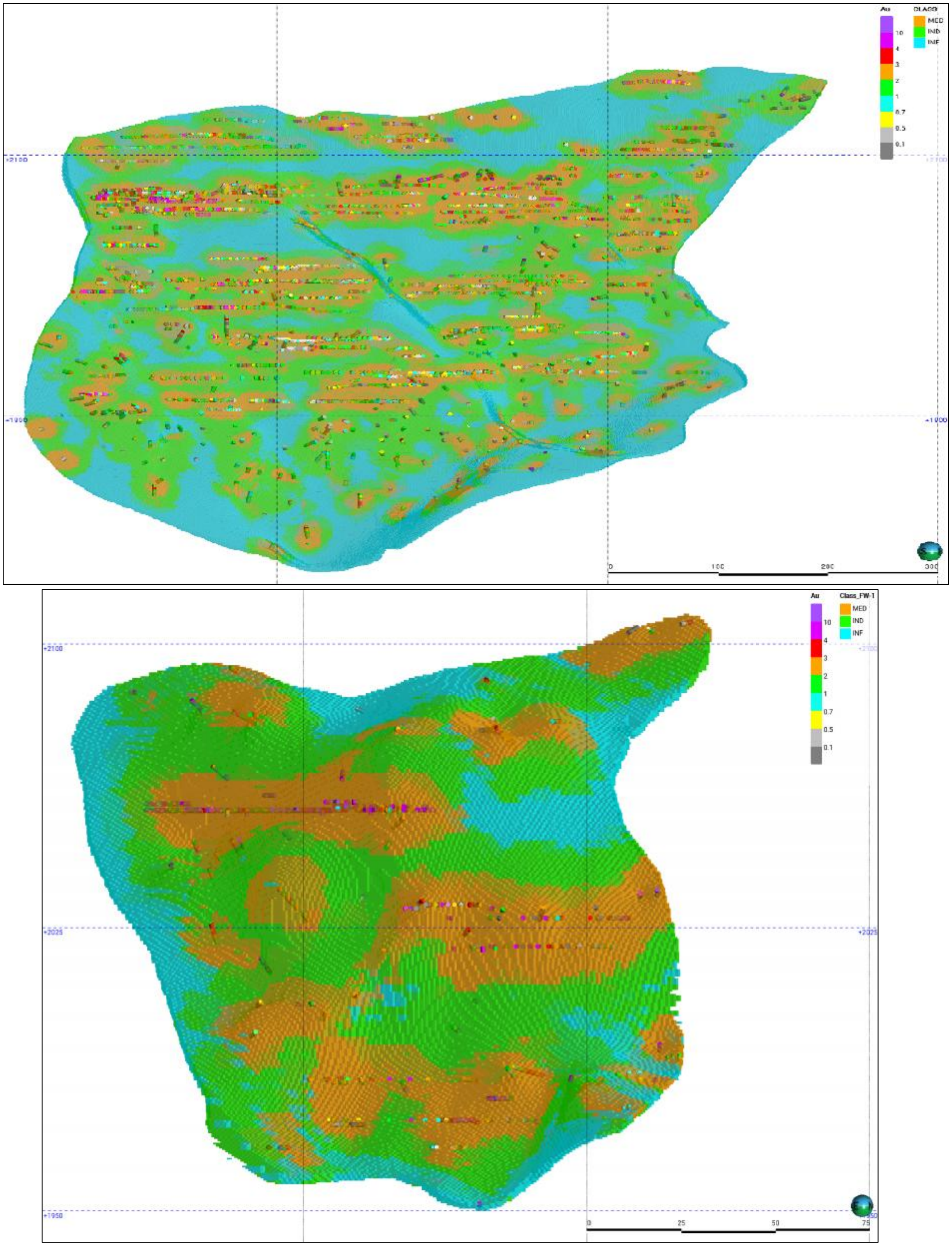


Figure 14-18: Measured, Indicated and Inferred Resources, Domain SM-FW-1

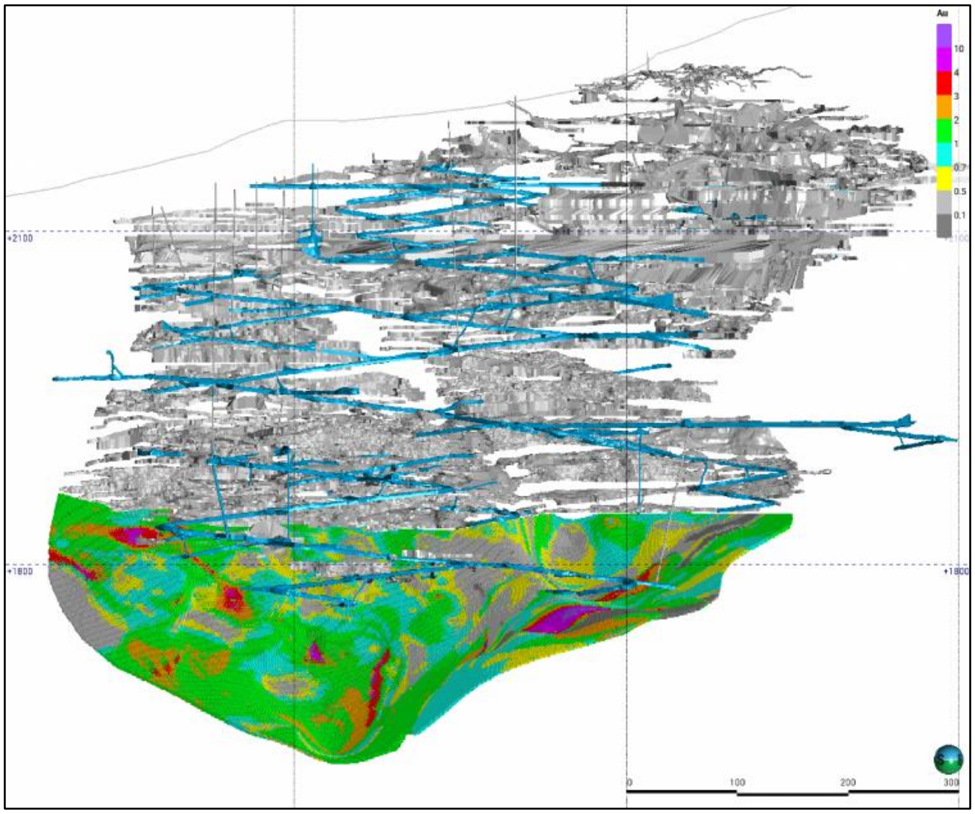


Figure 14-19: Measured, Indicated and Inferred Resources, Domain 29-FW-1

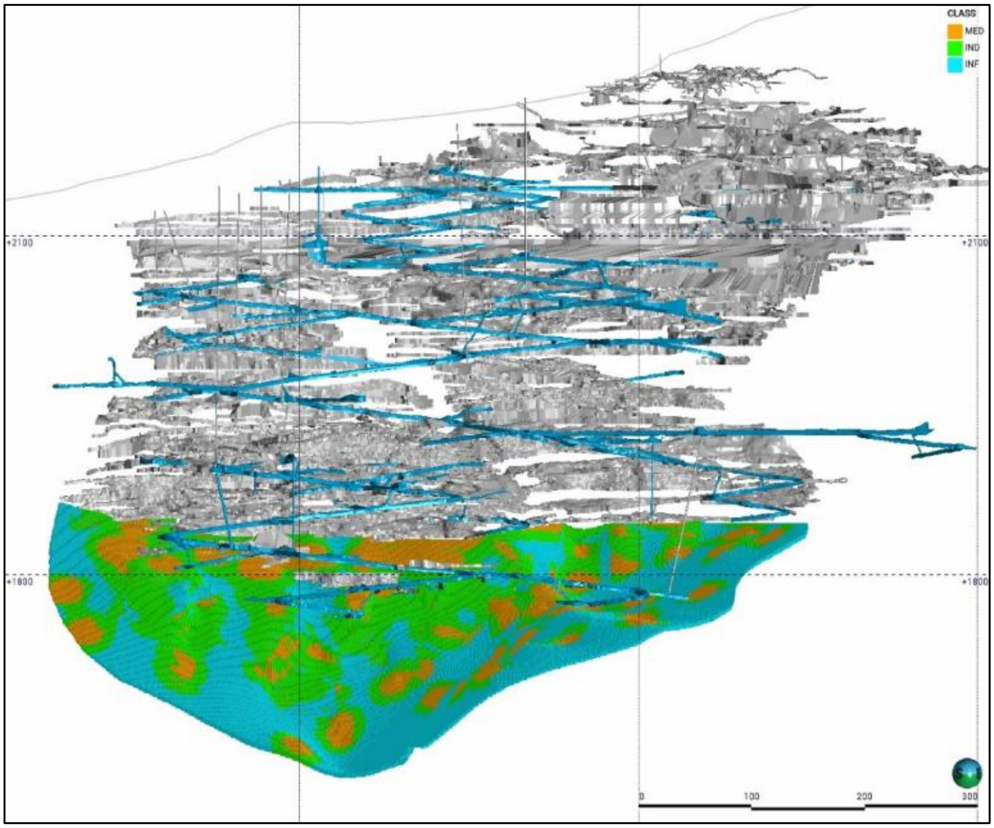


Figure 14-20: Resource calculation zone for the SM-FW-1 domain, mineral grade and resource classification

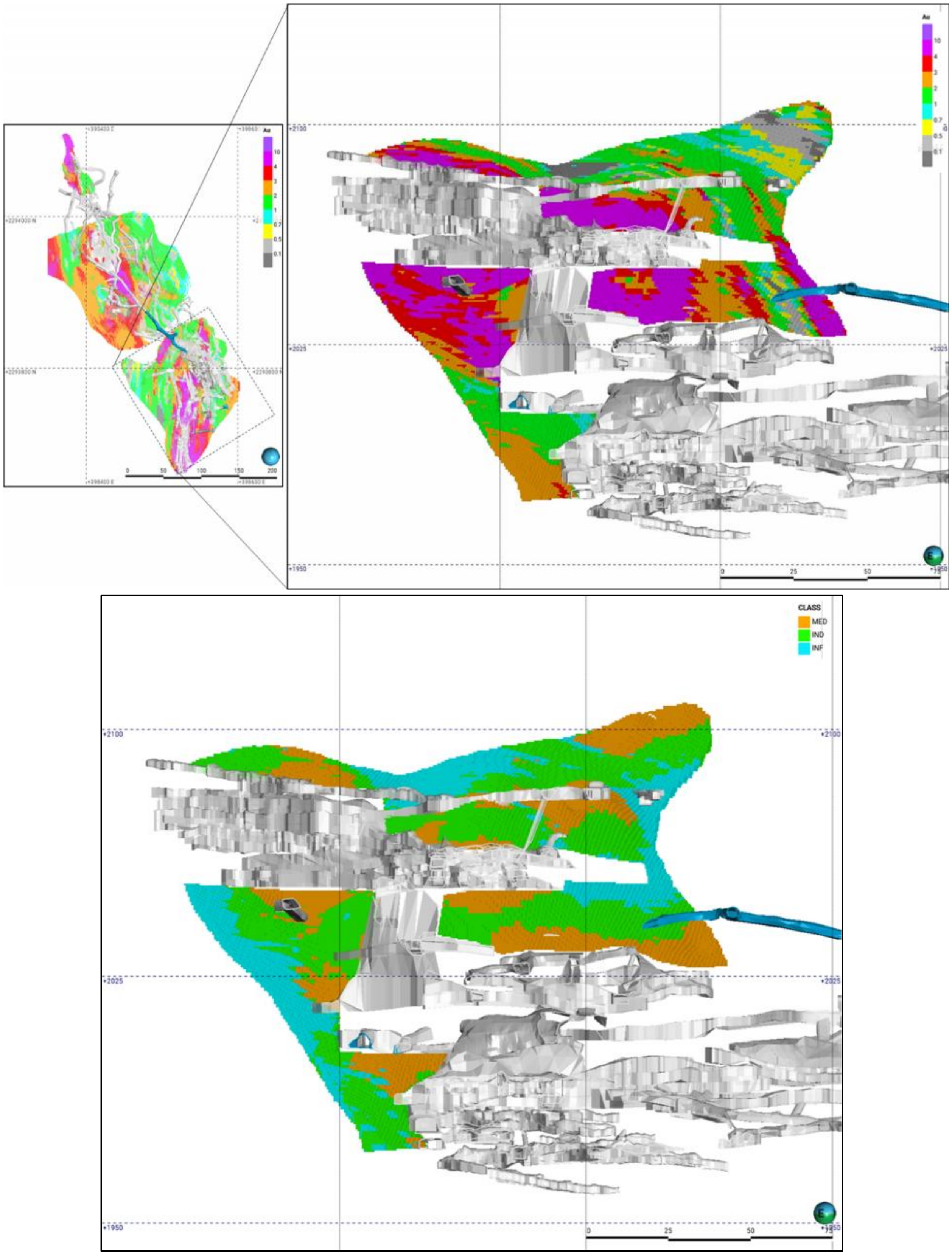


Figure 14-21: Resource calculation zone for domain 29-FW-1, Mineral grade and resource classification

14.14 Three-Dimensional Polygonal Method for Resource Estimation

Starting in 2024, the traditional 2D polygon method using VLP to calculate resources in past years was changed to three-dimensional polygons, in areas with less data and known zones with mining development and channel sampling. The areas where this method was used were San Jose I and San Jose II, although blocks were also generated in the San Martin Area and Area 28. A total of 65 three-dimensional polygons were obtained for the different areas. These polygons were classified as measured, indicated, and inferred resources. The three-dimensional polygons were created with Leapfrog Geo software.

Three-dimensional polygons are generated from the sampling areas where mine workings have been developed. The desired area is selected and the mineral polygon is configured in plan view. This polygon will be extrapolated vertically using the characteristics of the geological mapping and knowledge of the mineral structure in each of the zones. The vertical extrapolation is up to 37.5 metres. This extrapolation will depend on whether there are mine workings at the top or bottom. Each of the configurations has a certain number of samples which are composited. Subsequently the distribution of values is analyzed and capping is applied to avoid overestimation of the block.

The classification of resources is done based on distance, ≤12.5 m of extrapolation for both the top or bottom is classified as measured, ≤25 m of extrapolation in both directions corresponds to Indicated and ≤37.5 m of extrapolation up and down is classified as inferred. Figure 14-22 shows the 3D blocking method used at San Jose vein.

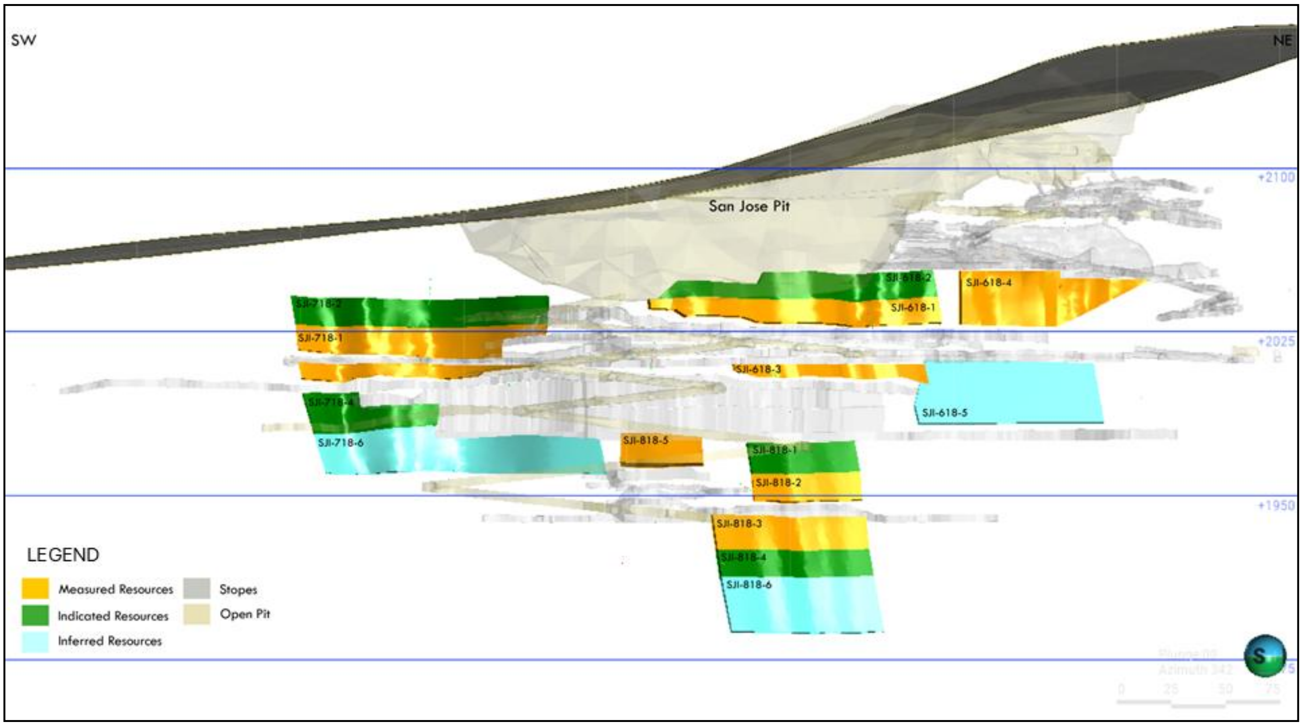


Figure 14-22: Three-dimensional polygons, generated in the San Jose I area

14.15 Definition Mineral Resource

The mineral resource estimation for the San Martin Mine was completed following the guidelines of Canadian National Instrument 43-101 ("NI 43-101"). The modeling and estimation of the mineral resources were completed on June 30, 2018, under the supervision of Erme Enriquez, qualified person with respect to mineral resource estimations under NI 43-101. The effective date of the resource estimate is April 30, 2024. Mr. Enriquez is independent of SIM by the definitions and criteria set forth in NI 43-101; there is no affiliation between Mr. Enriquez and SIM except that of independent consultant/client relationships.

The San Martin resources are classified in order of increasing geological and quantitative confidence in Proven and Probable, Inferred, Indicated, and Measured categories in accordance with the "CIM Definition Standards – For Mineral Resources and Mineral Reserves" (2014) and therefore NI 43-101. CIM mineral resource definitions are given below, with CIM's explanatory text shown in italics:

14.15.1 Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals.

The term Mineral Resource covers Mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for eventual economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cutoff grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.

Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time *periods more than 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.*

14.15.2 Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated based on limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed.
Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.

There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.

14.15.3 Indicated Mineral Resource

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve. Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of Mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the *feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions.*

14.15.4 Measured Mineral Resource

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the Mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

14.16 Mineral Resource Statement

The Mineral Resource estimate has been reviewed in detail by Mr. Erme Enriquez, BSc., M.Sc., CPG., independent Geologist. The estimate has an effective date of April 30, 2024. Mineral Resources are reported inclusive of Mineral Reserves at a block cut-off grade of 1.29 g/t Au Eq, assuming underground mining methods, and depleted by the mining activities to December 31, 2024.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability (Table 14-7).

Factors which may affect the Mineral Resource estimates include:

- Metal price assumptions
- Changes to the assumptions used to generate the cut-off grade value
- Changes in local interpretations of mineralization geometry and continuity of mineralization zones
- Density and domain assignments
- Changes to design parameter assumptions that pertain to stope designs
- Changes to geotechnical, mining, and metallurgical recovery assumptions
- Assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain environmental and other regulatory permits and keep the social license to operate.

Table 14- 7: Mineral Resources Statement at the San Martín Mine

Area/Category	Mineral Type	Tonnage	Grade			Metal Content		
			Au (g/t)	Ag (g/t)	Au-Eq (g/t)	Au (Oz)	Ag (Oz)	Au-Eq (Oz)
San Jose I	Oxides	59,777	1.92	10	2.03	3,686	18,326	3,910
San Jose II	Oxides	84,912	1.87	13	2.03	5,102	36,133	5,543
SM	Oxides	114,803	1.75	13	2.03	6,455	49,311	7,057
28 Area	Oxides	41,192	3.59	52	4.22	4,756	68,814	5,595
29 Area	Oxides	10,210	3.55	17	3.75	1,166	5,438	1,233
Carbonaceous	Oxides	199,859	3.36	24	3.64	21,565	151,701	23,415
Total Measured	**Oxides**	**510,754**	**2.60**	**20**	**2.85**	**42,731**	**329,724**	**46,752**
San Jose I	Oxides	99,866	1.90	9	2.01	6,102	29,077	6,457
San Jose II	Oxides	34,180	2.08	20	2.32	2,283	21,988	2,551
SM	Oxides	132,284	2.52	15	2.71	10,729	65,716	11,531
28 Area	Oxides	120,874	2.43	26	2.75	9,460	102,002	10,704
29 Area	Oxides	20,011	3.09	17	2.75	1,986	11,114	2,121
30 Area					0.00	0	0	0
Carbonaceous	Oxides	239,344	3.13	21	3.39	24,105	161,001	26,068
Total Indicated	**Oxides**	**646,559**	**2.63**	**19**	**2.86**	**54,665**	**390,899**	**59,432**
Total Measured + Indicated	**Oxides**	**1,157,312**	**2.62**	**19**	**2.85**	**97,396**	**720,623**	**106,185**
San Jose I	Oxides	129,449	1.72	7	1.81	7,154	30,851	7,530
San Jose II		0	0.00	0	0.00	0	0	0
SM	Oxides	189,363	2.11	15	2.28	12,828	88,325	13,905
28 Area	Oxides	13,278	4.70	57	5.40	2,007	24,380	2,304
29 Area	Oxides	6,604	2.84	19	5.40	603	4,062	653
30 Area					0.00	0	0	0
Carbonaceous	Oxides	389,739	2.03	17	2.23	25,380	208,238	27,920
Total Inferred	**Oxides**	**728,433**	**2.05**	**15**	**2.23**	**47,972**	**355,856**	**52,312**

- *2014 CIM Definitions Standards were followed for the classification of Mineral Resources.*
- *Tonnage is expressed in tonnes; metal content is expressed in ounces. Totals may not add up due to rounding.*
- *Indicated and Inferred resource cut-off grades are based on a 1.29 g/t gold equivalent.*
- *Metallurgical Recoveries were 86% gold and 55% silver.*
- *Mining Recoveries of 90% were applied.*
- *The Mineral Resource estimate uses drill hole data available as of December 31, 2023.*
- *Minimum mining widths were 1.5 meters.*
- *Dilution factors is 15%. Dilution factors are calculated based on internal stope dilution calculations.*
- *Gold equivalents are based on a 1:82 gold:silver ratio. Au Eq= gAu/t + (gAg/t ÷ 82)*
- *Price assumptions are $1891 per ounce for gold and $23.06 per ounce for silver.*
- *Mineral resources are estimated exclusive of and in addition to mineral reserves.*
- *Resources were estimated by SIM and reviewed by Erme Enriquez CPG.*

15.0 MINERAL RESERVE ESTIMATE

15.1 Introduction

Mineral reserve estimates in this Report are reported following the requirements of Subpart 1300. Accordingly mineral resources in the measured and indicated categories have been converted to proven and probable mineral reserves respectively, by applying applicable modifying factors and are planned to be mined out under the LOM plan within the period of our existing rights to mine, or within the time of assured renewal periods of rights to mine.

Total Proven and Probable Mineral Reserves at the San Martin mine as of April 30, 2024, estimated by geology staff and reviewed by QP, are 1,258,360 tonnes at a grade of 2.39 g Au/t and 18 g Ag/t (Table 15-2). This total includes Proven reserves of 545,373 tonnes grading 2.39 g/t Au and 19 g/t Ag along with Probable reserves of 712,987 tonnes grading 2.38 g/t Au and 17 g/t Ag.

The Carbonaceous material has not been included in the Reserves and that is why P&P reserves have decreased. The carbonaceous reserves have been always present in the deposit and has been mined and sent to the plant using normal treatment, but those always caused a problem with the recovery of gold. The reserves represent only 5.5% of total reserves and can be left for better times when the right process is found for treatment. There exists sufficient non- carbonaceous ore to operate for two full years, which should be enough for feeding the plant for several years.

The estimation methods used by Luismin/Goldcorp have been retained to some degree, but there have been substantial changes to determination criteria for Proven and Probable reserves, and changes to dilution rates to account for the mining of Tronco ore zones and remnant ore (both hanging wall and strike and dip extensions) versus the dominance of Manto ore mined in the past.

Compared to the Manto ore the Tronco ore is thinner and stepper dipping which has resulted in higher dilution during mining due to most of the ore being mined by cut and fill methods versus the room and pillar method in the thicker flat lying Mantos. For remnant ore there is a greater dilution associated with minimal widths for mechanical equipment, which at times exceeds the remnant ore widths. There is also additional dilution associated with breaking and mucking ore next to unconsolidated fill from past mining. Cutting of some high-grade samples has been implemented to try to better predict mined grades. As well grades were lowered in some ore blocks with sufficient production history to establish the lower grades.

Modifications have also been made to the determination of Probable and Proven ore. Most notably Proven ore is only calculated for blocks above mine development, while in the past Proven ore was also extended below workings.

The author believes that the Mineral Reserve and Mineral Resource estimates fairly represent the Mineral Reserve/Mineral Resource potential of the property.

15.2 Mineral Reserve Estimation Methodology

The San Martin underground mineral reserves were estimated by applying mining considerations to the mineral block model. A minimum mine width of 1.5 meters was used for the formation of the mined products, using the external dilution corresponding to the production data and choosing the varieties corresponding to the measured and indicated classifications. In the first round, the AutoCAD Stop Optimizer tool was used to decide the economic zones to be mined. The output of the optimizer was checked to remove areas considered uneconomic. The idle economy of the new ore sections was then assessed, considering potential capital development requirements of a zone, to ensure profitability. Then, the stope shapes that are expected to be economically mined, and the development needed to access them, were tabulated to estimate the mineral reserve.

15.3 Dilution

Mining Recovery & Grade Dilution considered for the stopes is based on the analysis of the results of overbreak and underbreak registered on the reconciliations of the stopes mined during 2023 and the first months of 2024. Before 2022, dilution in mining was considering to be of the order of 20%. Stope reconciliations show an improving trend due to operational improvements implemented in 2022 and 2023, such as mining of the stopes in sections to reduce the dilution effects of the central fault that crosses the orebody; improvements on the drilling and blasting; and bolting. Dilution in mining is estimated to be no greater than 15%.

15.4 Reconciliation of Mineral Reserves to Production

Reconciliation is required to validate the Mineral Reserve estimates and to check the effectiveness of both estimating and operating procedures. As the reconciliations identify variances, changes can be made to the mine/processing operating practices and/or to the estimation procedure. Reconciliation procedures involve activities such as production monitoring, reconciling the mineral reserves among the resource model, mine production and mill results.

The staff at PENBER reconciles Mineral Reserve estimates with actual production each month using key indicators: Budget, mid-term production plan, in-situ mineral resources, short-term plan, ore extracted from the resource model, mined material to surface, milled material including third-party purchases, and mill throughput.

A comparison of planned vs. realized production for the 12-month period of May 2023 to April 2024 is shown in Table 15-1.

Table 15- 1: Reconciliation of 2023 Production

Concept	Budget	Received at Plant	Comparison (%)
Tonees	227,760	224,307	98
Grade Au g/t Eq	1.39	1.69	122
Ounces Au Eq	9,426	10,094	107

A match of within +/-10% is generally considered acceptable for Mineral Resource and Mineral Reserve estimation. San Martin results are close, and indicate that estimation parameters are generally working well, and providing a good model of production results.

15.5 Mineral Reserve Statement

Mineral reserves are derived from Measured Mineral Resources, and Indicated Mineral Resources are converted to Probable Mineral Reserves after applying the economic parameters as stated previously and using the VLP to generate stope designs for the reserve LOM plan. The stope designs are then used to mine on levels along with the required development for the final mine plans. The mine planners have found that extraction of the blocks is feasible given grade, tonnes, costs, and access requirement.

The San Martín Mine Project mineral reserves have been derived and classified according to the following criteria:

- Proven mineral reserves are the economically mineable part of the Measured resource for which mining, and processing/metallurgy information and other relevant factors show that economic extraction is feasible.
- Probable mineral reserves are those Measured or Indicated mineral resource blocks which are considered economic and for which SIM has a mine plan in place.

The Proven and Probable mineral reserves for the San Martin mine as of April 30, 2024, are summarized in Table 15-2. The mineral reserves are exclusive of the mineral resources reported in Section 14 of this report.

The QP is of the opinion that the Mineral Reserves are being estimated in a proper manner using current mining software and procedures consistent with industry best practice.

Table 15- 2: Proven and Probable Mineral Reserves, Effective Date April 30, 2024

Area	Mineral Type	Tonnage	Grade			Metal Content		
			Au (g/t)	Ag (g/t)	Au-Eq (g/t)	Au (Oz)	Ag (Oz)	Au-Eq (Oz)
San Jose I	Oxides	62,360	1.76	9	1.86	3,526	17,129	3,735
San Jose II	Oxides	91,210	1.70	12	1.84	4,972	35,281	5,402
San Martin	Oxides	111,154	1.63	13	1.79	5,829	46,390	6,395
28 Area	Oxides	46,010	3.22	47	3.79	4,761	68,890	5,602
29 Area	Oxides	11,404	3.18	15	3.37	1,168	5,444	1,234
30 Area	Oxides	0	0.00	0	0.00	0	0	0
Carbonaceous	Oxides	223,235	3.01	21	3.27	21,589	151,870	23,442
Total Proven	**Oxides**	**545,373**	**2.39**	**19**	**2.61**	**41,845**	**325,003**	**45,809**
San Jose I	Oxides	111,546	1.70	8	1.80	6,109	29,110	6,464
San Jose II	Oxides	38,177	1.86	18	2.08	2,286	22,013	2,554
San Martin	Oxides	138,564	2.35	13	2.51	10,468	59,888	11,199
28 Area	Oxides	135,011	2.18	24	2.47	9,470	102,115	10,716
29 Area	Oxides	22,351	2.77	15	2.96	1,988	11,126	2,124
30 Area	Oxides				0.00	0	0	0
Carbonaceous	Oxides	267,338	2.81	19	3.04	24,132	161,180	26,097
Total Probable	**Oxides**	**712,987**	**2.38**	**17**	**2.58**	**54,453**	**385,432**	**59,154**
Total Proven + Probable	**Oxides**	**1,258,360**	**2.38**	**18**	**2.59**	**96,298**	**710,435**	**104,962**

- *CIM Definitions Standards on Mineral Resource and Reserves have been followed.*
- *Mineral Reserves have an effective date of April 30, 2024.*
- *Reserve cut-off grades are based on a 1.29 g/t gold equivalent.*
- *Metallurgical Recoveries were 86% gold and 55% silver.*
- *Mining Recoveries of 90% were applied.*
- *Minimum mining widths were 1.5 meters.*
- *Dilution factors is 15%. Dilution factors are calculated based on internal stope dilution calculations.*
- *Gold equivalents are based on a 1:82 gold - silver ratio. Au Eq= gAu/t + (gAg/t ÷ 82)*
- *Price assumptions are $1891 per ounce for gold and $23.06 per ounce for silver.*
- *Resources were estimated by SIM staff and reviewed by Erme Enriquez C.P.G.*
- *Reserves are exclusive of the measured and indicated resources.*
- *Tonnage is expressed in tonnes; metal content is expressed in ounces. Totals may not add up due to rounding.*

15.6 Current Reserve Estimate Parameters

The classification of Reserves follows the Standards of Disclosure for Mineral Projects as documented in National Instrument 43-101 and adheres to the Canadian Institute of Mining, Metallurgy and Petroleum Best Practice Guidelines. Measured and Indicated Resources demonstrating economic viability are assigned the Proven and Probable categories. The Mineral Reserves in Table 15.1 are based on the following parameters where applicable (in US$):

- Gold price of US$ 1,891 / troy ounce (based corporate decision and price analyses for LOM scheduling cut-off as of April 30, 2024).
- Silver price of US$23.06 / troy ounce (based on corporate decision and price analyses for LOM scheduling cutoff as of April 30, 2024).
- Silver grade was converted to a gold equivalent (AuEq) using a 1:82 Ag (g/t) to Au (g/t) ration recoveries.
- Mining recovery of 95% for mechanized cut and fill mining methods.
- Global AuEq cut-off grade of 1.29 g/t for stope design.
- Total cost per tonne of US$75.85 for mechanized cut and fill stoping methods including stope development, processing, and G & A costs.
- Ore density of 2.6 tonnes /m^3.

15.7 Factors that may Affect the Reserve Calculation

The San Martín operation is an operating mine with a relatively long history of production. The mine staff have considerable experience and knowledge about the nature of the orebodies in and around the San Martín Mine Property. Mine planning and operations need to continue to assure that the rate of waste development is sufficient to support the production rates included in the mine plan. It is unlikely that there will be a major change in ore metallurgy during the life of the current reserves, as all the ore to be mined will come from veins with historic, recent, or current production. The process of mineral reserve estimation includes technical information which requires later calculations or estimates to derive sub-totals, totals, and weighted averages. Such calculations or estimations inherently involve a degree of rounding and so introduce a margin of error. The QP does not consider these errors to be material to the reserve estimate. Areas of uncertainty that may materially affect the Mineral Reserves presented in this report include the following:

- Mining assumptions,
- Dilution assumptions,
- Exchange rates,
- Changes in taxation or royalties,
- Variations in commodity price,
- Metallurgical recovery, and
- Processing assumptions

16.0 MINING METHODS

The San Martin mine has a long operational history and mining conditions are well understood by the site and SIM corporate staff. The mining method is a conventional underground cut and fill.

16.1 Mining Operations

Since 2008, SIM has been in control of the day-to-day mining operations at the San Martin Mine. SIM assumed control of the mining operations from a local mining contractor to allow for more flexibility in operations and to continue improving the costs.

The San Martin Mine project has a roster of 50 employees, 153 unionized workers and an additional 94 contractors. The San Jose mine runs on two 10-hour shifts (contractors) 20 by 8. The San Martin works three shifts 8 hours each, six days a week. The supervisors are in shifts of 20 by 8 for body 28 and 33 and 10 by 4 for San Martin. The mill works on a 20/8 schedule.

The CMPB miners are skilled and experienced in vein mining and are currently unionized. In the production / development function, the Company's agreement with the contractor is based on a set price There is an incentive system in place rewarding personnel for good attendance, safety, and production. Technical services and overall supervision are provided by SIM staff. The mine employs geology, planning and surveying personnel and has detailed production plans and schedules. All mining activities are being conducted under the direct supervision and guidance of the mine manager.

16.2 Mining Method

Given the conditions of the San Martín Unit deposit, the conventional cut-and-fill mining method is mainly used (Figure 16-1). It is known that the exploitation of mineral deposits by underground methods is more complex than those of the surface, for this reason it is necessary to pay special attention to each of the existing methods, for a correct planning of the exploitation of an ore body. The selection of the mining

method that is intended to be used in a deposit or a mineralised body must be studied carefully, taking into consideration that it is the method that must be adapted to the deposit and not in a counted way, the present work shows in detail the cut and fill mining method, the advantages, and disadvantages of its use, to give a broader view of the method. We can ensure the effectiveness of this method of exploitation since many mines currently use it, it is important to mention that the method offers powerful advantages, over the rest of the exploitation methods, however, its application is not always possible. Currently, with the arrival of mechanization in the mining sector, the method has developed variants that allow it to maximize its potential.

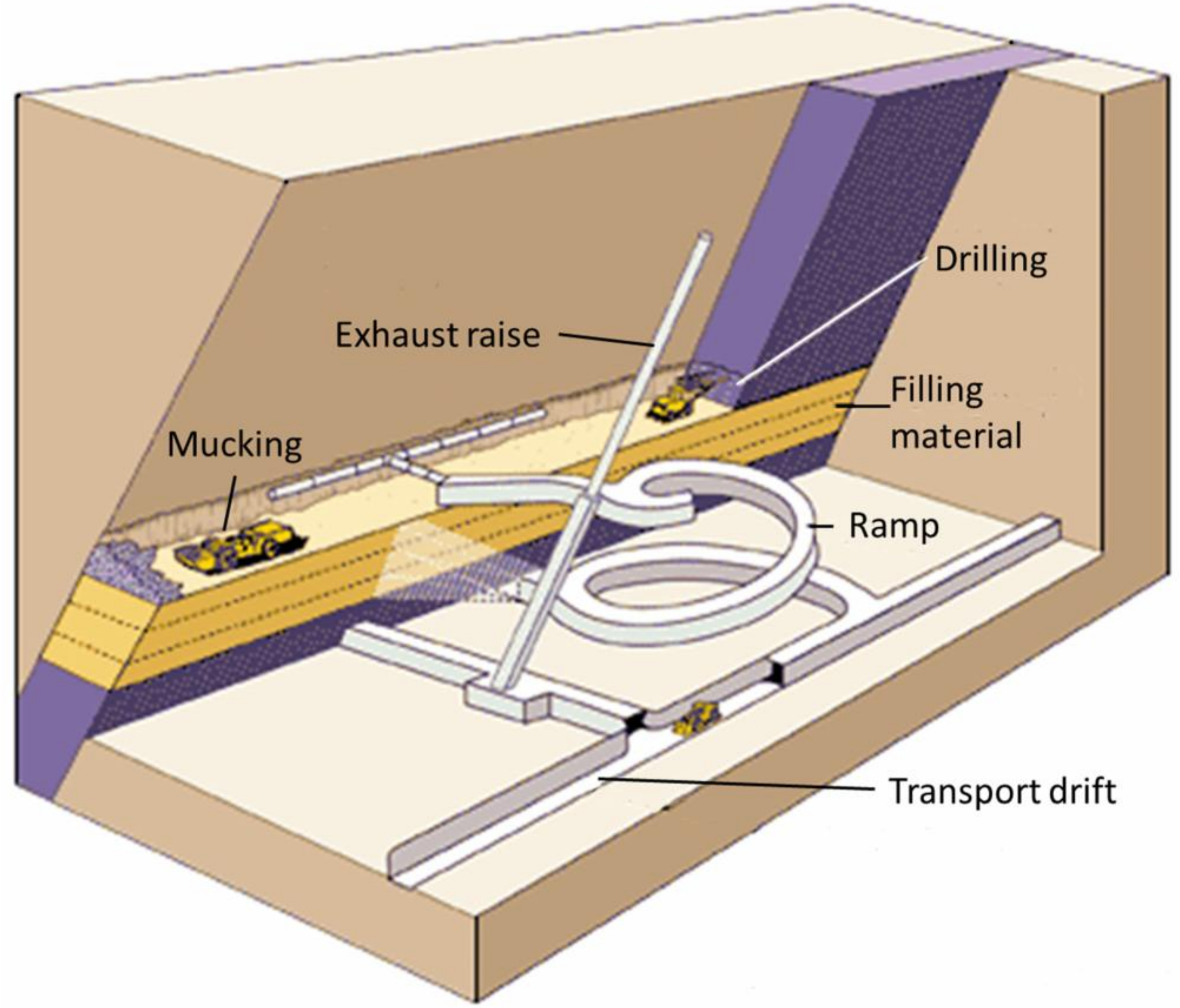


Figure 16-1: Schematic of the overhead cut-and-fill mining method (from Mine Engineering, Survey & Planning, 2024)

16.3 Mining Method Description

In underground exploitation, mining is carried out from the top to the bottom of the different horizons or ore floor. It consists of breaking the ore. After a cut or floor has been completely extracted, it is filled before starting the new cut, this fill is what will help support the roof of the new cut that opens, the mining of the ore continues floor by floor until the end of the block.

Various factors were taken into account to choose the appropriate mining method (Table 16-1): the size and morphology of the ore body, the thickness and type of the surface scarp, the location, direction and dip of the deposit, the physical characteristics and resistance of the mineral, the presence or absence of groundwater and its hydraulic conditions related to the drainage of the works, economic factors involved with the operation, including the grade and type of ore, comparative mining costs and desired production rates.

A method was developed based on the variables mentioned to evaluate which is the most proper exploitation method, generating a value for the fulfillment of a factor or variable and thus generating a more effective choice.

Table 16- 1: Table for choosing the mining method

MINIG METHOD	DIP OF STRUCTURE			VEIN WIDTH			ROCK QUALITY			TARGET
	>40°	40°-20°	20°-0°	>3.0 m	1.0 m-3.0 m	<1.0 m	GOOD	REGULAR	BAD	
Longhole	YES	NO	NO	YES	YES	NO	NO	YES	YES	**55.56%**
Cut & Fill	YES	YES	NO	YES	YES	YES	NO	YES	YES	**77.78%**
Shrinkage	YES	NO	NO	YES	YES	YES	NO	YES	YES	**55.56%**

16.4 Drilling

The aim of drilling is to set up a method that allows us to generate a cavity in the rock mass, with a diameter and a length determined in one linear meter. Consequently, it brings us an advance in either development or production, generating a tomb in ore. or waste or for drilling in a systematic anchoring support.

It is worth mentioning that before the drilling activity, the responsible personnel must verify the work area, correctly apply the work procedure and the work instructions, which tell us that we must check that our area is completely ventilated, free of particles from the blasting. Above, perfectly irrigate the load in a position from the outside to the inside, check simultaneously the tables of the undercut and ceiling, if any open rock, take the solidifying bar and lay it down immediately, that way we already have a safe undercut, and we can carry out drilling activity.

Drilling is defined as the action of drilling wells or holes to recover our drilled material. The tools used for drilling are known as, which are formed by a proper mechanism to produce the effects of percussion or rotation, and which are normally provided with an attack bit.

16.5 Blasting

The goal of the blasting is to establish the methodology to provoke the fragmentation of the rock in a linear meter or a ton of ore or waste with the help of charging explosives under pressure with compressed air in the hole cavity.

It is worth mentioning that before starting the blasting activity, we must blow the holes well by injecting compressed air into them, leaving them free of any obstacle that prevents entry, we proceed with the priming of the explosive, which is to make a hole in the tovex charge and introduce the primer. , which we proceed to put it to the bottom of the hole and when the explosive charge has been introduced into the hole, we proceed to load the column of the hole by injecting mexamón dust under pressure with a special charger, before starting a blast and to take into account the already established recommendations such as the firing schedule and taking care of the entrance accesses to said area where the blasting is going to be carried out.

The blasting is achieved thanks to the excellent work of the driller and assistant, either using a leg or jumbo machine. For the efficient drilling of a face, the equipment must be in good condition, there must be services such as sufficient air if a leg machine is used, the electrical current necessary to be able to operate the jumbo and water for both cases. The pressure necessary for a leg machine to be efficient requires an air pressure of between 80 and 90 psi and a water pressure of .5 bar, and it also needs a certain amount of oil for lubrication.

16.6 Mucking

The leftover is the movement with heavy machinery of ore or waste leftovers, product of the detonation of blasting of production or development holes and unloading in cargo stock or accumulator, to transfer hoppers or directly to haul trucks generating a linear advance or production of economic or non-economic tonnage. The straggler is especially important because if the front in action is not prepared, it is not possible to continue drilling and therefore there is no progress. In addition to that if there is an excess of material in accumulators there is no option where to accommodate so much material.

16.7 Haulage of Ore

The haulage establishes the methodology to generate movement on heavy machinery (low-profile truck, dump truck, etc.) or even with scoops of ore tailings or waste, product of the detonation of blasting of production or development holes and unloading in Inside mine stock, transfer hoppers, or its destination to treatment plants or backyard dumps.
It is of the utmost importance to be able to effectively identify the loads so that the ore reaches the benefit plant and thus ensure the planned contents.

16.8 Geotechnical Review

A geotechnical analysis for the Project has not been conducted or reviewed by the author. The mine has historically operated without significant underground support on the than shotcreting areas with significant falling rocks. The rock is most competent and self-supporting. No areas of concern were noted.

16.9 Ventilation

The San Martin mine is naturally ventilated. The access declines are used as an intake airway and the old mineworkings at San Martin and Bodies 28 and 33 use raises and drifts connected to Robbins raises for exhausting air (Figure 16-2). Booster fans are used in new drifts or areas away from the ventilation raises.
No further evaluation on the ventilation has been done since the mine runs at a temperature good enough for working comfortably.

16.10 Dewatering

Dewatering at the San Martin mine is relatively simple. With several pumping stations, towards the surface, from the deepest part of the San Martin Mine and from the area of Bodies 28 to 32. The water is brought to the surface, and this is used for the processing of the ore in the plant. and for regular use and irrigation in gardens and on paths to avoid raising dust. The drain circuits are shown in Figure 16-3.

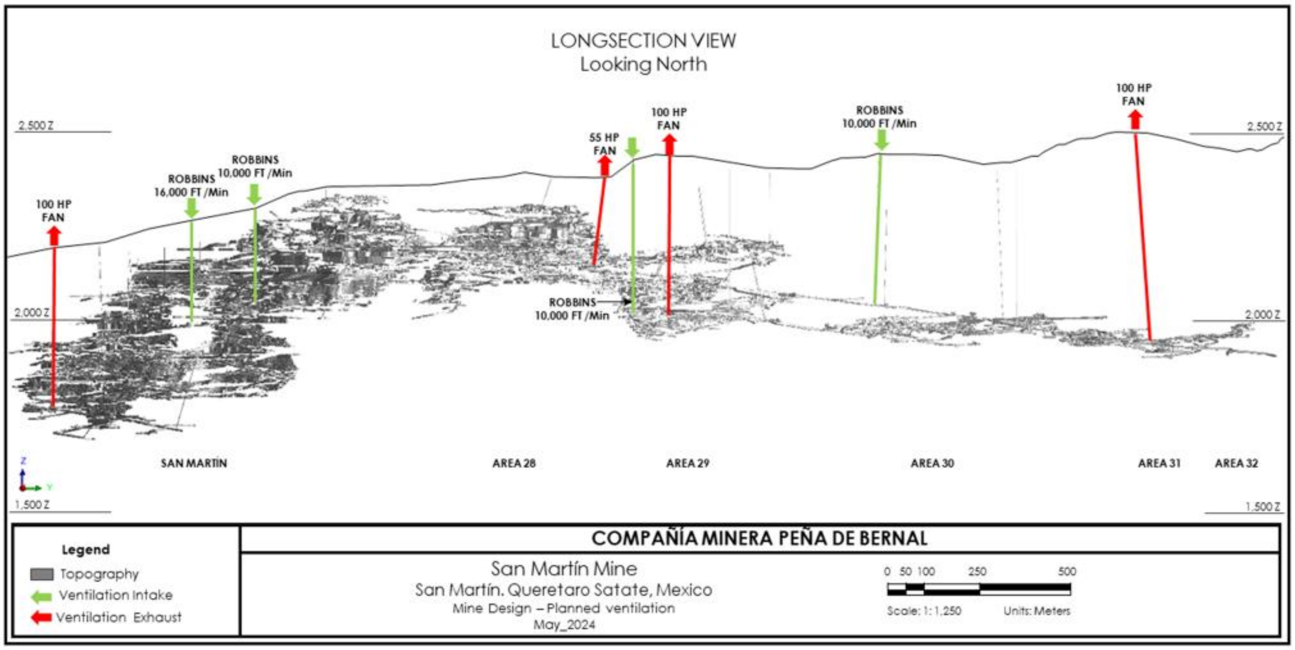


Figure 16-2: Ventilation circuit, at the San Martin Mine, by using Robbins raises ventilation intake and for exhausting (from Mine Engineering, Survey & Planning)

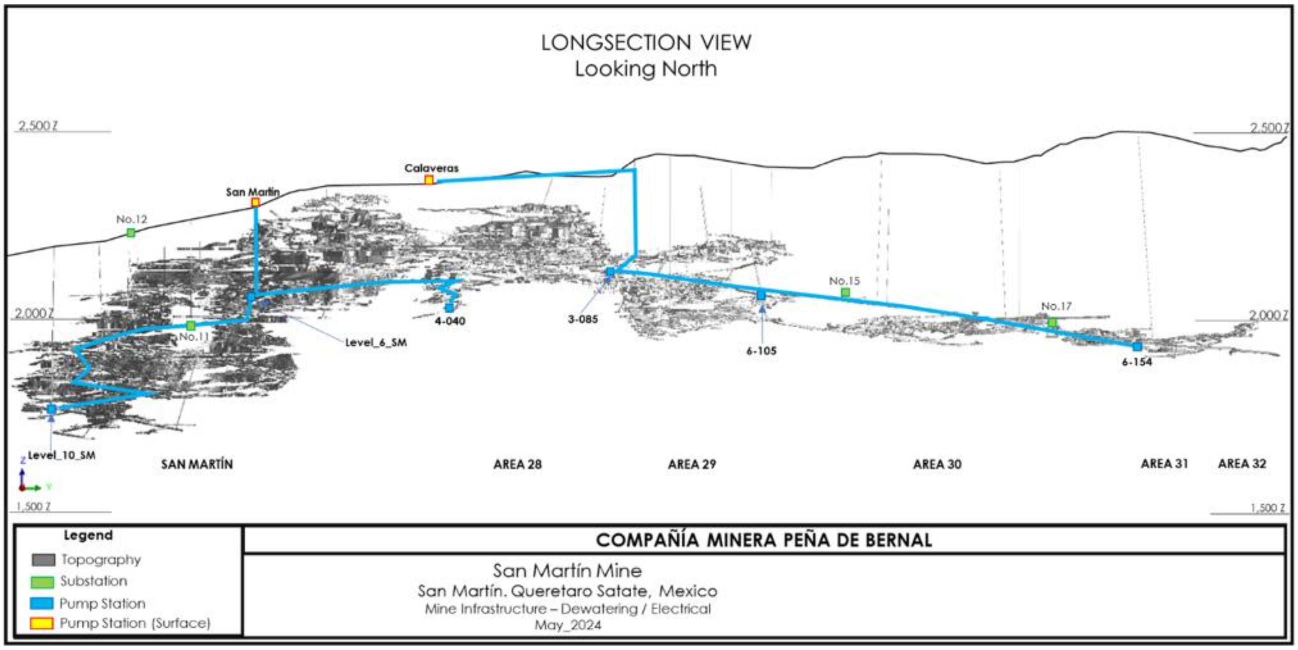


Figure 16-3: Pumping systems in the entire San Martin Mine. Water is sent to surface for usage in the plant process (from Mine Engineering, Survey & Planning)

16.11 Mining Equipment

Ore and waste transportation is by scooptram and truck haulage. Ore and waste haulage is performed using 14-tonne underground trucks. Single boom jumbo drills and jacklegs are used for development headings and conventional cut and fill stope drilling is by jackleg. A total of 45 jackleg drills are available in inventory.

A list of the major underground equipment on-hand at San Martin is listed in Table 16-2. According to SMI’s personnel, all that equipment is in good, well-maintained condition and is operating on smooth clean roads.

16.12 Comments on the Mine Operations

The site is in operation with experienced management and sufficient personnel. The mine works 365 days per year on a 24 hour per day schedule. Operational, technical, and administrative staff are on-site to support the operation. As of April 30, 2024, mine operations have a total 261 employees (Table 16-3)

Table 16- 2: List of Mining Equipment used at the San Martin Mine

Equipment	ID Econ.	Make / Model	Capacity	Year
Scoop Tram	8	MTI,LT-410	3 Yds	2000
Scoop Tram	15	MTI,LT-350	2.5 Yds	2003
Scoop Tram	21	MTI,LT-650	4 Yds	2014
Scoop Tram	22	JOY,LT-650	4 Yds	2017
Scoop Tram	24	JOY,LT-270	1.5 Yds	2016
Scoop Tram	25	JOY,LT-270	1.5 Yds	2017
Scoop Tram	26	JOY,LT-650	4 Yds	2017
Scoop Tram	27	JOY,LT-270	1.5 Yds	2018
Scoop Tram	28	JOY,LT-650	4 Yds	2019
Low Profile Truck	3	TAMROCK	16 Tons	2005
Jumbo	7	SANDVIK DD210	8/12 Ft	2017
Jumbo	8	JOY V R-II	14 Ft	2017
Jumbo	9	JOY V R-II	14 Ft	2018
Agriculture Tractor	5	NEW HOLLAND, TT75		2011
Agriculture Tractor	6	NEW HOLLAND, TT75		2018
Allentown	3	PUTZMEISTER TK 20		2011
CARMIX	1	CARMIX ONE	1 M3	2018
CARMIX	2	CARMIX ONE	1 M3	2018
Backhoe	1	CASE 580 SUPER M Series 2 (580M)	1.03 Yds	2013
Backhoe	2	CASE 580 SUPER M Series 2 (580M)	1.03 Yds	2016
Toyota	7	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2004
Toyota	8	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2004
Toyota	9	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2004
Toyota	10	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2004
Toyota	11	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2004
Toyota	12	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2005
Toyota	14	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2005
Toyota	15	TOYOTA, ENS INDUSTRIAL (LAND CRUSIER HZJ79)		2005
Ranger	1	POLARIS RANGER 900 DIESEL 4X4		2011
Ranger	3	POLARIS RANGER 900 DIESEL 4X4		2011
Mule	2	KAWASAKI MULE 4010 4X4 DIESEL (KAF950FDF)		2016
Kubota	1	KUBOTA RTV-X1140W-H		2017
Nissan	3	NISSAN NP300 4X4 2013		2013
Dump Truck	14	INTERNATIONAL DURASTAR 4400	14m	2014
Dump Truck	15	INTERNATIONAL DURASTAR 4400	14m	2015
Dump Truck	16	INTERNATIONAL DURASTAR 4400	14m	2015
Dump Truck (Torino)	1	INTERNATIONAL	7m	1994
Dump Truck (Torino)	2	INTERNATIONAL	7m	2000
Dump Truck (Torino)	3	INTERNATIONAL	7m	2000
Dump Truck (Torino)	4	INTERNATIONAL	7m	2006
Nissan Frontier	0	NP 300 FRONTIER DIESEL 4X4		2016
Nissan Frontier	0	NISSAN FRONTIER DISEEL 4X4		2022
Ambulance	3	FORD TRANSIT DIESEL		2014
Mitsubishi L200	1	MITSUBISHI L200 2.5 DID CABINA DOBLE 4X4 MT		2016
Mitsubishi L200	2	MITSUBISHI L200 2.5 DID CABINA DOBLE 4X4 MT		2017
Mitsubishi L200	3	MITSUBISHI L200 2.5 DID CABINA DOBLE 4X4 MT		2017
Mitsubishi L200	4	MITSUBISHI L200 2.5 DID CABINA DOBLE 4X4 MT		2017
Mitsubishi L200	5	MITSUBISHI L200 2.5 DID CABINA DOBLE 4X4 MT		2023
Mitsubishi L200	6	MITSUBISHI L200 2.5 DID CABINA DOBLE 4X4 MT		2024

Table 16- 3: Total personnel at the San Martin mine complex

Personnel	Qty.
SAM Servicios Mineros Contractor	40
Unionized workers	158
Eployees CMPB	53
Employees SAM	10
Total	**261**

17.0 RECOVERY METHODS

The San Martin Mill is a conventional cyanidation mill using the Merrill Crowe recovery process, with a rated capacity of 1,100 tpd with a current rate of 627 tpd. The mill flowsheet employs two stage fine crushing, grinding is also two stages with both ball mills and a tower mill followed by total ore cyanide leaching in a CCD circuit. Gold and silver are recovered with zinc precipitation and is refined on site to doré pf a 99.3 % purity.

In the period April 30, 2017, to April 2024 the mill achieved an average throughput of 650 tpd with recoveries of 86 % for gold and 55 % for silver.

A tailings filtration plant to support dry handling and stacking of the tailings was installed in 2005 and the recommendations by AMEC have been implemented and the tailings dam is being reinforced to better standards. The San Martin flowsheet is shown in Figure 13-4 of section 13.

Metallurgical research is aimed at improving the recovery of gold and silver, reducing process time, and reducing costs. In the San Martin ore, a reduction in the process time has been obtained without undermining the metallurgical recovery, currently working with a treatment time of 35 hours, which has helped reduce cyanide consumption, reducing costs. To achieve this process time, the addition of oxygen in gaseous form was implemented in the grinding area. Currently, a mixture of reagents that increase the recovery of gold and silver values is being investigated, the goal is to reach 93% gold extraction. In the tests conducted, this result has been reached, so the process of validation and repeatability of results will begin with an external laboratory before conducting tests directly at the Processing Plant.

The smelting area is part of the process, which is why an investigation was started to reduce the impurities in the doré bars. The tests done have led us to produce bars with a purity of 99.3% industrially so far, this 2022 year, and consequently the consumption of fluxes and crucibles was reduced, which led us to lower the foundry costs.

The San Martin ore, in some of its areas, has a characteristic of refractoriness caused by the presence of carbonaceous material. Tests have been realized with different processes and reagents, achieving gold extractions of 82%. Research continues looking for alternatives that can improve these results at a low cost.

18.0 PROJECT INFRASTRUCTURE

The infrastructure at the San Martin mine has been built over the history of the project and supports current operations. The existing large mine infrastructure includes a tailings storage facility, a tailings dam, temporary storage areas, power and electrical systems, water management systems, various on-site storage, and maintenance workshops, including small-scale mine car shops, and offices for administration. , planning and maintenance and other related mining and processing operations. The communication system on the construction site includes internet and telephone connections connected by permanent wires, as well as mobile networks. Access to the property is discussed in more detail in Section 5 of this report. The infrastructure of the object is shown in Figure 18.1. Figure 18-2 is a view of the main decline to the San Martin Area. The underground mine is relatively dry, there is no need to pump water of.

18.1 Buildings

CMPB has already established the following facilities:

- Exploration sample preparation and core/sample storage facility
- Small vehicle maintenance shop
- Emergency generators for the mine underground facility and pant
- Several preliminary access roads to the project facilities.
- Processing facilities for grinding, cyanidation, reagents, concentrate storage, and cyanide. storage.
- Process buildings for truck scale, truck wash and truck sampling.
- Assay laboratory
- Mill area change house
- Ore Stockpile
- Maintenance shop
- Process area office
- Mill area engineering office
- Training and meetings room
- Infirmary
- Warehouse
- Hazardous storage
- Security guard gates
- Lunch building
- General manager, accountant, geology, and planning offices
- Nursery site
- Parking places

18.2 Processing Plant

The processing plant and tailings occupy a large amount of the surface land in the unit (Figure 18-3). The primary crusher is located about 200 meters from the mine entrance, making hauling very efficient and smooth.

18.3 Waste Rock

The mining method used in for mining is cut and fill. Waste rock from development is used to fill open stopes. No waste rock is hauled out to surface.

18.4 Tailings

Tailings are dried and deposited in the southern edge of the tailing dam. Trucks are filled by using a paver, then hauled to be deposited in the tailings dam (Figure 18-4). Tailings are spread by using a backhoe and then a road compactor is used to compact the material evenly.

18.5 Power and Electrical

The San Martin mine’s electrical power is sourced under long-term contracts with, Comision Federal de Electricidad (CFE), a government enterprise. The mine and mill are connected to the electric grid. Electrical power is supplied by the CFE is in a power line of 34.5 kVa. A secondary electricity generating system with about 500 kW capacity to supply power to the mill during a power failure and during the peak supply times when prices are higher, is available.

18.6 Water Usage

The water for industrial use is taken from the underground mine, this is used in the chemical treatment in the plant and for irrigation of the roads to avoid dust and other contaminants. There is also a water well that is for domestic use in the offices and kitchen of the complex and the showers of the workers. Additionally, in the rainy season, the water is stored in a dam with sufficient capacity for several months of operation. All water is used responsibly and there is no waste of the vital liquid.

18.7 Logistics, Supplies and Administration

The operation has common management and services, as well as a logistics network that includes warehouses, vehicles, and personnel needed to distribute and store supplies used by the operation and its workforce. Vehicle service is provided to the mine and workplaces. Warehouses are kept at various locations throughout the site.

Supporting infrastructure in San Martin has been built, improved, and expanded over the life of the project including administration offices, training, recreational, and first aid service facilities. All workers are enrolled in Social Security (IMSS), to receive medical services for any illness, which is paid by the company. Employees have insurance for major medical expenses that allows them to select doctors and hospitals to treat any health condition.

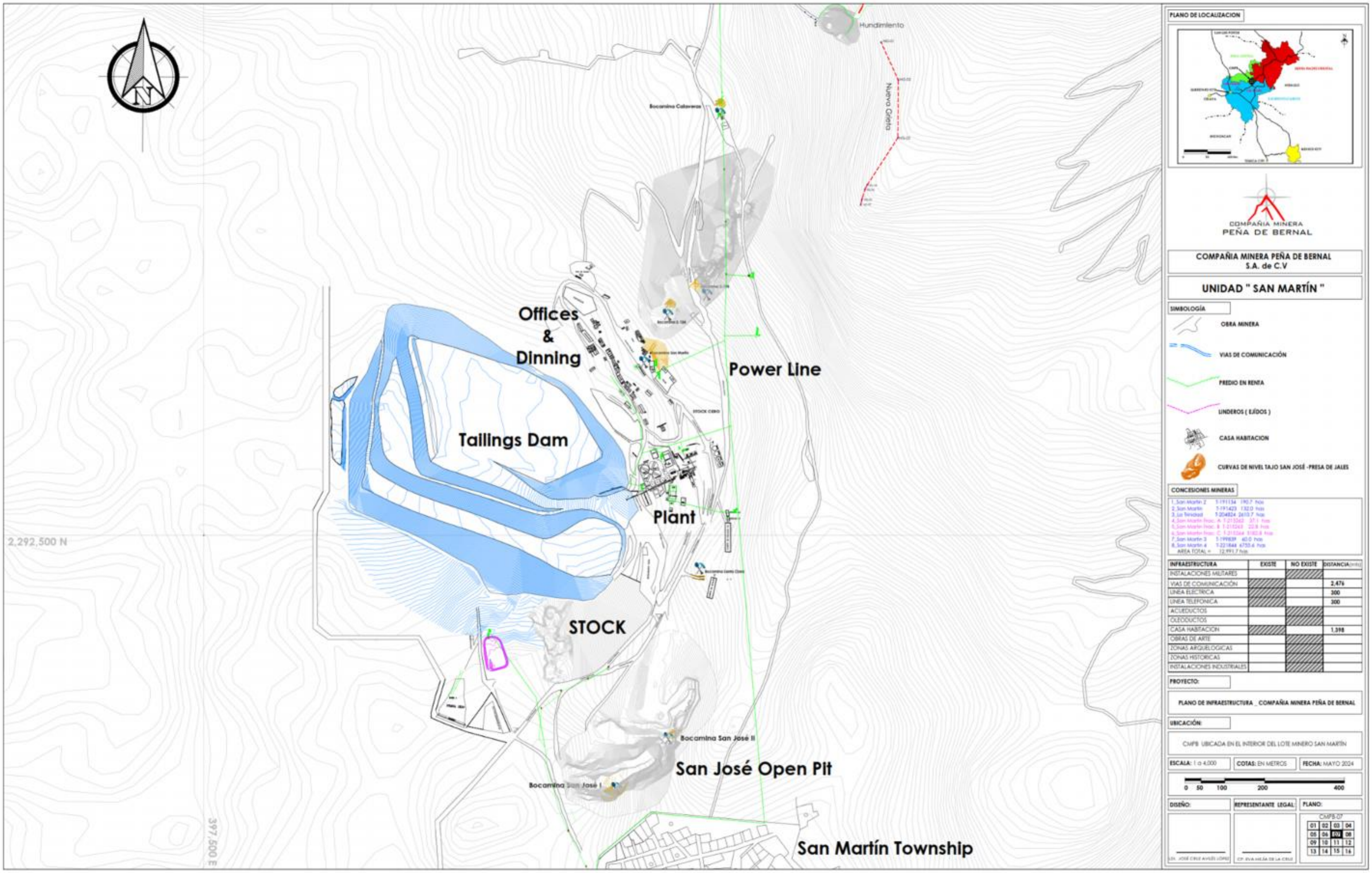


Figure 18-1: San Martin Infrastructure Map (from Mine Engineering, Survey & Planning)

Figure 18-2: Portal of the incline for access to the San Martin mine

Figure 18-3: General view of the processing plant at San Martin

Figure 18-4: San Martin Tailings Dam, reforested

19.0 MARKET STUDIES AND CONTRACTS

SIM has neither a hedging nor forward selling contract for any of its products. As of the issue date of this report, the company has not conducted any market studies, as gold and silver are commodities widely traded in the world markets. Gold and silver prices faltered in 2021, but that did not crimp demand for bullion sales, which excelled the past year despite the price bearishness for the precious metals. As the global vaccination began at the start of 2021, gold and silver prices started to head lower amid a renewed risk-on sentiment. Gold, for the most part, was stuck in a sideways trading pattern heading towards the end of 2021.

SIM produces doré silver-gold bars which it then ships for further refining. The doré produced by SIM's San Martin mine is further refined by third parties before being sold as bullion (99.3% pure silver). Gold bullion is mostly sold at the spot price. The Gold Bullion Market was valued at $22,867.66 Million from May 2023 to April 2024 and is expected to reach $115,175.8 Million by 2027, expanding at a compound annual growth rate (CAGR) of 12.3% during the forecast period.

Figure 19-1 summarizes the gold and silver prices in the last five years, from 2017 to the first quarter of 2024. For the purposes of this report, the resources and reserves are stated at the 4-year average metal prices for silver and gold as of April 30th , 2024. The four-year averages are $23.06/oz for silver and $1,891/oz for gold.

Figure 19-1: Chart showing the prices (in US Dollars) from May 2017 to April 2024 (from Macrotrends, 2024)

Over the period from 2016 to April 2024, world silver and gold prices have increased significantly. This had a favorable impact on revenue from production of most of the world's silver mines, including the San Martin Project. Beginning 20202, despite the Covid-19 pandemic, there has been a consistent increasing in the silver and gold prices, which has caused increased confidence for mining companies around the world.

SIM has no contracts or agreements for mining, smelting, refining, transportation, handling, or sales, which are outside normal or generally accepted practices within the mining industry. SIM has a policy of no hedging or forward selling any of its products.

The contract for the marketing of the product is ITALPREZIOSI, in Arezzo, Italy. Italpreziosi is one of the main operators in the production, refining and trading of precious metals, and the production and trading of investment gold. Contract signed since June 2013 and in force to date. Doré bars are paid at the gold and silver price established by London Fix at the time of the transaction.

All part of the logistics for the delivery of the product is contracted with the company IBI International Logistics Inc.

All contracts currently necessary for supplies and services to maintain the San Martin mine's facilities and production are in place and are renewed or replaced within periods and conditions of common industry practices.

SIM and the QP believe that the marketing and metal price assumptions for metal products are suitable to support the financial analysis of the mineral reserve evaluation. Further information about the sale and marketing of the mine's metal products are discussed in SIM's Annual Report on Form 10-K for the year ended April 30, 2024.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 General

The San Martin mine operates under the policy of zero industrial discharges into the environment. Surface water in the tailings disposal facilities practically zero due to the tailings are filtered before sending to the dam.

Running water in the intermittent streams within the property is tested for mineral elements and contaminants. Some water pumped from the underground workings is discharged in the water storage reservoir at the surface and used later for mineral processing. The following aspects are treated with special care by the company as they represent potential risks to the operation. To reduce the possibility of an incident regarding any of these issues, San Martin has established strict procedures of operation and monitoring in accordance with accepted standards.

- The tailing dams require strict environmental and operation control because the proximity to the San Martín community represents a risk.
- Testing for water pollutants into creeks near the tailings dam.
- Testing of discharge sewage pollutants.
- Testing of the combustion gases from laboratory's chimneys and foundry, and lead exposure for lab workers.

The vegetation in the vicinity of the mine is diverse and abundant but has been deteriorated in areas with abundant traffic. The arid ecosystem provides for predominantly shrub vegetation cover which contributes to soil stability. A sign of the stability maintained in this environment is the abundance of cacti species. Of the 37 species of flora recorded for the mine area, no one has been reported within a risk category.

Mammal species identified in the mine area include coyote (*Canis latran*), bush mouse (*Peromiyscus boylii*), skunk (*Spilogale putarius*); and one species considered endangered, armadillo (*Dasypodiae*). Of bird species found in the mine area, three are under special protection (red-tailed hawk, peregrine falcon, Tousend's solitaire). Falcon mexicanus is considered endangered.

The reptile fauna is formed by rock rattlesnake, lizard (*Psammodro hispanicus*), Black racer and coral snake (*Lampropeltris Triangulum*)

A variety of studies have been completed to characterize the natural environment of the SM area. The most recent Environmental Impact Statements are listed in Table 20-1.

Table 20- 1: San Martin Mine Recent Environmental Studies (Environmental Department)

STUDY	FREQUENCY OF REALIZATION	REGULATIONS	COMMENTS
WATER STUDIES	Every 6 months	Based on NOM-001-SEMARNAT-2021	Studies carried out on monitoring wells located in the tailings dam. Carried out by laboratories certified by the EMA
STUDIES OF EMISSIONS TO THE ATMOSPHERE	Every 6 months	Based on NOM-043-SEMARNAT-1993 (Determination of lead, silver, sulfur dioxide, carbon monoxide and nitrogen oxides in fixed source), NOM-035-SEMARNAT-1993 (Determination of Total Suspended Particles PST in the air)	Sampling is carried out by certified external laboratories, in 4 strategic points of the perimeter and areas of the unit for NOM-035-SEMARNAT-1993; in the areas of the muffles laboratory of essays, and casting in the melting and drying process for NOM-043-SEMARNAT-1993
TAILINGS STUDIES	Every 12 months	Based on NOM-141-SEMARNAT-2003	Analytical tests are carried out to determine, among others, metals and mercury at dry tailings (more than 6 months in jales dam) and wet yailings (leaving the plant process) by certified laboratory.
PERIMETER NOISE	In change of process or every 2 years	Based on NOM-081-SEMARNAT-1994	The noise evaluation is carried out in 1 zone during day and night hours to determine if we are within the maximum permissible limits established by said standard

20.2 Permitting

Currently, SIM has maintained all the necessary permits for exploration and exploitation at the San Martín mine site (Table 20-1). A Manifestacion de Impacto Ambiental (MIA) was submitted to Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) in April 2004. The license covers all related to the underground expansion of the mine. In March 2011 approval of a MIA by SEMARNAT allows an expansion for tailings facilities that were not previously required. An amendment for stabilization and expansion was approved by SEMARNAT in early August 2016. Tailings have been tested periodically; last test was on June 14, 2018. The results were presented by Intertek+ABC Analytic, finding all within normal parameters.

A mining concession in Mexico does not confer any ownership of surface rights. However, use of surface rights for exploration and production can be obtained under the terms of various acts and regulations if the concession is on government land. The San Martin concessions are located on Ejido (community or co-op) and private property land, and all the agreements with the surface owners has been signed which allows SIM access and authorization to complete exploration and mine operations activities.

The permit for storage of material in tailings dams expired in May 2024. An application for its renewal was sent to the environmental authorities in that same month. SEMARNAT has approved the tailings storage operation for 10 (ten) more years, that is, the new permit will expire in September 2034.

20.3 Permitting Requirements and Status

QP and the San Martin mine staff believe that all major permits and approvals are in place to support operations at the SM, however additional permits or renewals will likely be necessary in the future. Where permits have specific terms, renewal applications are made to the relevant regulatory authority as required, prior to the end of the permit term.

Any major mining project in Mexico requires preparation of a Manifestation of Environmental Impact Study (MIA for its acronym in Spanish), including the construction, operation, and closure stages, completed by a third-party consultant, which is submitted to the regulatory agency.

After the MIA is approved, a comprehensive closure plan including closure cost estimates and financial guarantee schedule is submitted for approval to meet the applicable Mexican laws and regulations. The status of permits is listed in Table 20-2.

Based on the LOM plan, additional permits will be necessary in the future for continued operation of the San Martin mine, including a modification of the MIA and obtaining approval for modified leach pad configurations, increased tailings storage capacity and corresponding water supply.

Modification of the MIA prior to reaching current tailings storage capacity, which is sufficient until 2027 at planned rates in the LOM plan. Closure strategies will be developed for these proposed facilities as part of the permitting process.

Table 20- 2: List of Permits and Status (Environmental Department)

ENVIRONMENTAL PERMITS	NUMBER	DESCRIPTION OR REGISTRATION NUMBER	AUTHORIZATION DATE	VALIDITY	GOVERNMENT DEPENDENCE
Environmental Impact Manifesto (MIA)	S.G.P.A./DGIRA. DEI.0648.04	Stabilization and Expansion of the Jales Dams	16-Apr-04	20 years	Secretary of Environment and Natural Resources (SEMARNAT)
Single Environmental License	F.22.01.03/1828/04	Environmental Registration Number MPBI2220511	08-Dec-04	Valid until process modification	Secretary of Environment and Natural Resources (SEMARNAT)
Feasibility of land use	DQ-21-3-2-06/92		07-may-92		Secretariat of Urban Development and Ecology (SEDUE)
Hazardous Waste management plan and metallurgical mining	DGGIMAR.710/0004432	No. 22-PMM-I-0123-2014	30-may-17	Valid 12 years from the authorization of November 13, 2014	Secretary of Environment and Natural Resources (SEMARNAT)
Water Concession Title	QRO106111/18	09QRO106111/26IMDL18	19-may-18	10 YEARS	National Water Commission (CONAGUA)
Non-Hazardous Solid Waste Management and Special Management Plan	SSMA/DCA/975/2008	PMI-Qro/273	20-oct-08	IN EFFECT	Secretary of Sustainable Development
Permit for the purchase, storage and consumption of explosive material	SM/0134	3731-Qro		Valid until 31-12-2022	Secretary of National Defense (SEDENA)

20.4 Surface Water Management Plan

Most of the water comes from underground and is used for the preparation of the cyanide solution in the benefit process and for the different mining activities such as drilling, irrigation of roads to avoid raising dust and washing of works to maintain them. pollution free; and from a deep well whose flows are deposited in tank No. 4 of industrial water with a capacity of 600 m^3.

The working water is conducted through pipes and pumps that are inside the mine to a surface pool where it is stored and later sent by gravity to the process tank; while the water extracted from the supply well is poured directly into said tank.

Apart from the sedimentation process that occurs naturally, due to the residence time of the working water in the pumping station and in the industrial water tank, the water does not undergo any treatment to condition it for the process.

In smaller amounts, it is used in toilets, showers, and irrigation of green areas.

Three more tanks receive the water with cyanide solution that is recovered from the Processing Plant and the tailings tank, which is recirculated to the process.

There are two septic tanks to which there is no authorized discharge since it is not discharged to any National good, it is only conducted to recover it and send it as mentioned above, all the water is recirculated to the ore benefit process.

Payment of water rights is made quarterly with the well registration of title No. 09QRO106111/26IMDL18 for industrial use with meter No. 14040219 brand Azteca and for use of Services with Meter No. 16040040 brand Azteca. In rainy seasons, water is collected to be used in the process and thus use less water from tillage.

20.5 Tailings Dam and Reforestation

A reinforcing berm of compacted fill was built along the downstream toe of the tailings dam to increase the dam safety factor. The downstream side of the reinforcing berm has been constructed at a 2:1 slope. A trench has been excavated and a French drain system constructed on the downstream side of the dam to intercept seepage. The seepage is collected in a sump for recycle back to the mill. The French Drain trench has been backfilled and the area is being re-vegetated.

All the tailings dam construction follows recommendations made by AMEC who visit the site periodically to ensure that construction is adequate. A diversion ditch at the north end of the pond has been completed and all final berms are being re-constructed of compacted tails with waste rock rip-rap exteriors.

The reforestation, in the tailings dam, is done with 22 species of plants produced in the nursery of the mining unit, among shrubs, trees and herbaceous (Figure 20-1). First the preparation of the land is made placing a layer of inert material (mixture of soil and rock) and on this one layer of vegetal soil, to later make the plantation with a relation of 1 individual by each 2 m^2, 1 arboreal species for each 4 shrubs and / or herbaceous, taking place mainly in the months of July and August, when the rains have stabilized to obtain a higher percentage of plant development. The annual average of the reforestation is over 5000 plants, and it is done during the rainy season (Figure 20-2).

20.6 Social Community Impact

SIM considers nearby communities as important stakeholders and, as such, the company pays special attention to their problems and requests for support. A good neighbor and open-door policy characterize the relations with the communities inside and around the area of operations. A company representative interacts with the local authorities often.

According to the population and housing census of 2020, the inhabitants in the surrounding communities include 64,965 people living in the five locations. Women are 52% of the population. Table 20-3 presents population by gender in the communities, and shows the relationship of San Martín with them, whether directly or indirectly.

Table 20- 3: Neighboring community population at San Martin mine

LOCATION	RELATIONSHIP	POPULATION		
		MALE	FEMALE	TOTAL
SAN MARTIN	Directly	781	847	1628
PEÑA DE BERNAL	Directly	1902	2060	3962
AJUCHITÁN	Directly	3269	3394	6663
EZEQUIEL MONTES	Indirectly	21668	23473	45141
COLÓN	Indirectly	3644	3947	7591

The relationship with a community is indirect whenever it has a direct relationship with another mining company. Regardless of the indirect relationship with these communities, San Martín considers that it has a shared commitment with them.

San Martín has a policy of social responsibility based on community development. The tactic used to achieve this strategic principle is focused on:

- Education and Employability: Promoting learning opportunities ranging from basic education to technical skills and supporting the creation and development of small business that provide an economic alternative to mining related jobs.
- Infrastructure: Supporting construction, improvement, or rehabilitation of community facilities, such as the Church, the playgrounds, or the roads.
- Health: In partnership with government institutions, SIM promote several health campaigns in the communities such as dental, vaccines, nutrition, pet control, and others.
- Sports: Also, in partnership with government institutions and NGOs, SIM supports summer camps for children and in the last two years has sponsored one of the main races that happen in Guanajuato.
- Environment: SIM runs different environmental campaigns in the communities, such as the recycling of electronics, the reuse of tires to rehabilitate recreational sites, reforestation initiatives, cleaning up campaigns, and others.
- Traditions and Culture: SIM supports throughout the year the different celebrations that happen in the community, such as the day of the miner, mother´s day, day of the death, children´s day, Christmas celebrations, and others. SIM responds to ongoing requests from the community.

To fulfill social responsibility actions, San Martín has an internal procedure intended to channel the demands of the local communities, to assess their needs, to prioritize them, and to evaluate donations to be made to improve quality of life.

20.7 Comment on Environmental Compliance, Permitting, and Local Engagement

In the QP’s opinion, the San Martin mine has adequate plans and programs in place, is in good standing with Mexican environmental regulatory authorities, and no current conditions represent a material risk to continued operations. The SM mine staff have an elevated level of understanding of the requirements of environmental compliance, permitting, and local stakeholders to ease the development of the mineral reserve and mineral resource estimates. The periodic inspections by governmental agencies, SIM staff, third-party reviews, and regular reporting and studies confirm this understanding.

Figure 20-1: Part of the nursery with endemic species of plants ready to be planted

Figure 20-2: Reforested of the NE side of the main Tailings Pond

21.0 CAPITAL AND OPERATING COSTS

The capital and operating costs are estimated by the property’s operations, engineering, management, and accounting personnel in consultation with SIM corporate staff, as appropriate. The cost estimates apply to the planned production, mine schedule, and equipment requirements for the LOM plan.

21.1 Capital Costs

In 2023, SIM's San Martin Project consisted of a modest size underground mining operation based at the San José, San Martin, Body 28 and Body 32 areas. The actual 2023 capital costs for the San Martin Project are summarized in Table 21-1.

Table 21- 1: San Martin Capital Costs

ITEM	US DOLLARS
Exploration Projects	723,821
Construction in progress	44,399
Machinery & Equipment	161,647
Leasing	348,370
Maintenence	-
Vehicles/Consultors/Computer Equip.	220,641
Total Capital	**1,498,879**

21.2 Operating Costs

The components of the operating cost are based on the annual mine schedule, equipment sizing and productivity, labor estimates, and unit costs for supply items. Inputs to the operating cost are based on vendor quotes, private and commercially available cost models, and actual and factored unit costs of the mine. . On a per tonne of ore processed basis at the San Martin mine, the cash operating costs in 2023 averaged US$ 75.89 per tonne, compared to US$ 67.17 in 2022. Operating costs are summarized in Table 18-2.

Table 21- 2: Mine Operating Cost Summary

CONCEPT	ANUAL COST USD x 1000
MINE OPERATION	$ 5,622.00
PLANT OPERATION	$ 4,763.00
MAINTENENCE	$ 2,936.00
G&A	$ 3,692.00
TOTAL OP. COST	**$ 17,013.00**

22.0 ECONOMIC ANALYSIS

This section is not required for issuers with operating assets. SIM is a producing issuer as defined by NI 43-101. An economic analysis has been excluded from this technical report as the San Martin mine is currently in production and this technical report does not include a material expansion of current production.

23.0 ADJACENT PROPERTIES

Exploraciones Mineras La Parreña, S.A. de C.V. (Peñoles) owns a claim of 822 hectares, located on the Central-West part of the SIM's concessions. This claim has been cancelled but has not been released by the Mexican Mining Bureau. The name of the claim is Colón and is registered with the Title No. 237380 and the status of this claim is cancelled. Peñoles also holds The Palmita claim, Title 237379, with an area of 99.97 hectares.

Another property is the San Judas Tadeo claim, Title No. 220535, covering 700 hectares. This property is private and has three owners, the main owner is Ciro Feregrino. This property is located to the northeast of the SIM's claims.

24.0 OTHER RELEVANT DATA AND INFORMATION

As of April 30, 2024, all relevant facts and information about the San Martín Mine Project are compiled in this report. As far as QP is aware, there are no more pertinent technical or other facts or information that could have a major impact on the interpretations and findings made in this report, nor is there any extra information required to ensure that the report is not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Geology and Resources

QP is of the opinion that the Mineral Resource Estimate has been conducted in a manner consistent with industry best practices and that the data and information supporting the stated mineral resources is sufficient for declaration of Inferred classifications of resources. QP has not classified any of the resources in the Measured category due to some uncertainties about the data supporting the Mineral Resource Estimate.

25.1.1 Data Verification

The current QA/QC program is adequate and supports the conclusion that data collected, and the monitoring of QC data is dependable for the purposes of estimating Resources; however, additional improvements are required for the QA/QC program to align with industry best practice and facilitate more meaningful QC.

The lack of a historic QA/QC program, which has only been supported by a recent resampling and modern QA/QC program for channel samples and a limited number of holes. This will be required to achieve Measured resources which generally are supported by high resolution drilling or sampling data that feature consistently implemented and monitored QA/QC.

The lack of consistently implemented down-hole surveys in the historic drilling. Although the survey data does not show significant deviations from planned orientations, it would be priority to have all holes surveyed.

PENBER uses home-made standards and whites, with excellent quality. However, it is necessary that some certified standards be inserted in the sample stream to verify that the laboratory is adequate to any type of standard. It is the opinion of the QP that the standards and blanks used meet normal industry requirements.

25.1.2 Mineral Reserve Estimates

QP is of the opinion that the Mineral Reserve Estimate has been conducted in a manner consistent with industry best practices and that the data and information supporting the stated mineral reserves is sufficient for declaration of Proven and Probable classifications of reserves. The San Martin mine is a producing operation with over 30 years of continuous operation. Recent production data was used as a primary source of information to validate or derive, as necessary, the relevant modifying factors used to convert Mineral Resources into Mineral Reserves. The initial production decision was not based on a feasibility study of Mineral Reserves demonstrating economic viability. There is an increased uncertainty and economic and technical risks of failure associated with this production decision. The production schedule associated with this reserve estimate results in mining until April 2022 at an average production of approximately 627 tpd. The tailings storage facility is big enough to support the production of LOM without problem.

25.1.3 Exploration

QP has the following conclusions on the exploration efforts and potential for the San Martin Mine:

- Area 33 represents an important target for exploration. It will be necessary to include an additional drilling program to detect the structure at that level.
- Area 28 has been being explored and exploited for several years now. The area continues to give surprises with new ore. A possibility of finding an extension of Body 28 has been determined with diamond drilling. This area represents an important exploration target and should be priority one.
- A new idea about the SW extension of the San José bodies has recently been taken up, this area is called Santa Elena. The Santa Elena area is located in a possible fold in the Mezcala Formation. This will have to be assessed with diamond drills. If this hypothesis is proven, it would represent an area with enormous potential for fresh ore for the mill.

25.2 Conclusions

The northern and southern limits of the deposit are defined by faulted blocks which together form part of the San Martin system which is thought to control the gold-silver mineralization.

The mineralization is characterized by intense, multi-phase brecciation with quartz-sulphide ± carbonate stockwork veining and late brecciation. Hydrothermal alteration consists primarily of a silica (quartz, chalcedony)–illite–pyrite–carbonate mineral assemblage formed by relatively low acidity fluids.

Knowledge of the San Martin deposit settings, lithologies, mineralization style and setting, and structural and alteration controls on mineralization is sufficient to support Mineral Resource and Mineral Reserve estimation.

The San Martin Property's orebodies are well-known to the mine crew, who have a great deal of experience working there. To ensure that the pace of waste development is adequate to sustain the production rates outlined in the mine plan, mine planning and operations must continue. Since almost all the ore to be extracted will come from veins with historical, recent, or present production, a significant shift in ore metallurgy is extremely unlikely to occur throughout the life of the current reserves. The following are some areas of uncertainty that could have a major impact on the Mineral Resources and Reserves and eventual mine life stated in this report:

- Variations in commodity prices
- Metallurgical recovery
- Exchange rates
- Processing assumptions
- Dilution assumptions
- Mining assumptions

According to SIM and the QP, the stated mineral reserves and mineral resources are in compliance with SEC regulations, and the geologic interpretation and modeling of exploration data, economic analysis, mine design and sequencing, process scheduling, and operating and capital cost estimation have all been developed using recognized industry practices. These findings are validated by independent consultants' periodic evaluations.

SIM and its predecessors have been running the mid-scale producing mining property known as the SM mine for a considerable amount of time. Estimates of mineral reserves and resources consider technical, economic, environmental, and regulatory factors that carry inherent risks. The mine's cash flow and profitability are directly impacted by changes in grade and/or metal recovery estimation, realized metal prices, and operating and capital costs. Additional factors, such modifications to environmental or legal mandates, may also impact or limit the mine's operational efficiency. A reassessment of the reported mineral reserve and mineral resource estimations would be warranted in case of significant deviations from the criteria employed in this TRS. Significant resources are allocated by SIM and mine site administration to the management of these risks.

There are no noteworthy technical, legal, environmental, or political factors that the QP is aware of that could negatively affect the extraction and processing of the reserves and resources found at the San Martin Mine. Mineral resources that are not economically viable and have not been turned into mineral reserves will stay such. The estimation of mineral resources does not guarantee that any part of them will be turned into mineral reserves.

The QP considers that the mineral concessions in the San Martin mining district controlled by SIM continue to be highly prospective both along strike and down dip of the existing Mineralization.

26.0 RECOMMENDATIONS

QP recommendations are itemized in the following subsections. These recommendations are not required for continued mine development on the Property, and therefore a cost estimate for this work is not provided.

26.1 Geology

26.1.1 Database

QP previously recommended that all drillhole data (including collar, survey, assay, geology, and specific gravity data) should be maintained in a single, compiled database for all structures at San Martin. Tremendous effort is being done; however, the data has been not consolidated to date. QP reiterates this recommendation.

QP also recommends that underground channel sampling and QA/QC data be incorporated into the same unified system together with the exploration drilling data to from a single repository or "version of the truth." SM currently own Leapfrog software that should be adequate to manage a more centralized database. The ability to select data by type and location for assaying and logging should be managed through the judicious use of codes to allow selective extraction and summarization as and when required.

26.1.2 Underground Sampling

The San Martin structure is very wide (more than 30 m in places) and later sampling across the full width of the orebodies, creates a potential for bias in the frequency of sampling in the orebody between the drifts is lower. QP recommends that the drift on the footwall side be driven in advance of the hanging wall drift, in addition to the development taking place.

26.1.3 QA/QC Sampling

QP recommends that certified standards and blank submissions be included in the primary database for the property to avoid the difficulty of finding such data when it exists in separate spreadsheet reports. QP also recommends that QA/QC performance graphs be updated monthly to allow questionable sample batches to be repeated timeously.

26.1.4 Umpire Sampling

It is industry best practice to have 5% of sample pulps assessed at a third-party lab. Aside from limited resampling completed as part of past NI 43-101 reports, it is not apparent that umpire sampling has been performed.

As discussed, a small percentage of the total drill hole database encounters the area of interest, because of this umpire sampling should be focused on resampling most of the pulps within the expected mining areas.

26.1.5 Resource Estimation

Historically, the calculation of resources and reserves is conducted manually, due to the conditions that the deposit marks. The change from the conventional polygonal method to a 3D geological model, using Leapfrog software, has given a new understanding to the geological model of the San Martin deposit. It has taken a lot of work and effort to make this change, which will provide a better visualization of the exploration targets in the immediate future.

26.1.6 Exploration

Exploration must continue, as has been done normally at the mine. With diamond drilling the mineral is detected and with drifts it is explored. It is important that in the north Zone the Areas 29, 30, 32 and 33 continue being explored with systematic drifting to detect the size of the oreshoots. Continue with the exploration at the Central zone, Cuerpo 29 downwards, with systematic drilling to define the size of the oreshoot, and the South zone explore the San Jose FW.

26.2 Mining

QP recommends that San Martin prepare a long-term mine plan based on the resource estimate, to enable San Martin to declare mineral reserves and ensure that the mineral resources disclosed can be included in a long-term mine plan.

26.3 Process

QP recommends continuing with the research on the ore from the San Martin Body, with a high content of carbonaceous material, since this material is of high grade and could be of significant help for daily production. Laboratory results indicate that the carbonaceous mineral is feasible for recovery. A pilot test will be conducted in July, which will clear up doubts about the feasibility of the process.

26.4 Environmental

Once the mine plan, site layout and tailings management plan are further along and have definitive locations, the cost of these factors should be addressed. The cost for monitoring environmental effects post-mine closure needs to be estimated. A detailed trade-off study should be undertaken to characterize current conditions of the sulphide tailings and to determine whether the re-treatment of this material would contribute to the profitability of the Project, apparently not.

The permit for the tailings dam expired in May 2024. The permit for storage of material in tailings dams expired in May 2024. An application for its renewal was sent to the environmental authorities in that same month. SEMARNAT has approved the tailings storage operation for 10 (ten) more years, that is, the new permit will expire in September 2034. This is good news for the entire operations of the mine.

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