SEC Technical Report Summary
Initial Assessment on Mineral Resources
Santa Bárbara
Chihuahua, México

Effective Date: December 31, 2024
Report Date: February 19, 2025

Report Prepared for

Southern Copper Corporation

7310 North 16th Street, Suite 135
Phoenix, Arizona 85020

Report Prepared by

SRK Consulting (U.S.), Inc.
999 Seventeenth Street, Suite 400
Denver, CO 80202

SRK Project Number: USPR002183

Table of Contents

List of Tables

List of Figures

List of Abbreviations

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

Abbreviation	Unit or Term
%	percent
°	degree
°C	degrees Centigrade
2D	two-dimensional
3D	three-dimensional
AAS	atomic absorption spectrometry
Ag	silver
Al	aluminum
As	arsenic
Au	gold
Ba	barium
Be	beryllium
Bi	bismuth
BTS	Brazilian tensile tests
Ca	calcium
Cd	cadmium
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
cm	centimeter
cm^3	cubic centimeter
Co	cobalt
CoG	cut-off grade
Company	Industrial Minera México, S.A. de C.V
Cr	chromium
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
Cs	scaled span
CRM	certified reference material
Cu	copper
DTS	direct shear of discontinuities
e	elastic modulus measurement
Fe	iron
FoG	fall of ground
FoS	factor of safety
g	gram
G&A	general and administrative
g/t	grams per tonne
GWh	gigawatt-hour
ha	hectare
HCl	hydrochloric acid
Hg	mercury
hm^3	cubic hectometer
HNO_3	nitric acid
I	Indicated
ICP	inductively coupled plasma
IMMSA	Industrial Minera México, S.A. de C.V
K	potassium
kg	kilogram
kg/cm^2	kilograms per square centimeter
km	kilometer
km^2	square kilometer
koz	thousand ounces
kt	thousand tonnes
kW	kilowatt
kWh	kilowatt-hour

Abbreviation	Unit or Term
L	liter
La	lanthanum
lb	pound
Li	lithium
LoM	life-of-mine
m	meter
M	Measured
m.y.	million years
m^3	cubic meter
masl	meters above sea level
Mg	magnesium
mm	millimeter
Mn	manganese
Mo	molybdenum
MRE	Mineral Resource Estimate
Na	sodium
Na_2O_2	sodium peroxide
Ni	nickel
NSR	Net Smelter Return
P	phosphorus
Pb	lead
QA/QC	quality assurance/quality control
QP	Qualified Person
REPDA	Public Registry of Water Rights
RMR	rock mass rating
RQD	rock quality designation
RPEE	reasonable prospects for economic extraction
S	sulfur
Santa Bárbara	Santa Bárbara Polymetallic Mine
Sb	antimony
Sc	critical span
Sc	scandium
SCC	Southern Copper Corporation
SD	standard deviation
SEC	U.S. Securities and Exchange Commission
SG	specific gravity
SGS	SGS Laboratory
Sn	tin
Sr	strontium
SRK	SRK Consulting (U.S.), Inc.
t	tonne (metric ton) (2,204.6 pounds)
t/d	tonnes per day
t/m^3	tonnes per cubic meter
TCS	triaxial compressive strength tests
Tecmin	Tecmin Drilling and Exploration Services
Ti	titanium
UCS	uniaxial compressive strength tests
UTM	Universal Transverse Mercator
V	vanadium
W	tungsten
WGS84	World Geodetic System
Y	yttrium
Zn	zinc
Zr	zirconium

1 Executive Summary

This technical report summary was prepared in accordance with the U.S. Securities and Exchange Commission (SEC) S-K regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for Industrial Minera México, S.A. de C.V (IMMSA or Company), a subsidiary of Southern Copper Corporation (SCC), by SRK Consulting (U.S.), Inc. (SRK) on the Santa Bárbara Polymetallic Mine (Santa Bárbara).

1.1 Property Description (Including Mineral Rights) and Ownership

The Santa Bárbara mining complex is located approximately 26 kilometers (km) southwest of the city of Hidalgo del Parral in southern Chihuahua, México. The area can be reached via paved road from Hidalgo del Parral, a city on a federal highway. Santa Bárbara was discovered in 1536, and mining activities in the 20th century began in 1913. Santa Bárbara includes three main underground mines (San Diego, Segovedad, and Tecolotes), as well as a flotation plant, and produces lead (Pb), copper (Cu), and zinc (Zn) concentrates, with significant amounts of silver (Ag). IMMSA currently holds 33 mining titles over the Santa Bárbara project, covering a total area of 27,772.5082 hectares (ha), with the titles held 100% by the Company.

1.2 Geology and Mineralization

The pre-mineral rock types found at Santa Bárbara consist of a thick calcareous shale formation and andesite flows. The post-mineral rock types consist of dikes and sills of rhyolite and diabase, a thin conglomerate formation, basalt flows, and unconsolidated stream sediments. Pre-mineral faulting took place in two stages, forming four fault systems. All faults within each system have similar strike and dip. Movement along these faults, vertical in the first-stage faults and horizontal in the second-stage faults, formed openings and breccia zones (Scott, 1958).

Hydrothermal solutions, emanating from depth, were introduced into the faults. The walls and breccia fragments within the faults were silicified, and the high-temperature silicates, garnet, pyroxene, and epidote were formed. Accompanying and following the formation of the silicates, the sulfides, such as sphalerite, galena, chalcopyrite, pyrite, and arsenopyrite, with associated gold (Au) and a silver mineral, were introduced with quartz, calcite, and fluorite. Most of these minerals replaced silicates and altered shale. The parts of the faults where wide pre-mineral openings were located filled with quartz and a higher ratio of sulfides than in the narrow portions of the faults. Quartz, calcite, fluorite, and barite were among the last minerals deposited. The veins are assigned to the hypothermal class of hydrothermal deposits (Scott, 1958).

1.3 Status of Exploration, Development, and Operations

IMMSA started to exploit the Santa Bárbara veins in 1926, and currently has three main underground mines (San Diego, Segovedad, and Tecolotes) and a flotation plant that produces lead, copper, and zinc concentrates with small amounts of gold and high amounts of silver. The veins have a total length of more than 20 km. In 2024, the main exploration areas were primarily focused within the Segovedad complexes, both on the surface and underground, aiming to follow the continuities of the Explorador and Santa Bertha structures. In Tecolotes, the focus was on identifying the longitudinal and vertical continuities of the Santiago, Hidalgo, Chiripa and Mina Nueva veins, as well as determining the formality and continuity of the Las Gemelas vein. For 2025, priorities will be focused on the Tecolotes complexes, specifically in Bronces and the deepening of Segovedad, as well as in San Diego, focusing on the continuity of the Las Gemelas and La Loteria veins.

The mining methods are primarily cut and fill with limited use of long hole open stoping. The three mines feed a single mill in the process plant located at Segovedad. In 2024, operations were concentrated in the three complexes: Segovedad, Tecolotes and San Diego (mainly the Mina Nueva area). For 2025, the priority is, the development of the north and south ramps on the surface for the Alfareña body, and underground, the focus is on level 12 at the 700-107 face, as well as preparation on level 20 at the 261 face.

Santa Barbara operates a 5,500 t/d flotation concentrator to recover gold, silver, lead, zinc and copper values into separate lead, copper and zinc concentrates. The process flowsheet includes three-stage crushing, ball mill grinding, flash flotation, bulk lead-copper rougher-scavenger flotation, zinc rougher-scavenger flotation, lead-copper separation, concentrate thickening and filtration and disposal of flotation tailings into a conventional tailing storage facility.

1.4 Mineral Resource Estimates

Santa Bárbara collects samples from diamond core drilling (surface and underground) and rock samples from underground workings as part of the exploration and mine geology activities. The mine geology department has performed most of these activities without quality assurance/quality control (QA/QC) protocols and conducting down hole surveys, which do not follow industry best practices. Since 2019, a contractor (Tecmin Drilling and Exploration Services (Tecmin)) has performed drilling campaigns from surface and underground which included the implementation of QA/QC protocols.

The mineralization in Santa Bárbara's veins is appropriately interpreted using various sources of information, which include drilling, underground mapping, and rock channel sampling. SRK relied upon the information that is stored in paper format and the reconciliation of Santa Bárbara's planned vs. executed grades and tonnages system to determine drilling and channel rock sampling. SRK is of the opinion that this approach is reasonable. This opinion is also based on the long history of mining at Santa Bárbara.

The geological team of Santa Barbara finalized the geological modeling and Mineral Resource Estimation (MRE) using Seequent Leapfrog Geo and Leapfrog Edge software tools. The geological modeling included the creation of wireframe solids delineating the geological/mineralization domains. Furthermore, the process involved data compositing and capping, geostatistical and variography analyses. Subsequent steps comprised block modeling, grade interpolation techniques, and validation process. SRK worked with Santa Barbara geologists throughout the process to ensure that the geological modeling and mineral resource estimates were performed following standard practices.

A standard density of 3 tonnes per cubic meter (t/m^3) is applied. This value is based on historical reconciliation information and is used as part of the current mine production systems. The classification of resources is based on the following criteria:

Measured: No Measured resources are stated, as insufficient overall confidence exists to confirm geological and grade continuity between points of observation to the level needed to support detailed mine planning and final evaluation studies. In the Qualified Person's (QP) opinion, other limitations are a lack of density measurements and insufficient QA/QC protocols in the historical sampling protocols.

Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures, and the lack of downhole surveys, SRK established that there are no Measured resources in Santa Bárbara.

Indicated: Indicated mineral resources are zones that are considered continuous in size, shape, and grade, located within 60 meters of underground development or drilling.

Inferred: Blocks within a 120-meter search range, utilizing at least one drillhole or channel sample, are considered, with reasonable geological continuity. The proximity to mining operations and rock sampling is also factored into the confidence assessment using the same criteria.

1.5 Mineral Resource Estimate

Mineral resources have been reported based on economic and mining assumptions to support the reasonable prospects for economic extraction (RPEE) of the resource. The resources have been reported based on a Net Smelter Return (NSR) cut-off of US$82.98/tonne. Current mineral resources are reported in-situ and are exclusive of reserves, as summarized in Table 1-1.

Table 1-1: Santa Bárbara Summary Mineral Resources at End of Fiscal Year Ended December 31, 2024, Based on Price[1]– SRK Consulting (U.S.), Inc.

IMMSA Underground - Santa Barbara								Cut-off[2]: NSR US$82.98				
Category	Quantity	Grade						Contained Metal				
	Tonnes (kt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR US$	Au (koz)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Measured												
Indicated	19,883	0.16	97.51	3.36	1.71	0.47	173.01	100	62,335	668,289	340,671	93,064
M+I	19,883	0.16	97.51	3.36	1.71	0.47	173.01	100	62,335	668,289	340,671	93,064
Inferred	47,333	0.12	81.54	3.34	1.87	0.45	165.32	186	124,081	1,578,731	884,616	211,100

[1] Mineral resources are reported Exclusive of Mineral reserves. Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, zinc and copper assays were capped where appropriate. Given historical production, it is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.
[2)] Mineral resources are reported at metal equivalent CoG's based on metal price assumptions, * variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors.*** Mining, processing, and G&A costs total US$82.98.4/t.
* Metal price assumptions considered for the calculation of metal equivalent grades are: Gold (US$/oz 1,725.00), Silver (US$/oz 23.0), Lead (US$/lb1.09), Zinc (US$/lb 1.32) and Copper (US$/lb 3.80).
** CoG calculations and metal equivalencies assume variable metallurgical recoveries as a function of grade and relative metal distribution. Average metallurgical recoveries are: Gold (33.4%), Silver (81%), Lead (79%) and Zinc (80%) and Copper (40%) assuming recovery of payable metal in concentrate.
*** CoG calculations and metal equivalencies assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Au(g/t)*11.94518+Ag(g/t)*0.539611+Pb(%)*18.12523+Cu(%)*44.16642+Zn(%)*19.87623.
Note: The mineral resources were estimated by SRK Consulting (U.S.), Inc., a third-party QP under the definitions defined by S-K 1300.

The new 3D geological model completed by Santa Barbara is the basis for the block model construction and the mineral resource estimates using standard industry procedures presented here in.

The new methodology introduced changes in evaluating capping by using statistical tools to assess each element by domain or group of domains and evaluating grade continuity through variography analysis. This approach, combined with geological evidence, significantly increased inferred resources by improving the inferred continuity of mineralized structures. Previous estimates relied solely on fixed distances to data. Consequently, these factors led to a reduction in Indicated resources and an increase in Inferred resources.

In SRK's opinion, the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

Mineral resources are in compliance with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction.

1.6 Conclusions and Recommendations

In the QP's opinion, the assumptions, parameters, and methodology used for the Santa Bárbara underground mineral resource estimates are appropriate for the style of mineralization and mining methods.

Santa Barbara's geology is well understood due to long-term mining and recent exploration. The established mineralization styles and exploration models help determine future Mineral Resources and Reserves.

It is SRK's opinion that the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

The assumptions, parameters, and methodology applied to estimate the underground mineral resources at Santa Barbara are suitable for the type of mineralization and mining techniques used.

It is the QP's opinion that measures should be taken to mitigate the uncertainty, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domainsContinue the routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3.0 t/m^3 value, using the current protocols for analysis and in all the areas of the deposit.
- SRK recommends continuing digitizing drilling and rock sampling data and maintaining an updated database for future geological model updates, including geological/mineralization maps and sections.
- The QP suggests IMMSA to use a data capture tool and create a geologic database for secure drilling data storage. This will improve data control and provide an audit trail for system changes.

The QP is of the opinion that with consideration of the recommendations, any issues likely to influence the prospect of economic extraction can be resolved with further work.

2 Introduction

2.1 Registrant for Whom the Technical Report Summary was Prepared

This technical report summary was prepared in accordance with the SEC S-K regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for IMMSA, a subsidiary of SCC, by SRK on the Santa Bárbara Mine.

2.2 Terms of Reference and Purpose of the Report

The quality of information, conclusions, and estimates contained herein are consistent with the level of effort involved in SRK's services, based on:

- Information available at the time of preparation
- Assumptions, conditions, and qualifications set forth in this report

This report is intended for use by IMMSA subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits IMMSA to file this report as a technical report summary with U.S. securities regulatory authorities pursuant to the SEC S-K regulations, more specifically Title 17, Subpart 229.600, item 601(b)(96) - Technical Report Summary and Title 17, Subpart 229.1300 - Disclosure by Registrants Engaged in Mining Operations. Except for the purposes legislated under U.S. federal securities law, or with other securities regulators as specifically consented to by SRK, any other use of this report by any third party are at that party's sole risk. The responsibility for this disclosure remains with IMMSA.

The purpose of this technical report summary is to report mineral resources for the Santa Bárbara project.

The effective date of this report is December 31, 2024. References to industry best practices contained herein are generally in reference to those documented practices as defined by organizations, such as the Society for Mining Metallurgy and Exploration (SME), the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), or international reporting standards as developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).

2.3 Report Version Update

This technical report summary is an update of a previously filed technical report summary and is the most recent report. This report presents an update from the previously filed technical report summary entitled "SEC Technical Report Summary Initial Assessment on Mineral Resources Santa Bárbara Chihuahua, México, effective date: December 31, 2024 and reported date: February 19, 2025. The current report accounts for depletion completed during 2024, and updated Mineral Resources based on 2024 exploration activities.

2.4 Sources of Information

This report is based in part on internal Company technical reports, previous feasibility studies, maps, published government reports, Company letters and memoranda, and public information, as cited throughout this report and listed in the References Section (Section 24).

Reliance upon information provided by the registrant is listed in the Section 25, when applicable.

SRK's report is based upon the following information:

- Site visits to the Santa Bárbara project, completed in 2021, 2022, 2023 and 2024.
- Discussions and communications with key Santa Bárbara operations personnel.
- Data collected by the Company from historical mining operation.
- Review of the data collection methods and protocols, including sampling, QA/QC, assaying, etc.
- Review of updated plan maps, including geological interpretations, sampling, and sampling location, in both paper format and AutoCAD files.
- Review of the original drillhole logging sheets.
- Review of paper documents supporting the resource/reserve estimates by blocks, including interpretation on sections, spreadsheets, and manual calculations. Part of this information was provided in digital format (AutoCAD, Excel, and Word).

2.5 Details of Inspection

Table 2-1 summarizes the details of the personal inspections on the property by each QP or, if applicable, the reason why a personal inspection has not been completed.

Table 2-1: Site Visits

Expertise	Date(s) of Visit	Details of Inspection
Geology, exploration, and mineral resources	June 9 to 13, 2021	Review drilling and sampling procedures, visit to underground workings, and review of resource estimation procedures
Geology, exploration, and mineral resources	November 22 to 28, 2021	Review of estimation procedures and check of resource blocks and supporting data
Geology, exploration, and mineral resources	November 16 to 18, 2022	Review exploration procedures and the updated resource blocks and supporting data
Geology, Exploration, and Mineral Resources	June 17 to 19 2024	Review exploration procedures, 3D geological model, QA/QC protocols, rock and core sampling and preparation and chemical analysis laboratory

The site inspection included interviews with the technical personnel in charge of the exploration activities, visit to Underground workings, review rock and core sampling procedures and QA/QC protocols, visit to the preparation and chemical analysis laboratory, review the geological interpretations and the 3D geological modeling and resource estimation.

2.6 Qualified Person

This report was prepared by SRK Consulting (U.S.), Inc., a third-party firm comprising mining experts in accordance with § 229.1302(b)(1). IMMSA has determined that SRK meets the qualifications specified under the definition of Qualified Person in § 229.1300. References to the QP in this report are references to SRK Consulting (U.S.), Inc. and not to any individual employed at SRK.

3 Property Description

3.1 Property Location

The Santa Bárbara project is located in northern México, approximately 25 km southwest of the city of Hidalgo del Parral, in the state of Chihuahua. The mine uses the Universal Transverse Mercator (UTM) World Geodetic System (WGS84) Zone 13R coordinate system and is located at 2 965 880 N and 418 948 E at an altitude of 2,000 m above sea level (masl). Access to the mine is connected to Hidalgo del Parral by a paved road 25 km in length along Highway 24 (Figure 3-1).

Figure 3-1: Location Map of Santa Barbara

3.2 Property Area

IMMSA currently holds 33 mining titles over the Santa Bárbara project covering a total area of 27,772.5082 ha, with the titles held 100% by the Company.

3.3 Mineral Title, Claim, Mineral Right, Lease, or Option Disclosure

In Mexico, mining concessions are granted by the Economy Ministry and are considered exploitation concessions with a 50-year term and extendable to 50 more years. Mining concessions have an annual minimum investment to complete and an annual mining rights fee to be paid to keep the concessions effective. IMMSA, currently holds 33 mining titles over the Santa Barbara project, covering a total area of 27,772.5082 ha, with the titles held 100% by the Company (Table 3-1).The oldest concession was originally awarded in 1980 and has a current expiration datefor2030 but has the option for extending a further 50 more years.

Table 3-1: Land Tenure Table

Number	Title Number	Concession Name	Holder	Awarded	Valid Until	Surface (ha)
1	167051	LAS AURAS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	19/08/1980	18/08/2030	6.0000
2	168995	SAN JOSE DE GRACIA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	2/9/1981	1/9/2031	3.0000
3	170302	LA AURORA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/04/1982	13/04/2032	12.0000
4	170540	UNIFICACION MALINCHE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	13/05/1982	12/5/2032	95.4933
5	178198	EL PALMAR TRES	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/07/1986	13/07/2036	1.0000
6	181420	LA PRIETA DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	18/09/1987	17/09/2037	200.7286
7	184488	LA REYNERA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	6/11/1989	5/11/2039	2.4465
8	185480	LA FLAUTA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/12/1989	13/12/2039	6.0000
9	187914	SANTO DOMINGO DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	10.0000
10	187917	ENCARNACION DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	5.0000
11	187918	MONTE LIBANO DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	10.0000
12	187919	ROSITA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	49.2316
13	210933	SANGRE DE CRISTO	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/02/2000	28/02/2050	3.8184
14	212001	EL POTOSI	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	18/08/2000	17/08/2050	997.2857
15	212036	CASA BLANCA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/08/2000	24/08/2050	500.0000
16	212261	SAN LORENZO	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/09/2000	28/09/2050	488.9706
17	212262	SAN LORENZO FRACC. NORESTE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/09/2000	28/09/2050	4.4796
18	212263	SAN LORENZO FRACC. SURESTE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/09/2000	28/09/2050	1.2479
19	212856	LA FE 4	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	31/01/2001	30/01/2051	12.9835
20	215015	LA FE 5	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/01/2002	28/01/2052	21.9015
21	217032	SAN LUIS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/06/2002	13/06/2052	300.0000
22	218013	POTOSI 2	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	3/10/2002	2/10/2052	3,590.0000
23	220423	LA CALDERA (REDUCCION)	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/07/2003	2/8/2049	3,515.1687
24	221199	LA TRINIDAD	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	11/12/2003	10/12/2053	2.8916
25	221200	SAN JOSE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	11/12/2003	10/12/2053	8.1400
26	222320	ZAS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/06/2004	24/06/2054	1,423.7084
27	223287	LAS HOYAS (REDUCCION)	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/11/2004	24/11/2054	3,757.0000
28	223411	LA TRAVESIA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/12/2004	13/12/2054	150.0000
29	224170	BIG-BAN	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	20/04/2005	19/04/2055	7086.3171
30	224249	CERRO CHINO	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/04/2005	21/04/2055	912.2357
31	226018	LA GLORIA 4	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	15/11/2005	14/11/2055	248.0037
32	226019	LA PRIETA NORTE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	15/11/2005	14/11/2055	113.1502
33	231627	UNIFICACION EL AGUA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/03/2008	24/03/2058	4234.3056

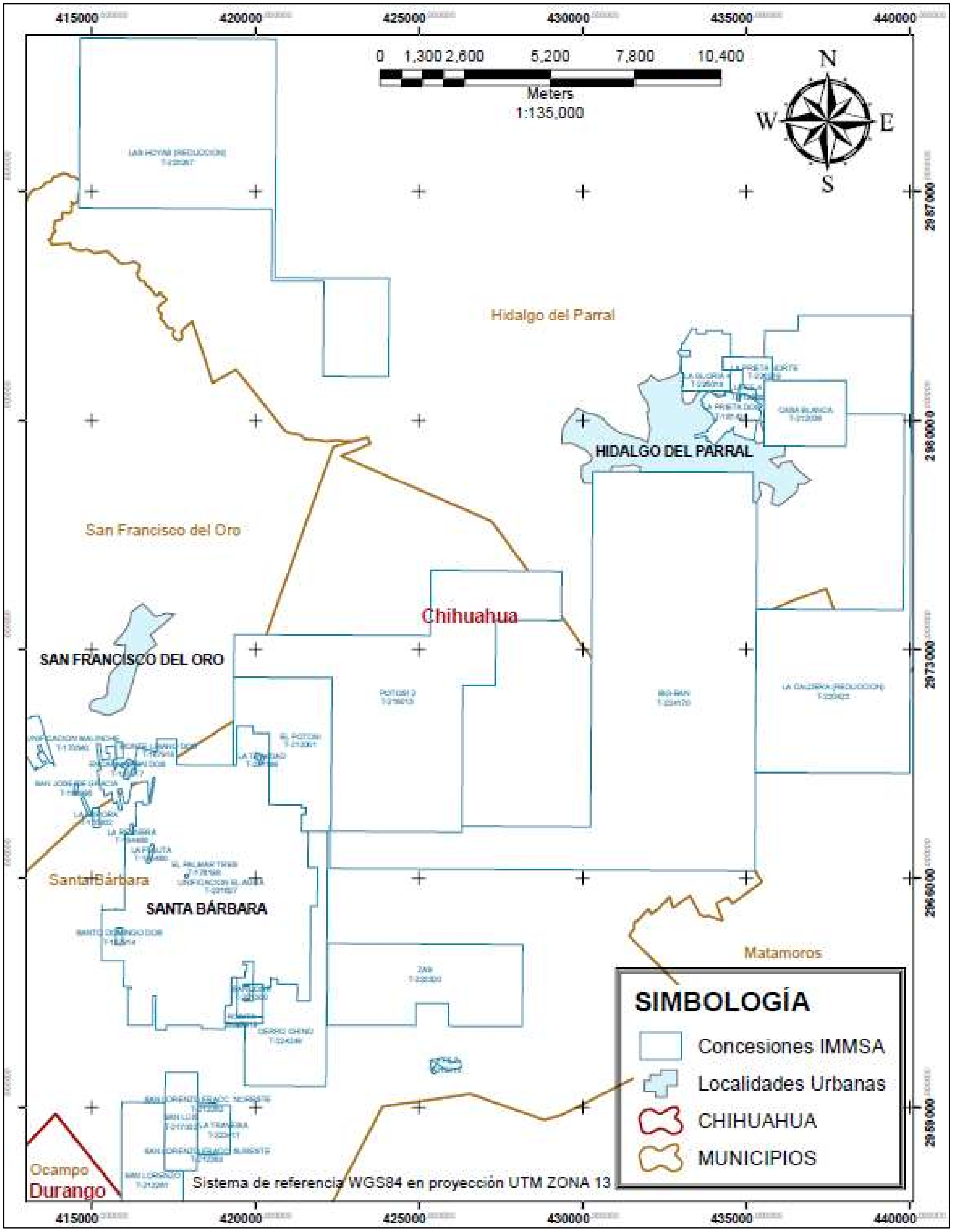


Figure 3-2: Map showing Concession Value

For the Santa Bárbara project, there are surface lands that cover an area of 20.92 ha and are owned by IMMSA, which provide the Company within sufficient rights to any work or exploration that the

Company requires to carry out for the advancement and continuity of activities in the Santa Bárbara project. There are an additional 371.07 ha covered by a contract with the community of Santa Bárbara that allows for any work or exploration required by IMMSA for the advancement and continuing operation of the Santa Bárbara project (Figure 3-3).

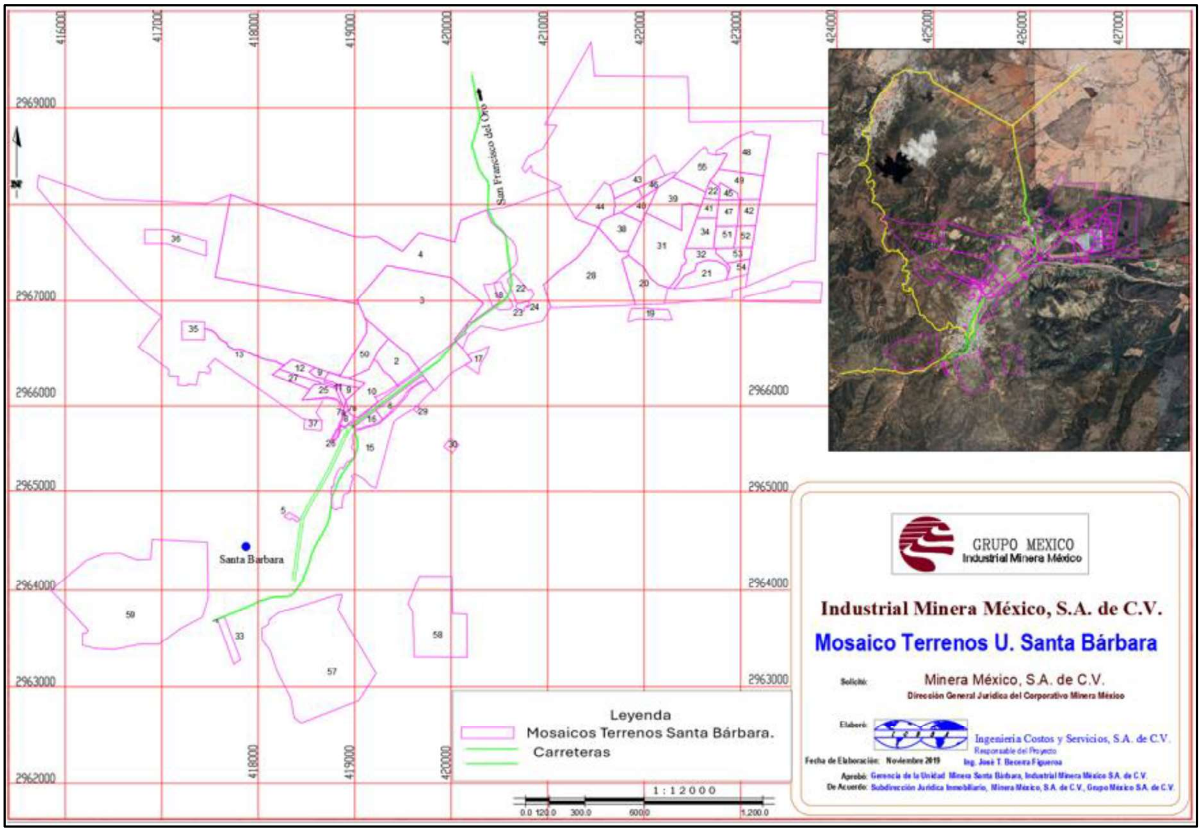


Figure 3-3: Map of Additional Areas Available Under Contract

3.4 Mineral Rights Description and How They Were Obtained

Mining rights in Mexico are granted with the concessions. The Mexican mining legislation since 2025, grant the concession holder the right to conduct exploration, operate a mining operation, and/or operate a processing plant on each concession. The procedure for each of the mining concessions begins with the presentation to the Secretairia de Economia, Direccion General de Minas of Mexico format SE-FO10-001, with all the sections duly completed and accompanied by the required documentation, including payment of the application study and procedure, photographs of the physical evidences of the boundary markers following the standards of the mining law, information supporting the existence of the person or entity responsible of the application. The following are the obligations of the registrant to retain the properties at Santa Bárbara according to the Mexican Mining Law:

- Execute and verify the works and works foreseen by the Mexican Mining Law in the terms and conditions established by it and its regulations.
- Pay the mining rights established by the law on the matter.

- Comply with all the general provisions and the official Mexican standards applicable to the mining-metallurgical industry in terms of safety in mines, ecological balance, and environmental protection.
- Allow personnel commissioned by the Mexican mining entity (Secretaría) to carry out inspection visits.
- The execution of works will be proven by means of investments in the area covered by the mining concession or by obtaining economically exploitable minerals. The regulations of the law will set the minimum amounts of the investment to be made and the value of the mineral products to be obtained.
- The holders of mining concessions or those who carry out works and works by contract must designate an engineer legally authorized to practice as responsible for compliance with the safety regulations in the mines, if the works and works involve more than nine workers in the case of the coal mines and more than 49 workers in other cases.
- The mining law stipulates investments in works and works that are mandatory for the registrant of a mining concession.
- The investments in the works and works foreseen by the law that are carried out in mining concessions or the value of the mineral products obtained must be equivalent at least to the amount that results from applying the quotas to the total number of hectares covered by the mining concession or the grouping of these.

The reports that are delivered to the Mexican mining entity (Secretaría) to verify the execution of the mining works and works must contain:

1. Name of the holder of the mining concession or of the person who carries out the mining works and works by contract.
2. Name of the lot or of the one that heads the grouping and title number.
3. Period to review.
4. Itemized amount of the investment made, or amount of the billing value or settlement of the production obtained, or an indication of the cause that motivated the temporary suspension of the works.
5. Surplus to be applied from previous verifications and their updates.
6. Amount to be applied in subsequent checks.
7. Location plan and description of the works carried out in the period.

The mining entity (Secretaría) shall consider the works and works of exploration or exploitation to have not been executed and legally verified when, in the exercise of its powers of verification, it finds:

- The verification report contains false data or does not conform to what was done on the ground.
- The non-adjacent mining lots object of the grouping do not constitute a mining or mining-metallurgical unit, from the technical and administrative point of view.

In the above cases, Secretaría will initiate the cancellation procedure of the concession or of those mining lots incorporated into the grouping, in the terms of Article 45 of the Mexican Mining Law, final paragraph of the law.

3.5 Encumbrances

SRK is not aware of any legal encumbrances on IMMSA-owned or leased surface or mineral rights but has relied on IMMSA's legal documentation regarding this aspect of the Santa Bárbara project.

Several obligations must be met to maintain a mining concession in good standing, including the ones listed in Section 3.4.

The regulations establish minimum amounts that must be invested in the concessions. Minimum expenditures may be satisfied through sales of minerals from the mine for an equivalent amount. A report must be filed each year that details the work undertaken during the previous calendar year.

Mining duties must be paid to the Secretaria de Economía in advance in January and July of each year and are determined on an annual basis under the Mexican Federal Rights Law.

Duties are based on the surface area of the concession and the number of years since the mining concession was issued. Mining duties totaled MXN$11,795,542, in 2024.

Permits to conduct mining work at Santa Bárbara have been obtained. Existing permits will require updates or extensions based on the life-of-mine (LoM) plan outlined in this report, and additional permits will be necessary should the method of tailings storage change.

3.6 Other Significant Factors and Risks

The mine is subject to risk factors common to most mining operations in México, and IMMSA has an internal process in place to study and mitigate those risks that can reasonably be mitigated. No known factors or unusual risks affect access, title, or the ability to conduct mining. Specific exploration activities are authorized into 2025.

A risk factor that may impact operations in terms of safety and economically, is the external personnel entering the Segovedad and Tecolotes mines. It has been identified that informal miners enter through the surroundings of the Segovedad and Tecolotes mines, through areas adjacent to the town, stealing underground mining equipment such as scoop trams, jumbos, and trucks to conduct mineral extractions creating security issues. The equipment is later abandoned around the vicinity of the mine.

3.7 Royalties or Similar Interest

There is no payment for royalties; 100% of the concessions are owned by IMMSA.

4 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

4.1 Topography, Elevation, and Vegetation

Santa Bárbara topography varies from flat in the Parral Valley to mountainous and rugged to the south and southwest (where the Sierra de Santa Bárbara is located). Santa Bárbara has 12,000 ha of hills, 6,000 ha of mountainous terrain, and 4,000 ha of rugged terrain. The average elevation is 1,969 masl (http://www.inafed.gob.mx/work/enciclopedia/EMM08chihuahua/municipios/08060a.html).

The vegetation is characteristic of the semi-arid regions of northern México. Vegetation is of the montebajo type, and the stunted vegetation made up of oaks, junipers, walnuts, acamos, willows, mesquite, strawberry trees, and gatuños, transitioning from grasslands in the lower elevations to coniferous in its mountainous regions. Figure 4-1shows the characteristics of the Santa Bárbara area.

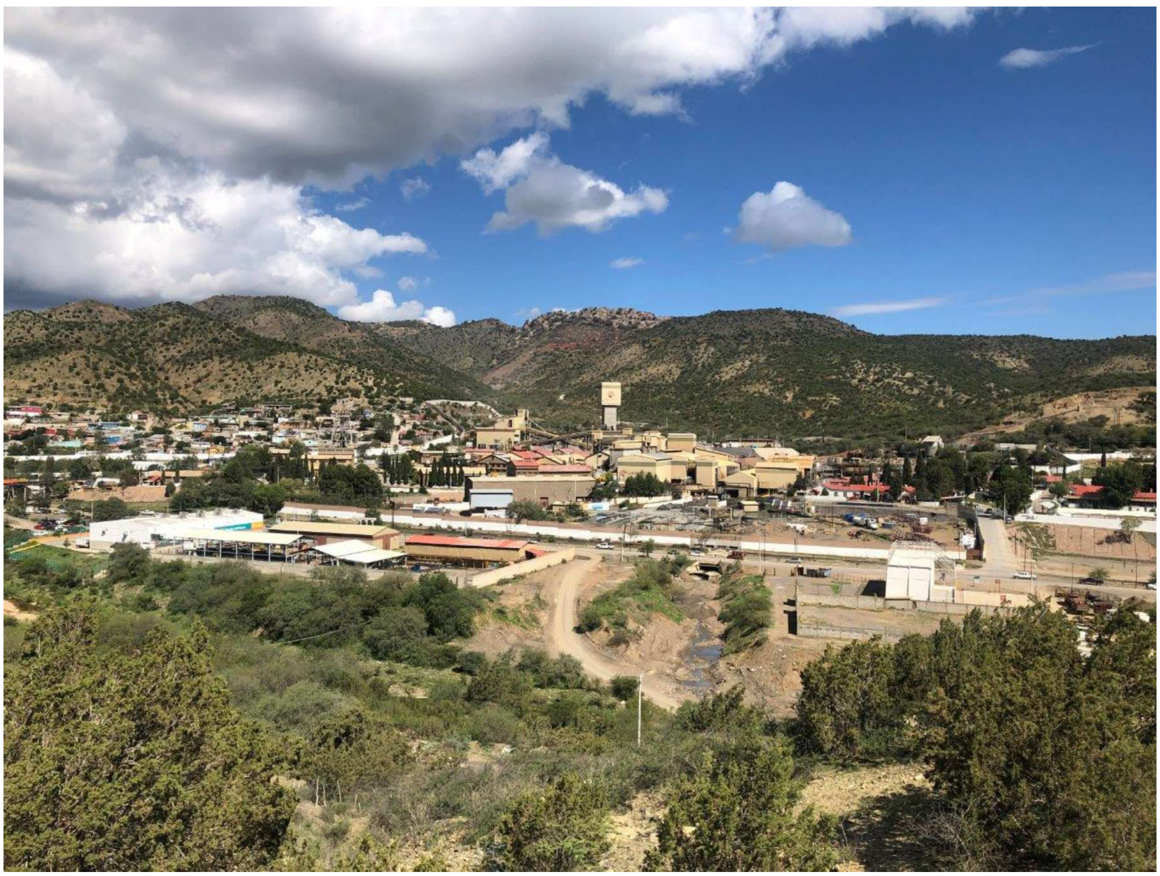


Figure 4-1: Photograph of Santa Bárbara Town, Looking West

4.2 Means of Access

Access to the Santa Bárbara project is well supported via public roads and railways. The state of Chihuahua has an area of 247,455 square kilometers (km^2) has a network of railways (approximately 2,650 km) and has good road infrastructure covering 19,720 km in total, of which 7,100 km are paved, 315 km are lined, and 12,225 km are dirt roads. The Santa Bárbara project connects directly with

Highway No. 24, which leads directly to the state capital, Chihuahua, Chihuahua, at 252 km and connects with Parral at 25 km.

4.3 Climate and Length of Operating Season

The climate in Chihuahua state is warm and arid. Average temperatures vary from 0 degrees Centigrade (°C) to 35°C, with an average of 19°C. The average annual precipitation is approximately 330 millimeters (mm), with most of the rain typically occurring from July to September. Exploration, development, and mining activities can be completed year-round with no hindrance from the climate.

4.4 Infrastructure Availability and Sources

The Santa Bárbara project is an active underground mining operation comprised of three mines (Segovedad, Tecolotes, and San Diego) with one flotation plant that produces zinc, lead, and copper concentrates, with significant amounts of silver. The asset is considered mature.

4.4.1 Water

All the water used in industrial operations at Santa Bárbara comes from the mine and the concentrator plant, where a large part of this water is recovered from the tailings dam, creating a closed circuit for its proper use. IMMSA Santa Bárbara does not have any water concessions. In 2024, this included 389,519 m^3 of fresh water and 4,480 m^3 of recovered water. The recovered water from the tailings dam is received in the general pool located in the process plant.

Drinking water is purchased in pipes from the Junta Municipal de Agua y Saneamiento del Estado de Chihuahua, with an average of approximately 700 m^3 per month. The water is deposited in tanks (Rotoplas) that are distributed in different points of the industrial complex.

4.4.2 Electricity

For 2024, the annual electricity consumption was 108.7 MWh. Electric power is supplied by Eólica el Retiro S A P I DE CV, Energia Chihuahua, SA de CV and the Federal Electricity Commission.

The providers include:

- Eolica el Retiro S A P I DE CV
- Energy Chihuahua S.A. of C.V. (gas) only from January to October 2022
- Federal Electricity Commission (transmission is paid)

A Caterpillar brand generator with an acoustic cabin of 350 kW, a diesel engine, and a tank of 2,000 liters (L) provides energy to the tailings dam pumping station (backup).

4.4.3 Fuel

Diesel

Average annual diesel consumption is 3,945,426 L/year. From the tanks located on the surface, the diesel is sent through pipes to the deposits inside the mine, and from these it is fed to the equipment through dispatch guns.

The diesel supplier is CONBILUB, S.A. DE C.V., and diesel comes from Ciudad Camargo Chihuahua. Diesel is received in 20,000-L tankers. An average of three to four pipes per week are received.

There is currently no supply contract; diesel is supplied through scheduled supply orders.

Gasoline

The operation consumed an average of 8,099 L in 2024. The gasoline is supplied by one of the gas stations located in the city of Santa Bárbara, Chihuahua located 800 m from the mining unit.

4.4.4 Personnel

There is an ample supply of skilled personnel from the local area, which has a long history of mining operations. In addition to Santa Bárbara, there are a number of operating mines in the immediate vicinity of the Santa Bárbara project. The Santa Bárbara mine site currently employs 1,377 employees including staff and unionized personnel.

4.4.5 Supplies

The Santa Bárbara mine has a highly favorable location and infrastructure, and local communities in the surrounding area are well suited with basic accommodations, fuel, industrial materials, contractor services, and bulk suppliers. Supplies to the mine can be transported with ease via the rail or road network system. Parral City is an important source, providing services and supplies.

5 History

The following sections provide a summary of the history of the Santa Bárbara project, compiled from historical publications and internal corporate documents. Mining activity in the Santa Bárbara area started in 1500's and occurred intermittently during the following centuries and continues in the present with IMMSA.

5.1 Previous Operations

Exploration and mining activity at the Santa Bárbara project dates to the initial discoveries in the late 1500s. In 1899, the Montezuma Lead Co was founded in the district and acquired other operations and increased production over the next few years. In 1913, the Mexican Metallurgical Company negotiated the sale of some its assets to ASARCO S.A. After the Mexican Revolution, Compañía Industrial Minera ASARCO S.A. was formed and consolidated some properties in the district. In 1932, Compañía Industrial Minera ASARCO assumed control of most of the operations in the area and took control of the American Smelters Securities Company, the main subsidiary of ASARCO S.A. The name was changed to ASARCO MEXICANA S.A. in 1965 and to Industrial Minera México S.A.de C.V. in 1974. In 1978, this became Industrial Minera México S.A DE C.V (Grupo México), and finally in 2012, this was absorbed by Industrial Minera México S.A. DE C.V.

Table 5-1 summarizes milled tonnes per year from 2002 to December 2024.

Table 5-1: Santa Bárbara Milled Tonnes (2002-Oct 2024)

Year	Milled Tonnes
2002	1,590,650
2003	1,450,124
2004	1,453,793
2005	1,486,622
2006	1,483,704
2007	1,486,622
2008	1,460,854
2009	1,542,128
2010	1,578,342
2011	1,552,869
2012	1,589,618
2013	1,595,042
2014	1,591,851
2015	1,556,699
2016	1,529,573
2017	1,337,389
2018	1,670,776
2019	1,636,644
2020	1,732,554
2021	1,515,951
2022	1,495,711
2023	1,638,900
2024	1,640,250

5.2 Exploration and Development of Previous Owners or Operators

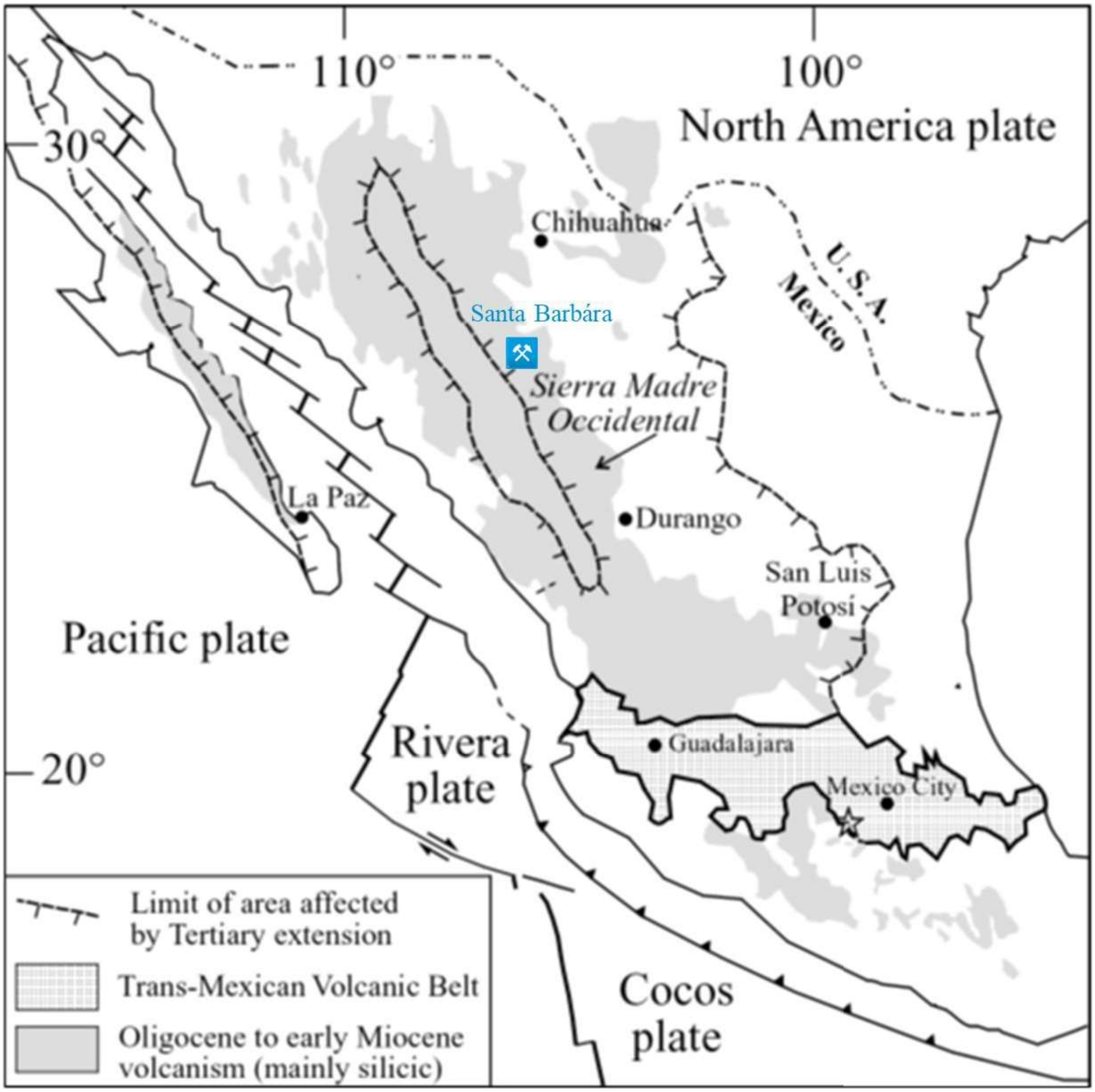
Since the 1920's, all exploration and development have been completed by IMMSA under its current legal name or by its previous name Asarco, S.A or Grupo México. Details of the exploration are discussed in Section 7 of this report.

6 Geological Setting, Mineralization, and Deposit

6.1 Regional, Local, and Property Geology

6.1.1 Regional Geology

The Sierra Madre Occidental extends for over 2,000 km from the U.S.-México border south to Guadalajara, where it is covered by the Late Miocene to Quaternary Trans-Mexican volcanic belt (Figure 6-1). Eocene-Oligocene volcanism south of the Trans-Mexican volcanic belt is from Morán-Zenteno et al. (1999).



Source: Camprubí et al., 2003; based on Ferrari et al., 2002

Figure 6-1: Geodynamic Map of México, showing Tertiary Extension and Volcanism and the Present Configuration of Plates

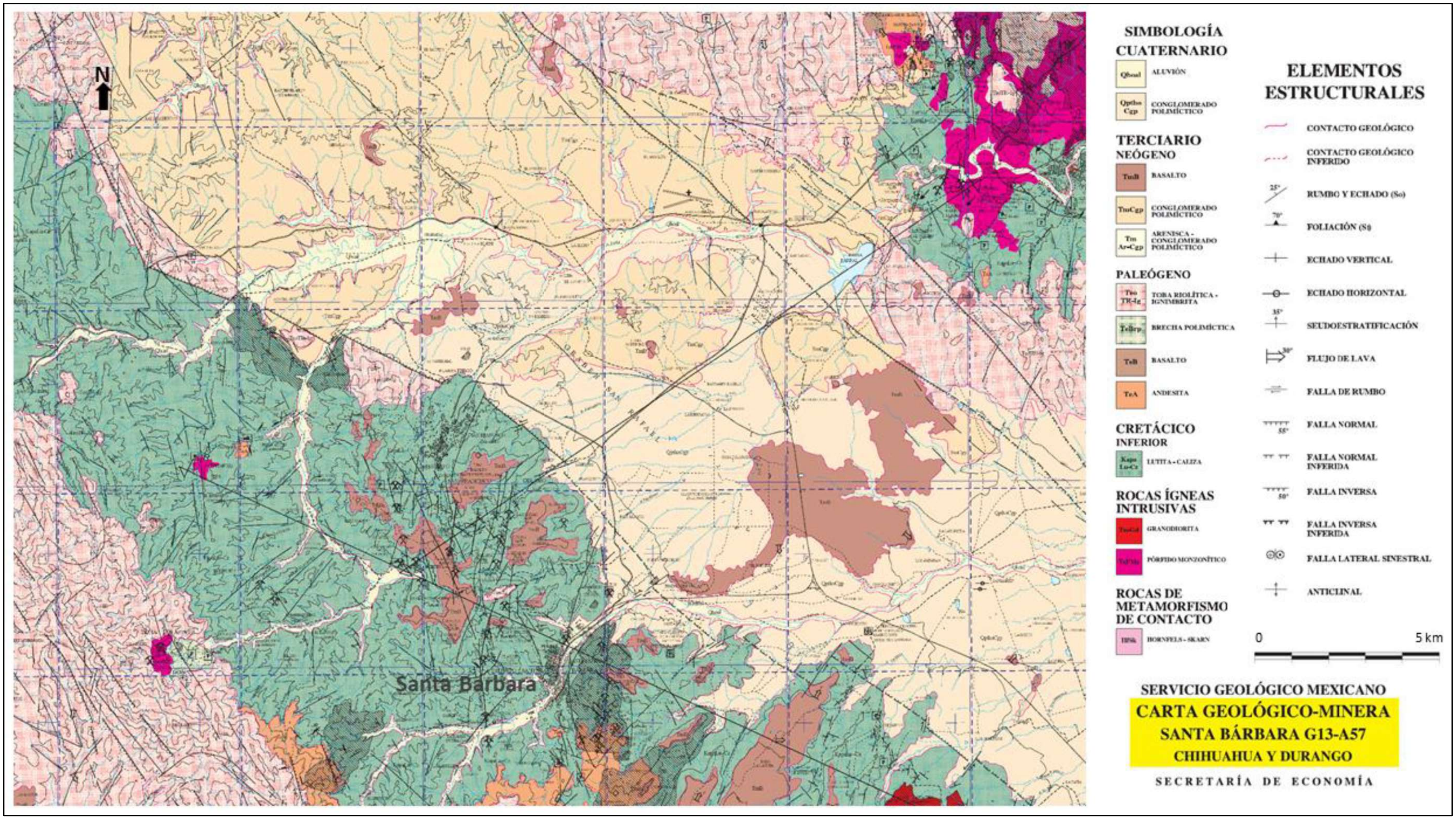
Rocks in the lower part of the Sierra Madre Occidental are Late Cretaceous to Early Tertiary calc-alkaline, granodioritic to granitic batholiths that intrude voluminous, coeval volcano-sedimentary rocks (Henry and Fredrikson, 1987; Aguirre-Díaz and McDowell, 1991; González-León et al., 2000). The volcano-sedimentary rocks were named Lower Volcanic Supergroup by McDowell and Keizer (1977) and represent the magmatic activity that took place during the Laramide Orogeny (Staude and Barton, 2001; Camprubí et al., 2003).

The upper 1,000 m of the Sierra Madre Occidental succession, however, consists of silicic ignimbrites and, to a lesser extent, rhyolitic domes and minor basaltic to andesitic lavas (the Upper Volcanic Supergroup of McDowell and Keizer, 1977). These rocks mark the so-called ignimbrite flare up of the Sierra Madre Occidental and have been emplaced in Early Oligocene along the whole Sierra Madre Occidental (McDowell and Keizer, 1977; McDowell and Clabaugh, 1979; Henry and Fredrickson, 1987; Wark et al.,1990; Gans, 1997; McDowell et al., 1997; Nieto-Samaniego et al., 1999) and in Early Miocene in the southern Sierra Madre Occidental (Ferrari et al., 2002). Tertiary volcanic rocks coeval with the Sierra Madre Occidental (Latest Eocene to Miocene) are also found to the south of the Trans-Mexican volcanic belt in the Michoacán, Guerrero, México, and Oaxaca states (Figure 6-1), but they are referred to as the Sierra Madre del Sur Tertiary magmatic province (Morán-Zenteno et al., 1999; Camprubí et al., 2003).

The time relation between the Tertiary volcanism and epithermal deposits is not well understood, as only some of the deposits are properly dated. Mexican epithermal deposits mainly formed less than 2 million years ago (m.y.) after the occurrence of the youngest acid volcanic host rocks, as determined in the Pachuca-Real del Monte (McKee et al., 1992) and San Dimas districts (Enriquez and Rivera, 2001), or not long after 2 m.y., as in Fresnillo (Lang et al., 1988). McKee et al. (1992) noted that, during this time, no extrusive volcanic activity occurred, although intrusions were common. The implication is that the epithermal deposits were related to intrusive rocks crystallizing during the volcanic hiatuses, providing heat for the hydrothermal activity, and possibly fluids, metals, and ligands (Camprubí et al., 2003).

The structural features suggest three tectonic stages. The first stage is related to the regional metamorphism of the Triassic rocks, the second stage is caused by the Laramide Orogeny, and the third stage occurred in the Pliocene and is related to extension that resulted in a system of fractures and faults.

Regionally, rocks ranging from the Early Cretaceous to recent are present. The oldest represent basin and shelf sediments, while the sedimentary rocks of the Late Cretaceous are represented by shallow basin sediments. The Tertiary is represented by sills and rhyolite structures that overlay the oldest formations. Continental Conglomerates discordantly overlie the Cretaceous rocks. Quaternary age clastic sediments have filled and are widely distributed within the valley (Figure 6-2).

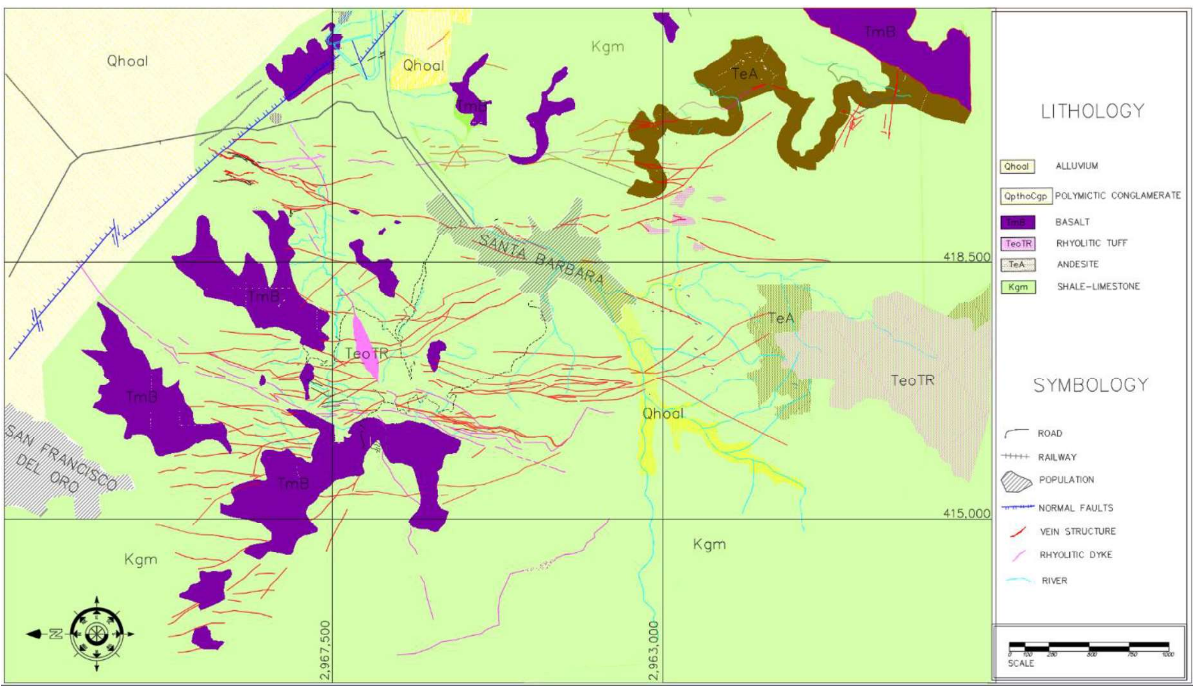


Source: Servicio Geológico Mexicano, 1999

Figure 6-2: Regional Geology Map

6.1.2 Local Geology

Local stratigraphy is characterized by marine Aryan sedimentary rocks from Mesozoic sub-volcanic magmatism, presumed to be Tertiary in age, and continental sediments from the Cenozoic. The oldest rock found in the local area belongs to the Parral Formation of Aptian-Albian age, which is made up of shales and marls with intercalations of fine horizons of fine-grained sandstone. Partially covering the Parral Formation, there are beds of pyroxene andesites composed by fragments of pre-existing rocks that outcrop north of the district in the vicinity of the town of San Francisco del Oro. The rhyolitic complex is made up of a sequence of tuffs, sills, and dikes, covering the upper parts of the hills. The San Rafael conglomerate fills the valley of the same name and emerges to the north of the district, forming soft hills. The conglomerate is the product of the filling of a graven limited by the Santiago Faults to the west and the Esmeralda Fault to the northeast and is constituted by fragments of surrounding rocks. The youngest lithological unit in the region is an olivine basalt, which forms almost horizontal layers. These are described in more detail below. Figure 6-3 presents the map of the local geology.



Source: Glenn, et al, 1988

Figure 6-3: Local Geology Map

<u>Basement Rocks</u>

The basement material is formed by a black to grey shale (age of 120 m.y.) with various degrees of hydrothermal alteration and varying in composition from clay to partially calcareous with the presence of quartz, carbonaceous matter, and some anhedral phenocrystals of magnetite and pyrite observed.

<u>Andesites</u>

Andesite sills are seen in the southern part of the district, lying discordantly on a heavily eroded shale surface, suggesting the sills were formed after periods of folding and erosion. The andesites range in color from dark green to dark grey and have porphyritic and massive texture. Locally, there is a rhyolite dike cutting the andesite, suggesting that the andesite is older.

Rhyolites

Rhyolites occur as dikes and diatremes with quartz and plagioclase phenocrysts within an aphanitic matrix. At depth, the dikes may tend to thin. Their color varies from brownish pink to light pink and to white when they are weathered.

Basalt

Basalts are the youngest rock in the region and vary in color from dark gray to black, with textures ranging from aphanitic to vesicular. Localized amygdaloidal basalt is present and the amygdaloids are filled with calcite. Basalt thickness varies from 30 to 60 m.

San Rafael Conglomerate

The San Rafael conglomerate is made up of poorly sorted subangular and rounded fragments of andesites, rhyolites, quartz, and shale ranging in size from 2 to 80 centimeters (cm) cemented in a clay-sandy matrix. The thickness of this conglomerate varies from 0 to 450 m.

Figure 6-4 presents the stratigraphic column of the district of Santa Bárbara, and Figure 6-5 displays a cross-section through the key lithologies.

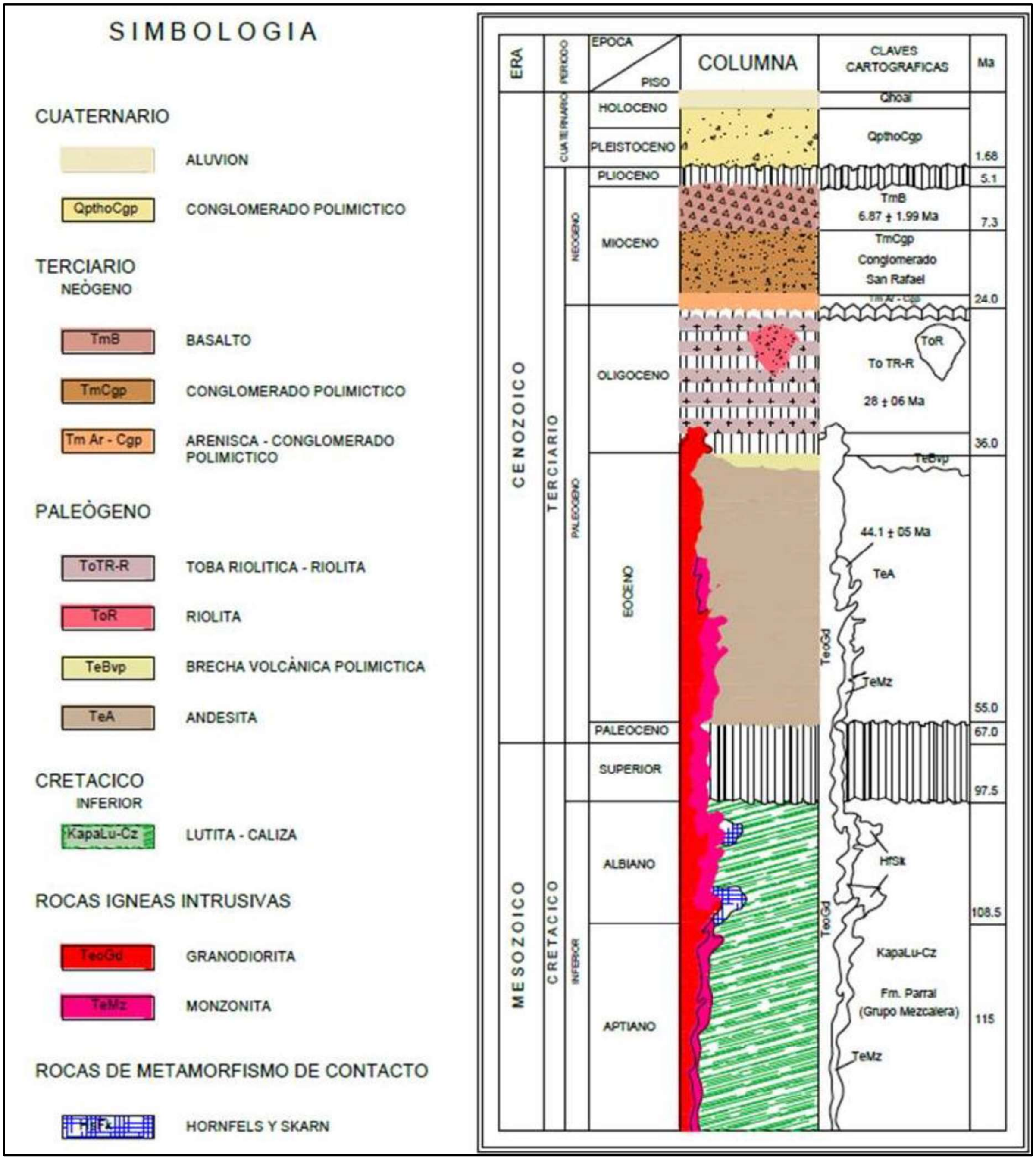


Figure 6-4: Stratigraphic Column of the geology of the Santa Barbara mine.

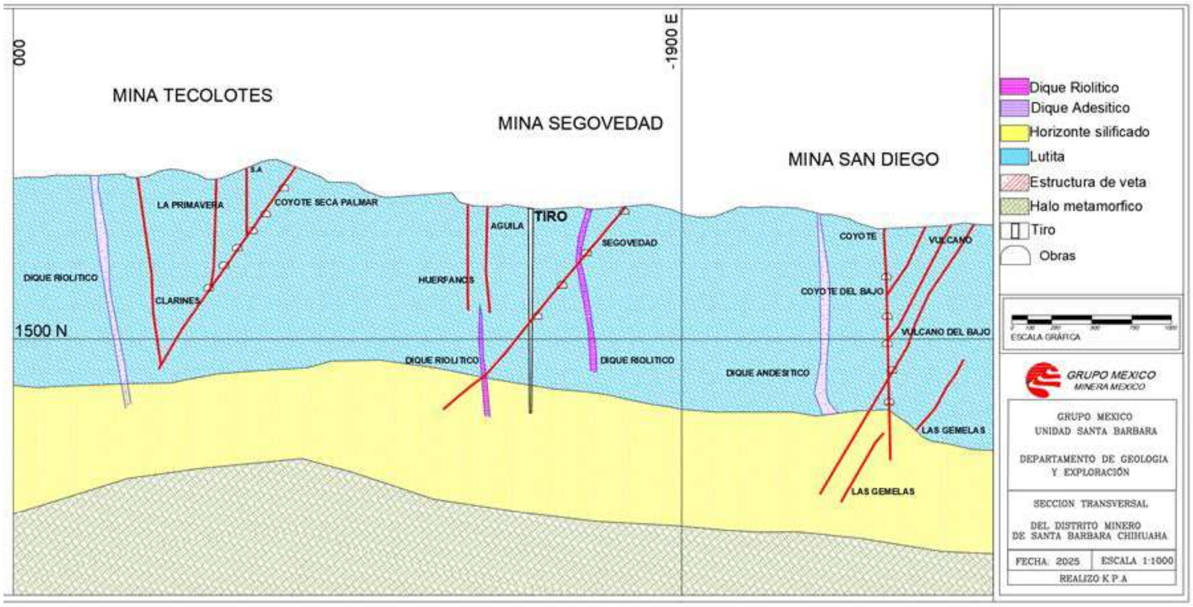


Figure 6-5: Local Geology Cross-Section, Looking South

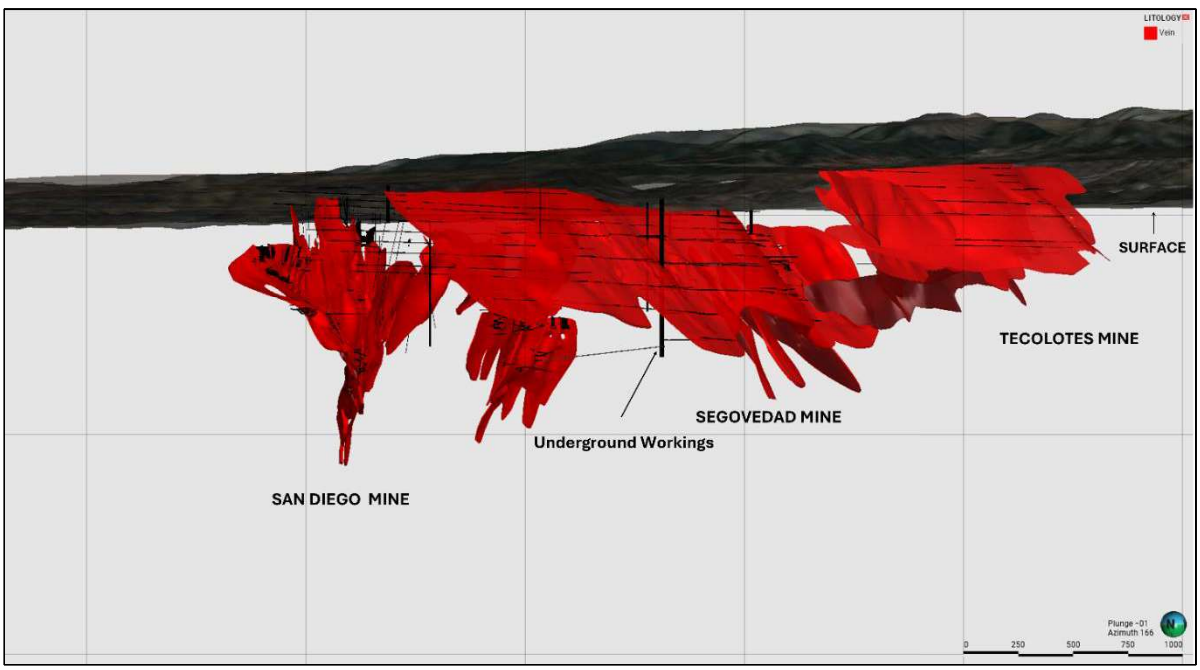


Figure 6-6: 3D View of the Geological Model, looking North

6.1.3 Structural Geology

There are three significant structural events:

- Compression and folding caused by the two periods of orogenic deformation
- Extensional faulting creating horst and graben structures
- Volcanic activity related to the final stage of the post-orogenic process

These events created the main structures associated with mineralization, a north-south system, a northeast 15-degree (°) system, and a northwest 25° system. In addition, these events generated the morphology shown by the Parral Formation, which forms an anticline, with a strike of north 28° west with a dip from 10° to north.

The folding is considered mainly because of compression efforts of tectonic origin, resulting from the disturbances that occurred during the Laramide Orogeny and possibly the presence of an intrusive that at depth caused uplifts and fracturing in weaker areas. These faults have been filled by different types of material, according to the chronology of mineralization:

- Pre-mineralization failures filled by sulfides, north-south, northeast 10°, and northwest 20° systems
- Faults parallel to the veins, filled by rhyolite and fluorite
- Faults perpendicular to the veins, filled with calcite and fluorite
- Faults perpendicular to the veins and subsequent to mineralization, filled with diabase
- Faults parallel to the veins, filled with salvages and secondary minerals (hematite and limonite)

6.1.4 Property Geology

Lithology

The lead, zinc, copper, silver, and gold mineralization present at Santa Bárbara is associated to quartz veins and fault veins hosted by sedimentary rocks of the Parral Formation (Cretaceous). Three vein systems are currently in exploitation:

- Segovedad
- Tecolotes
- San Diego

IMMSA has identified high-grade shoots of up to several hundred meters in length and of more than 500 m in vertical extension, which are found in structural zones in the three vein systems. Vein width varies from less than a meter up to 20 m. Figure 6-7 and Figure 6-8 shows an example of a vein at the Mina Nueva zone (south of the San Diego Zone) with sulfide bands (galena, sphalerite, and pyrite) and quartz with a 5.3 m horizontal width.

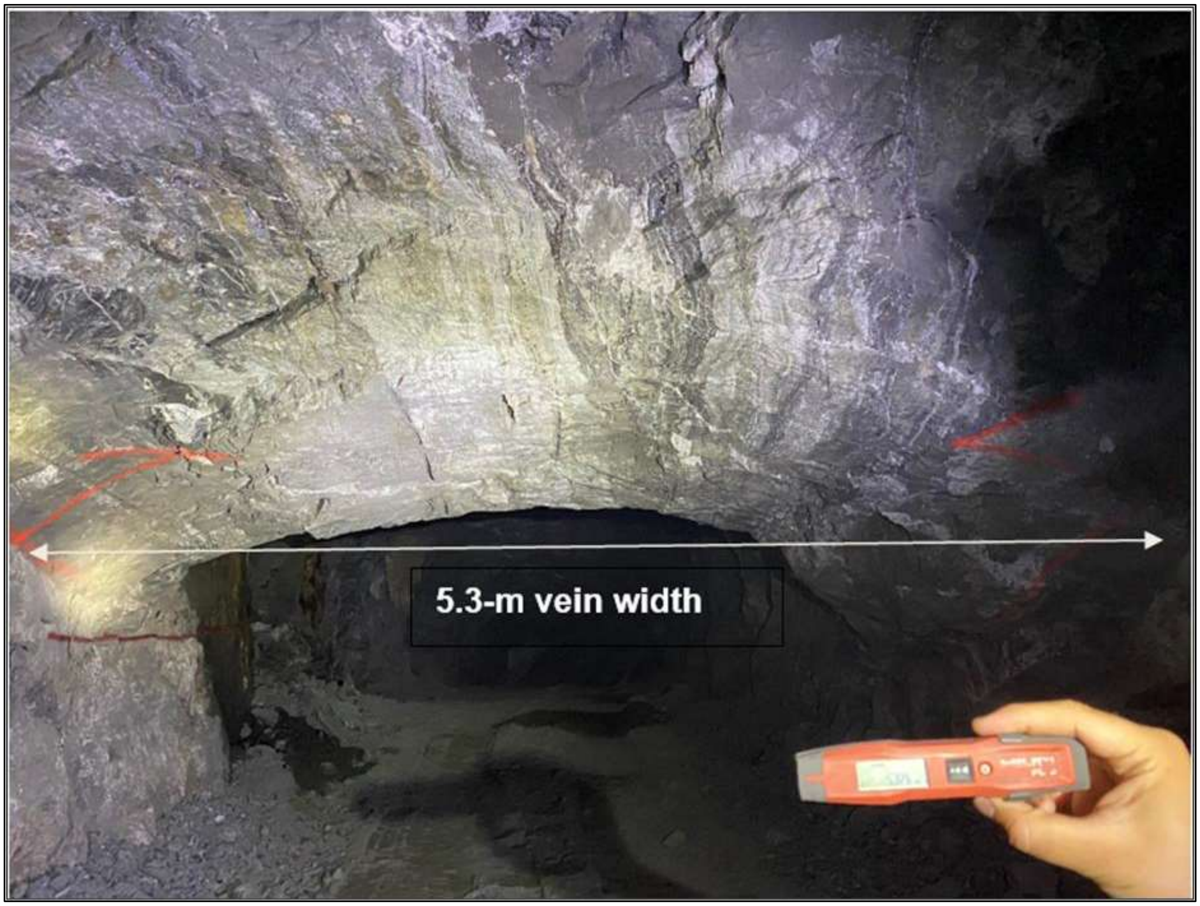


Figure 6-7: Veins Mina Nueva Zone (above) and Coyote Hilos (bottom) level 20

Figure 6-8: Veins Mina Nueva Zone (above) and Coyote Hilos (bottom)Veins, level 8

Pb-Zn-Ag quartz veins are localized along small displacement faults that cut obliquely across the hinge zone of a broad asymmetric anticline. Single veins are more or less continuous for distances up to 800 m. Veins average about 1.5 m wide but locally may pinch and swell from several centimeters to as much as 10 m in true width. Pb-Zn-Ag mineralization is found over a vertical extent of more than 500 m (Glenn et al., 1988).

The mineralization was emplaced in several distinct vein stages that display cross-cutting relationships (Figure 6-9). Stage 1 ores contain massive sulfides: sphalerite, galena, and very minor chalcopyrite. Stage 2 ores contain abundant calc-silicates, chalcopyrite, and a small amount of gold, but only minor sphalerite and galena. Silver was deposited during both stages, but the bulk of the silver was associated with galena and deposited in Stage 1. Stages 3 and 4 contain quartz, calcite, and fluorite and are not important ore-bearing stages (Glenn et al., 1988).

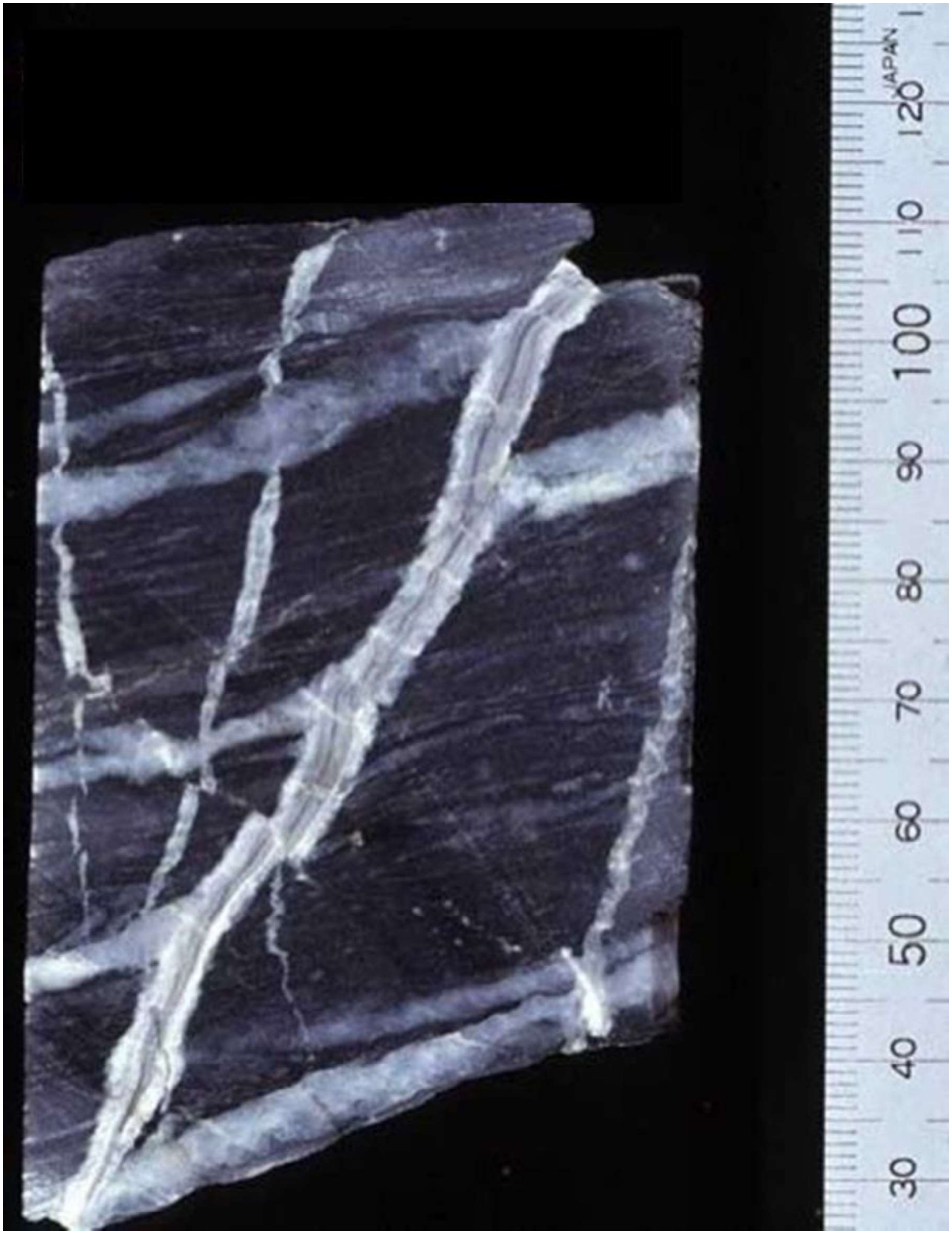


Figure 6-9: Shale Rock (8cm x 5cm) Cut by Stockwork of Crosscutting Banded Quartz Veins. San Albino Cabrestantes Vein, level 6, Tecolotes Mine sublevel 650-280

Figure 6-10 presents the structural model and interpretation of the main structural systems and faults at Santa Barbara.

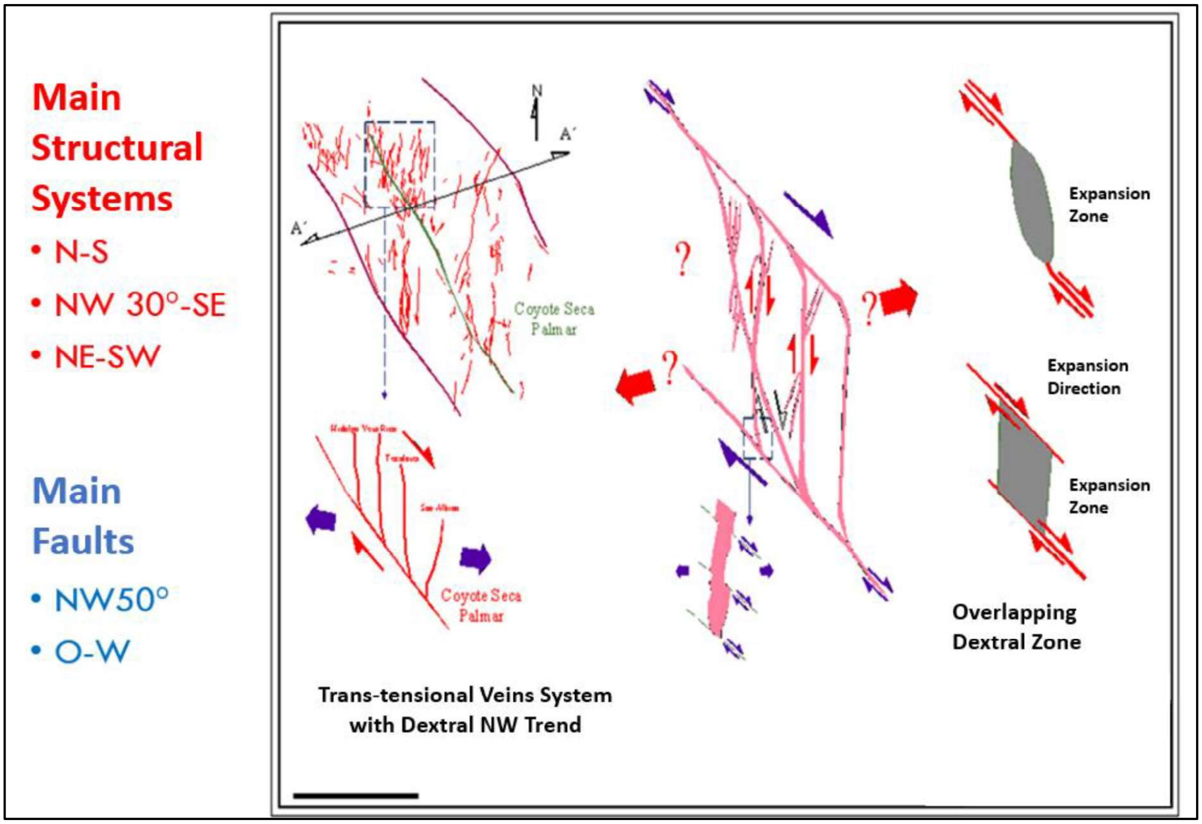


Figure 6-10: State 2 Veins Cutting a Stage 1 Vein

In addition to their occurrence in veins, silver, lead, and zinc are also present in replacement bodies in the San Francisco del Oro-Santa Bárbara. In the district, greater than 95% of the mineralized material comes from veins (Glenn et al., 1988).

Wall-Rock Alteration

The style and mineralogy of vein-related alteration differs both with the stage of veining (early sulfide rich or late calc-silicate rich) and with the composition of the enclosing rocks. Early sulfide-rich veins have alteration envelopes composed of epidote, axinite, chlorite, minor andradite, and quartz. Late calc-silicate-rich veins have envelopes composed of fine-grained manganoan hedenbergite, andradite, axinite, monticellite (Ca Mg - SiO_4), and quartz (Glenn et al., 1988).

In general, where a vein crosses a calcareous horizon, calc-silicates have been deposited. Where the vein crosses a carbonaceous horizon, there are far fewer calc-silicates. Alteration generally does not extend far into the wall rock. Alteration along Stage 1 veins is usually limited to within 1 or 2 m of the vein and is characterized by an inner zone of epidote, chlorite, and axinite and by an outer zone of fine-grained quartz and recrystallized calcite (Glenn et al., 1988).

Alteration zones developed along Stage 2 veins are generally much wider than those around Stage 1 veins, sometimes extending up to 25 m into the enclosing rocks. Alteration within 2 or 3 m of Stage 2 veins is pervasive and intense. Rock texture and bedding are destroyed within 1 m of the vein (Figure 6-11).

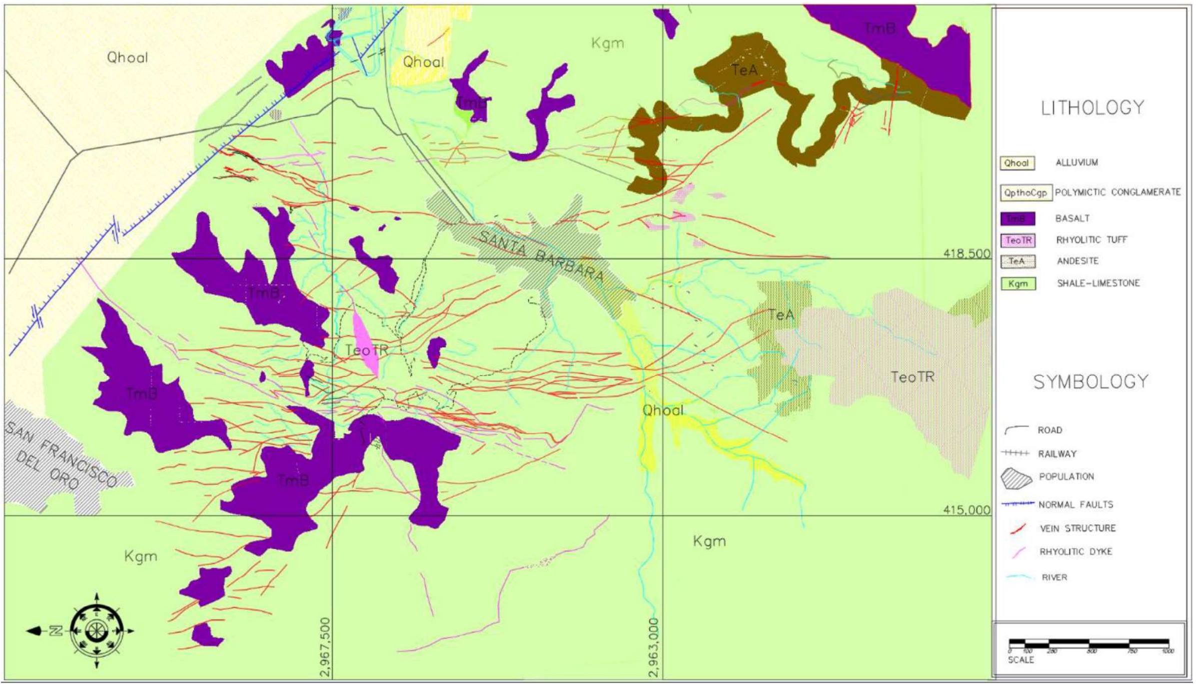


Figure 6-11: Property Geology Map

The total extension of the Tecolotes, Segovedad, and San Diego vein systems vary from 3 to 6.5 km along strike (Figure 6-12), and the vertical extension of the shoots have a vertical extension of up to 600 m in Segovedad, 800 m in San Diego, and 500 m in Tecolotes. Some of the high-grade shoots are open at depth. Figure 6-13 shows the long section of the Loteria Limpia Vein and the extension of the underground workings, reaching up to 900 m vertical extension of the ore shoot that has been exploited. Figure 6-14 shows some of the resource blocks identified in previous years with the internal block classifications that are not part of this updated Mineral Resource presented here in.

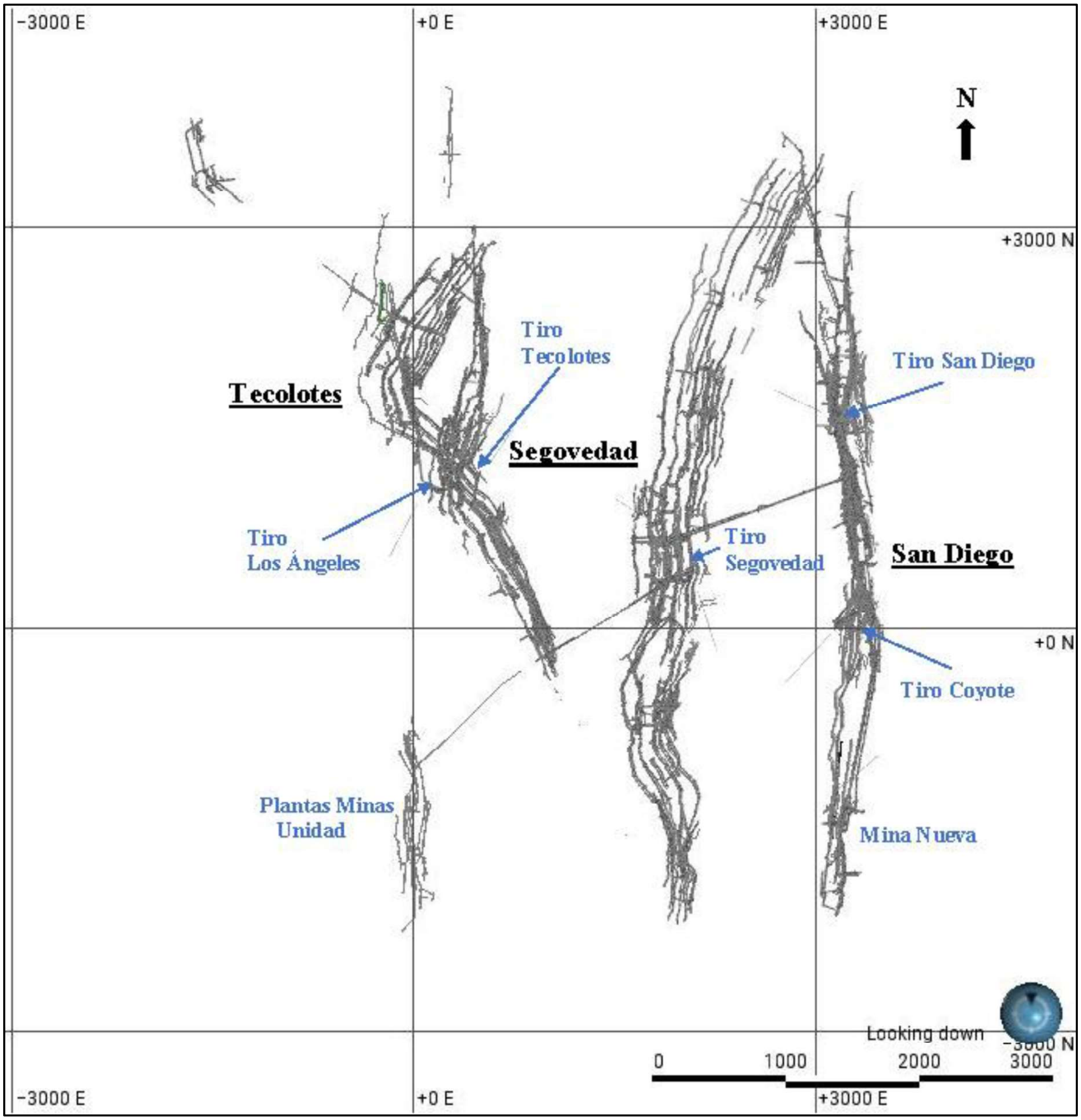


Figure 6-12: Plan View of the Underground Workings in Santa Bárbara

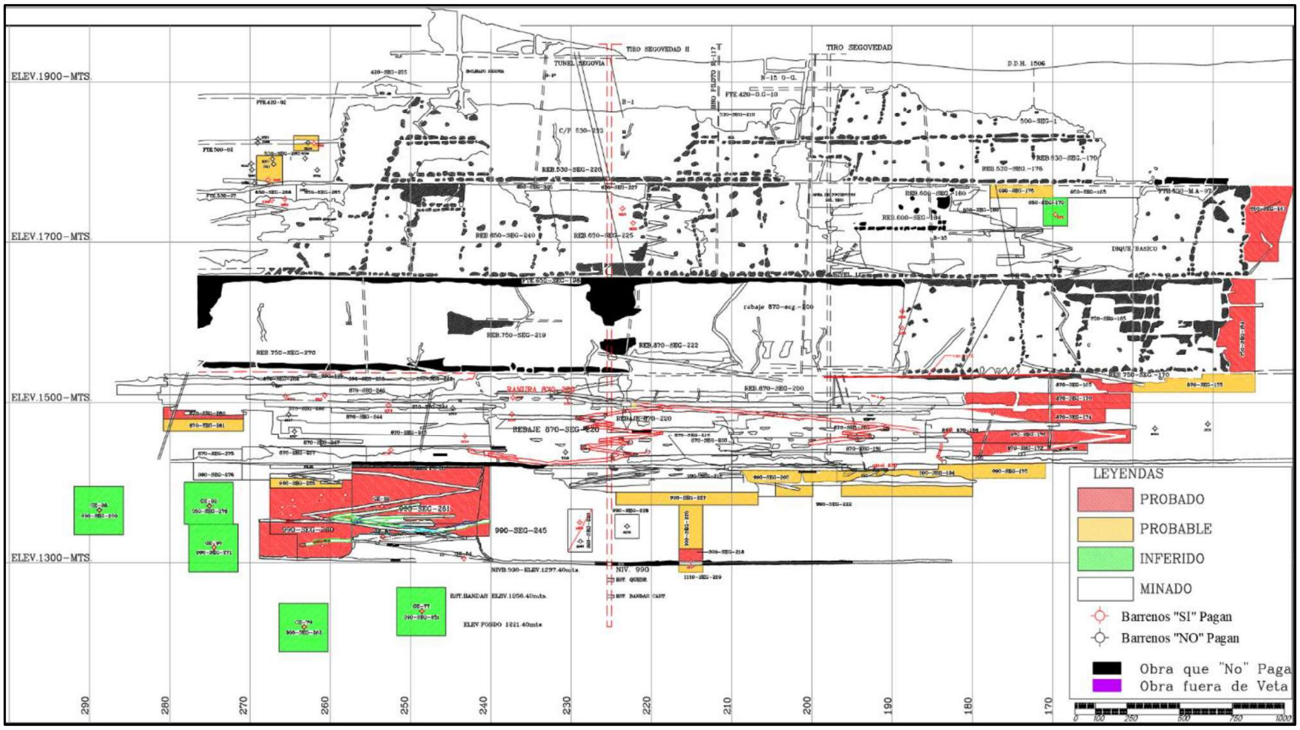


Figure 6-13: Long Section of Segovedad, Novedad Vein and Underground Workings

6.2 Mineral Deposit

6.2.1 Type of Deposit

The mineral deposits of Ag-Pb-Zn quartz veins of the Santa Bárbara mining district are hosted in sedimentary rocks of the Cretaceous formed by carbonaceous shales and calcareous siltstones and minor lenses of limestone of the Parral Formation. The hydrothermal solutions, possibly emanating from an intrusive body suspected to be at depth, were introduced into the fracture systems (Scott, 1958). According to the mineralogy of the veins, which includes sphalerite, galena, chalcopyrite, pyrite, and arsenopyrite, the deposit is considered as hypothermal formed at high temperature according to Lindgren's classification.

6.2.2 Fissure Filling Site

Fracture filled mineralization (veins) is a characteristic of hypothermal processes. The mineralization found in filling fractures and fissures was formed by the circulation of hydrothermal fluids along the structures affecting the rocks of the Parral Formation, especially in the sandy rocks. The formation of higher-grade ore shoots is associated to areas of intense fracturing associated to zones of structure inflections and cross-cutting structures. Locally, these solutions will partially or totally replace the pre-existing rock, especially when the host rock is more calcareous.

6.2.3 Paragenesis of the Site

There are four main zones within the hydrothermal system:

- Leaching zone: located near the surface where soluble minerals have been leached.

- Oxide zone: limited by local water table which varies from 50 to 200 m deep. The characteristic minerals are malachite, azurite, cuprite, chrysocolla, smithsonite, anglesite, cerussite, limonite, silver, and gold.
- Secondary enrichment zone: located between the lower limits of the water table and the primary sulfide zone. The primary minerals are covellite, chalcocite, bornite, pyrite, and plumbo-jarosite.
- Primary sulfides: sphalerite and marmatite (Zn), galena associated with sphalerite, chalcopyrite (Figure 6-14), silver, and small amounts of tetrahedrite, tennantite, and chalcopyrite (in three forms: compact, disseminated, and included with sphalerite). Scattered pyrite is observed throughout the veins.

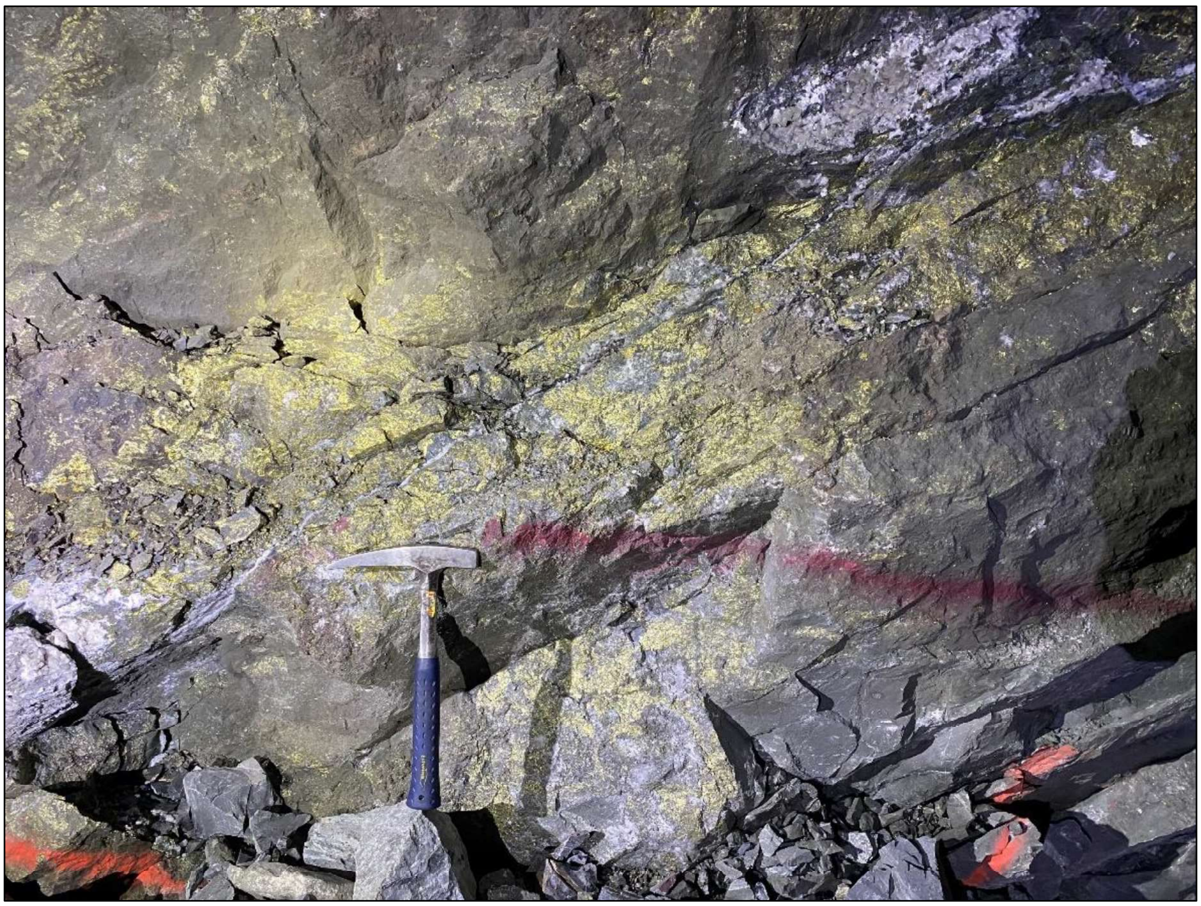


Figure 6-14: Photography of Chalcopyrite Mineralization in Mina Nueva Zone

7 Exploration

Since early last century, exploration activities have advanced in parallel with the mining operations, attempting to extend the veins and define the continuity of the mineralization at Santa Bárbara. In 2022, the exploration works completed by the Exploration department were focused on Veta San Martin (San Diego) in the Gemelas and Coyote Hilos zones, Veta Hidalgo (Tecolotes) and veta Explorador (Segovedad). Surface drilling at Mina Nueva.

7.1 Exploration Work (Other Than Drilling)

7.1.1 Procedures and Parameters Relating to the Surveys and Investigations

Access to underground workings associated with the long mining history allows the Company to collect geological information via mapping and sampling. The underground workings are currently surveyed with Total Station and historically surveyed using theodolite instruments; this accurately locates the samples and mapping used to develop mine scale models. Maps containing sampling, geology, structural, and mineralization data are created. Historical maps (paper format) are maintained and stored in the mine geology office. It is QP's opinion that the processes in place are well-established and follow generally accepted best practices for survey methods underground.

In 2022, Santa Barbara started the data digitization using a contractor, who processed all the available drilling and rock sampling information. The data was organized into Excel spreadsheets and imported into Leapfrog Geo software. In 2023, The mine geology team received training in Seequent Leapfrog Geo (And Edge) Software and started the construction of a 3D geological model using the implicit modeling technique in Leapfrog and advanced the construction of the mineralized structure of San Diego. In 2024, Santa Barbara completed the geological models of San Diego, Segovedad and Tecolotes for use in the update of mineral resource estimation.

From November 2022 until the present, there are three exclusive databases for each mine (Tecolotes, Segovedad, and San Diego). Thus, each geological model has its own exclusive database, which encompasses both historical and current data, as well as channel samples records for each model. In 2025, efforts will continue to streamline and validate each database, ensuring that only relevant and accurate information specific to each model is retained. Both historical and current underground mine maps have been scanned and are stored in a dedicated database on OneDrive and the company's external hard drive. Similarly, drill hole data has been scanned and digitized using GvMapper.

IMMSA started the implementation of this modern technologies to provide rapid methods to interpret and integrate data in three dimensions. While these methods would provide improved productivity, it is QP's opinion that the mine has demonstrated sufficient quality in the survey process to accurately reflect the geology, which is supported by the long mining history of the deposit.

7.1.2 Sampling Methods and Sample Quality

Mine Channel/Rock Chip Sampling

In 2024, IMMSA collected 2,035, 1,366 and 3,847 rock samples in Segovedad, Tecolotes and San Diego respectively.

The rock samples from the underground workings are collected from the underground drift fronts and roofs using hammer and chisel. Sample limits are defined by geologists according to changes in mineralization and lithology and perpendicular to the vein attitude. The rock chips are collected simulating a channel by the geology technicians and assistants. Chip channel sample lengths vary from 0.2 to 1.2 m.

The distance between channels is not systematic and depends on availability of the mine geology personnel. The geologists try to use 5 m spacing between channels along the roof and 3 m spacing along the development as each new face is available.

Each rock sample is collected from the channel of approximately 2 centimeters (cm) depth on a piece of fabric disposed in the floor, and then the big pieces of rock are further broken down (using a hammer) to a size of approximately 2.5 to 3.0 cm using a hammer (Figure 7-1). The sample is mixed inside the fabric, split by hand, and then a 2-kg sample is packed in plastic bags, which are labeled and then closed with ties.

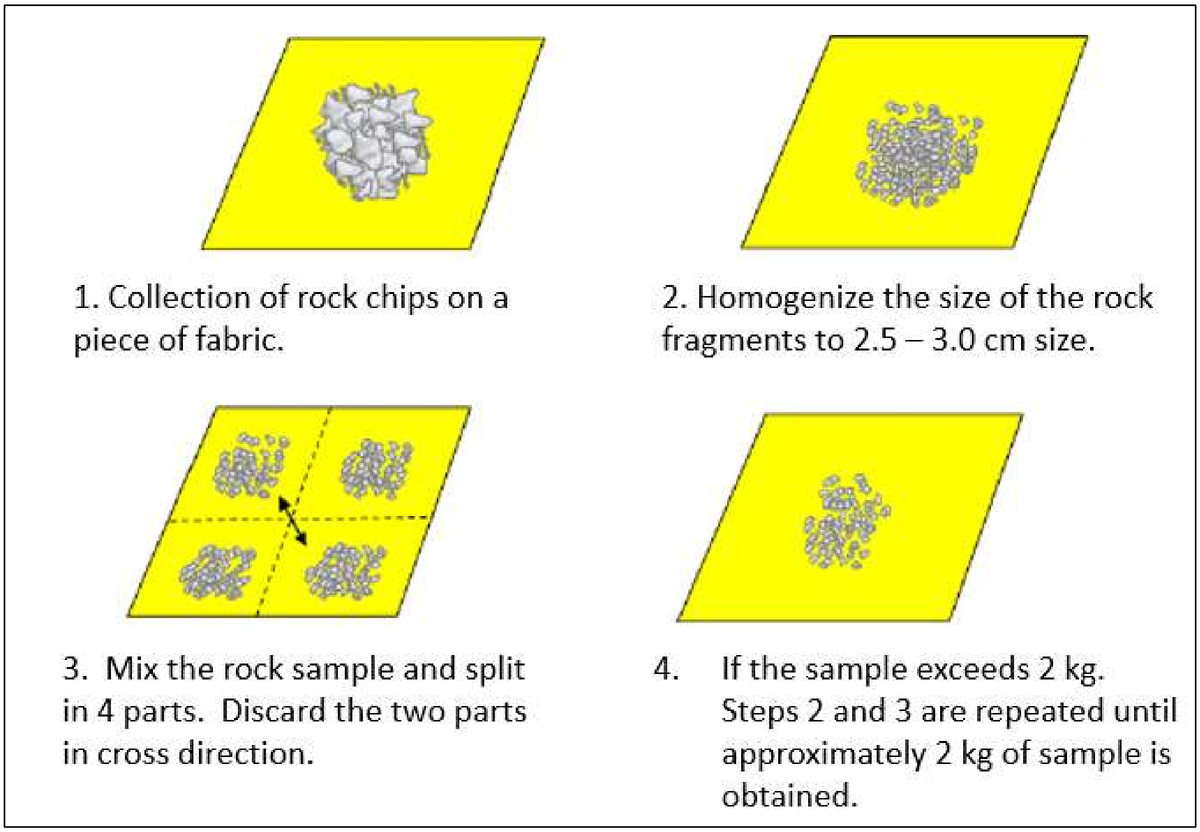


Figure 7-1: Rock Sample Splitting Procedure

IMMSA follows the steps outlined below for the underground sample collection:

1. Mark the samples on the face of the terrain, perpendicular to the direction of the structure, depending on the mineralization of the vein (Figure 7-2)
2. Hold the rotary hammer with the appropriate hand, placing the tip of the hammer firmly on the face and channel. The sample is collected (approximately 2 Kg per sample), and carefully deposited onto the “cone” (cowhide cloth) avoiding contamination (Figure 7-6).

3. Once the sample is collected, it is safely placed on a rubber or canvas tarp to allow for the breaking down large blocks and reducing the rock to smaller fragments (pieces) avoiding contamination.
4. After fragmenting the rock, the sample is quartered, continuing the process until a homogeneous mixture of reduced rock is achieved.
5. The selected homogenized sample is placed in a bag, previously marked with its corresponding data (location, date and sample number), and a ticket is included for identification purposes.
6. Any remaining material on the tarp is discarded, and the tarp is cleaned.
7. Technicians, accompanied by the supervision geologist, are responsible for taking the collected samples to the on-site laboratory for assaying to provide a chain of custody. IMMSA has started to implement internal quality control, but this process has not been continuous due to various factors, such as the lack of trained personnel, the failure to implement the QA/QC protocol, and the lack of reference materials.

   All the chip channel samples collected and sent to the on-site laboratory for assaying are described in Section 8. Figure 7-6 and Figure 7-7 depict rock samples marked, packed in plastic bags and sealed for transportation to the laboratory.
8. The geologists complete the geological description of the channel by hand on the daily mapping map. The mapping is digitized in Autocad (Figure 7-6 and Figure 7-7), and the data is collected in Excel. The samples are described including the following information:
   - Lithology
   - Alteration (type, intensity, and mineralogy)
   - Mineralization (styles, intensity, and mineralogy)
   - Structures (description, orientation, and mineralogy)
9. Once the geologists receive the assay results, the data is uploaded to the database in Excel. With this data, the geologists can create Isovalue maps of silver, lead, copper and/or zinc, to determine the economic zones, which are then sent to planning department and mine operations. This information and the historical assay results received from the internal laboratory are currently in digital format. Since January 2023, there has been a digital database where sampling results from underground are recorded. Each mine geologist maintains a record in the database to keep track of their sampling areas.

Figure 7-2: Chip-Panel Rock Sampling, Face 870-75 Segovedad Mine, Level 20

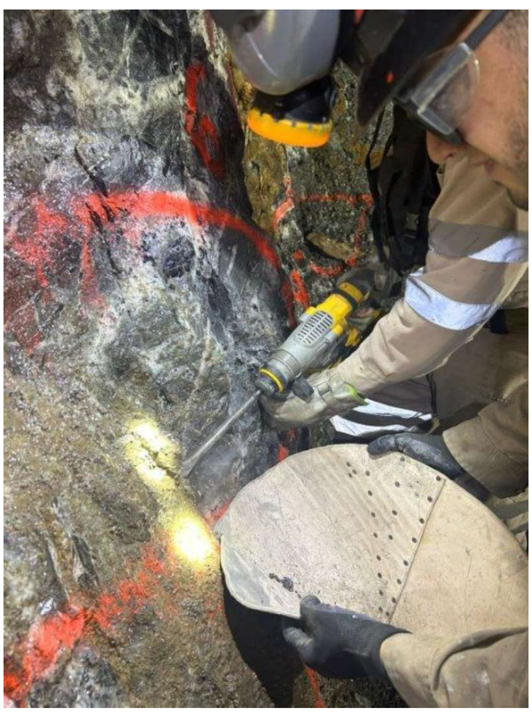


Figure 7-3: Sample Collection with a Rotary Hammer for Deposition into the Sampling Cone

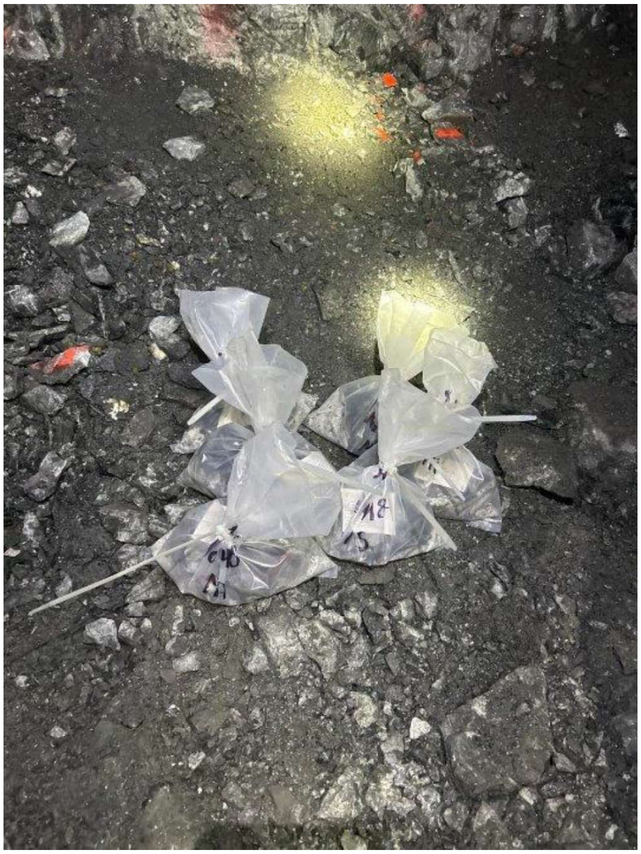


Figure 7-4: Sampling Collected and Sealed after Sampling

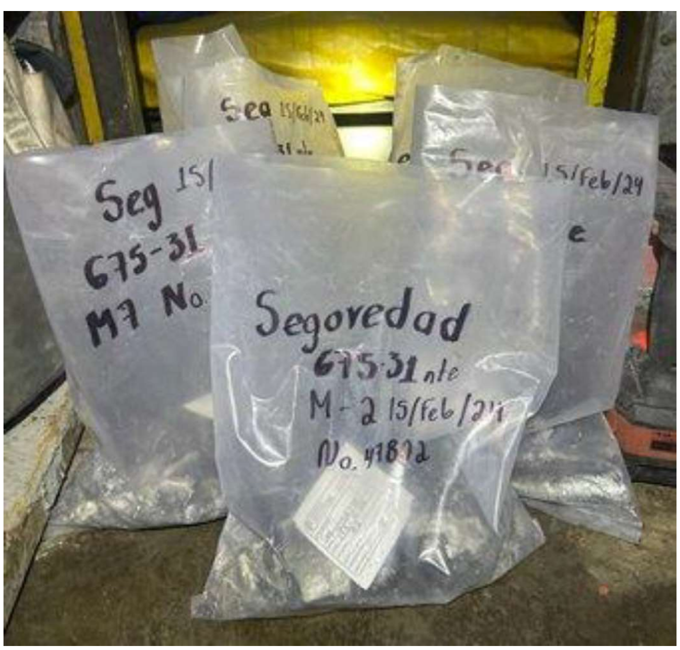
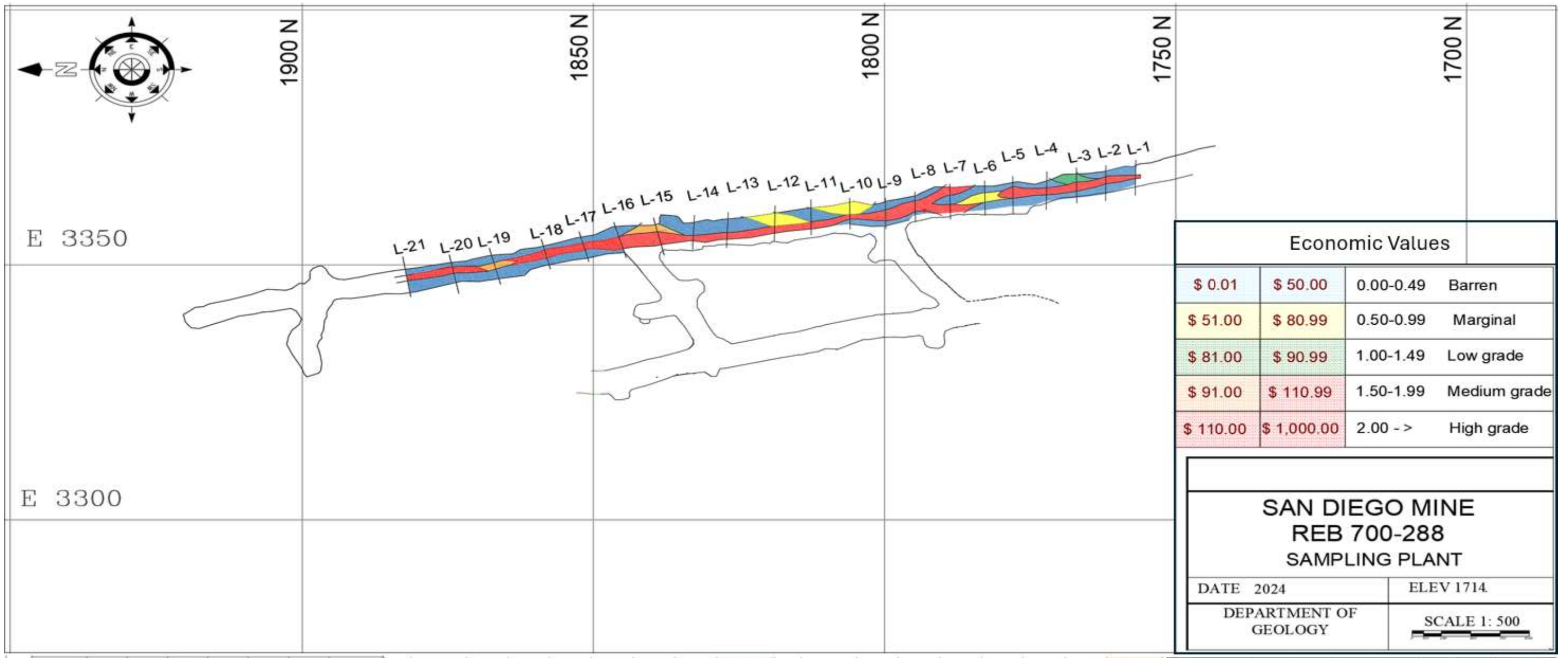


Figure 7-5: Labeled Samples Delivered to the Laboratory



	Sample	Whidth	Au	Ag	Pb	Cu	Zn	Value$
L-1	506	1.90	0.00	1	0.04	0.01	0.62	11.89
	507	0.50	0.00	42	6.06	0.23	5.49	218.82
	508	1.00	0.00	2	0.02	0.02	0.09	3.74
	PROM	3.40	0.00	7	0.92	0.05	1.18	39.87
L-2	509	1.00	0.00	2	0.06	0.01	0.34	8.07
	510	0.50	0.24	148	18.95	0.36	9.57	557.56
	511	0.70	0.00	83	3.60	1.04	12.50	351.63
	512	0.60	0.00	3	0.05	0.02	0.15	5.77
	PROM	2.80	0.04	49	4.32	0.33	4.99	191.59
L-3	513	1.00	0.00	20	0.20	0.05	0.76	20.52
	514	1.00	0.00	47	4.36	1.70	9.88	381.89
	515	1.00	0.00	2	0.04	0.02	0.14	7.71
	PROM	3.00	0.00	23	1.49	0.57	3.50	132.96
L-4	516	1.10	0.00	5	0.20	0.05	0.76	20.52
	517	1.00	0.23	138	4.36	1.70	9.88	381.89
	518	1.00	0.00	7	0.04	0.02	0.14	7.71
	PROM	3.10	0.07	49	1.49	0.57	3.50	132.96
L-5	519	0.80	0.00	2	0.08	0.01	0.24	11.89
	520	1.00	0.00	32	0.54	0.23	5.79	218.82
	521	0.90	0.00	67	3.18	0.36	6.54	3.74
	522	0.40	0.00	5	0.21	0.04	0.60	39.87
	PROM	3.10	0.00	31	1.15	0.19	3.91	11.89
L-6	523	1.10	0.00	3	0.08	0.02	0.24	11.89
	524	1.80	0.00	23	0.90	0.15	0.74	218.82
	525	0.90	0.00	2	0.06	0.02	0.12	3.74
	PROM	3.80	0.00	31	1.15	0.19	0.45	39.87
L-7	526	1.00	0.00	47	1.85	0.44	2.44	113.81
	527	1.00	0.00	2	0.18	0.02	1.00	21.22
	528	1.00	0.00	54	3.35	0.60	8.01	239.49
	PROM	3.00	0.00	34	1.79	0.35	3.82	124.84
L-8	529	1.20	0.00	26	0.14	0.02	0.24	21.69
	530	1.00	0.00	24	1.28	0.41	1.97	82.86
	531	0.80	0.20	126	6.59	1.04	10.16	387.43
	532	0.50	0.00	3	0.47	0.02	0.61	19.94
	PROM	3.50	0.05	45	1.99	0.36	3.05	122.52
L-9	533	1.30	0.00	4	0.12	0.02	0.23	8.75
	534	1.30	0.00	36	1.12	0.28	1.96	81.67
	535	0.60	0.00	71	1.84	0.93	3.80	169.61
	PROM	3.20	0.00	30	0.85	0.30	1.60	68.53
L-10	536	2.50	0.18	107	0.04	0.02	0.09	66.09
	537	0.60	0.20	153	3.94	2.21	3.82	304.54
	538	0.40	0.00	5	0.08	0.07	0.09	8.43
	PROM	3.50	0.16	103	0.71	0.40	0.73	100.38
L-11	539	2.50	0.00	10	0.43	0.09	0.58	25.64
	540	1.20	0.27	134	6.18	1.64	6.52	350.30
	PROM	3.70	0.08	50	2.29	0.59	2.51	130.94
L-12	541	2.50	0.00	16	1.56	0.06	0.66	46.92
	542	1.00	0.27	259	6.92	2.04	6.19	444.50
	PROM	3.50	0.08	85	3.09	0.63	2.24	160.51
L-13	543	2.60	0.00	5	0.14	0.05	0.48	14.56
	544	1.00	0.30	523	14.50	3.18	9.12	808.45
	PROM	3.60	0.08	149	4.13	0.91	2.88	235.08
L-14	545	2.50	0.00	12	0.74	0.06	0.59	30.59
	546	1.00	0.27	324	11.11	1.76	26.62	871.71
	PROM	3.50	0.08	101	3.70	0.55	8.03	270.91
L-15	547	1.30	0.00	6	0.21	0.06	2.86	56.17
	548	0.90	0.20	105	4.24	0.67	32.13	684.64
	549	1.70	0.28	307	3.24	2.99	24.64	756.00
	PROM	3.90	0.17	160	2.46	1.48	19.11	506.26
L-16	550	1.50	0.00	26	0.05	0.03	0.16	19.37
	551	1.50	0.29	228	7.55	1.64	9.80	480.17
	PROM	3.00	0.15	127	3.80	0.84	4.98	249.77
L-17	552	1.20	0.00	1	0.08	0.02	0.27	7.08
	553	0.90	0.00	48	1.52	0.37	7.41	188.03
	554	0.80	0.00	1	0.03	0.01	0.09	2.93
	PROM	2.90	0.00	16	0.51	0.13	2.44	62.09
L-18	555	0.80	0.00	1	0.15	0.02	1.13	22.32
	556	1.10	0.00	35	0.24	0.36	9.21	189.71
	557	1.20	0.00	2	0.12	0.03	0.42	11.15
	PROM	3.10	0.00	13	0.17	0.14	3.72	77.39
L-19	558	1.1	0.00	2	0.04	0.01	0.62	11.89
	559	0.7	0.00	21	21	0.23	1.85	61.78
	560	1.00	0.00	2	0.02	0.02	0.09	3.74
	PROM	2.8	0.00	6	0.29	0.05	0.64	20.77
L-20	561	0.90	0.00	17	0.21	0.01	0.12	21.44
	562	0.90	0.00	81	1.72	0.91	18.88	420.48
	563	0.90	0.00	23	0.09	0.02	0.14	3.74
	PROM	2.80	0.00	40.33	0.67	0.36	6.38	153.16
L-21	564	1.00	0.00	2	0.02	0.01	0.12	0.11
	565	1.00	0.31	435	10.06	3.67	20.17	890.54
	566	1.00	0.00	7	0.30	0.02	0.43	18.20
	PROM	3.00	0.10	148	3.46	1.25	6.90	304.13

Figure 7-6: Example of Underground Sampling and Map, San Diego Mine, Level 24

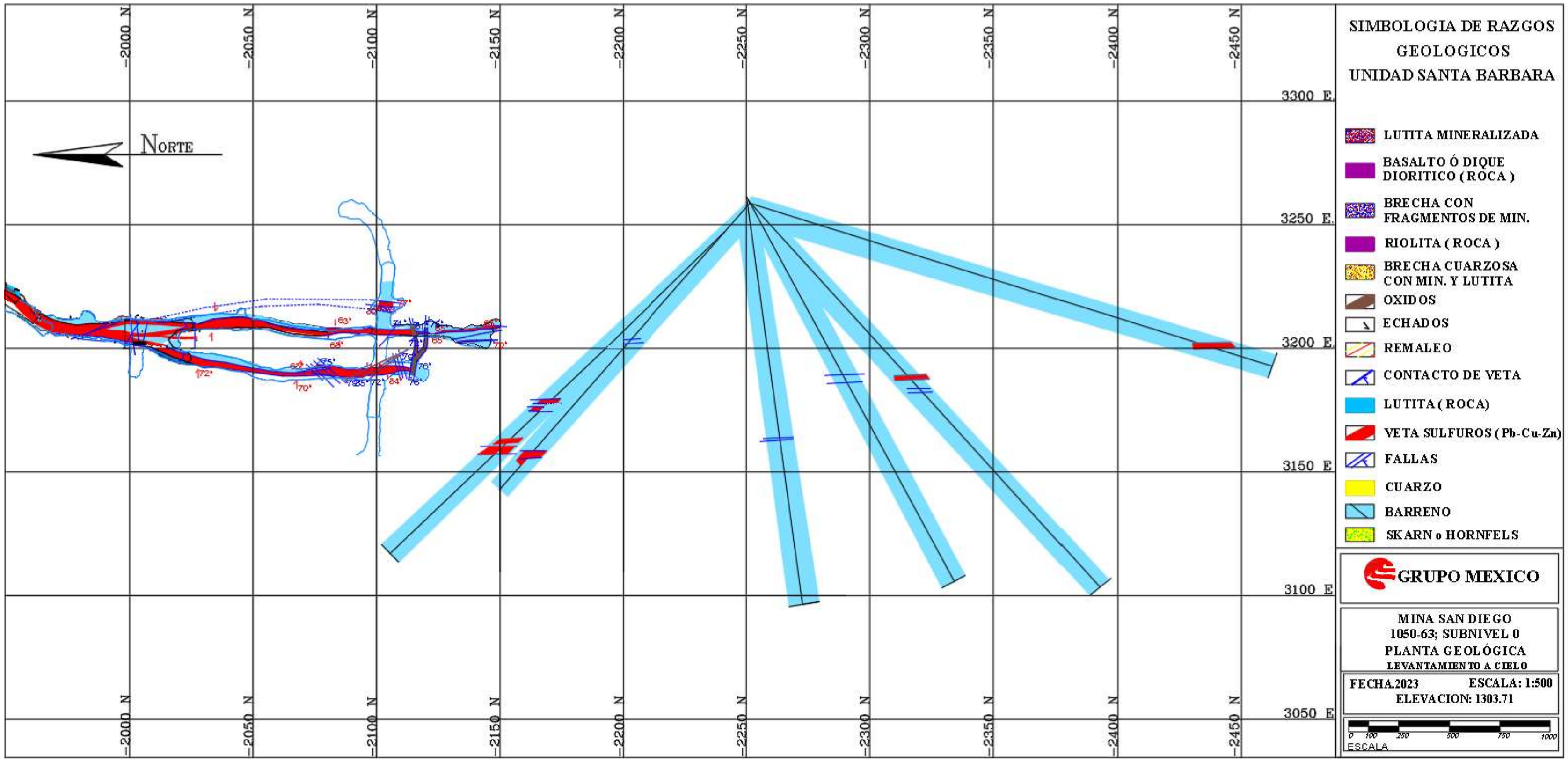


Figure 7-7: Example of Underground map , San Diego Mine, level 24, (Plan View)

For historical sampling, the assays results were received in paper tables and the results were transcribed directly onto the maps and the resources/reserves supporting documents.

7.1.3 Information About the Area Covered

Exploration is generally centered around the mined areas and their extensions, which cover an area of approximately 60 km^2. All the underground workings and stopes have been sampled for decades, but there is not a unique register of all the samples collected. As the stope is advanced vertically, a new set of samples is collected from the ceiling of the stope at a 5 m spacing.

7.1.4 Significant Results and Interpretation

The QP considers that the results are representative of the geological units and mineralization controls. The results from channel sampling are acceptable to support the geological interpretations and estimation of mineral resources at Santa Bárbara. It is the QP's opinion that the lack of control on the samples limits the ability to estimate the mineral resources to the highest levels of confidence (Measured), and that changes to the protocols that are being implemented will improve the process.

Channel sampling is also used for mine planning (medium and short term). In SRK's opinion, based on the long mining history of Santa Bárbara and reconciliation of planned to actual production, the quality of these samples is acceptable. The QP recommends continuing with the updated sampling protocols and implementation QA/QC processes consistently to align with the industry best practices.

In 2024, QA/QC controls were introduced for underground mine production face, and this process is ongoing. However, the process has not been consistent due to several factors, such as the lack of trained technicians, the failure to implement the QA/QC protocols for the operation samples, and the lack of reference materials. SRK considers that the lack of an adequate and consistent QA/QC protocol is not in-line with industry best practices resulting in poor quality rock sampling and uncertainty associated with the results.

In 2024, the exploration projects focused on the areas of San Martin Sur and Mina Nueva level 8, which yielded favorable results in both areas. In the southern area of San Martin, exploration was conducted towards the east, where four new veins were identified in the deposit. These veins were named Veta Explorador, Veta Explorador II, and Santa Bertha. These structures have average widths of 3.5 meters and are primarily rich in lead.

For the Mina Nueva – level 8 area, drilling was focused on the extension of the Veta Coyote Hilos towards the north, where continuity was found in both length and depth, extending an additional 200 meters, with average widths of 5.30 meters and polymetallic content (Ag-Pb-Cu-Zn). In the same zone, exploration was conducted towards the west to trace the continuity of structures such as Veta Las Gemelas, yielding favorable results with average widths of 4.5 meters and polymetallic content. Exploration work will continue in this area in 2025.

7.2 Exploration Drilling

The drilling in Santa Bárbara has been documented since the last century. Historically, sludge sampling was also conducted, but due to poor sample quality and high potential for contamination, these should have not been used to support resource estimation. Table 7-1 presents the summary of the drillholes per year that IMMSA has in its records.

Table 7-1 Summary of Drillholes per year in the IMMSA Records

Year	Count	Meters	Year	Count	Meters	Year	Count	Meters
1900	26	1,753.9	1966	3	519.3	1996	24	1,773.5
1905	7	702.6	1967	18	1,951.2	1997	36	3,297.1
1934	60	97.8	1968	4	670.3	1998	87	11,416.8
1939	10	771.3	1969	11	1,355.3	1999	98	12,117.0
1940	16	1,213.3	1970	11	1,641.6	2000	95	14,312.6
1941	11	331.9	1971	31	3,737.6	2001	62	8,192.4
1942	12	729.1	1972	14	1,189.2	2002	10	1,495.0
1943	10	1,091.2	1973	34	3,002.3	2004	14	1,980.3
1944	11	684.3	1974	77	3,107.3	2005	63	7,431.8
1945	11	1,472.5	1975	106	481.6	2006	30	6,063.3
1946	13	1,317.7	1976	145	6,779.1	2007	17	6,358.7
1947	28	21,040.3	1977	125	11,771.3	2008	7	1,067.0
1948	12	1,979.4	1978	104	9,024.1	2009	10	4,536.0
1949	16	1,931.1	1979	119	11,380.8	2010	33	15,718.4
1950	6	717.9	1980	117	9,484.9	2011	125	33,821.7
1951	6	778.5	1981	61	6,009.0	2012	71	45,031.6
1952	24	2,227.2	1982	106	7,978.7	2013	47	31,000.0
1953	44	2,831.3	1983	89	8,908.7	2014	68	40,587.2
1954	49	3,439.5	1984	93	7,329.2	2015	12	4,240.0
1955	17	2,065.9	1985	107	4,777.2	2016	2	619.2
1956	27	2,493.4	1986	64	4,166.4	2017	5	491.5
1957	31	1,870.2	1987	65	5,920.9	2018	34	10,769.0
1958	41	1,638.3	1988	67	5,398.5	2019	28	11,070.0
1959	2	48.3	1989	109	5,168.7	2020	63	19,873.0
1960	14	960.1	1990	87	4,787.9	2021	37	7,905.0
1961	18	1,804.2	1991	106	4,777.2	2022	40	22,888.0
1962	39	2,559.9	1992	116	5,851.3	2023	42	24,123.0
1963	24	2,239.7	1993	91	5,602.0	2024	156	48,788.0
1964	2	414.9	1994	55	4,110.9	Nodata	282	31,767.9
1965	13	1,240.6	1995	30	3,014.0			
						Total	**4,363**	**641,076.8**

Table 7-1 shows 4,363 drillholes, but the entirety of the historical drilling is not included in the table. According to IMMSA, about 5,000 drillholes were completed prior to 2001, and at least 2,000 drillholes have been completed since 2001.

7.2.1 Drilling Type and Extent

Most of the drilling completed by the operation is in TT46, NQ and BQ core sizes and have not been downhole surveyed. The majority of the drillholes are more than 100 m in length, including a considerable number of drillholes of more than 200 m, which have an associated drillhole deviation that is not being considered, resulting in location errors of the drillhole intercepts and reserve panels defined with the drilling. This represents a moderate to high risk level. The surveyors of the mine department of IMMSA mark the orientation of the machines both on the surface and from underground chambers, and they locate the starting points of each drillhole. Upon completion of the drilling, the surveyors locate the final collars with a total station.

A summary of the last ~9 years of drilling is as follows:

- Mine exploration in 2015 included 5,977 m of surface drilling and 16,609 m from underground stations, which increased estimates by 1,135,750 tonnes.
- For 2016, mine exploration included 14,300 m from underground stations, which increased estimates by 1,416,756 tonnes.
- For 2017, mine exploration included 2,571 m of surface drilling and 11,838 m from underground stations, which increased estimates by 613,872 tonnes.
- For 2018, 10,769 meters from underground stations were drilled, which increased estimates by 418,345 tonnes.
- For 2019, 11,070 m of surface drilling and 208 m from the underground stations were achieved, which increased estimates by 2,160,062 tonnes.
- In 2020, 19,873 m from underground stations were drilled, which increased estimates by 2,606,888 tonnes.
- In 2021, 7,905 m of underground and surface drilling were completed.
- In 2022, 15,321 m of underground and surface drilling were completed, including 6,967 m of the Mine Geology Department and 8,354 m drilled by the Exploration department (Contractor Tecmin).
- From January to November 7, 2023, the geology mine department completed 6,836 m of drill holes in Santa Barbara; additionally, the contractor (Tecmin) drilled 17,287 m.

From January to December 31, 2024, the geology mine department completed 9,100 m, and additionally, the contractor (TECMIN) completed 39,668 m.

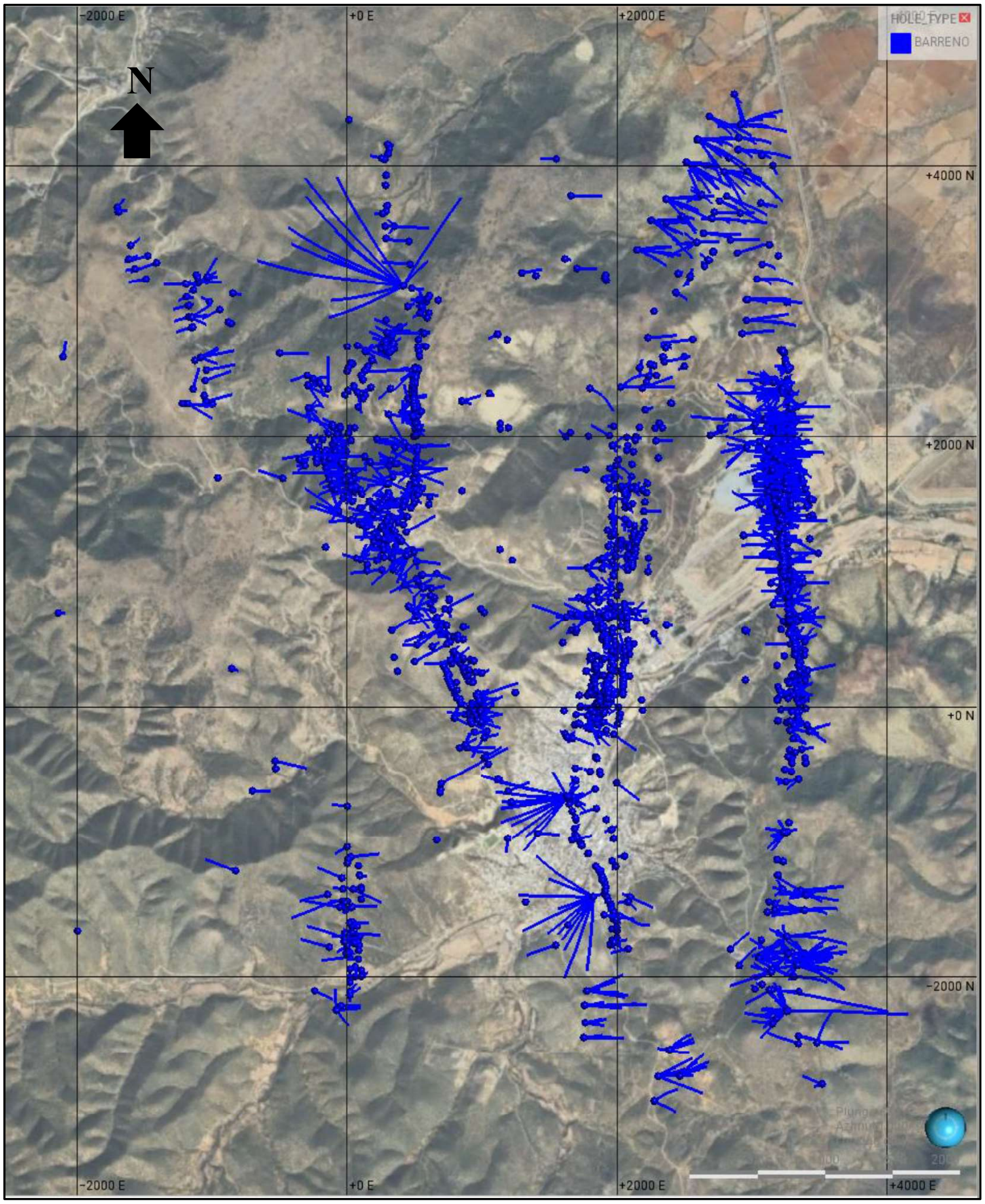


Figure 7-8: Location of Drillhole Collars Completed at Santa Bárbara

The average drillhole length is 140 m, with at least 75% of the drillholes longer than 28 m. At least 25% of the drillholes have lengths more than 157 m. Most of the drilling completed by the Mine Geology department, including the 2023 and part of the 2024 campaign, lacks downhole surveys. Santa Barbara has completed a detailed review of the digitized data to check the adequacy and identify possible errors.

The lack of downhole surveys results in uncertainty related to the location of the drillhole intercepts and the definition of the reserve panels based on these intercepts. In SRK's opinion, this represents a moderate risk level. It is the QP's opinion that this risk is limited, as the drillholes defining the Indicated portion of the deposit are relatively close to the current underground workings and therefore will have limited deviation. Impact on Inferred resources for longer holes will likely have slightly higher risk. The QP has considered this risk during the classification process that reflect the levels of confidence.

Since 2029, the drillholes completed by the contractor (Tecmin) including the 2024 campaign, have deviation measurements taken every 50 m along the drillhole, which is considered appropriate and accounts for lower risk than the historical drillholes completed by Santa Barbara.

A GoGyro equipment was acquired on January 13, 2025, and will be used systematically in all drill holes in the unit to collect deviation measurements. This non-magnetic survey measurement system gathers azimuth and inclination data.

Underground diamond drilling completed by the mine geology department includes fan drilling in variable grid spacing due to local variations in the position of the mineralization. The drillholes are designed to perpendicularly intercept the vein.

On completion of each drillhole, the collar location is surveyed. The following information is recorded on paper drill log sheets:

- Hole number, with collar location, length, planned dip, and azimuth
- Start and completion dates of drilling
- Collar location (X, Y, and Z coordinates)
- Core lengths and recoveries
- Geological and mineralogical descriptions
- Assay results

The mine geology drillholes are used in conjunction with the surface exploration drillholes in the mineral resource estimation.

Collar locations are surveyed by Total Station instruments. Historically, different coordinate systems have been used by SCC; these were converted into the current coordinate system during the creation of the new database used for geological modeling in Leapfrog.

7.2.2 Drilling, Sampling, or Recovery Factors

Mine Geology Drilling Programs

The mine geologists receive the core in plastic boxes (Figure 7-9), complete the core logging in paper formats according to defined protocols, but there is historical information that includes different logging coding or is not logged at all. A data capture protocol that unifies criteria for all the previous and recent drilling and rock sampling will be needed. The current logging includes the lithological, structural, alteration, and mineralization characteristics. The sample limits are defined according to changes in geology and mineralization. Only the mineralized zones and a halo of 1 to 2 m around the mineralized zones are sampled.

An electrical core cutter is used to split the core Figure 7-10 and a half of the core is collected in plastic bags and sent to the internal laboratory for assaying (gold, silver, copper, lead, and zinc).

Figure 7-9: Santa Bárbara Core Boxes

Figure 7-10: Electric Core Cutter used at Santa Barbara.

Half of the core that remains after sampling is stored in the Santa Bárbara operation. The core is discarded after several years, and not all of the historical drilling core is conserved in the operation, which has limited the ability to undertake a detailed re-assay program. The internal laboratory conserves the pulps for 1 month after assaying and then discards the samples.

There is no QA/QC protocol for the historical drilling completed by the operation (mine geology) staff.

Exploration Department Drilling

The contractor, Tecmin, has performed surface and underground drilling since 2019, including all exploration drilling. Tecmin has worked in Tecolotes, Segovedad, and San Diego, completing

125 drillholes (53,000 m) before 2022 and 8,524 m in 2022 (January – November 2022). From January to November 2023, Tecmin completed 17,287 m of drilling, and up to December 2024, 39,665.55 m were completed by Tecmin. This underground and surface drilling includes downhole surveying every 50 m.

For these activities, the IMMSA's exploration department has implemented a QA/QC protocol, which` is run by Tecmin personnel, that includes the use of blanks, duplicates, and certified reference materials checks. SRK considers that the QA/QC protocols implemented by the exploration department are in-line with best practices. The protocol includes the use of blanks, duplicates, and certified reference materials checks.

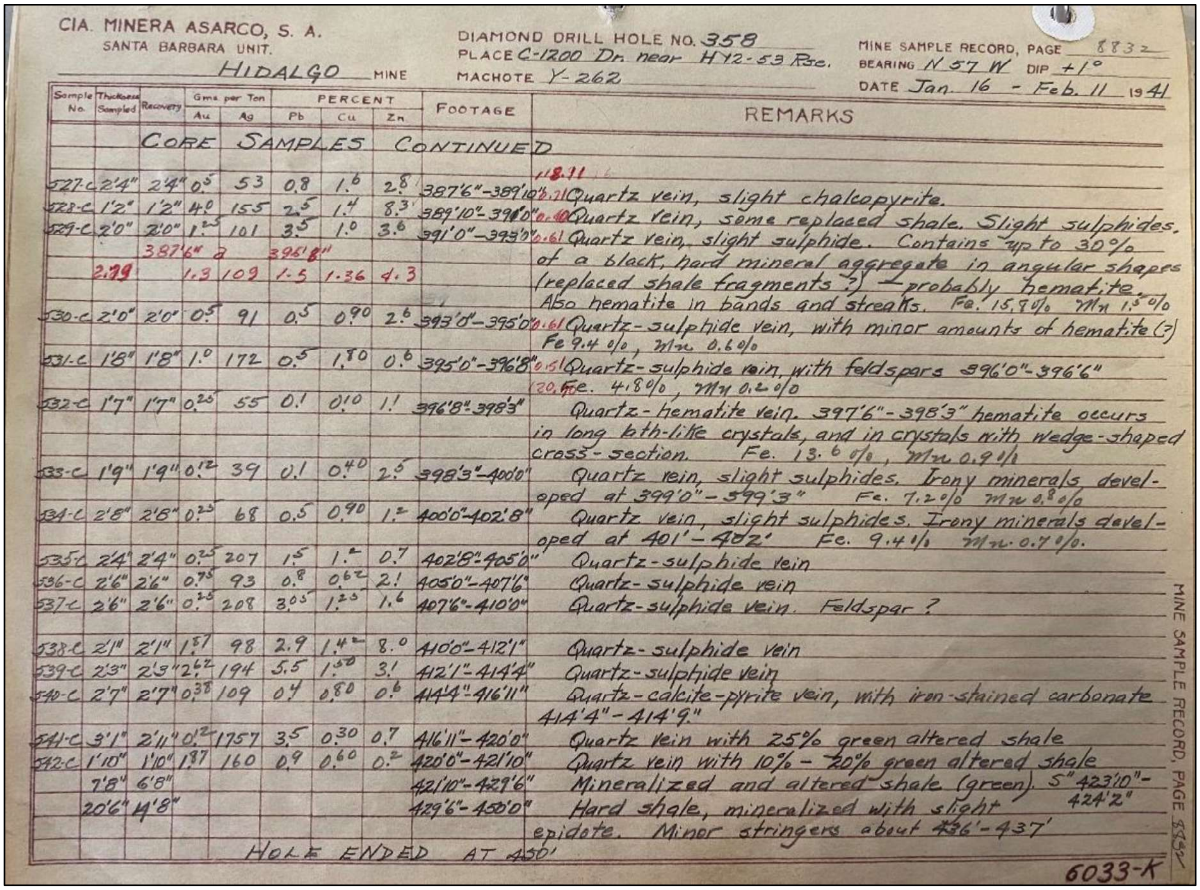
Once the diamond drilling has been carried out and the core has been recovered, the core boxes are transported to the logging facility where the core is logged and sampled.

Once at the logging facility, the core boxes are placed in order on logging tables with the run blocks (from-to) clearly visible. The core is then washed. The core is then logged with the following features recorded: structures, mineralization, alteration, rock type, contacts, and clasts. Sample intervals are marked.

Geotechnical information, such as recovery and rock quality designation (RQD), are also recorded, as these data are needed to assess rock quality and determine mining widths, pillars, and mine support programs.

The logging formats include the zinc, lead, copper, silver, and gold grades. Although part of this information was digitized in Excel, previous problems with Santa Bárbara's servers resulted in the loss of information, and only a small part of this digitized information is currently available in Excel format.

The drillhole information, core logging, and sampling is recorded in paper logs (Figure 7-11). The drilling historical information is kept as paper logs in binders located in the Santa Bárbara geology office.



CIA. MINERA ASARCO, S. A.
SANTA BARBARA UNIT.
HIDALGO MINE

DIAMOND DRILL HOLE NO. 358
PLACE C-1200 Dr. near HY2-53 Rsc.
MACHOTE Y-262

MINE SAMPLE RECORD, PAGE 8832
BEARING N 57 W DIP +1°
DATE Jan. 16 - Feb. 11 1941

Sample No.	Thickness Sampled	Recovery	Gms per Ton Au	Gms per Ton Ag	Percent Pb	Percent Cu	Percent Zn	Footage	Remarks
		CORE SAMPLES CONTINUED							
527-C	2'4"	2'4"	0.5	53	0.8	1.6	2.8	387'6"-389'10"	0.71 Quartz vein, slight chalcopyrite.
528-C	1'2"	1'2"	4.0	155	2.5	1.4	8.3	389'10"-391'0"	0.40 Quartz vein, some replaced shale. Slight sulphides.
529-C	2'0"	2'0"	1.25	101	3.5	1.0	3.6	391'0"-393'0"	0.61 Quartz vein, slight sulphide. Contains up to 30% of a black, hard mineral aggregate in angular shapes (replaced shale fragments?) – probably hematite. Also hematite in bands and streaks. Fe. 15.8% Mn 1.5%
		387'6" a			396'8"				
	2.79		1.3	109	1.5	1.36	4.3		
530-C	2'0"	2'0"	0.5	91	0.5	0.90	2.6	393'0"-395'0"	0.61 Quartz-sulphide vein, with minor amounts of hematite (?) Fe 9.4%, Mn 0.6%
531-C	1'8"	1'8"	1.0	172	0.5	1.80	0.6	395'0"-396'8"	0.51 Quartz-sulphide vein, with feldspars 396'0"-396'6" (20.40 Fe. 4.8%, Mn 0.2%
532-C	1'7"	1'7"	0.25	55	0.1	0.10	1.1	396'8"-398'3"	Quartz-hematite vein. 397'6"-398'3" hematite occurs in long lath-like crystals, and in crystals with wedge-shaped cross-section. Fe. 13.6%, Mn 0.9%
533-C	1'9"	1'9"	0.12	39	0.1	0.40	2.5	398'3"-400'0"	Quartz vein, slight sulphides. Irony minerals developed at 399'0"-399'3" Fe. 7.2% Mn 0.8%
534-C	2'8"	2'8"	0.23	68	0.5	0.90	1.2	400'0"-402'8"	Quartz vein, slight sulphides. Irony minerals developed at 401'-402' Fe. 9.4% Mn 0.7%
535-C	2'4"	2'4"	0.25	207	1.5	1.2	0.7	402'8"-405'0"	Quartz-sulphide vein
536-C	2'6"	2'6"	0.75	93	0.8	0.62	2.1	405'0"-407'6"	Quartz-sulphide vein
537-C	2'6"	2'6"	0.25	208	3.05	1.25	1.6	407'6"-410'0"	Quartz-sulphide vein. Feldspar?
538-C	2'1"	2'1"	1.57	98	2.9	1.42	8.0	410'0"-412'1"	Quartz-sulphide vein
539-C	2'3"	2'3"	2.62	194	5.5	1.50	3.1	412'1"-414'4"	Quartz-sulphide vein
540-C	2'7"	2'7"	0.38	109	0.4	0.80	0.6	414'4"-416'11"	Quartz-calcite-pyrite vein, with iron-stained carbonate 414'4"-414'9"
541-C	3'1"	2'11"	0.12	1757	3.5	0.30	0.7	416'11"-420'0"	Quartz vein with 25% green altered shale
542-C	1'10"	1'10"	1.87	160	0.9	0.60	0.2	420'0"-421'10"	Quartz vein with 10% - 20% green altered shale
	7'8"	6'8"						421'10"-429'6"	Mineralized and altered shale (green). S" 423'10"-424'2"
	20'6"	14'8"						429'6"-450'0"	Hard shale, mineralized with slight epidote. Minor stringers about 436'-437'
				HOLE ENDED AT 450'					

MINE SAMPLE RECORD, PAGE 8832

6033-K

Figure 7-11: Diamond Drilling Core Logging Sheets as Used by Santa Bárbara for Historical Drilling

From November 2022 up to date, the digitization of drillholes is being implemented in the Gvmapper software to integrate them into the geological model.

Tecmin photographs all core boxes before and after sampling (Figure 7-12). Tecmin takes specific gravity measurements. The samples are selected according to changes of lithology and mineralization characteristics. The specific measurement results have not been used for the resource estimation because these measurements are not representative of all the areas of the deposit.

Currently IMMSA is implementing the same protocols used by Tecmin

Figure 7-12: Photography of Drill Core Box

7.2.3 Drilling Results and Interpretation

The Table 7-2 the relevant results of the exploration drilling completed in 2024.

Table 7-2 Relevant Results of 2024 Exploration Drilling Campaign.

Drillhole Name	Sample	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
IM-EXP-11	51996	121.86	122.34	0.48	0.05	20	2.29	0.13	3.7
IM-EXP-11	51997	122.34	122.85	0.51	0	5	0.36	0.05	0.72
IM-EXP-11	51998	122.85	123.5	0.65	0	4	0.18	0.03	0.53
IM-EXP-11	45301	123.5	124.05	0.55	0	12	1.1	0.09	0.63
IM-EXP-11	45302	124.05	124.82	0.77	0.07	37	2.23	0.45	4.84
IM-EXP-11	45304	124.82	125.75	0.93	0	13	0.79	0.1	0.78
IM-EXP-11	45306	125.75	126.78	1.03	0	5	0.06	0.04	0.16
IM-EXP-11	45307	126.78	127.6	0.82	0	7	0.44	0.04	1
IM-EXP-11	45309	127.6	128.25	0.65	0.14	56	5.33	0.22	10.9
IM-EXP-11	45310	128.25	129.05	0.8	0.12	55	4.29	0.24	10.9
IM-EXP-11	45311	129.05	129.9	0.85	0	4	0.22	0.04	0.47
IM-EXP-11	45313	129.9	130.55	0.65	0	2	0.05	0.02	0.15
IM-EXP-11	45314	130.55	131.85	1.3	0	6	0.43	0.03	1.05
IM-EXP-11	45315	131.85	132.65	0.8	0	5	0.32	0.04	0.38
IM-EXP-11	45316	132.65	133.4	0.75	0	3	0.13	0.03	0.24
IM-EXP-11	45317	133.4	133.95	0.55	0.12	42	2.79	0.25	10.5
IM-EXP-11	45319	133.95	134.9	0.95	0.05	24	2.03	0.15	3.55
IM-EXP-11	45320	134.9	135.57	0.67	0.06	30	2.47	0.15	5.74
IM-EXP-11	45321	135.57	136.5	0.93	0	6	0.4	0.03	1
IM-EXP-11	45322	136.5	137.2	0.7	0	3	0.11	0.03	0.28
IM-EXP-11	45324	137.2	137.95	0.75	0	2	0.07	0.02	0.17
IM-EXP-11	45325	137.95	138.55	0.6	0	4	0.28	0.03	0.57
IM-EXP-11	45326	138.55	139.65	1.1	0	3	0.05	0.02	0.12
IM-EXP-11	45327	139.65	141	1.35	0	3	0.02	0.02	0.04
IM-EXP-11	45328	141	142.25	1.25	0	3	0.1	0.01	0.13
IM-EXP-11	45329	142.25	143	0.75	0	3	0.15	0.01	0.26
IM-EXP-11	45330	143	143.5	0.5	0.05	31	2.83	0.03	2.51
IM-EXP-11	45331	143.5	144.05	0.55	0	2	0.06	0.01	0.11
IM-EXP-11	45332	144.05	145.12	1.07	0	5	0.06	0.03	0.09
IM-EXP-11	45334	145.12	146.15	1.03	0	3	0.05	0.02	0.1
CH-16	43111	112.6	113.65	1.05	0.05	20	0.71	0.03	1.859
CH-16	43112	113.65	115.1	1.45	0	9	0.17	0.01	0.49
CH-16	43113	115.1	115.85	0.75	0.12	90	3.71	0.15	8.62
CH-16	43114	115.85	116.9	1.05	0	7	0.35	0.02	0.58
CH-16	43115	116.9	117.55	0.65	0	7	0.32	0.03	0.84
CH-16	43117	117.55	118.95	1.4	0	9	0.46	0.02	0.58
CH-20	44682	132.4	133.4	1	0.1	48	2.68	0.1	2.94
CH-20	44684	133.4	134.5	1.1	0.07	30	0.76	0.02	1.88
CH-26	48848	125.85	126.8	0.95	0.34	62	1.07	0.01	0.38
CH-26	48849	126.8	127.65	0.85	0.00	2	0.10	0.01	0.16
CH-26	48851	127.65	128.7	1.05	0.00	3	0.40	0.02	0.54
CH-26	48852	128.7	129.5	0.8	0.00	2	0.14	0.02	0.26
CH-26	48853	129.5	130.35	0.85	0.00	9	1.18	0.03	3.25
CH-26	48854	130.35	131.45	1.1	0.00	5	0.24	0.02	0.61
CH-26	48856	131.45	132	0.55	0.50	1606	25.55	0.13	5.85
CH-26	48857	132	132.75	0.75	0.11	22	0.73	0.04	2.36
CH-26	48858	132.75	133.75	1	0.20	200	3.95	0.17	4.62
CH-26	48859	133.75	135	1.25	0.24	28	0.53	0.06	1.98
CH-26	48860	135	135.9	0.9	0.06	22	0.40	0.07	3.60
CH-26	48862	135.9	136.5	0.6	0.12	28	1.70	0.09	6.59

Drillhole Name	Sample	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
CH-26	48863	136.5	137.05	0.55	0.18	34	1.28	0.18	5.51
CH-26	48864	137.05	137.75	0.7	0.00	11	0.18	0.14	0.55
CH-26	48865	137.75	138.6	0.85	0.26	42	1.28	0.11	4.23
CH-26	48867	138.6	139.1	0.5	0.00	7	0.22	0.05	0.35
CH-26	48868	139.1	139.7	0.6	0.42	125	6.03	0.14	19.40
CH-26	48869	139.7	140.7	1	0.00	5	0.29	0.02	0.46
CH-26	48870	140.7	141.65	0.95	0.00	3	0.16	0.01	0.41
CH-26	48871	141.65	142.6	0.95	0.00	4	0.06	0.01	0.20
CH-26	48872	142.6	143.65	1.05	0.00	4	0.10	0.01	0.22
CH-26	48873	143.65	144.6	0.95	0.00	6	0.08	0.02	0.24
IM-EXP-16	51951	339.55	340.1	0.55	0.00	2	0.17	0.02	0.39
IM-EXP-16	51952	340.1	340.8	0.7	0.00	2	0.20	0.02	0.48
IM-EXP-16	51954	340.8	341.45	0.65	0.35	202	4.29	0.26	7.91
IM-EXP-16	51955	341.45	342.3	0.85	0.41	184	1.18	0.07	3.07
IM-EXP-16	51956	342.3	342.9	0.6	0.18	15	0.95	0.12	3.19
IM-EXP-16	51957	342.9	343.5	0.6	0.26	224	2.08	0.13	3.54
IM-EXP-16	51958	343.5	344.25	0.75	0.32	73	2.19	0.59	17.20
IM-EXP-16	51959	344.25	345.15	0.9	0.00	7	0.33	0.05	0.79
IM-EXP-16	51960	345.15	345.9	0.75	0.21	17	0.80	0.15	3.23
IM-EXP-16	51961	345.9	346.8	0.9	0.44	22	1.82	0.18	3.75
IM-EXP-16	51963	346.8	347.6	0.8	0.52	20	1.31	0.18	3.09
IM-EXP-16	51964	347.6	348.1	0.5	0.37	70	6.45	0.72	16.30
IM-EXP-16	51965	348.1	348.7	0.6	0.00	14	1.31	0.08	1.72
IM-EXP-16	51966	348.7	349.1	0.4	0.00	13	0.82	0.03	3.12
IM-EXP-16	51967	349.1	349.6	0.5	0.27	38	3.29	0.30	13.90
IM-EXP-16	51968	349.6	350.15	0.55	0.31	76	5.47	0.78	17.40
IM-EXP-16	51969	350.15	350.7	0.55	0.00	12	0.52	0.08	1.68
IM-EXP-16	51970	350.7	351.3	0.6	0.44	38	3.34	0.21	4.73
IM-EXP-16	51972	351.3	351.9	0.6	0.36	106	2.64	0.16	4.20
IM-EXP-16	51973	351.9	352.95	1.05	1.21	127	2.79	0.14	4.69
IM-EXP-16	51974	352.95	353.6	0.65	0.62	36	2.16	0.26	7.86
IM-EXP-16	51975	353.6	354.2	0.6	0.00	4	0.21	0.03	0.67
IM-EXP-16	51976	354.2	354.8	0.6	0.00	4	0.47	0.14	2.59
IM-EXP-16	51977	354.8	355.7	0.9	0.00	8	0.42	0.05	1.35
IM-EXP-16	51979	355.7	356.8	1.1	0.00	8	0.39	0.03	0.99
IM-EXP-16	51980	356.8	357.85	1.05	0.17	20	0.36	0.02	0.48
IM-EXP-16	51981	357.85	358.45	0.6	0.00	7	0.19	0.01	0.87
SB-03	55059	146.3	147.15	0.85	0.00	3	0.10	0.01	0.26
SB-03	55060	147.15	147.9	0.75	0.00	9	0.42	0.01	0.32
SB-03	55062	147.9	148.3	0.4	0.50	1292	14.07	0.02	2.04
SB-03	55063	148.3	149.2	0.9	0.00	8	0.15	0.01	0.16
SB-03	55064	149.2	150.1	0.9	0.15	57	1.17	0.01	0.13
SB-03	55066	150.1	150.75	0.65	0.16	68	1.22	0.01	0.82
SB-03	55067	150.75	151.4	0.65	0.23	166	2.96	0.01	1.26
SB-03	55068	151.4	152.1	0.7	0.21	151	3.88	0.01	7.05
SB-03	55069	152.1	153.1	1	0.00	8	0.23	0.02	0.42
SB-03	55071	153.1	154.4	1.3	0.00	4	0.10	0.01	0.30
SB-03	55072	154.4	155.55	1.15	0.00	2	0.05	0.01	0.19
SB-03	55073	155.55	156.55	1	0.00	3	0.04	0.01	0.10
SB-03	55074	156.55	157.5	0.95	0.00	3	0.04	0.01	0.10
SB-03	55075	157.5	158.05	0.55	0.00	3	0.04	0.01	0.10
SB-03	55077	158.05	158.9	0.85	0.00	5	0.14	0.01	0.65

Drillhole Name	Sample	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
SB-03	55212	377.45	378.1	0.65	0.00	4	0.06	0.02	0.21
SB-03	55214	378.1	379.1	1	0.00	4	0.01	0.03	0.16
SB-03	55215	379.1	379.65	0.55	0.00	4	0.02	0.02	0.16
SB-03	55216	379.65	380.5	0.85	0.00	16	0.08	0.06	1.22
SB-03	55217	380.5	381.15	0.65	0.00	23	0.11	0.03	0.78
SB-03	55218	381.15	382.2	1.05	0.15	137	0.97	0.02	16.00
SB-03	55220	382.2	382.9	0.7	0.00	4	0.03	0.03	0.17
SB-03	55221	382.9	383.55	0.65	0.00	4	0.03	0.02	0.06
IM-EXP-18	51844	127.1	127.55	0.45	0.00	3	0.01	0.02	0.08
IM-EXP-18	51845	127.55	127.95	0.4	0.07	18	0.65	0.33	0.80
IM-EXP-18	51847	127.95	128.4	0.45	0.00	9	0.54	0.08	1.20
IM-EXP-18	51848	128.4	128.95	0.55	0.00	8	0.57	0.06	1.37
IM-EXP-18	51849	128.95	129.45	0.5	0.07	25	1.74	0.50	3.68
IM-EXP-18	51850	129.45	130	0.55	0.07	20	1.51	0.25	2.92
IM-EXP-18	51851	130	130.5	0.5	0.10	50	3.14	0.51	5.60
IM-EXP-18	51852	130.5	131.1	0.6	0.00	13	0.59	0.17	1.28
IM-EXP-18	51853	131.1	131.75	0.65	0.07	22	1.33	0.26	1.11
IM-EXP-18	51854	131.75	132.3	0.55	0.00	5	0.11	0.06	0.21
IM-EXP-18	51856	132.3	132.75	0.45	0.08	23	1.86	0.17	4.35
IM-EXP-18	51857	132.75	133.25	0.5	0.08	25	0.50	0.38	1.24
IM-EXP-18	51858	133.25	133.75	0.5	0.00	3	0.11	0.05	0.26
IM-EXP-18	51859	133.75	134.35	0.6	0.00	11	1.03	0.13	2.43
IM-EXP-18	51860	134.35	134.9	0.55	0.09	28	2.82	0.12	5.03
IM-EXP-18	51861	134.9	135.4	0.5	0.00	1	0.03	0.01	0.09
IM-EXP-18	51862	135.4	135.95	0.55	0.00	2	0.07	0.01	0.11
IM-EXP-18	51234	320.45	320.95	0.5	0.00	6	0.44	0.01	0.93
IM-EXP-18	51236	320.95	321.4	0.45	0.00	10	1.08	0.02	2.79
IM-EXP-18	51237	321.4	321.9	0.5	0.00	5	0.48	0.03	3.08
IM-EXP-18	51238	321.9	322.6	0.7	0.00	3	0.24	0.02	0.49
IM-EXP-18	51239	322.6	323.15	0.55	0.00	13	0.77	0.05	5.89
IM-EXP-18	51240	323.15	323.55	0.4	0.00	5	0.26	0.03	1.83
IM-EXP-18	51241	323.55	324.1	0.55	0.00	12	0.65	0.06	4.78
IM-EXP-18	51242	324.1	324.55	0.45	0.00	11	0.44	0.06	9.57
IM-EXP-18	51244	324.55	325	0.45	0.13	29	1.50	0.07	4.84
IM-EXP-18	51245	325	325.7	0.7	0.00	4	0.39	0.01	2.81
IM-EXP-18	51246	325.7	326.35	0.65	0.00	2	0.09	0.02	0.23
SB-05	55949	286.9	287.55	0.65	0.01	0	0.01	0.00	0.07
SB-05	53451	287.55	288.05	0.5	0.02	27	0.72	0.00	6.66
SB-05	53452	288.05	288.7	0.65	0.01	4	0.10	0.01	1.52
SB-05	53453	288.7	289.5	0.8	0.01	14	0.27	0.02	6.41
SB-05	53454	289.5	290.15	0.65	0.01	16	0.41	0.01	3.55
SB-05	53455	290.15	290.95	0.8	0.00	0	0.03	0.00	0.15
SB-05	53456	290.95	291.85	0.9	0.00	0	0.02	0.00	0.06
SB-05	53457	291.85	292.7	0.85	0.00	0	0.01	0.00	0.02
SB-05	53458	292.7	293.55	0.85	0.00	0	0.05	0.00	0.35
SB-05	53459	293.55	294.15	0.6	0.01	96	2.18	0.03	7.01
SB-05	53460	294.15	294.7	0.55	0.00	31	0.76	0.01	9.38
SB-05	53461	294.7	295.4	0.7	0.00	0	0.06	0.00	0.25
SB-05	53462	295.4	296.2	0.8	0.00	0	0.21	0.00	0.41
SB-05	55792	225.25	225.95	0.7	0.00	5	1.05	0.02	2.01
SB-05	55793	225.95	226.8	0.85	0.00	6	0.60	0.01	1.40
SB-05	55794	226.8	227.6	0.8	0.00	6	0.12	0.01	0.54

Drillhole Name	Sample	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
SB-05	55795	227.6	228.3	0.7	0.00	6	0.56	0.01	3.63
SB-05	55796	228.3	229.25	0.95	0.00	2	0.06	0.01	0.32
SB-05	55797	229.25	230.25	1	0.00	7	0.53	0.02	4.42
SB-05	55798	230.25	230.85	0.6	0.00	5	0.33	0.01	2.81
SB-05	55799	230.85	231.3	0.45	0.00	8	0.47	0.01	10.74
SB-05	55800	231.3	231.7	0.4	0.00	12	0.16	0.01	4.56
SB-05	55902	231.7	232.25	0.55	0.18	42	0.88	0.02	17.50
SB-05	55903	232.25	233.05	0.8	0.00	3	0.28	0.01	2.24
IM-EXP-23	56273	172	172.55	0.55	0.06	17	2.17	0.07	4.91
IM-EXP-23	56275	172.55	173.4	0.85	0.00	3	0.03	0.02	0.09
IM-EXP-23	56276	173.4	174.55	1.15	0.00	2	0.01	0.02	0.04
IM-EXP-23	56277	174.55	175.4	0.85	0.00	3	0.01	0.02	0.06
IM-EXP-23	56278	175.4	176.1	0.7	0.00	4	0.14	0.02	0.40
IM-EXP-23	56280	176.1	176.75	0.65	0.08	48	4.94	0.10	11.96
IM-EXP-23	56282	176.75	177.3	0.55	0.02	10	1.68	0.05	5.40
CH-40-B	56005	412.35	413.85	1.5	0.00	3	0.15	0.01	0.14
CH-40-B	56007	413.85	414.55	0.7	0.00	2	0.15	0.01	0.24
CH-40-B	56008	414.55	415.1	0.55	0.00	4	0.32	0.02	0.31
CH-40-B	56010	415.1	415.35	0.25	0.33	20	1.22	0.13	8.99
CH-40-B	56011	415.35	416.1	0.75	0.00	10	0.73	0.03	0.54
CH-40-B	56012	416.1	416.65	0.55	0.21	25	0.58	0.17	1.45
CH-40-B	56014	416.65	417.2	0.55	0.43	76	3.53	0.14	8.99
CH-40-B	56015	417.2	417.75	0.55	0.41	210	3.82	0.15	4.08
CH-40-B	56016	417.75	418.95	1.2	0.40	200	4.97	0.10	3.78
CH-40-B	56018	418.95	419.4	0.45	0.41	110	5.55	0.12	6.28
CH-40-B	56019	419.4	419.9	0.5	0.46	58	2.86	0.19	13.41
CH-40-B	56020	419.9	420.45	0.55	0.19	31	1.86	0.05	5.27
CH-40-B	56021	420.45	420.95	0.5	0.19	10	1.09	0.04	3.06
CH-40-B	56023	420.95	421.45	0.5	0.30	44	1.22	0.36	25.43
CH-40-B	56024	421.45	422.05	0.6	0.38	23	1.18	0.15	8.20
CH-40-B	56025	422.05	422.4	0.35	0.15	63	6.86	0.06	6.47
CH-40-B	56027	422.4	422.7	0.3	0.00	6	0.18	0.02	0.58
CH-40-B	56028	422.7	423.15	0.45	0.10	15	.1.539	0.05	2.73
CH-40-B	56029	423.15	424	0.85	0.00	10	1.05	0.02	1.34
CH-40-B	56030	424	424.8	0.8	0.00	12	1.34	0.03	2.08
CH-40-B	56036	428.1	428.5	0.4	0.29	49	4.93	0.10	8.98
CH-40-B	56037	428.5	429.25	0.75	0.00	6	0.23	0.01	0.47
CH-40-B	56038	429.25	429.6	0.35	0.00	6	0.92	0.05	2.70
CH-40-B	56039	429.6	430.35	0.75	0.00	4	0.36	0.02	1.99
CH-40-B	56041	430.35	431.4	1.05	0.00	3	0.15	0.01	0.26
CH-40-B	56042	431.4	431.75	0.35	0.00	6	0.29	0.02	1.25
CH-40-B	56043	431.75	432	0.25	0.10	30	4.30	0.02	5.73
CH-40-B	56045	432	432.45	0.45	0.00	5	0.71	0.02	1.99
CH-40-B	56046	432.45	432.85	0.4	0.13	15	2.04	0.12	5.61
CH-40-B	56047	432.85	433.4	0.55	0.56	15	2.05	0.07	7.63
CH-42	50632	345.25	345.7	0.45	0.00	10	0.92	0.02	2.04
CH-42	50634	345.7	346	0.3	1.26	33	3.74	0.06	4.93
CH-42	50635	346	346.35	0.35	0.25	14	1.54	0.04	1.74
CH-42	50636	346.35	347.5	1.15	0.00	5	0.43	0.02	0.46
CH-42	50638	347.5	348.55	1.05	0.00	4	0.41	0.02	0.42
CH-42	50639	348.55	349.3	0.75	0.00	6	0.60	0.02	0.80
CH-42	50640	349.3	350.55	1.25	0.00	6	0.63	0.02	0.30

Drillhole Name	Sample	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
CH-42	50641	350.55	351.1	0.55	0.00	3	0.14	0.01	0.19
CH-42	50643	351.1	352.1	1	0.00	4	0.56	0.03	0.47
CH-42	50644	352.1	352.6	0.5	0.00	14	1.25	0.11	1.69
CH-42	50645	352.6	353	0.4	0.00	5	0.57	0.04	1.27
CH-42	50646	353	353.7	0.7	0.00	5	0.66	0.04	1.11
CH-42	50648	353.7	354.2	0.5	0.00	10	1.14	0.04	0.95
CH-42	50649	354.2	355.5	1.3	0.00	5	0.30	0.05	1.10
CH-42	50650	355.5	356.65	1.15	0.00	7	0.69	0.04	0.68
CH-42	54501	356.65	357	0.35	0.00	10	1.24	0.03	0.54
CH-42	54503	357	357.85	0.85	0.00	5	0.54	0.02	0.37
CH-42	54504	357.85	358.45	0.6	0.00	11	1.16	0.07	0.66
CH-42	54505	358.45	359.2	0.75	0.21	26	0.97	0.36	0.94
CH-42	54506	359.2	359.6	0.4	1.17	41	3.50	0.34	6.79
CH-42	54508	359.6	360.05	0.45	0.28	110	2.55	1.94	1.67
CH-42	54509	360.05	360.35	0.3	0.23	203	6.60	2.39	7.31
CH-42	54510	360.35	360.55	0.2	0.35	136	1.97	2.25	6.34
CH-42	54511	360.55	361.05	0.5	0.35	28	1.22	0.68	1.22
CH-42	54513	361.05	361.55	0.5	0.96	194	9.73	0.95	9.29
CH-42	54514	361.55	361.85	0.3	0.00	10	0.82	0.04	1.93
CH-42	54515	361.85	362.1	0.25	0.37	18	0.75	0.17	2.77
CH-42	54516	362.1	362.65	0.55	0.00	12	0.46	0.06	1.64
CH-42	54518	362.65	363.25	0.6	0.00	10	0.63	0.03	1.34
CH-42	54519	363.25	363.6	0.35	0.69	15	0.62	0.11	0.85
CH-42	54520	363.6	363.95	0.35	0.90	64	2.26	0.79	3.05
CH-42	54522	363.95	364.3	0.35	0.00	12	0.63	0.07	1.30
CH-42	54523	364.3	364.55	0.25	0.00	6	0.52	0.03	0.84
CH-42	54524	364.55	364.95	0.4	0.50	16	1.80	0.04	2.15
CH-42	54525	364.95	365.25	0.3	0.00	13	0.62	0.02	2.96
CH-44	68786	438.75	439.4	0.65	0.44	32	1.32	0.08	2.40
CH-44	68787	439.4	440.6	1.2	0.52	75	3.25	0.19	6.54
CH-44	68789	440.6	441.65	1.05	0.54	16	1.37	0.07	4.41
CH-44	68790	441.65	442.35	0.7	0.00	3	0.48	0.03	1.88
CH-44	68791	442.35	443.35	1	0.00	12	1.76	0.09	2.36
CH-44	68792	443.35	444.4	1.05	0.00	5	0.88	0.08	3.12
CH-44	68793	444.4	445.25	0.85	0.00	2	0.11	0.01	0.18
CH-44	68795	445.25	446.65	1.4	0.00	6	1.15	0.02	1.29
CH-44	68796	446.65	447.3	0.65	0.00	4	0.92	0.01	2.31
CH-44	68797	447.3	448.35	1.05	0.00	3	0.92	0.01	1.25
CH-44	68799	448.35	448.65	0.3	0.00	13	1.83	0.01	2.34
CH-44	68800	448.65	449.55	0.9	0.00	2	0.10	0.01	0.07
CH-44	68801	449.55	450.2	0.65	0.00	2	0.18	0.01	0.18
CH-44	68802	450.2	450.8	0.6	0.03	15	3.04	0.01	2.35
IM-EXP-30	68941	294.9	295.45	0.55	0.00	8	0.60	0.08	1.70
IM-EXP-30	68943	295.45	295.95	0.5	0.00	10	0.70	0.25	2.91
IM-EXP-30	68944	295.95	296.75	0.8	0.00	12	1.06	0.20	4.61
IM-EXP-30	68945	296.75	297.3	0.55	0.04	18	0.59	0.48	5.71
IM-EXP-30	68946	297.3	297.8	0.5	0.02	26	0.64	0.85	6.52
IM-EXP-30	68948	297.8	298.3	0.5	0.00	2	0.15	0.02	0.50
IM-EXP-30	68949	298.3	298.85	0.55	0.02	78	1.89	2.42	16.24
IM-EXP-30	68950	298.85	299.4	0.55	0.00	7	0.11	0.12	2.52
IM-EXP-30	68952	299.4	300.25	0.85	0.00	8	0.26	0.25	9.94
IM-EXP-30	68953	300.25	301	0.75	0.02	30	1.00	0.46	11.35

Drillhole Name	Sample	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
IM-EXP-30	68954	301	301.8	0.8	0.00	13	0.47	0.18	4.29
CH-48	66235	332.7	333.5	0.8	0.00	3	0.07	0.04	0.08
CH-48	66236	333.5	334.3	0.8	0.00	3	0.08	0.05	0.35
CH-48	66238	334.3	335.05	0.75	0.00	38	1.31	0.62	0.91
CH-48	66239	335.05	335.9	0.85	0.00	33	1.60	0.73	1.40
CH-48	66240	335.9	336.6	0.7	0.00	6	0.04	0.12	0.03
CH-48	66242	336.6	337.7	1.1	2.76	87	1.51	0.36	1.51
CH-48	66243	337.7	338.2	0.5	4.67	155	3.70	2.21	1.30
CH-48	66244	338.2	338.7	0.5	2.86	177	5.34	1.65	8.64
CH-48	66246	338.7	339.6	0.9	0.00	1	0.03	0.02	0.06
CH-48	66247	339.6	340.45	0.85	0.00	2	0.02	0.04	0.05

The historical drilling information, which supports most of Santa Bárbara's mineral resources, has been completed without proper QA/QC protocol and downhole survey measurements. These practices are not in-line with industry best practices and result in errors in the location of the mineralization intersection and quality of the samples and assays.

In SRK's opinion, the lack of historical drilling downhole surveys represents a moderate risk due to location errors of mineralized intercepts in areas unsupported by nearby underground workings.

According to Santa Bárbara, in general, the core recovery is above 90%, except in some areas of faulting. Recent drilling has shown core recovery average above 95% and locally low recoveries associated to weathering zone and faulting. Lower recoveries observed in historical data may be due to drilling practices or drilling equipment in use at the time.

Historical and recent drilling campaigns, including the 2022 campaign, have been carried out using NQ, BQ, and TT46 sized core. In 2023 Santa Barbara started using mostly NQ core size for the mine geology drilling and BQ size when necessary.In 2024 to up to date, Tecmin uses HQ or NQ sized core.

Mine operations and Tecmin personnel perform the drilling from underground chambers and surface drill stations. This drilling is completed in fan formations from underground drill stations.

Drillholes are orientated as perpendicular to the mineralization controls (stratigraphy and veins) as possible. In some cases, the angle of the intersection to the mineralization can be shallow, but Santa Bárbara tries to minimize the number of cases. Figure 7-13 shows the intersection angles relative to the interpreted geology in a vertical section, including the completed drilling. Santa Bárbara's geology and distribution of mineralization is irregular, and the variable drilling inclination is acceptable considering the geology and mineralization of the deposit.

Core is logged into predefined logging sheets to ensure consistency in the type of information collected across all holes. The information is then combined into workbooks which store the information for each individual borehole.

This data is combined with channel sampling and geological interpretations based on underground workings to update plans and vertical sections on either paper maps or in AutoCAD.

The variability of the mineralization that characterizes Santa Bárbara's skarn and veins deposit is appropriately interpreted using the different sources of information. SRK relied upon reconciliation of the planned vs. actual grades and tonnes mined to evaluate the quality of drilling data. Based on the reconciliation and the long history of mining at Santa Bárbara, it is SRK's opinion that the drilling and sampling are acceptable.

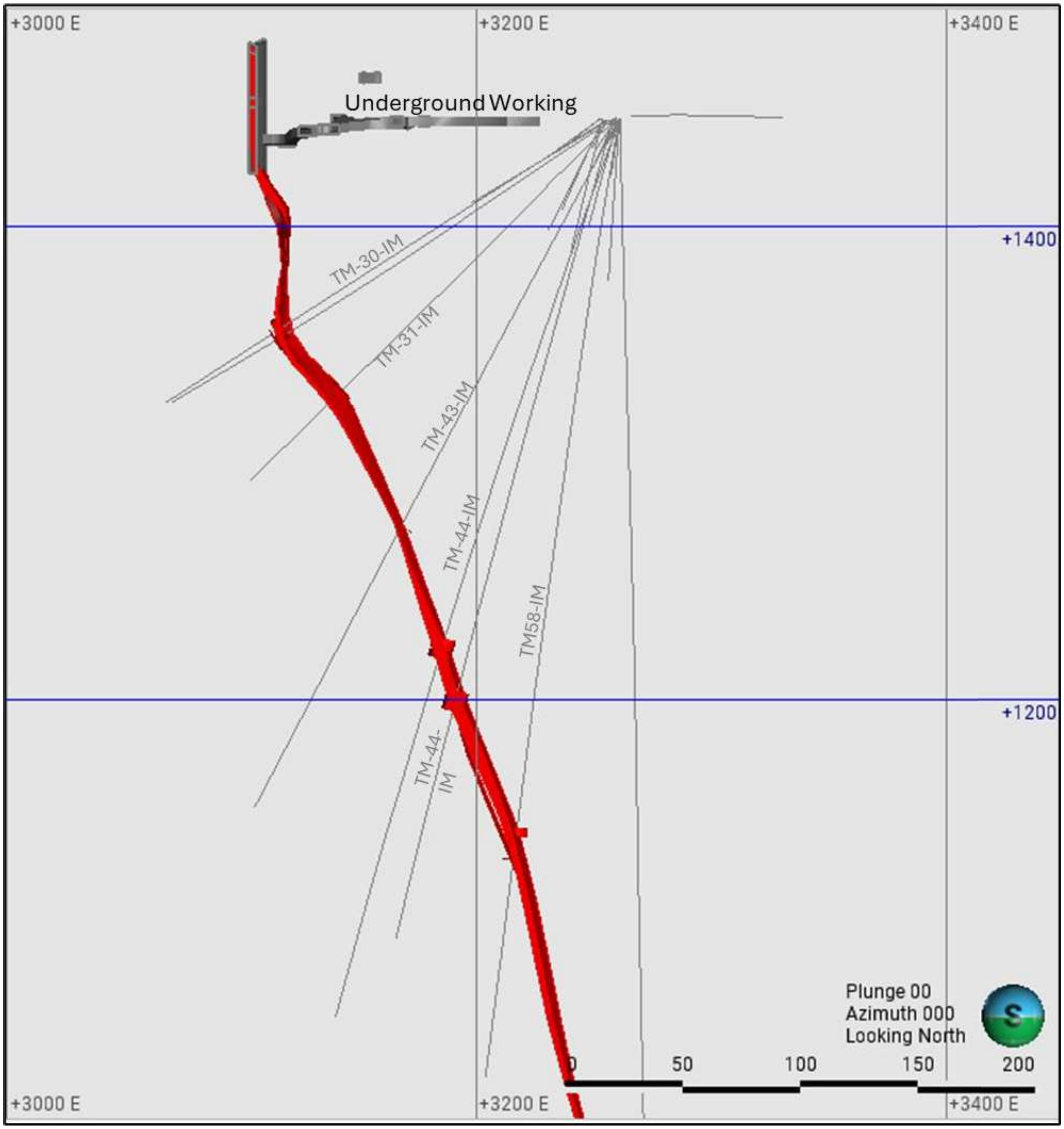


Figure 7-13: Example of Vein Interpretation in a Vertical Section. Coyote Vein, San Diego Mine

7.3 Hydrogeology

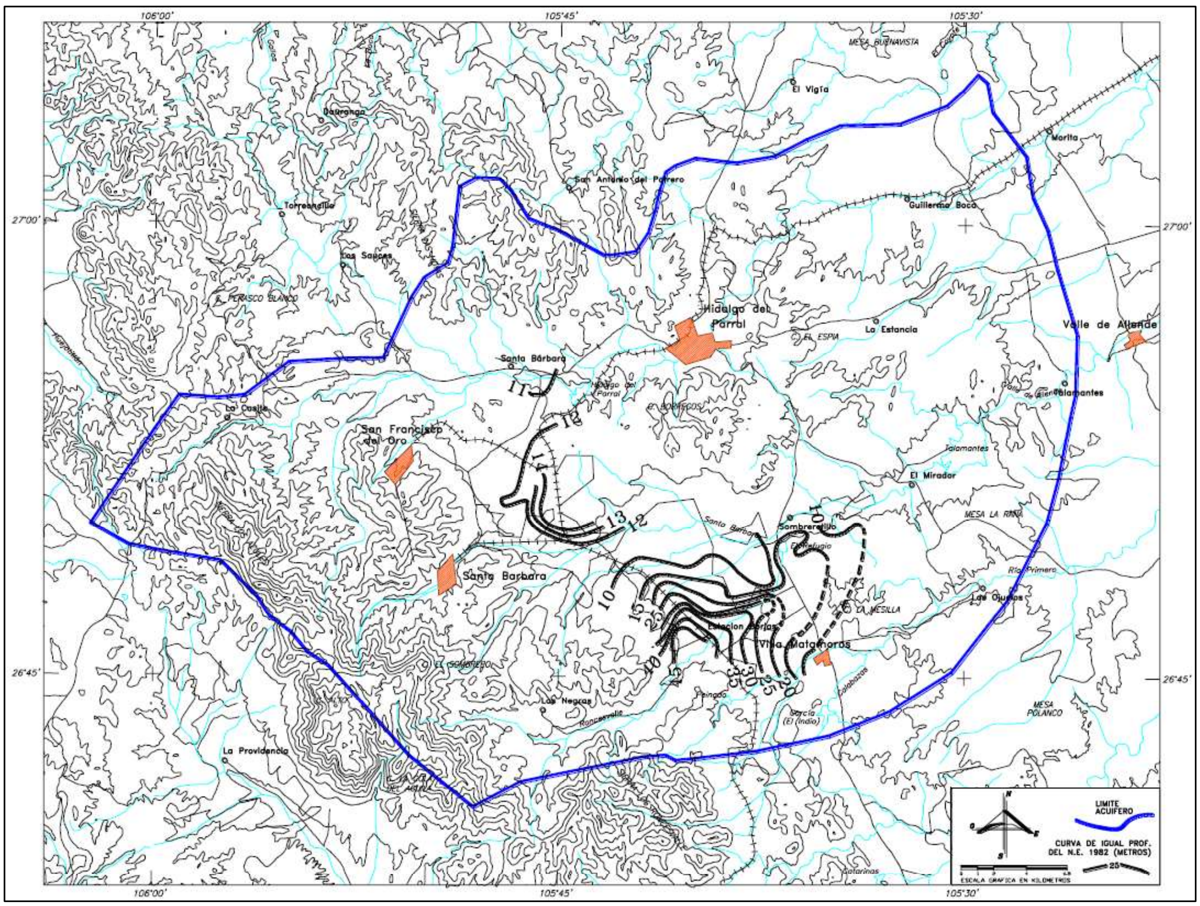
The source of information for the hydrology of Santa Barbara comes from the report "Actualización de la Disponibilidad Media Annual de Agua en el Acuífero Parral Valle del Verano (0834), Estado de Chihuahua" prepared by Conagua (Comision Nacioal del Agua), Ciudad de México, 2020, and is summarized in the following paragraphs.

Lithological units can be grouped into hydro-stratigraphic units based on permeability. Pre-tertiary rocks (limestone, shale, and slate) have low permeability and wide distribution. The limestone is interbedded with shale, which reduces its permeability.

Tertiary rocks (rhyolites, andesites, basalts, and tuffs) generally have low permeability, although the presence of faults and fractures can significantly increase the permeability.

Quaternary rocks composed of gravel, sand, silt, and clay generally have good permeability and form good aquifers if sufficiently thick.

A study conducted in 1982 showed static levels depths of less than 10 m near the confluence of the Roncesvalles Stream and the Santa Bárbara River. Depths greater than 40 m occur towards the south of the basin in the vicinity of the Roncesvalles hacienda. The depths gradually decreased 10 m towards the east and near Villa de Matamoros and to the north and northeast directions along the Santa Bárbara River. Further north of the Santa Bárbara River, depths of the order of 12 m were found, as shown in Figure 7-14.



Source: CONAGUA, 2020.

Figure 7-14: Depth of Static Level, 1982

In the 1982 study, groundwater extraction was indirectly calculated, resulting in 19.8 cubic hectometers (hm^3) per year being extracted, of which 6.8 hm^3/year are pumped from the mines, and the remaining 13 hm^3/year are extracted from the aquifer.

The aquifer was in equilibrium since 1982, and drawdowns were observed due to lower mining production.

The average annual total recharge, calculated as the sum of the natural recharge (23.8 hm^3/year) plus the induced recharge (2.98 hm^3/year), gives a value of 26.7 hm^3/year.

For this aquifer, the volume of groundwater extraction is 60,851,836 m^3/year, which is reported by the Public Registry of Water Rights (REPDA) of the Subdirección General de Administración del Agua, as of the cut-off date of February 20, 2020.

The availability of groundwater constitutes the average annual volume of groundwater available in an aquifer, which users will have the right to exploit, use, or take advantage of, in addition to the extraction already under concession and the committed natural discharge, without endangering the ecosystems. The result indicates that there is no available volume to grant additional concessions.

From the hydrological environment, locally, there are leaks due to different types of aqueous bodies, such as Rio Santa Bárbara, the Vacas Stream, and the Tecolotes Stream; these cross the mineralized veins on the surface and serve as conduits inside the mines. Another important element is the fracture systems after mineralization that serve as a water conduit; these systems are northeast-southwest and east-west. This phenomenon fills cavities and circulates through mining works; however, this is not always the case, as it can be found occupying the crevices (pores and cracks) of the soil, the rocky substrate, or the unconsolidated sediment, which acts like a sponge. As indicated above, in the mines, the underground water can be found in faults, old holes filled with water, and leaks either by crossing streams or being very close to aquifers.

In Santa Bárbara's study area, a lithological unit zone has been detected with physical properties to store water due to the stratification planes and the interstices of the rock. Since there is an alternation of shale and clayey shale as well as some basalt flows, this makes the rock porous; this zone is located to the north of the zone (in the area known as the Franqueño) and at a depth of 0 to 200 m.

7.4 Geotechnical Data, Testing, and Analysis

During 2023, SRK conducted three geotechnical site visits to Santa Barbara to support the underground geotechnical assessment and to provide operational support. The following sections contain a summary of relevant information and recommendations for the geotechnical mine stability that are largely based on SRK's site visits. There has been no recent information for 2024.

Geotechnical Data

A persistent, shallow dipping bedding was observed in the shale country rock throughout the mines. The bedding layers had a typical spacing of approximately 19 cm but were observed to range between 30 cm and 2 cm. Ground conditions in the shale were generally observed to be good, frequently with calcite infilling. Skarn ore veins generally had good quality ground conditions, but some lower quality, oxidized areas were observed. Areas of intense foliation and difficult ground conditions were seen to be influenced by local folding and faulting.

A 3D brittle-fault model needs to be established for each mine within Santa Barbara. These models need to be developed and interpreted using structural data from mapping, lineation models, and drillhole data. SRK understands that the geology department routinely undertakes geological-structural mapping of current development, which is usually presented in two-dimensional (2D) drawings. The development of a major structural model needs to integrate this mapping information. Observations suggest strong structural control in several areas of the mine related to the presence of major folds and pervasive folding. Structural integration with the lithology is highly recommended, correlating mineralization trends with interpreted structural trends and other supporting orientation data. Also, a level of confidence needs to be assigned to the structural geology model for use in geotechnical design work and ground support assessment.

There is no integration of the lithology models or mapped structures by IMMSA's geology department into the previous design studies completed to date, including design stability analyses and ground support design.

Structural domains have not been defined for Santa Barbara.

The response of intact rock under loading conditions needs to be assessed through a comprehensive laboratory testing campaign to provide insight into the overall rock mass behavior. The following tests need to be undertaken: Uniaxial compressive strength (UCS), elastic modulus measurement (E), triaxial compressive strength (TCS) tests, Brazilian tensile tests (BTS), and direct shear of discontinuities (DTS).

A 3D geotechnical model is not available at Santa Barbara. This model is required to assess variations in geotechnical parameters within the rock mass and constitutes the basis for designing excavations and rock reinforcement.

Stress measurements have not been undertaken at Santa Barbara to date.

Ground Support Practices

There is no ground support performance data collected to date. Aspects of interaction between rock bolts, bonding agent, and the rock mass or friction capacity of anchors in different ground conditions can be investigated with pull tests.

Since ground support highly depends on the quality of its installation; IMMSA should define QA/QC procedures and standards for the installation of ground support are critical to prevent fall of ground (FOG).

The eight-foot length split sets used at Santa Barbara are generally not suitable for large spans and wedge potential. Santa Barbara will likely need to implement longer support such as cable bolts for areas that are determined to be at risk for wedge failures. Santa Barbara should implement a ground support strategy to mitigate wedge failure risk in wide spans. Depending on previous results, this may be an increase of support (cable bolts) or kinematic assessment above a certain span width.

Geotechnical Monitoring Program

A robust monitoring system is required to assess FOG risks. Once FOG controls have been implemented, monitoring systems are required to assess the performance of these controls and to ensure that if changes in conditions occur, they are detected in time and corrective action is taken.

Seismic monitoring has not been undertaken at Santa Barbara to date.

Mining Method and Operational Considerations

The mining methods employed at Santa Barbara, longhole open stoping, AVOCA stoping (a variation of sublevel stoping methodology) and overhand cut and fill:

- The reliability of the geotechnical data inputs into previous designs needs to be assessed. The design acceptance needs to be redefined given the low confidence in the geotechnical model. For example, IMMSA has used a minimum factor of safety (FoS) of 1.2 for pillar design, which can be considered low in comparison with industry standard recommendations, such as Lunder and Pakalnis, 1997 that suggest a minimum FoS of 1.6.

7.5 Exploration Target

For 2025, Santa Bárbara will continue the exploration in areas of extension of the main vein systems in the areas of Veta Coyote – Hilos (interior mine), Veta Explorador (interior mine), Veta Bronces, and Santiago and San Albino (interior mine). Figure 7-15 presents the location of the mentioned areas.

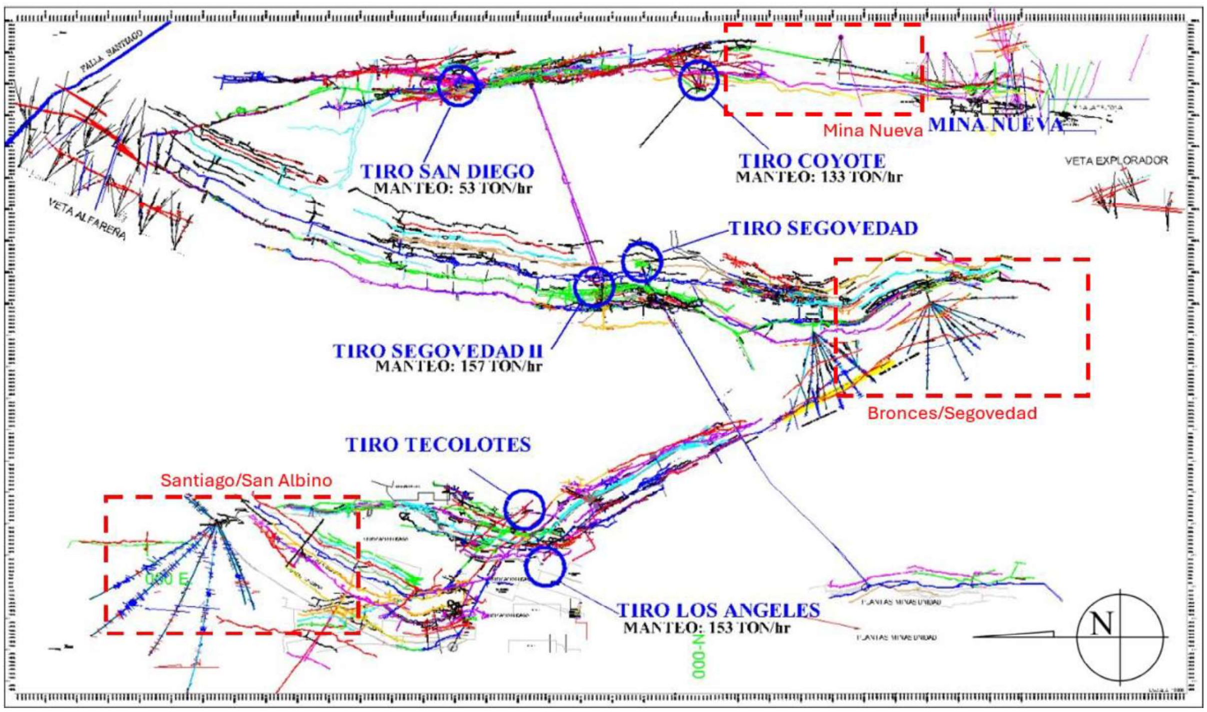


Figure 7-15: Areas of Exploration in Santa Bárbara (Underground) – Areas Marked in Red Rectangles

8 Sample Preparation, Analysis, and Security

8.1 Sample Preparation Methods and Quality Control Measures

Trained staff were involved at all stages of the sampling, sample packaging, and sample transportation process. After geological logging and sample selection, the core is split in half longitudinally using an electric core cutter. Core pieces are placed in the cutter machine and cut following the cut line marked by the geologist. The core splitter was used historically, currently an electrical core cutter is used to split the core. Half of the core was assayed, and the other half was stored in the core box to be available for future assaying or relogging of core.

The sample was placed in plastic bags with its corresponding sample tag and sent to the internal and external laboratories using defined laboratory submission sheets to track the number of samples and batch numbers. The geology mine department uses internal pre printed sample tags for the samples analyzed in the internal laboratory for core and rock sampling. The Exploration and mine geology teams use barcoded tags supplied by the commercial laboratory when it is used for assaying. Figure 8-1 shows the submission format used by Santa Bárbara (Exploration Department) for the samples sent to the SGS Laboratory (SGS) in Durango. SGS is an independent laboratory to the operation.

SGS

SGS Servicios Minerales – Geoquímica

Formato de recepción de muestras

Para uso del laboratorio
Orden de trabajo núm.:
Fecha de recepción:

Ubicación del Lab. SGS: Durango En atención a:

Detalles de envío	
Enviado por:	JESUS ROBERTO SILVA MORIEL
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Teléfono:	6275274114 EXT 22414
Email:	roberto.silva@mm.gmexico.com
Transporte/núm. guía:	
País de origen de la muestra:	MEXICO
Instrucciones para reporte	
Reportar a:	JESUS ROBERTO SILVA MORIEL
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Teléfono:	6275274114 EXT 22414
Dirección:	CENTENARIO Y TURQUESA S/N TALLER CENTRAL.
Ciudad:	HGO. DEL PARRAL Provincia/Estado: CHIHUAHUA
País:	MEXICO Código Postal: 33800
Email 1:	roberto.silva@mm.gmexico.com PDF ✓ XLS ✓ CSV ✓
Email 2:	sergio.garza@mm.gmexico.com PDF ✓ XLS ✓ CSV ✓
Email 3:	abraham.ramos@mm.gmexico.com PDF ✓ XLS ✓ CSV ✓
Email 4:	PDF ☐ XLS ☐ CSV ☐

El reporte final y la factura serán enviados en PDF por email. Para términos y condiciones de SGS consulte: http://www.sgs.com/en/Terms-and-Conditions.aspx

Detalles de facturación	Igual que datos del reporte ☐
O. de compra núm.:	Cotización SGS: MX-DU20-050 REV00
Nombre: INDUSTRIAL MINERA MEXICO	RFC: IMM8505281U0
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Teléfono:	
Dirección:	CAMPOS ELISEOS 400 OFNA. 1102, LOMAS DE CHAPULTEPEC
Ciudad: DEL. MIGUEL HIDALGO	Provincia/Estado: CD. DE MEXICO
País: MEXICO	Código Postal: 11000
Email 1:	
Email 2:	
Destino de la muestra (a menos que otra cosa se indique, el almacenamiento será cobrado).	
Rechazos	Pulpas
✓ Regresar después 30 días	✓ Regresar después 30 días
☐ Disponer después 30 días	☐ Disponer después 30 días
☐ Pagar después de 30 días	☐ Pagar después de 30 días
Regresar con atención a:	
Dirección de regreso:	
Paquetería:	
Núm. de cuenta:	

Identificación de la muestra e instrucciones de análisis. Servicio urgente deberá ser aprobado por el lab. Cargo extra será aplicado.

Nombre del proy.: PROYECTO SANTA BARBARA, CHIHUAHUA. ✓ Servicio estándar ☐ Servicio urgente

Tipo de muestra: ☐ Núcleo ✓ Rocas ☐ Sedimentos ☐ Pulpa ☐ Suelo ☐ Concentrados ☐ Metales ☐ Otro:

Tipo análisis: ☐ Grado exploración ☐ Grado mineral ☐ Grado control ☐ Grado venta ☐ Tercería

Instrucciones especiales:

IMPORTANTE: Si tiene conocimiento que las muestras contienen materiales peligrosos por favor indíquelo ☐ Asbestos ☐ Radiactivo

Identificación de Muestras De:	A:	Núm.	Preparación de muestras y análisis requeridos Preparación	Análisis (Códigos analíticos de SGS o elementos)	Elementos de interés
CAJA 11 190401	- 190402	LAS AURAS(2)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
CAJA 11 190403	- 190405	AURORA(3)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
CAJA 11 190406		SAN JOSE(1)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
CAJA 11 190407		ZONA X(1)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
CAJA 11 190408		ZONA X2(1)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
CAJA 11 190409		MALINCHES(1)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
CAJA 11 190372	- 190374	NORIEGA(3)	ARCHIVO ADJUNTO	GE-ICP40Q12, GE-FAA30V5	34 ELEMENTOS,ORO
Número total de muestras enviadas:		12	✓ Ver archivo adjunto para datos de muestras	✓ Ver archivo adjunto para análisis requeridos	

Autorización del cliente (Firma): Fecha: 2024

QF-NA-MIN-23 Ver. 2.1 emitida en Marzo 2018

Escríbanos a: minerals@sgs.com
Página: http://www.sgs.com/en/Mining/Analytical-Services.aspx
Vea nuestra guía de servicios: http://www.sgs.com/~/media/Global/Documents/Brochures/SGS%20Analytical%20Guide%202015%20Web.pdf

Figure 8-1: Example of SGS's Sample Submission Format

8.2 Sample Preparation, Assaying, and Analytical Procedures

8.2.1 Density Analysis

Santa Bárbara does not have historical density data or supporting documentation for the density used in the mineral resource estimate. The plant and the mine have been using a standard density value of 3.0 t/m3 for decades.

The drilling contractor (Tecmin) has been collecting density measurements and has the following process for the density analysis for the surface drilling; this is not used to support the mineral resource estimate as work continues to increase the size and representativity of the density database. Increasing the size of the density database to confirm the current density values used should be considered a priority for Santa Bárbara.

The specific gravity (SG) measurement method is based on the Archimedes principle and consists of measuring the weight of the rock sample P in air and subsequently the weight of the sample in water Pwater. We can determine the specific weight using the formula: SG = P / (P - Pwater)

The steps carried out to obtain the specific gravity of the samples collected from drill core are described below:

- Record the sample location and cut:
  - Draw hole trajectory
  - Write down nomenclature in the core (Figure 8-2):
    - Hole ID
    - Depth
  - The size of the sample will be at the discretion of the personnel that select the sample and depending on the capacity of the scale used; the data of the sample collected should be noted down in the core box. Figure 8-3 (a) shows the scale used at Santa Bárbara to complete the specific gravity tests. Santa Bárbara's exploration team uses an OHAUS Dial-O-Gram model 310 mechanical scale with the capacity to measure weight up to 310 grams (g).
- Wash the sample with water to remove residues.
- Dry the sample in an electric oven or in sunlight if an oven is not available.
- Level the balance until the bubble is centered using the help of the position adjustments of each leg of the balance and calibrate the balance before starting to measure the samples, making sure that it reads zero (in the case of a precision digital scale).
- Weigh the dry sample (P) (Figure 8-3 (b)).
- Waterproof seal the sample with an appropriate material (take into account the density of this material to use in the sample density calculations). Seal at least three times. Wait for a period of time for optimal drying of the samples.
- Weigh the sample in purified water (preferably) and take the data (P_Agua) ((Figure 8-3) c).
- Wash the sample and reincorporate it into the core box from where it was collected.
- Determine the specific gravity with the data obtained and fill in the hole density format.

Photographs and brief descriptions were taken, and the corrections to obtain the density data were applied. The density data is then recorded in Tecmin's database.

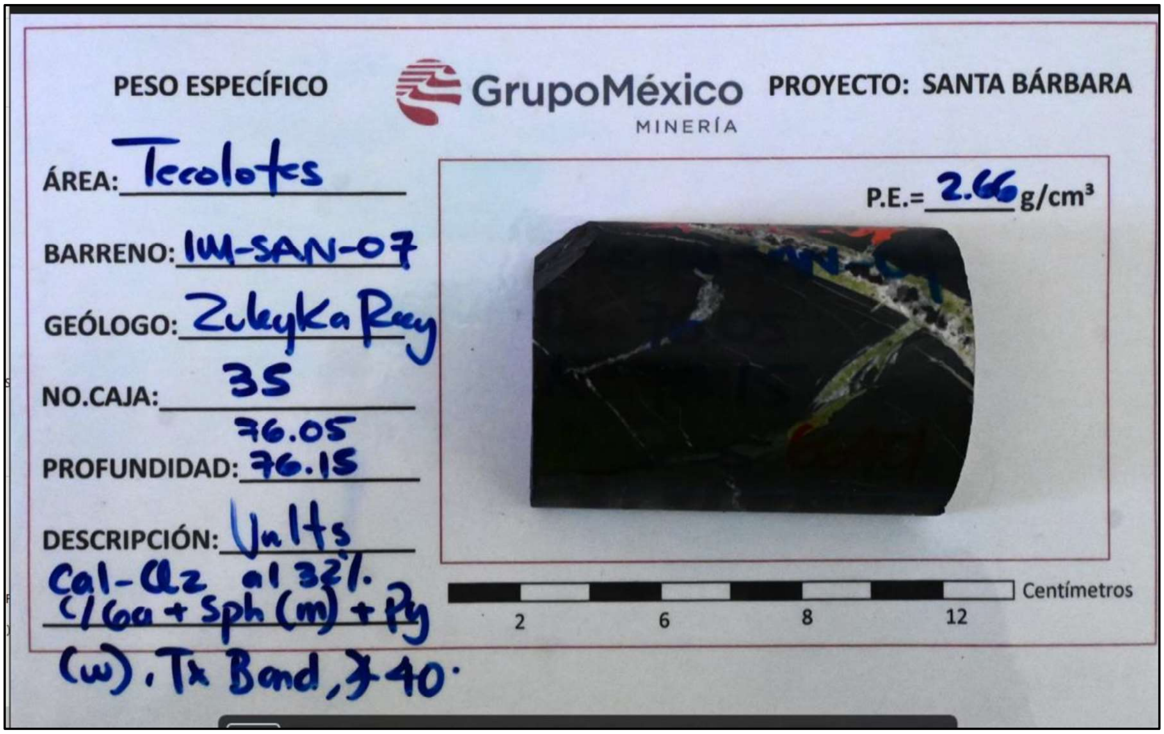


Figure 8-2: Core Samples Selected for Specific Gravity Testing – Mine Geology Department

Figure 8-3: Scale used in Santa Bárbara. A) Scale used for Specific Gravity Testing. B) Dry Sample Weighing. C) Weighing of Sample Submerged in Water

Table 8-1 Specific Gravity Test Results

Mine	Vein	Rock	2021-2022 #of Tests	2021-2022 Mean SG (g/cm³)	2022-2023 #of Tests	2022-2023 Mean SG (g/cm³)	2023-2024 #of Tests	2023-2024 Mean SG (g/cm³)
SAN DIEGO	Coyote	Mineralized	36	2.92	9	2.68	48	2.85
		Non-mineralized	36	2.64	9	3.10	48	2.62
	San Diego	Mineralized	24	2.95	-	-	-	-
		Non-mineralized	24	2.52	-	-	-	-
	Vulcano	Mineralized	-	-	3	2.71	1	3.22
		Non-mineralized	-	-	3	2.54	1	2.62
SEGOVEDAD	San Martin	Mineralized	-	-	29	2.81	8	2.30
		Non-mineralized	-	-	29	2.65	8	2.09
	Explorador	Mineralized	-	-	11	2.67	16	2.87
		Non-mineralized	-	-	11	2.82	16	2.68
	Santa Bertha	Mineralized	-	-	-	-	5	2.94
		Non-mineralized	-	-	-	-	5	2.81
TECOLOTES	Tecolotes	Mineralized	-	-	5	2.95	33	2.75
		Non-mineralized	-	-	5	2.75	33	2.86

SRK recommends the ongoing collection of samples for specific gravity testing, ensuring comprehensive coverage of all zones across the three mines. This includes adequate sampling of the horizontal and vertical extents of the structures, rock types, and mineralization types, including material in the hangingwall and footwall of the veins to check for variability when applying dilution.

8.2.2 Sample Preparation, Internal Laboratory

The internal laboratory prepares the core and channel samples and assays all of the samples collected by the mine geology department. The internal laboratory is owned by the mine and run by IMMSA employees. Protocols of sample preparation and subsampling should be reviewed to manage appropriately the contamination, including the implementation of QA/QC controls in these processes.

The internal laboratory follows internal QA/QC protocols, which include continuous maintenance and calibration of equipment, monitors sample contamination, and uses certified standard reference materials, which, in SRK's opinion, are considered in-line with industry standards.

Sample preparation in the internal laboratory includes:

- Sample drying
- Crushing, 75% passing 10 mesh
- Subsampling (Riffle sample splitter) to obtain a 250 g sample
- Pulverizing, 85% passing 200 mesh
- Subsampling to obtain 50 g pulp samples

Figure 8-14shows Santa Bárbara's internal laboratory's preparation process flowchart and QA/QC controls using during the process. The core samples collected by mine department drilling contractor (Tecmin) are sent to Santa Bárbara's internal laboratory.

On May 04, 2023, the internal laboratory of IMMSA (Santa Barbara Unit) obtained an ISO 9001:2015 (NMX-CC-9001-IMNC-2015) certification issued by BICERT S.C with Certificate Number: SG

20232279. The scope includes services for sampling, pre-processing, and chemical analysis of mineral products and by-products. The certification is valid until May 4, 2026.

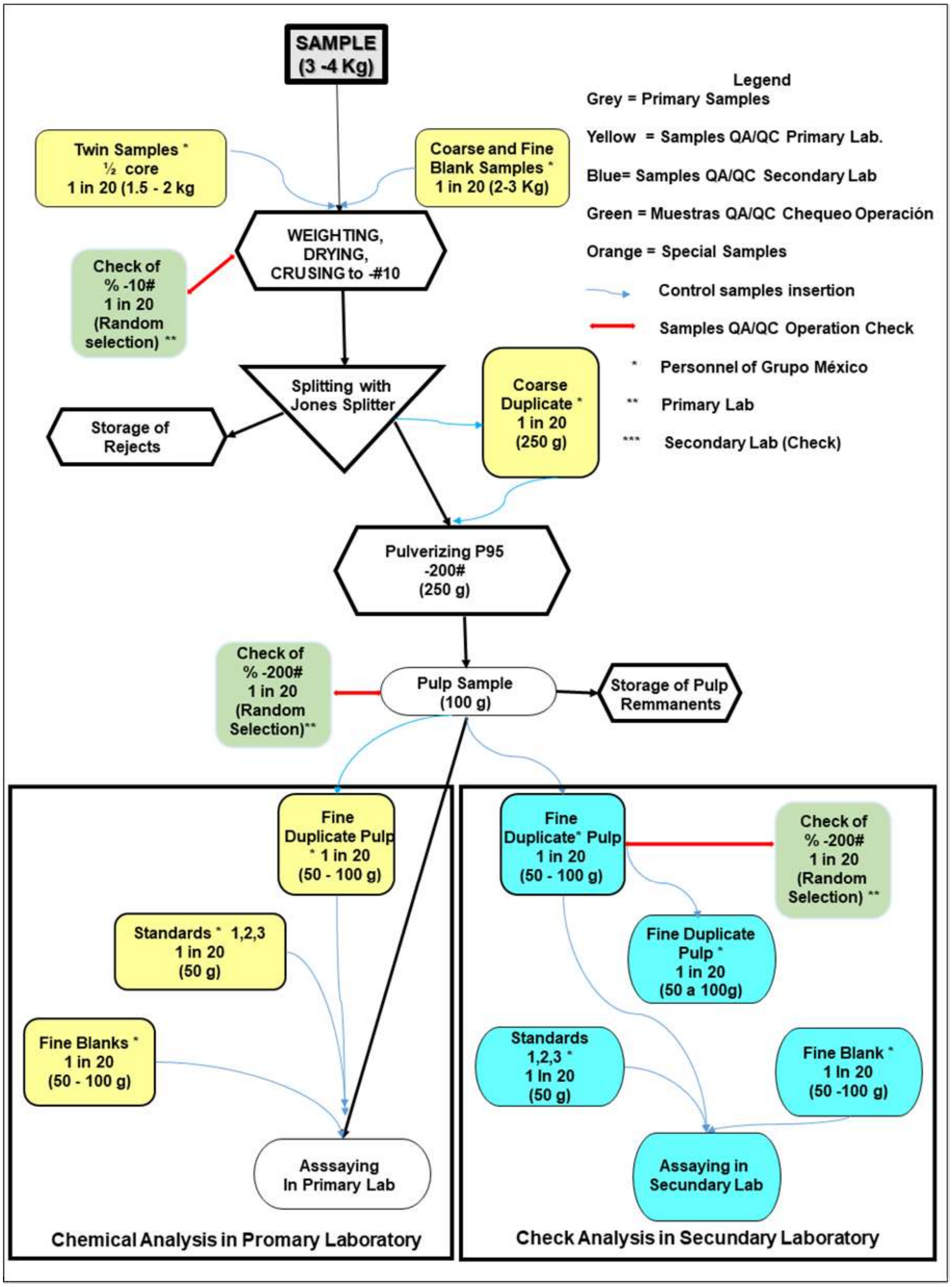


Figure 8-4: Flowchart of Sample Preparation (Internal Laboratory)

8.2.3 Chemical Analysis, Internal Laboratory

The following chemical analyses are used at Santa Bárbara’s internal laboratory, using 100 g pulp samples:

- **Inductively coupled plasma (ICP):** multielement (Ag, Au, Pb, Zn, Cu, iron (Fe), cadmium (Cd), arsenic (As), bismuth (Bi), and antimony (Sb)) plasma analytic method; ICP atomic emission spectrophotometer:
  - Detection limits:
    - Au: 0.01 to 100 g/t
    - Ag: 0.1 to 500 g/t
    - Zn: 0.001% to 15%
    - Cu: 0.001% to 15%
    - Pb: 0.001% to 20%
- **Fire assay (gravimetric method):** Determination of Au and Ag by fire assay and gravimetric termination (detection limits: Au: not applicable; Ag: 10 to 30,000 g/t).
- **Volumetric determination of zinc:** For high zinc concentrations (detection limits: 4% to 60%).
- **Volumetric determination of copper:** For high copper concentrations (detection limits: 4% to 40%).
- **Volumetric determination of lead:** For high lead concentrations (detection limits: 4% to 88%).

8.2.4 Sample Preparation, SGS Laboratory

The core samples collected by Santa Bárbara’s exploration department are sent to SGS (Durgano). SGS is independent of IMMSA and holds accreditation under ISO/IEC 17025:2017 under the Standards Council of Canada, which indicates the laboratory is accredited under the general requirements for the competence of testing and calibration laboratories.

SGS’s sample preparation procedures comprised of drying the sample, crushing the entire sample in two stages to -6 mm and -2 mm by jaw crusher (more than 95% passing), riffle splitting the sample to 250 to 500 g, and pulverizing the split to more than 95% passing -140 mesh in 800-cubic-centimeter (cm^3) chrome steel bowls in a Labtech LM2 pulverizing ring mill.

8.2.5 Chemical Analysis, SGS Laboratory

The following chemical analysis packages are used at SGS by Santa Bárbara’s exploration department:

- **GE_ICP14B:** multielement (34 elements) analysis by aqua regia digestions and ICP-optical emission spectrometry (OES) (Ag, aluminum (Al), As, barium (Ba), beryllium (Be), Bi, calcium (Ca), Cd, chromium (Cr), cobalt (Co), Cu, Fe, mercury (Hg), potassium (K), lanthanum (La), lithium (Li), magnesium (Mg), manganese (Mn), molybdenum (Mo), sodium (Na), nickel (Ni), phosphorus (P), Pb, sulfur (S), Sb, scandium (Sc), tin (Sn), strontium (Sr), titanium (Ti), vanadium (V), tungsten (W), yttrium (Y), Zn, zirconium (Zr), nitric acid (HNO_3), and hydrochloric acid (HCl).
- **GE_FAA515 Au:** Au analysis by 50 g fire assay with atomic absorption spectrometry (AAS) finish (Au: 30 g, 50 g; HNO_3; HCl) (Detection limits: 5 to 10,000 parts per billion Au).

- **GO_FAG515 Ag:** Used for the determination of over limits of Ag by fire and gravimetric termination using a 50 g sample (Detection limits: 10 to 100,000 parts per million Ag).
- **GO_ICP90Q:** Analysis of ore grade samples (Pb, Cu, Zn, Fe, and As) by sodium peroxide fusion and ICP-OES (As, Fe, Cu, Ni, Pb, Sb, Zn, and sodium peroxide (Na_2O_2)) (Detection limits: 0.01% to 30% for each element).
- **GC_CON12V Zn:** Used for the determination of zinc using a volumetric and gravimetric concentration for samples with zinc greater than 32% (Detection limits: 5% to 65% Zn). The process involves preparation and determination of zinc in ores, concentrates, and metallurgical products by separation, precipitation, and titration of acid solubles, fusion with ICP-OES-AAS of acid insoluble.

8.3 Quality Control Procedures/Quality Assurance

8.3.1 Security Measures, Chain of Custody

The mine geology and exploration departments have control and supervision over the process of sample collection from drilling and channel sampling, maintaining the custody chain for the samples until the delivery of the samples to the laboratory.

At the drill rig, the contractor and Santa Bárbara's drillers are responsible for removing the core from the core barrel (using manual methods) and placing the core in prepared core boxes. The core is initially cleaned in the boxes, and once the box is full of core, it is closed and transported by the authorized personnel to the logging facility where Santa Bárbara's (mine geology and exploration) geologists or technicians take possession. On receipt at the core shed, geologists follow the logging and sampling procedures. The samples are transported to the laboratories (internal and the pulps to SGS) by authorized personnel.

In the QP's opinion, there are sufficient protocols in place to ensure the quality and integrity of the samples from exploration to the laboratory. Storage of data using a central repository system is recommended to ensure data security is maintained.

The mine geology and exploration departments have control and supervision over the process of sample collection from drilling and channel sampling, maintaining the custody chain for the samples until the delivery of the samples to the laboratory.

At the drill rig, the contractor and Santa Bárbara's drillers are responsible for removing the core from the core barrel (using manual methods) and placing the core in prepared core boxes. The core is initially cleaned in the boxes, and once the box is full of core, it is closed and transported by the authorized personnel to the logging facility where Santa Bárbara's (mine geology and exploration) geologists or technicians take possession. On receipt at the core shed, geologists follow the logging and sampling procedures. The samples are transported to the laboratories (internal and SGS) by authorized personnel.

8.3.2 QA/QC Protocols

Historically and until 2022 (prior to Tecmin drilling), the mine geology department has not implemented QA/QC protocols for its drilling and rock sampling activities, which is a practice that is not in-line with industry standards and represents a potential source of uncertainty in the estimates. Given the lack of

QA/QC information, the QP has had to rely on reconciliation data to assess the level of confidence in the historical drilling information. Section 9 of this report discusses this process in more detail.

Since 2019, Santa Bárbara's exploration department has been responsible for the surface and underground drilling, IMMSA geology mine department has used the drilling contractor Tecmin to complete this drilling, and Tecmin has implemented the QAQC protocols since 2019.

The protocol designed for the exploration samples, includes the systematic insertion of control samples included standards and non-certified blank samples (coarse) that were used to provide data quality assurance for the sampling program. Core, coarse and Pulp duplicates were also part of the control sample protocol applied by the Santa Barbara exploration department.

Standards are used to assess analytical accuracy; fine blanks are used to determine if contamination occurs during the analysis process, and coarse blanks allow for evaluating if contamination occurs during preparation process. Core duplicates are used to assess sampling errors; Coarse duplicates are used to assess the error of splitting or sub-sampling, and fine duplicates (pulps) are used to assess the analytical precision of the laboratory,

The control sample insertions for the 2023-2024 drilling campaing in exploration had a frequency of approximately 2.7% for standards, 5% for coarse blank material of the total number of samples analyzed. Core duplicates have an insertion rate of 1.5%, coarse duplicate an insertion rate of 1.5% and fine duplicate (Pulp samples) have a frequency of 1.7% of the total number of samples analyzed. The number of control samples collected for the 2023-2024 drilling campaign seems lower compared to the targeted numbers suggested by the Geology Department (Table 8-2).

Only the mineralized zones and a halo of 1 to 2 m around the mineralized zones are sampled.

- A coarse blank control sample is inserted at the beginning of the sampling process, to confirm the cleaning process and ensure there is no contamination and at the end, after the mineralization zone. Coarse blanks are also inserted after the standard is taken in the mineralization zone.
- Standards are inserted one or two samples before the mineralized structure (1-2m before), and inside the mineralized zones, the geologist chooses the high, low or medium standard depending on the values.
- Core duplicate, coarse duplicated or fine duplicate (pulp) is collected after the mineralization zone (approximately 1m after the vein in a non-mineralized zone). It is the geologist criteria to decide which of the sample duplicate will be selected

Table 8-2 Quality Control Samples Insertion Rate

Control Sample	Insertion Percentage
Standard	6%
Fine Blank	2%
Coarse Blank	2%
Duplicates	6%
Total	**16%**

The Certificate Reference Materials (CRM) or Standards were purchased from CDN Resource Laboratories, Canada. Three types of CRM were used (low, medium and high grade) Figure 8-5. The Coarse blanks samples are not certified by the laboratory: they are taken from a rhyolite waste quarry located about 1.5h from the Santa Barbara unit, in Chihuahua. Check Assay using a third laboratory has not been used as part of the QAQC protocol. A quarter of the core is used for core duplicate (twin sample). Coarse and pulp duplicates are the rejects given by the on-site laboratory

Santa Bárbara has established limits of acceptability for the different controls, including:

- **Blanks:** There is contamination when the assay results are above 5 times the detection limit for a specific element evaluated. When contamination occurs, Santa Bárbara informs the laboratory to check the internal protocols and, if necessary, repeat the assaying of a specific batch if the contamination is considered repetitive and continuous. The blank samples are not certified by a laboratory; they are taken from a sterile Rhyolite quarry located about 1.5 hours from Santa Barbara in Chihuahua. Half a kilo of this blank is used as coarse blank.
- **Duplicates:** Duplicates use an acceptability level of ±20% relative error range from the 45° line (scatter plot) for coarse and fine duplicates. Checks outside of these acceptability ranges are considered failures, and if they occur in a certain period (e.g., failures are more than 10% of the total control samples), Santa Bárbara contacts the laboratory to review their preparation procedures. SRK recommends using an acceptability range of ±10% relative error for the fine duplicates.
- **Second laboratory checks:** Santa Bárbara is not using second laboratory checks (Tercerías). SRK recommends sending pulps of part of the assayed samples to a third commercial laboratory as part of the QA/QC protocol.
- **Certified Reference Material (CRM) / Standard:** The performance of these checks is evaluated using graphs where the 2 and 3 standard deviations (SD) reference lines are drawn in conjunction with the assay results obtained. A failure is considered when a specific CRM assay result is outside of the ±3-SD reference line or when two contiguous CRM's are outside of the ±2-SD reference line. In these cases, Santa Bárbara requests the reanalysis of some samples (two to five) above and below the failure in a specific batch of samples included in the laboratory assay certificate.

For the 2023-2024 drilling campaign, the gold samples 189574, 20065, from drill holes SMS-03, SMS-14 respectively and samples 20209 and 20223 from drill hole SMS-11 are continuous samples whose standard values fall out the ±3STD. Consecutive gold samples 20262 and 29328 from drill holes SMS-12 and SMS-18 respectively also fall out of the ±3STD and ±2STD respectively. All of these samples come from a high-grade zone. No further action was taken by the Santa Barbara geology department supervisor. SRK recommends failing control samples should be re-analyzed. There were no issues with the control samples for the standards in silver, lead, copper or zinc.

Blank control samples have systematically fallen outside the allowed detection limits, particularly for lead, copper and Zn. Santa Barbara has used only coarse blank control samples for the 2023-2024 drilling campaign.

The Supervisor of the Santa Barbara Geology Department is responsible for the exploration campaign and has prepared QA/QC reports for each drilling campaign. However, there is no consolidated report, which is recommended in order to track the results of the protocols and their evolution.

For the 2023-2024 drilling campaign, the exploration department collected in total, 5,254 samples were collected in 156 drillholes, 266 control samples of the coarse blank type, 144 standard, 78 coarse duplicates, 89 fine duplicates, and 80 core duplicates in the QA/QC program applied to the core of those holes. A total of 657 control samples were inserted, representing a 12.5% rate of insertion.

The QA/QC applied on the underground mine samples by IMMSA, included 81 standards, 70 coarse blanks, 55 coarse duplicates, 55 fine duplicates, and 95 core duplicates from a total of 356 control samples in a total of 14,547 chip underground samples representing a 2.44% of insertion rate, were taken in 2023-2024. This samples controls has not been validated as the sample control process was not continuous throughout the year. SRK suggest continuing with the QA/QC process for the 2025 underground sampling.

CDN Resource Laboratories Ltd.

#2, 20148 – 102nd Ave, Langley, B.C., Canada, V1M 4B4, 604-882-8422, Fax: 604-882-8466 (www.cdnlabs.com)

REFERENCE MATERIAL: CDN-ME-2101

Recommended values and the "Between Lab" Two Standard Deviations

Gold	0.765 gpt	±	0.087 gpt	30 g FA, instrumental	Certified value
Silver	48 ppm	±	4 ppm	4 Acid / ICP	Certified value
Copper	1.32 %	±	0.06 %	4 Acid / ICP	Certified value
Lead	0.827 %	±	0.038 %	4 Acid / ICP	Certified value
Zinc	1.488 %	±	0.057 %	4 Acid / ICP	Certified value

Note 1: Standards with an RSD of near or less than 5% are certified; RSD's of between 5% and 15% are Provisional; RSD's over 15% are Indicated. Provisional and Indicated values cannot be used to monitor accuracy with a high degree of certainty.

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Ali Alizadeh, MSc, MBA, P Geo
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: January 25th, 2022

CDN Resource Laboratories Ltd.

#2, 20148 – 102nd Ave, Langley, B.C., Canada, V1M 4B4, 604-882-8422, Fax: 604-882-8466 (www.cdnlabs.com)

REFERENCE MATERIAL: CDN-ME-1707

Recommended values and the "Between Lab" Two Standard Deviations

Gold	2.020 g/t	±	0.214 g/t	30 g FA, instrumental	Certified value
Silver	27.9 ppm	±	2.9 ppm	4-Acid / ICP	Certified value
Copper	2.72 %	±	0.11 %	4 Acid / ICP	Certified value
Lead	0.097 %	±	0.006 %	4 Acid / ICP	Certified value
Zinc	0.539 %	±	0.016 %	4 Acid / ICP	Certified value

Note: Standards with an RSD of near or less than 5% are certified; RSD's of between 5% and 15% are Provisional; RSD's over 15% are Indicated. Provisional and Indicated values cannot be used to monitor accuracy with a high degree of certainty.

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: February 2nd, 2018

CDN Resource Laboratories Ltd.

#2, 20148 – 102nd Ave, Langley, B.C., Canada, V1M 4B4, 604-882-8422, Fax: 604-882-8466 (www.cdnlabs.com)

REFERENCE MATERIAL: CDN-ME-2003

Recommended values and the "Between Lab" Two Standard Deviations

Gold	1.301 gpt	±	0.135 gpt	30 g FA, instrumental	Certified value
Silver	108 ppm	±	6 ppm	30 g FA, gravimetric	Certified value
Silver	106 ppm	±	9 ppm	4 Acid / ICP	Certified value
Copper	0.656 %	±	0.018 %	4 Acid / ICP	Certified value
Lead	0.475 %	±	0.016 %	4 Acid / ICP	Certified value
Zinc	1.05 %	±	0.05 %	4 Acid / ICP	Certified value

Note 1: Standards with an RSD of near or less than 5% are certified; RSD's of between 5% and 15% are Provisional; RSD's over 15% are Indicated. Provisional and Indicated values cannot be used to monitor accuracy with a high degree of certainty.

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: January 25th, 2021

Figure 8-5: Certified Values of the CDN-ME-2101, 1707,2003

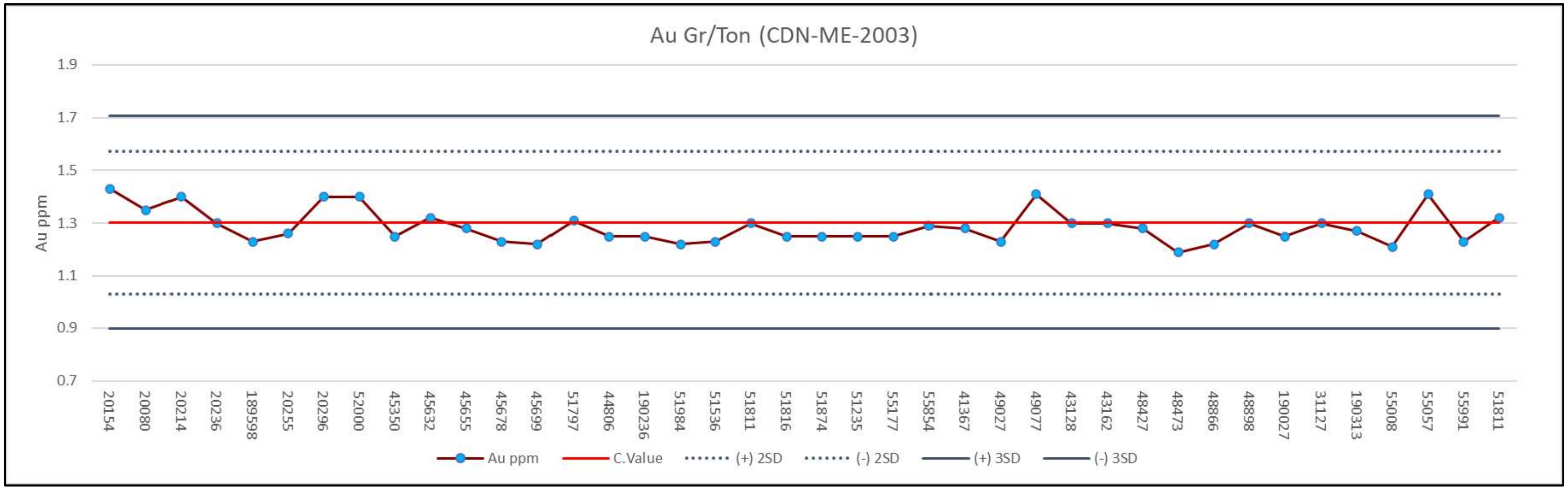
Figure 8-6 through Figure 8-14provide a summary of the QA/QC control samples results`, including a table of the certified values for each CRM along with its associated results, plus a summary of the coarse blanks and coarse duplicates used at Santa Bárbara for the 2023-2024 drilling campaign..

In general, the QP has reviewed the information and notes there is no indication of bias (high or low) in the CRM results. A number of individual CRM's have reported outside of the 2-SD limits assigned, but no overall trends are noted. The results of the control from the CDN standards analyzed with the samples are reasonable. However, IMMSA has not requested the re-assaying of samples when the CRM's have failed with the consecutive gold samples, which would be considered industry best practice.

The failure of the blank samples control is systematic and demonstrates the constant contamination of the samples during the sample preparation process. Since the blank samples are not certified, it is highly likely that the type of blanks IMMSA is using have relatively high polymetallic values, which are not suitable for control samples in Santa Barbara. It is recommended that IMMSA seek another quarry with lower values within the allowed detection limits or purchase certified blank samples, to confirm if contamination at the laboratory is present or not.

The core duplicate results show many failures, which should be reviewed by sampling team of Santa Barbara, considering the impact of the mineralization heterogenety as part of the variability observed in the plots. The fine and core duplicates present reasonable results. SRK recommends using as a reference to define failures in core, coarse, and fine duplicates, an error range of ±30%, ±20%, and ±10% in the scatter plots used.

SRK suggests the Santa Barbara geological department should follow up with the laboratory and request information about the failure samples, and to maintain communications with the SGS laboratory in Durango whenever there are failures in standards, blanks and duplicates.



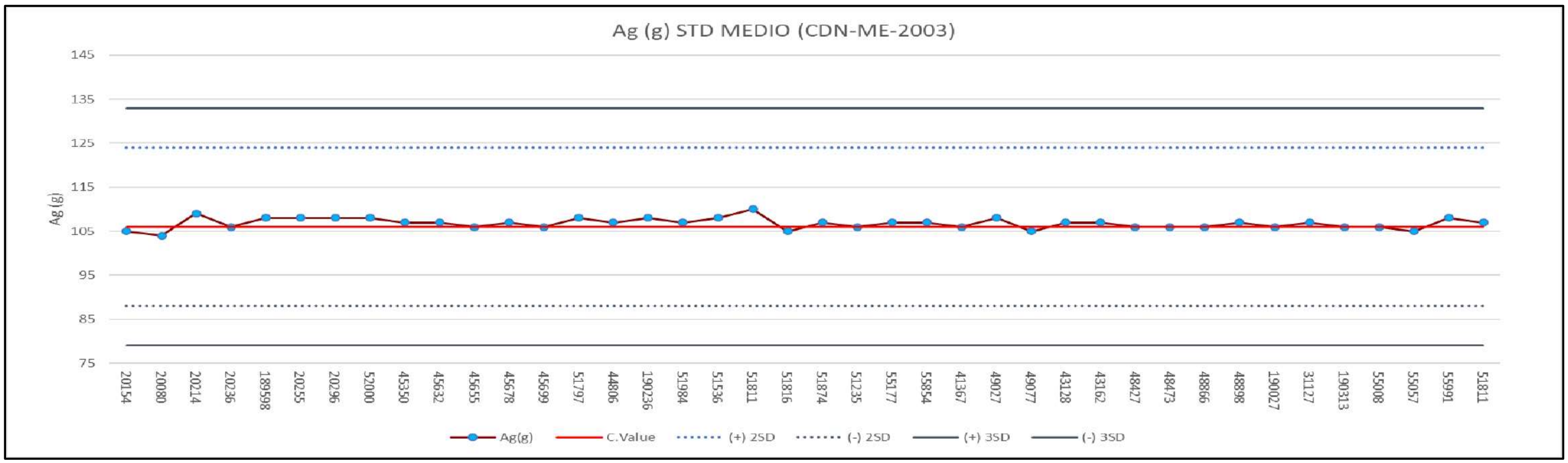


Figure 8-6 Graph showing the Results of CDN-ME-2003 , Au - Ag Drilling Campaign 2023-2024 Internal Laboratory

Figure 8-7 Graph showing the Results of CDN-ME-2003 , Pb – Cu - Zn Drilling Campaign 2023-2024 Internal Laboratory

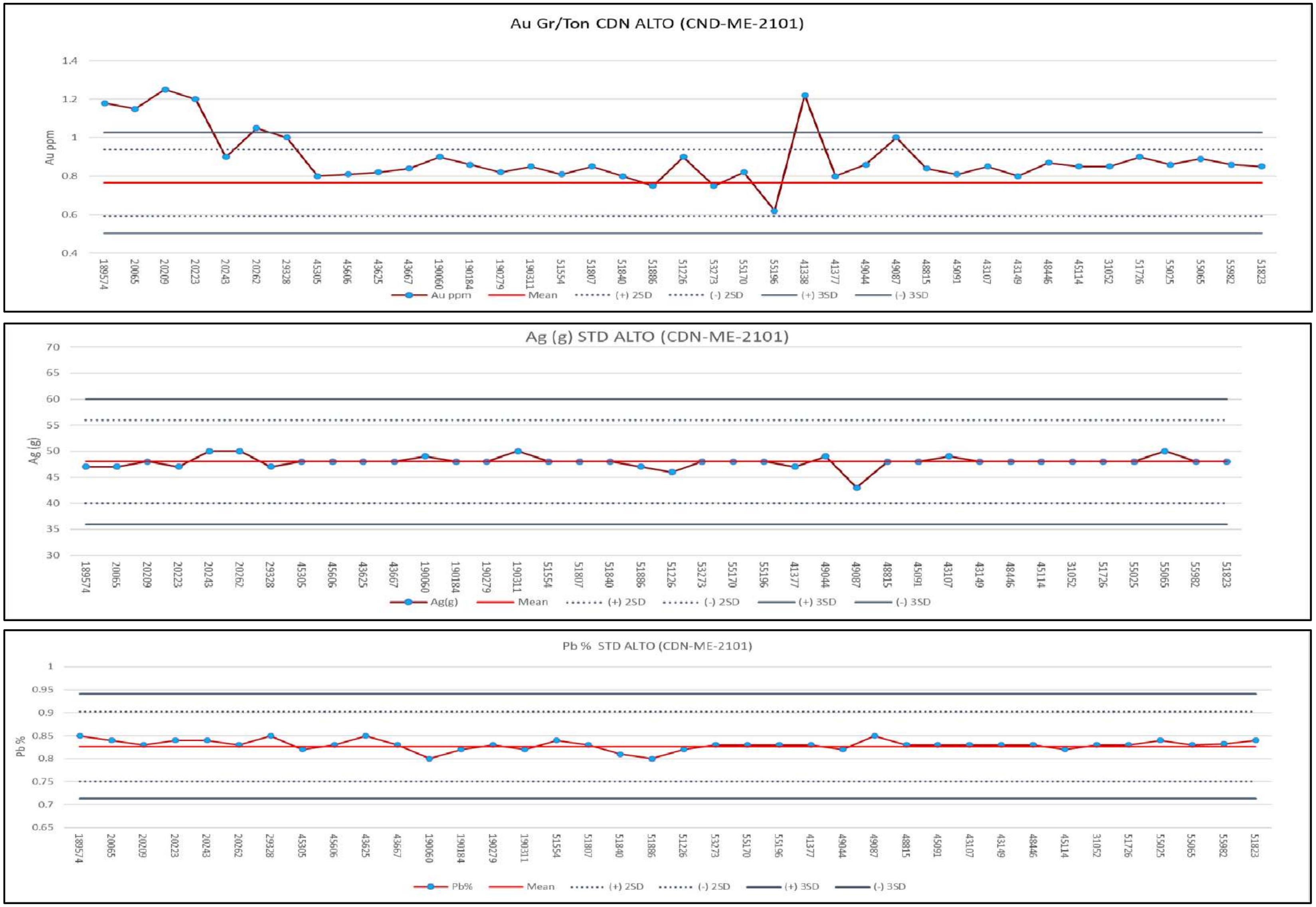


Figure 8-8 Graph of Results of CDN-ME-2101 Au - Ag - Pb Drilling Campaign 2023 – 2024 Internal Laboratory

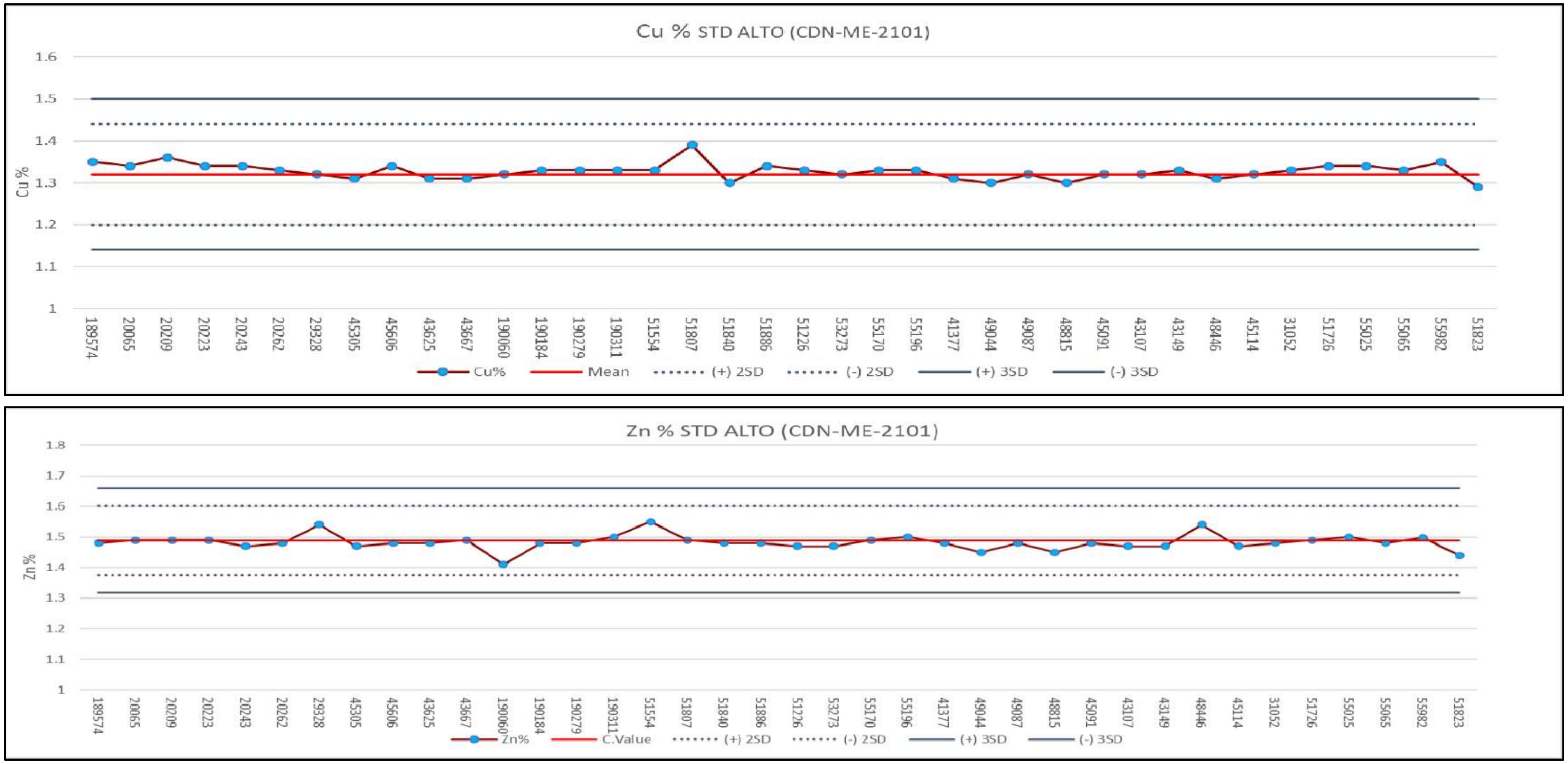


Figure 8-9 Graph of Results of CDN-ME-2101 Cu - Zn Drilling Campaign 2023 – 2024 Internal Laboratory

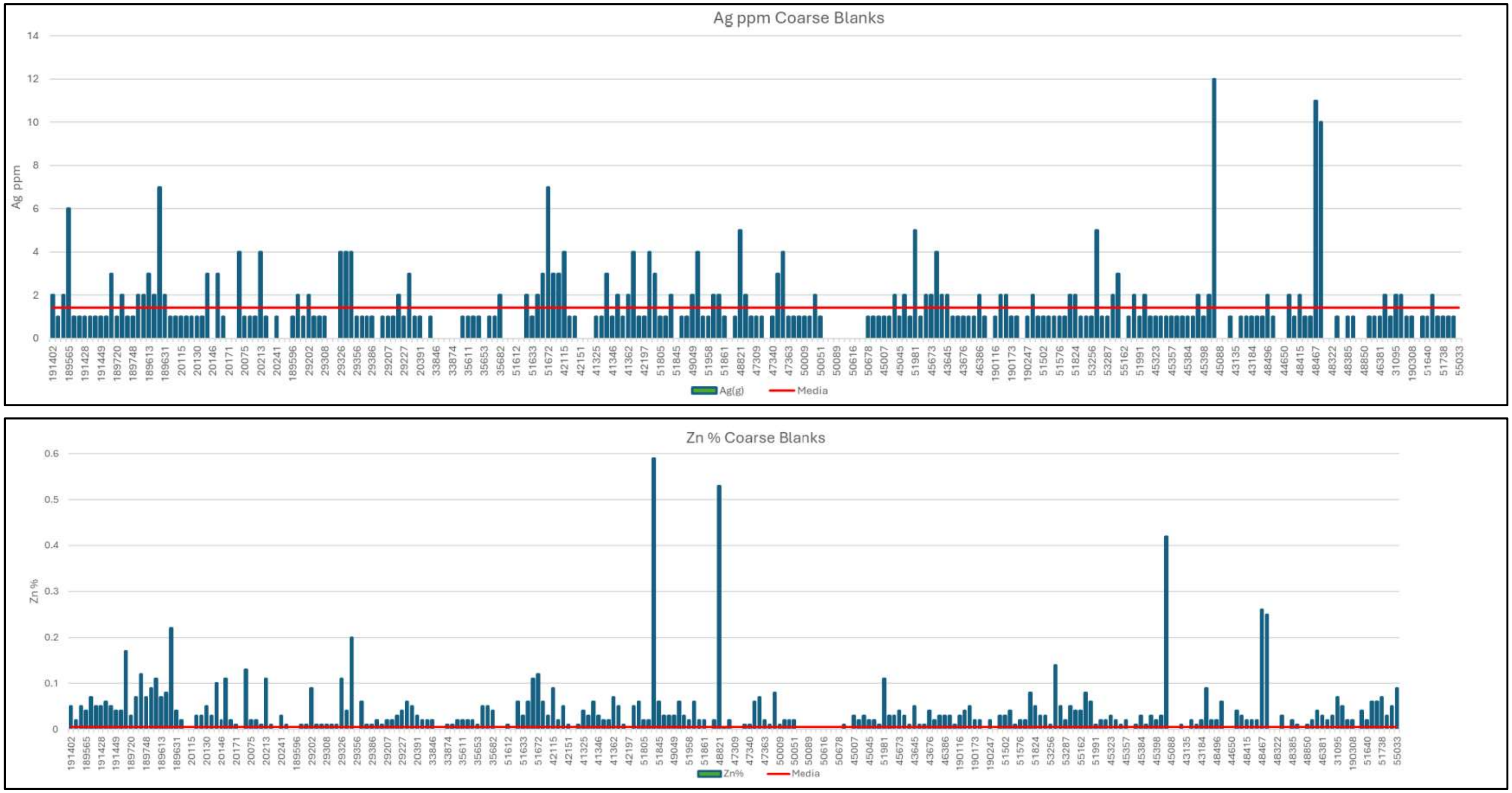


Figure 8-10 Results of Coarse Blanks, Zn and Ag – Drilling Campaign 2023 – 2024 Internal Laboratory

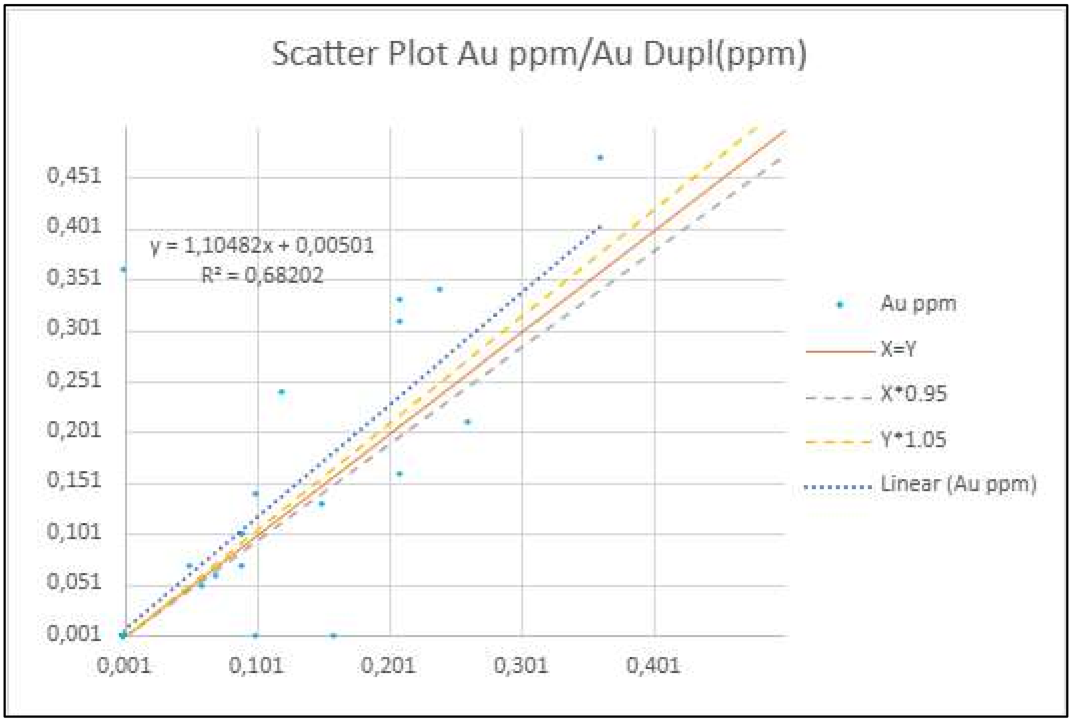


Figure 8-11: Core Duplicate Results (HRD and Scatter Plot), Au – Drilling Campaign 2023 - 2024

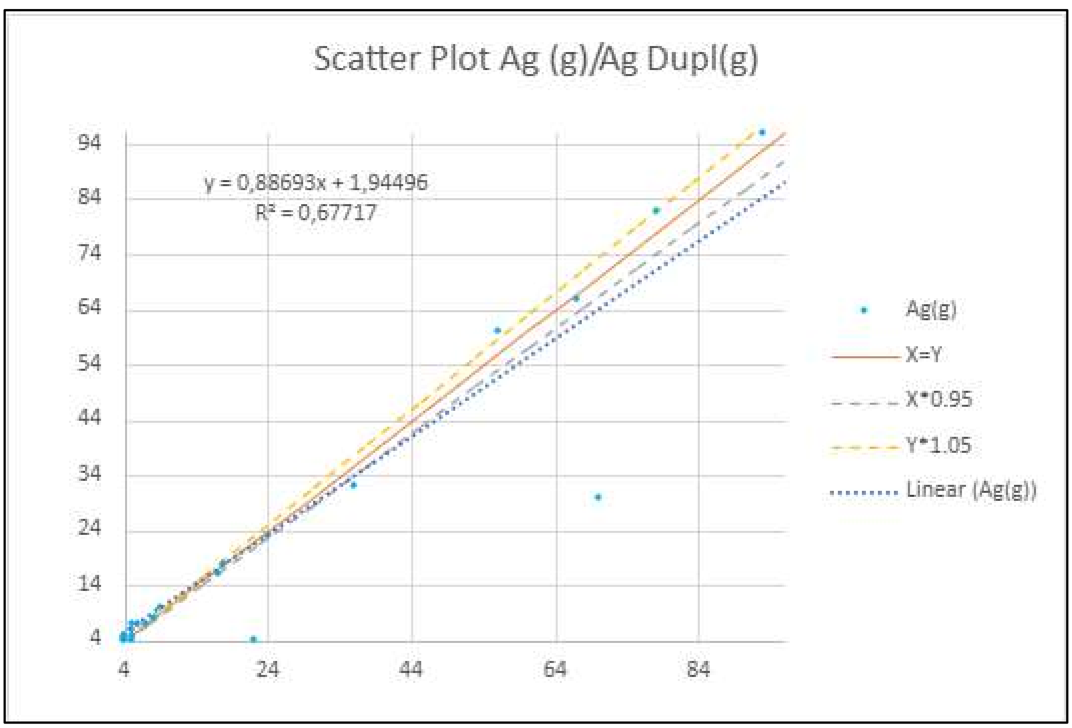


Figure 8-12 Fine Duplicate Results (HRD and Scatter Plot), Ag – 2023 -2024 Internal Laboratory

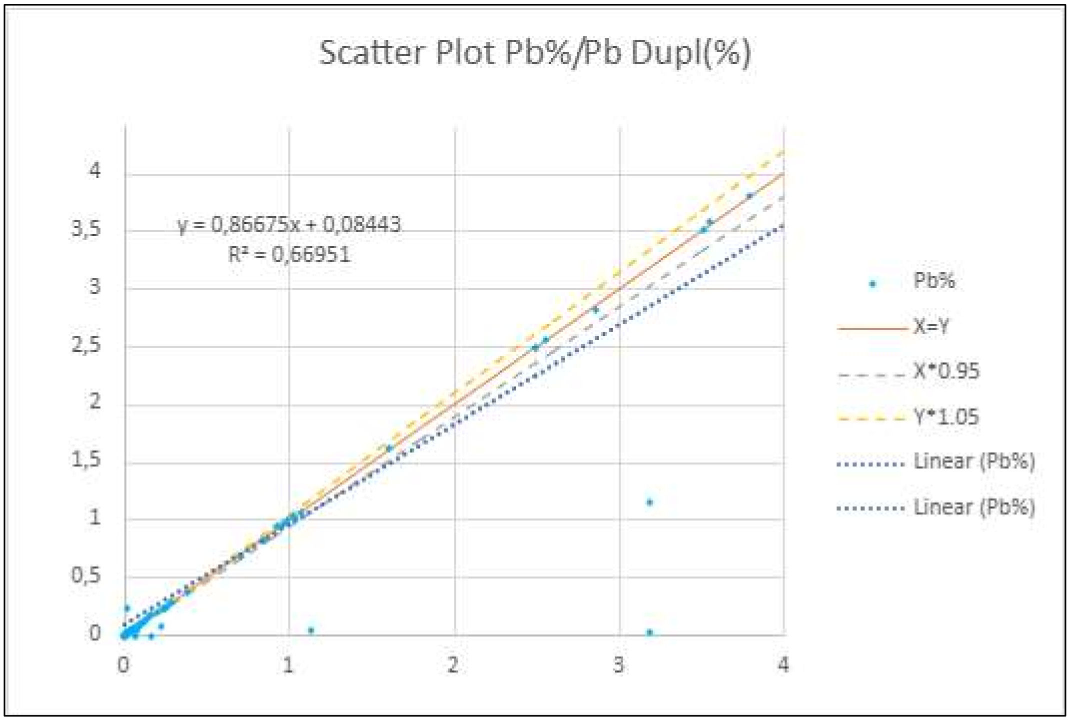


Figure 8-13: Coarse Duplicate Results (HRD and Scatter Plot), Pb – 2023 - 2024 Internal Laboratory

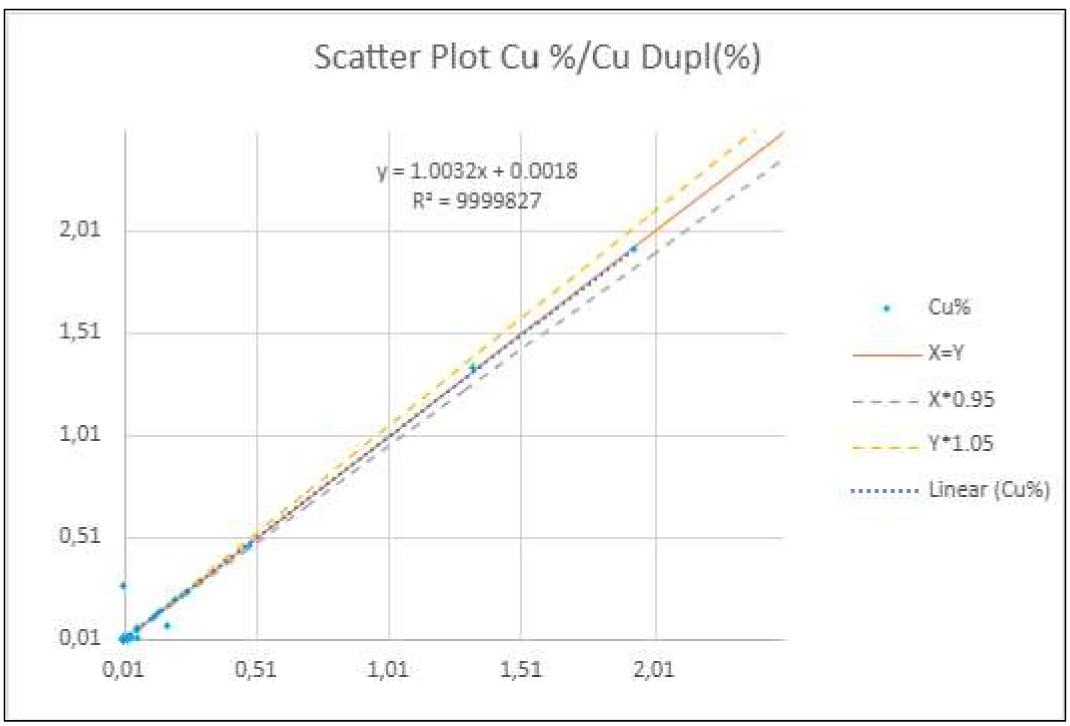


Figure 8-14: Graphs showing the Coarse Duplicate Results (HRD and Scatter Plot), Cu –2023 2024 Internal Laboratory

8.4 Opinion on Adequacy

The security of the drilling and channel sampling is considered adequate for Santa Bárbara's mine geology and exploration departments.

The use of control sampling has not been systematic in underground by IMMSA over time.The mine geology department has implemented quality controls for the samples collected from drilling recent rock sampling from underground workings.

Since 2019, the exploration department through its drilling contractor, Tecmin, has implemented procedures for drilling and core sampling, which SRK considers to be in-line with industry best practices.

The mine geology department has implemented a quality control process for operation samples, similar to the protocol established by Tecmin. However, the process has not been continuous or systematic. SRK recommends continuing with the implementation of the quality control process to ensure the database and assay values are robust and auditable.

The QP recommends the inclusion of second laboratory controls (Tercerías) periodically (every 3 months) and the review of the acceptability criteria of +- 5% used to evaluate the results of the core, fine and coarse duplicates, which is considered strict.

The procedures of preparation and chemical analysis and quality protocols of Santa Bárbara's internal laboratory are adequate and appropriate.

Overall, the QP considers that even with the points noted above, the current samples are of sufficient quality to support the estimation of Mineral Resources. Given some of the concerns noted and the potential risks that could be created from any bias in the databases, the QP has limited the confidence of the estimates to remove assignment of the highest levels of confidence (Measured).

8.5 Non-Conventional Industry Practice

It is QP's opinion that the historical procedures of sampling and QA/QC of Santa Bárbara's mine geology department were not in-line with best practices and represent a potential source of uncertainty in the estimate. Given the large database and lack of historical raw material (core) to complete detailed checks, it is QP's opinion that this must be addressed via the classification of the deposit.

In order to reach a level of confidence in the sampling information, SRK has relied on information presented from the mining operation to determine potential risk. The mine geology department is implementing the QA/QC quality control process for operation samples. However, the process has not been continuous or systematic, but in the QP's opinion should remain a high priority to ensure overall confidence in the database for both mineral resources and production assessment.

Santa Bárbara's current mineral resources rely on the quantity of data (drilling and rock channel sampling) collected during the history of the operation. The long history of mining operations, which started during the first part of the last century, provides support to the historical data based on the recognized performance of the Santa Bárbara operation for decades. SRK also notes that in areas where reliance on underground channel sampling exists, these areas have typically been mined and therefore the influence on the global estimates are limited, but the use of the samples helps in the assessment of short scale variability within the mineralization. Section 9 of this report summarized the work completed by the QP.

9 Data Verification

9.1 Data Verification Procedures

The verification process completed by the QP in 2021 included the following activities:

- SRK's QP visited the Santa Bárbara Project two times between June and November 2021 The purpose of the site visits was to:
  - Complete an underground site inspection and recognize the geology and the mineralization controls.
  - Review geological plans and sections to validate information used by IMMSA to generate grade estimates.
  - Review the exploration procedures, including the sampling methods, sampling quality, drilling procedures, core sampling, and data management.
  - Undertake review of the raw sampling data in hard format to the Excel files used to generate the grade estimate.
  - Review of the historical data supporting the reserve calculations.
  - Collection of core samples and chemical analysis of available stored core (validation sampling included 30 samples collected from three drillholes).

In 2022, 2023 and 2024, the QP visited the operation and did not complete additional verification sampling but reviewed the exploration procedures, the data supporting the mineral resources, visited the underground workings and recognized the mineralization in the exploitation stopes.

9.1.1 Results of the Validation Samples - 2021

Santa Bárbara does not maintain core and discards core after several years. The internal laboratory does not maintain a pulp record and has discarded the pulps and rejects of all the historical samples, which has limited the ability to conduct validation. Only a limited number of historical drill core remains available at the mine. The selection of the drillholes was limited to the core available and does not provide a spatial coverage of the entire operation supporting the current mineral resources. It is the QP's opinion that this process provides a validation on the protocols being used.

SRK's QP completed a review of the available core and notes that IMMSA should review the current practices to improve the core storage facility. Issues noted by SRK are not limited to but included a lack of organization of box storage and poor stacking of core boxes.

Upon completing the review, SRK's QP selected samples from drillholes covering different zones of the deposit. These samples were prepared using Santa Bárbara's internal laboratory. To ensure the quality of the check analysis, SRK also utilized coarse and fine blanks, coarse duplicates, and a certified reference material inserted in the samples sent to SGS for QA/QC purposes. The results of the QA/QC controls passed the acceptability criteria in all cases. Some samples were analyzed at both SGS and Santa Bárbara's internal laboratory.

The average values by drillhole recorded on the original logging sheets tended to be significantly higher in grade compared to the values obtained from the re-assaying program, but the SGS and Santa Bárbara results were in close agreement (Figure 9-1).

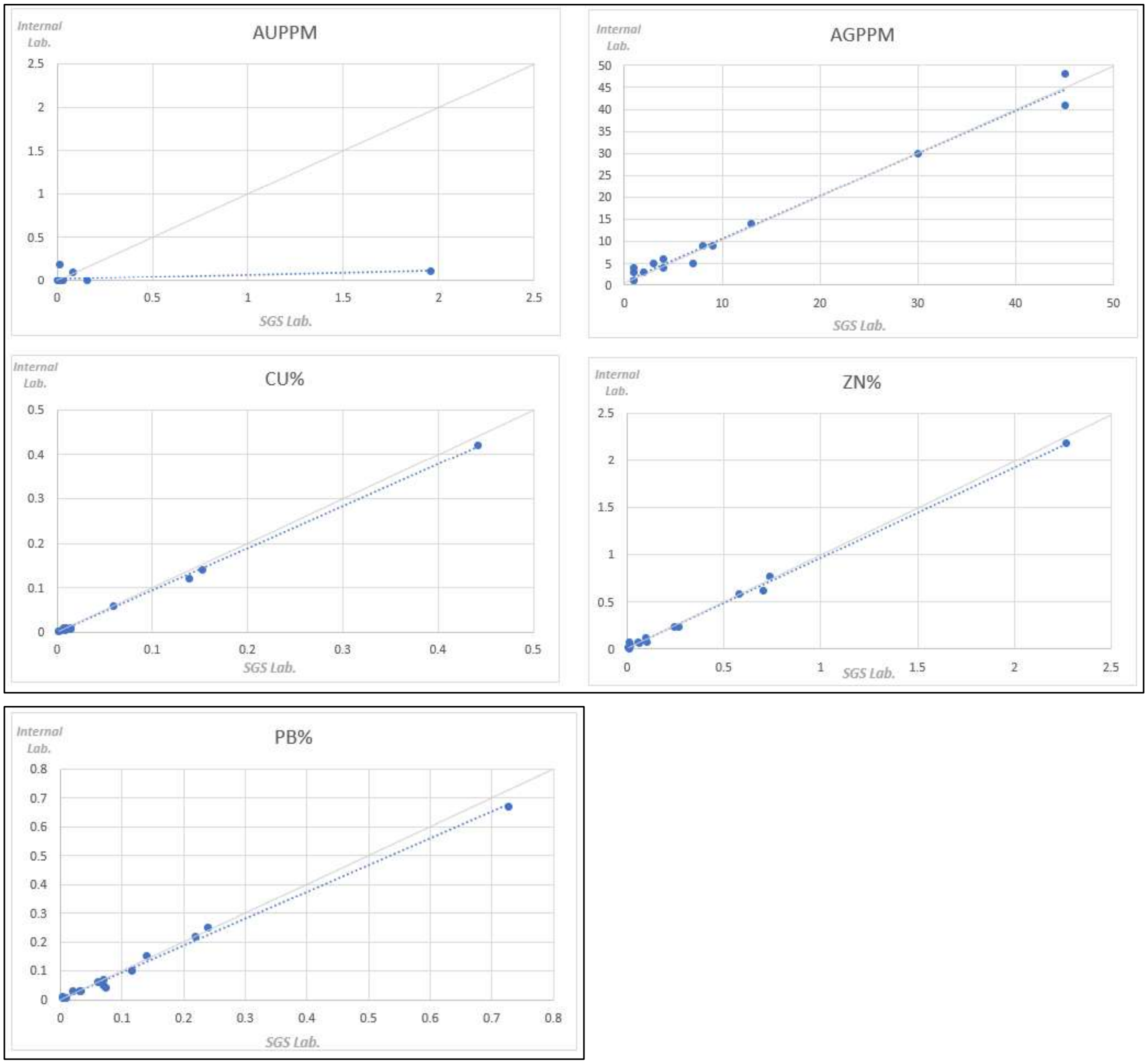


Figure 9-1: Scatterplots of the Chemical Analysis Results, SGS vs. Santa Bárbara's Internal Laboratory

SRK cannot explain the difference between the values recorded on the original logging sheets and the results obtained from the validation submission. It is possible that the poor state of the core and footage markers may have contributed to these differences. It is also possible that the samples or the footage markers in the core box have been moved or misplaced over time. Table 9-1 shows the results of the validation sampling.

Table 9-1: SRK Validation Samples

Information in Logging Sheets										Santa Bárbara Internal Laboratory									SGS Laboratory (Durango) Analysis Results				
Drillhole	Sample Number	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Drillhole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
										GE-80	522.8	525.85	3.05	0	9	0.05	0.008	0.62	0.011	8	0.070	0.011	0.70
										GE-80	528.9	531.95	3.05	0	6	0.03	0.006	0.06	<0.005	4	0.030	0.005	0.06
GE-80	n/a	682.90	684.15	1.25	0	16	0.10	0.03	0.10	GE-80	681.45	684.45	3.00	0.19	48	0.25	0.140	0.77	0.013	45	0.240	0.152	0.74
GE-80	n/a	684.15	686.00	1.85	0.16	263	2.10	0.48	2.10	GE-80	684.45	687.5	3.05	0	14	0.03	0.060	0.01	0.021	13	0.033	0.060	0.01
GE-80	n/a	686.00	687.50	1.50	0	25	0.08	0.12	0.12														
GE-80	n/a	687.50	690.35	2.85	0	15	0.10	0.05	0.19	GE-80	687.5	690.55	3.05	0	5	0.006	0.010	0.02	0.011	3	0.009	0.007	0.01
GE-80	n/a	725.70	727.15	1.45	0	16	0.73	0.09	0.40	GE-80	724.1	727.15	3.05	0	1	0.01	0.005	0.02	0.007	<2	0.004	0.008	0.01
				0.00						GE-80	745.45	748.5	3.05	0.1	30	0.10	0.010	0.12	0.081	30	0.116	0.014	0.10
GE-80	n/a	748.50	750.00	1.50	0	37	0.15	0.24	0.6	GE-80	748.5	751.55	3.05	0	5	0.04	0.010	0.07	0.007	7	0.073	0.008	0.10
				0.00						GE-80	751.55	754.6	3.05	0	1	0.005	0.007	0.08	0.01	<2	0.003	0.006	0.01
PS-106	n/a	327.90	331.15	3.25	0	13	0.71	0.16	0.87	PS-106	327.30	330.35	3.05	0	4	0.22	0.010	0.24	0.029	4	0.219	0.010	0.25
PS-106	n/a	445.30	447.15	1.85	0	1	0.10	0.01	0.40	PS-106	445.30	448.35	3.05	0	4	0.06	0.004	0.07	0.017	<2	0.060	0.002	0.05
				0.00						PS-106	442.25	445.3	3.05	0	3	0.03	0.004	0.04	0.007	<2	0.020	0.002	0.02
PS-106	n/a	524.10	525.55	1.45	0	13	0.77	0.05	1.72	PS-106	524.75	527.8	3.05	0.12	41	0.15	0.420	0.59	1.96	45	0.139	0.441	0.58
PS-106	n/a	568.30	570.10	1.80	0	3	0.33	0.02	0.52	PS-106	568.30	571.35	3.05	0	3	0.07	0.007	0.24	0.021	2	0.069	0.014	0.265
PS-106	n/a	570.10	571.75	1.65	0	3	0.18	0.03	0.71														
PS-106	n/a	571.75	573.80	2.05	0	7	0.55	0.03	0.78														
PS-106	n/a	573.80	575.00	1.20	0	23	2.20	0.35	3.09	PS-106	573.3	574.4	1.10	0	9	0.67	0.12	2.18	0.159	9	0.727	0.1384	2.27
Mean Result					**n/a**	**33.0**	**0.59**	**0.12**	**0.83**					**n/a**	**8.7**	**0.10**	**0.05**	**0.25**	**n/a**	**8.1**	**0.11**	**0.05**	**0.26**

n/a: Not applicable

9.1.2 Review of Reconciliation Information Planned vs. Real Grades

Table 9-2 shows the production planned vs. real tonnages and grades for Santa Barbara, 2024. The differences are reasonable, except for silver and copper. The reconciliation process It is not adequately established and does not consider all the aspects involved in the entire mining and production process, however, this comparison shows a general behavior. SRK suggests implementing effective grade control and reconciliation measures.

Table 9-2: Planned vs. Real Production, 2024, Tonnage and Grades

Total	Real 2024													Plan 2024	Difference
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		Real vs. Plan
Tonn	142,20	137,423	152,432	144,795	114,241	143,849	142,496	147,867	134,292	154,162	146,206	141,908	1,701,875	1,640,250	3.80%
t/d	5,547	4,891	5,958	5,683	5,034	5,431	6,414	4,979	5,361	5,400	5,341	5,333	5,432	5,400	1%
Au g/t	0.22	0.24	0.2	0.23	0.18	0.26	0.32	0.28	0.24	0.23	0.25	0.28	0.24	0.16	51%
Ag g/t	71	71	59	64	56	65	73	75	65	66	66	63	66	71	-8%
Pb %	1.4	1.45	1.33	1.41	1.27	1.33	1.54	1.37	1.41	1.52	1.48	1.29	1.42	1.31	8%
Cu %	0.3	0.3	0.31	0.31	0.33	0.29	0.3	0.29	0.27	0.32	0.32	0.32	0.31	0.38	-18%
Zn %	2.27	2.11	1.9	1.93	2.05	1.93	2.24	2.17	2.08	2.27	2.21	2.16	2.11	1.81	12%

9.2 Limitations

Santa Bárbara stores the core of recent drilling completed by the mine geology team, and after some years, the core is discarded. The samples were selected from the available drillholes from different areas of the Santa Bárbara project. The internal laboratory does not store the rejects and pulps from the core and channel samples collected by the mine geology team.

The historical data could not be independently verified due to the non-existence of the core and lack of the original assay certificates. SRK considers there to be limited risk in the use of the historical data, as these typically have supported Santa Bárbara's production for decades, with many of the areas covered by the historical drilling also being depleted.

9.3 Opinion on Data Adequacy

Based on the validation work completed, SRK is of the opinion that data supporting the resources is adequate to support the mineral resource estimate. The lack of QA/QC data for the historical data (not including the drilling completed by the exploration team) remains a concern, but in the QP's opinion, the historical mining and production for more than 50 years provides additional verification of the historical data supporting the resources. Given the uncertainty related to the lack of QA/QC, it is the QP's opinion that assigning the highest level of confidence (Measured) to the estimated resource blocks can be done until the quality control and quality assurance procedures are improved. This will ensure no bias exists (positive or negative) in the data, which is a key requirement for the level of accuracy considered within the Measured category. Revised procedures should include a robust QA/QC program for both internal and external laboratories and third-party checks on a routine basis.

10 Mineral Processing and Metallurgical Testing

10.1 Testing and Procedures

The mine is not currently conducting any metallurgical testwork specific to supporting the current disclosure. Economic ore minerals include sphalerite, marmatite, galena, chalcopyrite, and tetrahedrite. The QP has therefore relied on the production data from the three concentrates to determine the recoveries to support the declaration of the mineral resources. Santa Bárbara is an operating mine and has been in operation under the current Company for over 50 years. Mineral processing is completed via conventional flotation processes, with three concentrates being produced (in order of scale):

- Zinc concentrate
- Copper concentrate
- Lead concentrate

10.2 Sample Representativeness

The QP concluded that the current material is representative of the future mining areas with no known changes in the mineralization styles expected over the short term. Should the mine conduct further exploration on potential exploration targets, additional metallurgical testwork will be required. At minimum, this should include a sensitivity study for potential recoveries using the current operating setup to estimate potential recoveries.

10.3 Laboratories

Currently, all sampling for the Santa Bárbara mill is conducted on-site at the internal laboratory. IMMSA directly owns the internal laboratory. Santa Bárbara's internal laboratory has a quality certification of its quality management system.

10.4 Relevant Results

The results provided in Table 10-1 shows the variation of recoveries between 2019 and 2024 within the concentrates. It is noted that the recoveries within the copper concentrate are currently below the 2019 levels.

Table 10-1: Metallurgical Performance 2019 to 2024

Component	Year	Tonnes (t)	Assay Grade						Recovery (%)					
			Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Fe (%)	Au (%)	Ag (%)	Pb (%)	Cu (%)	Zn (%)	Fe (%)
Head Grade	2019	1,636,644	0.24	79.0	1.31	0.40	2.00	3.53	100.50	100.40	100.00	100.30	100.30	100.00
	2020	1,732,554	0.27	79.0	1.34	0.45	2.00	3.53	99.40	100.00	100.00	100.00	100.10	100.00
	2021	1,515,951	0.25	75.0	1.30	0.39	1.94	3.47	98.60	98.90	98.90	99.70	99.00	100.00
	2022	1,495,711	0.23	70.9	1.21	0.35	1.72	3.61	98.11	99.14	98.72	99.65	99.18	99.97
	2023	1,652,108	0.22	67.9	1.30	0.32	1.98	3.76	98.70	99.44	98.65	100.07	99.83	100.00
	2024	1,701,875	0.24	66.5	1.42	0.31	2.11	3.61	97.14	100.76	99.46	97.87	100.34	100.06
Concentrate Lead	2019	31,234	4.02	2,912.0	56.00	3.84	5.95	5.57	31.70	70.00	81.40	18.20	5.70	3.00
	2020	31,437	3.83	2,861.0	55.95	3.70	6.94	5.50	25.50	65.40	75.60	15.10	6.30	2.80
	2021	28,384	4.25	2,770.0	53.61	4.78	5.57	6.33	31.80	69.10	77.50	22.80	5.40	3.40
	2022	27,246	3.62	2,723.5	53.09	4.39	5.56	6.44	28.24	70.02	79.84	23.09	5.91	3.25
	2023	29,459	3.31	2,610.1	57.68	3.92	6.09	5.68	26.44	68.56	79.01	21.82	5.49	2.69
	2024	31,701	3.53	2,414.9	60.55	2.83	6.67	4.91	26.91	67.68	79.45	17.21	5.89	2.53
Concentrate Copper	2019	10,517	2.25	10,723.0	7.49	30.00	1.95	26.23	6.00	8.70	3.70	47.80	0.60	4.80
	2020	12,785	4.96	1,331.0	11.81	28.22	2.19	24.95	13.50	12.40	6.50	46.70	0.80	5.20
	2021	7,809	2.62	1,058.0	9.04	29.52	1.16	26.29	5.40	7.30	3.60	38.70	0.30	3.90
	2022	7,234	2.47	1,172.9	10.89	28.58	1.48	25.49	5.12	8.01	4.35	39.88	0.42	3.41
	2023	7,078	1.78	1,008.8	6.25	30.02	2.34	27.40	3.42	6.37	2.06	40.19	0.51	3.12
	2024	7,581	2.12	1,152.4	9.63	28.07	2.81	26.12	3.86	7.72	3.02	40.89	0.59	3.22
Concentrate Zinc	2019	52,149	0.32	136.0	0.95	1.68	51.90	7.91	4.30	5.50	2.30	13.30	82.70	7.20
	2020	51,824	0.30	108.0	0.72	1.46	53.32	7.55	3.30	4.10	1.60	9.80	79.70	6.40
	2021	46,106	0.22	114.0	0.83	1.68	50.68	7.75	2.70	4.60	2.00	13.00	79.40	6.80
	2022	39,699	0.18	129.3	0.86	1.32	52.13	7.53	2.05	4.84	1.89	10.10	80.68	5.53
	2023	50,411	0.20	116.6	1.22	1.30	52.77	7.38	2.72	5.24	2.87	12.39	81.37	5.99
	2024	53,610	0.13	103.1	0.78	1.04	53.08	7.25	1.72	4.88	1.72	10.73	79.23	6.32
Tails	2019	1,542,743	0.15	13.6	0.18	0.09	0.24	3.18	58.60	16.20	12.60	21.00	11.30	85.10
	2020	1,636,507	0.16	15.3	0.23	0.13	0.28	3.20	57.10	18.20	16.30	28.40	13.30	85.60
	2021	1,433,652	0.16	14.0	0.22	0.11	0.28	3.15	58.70	17.90	15.80	25.30	13.80	85.90
	2022	1,421,531	0.15	12.1	0.16	0.10	0.22	3.34	62.70	16.27	12.64	26.59	12.17	87.78
	2023	1,565,160	0.16	13.8	0.20	0.09	0.26	3.50	66.11	19.28	14.71	25.67	12.46	88.19
	2024	1,608,983	0.17	14.4	0.23	0.09	0.33	3.36	64.66	20.48	15.27	29.04	14.62	87.98

It is the QP's opinion that using a 3-year trailing average for the recoveries is the most appropriate for use in the assessment of the CoG for 2024. The QP has therefore elected to use the trailing average from January 2022 to June 2024 production information and recoveries for the assessment of the CoG, as described in Section 11.4 of this report, as this represents the most recent performance and in the view of the QP is a reasonable reflection of the current material.

Using the data provided in Table 10-1 and by calculating the total recovery for the key elements, Table 10-2 shows a comparison of the 2021 and 2024 cumulative recoveries that have been used for the purpose of analyzing the CoG. The recoveries show a slight increase in the recovery for Au, Cu and Pb. The biggest change in recoveries in 2024 is within the Cu, where the year on year difference is due to lower recoveries in the Copper Concentrate.

Table 10-2: Cumulative Recovery used for CoG Analysis

Element	Recovery (%) 2021	Recovery (%) 2022	Recovery (%) 2023	Recovery (%) 2024
Au	36.5	31.8	33.4	33.42
Ag	82.0	85.5	81.5	81.07
Pb	79.4	79.2	79.0	79.41
Cu	65.2	63.1	62.7	40.32
Zn	80.0	80.8	80.3	80.37

10.5 Adequacy of Data and Non-Conventional Industry Practice

In the QP's opinion, the results to date are sufficient for the definition of a mineral resource with reasonable prospects for economic extraction of the three concentrate products produced. The QP is not aware of any non-conventional industry practice being utilized.

11 Mineral Resource Estimates

The mineral resource estimate presented herein represents the most recent resource evaluation prepared for the Santa Bárbara project in accordance with the disclosure standards for mineral resources under §§229.1300 through 229.1305 (subpart 229.1300 of Regulation S-K).

11.1 Key Assumptions, Parameters, and Methods Used

This section describes the key assumptions, parameters, and methods used to estimate the mineral resources. The technical report summary includes the mineral resource estimates, effective December 31, 2024.

IMMSA finished digitizing the historical database for the Santa Barbara project in 2024. This information has been used by IMMSA and SRK to create the current geological model and resource estimates.

In 2021, 2022 and 2023, SRK conducted a manual validation of the prior Mineral Resources, which were generated using traditional 2D polygonal methods. For 2024, IMMSA finalized the digitization for all the rock sampling and drilling information available, which have been stored in a series of databases (three) to represent each mine. SRK prepared the geological model and mineral resource estimation, with assistance from IMMSA geologist, based on all the digitized data, including the geological interpretations in horizontal and vertical sections

11.1.1 Mineral Titles and Surface Rights

The mineral resource estimate stated herein is expressed on 100% terms of the resources contained within mineral title and surface leases which are currently held by IMMSA as of the effective date of this report. All conceptual optimizations to constrain the statement of mineral resources have been limited to within these boundaries, as well. Current and future status of the access, agreements, or ownership of these titles and rights is described in Section 3 of this report.

11.1.2 Database

IMMSA finalized digitizing the historical database for the Santa Bárbara Project into Excel files. Santa Barbara acquired the DHLogger software for capture and data management but, a complete central database has not been implemented in Santa Barbara to date. The Excel/csv files have been imported into Leapfrog Geo software for implicit 3D geological modeling, block modeling and resource estimation. SRK recommends thtt, in the short term, all exploration information should be integrated into a central database using the commercial software that IMMSA has acquired. IMMSA should not rely on master database being in Excel.

All drilling and sampling completed by the Company are logged for a variety of geological parameters, including rock types, mineralogy, and structure. Historical drilling featured cross-sections, and maps have locally been used for modeling purposes for the mineralization contacts. The **Error! Reference source not found.** presents the drillhole and channels database used for the geological modeling and resource estimation. The channels per area in Santa Barbara are presented in **Error! Reference source not found.**. A plan view of the location of the drillhole collars and traces are displayed in Figure 7-8.

Table 11-1: Drillholes and channels – Total Database

Type	Number	Length (m)
Drillholes	4,107	599,510.4
Channels	2,574	10,913.1
Total	**6,681**	**610,423.5**

Table 11-2: Channels per Area

Area	Number	Length (m)
San Diego	1,010	4,343.5
Segovedad	532	2,258.8
Tecolotes	1,032	4,310.8
Total	**2,574**	**10,913.1**

Error! Reference source not found., **Error! Reference source not found.** and **Error! Reference source not found.** show the 3D location of the channe samples in the three areas/mines (San Diego, Segovedad and Tecolotes) with respect to the mining infrastructure and surface. Figure 6-12 shows the plan view of the mining infrastructure in the three areas of Santa Barbara.

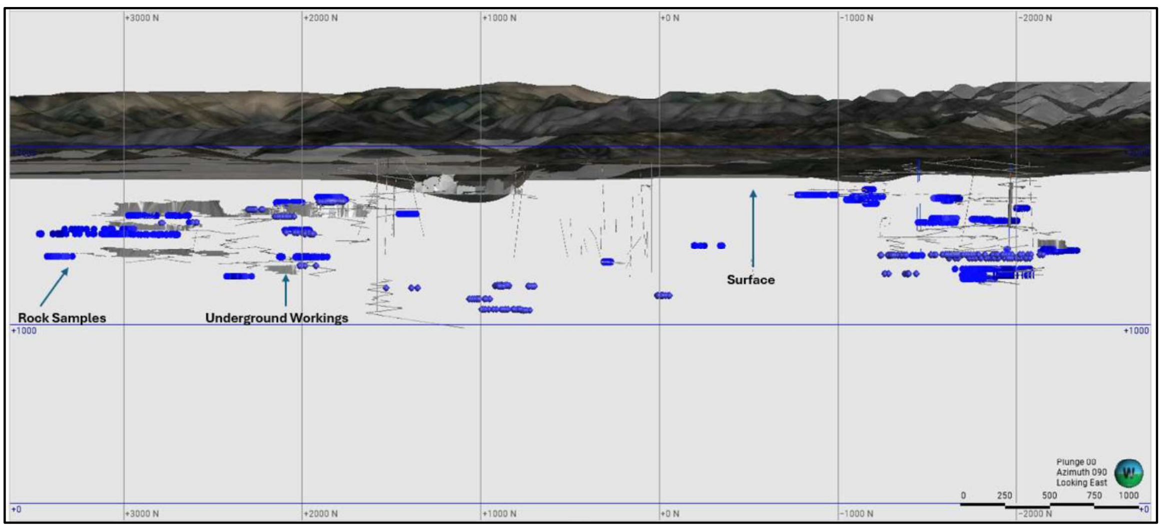


Figure 11-1: Channel Samples Location (3D view), Mine San Diego

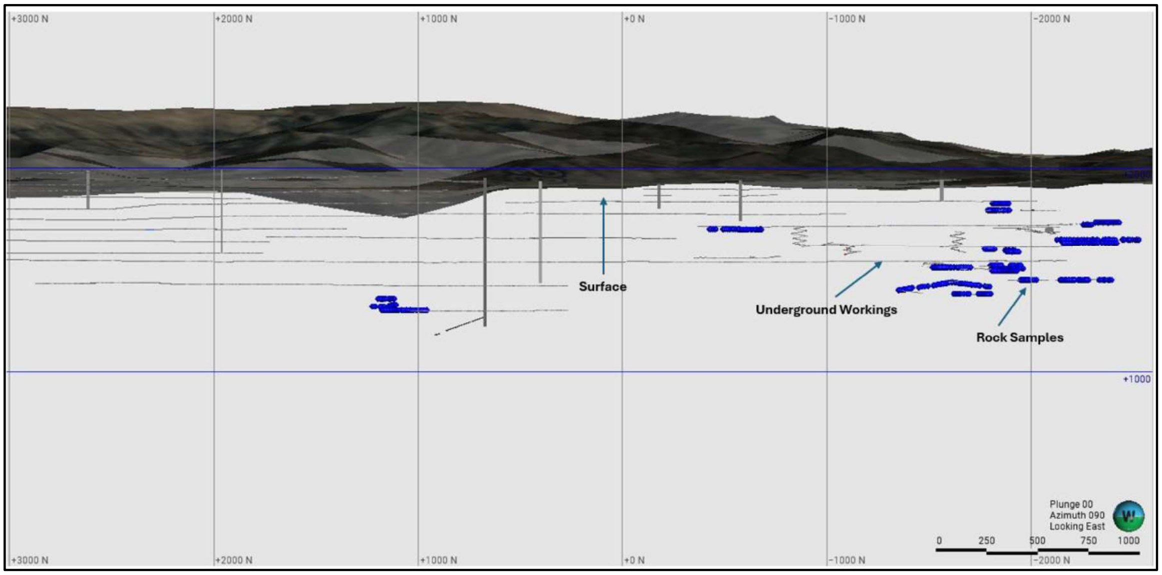


Figure 11-2: Channel Samples Location (3D view), Mine Segovedad

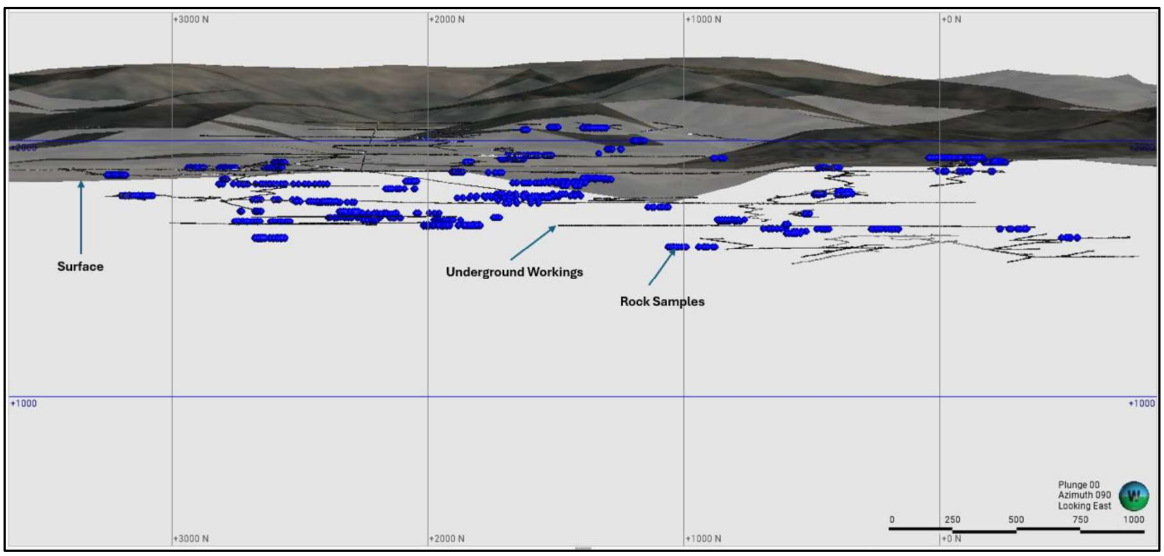
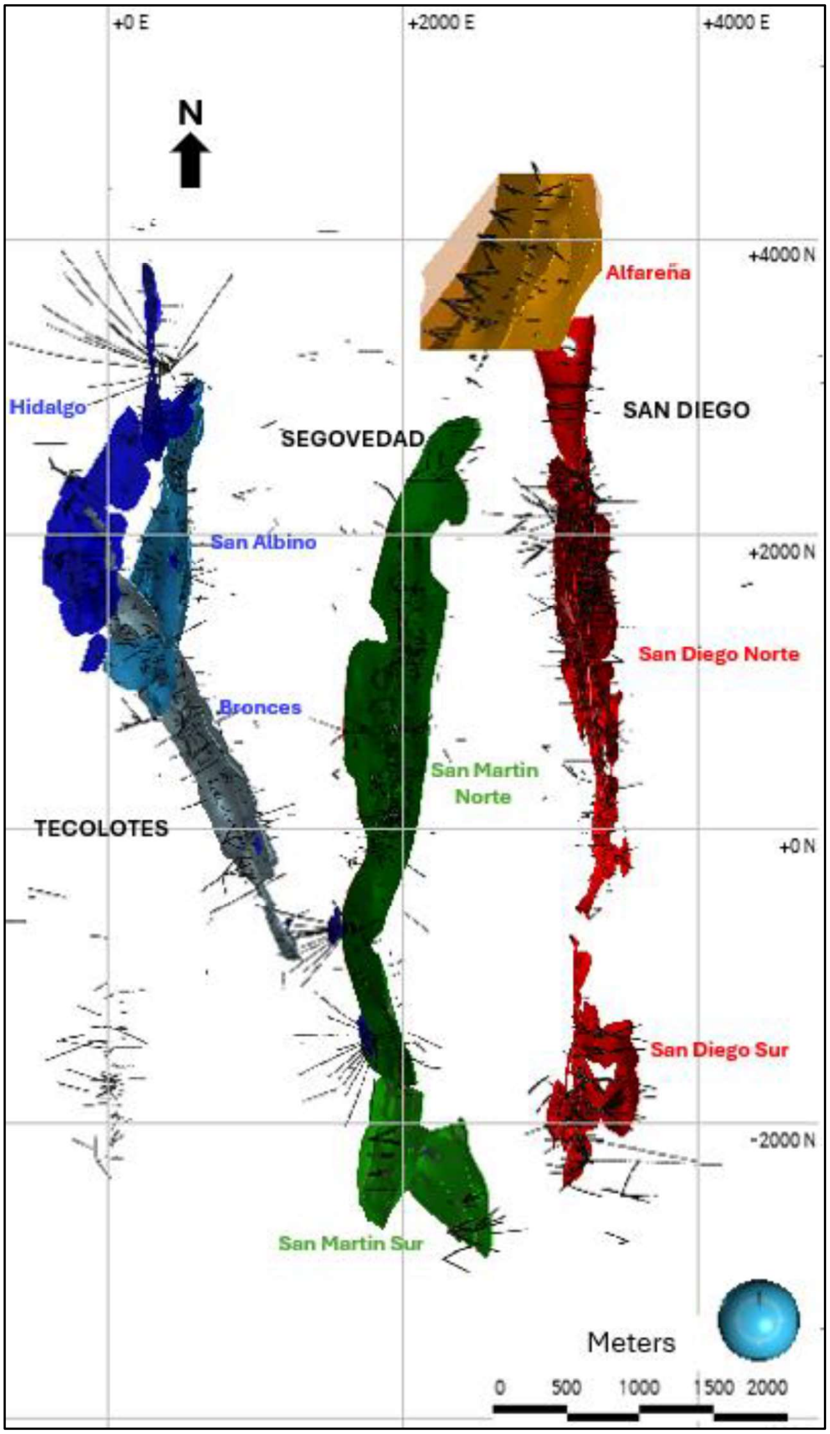


Figure 11-3: Channel Samples Location (3D view), Mine Tecolotes

11.2 Geological Model

There is extensive knowledge of the geology, structural, and mineralization controls of the Santa Bárbara deposit. The 3D geological model was constructed in 2024. The historical information is stored on maps, which include the underground workings, lithology, structure, and mineralization.

Figure 11-4 shows the plan view of the geological models (Domain solids) of the three hareas of Santa Barbara,Tecolotes (Hidalgo, San Albino, Bronces), SEgovedad (San Martín Norte and San Martín Sur) NS an San Diego (Alfareña, San Diego Norte and San Diego Sur). The western zone is Tecolotes located is formed by structures with direction NNW (Bronces, 3,500 m horizontal length, dipping WWS), NNE (Hidalgo, 2,500 m horizontal length, dipping WWN, and San Albino, 2,100 m horizontal length, dipping WWN). In the central area is Segovedad with general N orientation and 5,300 m horizontal extension dipping to W. To the East is San Diego with a general N trend, 6,900 m horizontal extension and variable dipping to W and WWN.



Source: SRK, 2025

Figure 11-4 Plan View of Geological Models of San Diego, Segovedad and Tecolotes Areas

IMMSA prepared the geological model under supervision of SRK based on the horizontal and vertical sections, using the lithological descriptions in the drillhole and rock samples database.

IMMSA initiated the geological interpretations of San Diego, using the implicit modeling of Leapfrog Geo software, integrating the mine maps, horizontal and section interpretations, and the existing geological models into a single model.

To generate a consolidated 3D geological model in 2024, the following activities were completed:

- Compilation of the 3D database of the underground chip channel samples. Some rock samples were excluded from the database in extended zones already mined.
- Conversion of all the information to a unique coordinate system.
- Consolidation of the rock and drill core sampling database (collar, survey, assay, lithology, alteration, vein codes, etc.) in Excel and paper formats.
- Digitizing sections and maps with lithology information and import to Leapfrog software.
- Construction and review of depletion solids.
- Codification of the drillhole and channel intervals with the vein/mineralized structure identifier.
- Construct the solids using the implicit modeling tool of Leapfrog using the codes and interpretation of the geologist
- Construct control lines in the hanging wall and footwall of each structure to ensure the capture of the mineralized intervals.
- Define and generate interactions between structures according to geological chronology.
- Set boundary lines to restrict the expansion of solids to a maximum of 80 meters from mineralized intercepts

Error! Reference source not found. and **Error! Reference source not found.** present examples of the geological models in San Diego and Segovedad.

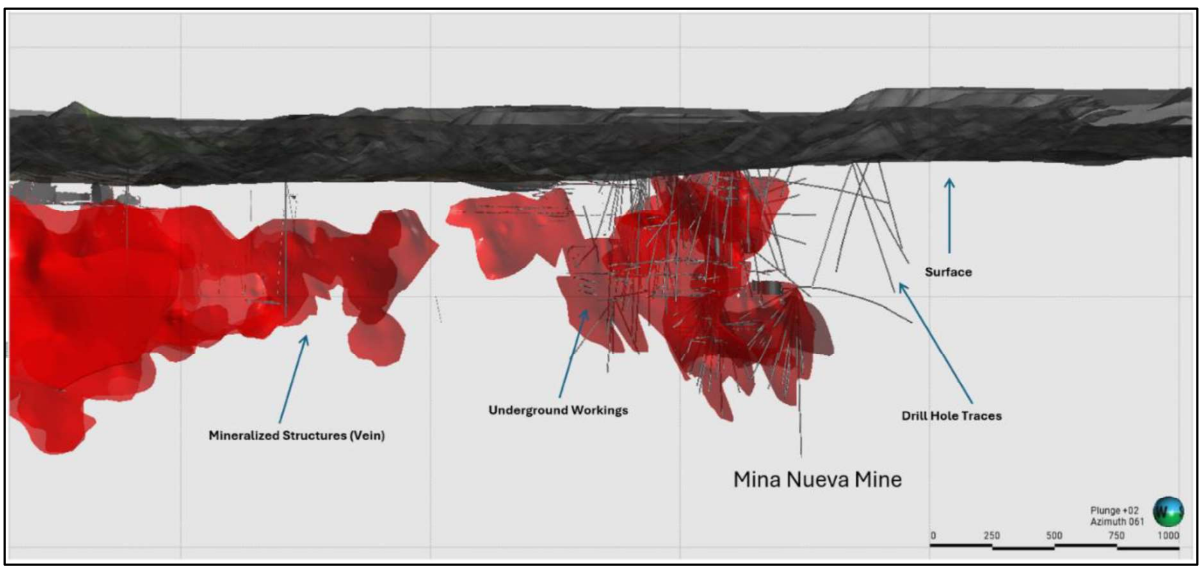


Figure 11-5: 3D View of Geological Model of Mina Nueva (San Diego Sur)

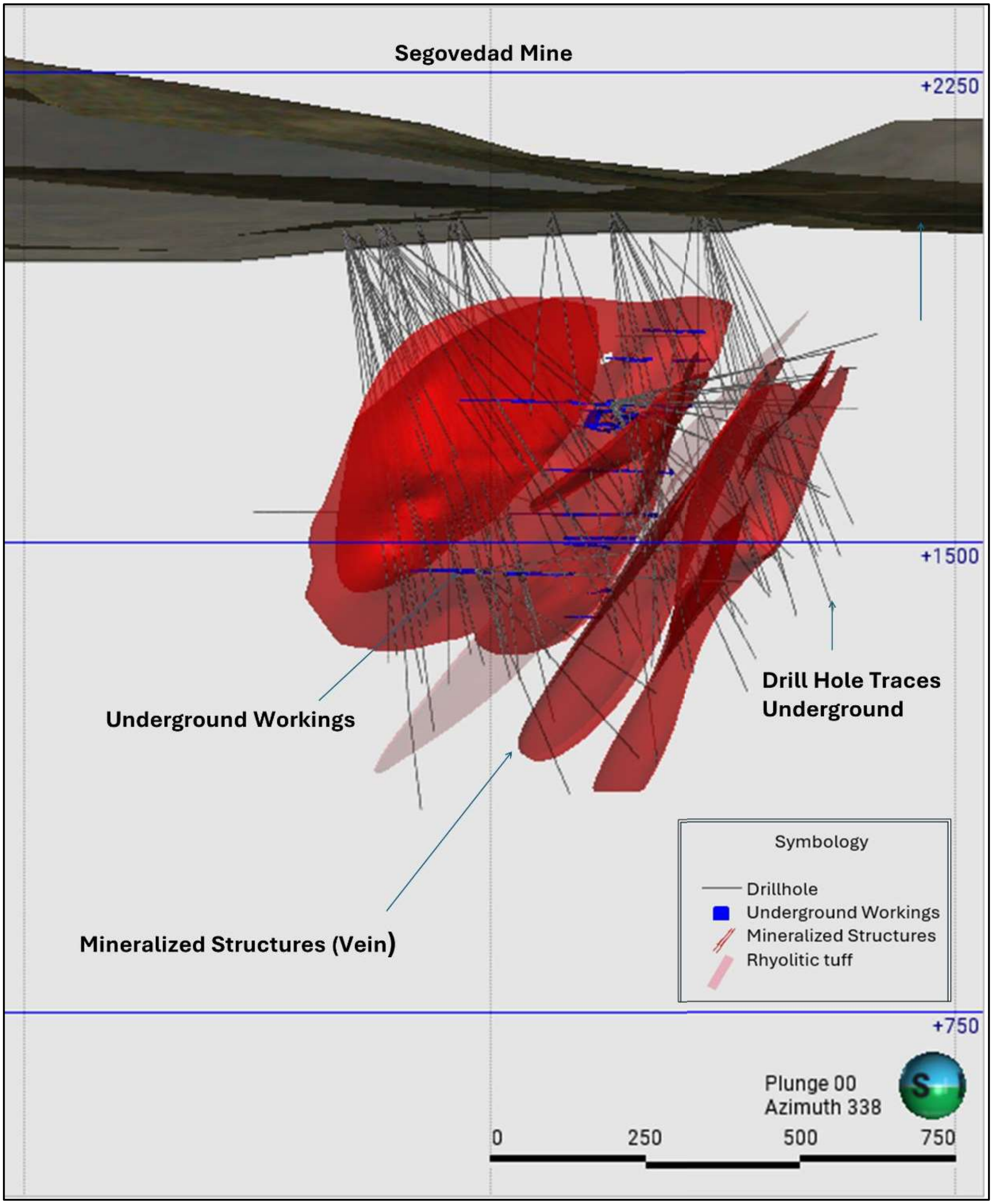


Figure 11-6: 3D View of Segovedad Geological Model

The QP concludes that the geological modeling methodology, which includes geological continuity interpretations from horizontal and vertical sections and the use of Leapfrog visualization tools, is suitable for defining the mineralized solids.

11.3 Estimaton Domain Analisis

The solids of the mineralized structures were independently used for estimation, with all contacts treated as hard boundaries.

Table 11-3 shows the summary statistics by domain for Santa Barbara. The absent data and non assayed intervals were replaced with minimum values (Ag 0.001, Au: 0.0001, Cu: 0.001, Pb: 0.001 and Zn: 0.001). Zinc, silver, lead, gold, and copper populations were referenced for estimation accuracy. Some domains present high Coefficient of Variation (CoV), indicating high variability of the populations. CoV between 1.0 and 1.5 are considered reasonable for estimation, which is an aspect considered during the statistical analysis, including capping, which reasonably reduced the variability. Further compositing reduces population variability before grade estimation.

Table 11-3: Summary Statistics of Raw Sampling per Domain

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min.	Max.
				San Diego Norte					
Coyote Bajo 1		499	1,059.1						
	Ag g/t	499	1,059.1	30.77	75.22	2.45	5,659	0.001	686
	Au g/t	499	1,059.1	0.07	0.21	3.00	0.04	0.0001	4.00
	Cu %	499	1,059.1	0.15	0.54	3.55	0.29	0.001	8.99
	Pb %	499	1,059.1	0.62	1.72	2.77	2.95	0.001	31.40
	Zn %	499	1,059.1	1.38	3.39	2.45	11.49	0.001	31.30
Coyote Vein		4,719	11,746.7						
	Ag g/t	4,714	11,724.8	47.63	107.67	2.26	11,594	0.001	3,765
	Au g/t	4,714	11,724.8	0.07	0.21	3.06	0.04	0.0001	6.00
	Cu %	4,714	11,724.8	0.22	0.56	2.56	0.31	0.001	12.90
	Pb %	4,714	11,724.8	0.70	1.70	2.43	2.90	0.001	27.10
	Zn %	4,714	11,724.8	1.97	4.07	2.07	16.61	0.001	39.50
San Diego Alto 1		271	687.9						
	Ag g/t	271	687.9	13.06	44.71	3.42	1,999	0.001	680
	Au g/t	271	687.9	0.02	0.11	4.39	0.01	0.0001	1.80
	Cu %	271	687.9	0.09	0.38	4.20	0.14	0.001	5.70
	Pb %	271	687.9	0.24	0.99	4.07	0.99	0.001	16.20
	Zn %	271	687.9	0.57	1.82	3.18	3.30	0.001	15.30
San Diego Alto 2		188	449.8						
	Ag g/t	188	449.8	15.40	43.93	2.85	1,930	0.001	506
	Au g/t	188	449.8	0.03	0.09	3.51	0.01	0.0001	1.00
	Cu %	188	449.8	0.10	0.32	3.12	0.11	0.001	3.33
	Pb %	188	449.8	0.35	1.42	4.06	2.02	0.001	16.40
	Zn %	188	449.8	0.82	2.23	2.70	4.95	0.001	16.63
San Diego Vein		1,503	3,341.1						
	Ag g/t	1,503	3,341.1	31.84	88.29	2.77	7,794	0.001	1,575
	Au g/t	1,503	3,341.1	0.07	0.41	5.73	0.17	0.0001	16.00
	Cu %	1,503	3,341.1	0.17	0.53	3.13	0.28	0.001	9.93
	Pb %	1,503	3,341.1	0.65	1.75	2.70	3.06	0.001	29.60
	Zn %	1,503	3,341.1	1.58	3.66	2.33	13.42	0.001	36.50
Volcano Alto 1		271	610.8						
	Ag g/t	271	610.8	30.38	137.75	4.53	18,976	0.001	2,105
	Au g/t	271	610.8	0.03	0.10	3.55	0.01	0.0001	2.00
	Cu %	271	610.8	0.12	0.41	3.56	0.17	0.001	6.90
	Pb %	271	610.8	0.35	1.14	3.27	1.29	0.001	12.70
	Zn %	271	610.8	0.89	2.94	3.29	8.66	0.001	22.60
Volcano Alto 2		34	63.7						
	Ag g/t	34	63.7	16.37	33.14	2.02	1,098	0.001	154
	Au g/t	34	63.7	0.01	0.03	4.86	0.00	0.0001	0.15

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min.	Max.
	Cu %	34	63.7	0.09	0.17	1.94	0.03	0.001	0.75
	Pb %	34	63.7	0.30	0.46	1.55	0.21	0.001	1.61
	Zn %	34	63.7	0.95	1.89	1.97	3.56	0.001	10.20
Volcano Bajo 1		365	771.1						
	Ag g/t	365	771.1	36.06	104.17	2.89	10,851	0.001	1,461
	Au g/t	365	771.1	0.03	0.08	3.02	0.01	0.0001	1.00
	Cu %	365	771.1	0.23	1.23	5.33	1.52	0.001	22.00
	Pb %	365	771.1	0.45	1.34	2.96	1.81	0.001	13.00
	Zn %	365	771.1	1.16	2.68	2.32	7.19	0.001	22.00
Volcano Vein		1,144	2,327.6						
	Ag g/t	1,144	2,327.6	49.20	141.65	2.88	20,063	0.001	1,895
	Au g/t	1,144	2,327.6	0.07	0.47	6.30	0.22	0.0001	12.60
	Cu %	1,144	2,327.6	0.28	0.89	3.22	0.79	0.001	15.40
	Pb %	1,144	2,327.6	0.65	1.55	2.38	2.41	0.001	20.10
	Zn %	1,144	2,327.6	1.78	3.56	2.00	12.70	0.001	29.95
San Diego Sur									
Coyote Vein		1,596	2,732.8						
	Ag g/t	1,596	2,732.8	104.49	225.68	2.16	50,933	0.001	3,462
	Au g/t	1,596	2,732.8	0.16	0.59	3.60	0.35	0.0001	14.00
	Cu %	1,596	2,732.8	0.45	0.82	1.83	0.67	0.001	7.86
	Pb %	1,596	2,732.8	1.73	3.01	1.74	9.05	0.001	45.28
	Zn %	1,596	2,732.8	3.06	4.35	1.42	18.94	0.001	40.73
San Diego Vein		164	252.5						
	Ag g/t	164	252.5	89.71	185.20	2.06	34,300	0.001	2,020
	Au g/t	164	252.5	0.11	0.28	2.57	0.08	0.0001	2.31
	Cu %	164	252.5	0.31	0.52	1.70	0.27	0.001	2.48
	Pb %	164	252.5	2.23	4.38	1.96	19.21	0.001	23.80
	Zn %	164	252.5	3.22	4.44	1.38	19.73	0.001	23.81
Volcano Vein		120	497.3						
	Ag g/t	120	497.3	10.81	41.88	3.87	1,754	0.001	402
	Au g/t	120	497.3	0.01	0.05	5.36	0.00	0.0001	0.86
	Cu %	120	497.3	0.02	0.07	3.07	0.00	0.001	0.61
	Pb %	120	497.3	0.44	1.75	3.94	3.05	0.001	17.85
	Zn %	120	497.3	0.66	2.54	3.85	6.45	0.001	19.24
Alfareña									
Alfarena_1		478	752.9						
	Ag g/t	478	752.9	85.28	180.89	2.12	32,722	0.001	2,104
	Au g/t	478	752.9	0.05	0.12	2.44	0.01	0.0001	1.00
	Cu %	478	752.9	0.54	1.41	2.62	1.98	0.001	19.00
	Pb %	478	752.9	1.55	2.08	1.34	4.34	0.04	23.10
	Zn %	478	752.9	2.56	3.13	1.23	9.82	0.001	30.51
Alfarena_2		127	215.0						
	Ag g/t	127	215.0	47.25	50.06	1.06	2,506	4.00	315
	Au g/t	127	215.0	0.02	0.06	2.62	0.00	0.0001	0.30
	Cu %	127	215.0	0.23	0.24	1.05	0.06	0.02	1.37
	Pb %	127	215.0	1.68	2.01	1.20	4.05	0.02	13.23
	Zn %	127	215.0	2.69	2.92	1.09	8.55	0.04	21.00
Alfarena_3		189	304.5						
	Ag g/t	189	304.5	61.03	84.23	1.38	7,094	3.26	947
	Au g/t	189	304.5	0.04	0.14	3.19	0.02	0.0001	1.50
	Cu %	189	304.5	0.39	0.67	1.69	0.44	0.03	5.91
	Pb %	189	304.5	2.25	2.57	1.14	6.61	0.04	13.51
	Zn %	189	304.5	3.10	3.14	1.01	9.86	0.19	13.87
Alfarena_4		297	523.4						
	Ag g/t	297	523.4	59.35	90.67	1.53	8,222	0.74	1,108
	Au g/t	297	523.4	0.05	0.29	5.36	0.08	0.001	4.00

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min.	Max.
	Cu %	297	523.4	0.34	0.60	1.77	0.36	0.01	7.70
	Pb %	297	523.4	2.51	3.19	1.27	10.18	0.07	23.61
	Zn %	297	523.4	3.82	3.77	0.99	14.23	0.10	20.86
Alfarena_5		7	9.9						
	Ag g/t	7	9.9	68.65	67.47	0.98	4,552	12.00	185
	Au g/t	7	9.9	0.28	0.44	1.59	0.20	0.001	1.00
	Cu %	7	9.9	0.19	0.14	0.73	0.02	0.04	0.46
	Pb %	7	9.9	4.11	4.17	1.01	17.39	0.82	11.35
	Zn %	7	9.9	4.85	4.64	0.96	21.56	1.63	14.52
Alfarena_6		63	100.5						
	Ag g/t	63	100.5	147.65	232.72	1.58	54,157	2.58	1,350
	Au g/t	63	100.5	0.09	0.17	1.83	0.03	0.0001	0.95
	Cu %	63	100.5	0.74	1.25	1.68	1.56	0.02	6.17
	Pb %	63	100.5	2.54	3.25	1.28	10.56	0.13	18.32
	Zn %	63	100.5	5.24	5.21	0.99	27.11	0.13	21.83
Alfarena_7		16	26.0						
	Ag g/t	16	26.0	106.68	157.60	1.48	24,837	13.00	774
	Au g/t	16	26.0	0.06	0.08	1.38	0.01	0.0001	0.25
	Cu %	16	26.0	0.44	0.76	1.73	0.58	0.02	2.87
	Pb %	16	26.0	0.76	0.75	0.99	0.57	0.11	2.71
	Zn %	16	26.0	2.84	3.32	1.17	11.03	0.17	12.77
Alfarena_8		14	23.3						
	Ag g/t	14	23.3	76.99	194.30	2.52	37,754	3.00	825
	Au g/t	14	23.3	0.04	0.17	3.86	0.03	0.0001	0.73
	Cu %	14	23.3	0.20	0.60	3.08	0.36	0.02	3.54
	Pb %	14	23.3	1.36	1.84	1.35	3.37	0.16	7.51
	Zn %	14	23.3	1.77	2.53	1.43	6.41	0.49	10.10
Alfarena_9		22	31.0						
	Ag g/t	22	31.0	35.06	28.20	0.80	795	5.00	128
	Au g/t	22	31.0	0.00	0.02	4.06	0.00	0.0001	0.10
	Cu %	22	31.0	0.16	0.13	0.83	0.02	0.01	0.49
	Pb %	22	31.0	1.95	1.85	0.95	3.41	0.20	8.05
	Zn %	22	31.0	3.08	3.35	1.09	11.24	0.16	13.66
San Martin Norte									
San Martin Vein		3,684	7,284.7						
	Ag g/t	3,684	7,284.7	56.47	136.59	2.42	18,656	0.001	4,290
	Au g/t	3,684	7,284.7	0.19	2.47	13.21	6.08	0.0001	151.00
	Cu %	3,684	7,284.7	0.27	0.52	1.89	0.27	0.001	8.90
	Pb %	3,684	7,284.7	0.83	1.76	2.11	3.08	0.001	30.30
	Zn %	3,684	7,284.7	1.46	2.67	1.83	7.15	0.001	44.00
San Martin Sur									
Desprendimineto SB		32	58.0						
	Ag g/t	32	58.0	7.29	26.08	3.58	680	0.001	206
	Au g/t	32	58.0	0.02	0.10	4.35	0.01	0.0001	0.81
	Cu %	32	58.0	0.07	0.29	4.29	0.08	0.001	2.24
	Pb %	32	58.0	0.42	1.28	3.06	1.64	0.001	5.33
	Zn %	32	58.0	0.89	2.85	3.20	8.14	0.001	10.90
Diana		60	53.7						
	Ag g/t	60	53.7	68.50	73.42	1.07	5,390	2.00	383
	Au g/t	60	53.7	0.17	0.31	1.88	0.10	0.0001	2.50
	Cu %	60	53.7	0.45	0.59	1.33	0.35	0.001	3.21
	Pb %	60	53.7	2.32	3.02	1.30	9.13	0.001	21.29
	Zn %	60	53.7	4.47	6.92	1.55	47.88	0.001	37.18
Explorador		181	212.3						
	Ag g/t	181	212.3	50.31	75.67	1.50	5,725	0.001	547
	Au g/t	181	212.3	0.07	0.14	2.07	0.02	0.0001	1.21

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min.	Max.
	Cu %	181	212.3	0.35	0.55	1.58	0.30	0.001	3.52
	Pb %	181	212.3	2.27	3.94	1.73	15.52	0.001	31.34
	Zn %	181	212.3	3.06	3.72	1.21	13.80	0.001	18.95
Explorador 1		133	268.1						
	Ag g/t	133	268.1	9.11	26.22	2.88	687	0.001	158
	Au g/t	133	268.1	0.01	0.06	4.69	0.00	0.0001	0.83
	Cu %	133	268.1	0.03	0.12	3.43	0.01	0.001	1.33
	Pb %	133	268.1	0.30	0.93	3.13	0.87	0.001	7.73
	Zn %	133	268.1	0.66	1.82	2.77	3.32	0.001	14.70
San Martin		956	1,051.8						
	Ag g/t	956	1,051.8	60.92	98.66	1.62	9,733	0.001	1,083
	Au g/t	956	1,051.8	0.10	0.55	5.26	0.30	0.0001	8.00
	Cu %	956	1,051.8	0.32	0.53	1.67	0.28	0.001	8.48
	Pb %	956	1,051.8	1.35	2.36	1.75	5.55	0.001	20.95
	Zn %	956	1,051.8	1.55	2.83	1.82	7.99	0.001	30.69
Santa Bertha		92	87.3						
	Ag g/t	92	87.3	36.56	104.06	2.85	10,829	0.001	1,292
	Au g/t	92	87.3	0.06	0.14	2.30	0.02	0.0001	0.75
	Cu %	92	87.3	0.19	0.63	3.39	0.40	0.001	3.55
	Pb %	92	87.3	1.50	3.32	2.21	11.05	0.001	24.30
	Zn %	92	87.3	2.31	2.92	1.26	8.55	0.001	17.50
Tecolotes									
Desprendimineto SB		32	58.0						
	Ag g/t	32	58.0	7.29	26.08	3.58	680	0.001	206
	Au g/t	32	58.0	0.02	0.10	4.35	0.01	0.0001	0.81
	Cu %	32	58.0	0.07	0.29	4.29	0.08	0.001	2.24
	Pb %	32	58.0	0.42	1.28	3.06	1.64	0.001	5.33
	Zn %	32	58.0	0.89	2.85	3.20	8.14	0.001	10.90
Diana		60	53.7						
	Ag g/t	60	53.7	68.50	73.42	1.07	5,390	2.0	383
	Au g/t	60	53.7	0.17	0.31	1.88	0.10	0.0001	2.50
	Cu %	60	53.7	0.45	0.59	1.33	0.35	0.001	3.21
	Pb %	60	53.7	2.32	3.02	1.30	9.13	0.001	21.29
	Zn %	60	53.7	4.47	6.92	1.55	47.88	0.001	37.18
Explorador		181	212.3						
	Ag g/t	181	212.3	50.31	75.67	1.50	5,725	0.001	547
	Au g/t	181	212.3	0.07	0.14	2.07	0.02	0.0001	1.21
	Cu %	181	212.3	0.35	0.55	1.58	0.30	0.001	3.52
	Pb %	181	212.3	2.27	3.94	1.73	15.52	0.001	31.34
	Zn %	181	212.3	3.06	3.72	1.21	13.80	0.001	18.95
Explorador 1		133	268.1						
	Ag g/t	133	268.1	9.11	26.22	2.88	687	0.001	158
	Au g/t	133	268.1	0.01	0.06	4.69	0.00	0.0001	0.83
	Cu %	133	268.1	0.03	0.12	3.43	0.01	0.001	1.33
	Pb %	133	268.1	0.30	0.93	3.13	0.87	0.001	7.73
	Zn %	133	268.1	0.66	1.82	2.77	3.32	0.001	14.70
San Martin veins		956	1,051.8						
	Ag g/t	956	1,051.8	60.92	98.66	1.62	9,733	0.001	1,083
	Au g/t	956	1,051.8	0.10	0.55	5.26	0.30	0.0001	8.00
	Cu %	956	1,051.8	0.32	0.53	1.67	0.28	0.001	8.48
	Pb %	956	1,051.8	1.35	2.36	1.75	5.55	0.001	20.95
	Zn %	956	1,051.8	1.55	2.83	1.82	7.99	0.001	30.69
Santa Bertha		92	87.3						
	Ag g/t	92	87.3	36.56	104.06	2.85	10,829	0.001	1,292
	Au g/t	92	87.3	0.06	0.14	2.30	0.02	0.0001	0.75
	Cu %	92	87.3	0.19	0.63	3.39	0.40	0.001	3.55

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min.	Max.
	Pb %	92	87.3	1.50	3.32	2.21	11.05	0.001	24.30
	Zn %	92	87.3	2.31	2.92	1.26	8.55	0.001	17.50

CoV: Coefficient of variability
g/t: grams per tonnes
SD: Standard deviation
Min: Minimum
Max: Maximum

11.4 Estimation Methodology

The individual mineralized structures/Domains of the geological models prepared by IMMSA and reviewed by SRK were used as hard boundaries for the MRE process. The methodology of estimation included the following procedures:

- Database review
- Definition of Domains
- Capping and Compositing for statistical and geostatistical analysis
- Variography
- Block model construction
- Grades Interpolation (Zn, Ag, Au, Pb, Cu)
- Resource Classification
- Depletion of Block Model
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades (CoG)
- Mineral Resource Statement

11.5 Assay Capping and Compositing

High-grade capping is generally applied when data points are no longer considered representative of the primary population. This technique is deemed appropriate for managing high-grade outlier values.

The capping was applied to the raw data independently for grouped domains by zones. The capping levels are defined by analyzing grade distributions using log probability plots, and raw and log histograms to identify grades that significantly impact local estimation and are considered extreme. Figure 11-7 shows an example of the zinc statistic plots and the capping level selected in the grouped domains in Segovedad, and the comparative statistics of the raw and capped samples its impact.

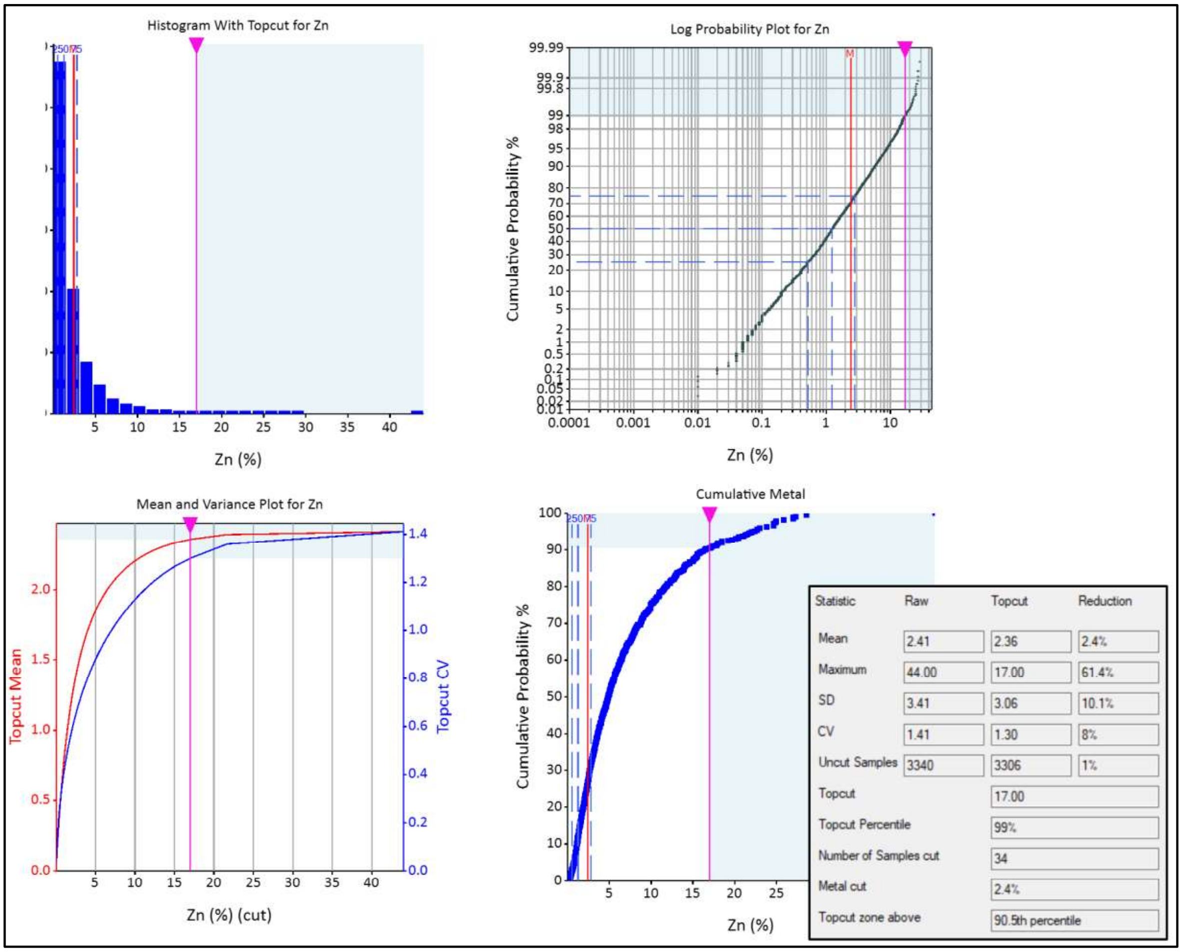


Figure 11-7: Example of Statistical Analysis for Capping - Segovedad

11.6 Variography Analysis

Composites were generated to manage the impact of the data length variability, to obtain samples of similar support, for spatial analysis and estimation within each domain. Figure 11-8 presents the length histogram and statistics of the raw samples contained in the Alfareña zone, were a 2 m composite size was selected.

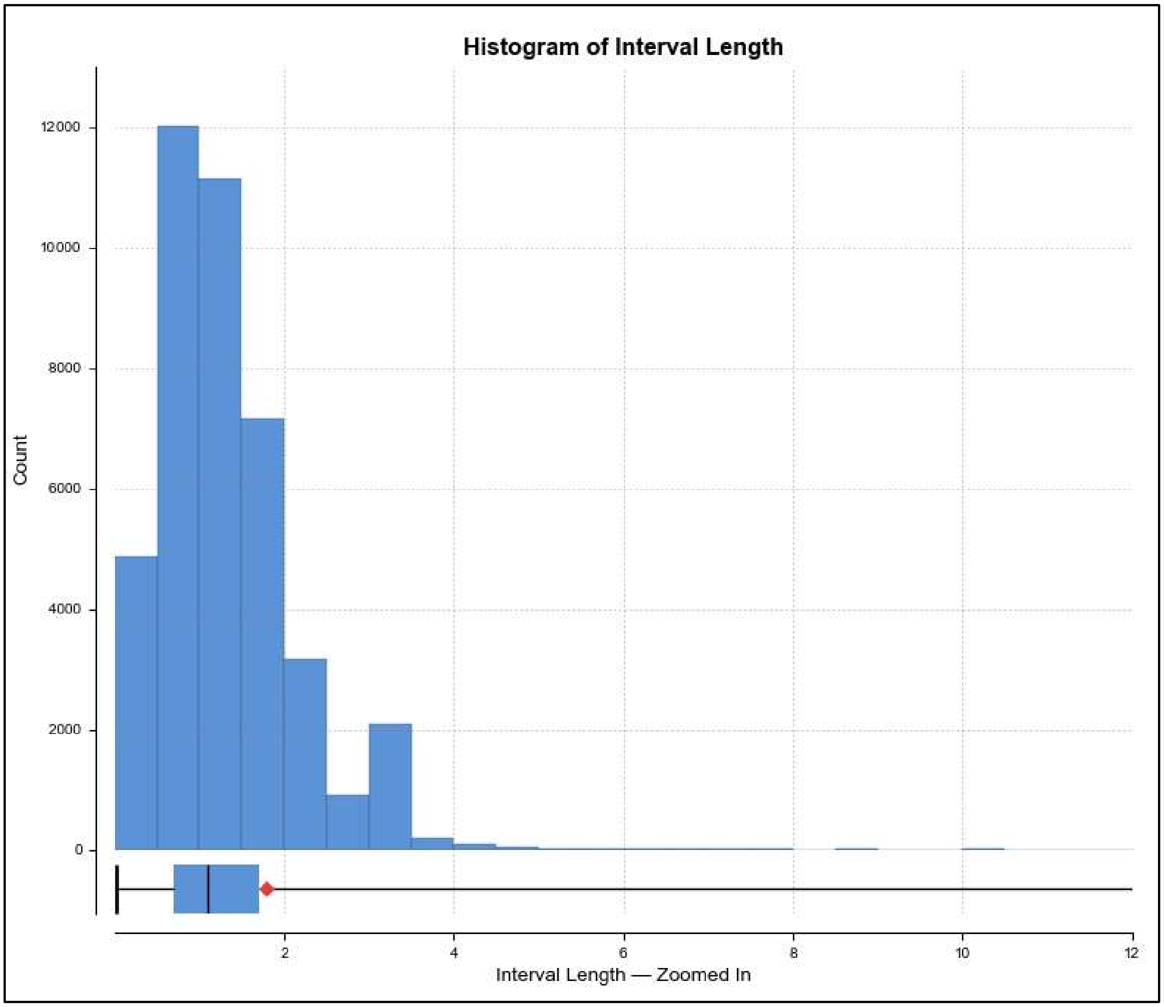


Figure 11-8: Length Histogram – Alfareña Zone (San Diego)

The sample length was evaluated in each grouped domain, analyzing different composite lengths to find the size that reasonably reduces variability. This makes the statistical analysis more robust and matches the block size selected, preventing excessive splitting after compositing.

The data was composited after capping, truncated at domain boundaries, minimum coverage of 5% to generate a composite (minimum size of 0.1 m) to capture zones where structures are narrow. When resulting composites are less thatn 25% of the composite length, they are distributed equally. SRK used 2 m for Alfareña and San Diego and Segovedad, and 1.5 m in Tecolotes.

11.7 Variogram Analysis

SRK conducted spatial analysis characteristics of the domains utilizing the Leapfrog variogram analysis tool. The evaluation included the review of the variogram map in the general plan of the mineralized structure to determine the primary orientation and define the major and semi-major axis variograms, being the minor axis the perpendicular direction to the structure plan.

The variogram of the well-sampled mineralized structure was employed for mantos or veins with limited data but similar orientation. For mineralized structures with enough data, their own variogram for each variable was used for the Ordinary Kriging (OK) estimation pass. Figure 11-9 shows the semivariograms and the model for the San Martin structure in Segovedad.

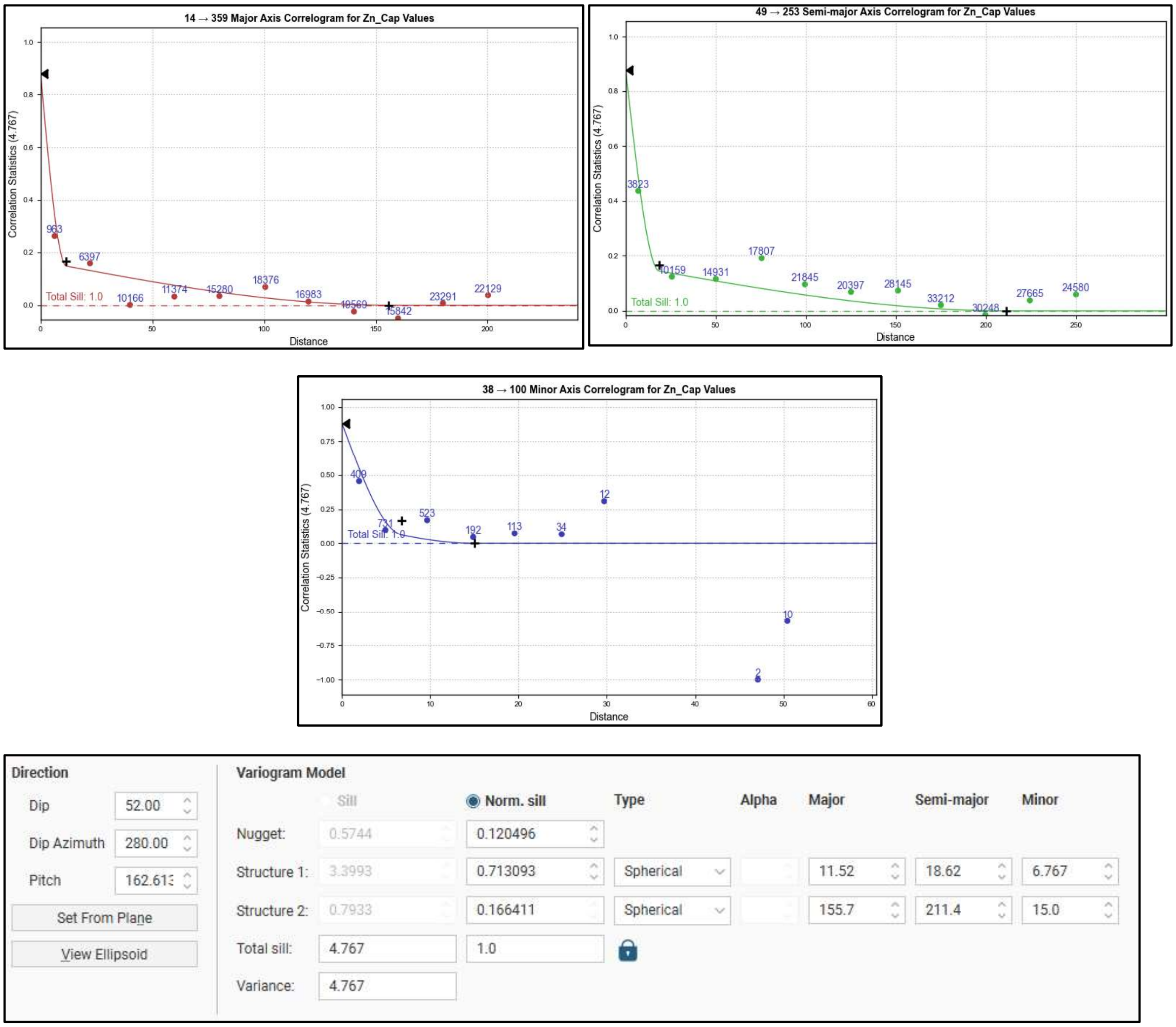


Figure 11-9: Semivrriograms and Model of Zinc – San Martin (Segovedad)

Table 11-4 presents and example of the variogram models for the domains in Segovedad. In some areas of Santa Barbara the omnidirectional varigram was used for narrow structures. In Tecolotes, San Diego Norte and San Diego Sur the OK was used for the first pass and Inverse Power Distance for the second and third pass were used where the variograms showed short ranges. In Alfareña , OK were used for the three estimation passes.

Table 11-4: Table of Summary of Variogram Models - Segovedad

Variable	Domain			Structure 1					Structure 2							
		Variance	Nugget	Sill	Structure	Major	Semi-major	Minor	Sill	Structure	Major	Semi-major	Minor	Dip	Dip Azi.	Pitch
Ag	San Martin	7,914.7	688.6	5,088.4	Spherical	19.6	46.4	10.0	2,137.8	Spherical	200.0	225	20.0	52	280	99.0
Ag	Explorador 1	820.4	100.1	548.5	Spherical	35.0	32.3	13.5	171.8	Spherical	244.7	148	44.7	52	280	99.0
Ag	Santa Bertha	7,010.0	855.5	4,687.0	Spherical	35.0	32.3	13.5	1,467.5	Spherical	244.7	148	44.7	52	280	99.0
Ag	Diana	3,552.9	433.6	2,375.5	Spherical	35.0	32.3	13.5	743.8	Spherical	244.7	148	44.7	52	280	99.0
Ag	Explorador	3,962.8	483.6	2,649.6	Spherical	35.0	32.3	13.5	829.6	Spherical	244.7	148	44.7	52	280	99.0
Ag	Desprendimiento	2,221.8	271.1	1,485.6	Spherical	35.0	32.3	13.5	465.1	Spherical	244.7	148	44.7	52	280	99.0
Au	Desprendimiento	0.04	0.00	0.02	Spherical	35.0	32.3	13.5	0.01	Spherical	244.7	148	44.7	52	280	99.0
Au	Diana	0.02	0.00	0.01	Spherical	35.0	32.3	13.5	0.00	Spherical	244.7	148	44.7	52	280	99.0
Au	Explorador 1	0.00	0.00	0.00	Spherical	35.0	32.3	13.5	0.00	Spherical	244.7	148	44.7	52	280	99.0
Au	Explorador	0.01	0.00	0.01	Spherical	35.0	32.3	13.5	0.00	Spherical	244.7	148	44.7	52	280	99.0
Au	San Martin	0.02	0.00	0.01	Spherical	35.0	32.3	13.5	0.00	Spherical	244.7	148	44.7	52	280	99.0
Au	Santa Bertha	0.02	0.00	0.02	Spherical	35.0	32.3	13.5	0.01	Spherical	244.7	148	44.7	52	280	99.0
Cu	San Martin	0.17	0.02	0.11	Spherical	45.0	60.0	10.0	0.05	Spherical	240.0	150	15.0	52	280	71.1
Cu	Desprendimiento	0.27	0.03	0.18	Spherical	35.0	32.3	13.5	0.06	Spherical	244.7	148	44.7	52	280	99.0
Cu	Diana	0.23	0.03	0.15	Spherical	35.0	32.3	13.5	0.05	Spherical	244.7	148	44.7	52	280	99.0
Cu	Explorador 1	0.01	0.00	0.01	Spherical	35.0	32.3	13.5	0.00	Spherical	244.7	148	44.7	52	280	99.0
Cu	Explorador	0.19	0.02	0.13	Spherical	35.0	32.3	13.5	0.04	Spherical	244.7	148	44.7	52	280	99.0
Cu	Santa Bertha	0.25	0.03	0.16	Spherical	35.0	32.3	13.5	0.05	Spherical	244.7	148	44.7	52	280	99.0
Pb	San Martin	1.84	0.27	1.14	Spherical	60.0	40.0	6.0	0.42	Spherical	140.0	117	15.0	52	280	71.1
Pb	Desprendimiento	1.69	0.21	1.13	Spherical	35.0	32.3	13.5	0.35	Spherical	244.7	148	44.7	52	280	99.0
Pb	Diana	5.86	0.71	3.92	Spherical	35.0	32.3	13.5	1.23	Spherical	244.7	148	44.7	52	280	99.0
Pb	Explorador 1	1.14	0.14	0.76	Spherical	35.0	32.3	13.5	0.24	Spherical	244.7	148	44.7	52	280	99.0
Pb	Explorador	5.05	0.62	3.38	Spherical	35.0	32.3	13.5	1.06	Spherical	244.7	148	44.7	52	280	99.0
Pb	Santa Bertha	3.50	0.43	2.34	Spherical	35.0	32.3	13.5	0.73	Spherical	244.7	148	44.7	52	280	99.0
Zn	San Martin	4.77	0.57	3.40	Spherical	11.5	18.6	6.8	0.79	Spherical	155.7	211	15.0	52	280	162.6
Zn	Desprendimiento	3.99	0.49	2.67	Spherical	35.0	32.3	13.5	0.84	Spherical	244.7	148	44.7	52	280	99.0
Zn	Diana	19.36	2.36	12.95	Spherical	35.0	32.3	13.5	4.05	Spherical	244.7	148	44.7	52	280	99.0
Zn	Explorador 1	2.86	0.35	1.92	Spherical	35.0	32.3	13.5	0.60	Spherical	244.7	148	44.7	52	280	99.0
Zn	Explorador	8.28	1.01	5.54	Spherical	35.0	32.3	13.5	1.73	Spherical	244.7	148	44.7	52	280	99.0
Zn	Santa Bertha	5.14	0.63	3.44	Spherical	35.0	32.3	13.5	1.08	Spherical	244.7	148	44.7	52.00	280.00	99.0

11.8 Block Model

Block models were created for zones in Tecolotes, Segovedad, and San Diego mines. Leapfrog Edge was used to build them and estimate silver, gold, lead, zinc, and copper within each domain.

Parent block sizes were chosen based on the minimum mining unit and sampling grid, aiming for sizes that are 1/3 to 1/2 of the sampling grid in well-informed zones. SRK utilized sub-blocks to add detail to fill the domain solids. Each block was assigned a domain code for estimation purposes.

Table 11-5: Block Models Origin, Extents, and Block Sizes

	Easing (X)	Northing (Y)	Elevation (Z)
Alfareña (San Diego)			
Base Point (m)	2,080	-3,210	2,100
Boundary size (m)	1,296	1,272	1,080
Parent Block Dimensions (m)	8	8	8
Sub-Cell Size (m)	0.5	0.5	0.5
Rotation: Azimuth, Dip	NA		
San Diego Norte (San Diego)			
Base Point (m)	2,871	-577	2,187
Boundary size (m)	693	4,186	1,533
Parent Block Dimensions (m)	7	7	7
Sub-Cell Size (m)	0.875	0.875	0.875
Rotation: Azimuth, Dip	NA		
San Diego Sur (San Diego)			
Base Point (m)	2,939	-2,544	2,100
Boundary size (m)	672	1,841	1,260
Parent Block Dimensions (m)	7	7	7
Sub-Cell Size (m)	0.875	0.875	0.875
Rotation: Azimuth, Dip	NA		
Segovedad			
Base Point (m)	1,850	-2,820	2,400
Boundary size (m)	5,663	1,512	1,113
Parent Block Dimensions (m)	7	7	7
Sub-Cell Size (m)	1.75	1.75	0.4375
Rotation: Azimuth, Dip	280°/50°		
Bronces (Tecolotes)			
Base Point (m)	1,420	-971	2,220
Boundary size (m)	3,556	2,100	350
Parent Block Dimensions (m)	7	6	7
Sub-Cell Size (m)	0.875	0.75	0.4375
Rotation: Azimuth, Dip	243°/63.6°		
Hidalgo (Tecolotes)			
Base Point (m)	-151	1,013	2,323
Boundary size (m)	3,143	910	539
Parent Block Dimensions (m)	7	7	7
Sub-Cell Size (m)	0.875	0.875	0.4375
Rotation: Azimuth, Dip	284°/51°		
San Albino (Tecolotes)			
Base Point (m)	170	710	2,260
Boundary size (m)	2,548	777	399
Parent Block Dimensions (m)	7	7	7
Sub-Cell Size (m)	0.875	0.875	0.4375
Rotation: Azimuth, Dip	278°/67°		

11.9 Grade Estimation

The estimation of silver, gold, zinc, copper, and lead was completed using Ordinary Kriging and Inverse Distance (ID2/ID3) methodologies. A combination of OK in the first search and ID2 in second and third estimation search was used in most of the domains and in Alfareña OK was used in the three estimation passess.

The variable orientation of search ellipses was applied across all domains to align with the changing orientations of the mineralized structures. This was achieved by utilizing the reference surfaces of each domain within the estimation tool of Leapfrog (Figure 11-10).

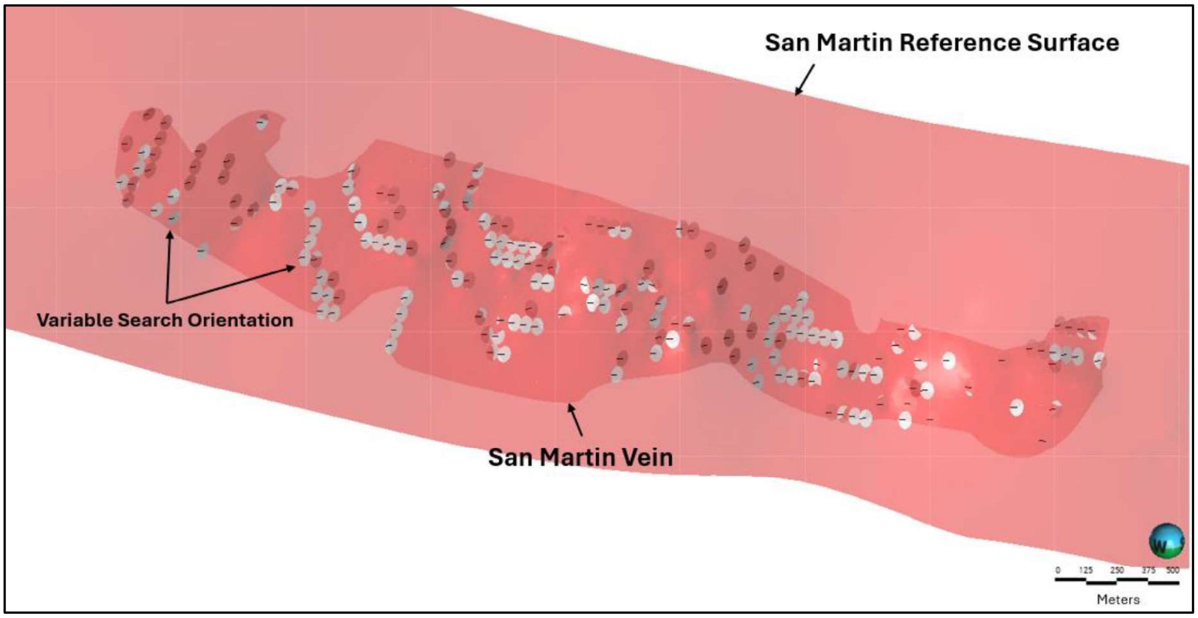


Figure 11-10: Variable Orientation for San Martin Vein

Implementing a variable orientation allows for the re-orientation of the search and variogram based on local characteristics, thereby enhancing the accuracy of local value estimates.

Table 11-6 presents the search ellipsoids parameters used. The minimum sample requirements were established to ensure that at least three drillholes are utilized during the first pass of estimation, and two drillholes for the second pass. For the third pass, a single drillhole is the minimum requirement to estimate a block. The search sizes, as well as the minimum and maximum number of samples, are determined based on the composite size and the parent block size and the characteristics of each domain or group of domains.

Table 11-6: Search Parameters

Pass	Ellipsoid Ranges			Variable Orientation	Number of Samples		Drillhole Limit
	Maximum (m)	Intermediate (m)	Minimum (m)		Minimum	Maximum	Max Samples per Hole
Segovedad							
1st	30-65	30-65	10-15	yes	9	20	4
2nd	60-100	60-100	10-30	yes	5	20	4
3rd	120-150	100-170	15-60	yes	1	20	4
Tecolotes							
1st	30	30	10	yes	11	20	5
2nd	60	60	30	yes	6	20	5
3rd	80	80	40	yes	1	20	5
San Diego							
1st	25	12.5	7.5	yes	7	18	3
2nd	50	25	15	yes	4	18	3
3rd	75	37.5	22.5	yes	1	18	3

11.10 Density

Santa Bárbara uses a 3.0 t/m^3 density value. The plant and the mine have relied on this density value for decades, ensuring a reasonable level of confidence. Santa Bárbara is collecting specific gravity tests to expand the database and validate the current density values. The specific gravity measurements use the Archimedes' principle that states that the buoyant force on an rock sample submerged in a fluid is equal to the weight of the fluid displaced by the sample. This principle can be used to determine the specific gravity of the rock sample, which is the ratio of the density of the substance to the density of a reference fluid, typically water.

It is the QP's opinion that different vein systems, rock types, and the characteristics of the mineralization will likely have variable densities. The use of a standard density value likely results in over and under estimation of different rock types on a local scale. It is the QP's opinion Santa Bárbara should continue collecting representative density data from all zones of Santa Barbara, from different locations (Horizontal and vertical coverage) and mineralization types.

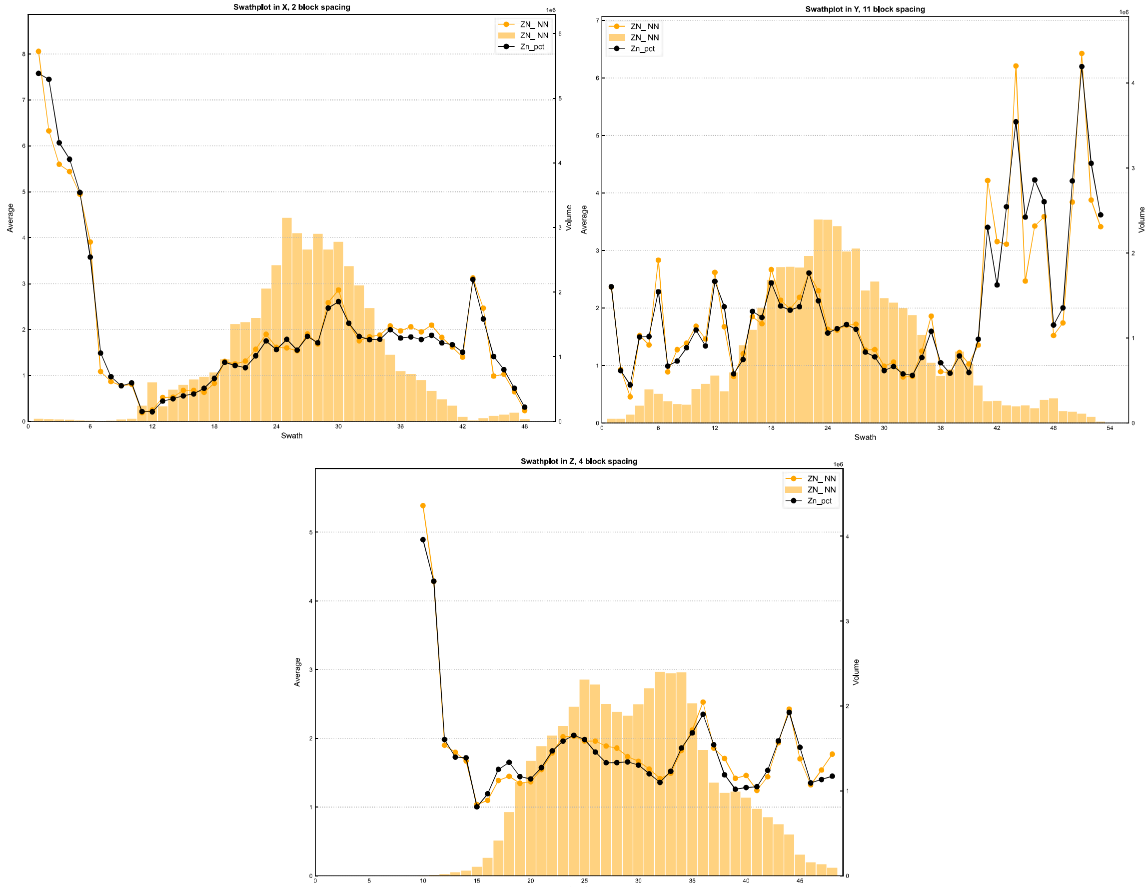
In the current estimate the tonnages are calculated by multiplying the obtained volumes by the 3.0 t/m^3 density value.

11.11 Model Validation

The visual validation was conducted through three methods: visual validation, comparative statistics, and swath plots. The statistics of the estimated elements using Ordinary Kriging (OK)/Inverse Distance (ID), and Nearest Neighbor (NN) algorithms were compared. Figure 11-11 shows and example demonstrates the visual validation of estimated blocks against the composites, illustrating good correlation between the two.

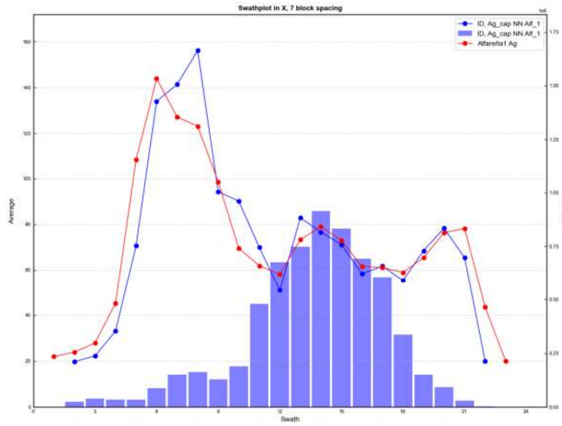
Figure 11-11: 3D View of Estimated Blocks vs Composites – Zn % - Coyote Vein (San Diego)

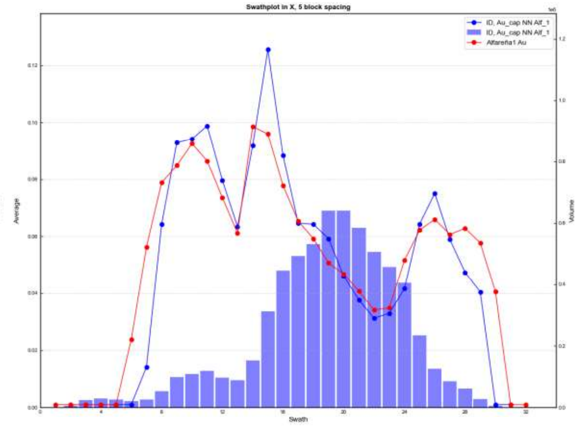
Figure 11-12 includes examples of swath plots prepared for the validation of the San Diego Norte. Figure 11-13 shows the swath pots and statistics for the individual Alfareña-1 domain. The plots display the curves of the estimated Zn/Ag grades using Ordinary Kriging (OK/ID in San Diego and OK for Alfareña), and Nearest Neighbor (NN) algorithms, along with the comparative statistics. The curves exhibit strong correlation, and the mean grades are closely aligned, which are considered reasonable

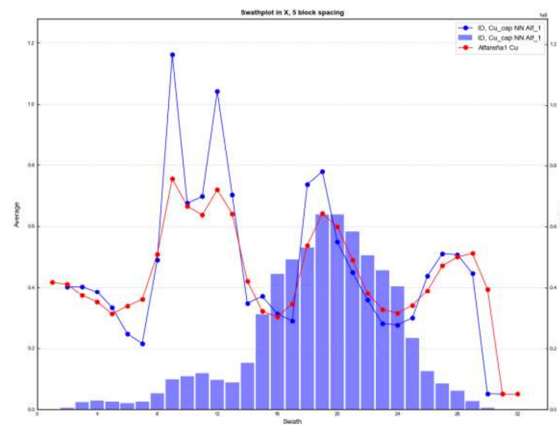


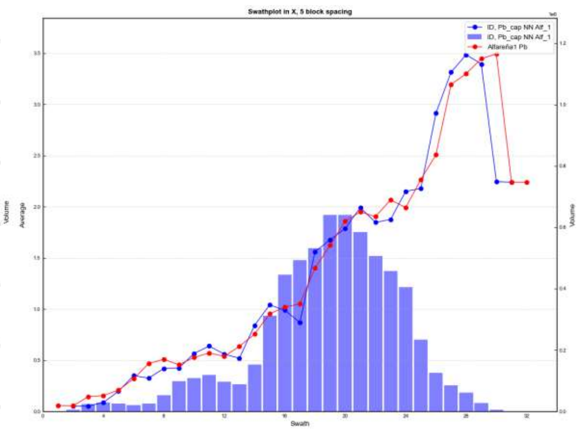
Estimated Grade	Volume m³ x 1000	Mean %	SD	CoV	Variance	Min.	Max.
ZN NN	43,782	1.75	2.87	1.64	8.25	0.0001	15.00
Zn OK-ID	43,782	1.71	2.08	1.22	4.31	0.0001	14.99

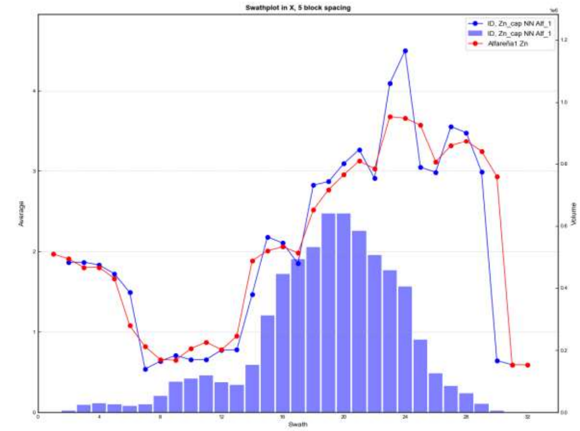
Figure 11-12: Swath plots (X, Y, Z coordinate axes) and Comparative Statistics – Zn % - San Diego Norte


Swathplot in X, 7 block spacing
ID, Ag_cap NN Alf_1
ID, Ag_cap NN Alf_1
Alfareña1 Ag
Average
Volume
Swath


Swathplot in X, 5 block spacing
ID, Au_cap NN Alf_1
ID, Au_cap NN Alf_1
Alfareña1 Au
Average
Volume
Swath


Swathplot in X, 5 block spacing
ID, Cu_cap NN Alf_1
ID, Cu_cap NN Alf_1
Alfareña1 Cu
Average
Volume
Swath


Swathplot in X, 5 block spacing
ID, Pb_cap NN Alf_1
ID, Pb_cap NN Alf_1
Alfareña1 Pb
Average
Volume
Swath

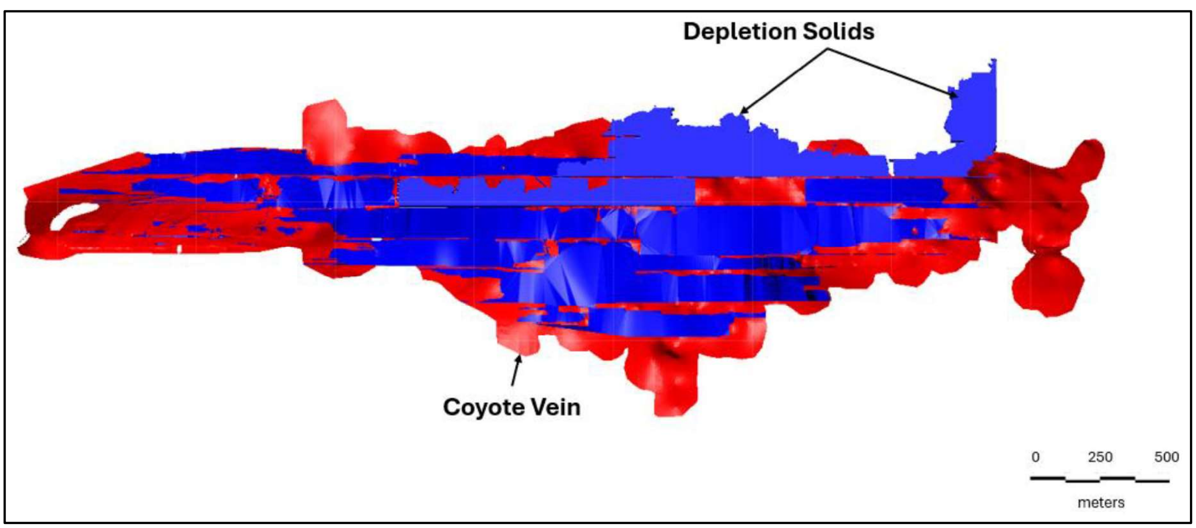


Estimated Grade	Volume m^3 x 1000	Mean %	SD	CoV	Variance	Min.	Max.
Ag NN g/t	6,232	73.0	65.3	0.89	4,262	8.388	419.8
Ag OK g/t	6,232	71.7	50.5	0.70	2,547	5.000	382.3
Au NN g/t	6,232	0.06	0.09	1.56	0.01	0.001	0.60
Au OK g/t	6,232	0.06	0.07	1.31	0.01	0.001	0.56
Cu NN %	6,232	0.48	0.53	1.11	0.29	0.042	2.85
Cu OK %	6,232	0.46	0.37	0.81	0.14	0.040	6.27
Pb NN %	6,232	1.57	1.32	0.84	1.75	0.052	5.64
Pb OK %	6,232	1.56	1.12	0.72	1.25	0.051	6.94
Zn NN %	6,232	2.73	2.20	0.81	4.83	0.060	13.38
Zn OK %	6,232	2.63	1.46	0.55	2.12	0.050	16.74

Figure 11-13: Swath Plots (Y coordinate axis) and Comparative Statistics (Ag, Au, Cu, Pb, Zn) – Afareña 1 Domain

11.12 Depletion

IMMSA used the updated underground surveying information provided by the mine department, which includes solids previously validated by the mining team, the solids of the underground workings were employed in Leapfrog to flag the block model and identify the mined material from Santa Barbara. For each domain, the geologist used the mine topography to construct extruded solids to accurately flag the blocks, storing the fraction of each block that lies within the depletion solid.



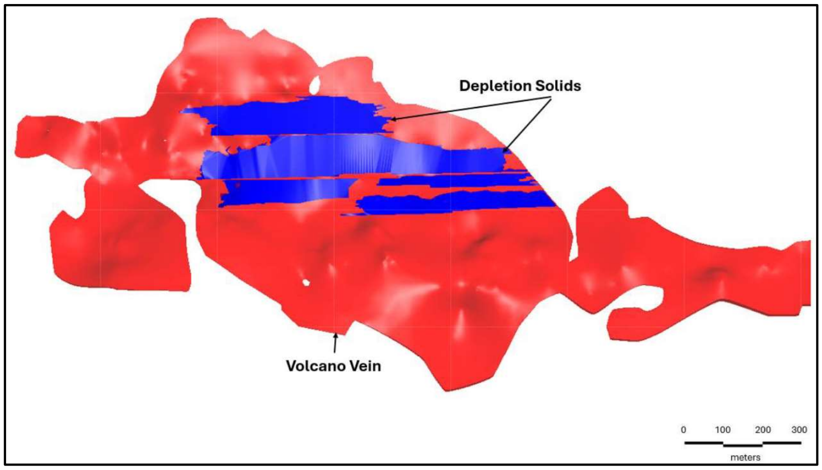


Figure 11-14: Depletion Solids – Coyote and Volcano Veins (San Diego)

The mine department is responsible for maintaining updated topography of the mining works, both digitally and physically in plans. The current system captures survey points directly into a digital copy of the underground workings, which are then validated in the field. These survey data points are used to update the AutoCAD definition of the depleted areas.

The QP comments that the final depletion shapes used were updated to December 31, 2024.

11.13 Resource Classification and Criteria

The QP has classified the mineral resources in accordance with §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K) and in a manner consistent with industry guidelines and definitions as defined by CRIRSCO. Mineral resources are classified as Indicated and Inferred, according to the following definitions and criteria.

The mineral resources are classified as Indicated and Inferred, according to the following definitions and criteria:

11.13.1 Measured Resources

No Measured resources are reported due to insufficient overall confidence in confirming geological and grade continuity between observation points, which is necessary to support detailed mine planning and final evaluation studies. Additionally, the QP identifies other limitations, including a lack of density measurements, inadequate QA/QC protocols in the hidtorical mine sampling and drilling, and lack of measurements of downhole surveys for historical drilling. SRK established that there are no Measured resources in Santa Bárbara.

11.13.2 Indicated Resources

The definition of Indicated resources has been updated in this new estimation, now based on geostatistical analysis and the historical data of the Santa Barbara deposit.

Indicated Mineral Resources are reported based on density data and appropriate drill spacing, which ranges from 25 to 100 meters and varies for some mineralized structures. Variography indicates that grade variation ranges between 80 and 200 meters. The variability of zinc over short distances is derived from rock sample data, which involves a certain level of uncertainty due to the quality of the information, lack of QA/QC, data quality, and deficient historical sampling methods. Additionally, variography shows a variable nugget effect for the different mineralized structures and elements.The criteria to define the Indicated material is as follows:

- Blocks informed by at least two drillholes (rock and channel sampling).
- Zones with a drill spacing of 60 m.
- Continuous delineated zones (defined by hand) that accomplish the previous conditions.

11.13.3 Inferred Resources

The Inferred resources can be established in areas with sufficient geological confidence, and the following requirements are met:

- Material located 45 m of the closest single hole in each mineralized structure or dril spacing of 90 m.
- Material with reasonable geological continuity of the mineralized structures interpreted by IMMSA

Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures and the lack of measurements of downhole surveys, SRK established that there are not measured resources in San Martín.

Figure 11-15 shows an example of the resource blocks in Manto A (Long Section).

Considering these criteria, SRK manually delineated the zones within each domain that met the different classification criteria. The manually created polylines were used to generate solids that intersect the solids of the mineralized bodies to assign the corresponding codes to each domain. Figure 11-15 presents examples of these solids and also shows examples of the block models of two domains and the resulting classification.

Figure 11-15: Long Section of Veta Coyote – San Diego (Top) and Bronces -Tecolotes (Bottom) Including the Mineral Resource Blocks Color Coded by Classification

11.14 Uncertainty

11.14.1 Indicated Resources

It the QP's opinion that the Indicated resources are estimated based on adequate geological evidence and sampling. The distances of influence from underground sampling and distances between drilling are the controlling aspects on the uncertainty. Santa Bárbara uses a maximum of 30 m from channel sampling and 60 m between drillholes. The criteria and uncertainty correspond to the medium degree of uncertainty column in Table 11-1.

Table 11-7: Sources and Degree of Uncertainty

Source	Degree of Uncertainty		
	Low	Medium	High
Drilling	Recent drilling completed by the exploration team is in line with industry standards. This drilling is focused in new areas that are extensions of the vein systems found at Santa Bárbara.	Protocols of historical drilling data supporting the mineral resources do not fulfill industry standards.	
Sampling		Protocols of rock sampling are not in-line with industry standards. Density of rock and core sampling supporting the mineral resources is reasonable.	
Geological knowledge	There is an extensive knowledge of the geology and mineralization of the Santa Bárbara mineral deposit. This aspect and the experience of the management team provides confidence to the geological assumptions during geological interpretations.		
QA/QC	Sample preparation, chemical analysis, and the QA/QC procedures implemented by the exploration team for the drilling completed by the contractor Tecmin in recent years meet current industry standards. These works are focused in new areas that are extension of the veins systems at Santa Bárbara.	A lower precision of historical data has been recognized. Drilling and channel sampling completed by the mine geology department supporting the mineral resources have not been supported by adequate QA/QC protocols.	
Data verification	The extensive historical production information and knowledge of geology and mineralization provides support to the historical data collected since the early 20th century.	The lack of an important part of the core from historical drilling supporting the mineral resources limited the verification activities.	
Database	Original geology, structural and mineralization maps, drill core logging formats (including the assay results), and interpretation plan and vertical sections that support the mineral resources are stored in the operation in paper format, Most of the information is now digitized in excel files and uploaded to Leapfrog Software.	Most of the data supporting mineral resources is stored on paper. Local errors related to handwritten supporting data are expected. Most of the information is now digitized in excel files and uploaded to Leapfrog Software.	
Bulk density		A unique value is used for all the rock types and does not consider the mineralization, vein system, and geology changes. This introduces local inaccuracies. Plant and mine have been using a unique density value for decades, which provides support to this number.	
Variography	assumptions of mineralization have been based on this analysis and the extensive geological knowledge of the deposit.		
Grade estimation		Grades and volume calculations are based on historical and recent data, which provides some level of inaccuracy.	
Prices, NSR values	Prices and costs are based on Santa Bárbara mining and production information (not exceeding 12 month averages). Changes in pricing could result in changes to economics		
Drill and sample spacing		Distances to underground workings and channel sampling are less than 30 m. There is a minimum of two drillholes within a drill spacing of 60 m.	There is a minimum of one hole at a distance less than 45 m. and drill spacing of 90 m.
Depletion		The resource blocks are defined considering the updated topography of the mine. The adequacy and precision of the historical surveying information of the underground workings and exploited areas introduces some level of inaccuracy to the limits of the resource blocks.	
Criteria of classification	Distances of influence of samples are supported on the good knowledge of geology and mineralization. These distances are considered conservative, which mitigates in some extent the risk associated to over-estimation of the continuity of mineralization.		

Note: Changes in metal prices will likely result in significant changes in the values derived from the NSR equation. Currently, only limited stopes fall below the operating costs of US$82.98/t.

11.14.2 Inferred Resources

The Inferred category is limited to the resources that are in areas where the quantity and grade are estimated based on limited sampling and moderate to limited geological evidence. This category is considered to have the highest levels of uncertainty, which correspond to the high degree of uncertainty column in Table 11-1. These areas of the Santa Bárbara project represent the areas with the lowest drilling density and influence distances to channel sampling of up to 45 m and drill spacing of 90 m. SRK considers that these areas of the mineral resource will need additional drilling and underground workings prior to mining.

Considering the uncertainty noted above and the means designed to address uncertainty in the modeling and estimation process, SRK is of the opinion that the stated mineral resources are appropriate.

In addition, there is potential for some of these uncertainties or risks to be mitigated or reduced through additional study. Section 23 of this report summarizes recommendations for these studies. It is the QP's opinion that measures should be taken to mitigate the uncertainty, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m.
- Complete consistency in the digitization of all geological information for all the areas of the deposit and storage of data into a commercial secure database.
- Complete the detailed geological modeling methods using the new digital database.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains.
- Introduction of more-routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3.0 t/m^3 value.
- Rigorous approach to classification which appropriately considers the noted detractors in confidence and utilizes criteria designed to address them.

11.15 Cut-Off Grades Estimates

Definitions for mineral resource categories used in this technical report summary are those defined by the SEC in S-K 1300. Mineral resources are classified into Indicated and Inferred categories. Mineral resources are reported in total, as currently no mineral reserves are reported in accordance with S-K 1300 requirements.

Geologists use diamond drilling information, channel sampling, and development information to identify mineralized areas. IMMSA and SRK constructed a geological model generating solids for each mineralized structure using Leapfrog software, completed the statistical analysis to define capping and compositing of the raw data. Based on the spatial analysis, the geologists defined the estimation parameters and the search strategy to interpolate Ag, Au, Cu, Pb and Zn into the block model. Mineral resources were classified following the industry standards.

Santa Bárbara's mineral resources are considered to be amenable to underground mining methodologies, as has been established at the mine to date. Due to the variable characteristics of the orebodies, four types of mining methods are used: shrinkage stoping, long-hole drilled open stoping, cut-and-fill stoping, and horizontal bench stoping. The mined material, once crushed, is processed in the flotation plant to produce concentrates (zinc concentrate, copper concentrate, and lead concentrate).

Given that process recoveries and costs in the resource model are grade and/or domain dependent, the resources are reported with respect to a block NSR value, which is calculated on a stope block (panel) basis. The cut-off value used for the resource estimate is based on an NSR value, in units of US$/t, which can be directly compared to operating unit costs. The NSR formula is:

$$NSR = \frac{\text{Gross Revenue} - \text{Off-Site Charges}}{\text{Tonnes Processed}}$$

The calculation of the NSR is effectively a calculation of unit values for the individual metals, which results in a value for a block based on the contained metal.

IMMSA reviewed supply and demand projections for zinc, lead, and copper, as well as consensus long term (10-year) metal price forecasts. IMMSA's supplied the QP with internal selected metal prices for mine planning for the Santa Bárbara project. The QP has reviewed these prices against independent forecasts from banks and other lenders, and in the QP's opinion the proposed prices are considered appropriate.

NSR cut-off values for the mineral resources were established using a gold price of 1,725 US$/oz, a zinc price of US$1.32/lb, a lead price of US$1.09/lb, a silver price of US$23.0/oz, and a copper price of US$3.80/lb (Table 11-8).

Table 11-8: Price Assumptions

Factors	Value	Unit
Metal Prices		
Au	1,725.00	US$/oz
Ag	23.00	US$/oz
Pb	1.09	US$/lb
Cu	3.80	US$/lb
Zn	1.32	US$/lb
Exchange rate (MXN:US$)	18.3023	

It is the QP's opinion that the metal prices used for mineral resources are reasonable based on independent checks using consensus, long-term forecasts from banks, financial institutions, and other sources.

Santa Bárbara's metallurgical recovery factors are based on historic performance of the processing plants and are shown in Table 11-9. The basis for these factors is discussed in Section 10.4 of this report. The QP has elected to use the average recoveries on a three year trailing average (2022-2024) for the basis for the year-end mineral resources.

Table 11-9: Metallurgical Recovery Assumptions

Element	Value	Unit
Au	33.4	%
Ag	81.0	%
Pb	79.0	%
Cu	58.1	%
Zn	80.0	%

In addition to the price and metallurgical recovery, IMMSA has applied additional NSR factors in the metal equivalency calculation to account for other aspects of the mineralization. These additional factors include but are not limited to:

- Smelter recoveries
- Smelter penalties (arsenic and bismuth)
- Fleet/transport costs

The NSR factors can be expressed as a further percentage and are averaged out over the annual production. Table 11-10 shows a comparison of the 2021 vs. 2024 factors for the additional percentages applied to the recoverable metal (in-situ metal times recovery). It is the QP's opinion that there is no material change in the percentages.

Table 11-10: NSR Adjustment Factors

Element	Value (2021)	Value (2022)	Value (2023)	Value (2024)	Unit
Au	71.7	68.6	70.8	66.3	%
Ag	90.6	90.7	90.4	90.9	%
Pb	94.3	94.4	94.4	94.7	%
Cu	84.7	87.4	85.5	90.9	%
Zn	85.2	84.6	84.5	86.0	%

In summary, using the above prices, recovery, and NSR adjustments for the smelter terms, the QP has applied the following equation to define the stope values on a stope-by-stope basis. The following criteria should be considered inclusive of the average metallurgical recovery:

NSR Value = NSR = Au(g/t)*11.94518+Ag(g/t)*0.539611+Pb(%)*18.12523+Cu(%)*44.16642+Zn(%)*19.87623

The operating unit cost used to determine the reasonable prospects for economic extraction has been determined by reviewing the costs over the past three years. Based on current market conditions, the QP has elected to use the 2024 costs as the basis for the assessment, which in their opinion is a reasonable basis for the declaration of mineral resources (Table 11-11) and reflect the same conditions under which the recoveries have been assumed.

The economic value of each block is then calculated based on the estimated grades using the NSR equation above, and the QP has assigned a flag for all blocks based on an assessment of their economic value where the NSR values is above/below a CoG of the operating unit cost of US$82.98/t.

Table 11-11: Operating Unit Cost

Factor	Value	Unit
Mine	30.46	US$/t
Mill	15.11	US$/t
Indirect	22.85	US$/t
Subtotal	**68.41**	**US$/t**
Smelting, refining, and transportation	13.25	US$/t
Administrative	1.32	US$/t
Total Operating	**82.98**	**US$/t**

11.16 Summary Mineral Resources

Santa Bárbara mineral resources are consistent with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction. Using the panels defined by the geologist, the QP has reviewed each panel relative to the defined CoG's. Mineral resources have been reported on an in-situ basis. No further accounting for additional stockpile material is considered in the current estimate. Depletions have been accounted for up to December 31, 2024.

In the QP's opinion, the assumptions, parameters, and methodology used for the Santa Bárbara underground mineral resource estimates are consistent with industry practices. Table 11-12 summarizes the mineral resources for the Santa Bárbara underground operation as of December 31, 2024. Mineral resources have been reported in total, as currently no mineral reserves are declared for the Santa Bárbara project in compliance with the new S-K 1300 standards.

Table 11-12: Santa Bárbara Summary Mineral Resources at End of Fiscal Year Ended December 31, 2024, Based on Price[1]– SRK Consulting (U.S.), Inc.

IMMSA Underground - Santa Barbara								Cut-off[2]: NSR US$82.98				
Category	Quantity	Grade						Contained Metal				
	Tonnes (kt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR US$	Au (koz)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Measured												
Indicated	19,883	0.16	97.51	3.36	1.71	0.47	173.01	100	62,335	668,289	340,671	93,064
M+I	19,883	0.16	97.51	3.36	1.71	0.47	173.01	100	62,335	668,289	340,671	93,064
Inferred	47,333	0.12	81.54	3.34	1.87	0.45	165.32	186	124,081	1,578,731	884,616	211,100

[1] Mineral resources are reported Exclusive of Mineral reserves. Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, zinc and copper assays were capped where appropriate. Given historical production, it is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold..

[2)] Mineral resources are reported at metal equivalent CoG's based on metal price assumptions, * variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors.*** Mining, processing, and G&A costs total US$82.98.4/t.

* Metal price assumptions considered for the calculation of metal equivalent grades are: Gold (US$/oz 1,725.00), Silver (US$/oz 23.0), Lead (US$/lb1.09), Zinc (US$/lb 1.32) and Copper (US$/lb 3.80)

** CoG calculations and metal equivalencies assume variable metallurgical recoveries as a function of grade and relative metal distribution. Average metallurgical recoveries are: Gold (33.4%), Silver (81%), Lead (79%) and Zinc (80%) and Copper (40%) assuming recovery of payable metal in concentrate

*** CoG calculations and metal equivalencies assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Au(g/t)*11.94518+Ag(g/t)*0.539611+Pb(%)*18.12523+Cu(%)*44.16642+Zn(%)*19.87623

Note: The mineral resources were estimated by SRK Consulting (U.S.), Inc., a third-party QP under the definitions defined by S-K 1300.

11.17 Comparison to Previous Estimates

As part of the annual year end reporting requirements SRK has completed a comparison of the Mineral Resources between December 31, 2023, and December 31, 2024 for the Project. The results of the comparison are shown in Table 11-13.

Table 11-13: Comparison IMMSA December 31, 2024 vs. 2023 Mineral Resources Statement for Santa Barbara Mine, SRK Consulting (U.S.), Inc.

IMMSA Underground - Santa Barbara								Cut-off: NSR2024 US$82.98				
Category	Quantity	Grade						Contained Metal				
	Tonnes	Au	Ag	Zn	Pb	Cu	NSR	Au	Ag	Zn	Pb	Cu
	(kt)	(g/t)	(g/t)	(%)	(%)	(%)	(US$)	(koz)	(koz)	(t)	(t)	(t)
Indicated 2023	25,512	0.27	103	3.15	1.99	0.52	181	221	84,495	804,089	508,525	132,349
Indicated 2024	19,883	0.16	98	3.36	1.71	0.47	173	100	62,335	668,289	340,671	93,064
Difference (%)	-5,629	-0.11	-6	0.21	-0.28	-0.05	-8	-121	-22,160	-135,801	-167,855	-39,286
Difference (%)	-22%	-42%	-5%	7%	-14%	-10%	-4%	-55%	-26%	-17%	-33%	-30%
Inferred 2023	19,664	0.17	100	4.03	2.36	0.56	204	107	63,479	792,334	464,917	109,834
Inferred 2024	47,333	0.12	82	3.34	1.87	0.45	165	186	124,081	1,578,731	884,616	211,100
Difference (%)	27,669	-0.05	-19	-0.69	-0.50	-0.11	-38	79	60,601	786,397	419,699	101,266
Difference (%)	141%	-28%	-19%	-17%	-21%	-20%	-19%	73%	95%	99%	90%	92%

SRK has reviewed the changes and considers there to be material change in the estimates between the two time periods. Where differences exist, they can be attributed to the following factors:

- The methodology for geological modeling and mineral resource estimation has transitioned from 2D, primarily completed on paper, to 3D implicit geological modeling, geostatistical analysis, block model construction, and mineral resource estimation using Leapfrog Geo software.
- The new methodology incorporated changes in the approach to evaluating capping, utilizing statistical tools to assess each element by domain or group of domains, and evaluating grade continuity through variography analysis.
- Change in the CoG on a NSR basis of -$0.42/t or (-0.5%), resulting in a minor increase in the tonnage. The change in the CoG accounts for:
  - Changes in the recovery factors used between 2023 and 2024.
  - Slight decrease in Smelting, refining, and transportation, and increase in mining plant and indirect costs.
- Additional exploration and mine sampling to increase confidence in the mineral resources prior to mining.
- No changes were made to the price assumptions during the time period for the purpose of declaration of Mineral Resources.
- The inferred continuity of the mineralized structures was based on the variography analysis and the geological evidence that resulted in a significant increase in inferred resources. Previous estimates defined inferred resources solely based on fixed distances to data.
- The combination of the aforementioned factors resulted in a reduction in Indicated resources and an increase in Inferred resources.

11.18 Opinion on Influence for Economic Extraction

It is the QP's opinion that the geology and mineralization controls of the Santa Bárbara deposit are very well understood based on the extensive knowledge of the deposit from decades of exploitation.

The mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards. The mine is currently in production and in the QP's opinion, there remains a reasonable prospect for economic extraction of the resource.

The QP is of the opinion that with consideration of the recommendations summarized in Sections 1 and 23, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

12 Mineral Reserve Estimates

Section 12 Mineral Reserve Estimates is not applicable for the current level of study and has not been included in this report.

13 Mining Methods

Section 13 Mining Methods is not applicable for the current level of study and has not been included in this report.

14 Processing and Recovery Methods

Section 14 Processing and Recovery Methods is not applicable for the current level of study and has not been included in this report.

15 Infrastructure

The Santa Bárbara project has some existing infrastructure which supports the current operation. However, the QP has not inspected the infrastructure to sufficient levels to support the declaration of mineral reserves at this stage.

16 Market Studies

Section 16 Market Studies is not applicable for the current level of study and has not been included in this report. SRK has used costs, pricing, and criteria as supplied by the operation which were reviewed and considered to be reasonable to support the current level of studies. To support the declaration of mineral reserves, at a minimum, a pre-market study of the various concentrates will need to be completed.

17 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups

Section 17 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups is not applicable for the current level of study and has not been included in this report.

18 Capital and Operating Costs

Section 18 Capital and Operating Costs is not applicable for the current level of study and has not been included in this report.

19 Economic Analysis

Section 19 Economic Analysis is not applicable for the current level of study and has not been included in this report.

20 Adjacent Properties

The Santa Bárbara deposit sits within a larger metalliferous province. The Santa Bárbara mining unit adjoins to the north-east with the San Francisco mining unit belonging to Grupo Frisco, located at a distance of 12.3 km (Figure 20-1).

Figure 20-1: Location of the San Francisco del Oro Project

21 Relevant Data and Information

The Santa Bárbara mine is currently in production and previously disclosed mineral resources in 2023. The Company has completed the technical work, including the 3D geological model, statistical and geostatistical analysis, and constructed a 3D block model to finalize the 2024 Mineral Resource estimate using Leapfrog Geo software.

22 Interpretation and Conclusions

SRK is of the opinion that the data and analysis presented herein is of sufficient quality and completeness to support the estimation of mineral resources. Santa Bárbara's vein deposits have been mined historically and are currently in production, processing three concentrates (zinc, copper, and lead) via underground mining operations.

22.1.1 Drilling and Sampling

The drilling and analytical work are supported by surveys and limited quality control measures to support confidence in the accuracy and precision of the data.

Historically Santa Bárbara's mine geology department has not implemented quality controls for the procedures of collection of samples from drilling and rock sampling from underground workings. The The IMMSA geology department initiated in 2023 the implementation of quality assurance and quality control (QA/QC) protocols in exploration activities, as well as core and rock sampling. SRK emphasizes that these new QA/QC protocols must be properly implemented and consistently applied during core and channel sampling to meet industry standards. IMMSA continue the implementation of the best practice. Historical information represents a source of uncertainty for the data collected by the mine geology department.

Since 2019, the exploration department has been managing the drilling campaigns at Santa Bárbara, using a contractor (Tecmin). The recent drilling completed by Tecmin has been completed following procedures and QA/QC protocols, which SRK considers to be in-line with industry best practices.

22.1.2 Geology and Mineralization

The geology and mineralization controls are very well known, supported by the almost 100 years of mining operation and knowledge of the deposit. The geology, mineralization, and sampling information that support the mineral resources is available in paper documents and has been digitized for geological modeling, statistical analysis and 3D block modeling and resource estimation.

22.1.3 Mineral Resource Estimates

The estimate was categorized in accordance with industry standards. Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for eventual economic extraction. A CoG has been derived from these economic parameters, and the resource has been reported above this cut-off. The mineral resource is exclusive of reserves, but as no reserves have been quoted for December 31, 2024, the mineral resources are reported in total. Comparison of the updated Mineral Resources demonstrates, in the QP's opinion, no material changes from the previous estimates.

SRK is of the opinion that the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

The methodology for geological modeling and mineral resource estimation has transitioned from 2D, primarily completed on paper, to 3D implicit geological modeling, geostatistical analysis, block model construction, and mineral resource estimation using Leapfrog Edge software.

The new methodology introduced changes in evaluating capping, using statistical tools to assess each element by domain or group of domains, and evaluating grade continuity through variography analysis. This approach, combined with geological evidence, led to a significant increase in inferred resources, as the inferred continuity of the mineralized structures was based on variography analysis rather than fixed distances to data. Consequently, these factors resulted in a reduction in Indicated resources and an increase in Inferred resources.

The new methodology using the 3D geological model and the digitized database allowed for spatial data analysis to evaluate the continuity of mineralization. The greatest impact on resources is due to the application of new classification criteria adequately supported by geostatistical information, reevaluating areas previously classified as Indicated resources, and allowing the generation of zones in each domain with greater continuity for Inferred classification. This significantly differs from the results obtained in previous years, which were based on estimation methodology using manual calculations and limited three-dimensional analysis.

The reduction in grades compared to 2023 is attributed to the smoothing effect caused by the application of statistical methods to define various levels of capping. Additionally, the use of estimation algorithms based on variography and statistical parameters has contributed to reducing the estimation error.

There is a significant amount of historical information that lacks chemical analysis for certain elements. Additionally, some intercepts of mineralized zones have not been sampled and chemically analyzed. As a result, minimum values were assigned to all unsampled and unanalyzed drilling intercepts, which directly impacts the grade estimation.

23 Recommendations

It is the QP's opinion that measures should be taken to mitigate uncertainty in several areas, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- SRK recommends that the Santa Bárbara mine geology department consistently continue the implementation of the QA/QC protocol for drilling and rock sampling activities. .
- Regarding the exploration department's QA/QC protocol, SRK recommends including the second laboratory controls (Tercerías) periodically (quarterly, as an example) and reviewing the acceptability ranges for the CRM's and the coarse and core duplicates, which are considered very strict.
- Continue the digital recording all geological information and storage of data into a commercial secure database
- Implement a grade control protocol and reconciliation procedure to demonstrate confidence in the current estimates versus mining production.

23.1 Mineral Resource Estimates

- SRK advises maintaining a continuous update of the geological model to ensure accurate future mineral resource assessments, adjustments should be made to account for new drilling and for mapped contacts exposed during underground mining where possible.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains.
- Introduction of more-routine density sampling of all the areas of the deposit within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3 t/m^3 value. It is the QP's opinion this is needed to assign higher levels of confidence (i.e. Measured).
- Based on the performance of the current model versus the mining production a review of the classification procedures maybe warranted in 2025. Classification should be based on a combination of data quality, confidence in the geological model and estimation parameters which in part is related to the sample spacing. A rigorous approach to classification which appropriately considers the noted impact on confidence should be completed. It is the QP's opinion that the risk noted can be reduced with further exploration.

23.2 Recommended Work Programs

The recommended work program includes the following activities:

- Ongoing exploration and grade-control drilling
- Continue the database capture of new exploration data, including drilling, channel sampling, and geological interpretations of all the areas of the deposit to support the update of a 3D geological model and future mineral resource estimates using a block model. The data should be stored in a secure database that provides and audit trail of updated data.
- Development of a more detailed reconciliation program to monitor the quality of the current estimation versus production.

23.3 Recommended Work Program Costs

Table 23-1 provides the approximate budget of the 2025 work program.

Table 23-1: Recommended Work Program Costs

Discipline	Program Description	Cost (US$ million)
Geology and exploration	Ongoing exploration and grade-control drilling	4.6
Updated mineral resource estimates	Generation of geological model and mineral resource estimates	0.2
Mining methods/mineral resource estimates	Development of mine plan and optimization of mining methodology	0.4
Total		**$5.2**

Source: SRK, 2025

24 References

Aguirre-Díaz, G., and McDowell, F., (1991). The volcanic section at Nazas, Durango, México, and the possibility of widespread Eocene volcanism within the Sierra Madre Occidental: Journal of Geophysical Research, v. 96, p. 13,373-13,388.

Camprubí, A., Ferrari, L., Cosca, M., Cardellach, E., and Canals, A., (2003). Ages of Epithermal Deposits in México: Regional Significance and Links with the Evolution of Tertiary Volcanism, Economic Geology, Vol. 98, p. 1029-1037.

CONAGUA, (2020). Actualización de la Disponibilidad Media Annual de Agua en el Acuífero Parral Valle del Verano (0834), Estado de Chihuahua", Comision Nacioal del Agua, Ciudad de México, p. 8-16.

Enríquez, E., and Rivera, R., (2001). Timing of magmatic and hydrothermal activity at the San Dimas District, Durango, México: Society of Economic Geologists Special Publications, v. 8, p. 33-38.

Ferrari, L., López-Martínez, M., and Rosas-Elguera, J., (2002). Ignimbrite flare up and deformation in the southern Sierra Madre Occidental, western México: Implications for the late subduction history of the Farallon plate: Tectonics, v. 21, no. 17, p. 1-24.

Gans, P. B., (1997). Large-magnitude Oligo-Miocene extension in southern Sonora: Implications for the tectonic evolution of northwest México: Tectonics, v. 16, p. 388-408.

Glenn, J., and Ruiz, J., (1988). The Pb-Zn-Cu-Ag Deposits of the Granadeña Mine, San Francisco del Oro-Santa Bárbara District, Chihuahua, México, Economic Geology, Vol. 83, p. 1683-1702.

González-León, C. M., McIntosh, W. C., Lozano-Santacruz, R., Valencia-Moreno, M., Amaya-Martinez, R., and Rodríguez-Castañeda, J. L., (2000). Cretaceous and Tertiary sedimentary, magmatic, and tectonic evolution of north-central Sonora (Arizpe and Bacanuchi quadrangles), northwest México: Geological Society of America Bulletin, v. 112, p. 600-610.

Henry, C. D., and Fredrikson, G., (1987). Geology of part of southern Sinaloa, México, adjacent to the Gulf of California: Geological Society of America Maps and Charts Series, MCH 063, 1 sheet, p. 14.

Lang, B., Steinitz, G., Sawkins, F. J., and Simmons, S., (1988). K-Ar age studies in the Fresnillo silver district, Zacatecas, México: ECONOMIC GEOLOGY, v. 83, p. 1642-1646.

Lunder and Pakalnis (1997), Determination of the strength of hard-rock mine pillars P.J. Lunder, Royal Oak Mines, Timmins, Ontario R.C. Pakalnis,The University of British Columbia, Vancouver, British Columbia, technical paper, rock mechanics committee of CIM, p. 1 - 5.

McDowell, F. W., and Keizer, R. P., (1977). Timing of mid-Tertiary volcanism in the Sierra Madre Occidental between Durango city and Mazatlan, México: Geological Society of America Bulletin, v. 88, p. 1479-1487.

McDowell, F. W., and Clabaugh, S. E., (1979). Ignimbrites of the Sierra Madre Occidental and their relation to the tectonic history of western México: Geological Society of America Special Paper 180, p. 113-124.

McDowell, F. W., Roldán-Quintana, J., and Amaya-Martínez, R., (1997). Interrelationship of sedimentary and volcanic deposits associated with Tertiary extension in Sonora, México: Geological Society of America Bulletin, v. 109, p. 1349-1360.

McKee, E. H., Dreier, J. E., and Noble, D. C., (1992). Early Miocene hydrothermal activity at Pachuca-Real del Monte, México: An example of spacetime association of volcanism and epithermal Ag-Au mineralization: ECONOMIC GEOLOGY, v. 87, p. 1635-1637.

Morán-Zenteno, D. J., Tolson, G., Martínez-Serrano, R. G., Martiny, B., Schaaf, P., Silva-Romo, G., Macías-Romo, C., Alba-Aldave, L., Hernández- Bernal, M. S., and Solís-Pichardo, G. N., (1999). Tertiary arc-magmatism of the Sierra Madre del Sur, México, and its transition to the volcanic activity of the Trans-Mexican volcSciences, v. 12, p. 513-535.

Nieto-Samaniego, A., Ferrari, L., Alaniz-Álvarez, S., Labarthe-Hernández, G., and Rosas-Elguera, J., (1999). Variation of Cenozoic extension and volcanism across the southern Sierra Madre Occidental volcanic province, México: Geological Society of America Bulletin, v. 111, p. 347-363.

Scott, J. B., (1958). Structure of the ore deposits at Santa Bárbara, Chihuahua, México, Economic Geology, Vol. 53, p. 1004-1037.

Staude, J. M., and Barton, M. D., (2001). Jurassic to Holocene tectonics, magmatism, and metallogeny of northwestern México: Geological Society of America Bulletin, v. 113, p. 1357-1374.

Wark, D. A., Kempter, K. A., and McDowell, F. W., (1990). Evolution of waning subduction-related magmatism, northern Sierra Madre Occidental, México: Geological Society of America Bulletin, v. 102, p. 1555-1564.

25 Reliance on Information Provided by the Registrant

SRK was provided legal documentation by IMMSA and has relied on that information for the purposes of this section. SRK has relied on this information and disclaims responsibility for its accuracy or any errors or omissions in that information.

The Consultant's opinion contained herein is based on information provided to the Consultants by IMMSA throughout the course of the investigations (Table 25-1).

Table 25-1: Reliance on Information Provided by the Registrant

Category	Report Item/ Portion	Portion of Technical Report Summary	Disclose Why the QP Considers it Reasonable to Rely Upon the Registrant
Legal Opinion	Sub-sections 3.3, 3.4, 3.5, 3.6, and 3.7	Section 3	IMMSA has provided a document summarizing the legal access and rights associated with leased surface and mineral rights. This documentation was reviewed by IMMSA's legal representatives. The QP is not qualified to offer a legal perspective on IMMSA's surface and title rights but has summarized this document and had IMMSA personnel review and confirm statements contained therein.

Signature Page

This report titled "SEC Technical Report Summary, Initial Assessment on Mineral Resources, Santa Bárbara, Chihuahua, México" with an effective date of December 31, 2024, was prepared and signed by:

SRK Consulting (U.S.) Inc.

(Signed) **SRK Consulting (U.S.) Inc.**

Dated at Denver, Colorado
February 19, 2025.