



TSMC
TECHNICAL SERVICES MINING CONSULTANTS

NI 43-101 - La Guitarra Technical Report

La Guitarra Mineral Resource Estimate

**Guitarra Silver-Gold Project,
Temascaltepec,**

Estado de México, México

Submitted to:

Sierra Madre Gold and Silver Ltd.

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Effective Date:

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This certificate applies to the technical report titled “La Guitarra Mineral Resource Estimate, NI 43-101 Technical Report that has an effective date of October 24, 2023 (the “Technical Report”).

1. I graduated from Universidad de Santiago de Chile, Santiago, 2001 with a degree in mining engineering.
2. I am a registered Mining Engineer with Engineering & Geoscientists of British Columbia, *with license #58399*. I am also a member of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM #756885)
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4. I have read the definition of “Qualified Person” set out in the National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101) and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for those sections of the Technical Report that I am responsible for preparing.
5. I visited the Guitarra Project from September 18 to 21, 2023.
6. I am responsible for Sections 1.1, 1.3, 2 to 6, 13, 15 to 24, 25.1, 25.2 and 27 of the technical report.
7. I am independent of Sierra Madre Gold and Silver Ltd. as independence is described by Section 1.5 of NI 43–101.
8. I have had no previous involvement with the Guitarra Project.
9. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

“Signed and sealed”

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1. I am a member of the Engineers and Geoscientists of British Columbia (*EGBC Licence # 149114*). I am also a member of the Australasian Institute of Mining and Metallurgy (*MAusIMM # 225250*).
2. I graduated from Durham University, in the United Kingdom, with a Bachelor of Science degree in Geology in 1993, and I was awarded a Master of Science degree in Mineral Exploration from Imperial College, University of London, in the United Kingdom in 1995.
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4. As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the Technical Report that I am responsible for preparing.
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6. I am responsible for 1.2, 1.4, 1.5, 7, 8, 9, 10, 11, 12, 14, 25.3 to 25.5 and 26 of the Technical Report.
7. I am independent of Sierra Madre Gold and Silver Ltd. (Sierra Madre) as independence is described by Section 1.5 of NI 43–101.
8. I have read NI 43–101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.
9. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

“Signed and sealed”

David G. Thomas, P. Geo.

Dated: December 15, 2023

Table of Contents

1	SUMMARY	1-1
1.1	Property Description and Ownership	1-1
1.2	Geology and Mineralization	1-1
1.3	Status of Exploration, Development, and Operations.....	1-2
1.4	Mineral Resources Estimates.....	1-2
1.5	Conclusions and Recommendations	1-4
2	INTRODUCTION	2-1
2.1	Terms of Reference	2-1
2.2	Sources of Information.....	2-1
2.3	Qualified Persons and Personal Inspections	2-2
2.4	Effective Dates	2-2
2.5	Units and Abbreviations	2-2
	2.5.1 Units of Measure	2-2
	2.5.2 Abbreviations and Defined Terms.....	2-5
3	RELIANCE ON OTHER EXPERTS.....	3-1
3.1	Mining Concessions.....	3-1
3.2	Surface Rights	3-1
3.3	Environmental Permits.....	3-1
3.4	Market Studies and Contracts	3-2
4	PROPERTY DESCRIPTION AND LOCATION.....	4-1
4.1	Description and Location.....	4-1
4.2	Mining Concessions.....	4-4
4.3	Permits	4-6
4.4	Royalties.....	4-8
4.5	Surface Use and Disturbance Agreement	4-8
4.6	Environmental Liabilities	4-10
4.7	Other Significant Factors and Risks	4-10
5	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	5-1
5.1	Accessibility	5-1
5.2	Climate	5-1
5.3	Local Resources and Infrastructure.....	5-1
5.4	Physiography.....	5-2
6	HISTORY	6-1
6.1	Early History	6-1

6.1.1	Spanish Colonial Period	6-1
6.1.2	1800s.....	6-1
6.1.3	1900s.....	6-2
6.2	Modern History	6-3
6.3	Production Statistics	6-5
7	GEOLOGICAL SETTING AND MINERALIZATION	7-1
7.1	Regional Geology	7-1
7.2	Property Geology and Stratigraphy	7-3
7.2.1	Metasediments.....	7-3
7.2.2	Eocene Intrusives.....	7-5
7.2.3	Miocene Andesites, Rhyolites, Tuffs and Intrusives.....	7-5
7.2.4	Recent Basalt and Andesitic flows	7-5
7.3	Property Structural Geology	7-5
7.4	Property Mineralization	7-11
7.4.1	West District Vein Systems.....	7-11
7.4.2	Comales Nazareno System.....	7-11
7.4.3	Coloso System.....	7-12
7.4.4	Guitarra Mine System.....	7-13
7.4.5	East District Veins	7-15
7.4.6	Mineralogy	7-17
7.5	QP Comments on “Item 7: Geological Setting and Mineralization”	7-18
8	DEPOSIT TYPES	8-1
8.1	QP Comments on “Item 8: Deposit Types”	8-2
9	EXPLORATION.....	9-1
9.1	Geophysical Surveys	9-1
9.2	Underground Channel Samples	9-1
9.3	Surface Sampling Campaigns.....	9-1
9.4	Sierra Madre Surface Mapping.....	9-3
9.5	Sierra Madre Underground Mapping	9-4
9.6	Exploration Potential.....	9-4
9.7	QP Comments on “Item 9: Exploration”	9-4
10	DRILLING	10-1
10.1	Drill Methods.....	10-2
10.2	Collar Surveys and Downhole Surveys.....	10-2
10.3	Logging Procedures and Core Recovery	10-3
10.3.1	First Majestic.....	10-3
10.4	Sample Length/True Thickness.....	10-3

10.5	Tailings Dam Sampling Campaign	10-4
10.6	QP Comments on “Item 10: Drilling”	10-4
11	SAMPLE PREPARATION, ANALYSES, AND SECURITY	11-1
11.1	Sampling Methods	11-1
11.1.1	Geochemical Sampling.....	11-1
11.1.2	Core Drillhole Sampling.....	11-1
11.1.3	RC Drillhole Sampling	11-2
11.1.4	Underground Sampling.....	11-2
11.1.5	Density Determinations	11-3
11.1.6	Analytical and Test Laboratories.....	11-3
11.2	Analyses.....	11-6
11.2.1	2003–2010 Genco.....	11-6
11.2.2	2010–2012 Silvermex.....	11-6
11.2.3	2013–2021 First Majestic.....	11-7
11.3	Quality Assurance and Quality Control	11-9
11.3.1	2003–2010 Genco.....	11-9
11.3.2	2010–2012 Silvermex.....	11-10
11.3.3	2013–2021 First Majestic.....	11-10
11.4	Databases	11-10
11.5	Sample Security.....	11-10
11.5.1	Period 2011–2012 Silvermex.....	11-11
11.6	QP Comments on “Item 11: Sample Preparation, Analyses, and Security”.....	11-11
12	DATA VERIFICATION.....	12-1
12.1	Historical Data Verification	12-1
12.2	Data Verification by the TSMC QP	12-2
12.2.1	TSMC Site Visit	12-2
12.2.2	TSMC Database Data Verification	12-3
12.3	QP Comments on “Item 12: Data Verification”	12-4
13	MINERAL PROCESSING AND METALLURGICAL TESTING.....	13-1
13.1	Cyanide Leaching Tests – Whole Ore	13-1
13.2	Flotation Test Work – Whole Ore	13-1
13.2.1	Monthly Composite Samples	13-2
13.2.2	Quarterly and Long-Term Mining Samples.....	13-2
13.3	Tailings Reprocessing Metallurgy.....	13-5
13.4	Tailings Samples Gravity Recovery.....	13-7
13.5	Mineral Processing	13-7
13.6	Metallurgical Recoveries Assumed for Mineral Resource Estimates	13-7

14	MINERAL RESOURCES ESTIMATE	14-1
14.1	Introduction	14-1
14.2	Coloso Mineral Resources Audit	14-1
14.2.1	Geological Models	14-1
14.2.2	Exploratory Data Analysis	14-2
14.3	Nazareno Mineral Resource Audit	14-12
14.3.1	Geological Models	14-12
14.3.2	Exploratory Data Analysis	14-13
14.4	Los Angeles Mineral Resource Estimate	14-23
14.4.1	Geological Models	14-23
14.4.2	Exploratory Data Analysis	14-24
14.5	Guitarra/East District Polygonal Mineral Resource Audit	14-32
14.6	Tailings Dam Mineral Resource Audit	14-33
14.6.1	Estimation Domain Models	14-33
14.6.2	Exploratory Data Analysis	14-34
14.7	Classification of Mineral Resources	14-36
14.8	Reasonable Prospects of Eventual Economic Extraction	14-36
14.8.1	Marginal Cut-off Grade Calculation	14-37
14.9	Comparison to Previous Mineral Resource Estimate	14-40
14.10	Factors That May Affect the Mineral Resource Estimate	14-41
14.11	QP Comments on “Item 14: Mineral Resource Estimates”	14-42
14.11.1	Coloso, Nazareno, Los Angeles and Tailings Dam Models	14-42
14.11.2	Guitarra and East District Polygonal Estimates	14-42
15	MINERAL RESERVES ESTIMATE	15-1
16	MINING METHODS	16-1
17	RECOVERY METHODS	17-1
17.1	Crushing	17-1
17.2	Grinding	17-2
17.3	Flotation and Concentrate Dewatering	17-2
17.4	Tailings Facility	17-2
17.5	Replacement and Maintenance Items	17-2
18	PROJECT INFRASTRUCTURE	18-1
18.1	Mine Facilities	18-1
18.2	Processing Facilities	18-1
18.3	Administrative facilities	18-2
18.4	Power	18-2
18.5	Water	18-2

19	MARKET STUDIES AND CONTRACTS.....	19-1
20	ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL COMMUNITY IMPACTS.....	20-1
21	CAPITAL AND OPERATING COSTS.....	21-1
22	ECONOMIC ANALYSIS	22-1
23	ADJACENT PROPERTIES.....	23-1
24	OTHER RELEVANT DATA AND INFORMATION.....	24-1
25	INTERPRETATION AND CONCLUSIONS	25-1
25.1	Introduction.....	25-1
25.2	Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements	25-1
25.3	Geology and Mineralization	25-1
25.4	Exploration, Drilling, and Analytical Data Collection in Support of Mineral Resource Estimation.....	25-2
25.5	Mineral Resource Estimates	25-2
25.5.1	Coloso, Nazareno, Los Angeles and Tailings Dam Models	25-2
25.5.2	Guitarra and East District Polygonal Estimates	25-2
26	RECOMMENDATIONS.....	26-1
27	REFERENCES	27-1

List of Tables

Table 1-1: Indicated Mineral Resource Estimate	1-3
Table 1-2: Inferred Mineral Resource Estimate	1-3
Table 4-1: Project Concessions	4-5
Table 4-2: Project Permits	4-7
Table 4-3: Surface Rights Lease Details	4-9
Table 6-1: Production Statistics from 1991 to 2018	6-5
Table 10-1: Guitarra Project Drilling Summary	10-1
Table 11-1: Guitarra Laboratory Analytical Methods and Detection Limits	11-8
Table 11-2: SGS Analytical Methods and Detection Limits	11-9
Table 12-1: GPS and Database Coordinates at the Coloso and Guitarra Mines.....	12-3
Table 12-2: Drillhole Collar Survey Verification by the QP	12-3
Table 12-3: Drillhole Downhole Survey Verification by the QP	12-4
Table 12-4: Assay Data Verification by the QP.....	12-4
Table 13-1: Accumulated Operating Data from 1992–2018	13-4
Table 13-2: First Majestic Tailings Leach Tests.....	13-5
Table 13-3: Tailings Samples Gravity Recoveries	13-7
Table 14-1: Coloso Outlier Restriction Parameters, Silver	14-3
Table 14-2: Coloso Outlier Restriction Parameters, Gold	14-3
Table 14-3: Coloso Length-Weighted Vein Assay Statistics, Silver	14-5
Table 14-4: Coloso Length-Weighted Vein Assay Statistics, Gold	14-6
Table 14-5: Coloso Length-Weighted Vein Composite Statistics, Silver	14-6
Table 14-6: Coloso Length-Weighted Vein Composite Statistics, Gold	14-6
Table 14-7: Coloso Block Model Parameters	14-7
Table 14-8: First Majestic Search Ellipse and Composite Restrictions for Coloso	14-8
Table 14-9: Comparison of ID2 and NN Grades for Coloso, Classified Blocks	14-9
Table 14-10: Nazareno Outlier Restriction Parameters, Silver	14-13
Table 14-11: Nazareno Outlier Restriction Parameters, Gold	14-14
Table 14-12: Nazareno Length-Weighted Vein Assay Statistics, Silver	14-16
Table 14-13: Nazareno Length-Weighted Vein Assay Statistics, Gold	14-17
Table 14-14: Nazareno Length-Weighted Vein Composite Statistics, Silver.....	14-17
Table 14-15: Nazareno Length-Weighted Vein Composite Statistics, Gold	14-17
Table 14-16: Nazareno Block Model Parameters	14-18
Table 14-17: First Majestic Search Ellipse and Composite Restrictions for Nazareno	14-19
Table 14-18: Comparison of ID2 and NN Grades for Nazareno, Classified Blocks	14-20
Table 14-19: Los Angeles Length-Weighted Assay Statistics	14-24
Table 14-20: Outlier Restriction Parameters, Los Angeles.....	14-26
Table 14-21: Los Angeles Composite Statistics.....	14-27
Table 14-22: Los Angeles Block Model Parameters	14-27
Table 14-23: Los Angeles Block Model Parameters	14-28
Table 14-24: Comparison of ID3 and NN Grades for Los Angeles, Classified Blocks.....	14-29

Table 14-25: Tailings Dam Length Weighted Vein Assay Statistics	14-35
Table 14-26: Tailings Dam Length Weighted Vein 1 m Composite Statistics.....	14-35
Table 14-27: Tailings Dam Block Model Parameters	14-36
Table 14-28: Mining Costs and Ore-Based Costs Used for Marginal Cut-Off Estimation	14-38
Table 14-29: Summary the Guitarra Project Mineral Resource Estimate (Effective Date: October 24, 2023).....	14-39
Table 14-30: Indicated Mineral Resource Estimate	14-39
Table 14-31: Inferred Mineral Resource Estimate	14-40
Table 14-32: March 2015 Mineral Resource Estimate (First Majestic)	14-41
Table 14-33: Current MRE and Previous MRE Comparison, Global	14-41
Table 14-34: Current MRE and Previous MRE Comparison, Coloso and Nazareno.....	14-41

List of Figures

Figure 4-1: Project Location Map	4-1
Figure 4-2: Guitarra Property Map	4-2
Figure 4-3: East and West District Map	4-3
Figure 4-4: Concessions Map	4-4
Figure 4-5: Exploration Permits Map	4-6
Figure 4-6: Surface Rights Map	4-9
Figure 6-1: 1970s Processing Plant	6-3
Figure 7-1: Regional Guerrero Terrane Map	7-1
Figure 7-2: Trans-Mexican Volcanic Belt Map	7-2
Figure 7-3: Stratigraphic Column	7-3
Figure 7-4: East District Map.....	7-4
Figure 7-5: West District Map.....	7-4
Figure 7-6: Stereonets for the East District Metasediments Hosted Veins.....	7-6
Figure 7-7: East District Metasediment Outcrop Area	7-6
Figure 7-8: Stereonets for the East District Volcanic Hosted Veins	7-7
Figure 7-9: East District Volcanic Outcrop Area.....	7-7
Figure 7-10: Stereonet for the West District Intrusive Hosted Veins	7-8
Figure 7-11: West District Intrusive Outcrop Area.....	7-8
Figure 7-12: Stereonet for the West District Volcanic Hosted Veins.....	7-9
Figure 7-13: West District Volcanic Outcrop Area.....	7-9
Figure 7-14: Planview Projection of the Guitarra Mine Stopes	7-10
Figure 7-15: Structural Interpretation of the Guitarra Mine Stopes	7-10
Figure 7-16: Nazareno Vertical Cross-Section	7-12
Figure 7-17: Coloso Vertical Cross-Section.....	7-13
Figure 7-18: Guitarra Vertical Cross-Section	7-14
Figure 7-19: Metasediment-Hosted Veins – East District	7-15
Figure 7-20: Volcanic-Hosted Veins – East District.....	7-16
Figure 7-21: Mina de Agua Vertical Cross-Section	7-17

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

Figure 7-22: Mineralogical Distribution from Polished Thin Sections	7-18
Figure 8-1: Epithermal Model for the Formation of Guitarra Silver-Gold Veins	8-1
Figure 9-1: Soil and Rock Sample Location Maps for Silver	9-2
Figure 9-2: Soil and Rock Sample Location Maps for Gold.....	9-3
Figure 10-1: Drillhole Location Map.....	10-2
Figure 13-1: Silver Recovery vs. Grade.....	13-2
Figure 13-2: Gold Recovery vs. Grade	13-3
Figure 13-3: Silver Recovery Tailings Leach Tests.....	13-6
Figure 13-4: Gold Recovery Tailings Leach Tests	13-6
Figure 14-1: Coloso Vein Models.....	14-2
Figure 14-2: Joya Larga Vein Assay Log-Histogram and Probability Plot, Silver	14-4
Figure 14-3: Jessica Vein Assay Log-Histogram and Probability Plot, Silver.....	14-5
Figure 14-4: Silver Swath Plots by Easting, Northing, and Elevation: Joya Larga.....	14-10
Figure 14-5: Silver Swath Plots by Easting, Northing, and Elevation: Jessica Vein	14-11
Figure 14-6: Nazareno Vein Models.....	14-12
Figure 14-7: Ancas Vein Assay Log-Histogram and Probability Plot, Silver.....	14-15
Figure 14-8: Nazareno Vein Assay Log-Histogram and Probability Plot, Silver	14-16
Figure 14-9: Silver Swath Plots by Easting, Northing, and Elevation: Ancas Vein	14-21
Figure 14-10: Silver Swath Plots by Easting, Northing, and Elevation: Nazareno Vein	14-22
Figure 14-11: Los Angeles Mineralization Model	14-23
Figure 14-12: Los Angeles Assay Log-Histogram and Probability Plot, Silver	14-25
Figure 14-13: Los Angeles Assay Log-Histogram and Probability Plot, Gold.....	14-26
Figure 14-14: Silver Swath Plots by Easting, Northing, and Elevation: Los Angeles.....	14-30
Figure 14-15: Gold Swath Plots by Easting, Northing, and Elevation: Los Angeles	14-31
Figure 14-16: Long Section of Guitarra Vein	14-33
Figure 14-17: Tailings Dam Domain Models.....	14-34
Figure 16-1: Mining Methodology Used at the Guitarra Project.....	16-1
Figure 17-1: Flowsheet for the Guitarra Project.....	17-1

1 SUMMARY

This Technical Report was prepared by TechSer Mining Consultants Limited (TSMC) in compliance with the disclosure requirements of National Instrument 43-101 “Standards of Disclosure for Mineral Projects” (NI 43-101) to release current technical information and updated estimates of Mineral Resources of the Guitarra Project.

The effective date of this Technical Report is October 24, 2023, which represents the date of the estimation of Mineral Resources, being the date for the most relevant scientific and technical information used in this Technical Report.

1.1 Property Description and Ownership

The Guitarra Project (Guitarra or the Property) is owned by La Guitarra Compañía Minera S.A. de C.V. (La Guitarra Cia.) which is an indirect, wholly owned subsidiary of Sierra Madre Gold and Silver Ltd. (Sierra Madre).

Guitarra is located in the municipality of Temascaltepec, Estado de México, México. The Property comprises 43 mining exploitation concessions covering 25,304 hectares.

Sierra Madre is a precious metals development and exploration company, focused on evaluating the potential of restarting the Guitarra Project. Guitarra is a past-producing underground mining project that includes a processing facility, with a current grinding capacity of 516 t/d. It was last operated in August of 2018 by First Majestic Silver Corp. All operating permits needed to resume operations are current and in effect. The Property has three developed underground mines, Guitarra, Coloso, and Nazareno, which were placed into production in 1991, 2014, and 2016, respectively. These mines were in operation until August of 2018, when First Majestic Silver Corp. (First Majestic) placed the Guitarra Project on care and maintenance. The eastern portion of the Property contains the historical mine, Mina de Agua. Exploration projects within the property include El Rincón, Aquila, Veta Rica, Los Locos, and Las Animas. Other opportunities include the reprocessing of existing mine tailings.

1.2 Geology and Mineralization

The Property is located at the southern intersection between the Sierra Madre Occidental and the Faja Volcanica Transmexicana (FVTM). The regional geology is dominated by the Cretaceous age Guerrero Terrane volcanic sedimentary sequence, Eocene–Oligocene age volcanic rocks and intrusions of the Sierra Madre Occidental and the Miocene–recent age basalts and andesites of the FVTM.

The rocks of the Guerrero Terrane have been deformed by the compressional Laramide Orogeny which folded, thrust-faulted, and metamorphosed the volcanic sedimentary sequence. The Guerrero Terrane has been partially capped and intruded by volcanic rocks and intrusions of the Sierra Madre Occidental and the FVTM. Following the Laramide Orogeny, three different extensional events reactivated mostly northwest-trending faults, which favour the emplacement of dikes, domes, stocks, and epithermal veins.

The Property contains more than one hundred epithermal veins that are hosted by tuffs, breccias, granite, and metasedimentary rocks of the Guerrero Terrane. The veins trend

northwest to east-west and are described as intermediate sulphidation epithermal veins containing silver, gold, and some lead and zinc. Individual veins pinch and swell and vary in width from tens of centimetres to more than twenty metres, whereas ore shoots contained within veins have widths usually between one to four metres. Intersection of northwest to east-west veins with northeast and north-south faults and fractures have been suggested as main controls for ore shoot localization.

1.3 Status of Exploration, Development, and Operations

Mining in the Temascaltepec area started in the 1550s when Spanish miners first arrived. During the 18th century, the Mina de Agua mine and surrounding areas were one of México's largest silver producers, generating approximately 10% of the country's total mineral wealth. Modern mining resumed in 1990 when Compañía Minera Arauco conducted exploration and development works on the Guitarra vein, with an initial production rate of 30 t/d. In 1993, Luismin S.A. de C.V. (Luismin) acquired the property and began consolidating the Temascaltepec district. Luismin expanded the reserve base in the Guitarra silver mine and increased the milling capacity to 320 t/d.

In 2003, Genco Resources Ltd. (Genco) purchased the entire Temascaltepec mining district and the Guitarra silver mine from Luismin. In 2011, Silvermex Resources Inc. (Silvermex) merged with Genco. In 2012, First Majestic acquired Silvermex for CAD 175.4 million.

First Majestic expanded operations from 350 t/d to over 600 t/d, with upgrades and construction completed in May 2013. In 2014, First Majestic processed a total of 186,881 tonnes of ore with an average silver head grade of 127 g/t and produced a total 1,056,078 equivalent ounces of silver.

Exploration at the Property employs prospecting, surface and underground mapping, and sampling and drilling (underground and surface). Between July 2012 and December 2018, First Majestic drilled 103,463 metres in 526 diamond drillholes. In 2020 and 2021, First Majestic completed 1,113 metres in 49 Shelby tube holes in the tailings dam. Most of the drilling by First Majestic has been focused on infill and delineation of known mineralization.

1.4 Mineral Resources Estimates

Mineral Resources estimates for Guitarra were classified in order of increasing geological confidence into Inferred and Indicated categories as defined by the "CIM Definition Standards for Mineral Resources and Mineral Reserves," 2014, whose definitions are incorporated by reference into NI 43-101.

Mineral Resources estimates for the Coloso and Nazareno areas were estimated for First Majestic and were audited by David Thomas, P. Geo. of TSMC. The estimates are based on exploration results from the Genco, Silvermex, and First Majestic exploration campaigns from 2008 to 2018 and upon geologically constrained block models. Underground samples were not used for Mineral Resources estimation.

Mineral Resources for the Guitarra and Mina de Agua areas have been estimated by Sierra Madre based on exploration results from 2006 to 2018 using the polygonal method to construct

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

longitudinal sections of the vein shoots. Underground chip samples were used for estimation. The Mineral Resource estimates were audited by David Thomas, P. Geo.

Mineral Resources for the Los Angeles area of the Guitarra mine were estimated by David Thomas, P. Geo. using exploration data collected by Genco, Silvermex, and First Majestic from 2006 to 2018. Underground samples were not used for estimation. The Mineral Resource model was geologically constrained.

Mineral Resources for the tailings dam were estimated by First Majestic and were audited by David G. Thomas, P. Geo. The estimates are based on the results of First Majestic's exploration 2020 to 2021 exploration campaign.

Table 1-1 and Table 1-2 show the consolidated Mineral Resources for Guitarra as of October 24, 2023. The tabulation includes material classified as Indicated and Inferred by area using metal prices of USD 22/oz. for silver and USD 1,700/oz. for gold. The estimated Mineral Resources reported herein have an effective date of October 24, 2023. No Mineral Reserves have been reported.

Table 1-1: Indicated Mineral Resource Estimate

Area	Tonnage (Mt)	AgEq (g/t)	Ag (g/t)	Au (g/t)	AgEq (Moz.)	Ag (Moz.)	Au (koz.)
Nazareno	0.31	257	215	0.55	2.56	2.14	5
Coloso	0.43	346	221	1.61	4.81	3.07	22
Guitarra	1.65	220	123	1.25	11.66	6.54	66
Sub-Total	2.39	248	153	1.22	19.03	11.76	93
Los Angeles	0.69	177	109	0.87	3.92	2.42	19
Mina De Agua	0.76	174	159	0.19	4.26	3.90	5
Total Indicated	3.84	220	146	0.96	27.21	18.07	117

Table 1-2: Inferred Mineral Resource Estimate

Area	Tonnage (Mt)	AgEq (g/t)	Ag (g/t)	Au (g/t)	AgEq (Moz.)	Ag (Moz.)	Au (koz.)
Nazareno	0.75	252	229	0.29	6.10	5.55	7
Coloso	0.37	317	213	1.34	3.81	2.57	16
Guitarra	0.29	180	113	0.87	1.69	1.06	8
Sub-Total	1.42	254	201	0.68	11.60	9.18	31
Los Angeles	0.07	157	76	1.05	0.33	0.16	2
Mina De Agua	0.55	188	178	0.13	3.30	3.12	2
Subtotal UG Mine	2.03	233	191	0.55	15.23	12.46	35
Inferred Tailings	2.07	75	37	0.48	4.97	2.48	32
Total Inferred	4.11	153	113	0.52	20.20	14.93	67

1. *Canadian Institute of Mining Metallurgy and Petroleum* (CIM) definition standards were followed for the resource estimate.
2. The 2023 resource models used nominal cutoff grades that are based on mining and milling costs of USD 50 for cut and fill mining, and USD 38 per tonne for long-hole,
3. Metallurgical recoveries of 80% have been used for gold and silver at Nazareno, Coloso, Los Angeles, Guitarra, and Mina De Agua. A metallurgical recovery of 70% has been assumed for the tailings dam.
4. A net payable recovery of 70% (historical plant recovery plus an allowance for smelter deductions, refining costs, and concentrate transportation) has been assumed.
5. Silver price of USD 22.0 and a gold price of USD 1,700 and a gold:silver ratio of 77.27:1 were used.
6. A combination of capping on assays, capping on composites, and outlier restriction were used to restrict the influence of extremely high grades.
7. Variable cut-off by deposit:
 - a. Nazareno and Coloso: Block model 135 AgEq cut-off grade (COG) and a 1-metre minimum true thickness
 - b. Guitarra: Polygonals estimates 135 g/t AgEq COG and a 1-metre minimum horizontal width
 - c. Los Angeles: Block model long hole mining 90 g/t AgEq COG
 - d. Mina De Agua: East District polygonal estimate 135 g/t AgEq COG or 90 g/t AgEq COG and > 2-metre horizontal width
 - e. Tailings: The tailings used a 30 g/t AgEq COG.
8. Mineral Resources that are not Mineral Reserves do not have economic viability. Numbers may not add due to rounding.
9. The estimate of Mineral Resources may be materially affected by metal prices and exchange rate assumptions; changes in local interpretations of mineralization geometry and continuity; changes to grade capping, density, and domain assignments; changes to geotechnical, mining, and metallurgical recovery assumptions; ability to maintain environmental and other regulatory permits; and ability to maintain the social license to operate.

La Guitarra Cia. has all necessary permits for restarting the Property's mining and processing operations, including an operating license, a water use permit, an environmental impact authorization (MIA) for the Guitarra and Coloso mines and exploration permits for Nazareno, Tlacotal, Trancas, La Guitarra NW, Temascaltepec, and San Simon projects.

1.5 Conclusions and Recommendations

Sierra Madre has been working on validating the project-wide database, incorporating historical data, auditing the previously mined areas, and refining the geological interpretation of the veins and models. The next step to re-opening Guitarra will be a mine plan and restart study, consisting of a capital and operating cost study, the results of which will be used to assess the economic potential of the mine.

Between July 2012 and December 2018, First Majestic drilled 103,463 metres in 526 diamond drillholes. In 2020 and 2021, First Majestic drilled 1,113 metres in 49 Shelby tube holes in the tailings dam. Most of the drilling by First Majestic has been focused on infill and delineation of known mineralization.

Mineral Resources estimates for the Coloso, Nazareno, and tailings dam areas were estimated for First Majestic and were audited by David Thomas, P. Geo. of TSMC.

Mineral Resources for the Guitarra and Mina de Agua areas have been estimated by Sierra Madre and were audited by David Thomas P. Geo.

Mineral Resources for the Los Angeles area were estimated by David Thomas, P. Geo.

La Guitarra Cia. has all necessary permits for restarting mining and processing operations.

The results of this Technical Report support the advancement of the Guitarra Project with additional studies directed toward evaluating the economics of a production decision. It is recommended that a mine plan be developed on the Indicated resources, in conjunction with an

economic study evaluating the parameters related to the restart of production. The mine plan and economic restart study will need to be based on First Principles. The following areas need to be addressed in detail:

- Metres of ore and waste development need to be established for each stope in the potential mine plan, along with haulage distances to the plant, backfill sites, or waste dump.
- The mining equipment needed to achieve a potential mine plan and vendor bids obtained for items not in the current inventory.
- Should contract mining or haulage be deemed necessary, detailed bids from quality contractors.
- The likely quantity of mine and plant consumables and energy requirements need to be determined using the detailed accounting and procurement records available from the First Majestic operating period, then updated with current costs from vendors.
- Past production and personnel records evaluated to establish manpower levels and current labour costs.

In addition to the above, it is recommended that the company continue detailed underground survey work, including 3-D laser surveying, to provide greater certainty to the stope designs and the 3-D model of the existing workings. In areas where possible, a 3-D model of the stope should be created to help in mine planning studies. The estimated cost of the mine plan and economic study evaluating the restart of production is USD 170,000. Additionally, it is recommended to continue the exploration of the Guitarra Project, designed to prioritize targets for resource expansion and to evaluate the potential of previously untested mineralization. The cost of this work is estimated at USD 150,000.

2 INTRODUCTION

The Guitarra Project (or Guitarra or the Property) is owned by La Guitarra Compañía Minera S.A. de C.V. (La Guitarra Cia.) which is an indirect wholly owned subsidiary of Sierra Madre Gold and Silver Ltd. (Sierra Madre or the Company).

Sierra Madre is a publicly listed company incorporated in Canada with limited liability under the legislation of the Province of British Columbia. The Company's shares trade on the TSX Venture Exchange under the symbol "SM". The Company is in the business of precious and base metal mine development, exploration, and acquisition of mineral properties with a focus on projects in México. Sierra Madre is focused on evaluating the potential of restarting Guitarra.

The Property is located in the municipality of Temascaltepec, Estado de México, México, and is comprised of 43 mining exploitation concessions covering 39,714 hectares (98,135 acres).

Guitarra is comprised of three underground mines, Guitarra, Coloso, and Nazareno, which were placed into production in 1991, 2012, and 2016, respectively. These mines were recently operated by First Majestic Silver Corp. (First Majestic) and are currently in care and maintenance. The eastern portion of the Property contains the historical mine, Mina de Agua. Exploration projects within the property include El Rincón, Aquila, Veta Rica, Los Locos, and Las Animas. Other opportunities include the reprocessing of the existing mine tailings.

2.1 Terms of Reference

This Technical Report was prepared by TechSer Mining Consultants Limited (TSMC) in compliance with the disclosure requirements of National Instrument 43-101 "Standards of Disclosure for Mineral Projects" (NI 43-101) to release technical information about Guitarra, its current operating conditions, and updated estimates of Mineral Resources for the Property.

This Technical Report supports disclosures by Sierra Madre in the news release dated November 01, 2023, titled, "Sierra Madre increases M&I Silver-Equivalent Resources at La Guitarra by 373% to 27.2 Million Ounces, Inferred Silver-Equivalent Resource increased 204% to 20.2 Million Ounces".

2.2 Sources of Information

Reports and documents listed in Section 27 were used to support the preparation of this Technical Report. Additional information was conveyed by Sierra Madre personnel when required.

The two previously filed Technical Reports on Guitarra are as follows and were also used as a source of information for this Technical Report:

- Velador Beltran J.M., Kulla G., Vazquez Jaimes M.E., and Mendoza Reyes R., 2015: First Majestic Silver Corp., La Guitarra Silver Mine, Temascaltepec, México, NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Update. Effective date March 15th, 2015. (Velador et al., 2015).

- Loveday D., 2022: NI 43-101 - La Guitarra Technical Report, La Guitarra Silver Mine, Temascaltepec, Estado de México, México. Effective date July 1st, 2022. (Loveday, 2022).

2.3 Qualified Persons and Personal Inspections

The Qualified Persons (QPs) for this Technical Report, as defined in NI 43-101, are as follows:

- Mr. David Thomas, P.Geo., is responsible for the following sections of the Report: 1.2, 1.4, 1.5, 7, 8, 9, 10, 11, 12, 14, 25.3 to 25.5 and 26.
- Mr. Cristian Garcia, P.Eng., is responsible for the following sections of the Report: 1.1, 1.3, 2 to 6, 13, 15 to 24, 25.1, 25.2 and 27.

Mr. Thomas, representing TSMC, completed a personal inspection of the property from September 18, 2023, to September 21, 2023. During this visit, he reviewed drilling, logging, and sampling procedures, and assay quality control procedures. While at site, he inspected mineralization underground at Coloso, Nazareno, and Guitarra. He confirmed the presence of stockwork-style veining at Los Angeles and also areas of vein thickening in structural intersections. The Mina de Agua area was inspected and outcropping epithermal veins were confirmed in the field.

Mr. Garcia, representing TSMC, completed a personal inspection of the property from September 18, 2023, to September 21, 2023. The main objective of the inspection was to review mine access roads, underground mine access conditions, process plant facility, tailings area, and maintenance shop.

2.4 Effective Dates

This Technical Report has a number of relevant dates, which are:

- Date of information on mineral tenure: November 22, 2023
- Date of information on surface rights: December 03, 2023
- Sample data cut-off for Mineral Resource Estimates: September 29, 2023
- Mineral Resource estimates: October 24, 2023

The overall Effective Date of this Technical Report is the effective date of the Mineral Resource estimate, which is October 24, 2023.

2.5 Units and Abbreviations

2.5.1 Units of Measure

In this Technical Report, the International System of Units (SI) is generally used for units of measurement. A period, not a comma, is used as the decimal marker, while a comma separates groups of three integers. The tonne (t) is used for mass units of 1,000 kilograms. The term billion means one thousand million.

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

SI symbols are used for metric units of measure in all tables, figures, and text, except for the following cases:

- Inches (" or in.) are used for piping and electrical conduit.
- Kilowatts (kW), followed by horsepower (hp) in brackets where applicable, are used for electrical motors.
- American Wire Gauge designations (AWG and MCM) are used for cable.
- Ounces (oz.) and pounds (lb) are used for gold and silver production rates and pricing.

All currency values are in US dollars (USD, per ISO 4217) unless otherwise stated.

The symbols and unit abbreviations approved for use in this Technical Report include:

<u>Term</u>	<u>Symbol</u>
Ampere.....	A
Billion years ago	Ga
British thermal unit.....	Btu
Candela.....	cd
Centimetre.....	cm
Cubic centimetre.....	cm ³
Cubic metre.....	m ³
Day.....	d
Days per week.....	d/wk
Days per year	d/y
Decibel adjusted	dBa
Decibel.....	dB
Degree.....	°
Degrees Celsius	°C
Diameter.....	∅
Dry metric ton.....	dmt
Foot.....	ft
Gigajoule	GJ
Gram.....	g
Grams per litre	g/L
Grams per tonne.....	g/t
Greater than.....	>
Hectare (10,000 m ²).....	ha
Hertz	Hz
Hour.....	h
Hours per day	h/d
Hours per week.....	h/wk
Hours per year	h/a
Inch.....	" or in.
Joule	J
Joules per kilowatt-hour.....	J/kWh
Kelvin.....	K

<u>Term</u>	<u>Symbol</u>
Kilo (thousand).....	k
Kilogram	kg
Kilograms per cubic metre	kg/m ³
Kilograms per hour	kg/h
Kilograms per square metre	kg/m ²
Kilojoule.....	kJ
Kilometre	km
Kilometres per hour	km/h
Kilonewton.....	kN
Kilopascal.....	kPa
Kilovolt.....	kV
Kilovolt-ampere.....	kVA
Kilovolts.....	kV
Kilowatt.....	kW
Kilowatt hour	kWh
Kilowatt hours per tonne	kWh/t
Kilowatt hours per year	kWh/a
Kilowatts adjusted for motor efficiency	kWe
Less than.....	<
Litre.....	L
Litres per minute.....	L/m
Megabytes per second.....	Mb/s
Megapascal.....	MPa
Megavolt-ampere.....	MVA
Megawatt.....	MW
Metre.....	m
Metres above sea level	masl
Metres per minute.....	m/min
Metres per second.....	m/s
Micrometre (micron)	µm
Microsiemens (electrical)	µs
Miles per hour	mph
Milliamperes.....	mA
Milligram	mg
Milligrams per litre	mg/L
Millilitre.....	mL
Millimetre	mm
Million	M
Million tonnes.....	Mt
Minute (plane angle)	'
Minute (time).....	min
Month.....	mo
Newton	N
Newtons per metre	N/m
Ohm (electrical)	Ω

<u>Term</u>	<u>Symbol</u>
Ounce	oz.
Parts per billion	ppb
Parts per million	ppm
Pascal (newtons per square metre)	Pa
Pascals per second	Pa/s
Percent	%
Percent moisture (relative humidity)	% RH
Phase (electrical)	Ph
Pound	lb
Power factor	pF
Revolutions per minute	rpm
Second (plane angle)	"
Second (time)	s
Specific gravity	SG
Square centimetre	cm ²
Square kilometre	km ²
Square metre	m ²
Thousand tonnes	kt
Tonne (1,000 kg)	t
Tonnes per day	t/d
Tonnes per hour	t/h
Tonnes per year	t/a
Total dissolved solids	TDS
Total suspended solids	TSS
Volt	V
Week	wk
Weight/weight	w/w
Wet metric ton	wmt
Year	y

2.5.2 Abbreviations and Defined Terms

<u>Term</u>	<u>Definition</u>
AA	Atomic absorption
AAS	Atomic absorption spectroscopy
BWi	Bond ball work index
CFE	Comision Federal de Electricidad
CIM	Canadian Institute of Mining Metallurgy and Petroleum
COG	Cut-off grade
COG	Cut-off grade
CV	Coefficient of variation
EDA	Exploratory data analysis

<u>Term</u>	<u>Definition</u>
FM	First Majestic (used in tables/figures)
FVTM	Faja Volcanica Trans-Mexicana
Genco	Genco Resources Ltd.
GPS	Global positioning system
GRG	Gravity-recoverable-gold (
ICP-AE	Inductively coupled plasma atomic emission spectroscopy
ID	Inverse distance (weighted to power of X)
IP	Induced polarization (IP)
KCA	Kappes, Cassiday & Associates
kp	Kleen pack
LHDs	Low-profile loaders
Luismin	Luismin S.A. de C.V.
mag	Magnetometry
MIA	Environmental impact authorization
NN	Nearest neighbour
NSR	Net smelter return
QA/QC	Quality assurance and quality control
QP	Qualified Person
RC	Reverse circulation
RPEEE	Reasonable prospects for eventual economic extraction
RQD	Rock quality designation
SG	Specific gravity
Silvermex	Silvermex Resources Inc.
TSF	Tailings storage facility
TSMC	TechSer Mining Consultants Limited
UG	Underground (used in tables/figures)

3 RELIANCE ON OTHER EXPERTS

For this Technical Report, the QPs have relied upon other expert reports, which provided information regarding mining concession titles, surface land tenures, property contracts, environmental permits, marketing, and royalties and other agreements.

3.1 Mining Concessions

The QPs have not independently reviewed the legal status of the Guitarra Project and any underlying mining concessions. The QPs have fully relied upon information derived from legal experts retained by Sierra Madre for this information through the following document:

- Lee, Barney G., (November 22, 2023). Opinion regarding title and related matters to the La Guitarra Compania Minera S.A de C.V. and its mining concessions. [Letter to Cristian Garcia, TSMC], 4 pages plus Exhibit.

This information is used in Section 1, Summary, and in Section 4, Property Description and Location, of this Technical Report. It is also used to support the Mineral Resources Estimate in Section 14.

3.2 Surface Rights

The QPs have not independently reviewed the legal status of the surface rights held by La Guitarra Cia. and any underlying surface access agreements. The QPs have relied upon information derived from Sierra Madre personnel:

- Documentation regarding Surface Rights held by the La Guitarra Compania Minera S.A de C.V. [Email from Luis Saenz to Cristian Garcia, TSMC] Dec 3, 2023

This information is used in Section 1, Summary, and in Section 4, Property Description and Location, of this Technical Report. It is also used to support the Mineral Resources Estimate in Section 14.

3.3 Environmental Permits

The QPs have not independently reviewed environmental baseline, permitting, and social information for the Guitarra Project. The QPs have fully relied upon information derived from Sierra Madre and experts retained by Sierra Madre for this information through the following documents:

- Documentation regarding Environmental Permits held by the La Guitarra Compania Minera S.A de C.V. [Email from Luis Saenz to Cristian Garcia, TSMC] Dec 3, 2023.

This information is used in Section 1, Summary and in Section 20, Environmental Studies, Permitting, and Social Community Impacts, of this Technical Report. It is also used to support the Mineral Resources Estimate in Section 14.

3.4 Market Studies and Contracts

The QPs have fully relied upon information supplied by Sierra Madre for information related to market assumptions and metal prices as applied to the Reasonable Prospects of Eventual Economic Extraction in Section 14 of this Technical Report.

- Gregory Liller. of Sierra Madre (2023), Email titled “Guitarra eAg ratio”, to Cristian Garcia, Aug 8, 2023.

The QPs consider it reasonable to rely upon the information provided by Sierra Madre for silver and gold concentrates marketing assumptions and metal prices, especially given the historical performance of the Property.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Description and Location

The Guitarra Project is located in the western portion of Estado de México, México, as shown in Figure 4-1.

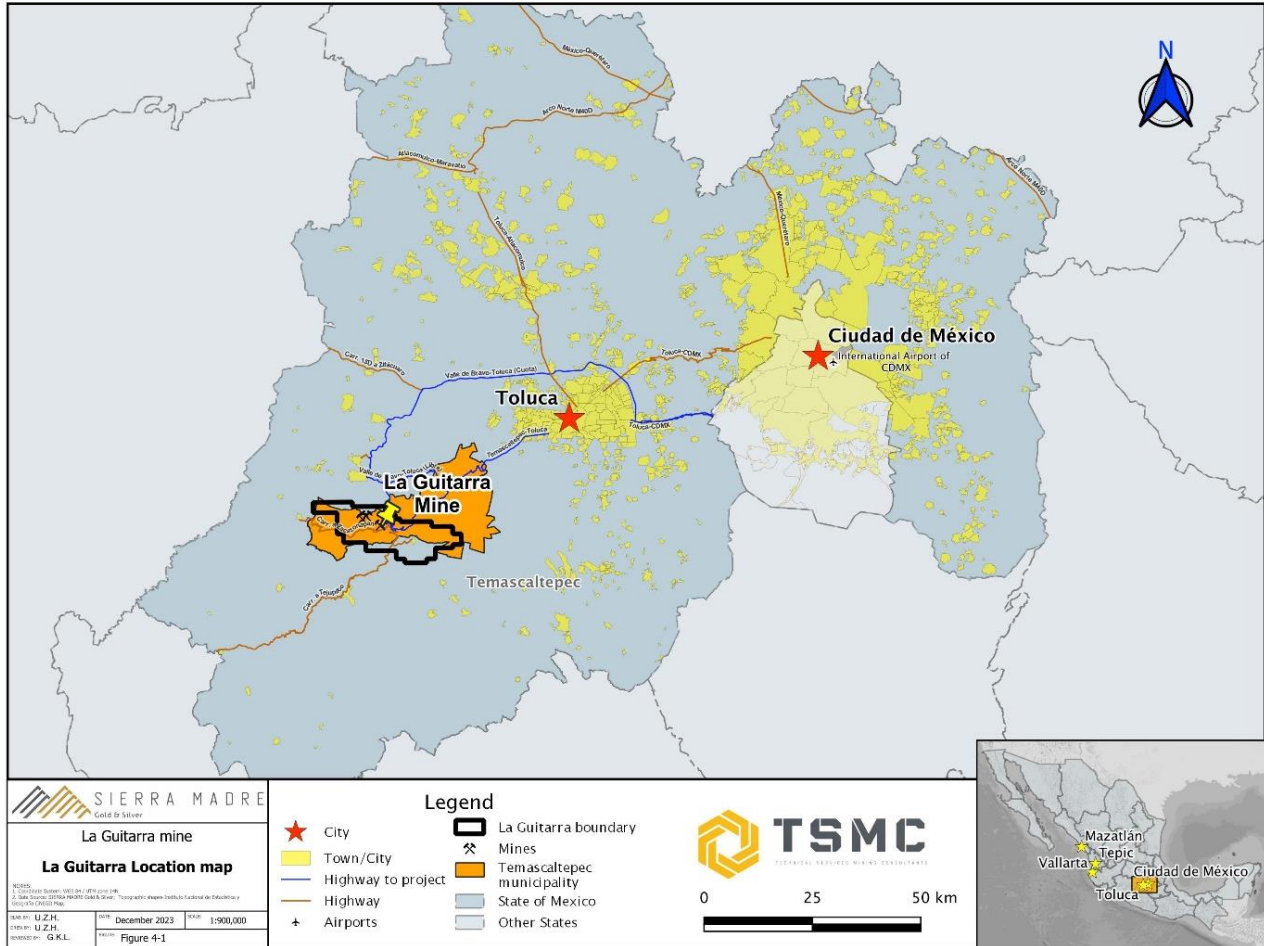


Figure 4-1: Project Location Map

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

The Guitarra Project covers the entirety of the historical Temascaltepec mining district and, on a local scale, is in the municipalities of Temascaltepec, San Simón de Guerrero, and Valle de Bravo, as shown in Figure 4-2.

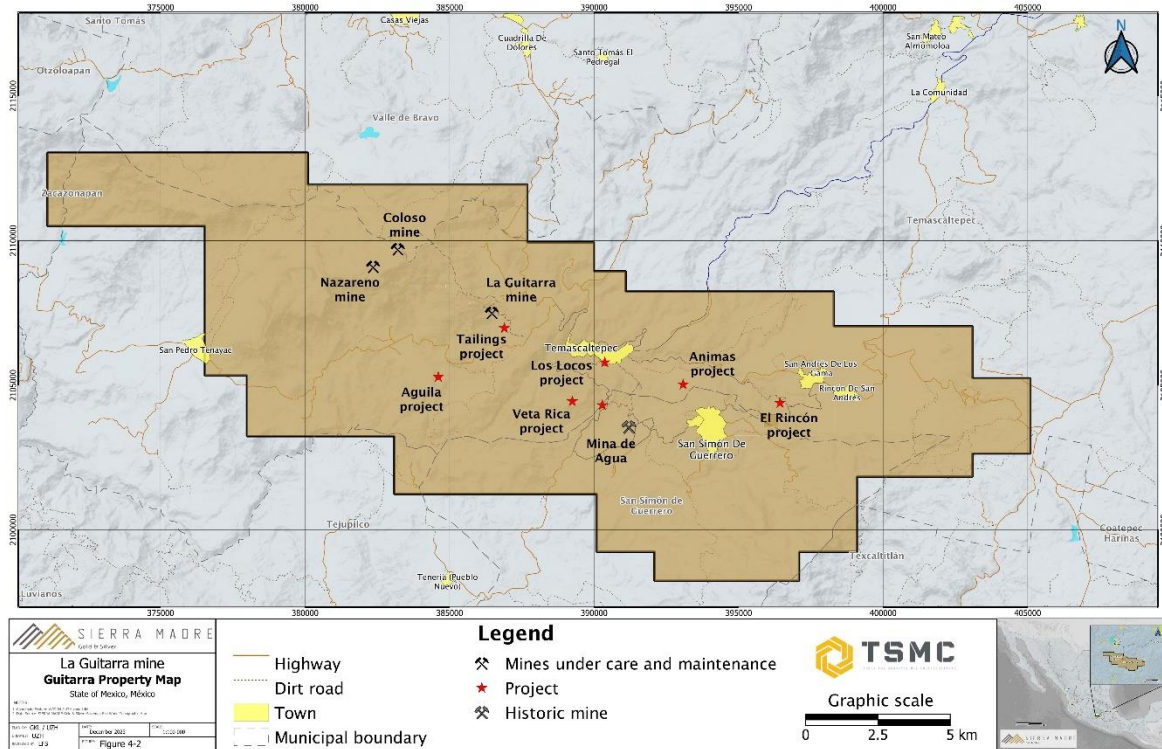


Figure 4-2: Guitarra Property Map

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

The Property is divided into the East District and the West District. The West District includes three recently operating mines (Guitarra, Coloso, and Nazareno) and a nominal 500 t/d flotation processing plant and tailings storage facility (TSF). The East District is host to numerous historical mines, including Mina de Agua, El Rincón, Los Locos, Veta Rica, and Animas, to name a few. There also exists an opportunity to reprocess historical mine tailings. The locations of the recently operating mines, some of the historical ones, the Guitarra processing plant, and TSF are shown in Figure 4-3.

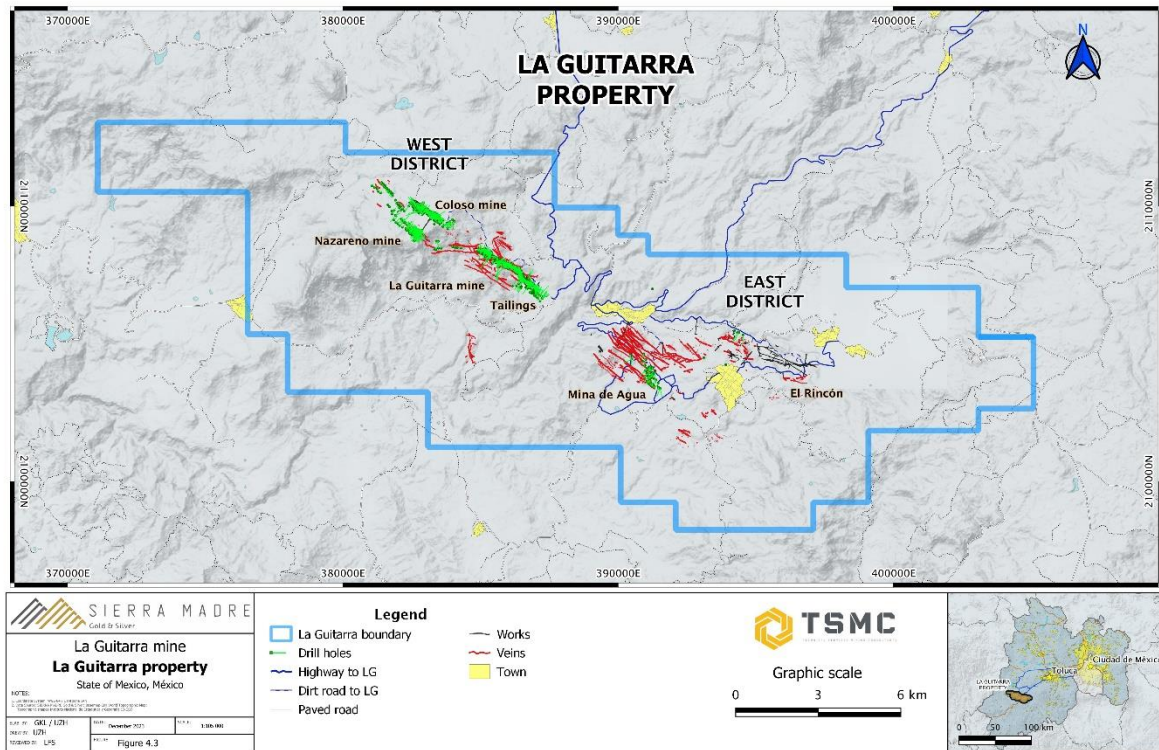


Figure 4-3: East and West District Map

4.2 Mining Concessions

The Property comprises 43 exploitation concessions covering 25,304.6598 hectares, as shown in Figure 4-4 and detailed in Table 4-1. La Guitarra Cia. holds mineral rights to all concessions listed below.

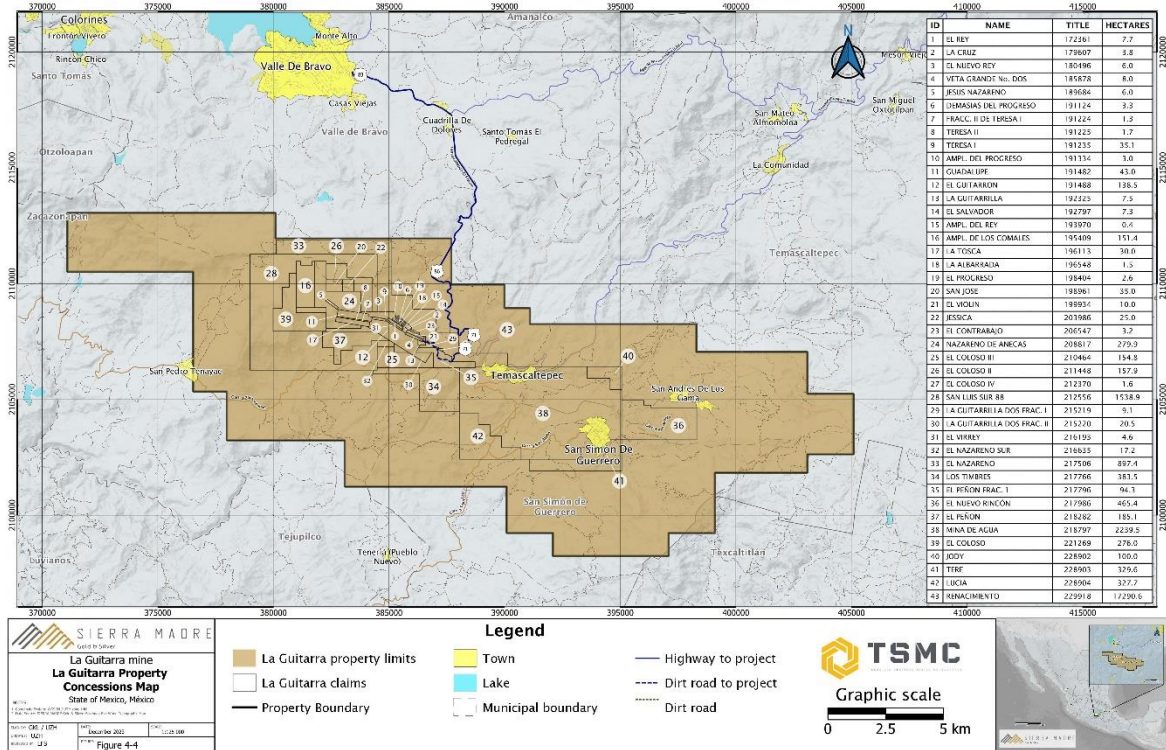


Figure 4-4: Concessions Map

Table 4-1: Project Concessions

NAME	TITLE	HECTARES	FROM	TO
1 EL REY	172361	7.6746	15/12/1983	14/12/2033
2 LA CRUZ	179607	3.7811	11/12/1986	01/12/2036
3 EL NUEVO REY	180496	6.0000	13/07/1987	13/07/2037
4 VETA GRANDE No. DOS	185878	8.0000	14/12/1989	14/12/2039
5 JESÚS NAZARENO	189684	6.0000	05/12/1990	14/12/2040
6 DEMASIAS DEL PROGRESO	191124	3.3472	29/04/1991	28/04/2041
7 FRACC. II DE TERESA I	191224	1.3325	19/12/1991	18/12/2041
8 TERESA II	191225	1.6874	19/12/1991	18/12/2041
9 TERESA I	191235	35.0969	19/12/1991	18/12/2041
10 AMPLIACION DEL PROGRESO	191334	3.0171	19/12/1991	18/12/2041
11 GUADALUPE	191482	43.0000	19/12/1991	18/12/2041
12 EL GUITARRON	191488	138.4904	19/12/1991	18/12/2041
13 LA GUITARRILLA	192325	7.5403	19/12/1991	18/12/2041
14 EL SALVADOR	192797	7.3149	19/12/1991	18/12/2041
15 AMPLIACION DEL REY	193970	0.3533	20/12/1991	19/12/2041
16 AMPL. DE LOS COMALES	195409	151.4325	14/09/1992	29/12/2033
17 LA TOSCA	196113	30.0000	23/09/1992	22/09/2042
18 LA ALBARRADA	196548	1.5419	23/07/1993	22/07/2043
19 EL PROGRESO	198404	2.5698	26/11/1993	25/11/2043
20 SAN JOSÉ	198961	35.0000	11/02/1994	10/02/2044
21 EL VIOLIN	199934	10.0000	17/06/1994	16/06/2044
22 JESSICA	203986	25.0000	26/11/1996	25/11/2046
23 EL CONTRABAJO	206547	3.1967	23/01/1998	22/01/2048
24 NAZARENO DE ANECAS	208817	279.8508	15/12/1998	14/12/2048
25 EL COLOSO III	210464	154.7519	08/10/1999	07/10/2049
26 EL COLOSO II	211448	157.9183	23/05/2000	22/05/2050
27 EL COLOSO IV	212370	1.6048	04/10/2000	04/10/2050
28 SAN LUIS SUR 88	212556	1,538.9474	31/10/2000	30/10/2050
29 LA GUITARRILLA DOS FRAC.I	215219	9.0992	14/02/2002	13/02/2052
30 LA GUITARRILLA DOS FRAC.II	215220	20.4517	14/02/2002	13/02/2052
31 EL VIRREY	216193	4.6048	12/04/2002	12/04/2052
32 EL NAZARENO SUR	216635	17.1998	17/05/2002	16/05/2052
33 EL NAZARENO	217506	897.3527	16/07/2002	16/07/2052
34 LOS TIMBRES	217766	383.5042	13/08/2002	12/08/2052
35 EL PEÑON FRAC. 1	217796	94.3021	23/08/2002	23/08/2052
36 EL NUEVO RINCÓN	217986	465.4087	18/09/2002	17/09/2052
37 EL PEÑON	218282	185.0801	17/10/2002	16/10/2052
38 MINA DE AGUA	218797	2,239.4495	17/01/2003	16/01/2053
39 EL COLOSO	221269	276.0000	14/01/2004	13/01/2054
40 JODY	228902	100.0000	16/02/2007	15/02/2057
41 TERE	228903	329.5814	16/02/2007	15/02/2057
42 LUCIA	228904	327.5000	16/02/2007	15/02/2057
43 RENACIMIENTO	229918	17,290.6758	28/06/2007	27/06/2057
TOTAL HECTARES		25,304.6598		

4.3 Permits

La Guitarra Cia. has all the necessary permits to resume mining and processing operations, including an operating license, water use and discharge permits, and environmental impact authorization (MIA) for operating the Guitarra, Coloso, and Nazareno mines and the Tlacotal Santa Ana vein project, as shown in Table 4-2.

Exploration permits within and surrounding the project areas and mines are shown in Figure 4-5 and titled Nazareno, Tlacotal, Trancas, La Guitarra NW, Temascaltepec, and San Simon. A request to increase the authorized volume of water treated and discharged from the mine workings has also been submitted to the authorities.

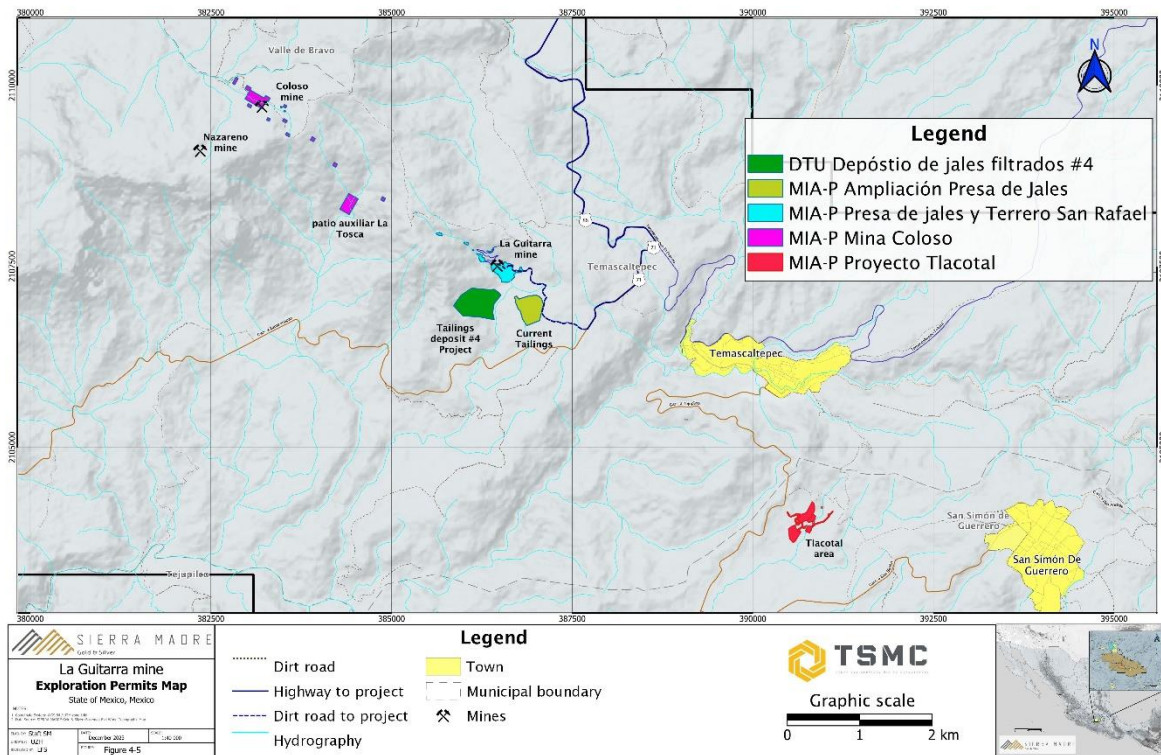


Figure 4-5: Exploration Permits Map

Table 4-2: Project Permits



LA GUITARRA COMPAÑÍA MINERA S.A. DE C.V.
PERMISOS Y AUTORIZACIONES AMBIENTALES
Environmental Authorizations and Permits

Permit, Concession, and Licence Title	AUTHORIZATION NUMBER	Authority	Date	Validity
Licencia Ambiental Unica	LAU-15/00028/13/09/2000	SEMARNAT	June, 2023	Indefinite
Registro como generador de Residuos Peligrosos	15/HR-0309/08/20	SEMARNAT	27-Aug-20	Indefinite
Plan de manejo de residuos de la industria minero-metalúrgica	15-PMM-I-0236-2022	SEMARNAT	24-May-22	10 Years
Plan de manejo de residuos peligrosos	15-PMG-I-4906-2023	SEMARNAT	31-Aug-23	10 Years
MIA-P Operación y explotación minera en mina Coloso	DFMARNAT/2278/2023	SEMARNAT	17-Apr-23	10 Years
MIA-P Operación de planta de beneficio, Presa de jales y Terrero San Rafael	DFMARNAT/3124/2012	SEMARNAT	2-Aug-12	30 Years
MIA-P Modificación en la operación en mina San Rafael. Estabilización y ampliación de presa de jales	DFMARNAT/4752/2015	SEMARNAT	10-Sep-15	30 Years
MIA-P Proyecto Tlacotal	DFMARNAT/2246/2015	SEMARNAT	22-Apr-15	15 Years
DTU Depósito de jales filtrados #4, Fases 1 y 2	DFMARNAT/4598/2019	SEMARNAT	12-Aug-19	30 Years
Cambio de Uso de Suelo en Terrenos forestales, mina Coloso	DFMARNAT-1755-2022	SEMARNAT	19-Apr-22	18-Apr-27
Título de concesión para la ocupación de zona federal (Arroyo El Castillo)	04MEX109110/18EDDL12	CONAGUA	27-Sep-13	10 Years
Título de concesión para el uso de bienes nacionales (consumo de agua)	04MEX101984/18FNDL15	CONAGUA	8-Apr-17	10 Years

4.4 Royalties

A third party has a sliding scale net smelter return (NSR) royalty of 1% to 3% based on the price of gold in US dollars:

- Less than USD 400: 0% gold
- USD 400 to USD 450: 1% gold
- USD 450 to USD 500: 2% gold
- USD 500 or higher: 3% gold

The royalty is effective upon the production of 175,000 equivalent gold ounces after August 1, 2004. The amount of any other third-party royalty payable on minerals mined, produced, or otherwise recovered from the properties shall be deducted from the royalty payable regardless of whether that royalty is still in effect. This results in the Coloso and Nazareno production being excluded. If the royalty is sold or transferred, La Guitarra Cia. has the right of first refusal to buy the royalty on equal terms.

Metalla Royalty & Streaming Ltd. owns an additional 2% NSR royalty, of which the Company can repurchase 1% for USD 2 million.

4.5 Surface Use and Disturbance Agreement

La Guitarra Cia. leases surface rights covering 62 hectares, covering most of the Guitarra mine, the mill, and the processing plant from Comunidad Albarrada. The tailings site is leased from a private individual. Another 420 hectares of surface rights are under a lease covering the Los Angeles area of the Guitarra mine and the Nazareno and Coloso areas of the project. La Guitarra Cia. also leases 34 hectares of surface rights in the municipality of San Simon de Guerrero at the Tlacotal site.

Figure 4-6 shows the surface rights owned and leased by La Guitarra Cia., and Table 4-3 contains the details of the leases. The Company will need to purchase or lease additional surface rights to expand operations in other areas.

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

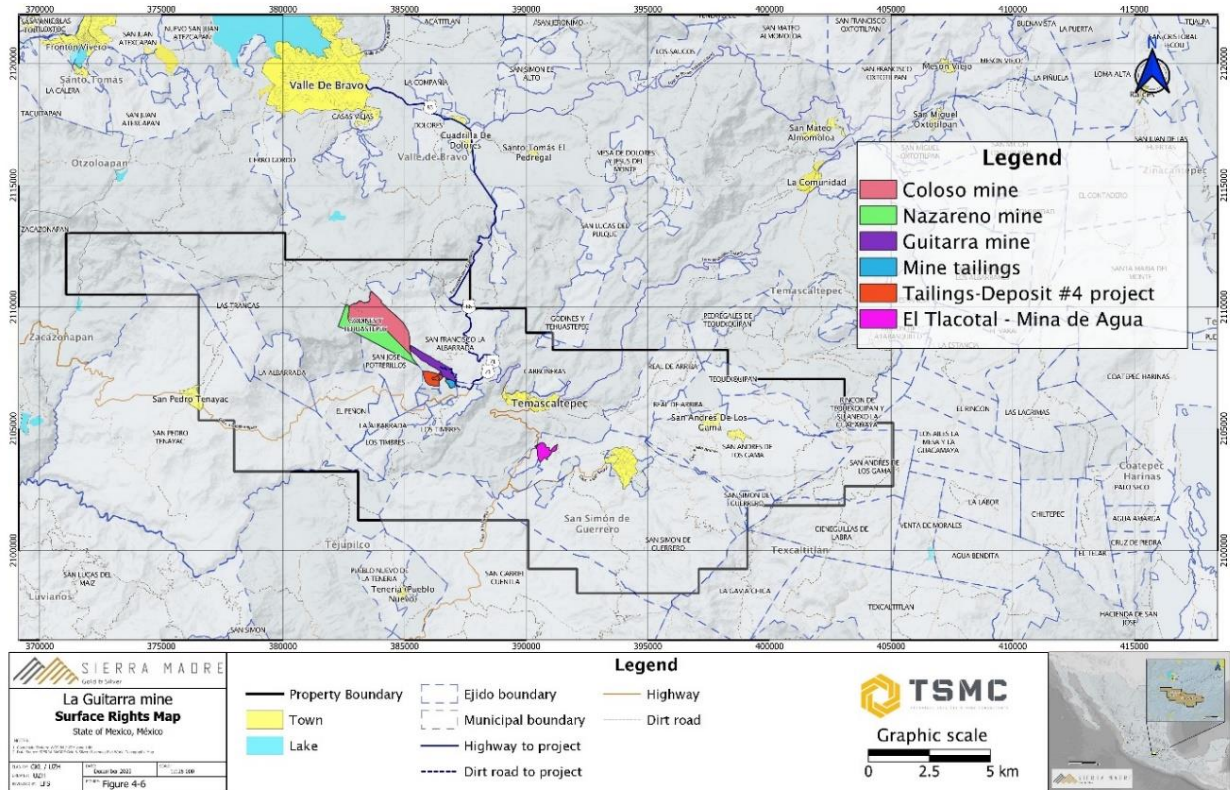


Figure 4-6: Surface Rights Map

Table 4-3: Surface Rights Lease Details

Project	Agreement	Purpose	Validity
LG	Diana Esmeralda Sánchez López	Operations	Aug, 2024
LG	Bienes Comunales de San Francisco la Albarrada	Operations	Jan, 2027
LG	Bienes Comunales de San Francisco la Albarrada	Operations	To be agreed by CFE
LG	Bienes comunales de San Francisco la Albarrada	Operations	Dec, 2027
LG	Ejido Godínez Tehuastepec	Operations	Dec, 2027
LG	Rancho El Tlacotal (Fam. Gutierrez)	Exploration & Operations	Jul, 2038
LG	Bienes Comunales de Timbres	Operations	Mar, 2047

4.6 Environmental Liabilities

Exposure to environmental liabilities exists in the form of:

- Discharge of acid mine water: Currently, water is being pumped from the Coloso and Guitarra underground mines. This flow is discharged after being treated with lime to raise the pH to 6 and is treated with deflocculant to clarify it and remove solids. Guitarra releases approximately 1,200 L/min, and Coloso 2,000 to 3,000 L/min depending on the rainy season.
- Existing tailings: The tailings impoundment facility contains over 2 million tonnes of tailings from the flotation processing plant. The tailings impoundment produces acidic drainage water, which is currently being treated to lower the pH.
- Waste dumps: A large mine waste rock dump is adjacent to the San Rafael portal, and the mine warehouse, core storage, and other buildings have been constructed on it. Some waste rock in the dump contains sulfides, which may produce acid mine drainage in the future, although current levels are within tolerance.

To the extent known, there are no environmental or social issues that could materially impact the Company's ability to conduct exploration and mining activities in the district. The Company's community relations department proactively communicates with local communities and their leaders, labour unions, elected officials, and government regulators in a businesslike and amicable fashion.

4.7 Other Significant Factors and Risks

The QPs are unaware of any other significant factors and risks that may affect access, title, or the right or ability to perform exploration work recommended for the Property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Temascaltepec district and the Guitarra Project are located approximately 130 km southwest of México City and approximately 65 km from Toluca, México state's capital. The nearest local town is Temascaltepec, which is approximately 5 km from Guitarra.

International airports are located in both México City and Toluca. Major population centres in the area include Temascaltepec, San Simon de Guerrero, and Valle de Bravo. These cities and towns are accessible via federal and state highways and paved roads are present throughout the Temascaltepec district. The Guitarra mine and processing facilities are situated less than 2 km from paved roads and are easily accessible by two-wheel drive vehicles.

5.2 Climate

The climate in the area is moderate in temperature and relatively humid. The average annual temperature is about 18 °C. The warm season registers an average of 26 °C, with the month of May having an average high of 28 °C. The cold season average is in the order of 8 °C, with the month of January registering an average low of 4 °C.

Average annual precipitation is 1,200 mm, with a wet season in summer usually during the months of June through October (with rainfall greater than 60 mm per month), and a dry season usually during the months from November to May (with less than 60 mm per month).

5.3 Local Resources and Infrastructure

The Guitarra Project has good access to local infrastructure and services within the local centre of Temascaltepec, where there are schools, shops, markets, banks, post offices, hotels, gas stations, and some professional services. Current telephone and high-speed internet connections at the mine site are provided by a link to the town of Temascaltepec.

The area's local communities provide a large labour pool and sufficient accommodation to support any current or anticipated levels of staffing. The national power grid crosses the property within 700 metres of the existing mill and offices. All current and projected production centres are near natural water sources. Medical clinics are located in the communities of Temascaltepec and San Simon de Guerrero, and hospitals are located in Valle de Bravo and Toluca. Proximity to the major industrial centres of Toluca and México City provides access to a large variety of potential suppliers. The lakeside resort of Valle de Bravo is located 14 km to the north and on weekends caters to México City residents. Valle de Bravo traffic does not pass the project site, nor is the project site visible from Valle de Bravo.

The infrastructure at the mine site consists of an analytical laboratory (currently not in operation), drill core storage facilities, a flotation plant and mill, offices, repair shops, and warehouses. The various buildings at the mine site are joined together and supported by a computer network. Water is supplied from the mine workings and surface streams.

5.4 Physiography

The mine and the plant facilities at Guitarra are located in rough, hilly terrain. The elevation at the plant is approximately 1,990 metres. The topographic relief in the area is 500 metres. Much of the area is forest and is covered with pine trees that are less than 260 cm in diameter. In some areas, the underbrush is dense and difficult to pass through. Stream and river valleys are generally steep sided. Some areas with basalt outcrops provide flat plains used for agricultural purposes.

6 HISTORY

6.1 Early History

6.1.1 Spanish Colonial Period

Much of the following is credited to a compilation of previous reports and memos regarding the Property (see Aguilar Contreras A., 1968, “Breve Reporte Sobre La Gran Veta “Guitarra” de Temascaltepec, Mex”).

Mining in the Temascaltepec area started early in the Spanish Colonial period. Shafts, adits, old foundations, and retort ovens from amalgamation processing are found throughout the area. The district has a rather colorful history. In 1552, Jorge Medina, a fugitive wanted for murder in Zacatecas, found workings attributed to the Aztecs. Several years later, he “presented” his discovery to the Viceroy of New Spain. In return for giving the Spanish Crown “this exquisite jewel” he received a pardon for his crimes.

Early Spanish operations were focused in an area 4 km southeast of the Guitarra mine, in an area called Mina de Agua. During the 1600s, the Viceroy of New Spain was appointed as overseer to six of the most important silver districts in México, including Temascaltepec. In 1911, J.M. Dicheman researched the Mexican National Archive and produced a report on the mines in the Temascaltepec district in which he states: The mines of the South Group reached their highest production in 1783, the average yearly output from 1789 to 1783 having been over two million dollars of gold: in the archives of this nation, we find Volume 11 page 180 (mining) the following document: General Statement of Silver introduced into the Royal Treasury during the years 1779 to 1783, Temascaltepec:

Marcos (Spanish half pound or eight ounces) by

Amalgamation	1,700,554
Idem, by fire (smelting)	707,084

Value \$20,910,000 pesos silver with \$1,200,000 in gold).”

During this period, the Spanish Peso contained 27.064 grams of silver, which would equate to approximately 0.87 ounces of silver per peso. This would place the recovered silver production at over 18 million ounces.

The mines in the area of Mina de Agua subsequently flooded at a depth of around 120 metres. In return for 1/5 the gross output (on top of the “Royal Fifth” tax), the Spanish crown invested \$214,000 Spanish Pesos in a failed effort to dewater the mines. According to Dicheman, work was halted due to “plague and bad harvests” in New Spain. In the early 1800s, another Spanish company attempted to re-open the mines but the War of Independence stopped that work.

6.1.2 1800s

During the 1830s and 1840s, small under-capitalized operations were active in both the eastern portion of the district and at Guitarra. At this time, the Governor of México State provided convict

labour to some of the mines. This practice was initiated believing it might help revive the district and benefit the area economically.

In the 1850s, J.B. Jecker, the banker behind Jecker Bonds, began to consolidate the district. Using a questionable claim of default by the Mexican government on \$15,000,000 of Jecker bonds, Jecker convinced the French government to intervene and install Austrian Archduke Maximilian as Emperor of México, backed by the French Army. This set off the Second Franco-Mexican War, which ran from 1861 to 1867. Concurrently, Jecker used the invasion to solidify his claims in the Temascaltepec district and worked claims at Guitarra. Upon the defeat of the French army and the execution of Maximilian, Jecker fled to Paris. He was later executed for his part in starting the whole affair. During the mid to late 1800s, mining in the district continued to suffer from water problems and lack of capital investment.

6.1.3 1900s

In the early 1900s, capital from the French and American markets began to develop new mines and open old ones, the most productive of which were in the Rincón area. The American Rincón Mining Company built a sizable mine with leaching/smelting processing at in the southeast portion of the Temascaltepec district. The Rincón mine operated from 1911 until the mid-1930s, when it closed because of labour unrest. During its life, the Rincón mine was one of the largest silver producers in México.

During the 1950s, several engineers and geologists appraised the Guitarra vein system and recognized the bulk tonnage possibilities. In 1959, Mr. Ernesto Ancira and an American named Miller formed Cia. Minera Ancimilco, S.A. and gained ownership of a portion of the mines on the Guitarra vein. Ancimilco constructed a flotation plant located 2 km northwest of Temascaltepec, processing high-grade ore from Guitarra. In addition to producing silver and gold, they sold the silica rich tailings to glass manufacturer Fabrica Nacional de Vidrio in México City. Amcimilco ceased operations sometime in the mid-1960s and forfeited their equipment to the laid-off workers in a lawsuit brought by the National Miners Union.

In 1961, Miller and another American formed Bensilice, S.A., controlling the San Francisco mine and El Ray shaft at Guitarra and possibly mines in the El Rincón area. A processing plant was built between Temascaltepec and Real de Arriba (Figure 6-1). This plant operated on ore primarily from Guitarra into the 1970s.

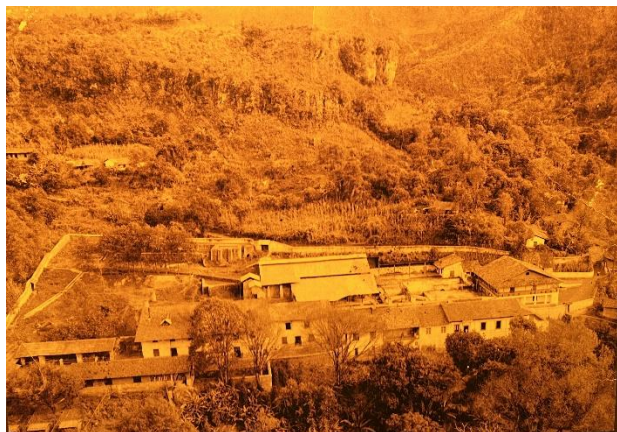


Figure 6-1: 1970s Processing Plant

6.2 Modern History

The Consejo de Recursos Minerales, México's federal department of mines, was active in the district from 1965 to 1990. Numerous studies were undertaken, old mines were opened and rehabilitated, and some underground development was completed. The eastern portion of the district was designated a National Mining Reserve.

Peñoles began acquiring concessions in the 1980s, but the extent of their work is unknown. Modern mining resumed in 1990 when the Compañía Minera Arauco purchased Peñoles and placed Guitarra mine into production at an initial rate of 30 t/d. In 1993, Arauco was purchased by Luismin S.A. (Luismin). Luismin increased the production rate to 320 t/d and operated the mine from 1993 to 2003. During the last few years that Luismin operated Guitarra, insufficient re-investment was made to maintain or increase the reserve base, and the mining rate slowly began to decrease.

In August of 2003, Genco Resources Ltd. (Genco) purchased the entire Temascaltepec mining district and the Guitarra silver mine from Luismin. Between 2003 and 2008, Genco undertook three drilling campaigns, the largest of which was between 2006 and 2008. Surface drilling was conducted to expand reserves and test mineralization in the Mina de Agua, Nazareno, and Coloso mine areas.

The San Rafael I discovery took place in 2004, extending the Guitarra veins beneath the basalt cover. San Rafael II was discovered in 2006-07, further extending the veins to the southwest. In 2007, Genco followed up on a high-grade Luismin drill-hole intercept in the Coloso area, and delineation of the Coloso veins began.

In the Guitarra mine area, surface and underground drilling were conducted to test a previously unexplored section of the Guitarra vein and define bulk tonnage deposits in and adjacent to the existing Guitarra mine workings. Limited underground development production came from the Santa Ana vein in 2007.

Genco was forced to halt all mining and milling operations in September of 2008 due to an illegal blockade. The occupiers denied Genco personnel access to the mine and facilities, causing the lower levels of the mine to flood. Following resolution of the blockade in April of 2010, Genco re-opened the mine and began production from stockpiled ore and old dumps.

In 2011, Genco merged with Silvermex Resources Inc. (Silvermex), and Silvermex personnel took over mine production and supervision. Production continued from the upper levels of the Guitarra mine as the illegal blockade had caused the lower levels of the mine to flood.

Therefore, dewatering below the main San Rafael veins was needed. This required Silvermex to mitigate the discharge of acidic mine water and for that purpose a small thickener and lime treatment system were installed. Production was restarted from San Rafael I and San Rafael II. Additional areas of economic mineralization were identified and mined on the Guitarra vein and mine dumps above Guitarra were identified for reprocessing. Improvements to the Guitarra mill permitted continuous operation to achieve over 350 t/d. At this time, a tailings expansion was designed and permitting procedures begun. Exploration during this period, consisting of mapping, sampling, and drilling, expanded the mineral resources in the Coloso and Nazareno mine areas.

On July 3, 2012, First Majestic completed a plan of arrangement under which First Majestic acquired all the issued and outstanding shares of Silvermex. The total value of the transaction was approximately CAD 175.4 million.

First Majestic executed a plan to expand the mining operations from 350 t/d to 520 t/d. Underground development at the Guitarra mine was completed, and a spare ball mill from La Parrilla Silver Mine and flotation tanks from La Encantada Silver Mine were shipped to Guitarra. The plant expansion was completed in May 2013. Concurrently, First Majestic constructed a production ramp to access ore in the Coloso vein system, with initial production beginning at the end of 2014. In 2017, First Majestic began construction of a production drive to the Nazareno area, with the first vein development beginning in early 2018.

Operations at Guitarra were stopped by First Majestic in August of 2018. In a news release dated July 16, 2018, First Majestic stated that this decision was due to the re-allocation of capital and resources to projects that had better economics and internal rates of return for First Majestic. First Majestic did, however, continue with Guitarra's ongoing permitting activities and remediation programs to prepare the operation for a potential re-opening in the future.

On May 25, 2022, Sierra Madre entered into a definitive agreement with First Majestic, whereby Sierra Madre agreed to acquire the Property by purchasing all shares of La Guitarra Cia. from First Majestic.

6.3 Production Statistics

The production statistics from 1991 to 2018 are listed in Table 6-1.

Table 6-1: Production Statistics from 1991 to 2018

Year	Operator	Tonnes	Au (g/t)	Ag (g/t)
1991	Luismin	2,574	3.23	465.96
1992	Luismin	9,927	6.72	345.19
1993	Luismin	8,206	5.20	320.28
1994	Luismin	25,055	3.58	256.30
1995	Luismin	65,410	3.20	321.00
1996	Luismin	94,375	3.63	285.74
1997	Luismin	107,305	4.35	298.53
1998	Luismin	106,598	3.89	331.11
1999	Luismin	105,136	3.60	298.14
2000	Luismin	113,809	3.29	254.62
2001	Luismin	101,548	3.92	226.84
2002	Luismin	79,679	3.58	208.88
2003	Luismin/Genco	41,387	3.09	252.61
2004	Genco	41,947	3.66	274.46
2005	Genco	45,922	5.55	327.42
2006	Genco	53,873	3.11	343.37
2007	Genco	59,342	3.21	192.69
2008	Genco	67,629	1.47	176.26
2009	Mine Blockade			
2010	Genco/Silvermex	40,033	1.13	131.99
2011	Silvermex	81,153	1.86	180.26
2012	Silvermex/First Majestic	114,455	1.26	203.58
2013	First Majestic	171,662	1.41	152.35
2014	First Majestic	186,881	1.32	126.66
2015	First Majestic	158,518	1.60	201.35
2016	First Majestic	155,696	2.19	227.91
2017	First Majestic	89,957	1.83	196.38
2018	First Majestic	79,959	1.67	172.50
TOTAL		2,208,037	2.62	220.86

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

During the Mesozoic Era, the Guitarra Project area was on the southern edge of the North American Plate as the Pangea supercontinent broke up. The oldest rocks from this period are part of the Guerrero Terrane. They were deposited atop the Farallon oceanic plate in a Triassic to lower Jurassic volcanic island arc setting, with restricted marine depositional basins (Elias-Herrera, et al, 2000). Kuroko-type volcanogenic base metal massive sulphide deposits, such as the one at the Tizapa mine, 15 km west of the Guitarra Project, were also deposited at this time.

As the North American plate moved westward during the Cretaceous and Eocene, the island arc sediments were accreted onto the plate, then compressed, folded, and subjected to heat and pressure intense enough to produce greenschist facies metamorphism. Figure 7-1 is a map showing Guerrero Terrane rocks in the region, with Temascaltepec and the Guitarra intrusive in the upper northwest corner. Metamorphism ended around 50 Ma, based on age dates from samples ME1-1 and ME1-2.

M. Elías-Herrera et al. / Journal of South American Earth Sciences 13 (2000) 355–375

357

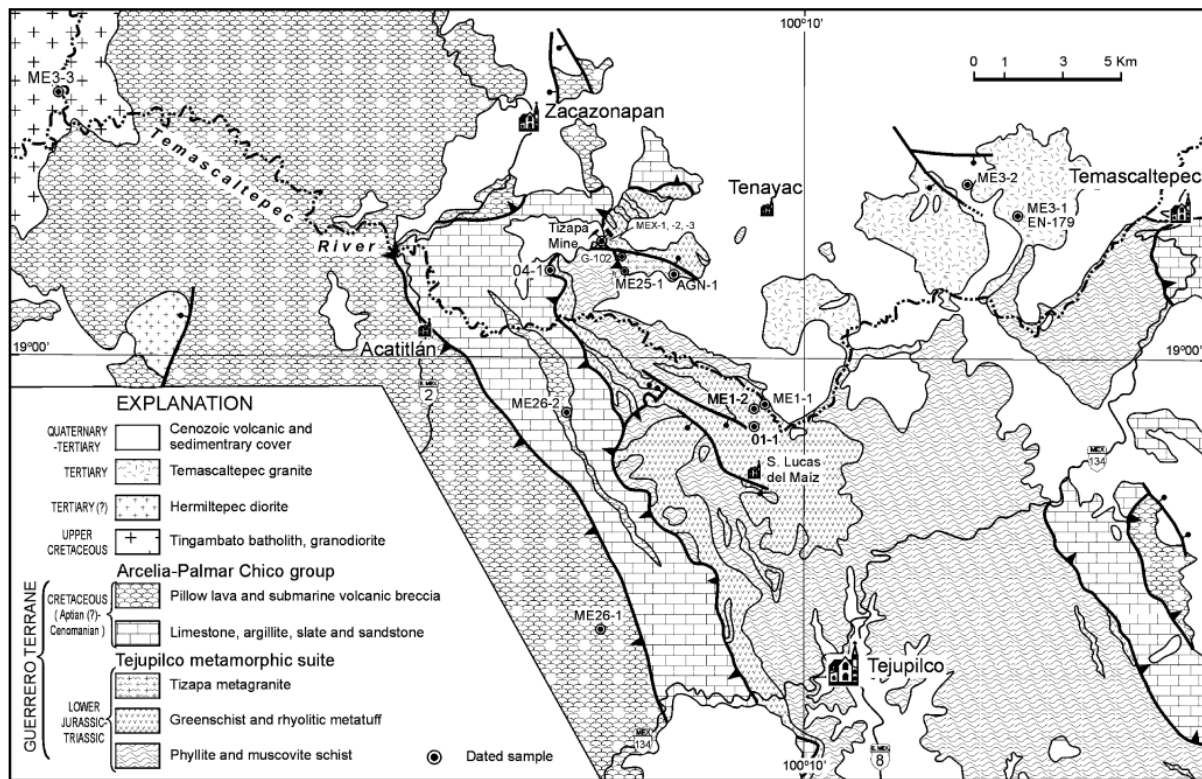


Figure 7-1: Regional Guerrero Terrane Map

Subduction of the oceanic Farallon plate, together with continental rocks and portions of island arc terrane produced a series of volcanic and intrusive events that formed the north-northwest

trending Sierra Madre Occidental geologic province. The Sierra Madre Occidental has three periods of intrusive and volcanic activity:

1. Late Cretaceous to Paleocene granitic intrusives with associated volcanics. These intrusives range in size from small stocks to large batholiths.
2. The Lower Volcanic Group consists of Eocene and Oligocene andesites with lesser rhyolites, silicic ignimbrites, and granitic to granodiorite intrusions.
3. The Miocene Upper Volcanic Group consists of massive silicic ignimbrites.

The Lower Volcanic Group and older rocks host nearly all the silver-gold epithermal deposits in the Sierra Madre Occidental.

The Faja Volcanica Trans-Mexicana (FVTM) belt is an east-west trending volcanic arc produced by the continued subduction of oceanic plates under the North American Plate. Figure 7-2 shows the location of the belt (Ferrari, date unknown).

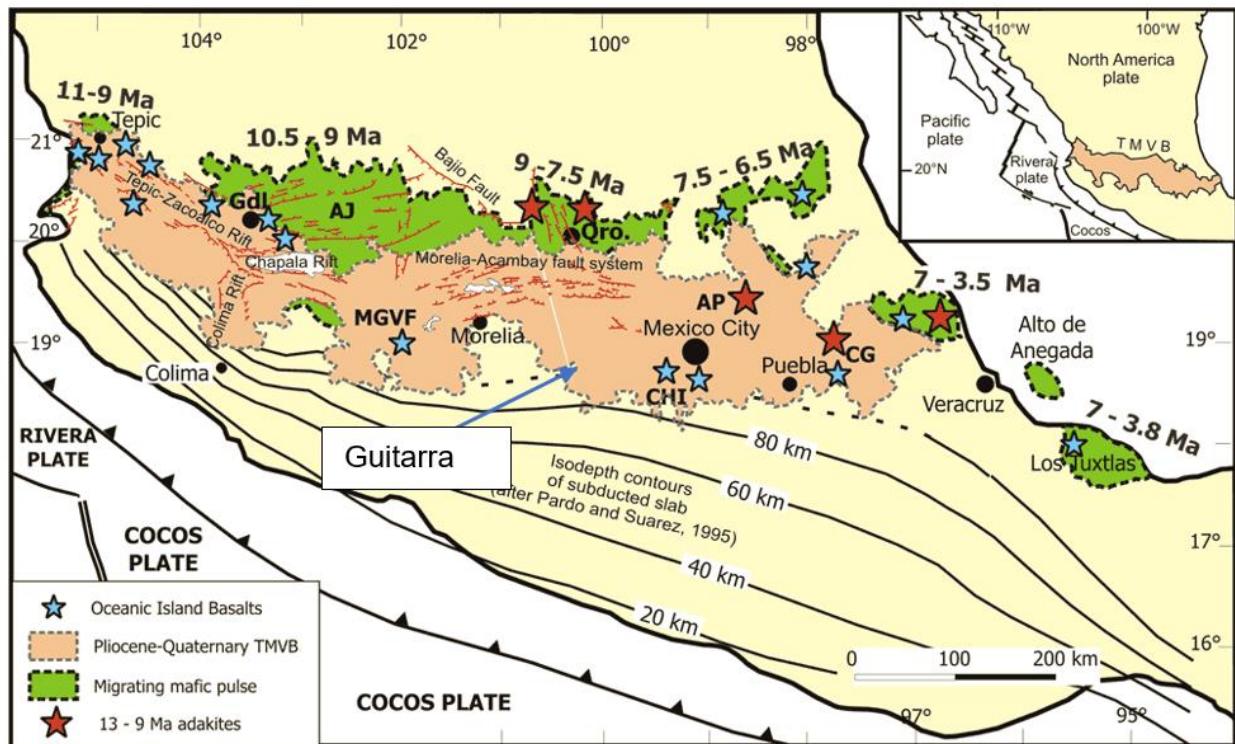


Figure 7-2: Trans-Mexican Volcanic Belt Map

The rock types range from rhyolitic to basaltic and were derived from multiple stratovolcanos and eruptive centres. There are several active volcanos in the belt. Airborne eruptive ash from Popocatepetl, near México City, often presents an active hazard to air traffic.

7.2 Property Geology and Stratigraphy

A stratigraphic column showing the lithologies in the project area is shown in Figure 7-3.

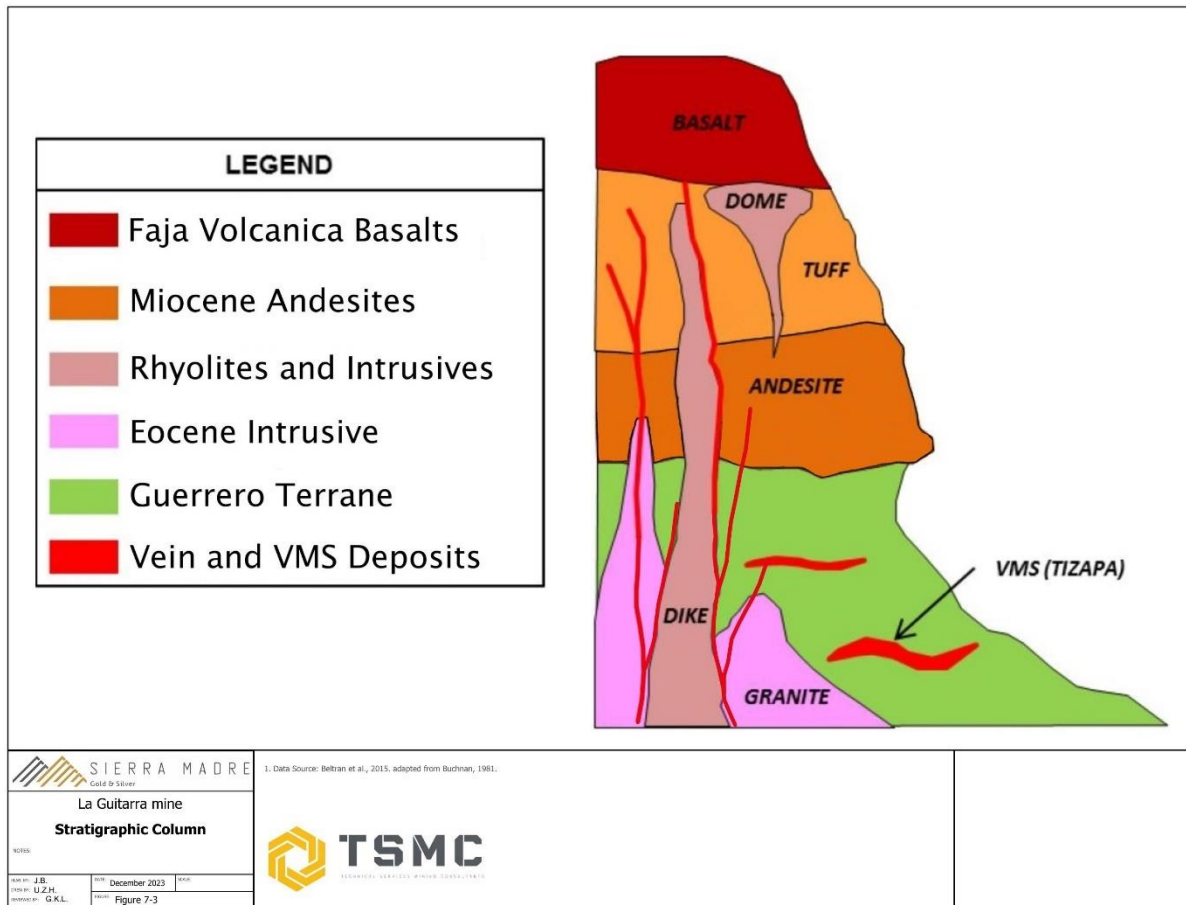


Figure 7-3: Stratigraphic Column

7.2.1 Metasediments

Guerrero Terrane metasediments at the Property are best exposed in the East District (see Figure 7-4) and north of the Guitarra mine area in the West District (see Figure 7-5). Carbonaceous phyllite, pelitic sericite schist, and quartzite are the most common rock types within this sequence. Lesser amounts of andesitic and dacite metavolcanics and rhyolite meta-tuff are also present. The metasediments are typically thin-bedded, gray in colour when fresh, and weather to a tan or reddish colour due to oxidation of syngenetic sulphides. The bedding is preserved in most outcrops unless there is an overprint of hydrothermal alteration.

Velador et. al. (2015) report outcrops of the Bolsa conglomerate within the Property; however, the Company's 1:2,000 scale mapping program has not yet located this rock type.

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

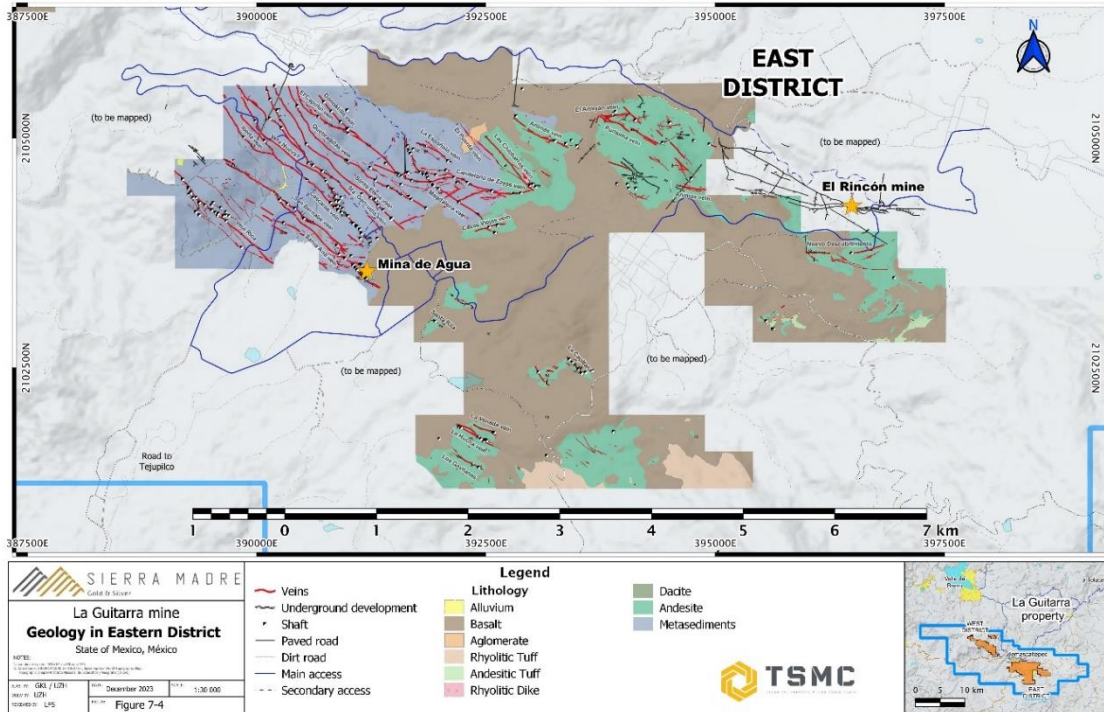


Figure 7-4: East District Map

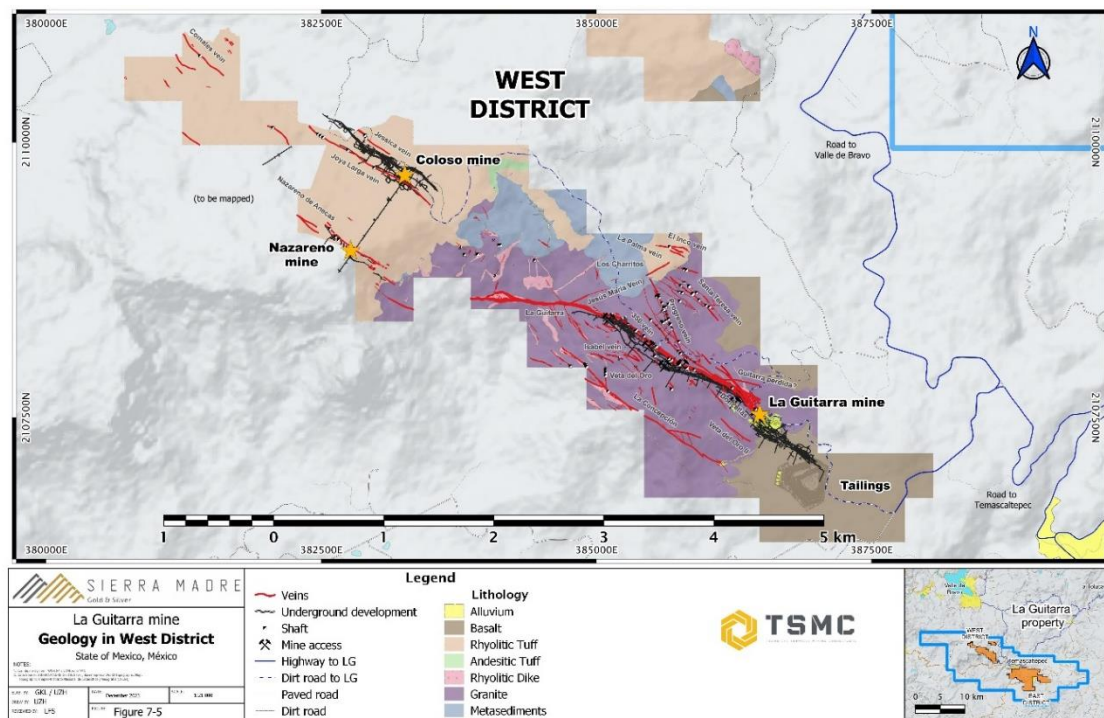


Figure 7-5: West District Map

7.2.2 Eocene Intrusives

A stock of granitic to quartz monzonite composition, along with quartz-bearing porphyritic dikes, are present at Guitarra. The Guitarra stock has a coarse, equigranular texture and contains, in order of abundance, K-feldspar, quartz, plagioclase feldspar, biotite, and hornblende. This intrusive hosts the northwest-trending silver-gold epithermal veins of the Guitarra mine. A sample of granite, ME3-1 in Figure 7-1 above, yielded an age date of 51 ± 3 Ma, roughly the same age as the termination of the metamorphic event for the metasediments.

7.2.3 Miocene Andesites, Rhyolites, Tuffs and Intrusives

This package of rocks consists of andesitic agglomerates, tuffs, lithic tuff flows, rhyolitic intrusives, ignimbrites and tuffs, and volcanic breccias. These rocks were deposited at an erosional unconformity atop the metasediments and, by inference, the Eocene Guitarra intrusive. Andesites and lesser rhyolites outcrop extensively in the East District (see Figure 7-4) and in the Coloso and Nazareno mine areas in the West District (see Figure 7-5). A sample from the El Pinon rhyolite dome produced an age date of 31 ± 2 Ma. All the above host epithermal silver-gold mineralization.

7.2.4 Recent Basalt and Andesitic flows

Faja Volcanica basalts and andesites are the youngest rocks in the Guitarra Project area. These volcanics are post-mineral, with veins outcropping only in erosional windows. Velador et al. report that basalt is the most common rock type and is comprised of two units: 1) a massive flow unit and 2) a tuffaceous unit that is easily weathered and forms rounded buff to reddish-tinged outcrops. This tuff unit is aerially the most extensive and overlies the flow basalts.

7.3 Property Structural Geology

The oldest structural feature in the project area are the folds within the metasediments produced during the accretion of the Guerro Terrane to the North American plate. The compression direction was east-northeast, rotating to the northeast with time. Folding on a local scale is quite intense, with recumbent folds of individual beds visible in outcrops. Thrust faults have not been recognized to date.

Post-metamorphic northwest-striking fault structures with attendant east-west antithetic faults dominate the structural fabric of the Guitarra property and are host to the mineralized veins and breccias. Included below is a series of stereonet projections of the East and West District veins by host rock type (starting with Figure 7-6). The great circles represent raw data, while contoured strike/dip polar-oriented data is shown in colour. All measurements are from surface data only.

A northwest $290-320^\circ$ striking vein set stands out clearly in the stereonet projections, with most of them dipping steeply to the southwest. A less numerous set of veins is present striking northeast $50-70^\circ$, dipping steeply both north and south. Figure 7-7 is a detailed surface map of the area hosting the metasediment veins in the East District.

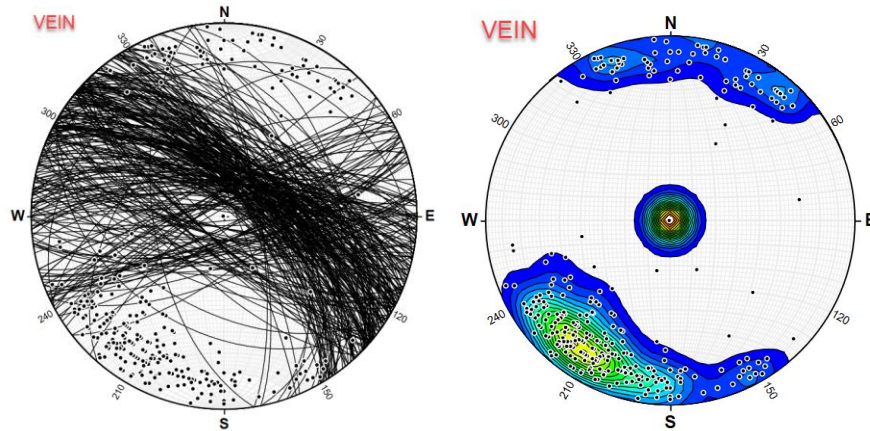


Figure 7-6: Stereonets for the East District Metasediments Hosted Veins

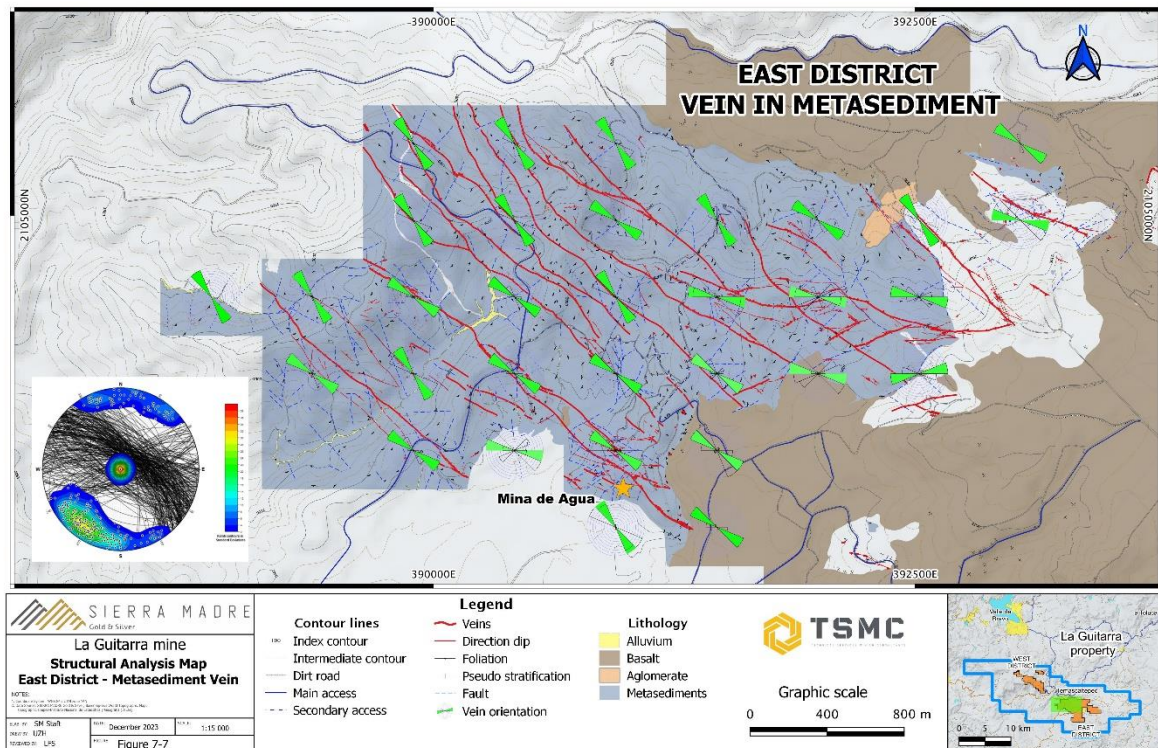


Figure 7-7: East District Metasediment Outcrop Area

The East District volcanic hosted veins show a greater variation of strikes compared to the metasediments (see Figure 7-8), although all are relatively steeply dipping. The 290-320° striking vein set is once again present. These veins dip steeply to both north and south, with the southerly dipping veins being the most common. There is a less common east-west striking vein set which dips primarily to the south. It should be noted that the El Rincón mine area has not

been mapped and historical data indicates that east-west striking veins are common in this area. Figure 7-9 is a detailed map of the East District volcanic hosted veins area.

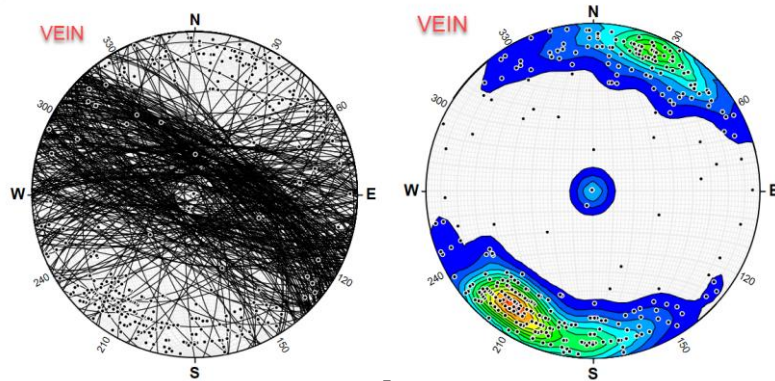


Figure 7-8: Stereonets for the East District Volcanic Hosted Veins

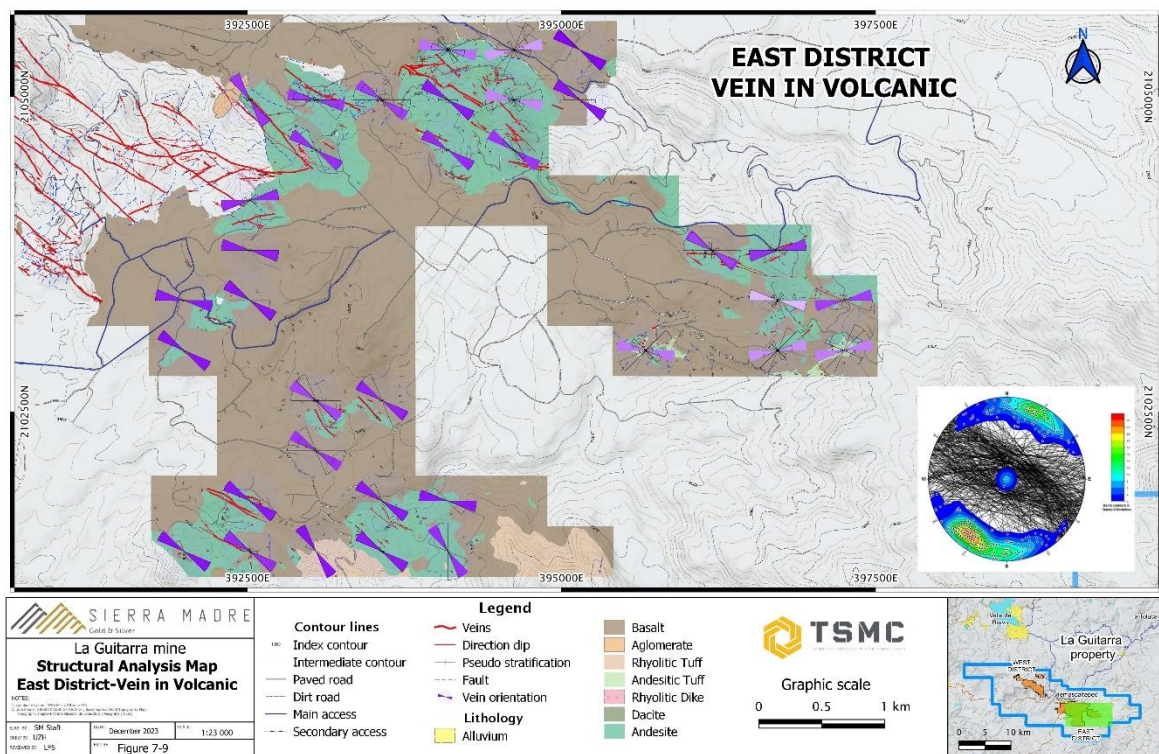


Figure 7-9: East District Volcanic Outcrop Area

The northwest striking vein set is again present in the Eocene Guitarra granite. The strike of the ten Guitarra mine veins ranges from 290° to 312°. Average dips range from 71° to 82° to the southwest, with all but 3 dipping at 72°. The majority of the veins in this set dip to the north

based on outcrop data (see Figure 7-10). Once the underground mapping in the Guitarra mine is included in the database, the stereonet interpretations may change. A lesser number of east-west and north-south striking veins are also present. The east-west veins dip both steeply to the north and south, while the north-south veins dip predominately to the east. Figure 7-11 is a map of the West District intrusive outcrop area.

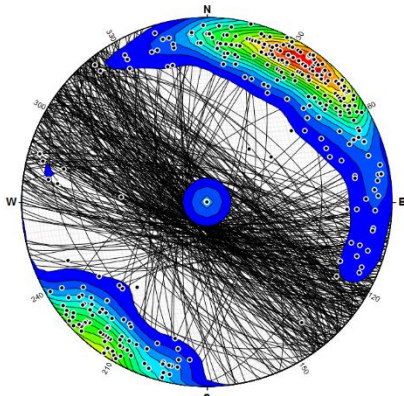


Figure 7-10: Stereonet for the West District Intrusive Hosted Veins

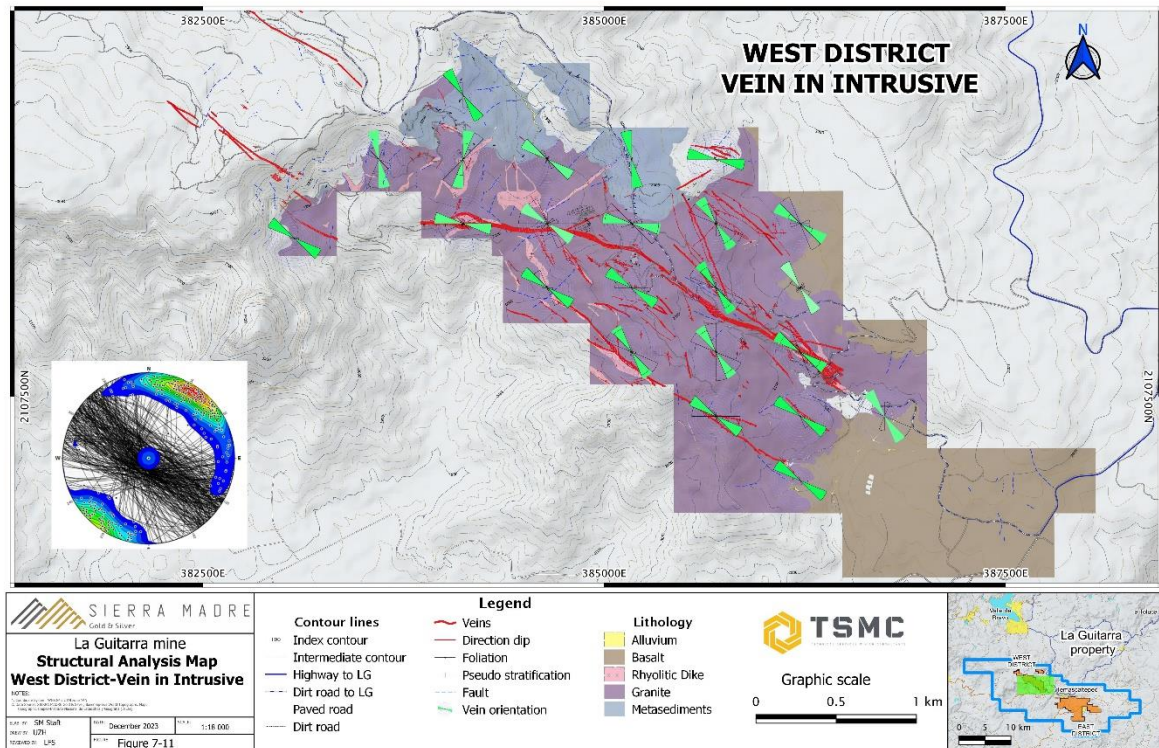


Figure 7-11: West District Intrusive Outcrop Area

Miocene volcanics are the host rock for the Coloso and Nazareno mines. The stereonet projections show a dominant northwest striking vein orientation (see Figure 7-12). The dip direction is evenly split between northeast and southwest. The stereonet projections lack a well-defined set of antithetic structures. Figure 7-13 is a detailed map of the West District volcanic hosted veins area.

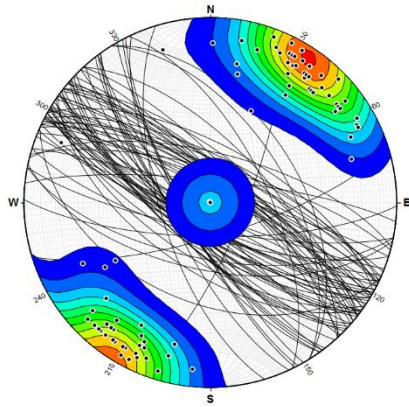


Figure 7-12: Stereonet for the West District Volcanic Hosted Veins

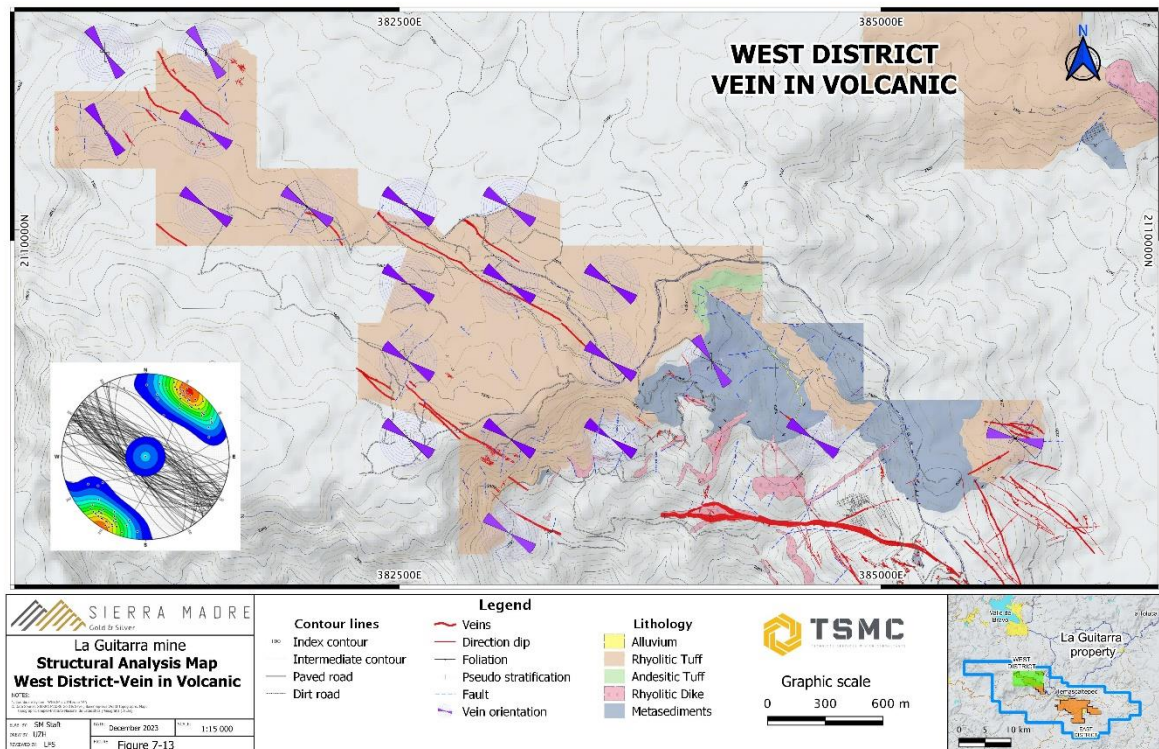


Figure 7-13: West District Volcanic Outcrop Area

It is often useful to examine mineral occurrences spatially to see if a repeating pattern is present. Shown below are two views (Figure 7-14 and Figure 7-15) of the Guitarra mine stopes view to 210° , inclination -70° . On the right-hand side are the stopes in the Los Angeles mine area, in the centre are the San Francisco-La Cruz stopes, and on the left are the San Rafael I and II stopes.

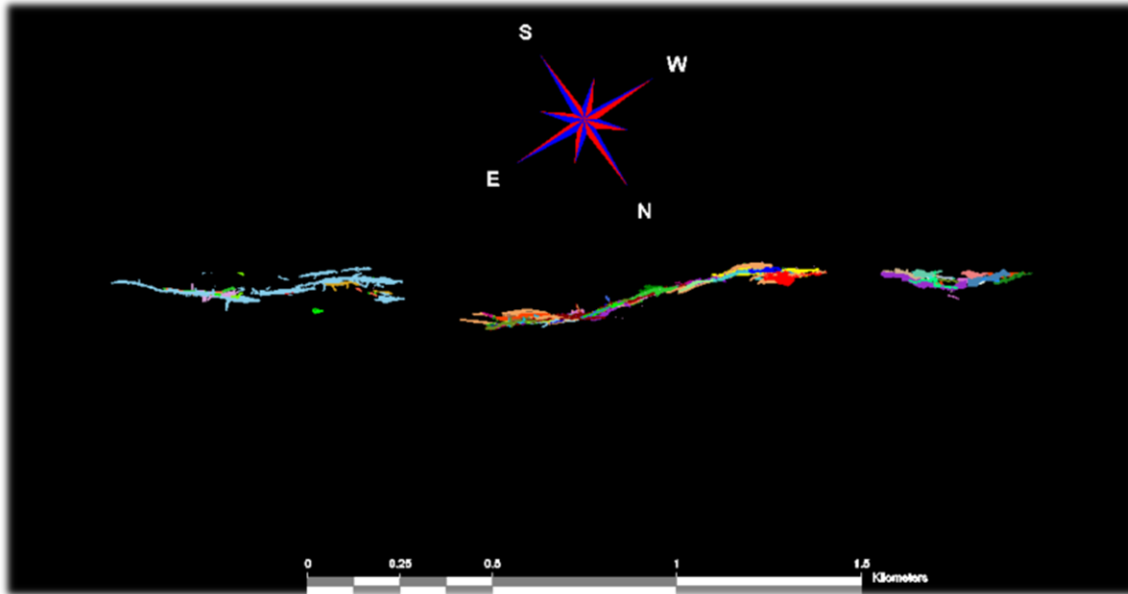


Figure 7-14: Planview Projection of the Guitarra Mine Stopes

The overall trend of the stopes is approximately 300° ; however, the stopes and, hence, the location of ore grade mineralization is apparently affected by a structural fabric made up of two sets, one striking approximately 290° and the other around 314° . These changes in orientation occur at approximately 400-metre intervals. This pattern can be applied to future exploration drilling programs.

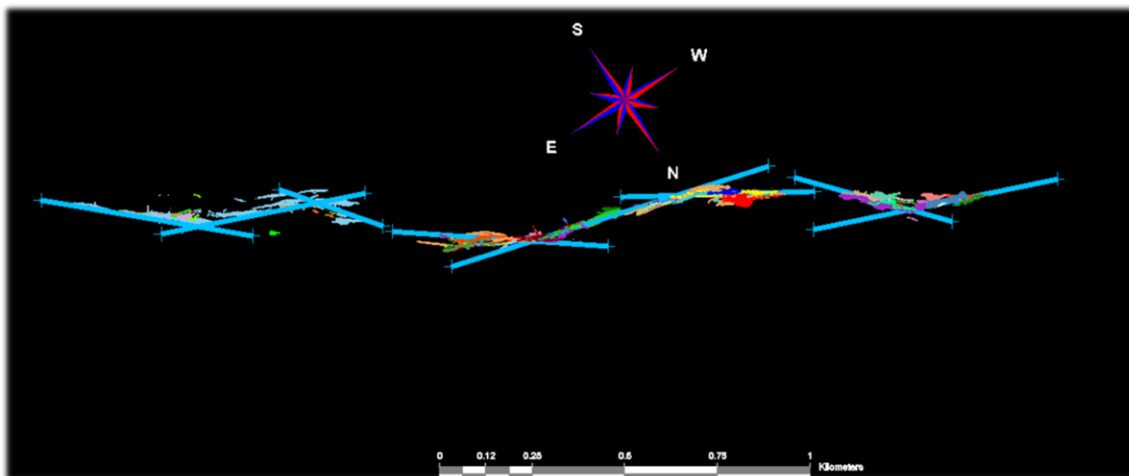


Figure 7-15: Structural Interpretation of the Guitarra Mine Stopes

7.4 Property Mineralization

Mineralization at the project is classified as a low-to-intermediate sulphidation epithermal system. Hundreds of veins are present in a belt 4 km wide and 15 km long. An erosional window through younger basalts forms this northwest-southeast striking belt. Vein widths of economically interesting silver and gold mineralization vary from less than 1 metre to +20 metres in width.

Gangue mineralogy consists of banded quartz, amethyst quartz, coliform chalcedony, fine-grained crystalline quartz, calcite, fluorite, pyrite, marcasite, barite, anhydrite, illite–smectite, adularia, and alunite. Primary ore mineralogy consists of proustite–pyrargyrite, electrum, acanthite, polybasite, sphalerite, galena, and chalcopyrite. Oxidized copper and lead minerals are present in small quantities in the near-surface environment.

The Guitarra mine veins can be grouped into three mineralization stages: Stage I, is a base-metal rich event, while Stages 2 and 3 deposited most of the precious-metal assemblages (Camprubí et al., 2006). Stage II is the most important in terms of economically interesting silver and gold deposition.

The main textures observed in the veins are coarse to fine banding, colloform, bladed quartz, and breccia textures. Fine dark bands containing sulphides and bladed quartz textures after calcite have been observed to correlate with higher silver and gold concentrations. Banding and bladed textures are commonly associated with boiling and the deposition of precious metals in an epithermal environment. The breccias usually contain angular quartz clasts that range in size from a few millimetres to tens of centimetres and are supported by a silicified matrix or cemented by quartz and ±marcasite.

7.4.1 West District Vein Systems

The West District veins are hosted in the Miocene volcanics, the Eocene intrusives, and the metasediments. Surface mapping to date has delineated over 15 km of mineralized veins and breccias. Production from 1992 to 2013 was derived primarily from northeast striking veins at the Guitarra mine and from 2014 to 2018 at the Coloso mine.

7.4.2 Comales Nazareno System

The Comales Nazareno system is located in the northwest portion of the property. Its veins are part of the 290-320° vein set, and they outcrop for approximately 3.7 km. The system contains the Comales, Nazareno, Nazareno del Alto, and other vein splays. Host rocks are the Miocene volcanics, possibly extending into the metasediments at depth. Figure 7-16 provides a cross section view of the Nazareno mine area.

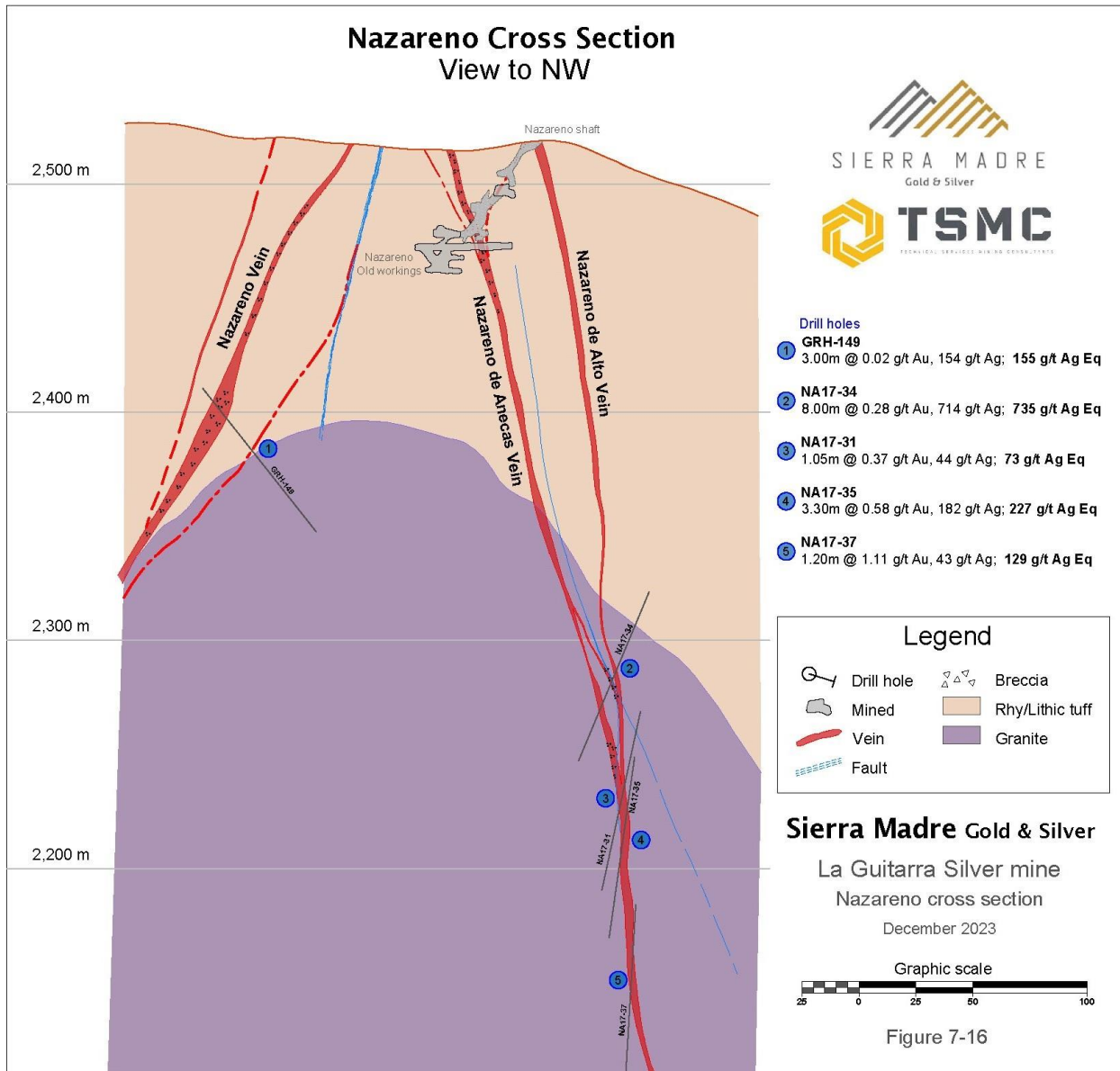


Figure 7-16: Nazareno Vertical Cross-Section

7.4.3 Coloso System

The Coloso vein system is located east of the Comales-Nazareno system and is part of the 290-320° vein set. The length of the system is over 2 km based on mapping and drilling, however, in all likely hood it is a continuation of the Guitarra mine trend to the northwest. The known vertical extent of mineralization is over 400 metres and is open at depth. The principal veins are Jessica, which dips to the southwest and Joya Larga, which dips to the northeast. Vein mineralization is hosted in the Miocene volcanics, with intercepts in the metasediments being reported in deeper drilling. Several vein splays have been recognized in the system including the Jessica footwall, Jessica hanging wall and Joya Larga hanging wall. Velador et al. report the

vein splays are narrower than the main veins and average 1 metre in width. There is a possibility for additional splays and mineralization remains open at depth. The projected intersection of the Jessica-Joya Larga veins is an attractive target. Figure 7-17 provides a cross section of the Coloso mine area.

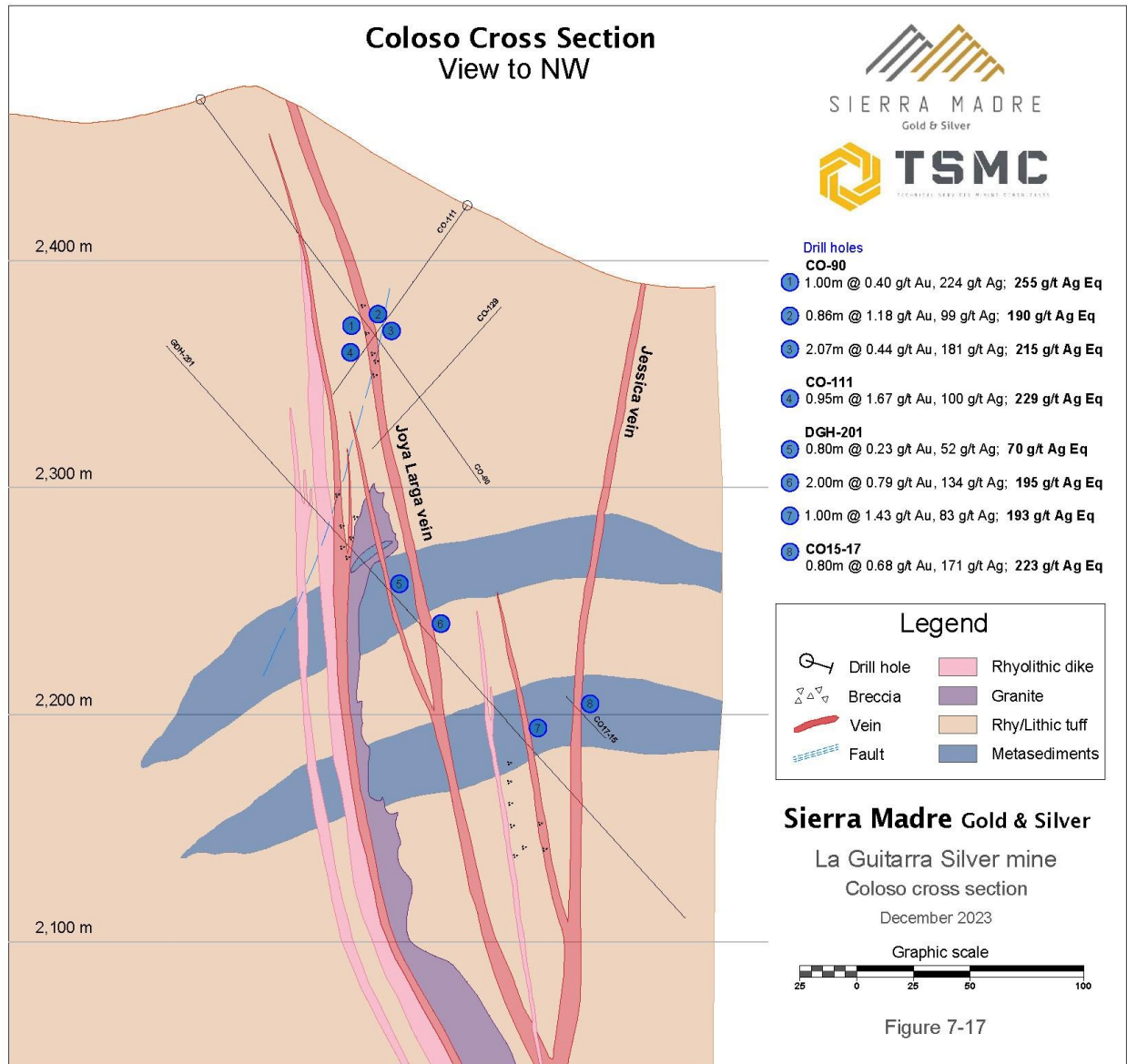


Figure 7-17: Coloso Vertical Cross-Section

7.4.4 Guitarra Mine System

The Guitarra mine vein system, as discussed in the structural section above, consists of ten veins with strikes ranging from 290-314°. These veins dip at angles between 72° and 82° to the southwest. The system has been explored over a length of 3.5 km. The known vertical extent of mineralization from surface to the deepest diamond drill-hole intersection is 700 metres.

Underground mapping shows the presence of antithetic vein structures striking both east-west and north-south. These veins have been found to host economically interesting mineralization. Figure 7-18 provides a cross section of the Guitarra mine area.

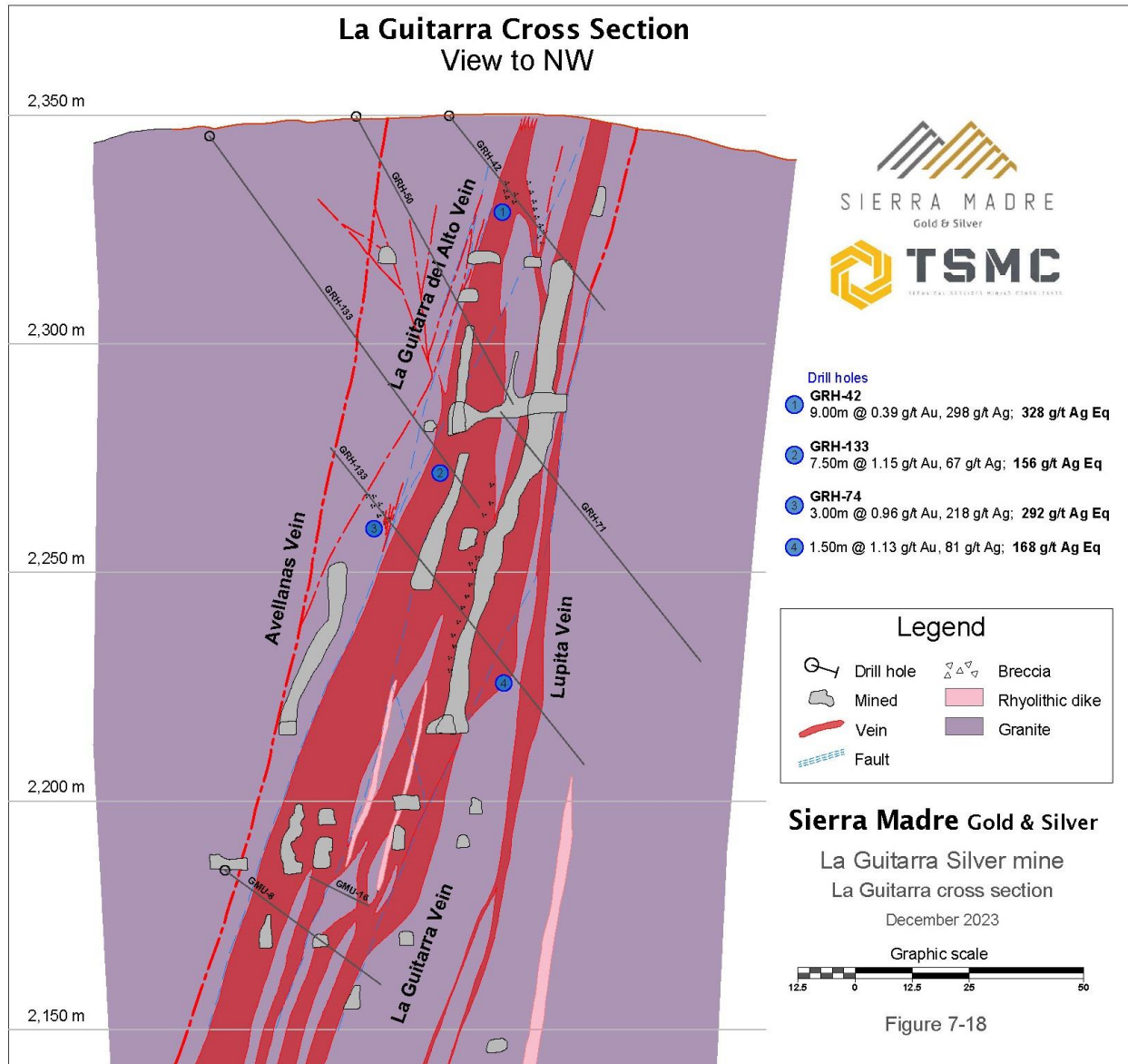


Figure 7-18: Guitarra Vertical Cross-Section

7.4.5 East District Veins

The East District contains both metasediment and Miocene volcanic hosted veins.

7.4.5.1 Metasediment Hosted Veins

These veins strike both northwest and east-west, as discussed in the structural section above. A large number of historical mines exploited silver and gold mineralization in the metasediment-hosted veins, including Mina de Agua, Animas, Los Locos, Quebradillas, Candelaria de Zayas, and Magdalena, to name a few.

Vein widths vary from tens of centimetres to over 20 metres, with the Santa Ana-Mina de Agua vein averaging +7 metres of silver mineralization with lesser amounts of gold. The combined strike length of metasediment veins mapped to date totals over 25.3 km. A detailed view of the metasediment-hosted vein area is found in Figure 7-19.

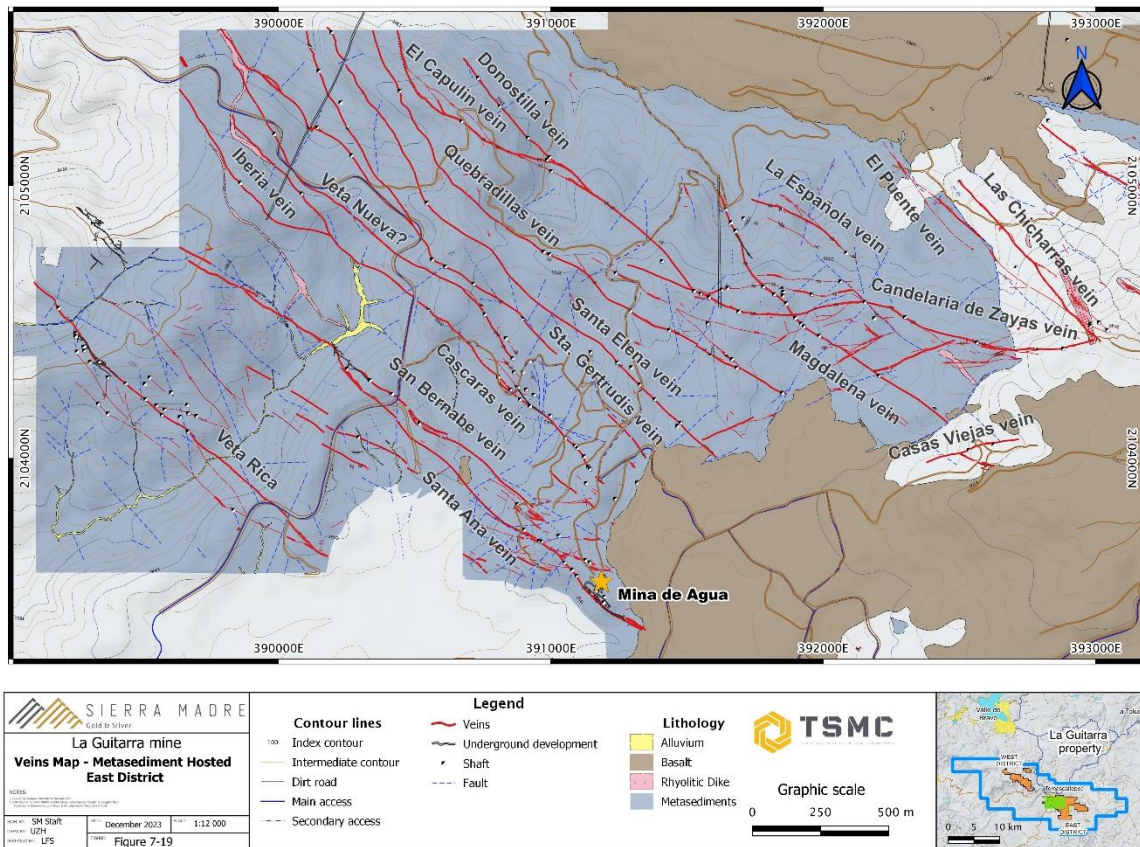


Figure 7-19: Metasediment-Hosted Veins – East District

7.4.5.2 Volcanic Hosted Veins

Mapping thus far has delineated 13 km of veins hosted in Miocene andesites. Historical mines include Animas, Pursima, and El Rincón. The volcanic-hosted veins extend into the metasediments both along strike and at depth. As discussed in the structure section, these vein systems strike both northwest and east-west, with dips predominately to the southwest and south, respectively. The combined strike length of volcanic hosted veins mapped to date is 13 km. Figure 7-20 shows the East District volcanic hosted vein area.

Figure 7-21 provides a cross section of the Mina de Agua mine area.

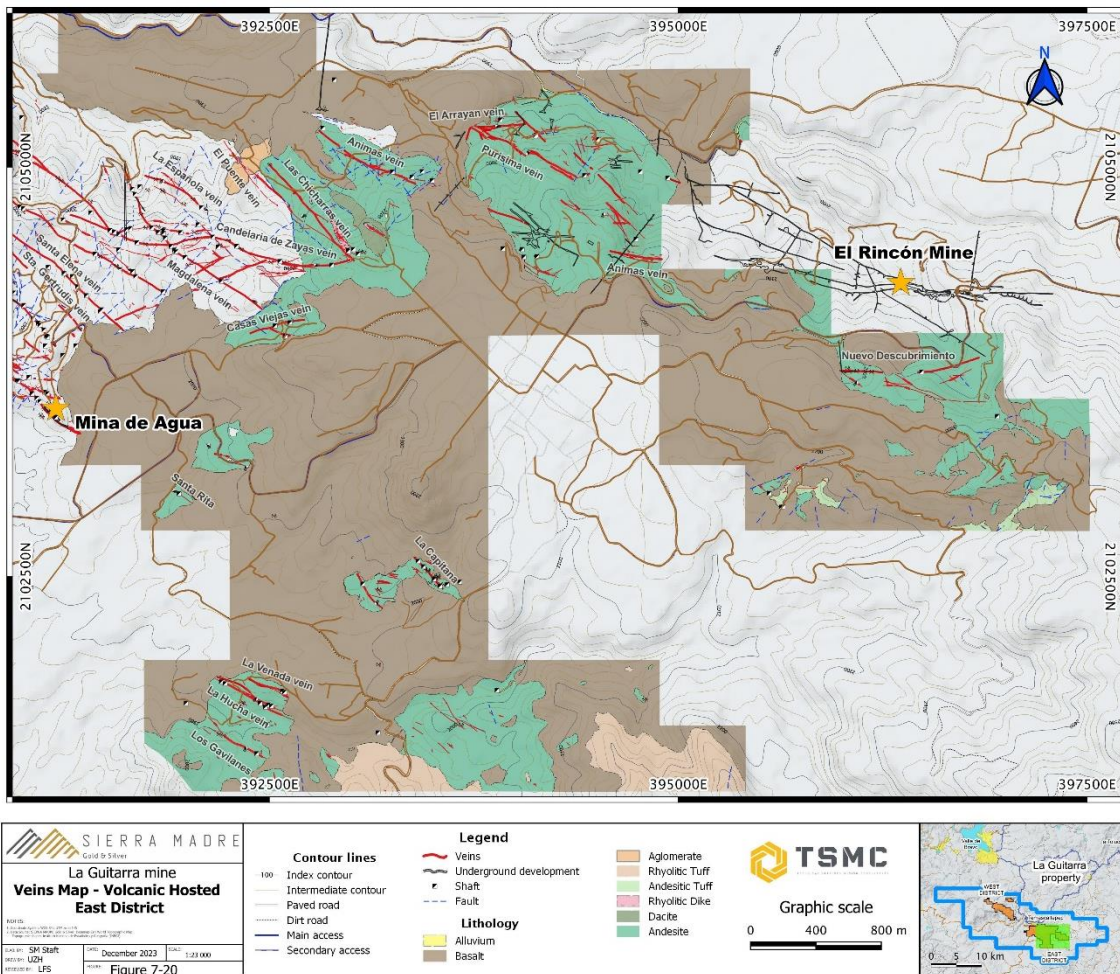


Figure 7-20: Volcanic-Hosted Veins – East District

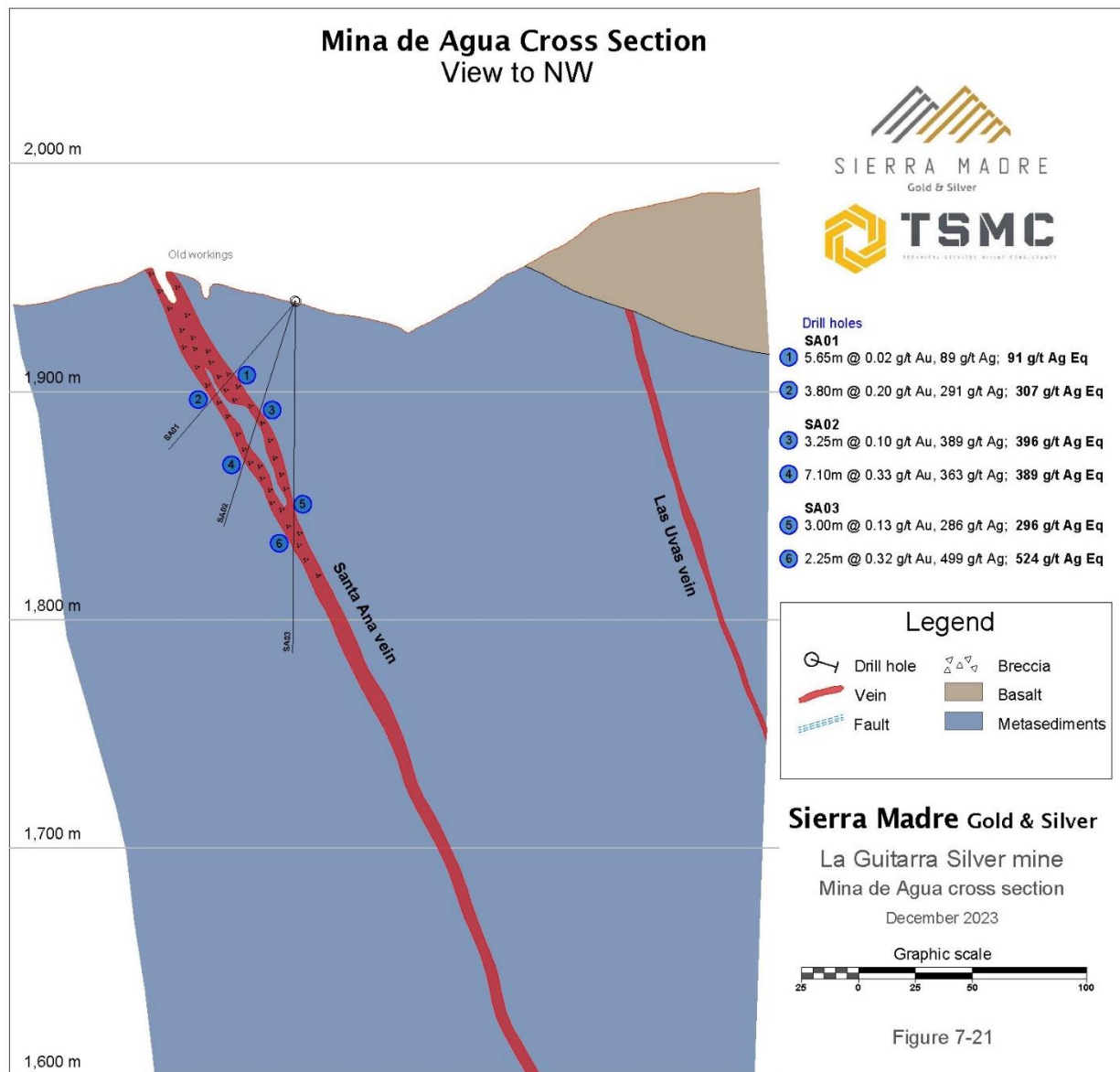


Figure 7-21: Mina de Agua Vertical Cross-Section

7.4.6 Mineralogy

Mineralogical characterization investigations were performed on polished thin sections. CM5 Consultores Metalurgicos of San Luis Potosi, México, used petrographic microscopes to examine five samples between 2012 and 2013. Sixteen samples were analyzed at the San Luis Potosi University's Metallurgical Institute in 2013 utilizing a scanning electron microscope. The combined work established that silver and gold are found predominantly in sulphides and the following lists vein minerals in the order of their abundance: quartz (SiO₂), pyrite (FeS₂), marcasite (FeS₂), pyrrhotite (FeS₂), sphalerite (ZnFeS), hematite (Fe₂O₃), galena (PbS), chalcopyrite (CuFeS₂), arsenopyrite (FeAsS), covellite (CuS), pyrargyrite (AgSbS₃), argentite

(AgS), native silver (Ag) and native gold (Au). Mineral distribution is graphically illustrated in Figure 7-22.

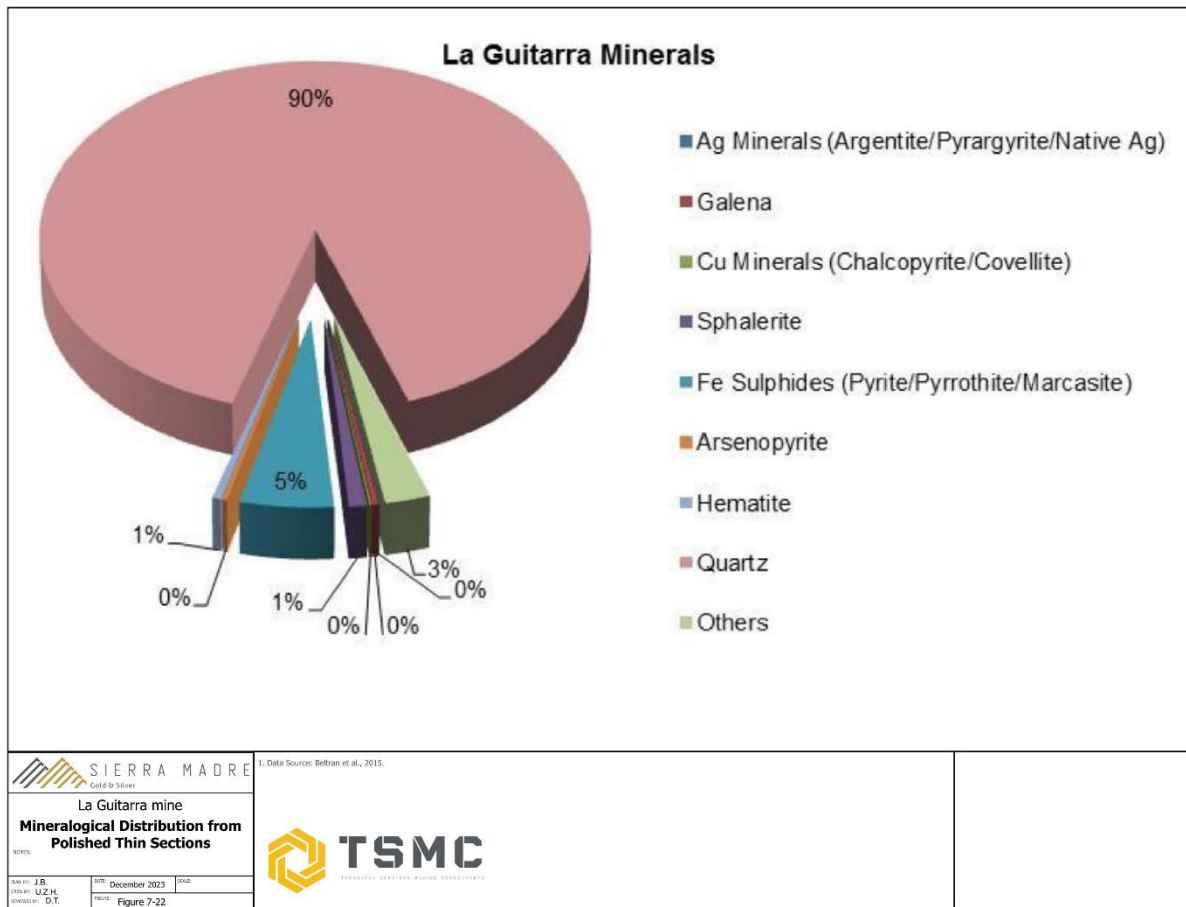


Figure 7-22: Mineralogical Distribution from Polished Thin Sections

7.5 QP Comments on “Item 7: Geological Setting and Mineralization”

The QP has reviewed the information available to Sierra Madre, and considers that the information on lithologies, structural setting, alteration, and mineralization in the Guitarra Project area are sufficient to support Mineral Resource estimation.

8 DEPOSIT TYPES

This section is summarized from Velador et al. (2015) and Lovejoy (2022).

The vein deposits at Guitarra have physical, chemical, and mineralogical characteristics of a low to intermediate sulphidation epithermal type deposit. These characteristics fit the precious metal vein model proposed by Buchanan (1981).

Epithermal deposits form at shallow depths in volcanic-hydrothermal and geothermal environments. The genesis of these deposits is complex due to the involvement of fluids with various origins. Camprubí et al. (2006) propose that magmatic, crustal meteoric and surficial meteoric fluids were all involved in the formation of epithermal veins at Guitarra. This was based on gas chemistry data from a fluid inclusion study using oxygen and hydrogen stable isotope data. Figure 8-1 (Buchanan, 1981) is a schematic of the epithermal environment for the formation of the Guitarra silver and gold veins.

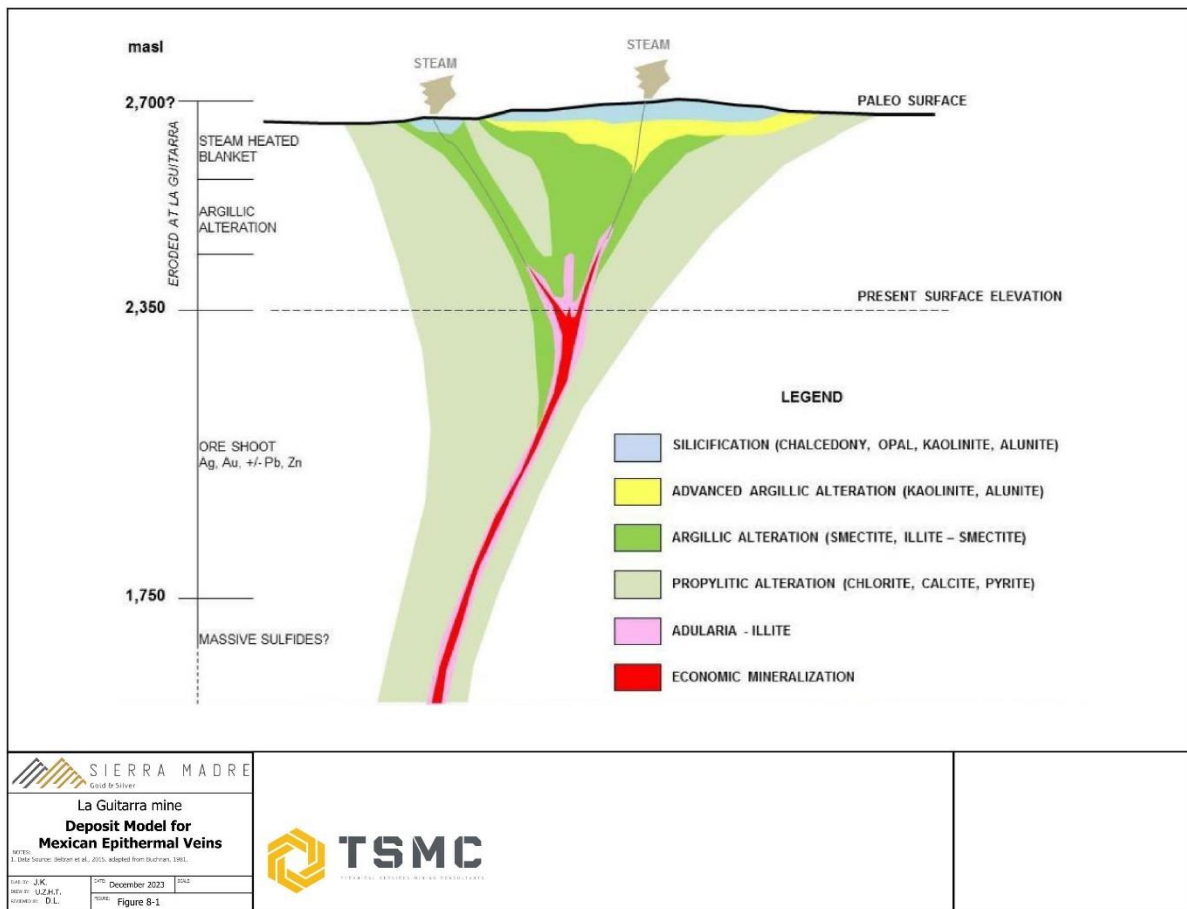


Figure 8-1: Epithermal Model for the Formation of Guitarra Silver-Gold Veins

8.1 QP Comments on “Item 8: Deposit Types”

The deposits show a number of the features of low-to-intermediate sulphidation silver-gold deposits, including:

- Alteration and mineralization are structurally controlled, restricted to small haloes along veins, sheeted veins and stockworks arrays.
- The quartz veining consists of well-banded chalcedonic and fine-grained crystalline quartz with minor amounts of calcite. The chalcedonic quartz is thought to indicate an upper part of the mineral system.
- Sulphides content is <5%

The structural setting of the veins and stockwork-hosted silver-gold mineralization is well understood. In the opinion of the QP, the structural models are appropriate to support Mineral Resource estimation.

9 EXPLORATION

Though modern-era mining in the Property was undertaken since 1990 by Compañía Minera Arauco and later (1993) by Luismin, the exploration methods and results from these two companies were not documented by the subsequent owners, Genco in their 2010 Technical Report (Clark et al., 2010). While exploration results prior to Genco's purchase of the Property in 2003 were reviewed, only modern-era exploration methods and results completed by Genco, Silvermex, and First Majestic are summarized in this Technical Report by TSMC.

Exploration undertaken by Genco, Silvermex, and First Majestic include geophysical surveys, drilling (see Section 10), channel sampling, and surface mapping and sampling.

9.1 Geophysical Surveys

3-dimensional induced polarization (IP) and magnetometry (mag) surveys were completed by Genco in 2003 by SJ Geophysics Ltd. (Krawinkel, 2003). Three areas were surveyed: Mina de Agua, Guitarra, and Nazareno. The Mina de Agua and Guitarra surveys were identical in size with six lines, 1,000 m in length, spaced 100 m apart, striking with a 45° degrees azimuth. The Nazareno consisted of nine lines, 600 m in length, spaced 50 m apart with a 30° azimuth. Survey results from Mina de Agua showed little variation and perhaps one large discrete body. The range of values for resistivity and magnetometrics were small and did not suggest discrete rock units. Results for Guitarra showed a significant linear structure through the middle of the grid identified as the San Rafael vein. Shorter strike length veins were also recognised in the north of the survey area that were understood to be known veins extending from the mine area. At Nazareno, five northwest orientated linear features were identified, with varying signal strength.

The geophysical surveys were undertaken shortly after Genco's purchase of the Property in 2003, and since these surveys there has been significant additional exploration undertaken that has more accurately defined the size and extent of mineralization on the Property. It is the Author's opinion that these early (2003) geophysical surveys, together with subsequent exploration results (notably, drilling) could be used to help calibrate future geophysical surveys.

9.2 Underground Channel Samples

Luismin, Genco, Silvermex and First Majestic all used channel samples for mining control, as well as for mineral resource estimation. However, channel sampling was not used by First Majestic for their resource estimation at the Coloso mine. The channel samples were assayed by the Guitarra mine laboratory using primarily fire assay methods. The results of the channel sampling were used to delineate ore at Guitarra and Coloso and in mine and production planning.

9.3 Surface Sampling Campaigns

Exploration records show that over the period 2010 to 2011 there were soil and rock sampling campaigns conducted. Soil samples were taken on a grid spacing of 100 metres and rock samples were collected from surface exposures. In total, 1,624 soil samples and 1,529 rock samples were collected. In 2021, an additional 96 rock samples were collected, and another soil

grid sampling campaign was planned. Figure 9-1 and Figure 9-2 show the locations of the 2010 to 2011 and 2021 sample locations and grades for silver and gold, respectively. Sierra Madre is in the process of assessing the results of these surface sampling campaigns at the time of this Technical Report.

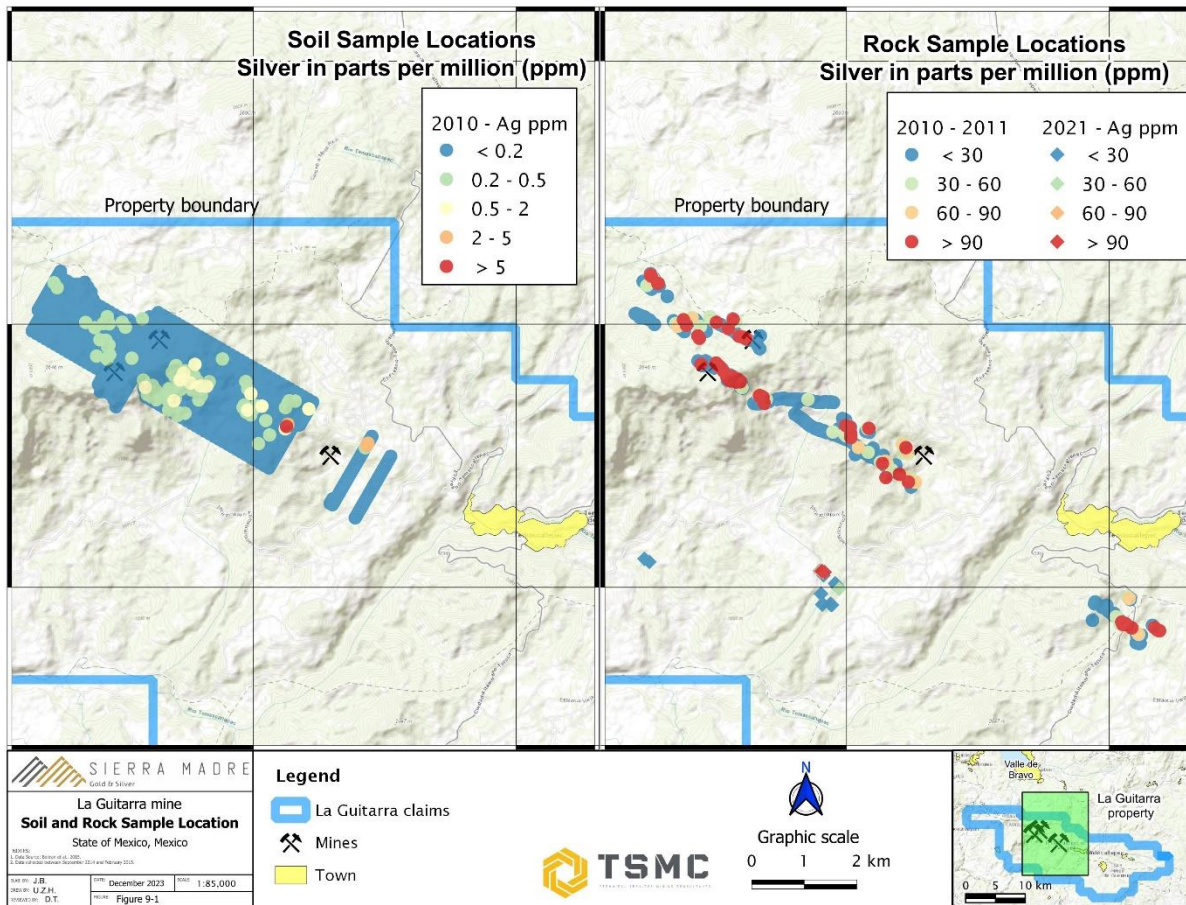


Figure 9-1: Soil and Rock Sample Location Maps for Silver

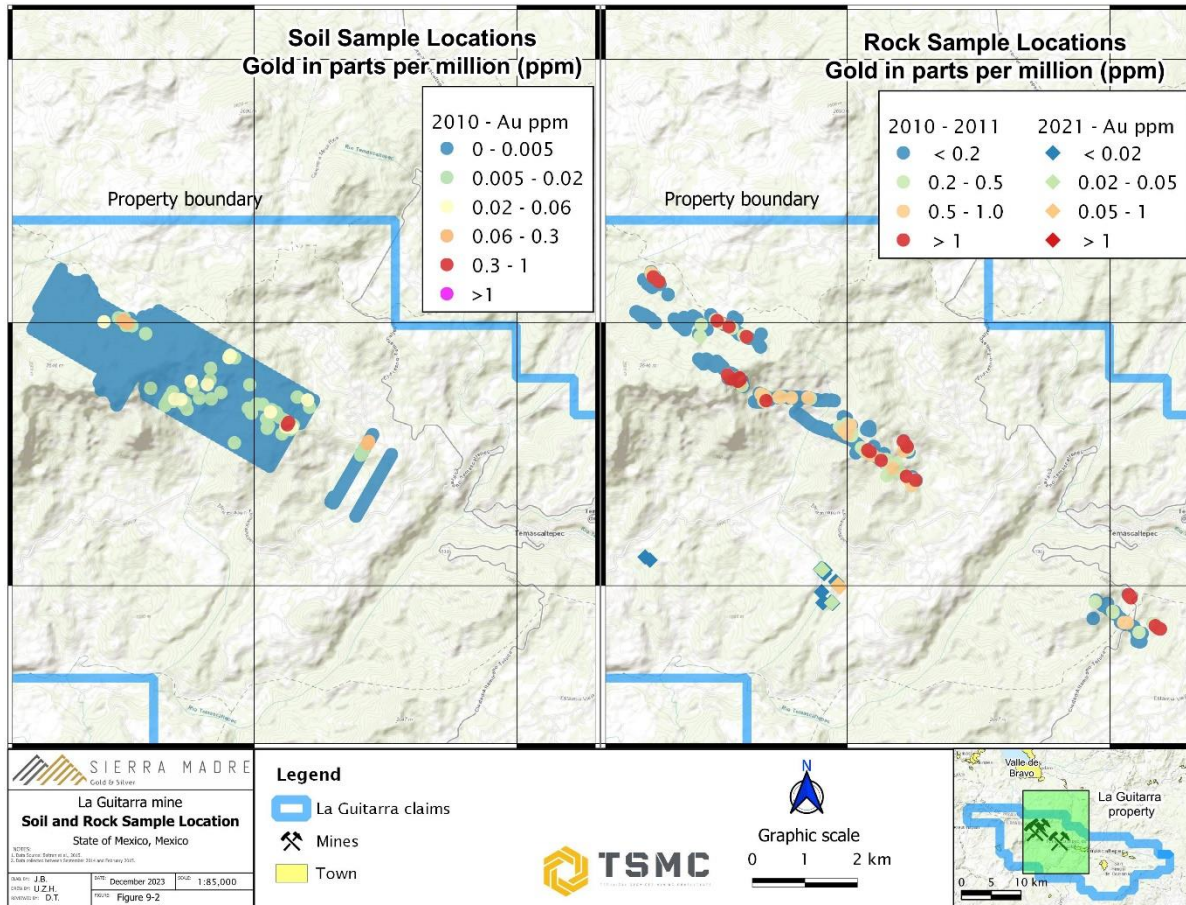


Figure 9-2: Soil and Rock Sample Location Maps for Gold

9.4 Sierra Madre Surface Mapping

In January 2023, Sierra Madre began a program of surface mapping at a scale of 1:2,000. The mapping used a LiDAR topography with 1-metre contours.

An index map was made for each area with an area of 21 hectares on each mapsheet. The mapping was designed to:

- Map the strike length and width of the veins and mineralized zones.
- Locate historical and modern workings (shafts, pits, and collapsed areas).

The project was divided into two areas, the East and West Districts.

The mapsheets were digitized in QGIS software. Up to November 30, 2023, 1,100 hectares had been mapped in the West District and 2,250 hectares in the East District.

9.5 Sierra Madre Underground Mapping

In August 2023, Sierra Madre began underground geological mapping at Guitarra at a 1:500 scale and locally at a 1:250 scale.

The geological mapping uses topographic basepoints collected by the mine survey department. The basepoints were surveyed using Leica total station. Mapping was performed by a geologist with a compass and tape to collect information on lithology, structures, mineralization type, and alteration type. Mapping has focused on the principal and secondary mining levels to delineate the mineralized structures that will be used for geological interpretation and modelling in 3-dimensions.

The new underground mapping has been used as the basis for the interpretation of geological sections.

Up to the date of this Technical Report, geological mapping has been completed for over 11,000 metres of mine development, from a total of 24,000 metres.

9.6 Exploration Potential

In 2002, Luismin completed an assessment of the exploration potential in the East District (Nuevo Descubrimiento, Las Animas-Socorro, Marmajas-Echada, Magdalena-Zayas and Purisima veins) using the results of surface mapping, historical mine records, and preliminary drilling at Santa Ana (Mina de Agua).

The QP has used Luismin's estimates of the strike length, the width of the veins, an assumption of a 200-metre vertical depth, an assumed bulk density of 2.6, and a range of 20% to 40% of the vein being mineralized to estimate a tonnage of between 0.77 million tonnes and 1.54 million tonnes. A grade range of $\pm 20\%$ Luismin's average grades was used to estimate silver grades between 440 g/t to 670 g/t Ag and to estimate gold grades of between 2.4 g/t and 3.6 g/t Au. Combined total strike length of these vein systems is 7.7 km.

The potential quantity and grade are conceptual in nature; there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.

9.7 QP Comments on "Item 9: Exploration"

Exploration programs conducted to date have identified a number of areas with silver and gold mineralization within the project area.

Sierra Madre is actively reviewing available data to generate areas for follow-up exploration and drill targeting.

In the opinion of the QP, the exploration programs completed to date are appropriate to the style of the deposits and prospects.

10 DRILLING

Drilling on the Guitarra Project has been completed exclusively by previous owners. Exploration drilling records exist starting from Genco's ownership of the Property in 2003. Table 10-1 lists the number, year, type, and metres of exploration drilling undertaken on the Property. This information was provided by First Majestic. The locations of the drillholes are shown in Figure 10-1.

Table 10-1: Guitarra Project Drilling Summary

Year	Surface						Underground		Total	
	Diamond Core		RC Chip		Shelby Tube		Diamond Core			
	No.	(m)	No.	(m)	No.	(m)	No.	(m)	No.	(m)
2003	8	765					8	184	16	949
2006	84	19,143	30	1,973			3	355	117	21,471
2007	73	20,537	94	13,245			49	3,498	216	37,280
2008	41	15,551	39	6,946			37	1,753	117	24,251
2009							3	70	3	70
2010							21	610	21	610
2011	45	7,646					76	5,651	121	13,298
2012	116	20,594					220	27,429	336	48,022
2013	17	4,090					79	7,946	96	12,036
2014	6	1,631					50	4,522	56	6,153
2015							50	2,505	50	2,505
2016	14	4,178					71	18,042	85	22,219
2017	26	9,884					64	18,391	90	28,275
2018	20	7,404					18	6,759	38	14,163
2020					11	266			11	266
2021					38	48			38	848
Total	450	111,422	163	22,164	49	1,113	749	97,714	1,411	232,413

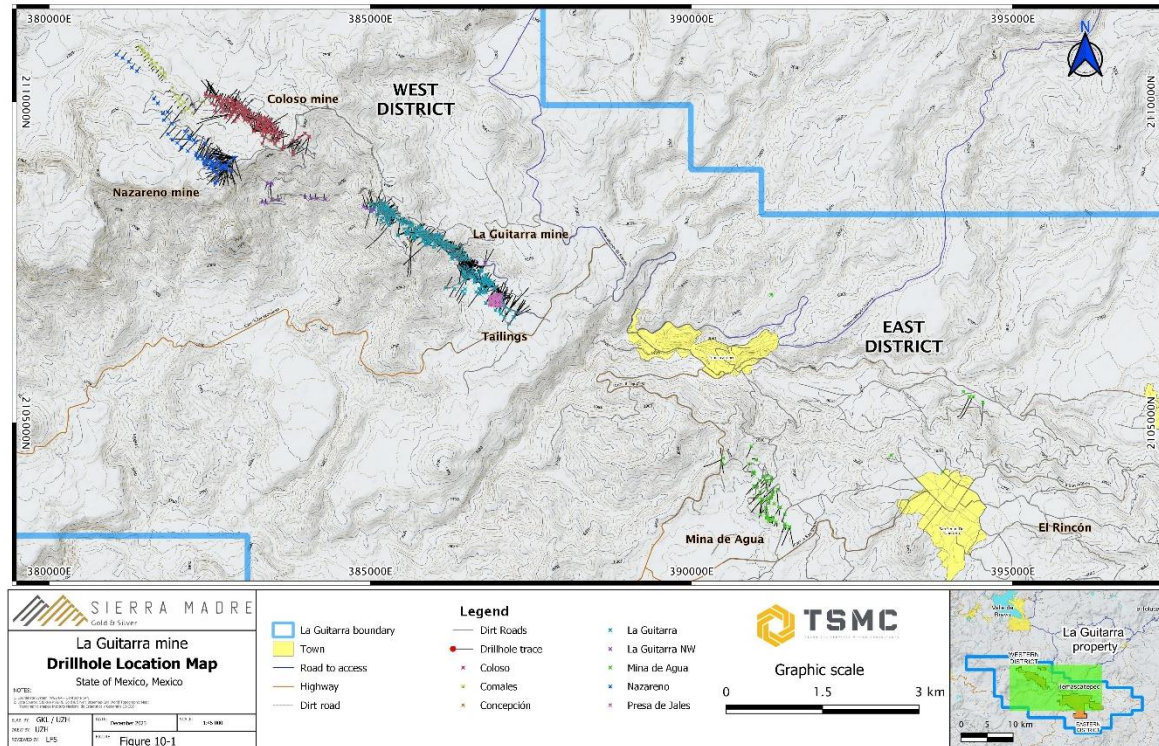


Figure 10-1: Drillhole Location Map

10.1 Drill Methods

The core diameters used for drilling at the Property are 36.4 mm (TT46), 47.6 mm (NQ), or 63.5 mm (HQ). The TT46 diameter is generally used only for delineation holes, whereas the bigger NQ and HQ diameters are used for infill and exploration holes (Velador et al., 2015).

Genco completed reverse circulation (RC) drilling using a Caterpillar 315 CL rig using a 133 mm (5-1/4") diameter face-sampling bit.

No RC drilling was carried out by First Majestic. First Majestic used a contractor for most infill and exploration core holes, whereas delineation holes utilized First Majestic’s own rigs and personnel.

10.2 Collar Surveys and Downhole Surveys

According to the 2010 Technical Report by Clarke et al. (2010), under Genco’s ownership (2003 to 2010), drillholes were downhole surveyed and mine staff surveyors were used to measure collar coordinates. Prior to 2010, a Sokia total station was used by Genco, according to Velador et al., 2015. From 2010 to 2018, drillhole collars were surveyed by the First Majestic’s engineering department at the Guitarra mine using a Leica total station. Collar data was downloaded from the total station and then uploaded into a mine server. Collected information includes X, Y, and Z coordinates, azimuth, and dip angle. A certificate was also prepared, stored, and shared in the mine server since 2012 (Velador et al., 2015).

According to Velador et al. (2015), between 2008 and 2012, downhole surveying at the Property for the exploration of Jessica, Joya Larga, and Comales Nazareno was done by the drilling contractor at 50 -metre intervals or less using a Reflex tool. Downhole surveying from July 2012 to December 2016 was performed using a Reflex tool, and a Devico PeeWee tool was used in 2014. Downhole surveys were collected at 50-metre intervals or less in infill and exploration holes between July 2012 and December 2016. Downhole surveying was not done for short and small diameter delineation holes. Between 2008 and February 2014, the downhole surveys were reported on paper along with the daily drilling reports turned in by the drillers. Digital reporting was implemented in March 2014. From 2017 to 2018, a Devico PeeWee instrument was used to measure downhole deviations. Corrections have been made for magnetic declination.

10.3 Logging Procedures and Core Recovery

10.3.1 First Majestic

Drillhole logging and sampling intervals as described by Genco (Clarke et al., 2010) and First Majestic (Velador, et al., 2015) are reasonable. Drillhole logs were handwritten and later digitized for recording in an electronic database. Data collected includes lithology, alteration, mineralization, structure, rock quality designation (RQD), sample intervals and geotechnical information. The data was initially recorded in hard copy format and then transcribed into electronic spreadsheets for estimation of rock quality. Core was also photographed. Typical core recoveries in host rock and quartz veins were over 95%, whereas in brittle fault structures the recoveries could be in the range of 20% to 50%.

10.4 Sample Length/True Thickness

Core sample lengths varied in accordance with the type of mineralization and were aligned with vein width. Samples of 1.5 metres were used for mineralization in stockworks, veinlets, and disseminations with strong alteration. Shorter samples could be collected as necessary to terminate the sample on geological features of interest. The lengths of the assay samples range between 0.15 metre and 1.5 metres in mineralized or moderately to strongly hydrothermally altered zones and between 1.0 metre and 3.0 metres in weakly altered or visibly barren zones.

The RC holes were normally sampled every 1.5 metres down the hole, with some holes sampled every 1 metre down the hole (Clarke, 2010). Core samples are currently stored at the Guitarra mine core shed. Core boxes are labelled with appropriate depth intervals and labelled wooden blocks were used to separate each run.

Genco drilling started with wide-spaced drilling on exploration targets, followed by grid drilling around holes that had economic intercepts. Depending on topographical constraints, fan drilling was sometimes employed.

The drill grids were oriented approximately across the strike of the mineralized zones. The holes were generally inclined either to the northeast or the southwest. The drilled thicknesses in the surface drillholes have a variable relationship with true thickness of the veins or zones of mineralization.

Underground drillholes are typically drilled in fan patterns, from drillhole cubbies located on production levels. As such, the underground drillholes have a highly variable relationship with true thickness depending on the azimuth and dip of the holes in relation to the orientation of the mineralized zones.

Horizontal underground channel and panel-chip sampling were oriented perpendicular to the strike of the mineralized veins; therefore, the sample length generally represents more than 90% of the true thickness.

10.5 Tailings Dam Sampling Campaign

First Majestic collected 1,034 Shelby tube tailings samples from 49 vertical, direct push holes collared from the top of the tailings dam. Samples were taken at 1 -metre regular intervals down each hole. Maximum hole depths ranged from 11.5 metres to 26.0 metres and averaged 22.7 metres.

The mineralization is generally horizontal; therefore, the sample length generally represents more than 90% of the true thickness.

10.6 QP Comments on “Item 10: Drilling”

In the opinion of the QP, the quantity and quality of the lithological, collar, and downhole survey data collected in the surface exploration, infill, and underground drill programs are sufficient to support Mineral Resources estimation.

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sampling Methods

11.1.1 Geochemical Sampling

Surface rock chip sampling for the Guitarra Project was done by Genco, Silvermex, and First Majestic using hammer and chisel, and most samples were continuous chips averaging 2 kg to 3 kg. Grab samples and select chip samples were also collected and the sample method was noted in the sample books, along with handheld global positioning system (GPS) coordinates.

Samples were sent to the laboratories cited in Section 11.2 for assay, with blanks, standards, or duplicates inserted into the sample stream.

11.1.2 Core Drillhole Sampling

11.1.2.1 Genco/Silvermex

Drill core was logged into Guitarra's facility at the mine site by the geologist. The core was oriented properly and marked before sampling. All drill core intervals selected for sampling were cut in half using either a diamond saw or a mechanical splitter by the designated core sampler. The mechanical splitter was used on samples where it was suspected that the cooling water for the saw might wash out the mineralization. One half of the core was retained in the core box for further consideration and the other half was placed in properly marked sample bags for shipment to the designated laboratory.

Drill core was sampled across the veins at various lengths depending on the vein width. In general, 1.5 -metre samples were taken from mineralized structures such as veins, stockworks, veinlets, and disseminations with strong alteration. Some samples were less than 1 metre; however, when a change in the mineralization was evident, samples of 3 -metres to 5 -metres in length were taken for the rock that exhibited neither alteration nor evident mineralization.

11.1.2.2 First Majestic

Core logging and sampling took place in Guitarra's core shed facility, which is located close to the mine offices. The core was oriented and marked for assay sampling by the geologist. Afterwards, the core boxes with intervals selected for assay or SG sampling were taken to the sampling facility located also within the core shed, where the samples were cut with a diamond saw. In the case of assay samples, one-half of the core was retained in the core box for further consideration and the other half was placed in a properly marked sample bag for shipment to the laboratory. Core sample lengths varied in accordance with the type of mineralization and were aligned with the vein width. Samples of 1.5 metres were generally used for mineralization in stockworks, veinlets, and disseminations with strong alteration. Shorter samples were collected as necessary to terminate the sample on geological features of interest. The length of the assay samples ranged between 0.15 metre and 1.5 metres in mineralized or moderately to strongly hydrothermally altered zones and between 1.0 metre and 2.0 metres in weakly altered or visibly barren zones.

11.1.3 RC Drillhole Sampling

The RC holes were normally sampled every 1.5 metres down the hole, with some holes sampled every 1 metre down the hole (Clarke, 2010).

The primary 1.5 metre lot mass was about 30 kg to 40 kg, which was reduced to an approximately 4 kg to 7 kg sub-sample using three successive passes through a single-tiered Jones riffle splitter. All RC holes were split dry.

Samples were placed into labelled calico or micropor sample bags. Sample tickets were used to track samples and ensure the calico-bag samples were correctly labelled. Samples were grouped into larger polywoven plastic bags, which were tied with a numbered tamper-proof seal that was used to track sample dispatches.

11.1.4 Underground Sampling

Underground samples include back and wall channel samples and muck samples.

11.1.4.1 Chip Samples

Chip samples were collected every 1.5 metres to 2.0 metres along the strike of the veins. Samples were taken by chipping with hammer and chisel across the sample length in a channel fashion, with lengths set so that the individual veins and the waste sections within the veins were sampled separately. The samples were normally 0.15 metre to 1.3 metres in length, 10 cm to 15 cm in width and 3 cm in depth. The wall rocks at the sides of the veins were sampled separately from the veins. The samples were collected on a plastic tarpaulin sheet. The samples were quartered to reduce the samples to 1.5 kg to 2 kg in weight. Samples were placed in appropriately marked bags and transported to the laboratory.

11.1.4.2 Channel Samples

Silvermex selectively collected channel samples in the Nazareno and Coloso areas. Channel samples were collected using a 12-in. diameter diamond saw every 1.5 metres to 2.0 metres along the strike of the veins. Sample lengths were set so that the individual veins and the waste sections within the veins were sampled separately. The samples were normally 0.15 metre to 1.3 metres in length, 10 cm to 15 cm in width, and 5 cm in depth. The wall rocks at the sides of the veins were sampled separately from the veins. The samples were collected on a plastic tarpaulin sheet. The samples were quartered to reduce the samples to a minimum of 2.5 kg in weight. Samples were placed in appropriately marked bags and transported to the laboratory.

Sierra Madre is currently collecting underground channel samples.

Channel samples were marked and collected underground across veins by trained samplers. Sample lines are laid out every 5 metres along strike. The sample lines are marked perpendicular to the strike of the veins. The sample limits honoured vein/wall rock contacts and/or textural/mineralogical variations. Samples are collected in sequence from the footwall to the hangingwall of the vein. The sample length applied ranged from 0.8 metre to 1.50 metres, with a width of 5 cm to 10 cm and a depth of 5 cm. The channels were cut with a handheld 12in.

diameter diamond saw. Samples of 9 kg to 10 kg were collected and placed in a plastic bag with a sample tag and tied with a plastic tie.

11.1.5 Density Determinations

Traditionally, Genco and Silvermex used a specific gravity (SG) of 2.5 for tonnage estimation at Guitarra; according to the 2010 Technical Report. This SG was determined by a series of waxed core tests performed by Kappes, Cassiday & Associates (KCA). The core samples used in these SG tests were from the Guitarra mine. In May 2014, First Majestic implemented an SG determination procedure based on the water immersion method. Core fragments measuring 10 cm to 25 cm were cut with the diamond saw, weighed in air (dry weight), then wrapped with plastic (using kp or kleen pack), weighed again in air (air kp), and finally weighed under water (kpH₂O). The formula used for the calculation of SG is as follows:

$$SG = \frac{W_{\text{dry weight}}}{W_{\text{air kp}} - W_{\text{kpw}} - (W_{\text{air kp}} - W_{\text{air}}) / \text{Kleen pack density}}$$

Additionally, First Majestic implemented a quality assurance and quality control (QA/QC) protocol for SG determination that consisted of SG determinations in duplicate, weighing the sample again after removing the plastic (to ensure that water did not make it through the plastic), and the use of a piece of metal as standard. Sample checks were shipped to the SGS Laboratory in Durango, México for SG determination using the wax coating immersion method. Correlations greater than 0.9 were observed for duplicate pairs and checks compared against primary samples using regression plots. All data were collected on paper and then transcribed into electronic spreadsheets. Specific gravities were determined for rock and vein material from all the drillholes of the Coloso area and for a selection of samples from the Guitarra mine.

11.1.6 Analytical and Test Laboratories

11.1.6.1 Sample Preparation

11.1.6.1.1 2003-2010 Genco

Sample preparation was completed at the Guitarra mine laboratory until late 2006. Thereafter, all drilling, trenching, and exploration samples were prepared for assay by ALS Chemex for preparation with assays completed in the Vancouver lab. Sample preparation procedures are described throughout this Section 11.1.6.1. A small number of drilling samples were sent to SGS Inspectorate. Production mine samples were prepared in the Guitarra mine lab.

The Guitarra assay laboratory followed standard protocols for sample preparation and assaying. The samples were prepared by:

- Crushing to 1/8 in. with a jaw and cone crusher
- Riffle splitting to approximately a 200 -gram sample
- Drying
- Pulverizing in a disk pulverizer with 90% to 95% passing 200 mesh screens
- Cleaning the pulverizer and crusher with compressed air after each sample

11.1.6.1.2 2010-2012 Silvermex

The drill core samples collected during the 2011 surface exploratory drilling campaign were prepared and analyzed by ALS Chemex in Guadalajara, Jalisco, México. Drill core samples from the early 2011 underground exploratory diamond drilling program were sent to Activation Laboratories Ltd.'s sample preparation facilities in Zacatecas, Zacatecas, México. The samples were prepared and then air-shipped directly to Activation Laboratories' assay laboratory in Ancaster, Ontario, Canada, for analysis.

The drill core samples from the 2012 exploratory underground diamond drilling program were sent to Inspectorate in Hermosillo, Sonora, México for preparation and analysis.

The chip and channel samples that were collected during the 2011 rock geochemical sampling work and other underground chip or channel samples were prepared and analyzed at the Guitarra mine assay laboratory by Guitarra personnel.

11.1.6.1.3 ALS Chemex Sample Preparation

The drill core samples collected during the 2011 surface diamond drilling program were sent to the ALS sample preparation facilities in Guadalajara, Jalisco, México, where they were logged into the ALS sample tracking database. Each sample was placed into a stainless-steel tray and dried for approximately 4 to 8 hours, depending upon moisture content. Then each sample was progressively crushed by primary and secondary crushers until more than 70% of the crushed sample passed through a 2 mm (Tyler 10 mesh) screen.

Standard crushing practices also included repeatedly cleaning the crusher, prior to, during, and after each sample batch using coarse quartz material, and air cleaning the crushers after each sample. The sample material was then riffle split to obtain between 250 grams to 500 grams and the remaining coarse reject material was returned to Guitarra for storage in their warehouse for possible future use. The 250 -gram to 500 -gram sample, size dependent upon requested analyses, was pulverized using a disk pulverizer until 85% of the pulverized material passed through a 75 µm (Tyler 200 mesh) screen. Then, 250 grams of finely pulverized material were transferred to a paper envelope. The bagged sample pulps were later air-shipped directly to the ALS facilities in North Vancouver, Canada for analysis.

11.1.6.1.4 Inspectorate Sample Preparation

The later 2011 and 2012 underground exploratory diamond drill core samples that were sent to Inspectorate sample preparation facilities in Hermosillo, Sonora, México were handled in much the same way as those sent to ALS. Drill core samples were weighed and dried prior to crushing to less the 0.5 in. diameter. The primary crushed material was then further crushed in roll crushers to less than 10 mesh. A 300-gram to 400-gram portion of the crushed material from each sample was extracted using a Jones riffle.

The remaining “reject” crushed rock was returned to its original plastic sample bag and packed in containers for return to Guitarra at periodic intervals. The split sample portion was then pulverized by a ring and puck pulveriser to 90% to 95% less than 100 mesh, and a 30-gram portion was extracted to use as a sample aliquot. The bagged sub-samples were then air-shipped to Inspectorate’s assay facilities in Sparks, Nevada, USA for analysis.

11.1.6.1.5 Activation Laboratories Ltd. Sample Preparation

Information relating to Activation Laboratories Ltd.’s sample preparation procedures is not available.

11.1.6.1.6 Guitarra Mine Laboratory Sample Preparation

The in-house rock geochemical and drill core samples were dried and then crushed to minus 1/8 in. with jaw and cone crushers. The crushed material was then riffle-split, producing a 200 -gram sub-sample that was pulverized to 90% to 95% passing 200 mesh. All the crushers and pulverizers were blown clean using compressed air after processing each sample.

11.1.6.2 2013-2021 First Majestic

Underground core samples were sent to the SGS laboratory located in Durango, México. Channel samples were submitted to the Guitarra laboratory and used the same sample preparation procedures as those used by Silvermex in the Guitarra mine laboratory.

SGS analyzes a maximum of 60 samples per batch. Samples at SGS were prepared using the PRP89 preparation method and WGH79 for sample weights. This method is described as follows:

1. The entire sample was dried at temperature of 100°C from 6 to 8 hours or until the weight sample was constant.
2. The sample was weighed using method WGH79. The PRP89 method was applicable for all sample weights.
3. The entire sample was crushed to 75% passing to 2 mm using a Rocklabs Boyd Crusher and a Terminator jaw crusher.
4. A 250-gram sub-sample of the crushed material was split using a riffle splitter.
5. The 250-gram sub-sample was pulverized to 85% passing 75 µm using a Labtech ESSA LM2 pulveriser. About 100 grams were used for analysis and laboratory internal quality control. The remaining 150 grams were stored in boxes for 90 days. Afterwards, the pulps were returned to Guitarra.

At the Guitarra laboratory, samples were prepared as follows:

1. The samples were weighed. Usually, the lab received samples weighing between 1,000 grams and 3,000 grams.
2. Samples were dried for 8 hours at 105°C in an electric oven.
3. Once the samples were dried, control blank samples were inserted every 20 samples in the sample batch.
4. Samples and blanks were then crushed using a Terminator crusher to 80% passing 6 mesh (~3.3 mm). Sieve checks were performed every 50 samples. After crushing, samples and blanks were homogenized, split, and further reduced to 250gram to 300gram samples using a Jones splitter.
5. The crushed samples and blanks were then pulverized to 80% passing -150 mesh. Sieve checks were performed every 50 samples.
6. The pulverized samples and blanks were homogenized, split, and reduced to 80-gram to 100-gram pulp samples. The crusher, pulverizer, splitter, trays, sieves, and other materials were cleaned with compressed air after each sample.

11.2 Analyses

11.2.1 2003–2010 Genco

Prior to late 2006, analyses were completed at the mine laboratory and check assays were completed at ALS Chemex in Vancouver, Canada.

The Guitarra laboratory analyzed all samples by fire assay with gravimetric finish. However, no documented analytical procedures are available from the time of this analysis.

From late 2006 to 2009, ALS analyzed all samples by 4-acid inductively coupled plasma atomic emission spectroscopy (ICP-AES). Samples containing more than 10 g/t Au or more than 100 g/t Ag were re-analyzed using a fire assay with a gravimetric finish for both silver and gold, or an acid digestion with an atomic absorption (AA) finish for silver.

11.2.2 2010–2012 Silvermex

Core samples were sent via bonded courier to the sample processing laboratories of either ALS in Guadalajara, Jalisco, México or Inspectorate in Hermosillo, Sonora, México (Velador et al., 2015). ALS Chemex analyses were completed in Vancouver, Canada and Inspectorate Laboratories analyses were completed in Sparks, Nevada, USA.

11.2.2.1 Guitarra Mine Laboratory Analyses

Fire assay digestion and gravimetric procedures were employed for each sample using a 20 -gram sub-sample. The resultant dore bead was weighed using a micro balance, the silver was removed from the bead using nitric acid, and then the remaining gold prill was weighed to determine grade.

11.2.2.2 ALS Chemex, Vancouver Analyses

All of the sample pulps were initially analyzed for 33 elements using conventional ICP-AES analysis (ALS procedure ME-ICP61). This analytical procedure used a mixture of four acids to digest the sample pulp. The elements and their concentration were determined by ICP-AES. The determined elements were: Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W and Zn.

Gold values were determined using a combination of fire assay fusion with AA spectroscopy analysis (ALS procedures Au-AA23). The Au-AA23 fire assay/AA procedure utilizes a 30-gram weight of sample pulp for analysis with 0.005 ppm and 10 ppm as the lower and upper detection limits. The procedure involves the fusion of a metal bead that is then digested in acids, cooled, diluted, and analyzed by AA spectroscopy versus matrix-matched standards. Silver values were determined using ICP-AES and fire assay gravimetric finish methods. When the analytical results exceeded over limits of 10 ppm for gold or 100 ppm for silver, a re-analysis was automatically carried out using gravimetric procedures (ME-GRA21) which is a fire assay of a 30-gram charge with a gravimetric finish.

11.2.2.3 Inspectorate Laboratories, Sparks, Nevada Analyses

The underground drill core samples were analyzed for gold, silver, lead, and zinc, plus a suite of 30 elements using Inspectorate assay procedures Au-1AT-AA, Ag-4A-TR and GV, Zn-4A-OR-AA, Pb-4S-OR-AA, and 30-4A-TR. The gold assays were obtained using a 30 -gram sample using standard fire assay fusion and digestion with a mixture of four acids and analysis by AA finish procedures. Over-limit gold values resulted in the sample pulp being re-assayed using fire assay fusion and gravimetric finish procedures. The silver values were initially determined by digesting a sample with a mixture of four acids, doing a fire assay fusion and AA finish procedures. If a sample returned an over-limit silver value, then the sample pulp was re-assayed using fire assay fusion and gravimetric finish procedures.

Thirty trace elements were analyzed using four acid digestion and ICP finish procedures. Inspectorate routinely performs its own QA/QC procedures on approximately 5% of the total samples submitted for analysis.

11.2.2.4 Activation Laboratories Ltd. Analyses

Information relating to Activation Laboratories Ltd.'s analytical procedures are not available.

11.2.3 2013–2021 First Majestic

Analyses were undertaken at three laboratories: the Guitarra mine; First Majestic's Central laboratories, controlled by First Majestic; and SGS, an independent commercial laboratory. The QP is of the opinion that the First Majestic laboratory procedures met and later (post-2015) exceeded standard industry practise at the time.

11.2.3.1 Guitarra Mine Laboratory Analyses

The analytical methods and detection limits employed by the Guitarra lab are shown in Table 11-1. Aqua regia digestion with atomic absorption spectroscopy (AAS) was used for lead, zinc, copper, iron, and arsenic, whereas fire assay methods with gravimetric finish were used for gold and silver for all the concentrations of the precious metals.

Table 11-1: Guitarra Laboratory Analytical Methods and Detection Limits

Method	Description	Detection Limits
AW-AA100	Aqua regia digestion	Pb (0.002-2%) Zn(0.002-2%), Cu (0.002-2%), Fe (0.002-6%) As(0.02-4%)
ASAG-12	Fire assay gravimetric finish	Ag (0.3-3 ppm)
ASAG-13	Ag by fire assay gravimetric finish and Au by AAS finish	Au (0.1-10ppm), Ag (0.3-3 ppm)
ASAG14	Ag and Au by fire assay gravimetric finish	Au (>10 ppm), Ag (0.3-3 ppm)
ASAG-15	Au by fire assay gravimetric finish for Ag over limit	Au (>10 ppm), Ag (>3 ppm)

11.2.3.2 SGS Laboratory Analyses

The analytical methods for the samples submitted to SGS laboratory are listed in Table 11-2. All samples were analyzed by AAS21E and ICP14B. Over limit AAS21E results were also analyzed by FAG313. Since April 2014, samples returning greater than 270 g/t Ag were analyzed by FAA313 to ensure there is overlapping in reporting between the fire assay and the acid digestion methods.

Over limit ICP14B manganese, lead, and zinc results were also analyzed by ICP90Q.

Table 11-2: SGS Analytical Methods and Detection Limits

Code	Element	Limits	Description
FAA313	Au	0.01 g/t	30 g, fire assay, AAS finish.
AAS21E	Ag	0.5-300 g/t	2 g, 3-acid digest, AAS finish. Samples with over detection limits results are analyzed by FAG313.
FAG313 *	Ag	10-1000000 g/t	30 g, fire assay gravimetric finish. Used only for AAS21E, Ag upper detection limits.
ICP14B	multi-element	Range from 0.5-10000 ppm	0.25 g, 2-acid/aqua regia digestion/ICP-AES package.
	Mn	0.01%	0.20 g, sodium peroxide fusion/ICP-AES package. Used only for ICP14B, Mn upper detection limits.
ICP90Q* *			0.20 g, sodium peroxide fusion/ICP-AES package. Used only for ICP14B, Pb upper detection limits.
	Pb	0.05%	
	Zn	0.05%	0.20 g, sodium peroxide fusion/ICP- AES Package. Used only for ICP14B, Zn upper detection limits.

* AAS21E over limit analysis

11.3 Quality Assurance and Quality Control

11.3.1 2003–2010 Genco

In 2008, Genco implemented a quality control system that included the insertion of blanks, duplicates, and reference material in the sample stream. To check the assay results, the Guitarra laboratory inserted 3% of laboratory check samples. A program to send samples to external laboratories for analysis checks was conducted under the direction of Guitarra’s superintendent of geology. The samples were sent to Hermosillo, where they were pulverized in the ALS lab, and then the prepared pulps were sent to the ALS lab in Vancouver to be fire assayed. All sample rejects and pulps were returned to the mine for storage after analysis. From late 2006 to 2008, in addition to relying on ALS Chemex’s internal quality control Genco check assay work was performed by SGS and the Guitarra mine on pulp and sample rejects. KCA’s Reno lab performed addition check assays in the course of preparing core sample splits for metallurgical studies.

11.3.2 2010–2012 Silvermex

Guitarra personnel implemented a quality control system for the in-house assaying procedures that included the insertion of blanks, duplicates, and reference material into the sample stream.

The on-site Guitarra laboratory routinely re-assayed approximately 3% of all of the samples with additional check-assaying of anomalous precious metal values. The program to check-assay samples at an independent laboratory was directed by the Guitarra superintendent of geology.

11.3.3 2013–2021 First Majestic

Quality control measures at the time included insertion of standards in the sample stream at a rate of 5% of total samples. Field duplicates and blind duplicates were inserted at a rate of 4% of total samples. A First Majestic internal report (2018) summarised the QA/QC procedures from 257 drillholes completed at the Coloso, Nazareno, and Guitarra mines over the period 2015 to 2018. The report documented the QA/QC procedures for 201 underground and 56 surface core samples, of which 11,162 samples were taken. In all, 723 duplicates were inserted at a percentage of 6.48%, 784 CDN (cdnlabs.com) certified standards were inserted at a percentage of 7.02%, and 737 blanks were inserted at a percentage rate of 6.60%.

11.4 Databases

The collar surveys, downhole surveys, and assay certificates are stored in their original formats (*.CSV, *.XLS, *.PDF). Geological logs are recorded on paper by hand, and the data are manually entered into Microsoft Excel spreadsheets.

Sierra Madre have compiled all of the available data into file storage folders. Further work is required to convert the data into a relational database system such as QL or Microsoft Access.

11.5 Sample Security

Sample security has not historically been monitored. Sample collection from drill point to laboratory relied upon the fact that samples were either always attended to, or stored in the locked on-site preparation facility, or stored in a secure area prior to shipment to the different laboratories.

Chain-of-custody procedures consisted of sample submittal forms sent to the laboratory with sample shipments to ensure that all samples were received by the laboratory.

Drill core was collected into wooden or plastic sample trays, which were labelled to record the drillhole name and intervals, then secured with a core tray lid and ties before transport to the Guitarra core shack for cutting and sample dispatch. After cutting, sampling teams collected samples into labelled calico or plastic sample bags, with the ticket-book method used to track samples and ensure the calico-bag samples were correctly labelled.

The team then placed the core samples into larger polywoven plastic bags, and these bags were tied with numbered, tamper-proof seals, which were then used to track sample dispatches.

The polywoven bags were then transported by bonded courier to the sample preparation laboratory, by the sampling teams to the mine laboratory for sample preparation or picked up on site by the assay laboratory.

11.5.1 Period 2011–2012 Silvermex

All of the samples were securely sealed, and chain of custody documents accompanied all shipments. The analytical results from these samples were received by authorized Silvermex and Guitarra personnel using secure digital transfer transmissions, and these results were restricted to qualified Silvermex personnel prior to their publication.

11.6 QP Comments on “Item 11: Sample Preparation, Analyses, and Security”

In the opinion of the QP:

- Sample collection, preparation, analysis, and security for surface drilling, underground drilling, and underground channel sampling programs completed by previous owners of the Property are in line with industry-standard methods for gold-silver deposits.
- The sampling programs included insertion of blank, duplicate, and standard reference material samples.
- QA/QC results from those programs do not indicate any problems with the analytical programs (refer to discussion in Section 12 of this Technical Report).
- The data were subject to validation, which includes checks on surveys, collar coordinates, and assay data. The checks are appropriate, and consistent with industry standards at the time the checks were completed (refer to discussion in Section 12).
- Sample collection from drill point to laboratory relied upon the fact that samples were either always attended to, or stored in the locked on-site preparation facility, or stored in a secure area prior to laboratory shipment. Chain-of-custody procedures consisted of sample submittal forms being sent to the laboratory with sample shipments to ensure that all samples were received by the laboratory.

The QP is of the opinion that the quality of the silver and gold analytical data from the Genco, Silvermex, and First Majestic exploration programs are sufficiently reliable to support Mineral Resources estimation.

12 DATA VERIFICATION

The Guitarra sample database has been verified on four previous occasions: in 2010 for the mineral resource estimation by Genco and Mintec Inc. consultants, in 2011 for an exploration report done by Minorex and GeoSpark consultants, in 2014 for the December 31, 2014, resource estimation done by Amec Foster Wheeler/First Majestic, and in 2022 for the Stantec Technical Report completed on behalf of Sierra Madre.

Data verification undertaken by the TSMC QP has included a site inspection of the Property, independent data verification checks of the drillhole data, and review of the exploration database provided by Sierra Madre.

12.1 Historical Data Verification

The 2008 exploration data were reviewed and verified by Genco and Mintec using MineSight 3D™ modelling software. The review concluded that the assay database used for the Guitarra mineral resource estimation was sufficiently free of error to be adequate for resource estimation.

In the 2010 Technical Report, Clark and Thorton compared results between drillholes that intersected high-grade veins at depth versus channel samples and the mill feed results. The report stated that the comparison indicated no evident biases between the overall drill assays and those assays taken at the mill head and from channel samples.

During 2006 and 2007, check samples from the Guitarra laboratory were submitted to ALS. The results from the two laboratories were reported to be similar. The authors of the 2010 Technical Report concluded that the nearly 86,000 metres of sample data taken over the Genco operational and exploration years used for modelling from the three open pit areas and preparation of long sections for the underground veins were fairly represented by the assay databases, and that the data were properly assayed and reported.

The 2011–2012 drilling and sampling data were reviewed and verified by Minorex and GeoSpark consultants in 2011. The electronic assay results were verified using the available original certificates of assay, and drilling data were cross-checked with original drill logs. The results of QA/QC analyses were reviewed. The overall conclusions for the 2011 and 2012 data verification were that the analytical results from the 2011 and 2012 primary sample results reported by ALS and Inspectorate can be considered of sufficient quality to be used in support of mineral resource estimates in the Coloso, Nazareno, Comales, Joya Larga, and Guitarra areas.

In 2014, the First Majestic database verification consisted of 1) Database integrity verification, 2) verification for transcription errors, 3) conducting site visits to check core and samples security and location, and 4) assay and QA/QC data review. The database integrity was found to be sound, with no overlaps in intervals or intervals exceeding the hole depth. Only minor transcription errors were found in the downhole surveys, alteration table, and lithology table. Assay data verification did not find any errors. The QA/QC review found that the data are sufficiently accurate, precise, and free of contamination to be used in mineral resource estimation.

Amec Foster Wheeler completed independent data verification in 2014 for the Coloso area. During a site visit, the drilling, core logging/sampling, and assay quality procedures were reviewed. The drillhole database and QA/QC results were also reviewed. The database was considered suitable to support mineral resource estimation at Coloso.

In 2022, Stantec representatives Clyde Peppin and Qualified Person, Derek Loveday (P.Geol), completed a site visit. While on-site, Stantec conducted interviews with mining personnel responsible for maintaining the existing mine facilities at Guitarra and Coloso, as well with geologists responsible for historical mapping and geological modelling of the various mineral deposits associated with the Property. Underground inspections were completed for the Guitarra and Coloso mines and select drill core samples stored at Guitarra were inspected after being selected based on observations of the geological models presented to Stantec by the mine geologists.

Mineralized vein intercepts were observed from stored split core samples from two holes, as follows:

- Hole CO16-7:
 - Coloso mine: Selena vein (147.4 metres to 147.8 metres) (142 ppm Ag, 0.056 ppm Au)
 - Coloso mine: Jessica vein (221.2 metres to 223.7 metres) (63 to 685 ppm Ag, 0.529 ppm to 5.13 ppm Au)
- Hole NAS17-14:
 - Nazareno mine: Nazareno A vein (259.4 metres to 261.6 metres) (136 ppm to 791 ppm Ag, 0.109 ppm to 0.269 ppm Au)

Selection of the holes and intercepts were based on observations of the Coloso and Nazareno mine Leapfrog® software generated geological models that were presented to the QP during the site inspections. The observed drill core intervals listed above showed clear signs of mineralization, with sulphides clearly presented in the brecciated quartz gangue showing textures consistent with epithermal-type vein mineralization. Measurements recorded in the drillhole database and geological model were consistent with observations of the split core samples. The drill core boxes were observed to be appropriately labelled with hole ID and depth intervals. Core runs were separated by labelled wood blocks, as is standard practice. Core recovery in the few selected intervals was good.

Stantec completed spot-checks for overlapping intervals and outliers in the drillhole records. No problems were identified.

12.2 Data Verification by the TSMC QP

12.2.1 TSMC Site Visit

David Thomas P. Geo. visited the project between September 18 and September 21, 2023. During this visit, he reviewed drilling, logging, and sampling procedures, and assay quality control procedures. While at site, he inspected mineralization underground at the Coloso,

Nazareno, and Guitarra mines. He confirmed the presence of stockwork-style veining at Los Angeles and also areas of vein thickening in structural intersections. The Mina de Agua area was inspected and outcropping epithermal veins were confirmed in the field.

Mr. Thomas collected GPS coordinates at the Coloso and Guitarra mines. The results are shown in Table 12-1. In the QP’s opinion, the differences are acceptable considering the forest cover in the area.

Table 12-1: GPS and Database Coordinates at the Coloso and Guitarra Mines

Drillhole	GPS Coordinates			Database Coordinates			Difference		
	East	North	Elevation	UTM_East	UTM_North	UTM_RL	Easting	Northing	Elevation
COS18-06	383,796.2	2,109,398.7	2,470.7	383,786.7	2,109,392.0	2,449.6	-9.6	-6.8	-21.1
GDH-141	385,697.3	2,107,964.4	2,228.3	385,695.3	2,107,966.6	2,212.8	-2.1	2.2	-15.5
GDH-44	385,730.8	2,107,965.4	2,226.1	385,736.6	2,107,965.5	2,212.3	5.8	0.0	-13.8
GRH-130	385,187.1	2,108,286.2	2,348.1	385,192.9	2,108,286.6	2,346.9	5.8	0.4	-1.2
SLG-14-05	386,786.9	2,107,503.2	1,982.8	386,784.0	2,107,496.8	1,969.2	-2.9	-6.4	-13.6
SLG-14-05	386,794.1	2,107,504.2	1,983.6	386,784.0	2,107,496.8	1,969.2	-10.1	-7.4	-14.4
SLGTI-13-06	387,230.0	2,106,657.3	1,945.6	387,228.3	2,106,652.2	1,948.1	-1.8	-5.1	2.4

12.2.2 TSMC Database Data Verification

David Thomas verified the drillhole collar coordinates, downhole drillhole surveys, and assays from the database against the original primary data (surveyors records, downhole survey files, and assay certificates). The verification was focused on data added to the database by Sierra Madre, namely the Genco 2003–2010 drilling and the First Majestic data from 2015–2021.

No errors were found in the drillhole collars or downhole surveys. Minor data transcription errors were found in the Genco assays. See Table 12-2 to Table 12-4 for data verification by the QP.

The QP reviewed internal QA/QC reports by First Majestic relating to the 2015–2018 drill programs. No major issues were identified.

Table 12-2: Drillhole Collar Survey Verification by the QP

Operator	Area	Year	Holes (no.)	Checked (no.)	% Checked
First Majestic	Coloso and Nazareno	2015-2018	230	15	6.5%
Silvermex	Guitarra	2011-2012	226	11	4.9%
Silvermex	Guitarra	2011-2012	387	20	5.2%
First Majestic	Guitarra	2013-2017	176	10	5.7%
Silvermex	Guitarra	2011-2012	161	9	5.6%
First Majestic	Tailings dam	2013-2021	58	5	8.6%

Table 12-3: Drillhole Downhole Survey Verification by the QP

Operator	Area	Year	Measurements (no.)	Checked (no.)	% Checked
First Majestic	Coloso and Nazareno	2015-2018	1,834	100	5.5%
Silvermex	Guitarra	2011-2012	833	40	4.8%
Silvermex	Coloso and Nazareno	2011-2012	904	51	5.6%
First Majestic	Guitarra	2013-2017	745	48	6.4%

Table 12-4: Assay Data Verification by the QP

Operator	Area	Year	Assays (no.)	Assays Checked (no.)	Errors (no.)	% Checked
Genco	Guitarra and Coloso	2003-2012	50,929	36,010	12	71%
First Majestic	Guitarra, Coloso, Nazareno, and tailings	2015-2021	11,687	622	0	5.4%

12.3 QP Comments on “Item 12: Data Verification”

The QP reviewed reports on internal and external data verification conducted by third parties. The QP is of the opinion that the data verification programs indicate that the analytical and geological data stored in the project database are adequate to support the geological interpretations and Mineral Resources estimates.

Observations made during the QP’s site visit, in conjunction with discussions with Sierra Madre’s technical staff, also support the geological interpretations and Mineral Resources estimates.

The QP concluded that the geological and analytical data were collected in a manner suitable to be used for Mineral Resources estimation.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Historical metallurgical testing for the Guitarra Project is documented in Technical Reports by Clark and Thornton (2010) and Velador et al. (2015). Loveday (2022) presents a detailed summation of both. The pre-2010 test work was performed as part of a feasibility study on a 3,000 t/d NaCN processing plant with ore from a combination of open pit and underground mining operations. The flotation test work presented in the 2015 Technical Report was part of the ongoing 500 t/d flotation plant operation. Ore for the flotation tests came from underground mining at the Guitarra and Coloso mines.

Sierra Madre, through KCA, and First Majestic, completed test work on reprocessing the existing tailings using NaCN leaching recovery. First Majestic performed flotation tests at fine grind sizes, and the Company has undertaken gravity recovery tests.

13.1 Cyanide Leaching Tests – Whole Ore

KCA performed a series of scoping-level leaching tests, followed by more detailed tests on a master composite sample. The scoping tests were performed on 59 samples. Testwork consisted of bottle roll and column leach tests to determine optimal processing methods.

Column leach tests returned recoveries ranging from 46% to 77% for silver and 31% to 98% for gold. Crush sizes were between 2.07 mm and 9.97 mm. Bottle roll tests produced recoveries ranging from 62% to 99% for silver and 60% to 99% for gold. The grind size for all bottle roll tests was 80% passing -200 mesh.

A master composite was made from 25 scoping study samples that were graded at 1.64 g/t gold and 354.54 g/t silver. Bottle roll tests of 120 hours were conducted at grind sizes of 80% passing 100, 150, 200, 270 and 325 mesh. The bottle roll tests had NaCN concentrations of 2 g/L, 5 g/L, and 10 g/L at each grind size. Two 1 g/L leach tests were conducted at a grind size of -200 mesh. Size screen analysis was undertaken on some leached tailings to provide additional data on the sensitivity of grind size to recovery.

Silver recovery was dependent on both grind size and NaCN concentrations. Silver recoveries in individual tests ranged from 69% at -100 mesh to 96% at -325 mesh. Leaching solutions containing 2 g/L, 5 g/L, and 10 g/L NaCN averaged 75%, 92%, and 94% silver recovery, respectively. Three tests at grind sizes of -200, -270, and -325 mesh were leached for seven days using a 5 g/L NaCN solution. All three grind sizes extracted 95% of the contained silver.

Gold recovery was independent of NaCN solution strength and averaged 91% at all NaCN levels. Grind sizes versus recovery showed slight variation.

KCA has provided the Company with the reports and data of this test work.

13.2 Flotation Test Work – Whole Ore

As part of ongoing production operations, First Majestic performed flotation test work that was separated into three categories: monthly, quarterly, and long-term composite mining samples.

13.2.1 Monthly Composite Samples

Between December 2012 and 2015, First Majestic prepared a composite sample monthly, with the samples having been obtained during each shift. The size of the individual shift sample was based on tonnage throughput. The composite samples were then sent to First Majestic’s La Parrilla Central Lab for metallurgical testing. Bench-scale metallurgical test recoveries from these composite samples were used to compare actual recoveries from the mill to monitor performance. First Majestic also ran tests to determine the Bond ball work index (BWi). The average BWi for this period was 15.8 kWh/t (Beltran et al., 2015).

13.2.2 Quarterly and Long-Term Mining Samples

First Majestic staff geologists maintained a database of samples from planned mine areas over a 3-month rolling mine plan. These samples were also sent to the La Parrilla Central Lab for testing to predict the mill's short-term (3-month) metallurgical performance. For long-term planning, coarse rejects were collected from drill core samples representing an area of planned mining.

Figure 13-1 and Figure 13-2 show silver and gold recoveries obtained in actual operations, and the monthly, 3-month mine planning, and core-derived long-term composite samples.

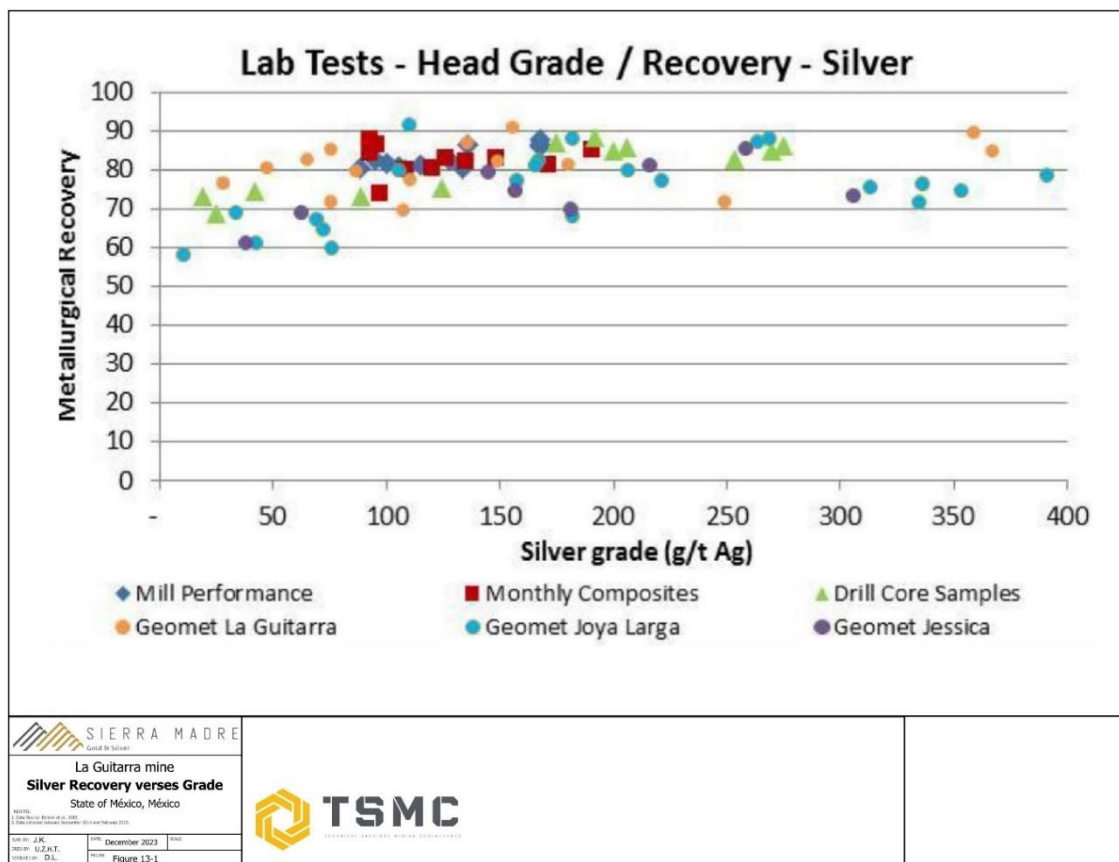


Figure 13-1: Silver Recovery vs. Grade

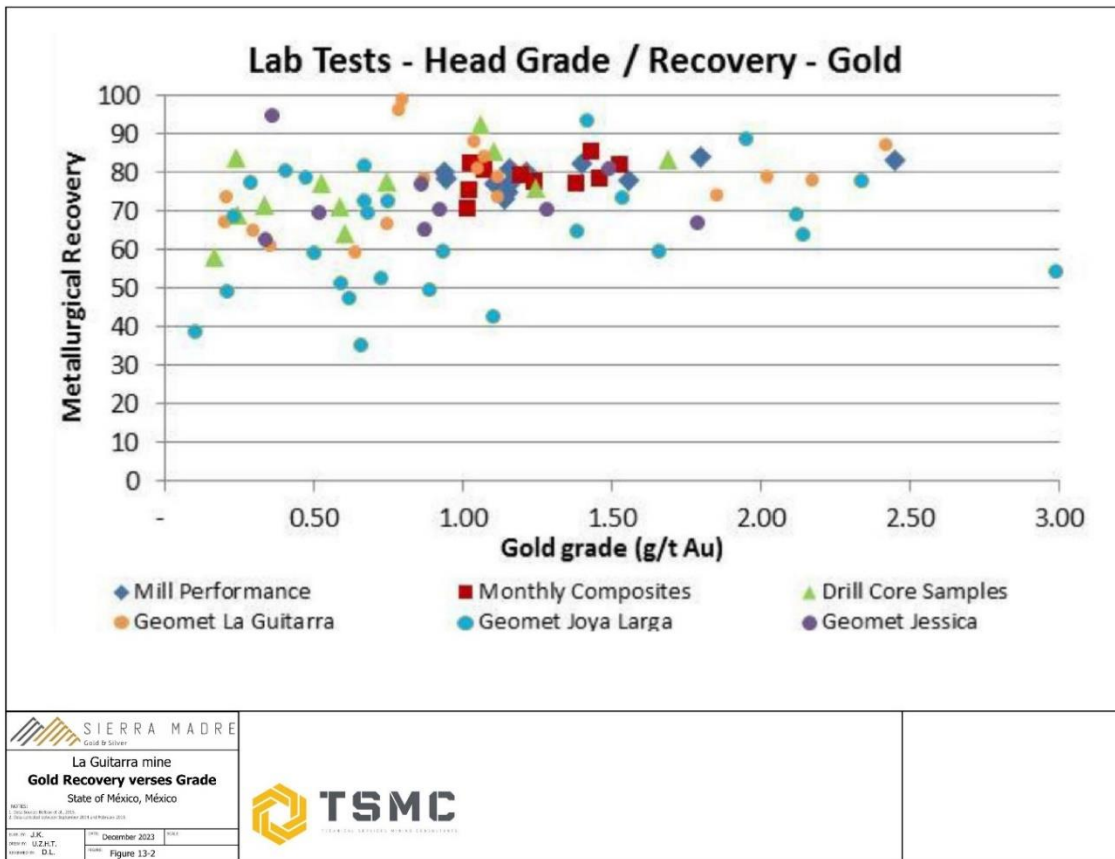


Figure 13-2: Gold Recovery vs. Grade

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

The operation of the flotation plant from 1991 to 2018 provided the most significant data regarding recovery at a commercial scale and is tabulated in Table 13-1.

Table 13-1: Accumulated Operating Data from 1991–2018

AÑO	TONS.	LEYES CABEZA		CONT. CABEZA		CONT. RECUP.		CONT. COLA		RECUP.		TONS.	LEYES COLA		Oz.Equiv.
	MOLIDAS	Au g/t	Ag g/t	Au kg/t	Ag kg/t	Au kg/t	Ag kg/t	Au kg/t	Ag kg/t	Au %	Ag %	JALES	Au g/t	Ag g/t	Au+Ag
1991	2,574	3.23	465.96	8	1199	5	897	3	302	62.88	74.83	2,445	1.26	123.47	37,584
1992	9,927	6.72	345.19	67	3427	56	2936	11	490	83.49	85.69	9,431	1.17	51.99	186,636
1993	8,206	5.20	320.28	43	2628	37	2132	6	496	86.91	81.13	7,796	0.72	63.62	150,750
1994	25,055	3.58	256.30	90	6422	68	5013	22	1408	75.76	78.07	23,802	0.91	59.16	252,633
1995	65,410	3.20	321.00	209	20997	178	18017	31	2979	85.28	85.81	62,139	0.50	47.95	958,873
1996	94,375	3.63	285.74	343	26967	295	23268	48	3699	85.90	86.28	89,656	0.54	41.26	1,453,559
1997	107,305	4.35	298.53	466	32034	402	27390	64	4643	86.23	85.50	101,940	0.63	45.55	1,743,622
1998	106,598	3.89	331.11	415	35296	342	29430	73	5866	82.35	83.38	101,268	0.72	57.92	1,474,001
1999	105,136	3.60	298.14	379	31345	302	25575	76	5771	79.80	81.59	99,879	0.77	57.78	1,393,108
2000	113,809	3.29	254.62	374	28978	296	23557	78	5421	79.19	81.29	108,118	0.72	50.14	1,288,331
2001	101,548	3.92	226.84	398	23035	315	18844	83	4190	79.12	81.81	96,471	0.86	43.44	1,241,338
2002	79,679	3.58	208.88	285	16643	228	13879	57	2764	80.12	83.39	75,695	0.75	36.51	899,674
2003	41,387	3.09	252.61	128	10455	105	9176	23	1279	81.76	87.77	39,317	0.59	32.53	526,944
2004	41,947	3.66	274.46	153	11513	127	10015	27	1497	82.52	86.99	39,850	0.67	37.57	569,193
2005	45,922	5.55	327.42	255	15036	228	13394	27	1641	89.56	89.08	43,626	0.61	37.63	931,605
2006	53,873	3.11	343.37	168	18499	144	16411	23	2088	86.03	88.71	51,180	0.46	40.80	786,155
2007	59,342	3.21	192.69	191	11435	163	9748	27	1687	85.67	85.25	56,375	0.48	29.93	573,304
2008	67,629	1.47	176.26	100	11920	82	10575	17	1345	82.60	88.71	64,247	0.27	20.94	513,720
2009															
2010	40,033	1.13	131.99	45	5284	37	4697	8	587	82.27	88.90	38,032	0.21	15.42	95,482
2011	81,153	1.86	180.26	151	14629	130	13279	20	1350	86.54	90.77	77,095	0.26	17.51	659,338
2012	114,455	1.26	203.58	144	23301	115	20416	30	2885	79.53	87.62	108,732	0.27	26.53	822,514
2013	171,662	1.41	152.35	242	26153	201	22052	40	4101	83.25	84.32	163,079	0.25	25.15	1,099,154
2014	186,881	1.32	126.66	247	23671	197	19791	50	3880	79.70	83.61	177,537	0.28	21.85	1,182,450
2015	158,518	1.60	201.35	254	31918	196	26795	57	5123	77.40	83.95	150,592	0.38	34.02	1,351,381
2016	155,696	2.19	227.91	341	35484	258	28568	83	6916	75.69	80.51	148,981	0.56	46.42	1,523,688
2017	89,957	1.83	196.38	165	17666	122	13841	42	3824	74.33	78.35	86,006	0.49	44.47	728,456
2018	79,959	1.67	172.50	136	1743	107	1359	28	3072	78.48	77.98	76,549	0.37	39.66	713,723
Total	2,208,037	2.62	220.86	5,795	487,675	4,739	411,058	1,056	79,305	81.77	84.29	2,099,839	0.50	37.77	23,181,548

From 1992 to 2014, the existing plant processed ore derived from the Guitarra mine. Silver recoveries for this period averaged 85.0% Ag and 82.4% Au. Mining at Coloso began in 2015, and by 2017 it was providing almost all the ore processed. Recoveries during this period averaged 80.8% Ag and 76.5% Au. From 2017 to 2018, recoveries averaged 78% Ag and 76% Au.

13.3 Tailings Reprocessing Metallurgy

First Majestic performed a series of tests to determine the viability of reprocessing the tailings. Bottle roll tests were completed on samples at the current size, 56% passing -20 mesh and samples ground to 80% passing -200 mesh. The bottle roll tests used CN strengths from 0.5 g/L to 2.0 g/L. The results of this work are shown in Table 13-2.

Table 13-2: First Majestic Tailings Leach Tests

Grind Size	NaCN (g/L)	Consumption (kg/t)		Tailings (g/t)		Extracted (%)	
		NaCN	CaO	Au	Ag	Au	Ag
56% passing - 200 mesh (as received)	0.5	0.53	1.46	0.16	21	59	51
	1	1.09	1.16	0.15	20	67	55
	1.5	1.09	0.61	0.14	18.5	70	58
	2.0	1.72	0.41	0.13	16	70	62
85% passing -200 mesh	0.5	0.89	1.83	0.12	17.5	73	60
	1	1.29	1.29	0.1	15.5	78	65
	1.5	1.52	1.05	0.1	14.5	79	68
	2.0	2.22	0.56	0.09	13.5	81	70

First Majestic also conducted flotation test work to determine the economics of reprocessing the tailings at a finer grind size. Regrind sizes at 50 µm, 40 µm, and 30 µm were evaluated using different flotation reagents. Silver recoveries ranged from 11% to 52%, and gold recoveries ranged from 15% to 55%. The best recoveries were achieved at 30 µm using a vertical mill for grinding.

KCA recently performed ten bottle roll and five gravity recovery tests on composite samples from Shelby tube tailings drill samples. The composite samples were divided into two sample types: tailings deposited pre-First Majestic and tailings deposited during the First Majestic operating period. The division between operational periods was based on historical topographic surfaces derived from aerial photos. Five composited samples from each operating period were submitted for testing.

The 1,000-gram bottle roll samples were tested at 2 g/L and 5 g/L NaCN solution strengths with a 72 -hour leach period. As received, the sample size ranged from 80% passing 0.17 mm to 0.06 mm, or 80 to 250 Tyler mesh. The 2 g/L NaCN tests produced silver extractions ranging from 32% to 87% and gold extractions ranging from 64% to 85%. The average silver extraction for the 2 g/L NaCN tests was 65%, and gold 73%. In the 5 g/L tests, silver extraction ranged from 33% to 91%, averaging 68%. Gold extraction ranged from 65% to 88% and averaged 72%.

Two samples were finer than the others, with one at 80% passing -200 mesh and the other at 80% passing -250 mesh. Silver extraction for the -200 mesh sample was 84% and 86% for the

2 g/L and 5 g/L tests, respectively. Gold recovery was 82%. The -250 mesh sample silver was 84% and 91%, with gold at 85% and 88% for the 2 g/L and 5 g/L tests, respectively.

Graphs showing the silver and gold recoveries are provided in Figure 13-3 and Figure 13-4. Costals 6 and 7 (shown in the graphs) are the finer-grained samples noted above.

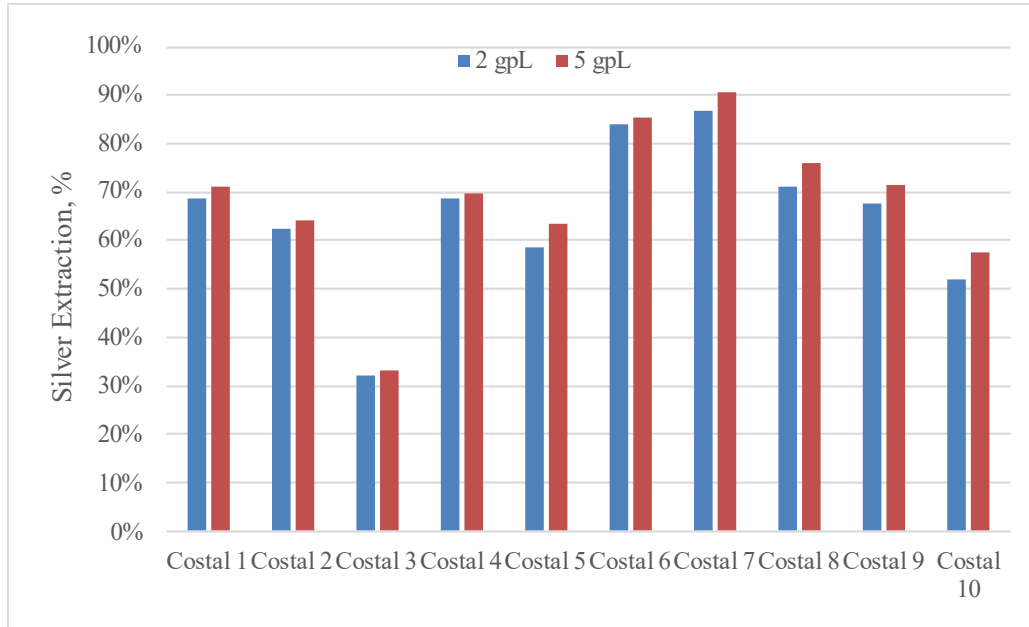


Figure 13-3: Silver Recovery Tailings Leach Tests

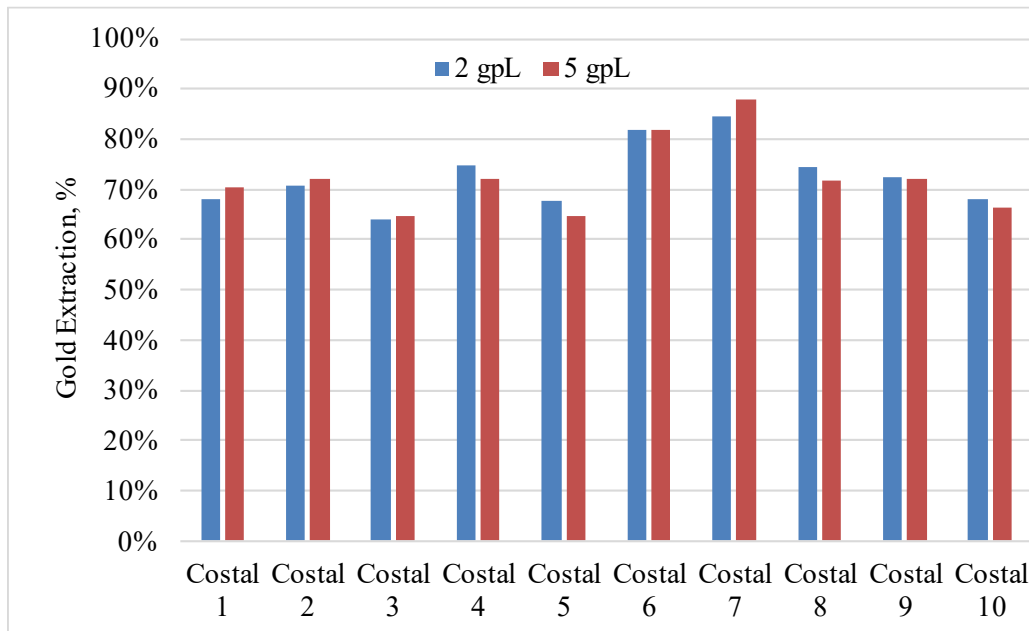


Figure 13-4: Gold Recovery Tailings Leach Tests

13.4 Tailings Samples Gravity Recovery

KCA used five of the composite samples for gravity test work and the testing utilized a Knelson centrifugal gravity-recoverable-gold (GRG) concentrator. The results of this test work are presented in Table 13-3.

Table 13-3: Tailings Samples Gravity Recoveries

Description	Wt. % Au Recovered Con + Mid	Wt. % Ag Recovered Con + Mid
Costal 1	20.4%	13.8%
Costal 3	6.6%	15.8%
Costal 5	34.2%	17.7%
Costal 7	9.1%	6.2%
Costal 9	38.4%	16.9%

Gold recovery averaged 21.7%, and silver 14.1%. It should be noted that the Au assay head for sample Costal 3 is more than twice the grade of the bottle roll assays of the same composite.

13.5 Mineral Processing

Velador et al. summarized grinding test work conducted between December 2012 and the end of 2014. The BWi averaged 15.8 kWh/t for the production samples cited above, assuming a grind size of 60% passing -200 mesh matching actual operating conditions. KCA performed tests at an 80% passing -200 mesh grind size, resulting in a 17.6 kWh/t BWi. In addition to these tests, the Company has operating records and electrical power invoices for the First Majestic period of operation.

Pocock Industrial Inc. completed vacuum and pressure filtration tests on -200 mesh, -325 mesh, and high clay samples to establish parameters for a dry stack tailings circuit. Vacuum filtration tests the range of 22% to 26% contained moisture. Vacuum filter cake moistures were in the range of 22% to 26% with flocculant addition, and 23.5% to 25% without flocculant addition. Based on this test work, the preferred option for a dry stack tailings system is pressure filtration using flocculant.

13.6 Metallurgical Recoveries Assumed for Mineral Resource Estimates

Metallurgical recoveries of 80% have been used for gold and silver at Nazareno, Coloso, Los Angeles, Guitarra, and Mina De Agua. A metallurgical recovery of 70% has been assumed for the tailings dam. A net payable recovery of 70% was used for determining grade cut-offs. These recoveries reflect historical plant recoveries, with an additional deduction for refining, smelting, and transportation costs and smelter deductions.

There is no record of smelter penalties due to the presence of deleterious elements.

14 MINERAL RESOURCES ESTIMATE

14.1 Introduction

The Mineral Resources estimation for the Guitarra Project is based on the drillhole, channel sample, and chip sample database, with a cut-off date of September 29, 2023. The data was collected by previous operators of the Property. The topographic surface is based on a LiDAR survey (refer to Section 9.4).

The QP conducted audits of the mineral resource estimates completed by First Majestic at Coloso, Nazareno, and the tailings dam. Minor adjustments were made based on updated reasonable prospects for eventual economic extraction (RPEEE) and the QP's opinion regarding the mineral resource classification.

The QP conducted audits of the polygonal mineral resources estimated by Sierra Madre at Guitarra and Mina de Agua. Adjustments were made to the mineral resource classification based upon the QP's judgement.

The QP independently estimated mineral resources for the Los Angeles area at Guitarra.

14.2 Coloso Mineral Resources Audit

14.2.1 Geological Models

The Coloso models consist of a series of northwest-southeast striking veins (see Figure 14-1). The Joya Larga and Selena veins dip to the northeast; while the Adriana, Adriana 2, Intermedia, Jessica and Luz Maria veins dip to the southwest.

For modelling of the main mineralized structures, First Majestic used Leapfrog software. The modelling was based upon lithological, mineralogical, structural, and alteration characteristics.

First Majestic created the geological models by coding drillhole and channel sample intervals with vein codes and using the coded sample intervals to construct wireframes of the veins using Leapfrog's implicit modeler module.

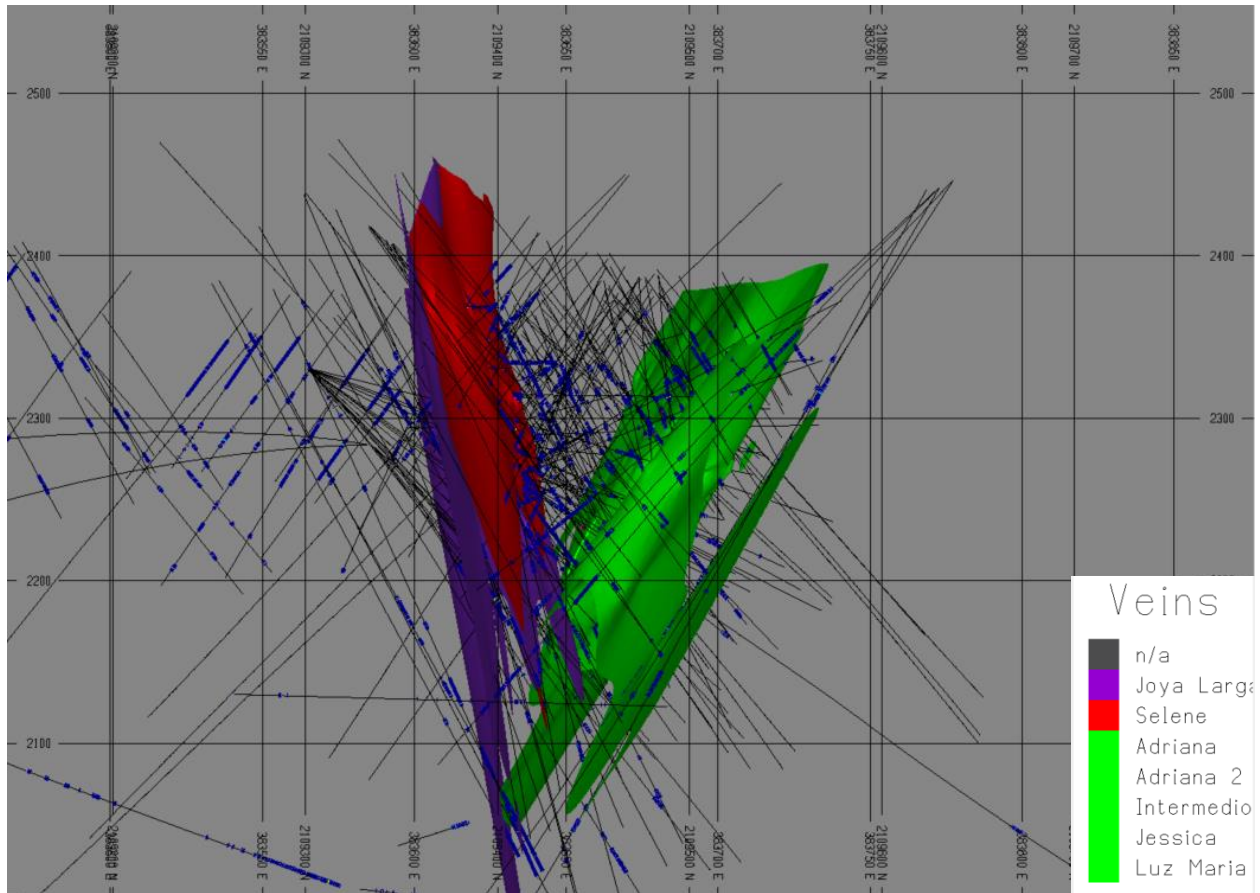


Figure 14-1: Coloso Vein Models

14.2.2 Exploratory Data Analysis

The QP completed exploratory data analysis (EDA) comprising basic statistical evaluation of the assays and composites for silver, gold, and sample length. Underground chip samples were not used to estimate mineral resources.

14.2.2.1 Assays

14.2.2.1.1 Histograms and Probability Plots

Log-scaled histograms and probability plots for silver and gold within the vein domains show limited evidence for mixed populations. The log-scaled histograms show the presence of included barren vein material below a threshold of between 10 g/t and 20 g/t Ag.

The QP concluded that the amount of included low-grade material does not warrant further domaining. The silver histograms and probability plots for the Joya Larga and Jessica veins are shown in Figure 14-2 and Figure 14-3, respectively.

14.2.2.1.2 Assay Statistics

The QP tabulated summary length-weighted statistics for silver and gold within each domain (shown in Table 14-3 and Table 14-4).

The QP notes that the coefficient of variation (CV) values for the length-weighted assays are vary from low to high (between 1 and 2.5).

14.2.2.1.3 Grade Capping/Outlier Restrictions

First Majestic assessed the most effective method to restrict the influence of extremely high-grade composites. A combination of capping of composites and distance-based outlier restriction was used. The QP conducted an independent capping study and capped the assays prior to compositing.

Table 14-1 and Table 14-2 show the outlier restrictions and distances for each domain.

The QP reviewed First Majestic’s capping and outlier restriction and generally agrees with the chosen capping levels and outlier restriction parameters.

Table 14-1: Coloso Outlier Restriction Parameters, Silver

Vein Name	Vein Code	TSMC Capping	FM Capping	FM Outlier Restriction	
				Threshold	Search Ellipse
Joya Larga	10	1,400	700	None	
Adriana 2	15	700	1250	None	
Selene	20	2,000	None	500	25
Adriana	25	300	None	250	25
Intermedia	30	700	None	700	25%
Jessica	40	1,400	900	None	
Luz Maria	50	500	None	None	

Table 14-2: Coloso Outlier Restriction Parameters, Gold

Vein Name	Vein Code	TSMC Capping	FM Capping	FM Outlier Restriction	
				Threshold	Search Ellipse
Joya Larga	10	4	2	None	
Adriana 2	15	None	None	None	
Selene	20	2	None	2	25
Adriana	25	None	None	None	
Intermedia	30	None	None	None	
Jessica	40	14	14	None	
Luz Maria	50	None	None		

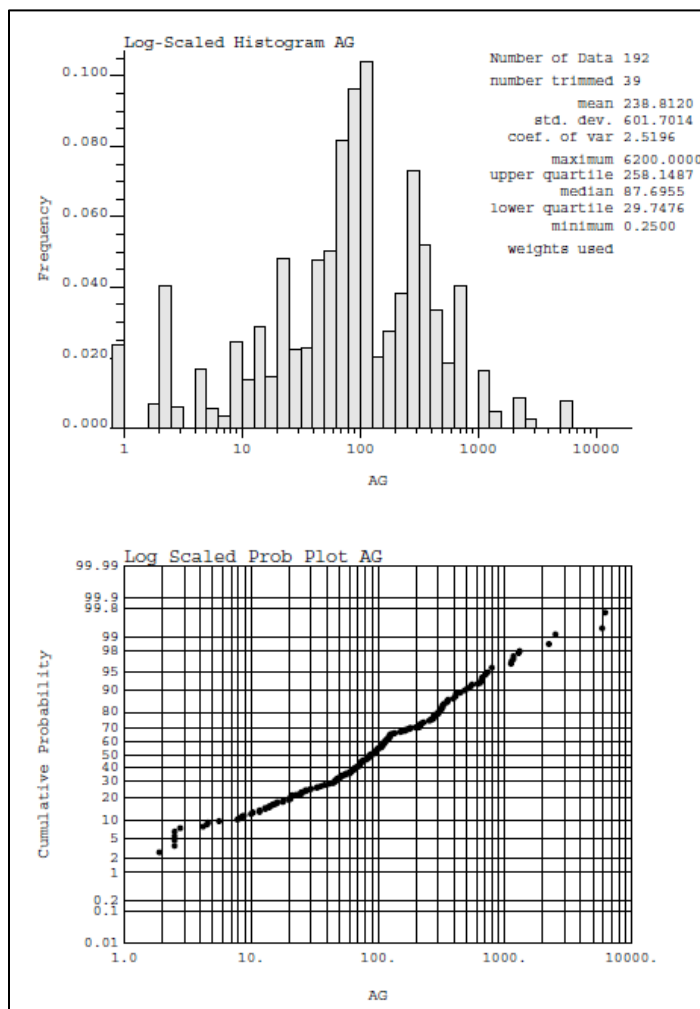
14.2.2.2 Composites

First Majestic created composites across the entire width of the veins (with differing nominal lengths) using the estimation domain boundaries to break the composites. The QP recreated the composites from the Sierra Madre drillhole database assays.

There is no correlation between composite length and silver or gold grade. The QP concludes that length-weighted interpolation or interpolation of metal accumulation (grade multiplied by thickness) are not needed.

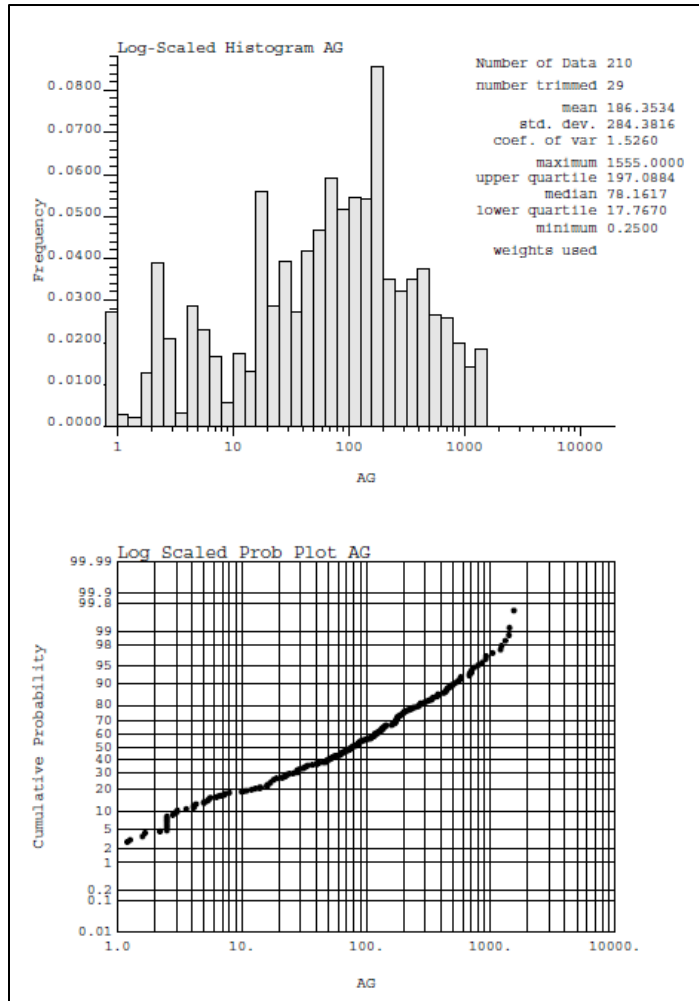
14.2.2.2.1 Composite Statistics

The QP tabulated summary length-weighted statistics for silver and gold within each domain. The summary statistics are shown in Table 14-5 and Table 14-6.



Note: Figure prepared by TSMC, 2023

Figure 14-2: Joya Larga Vein Assay Log-Histogram and Probability Plot, Silver



Note: Figure prepared by TSMC, 2023

Figure 14-3: Jessica Vein Assay Log-Histogram and Probability Plot, Silver

Table 14-3: Coloso Length-Weighted Vein Assay Statistics, Silver

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Adriana	25	37	0.5	563.6	92.5	95.8	1.0
Adriana 2	15	17	11.0	3,460.0	540.8	1041.9	1.9
Intermedia	30	50	0.3	2,470.0	163.9	275.8	1.7
Jessica	40	210	0.3	1,555.0	186.4	284.4	1.5
Joya Larga	10	192	0.3	6,200.0	238.8	601.7	2.5
Luz Maria	50	10	12.0	934.0	252.5	251.2	1.0
Selene	20	186	0.5	3,230.0	165.7	422.5	2.5

Table 14-4: Coloso Length-Weighted Vein Assay Statistics, Gold

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Adriana	25	37	0.01	2.95	0.78	0.70	0.9
Adriana 2	15	17	0.02	2.80	0.50	0.62	1.2
Intermedia	30	50	0.01	3.50	0.48	0.64	1.3
Jessica	40	210	0.00	29.40	1.95	4.16	2.1
Joya Larga	10	192	0.00	14.33	0.67	1.35	2.0
Luz Maria	50	10	0.22	2.73	0.94	0.94	1.0
Selene	20	186	0.01	15.95	0.57	1.45	2.5

Table 14-5: Coloso Length-Weighted Vein Composite Statistics, Silver

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Adriana	25	16	10.0	385.3	92.5	77.7	0.8
Adriana 2	15	9	18.3	3460.0	540.8	982.3	1.8
Intermedia	30	17	0.5	819.2	163.9	196.2	1.2
Jessica	40	93	0.3	1210.0	186.4	207.9	1.1
Joya Larga	10	76	0.3	1084.4	238.8	297.4	1.2
Luz Maria	50	9	12.0	934.0	252.5	251.0	1.0
Selene	20	58	0.5	1475.5	165.7	278.6	1.7

Table 14-6: Coloso Length-Weighted Vein Composite Statistics, Gold

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Adriana	25	16	0.10	1.49	0.78	0.55	0.70
Adriana 2	15	9	0.03	2.47	0.50	0.57	1.14
Intermedia	30	17	0.03	1.99	0.48	0.47	0.97
Jessica	40	93	0.00	15.86	1.95	3.06	1.57
Joya Larga	10	76	0.00	3.91	0.67	0.87	1.31
Luz Maria	50	9	0.22	2.66	0.94	0.94	1.00
Selene	20	58	0.01	6.77	0.57	1.03	1.81

14.2.2.3 Estimation/Interpolation Methods

First Majestic created sub-blocked models consisting of blocks with a parent size of 15 m along strike x 15 m down-dip x 10 m across dip, with sub-cells a minimum of 1 m along strike x 1 m down-dip x 0.01 m across-dip.

Two block models were created with different rotations: a northeast-dipping model to accommodate the northeast-dipping Joya Larga and Selene veins and a southwest-dipping model to accommodate the Adriana, Adriana 2, Intermedia, Jessica, and Luz Maria veins. The rotation angles and block model set-up parameters are shown in Table 14-7.

Table 14-7: Coloso Block Model Parameters

Model Name	Origin			Rotations	
	X	Y	Z	Azimuth	Dip
Joya Larga	382,351.62	2,110,224.30	2,496.63	32.5	80.5
Jessica	384,141.16	2,109,264.44	2,453.87	211.5	62.0

First Majestic used an inverse distance weighted to the power of two (ID2) grade interpolation method. A single pass was used except in the Joya Larga vein, where two passes were used.

Table 14-8 shows the search distances and search ellipse orientations for the estimation domains.

Grade estimation used a composite and block matching scheme based on the domain codes. For example, composites coded to the Joya Larga vein were only used to estimate blocks falling within the Joya Larga vein wireframe.

Outlier restrictions were applied during estimation to limit the influence of higher-grade composites. Composites above a selected threshold (Table 14-11) were only used if they fell within a maximum distance.

14.2.2.4 **Bulk Density Assignment**

A dry bulk density of 2.44 g/cm³ was applied to the veins.

Table 14-8: First Majestic Search Ellipse and Composite Restrictions for Coloso

Domain	Metal	Estimation Method	Search Ellipse in Leapfrog Edge			Ranges (m)			Min. No. Comp	Max. No. Comp	Max. No. Per Drillhole	Variable Orientation
			Dip (Rotation 2)	Dip Azimuth (Rotation 1)	Pitch (Rotation 3)	Y (Max)	X (Min)	Z (Intermediate)				
Jessica	Ag	ID2	62	211	22	140	40	120	2	7		Yes
	Au	ID2	62	211	22	140	40	120	2	7		Yes
Intermedia	Ag	ID2	68.5	220.5	79.1	140	40	120	2	7		Yes
	Au	ID2	68.5	220.5	79.1	140	40	120	2	7		Yes
Adriana	Ag	ID2	64.5	226	0.7	100	40	80	2	7		No
	Au	ID2	64.5	226	0.7	100	40	80	2	7		No
Adriana 2	Ag	ID2	62	218	56.4	100	40	80	2	7		No
	Au	ID2	62	218	56.4	100	40	80	2	7		No
Luz Maria	Ag	ID2	60	208	10.9	110	40	90	2	7		No
	Au	ID2	60	208	10.9	110	40	90	2	7		No
Jessica Waste	Ag	ID2	62	211.5	167.8	150	35	150	4	20	4	No
	Au	ID2	62	211.5	150.7	150	35	150	4	20	4	No
Joya Larga	Ag	ID2	80.5	32.5	31.1	120	40	100	2	7		Yes
	Ag Pass 2	ID2	80.5	32.5	31	220	40	160	2	7		Yes
	Au	ID2	80.5	32.5	170	120	40	100	2	7		Yes
	Au Pass 2	ID2	80.5	32.5	31	220	40	160	2	7		Yes
Selene	Ag	ID2	76	36	58	120	40	100	2	7		Yes
	Au	ID2	76	36	58	120	60	110	2	7		Yes
Joya Larga Waste	Ag	ID2	80.5	32.5	117.1	230	40	200	4	20	4	No
	Au	ID2	80.5	32.5	117.1	230	40	200	4	20	4	No

Note: Search ellipse orientations are given using the RRR ZXZ rotation convention as used in Leapfrog Edge

14.2.2.5 **Block Model Validation**

The QP validated the models to ensure appropriate honouring of the input data. Nearest neighbour (NN) grade models were created using TSMC's capped composites to validate the First Majestic ID2 grade models.

14.2.2.6 **Visual Inspection**

Visual inspection of block grade versus composited data was conducted in section and plan view. The visual inspection of block grade versus composited data showed a good reproduction of the data by the model.

14.2.2.7 **Global Bias Checks**

A comparison between the ID2 and NN estimates was completed on all classified blocks to check for global bias in the grade estimates. Globally, the differences are generally within acceptable levels (<10%). The First Majestic silver grades are somewhat under-estimated and the First Majestic gold grades are somewhat over-estimated compared to TSMC's NN model.

Summary statistics are shown in Table 14-9.

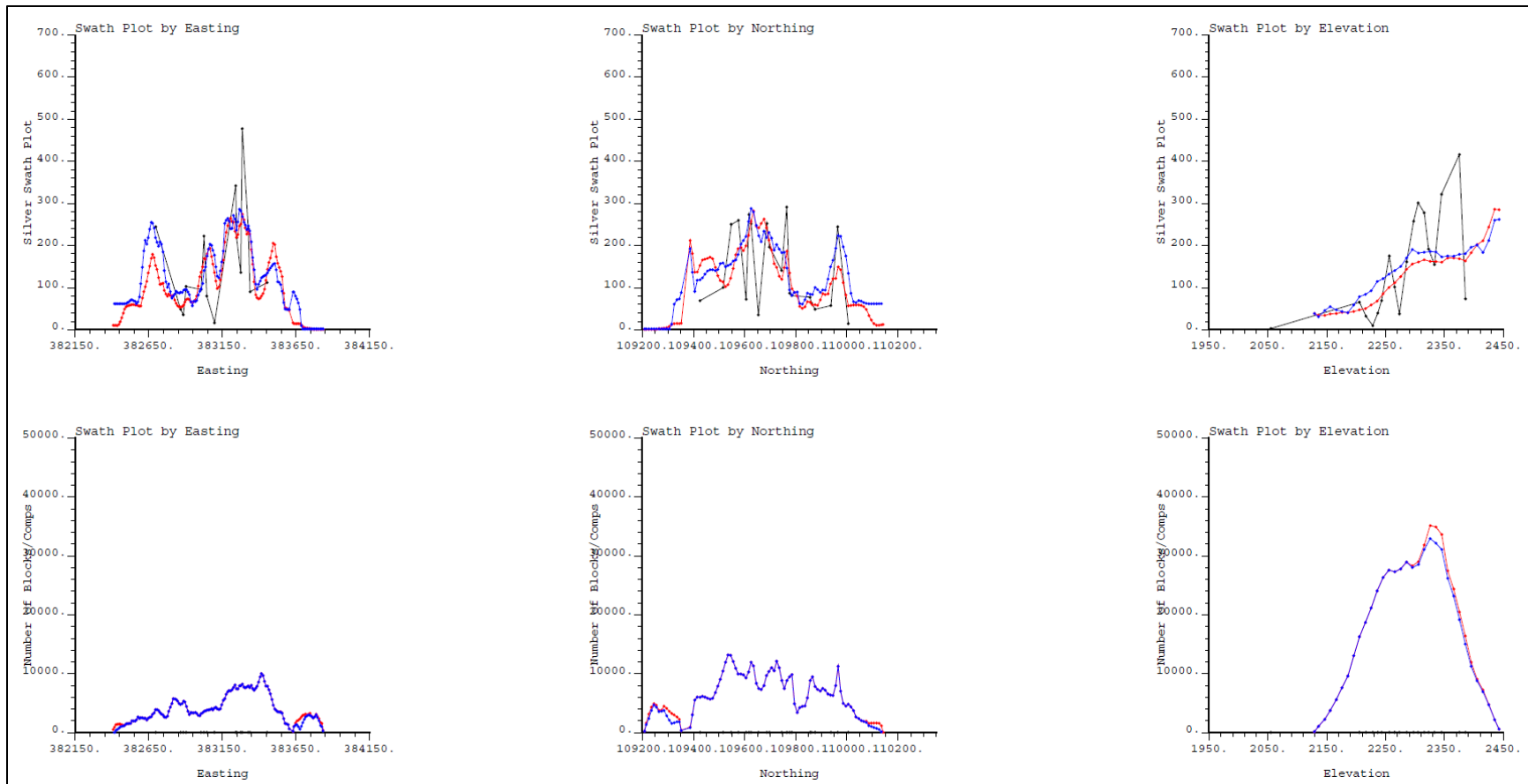
14.2.2.8 **Local Bias Checks**

The QP performed a check for local bias by plotting the average gold grades of composites, NN, and ID2 models in swaths oriented along the model northings, eastings, and elevations.

The QP reviewed the swath plots and found minor discrepancies between the NN and ID2 model grades. In areas where there is significant extrapolation beyond the drillholes, the swath plots indicate less agreement. The silver swath plot for the Jessica vein is shown in Figure 14-4 and Figure 14-5.

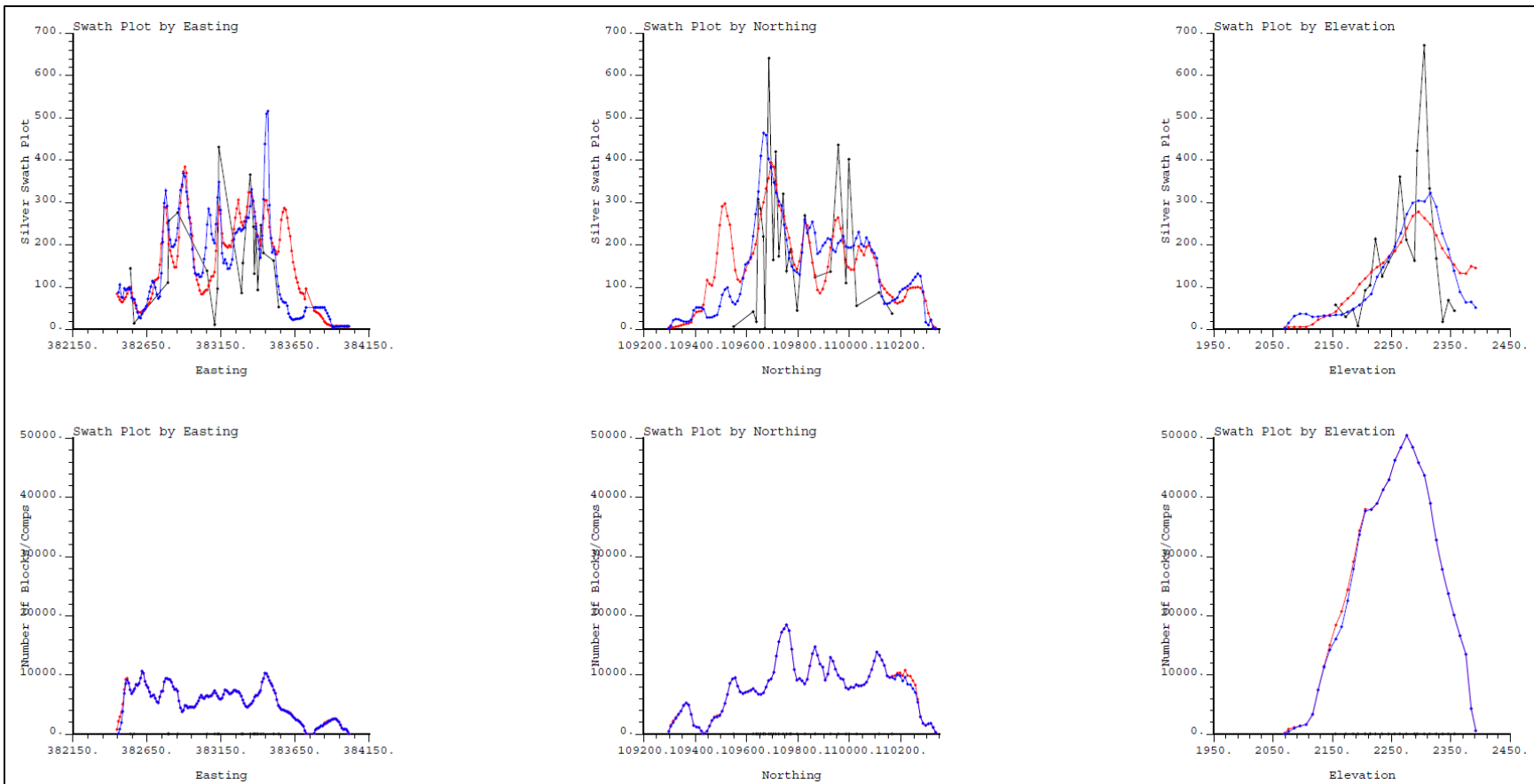
Table 14-9: Comparison of ID2 and NN Grades for Coloso, Classified Blocks

Resource Category	Number of Blocks	Ag ID2	Ag NN	Au ID2	Au NN	Ag Difference	Au Difference
Indicated	1,109,549	193.6	208.6	1.36	1.31	-7.2%	4.4%
Inferred	837,026	109.0	112.2	0.72	0.61	-2.9%	17.6%
Combined	1,946,575	160.0	170.1	1.10	1.02	-6.0%	7.6%



Note: Figure prepared by TSMC, 2023. Upper swath plots show the grades, lower swath plots show number of blocks or composites. Red line represents ID2 model. Blue line represents NN model. Black line represents composites.

Figure 14-4: Silver Swath Plots by Easting, Northing, and Elevation: Joya Larga



Note: Figure prepared by TSMC, 2023. Upper swath plots show the grades, lower swath plots show number of blocks or composites. Red line represents ID2 model. Blue line represents NN model. Black line represents composites.

Figure 14-5: Silver Swath Plots by Easting, Northing, and Elevation: Jessica Vein

14.3 Nazareno Mineral Resource Audit

14.3.1 Geological Models

The Nazareno models consist of a series of northwest-southeast striking veins (see Figure 14-6). The Ancas and Ancas veins dip to the northeast; while the Nazareno and Nazareno Bajo veins dip to the southwest.

For modelling of the main mineralized structures, First Majestic used Leapfrog software. The modelling was based upon lithological, mineralogical, structural, and alteration characteristics.

First Majestic created the geological models by coding drillhole and channel sample intervals with vein codes and using the coded sample intervals to construct wireframes of the veins using Leapfrog's implicit modeler module.

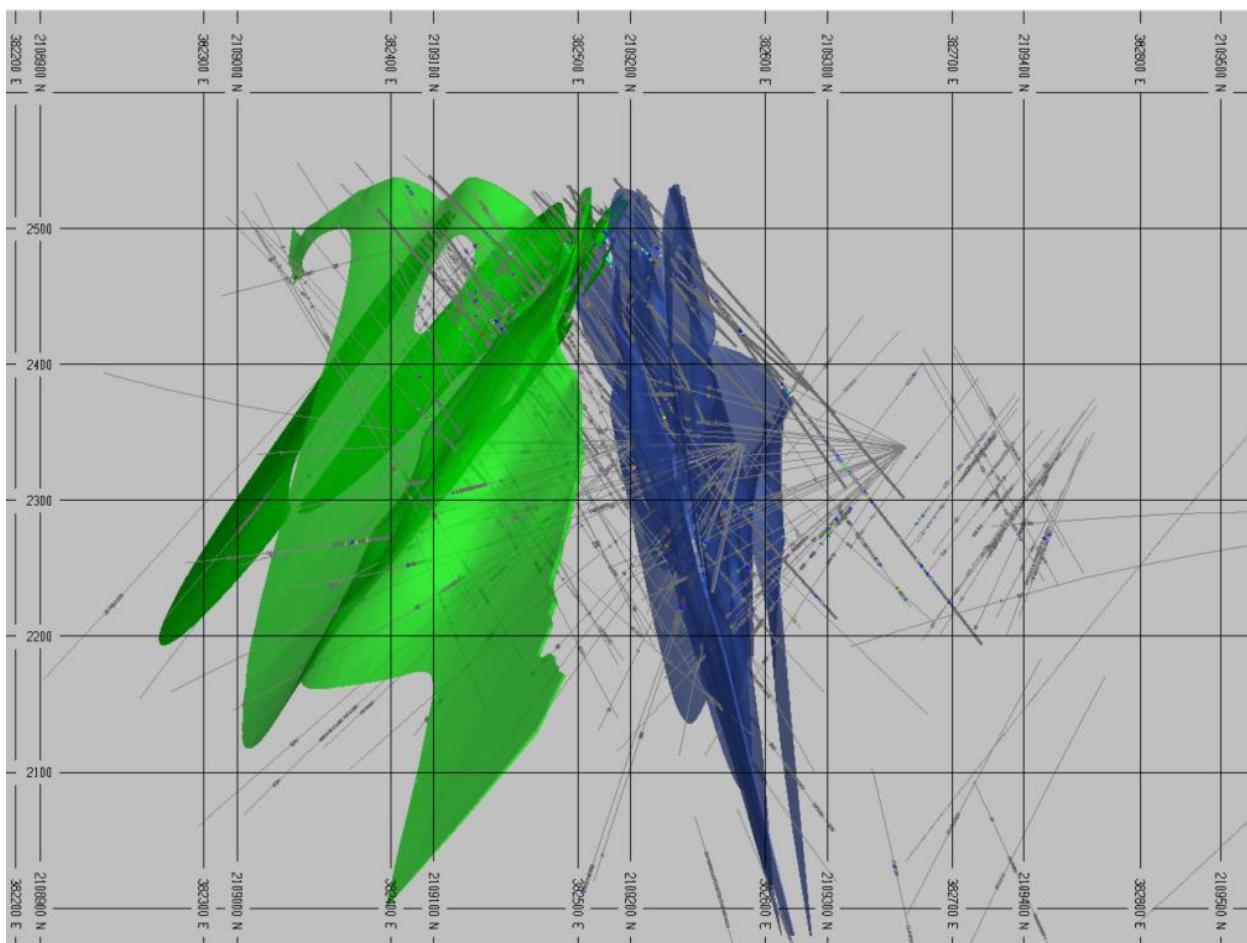


Figure 14-6: Nazareno Vein Models

14.3.2 Exploratory Data Analysis

The QP completed EDA comprising basic statistical evaluation of the assays and composites for silver, gold, and sample length. Underground chip samples were not used to estimate mineral resources.

14.3.2.1 Assays

14.3.2.1.1 Histograms and Probability Plots

Log-scaled histograms and probability plots for silver and gold within the vein domains show limited evidence for mixed populations.

The QP concluded that further domaining is not warranted. The silver histograms and probability plots for the Ancas and Nazareno veins are shown in Figure 14-7 and Figure 14-8, respectively.

14.3.2.1.2 Assay Statistics

The QP tabulated summary length-weighted statistics for silver and gold within each domain (shown in Table 14-12 and Table 14-13)

The QP notes that CV values for the length-weighted assays are high (between 1.9 and 2.4).

14.3.2.1.3 Grade Capping/Outlier Restrictions

First Majestic assessed the most effective method to restrict the influence of extremely high-grade composites. A combination of capping on composites and distance-based outlier restriction was used. The QP conducted an independent capping study and capped the assays prior to compositing.

Table 14-10 and Table 14-11 show the outlier restrictions and distances for each domain.

The QP reviewed First Majestic's capping and outlier restriction and generally agrees with the chosen capping levels and outlier restriction parameters.

Table 14-10: Nazareno Outlier Restriction Parameters, Silver

Vein Name	Vein Code	TSMC Capping	FM Capping	FM Outlier Restriction	
				Threshold	Search Ellipse Reduction
Nazareno	40	1,000	1,120	None	
Nazareno Bajo	10	700	600	None	
Ancas	15	2,000	1,000	None	
Anecas	25	900	900	None	

Table 14-11: Nazareno Outlier Restriction Parameters, Gold

Vein Name	Vein Code	TSMC Capping	FM Capping	FM Outlier Restriction	
				Threshold	Search Ellipse Reduction
Nazareno	40	1.25	None	None	
Nazareno Bajo	10	None	None	None	
Ancas	15	7	3.5	None	None
Anecas	25	3	2.8	None	None

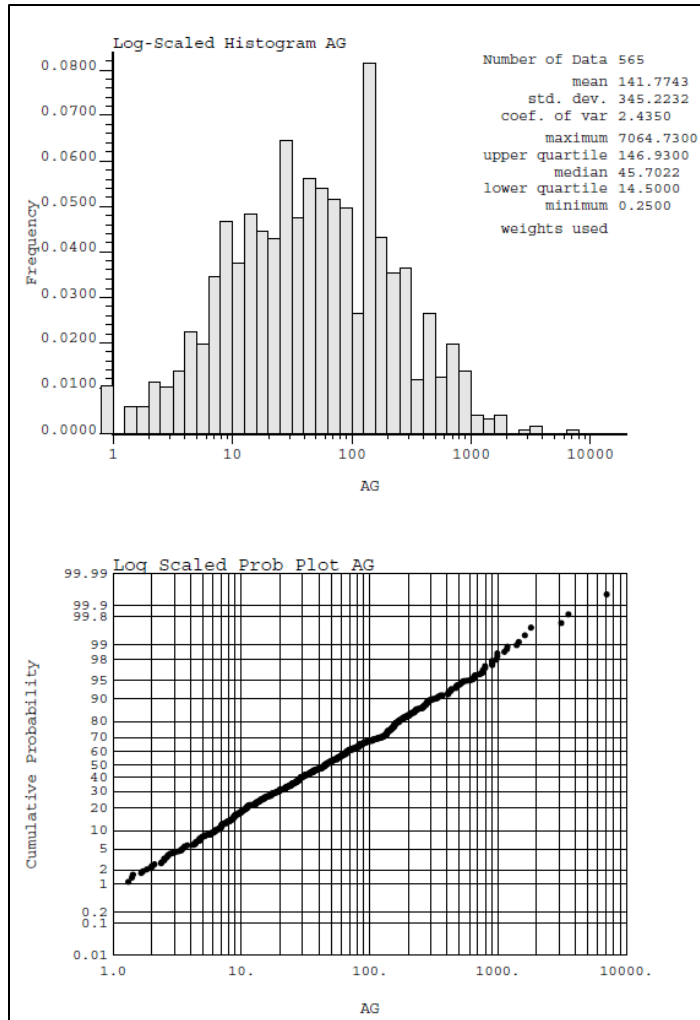
14.3.2.2 Composites

First Majestic created sets of composites with differing nominal lengths using the estimation domain boundaries to break the composites. The QP recreated the composites from the Sierra Madre drillhole database assays.

There is no correlation between composite length and silver or gold grade. The QP concludes that length-weighted interpolation or interpolation of metal accumulation (grade multiplied by thickness) are not needed.

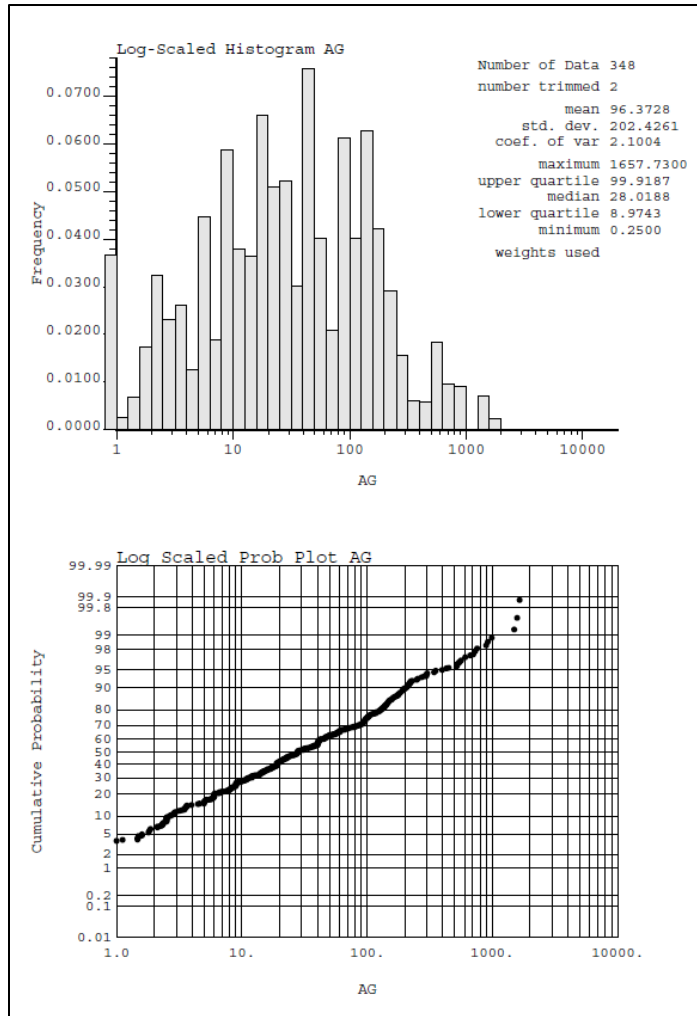
14.3.2.2.1 Composite Statistics

The QP tabulated summary length-weighted statistics for silver and gold within each domain. The summary statistics are shown in Table 14-14 and Table 14-15.



Note: Figure prepared by TSMC, 2023

Figure 14-7: Ancas Vein Assay Log-Histogram and Probability Plot, Silver



Note: Figure prepared by TSMC, 2023

Figure 14-8: Nazareno Vein Assay Log-Histogram and Probability Plot, Silver

Table 14-12: Nazareno Length-Weighted Vein Assay Statistics, Silver

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Nazareno Bajo	10	33	0.3	1,506.0	120.9	241.6	2.0
Ancas	15	565	0.3	7,064.7	141.8	345.2	2.4
Anecas	25	95	0.3	2,386.0	132.0	246.7	1.9
Nazareno	40	348	0.3	1,657.7	96.4	202.4	2.1

Table 14-13: Nazareno Length-Weighted Vein Assay Statistics, Gold

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Nazareno Bajo	10	33	0.00	0.81	0.23	0.33	1.5
Ancas	15	565	0.00	14.95	0.52	1.26	2.4
Anecas	25	95	0.00	4.89	0.44	0.92	2.1
Nazareno	40	348	0.00	3.08	0.12	0.27	2.2

Table 14-14: Nazareno Length-Weighted Vein Composite Statistics, Silver

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Nazareno Bajo	10	24	0.3	1,425.6	120.9	216.8	1.8
Ancas	15	81	0.7	550.5	141.8	134.1	0.9
Anecas	25	48	0.3	1,373.3	132.0	209.3	1.6
Nazareno	40	61	0.3	977.2	96.4	134.3	1.4

Table 14-15: Nazareno Length-Weighted Vein Composite Statistics, Gold

Vein Name	Vein Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Std Dev.	CV
Nazareno Bajo	10	24	0.00	0.81	0.23	0.33	1.46
Ancas	15	81	0.00	14.95	0.52	1.11	2.15
Anecas	25	48	0.00	3.11	0.44	0.78	1.74
Nazareno	40	61	0.01	1.38	0.12	0.19	1.60

14.3.2.3 Estimation/Interpolation Methods

First Majestic created sub-blocked models consisting of blocks with a parent size of 10 m along strike x 10 m down-dip x 2 m across dip, with sub-cells a minimum of 2 m along strike x 2 m down-dip x 0.1 m across-dip.

Two block models were created with different rotations: a northeast-dipping model to accommodate the northeast-dipping Anecas and Ancas veins and a southwest-dipping model to accommodate the Nazareno Bajo and Nazareno veins. The rotation angles and block set-up parameters are shown in Table 14-16.

Table 14-16: Nazareno Block Model Parameters

Model Name	Origin			Rotations	
	X	Y	Z	Azimuth	Dip
Nazareno	381,550.00	2,109,200.00	1,948.00	33	-65.0
Ancas	380,940.00	2,111,090.00	2,632.00	44.0	77.0

First Majestic used an ID2 grade interpolation method. A single pass was used for all veins.

Table 14-17 shows the search distances and search ellipse orientations for the estimation domains.

Grade estimation used a composite and block matching scheme based on the domain codes. For example, composites coded to the Nazareno vein were only used to estimate blocks falling within the Nazareno vein wireframe.

Outlier restrictions were applied during estimation to limit the influence of higher-grade composites. Composites above a selected threshold (see Table 14-10 and Table 14-11) were only used if they fell within a maximum distance.

14.3.2.4 Bulk Density Assignment

A dry bulk density of 2.44 g/cm³ was applied to the veins.

Table 14-17: First Majestic Search Ellipse and Composite Restrictions for Nazareno

Domain	Metal	Estimation Method	Search Ellipse in Leapfrog Edge			Ranges (m)			Min. No. Comp	Max. No. Comp	Max. No. Per Drillhole	Variable Orientation
			Dip (Rotation 2)	Dip Azimuth (Rotation 1)	Pitch (Rotation 3)	Y (Max)	X (Intermediate)	Z (Min)				
Nazareno	Ag	ID2	59.24	228.43	48.78	120	120	50	4	20	3	Yes
	Au	ID2	59.24	227.45	45.78	120	120	50	4	20	3	Yes
Nazareno Del Bajo	Ag	ID2	53.00	217.70	24.70	120	120	50	4	20	3	No
	Au	ID2	51.30	218.44	18.00	120	120	50	4	20	3	No
Ancas	Ag	ID2	80.85	54.04	45.33	120	120	50	4	20	3	Yes
	Au	ID2	78.75	54.00	171.00	120	120	50	4	20	3	Yes
	Au	ID2	82.56	49.73	96.23	120	120	50	4	20	3	Yes
Anecas	Ag	ID2	82.56	49.73	66.13	120	120	50	4	20	3	Yes
	Au	ID2	59.24	228.43	48.78	120	120	50	4	20	3	Yes

Note: Search ellipse orientations are given using the RRR ZXZ rotation convention as used in Leapfrog Edge

14.3.2.5 **Block Model Validation**

The QP validated the models to ensure appropriate honouring of the input data. NN grade models were created using TSMC's capped composites to validate the ID2 grade models.

14.3.2.6 **Visual Inspection**

Visual inspection of block grade versus composited data was conducted in section and plan view. The visual inspection of block grade versus composited data showed a good reproduction of the data by the model.

14.3.2.7 **Global Bias Checks**

A comparison between the ID2 and NN estimates was completed on all classified blocks to check for global bias in the grade estimates. Globally, the differences are generally within acceptable levels (<10%). The First Majestic silver grades are somewhat under-estimated and the First Majestic gold grades are somewhat over-estimated compared to TSMC's NN model.

Summary statistics are shown in Table 14-18.

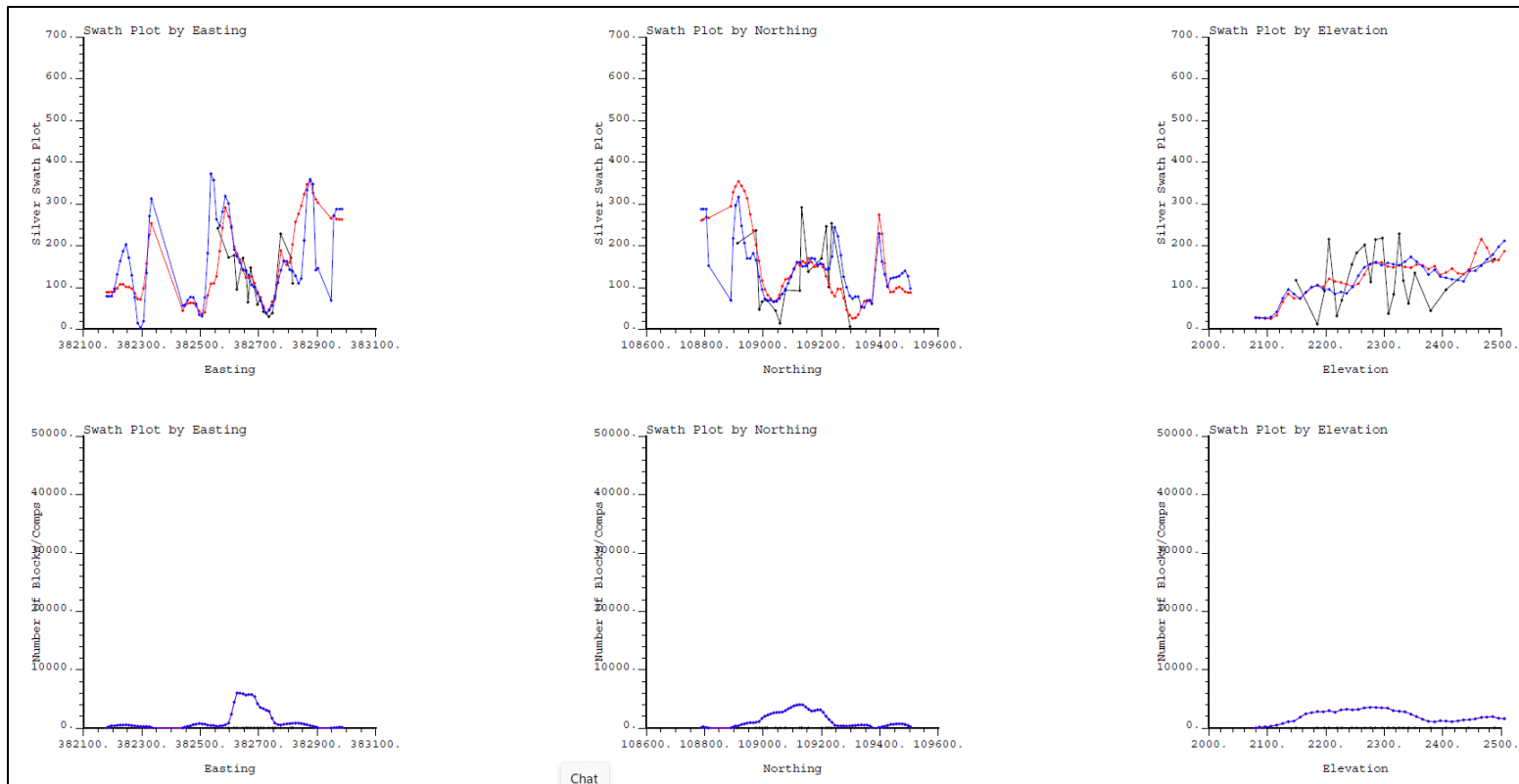
14.3.2.8 **Local Bias Checks**

The QP performed a check for local bias by plotting the average gold grades of composites, NN, and ID2 models in swaths oriented along the model northings, eastings, and elevations.

The QP reviewed the swath plots and found only minor discrepancies between the NN and ID2 model grades. In areas where there is significant extrapolation beyond the drillholes, the swath plots indicate less agreement. The silver swath plots for the Ancas and Nazareno veins are shown in Figure 14-9 and Figure 14-10, respectively.

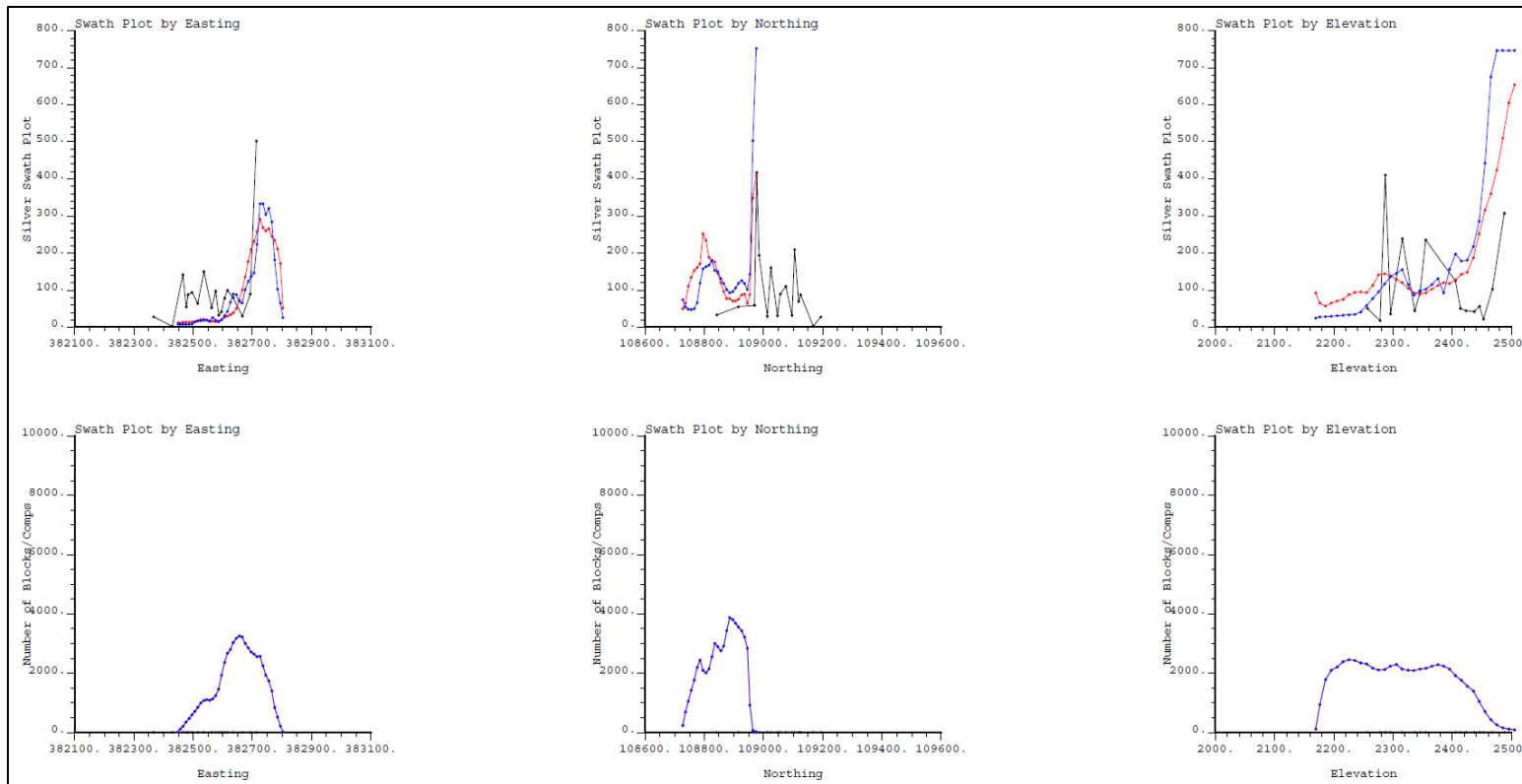
Table 14-18: Comparison of ID2 and NN Grades for Nazareno, Classified Blocks

Resource Category	Number of Blocks	Ag ID2	Ag NN	Au ID2	Au NN	Ag Difference	Au Difference
Indicated	96,328	105.8	113.7	0.30	0.31	-6.9%	-0.5%
Inferred	229,120	123.0	135.3	0.23	0.24	-9.1%	-3.0%
Combined	325,448	117.2	127.7	0.26	0.26	-8.2%	-2.4%



Note: Figure prepared by TSMC, 2023. Upper swath plots show the grades, lower swath plots show number of blocks or composites. Red line represents ID2 model. Blue line represents NN model. Black line represents composites.

Figure 14-9: Silver Swath Plots by Easting, Northing, and Elevation: Ancas Vein



Note: Figure prepared by TSMC, 2023. Upper swath plots show the grades, lower swath plots show number of blocks or composites. Red line represents ID2 model. Blue line represents NN model. Black line represents composites.

Figure 14-10: Silver Swath Plots by Easting, Northing, and Elevation: Nazareno Vein

14.4 Los Angeles Mineral Resource Estimate

14.4.1 Geological Models

The mineralized zone at Los Angeles incorporates stockwork and breccia-style silver and gold mineralization between the Delfina and La Cruz veins.

The QP created a geological model to represent the mineralization by coding drillhole sample intervals with a code and using the coded sample intervals to construct a wireframe of the mineralization using Hexagon Mineplan's implicit modeler module (see Figure 14-11).

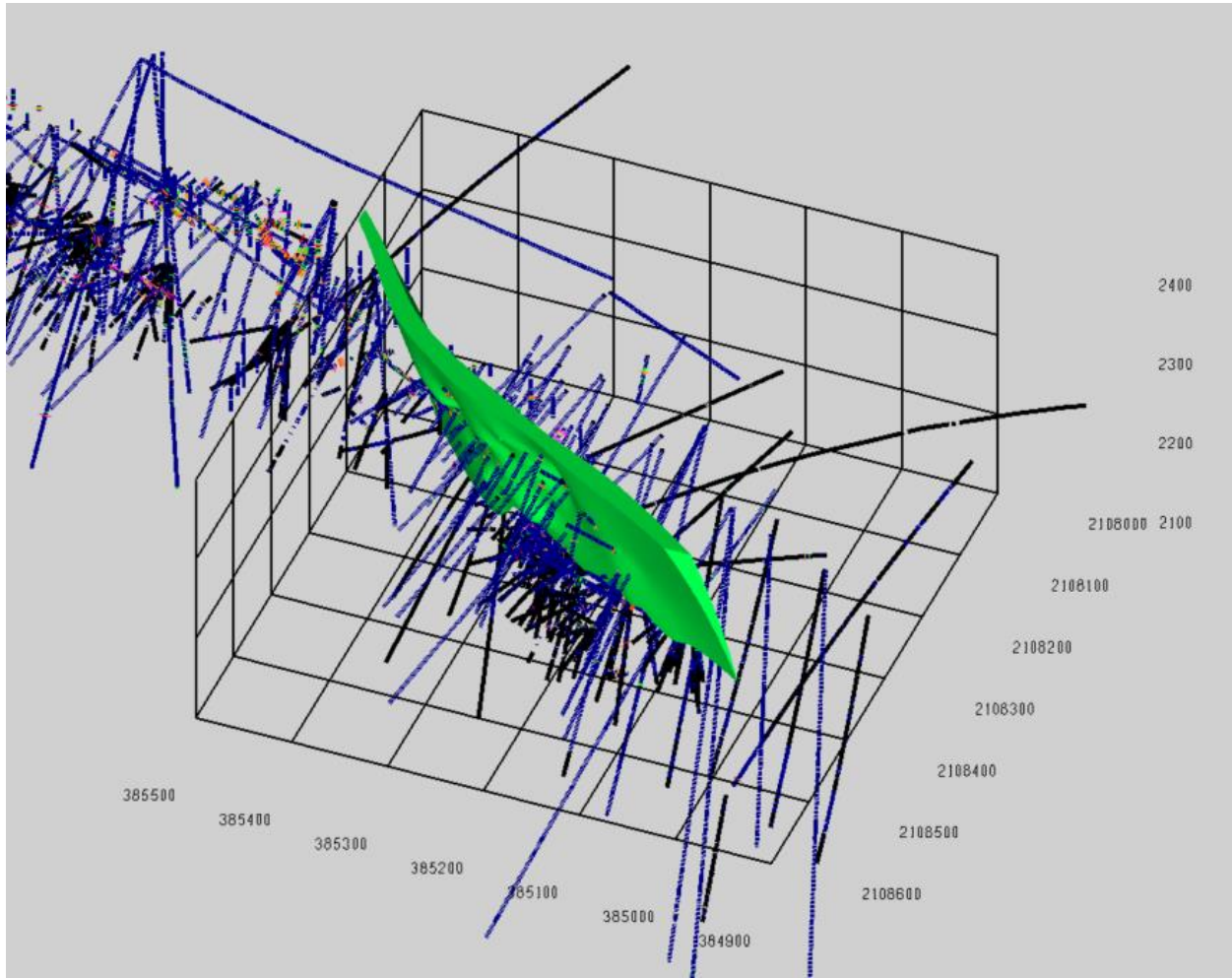


Figure 14-11: Los Angeles Mineralization Model

14.4.2 Exploratory Data Analysis

The QP completed EDA comprising basic statistical evaluation of the assays and composites for silver, gold, and sample length. Underground chip samples were not used to estimate mineral resources.

14.4.2.1 Assays

14.4.2.1.1 Histograms and Probability Plots

Log-scaled histograms and probability plots for silver and gold within the vein domains show limited evidence for mixed populations. The log-scaled histograms show a minor included low-grade population (10% of the samples) below a threshold of 3 g/t Ag.

The QP concluded that the amount of included low-grade material does not warrant further domaining. The silver and gold histograms and probability plots are shown in Figure 14-12 and Figure 14-13, respectively.

14.4.2.1.2 Assay Statistics

Tabulated summary length-weighted statistics for silver and gold within each domain are shown in Table 14-19.

The QP notes that the CV values for the length-weighted assays are moderate to high (between 1 and 2.5).

The vast majority of the assays are 1.5 m in length. Only one assay is 2 m in length.

Table 14-19: Los Angeles Length-Weighted Assay Statistics

Grade Item	Number	Minimum	Maximum	Mean	Std Dev.	CV
Uncapped Ag	527	1.20	744.0	80.4	104.53	1.30
Uncapped Au	527	0.00	11.45	0.63	1.12	1.78
Capped Ag	527	1.20	450.0	78.4	94.84	1.21
Capped Au	527	0.00	6.50	0.61	0.99	1.62

14.4.2.1.3 Grade Capping/Outlier Restrictions

The QP capped the assays prior to compositing. The capping removed 2.5% of the silver metal and 2.9% of the gold metal.

Table 14-20 shows the capping thresholds for each domain.

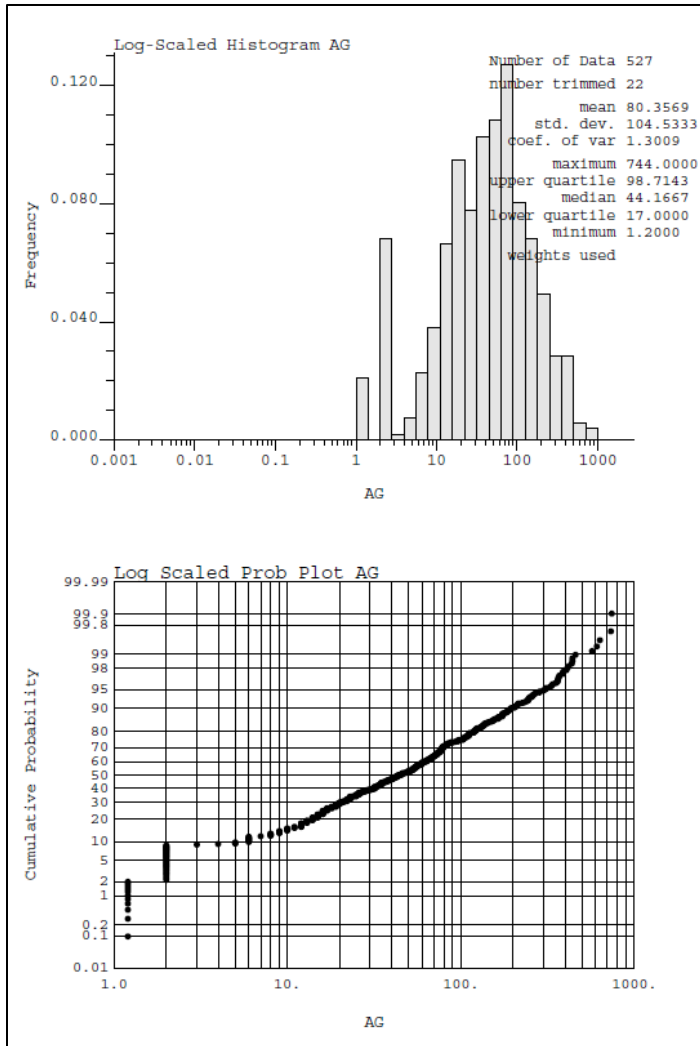


Figure 14-12: Los Angeles Assay Log-Histogram and Probability Plot, Silver

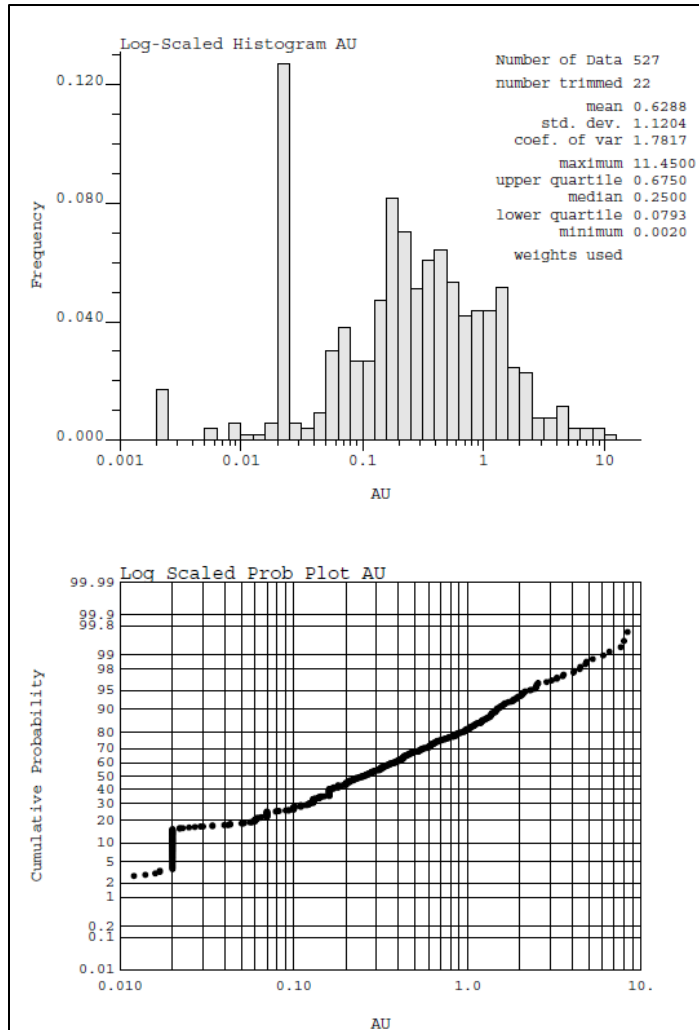


Figure 14-13: Los Angeles Assay Log-Histogram and Probability Plot, Gold

Table 14-20: Outlier Restriction Parameters, Los Angeles

Metal	Outlier		Capping Threshold (g/t)
	Threshold (g/t)	Distance (m)	
Ag	400	6	450
Au	6	6	6.5

14.4.2.2 Composites

The assays are of a very uniform length. The QP decided to create a set of composites with the same lengths from the assays.

14.4.2.2.1 Composite Statistics

The composites are 1.5 m in length and have the same summary statistics as the assays (Table 14-21).

Table 14-21: Los Angeles Composite Statistics

Grade Item	Number	Minimum	Maximum	Mean	Std Dev.	CV
Uncapped Ag	527	1.20	744.0	80.4	104.53	1.30
Uncapped Au	527	0.00	11.45	0.63	1.12	1.78
Capped Ag	527	1.20	450.0	78.4	94.84	1.21
Capped Au	527	0.00	6.50	0.61	0.99	1.62

14.4.2.3 Estimation/Interpolation Methods

The QP created a block model consisting of blocks with a regular block size of 2 m along strike x 2 m down-dip x 2 m across dip. The percentage of each block falling within the mineralization wireframe was used to report the mineralized volume and tonnage. The block model parameters are shown in Table 14-22.

Table 14-22: Los Angeles Block Model Parameters

Model Name	Origin			Number of Blocks		
	X	Y	Z	X	Y	Z
LA3	384,790.00	2,108,010.00	1,700.0	385	365	350

The QP used an ID3 grade interpolation method. Two passes were used.

Table 14-23 shows the search distances and search ellipse orientations for the estimation domain.

Grade estimation used a composite and block matching scheme based on the domain code. Only composites coded to the mineralization wireframe were used to estimate blocks falling within the mineralization wireframe.

Instead of capping, outlier restrictions were applied to uncapped composites during estimation to limit the influence of higher-grade composites. Composites above a selected threshold (see Table 14-20) were used with their uncapped grades if they fell within a maximum distance; beyond that distance the composites were capped to their threshold value.

Table 14-23: Los Angeles Block Model Parameters

Pass	Metal	Estimation Method	Search Ellipse in Mineplan			Ranges (m)			Min. No. Comp	Max. No. Comp	Max. No. Per Drillhole
			Z Axis (Left Hand)	X Axis (Right Hand)	Y-Axis (Right Hand)	Y (Max)	X (Intermediate)	Z (Min)			
First	Ag	ID3	122	0	20	50	10	50	3	10	2
	Au	ID3	122	0	20	50	10	50	3	10	2
Second	Ag	ID3	122	0	20	100	20	100	2	10	2
	Au	ID3	122	0	20	100	20	100	2	10	2

14.4.2.4 **Bulk Density Assignment**

A dry bulk density of 2.40 g/cm³ was applied.

14.4.2.5 **Block Model Validation**

The QP validated the models to ensure appropriate honouring of the input data. NN grade models were created to validate the ID3 grade models.

14.4.2.6 **Visual Inspection**

Visual inspection of block grade versus composited data was conducted in section and plan view. The visual inspection of block grade versus composited data showed a good reproduction of the data by the model.

14.4.2.7 **Global Bias Checks**

A comparison between the ID3 and NN estimates was completed on all classified blocks to check for global bias in the grade estimates. Globally, the differences are generally within acceptable levels (<10%).

Summary statistics are shown in Table 14-24.

The QP verified that the composite outlier restriction removed a similar amount of metal to that removed by capping on the assays.

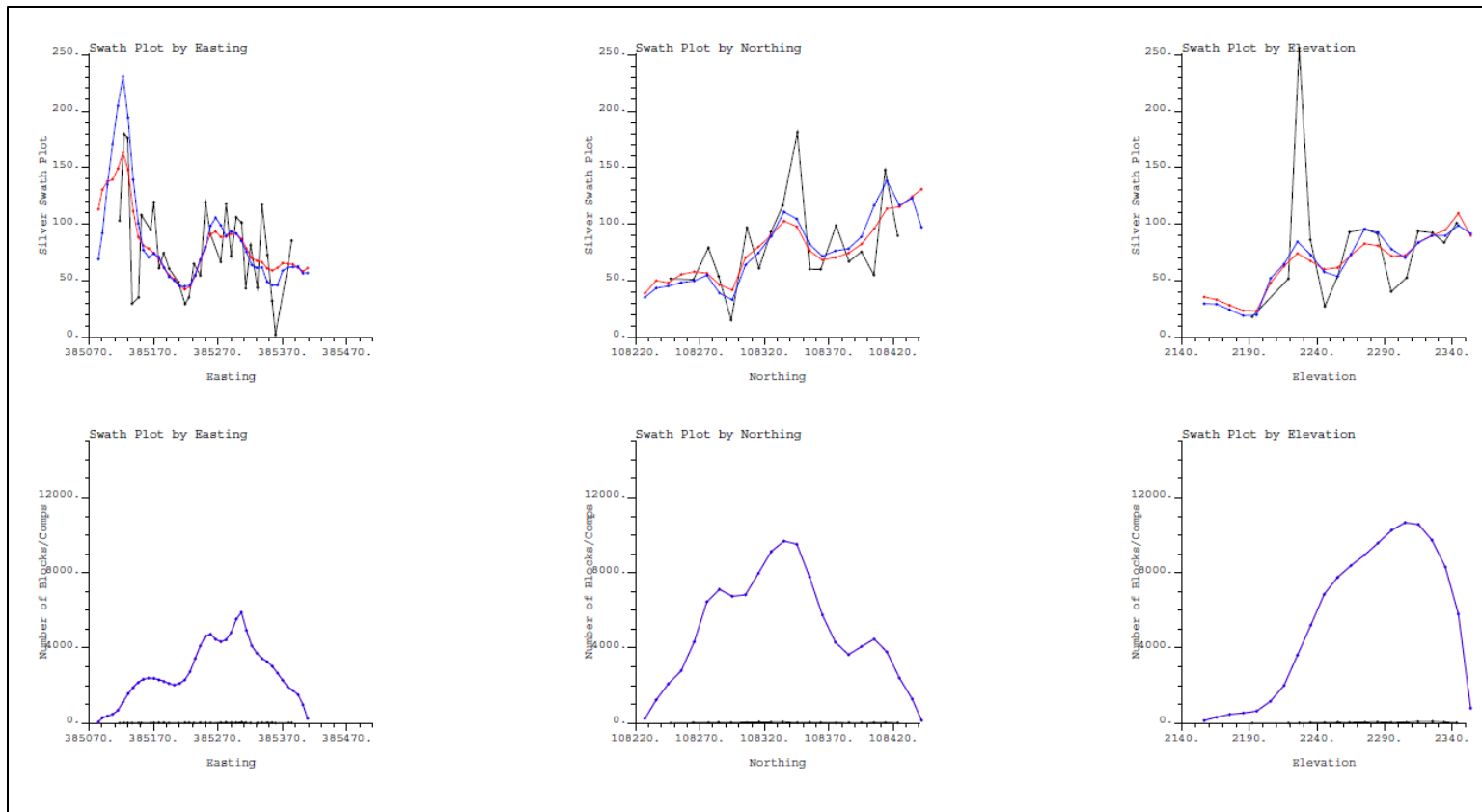
14.4.2.8 **Local Bias Checks**

The QP performed a check for local bias by plotting the average gold grades of composites, NN, and ID3 models in swaths oriented along the model northings, eastings, and elevations.

The QP reviewed the swath plots and found only minor discrepancies between the NN and ID3 model grades. In areas where there is significant extrapolation beyond the drillholes, the swath plots indicate less agreement. The silver and gold swath plots are shown in Figure 14-14 and Figure 14-15.

Table 14-24: Comparison of ID3 and NN Grades for Los Angeles, Classified Blocks

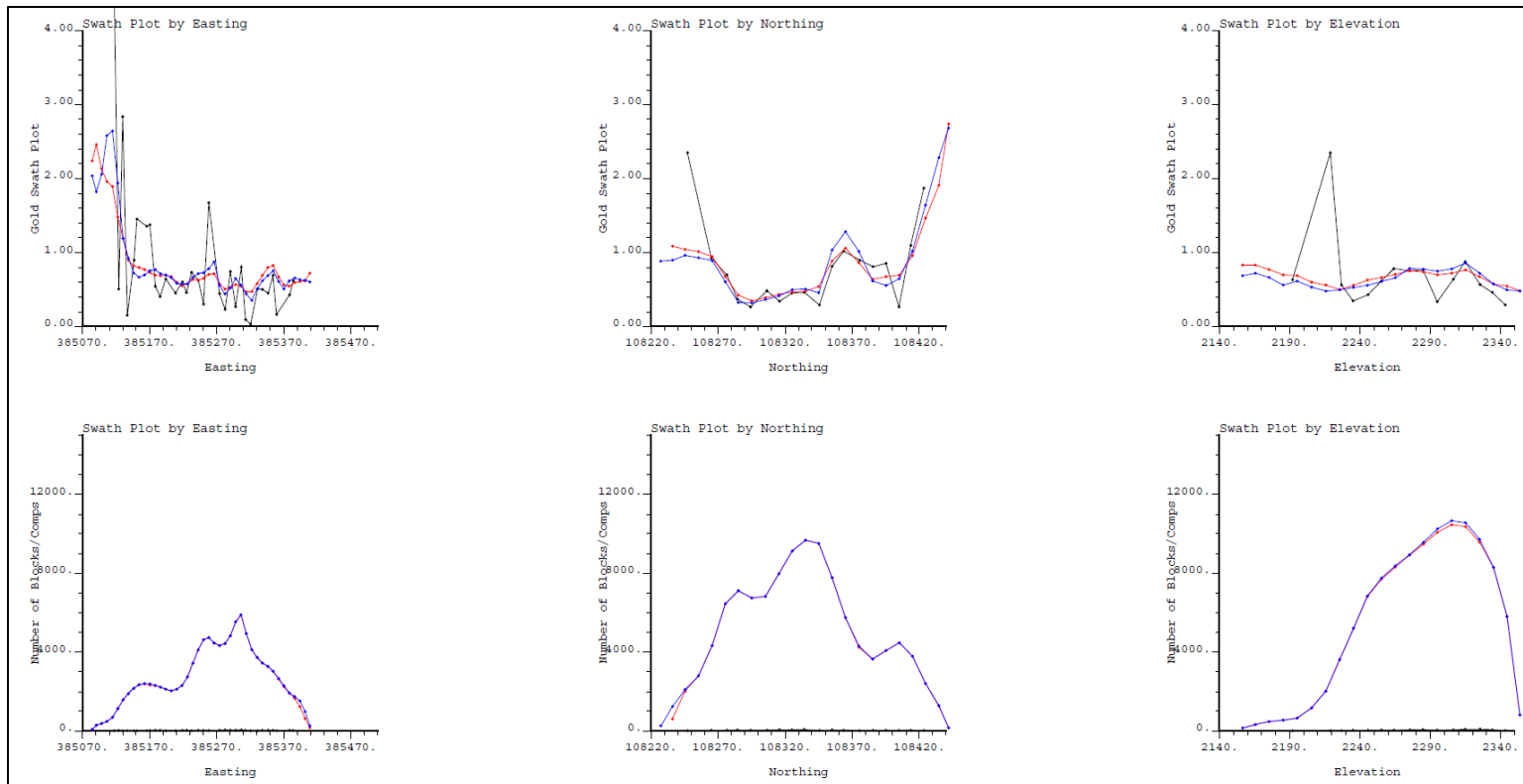
Resource Category	Number of Blocks	Ag ID3	Ag NN	Au ID3	Au NN	Ag Difference	Au Difference
Combined	111,591	75.5	75.9	0.64	0.64	-0.6%	-0.5%



Note: Figure prepared by TSMC, 2023. Upper swath plots show the grades, lower swath plots show number of blocks or composites. Red line represents ID3 model. Blue line represents NN model. Black line represents composites.

Figure 14-14: Silver Swath Plots by Easting, Northing, and Elevation: Los Angeles

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México



Note: Figure prepared by TSMC, 2023. Upper swath plots show the grades, lower swath plots show number of blocks or composites. Red line represents ID3 model. Blue line represents NN model. Black line represents composites.

Figure 14-15: Gold Swath Plots by Easting, Northing, and Elevation: Los Angeles

14.5 Guitarra/East District Polygonal Mineral Resource Audit

Sierra Madre estimated mineral resources for the Guitarra veins using a polygonal estimation method. The data used for mineral resource estimation consisted of drillholes and underground chip samples collected by previous operators of the mine.

Long-sections were constructed for each vein. Drillhole intercepts were plotted, and circular polygons were constructed around each drillhole using Autocad software. Rectangular underground panel polygons were digitized based on underground maps showing the locations of the chip samples.

The length-weighted average grade of each drillhole or underground chip panel was calculated and stored in a spreadsheet. The average grade of the underground panels was calculated by averaging together all of the samples collected across the vein (collected every 1.5 m to 2.0 m along the strike of the veins)

The assays were capped at 825 g/t Ag and 6.55 g/t Au for all of the veins. For future updates to the mineral resource estimates, the QP recommends that capping levels are assessed for each vein (in particular, for veins that have higher gold grades, such as the Doncellas vein).

Horizontal widths were manually measured on sections cut through each drillhole to correct for the orientation of the drillhole with respect to the vein orientation. The underground panels were not corrected, but the samples were all collected horizontally and are assumed to have been collected perpendicular to the strike of the veins. For the underground panels, an average width of the vein was calculated from all of the chip samples collected within the panel.

The volume was then calculated using the average horizontal width multiplied by the area of each polygon. The tonnage was estimated using a bulk density of 2.6 if the intercept was < 2 m in horizontal width (i.e., assuming the intercept represents a single quartz vein) or a bulk density of 2.5 if the intercept was > 2 m in width (i.e., assuming the intercept consists of a vein and mineralized wall-rock).

The tonnages and grade estimates were tabulated in spreadsheets.

An example longitudinal section is shown in Figure 14-16.

The QP checked all of the spreadsheet calculations for errors. The QP made adjustments to the mineral resource classification. Isolated drillhole intercepts were re-classified to the Inferred category. Indicated category mineral resources were restricted to areas with previous mining or the down-plunge projection of the previously mined areas in each vein with multiple drillholes (i.e., sufficient to assume geological and grade continuity between points of observation).

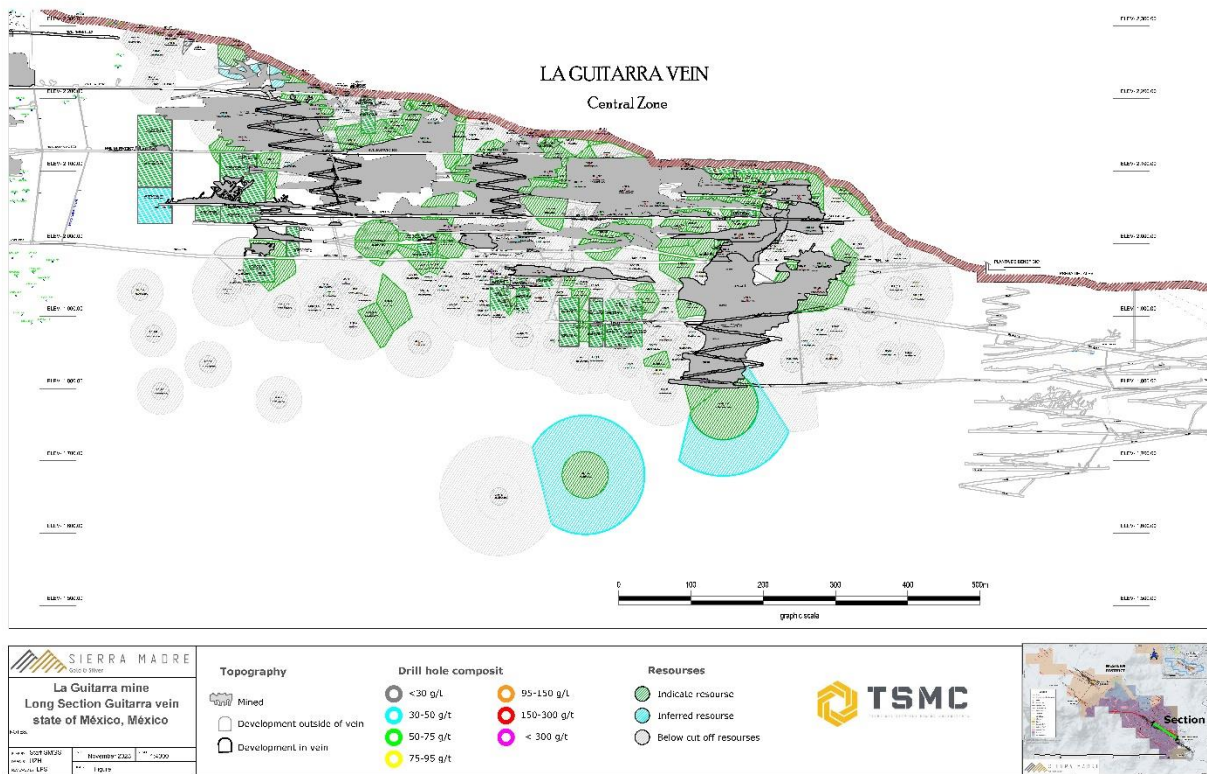


Figure 14-16: Long Section of Guitarra Vein

14.6 Tailings Dam Mineral Resource Audit

14.6.1 Estimation Domain Models

First Majestic created models of the tailings dam in Leapfrog using a threshold of 40 g/t Ag (see Figure 14-17). The tailings were divided into Lower, Middle, and Upper domains. The Lower and Upper domains are higher in grade than the middle domain.

Mine production records also show periods of lower metallurgical recovery (inversely correlated with higher grades in the tailings dam) during the first four years and the last three years of production.

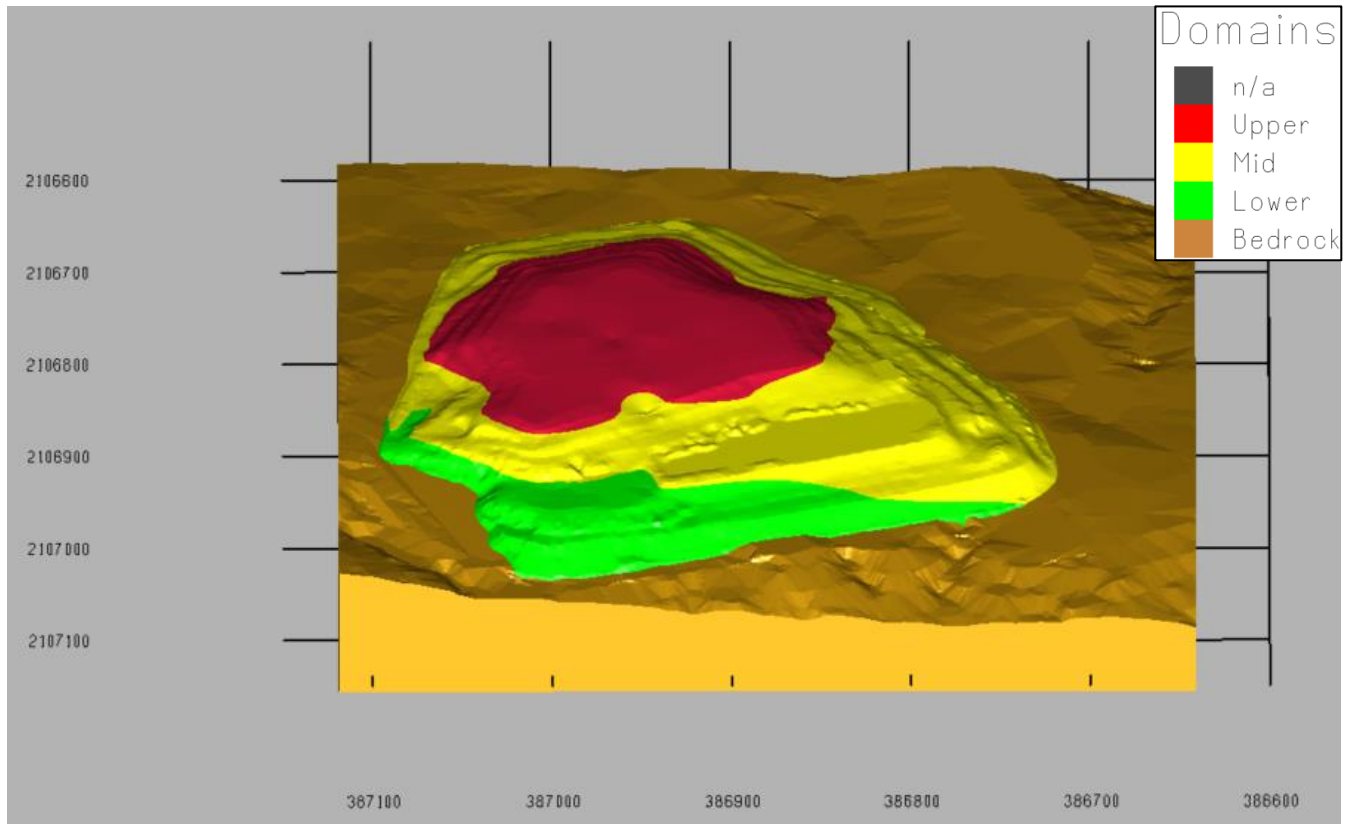


Figure 14-17: Tailings Dam Domain Models

14.6.2 Exploratory Data Analysis

First Majestic completed EDA comprising basic statistical evaluation of the assays and composites for silver, gold, and sample length.

14.6.2.1 Assays

14.6.2.1.1 Histograms and Probability Plots

Log-scaled histograms and probability plots for silver and gold within the domains show limited evidence for mixed populations. The Middle domain histogram is bimodal, with one mode at 22 g/t Ag and the second at a grade of 32 g/t Ag.

The QP concluded that further domaining is not warranted.

14.6.2.1.2 Assay Statistics

The QP tabulated summary length-weighted statistics for silver and gold within each domain and these are shown in Table 14-25.

The QP notes that the CV values for the length-weighted assays are very low (between 0.22 and 0.49).

14.6.2.2 Composites

First Majestic created composites (1 m in length) that were broken at the domain boundaries.

14.6.2.2.1 Composite Statistics

The QP tabulated summary length-weighted statistics for silver and gold within each domain. The summary statistics are shown in Table 14-26.

14.6.2.2.2 Grade Capping/Outlier Restrictions

First Majestic capped the composites by selecting thresholds from histograms and probability plots. The QP reviewed First Majestic's chosen capping thresholds and generally agrees with the chosen thresholds. The capping removes between 0.1% and 1.6% of the metal. Capping affects 1% to 2% of the composites, depending on the estimation domain.

Table 14-25: Tailings Dam Length Weighted Vein Assay Statistics

Metal	Domain	Number	Minimum	Maximum	Mean	Std Dev.	CV
Ag (g/t)	TLNS_Upper	314	0.0	86.5	44.5	9.60	0.22
	TLNS_Mid	557	9.0	64.6	26.2	7.65	0.29
	TLNS_Lower	160	9.0	155.4	48.8	19.74	0.40
Au (g/t)	TLNS_Upper	314	0.01	1.31	0.52	0.15	0.28
	TLNS_Mid	557	0.08	1.28	0.32	0.16	0.49
	TLNS_Lower	160	0.18	1.82	0.64	0.24	0.37

Table 14-26: Tailings Dam Length Weighted Vein 1 m Composite Statistics

Metal	Domain	Number	Minimum	Maximum	Mean	Std Dev.	CV
Ag (g/t)	TLNS_Upper	310	0.3	86.5	49.6	11.3	0.25
	TLNS_Mid	551	9.2	64.6	26.7	7.2	0.27
	TLNS_Lower	155	18.4	155.4	44.8	207.0	0.42
Au (g/t)	TLNS_Upper	310	0.20	1.31	0.51	0.17	0.32
	TLNS_Mid	551	0.08	1.28	0.32	0.16	0.49
	TLNS_Lower	155	0.18	1.82	0.64	0.22	0.35

14.6.2.3 Estimation/Interpolation Methods

First Majestic created a non-rotated, sub-blocked model consisting of blocks with a parent size of 10 m in the easting x 10 m in the northing x 4 m vertically, with sub-cells a minimum of 2 m along strike x 2 m down-dip x 0.5 m across-dip.

The block set-up parameters are shown in Table 14-27.

Table 14-27: Tailings Dam Block Model Parameters

Model Name	Origin			Number of Parent Blocks		
	X	Y	Z	X	Y	Z
Tailings Dam	386,690.00	2,106,700.00	1,990.00	45	45	15

First Majestic used a combination of ordinary kriging and ID2 grade interpolation methods. A single pass was used for all domains.

14.6.2.4 Bulk Density Assignment

Production records from the mine show a total of 2,099,839 tonnes have been placed in the tailings dam. The QP used the total volume of the tailings dam to estimate a bulk density of 1.5 g/cm³.

14.6.2.5 Block Model Validation

First Majestic validated the model by completing visual comparisons of the block model with the input data, checking for global bias (comparison with declustered composite and NN model statistics) and checking for local bias by inspection of swath plots.

The QP reviewed the results of First Majestic’s validation and found that the model accurately reflects the input data and does not show evidence for global or local bias.

14.7 Classification of Mineral Resources

The QP reviewed the First Majestic mineral resource classification for each vein. Modifications were made to the classification by the QP and were primarily based upon the ore-shoot geometry, data spacings, and the QP’s experience with this type of deposit.

The QP classified blocks with drillholes spaced a maximum distance of 40 m to 50 m apart to the Indicated category. Extrapolation was restricted to a maximum distance of 30 m.

Blocks within a 50 m distance of a single drillhole were classified to the Inferred category.

The entire tailings dam was classified to the Inferred category regardless of data spacing. The grades show low variability, and the volume of material is relatively well-known. There is, however, significant uncertainty in the metallurgical recoveries for Ag and Au.

TSMC reviewed the geological model, data quality, geological continuity, and metallurgical characteristics for the classification of Indicated mineral resources.

14.8 Reasonable Prospects of Eventual Economic Extraction

The QP assessed the classified blocks for RPEE by applying conceptual shapes assuming underground mining methods for the veins. Bulk re-processing of the tailings is assumed. The basis for the metallurgical recovery assumptions used to estimate Mineral Resources are discussed in Section 13.

The QP used input process and operating costs, metal prices, metallurgical recoveries, and underground mining costs derived from the historic mine operation.

The assessment does not represent an economic analysis of the deposit but was used to determine reasonable assumptions for the purpose of supporting the Mineral Resource estimate. The assumed long-term gold and silver prices used by the QP for Mineral Resources are USD 1,700/oz. and USD 22.00/oz., respectively. The QP is of the opinion that the metal prices were suitable for Mineral Resource estimation at the date of the database cut-off.

As part of the assessment of reasonable prospects, the QP reviewed the geometry of mineralized blocks with reference to a potential minimum stope dimension of approximately 1 m width, 5 m in length, and 5 m in height. Blocks not meeting these criteria were removed. A minimum mining width of 1 m was implemented for the veins by reporting only those blocks above a minimum grade thickness (135 Ag Eq. gram metres for the narrow veins and 105 Ag Eq. gram metres for bulk mineable stockwork). The QP removed blocks falling within 10 m of the topographic surface and volumes already mined out.

14.8.1 Marginal Cut-off Grade Calculation

The QP estimated marginal silver-equivalent cut-off values for each mine area based on the total costs shown in Table 14-28. The marginal cut-off is based on the generally accepted practice that a decision is made at the mine exit whether mined material above the marginal cut-off grade will lose less money if it is sent to the mill rather than if it is sent to the waste dump. It is considered for further processing if it contains a value that is greater than the costs to process it. Sierra Madre assumed a metallurgical recovery for gold and silver of 80%; this value is slightly lower than the average metallurgical recoveries from life-of-mine mine production of 81.8% and 84.3%, respectively. A net payable of 70% has been assumed to account for smelter deductions, refining costs, and concentrate transportation.

Based upon the marginal cut-off grade, TSMC have chosen silver equivalent cut-off grades for reporting Mineral Resources potentially amenable to an underground mining method.

Table 14-28: Mining Costs and Ore-Based Costs Used for Marginal Cut-Off Estimation

Area		Narrow Veins (Cut/Fill)	Bulk Mineable (Long-Hole)	Bulk Mineable East District (Long-Hole)	Tailings (Bulk Re-Processing)
	Unit	Value (USD)	Value (USD)	Value (USD)	Value (USD)
Mining Costs					
Ore and Waste Mining Reference Cost	USD/t mined	33.50	21.50	18.00	2.00
Ore Based Costs					
Process Cost (ore flotation and tailings cyanide leaching)	USD/t ore	20.00	20.00	20.00	12.00
Total Ore Based Costs	USD/t milled	53.50	41.50	38.00	14.00
Marginal Cut-off Grade Silver Equivalent	g/t	135.0	105.0	90.0	29.0

Mineral Resources for the project were classified under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves by application of a cut-off grade that incorporated mining and metallurgical recovery parameters. Mineral resources are constrained to blocks with RPEE based on underground mining assumptions, commodity prices, metallurgical recoveries, and operating costs.

Mineral resources are tabulated in Table 14-29. The QP for the Mineral Resource estimate is David G. Thomas, P.Geo. Mineral resources are reported using long-term metal prices of USD 1,700/oz. Au and USD 22.00/oz. Ag. Mineral Resources have an effective date of October 24, 2023. Separate tabulations of the mineral resources by category for each mine area are shown in Table 14-30 and Table 14-31.

Table 14-29: Summary the Guitarra Project Mineral Resource Estimate (Effective Date: October 24, 2023)

Class	Tonnage (Mt)	Ag Eq (g/t)	Ag (g/t)	Au (g/t)	Ag Eq (Moz.)	Ag (Moz.)	Au (koz.)
Indicated	3.84	220	146	0.96	27.21	18.07	118
Inferred	4.11	153	113	0.52	20.20	14.94	68

1. Canadian Institute of Mining Metallurgy and Petroleum (CIM) definition standards were followed for the resource estimate.
2. The 2023 resource models used nominal cutoff grades that are based on mining and milling costs of USD 50 for cut and fill mining, and USD 38 per tonne for long-hole,
3. Metallurgical recoveries of 80% have been used for gold and silver at Nazareno, Coloso, Los Angeles, Guitarra, and Mina De Agua. A metallurgical recovery of 70% has been assumed for the tailings dam.
4. A net payable recovery of 70% (historical plant recovery plus an allowance for smelter deductions, refining costs, and concentrate transportation) has been assumed.
5. Silver price of USD 22.0 and a gold price of USD 1,700 and a gold:silver ratio of 77.27:1 were used.
6. A combination of capping on assays, capping on composites, and outlier restriction were used to restrict the influence of extremely high grades.
7. Variable cut-off by deposit:
 - a. Nazareno and Coloso: Block model 135 AgEq cut-off grade (COG) and a 1-metre minimum true thickness
 - b. Guitarra: Polygons estimates 135 g/t AgEq COG and a 1-metre minimum horizontal width
 - c. Los Angeles: Block model long hole mining 90 g/t AgEq COG
 - d. Mina De Agua: East District polygonal estimate 135 g/t AgEq COG or 90 g/t AgEq COG and > 2-metre horizontal width
 - e. Tailings: The tailings used a 30 g/t AgEq COG.
8. Mineral Resources that are not Mineral Reserves do not have economic viability. Numbers may not add due to rounding.
9. The estimate of Mineral Resources may be materially affected by metal prices and exchange rate assumptions; changes in local interpretations of mineralization geometry and continuity; changes to grade capping, density, and domain assignments; changes to geotechnical, mining, and metallurgical recovery assumptions; ability to maintain environmental and other regulatory permits; and ability to maintain the social license to operate.

Table 14-30: Indicated Mineral Resource Estimate

Area	Tonnage (Mt)	AgEq (g/t)	Ag (g/t)	Au (g/t)	AgEq (Moz.)	Ag (Moz.)	Au (koz.)
Nazareno	0.31	257	215	0.55	2.56	2.14	5
Coloso	0.43	346	221	1.61	4.81	3.07	22
Guitarra	1.65	220	123	1.25	11.66	6.54	66
Sub-Total	2.39	248	153	1.22	19.03	11.76	93
Los Angeles	0.69	177	109	0.87	3.92	2.42	19
Mina De Agua	0.76	174	159	0.19	4.26	3.90	5
Total Indicated	3.84	220	146	0.96	27.21	18.07	117

Table 14-31: Inferred Mineral Resource Estimate

Area	Tonnage (Mt)	AgEq (g/t)	Ag (g/t)	Au (g/t)	AgEq (Moz.)	Ag (Moz.)	Au (koz.)
Nazareno	0.75	252	229	0.29	6.10	5.55	7
Coloso	0.37	317	213	1.34	3.81	2.57	16
Guitarra	0.29	180	113	0.87	1.69	1.06	8
Sub-Total	1.42	254	201	0.68	11.60	9.18	31
Los Angeles	0.07	157	76	1.05	0.33	0.16	2
Mina De Agua	0.55	188	178	0.13	3.30	3.12	2
Subtotal UG Mine	2.03	233	191	0.55	15.23	12.46	35
Inferred Tailings	2.07	75	37	0.48	4.97	2.48	32
Total Inferred	4.11	153	113	0.52	20.20	14.93	67

14.9 Comparison to Previous Mineral Resource Estimate

TSMC completed a comparison of the last published Mineral Resource estimate (dated March 15, 2015) by First Majestic with the current Mineral Resource estimate (Table 14-32, Table 14-33, and Table 14-34).

The 2023 TSMC Mineral Resource estimate is a global estimate for the Property and includes material from Coloso, Nazareno, Guitarra, Mina de Agua, and the tailings dam. First Majestic only reported material from Coloso and Nazareno as mineral resources. Globally, there is a large increase in the reported mineral resource tonnage and a large drop in grades as a result of the reporting of additional, lower grade material.

A comparison of the current Coloso and Nazareno Mineral Resource estimates with First Majestic's shows that there are large changes as a result of a significant program of drilling by First Majestic. First Majestic drilled 60 surface drillholes for a total of 21,466 m and 204 underground drillholes for a total of 46,422 m in the period from 2015 to 2018 in these areas.

At Coloso, mine depletion during the 2015–2018 period of 484,000 tonnes was offset by the discovery of additional mineral resources as a result of additional drilling.

TSMC concludes that the difference between the current Mineral Resources and the previously published Mineral Resources is primarily a result of First Majestic not reporting mineral resources in the Guitarra mine, Mina de Agua mine, or in the tailings dam.

Table 14-32: March 2015 Mineral Resource Estimate (First Majestic)

Category	Tonnes (kt)	Grades			Contained Metal	
		Ag (g/t)	Au (g/t)	Ag Eq (g/t)	Ag (k oz.)	Au (k oz.)
Measured	121	170	2.37	305	661	9
Indicated	1,029	335	1.56	424	11,083	52
Measured and Indicated	1,150	318	1.65	412	11,758	61
Inferred	739	197	1.23	267	4,681	29

Table 14-33: Current MRE and Previous MRE Comparison, Global

Category	Tonnage	Grades			Contained Metal	
		Ag	Au	Ag Eq	Ag	Au
Measured and Indicated	234%	-54%	-42%	-47%	54%	94%
Inferred	455%	-43%	-58%	-43%	219%	133%

Table 14-34: Current MRE and Previous MRE Comparison, Coloso and Nazareno

Area	Category	Tonnage	Grades			Contained Metal	
			Ag	Au	Ag Eq	Ag	Au
Coloso	Indicated	-44%	-41%	-8%	-27%	-67%	-48%
Nazareno	Indicated	-19%	7%	-62%	-9%	-14%	-69%
Coloso	Inferred	109%	-31%	19%	-15%	45%	148%
Nazareno	Inferred	35%	42%	-77%	8%	92%	-69%

14.10 Factors That May Affect the Mineral Resource Estimate

Factors that may affect the Mineral Resource estimates include: metal price and exchange rate assumptions; changes to the assumptions used to generate the gold grade cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shapes, and geological and grade continuity assumptions; density and domain assignments; changes to geotechnical, mining, and metallurgical recovery assumptions; changes to the input and design parameter assumptions that pertain to the underground shapes constraining the estimates; and assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environment and other regulatory permits, and maintain the social license to operate.

14.11 QP Comments on “Item 14: Mineral Resource Estimates”

In the opinion of the QP, surface and underground drill data can be used for Mineral Resource estimation. Underground chip samples can also be used for Mineral Resource estimation.

14.11.1 Coloso, Nazareno, Los Angeles and Tailings Dam Models

In the models reviewed by TSMC, Mineral Resource estimation is well-constrained by three-dimensional wireframes representing geologically realistic volumes of mineralization. EDA conducted on assays and composites shows that the vein wireframes result in suitable domains for Mineral Resource estimation. Grade estimation has been performed using an interpolation plan that does not produce a significant bias in the average grade.

As a result of validation of the Mineral Resource block models, the QP concludes that:

- Visual inspection of block grade versus composited data shows a good reproduction of the data by the models.
- Checks for global bias in the grade estimates show differences generally within acceptable levels (<10%).
- Checks for local bias (swath plots) indicate good agreement for all variables, except in areas where there is significant extrapolation beyond the drillholes.

The Mineral Resources conform to the requirements of CIM Definition Standards (2014); and they are reported using economic and technical criteria such that, in the opinion of the QP, the Mineral Resources have reasonable prospects of economic extraction.

14.11.2 Guitarra and East District Polygonal Estimates

As a result of the QP’s validation of the Mineral Resource estimates, the QP concludes that:

- Length-weighted average grades have been correctly calculated.
- Horizontal thicknesses have been accurately measured manually on sections.
- The areas of the polygons have been correctly calculated.
- Checking of the summation spreadsheets shows that there are no errors.

Comparisons with the previous Mineral Resource estimate show that First Majestic did not previously report Mineral Resources at Guitarra, the East District, or the tailings dam. At Coloso, the mine has been able to replace Mineral Resources (depleted by mining) since the last Mineral Resource estimate in March 2015.

15 MINERAL RESERVES ESTIMATE

This section is not relevant to this Technical Report

16 MINING METHODS

Mining methods (Figure 16-1) employed during Luismin, Genco, Silvermex, and First Majestic operation of the Guitarra Project were generally overhand and horizontal cut and fill. Mucking of the ore was done with small low-profile loaders (LHDs) suitable for the stope widths mined. When the vein widths permitted, stopemate drills were used in long-hole stoping but, generally, the widths were less than 2 metres and mining was done with hand-held stopers and/or jacklegs. Unmineralized or low-grade rock was used for backfill.

In cases where the vein width exceeded 3 metres, sub-level long-hole stoping was utilized. A top cut and bottom cut drift was driven on the vein to define the hanging and foot wall limits of the vein at two elevations, generally 30 metres from sill to sill. A raise was drilled and blasted between the sublevels to serve as the initial open space to blast towards. Then, 15-metre long holes from the upper level and lower level were drilled, loaded with explosives, and blasted. The broken rock was removed, loaded into trucks, and hauled to the coarse ore stockpile on surface.

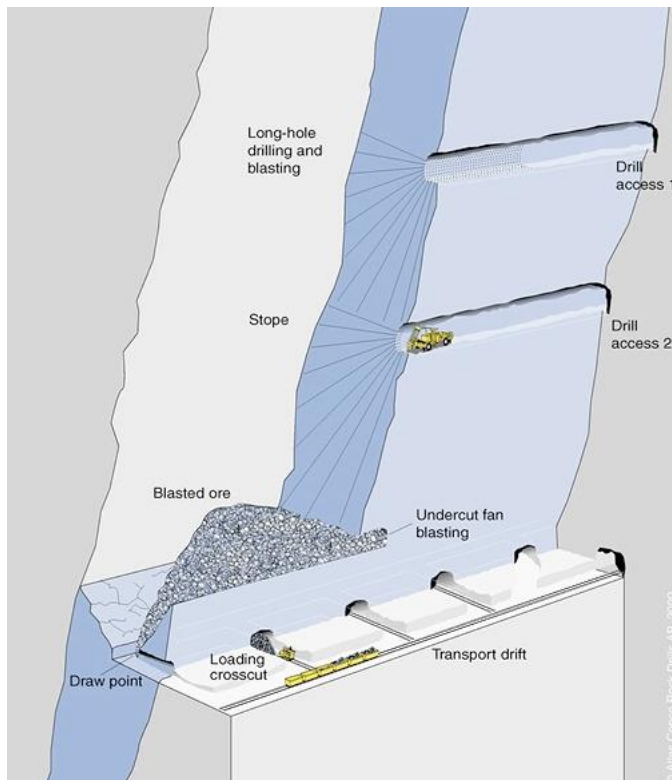


Figure 16-1: Mining Methodology Used at the Guitarra Project

In the Coloso mine, the tuff wall rock is relatively soft but, sufficiently unfractured and stable enough to permit an open stoping method. A conventional shrink stoping method was employed. An initial drift on the vein was driven with jacklegs and/or jumbos and LHDs. Parallel to the drift on vein, a production drift was driven to leave approximately a 4 m pillar between the drift on vein and the production drift. Crosscuts at 8 m centres were driven from the production drift to the drift on vein. These crosscuts later served as draw points.

Hand-held stopers were used to drillholes in the back of the initial drift on vein and blasted. The blasted rock was leveled off by LHDs to leave approximately a 2 m space from the broken rock to the new back and the stope was drilled again and the drillholes were loaded. Before blasting, rock was extracted by LHDs from each of the draw points so there was approximately 3 m between the drilled vein and the top of the broken ore. When the stope was blasted, the level of the broken rock was usually about the correct elevation to permit efficient drilling of the next cut. This process of drilling, withdrawing broken rock and blasting was repeated until the vertical boundaries of the mineralization was reached or until stoping reached an upper level. LHDs then withdrew all the broken rock in the stope.

To provide access for miners to the working face of the stope, a timber raise was advanced with timbers securely positioned from footwall to hanging wall and a wooden wall built to contain the broken rock and create a ladderway at both ends of the stoping block.

17 RECOVERY METHODS

The existing processing plant uses flotation recovery, the historical product of which was a silver-gold concentrate. The plant is not in operation, although equipment is being refurbished and repaired in anticipation of resuming operations. Figure 17-1 provides a flowsheet showing the current equipment and capacities.

17.1 Crushing

Underground ore is stockpiled under a roof in a three-stockpile arrangement. A front-end loader feeds from the stockpiles to a grizzly that has 10" x 10" (25 cm x 25 cm) openings over a coarse ore bin with an estimated capacity of 100 tonnes. The coarse ore bin has three concrete walls, with the fourth wall covered with steel plates. Ore is fed from the coarse ore bin to the crushing plant through a 40 hp, 10"x 38" primary jaw crusher in closed circuit with a double-deck vibrating screen and a 100 hp, 3 ft short-head cone crusher. The capacity of the current circuit is 640 t/d. The final product size in historical operations was 56% to 60% -200 Tyler mesh.

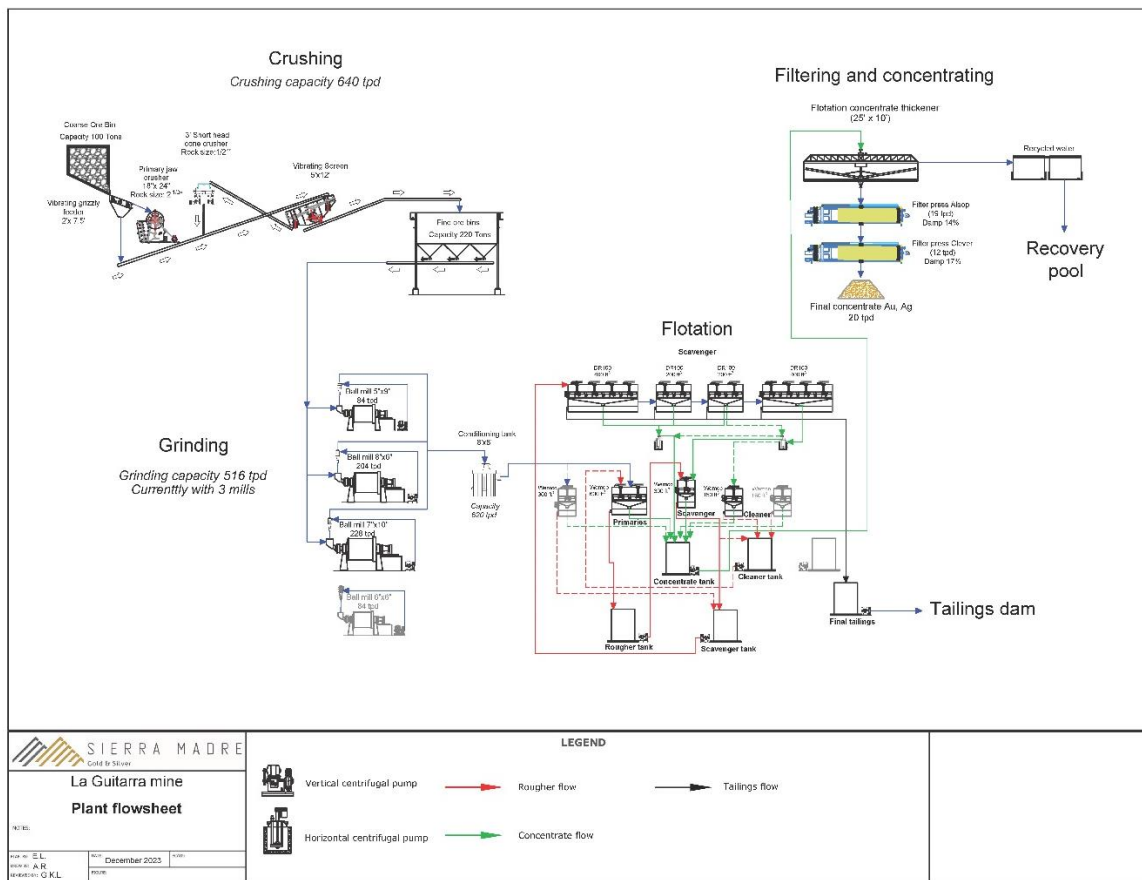


Figure 17-1: Flowsheet for the Guitarra Project

17.2 Grinding

Crushed ore from the fine ore bin is fed via conveyor belt to the ball mills, which operate in a parallel arrangement. There are three ball mills that are currently operational: one 5 ft by 9 ft mill, one 8 ft by 6 ft mill, and one 7 ft by 10 ft mill. Each ball mill discharges into its own sump, where the discharge is pumped through a cyclone, with the oversized material returned to the ball mill feed and the undersized material fed to a flotation conditioning tank. Operational capacity of the current circuit is 516 t/d.

17.3 Flotation and Concentrate Dewatering

The flotation plant consists of two parallel circuits. The newer circuit has one 600 ft³ cell, two 300 ft³ cells, and two 150 ft³ cells. The older circuit has 12 cells 100 ft³ cells arranged into two banks of 400 ft³ cells, and two banks of 200 ft³ cells as shown in Figure 17-1. The flotation plant capacity is constrained by the conditioner tank at 620 t/d. The arrangement with roughers, scavengers, and cleaners has been varied many times throughout the operation's life. Tailings from the flotation circuit report to a pump box to be pumped to the TSF. Concentrates are pumped to a 5,000 ft³ concentrate thickener. Underflow from the concentrate thickener is pumped to one of two plate-and-frame filter presses. During the First Majestic operating period, when filter presses were unable to achieve the moisture content required by a tailings off-take agreement, a portion of the concentrate was dried in a rotary kiln then blended with filtered concentrates to achieve contract standards.

17.4 Tailings Facility

There are between 2.00 to 2.66 million tonnes in the TSF. The remaining space, without compromising the stability of the tailings facility, is 180,000 tonnes. There is a fully permitted design for a tailings capacity of 5.8 million tonnes with 30 years of validation from 2019.

17.5 Replacement and Maintenance Items

Following an evaluation of the processing plant equipment and infrastructure, the Company began a refurbishing and rebuilding program in September of 2023 to bring the plant to operational condition.

18 PROJECT INFRASTRUCTURE

General infrastructure surrounding the property is described Section 5 of this Technical Report. The following provides more information on project-specific infrastructure.

Access to Guitarra is by a 3 km gravel road that starts from the paved highway connecting the town of Temascaltepec with the city of Zacazonapan. Temascaltepec, the nearest town, has a population of approximately 3,000 people. Most of the Guitarra mine employees and contractors are inhabitants of the Temascaltepec municipality, which has a population of approximately 33,000 people. Entrance to the operating areas of Guitarra is controlled by a security gate at the end of the gravel access road. Immediately upon entering the security gate are the project offices and a cafeteria with capacity to provide meals for approximately 50 people per seating. The Coloso mine is located approximately 5 km northeast of the Guitarra plant. The road to Coloso passes through the village of Albarrada and access is controlled by Guitarra security contractors.

18.1 Mine Facilities

There are two main portals to access the underground mines: The San Rafael mine portal is the main access for the Guitarra mine. There are two additional portals providing ventilation and secondary means of egress from the workings accessed through the San Rafael portal. The Coloso mine and portal is located approximately 5 km to the northeast from the Guitarra mine facilities.

At the San Rafael portal, there is a maintenance shop, analytical laboratory, warehouse, offices, drill core storage and core logging sheds, power substations, and power lines.

At the Coloso mine, there are basic facilities necessary for operation. A security gate and guard to control access, a small office and change room, a portal to access the underground mine via a 4.5 metre by 5.0 metre ramp, with a 12% grade. Power available is 1,500 kVA, delivered at 13.2 kV. A surface substation steps power down to 4,160 V for transmission to mine load centres on the surface and underground.

At Coloso, a three-compartment settling pond accepts the 2,100 m³/d to 3,000 m³/d water that is pumped from the underground mine. Discharge water from the settling pond flows down the arroyo and supplies water to a number of orchards and farms. The pH of the water is slightly acidic, so small amounts of lime are added to raise the pH to permitted levels. A similar mine water treatment facility is located at the Guitarra mine.

18.2 Processing Facilities

The process plant consists of crushing, grinding, flotation, concentrate thickening, concentrate filtration and drying equipment, and a concentrate storage and loading area. The processing building also includes offices and a reagent preparation area. Other processing facilities include the tailings impoundment facility, and an analytical and metallurgical lab. The analytical and metallurgical lab, at the time of the site visit, was partially dismantled. All sample preparation dryers, crushers, and puck mills are present and functional. Fan motors for ventilation

equipment have been removed. The fire assay kilns are in place and functional. High precision scales and AA analytical equipment were removed.

18.3 Administrative facilities

Adjacent to the processing plant is a building for general administrative offices with conference areas, computer network facilities, and telephone with access to a Telmex land line system. Cellular telephone service is weak.

18.4 Power

The primary source of power for the mine is from the Mexican national power grid, administered by Comision Federal de Electricidad (CFE), the Mexican utility entity. There is 12 MVA power available at 13.2 kV. The Guitarra processing plant has 13.2kV/480V transformers, totalling 3.5 MVA. The San Rafael portal facilities have one 1.25 MVA transformer for compressors and another 1.0 MVA transformer servicing the equipment shop and other surface facilities, including the offices. Another transformer of 500 kVA services the main vent fan, pumping from below the San Rafael level, water treatment facility, and project offices and cafeteria. The Coloso mine is supplied with 1.5 MVA of available power at 13.2 kV via a 4.6 km surface line.

18.5 Water

The mine and mill operation are permitted by CONAGUA to consume up to 191,625,000 m³ of fresh water per year. This water is generally taken from the outflow from the San Rafael portal and other underground fresh water sources.

Mine water at both the Guitarra and Coloso-Nazareno mine complex is acid-generating and needs to be treated with lime to meet permit requirements before the mine water can be recycled in the plant or discharged. Since there is no current production from the mines, treated mine water is discharged into local drainage. At the Coloso mine, an average volume of 2,100 m³/d is extracted and treated in the dry season, while in the rainy season the treated water volume may exceed 3,000 m³/d. At the Guitarra mine, around 1,200 m³/d is treated and in the rainy season the treated water volume may reach 2,000 m³/d (First Majestic Presentation, 2022).

19 MARKET STUDIES AND CONTRACTS

There is no information for this section of the Technical Report because, at the time of its publication, the Property was not producing.

During the Luismin and Genco operating periods, concentrate was taken to the San Martin mine, 250 km north of Guadalajara, México, where it was cyanide leached, producing a doré product. First Majestic would sell concentrates to third-party brokers for commercialization with smelters and refineries.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL COMMUNITY IMPACTS

La Guitarra Cia. has active programs monitoring water discharge and air emissions, reforestation, and support of community events and celebrations. Environment permits for the project and underlying studies are addressed in Section 4 of this Technical Report.

Water quality sampling and analysis are carried out every six months at 16 surface streams and springs using accredited laboratories. The laboratories do all sampling to ensure neutral party results.

In order to address community concerns about the effect of drilling and mining on local water sources, La Guitarra Cia., in collaboration with the Inter-American Institute of Water Quality, the Autonomous University of the State of México, the State of México Water Commission, Fomento Minero, and the Municipality of Temascaltepec, completed a hydrological study addressing local community groups concerns. The results concluded that the quality and quantity of water in streams and springs that are communities' domestic water sources are not affected by the Company's activities. The Company is currently conducting similar hydrologic studies in the East District of the Property.

In collaboration with PROBOSQUE, the federal government agency in charge of forestry, the Company received 2,500 pine saplings to plant in areas affected by forest fires and illegal logging. In addition, the Company assisted La Albarrada Community in planting around 20,000 saplings and pine seeds and 5,000 Encino (oak) seedlings. The Company provided funds for the purchase of materials to carry out planting and netting to protect the seedlings. In addition, the Company was asked to provide input in determining the areas most in need of reforestation work.

In conjunction with state colleges, the Company provides work programs for students seeking to meet the professional experience requirements necessary to graduate and obtain a degree. As part of this program, the Company pays the students a salary equivalent to a professional entry-level position.

The Company supports local community events through monetary, personnel time, and food contributions.

21 CAPITAL AND OPERATING COSTS

This section is not relevant to this Technical Report.

22 ECONOMIC ANALYSIS

This section is not relevant to this Technical Report.

23 ADJACENT PROPERTIES

The Tizapa mine lies 17 km west of the Guitarra mine site, as shown in Figure 23-1. It is a joint venture between Peñoles (51%), Dowa Mining (39%), and Sumitomo Corporation (10%). In 2022, the joint venture produced 37,592 oz. of Au, 5,728,000 oz. of Ag, 37,770 tonnes of Zn, 8,514 tonnes of Pb, and 1,372 tonnes of copper from 921,000 tonnes of ore. It is México's fourth largest Zn producer, and all Zn concentrates are shipped to Dowa's smelter in Japan. Tizapa is a Kuroko-type volcanogenic massive sulphide with average grades of 325 g/t Ag, 1.9 g/t Au, 7.9% Zn, 1.8% Pb, and 0.7% Cu (Lewis, et al, 2000).

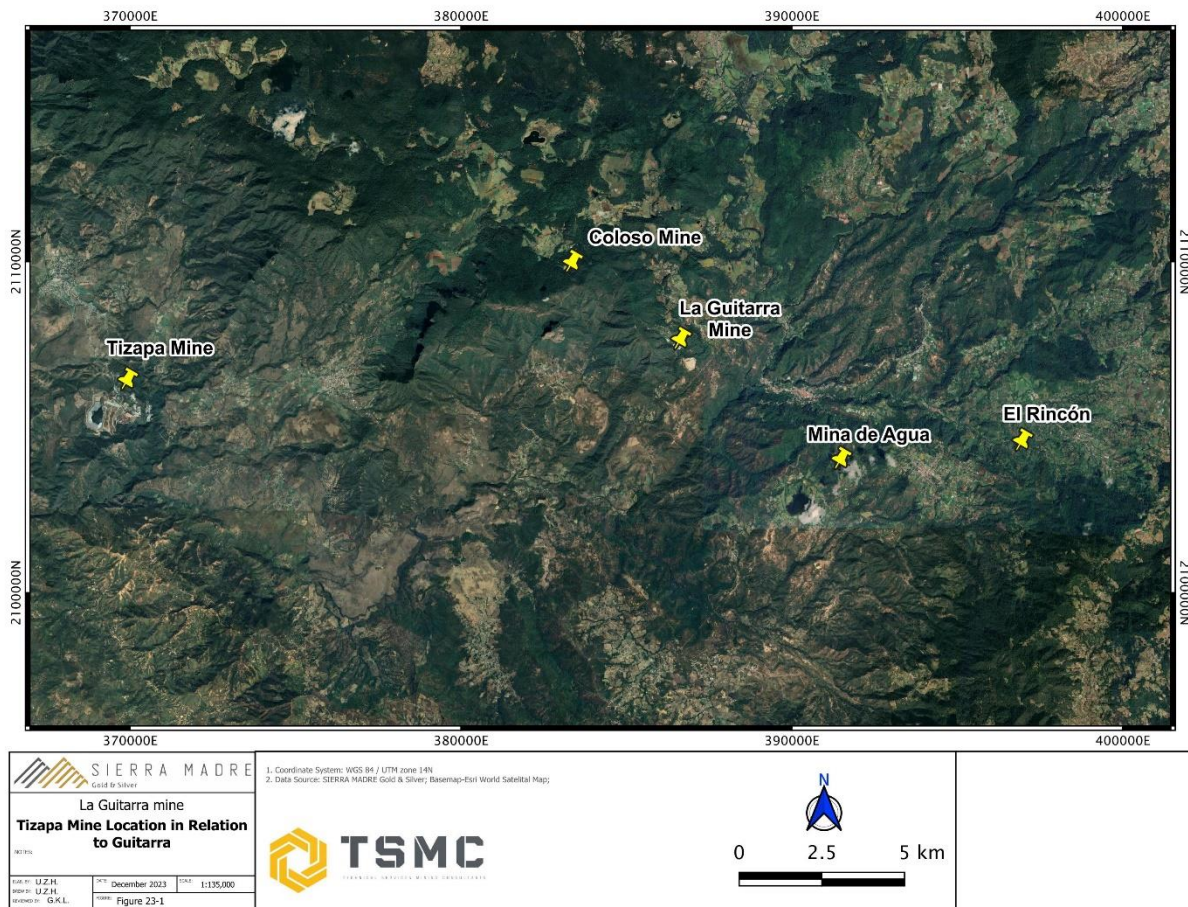


Figure 23-1: Tizapa Mine Location in Relation to Guitarra

24 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this Technical Report.

25 INTERPRETATION AND CONCLUSIONS

25.1 Introduction

The QP notes the following interpretations and conclusions, based on the review of data available for this Technical Report.

25.2 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

Information from Sierra Madre support that the tenure held is valid.

The Property is divided into the East District and the West District. The West District includes three recently operating mines, Guitarra, Coloso, and Nazareno, and a nominal 500 t/d flotation processing plant and TSF. The East District is host to numerous historical mines, including Mina de Agua, El Rincón, Los Locos, Veta Rica, and Animas.

To the extent known, there are no environmental or social issues that could materially impact Sierra Madre's ability to conduct exploration and mining activities in the district.

The Company's community relations department proactively communicates with local communities and their leaders, labour unions, elected officials, and government regulators in a businesslike and amicable fashion.

A third party has a sliding scale NSR royalty of 1% to 3% based on the price of gold in US dollars:

- Less than USD 400: 0% gold
- USD 400 to USD 450: 1% gold
- USD 450 to USD 500: 2% gold
- USD 500 or higher: 3% gold

The royalty is effective upon the production of 175,000 equivalent gold ounces after August 1, 2004. The amount of any other third-party royalty payable on minerals mined, produced, or otherwise recovered from the properties shall be deducted from the royalty payable regardless of whether that royalty is still in effect. This results in the Coloso and Nazareno production being excluded. If the royalty is sold or transferred, La Guitarra Cia. has the right of first refusal to buy the royalty on equal terms.

Metalla Royalty & Streaming Ltd. owns an additional 2% NSR royalty, of which the Company can repurchase 1% for USD 2 million.

25.3 Geology and Mineralization

The QP has reviewed the information available to Sierra Madre, and considers that the information on the lithologies, structural setting, alteration, and mineralization in the Guitarra Project area are sufficient to support Mineral Resource estimation.

25.4 Exploration, Drilling, and Analytical Data Collection in Support of Mineral Resource Estimation

Work completed by the previous owners of the Property included geological mapping, geochemical sampling (rock-chip, soil), ground geophysical surveys, underground exploration, core drilling, construction of block models, mineral resource estimates, and metallurgical test work.

Exploration programs conducted to date have identified a number of areas with silver-gold mineralization within the Guitarra Project area.

Sierra Madre is actively reviewing available data to generate areas for follow-up exploration and drill targeting.

The QP is of the opinion that the data verification programs indicate that the analytical and geological data stored in the Guitarra Project's database are adequate to support the geological interpretations and Mineral Resource estimates.

In the opinion of the QP, the exploration programs completed to date are appropriate to the style of the deposits and prospects.

25.5 Mineral Resource Estimates

25.5.1 Coloso, Nazareno, Los Angeles and Tailings Dam Models

In the models reviewed by TSMC, Mineral Resource estimation is well-constrained by 3--dimensional wireframes representing geologically realistic volumes of mineralization. EDA conducted on assays and composites shows that the vein wireframes result in suitable domains for Mineral Resource estimation. Grade estimation has been performed using an interpolation plan that does not produce a significant bias in the average grade.

As a result of validation of the Mineral Resource block models, the QP concludes that:

- Visual inspection of block grade versus composited data shows a good reproduction of the data by the models.
- Checks for global bias in the grade estimates show differences generally within acceptable levels (<10%).
- Checks for local bias (swath plots) indicate good agreement for all variables, except in areas where there is significant extrapolation beyond the drillholes.

The Mineral Resources conform to the requirements of CIM Definition Standards (2014); and they are reported using economic and technical criteria such that, in the opinion of the QP, the Mineral Resources have reasonable prospects of economic extraction.

25.5.2 Guitarra and East District Polygonal Estimates

As a result of the QP's validation of the Mineral Resource estimates, the QP concludes that:

- Length-weighted average grades have been correctly calculated.
- Horizontal thicknesses have been accurately measured manually on sections.

NI 43-101 Technical Report: Guitarra Silver-Gold Project, Temascaltepec, México

- The areas of the polygons have been correctly calculated.
- Checking of the summation spreadsheets shows that there are no errors.

Comparisons with the previous Mineral Resource estimate show that First Majestic did not previously report Mineral Resources at Guitarra, the East District, or the tailings dam. At Coloso, the mine has been able to replace Mineral Resources (depleted by mining) since the last Mineral Resource estimate in March 2015.

26 RECOMMENDATIONS

The results of this Technical Report support the advancement of the Guitarra Project with additional studies directed toward evaluating the economics of a production decision. It is recommended that a mine plan be developed on the Indicated resources, in conjunction with an economic study evaluating the parameters related to the restart of production. The mine plan and economic restart study will need to be based on First Principles. The following areas need to be addressed in detail:

- Metres of ore and waste development need to be established for each stope in the potential mine plan, along with haulage distances to the plant, backfill sites, or waste dump.
- The mining equipment needed to achieve a potential mine plan and vendor bids obtained for items not in the current inventory.
- Should contract mining or haulage be deemed necessary, detailed bids from quality contractors.
- The likely quantity of mine and plant consumables and energy requirements need to be determined using the detailed accounting and procurement records available from the First Majestic operating period, then updated with current costs from vendors.
- Past production and personnel records evaluated to establish manpower levels and current labour costs.

In addition to the above, it is recommended that the company continue detailed underground survey work, including 3-D laser surveying, to provide greater certainty to the stope designs and the 3-D model of the existing workings. In areas where possible, a 3-D model of the stope should be created to help in mine planning studies. The estimated cost of the mine plan and economic study evaluating the restart of production is USD 170,000. Additionally, it is recommended to continue the exploration of the Guitarra Project, designed to prioritize targets for resource expansion and to evaluate the potential of previously untested mineralization. The cost of this work is estimated at USD 150,000.

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