First Majestic Silver Corp.

La Encantada Silver Mine
Coahuila, Mexico

NI 43-101 Technical Report on
Mineral Resource and Mineral Reserve Estimates

Qualified Persons: Ramón Mendoza Reyes, P.Eng.
David Rowe, CPG.
María Elena Vázquez, P.Geo.
Brian Boutilier, P.Eng.
Persio P. Rosario, P.Eng.

Report Prepared For: **First Majestic Silver Corp.**

Effective Date: **December 31, 2020**

CERTIFICATE OF QUALIFIED PERSON

Ramón Mendoza Reyes, P.Eng.
Vice President of Technical Services
First Majestic Silver Corp.
925 West Georgia Street, Suite 1800
Vancouver, BC, Canada, V6C 3L2

I, Ramón Mendoza Reyes, P.Eng., am employed as Vice President of Technical Services with First Majestic Silver Corp. (First Majestic).

This certificate applies to the technical report entitled "La Encantada Silver Mine, Coahuila, Mexico, NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Estimates" that has an effective date of December 31, 2020.

I graduated from the National Autonomous University of Mexico with a Bachelor of Science Degree in Mining Engineering in 1989, and also obtained a Master of Science Degree in Mining and Earth Systems Engineering from the Colorado School of Mines in Golden, Colorado, in 2003.

I am a member of the Engineers and Geoscientists British Columbia (P.Eng. #158547).

I have practiced my profession continuously since 1990, and have been involved in precious and base metal mine projects and operations in Mexico, Canada, the United States of America, Chile, Peru, and Argentina.

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).

I have visited the La Encantada Silver Mine on several occasions from 2014 to 2019. My most recent site visit and inspection was on April 11-12, 2019.

I am responsible for Sections 1.1 to 1.3, 1.9.2, 1.12 to 1.15, 2 to 5, 15, 18 to 24, 25.1, 25.7, 25.9, 25.11 to 25.16, and 27 of the Technical Report.

I am not independent of First Majestic as that term is described in Section 1.5 of NI 43–101.

Since joining First Majestic in April 2014, I have been involved with the La Encantada Silver Mine overseeing technical and operational aspects including mine planning, mining method selection, implementation of the caving mining method, implementation of the roasting system and all activities related to mineral reserves estimation.

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 the Technical Report not misleading.

"Signed and sealed"

Ramón Mendoza Reyes, P.Eng.

Dated: March 22, 2021

CERTIFICATE OF QUALIFIED PERSON

Mr. David Rowe, CPG, AIPG
Principal Resource Geologist
First Majestic Silver Corp.
925 West Georgia Street, Suite 1800
Vancouver, BC, Canada, V6C 3L2

I, David Rowe, CPG, am under contract for services with First Majestic Silver Corp (FMS) and supervise the FMS Mineral Resources Group for their mine properties in Mexico.

This certificate applies to the technical report "La Encantada Silver Mine, State of Coahuila, Mexico, NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Estimates" that has an effective date of December 31, 2020.

I hold a BA degree in Geology (1984) from the University of Montana and a Master of Science degree in Structural Geology (1987) from the University of Wyoming.

I am a Certified Professional Geologist with the American Institute of Professional Geologists, CPG-10953.

I have practiced my profession continuously for more than 33 years, and I have a considerable amount of experience in precious and base metal deposits in Mexico, the United States, Central America, the Caribbean, and Africa. My relevant experience in polymetallic and precious metal gold and silver projects includes various senior roles within the areas of mineral exploration, project management, geologic interpretation, three-dimensional geologic modeling, and resource estimation. I have previously acted as QP for a number of precious metal and polymetallic projects including the: Ixhuatan Gold Project (Mexico), Golouma Project (Africa), Niblack Sulphide Project (USA), Golden Meadows (USA), Goldstrike Project (USA), and La Encantada Silver Mine (Mexico).

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).

I have visited La Encantada Silver Mine on numerous occasions during 2018 and 2019, and my most recent site inspection was December 11-18, 2019.

I am responsible for the preparation of Sections 1.4, 1.5, 1.6, 1.9.1, 6, 7, 8, 9, 10, 14, 25.2, 25.3, 25.6 and 26.1.1 of the Technical Report.

I am not independent of FMS as that term is described in Section 1.5 of NI 43–101.

I have been involved with La Encantada Silver Mine overseeing the development of geologic models and mineral resource estimations since 2018.

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 the Technical Report not misleading.

"Signed and sealed"

David Rowe, CPG, AIPG

Dated: March 22, 2021

CERTIFICATE OF QUALIFIED PERSON

María Elena Vázquez Jaimes, P. Geo.
Geological Database Manager,
First Majestic Silver Corp.
925 West Georgia Street, Suite 1800
Vancouver, BC, Canada, V6C 3L2

I, María Elena Vázquez Jaimes, P.Geo., am employed as Geological Database Manager with First Majestic Silver Corp. (First Majestic).

This certificate applies to the technical report "La Encantada Silver Mine, State of Coahuila, Mexico, NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Estimates" that has an effective date of December 31, 2020.

I graduated from the National Autonomous University of Mexico with a Bachelor in Geological Engineering degree in 1995 and obtained a Master of Science degree in Geology from the "Ensenada Center for Scientific Research and Higher Education", Ensenada, BC, Mexico, in 2000.

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (P.Geo. #35815).

I have practiced my profession continuously since 1995. I have held positions working with geological databases, conducting quality assurance and quality control, performing data verification activities, supervising logging and sampling procedures for mining companies in Canada, Mexico, Peru, Ecuador, Brazil, Colombia, and Argentina. I have served as the Geologic Database Manager for First Majestic since 2013, and I direct the QA/QC programs, sampling and assay procedures, and database verification for the Mexico mines.

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).

I visited La Encantada Silver Mine on several occasions since 2013. My most recent site visit was from August 20 to August 22, 2018.

I am responsible for Sections 1.7, 11, 12 and 25.4 of the Technical Report.

I am not independent of First Majestic as that term is described in Section 1.5 of NI 43–101.

I have been directly involved with La Encantada Silver Mine in my role as the Geological Database Manager since 2013.

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 in order to make the Technical Report not misleading.

"Signed and sealed"

Maria Elena Vazquez Jaimes, P.Geo.

Dated: March 22, 2021

CERTIFICATE OF QUALIFIED PERSON

Brian Boutilier, P.Eng.
Technical Services Manager
First Majestic Silver Corp.
925 West Georgia Street, Suite 1800
Vancouver, BC, Canada, V6C 3L2

I, Brian Boutilier, P.Eng., am employed as Technical Services Manager with First Majestic Silver Corp. (First Majestic).

This certificate applies to the Technical Report entitled "La Encantada Silver Mine, Coahuila, Mexico, NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Estimates" that has an effective date of December 31, 2020.

I graduated from Dalhousie University in Halifax, Nova Scotia, Canada with a Bachelor of Mineral Resource Engineering in December 2008.

I am a member of Engineers Nova Scotia (P.Eng. #20200157).

I have practiced my profession continuously since 2009 and have been involved in base and precious metal mine projects and operations in Canada, Mexico, and the United Kingdom.

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).

I worked in La Encantada Silver Mine in my role as Technical Services Manager from 2017 to 2020 in monthly rotations. My most recent rotation and personal inspection was on January 3-23, 2020.

I am responsible for Sections 1.10, 16 and 25.8 of the Technical Report.

I am not independent of First Majestic as that term is described in Section 1.5 of NI 43–101.

Since joining First Majestic in May 2017, I have been involved with the La Encantada Silver Mine overseeing technical and operational aspects including mine planning, rock mechanics, production geology, mining method selection, budgeting, maintenance, equipment selection, staffing model and implementation of the caving mining method.

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 the Technical Report not misleading.

"Signed and sealed"

Brian Boutilier, P.Eng.

Dated: March 22, 2021

CERTIFICATE OF QUALIFIED PERSON

Persio Pellegrini Rosario, P.Eng.
Vice President of Processing, Metallurgy & Innovation
First Majestic Silver Corp.
925 West Georgia Street, Suite 1800
Vancouver, BC, Canada, V6C 3L2

I, Persio Pellegrini Rosario, P.Eng., am employed as Vice President of Processing, Metallurgy & Innovation with First Majestic Silver Corp. (First Majestic).

This certificate applies to the technical report entitled "La Encantada Silver Mine, Coahuila, Mexico, NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Estimates" that has an effective date of December 31, 2020 (the Technical Report).

I am a graduate of the University of British Columbia, where, in 2003 and 2010, respectively, I obtained a Master in Applied Sciences (MASc) and the Doctor in Philosophy (PhD) degrees in Mineral Processing through the Mining and Mineral Processing Department.

I am a member of the Engineers and Geoscientists British Columbia (P.Eng. # 32355).

I have practiced my profession continuously since 2003 and acquired extensive experience in the design and optimization of mineral processing flowsheets through the elaboration and management of metallurgical test programs and the interpretation of their results. I have been involved in precious and base metal mine projects and operations in Mexico, Canada, the United States of America, Brazil, Chile, Peru, Argentina, and Russia.

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).

I carried out a site inspection of the La Encantada Silver Mine in 2019. My site visit and inspection was on February 12-13, 2019.

I am responsible for sections 1.8, 1.11, 1.16.2 to 1.16.5, 13, 17, 25.5, 25.10, 26.1.2, 26.1.3 and 26.2 of the Technical Report.

I am not independent of First Majestic as that term is described in Section 1.5 of NI 43–101.

I have been involved with the La Encantada Silver Mine overseeing technical and operational aspects including processing and metallurgy, since joining First Majestic on January 5, 2021. Prior to that, I was involved as a technical consultant for First Majestic in modernization and expansion projects from January 2019 to December 2020.

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 the Technical Report not misleading.

"Signed and sealed"

Persio Pellegrini Rosario, P.Eng.

Dated: March 22, 2021

Table of Contents

List of Tables

List of Figures

1 SUMMARY

1.1 Introduction

Mr. Ramón Mendoza Reyes, Mr. David Rowe, Ms. María Elena Vázquez, Mr. Brian Boutilier and Mr. Persio P. Rosario prepared this technical report (the Report) on the La Encantada Silver Mine (La Encantada or La Encantada mine), located in the state of Coahuila, Mexico. The mine is owned and operated by Minera La Encantada S.A de C.V. (MLE), which is an indirectly wholly-owned subsidiary of First Majestic Silver Corp. (First Majestic). First Majestic acquired the La Encantada mine from Desmin S.A. de C.V. (Desmin) on November 1, 2006.

This report provides information on Mineral Resource and Mineral Reserve estimates, and mine and process operations and planning for the La Encantada mine. The Mineral Resource and Mineral Reserve estimates are reported in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014; the 2014 CIM Definition Standards).

The Mineral Resource and Mineral Reserve Estimates for all areas were prepared by First Majestic. The effective date of the Mineral Resource and Mineral Reserve estimates included in this Technical Report is December 31, 2020 which represents the cut-off date for the scientific and technical information used in the Report. The effective date of this Technical Report is December 31, 2020.

Units of measure are metric unless otherwise noted. All costs and metal prices are expressed in United States dollars unless otherwise noted.

1.2 Project Description, Location and Access

1.2.1 Property Description, Location and Access

La Encantada is an actively producing silver mining complex located in the municipality of Ocampo, State of Coahuila, Mexico, approximately 120 km northwest of the city of Melchor Múzquiz, Coahuila and approximately 120 km north of the town of Ocampo, Coahuila.

1.2.2 Mineral Tenure, Royalties, and Surface Rights, and Permitting

La Encantada consists of 22 exploitation concessions covering 4,076 ha, which are operated and owned by MLE. All 22 concessions are currently in good standing. The oldest of the concessions was granted in 1965 and the most recent in 2008.

Surface rights in the area of the mining concessions are held both privately and through group ownership either as communal lands or Ejido lands. MLE owns surface rights covering 2,237 ha on the “Canon del Regalado” properties. This surface covers the following features: access to the mining complex, mine portals, grinding mill and flotation plant (Plant No. 1), cyanidation plant (Plant No. 2), tailings management facilities, the mine camp, offices, and an airstrip.

In 2011, the Tenochtitlán Ejido filed a lawsuit against MLE in a Mexican agrarian court claiming title to 1,097 ha of the land owned by MLE. The initial lawsuit was decided in favour of MLE and was followed by a series of motions and appeals regarding judicial reviews of the subsequent rulings. Resumption of the initial lawsuit regarding the land title is currently pending a judicial review ruling.

MLE also holds 19,114 ha of surface rights, “Cielo Norteño” or “Rancho El Granizo” property to the northeast of the mine, covering an area with water rights.

MLE has all necessary permits for current mining and processing operations, including an operating license for mining and mineral processing activities, a mine water use permit, an Environmental Impact Authorization (EIA) for the La Encantada mine, processing plants and tailings management facilities, and a permit for power generation.

1.2.3 Accessibility, Local Resources, Infrastructure and Physiography

Access to La Encantada is primarily by charter airplane from Durango city (about two hours flying time), or from the city of Torreón, Coahuila (about 1:15 hours flying time). MLE operates its own private airstrip at the La Encantada mine. Driving time from the city of Melchor Múzquiz is approximately 2.5 hours by asphalt road, about five hours from the town of Ocampo and about eight hours from the international airport in Torreón city. The mine can be accessed and operated all-year round.

The remote location required the construction of substantial infrastructure, which was developed during a long period of active operation by First Majestic and the mine’s previous owners. La Encantada consists of 160 houses for accommodation of employees, offices, warehouses, a union hall, a church, a hospital, water purification plant, water treatment plant, water wells and an airstrip.

Power supply to the mine, processing facilities and camp site is from diesel and natural gas generators provided by First Majestic. Potable water supply is also provided by First Majestic. Most of the supplies and labour required for the operation are sourced from the city of Múzquiz, Coahuila, or directly from suppliers.

The property is located in the La Encantada mountain range which runs for about 45 km in the northwest–southeast direction and has elevations that vary from about 1,500 m to over 2,400 m.

1.3 History

In 1967, Industrias Peñoles, S.A.B. de C.V. (Peñoles) and Tormex established a joint venture partnership (Minera La Encantada) to acquire and develop La Encantada. In July 2004, Peñoles awarded a contract to operate the Encantada mine, including the processing plant and all mine infrastructure facilities, to the private Mexican company Desmin, S.A. de C.V (Desmin). Desmin operated the mine and processing plant until November 1, 2006 when First Majestic purchased all the outstanding shares of Desmin. Subsequently, First Majestic reached an agreement to acquire all the outstanding shares of MLE from Peñoles.

First Majestic is now the sole owner of La Encantada and all its assets, including mineral rights, surface rights position, water rights, processing plants and ancillary facilities.

1.4 Geological Setting, Mineralization and Deposit Types

La Encantada consists of polymetallic (silver, iron, lead, and zinc) oxide carbonate replacement and tabular vein deposits hosted by Cretaceous carbonate sedimentary formations. At deeper structural levels, silver–gold–lead–zinc and sulphide mineralization is hosted in skarn alteration associated with a granodiorite intrusion.

1.4.1 Regional Geology and Stratigraphy

La Encantada is located in the Sierra La Encantada, a northwest-trending mountain range, located in the northern part of Coahuila within the Sierra Madre Occidental (SMO) fold and thrust belt. The Coahuiltecano terrane is the Paleozoic basement of the northeastern portion of Mexico beneath most of Coahuila. During the Jurassic–Cretaceous, the Sabinas Basin developed, and a thick sequence of sediments was deposited unconformably on the Coahuiltecano terrane. The Sabinas Basin carbonate rocks that host polymetallic mineralization at La Encantada and other mines and prospects in the region include the Lower to Upper Cretaceous Cupido, La Peña and Aurora Formations.

Northeast–southwest-oriented compression during the Cretaceous to early Tertiary Laramide Orogeny deformed the Mesozoic sedimentary rocks overlying the Coahuiltecano terrane into a series of north–northwest-trending folds and faults, which gave rise to the SMO, i.e., the Mexican fold thrust belt. Extension in the mid to late Tertiary was accompanied by widespread magmatism, with the related fault zones acting as conduits for the emplacement of shallow level intrusions within the carbonate sedimentary sequence. Some intrusions produced skarn-related mineralization when in contact with Cretaceous limestones.

1.4.2 Local Geology

The stratigraphic section at La Encantada consists of marine sedimentary rocks deposited in a platform environment in the Sabinas Basin. The Albian-age Aurora Formation is the primary host rock for mineralization at La Encantada.

A granodiorite stock, and rhyolite to basalt dikes of Eocene–Oligocene age intrude the Cretaceous carbonate rocks. Intrusion-related alteration of the wall rocks produced irregular skarn, hornfels and marble aureoles. Because of its spatial relationship to the skarn alteration and mineralization, it is believed that the intrusion is genetically linked to the polymetallic mineralization.

1.4.3 Structural Geology

La Encantada lies on the southwestern flank of the northwest-trending Sierra de La Encantada anticlinorium and the deposits occur along a series of northeast-trending faults and fractures that cut obliquely across the regional north–northwest-trending anticlinorium. The northeast-trending normal faults and fractures control the formation of breccia pipes and vein shoots at intersections with the northwest-trending cross structures.

1.4.4 Mineralization

Mineralization consists of polymetallic, high-temperature, intrusion-related carbonate-replacement and minor skarn-hosted deposits. Mineralization occurs as tabular veins, mantos, massive lenses, breccia pipes, and irregular replacement zones.

The deposits were grouped into four geological zones: the Prieta complex, the San Javier–Milagros complex, the Vein systems, and Tailings Deposit No. 4.

Discordant, near-vertical deposits with irregular elongate shapes proximal to main intrusions are referred to as chimneys and breccia pipes. These include the San Javier, Milagros and Prieta breccia deposits.

Tabular sub-vertical replacement deposits are referred to as veins and can contain richer mineral shoots or small chimneys at the intersection of northwest-trending faults and fractures. Steeply dipping, tabular deposits of the Vein systems have a northeast orientation, and are commonly distal to main intrusions.

Massive lens replacement zones of the Prieta complex are proximal to a granodiorite source intrusion and formed adjacent to skarn alteration. Contact metamorphic features (recrystallization to marble, development of hornfels and skarnoid) normally occur peripheral to the skarn zone.

Mineralization consists of secondary oxide minerals including silver, iron, zinc, lead, copper oxides and native silver. Native silver and oxide minerals also occur with sulphides in skarn and carbonate replacement zones where sulphides are partially converted to oxide minerals. The sulphide minerals acanthite, pyrite, magnetite, marmatite (iron-rich sphalerite), galena, chalcopyrite, and covellite occur in the Prieta and the San Javier–Milagros complexes.

The Tailings Deposit No. 4 consists of cyanidation circuit paste tailings from previously processed ore that has been stacked on the surface close to cyanidation Plant No. 2.

1.4.5 Deposit Types

The silver mineral deposits at La Encantada are high-temperature polymetallic replacement deposits hosted in sedimentary carbonate rocks related to felsic intrusions and controlled by local and regional structures. Carbonate replacement deposits are characterized by irregular shaped pods, lenses and massive lens, and roughly tabular masses of oxides. Some replacement deposits are associated with skarn alteration and mineralization also hosted by the sedimentary carbonate rocks.

1.5 Exploration

Surface exploration work completed by First Majestic includes geological mapping, geochemical sampling, a natural source audio-frequency magnetotellurics (NSAMT) geophysical survey, acquisition and processing of regional aeromagnetic data, an isotopic study, and core drilling. Surface geological mapping and sample geochemistry was completed in the El Camello, Anomaly B, La Escalera and El Plomo areas. Surface drilling was carried out at Ojuelas in Prieta Complex, El Camello, El Plomo, Conejo Extension, Brecha Encanto, Veta Sucia and other areas that had magnetic analytic signal anomalies.

Underground exploration primarily consists of a combination of drilling and mine development along structures due to the complexity of the mineralized bodies.

1.6 Drilling

From 2011–2020, First Majestic conducted diamond core drilling programs for exploration purposes and to support geological interpretations, modelling, and Mineral Resource estimation. No reverse circulation (RC) drilling has been carried out by First Majestic. Channel sampling from underground mine developments was conducted to provide information for geological models, support mine production, and Mineral Resource estimation.

Core drilling typically recovered HQ size (63.5 mm core diameter) core from surface and underground, and NQ size (47.6 mm) core was used where ground conditions required a reduction in core size. Between March 2011 and December 2020, several drilling campaigns were completed at La Encantada. Total drilling during this period amounts to 111,365 m in 572 core holes and 193 m in 10 hollow stem auger drill holes. At total of 94,029 m were drilled underground from 497 core holes, and 17,337 m were drilled from surface in 77 core holes.

Data collected from drilling includes collar surveys, downhole surveys, logging (lithology, alteration, mineralization, structure, veins, sampling, etc.), specific gravity (SG), and geotechnical information.

Channel samples are collected by chipping a channel by hammer along a line or by cutting a channel line with a saw and chipping out the sample with a hammer and chisel. Sketches are collected of the sampled face, showing the location and length of each sample. First Majestic collected 11,418 production channel samples from 2007 to 2020 from the San Javier–Milagros complex and along narrow deposits in the Vein systems.

1.7 Sampling, Analysis and Data Verification

1.7.1 Sampling Methods

Drill core sample intervals range from 0.2–1.3 m in mineralized areas. All core intervals selected for sampling are cut in half using a diamond blade saw. One half of the core is retained in the core box and the other half is placed in sample bags for shipment to the laboratory. Sample tickets displaying the sample number are stapled into the core box beside the sampled interval, and a copy is placed in the sample bag. Sample bags are sealed to prevent contamination during handling and transportation.

Channel sample intervals range from 0.30–1.5 m and respect vein/wall contacts. From 2014 to 2015, 12 m spaced sawn channel samples were also collected to support Mineral Resource estimation.

1.7.2 Laboratories

Since 1995, four different laboratories have been used for sample preparation and analysis. These include:

- First Majestic Central Laboratory (Central Laboratory), not independent of First Majestic, certified under ISO 9001:2008 in June 2015 and ISO 9001:2015 in June 2018. Used for drill core and sawn-channel samples. Sample preparation and Analysis at San Jose La Parrilla, Durango, Mexico ;
- La Encantada Laboratory, not certified and not independent of First Majestic. Used for grade control and production channel samples. Sample preparation and analysis at La Encantada mine, Mexico;
- SGS Durango, certified under ISO/IEC 17025 and independent of First Majestic. Used for drill core and channel samples prior to 2018, and currently used as a secondary laboratory for check samples. Sample preparation and analysis at Durango, Mexico;
- Bureau Veritas Laboratories (Bureau Veritas), certified under ISO/IEC 17025, and independent of First Majestic. Used from 2014–2015 as a secondary laboratory for check samples. Sample preparation at Durango Mexico and analysis at Vancouver, Canada.

1.7.3 Sample Preparation and Analysis

At the Central Laboratory from 2015 to 2018, drill core samples were dried at 100 °C ± 5°C, crushed to 80% passing 2 mm, split to a 250 g sub-sample, and pulverized to 80% passing 75 µm. Since 2019, the crushing and pulverizing thresholds have been changed to 85% passing 2 mm and 85% passing 75 µm in an effort to improve precision. All samples are analyzed for 34 elements by a two-acid digestion inductively-coupled plasma (ICP) method. All drill core and channel samples are also analyzed for silver by 2 g, three-acid digestion, atomic absorption (AA) method. Samples returning greater than 300 g/t Ag are reanalyzed for silver by a 30 g, fire assay gravimetric method.

At the La Encantada Laboratory, from 2008 to 2014, samples were dried, weighed, crushed to 3/8", split to 300 g and pulverized. Silver was analyzed using 10 g fire assay gravimetric finish. Since 2015, samples are dried at 105°C, crushed to 80% passing 2 mm, split to 200 g and pulverized to 80% passing 75 µm. Samples are analyzed for silver by a 20 g fire assay gravimetric finish method. Copper, iron, lead, manganese, and zinc are analyzed by 0.1 g two-acid digestion AA finish.

1.7.4 Quality Assurance and Quality Control

Since 2013 quality assurance and quality control (QA/QC) samples submitted to the primary laboratories include standard reference materials (SRMs), certified reference materials (CRMs), coarse and pulp blanks, and field, coarse and pulp duplicates. Check samples sent to a secondary laboratory was introduced in 2014 and became a common practice by 2018.

Accuracy is assessed in terms of bias of the mean values returned for the SRMs or CRMs relative to the expected value. Bias between ± 5% is considered acceptable. Standards results within mineralized zones with greater than the mean ± three times the standard deviation are reassayed. The CRMs and SRMs silver results indicate no accuracy issues at the SGS Durango, Central and La Encantada laboratories.

Contamination is assessed in terms of the values of blank control samples. Coarse blanks returning results less than twice the detection limit value 80% of the time, and pulp blanks returning results less than twice the detection limit value 90% of the time are considered acceptable. Batches with excessive blank failure rates are reassayed. Blank silver results indicate no contamination issues at the SGS Durango, Central and La Encantada laboratories.

Precision is assessed in terms of frequency of absolute relative difference (ARD) of paired duplicate values. A 90% frequency of ARD less than 30%, 20% and 10% for field, coarse and pulp duplicates, respectively, is the target precision. Duplicate precision is continually monitored and if precision targets are not met, the laboratories are consulted. No precision issues were observed in pulp and coarse duplicate silver results. The low precision observed in field duplicates is most likely attributable to natural heterogeneity of the distribution of mineralization of the deposit.

First Majestic assesses between-laboratory bias in terms of the slope of a reduced major axis (RMA) line. Paired primary and secondary laboratory results are plotted on an x-y scatterplot and an RMA line is estimated after excluding outliers such as paired results with below detection values and paired results with significant ARD. An RMA line slope between 0.95 and 1.05 is considered an acceptable between laboratory bias. The RMA analysis of samples submitted to all secondary laboratories indicate no significant bias between the primary laboratory and the second laboratory.

1.7.5 Data Verification

Data verification included data entry error checks, visual inspections of data collected between 2013 and 2020 from the Buenos Aires, Regalo Breccia, Conejo, La Fe, La Prieta, Milagros, Ojuelas, Tailings

Deposit No.4, and Vein systems areas (the verification dataset), and a review of QA/QC assay results. Several site visits were completed as part of the data verification process.

No significant data entry errors were observed in a 5% random selection of drill collar locations of the verification dataset, or in a 5% random selection of the lithology records of the verification dataset or observed in a 5% random selection of the silver and lead assay results of the verification dataset. SG measurements were verified for transcription errors and for errors in the SG measurement procedure. No significant data entry errors were observed in the SG sample intervals.

Data verification through visual inspection consisted of verifying the position of collars relative to the underground workings, down-hole deviation, lithology, and assay intervals relative to the three-dimensional (3D) geological models. The visual inspection also included comparison of lithology and assay intervals with core photos. No significant differences were observed.

Numerous site visits were made by the Qualified Persons responsible for this report.

1.8 Mineral Processing and Metallurgical Testing

The La Encantada mine is an operating mine and the metallurgical testwork data supporting the initial plant design has been proven and reinforced by plant operating results through the years of operation combined with more recent metallurgical studies.

Metallurgical testing, together with mineralogical investigation are periodically performed. The plant is continually running tests to optimize silver recovery and to reduce operating costs, even when the results are within the expected processing performance. Composite samples are analyzed monthly to determine the metallurgical recovery performance of the mineralized material fed into the processing plant. Geometallurgical studies are performed to investigate the similarities and variability related to mineralization to be mined and processed in the mid- and long-term. This metallurgical testing is carried out by the Central Laboratory.

Samples from the Ojuelas deposit were tested by the Central Laboratory using current plant parameters. The expected recovery of silver for the Ojuelas mineralized material varies between 52.2–62.0%, and if reagents are optimized there is potential for the recovery to increase from 56.4–65.6%. Lower recoveries are expected in the lower portion of the deposit and higher recoveries are predicted for the upper deposit area.

Mineralized material from the Ojuelas deposit also contains significant base metals: 6% of lead and 5% of zinc. Additional testing was conducted on this material utilizing flotation as an alternative processing route to investigate the opportunity to recover the base metals contents and improve the silver recovery. Preliminary results are encouraging as recoveries of 70-75% for silver and 75% for lead have been observed.

It has been observed that the presence of manganese limits the silver recovery. A number of tests were conducted on material with high manganese content with the objective of validating the implementation of roasting as a conditioning stage prior to cyanide leaching. Some of these tests showed silver recoveries in the range of 57-73% and supported the addition of a roasting circuit to treat the material from the Tailings Deposit No. 4, pre-conditioning the material before the leaching process. The roasting circuit is currently inoperative but is the object of studies to determine required modifications and upgrades to the cooling stage and materials handling to enable its commissioning.

Roasting tests were also conducted on samples of ROM material from deposits with high manganese content, which is refractory in nature. Mineralized material from the Buenos Aires deposit showed silver recoveries in the range of 68-71% when leached after being roasted.

The metallurgical recovery projections assumed in the life-of-mine (LOM) plan are supported by the historical performance in the processing plant as well as on the results of recent testing. Variability of silver recovery estimates was addressed in the LOM plan by projecting metallurgical recoveries for different domains based on actual performance of the mineralized material from areas currently in operation, such as San Javier–Milagros complex breccias and the Veta Dique San Francisco. Variability is also monitored for LOM plan purposes by projecting recoveries based on laboratory testwork for domains that are planned to be later in the LOM plan, such as Ojuelas, Conejo, and other vein system deposits. The average yearly silver recovery projected in the LOM plan ranges from 60–68%.

The silver content of the doré produced in La Encantada ranges from 60–85% due to the presence of copper, lead and zinc. The silver concentration impacts the treatment charge as this charge is levied by weight on the doré produced. A typical treatment charge was included in the cut-off grade calculations and in the economic evaluations of the LOM plan.

1.9 Mineral Resource and Mineral Reserve Estimates

1.9.1 Mineral Resource Estimates

The block model Mineral Resource estimates for La Encantada are based on the current database of exploration drill holes and production channel samples, the underground level geological mapping, the geological interpretation and model, the surface topography, and underground mining excavation wireframes.

Geostatistical analysis, analysis of semi-variograms, block model resource estimation, and validation of the model blocks were completed with Leapfrog EDGE. Stope analysis to determine reasonable prospects for eventual economic extraction was completed with Maptek Vulcan.

The combined drill hole and channel sample database for La Encantada was reviewed and verified by the resource geologists and supports that the QA/QC programs were reasonable. The exploration data were collected with a logger system that captured collar, survey, lithology, and assay information. Integrated validation tools were used to check for gaps, errors, overlapping intervals and total lengths prior to geological modeling and estimation of Mineral Resources. All data were visually inspected in 3D.

The Mineral Resource estimates for the deposits at La Encantada are constrained by 3D geological interpretation and resource domain models. The resource domains are constructed from drill hole core logs, drill hole and production channel sample assay intervals, and underground geological maps produced by the mine’s geology staff. Silver and lead estimates are restricted to detailed wireframe domain models. The domain model boundaries strictly adhere to the vein and breccia contacts with the surrounding country rock to produce reasonable representations of each deposit location and volume. Forty resource domains were constructed for the four mine areas.

Exploratory data analysis was completed for silver and lead assay sample values to assess the statistical and spatial character of the sample data. Lead assay values were studied as well for the Prieta complex.

Boundary analysis was completed to review the change in metal grade across the domain contacts. There was a sharp grade change across the contact and hard boundary conditions are observed. Some sub-domains within the San Javier–Milagros complex display semi-soft conditions and distance-restricted soft boundaries were used for those domains.

To assess the statistical character of the composite samples within each of domains, data were declustered to account for over-sampling in certain regions. Composite lengths vary from 1-2 m by domain, with short residual composite samples left at the end of the vein intersection added to the previous interval.

The drill hole and channel composite samples were evaluated for high-grade outliers. Outlier values at the high end of the grade distributions were identified for silver and lead from analysis of histograms plots, log cumulative probability plots, mean variance plots, and cumulative metal plots. Capping of composite sample values was limited to a select few extreme values. Outlier restriction was also used to restrict the influence of high-grade samples.

The dominant silver and lead mineralization trends were identified based on the 3D numeric models for the metal in each domain. Model variograms for silver and lead composite values were developed along the trends identified and the nugget values were established from downhole variograms.

Bulk density for the resource domains was either estimated into the block models from the SG data or the mean SG value was assigned.

Block models were prepared for each domain. Nine block models were used in resource estimation. A sub-blocked model type was created that consists of primary parent blocks that were sub-divided into smaller sub-blocks whenever triggering surfaces intersected the parent blocks. Silver and lead grades were estimated into the parent blocks and domains were evaluated into the sub-blocks. The size of the parent block was based on the drill hole sample spacing and the planned or active mining methods and varied by deposit.

Silver block model estimates were completed for all resource domains at La Encantada, and lead estimates were also made for the Prieta complex. All block grades were estimated from composite samples captured within the respective resource domains.

Block grades were estimated primarily by inverse distance squared (ID2) and less commonly by ordinary kriging (OK). The method selected in each case was based on the domain characteristics , data spacing, variogram quality, and which method produced the best representation of grade continuity in the opinion of the resource geologist.

All channel samples that were used during construction of the geological models were reviewed. Only those channels that completely crossed the mineralization were used in grade estimation.

Grade estimation was completed two successive passes if channel samples were used. The first pass used all composites, including channel samples, and only estimated blocks within a restricted short distance from the channel samples. The second pass applied less restrictive criteria using drill hole composites only. If only drill hole composites were used, the estimation was often completed with a single pass.

Validation was completed for each of the resource estimation domains in multiple steps including visual inspection, global grade bias checks, and swath plots. Overall, the block model validations demonstrated that the current resource estimates are a reasonable representation of the primary input sample data.

Mineral Resources were classified as Indicated or Inferred based on the confidence in the geological interpretation and models, the confidence in the continuity of metal grades, the sample support for the estimation and reliability of the sample data, and on the presence of underground mining development providing detailed mapping and production channel sample support.

The Mineral Resource estimates were evaluated for reasonable prospects for eventual economic extraction by application of input parameters based on mining and processing information from the last 12 months of operations at La Encantada. These economic parameters result in a silver equivalent (Ag-Eq) cut-off grade of 115 g/t Ag-Eq for narrow veins expected to be extracted by cut-and-fill mining methods; 100 g/t Ag-Eq for medium-thickness veins expected to be extracted by longhole stoping; 75 g/t Ag-Eq for breccia pipes and massive lenses expected to be extracted by sub-level inclined caving; and 105 g/t Ag-Eq for Tailings Deposit No. 4.

Most domains are silver only where Ag g/t = Ag-Eq g/t. For the Prieta complex resource domains, however, the Ag-Eq metal grades for the Mineral Resource estimates were calculated from silver and lead as follows:

Ag-Eq g/t = Ag g/t + (Pb % * Pb Factor)

Where: Pb Factor = Pb Revenue/Ag Revenue

Ag Revenue = (Ag Metal Price/31.1035) x Ag Recovery x Ag Payable

Pb Revenue = (Pb Metal Price/2,204.62) x Pb Recovery x Pb Payable

In addition to the application of these economic parameters and related Ag-Eq cut-off grades, Vulcan Underground Stope Analyser software was used to identify the blocks representing mineable volumes that exceed the cut-off value while complying with the aggregate of economic parameters.

Models of the underground mining excavations were evaluated into the block models for all resource domains. These modelled volumes were used to deplete the block model prior to tabulating the Mineral Resources. Regions within the mine that are in situ but judged to be un-mineable were also removed from the Mineral Resource estimates.

The estimates have an effective date of December 31, 2020. Indicated Mineral Resources are reported inclusive of Probable Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The qualified person for the estimate is Mr. David Rowe, CPG., an internal consultant for First Majestic. The Mineral Resource estimates for La Encantada are summarized in Table 1-1 and Table 1-2 using the Ag-Eq cut-off grades appropriate for the mining method assigned to each domain.

Table 1-1: La Encantada Mineral Resource Estimate Statement, Indicated Category (effective date December 31, 2020)

Mine Domain Group	Category	Mineral Type	Tonnage	Grades			Metal Content		
			k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Pb (M lb)	Ag-Eq (k Oz)
Prieta Complex: Ojuelas	Indicated (UG)	Oxides + Mixed	1,133	189	2.31	257	6,870	58	9,370
Veins Systems	Indicated (UG)	Oxides	975	286		286	8,970		8,970
San Javier Milagros Complex	Indicated (UG)	Oxides	706	109		109	2,470		2,470
Tailings Deposit No. 4	Indicated	Oxides Tailings	3,210	116		116	12,010		12,010
ALL	**Total Indicated**	**All Mineral Types**	**6,024**	**156**	**0.44**	**169**	**30,320**	**58**	**32,820**

Table 1-2: La Encantada Mineral Resource Estimate Statement, Inferred Category (effective date December 31, 2020)

Mine Domain Group	Category	Mineral Type	Tonnage	Grades			Metal Content		
			k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Pb (M lb)	Ag-Eq (k Oz)
Prieta Complex: Ojuelas	Inferred (UG)	Oxides + Mixed	404	123	1.35	163	1,600	12	2,120
Prieta Complex: Other	Inferred (UG)	Oxides	495	166	0.80	190	2,650	9	3,020
Veins Systems	Inferred (UG)	Oxides	1,629	231		231	12,090		12,090
San Javier Milagros Complex	Inferred (UG)	Oxides	394	153		153	1,930		1,930
Tailings Deposit No. 4	Inferred	Oxides Tailings	488	117		117	1,830		1,830
ALL	**Total Inferred**	**All Mineral Types**	**3,410**	**183**	**0.28**	**192**	**20,100**	**21**	**21,000**

1) *Mineral Resource estimates are classified in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into NI 43-101.*
2) *The Mineral Resource estimates are based on internal estimates prepared with an effective date of December 31, 2020 by David Rowe, CPG. Mr. Rowe is not Independent of First Majestic.*
3) *Silver-equivalent grade (Ag-Eq) is estimated considering metal price assumptions, metallurgical recovery for the corresponding mineral type/mineral process and the metal payable of the mine as of December 31, 2020.*
4) *Metal prices used in the Mineral Resources estimates were $22.5/oz Ag and $0.9/lb Pb.*
5) *Mineral Resource estimates are for silver only where Ag g/t = Ag-Eq g/t, except for the Prieta complex resource domains, where the Ag-Eq metal grades were calculated from silver and lead as follows: Ag-Eq grade = Ag grade + (Pb grade * Pb Factor).*
6) *The cut-off grades used to constrain the Mineral Resource estimates are 75 g/t Ag-Eq for sub-level inclined caving, 115 g/t Ag-Eq for cut-and-fill, 100 g/t Ag-Eq for longhole stoping, and 105 g/t Ag-Eq for tailings.*
7) *Tonnage is expressed in thousands of tonnes; metal content is expressed in thousands of ounces.*
8) *Totals may not add up due to rounding.*
9) *Indicated Mineral Resources are reported inclusive of Probable Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.*

Risk factors that could materially impact the Mineral Resource estimates include: metal price and exchange rate assumptions; changes to the assumptions used to generate the silver-equivalent grade cut-off grade; changes in the interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shape and geological and grade continuity assumptions; changes to geotechnical, mining, and metallurgical recovery assumptions; changes to the assumptions related 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. The production channel sampling method has some possibility of non-representative sampling that could bias the grade estimates higher or lower.

1.9.2 Mineral Reserve Estimates

The Mineral Reserve estimation process consists of converting Indicated Mineral Resources to Probable Mineral Reserves by identifying material that exceeds the mining cut-off grades while conforming to specified geometrical constraints determined by the applicable mining method and applying modifying factors such as mining dilution and mining recovery factors. If the Indicated Mineral Resources comply with the previous constraints, Indicated Resource estimates are converted to Probable Mineral Reserves. The conversion of Indicated Mineral Resources to Proven and Probable Mineral Reserves estimates involves the following procedures:

- Selection of a viable mining method for each of the geological domains, considering geometry of the deposit, geotechnical and geohydrological conditions, metal grade distribution as observed during the investigation of the block model and other mine design criteria;
- Review metal price assumptions approved by First Majestic's management for Mineral Resource and Mineral Reserve estimates to be considered reasonable and following the "2020 CIM Guidance on Commodity Pricing and Other Issues related to Mineral Resource and Mineral Reserve Estimation and Reporting";
- Calculate the net smelter return (NSR) and silver cut-off grade (COG), based on the assumed metal price guidance, assumed cost data, metallurgical recoveries, and smelting and refining terms as per the selling contracts;
- Prepare the block models by adding a silver field, which is used in the stope optimization, and ensuring Inferred Mineral Resources are not considered in the Mineral Reserves constraining process;
- Compile relevant mine design parameters such as stope dimensions, minimum mining widths and pillar dimensions;
- Compile modifying factors such as dilution from blasting overbreak and geotechnical conditions as well as mining loss considering benchmarking from actual surveys and underground observations;
- Outline potentially mineable shapes from the block model based Indicated Mineral Resource estimates that exceed the COG;
- Create potentially-mineable shapes using stope optimization mining software to account for vein widths, minimum mining widths, dilution assumptions and economic factors;
- Refine potentially-mineable shapes by removing permanent sill and rib pillars, removing areas identified as inaccessible or un-mineable due to geotechnical or stability conditions;
- Design mine development and mine infrastructure required to access the potentially-mineable shapes;
- Carry out an economic analysis for groups of mineable shapes, such as sublevels or contiguous groups of shapes, removing areas that are isolated from contiguous mining areas that will not cover the cost of development to reach those areas;

- Set the mining sequence and define the production rates for each relevant area to produce the production schedule;
- Estimate capital and operating costs required to extract this material and produce saleable product;
- Estimate expected revenue after discounting selling costs;
- Validate the economic viability of the overall plan with a discounted cash flow model;
- Once these steps are completed and a positive cash flow is demonstrated, the Mineral Reserve statement is prepared.

The Mineral Reserves estimates for La Encantada are tabulated in Table 1-3 and have an effective date of December 31, 2020. The QP for the estimate is Mr. Ramón Mendoza Reyes, P.Eng.

Table 1-3: La Encantada Mineral Reserves Statement (effective date of December 31, 2020)

Category	Mineral Type	Tonnage	Grades	Metal Content
		k tonnes	Ag (g/t)	Ag (k Oz)
Probable Prieta Complex: Ojuelas (UG)	Oxides + Mixed	1,096	155	5,470
Probable Veins Systems (UG)	Oxides	389	331	4,140
Total Probable	**All Mineral Types**	**1,485**	**201**	**9,610**

1) *Mineral Reserves have been classified in accordance with the 2014 Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into NI 43-101.*
2) *The Mineral Reserves statement provided in the table above is based on internal estimates prepared as of December 31, 2020. The information provided was prepared and reviewed under the supervision of Ramon Mendoza Reyes, PEng, a First Majestic employee.*
3) *Silver grade is estimated considering metal price assumptions, metallurgical recovery for the corresponding mineral type/mineral process and the metal payable of the selling contract.*
4) *Metal prices considered for Mineral Reserves estimates were $20.00/oz Ag.*
5) *Other key assumptions and parameters include: metallurgical recoveries per domain of 60% for Prieta complex: Ojuelas, weighted average of 65.6% for Vein systems and 78.8% for the San Javier–Milagros complex; cut-and-fill direct mining costs of US$31.85/t, longhole stoping direct mining costs of US$24.96/t, sublevel caving direct mining costs of US$8.49/t, mill feed, process, and treatment costs of US$20.86/t mill feed and general and administration (indirect costs) of US$11.46/t.*
6) *A two-step constraining approach was implemented to estimate reserves for each mining method in use. A general cut-off grade was used to delimit new mining areas that will require development of access, infrastructure and all sustaining costs. A second incremental cut-off grade was considered to include adjacent mineralized material which recoverable value pays for all associated costs, including but not limited to the variable cost of mining and processing, indirect costs, treatment, administration costs and plant sustaining costs but excludes the access development assumed to be covered by the block above the general cut-off grade.*
7) *Modifying factors for conversion of resources to reserves include incorporation of planned dilution due to geometrical aspects of the designed stopes and economic zones, and additional dilution considerations due to unplanned events, and materials handling and other operating aspects. Mineable shapes were used as geometric constraints.*
8) *Tonnage is expressed in thousands of tonnes; metal content is expressed in thousands of ounces.*
9) *Numbers have been rounded as required by reporting guidelines. Totals may not sum due to rounding.*

Factors that could affect the Mineral Reserves estimate include changes to metal prices and exchange rates; unplanned dilution; mining recovery; geotechnical conditions; equipment productivities; metallurgical recoveries; mill throughput capacities; operating cost estimates; capital cost estimates changes to the assumed permitting and regulatory environment under which the mine plan was developed; changes in the taxation conditions; ability to maintain mining concessions and/or surface rights; and the ability to maintain the social and environmental licenses to operate.

1.10 Mining Operations

The La Encantada mine operation consists of an underground mine. Mining activities are conducted by both First Majestic and contractor personnel.

The deposits vary in dip, thickness, and geotechnical conditions along strike and dip. Multiple mining methods are required to achieve the maximum efficient extraction of mineralization. Three well-established methods were selected:

- Inclined and sublevel caving;
- Long hole stoping
- Cut-and-fill.

Inclined and sub-level caving is well suited for the bulk tonnage deposits at La Encantada such as the San Javier–Milagros breccia and the Ojuelas deposit. Longhole stoping is being used for near-vertical structures that are relatively consistent along strike and length and have competent wall rock. The minimum planned mining width is 1.4 m, based on a minimum vein width of 1.0 m plus an allowance for 0.2 m on the hangingwall and footwall. The stopes are drilled using a basic two-hole pattern when the width is <1.5 m, increasing the number of drill holes per section as the vein increases in width. Cut-and-fill is performed using jackleg drilling and is used for vein deposits that are irregular in nature and commonly possess poorer geotechnical conditions. The minimum mining width is 1.3 m, based on a minimum vein width of 1.0 m and an additional 0.15 m was added to both the hangingwall and footwall as planned dilution using the stope optimizer.

Ground conditions throughout most of the La Encantada mine are considered good. In contrast, the breccia and massive lens-type deposits form weak, soft material that lends itself to caving mining methods. All development by caving into the mineralized breccia deposits is supported with a primary coat of 2” fibre shotcrete with bolt and mesh followed by a secondary 2” coat of shotcrete to prevent unravelling of the weak rock matrix. The vein deposits possess fair rock quality and are hosted in competent limestone. Waste pillars will be left where necessary to increase stability in longhole stoping.

All working areas are above the water table which is at 1,424 masl. The main water inflow of comes from surface filtration during the rainy season. Mine water is pumped from the lowest elevation of 1,509 masl to surface.

Ventilation for the Prieta complex is primarily supplied through the Esperanza ramp and the Maria Isabel shaft (113 kcfm) and is exhausted through the 660 vent raise (Robbins) via the 1600 tunnel to the old Milagros workings. For the La Encantada mine, fresh air enters through the old Plomo workings and the Guadalupe audit and is exhausted through the Spendrup and Escalera vent raises.

The LOM development schedule is presented in Table 1-3.

Table 1-3: Development Schedule for La Encantada

Type	Size (m)	2021	2022	2023	2024	Total
Main Access Ramp	4.5x4.5	671	191	-	-	862
Main Level Access	3.5x3.5	2,051	827	-	-	2,878
Ancillary	3.5x3.5	2,216	433	-	-	2,649
Drifting for Exploration	4.5x4.5	250	250	-	-	500
Ventilation Raises	2.5 diam.	199	61	-	-	260
Total Waste Development		5,387	1,762	-	-	7,149
Ore Development	3.5x3.5	3,696	3,681	-	-	7,377
Total Development		9,083	5,443	-	-	14,526

The LOM production schedule is presented in Table 1-4.

Table 1-4: LOM Production Schedule

Type	Units	2021	2022	2023	2024	Total
ROM Production / Plant Feed	kt	294	548	489	153	**1,485**
Silver Grade	g/t Ag	273	190	178	177	**201**
Contained Silver	M oz Ag	2.59	3.35	2.81	0.87	**9.61**
Metallurgical Recovery Silver	%	56.5%	61.7%	60.9%	60.0%	**60.2%**
Metallurgical Recovery Gold	%					**-**
Produced Silver	M oz Ag	1.46	2.07	1.71	0.52	**5.76**

1.11 Processing and Recovery Operations

The processing plant has been operating for several years and has continuously improved silver metallurgical recoveries.

The processing plant is divided into two areas: Plant No. 1 and Plant No. 2. Plant No. 1 consists of the crushing and grinding circuits, while Plant No. 2 is the leaching circuit. The process is based on cyanide tank leaching and Merrill-Crowe of ground run-of-mine (ROM) ore to produce silver doré bars. The installed plant capacity is for 3,000 tpd for the crushing and grinding area, and 4,500 tpd for the leaching circuit. In 2019 and 2020, the average plant-feed contained head grades of 154 g/t Ag.

The plant feed underground ROM material is delivered from the mine and dumped into a steel-made coarse ore bin of 300 t capacity. The coarse ore bin is equipped with a feeder grizzly at its bottom. Oversize material from the grizzly is fed into primary jaw crusher and reduced. This crushed product is combined with the grizzly undersize and transported by a belt conveyor to the two primary vibrating screens. The crushing plant operates 18 hours per day.

The grinding section consists of one Metso ball mill with a nominal capacity of 3,000 tpd.

The cyanide leaching circuit process adds cyanide to leach tanks and lime in slurry form is added as a pH modifier. Cyclone overflow is pumped to Plant No. 2 and fed into the 125' primary thickener. The primary thickener underflow is pumped to a series of 12 agitated leach tanks to complete 50-hours leaching time, which is considered the first leaching stage. Overflow from the 12th leach tank goes to the intermediate thickener, which recovers the pregnant liquor in the overflow while the underflow is pumped to the second leaching stage, comprised by five agitated leach tanks, which completes 22 more hours of residence time.

Most of the overflow solution from the intermediate thickener goes to the primary thickener, which produces pregnant leach solution (PLS) and is fed to the Merrill Crowe system. Slurry from the last agitated tank feeds four counter-current decant (CCD) thickeners. Underflow from tank #4 feeds a storage tank which doses the slurry to the three final tailings filters.

Slurry from the last agitated tank feeds the CCD. There are four 125' thickener tanks working in series. The overflow from the fourth thickener goes to the third thickener feed, mixing with the slurry from the second thickener underflow. The fourth thickener receives the barren solution that comes from the tailings press filters. The overflow from the second thickener goes to the first thickener feed, mixing with the slurry from the last leach tank. Underflow from the first thickener goes to the second thickener feed. The overflow solution from the first thickener goes to the pregnant solution pond. There it is mixed with the overflow solution from the intermediate and primary thickener tanks.

PLS is fed to the Merrill Crowe systems via a 1,200 m^3 storage tank and then filtered and clarified through three autojet pressure clarifiers. Product from the autojet filters, clean pregnant solution, is stored in a 1,200 m^3 tank before being pumped through two deaerator cylinders to remove dissolved oxygen. After deaeration, PLS is pumped to three press-filters. Daily production of PLS is about 18,000 m^3 with a grade of 17 g/t Ag. The precipitate is dried and then smelted in two induction furnaces, producing 23-kg doré bars.

The Merrill Crowe system has a capacity of 550 kg of doré per day.

Final tailings are filtered in three press-filters. Filtered tailings are discharged and deposited on the tailings management facilities (TMF).

A roasting processing plant was added in 2018 to reprocess tailings material. Some operational issues were observed during commissioning and production ramp-up in the cooling stage and the materials handling system. Thus, it was decided to put the roasting circuit in care and maintenance while investigating ways to address those issues and bring the circuit back to operations.

1.12 Infrastructure, Permitting and Compliance Activities

The existing infrastructure at La Encantada can support current mining and mineral processing activities and the LOM plan.

Most of the operation's support facilities are located near Plant No. 1 and include administrative offices, a medical clinic, warehouse, assay laboratory, core shed, fuel storage facilities, mine compressor building, surface maintenance shop, mine dry, water storage tanks and contractor offices. The mine camp is located approximately 1 km west of Plant No. 1 and the First Majestic-owned airstrip is approximately 6 km west of the mine camp. Plant No. 2 is located 2 km northwest of Plant No. 1 and holds the leaching and roasting processing facilities, including the tailings filter-press plant.

Operations personnel are transported by passenger buses from the city of Muzquiz and the town of Ocampo. All equipment, supplies and materials are brought in by road.

The TMF consists of two different storage areas. Tailings Deposit No. 5 (TMF-5) is currently in operation and Tailings Deposit No.4 is inactive and holds material considered for potential reprocessing by roasting. Rainwater management includes two main diversion channels. Temporary non-contact water channels have been built to the north of the facility to divert non-contact water downstream. Contact water is also diverted to two storage ponds.

The storage capacity of TMF-5 is 8.5 Mt of filtered tailings. According to the latest survey conducted in February 2021, the remaining storage capacity is estimated to be approximately 5.5 Mt or more than five years of service life at current production rate, which is sufficient to support the LOM plan.

First Majestic's facilities include a camp previously constructed by Peñoles. These facilities were significantly improved in 2020 and include 160 housing units for workers and staff with 440 beds, a new 180 person kitchen/dining area for salaried staff, accommodations for contractor managers and visitors, offices for union representatives, an elementary school, a chapel, a grocery store, and recreational facilities.

Power demand is currently 4,000 MW per month, which is being supplied by four 1.5 MW MTU natural gas generators and one the 1.5 MW MTU diesel generator, achieving an average mix of 90% natural gas–10% diesel generation, significantly reducing the greenhouse gas emissions and the energy generation costs. First Majestic plans to add a fifth 1.5 MW MTU generator, which will further reduce greenhouse gas emissions and energy costs. At the Report effective date, construction was underway, and continuous operation of the additional generator is anticipated for Q2-2021.

Fresh water for the offices and employee housing is obtained from a well located in the underground mine. Industrial water for the mine and plant is obtained from a series of wells located 25 km away. This water is pumped to site and stored in a series of storage tanks located throughout the plant and mine facilities.

The La Encantada mine has all of the necessary permits for current mining and processing operations, such as an operating license for mining and mineral processing activities, a mine water use permit, an EIA for the La Encantada mine, processing plants and TMF, and a permit for power generation.

Major permits granted to La Encantada include: the environmental license (LUA), a groundwater use permit, a power generation permit, a change of land use for the industrial plant and TMFs, an environmental impact assessment (EIA) for TMFs, an EIA for a roasting circuit and EIS for exploration.

In February 2021, the La Encantada mine was recognized as a Socially Responsible Company (ESR) by the Mexican Center for Philanthropy (CEMEFI) for the first time. The ESR award is given to companies operating in Mexico that achieve high performance and have commitments to sustainable economic, social, and environmentally positive impacts in all areas of corporate life.

1.13 Capital and Operating Costs

The La Encantada mine has a well-established cost management system and a good understanding of the costs of operation. Relevant key-performance indicators are compiled and analyzed on a monthly basis to monitor operational performance, analyze financial results and prepare economic projections.

The LOM plan includes estimates for sustaining capital expenditures for the planned mining and processing activities.

Sustaining capital expenditures are allocated for on-going development in waste, infill drilling, mine equipment rebuilding, equipment overhauls or replacements, plant maintenance and on-going refurbishing. Table 1-5 presents the summary of the sustaining and expansionary capital expenditures.

Table 1-5: La Encantada Mining Capital Costs Summary (Sustaining Capital)

Type (M USD)	Total	2021	2022	2023	2024
Mine Development	$ **9.6**	$ 7.2	$ 2.4	$ -	$ -
Infill Drilling	$ **0.4**	$ 0.1	$ 0.1	$ 0.1	$ 0.0
Property, Plant & Equipment	$ **11.2**	$ 2.2	$ 5.4	$ 2.7	$ 0.8
Other Sustaining Costs	$ **3.4**	$ 1.1	$ 1.1	$ 1.1	$ 0.1
Total Sustaining Capital Costs	***$ 24.5***	***$ 10.6***	***$ 9.0***	***$ 4.0***	***$ 0.9***
Near Mine Exploration	$ **0.4**	$ 0.1	$ 0.2	$ 0.2	$ 0.0
Total Capital Costs	***$ 25.0***	***$ 10.7***	***$ 9.2***	***$ 4.1***	***$ 0.9***

A summary of the La Encantada operating costs resulting from the LOM plan and the economic model used for assessing economic viability is presented in Table 1-6. A summary of the annual operating expense is presented in Table 1-7.

Table 1-6: La Encantada Operating Costs

Type	$/tonne
Mining Cost	15.4
Processing Cost	17.2
Indirect Costs	12.4
Total Production Cost	***45.0***
Selling Costs	1.9
Total Cash Cost	***46.9***

Table 1-7: La Encantada Annual Operating Costs

Type (M USD)	Total	2021	2022	2023	2024
Mining Cost	$ 22.9	$ 6.7	$ 9.0	$ 5.5	$ 1.6
Processing Cost	$ 25.5	$ 5.1	$ 9.4	$ 8.4	$ 2.6
Indirect Costs	$ 18.4	$ 3.6	$ 6.8	$ 6.1	$ 1.9
Total Production Cost	*$ 66.8*	*$ 15.4*	*$ 25.2*	*$ 20.0*	*$ 6.1*
Selling Costs	$ 2.9	$ 0.7	$ 1.0	$ 0.9	$ 0.3
Total Cash Cost	*$ 69.7*	*$ 16.2*	*$ 26.3*	*$ 20.8*	*$ 6.4*

1.14 Economic Analysis Supporting Mineral Reserve Declaration

First Majestic is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material expansion of current production is planned.

An economic analysis to support presentation of Mineral Reserves was conducted. Under the assumptions presented in this Report, the operations show a positive cash flow, and can support Mineral Reserve estimation.

1.15 Conclusions

Under the assumptions used in this Report, La Encantada has positive project economics for the LOM plan, which supports the Mineral Reserve statement.

1.16 Recommendations

Work or studies recommended by the QPs are presented in two phases. Work or studies recommended in Phase 2 are contingent of their corresponding work or study recommended in Phase 1.

The proposed work or studies presented in Phase 1 can be carried out concurrently. The total expenditure for Phase 1 is estimated at $7.2 M and Phase 2 is estimated at $33–$36 M.

1.16.1 Exploration – Phase 1

To maintain current and projected production levels and to potentially increase mineral resources, the following annual drilling programs are recommended at a cost of $1.6 M per year excluding related underground access development costs.

- An annual 1,000 m infill sustaining drill program to support short-term production plans.
- An annual 7,500 m near mine drill program to support mid-term production projections.
- An annual 7,500 m brownfield surface drill program to identify additional mineralization.

In addition, an annual prospect generation program should be conducted, which is estimated to cost $70,000 per year.

1.16.2 Roasting – Phase 1

A Phase 1 value engineering study to optimize the preliminary capital costs estimates for the required upgrades to the existing, but inoperative, roasting circuit is recommended. The cost of this study is estimated at $150,000.

1.16.3 Flotation – Phase 1

A Phase 1 feasibility study for plant modifications, with the addition of a complete flotation circuit, is recommended. Such addition would enable a significant increase in silver recovery and the recovery of base metals. The production of lead concentrates from mineralized material from deposits like the Ojuelas deposit would contribute to higher revenues, increasing these deposits' profitability. It is estimated that $350,000 are necessary to complete this study.

1.16.4 Roasting – Phase 2

If Phase 1 supports the viability of the estimated reduction of the capital estimates (a reduction of 10–30%), a second phase could follow to upgrade the roasting circuit. The cost of this work is estimated at between $17–$20 M.

1.16.5 Flotation – Phase 2

If Phase 1 confirms the viability of implementing the flotation circuit for the recovery of base metals, a second phase could follow with the execution of the processing plant upgrade. An order of magnitude capital expenditures for this project is estimated in $16 M.

2 INTRODUCTION

2.1 Technical Report Issuer

La Encantada Silver Mine (La Encantada, the La Encantada mine) is owned and operated by Minera La Encantada S.A de C.V. (MLE) which is an indirectly wholly-owned subsidiary of First Majestic Silver Corp. (First Majestic). First Majestic acquired control of La Encantada through the acquisition of all issued and outstanding common shares of Desmin S.A. de C.V. (Desmin) on November 1, 2006, followed by the 100% acquisition of MLE from Industrias Peñoles, S.A.B. de C.V. (Peñoles) in March 2007.

La Encantada operations consist of an operating underground mine, two processing plants and two tailings management facilities (TMF), one active, one inactive.

2.2 Terms of Reference

This Report provides information on Mineral Resource and Mineral Reserve estimates for La Encantada and describes process operations and planning for the mine. The Mineral Resource and Mineral Reserve estimates are reported in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014; the 2014 CIM Definition Standards).

2.3 Cut-off and Effective Date

The effective date of the Mineral Resource and Mineral Reserve estimates included in this Report is December 31, 2020, which represents the cut-off date for the scientific and technical information used in the Report, including mineral tenure and permitting, drilling and assaying data, production and operating costs.

2.4 Sources of Information

For the purposes of the Technical Report, all information, data, and figures contained or used in its integration have been provided by First Majestic unless otherwise stated. Information sources are listed in Section 27 of this Report.

Previously filed technical reports and studies include the following:

- NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Update, La Encantada Silver Mine, Ocampo, Coahuila, Mexico, dated December 31, 2015. Prepared for First Majestic Silver Corp. by Mendoza Reyes, R., Vazquez Jaimes, M.E., Velador Beltran, J. and Oshust P.

- Technical Report for the La Encantada Silver Mine, Coahuila State, México, amended and restated February 26, 2009. Prepared for First Majestic Silver Corp. by Addison, R. and Lopez L., of Pincock, Allen & Holt.
- Technical Report for the La Encantada Silver Mine, Coahuila State, México, dated July 24, 2007. Prepared for First Majestic Silver Corp. by Addison, R. and Lopez, L. of Pincock, Allen & Holt.

Exploration and infill drilling are ongoing. Where applicable, results received to date from this recent drilling activity have generally supported the current resource models. The Qualified Persons for this Report have reviewed the latest information available from the Report effective date to the Report signature date and there are no material changes to the information provided in this Report.

2.5 Qualified Persons

This Technical Report has been prepared by First Majestic employees and internal consultants as follows:

- Ramon Mendoza Reyes, P.Eng., Vice President of Technical Services;
- David Rowe, CPG, Consulting Principal Resource Geologist;
- Brian Boutilier, P.Eng., Technical Services Manager;
- Maria E. Vazquez Jaimes, P.Geo., Geological Database Manager; and,
- Persio P. Rosario, P.Eng., Vice President of Processing, Metallurgy, and Innovation.

2.6 Site Visits and Scope of Personal Inspections

Mr. Ramon Mendoza visited La Encantada on several occasions from 2014 to 2019. During these visits he coordinated the integration of information for Mineral Resource and Mineral Reserves estimates. During these visits he inspected the mining method performance, productivity, reviewed operating and capital costs, metallurgical investigations, and metallurgical recoveries. During his most recent visit from April 11–12, 2019, he inspected the performance of the caving operations for the San Javier–Milagros and Prieta Complex breccias, inspected the methodologies and results of the ground monitoring system, and reviewed the production depletion estimates for all of the La Encantada mine operating areas.

Mr. David Rowe visited La Encantada on several occasions during 2018 and 2019 with the most recent visit and inspection being from December 11–18, 2019. During these site inspections which were typically 4–7 days in duration, he reviewed and coordinated database management, project geology, drilling, core handling and logging, interpretation, and integration of primary data for geological interpretation and modeling, and the Mineral Resource estimation process. The site inspections included:

- Geological review of mapping, deposit geology, mineralization styles, and elements of interest;
- Field visits to review surface and underground geology for all significant mineral deposits in the mine;
- Review of the drill hole core handling, sampling, quality control, photography, and logging;
- Review of production-related channel sampling and quality control for the sampling program;
- Discussions with project geologists to integrate interpretation of the geological controls with mineralization.

Ms. Maria Elena Vazquez visited La Encantada on several occasions during 2013 to 2018. During these site inspections, she conducted database audits and observed exploration practices to support mineral resource estimates. During the most recent visit, on October 18-20, 2018 she carried out data verification and inspected ongoing exploration practices including quality control procedures.

Mr. Brian Boutilier visited La Encantada mine on several occasions during 2017 to 2020 with the last visit and personal inspection in January 3-23, 2020. These visits were a constant 14/7 rotation. During these visits he worked closely with the technical services department in the design and execution of both the San Javier and La Prieta caving projects. He focused on improving the topographical surveys systems and engineering information gathering to better inform the mine operations. This allowed the mine to improve planning quality and increase the efficiency of the site operation to meet the planned targets. He worked with the rock mechanics department in the installation for the cable monitoring system for the Prieta and the ground support design for San Javier caving area, gaining an understanding of the ground characteristics.

Mr. Persio Rosario visited La Encantada from February 12–13, 2019. During his visit he inspected the processing plant, the tailings deposits, and the site infrastructure to assess processing performance and general operating conditions.

2.7 Units and Currency and Abbreviations

Units of measurement are metric unless otherwise noted. All costs are expressed in United States dollars unless otherwise noted. Only common and standard abbreviations are used wherever possible. Table 2-1 shows the list of abbreviations used.

Table 2-1: List of Abbreviations and Units

Distances:	mm – millimetre cm – centimetre m – metre km – kilometre ft – foot	Other:	tpd – tonnes per day ktpd – 1,000 tonnes per day Mtpa - 1,000,000 tonnes per year kW – kilowatt MW – megawatt kVA – kilovolt-ampere MVA – Megavolt-ampere kWh – kilowatt hour MWh – megawatt hour °C – degrees Celsius Ag – silver Au – gold Pb – lead Zn – zinc Cu – copper Mn - manganese Ag-Eq – silver equivalent masl – metres above sea level
Areas:	m^2 – square metre ha – hectare km^2 – square kilometre		
Weights:	oz – troy ounces koz – 1,000 troy ounces Moz – million troy ounces lb - pound g – grams kg – kilograms t – tonne (1,000 kg) kt – 1,000 tonnes Mt – 1,000,000 tonnes		
Time:	min – minute hr – hour op hr – operating hour d – day yr – year	Assay/Grade:	g/t – grams per tonne g/L – grams per litre ppm – parts per million ppb - parts per billion
		Currency:	$ - United States dollar
Volume/Flow:	m^3– cubic metre m^3/hr – cubic metres per hour gpm – gallons per minute (water) cfm – cubic feet per minute (air) cu yd – cubic yards		

3 RELIANCE ON OTHER EXPERTS

This section is not relevant to this Report.

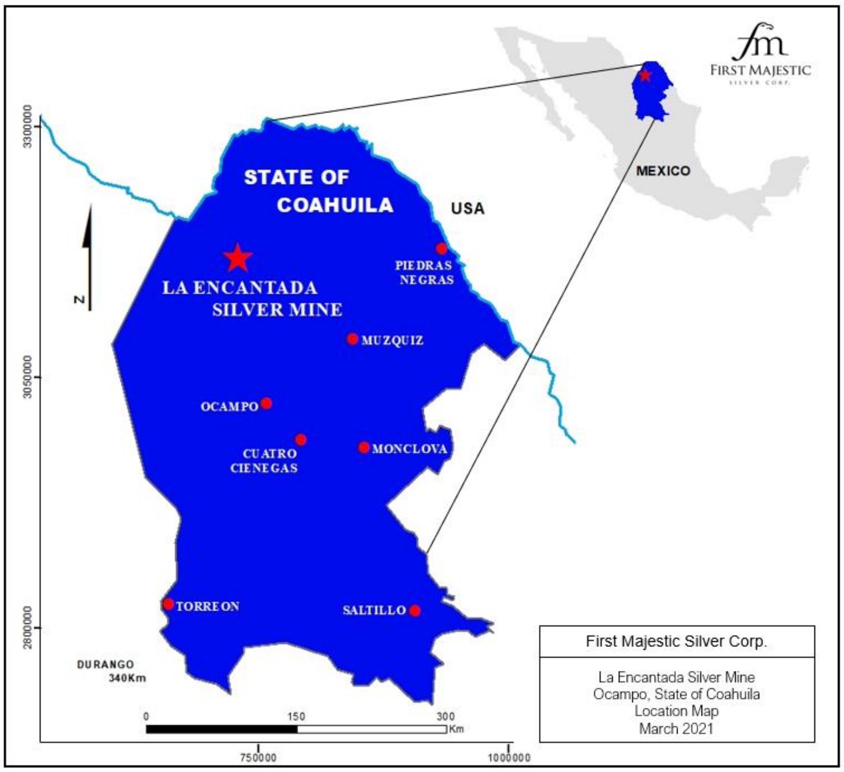
Information pertaining to mineral tenure, surface rights, royalties, environment, permitting and social considerations, marketing and taxation were sourced from First Majestic experts in those fields as required.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

La Encantada is an actively producing mine located in the municipality of Ocampo, State of Coahuila, northern Mexico, approximately 120 km northwest of the city of Melchor Múzquiz, Coahuila and approximately 120 km north of the town of Ocampo, Coahuila (Figure 4-1).

Figure 4-1: Location Map of La Encantada Silver Mine



Note: Figure prepared by First Majestic, March 2021.

The mine portal is located at approximately 102°32’10” W Longitude and 28°22’13” N Latitude, at an elevation of approximately 1,775 metres above sea-level (masl). Process Plant No. 1 is located at 102° 34' 26" W and 28° 22' 11" N, at an elevation of 1,640 masl. Process Plant No. 2 is located at 102° 33' 40" W and 28° 21' 34" N, at an elevation of 1,745 masl.

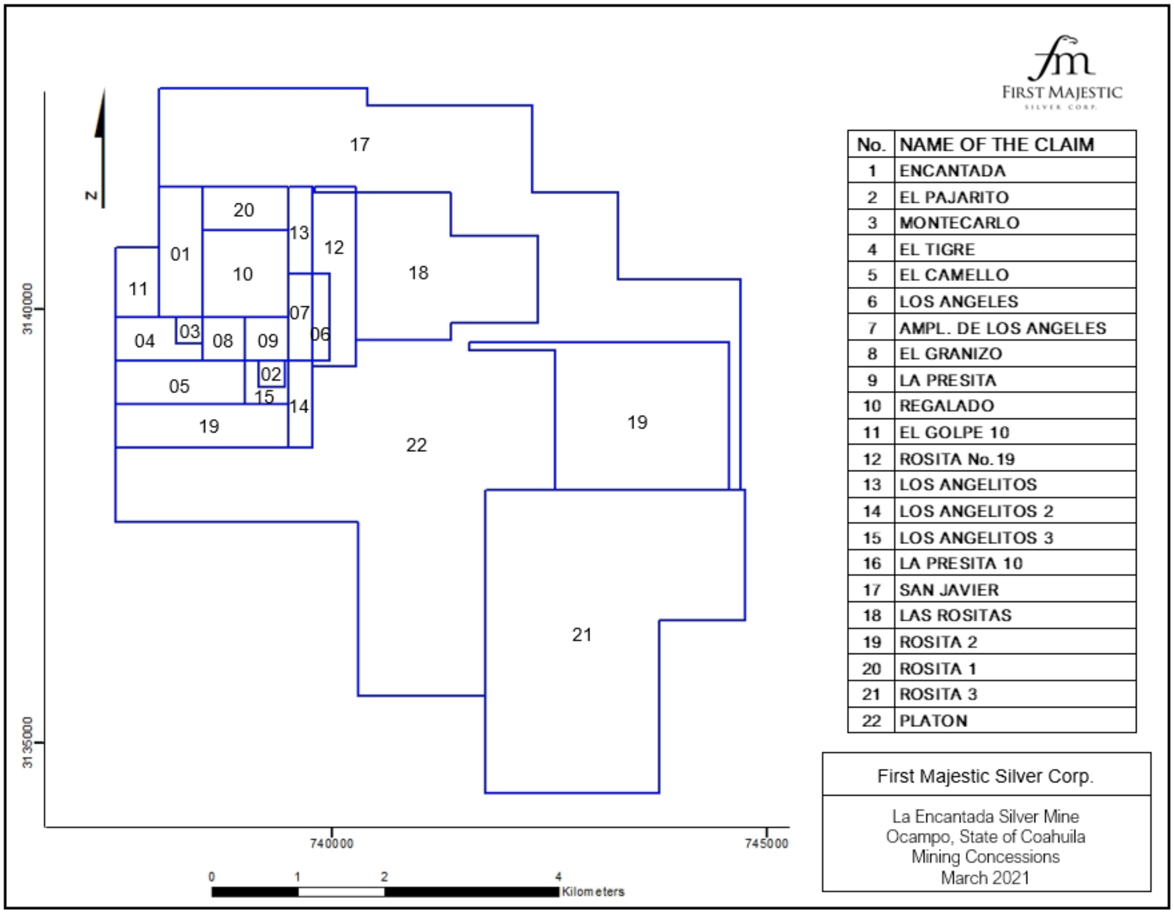
4.2 Mining Concessions

In Mexico, mining concessions are granted by the General Mining Directorate of the Ministry of Economy, and these are considered exploitation concessions with a 50-year term. Mining concessions have an annual minimum investment to complete, and an annual mining rights fee to be paid to keep the concessions effective. Valid mining concessions can be renewed for an additional 50-year term as long as the mine is active. There are 22 granted concessions, which cover an area of 4,076 ha, located within the municipalities of Ocampo and Múzquiz in the State of Coahuila. All 22 concessions are currently in good standing (Rafael Auraujo, pers comm). Of the La Encantada concessions, the oldest were granted in 1965 and the most recent in 2008. Table 4-1 lists the concessions, the concession area, and current expiration dates. Concession locations are shown in Figure 4-2.

Table 4-1: List of Minera La Encantada Mining Concessions

No.	Mining Concession	Title	Expiry Date	Surface Hectares	Status
1	ENCANTADA	143943	26-Aug-65	75	Valid
2	EL PAJARITO	167061	28-Aug-30	9	Valid
3	MONTECARLO	167062	28-Aug-30	9	Valid
4	EL TIGRE	167065	28-Aug-30	41	Valid
5	EL CAMELLO	167066	28-Aug-30	75	Valid
6	LOS ANGELES	167067	28-Aug-30	20	Valid
7	AMPL. DE LOS ANGELES	167068	28-Aug-30	27.23	Valid
8	EL GRANIZO	167069	28-Aug-30	25	Valid
9	LA PRESITA	167070	28-Aug-30	25	Valid
10	REGALADO	167071	28-Aug-30	100	Valid
11	EL GOLPE 10	178385	6-Aug-36	40	Valid
12	ROSITA No. 19	189752	5-Dec-40	79.95	Valid
13	LOS ANGELITOS	189758	5-Dec-40	27.23	Valid
14	LOS ANGELITOS 2	189759	5-Dec-40	27.23	Valid
15	LOS ANGELITOS 3	190341	5-Dec-40	16	Valid
16	LA PRESITA 10	194878	29-Jul-42	100	Valid
17	SAN JAVIER	217855	26-Aug-52	3.02	Valid
18	LAS ROSITAS	227288	1-Jun-56	287	Valid
19	ROSITA 2	230228	1-Aug-57	350	Valid
20	ROSITA 1	232026	9-Jun-58	50	Valid
21	ROSITA 3	232027	9-Jun-58	850	Valid
22	PLATON	232832	29-Oct-58	1,839.26	Valid

Figure 4-2: Minera La Encantada Mining Concessions



Note: Figure prepared by First Majestic, March 2021.

4.3 Royalties

There are no royalties over any concession.

4.4 Surface Rights

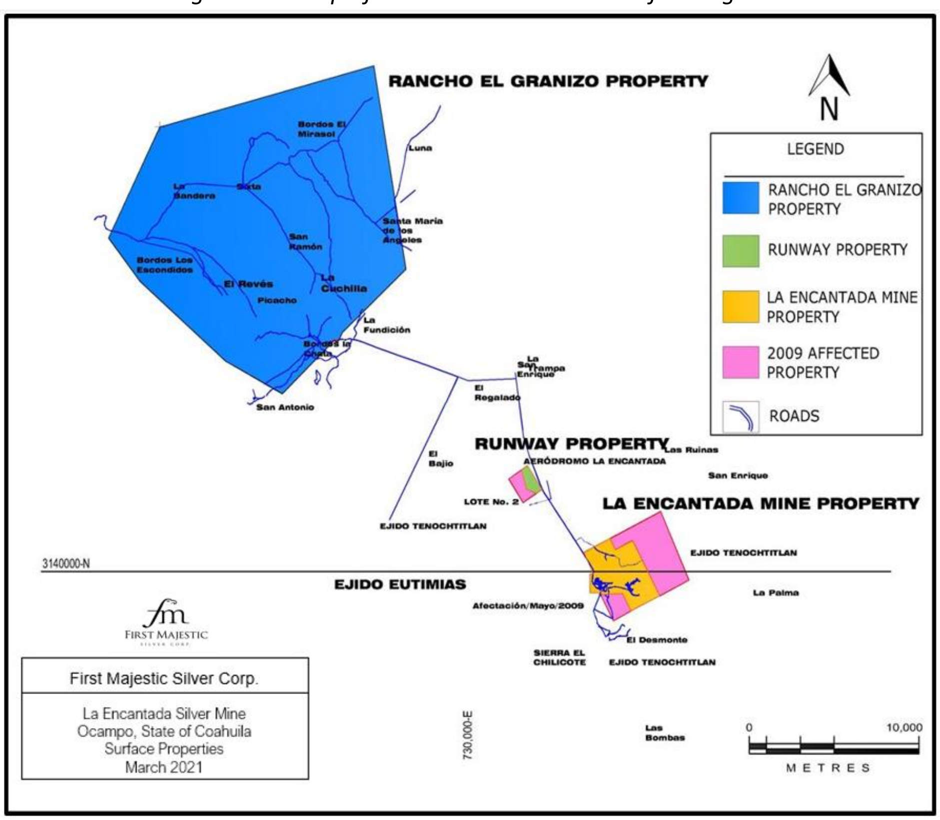
Surface rights in the area of the mining concessions are held both privately and through group ownership either as communal lands or Ejido lands.

According to deeds, MLE owns surface rights covering 2,237 ha on the "Canon del Regalado" properties. These properties were acquired by the previous owner of MLE from a third party. This surface covers the following features: access to the mining complex, mine portals, grinding mill and flotation plant (Plant No. 1), cyanidation plant (Plant No. 2), TMF, the mine camp, offices, and an airstrip.

In 2011 the Tenochtitlán Ejido filed a lawsuit against MLE in agrarian court claiming title to 1,097 ha of the land owned by MLE. The initial lawsuit was decided in favour of MLE and was followed by a series of motions and appeals regarding judicial reviews of the subsequent rulings. Resumption of the initial lawsuit regarding the land title is currently pending a judicial review ruling. MLE has strengthened its relationship with the Tenochtitlán Ejido through ongoing dialogue and is working toward reaching an amicable settlement outside of court. Should Tenochtitlan Ejido obtain a resolution in their favour, negotiations will be needed for compensation of the 1,097 ha.

MLE also holds 19,114 ha of surface rights consisting of the “Cielo Norteño” or “Rancho El Granizo” property to the northeast of the mine covering an area with water rights. Figure 4-3 shows the map of La Encantada Surface Rights.

Figure 4-3: Map of Minera La Encantada Surface Rights



Note: Figure prepared by First Majestic March 2021.

4.5 Permits

MLE has all of the necessary permits for current mining and processing operations, such as an operating license for mining and mineral processing activities, a mine water use permit, an Environmental Impact Authorization (EIA) for the La Encantada mine, processing plants and TMF, and a permit for power generation.

Additional information on permits is provided in Section 20 of this Report.

4.6 Existing Environmental Liabilities

Environmental liabilities for the operation are typical of those that would be expected to be associated with an operating underground precious metals mine, including the future closure and reclamation of mine portals and ventilation infrastructure, access roads, processing facilities, power lines, TMFs and all surface infrastructure that supports the operations.

Additional information on environmental matters is provided in Section 20 of this Report.

4.7 Factors and Risks

To the extent known to the QPs, there are no other significant factors and risks that may affect access, title, or the legal right or ability to perform work at La Encantada that are not discussed in this Report.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

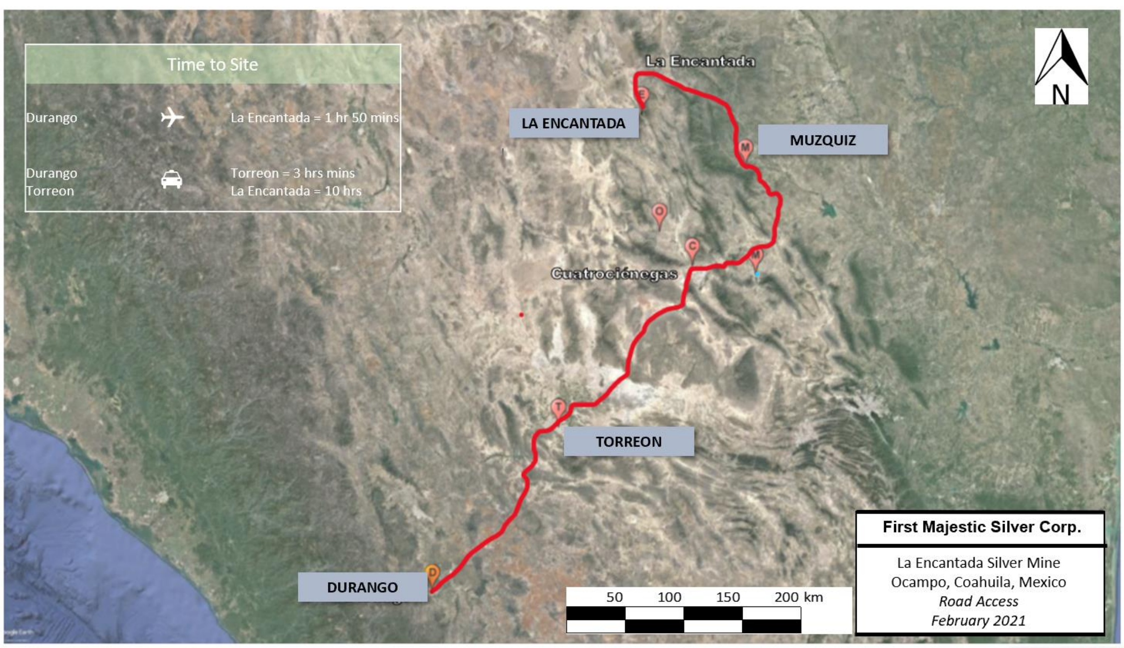
The La Encantada mine is located approximately 500 km north of the city of Torreon and 220 km northeast of the city of Muzquiz by road, and although in a remote location, it is accessible year-round. The city of Muzquiz is connected to the national highway system.

5.1 Accessibility

Access to La Encantada is primarily by charter airplane from Durango city (about two hours flying time), or from the city of Torreón, Coahuila (about 1:15 hours flying time). MLE operates its own private airstrip at the La Encantada mine. The airstrip is paved, 1,200 m long by 17 m wide, and is located at 1,300 masl.

Road access from the city of Muzquiz is via a 150 km paved road and another 70 km of gravel road. Driving time from the city of Múzquiz is approximately 2.5 hours, about five hours from the town of Ocampo and about eight hours from the international airport in Torreón city. The mine can be accessed and operated all-year round. Figure 5-1 shows the road access route to La Encantada.

Figure 5-1: Access to La Encantada



Note: Figure prepared by First Majestic, February 2021.

5.2 Physiography

La Encantada is located in the northern part of the Sierra Madre Occidental (SMO) physiographic province in a mountain range that corresponds to a symmetrical anticline (La Encantada Range). The La Encantada mountain range runs for about 45 km in the northwest–southeast direction and has elevations that vary from about 1,500 m to over 2,400 m.

5.3 Climate

La Encantada lies within a semi-hot and dry desert region and annual average temperatures typically range from 10–22°C, reaching highs of 30°C and lows of 2°C. Days with recorded freezing temperatures range from 20 to 40 days during the year. Annual average rainfall varies from 10–400 mm with most of the rain occurring during the summer months in short rainstorms. The predominant wind direction is from the northeast.

5.4 Local Resources and Infrastructure

La Encantada's remote location has required the construction of substantial infrastructure, which has been developed during a long period of active operation by First Majestic and the mine's previous owners, Peñoles and Compañía Minera Los Angeles, S.A. de C.V. (Compañía Minera Los Angeles).

Power supply to the mine, processing facilities and camp site is from diesel and liquified natural gas generators operated for First Majestic by a contractor. The potable water supply is also provided by First Majestic. First Majestic has installed a satellite communication system with internet. Handheld radios are carried by supervisors, managers, and vehicle operators for communication. Most of the supplies and labour required for the operation are sourced from the cities of Múzquiz, Sabinas and Monclova Coahuila, or directly from suppliers.

Additional information on the Project infrastructure is provided in Section 18 of this Report.

6 HISTORY

Historical information on exploration activities is included in Sections 9 and 10 of this report.

6.1 Mining at La Encantada through 2006

Exploration activities in the Encantada were initiated in 1956 by Compañía Minera Los Angeles. In 1956, the San José and Guadalupe deposits located to the north of the Escondida breccia pipe deposit were discovered and developed, and the related underground operation was known as the El Plomo mine. At the end of 1956, the San Francisco Vein was discovered, and in 1957 mining commenced on the 800, El Socorro and 8-de-Enero deposits. In 1963, the of the Prieta complex deposits were discovered as well as areas of the San Javier complex.

In 1967, Peñoles and Tormex established a joint venture partnership (Minera La Encantada) to acquire and develop La Encantada. A magnetic-separation plant was installed in July 1973 and replaced five years later by a flotation processing plant. The Cuerpo 660 high-grade silver massive lens replacement zone between the 635 and 710 levels was discovered in the Prieta complex in 1967, together with irregular replacement bodies and vein-type deposits.

In July 2004, Peñoles awarded a contract to operate the La Encantada mine, including the processing plant and all mine infrastructure facilities, to Desmin. Desmin operated the mine and processing plant at approximately 25% capacity until November 1, 2006 when First Majestic purchased all the outstanding shares of Desmin. Subsequently, First Majestic reached an agreement to acquire all the outstanding shares of MLE from Peñoles.

6.2 Corporate History

From November 2006 to June 2010, First Majestic operated a 1,000 tpd flotation plant which was refurbished after the Desmin purchase. All production during this period was from the flotation plant and was in the form of a lead–silver concentrate.

Construction of a 3,750 tpd cyanidation plant commenced in July 2008. Full production capacity was reached in the fourth quarter of 2010. During 2011, several modifications were made to the cyanidation plant increasing its capacity to 4,000 tpd. Commencing in November 2009, the cyanidation plant began producing precipitates and silver doré bars. The flotation circuit was placed on care-and-maintenance in June 2010, except for the crushing and grinding areas, which remain in operation. Since that time, the La Encantada operation has been producing only doré bars.

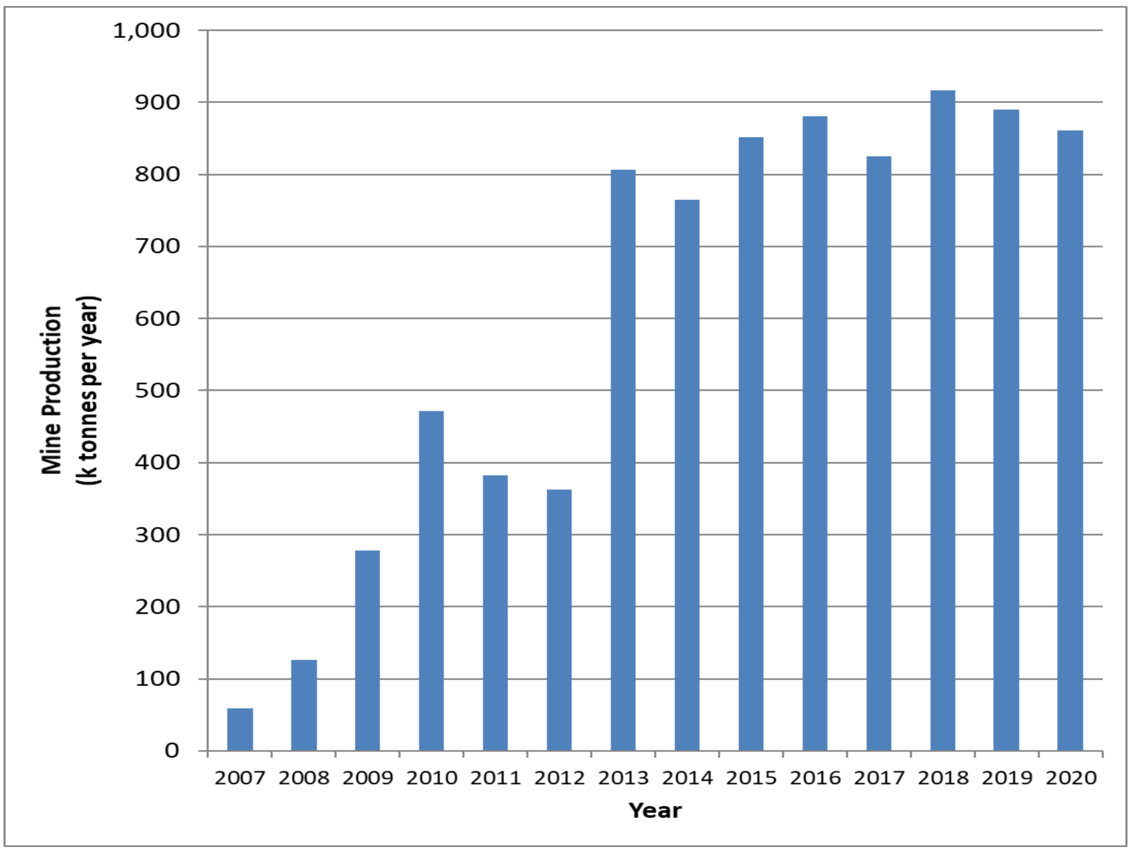
In December 2014, First Majestic began a plant expansion initiative to increase the crushing and grinding capacity to 3,000 tpd. A new ball mill, a tertiary crusher, two vibrating screens and a series of conveyor belts were installed. The plant expansion was completed by the end of May 2015 allowing for the ramp up to 3,000 tpd in July 2015.

The Esperanza decline was excavated to access the Prieta complex since the caving method that was to be used in the area was expected to damage the old Peñoles shaft and isolate the mining area from surface. In March 2018, the first caving blast was performed, and a constant production was achieved in the end of third quarter of 2018. The Esperanza ramp reached the Prieta complex in October 2018.

6.3 Production Statistics

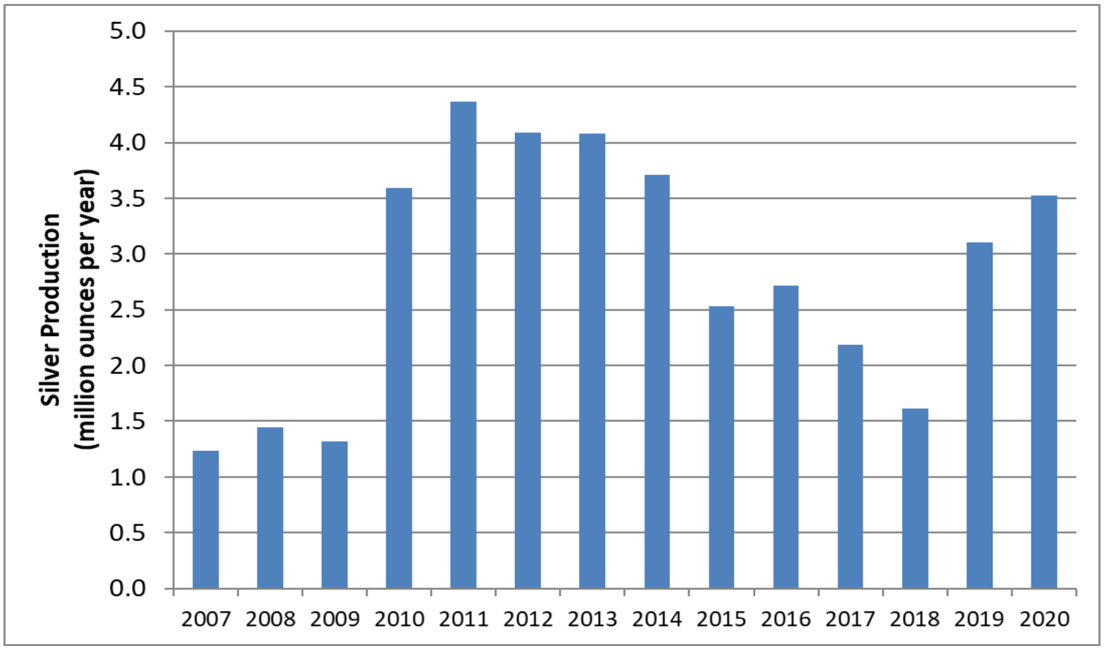
Mine production figures since 2007 in tonnes are presented in Figure 6-1 and silver metal produced is shown in Figure 6-2.

Figure 6-1: Mine Production since 2007



Note: Figure prepared by First Majestic, March 2021.

Figure 6-2: Silver Production since 2007



Note: Figure prepared by First Majestic, March 2021.

7 GEOLOGICAL SETTING AND MINERALIZATION

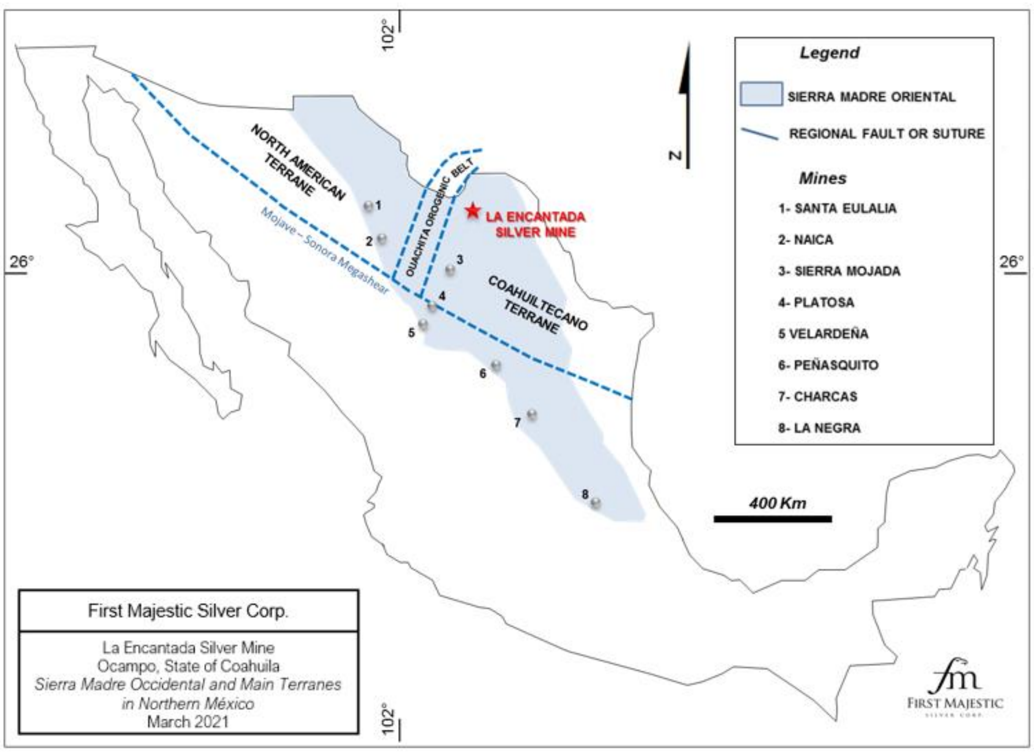
The following interpretations regarding the regional and local geology are based on internal reports, published documents, thesis, and work done by First Majestic geologists.

7.1 Regional Geology and Stratigraphy

La Encantada is located in the Sierra La Encantada, a northwest-trending mountain range, located in the northern part of Coahuila within the SMO fold and thrust belt. The SMO extends in a south–southeasterly direction for about 1,500 km, between longitudes 101°W and 108°W from the U.S.–Mexican border in the north to approximately latitude 20°N in the south. In Coahuila, the SMO encompasses wide flat alluvial plains separated by long narrow north–south to west–northwest-trending ranges.

The tectonic and stratigraphic basement consists of a mosaic of tectono-stratigraphic terranes bounded by mapped and interpreted shears or sutures. The names "Coahuila" or "Coahuiltecano" terrane were proposed by Campa and Coney (1983) and Sedlock et al. (1993), respectively, for the Paleozoic basement of the northeastern portion of Mexico beneath most of the states of Coahuila, Nuevo León, and Tamaulipas. Figure 7-1 shows the SMO province and the Coahuiltecano terrane and other terranes of Mexico as defined by Sedlock et al. (1993).

Figure 7-1: Map of Mexico Showing the SMO Physiography and location of La Encantada Silver Mine



Note: Figure prepared by First Majestic, March 2021. Regional mines shown are operated by third parties.

The Coahuiltecano terrane consists of Paleozoic low-grade metamorphic rocks, and Paleozoic arc-derived flysch and arc-related volcanic rocks that were intruded by Triassic calc-alkalic plutons and overlapped by Late Jurassic and Cretaceous platform rocks that cover most of the terrane.

Paleogeographic features that were relevant for the post-Paleozoic stratigraphic and tectonic evolution of the region include the Burro-Peyotes Peninsula, the Coahuila Block, and the Sabinas Basin. The Sabinas Basin is a graben limited by the Coahuila Block to the south, and the Burro–Peyotes peninsula to the north. Formation of the Sabinas Basin began in the Permo–Triasic during the Ouachita–Maraton orogeny. Reactivation of the San Marcos fault in the Late Jurassic accommodated north–northeast crustal extension and contributed to the development and growth of the basin (Chavez-Cabello et al., 2007). The San Marcos fault is a 300 km long crustal structure that separates the Coahuila block from the Coahuila fold belt.

During the Jurassic and Cretaceous, development of the Sabinas Basin, a ~6,000 m-thick sequence of siliciclastic, carbonate, and evaporite sediments were deposited unconformably on the Coahuiltecano terrane (González-Sánchez et al., 2009). Sabinas Basin carbonate rocks, including the Lower-Upper Cretaceous Cupido, La Peña and Aurora Formations, host mineralization at La Encantada and other mines and prospects in the region.

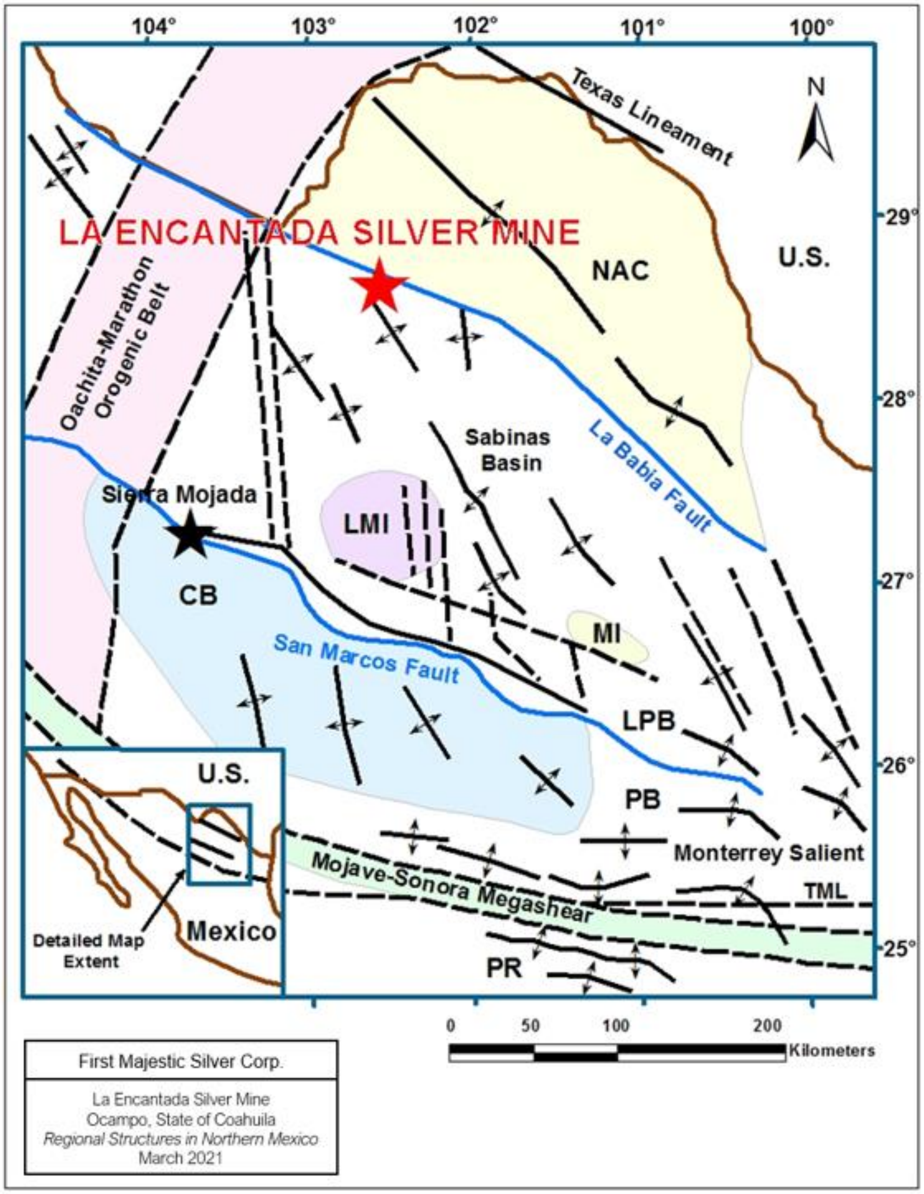
Northeast–southwest oriented compression during the Cretaceous to early Tertiary Laramide Orogeny deformed the Mesozoic sedimentary rocks into a series of north–northwest-trending folds and faults, which gave rise to the SMO, i.e., the Mexican fold thrust belt. Extension in the mid to late Tertiary reactivated and reopened Laramide age and older faults, including the structures bounding the Coahuila platform and the Burro-Peyotes peninsula (San Marcos and La Babia faults, respectively), and developed further northwest–southeast oriented faults.

The mid-Tertiary extensional deformation was accompanied by widespread magmatism, with the related fault zones acting as conduits for the emplacement of shallow level intrusive rocks within the carbonate sedimentary sequence (granitic, monzonitic and granodioritic stocks). Some intrusions produced skarn-related mineralization where in contact with Cretaceous limestones and were later exposed by erosion due to widespread uplift and block faulting during the Pliocene.

7.2 Regional Structure

The SMO is made up of north- and northwest-trending anticlinal ranges and faults that formed during the Laramide Orogeny between the Late Cretaceous and Early Tertiary. Pre-existing structures cutting through the Paleozoic basement of Northern Mexico were probably reactivated during the Laramide Orogeny and during post-Laramide, Eocene–Oligocene extensional tectonics. Two major crustal structures were important in the formation and growth of the Sabinas Basin: the northwest-trending San Marcos fault to the south, separating the Coahuila block from the Sabinas Basin, and the northwest-trending La Babia fault to the north, which separated the Burro-Peyotes peninsula from the basin (Figure 7-2).

Figure 7-2: Map of Northern Coahuila Showing the Sabinas Basin and the Regional La Babia and San Marcos Faults



Note: Figure prepared by First Majestic, March 2021.

Crustal scale structures are generally interpreted as favorable structural settings for the localization of mineral deposits, and La Encantada lies along the projection of the La Babia fault-lineament. Examples of other deposits along the major crustal faults include Sierra Mojada, which lies right on the San Marcos Fault, and Platosa lying along a major northwest-trending structure on the western margin of the Coahuila block (Stockhausen, 2012, Megaw et al., 1988). Other important districts such as Santa Eulalia and Naica lie in a similar structural setting within the Chihuahua trough (Ruiz et al., 1986; Megaw et al., 1988).

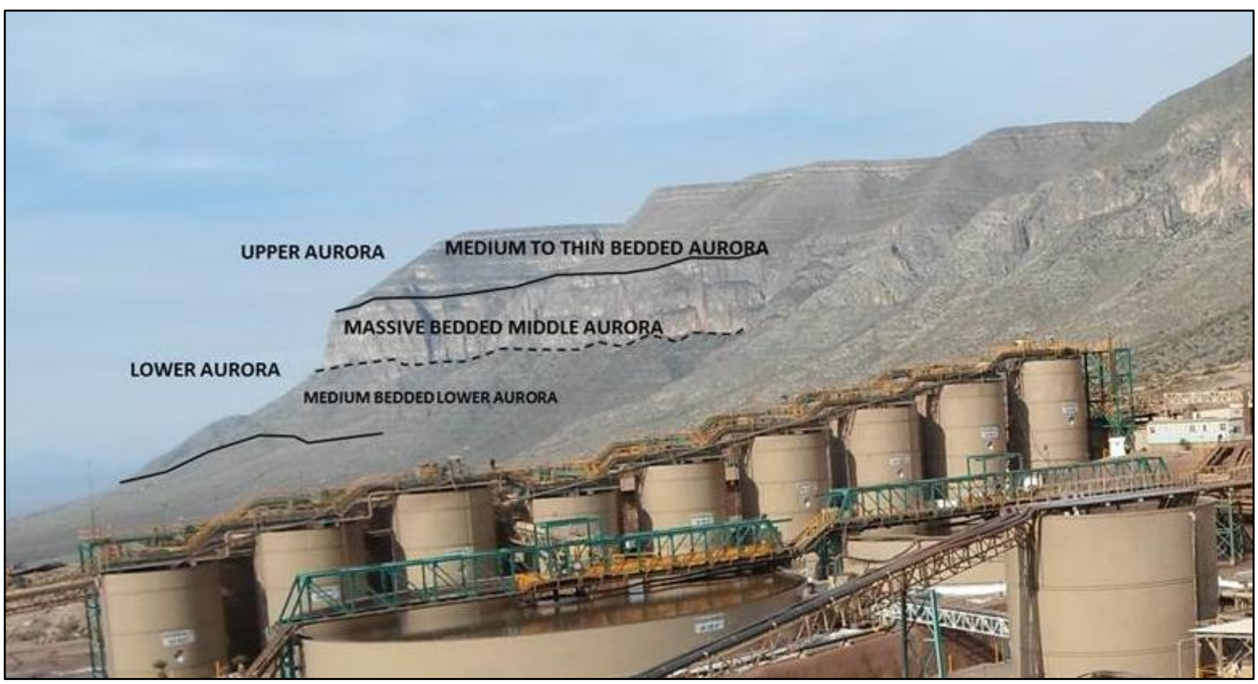
7.3 Local Geology and Stratigraphy

The stratigraphic section at La Encantada consists of marine sedimentary rocks that were deposited in the Sabinas Basin between the Lower Cretaceous and the Upper Cretaceous. The base of the stratigraphic section consists of the Hauterivian-Early Aptian age Cupido Formation. The Cupido Formation consists of thin-bedded limestones and dolostones that have rarely been intersected by deep drill holes. The formation crops out outside the Project area in the La Vasca range approximately 30 km northwest of the mine.

The approximately 200 m thick La Peña Formation of Late Aptian age overlays the Cupido Formation and consists of thin-bedded black shales interlayered with black bituminous carbonaceous limestones (Lozano, 1981).

Conformably overlying the La Pena Formation is the 452 m thick Early-Middle Albian Aurora Formation, which is the primary host rock for mineralization at La Encantada. The lower unit consists of medium to massive bedded calcilutites and minor calcarenites, becoming more distinctively medium-bedded calcispaerula bearing to locally cherty calcisiltites in the upper section (Lozej and Beals, 1977; Lozano, 1981). The middle of the limestone sequence consists of dense, thick-bedded, grayish calcilutite, which forms distinctive cliff faces at La Encantada. The upper Aurora Formation consists of medium to thin bedded limestone. Figure 7-3 shows a view of the Encantada range front exposures of the Aurora Formation.

Figure 7-3: Panoramic View of La Encantada Range Front Exposing the Aurora Formation

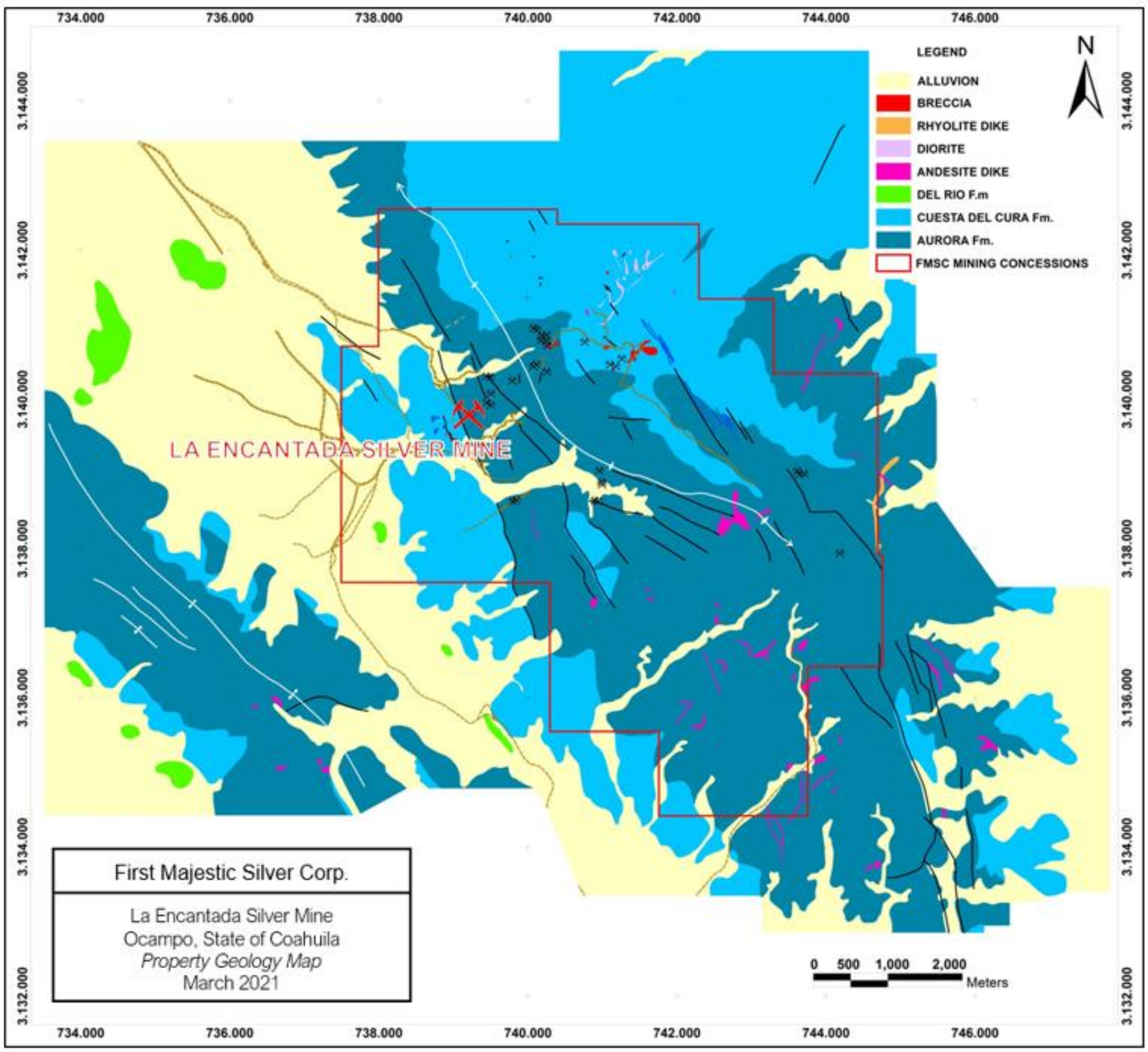


Note: Figure prepared by First Majestic, March 2021. Looking North.

Conformably overlying the Aurora Formation is the middle Albian-lower Cenomanian age Cuesta del Cura Formation. This distinctive thin-bedded limestone consists of 250–350 metres of oolitic limestones with abundant chert nodules and lenses.

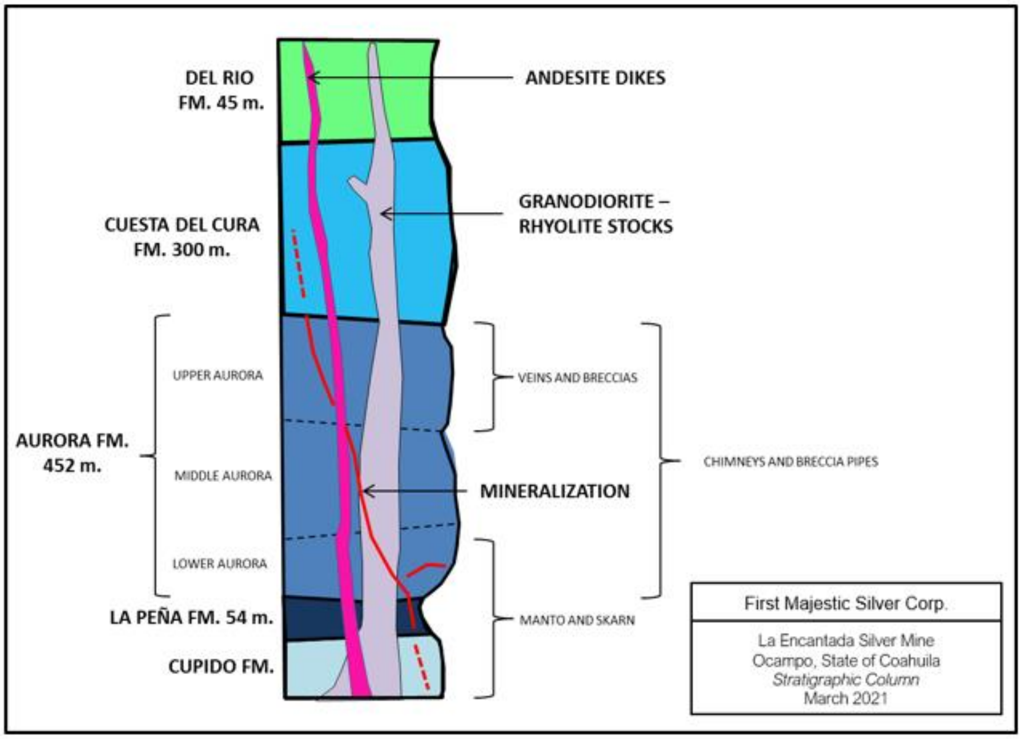
Thin-bedded alternating shales and limestones of the Del Rio Formation, and medium-bedded limestones correlating to the Buda Formation conformably overlie the Cuesta del Cura Formation; their precise thicknesses in the mine area are unknown, but estimated thicknesses are approximately 45 m for the Del Rio Formation and 100 m for the Buda Formation (Diaz, 1987). Figure 7-4 is a property geological map showing the main outcropping units and structures, and Figure 7-5 is a stratigraphic column for the area.

Figure 7-4: Geological Map of La Encantada Property



Note: Figure prepared by First Majestic, March 2021. Fm = formation.

Figure 7-5: Stratigraphic Column for La Encantada



Note: Figure prepared by First Majestic, March 2021. FM = formation.

A granodiorite stock and rhyolite to basalt dikes of Eocene–Oligocene age intrude the Cretaceous carbonate rocks. The granodiorite is intersected in drill-holes within the La Prieta complex and in underground developments and drill holes at the San Javier–Milagros complex. The intrusion consists of feldspar, quartz, and ferromagnesian minerals (hornblende), and commonly shows retrograde alteration consisting of epidote, chlorite and tremolite along fractures and disseminated in the matrix. Localized silicification and higher-temperature potassic alteration has been also observed, mainly affecting the matrix.

Intrusion-related alteration of the wall rocks produced irregular skarn, hornfels and marble aureoles in the Prieta complex. Because of its spatial relationship to the skarn alteration and mineralization, it is believed that the intrusion is genetically linked to the polymetallic mineralization. Whole-rock K/Ar dating of hydrothermally altered granodiorite yielded a chronological age of 27 Ma (Diaz, 1987). The K/Ar age reported by Diaz (1987) should be interpreted as a minimum possible age of intrusion emplacement. Age determinations by the K/Ar method in a fresh quartz monzonite intrusion from the La Vasca prospect located 30 km northwest from la Encantada gave a 52 Ma age date, whereas other intrusions in northern Coahuila had ages between 30–35 Ma (Kiyokawa, 1977). The Eocene–Oligocene age range of the intrusions in northern Coahuila suggest that magmatic and hydrothermal activity prevailed in the region for at least 25 million years.

7.4 Structural Geology

La Encantada lies on the southwestern flank of the northwest-trending Sierra de La Encantada anticlinorium and the silver deposits occur along a series of northeast-trending faults and fractures that cut obliquely across the regional north–northwest-trending anticlinorium. Multiple phases of fracturing associated with uplift and igneous intrusions has added complexity to the structural regime.

Structural data at La Encantada appear to fit with the tectonic evolution defined in other parts of northern Mexico, which is likely to comprise four deformation events (Starling, 2014):

1. East–northeast–west–southwest compression (D1) related to the early stages of the Laramide orogeny (~80–60 Ma) produced north–northwest-trending open upright folds and low-angle shearing sub-parallel to bedding. The D1 event is likely to have generated the initial structural pattern in the La Encantada district, with the northeast fault zones developed as steep tear/transfer faults that appear to have been initially dextral in shear sense. North–northwest structures control the position of some shoots of mineralization;

2. North–northeast–south–southwest oriented compression and contractional deformation (D2) likely occurred during the opening of the Atlantic basin (~60–40 Ma). D2 marked the change from "thin-skinned" (i.e., cover rocks only) fold–thrust deformation to "thick-skinned" deformation (including the basement) that reactivated basement structures and terranes. The open fractures that host the northeast-trending vein systems were developed during D2;

3. Post-Laramide orogenic relaxation in the form of north–northeast–south–southwest regional extension (D3), which is seen throughout Mexico and the southern USA;

4. Early- to main-stage Basin-and-Range east–northeast–west–southwest extension (D4) that produced north–northwest-trending normal faults and tilting in the regions of higher degrees of crustal thinning.

The most important ore-controlling structures at La Encantada are northeast-trending normal faults and fractures that control the formation of breccia pipes and vein shoots at the intersection with northwest-trending cross structures. Major northwest- to north–northwest-trending faults such as the main La Encantada front-range fault do not appear to be mineralized.

7.5 Mineralization

7.5.1 Overview

Deposits at La Encantada are examples of polymetallic, high-temperature, intrusion-related carbonate-replacement and minor skarn-hosted deposits. The carbonate-replacement deposits are hosted by the Jurassic–Cretaceous Aurora Formation (Megaw et al., 1988).

Carbonate replacement deposits are characterized by irregularly-shaped pods, lenses and massive lens, and roughly tabular masses of oxides. Some replacement deposits are associated with skarn alteration and mineralization also hosted by the sedimentary carbonate rocks.

Discordant, near-vertical deposits with irregular elongate shapes proximal to main intrusions are referred to as chimneys and breccia pipes, such as the San Javier, Milagros and Prieta breccia deposits.

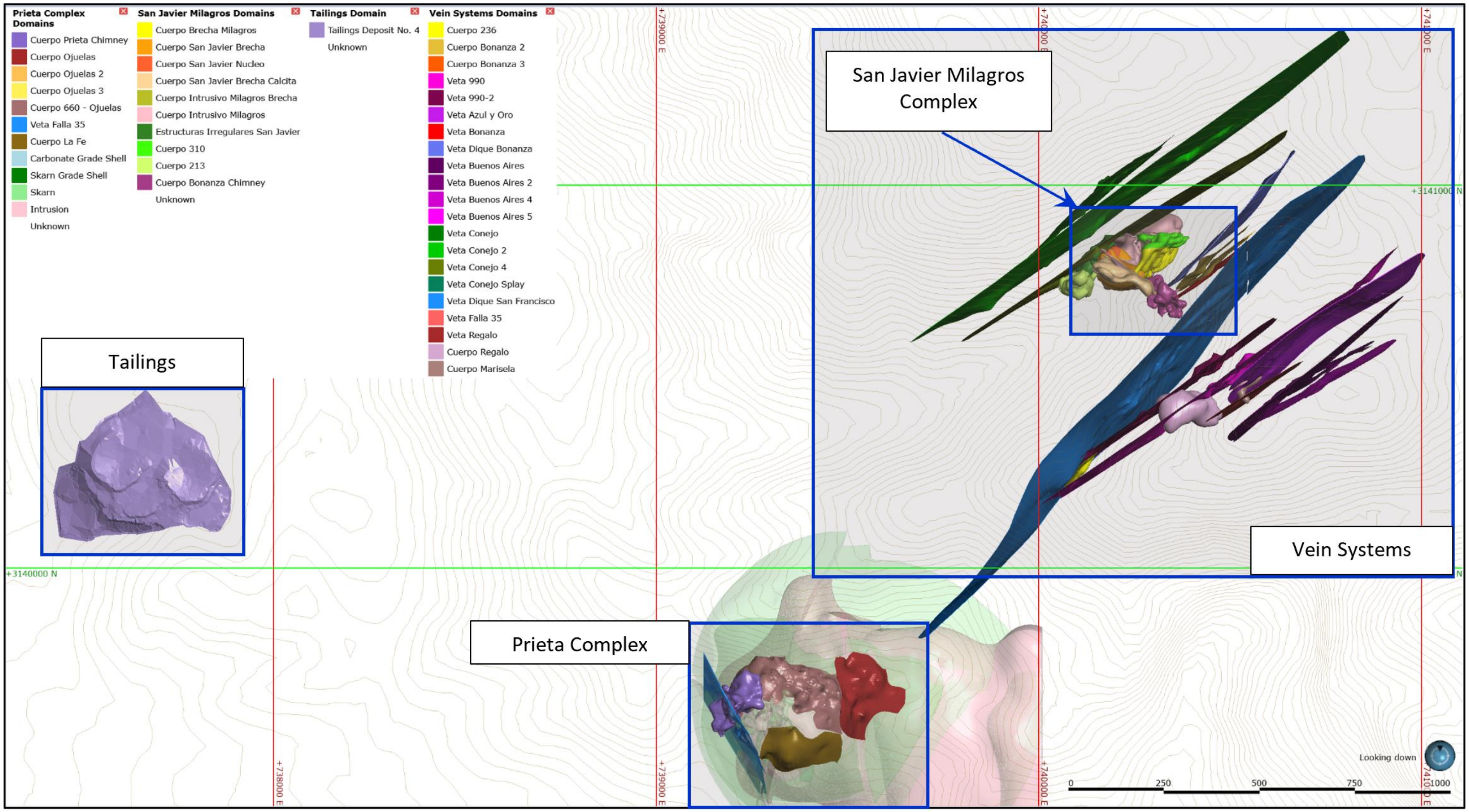
Tabular sub-vertical replacement deposits are referred to as veins and can contain richer mineral shoots or small chimneys at the intersection of northwest-trending faults and fractures. Steeply dipping, tabular deposits of the Vein systems have a northeast orientation and are commonly distal to main intrusions. Narrow andesitic dikes are hosted along some northeast-trending vein/faults, and some host silver mineralization, e.g., the Dique San Francisco.

Massive lens replacement zones of the Prieta complex are proximal to a granodiorite source intrusion and formed adjacent to skarn alteration. Contact metamorphic features (recrystallization to marble, development of hornfels and skarnoid) normally occurs peripheral to the skarn zone.

Intrusive contacts and intrusion-related faults are the most important controls in the skarn-related deposits, whereas skarn-related alteration, faults, folds, and fracture systems are dominant controls on breccia pipes, massive lenses, and veins.

The mineral deposits have been grouped into four geological mine areas: the Prieta complex, the San Javier–Milagros complex, the Vein systems, and Tailings Deposit No. 4. Figure 7-6 is a location map.

Figure 7-6: Mineral Deposits at La Encantada. Plan View.



Note: Figure prepared by First Majestic, March 2021.

Note: When used for plan maps and figures, this compass symbol is a graphical representation of grid north, with the black triangle marking north. All map scales are in meters.

Tailings Deposit No. 4 consists of cyanidation circuit filtered tailings from previously processed ore that has been stacked on the surface close to process Plant No. 2.

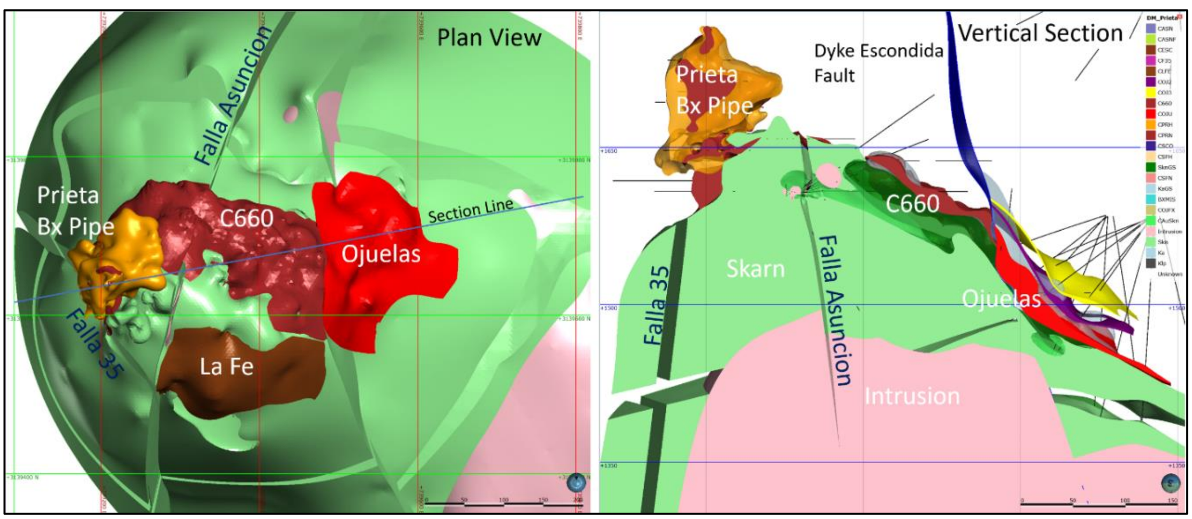
Mineralization at La Encantada consists of secondary oxide minerals that are the products of the strong supergene oxidation of primary sulphides, extending to >500 m depth. The most common oxide minerals are hematite, goethite, jarosite, argento-jarosite, cerussite, anglesite, zincite, pyrolusite, hemimorphite, smithsonite, willemite, malachite and brochanthite. Native silver occurs as the oxidation product of the silver sulphide mineral acanthite.

Native silver and oxide minerals also occur with sulphides in skarn and carbonate replacement zones where sulphides are partially converted to oxide minerals. The sulphide minerals acanthite, pyrite, magnetite, marmatite (iron-rich sphalerite), galena, chalcopyrite, and covellite occur in the Prieta and San Javier–Milagros complexes.

7.5.2 Prieta Complex

The Prieta complex silver, lead, and zinc polymetallic deposits consist primarily of massive lens-type and breccia pipe carbonate replacement deposits that formed adjacent to the limits of skarn alteration in Aurora Formation limestones. The skarn alteration also hosts silver, lead, zinc, and gold mineralization in a dome shaped halo that surrounds a granitic intrusion(Figure 7-7).

Figure 7-7: Plan View and Vertical Section of the Prieta Complex



Note: Figure prepared by First Majestic, March 2021.

The massive lens type deposits include Ojuelas, Cuerpo 660, and La Fe. Together, these deposits form a nearly continuous carbonate replacement zone encircling the skarn alteration, between 1,425–1,675 m elevation, that has lateral dimensions of approximately 550 by 350 m. The Ojuelas deposit is positioned on the east side of the skarn alteration and is fault offset from the Cuerpo 660 deposit to deeper structural levels by the Dike Escondida normal fault. The La Fe deposit is positioned on the south side of the skarn alteration between 1,550 and 1,650 m elevation with lateral dimensions of approximately 300 by 150 m. Skarn-hosted mineralization and irregular carbonate replacement deposits are found surrounding the massive lens deposits. Locally the carbonate replacement mineralization appears to conform to the bedding of the limestone, but in other areas the mineralization crosscuts bedding. Structurally above the Ojuelas deposit the Aurora Formation is intensively fractured, with hematite staining along fractures.

The Prieta breccia pipe is a high-grade, polymetallic silver, lead, zinc deposit that formed on the west side of the complex adjacent to and structurally above the skarn alteration. The breccia body is an irregular chimney-shaped deposit that extends from 1,600–1,800 m in elevation with lateral extents of 100 by 100 m. The deposit is intensely oxidized and comminuted, obscuring primary textures. It is believed to have had a massive to semi-massive sulfide matrix originally.

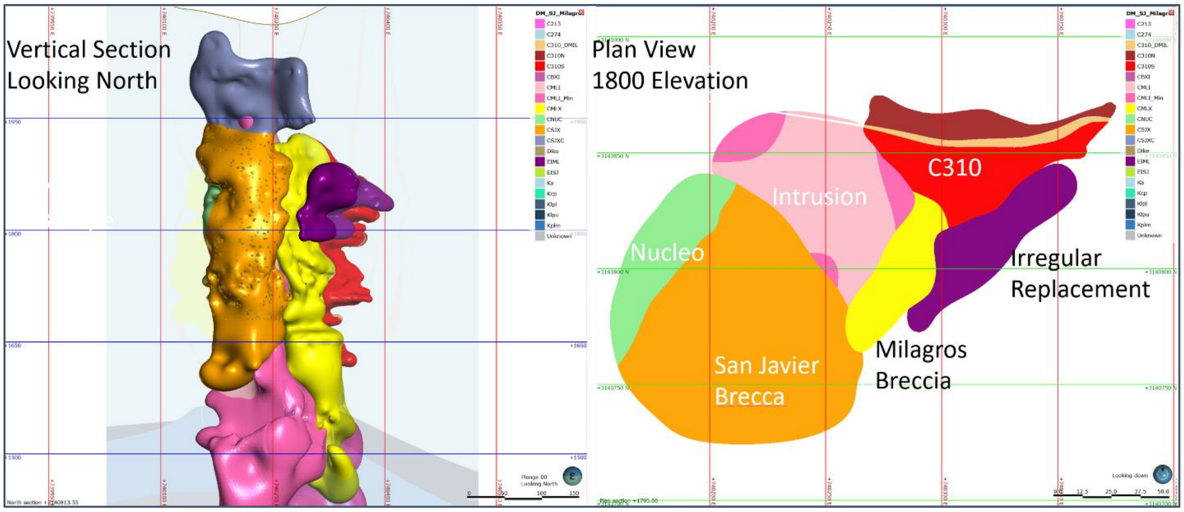
Fault zones associated with the development of the Prieta breccia pipe and the massive lens carbonate replacement deposits also host polymetallic silver mineralization. The Falla 35 fault strikes northwest, crosscuts the Prieta breccia pipe and hosts vein-style mineralization to the southeast of the breccia, extending to the La Fe deposit. The Falla Asuncion fault strikes northeast and crosscuts both Cuerpo 660 to the north and La Fe to the south. Falla Asuncion can show silver and higher levels of gold as this structure is hosted primarily within skarn alteration, which contains disseminated gold.

7.5.3 San Javier–Milagros Complex

The San Javier–Milagros complex consists of a quartz monzonite stock bounded by two silver breccia pipe deposits and associated chimney-shaped, silver-bearing, carbonate replacement deposits. These are the San Javier and the Milagros breccias with the adjacent Nucleo and Cuerpo 310 replacement deposits. The Milagros intrusion also hosts lesser silver mineralization near its margins. The San Javier-Milagros complex extends from the 1,400 m elevation to surface at the 2,000 m elevation and has lateral extents of approximately 400 by 175 m.

The San Javier breccia is a poorly consolidated and predominantly clast-supported, chimney-shaped breccia consisting of sub-rounded limestone fragments (monomictic breccia) ranging in size from tens of centimetres to several metres. Some of the clasts are recrystallized or replaced by iron and manganese oxides, and the matrix is usually fine-grained oxidized and comminuted rock. In contrast, the Milagros breccia is a matrix-supported, chimney-shaped breccia consisting of limestone and intrusive clasts (polymictic breccia) varying in size from centimetres to tens of centimetres. The matrix of the Milagros breccia is made up of fine-grained and oxidized and comminuted rock. Most rock fragments in this breccia are rounded to sub-rounded. Figure 7-8 shows vertical and level plan views of the complex and Figure 7-9 shows examples of the Milagros breccia.

Figure 7-8: Vertical Section and Plan View of the San Javier Milagros Complex



Note: Figure prepared by First Majestic, March 2021.

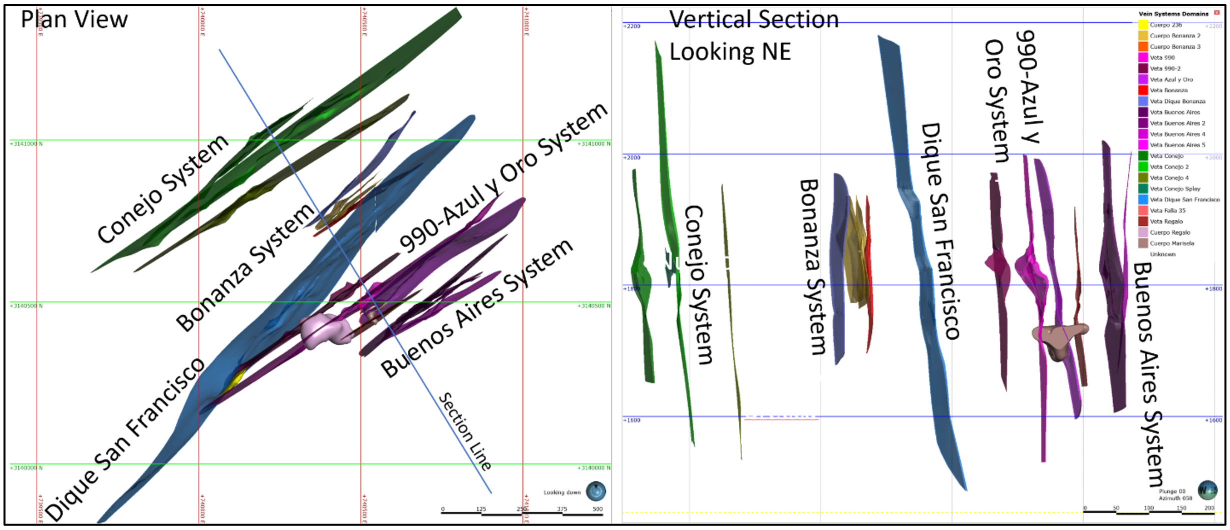
Figure 7-9: The Milagros Breccia Visible at the 1660 UG Level

Note: Figure prepared by First Majestic, March 2021.

7.5.4 Vein Systems

The silver mineralization in the Vein systems consists of numerous, steeply-dipping, tabular-shaped deposits with open space-filling and carbonate replacement developed along northeast-trending faults and fractures. From north to south, are the Conejo, Bonanza, Dique San Francisco, 990, 990-2, Regalo, Azul y Oro and Buenos Aires vein systems (Figure 7-10).

Figure 7-10: Plan View and Vertical Section of the Vein Systems



Note: Figure prepared by First Majestic, March 2021.

Northwest-trending cross-faults intersect the northeast-trending veins, which occasionally favors the development of pipe-like chimneys or vein-hosted mineral shoots. Mineralogically, the veins consist of siderite, manganiferous calcite, calcite, hematite, goethite, pyrolusite, acanthite and native silver. Vein mineralization occurs commonly between 1,750– 1,950 metres elevation although greater vertical extents are encountered particularly at the intersections of the veins with the northwest-trending structures. The entire system has been recognized over an area that is approximately 2000 by 750 m. Veins typically pinch and swell and vein thickness varies between a few centimetres to several metres in the case of the Conejo and 990 vein systems. The Dique San Francisco is over 1,700 m in strike length and the vein structure contains an oxidized and argillized andesitic dike that has been mineralized along with the carbonate replacement adjacent to the dike.

8 DEPOSIT TYPES

The principal mineral deposits at La Encantada are examples of high-temperature, carbonate-hosted silver-lead-zinc replacement deposits. According to Megaw (1988) and Plumlee (1995), polymetallic vein and replacement deposits are hosted in thick carbonate sedimentary sequences, they are commonly intimately associated with igneous intrusions, and they are controlled by local and regional structures. Vein and carbonate hosted silver-lead-zinc replacement deposits are characterized by irregular shaped pods, lenses and massive lens, and roughly tabular mantos. Some carbonate replacement deposits (CRD) are associated with skarn alteration and mineralization also hosted by the sedimentary carbonate rocks.

Geochemical data indicate temperatures ranging from 200° to 500°C. The hotter solutions are typically from skarn zones adjacent to intrusions. The wide range of mineralization styles possessed by these deposits reflects different responses to intrusions, depth of emplacement, host-rock characteristics, structural control, and geochemical evolution.

The host carbonate rocks are often altered, recrystallized or bleached, and in some deposits the carbonate minerals are replaced by calc-silicate skarn minerals such as epidote, garnet, and pyroxene in proximity to igneous intrusions. Mineralization may be hosted in the intrusions as well. Mineralization is present in mantos or massive lenses, pipes, and veins, and some massive ore contains > 50% sulfide minerals. A district may contain a series of orebodies controlled by both structures and stratigraphic features.

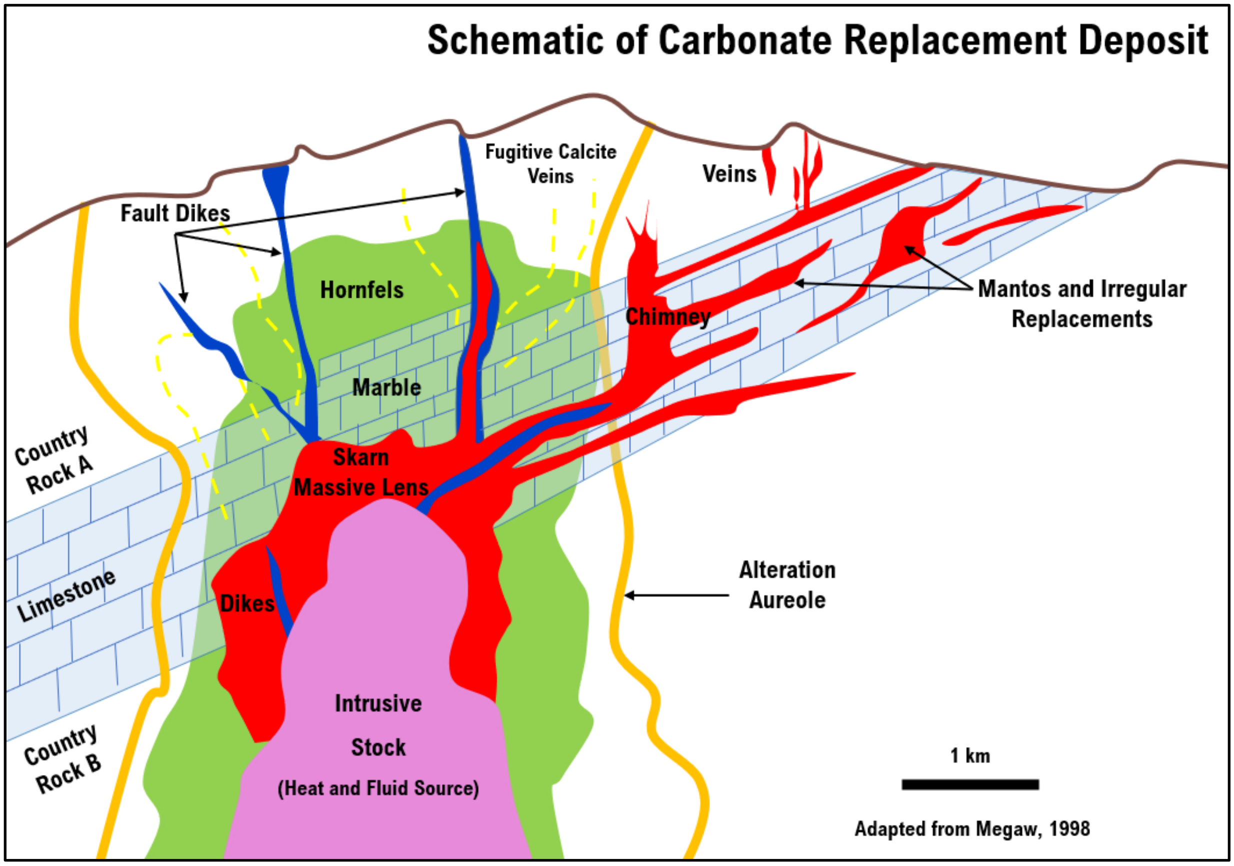
Discordant near vertical deposits with irregular elongate shapes proximal to main intrusions are referred to as chimneys and breccia pipes, such a San Javier, Milagros and Prieta breccia deposits.

Tabular sub-vertical replacement deposits are referred to as veins, and they can contain richer mineral shoots or small chimneys at the intersection of northwest-trending faults and fractures. Steeply dipping, tabular deposits of the Vein Systems have a northeast orientation, and they are commonly distal to main intrusions. Narrow andesitic dikes are hosted along some northeast-trending vein/faults, and some host silver mineralization, e.g., the Dique San Francisco.

Massive lens replacements of the Prieta Complex are proximal to a granodiorite source intrusion and they formed adjacent to skarn alteration. Contact metamorphic features (recrystallization to marble, development of hornfels and skarnoid) normally occurs peripheral to the skarn zone.

Figure 8-1 shows a schematic model of the polymetallic silver deposit types observed at La Encantada adapted from Megaw, 1988.

Figure 8-1: Schematic of Carbonate Replacement Deposit Model



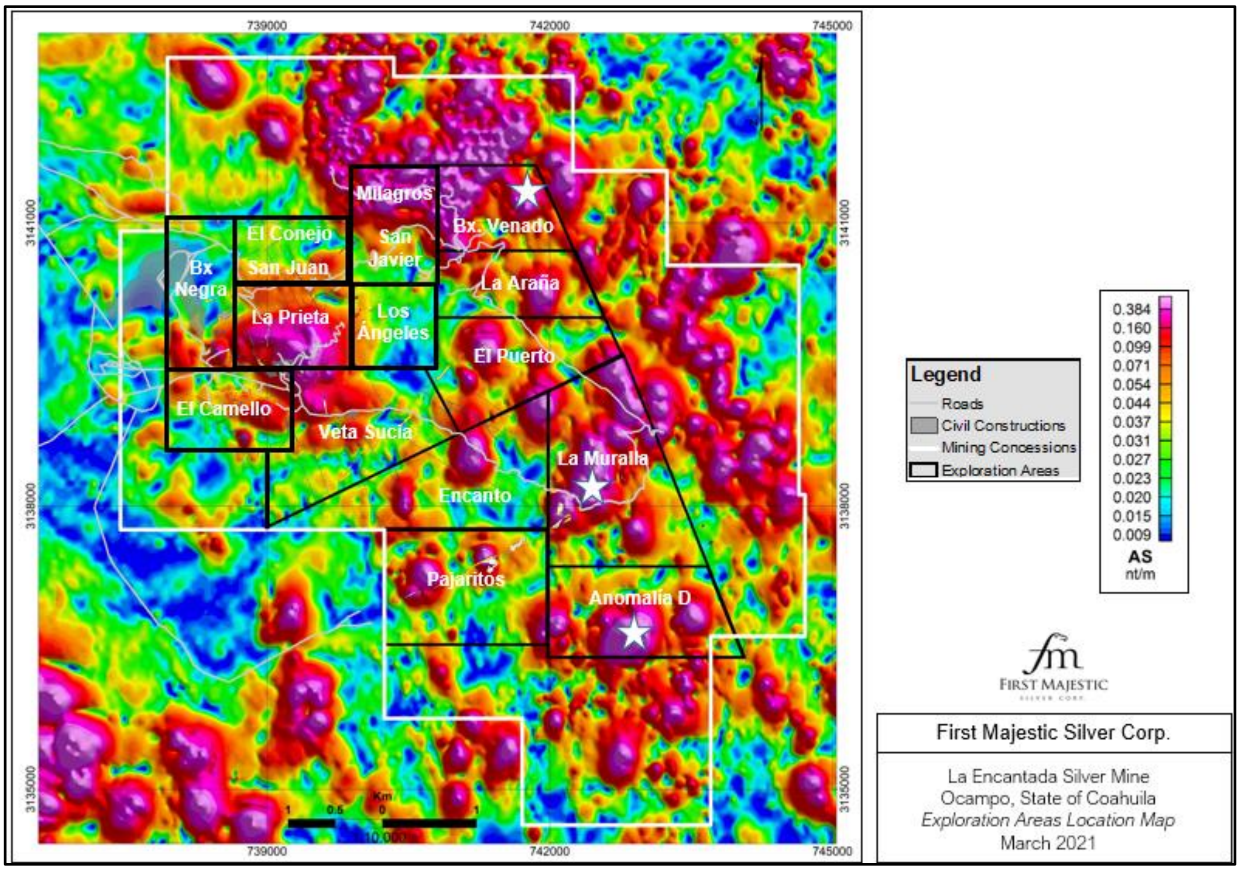
Note: Figure prepared by First Majestic, March 2021.

Exploration programs that use a CRD model are considered appropriate for the La Encantada area.

9 EXPLORATION

Surface exploration work completed by First Majestic at La Encantada includes geological mapping, geochemical sampling, a natural source audio-frequency magnetotellurics (NSAMT) geophysical survey, acquisition and processing of regional aeromagnetic data, an isotopic study, and core drilling. Surface geological mapping and sample geochemistry was completed at El Camello, Anomaly B, La Escalera and El Plomo. Surface drilling has been carried out at Ojuelas in the Prieta complex, El Camello, El Plomo, Conejo Extension, Brecha Encanto, Veta Sucia and other areas with magnetic analytic signal anomalies (*Figure* 9-1).

Figure 9-1: Location Map of Exploration Areas Showing Analytic Signal Anomalies



Note: Figure prepared by First Majestic, March 2021.

Underground exploration primarily consists of a combination of drilling and mine development along structures due to the complexity of the mineralized bodies.

9.1 Geophysical Surveys

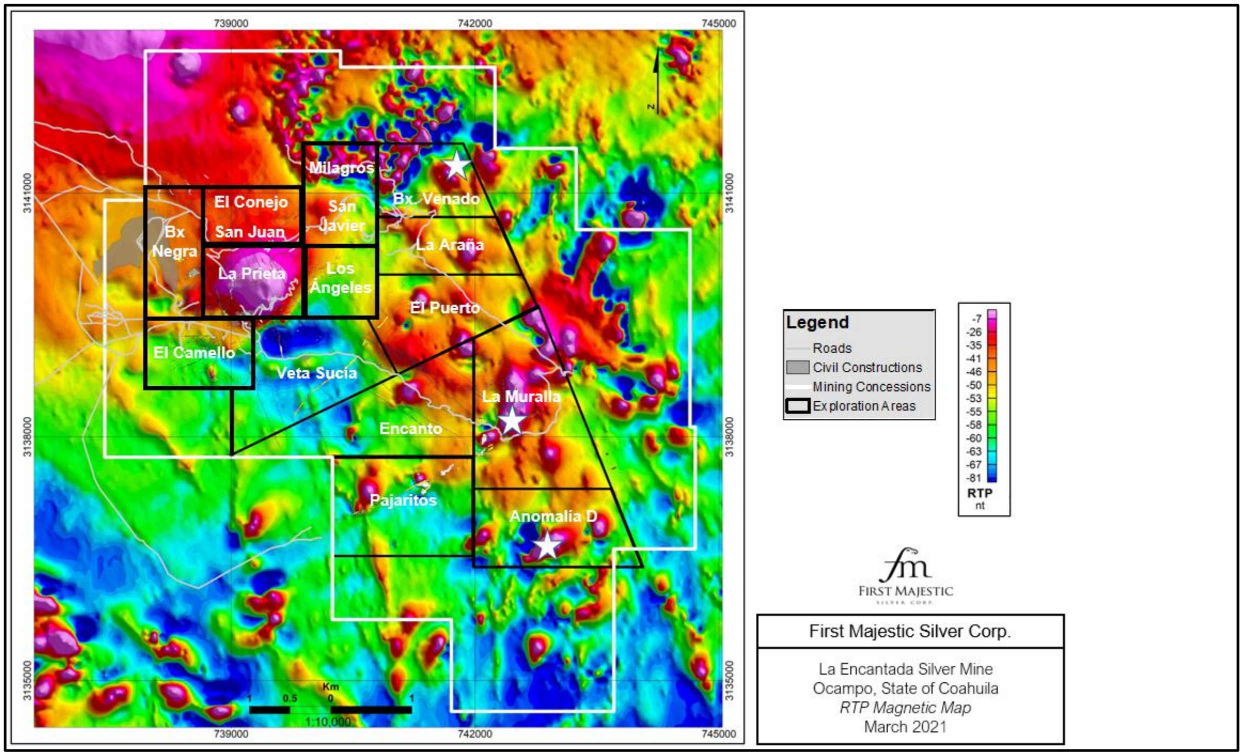
9.1.1 Magnetic Surveys

In 1994, Peñoles completed an aeromagnetic survey that identified five different magnetic highs. One of the magnetic anomalies lies over the Prieta complex. The other four anomalies were referred to by Peñoles as the A, B, C and D anomalies and occur within 4 km of the mine along a north–northwest trend. Mapping and geochemical surveys were carried out by Peñoles' geologists on those anomalies.

In 2009, First Majestic acquired regional aeromagnetic data from Servicio Geológico Mexicano and retained the services of Instituto Potosino de Investigación Cientifica y Tecnología to perform data processing . The digital data were collected between 1975 and 1976 with flight lines-oriented northeast–southwest, line spacing of 1,000 m and altitude of 450 m with respect to the terrain. The study produced a reduction to pole (RTP) magnetic anomaly map showing sharp magnetic highs over intrusions in the region. In general, magnetic highs were identified over regional intrusions and magnetic lineaments could be distinguished along regional structures outside of the Project area.

In 2016, R.B. Ellis was contracted by First Majestic to carry out a local aeromagnetic survey over the La Encantada Project. Analytic signal and RTP were successful in detecting intrusive bodies in the Prieta and San Javier Milagros complex areas. As a result, the methods, were recommended to be used in other areas to identify alignment of magnetic anomalies and linear features that could represent structures and intrusion sources. Figure 9-2 shows the RTP magnetic anomaly map and exploration areas.

Figure 9-2: RTP Map Showing Magnetic Highs in Exploration Areas of Interest



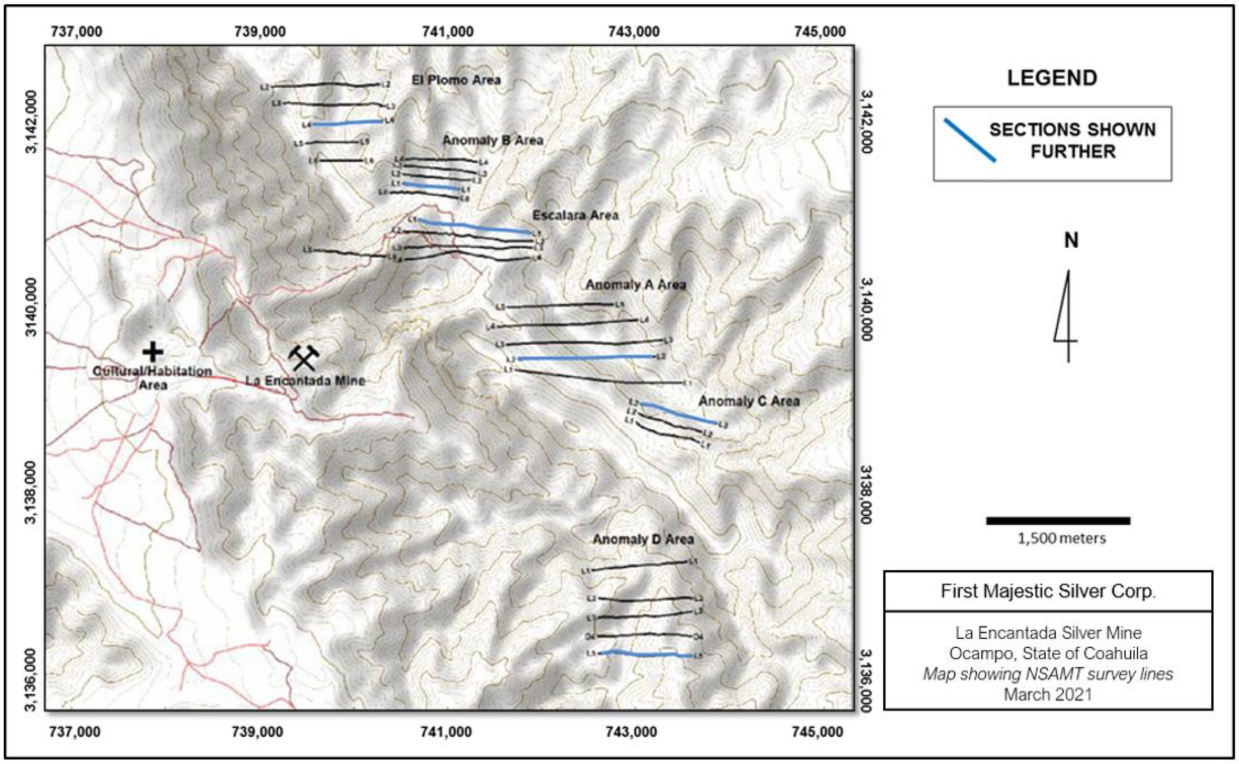
Note: Figure prepared by First Majestic, March 2021.

9.1.2 Natural Source Audio Magneto Telluric Survey

In 2008, First Majestic hired Zonge Engineering and Research Organization (Zonge) to conduct a NSAMT survey) over the A, B, C and D magnetic highs, the La Escalera breccia and the Plomo anomaly. The study comprised 28 east-west oriented lines totaling 30 line-km with a station spacing of either 25 or 50 m.

The primary goal of the NSAMT survey was to assess the subsurface resistivity structure in the area east of the La Encantada mine. Except for one area (El Camello), survey data from six other sites, including Anomaly A, Anomaly B, Anomaly C, Anomaly D, Escalera, and El Plomo was of sufficient quality and resolution to provide reasonable geological interpretations from the observed resistivity models. Figure 9-3 shows the location of the NSAMT lines surveyed over the magnetic highs defined by Peñoles in 1994.

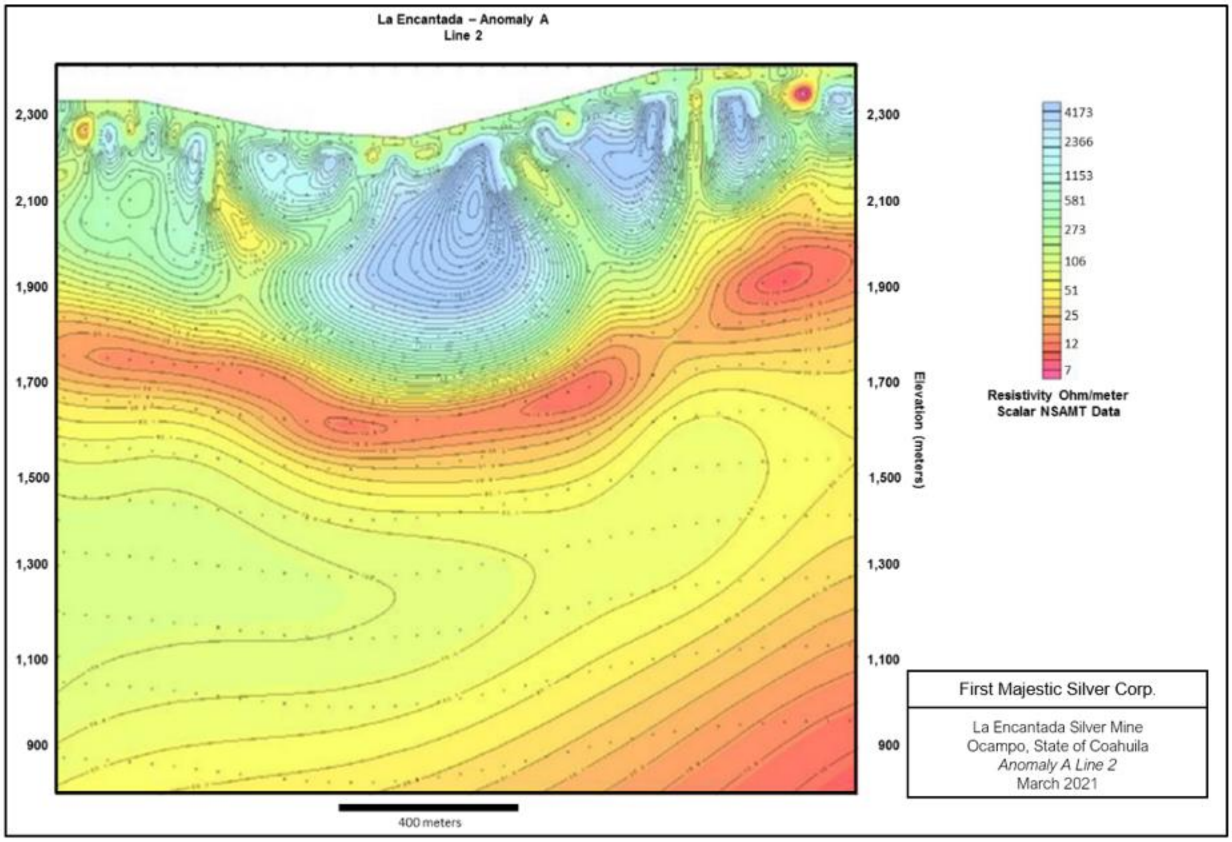
Figure 9-3: Map Showing the Location of the NSAMT Survey Lines



Note: Figure prepared by First Majestic, March 2021.

Over Anomaly A, the study identified a low-angle structure cut intermittently by narrow vertical conductive features indicative of vertical faults or fractures in the shallow and mid depth range (Figure 9-4).

Figure 9-4: NSAMT Section Across Anomaly A

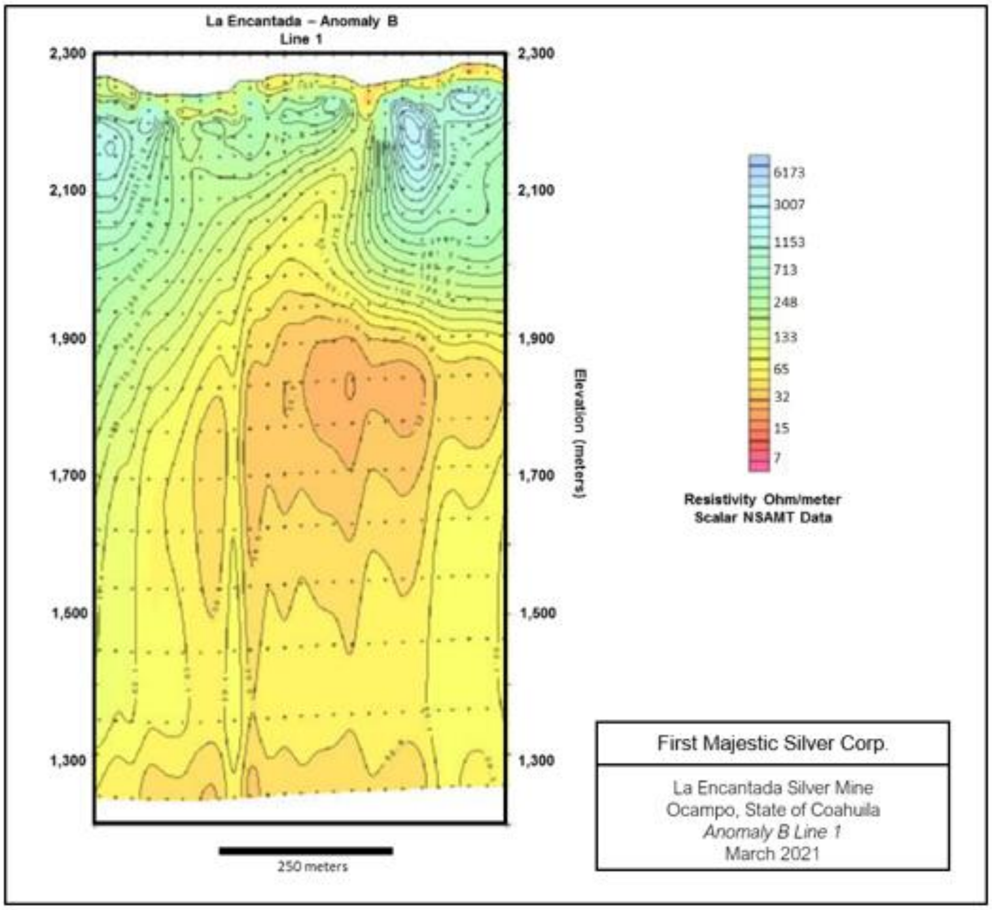


Note: Figure prepared by First Majestic, March 2021.

Two core drill holes were completed to test the anomaly. The holes did not intercept silver mineralization but did intercept andesitic dikes and breccias.

The survey outlined a steep vertical gradient over Anomaly B, together with a change in resistivity character that may indicate a major fault (Figure 9-5).

Figure 9-5: NSAMT Section Across Anomaly B

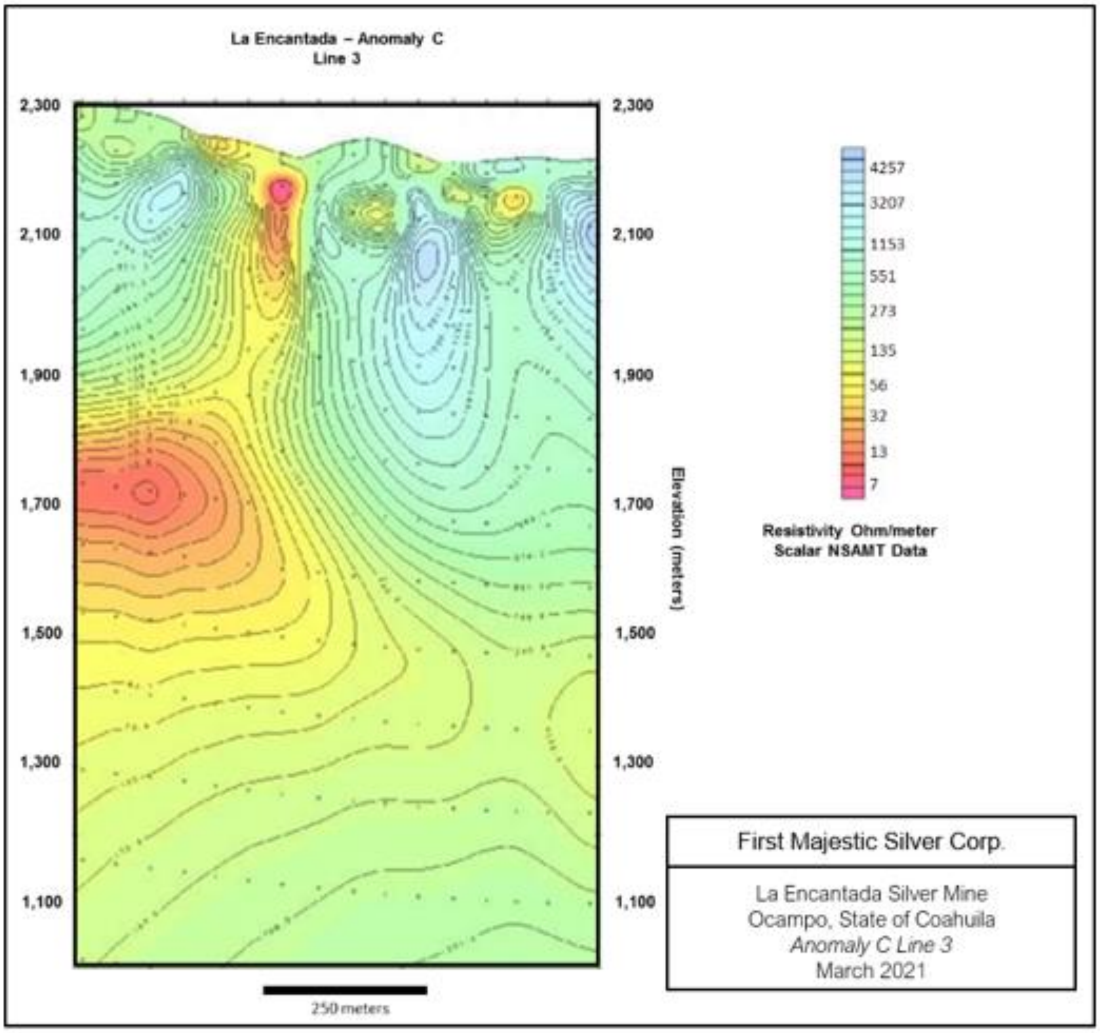


Note: Figure prepared by First Majestic, March 2021.

Two holes were drilled for a total of 1,263 m were drilled to test this area, but the results were negative.

Lines over Anomaly C near La Palma revealed a resistivity structure similar to that observed at Anomaly A (Figure 9-6).

Figure 9-6: NSAMT Section Across Anomaly C

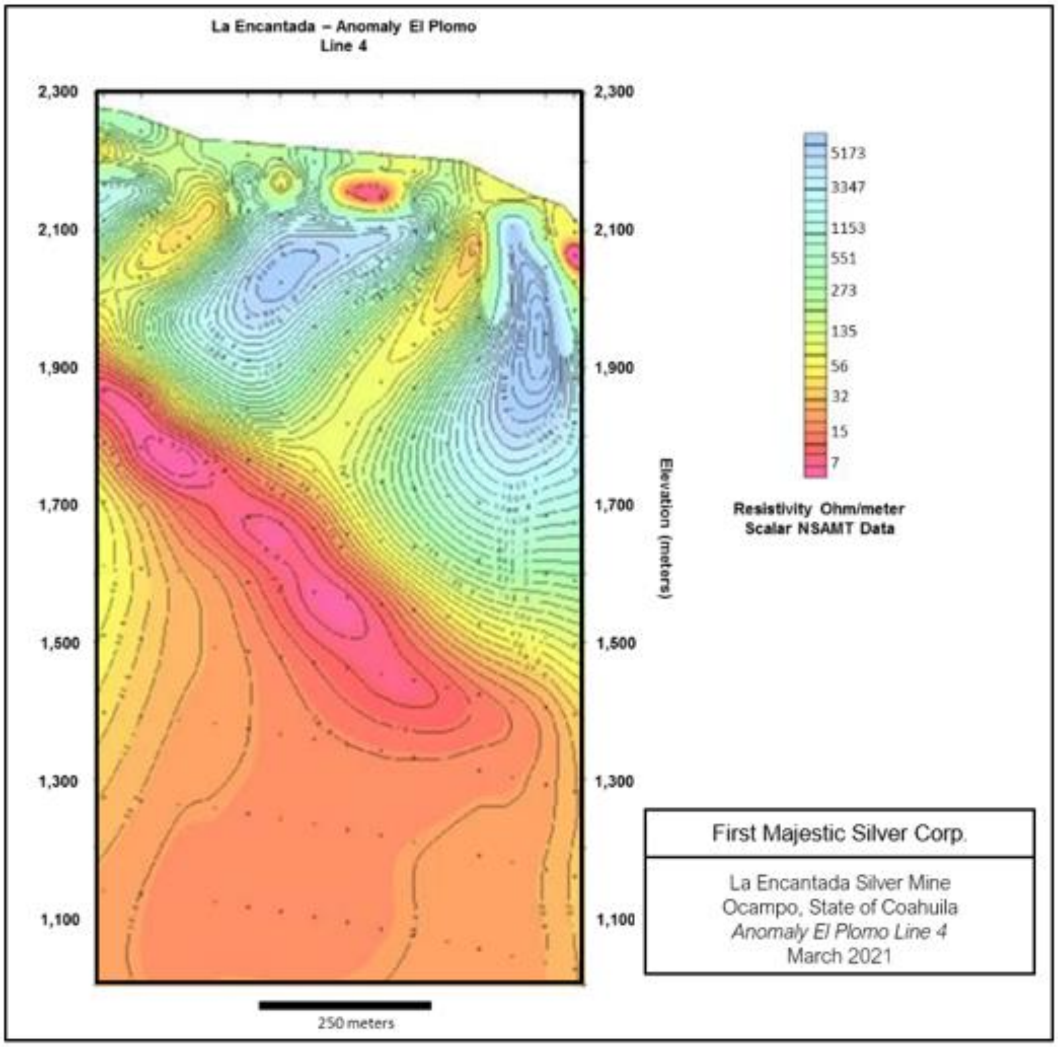


Note: Figure prepared by First Majestic, March 2021.

Three holes were drilled for a total of 1,476 m and intercepted a limestone clast-supported breccia with anomalous silver, lead, zinc and mercury values.

Lines over the El Plomo anomaly indicate a subsurface resistivity structure similar to that observed at Anomaly B, and a feature of interest is located at about Station 475 on Line 2 (Figure 9-7).

Figure 9-7: NSAMT Section Across Anomaly El Plomo

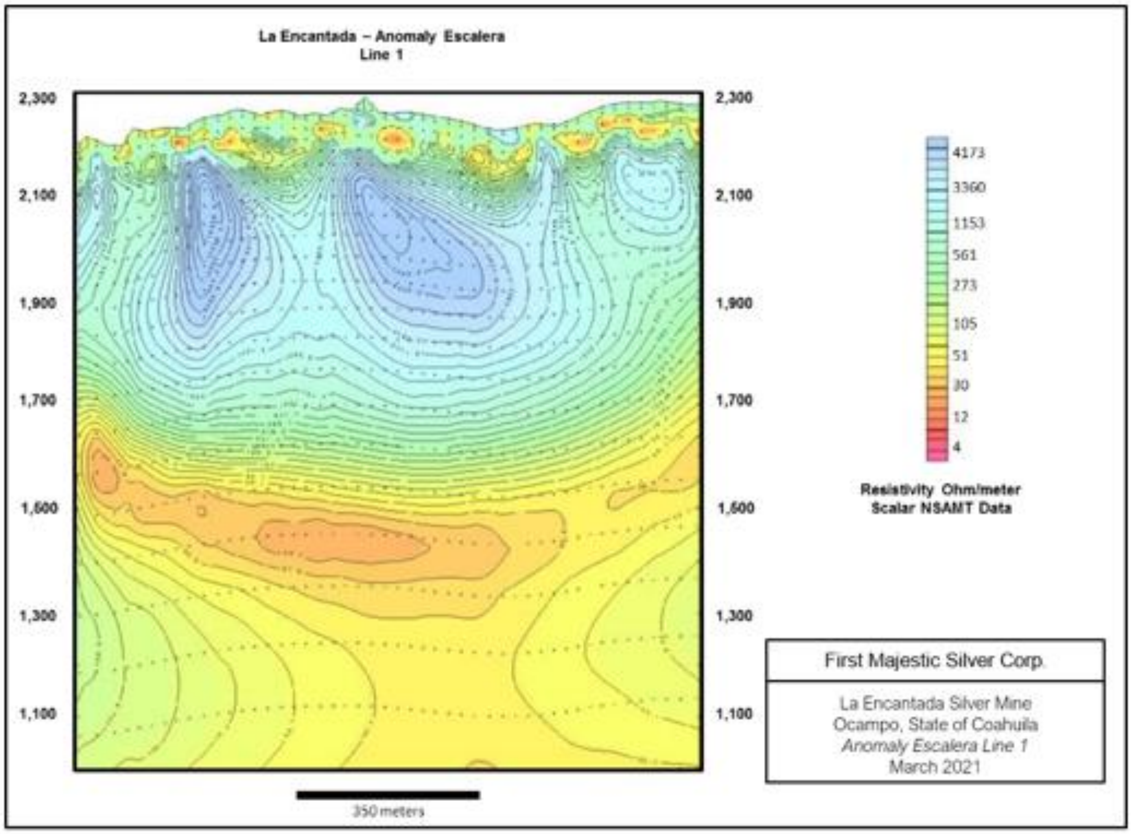


Note: Figure prepared by First Majestic, March 2021.

Here a narrow high resistivity dike-like feature is inferred from deep in the section extending upward to the near surface. A total of six holes were drilled totalling 2056 m at El Plomo and the holes indicate that the resistivity anomaly corresponds to a quartz-siderite vein hosted in a fault zone.

At La Escalera the data show a consistent subsurface resistivity anomaly, with a moderately conductive shallow layer (20–50 m thick) and a thick mid-depth range resistor (from about 100 m depth to 600–800 m depth). Below the thick resistor is a thin, very conductive layer or contact (5–25 ohm-m) that grades into low to moderate resistivity to the base of the model sections (Figure 9-8).

Figure 9-8: NSAMT Section Across Anomaly La Escalera



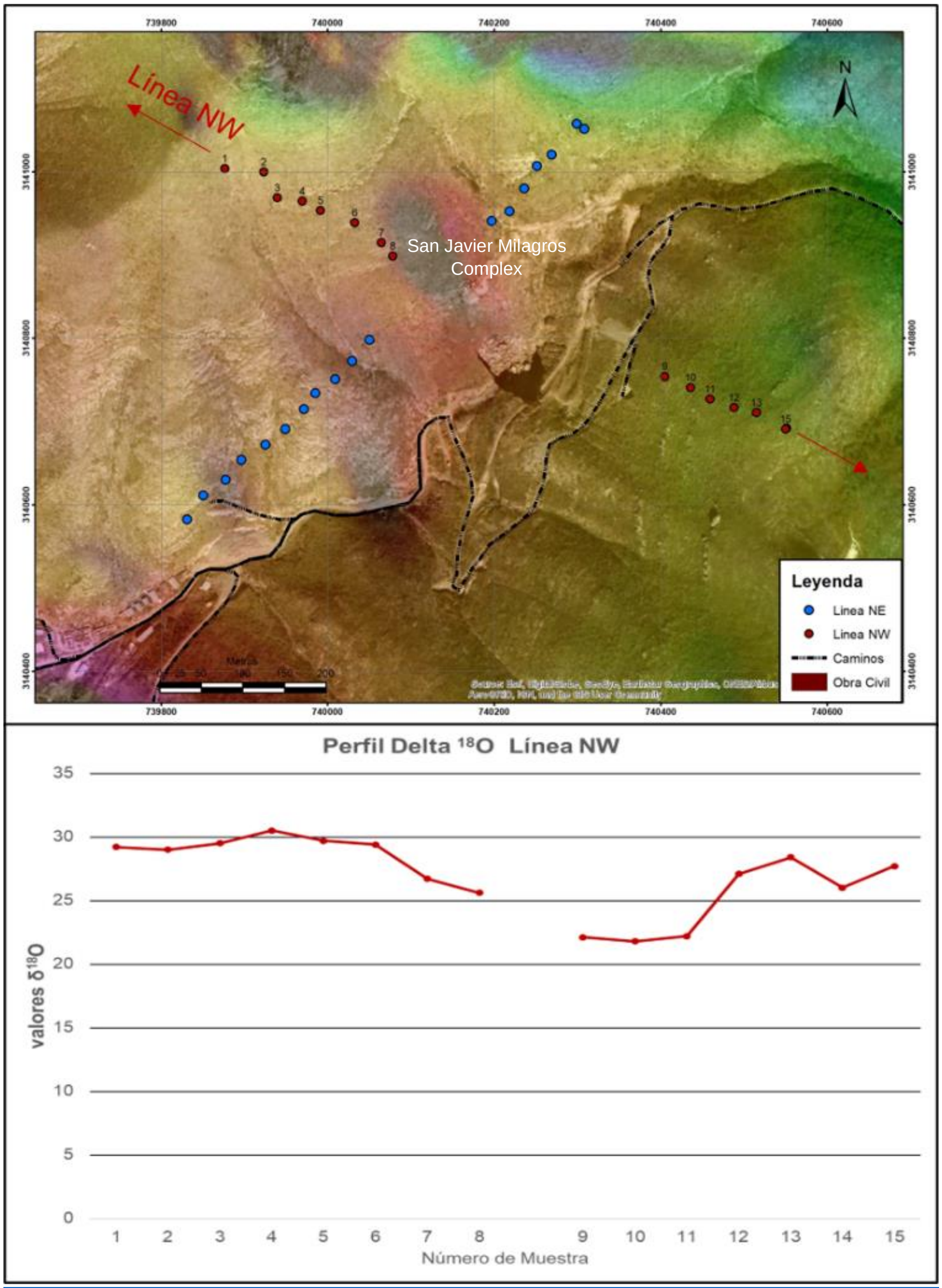
Note: Figure prepared by First Majestic, March 2021.

A total of 1,240 m were drilled at La Escalera area in three holes but the results were negative.

9.2 Stable Isotope Analysis

In 2018 First Majestic completed an ^{18}O and ^{13}C stable isotope analysis over the intrusion-related San Javier–Milagros complex to test the ability of the method to identify buried intrusive rocks. Exploration geologists collected 33 surface samples from limestone outcrops along two different lines oriented northeast and northwest. The northwest orientation line revealed a decay in isotopic composition from samples close to the projection of Milagros intrusion (Figure 9-9).

Figure 9-9: Location Map of Isotope Sampling and Results of δ18O for the northwest line



Note: Figure prepared by First Majestic, March 2021.

Based on the results from this investigation, additional studies are planned over areas where strong magnetic anomalies have been observed to test for the presence of possible intrusive rocks.

10 DRILLING

From 2008–2011, drilling at La Encantada consisted of small diameter delineation drill holes used to support mine development. From 2011–2020, First Majestic conducted core drilling programs to explore the Project area and to support geological interpretations, modeling, and mineral resource estimates. No reverse circulation (RC) drilling has been carried out by First Majestic. Channel sampling from underground mine developments was completed to support mine production and Mineral Resource estimation.

First Majestic categorizes drill-holes as “delineation holes” (used to guide and support mine developments), “infill holes” (to improve the quality of resource estimates) and “exploration holes” (to identify new mineralization). First Majestic completed most of the delineation holes using its own rigs and workforce. Since 2016, First Majestic uses contractors for all infill and exploration holes.

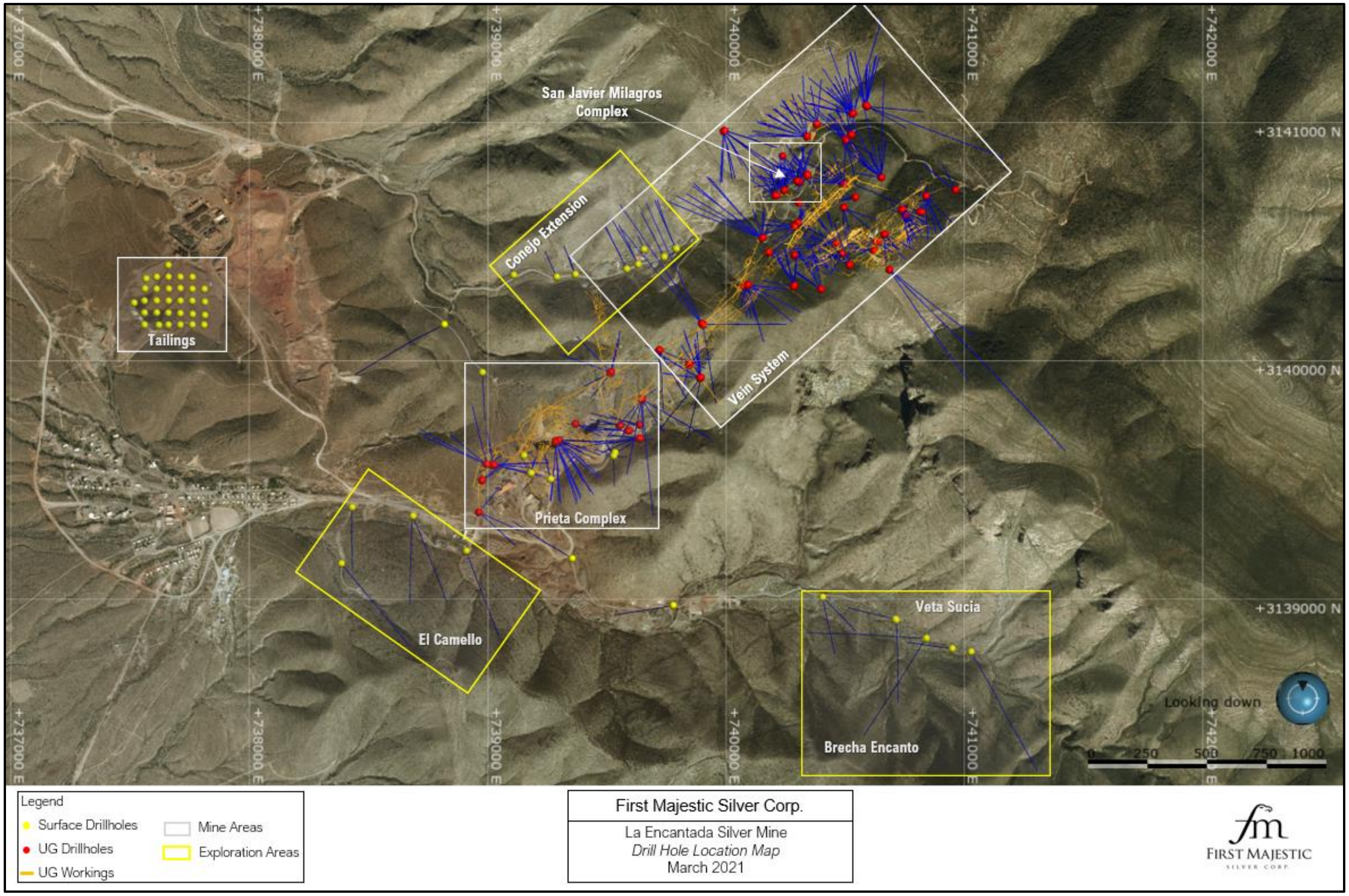
10.1 Exploration and Infill Core Drilling

Core drilling typically recovered HQ size core (63.5 mm core diameter) from surface and underground, and NQ size core (47.6 mm) was used where ground conditions required a reduction in core size to drill deeper. Between March 2011 and December 2020, several core drilling campaigns were completed. Total drilling during this period amounts to 111,365 min 572 core drillholes across the mine areas, and 193 m from 10 hollow stem auger drillholes in the tailing deposit. A total of 94,029 m were drilled underground from 497 holes, and 17,337 m were drilled from surface in 77 holes. The primary areas drilled from surface include the Prieta complex, El Camello, Brecha Encanto, Veta Sucia, the Conejo Extension, and Tailings Deposit No. 4. Underground areas drilled during this period include: the 990, 990-2, El Regalo, Azul y Oro, Buenos Aires, Bonanza, Conejo, and Dique San Francisco zones in the Veins system; San Javier Brecha, Milagros Brecha, Intrusivo Milagros and Cuerpo 310 in the San Javier–Milagros complex; and Cuerpo Ojuelas, Cuerpo La Fe and Veta Falla 35 in the Prieta complex. Table 10-1: Drill Holes Completed by First Majestic, La Encantada shows a summary of the drill holes completed and Figure 10-1 is a location map of the drill holes.

Table 10-1: Drill Holes Completed by First Majestic, La Encantada

Year	Company	Drill Holes	Meters Drilled
2011	First Majestic	19	3,272
2012	First Majestic	15	2,513
2013	First Majestic	43	5,440
2014	First Majestic	94	16,457
2015	First Majestic	63	8,049
2016	First Majestic	56	10,785
2017	First Majestic	89	15,491
2018	First Majestic	106	19,955
2019	First Majestic	66	17,724
2020	First Majestic	31	11,872
	Grand Total	**582**	**111,558**

Figure 10-1: Drill Hole Location Map, La Encantada



Note: Figure prepared by First Majestic, March 2021.

10.2 Core Handling and Storage

The standard practice followed by First Majestic's drillers and contractors under First Majestic supervision is:

1. Extract the core every 3.05 m (length of one drilling rod or run), place the core onto a sample collector that matches the length of the run;
2. Break the core when necessary to ensure pieces match the length of the core box;
3. Mark the core using a coloured pencil at the place where it was broken;
4. Place the core into the core boxes, and then place a wooden block at the end of the run with the total depth of the hole and core length recovered in the run;
5. Mark hole ID and box number on the core boxes and lids, then once full, the core box is closed with a top lid and stacked for transportation.

Core boxes from underground drilling are transported and delivered to the core shed by drillers at the end of every shift (drillers work 12-hour shifts). The core boxes are properly closed, and the box lids are secured with raffia fiber or rubber bands to prevent core from falling out of the box during transportation. The condition of the boxes, metre blocks and core are checked by one of the exploration geologists prior to core logging. Once the core boxes have been checked, the exploration technicians wash the core and inspect for out-of-sequence core pieces, mark every metre on the core, and labels depth intervals on core boxes and lids. Next the core is logged (recovery, rock quality designation (RQD), geotechnical and lithological logging), sampled, photographed, and afterward the core boxes are placed on racks within the secure environment of the core shed. Upon acquisition of La Encantada, First Majestic built a new core shed with an approximate capacity of 100,000 me of core and rebuilt an old core shed originally built by Peñoles increasing the capacity to about 130,000 m of core.

10.2.1 Data Collection

Data collected at La Encantada include collar surveys, downhole surveys, logging (lithology, alteration, mineralization, structure, veins, sampling, etc.), specific gravity (SG), and geotechnical information. The data collection practices employed by First Majestic are consistent with mining industry standard exploration and operational practices.

10.2.2 Collar Survey

Drill hole collars from campaigns prior to 2014 were surveyed by First Majestic surveyors using a Trimble S3 total station with accuracy of 2” in angular measurements, and 3 mm in distance. In late 2013, First Majestic hired Topografía y Construcción (Topcon) to survey the mine and hole-collars. Between late 2013 and 2014, Topcon re-surveyed some historic hole-collars, most of the collars from the 2013 drilling campaign, and surveyed all the collars from the 2014 drilling campaign. Topcon used a Sokkia 630 RK total station with accuracy of 6” in angular measurements, and 3 mm in distance. Since 2015 drill holes were surveyed by First Majestic surveyors using a Trimble S3, S5 and Sokkia total station. In all cases, the collar information includes X, Y, Z coordinates, azimuth, and dip angle. Surveyors prepare certificates with collar data that are further archived and made available to users in the mine server.

10.2.3 Down-hole Survey

Down-hole trajectory data for holes drilled between 2013 and the effective date of this Report were measured using multi-shot DeviTool™ PeeWee and single-shot FLEXIT™ surveying instruments, which report survey depth in metres, azimuth in degrees, dip in degrees, temperature in Celsius, and magnetic field in nanoteslas. Measurements were collected every 25 m on average. The typical precision for these instruments is ± 0.25° for dip and ± 0.35° for azimuth. A correction to the east is added each year to every azimuth reading to compensate for changing magnetic declination. The observed average deviation in dip and azimuth for holes drilled between 2013 and 2020 was less than 3º in both cases. Down-hole surveys were carried out by the drillers under the supervision of First Majestic geologists.

10.2.4 Logging and Sampling

Core logging and sampling were conducted by First Majestic geologists. Prior to core logging and sampling, the geologists make sure that all the core pieces are in place and in the correct order, check depth intervals on core boxes and lids and verify the wooden metre blocks (depth markers) are set at the appropriate depth in the core box. The geologists then describe geology (lithology, mineralogy, alteration, structures, etc.), mark sample intervals on the core as well as on core boxes and fill out pre-printed sample tags. For the selected sample intervals, a cutting line is marked along the core axis to ensure that the core is cut so that the half core sampled and the half core retained in the box are similar.

Sample tags for analytical quality control samples are added to the core boxes to preserve a continuous series of sample numbers. Quality control samples consisting of coarse blanks, pulp blanks, field duplicates, coarse duplicates, pulp duplicates and pulp standards with four different silver grades were inserted in the sample stream prior to shipping to the primary laboratory. Pulp checks and coarse checks were also sent to a secondary laboratory.

After the geologists mark the sample locations and interval depths for SG on the core, technicians take core photographs .

Finally, the core is sampled.

10.2.5 Specific Gravity and Bulk Density

Since 2013, La Encantada geologists collect SG measurements from 15 cm average whole HQ or NQ core from mineralized zones and from wall rocks on either side of mineralized zones. SG is determined using a plastic-sealed water immersion method. In the plastic-sealed water immersion method, the samples are dried first in air, weighed, wrapped with plastic, and weighed again. The sample is then suspended in water and weighed again. Control samples such as duplicates, checks and standards are included. The SG is calculated using the following formula:

$$\frac{W_{dry}}{\left(W_{Kp\ air} - W_{Kp\ water}\right) - \frac{\left(W_{Kp\ air} - W_{dry}\right)}{Kp_{density}}}$$

Where:

W_{dry}: Sample weight in dry

$W_{kp\ air}$: Wrapped sample weight

$W_{kp\ water}$: Sample weight – sample immerse in water

$Kp_{\ density}$: plastic density

A total of 4,348 SG measurements were collected from 2011 to 2020 drill holes. Table 10-2 summarizes the SG results.

Table 10-2: Summary of SG Results

Drilling Period	Number of SG samples	Average SG
2011	198	2.56
2012	179	2.51
2013	874	2.53
2014	1,376	2.57
2015	205	2.67
2016	272	2.59
2017	351	2.63
2018	408	2.47
2019	333	2.51
2020	152	2.52
Grand Total	**4,348**	**2.56**

Bulk density was also determined for partially consolidated fragments of tailings material. Consolidated fragments were coated with wax and the density was determined by the water immersion method at the Central Laboratory that is operated by First Majestic. The method consists of drying and weighing consolidated fragments of tailings material, then coating the samples with wax, and weighing again.

The weight and volume of the coating wax is estimated to account for it in the final calculation of the bulk density. The bulk density is determined by the water immersion method by collecting and weighting the volume of water displaced by the sample, the volume of the coating wax is subtracted from the volume of displaced water to determine the sample volume and the bulk density is determined using the following formula:

$$B.D = \frac{\textit{sample weitht (grams)}}{\textit{sample volume } (cm^3)}$$

First Majestic performed a field experiment on the tailings deposit as a check to the previous method by obtaining one cubic metre of tailings material and weighting the sample. Then the sample weight (tonnes) was divided by the volume (1 m^3). Sample humidity was determined to be 7.6% and was accounted for in the calculation of the bulk density. A bulk density of 1.98 t/m^3 was determined with this experiment which is slightly lower than the average 2.05 g/cm^3 determined with the water immersion method described above. The QP considers that 1.98 t/m^3 is a minimum since the sample was collected from the top layer of material which is expected to be less consolidated than the rest of the material at depth, therefore the 2.05 g/cm^3 was selected as the preferred value for bulk density.

10.2.6 Core Recovery and Geotechnical Logging

Core recoveries are estimated by First Majestic's geologists and technicians at the core shed. The process consists of reassembling pieces of core, measuring the real core length recovered and then recording the recovered lengths per drill run. Since 2018 all recoveries are recorded directly into LogChief software. Previously recoveries were recorded on paper and then the information was transcribed into a spreadsheet template where the percent recoveries were estimated by dividing the measured length of core recovered over the length of the drill run. In the third quarter of 2013, First Majestic implemented the use of double barrel tubes, and increased supervision of drillers to maximize core recoveries, particularly in non-competent material such as areas of argillic alteration.

Core recovery and RQD is estimated for every drill-hole. In January 2015 First Majestic implemented a more detailed core logging procedure that includes determination of rock hardness, fracture density, fracture orientation, and other conditions of the fractures such as spacing of fracture planes (Js) and roughness of planes (Jc), to calculate the rock mass rating (RMR)as defined by Bieniawski(1989). First Majestic staff determined the resistance of the rock to compression, or intact rock strength (IRS). Geotechnical core logging and determination of RMR and IRS values were performed for all the holes drilled in 2015, and for holes drilled in 2014 in the Ojuelas and Milagros areas. The logged data were initially recorded in hard-copy format and then transcribed into electronic spreadsheets for estimation of rock quality. Point load tests (PLT) were carried out on 19 core samples from the Ojuelas area at Cesia Ingeniería, in Hermosillo, Mexico.

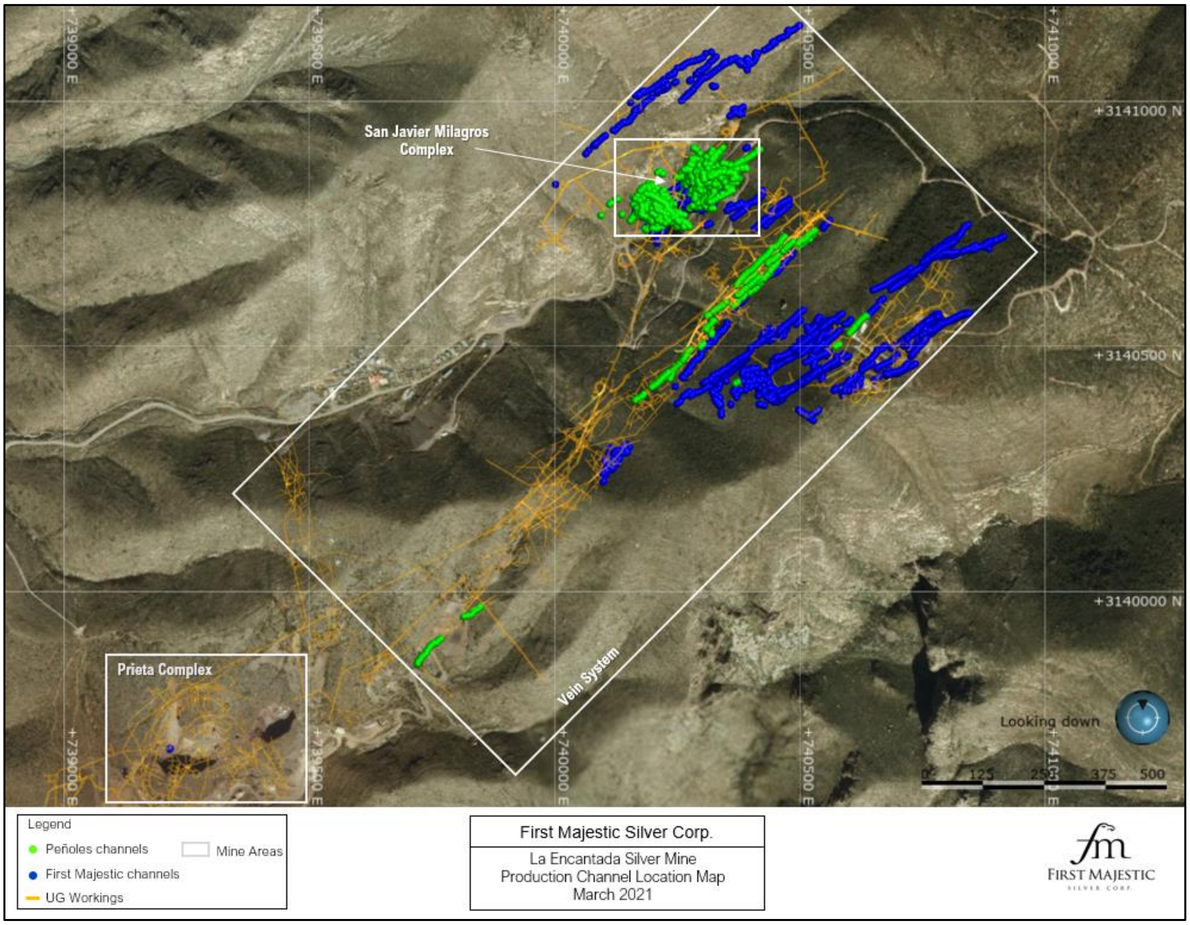
10.3 Underground Production Channel Samples

Historical and modern production channel samples were collected to support geological modelling, resource estimation, and grade control during production. Channel samples are collected by chipping a channel by hammer along a line, or by cutting a channel line with a saw and chipping out the sample with a hammer and chisel. From 1995 to 2006 a total of 10,368 production channel samples were collected by Peñoles within the San Javier–Milagros complex, and along the San Francisco Vein in the Vein systems. First Majestic collected 11,418 production channel samples from 2007 to 2020 from the San Javier–Milagros complex and along narrow deposits in the Vein systems. Table 10-3 summarizes La Encantada channel samples and Figure 10-2 is a location map of the samples.

Table 10-3: Production Channel Samples, La Encantada

Year	Company	Channels	Meters Sampled
1995	Peñoles	4	15
1996	Peñoles	981	2,619
1997	Peñoles	247	557
1998	Peñoles	1,366	4,199
1999	Peñoles	385	1,479
2000	Peñoles	141	489
2002	Peñoles	6	12
2006	Peñoles	391	998
2007	First Majestic	969	4,043
2008	First Majestic	116	371
2009	First Majestic	110	329
2012	First Majestic	129	429
2013	First Majestic	106	430
2014	First Majestic	187	633
2015	First Majestic	275	1,097
2016	First Majestic	213	651
2018	First Majestic	627	2,091
2019	First Majestic	291	1,085
2020	First Majestic	50	299
	Grand Total	**6,594**	**21,826**

Figure 10-2: Production Channel Location Map



Note: Figure prepared by First Majestic, March 2021.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Core Sampling

Pre-2013, mine geologists logged and sampled drill core in the core logging facility located at the La Encantada mine site. There is limited documentation regarding the core logging and sampling procedures for this period. Intervals recorded in 2012 lithology logs indicate that mineralization was visually identified, sampled, and assayed. Half of the core was sent for analysis at the La Encantada Laboratory, and the other half was retained for further investigations.

Sampling interval selections are currently based on First Majestic guidance to respect lithology and mineralization boundaries. On average, 25% of each hole is sampled. Sample intervals range from 0.2–1.3 m in mineralized areas. Shorter and longer lengths occur and are usually related to geological contacts in narrow mineralized structures (shorter lengths) or zones that are visibly barren or homogeneous in terms of lithology and alteration (longer lengths), or in fault zones with poor recoveries. All drill core intervals selected for sampling are cut in half along a designated cutting line using a diamond blade saw. One half of the core is retained in the core box and the other half is placed in sample bags for shipment to the laboratory. Sample tickets displaying the sample number are stapled into the core box beside the sampled interval, and a copy is placed in the sample bag. Sample bags are sealed to prevent contamination during handling and transportation. From 2013 to 2015, core samples were shipped to the SGS laboratory in Durango, Durango, Mexico (SGS Durango). Since 2016, core samples are shipped to First Majestic's Central Laboratory in San Jose La Parilla, Durango, Mexico (Central Laboratory).

11.2 Underground Production Channel Sampling

Three-meter spaced production channel samples are used for geological models, grade control, and to support Mineral Resource estimation. The channel sample intervals range from 0.30–1.5 mand respect vein/wall contacts and textural or mineralogical features. Underground mine geologists use a hammer and hand chisel samples from a 20 cm wide swath along a sample line drawn on development faces. The chips are collected on a tarpaulin and fragments larger than 3 cm are broken into smaller pieces. A 1.0 kg sub-sample is bagged and labelled with sample number and location details. Sketches are collected of the sampled face, showing the location and length of each sample. Technicians mark the sample ID on the washed rock face for photography. The location coordinates from each sample line are surveyed using a total station survey method. Samples are dispatched to the La Encantada Laboratory.

From 2014 to 2015, 12-m spaced sawn channel samples were also collected to support Mineral Resource estimation. Samples were chipped from a 6 cm wide and 4 cm deep sawn channel. These samples were sent to SGS Durango.

11.3 Analytical Laboratories

The laboratories used for sample preparation and analysis are summarized in Table 11-1.

Table 11-1: Analytical Laboratories

Laboratory	Drilling Period	Certification	Independent	Comments
SGS Durango	2013–2015 2018–2020	ISO/IEC 17025, ISO 9001	Yes	Primary laboratory for drill core and sawn-channel samples. Secondary laboratory for check samples after 2018. Sample preparation and analysis at the Durango, Mexico laboratory.
Bureau Veritas	2014–2015	ISO 9001, ISO/IEC 17025	Yes	Secondary laboratory for check samples. Sample preparation at the Durango, Mexico laboratory (formerly Inspectorate de Mexico). Sample analysis at the Bureau Veritas Vancouver, Canada laboratory (formerly ACME laboratories).
Central Laboratory	2014–2020	ISO 9001:2008 in June 2015, and ISO 9001:2015 in June 2018	No	Primary laboratory for drill core and sawn-channel samples. Located in San Jose La Parrilla, Durango, Mexico. Sample preparation and analysis.
La Encantada Laboratory	1995–2020	None	No	Primary laboratory for underground drill core, ore control and production channel samples. Located at La Encantada mine. Sample preparation and analysis. Managed by Central Laboratory

11.4 Sample Preparation and Analysis

11.4.1 SGS Durango

Since 2013, drill core samples are dried at 105°C, crushed to 75% passing 2 mm, split to a 250 g sub-sample, and pulverized to 85% passing 75 µm.

All samples are analyzed for 34 elements using an 0.25 g, aqua regia digestion inductively coupled plasma optical emission spectroscopy (ICP OES) or atomic emission spectroscopy (ICP AES) method. Over limit results of manganese, lead and zinc are analyzed by sodium peroxide fusion and by a titration method.

Samples are analyzed for silver using a 2 g, three-acid digestion atomic absorption (AAS) method. Samples returning greater than 100 g/t Ag are reanalyzed for silver by a 30 g fire assay/gravimetric method. The overlimit values have changed over time, from 270 g/t in 2014 and 2015, 300 g/t in 2015, to 100 g/t starting in 2018. Gold is analyzed by a 30 g fire assay atomic absorption (AA) method. There have been no overlimit results for gold.

Since 2018, SGS Durango has only been used as an umpire laboratory. Check samples submitted to SGS Durango are analyzed for silver using 2 g, four-acid digestion with AA finish. Samples returning greater than 100 g/t Ag are reanalyzed for silver by 30 g fire assay gravimetric method.

11.4.2 Central Laboratory

From 2015 to 2018, drill core samples were dried at 100 °C ± 5°C, crushed to 80% passing 2 mm, split to a 250 g sub-sample, and pulverized to 80% passing 75 µm. Since 2019, the crushing and pulverizing thresholds have been changed to 85% passing 2 mm and 85% passing 75 µm in an effort to improve precision.

All samples are analyzed for 34 elements by a two-acid digestion ICP method. All drill core and channel samples are also analyzed for silver by a 2 g, three-acid digestion, AA method. Samples returning greater than 300 g/t Ag are reanalyzed for silver by a 30 g, fire assay/gravimetric method. Gold was analyzed by 20 g fire assay with an AAS finish method. There have been no overlimit results for gold.

11.4.3 Bureau Veritas

At Bureau Veritas, samples were crushed in a jaw crusher to 70% passing 2 mm and split to a 250 g sub-sample and pulverized to 85% passing 75 µm.

All samples were analyzed for 33 elements using 0.5 g, and aqua regia digestion with an ICP finish. All samples were analyzed for silver by a 0.5 g aqua-regia digestion/ICP finish and four-acid digestion/AAS finish. Samples returning >1,000 g/t Ag were reanalyzed for silver by a 30 g fire assay/gravimetric finish. Gold was analyzed by 30 g fire assay with an AA finish. There have been no overlimit results for gold.

11.4.4 La Encantada Laboratory

From 2008 to 2014, samples were dried, weighed, crushed to 3/8”, split to 300 g and pulverized. Silver was analyzed using 10 g fire assay gravimetric finish. Iron, zinc, lead, copper, cadmium and manganese were analyzed using a 1 g three-acid digest with an AAS finish. Since 2015, samples are dried at 105^{o}C, crushed to 80% passing 2 mm, split to 200 g and pulverized to 80% passing 75 µm. Samples are analyzed for silver by a 20 g fire assay/gravimetric finish method. Copper, iron, lead, manganese, and zinc are analyzed by a 0.1 g 2-acid digestion/AA finish. Analytical methods used by the SGS Durango, Central, Bureau Veritas and the La Encantada mine laboratories are shown in Table 11-2.

Table 11-2: Laboratory Analytical Methods

Code	Element	Limits	Description
SGS Durango			
Code	**Element**	**Limits**	**Description**
GE AAS21E	Ag g/t	0.3–300	2 g, 3-acid digestion, AAS finish.
GO FAG313	Ag g/t	10	30 g, fire assay, gravimetric finish.
GE AAS42E	Ag g/t	0.3–100	2 g, 4-acid digest, AAS finish.
GE ICP14B	Ag ppm	2–100	0.25 g, aqua-regia digestion ICP-OES finish.
GE FAA313	Au g/t	0.005–10	30 g, fire assay, AAS finish.
GE ICP14B	34 elements	various	0.25 g, aqua-regia digestion ICP-OES finish.
GO ICP90Q	Mn, Pb, Zn	various	0.20 g, sodium peroxide fusion/ICP-AES finish.
GO CONV12V	Pb, Zn	various	Titration
Central Laboratory			
Code	**Element**	**Limits**	**Description**
AAG-13	Ag g/t	0.5–300	2 g, 3-acid digest, AAS finish.
ASAG-12	Ag g/t	>5	20 g, fire assay gravimetric finish.
AUAA-13	Au g/t	0.01-10	20 g, fire assay AAS finish.
ICP34BM	34 elements	various	0.25 g, 2-acid digestion ICP
Bureau Veritas Mineral Laboratories (check laboratory)			
Code	**Element**	**Limits**	**Description**
AQ300	Ag g/t	0.3–100	0.5 g aqua-regia digestion ICP-ES finish
MA402	Ag g/t	1–1,000	4 -acid AAS finish
FA530	Ag g/t	>50	30 g, fire assay gravimetric finish
FA430	Au g/t	0.005-10	Fire assay AAS finish.
AQ300	Multi-element	various	Aqua-regia digestion ICP-ES analysis
La Encantada Laboratory			
Code	**Element**	**Limits**	**Description**
ASAG-12	Ag g/t	>10	30 g by fire assay gravimetric finish
AWA-100	Pb, Zn, Cu, Mn	Multi-element	2-acid digestion atomic absorption finish

11.5 Quality Control and Quality Assurance

11.5.1 Materials and Insertion Rates

There is limited information regarding quality assurance and quality control (QA/QC)practices prior to 2013.

Since 2013 samples submitted to the primary laboratories include standard reference materials (SRMs) and certified reference materials (CRMs), coarse and pulp blanks, and field, coarse and pulp duplicates. Check samples sent to a secondary laboratory was introduced in 2014 and became a common practice by 2018. Approximately one standard, one blank and one duplicate were inserted in a batch of 50 samples submitted to SGS Durango, Central and La Encantada Laboratories. Between 1% to 7% percent checks were submitted to Bureau Veritas and SGS Durango laboratories.

First Majestic prepared five SRMs using material from the La Parrilla Mine and three SRMs using material from La Encantada. These SRMs underwent round robin analysis to identify expected values and were used from 2013 to 2019. As the SRMs were depleted, they were replaced with commercially-available CRMs purchased from CDN Laboratories.

From 2013 to 2018, the coarse blank material was obtained from limestone collected from creek banks near La Encantada. Pulp blanks were obtained from industrial silica sand used at the La Encantada process plant . Since 2018, the coarse and pulp blanks were purchased from Sonora Naturals, a provider of laboratory material in Hermosillo. Unused fusion crucibles were also used periodically for pulp and coarse blank materials.

11.5.2 Transcription and Sample Handling Errors

In early stages of the QA/QC program, there were a large amount of transcription errors identified at each laboratory. Procedures were changed and subsequently no significant transcriptions errors or sample handling issues have been identified.

11.5.3 Accuracy Assessment

First Majestic assesses accuracy in terms of bias of the mean values returned for the SRMs or CRMs relative to the expected value. A bias between ± 5 % is considered acceptable. The SRM and CRM results are plotted on time sequence performance charts. Sample swaps and transcription errors are removed before assessing bias. Standards results within mineralized zones with greater than the mean ± three times the standard deviation are re-assayed.

<u>SGS</u>

From 2013 to 2015, nine different SRMs were submitted with samples sent to SGS Durango. The SRM results indicate no significant bias for silver and lead.

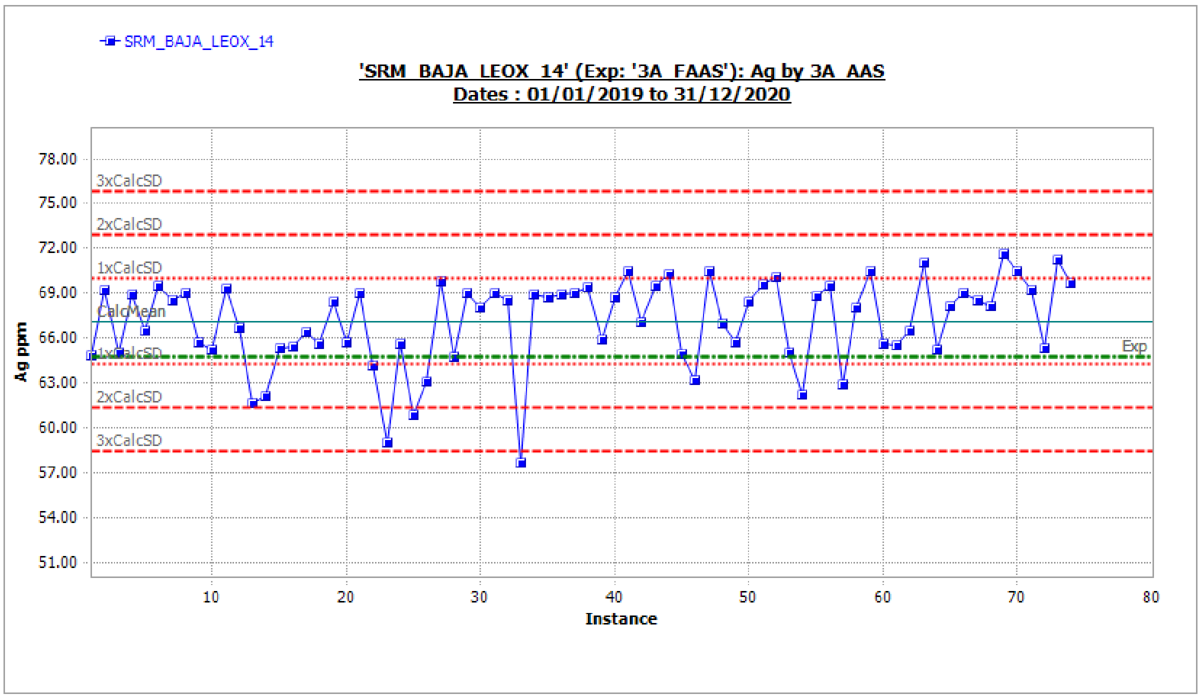
From 2016 to 2018, four different SRMs were submitted with samples sent to SGS Durango. The SRM results indicate no significant bias for silver and lead. One indicates a marginal but acceptable high bias.

Central Laboratory

Between 2014 to 2018, four different SRMs were submitted with samples sent to the Central Laboratory. The results indicate no significant bias for silver and lead results.

Between 2019 and 2020, four different SRMs and three different CRMs were submitted with samples sent to the Central Laboratory. The results indicate no significant bias for silver results. An example of the time sequence plot for the 2019–2020 standard assessment for the Central Laboratory is shown in Figure 11-1.

Figure 11-1: Central Laboratory Low Grade Standard Control Chart



Note: Figure prepared by First Majestic, March 2021.

La Encantada Laboratory

There are insufficient SRMs results to assess accuracy at the La Encantada Laboratory before 2016. The SRMs and CRMs results from 2016 to 2020 indicate no significant bias for silver.

11.5.4 Contamination Assessment

First Majestic assesses contamination in terms of the values of blank control samples. Coarse blanks returning results less than twice the detection limit value 80% of the time, and pulp blanks returning results less than twice the detection limit value 90% of the time are considered acceptable. Blank results are plotted in a time-sequence blank performance chart. Outliers related to sample swaps or transcription errors are removed before calculating the frequency. Batches with excessive blank failure rates are reassayed.

<u>SGS Laboratory</u>

From 2013 to 2018, >90% of the coarse and pulp blanks silver values were less than two times the detection limit. The results indicate no significant contamination for silver.

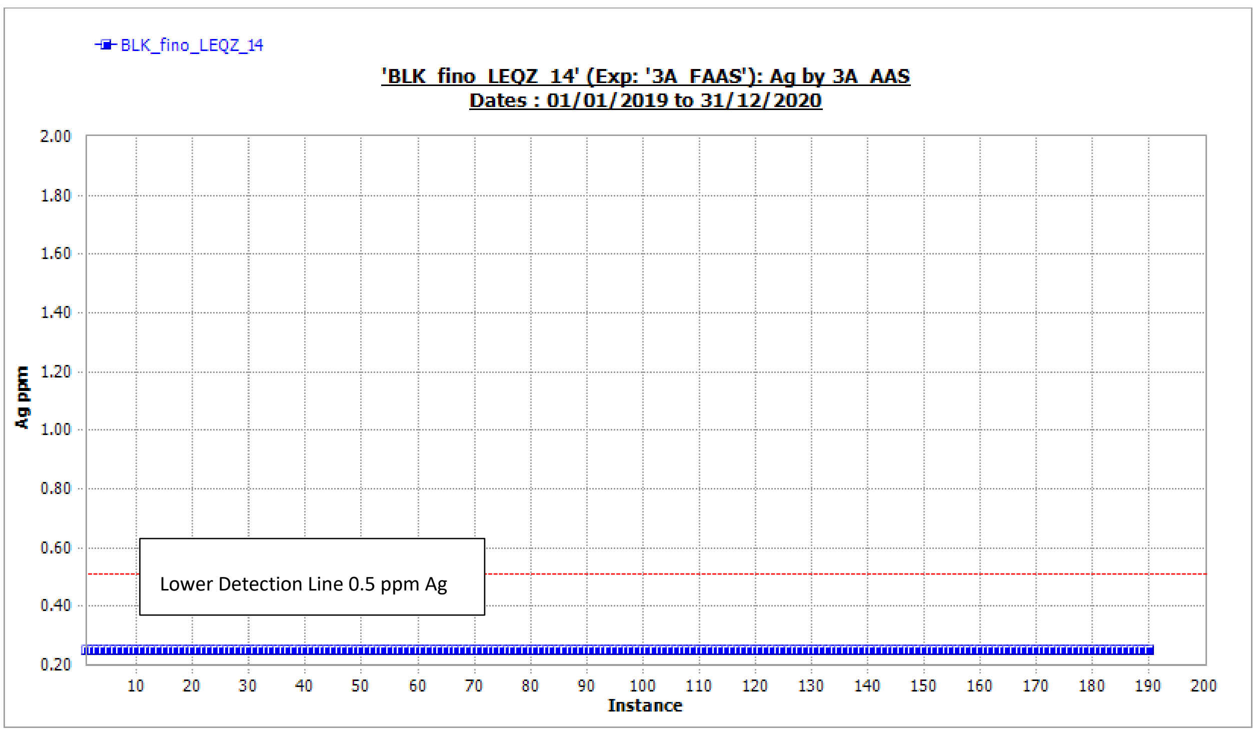
<u>Central Laboratory</u>

From 2014 to 2020, >96% of the coarse and pulp blanks silver values were less than times the detection limit. The results indicate no significant contamination for silver.

<u>La Encantada Laboratory</u>

There is no information supporting contamination assessment before 2014. From 2014–2020, 100% of the coarse and pulp blanks silver values were less than two times the detection limit. The results indicate no contamination for silver. An example of blank sequence performance charts for Central Laboratory silver results is shown in Figure 11-2.

Figure 11-2: Time Sequence Pulp Blank Performance Chart for Central Laboratory Silver Results 2019-2020



Note: Figure prepared by First Majestic, March 2021.

11.5.5 Precision Assessment

First Majestic assesses precision in terms of frequency of absolute relative difference (ARD) of paired duplicate values. A 90% frequency of ARD <30%, 20% and 10% for field, coarse and pulp duplicates is the target precision. Sample swaps and transcription errors are removed before assessing precision. Paired duplicate results, excluding outliers, are plotted on ARD versus frequency charts to visually inspect the sample frequency meeting the precision target. Duplicate precision is continually monitored and if precision targets are not met, the laboratories are consulted.

SGS

From 2013 to 2018, field duplicate silver and lead ARD results were close to but did not meet the precision target. Precision began to improve in 2016. Coarse and pulp duplicate silver and lead results met the precision targets.

Central Laboratory

From 2014 to 2020, field duplicate silver results were close but did not meet the precision target. Precision began to improve in 2019. From 2014 to 2018, coarse and pulp silver results are close to the target precision. From 2019 to 2020, coarse and pulp silver results meet the precision targets. All field duplicate lead results did not meet the precision target, and coarse and pulp duplicate results are close to the precision target.

La Encantada Laboratory

There is no information supporting precision assessment before 2011.

From 2011 to 2013, field duplicate silver results did not meet the precision target. From 2018 to 2020, field, coarse and pulp duplicate silver results meet the precision targets.

11.5.6 Between-Laboratory Bias Assessment

First Majestic assesses between-laboratory bias in terms of the slope of a reduced major axis (RMA) line. Paired primary and secondary laboratory results are plotted on an x-y scatterplot and an RMA line is estimated after excluding outliers such as paired results with below detection values and paired results with significant ARD. An RMA line slope between 0.95–1.05 is considered an acceptable between laboratory bias.

From 2014 to 2020, the RMA analysis of samples submitted to all secondary laboratories indicate no significant bias between the primary laboratory and the secondary laboratory.

Control samples submitted with the checks samples from all sample periods showed no material precision, accuracy, or contamination issues.

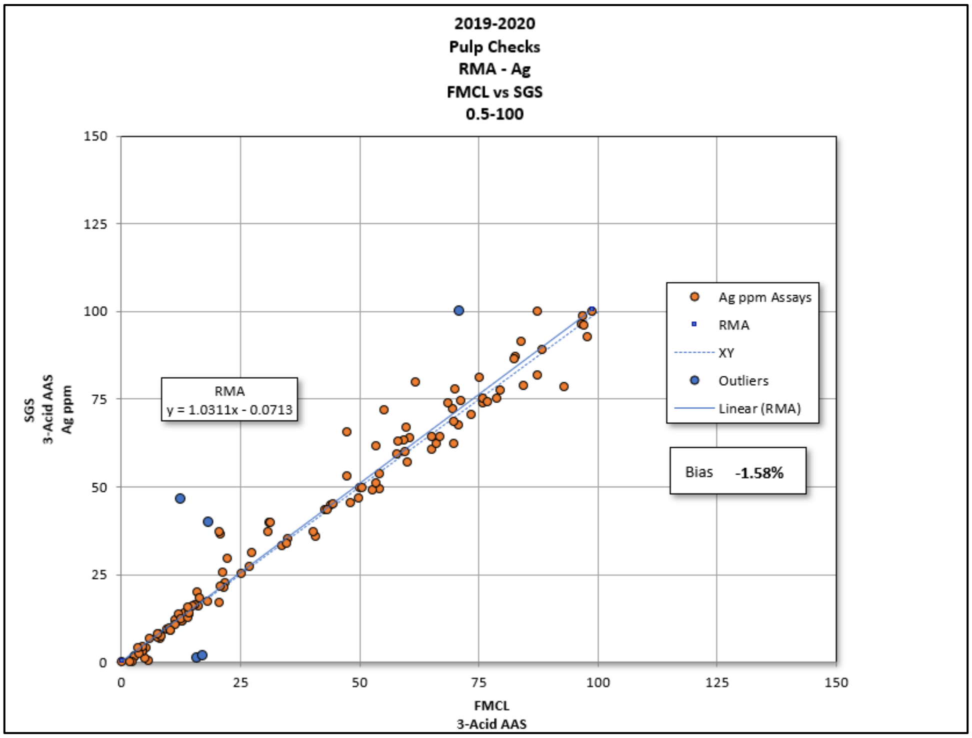
A summary of between laboratory biases is shown in Table 11-3. An example of laboratory bias chart between the Central Laboratory and SGS Durango from check results from 2019–2020 is shown in Figure 11-3.

Table 11-3: Summary Between Laboratory Bias. Silver Results

Primary Laboratory	**SGS**		**FMCL**				**FMCL**		**ULE**
Check Laboratory	**BV**		**SGS**				**SGS**		**SGS**
Assessment Period	**2014-2015**		**2017-2018**				**2019-2020**		**2019-2020**
Check Type	**Coarse**	**Pulp**	**Coarse**	**Pulp**			**Pulp**		**Pulp**
				Ag	**Pb**	**Ag**	**Ag**		**Ag**
Primary Method	3-acid AAS	3-acid AAS	3-acid AAS	3-acid AAs	ICP	FAGRAV	3 Acid AAS	FAGRAV	FAGRAV
Check Method	4-acid AAS	4-acid AAS	3-acid AAS	3-acid AAs	ICP	FAGRAV	3Acid AAS	FAGRAV	FAGRAV
Number of samples	182	182	105	176		64	121	35	97
Insertion Rate %	2%	2%	1%	2%		1%	2%	1%	7%
Excluded Outliers %	1%	3%	4%	4%	2%	5%	4%	6%	5%
Slope	0.99	0.99	1.05	1.00	1.05	1.03	1.01	1.03	1.04

Note: SGS = SGS Durango, BV = Bureau Veritas, FMCL = Central Laboratory, ULE = La Encantada laboratory, FAGRAV = fire assay/gravimetric.

Figure 11-3: RMA Plot Ranges Below 100 ppm Ag. Central Laboratory 2019–2020 Check Results



Note: Figure prepared by First Majestic, March 2021.

11.6 Databases

La Encantada drill hole and production channel data are stored in a secured SQL database, based on the Maxwell GeoServices database scheme. First Majestic received the assay data from the laboratories via emails in comma-separated value (CSV) data files. These files are compiled and imported using Maxwell's DataShed™, a database management software. The import process includes a series of built-in checks for errors. After data are imported, visual checks are done to ensure that data were imported properly.

11.7 Sample Security

11.7.1 Production Channel Samples

Throughout historical and current mine operations, production channel samples were sent from the sampling areas to the La Encantada Laboratory by First Majestic personnel, where they are kept in a secured and fenced area. After analysis, the samples are disposed of in the processing plant.

All sawn channel samples sent offsite were securely sealed and chain-of-custody documents issued for all shipments. After analysis, samples were returned to La Encantada mine and stored at the core storage warehouse.

11.7.2 Core Samples

Throughout historical and current drilling periods, drill core was transported from drilling areas to the core storage warehouse by drilling contractors, where they are kept in a secured and fenced area.

From 2013–2015, core samples were transported from the La Encantada core storage warehouse to the SGS Durango by First Majestic personnel using company trucks. Since 2016, core samples are transported from the La Encantada core storage warehouse to the Central Laboratory by First Majestic personnel using company trucks.

All samples are securely sealed, and chain-of-custody documents issued for all shipments. After analysis, pulp and coarse reject samples are returned to La Encantada where they are stored in the secure core storage warehouse.

11.8 Author's Opinion

Sample preparation, analysis and quality control measures used at the primary and secondary laboratories meet current industry standards and are providing reliable silver and lead results. Sample security procedures used for transporting channel samples and drill core to the core warehouse and from the core warehouse to the laboratories are in accordance with industry standards. The database management procedure used to receive, and record results are providing reliable integrity to the samples results.

The absence of a QA/QC program supporting channel and drill core sample analysis at La Encantada laboratory before 2016 is mitigated by the following:

- Pre-2016 drill core samples assayed at the La Encantada Laboratory represent less than 2% of the total resource database samples;
- In 2013, a resampling program of 2011 and 2012 drill holes supports that no significant difference between SGS and La Encantada Laboratory results;
- Starting in 2013, under Central Laboratory management, the La Encantada Laboratory received new equipment for sample preparation, revised sample preparation and analysis procedures, and conducted employee training

In September 2019, in order to improve lead precision, the Central Laboratory changed the sample preparation procedure for the crushing and pulverizing stage and conducted sieve checks during sample preparation. In 2016, the La Encantada Laboratory began using a laboratory information management system (LIMS) for receiving and reporting assay results. All sample batches now include laboratory quality control samples.

Production channel samples used to support grade estimation were assessed for laboratory accuracy and laboratory precision. The field sampling procedure for production channel samples has some risk of introducing sampling bias but any potential bias has not yet been fully assessed.

12 Data Verification

The data verification included data entry error checks, visual inspections of data collected between 2013–2020 from the Buenos Aires, Regalo Breccia, Conejo, La Fe, La Prieta, Milagros, Ojuelas, Tailings Deposit No.4, and Vein System areas (the verification dataset), and a review of QA/QC assay results. Several site visits were completed as part of the data verification process.

12.1 Data Entry Error Checks

The data entry error checks consisted of comparing data recorded in the database with original collar survey reports, lithology logs and assay reports, and investigation of gaps, overlaps and duplicate intervals in the sample and lithology tables.

No significant data entry errors were observed in a 5% random selection of the drill collar locations of the verification dataset. The error check consisted of a comparison of the verification dataset collar locations with survey reports issued by First Majestic's planning department.

No significant data entry errors were observed in a 5% random selection of the lithology records of the verification dataset. The error check consisted of a comparison of the verification dataset lithology records with records exported from the logging software.

No significant data entry errors were observed in a 5% random selection of the silver and lead assay results of the verification dataset. The error check consisted of a comparison of the verification dataset assays with original electronic copies and final laboratory certificates issued by SGS Durango, Central and the La Encantada Laboratories.

The inspection for gaps, overlap, and duplicates for all lithology and sample records identified no issues.

SG measurements were verified for transcription errors and for errors in the SG measurement procedure. The error check consisted of a comparison of the verification dataset with original SG logs. SG formulas used in the calculations were also verified.

No significant data entry errors were observed in the SG sample intervals or during the measurement procedure.

12.2 Visual Data Inspection

Visual inspection consisted of verifying the position of collars relative to the underground workings, down-hole deviation, lithology and assay intervals relative to the three-dimensional (3D) geological models. The visual inspection also included comparison of lithology and assay intervals with core photos.

A 5% random selection of drill hole collar and channel locations in the verification dataset indicated no significant position errors.

A 5% random selection of drill hole traces revealed no unusual kinks or bends.

A 5% random selection of the drill hole lithology intervals indicated no significant position errors relative to the three-dimension geological models.

A 5% random selection of lithology intervals of the verification datasets were visually inspected using core photos. Observed lithology, mineralogy, sample lengths and sample numbers were compared to the logged data. No significant differences were observed.

12.3 Review QA/QC assay results

Verification of assay accuracy and contamination is provided in Section 11 of this report.

12.4 Site Visits

Ms. Maria Elena Vazquez, P.Geo, an employee of First Majestic, has visited La Encantada mine on several occasions since 2013, most recently between August 20th to August 22nd, 2018. During these visits, Ms. Vazquez observed current drill core and channel logging and sampling procedures, and inspected drill core, core photos, core logs and QA/QC reports.

12.5 Author's Opinion

The data verification identified no significant issues with data entry, grade accuracy, precision, or contamination. The visual inspection in 3D of drill hole and channel samples identified no issues with drill hole and sample locations. The database is considered sufficiently free of error and adequate to support Mineral Resource estimation.

Data verification for transcription errors was not completed on pre-2013 drill hole data due to limited or missing original supporting data. Pre-2013 drill hole data represents less than 6% of the database and less than 2% of the pre-2013 drill holes were used to support the current Mineral Resource estimate.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Overview

The La Encantada mine is an operating mine and the metallurgical testwork data supporting the initial plant design has been proven and reinforced by plant operating results through the years of operation combined with more recent metallurgical studies.

13.2 Metallurgical Testing

Metallurgical testing, together with mineralogical investigation are performed periodically. The plant is continually running tests to optimize silver recovery and to reduce operating costs, even when the results are within the expected processing performance. Metallurgical testing assists operations in several ways, such as the fine tuning of reagents usage, the maintenance of optimum particle size, variations in the backwash circuit, and testing of new reagents.

Composite samples are analyzed on a monthly basis to determine the metallurgical performance of the mineralized material fed into the processing plant. In addition, geometallurgical studies are performed to investigate the similarities and variability related to mineralization planned to be mined and processed in the mid- and long-term. This metallurgical testing is carried out by the Central Laboratory.

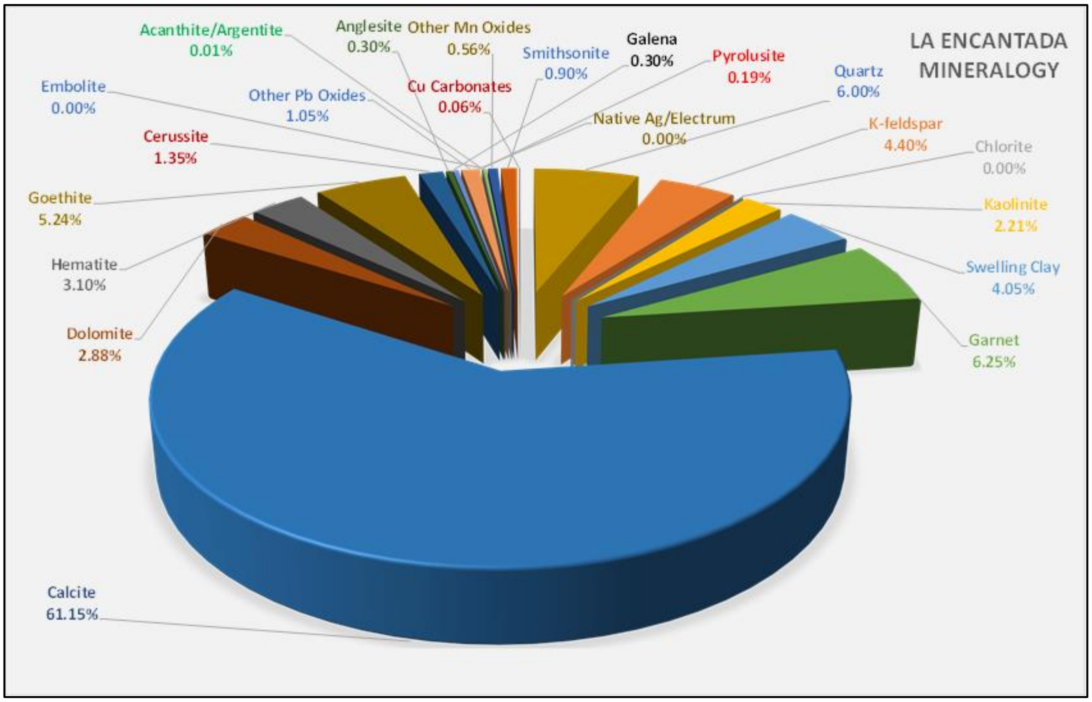
13.2.1 Mineralogy

The most abundant mineralogical species of the La Encantada deposits, both metallic and non-metallic include:

- Metallic minerals (in order of abundance): goethite ($FeO(OH)$), hematite (Fe_2O_3), cerussite ($PbCO_3$), anglesite ($PbSO_4$), galena (PbS), other lead oxides, smithsonite ($ZnCO_3$), Mn oxides, pyrolusite (MnO_2), Cu carbonates, acanthite/argentite (Ag_2S), embolite ($AgCl$), electrum.
- Non-metallic minerals (in order of abundance): calcite ($CaCO_3$), quartz (SiO_2), garnet ($(Ca,Fe,Mg,Mn)_3(Al,Fe,Mn,Cr,Ti,V)2(SiO_4)_3$), K-feldspar ($KAlSi_3O_8$ – $NaAlSi_3O_8$ – $CaAl_2Si_2O_8$), swelling clay, dolomite ($CaMg(CO_3)_2$, kaolinite ($Al_2Si_2O_5(OH)_4$), chlorite ($(Mg,Fe)_3(Si,Al)_4O_{10}(OH)_2$-$(Mg,Fe)_3(OH)_6$).

The typical mineralogy of the La Encantada deposits is provided in Figure 13-1.

Figure 13-1: Typical Distribution of Minerals, La Encantada



Note: Figure prepared by First Majestic, 2021.

13.2.2 Monthly Composite Samples

A sample is taken from the material fed into the mills on a daily and a per-shift basis based on the tonnage milled. A representative quantity is taken for each sample and a monthly composite is accumulated.

The monthly composite sample is prepared by the plant metallurgist with the support of the La Encantada metallurgy staff, and is forwarded to the Central Laboratory for analysis.

One objective of this program is to compile a database comparing the relationship between the results of the metallurgical tests at laboratory scale and the actual performance of the cyanidation plant.

13.2.3 Sample Preparation

Samples submitted to the Central Laboratory are dried, and then crushed to -10 or 6 mesh, depending on the testwork planned.

13.3 Comminution Evaluations

First Majestic has been running tests to estimate the Bond ball work index (BWi) of the monthly composite samples since January 2013.

Table 13-1 shows the results of the Bond ball mill grindability tests for the period from January 2013 to April 2019 performed at 150 and 200 mesh closing screen on samples of run-of-mine mineralized material (ROM).

Table 13-1: Grindability Test Results for Different Composite Samples of La Encantada Mine

Sample ID		BWi (kWh/t)	Sample ID		BWi (kWh/t)
2013	January Composite	9.9	2016	January Composite	10.6
	February Composite	10.4		February Composite	10.6
	March Composite	11.2		March Composite	10.3
	April Composite	11.2		April Composite	9.0
	May Composite	9.5		May Composite	10.3
	June Composite	9.9		June Composite	7.9
	July Composite	9.4		July Composite	10.7
	August Composite	11.4		August Composite	10.5
	September Composite	9.8		September Composite	11.5
	October Composite	11.3		October Composite	10.2
	November Composite	12.2		November Composite	11
	December Composite	12.8		December Composite	10
2014	January Composite	11.3	2017	January Composite	11.1
	March Composite	11.4		February Composite	11.5
	April Composite	14.3		March Composite	11.9
	May Composite	10.8		April Composite	12.0
	June Composite	13.6		May Composite	11.1
	July Composite	14.6		July Composite	12.0
	August Composite	10.9		August Composite	10.3
	September Composite	9.2		October Composite	10.9
	October Composite	11.1	2018	April Composite	10.5
	November Composite	11.8		May Composite	10.7
2015	January Composite	11.9		June Composite	10.4
	February Composite	10.8		July Composite	8.0
	March Composite	10.9		August Composite	11.4
	August Composite	9.7		September Composite	10.0
	October Composite	12.6	2019	January Composite	9.9
	November Composite	9.4		March Composite	10.2
	December Composite	10.5		April Composite	8.9
			Average	10.8	
			Standard Deviation	1.3	
			Minimum	7.9	
			10th Percentile	9.4	
			Median	10.8	
			90th Percentile	12.1	
			Maximum	14.6	

The BWi results demonstrate a relatively low level of variability with 80% of the values ranging from 9.4–12.1 kWh/t and averaging 10.8 kWh/t.

13.4 Cyanidation, Reagent and Grind Size Evaluations

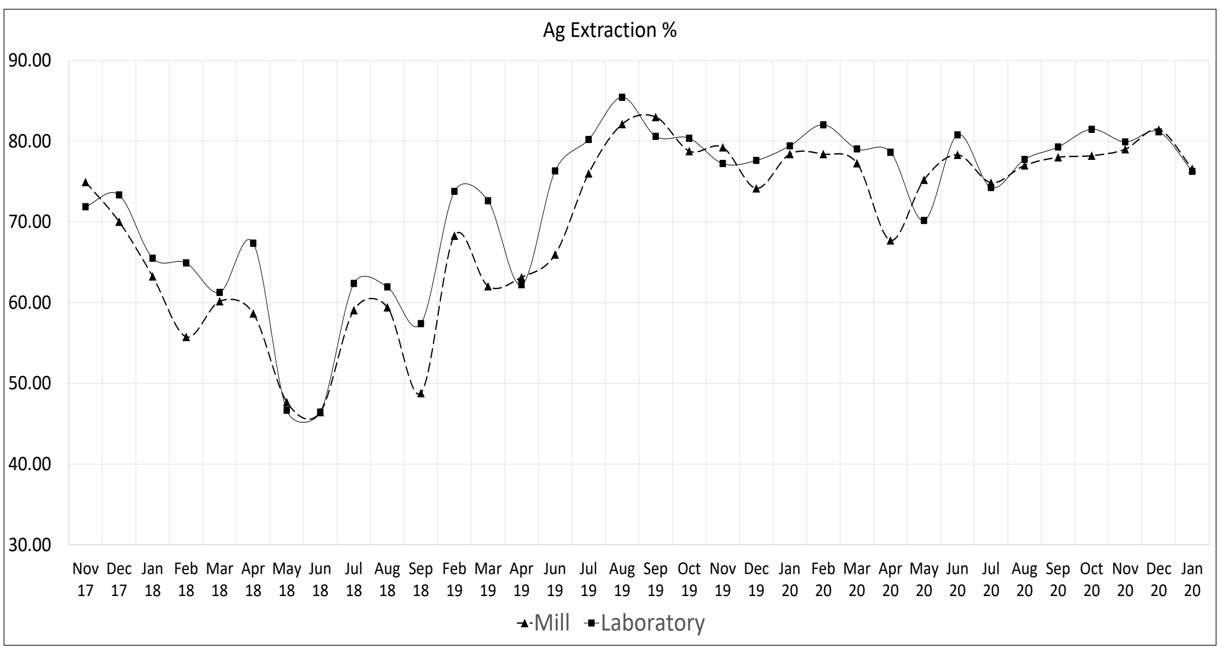
In addition to analyzing the repeatability of metallurgical recovery for silver in each monthly composite, and considering the issues or needs experienced during the months prior to the monthly sample being collected, a series of tests can be conducted that include the following:

- Standard cyanidation (under similar conditions to those in the plant: grinding size, addition of reagents and cyanidation times);
- Testing with different grinding sizes.

Results are shared with the plant operation personnel to facilitate continuous improvement initiatives.

As an example of the continuous monitoring of plant performance through the work conducted by the Central Laboratory, Figure 13-2 shows a comparison between the monthly mill performance and the Central Laboratory monthly composites results, in terms of metallurgical recovery for silver. During the several months plotted in the graph, the plant performed similarly to the Central Laboratory test results.

Figure 13-2: Comparison of Ag Extraction Between Mill and Laboratory Performances



Note: Figure prepared by First Majestic, February 2021

13.5 Geometallurgical Investigations

Samples collected from some of the planned stopes are sent to the Central Laboratory for testing to assess the metallurgical behavior of the mineralization that will be processed in the plant in the near future. The parameters in use in the plant are maintained during the testwork. Table 13-2 shows an example of such testwork for two samples from the Ojuelas deposit, and Table 13-3 shows an example of such testwork for samples sourced from different stopes in the La Encantada mine.

Table 13-2: Example of Geometallurgy Testwork from Different Areas of Ojuelas Mine

Ore Body Sample	Test ID	Tailings Ag g/t	Extraction Ag %
Upper Ojuelas Body	Current Operating Conditions	69.0	62.0
	Oxidant Addition	70.4	61.2
	Higher NaCN concentration	62.3	65.6
Lower Ojuelas Body	Current Operating Conditions	161.2	52.2
	Oxidant Addition	147.4	56.3
	Higher NaCN concentration	146.8	56.4

The testwork showed that when using the same operation conditions as the processing plant in La Encantada, i.e., the same processing flowsheet and the usual reagent additions, the expected recovery of silver for the Ojuelas mineralized material varies between 52.2–62.0%. If reagents are optimized, then recovery can increase from 56.4% to 65.6%. Lower recoveries are expected in the lower portion of the deposit and higher recoveries are predicted for the upper deposit area.

Table 13-3: Example of Geometallurgy Testwork from Different Stopes of La Encantada Mine

Month	Sample ID	Domain	Head Grade		Standard Leaching Test	
			Ag g/ton	Mn %	Tailings Ag g/ton	Average Recovery
January 2020	LE_MLAE_CBNZ_1650_NIVCH672	BONANZA	531.30	0.35	56.05	89.45
	LE_MLAE_CBNZ_1710_NIV_CH527		142.62	1.19	48.66	65.88
	LE_MLAP_C660_1595_NIV_CH10	CUERPO 660	178.10	0.11	22.37	87.44
	LE_MLAP_C660_1595_NIV_CH11		416.21	0.10	65.54	84.25
	LE_MLAE_CSJX_1735_CH2S	SAN JAVIER	132.29	1.18	45.96	65.26
	LE_MLAE_CSJX_1735_CH0S		179.54	1.99	49.91	72.20
	LE_MLAE_EISJ_1735_CH213_3		403.20	1.44	99.75	75.26
February 2020	LE_MLAE_CBNZ_1705_NIV_CH-528	BONANZA	137.40	1.64	48.10	64.99
	LE_MLAE_CBNZ_1650_NIV_CH674		656.68	0.96	99.31	84.88
	LE_MLAE_CBNZ_1650_NIV_CH-672		147.20	1.30	45.78	68.90
	LE_MLAE_C310_1690_NIV_CH916	CUERPO 310	149.59	1.90	54.90	63.30
	MLAE-CSXM-1616-CH81	MILAGROS	539.94	1.62	70.15	87.01
March 2020	LE_MLAE_CSJX_1735_NIV_CH0S	SAN JAVIER	136.05	2.08	58.64	56.90
	LE_MLAE_EISJ_1735_NIV_CH213-3		237.56	1.46	89.17	62.46
	LE_MLAE_CSJX_1735_NIV_CH1S		258.76	2.28	63.44	75.48
	LE_MLAE_CBNZ_1650_NIV_CH672	BONANZA	247.25	1.15	34.24	86.72
	LE-MLAE-CBNZ-1650-NIV-674		458.07	1.27	55.68	87.84
	LE_MLAP_CPRN_1601_NIV_CH2	LA PRIETA	89.37	0.09	20.12	77.49
	LE_MLAP_CPRN_1595_NIV_CH5		531.17	0.07	48.89	90.25
	LE_MLAP_CPRN_1601_NIV_CH3		144.98	0.31	83.04	42.72
	LE_MLAP_CPRN_1595_NIV_CH1		178.38	0.07	23.55	86.80
	LE_MLAP_CPRN_1601_NIV_CH1		125.00	0.10	49.41	60.47
	LE_MLAP_CPRN_1595_NIV_CH2		115.68	0.11	24.51	78.81
	LE_MLAP_C660_1605_NIV_XCO21	CUERPO 660	160.74	0.00	85.53	46.79
	LE-MLAE-CSXM-1616-NIV-CH81	MILAGROS	228.98	0.77	71.88	68.61
	VCSJ_N_1820 CONEJO ESPECIAL	CONEJO	2215.36	8.28	316.30	85.72
	VCSJ_N_1820 CONEJO ALTA		688.94	4.39	390.02	43.39
	VCSJ_N_1820 CONEJO BAJA		221.92	2.17	134.24	39.51
June 2020	LE_MLAE_CBNZ_1650_NIV_CH673	BONANZA	529.49	0.95	69.34	86.91
	LE_MLAE_C310_1690_NIV_CH916	CUERPO 310	112.66	1.38	17.09	84.83
	LE_MLAE_VDSF_1730_NIV_CHS	SAN FRANCISCO	280.43	1.05	147.31	47.47
August 2020	LE_MLAE_CBNZ_1650_NIV_CH673	BONANZA	170.09	1.13	42.92	74.77
	MANTO NARIZ	MANTO NARIZ	842.89	0.13	164.32	80.51
	LE_MLAE_VDSF_1730_NIV_CHS	SAN FRANCISCO	255.11	1.89	98.90	61.23
	LE_MLAP_C660_1605_NIV_CH19	CUERPO 660	409.14	0.13	49.50	87.90
	LE_MLAP_C660_1605_NIV_CH19		107.42	0.14	45.89	57.28
	LE_MLAP_C660_1605_NIV_CH24		104.70	0.14	55.74	46.76
	LE_MLAP_C660_1605_NIV_CH25		144.16	0.09	49.76	65.48
	LE_MLAP_C660_1605_NIV_CH17		122.03	0.14	38.00	69.00
	FTE 516	BUENOS AIRES	4149.00	21.79	1195.00	71.20
	FTE 543		990.44	8.52	607.00	39.00
	FTE 136	AZUL Y ORO	220.67	24.31	180.00	18.00
	FTE 118	990	514.50	24.60	464.00	10.00
	LE_MLAP_CPRN_1601_NIV_CH7	LA PRIETA	255.18	0.08	31.00	87.93
	LE_MLAP_CPRN_1595_NIV_CH3		268.30	0.12	41.00	84.81
September 2020	LE_MLAP_CPRN_1601_NIV_CH3	LA PRIETA	190.94	0.27	32.00	83.25
	LE_MLAP_CPRN_1595_NIV_CH4		620.50	0.00	57.00	90.90
	LE_MLAP_CPRN_1595_NIV_CH4.5		267.36	0.35	187.00	29.90
October 2020	LE_MLAP_CPRN_1601_NIV_CH5	LA PRIETA	170.44	0.14	55.38	67.51
	LE_MLAP_C660_1595_NIV_CH 11	CUERPO 660	205.68	0.12	35.04	82.96
	LE_MLAE_CSJX_1735_CH1S	SAN JAVIER	102.66	2.02	46.68	54.53
	LE_MLAE_EISJ_1735_NIV_CH213_1		362.49	1.58	97.34	73.15

13.6 Recovery Estimates

Typical metal recoveries for the La Encantada mine plant-feed are provided in Table 13-4. This table summarizes realized monthly silver recovery for 2020, when an average silver recovery of 78.1% was achieved.

Table 13-4: Monthly Recovery Performance for 2020

Recovery Ag 2020	
Month	**Ag %**
January	78.4%
February	79.1%
March	78.2%
April	80.5%
May	74.1%
June	78.3%
July	74.9%
August	77.0%
September	78.0%
October	78.2%
November	79.0%
December	81.4%
2020 Weighted Average	78.1%

The silver recovery estimates for the LOM are based on the assumed metallurgical recoveries for the different domains as listed in Table 13-5.

Table 13-5: Metallurgical Recoveries by Domain

Domain	Metallurgical Recovery Ag
Prieta Complex: Ojuelas	60.0%
San Javier Milagros Complex	78.8%
Veins Systems - San Francisco	78.8%
Veins Systems - Conejo	39.0%
Veins Systems - Azul y Oro	50.0%
Veins Systems - 990	50.0%
Veins Systems - Buenos Aires	50.0%
Veins Systems - Bonanza	50.0%
Veins Systems (weighted average)	65.6%

The average yearly silver recovery projected in the LOM plan range from 60.0–67.8%.

13.7 Metallurgical Variability

Metallurgical variability has been addressed in the LOM plan by projecting metallurgical recoveries for each of the different domains based on actual performance of the mineralized material from areas currently in operation such as San Javier–Milagros complex breccias and Veta Dique San Francisco. Variability is also addressed by projecting recoveries based on laboratory testwork for the domains that are planned to be extracted later in the mine plan, such as Ojuelas, Conejo, and other veins.

13.8 Deleterious Elements

The doré silver content ranges from 60–85% due to the presence of copper, lead and zinc. This relatively low concentration of silver is addressed in the current selling agreement. A representative treatment charge was included in the cut-off grade calculation and in the LOM plan economic evaluations.

There is no preg-robbing known in the La Encantada leaching process. The clay content is around 4.0%.

13.9 Testwork for Alternative Flowsheets

Additional laboratorial testing programs are usually conducted by First Majestic to investigate opportunities for recovery improvements or alternative processing routes for material coming from different sources.

13.9.1 Roasting Testwork for Tailings Reprocessing

A number of testwork programs were conducted to assess the viability of reprocessing the existing tailing materials. The material held in Tailings Deposit No. 4 contain silver refractory material and very low recovery can be realized if only processed by cyanide leaching. To recover the silver contained in refractory minerals, such as manganese carbonates and manganese oxides, a pre-treatment is needed. The roasting process is an alternative known to improve recovery. When the refractory material is subjected to high temperatures, approximately 850°C, a reducing atmosphere is reached, and these silver-bearing minerals are calcinated. This results in a highly porous and readily leachable product showing higher silver recovery. Silver-bearing minerals, such as the manganese oxide, pyrolusite, and manganese carbonates are reduced according to the following simplified equations:

$$MnCO_3 \rightarrow MnO + CO_2$$

$$MnO_2 \rightarrow MnO + CO_2$$

From November to December 2015, metallurgical testwork was performed using the Profesionales en Servicios Industriales S.A. de C.V. (PROENSI) pilot scale prototype in Tuxpan, Mexico, resulting in silver recovery ranging from 68-72%. Material from Tailings Deposit No. 4 was studied during this testing program, and Table 13-6 shows the final leaching results post roasting.

Table 13-6: Test Results for Roasted Tailings (2015 at PROENSI Laboratory)

Sample ID	Silver Recovery %
Sample 1	72.0
Sample 2	68.2
Sample 3	72.0
Sample 4	69.2
Composite	69.2

Additional roasting testwork followed by leaching was performed in 2018 to 2019 which looked at the effect of roasting on various refractory materials coming from different mineral deposits. For this testwork, material was ground to a standard milling size which is P80=105 microns as well as a finer size of P80=20 microns and then subjected to roasting using a lab scale muffle furnace. The testwork was conducted at the Central Laboratory. Some of the results are presented in Table 13-7.

Table 13-7: Test Results, Roasting followed by Leaching

Deposit	Silver Recovery %	
	Standard Grind	Fine Grind
Azul y Oro - sample 1	48	67
Azul y Oro - sample 2	62	62
Buenos Aires - sample 1	68	74
Buenos Aires - sample 2	71	81

13.9.2 Flotation Testwork

Bench-scale preliminary flotation testwork has been conducted at the Central Laboratory using the Ojuelas deposit mineralized material. The initial phase of the investigation looked at possible flotation flowsheets and reagent regimes that could enable the recovery of lead and zinc, in addition to silver. The preliminary results are encouraging not only for the recovery of the base metals but also for the possibility to increase silver recovery.

The most promising flotation results are observed when sulphide and oxide minerals are recovered in a multi-stage flotation process that targets each mineral group separately. The first flotation stage targets silver, lead, and zinc sulphide minerals. In this stage, roughly 50% of the silver is recovered with minor amounts of lead and zinc. The oxide flotation stage recovers roughly 30% of the total silver associated with the material, however, the majority of the recovered lead and zinc report to this concentrate as well. The overall silver recovery from these lab tests have been approximately 70-75%, with an additional lead recovery of approximately 75% and 30% for zinc. Opportunities to increase zinc recovery are still under investigation. Flotation results are compared to the baseline scenario which is cyanide leach which on average recovers 60-65% of the silver with primary grinding, and up to 72% with fine grinding but no additional valuable metals.

14 MINERAL RESOURCE ESTIMATES

14.1 Introduction

This section describes the resource estimation methodology and summarizes key assumptions considered by First Majestic for La Encantada.

Geological modelling and resource estimations for La Encantada were completed by David Rowe, CPG. Database compilation, geologic modeling, and resource estimations were also produced by Karla Michelle Calderon.

14.2 Mineral Resource Estimation Process

The block model Mineral Resource estimates are based on the current database of exploration drill holes and production channel samples, underground level geological mapping, geological interpretations and models, surface topography, and underground mining excavation wireframes.

Geostatistical analysis, analysis of semi-variograms, block model resource estimation, and validation of the model blocks were completed with Leapfrog EDGE. Stope analysis to determine reasonable prospects for eventual economic extraction was completed with Maptek Vulcan.

The process followed for the estimation of Mineral Resources included:

- Database compilation and verification;
- Review of data quality for primary and interpreted data and QA/QC;
- Setup of the resource project with sample database, surface topography, and mining depletion wireframes and inspection in 3D space;
- Three-dimensional geological interpretation, modelling, and definition of the Mineral Resource estimation domains in Leapfrog Geo;
- Exploratory data and boundary analysis of the resource estimation domains;
- Sample data preparation (compositing and capping) for variography and block model estimation;
- Trend and spatial analysis: variography;
- Bulk density review;
- Block model resource estimation;
- Validation and classification of the block model resource estimates;
- Depletion of the Mineral Resource estimates due to mining;
- Development of appropriate economic parameters and assessment of reasonable prospects for eventual economic extraction;
- Summary compilation of the Mineral Resource estimates.

14.3 Sample Database

The combined drill hole and channel sample database for La Encantada was reviewed and verified by the resource geologists and supports that the QA/QC program was reasonable. The sample data used in Mineral Resource estimation has a cut-off date of December 31, 2020 and consists of exploration core drill holes and production channel samples. Table 14-1 and Table 14-2 summarize the drill hole and channel sample data in the resource domains used in the Mineral Resource estimation. Figure 14-1 shows the relative location of the sample data with respect to the mine zones in section and plan view.

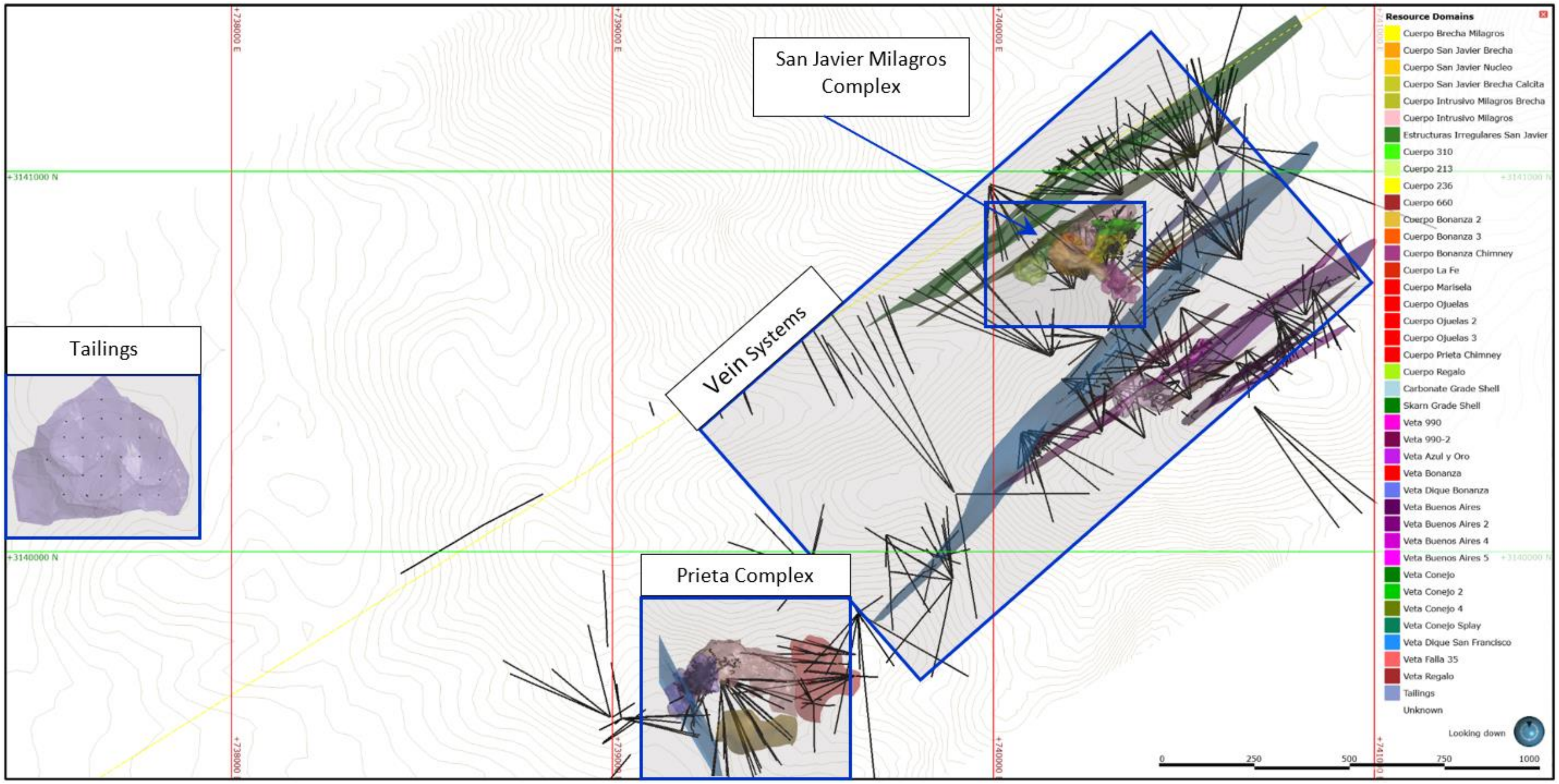
Table 14-1: Drill Hole Sample Data by Domain, La Encantada

Resource Domains	No. Drill Holes	No. of Samples	Interval Length (m)
Cuerpo Ojuelas Irregular Carbonate	28	220	155
Cuerpo 213	2	30	31
Cuerpo 236	9	122	82
Cuerpo 310	5	58	90
Cuerpo 660 - Ojuelas	7	104	62
Cuerpo Bonanza 2	16	253	124
Cuerpo Bonanza 3	16	309	142
Cuerpo Bonanza Chimney	1	20	31
Cuerpo Milagros Brecha	20	815	939
Cuerpo Falla Asuncion	34	416	392
Cuerpo Intrusivo Milagros	45	2,844	2,856
Cuerpo Intrusivo Milagros Brecha	7	305	318
Cuerpo La Fe	18	223	122
Cuerpo Marisela	2	42	35
Cuerpo Ojuelas	26	525	453
Cuerpo Ojuelas 2	23	154	113
Cuerpo Ojuelas 3	21	110	75
Cuerpo Regalo	11	256	277
Cuerpo San Javier Brecha	11	380	583
Cuerpo San Javier Nucleo	2	19	24
Estructuras Irregulares San Javier	1	8	12
Cuerpo Ojuelas Skarn	18	312	246
Tailings	41	703	1,157
Veta 990	65	249	164
Veta 990-2	66	353	260
Veta Azul y Oro	18	57	40
Veta Bonanza	27	226	98
Veta Buenos Aires	33	168	117
Veta Buenos Aires 2	25	84	64
Veta Buenos Aires 4	4	14	11
Veta Buenos Aires 5	16	25	14
Veta Conejo	44	289	164
Veta Conejo 2	81	846	449
Veta Conejo 4	83	247	100
Veta Conejo Splay	15	24	10
Veta Dique Bonanza	20	81	51
Veta Dique San Francisco	89	344	205
Cuerpo Falla 35	5	34	24
Veta Regalo	30	56	27
Grand Total	**462**	**11,325**	**10,116**

Table 14-2: Production Channel Sample Data by Domain, La Encantada

Resource Domains	No. Channels	No. of Samples	Interval Length (m)
Cuerpo 236	106	405	316
Cuerpo 310	1,697	5,040	7,483
Cuerpo 660 - Ojuelas	2	5	4
Cuerpo Milagros Brecha	451	1,216	2,115
Cuerpo Intrusivo Milagros	202	487	764
Cuerpo Marisela	51	179	144
Cuerpo Regalo	228	1,347	1,249
Cuerpo San Javier Brecha	716	2,444	4,282
Cuerpo San Javier Nucleo	125	406	634
Estructuras Irregulares San Javier	10	23	33
Veta 990	394	1,219	1,070
Veta 990-2	216	621	542
Veta Azul y Oro	248	572	425
Veta Bonanza	66	150	122
Veta Buenos Aires	236	823	731
Veta Buenos Aires 2	236	485	342
Veta Buenos Aires 4	34	131	115
Veta Buenos Aires 5	60	165	129
Veta Conejo	152	410	348
Veta Conejo 2	70	241	230
Veta Conejo 4	12	21	10
Veta Conejo Splay	59	90	64
Veta Dique Bonanza	42	110	78
Veta Dique San Francisco	541	1,233	961
Veta Regalo	208	421	308
Grand Total	**6,031**	**18,244**	**22,499**

Figure 14-1: Drill Hole and Channel Locations, Resource Domains, and Mine Areas: Plan View.



Note: Figure prepared by First Majestic, March 2021.

The exploration data were collected with a logger system that captured collar, survey, lithology, and assay information. Integrated validation tools were used to check for gaps, errors, overlapping intervals and total lengths prior to geological modeling and estimation of Mineral Resources.

14.4 Geological Interpretation and Domain Modeling

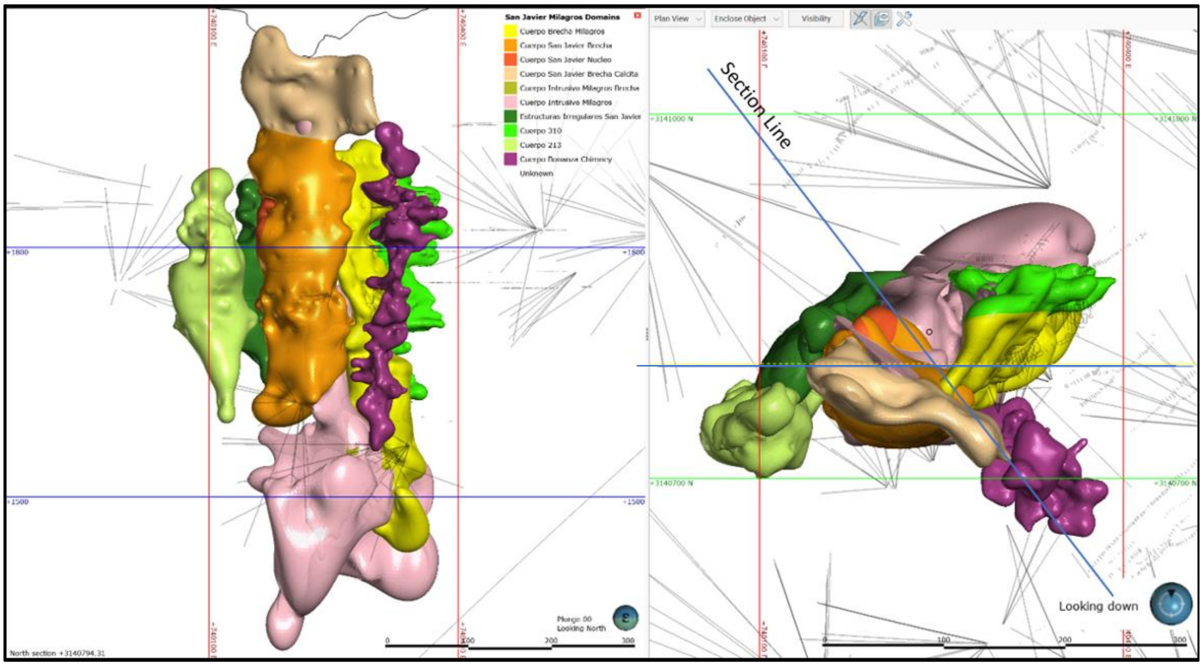
The Mineral Resource estimates for the deposits at La Encantada are constrained by 3D geological interpretation and geological domain models. The domains are constructed from core logs, drill hole and production channel sample assay intervals, and underground geological mapping. Silver and lead estimations are restricted to the domain models of tabular veins, mantos, massive lenses, breccia pipes, and irregular replacement zones. The domain model boundaries strictly adhere to the vein and breccia contacts with the surrounding country rock to produce reasonable representations of the mineralization locations and volumes. Table 14-3 lists the 40 domains modeled within the four mine areas at La Encantada.

Table 14-3: Mine Area, Ore Nature, Host-Rock, Resource Domains and Codes, La Encantada

ID	Area	Ore Nature	Host	Resource Domains	Code
1	Prieta Complex	Breccia Pipe	Carbonate-Hosted	Cuerpo Prieta Chimney	CCPR
2	Prieta Complex	Irregular Replacement	Carbonate-Hosted	Cuerpo Ojuelas Irregular Carbonate	KaGS
3	Prieta Complex	Irregular Replacement	Skarn-Hosted	Cuerpo Ojuelas Skarn	SknGS
4	Prieta Complex	Massive Lens - Replacement	Carbonate-Hosted	Cuerpo 660 - Ojuelas	C660
5	Prieta Complex	Massive Lens - Replacement	Carbonate-Hosted	Cuerpo La Fe	CLFE
6	Prieta Complex	Massive Lens - Replacement	Carbonate-Hosted	Cuerpo Ojuelas 2	COJ2
7	Prieta Complex	Massive Lens - Replacement	Carbonate-Hosted	Cuerpo Ojuelas 3	COJ3
8	Prieta Complex	Massive Lens - Replacement	Carbonate-Hosted	Cuerpo Ojuelas	COJU
9	Prieta Complex	Vein	Carbonate-Hosted	Cuerpo Falla 35	CF35
10	Prieta Complex	Vein	Skarn-Hosted	Cuerpo Falla Asuncion	CASNF
11	San Javier Milagros Complex	Breccia Pipe	Carbonate-Hosted	Cuerpo Milagros Brecha	CMLX
12	San Javier Milagros Complex	Pipe	Carbonate-Hosted	Cuerpo San Javier Nucleo	CSJN
13	San Javier Milagros Complex	Breccia Pipe	Carbonate-Hosted	Cuerpo San Javier Brecha	CSNJ
14	San Javier Milagros Complex	Irregular Replacement	Carbonate-Hosted	Cuerpo 213	C213
15	San Javier Milagros Complex	Irregular Replacement	Carbonate-Hosted	Estructuras Irregulares San Javier	EISJ
16	San Javier Milagros Complex	Pipe	Carbonate-Hosted	Cuerpo 310	C310
17	San Javier Milagros Complex	Pipe	Carbonate-Hosted	Cuerpo Bonanza Chimney	CBN1
18	San Javier Milagros Complex	Pipe	Igneous-Hosted	Cuerpo Intrusivo Milagros	CBXI
19	San Javier Milagros Complex	Pipe	Igneous-Hosted	Cuerpo Intrusivo Milagros Brecha	CIMX
20	Vein System	Irregular Replacement	Carbonate-Hosted	Cuerpo 236	C236
21	Vein System	Irregular Replacement	Carbonate-Hosted	Cuerpo Bonanza 2	CBN2
22	Vein System	Irregular Replacement	Carbonate-Hosted	Cuerpo Bonanza 3	CBN3
23	Vein System	Irregular Replacement	Carbonate-Hosted	Cuerpo Marisela	CMAR
24	Vein System	Irregular Replacement	Carbonate-Hosted	Cuerpo Regalo	CREG
25	Vein System	Vein	Carbonate-Hosted	Veta 990	V990
26	Vein System	Vein	Carbonate-Hosted	Veta 990-2	V990-2
27	Vein System	Vein	Carbonate-Hosted	Veta Azul y Oro	VAYO
28	Vein System	Vein	Carbonate-Hosted	Veta Buenos Aires 2	VBN2
29	Vein System	Vein	Carbonate-Hosted	Veta Buenos Aires 4	VBN4
30	Vein System	Vein	Carbonate-Hosted	Veta Buenos Aires 5	VBN5
31	Vein System	Vein	Carbonate-Hosted	Veta Buenos Aires	VBNA
32	Vein System	Vein	Carbonate-Hosted	Veta Bonanza	VBNZ
33	Vein System	Vein	Carbonate-Hosted	Veta Conejo 2	VCN2
34	Vein System	Vein	Carbonate-Hosted	Veta Conejo 4	VCN4
35	Vein System	Vein	Carbonate-Hosted	Veta Conejo	VCNJ
36	Vein System	Vein	Carbonate-Hosted	Veta Conejo Splay	VCNS
37	Vein System	Vein	Carbonate-Hosted	Veta Dique Bonanza	VDBN
38	Vein System	Vein	Carbonate-Hosted	Veta Dique San Francisco	VDSF
39	Vein System	Vein	Carbonate-Hosted	Veta Regalo	VREG
40	Tailings	Tailings	Tailings	Tailings Deposit No. 4	TLN4

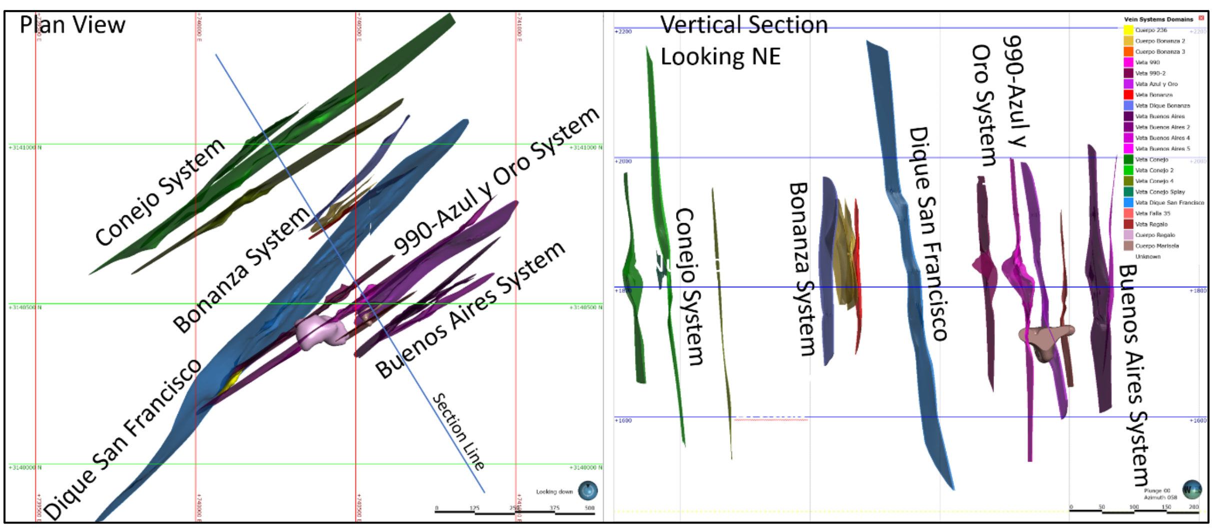
Figure 14-1 showed the mineral deposit and resource domains that were grouped by deposit type and mine area location. Figure 14-2 to Figure 14-5 display the modelled resource domains for the four mine areas: the Prieta complex, the San Javier–Milagros complex, the Vein systems, and the Tailings Deposit No. 4.

Figure 14-2: Vertical Section and Plan View Location of the San Javier–Milagros Complex Domains



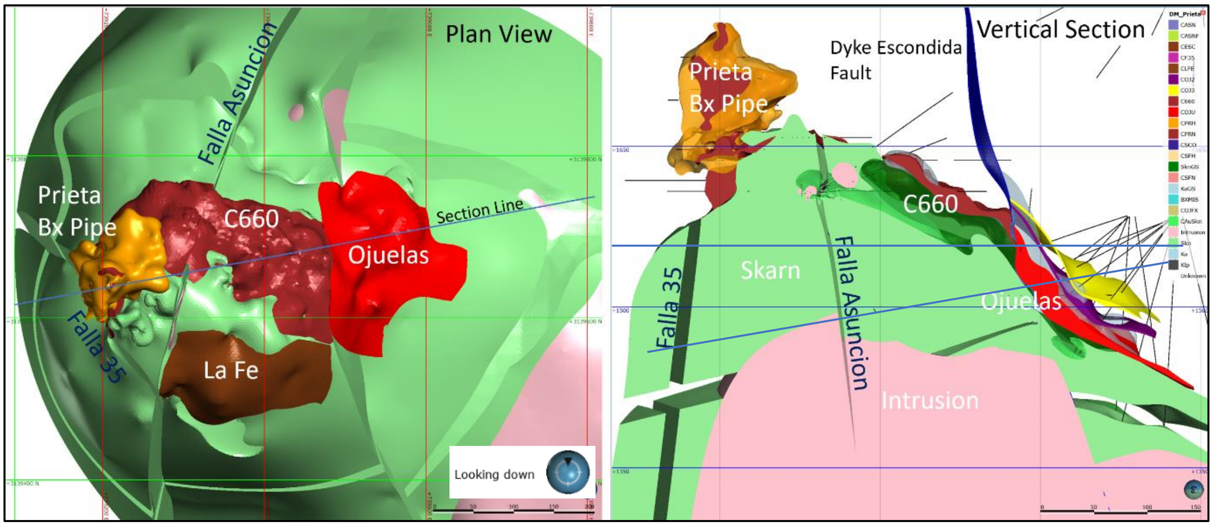
Note: Figure prepared by First Majestic, March 2021. Vertical section is full projection.

Figure 14-3: Plan View Location and Vertical Section of the Vein Systems Domains



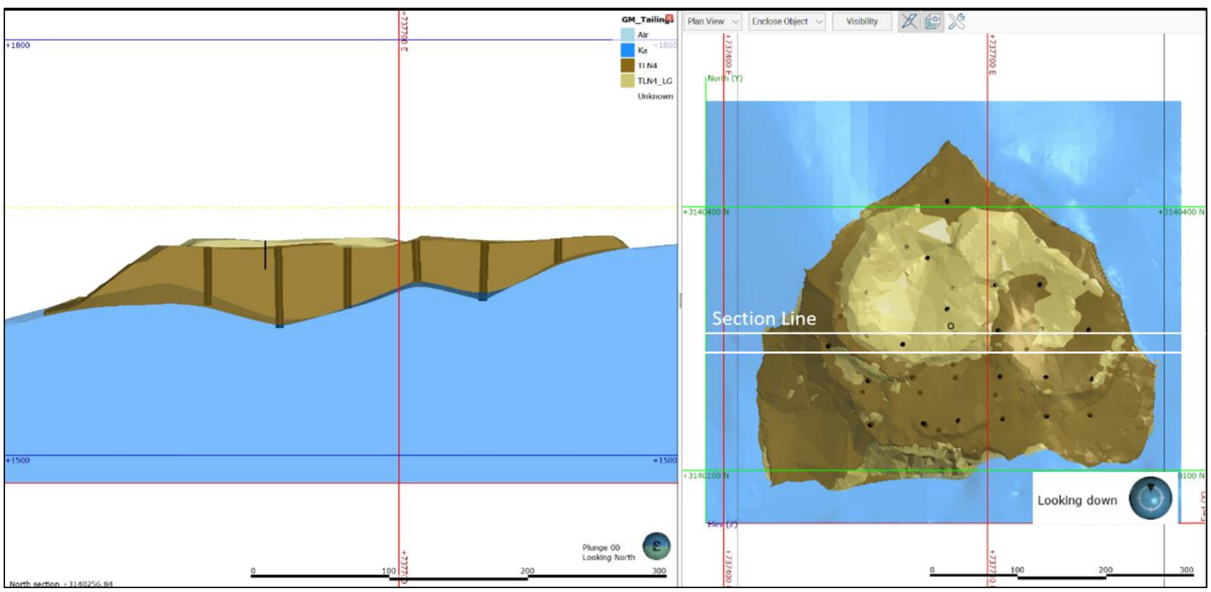
Note: Figure prepared by First Majestic, March 2021.

Figure 14-4: Plan View Location and Vertical Section of the Prieta Complex Domains



Note: Figure prepared by First Majestic, March 2021.

Figure 14-5: Vertical Section and Plan View Location of the Tailings Deposit No. 4 Domain



Note: Figure prepared by First Majestic, March 2021.

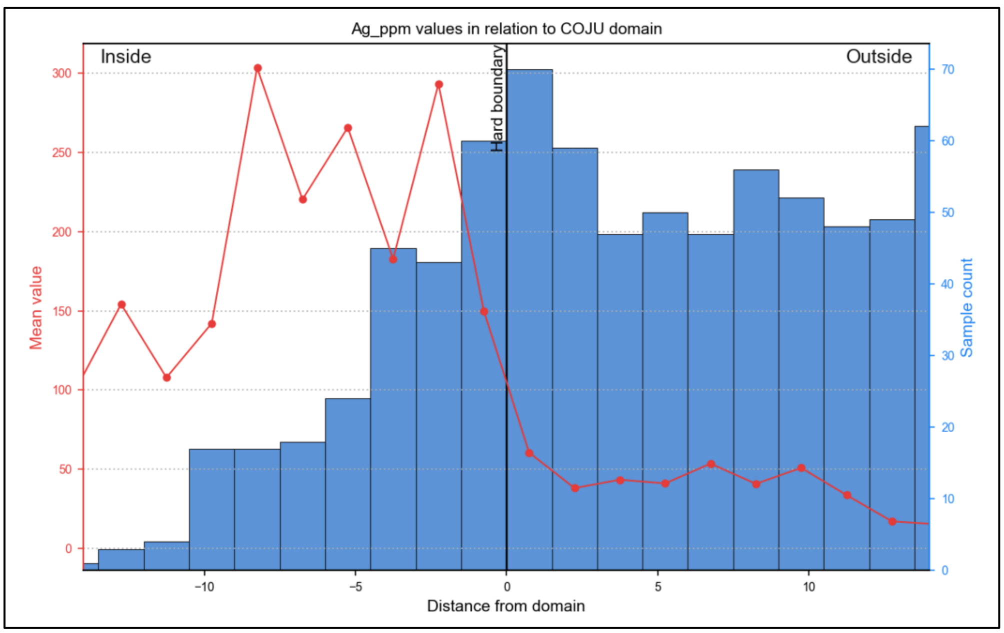
14.5 Exploratory Sample Data Analysis

Exploratory data analysis was completed to assess the statistical and spatial character of the sample data. Data were examined in 3D to understand the spatial distribution of mineralized intervals. The sample assay data statistics were analyzed within each domain to ensure the sample population is a good representation of the domain.

14.6 Boundary Analysis

Boundary analysis was completed for each of the domains to review the change in metal grade across the domain contacts using boundary plots. There is a sharp grade change across the contact and hard boundary conditions are observed for most deposits. Some sub-domains within the San Javier–Milagros complex display semi-soft conditions and distance-restricted soft boundaries were used for those domains. Figure 14-6 shows an example of the hard boundary condition for the Cuerpo Ojuelas domain.

Figure 14-6: Example of Hard Boundary Silver Conditions for the Cuerpo Ojuelas Domain



Note: Figure prepared by First Majestic, March 2021.

Hard boundaries were used during the construction of sample composite samples and during Mineral Resource estimation. Composite samples were restricted to their respective resource domain except for those modified soft boundary conditions applied for certain domains in the San Javier–Milagros complex.

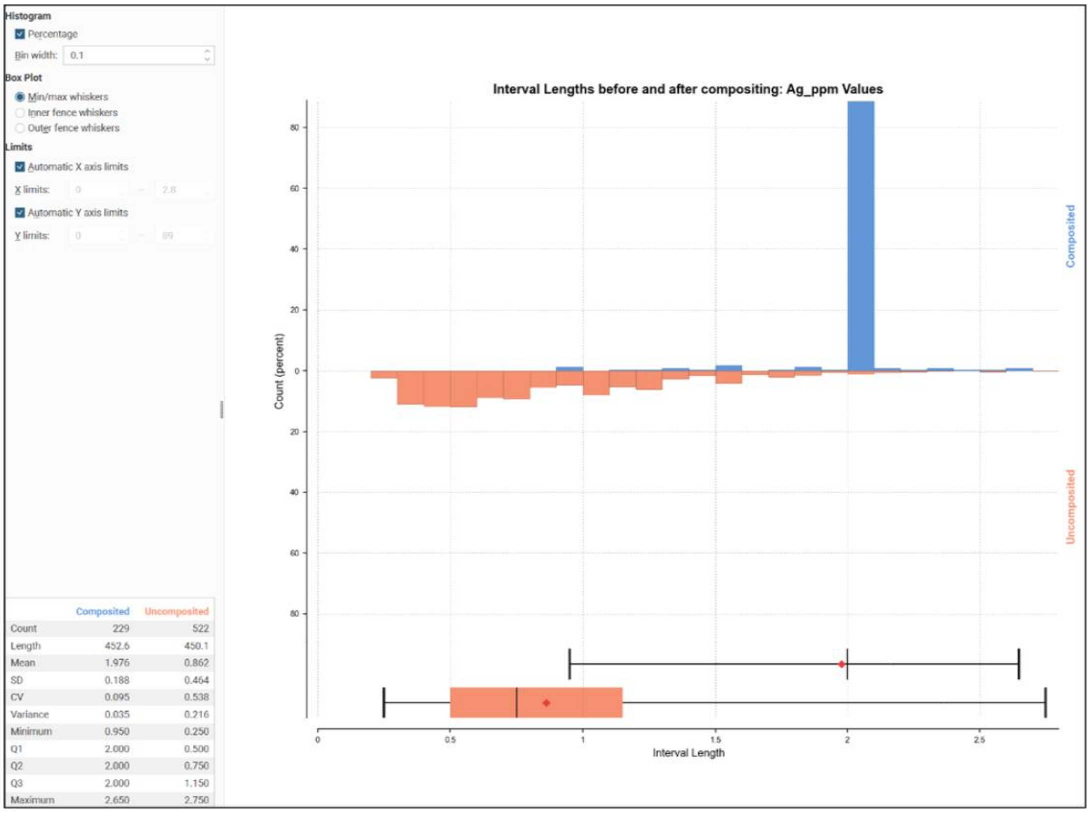
14.7 Compositing

To select an appropriate composite sample length, the assay sample intervals were reviewed for each domain. The composite length selected varies by domain, with short residual composite samples left at the end of the vein intersection added to the previous interval. Composites generally were 1 m or 2 m lengths. Composite sample lengths are detailed in Table 14-4 and Figure 14-7 shows an example of sample interval lengths before and after compositing for the Cuerpo Ojuelas domain.

Table 14-4: Composite Sample Preparation, La Encantada

Area	Resource Domain Code	Composite Length (m)	Minium Residual Length (m)	Residual End Length Treatment
Prieta Complex	CCPR	2.0	0.6	Add to Previous Interval
Prieta Complex	KaGS	2.0	0.5	
Prieta Complex	SknGS	2.0	0.5	
Prieta Complex	C660	2.0	0.5	
Prieta Complex	CLFE	2.0	0.5	
Prieta Complex	COJ2	2.0	0.5	
Prieta Complex	COJ3	2.0	0.5	
Prieta Complex	COJU	2.0	0.5	
Prieta Complex	CF35	1.0	0.5	
San Javier Milagros Complex	CMLX	2.0	0.7	
San Javier Milagros Complex	CSNJ	2.0	0.7	
San Javier Milagros Complex	C213	2.0	0.7	
San Javier Milagros Complex	EISJ	2.0	0.7	
San Javier Milagros Complex	C310	2.0	0.7	
San Javier Milagros Complex	CBXI	2.0	0.7	
San Javier Milagros Complex	CIMX	2.0	0.7	
Vein System	C236	1.0	0.3	
Vein System	CBN2	1.0	0.3	
Vein System	CBN3	1.0	0.3	
Vein System	CMAR	1.0	0.3	
Vein System	CREG	1.0	0.3	
Vein System	V990	1.0	0.3	
Vein System	V990-2	1.0	0.3	
Vein System	VAYO	1.0	0.3	
Vein System	VBN2	1.0	0.3	
Vein System	VBN4	1.0	0.3	
Vein System	VBN5	1.0	0.3	
Vein System	VBNA	1.0	0.3	
Vein System	VBNZ	1.0	0.3	
Vein System	VCN2	1.0	0.3	
Vein System	VCN4	1.0	0.3	
Vein System	VCNJ	1.0	0.3	
Vein System	VCNS	1.0	0.3	
Vein System	VDBN	1.0	0.3	
Vein System	VDSF	1.0	0.3	
Vein System	VREG	1.0	0.3	
Tailings	Tailings	3.0	1.0	

Figure 14-7: Sample Interval Lengths, Composited vs. Uncomposited – Cuerpo Ojuelas Domain

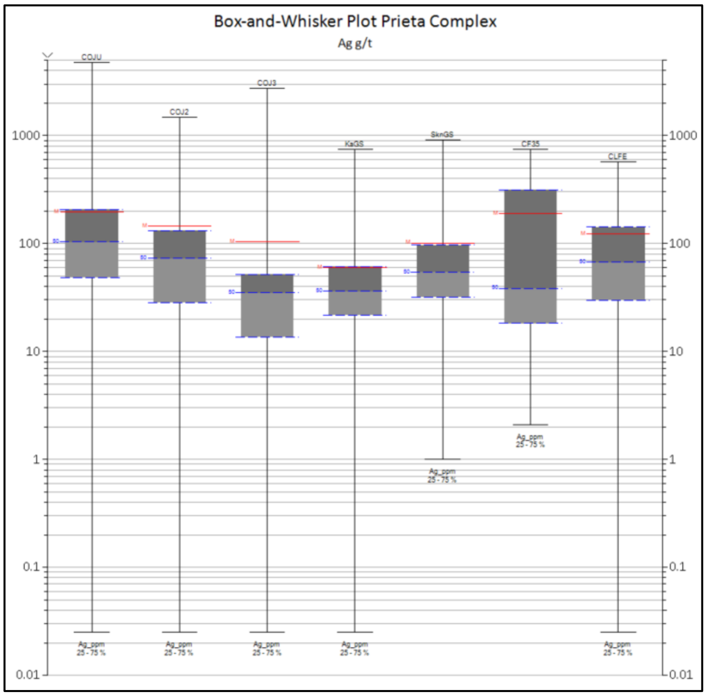


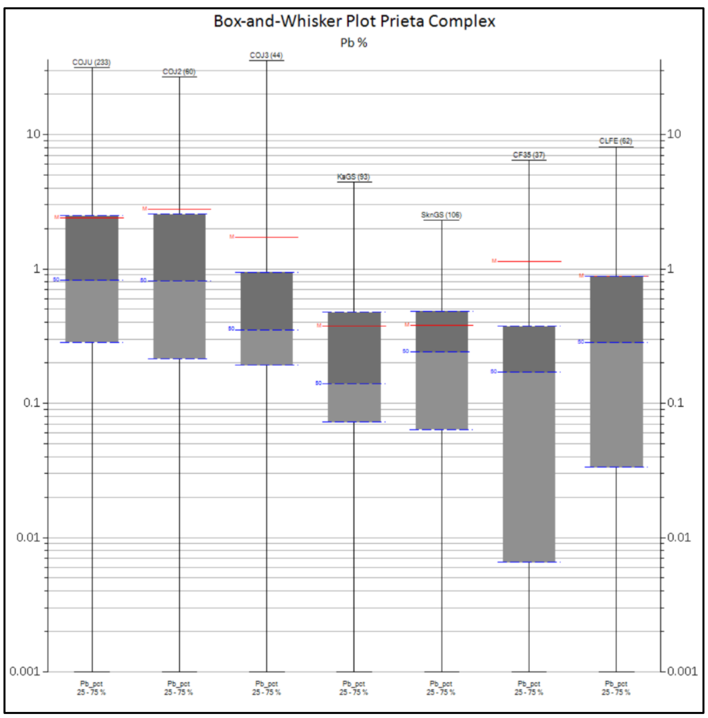
Note: Figure prepared by First Majestic, March 2021.

14.8 Composite Sample Statistics

Data were declustered to account for over-sampling in certain regions. Clustered data result in either a low or a high-grade bias for the composite sample mean value. The declustered composite sample statistics for all resource domains are summarized in Figure 14-8 and Table 14-5 for the Prieta complex, in Figure 14-9 and Table 14-6 for the San Javier–Milagos complex, and in Figure 14-10 and Table 14-7 for the Vein systems and the Tailings Deposit No 4.

Figure 14-8: Ag and Pb Box Plots of Declustered Composite Sample Statistics by Domain, Prieta Complex





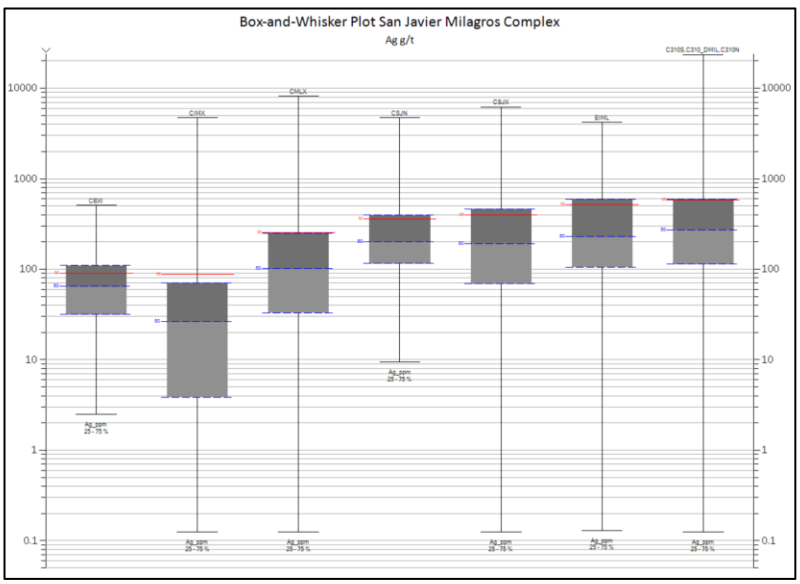
Note: Figure prepared by First Majestic, March 2021.

Table 14-5: Ag, Pb Declustered Composite Sample Statistics by Domain, Prieta Complex

Assay	**Ag g/t**						
Filters	**COJ2**	**COJ3**	**COJU**	**KaGS**	**SknGS**	**CF35**	**CLFE**
Samples	60	44	233	93	106	37	62
Minimum	0.025	0.025	0.025	0.025	1.003	2.1	0.025
Maximum	1472	2747	4741	739	905	742	572
Mean	**144**	**104**	**194**	**60**	**101**	**189**	**122**
Standard deviation	247	386	350	97	146	229	142
CV	1.71	3.71	1.80	1.62	1.45	1.21	1.17
Variance	60848	149297	122169	9374	21406	52306	20300

Assay	**Pb %**						
Filters	**COJ2**	**COJ3**	**COJU**	**KaGS**	**SknGS**	**CF35**	**CLFE**
Samples	60	44	233	93	106	37	62
Minimum	0	0	0	0	0	0	0
Maximum	27	36	32	4	2	6	8
Mean	**2.8**	**1.7**	**2.4**	**0.4**	**0.4**	**1.1**	**0.9**
Standard deviation	4.9	5.0	4.2	0.7	0.4	2.2	1.7
CV	1.75	2.92	1.75	1.77	1.16	1.96	1.91
Variance	23.8	25.0	17.6	0.4	0.2	5.0	2.8

Figure 14-9: Ag Box Plot of Declustered Composite Sample Statistics by Domain, San Javier–Milagros Complex

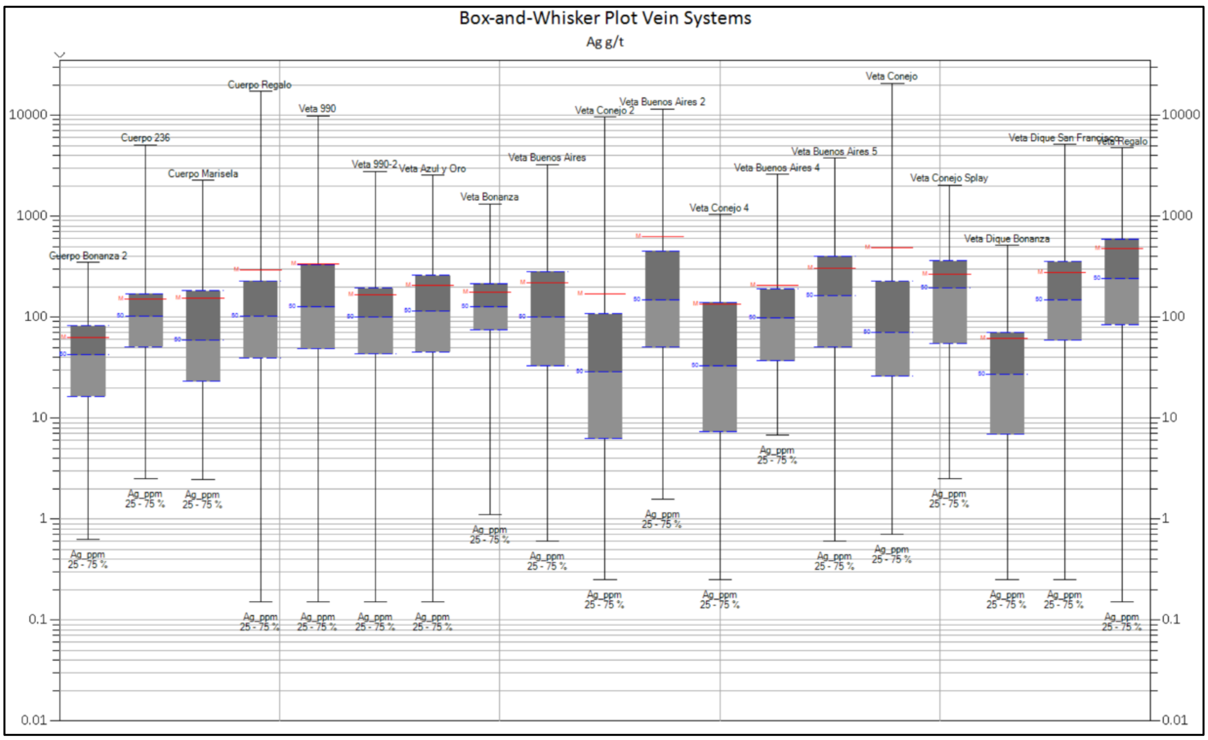


Note: Figure prepared by First Majestic, March 2021.

Table 14-6: Ag Declustered Composite Sample Statistics by Domain, San Javier–Milagros Complex

Assay	**Ag g/t**						
Resource Domain	**CBXI**	**CIMX**	**CMLX**	**CSJN**	**CSJX**	**EIML**	**C310**
Samples	162	1817	1589	352	2456	761	4292
Minimum	2.5	0.125	0.125	9.42	0.125	0.13	0.125
Maximum	508	4763	8140	4731	6224	4243	23580
Mean	**90**	**56**	**253**	**360**	**399**	**521**	**580**
Standard deviation	86	206	468	555	570	756	1103
CV	0.96	3.70	1.85	1.54	1.43	1.45	1.90
Variance	7482	42535	219104	307525	324636	571110	1216659

Figure 14-10: Ag Box Plot of Declustered Composite Sample Statistics by Domain, Vein Systems



Note: Figure prepared by First Majestic, March 2021.

Table 14-7: Ag Declustered Composite Sample Statistics by Domain, Vein Systems and Tailings

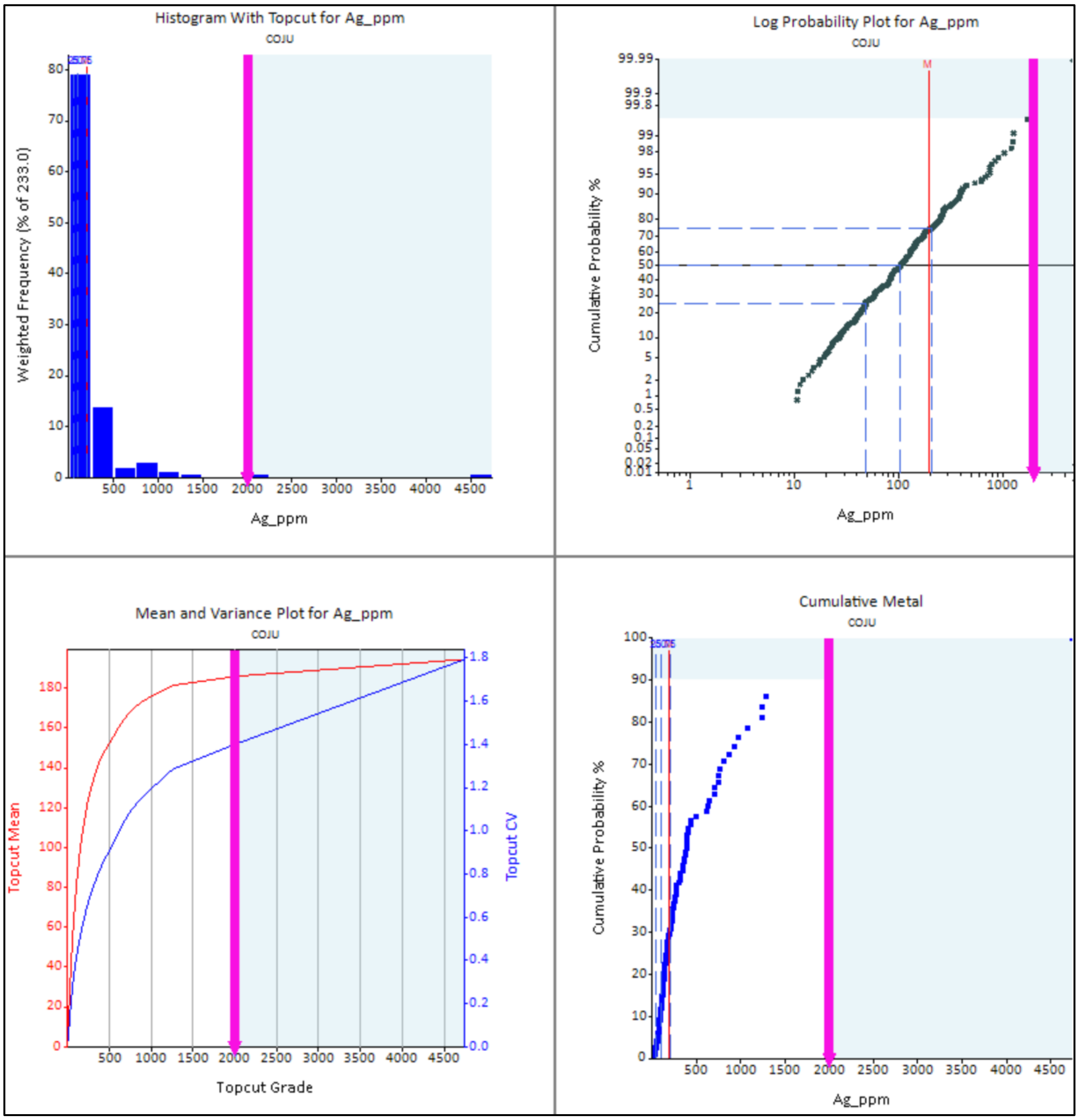
Assay	**Ag g/t**										
Resource Domain		**VCN2_W**	**VCN2_E**	**VCN4**	**VCNJ**	**VCNS**	**CBN2**	**CBN3**	**VBNZ**	**VDBN**	**VAYO**
Samples		282	420	144	563	101	128	144	239	137	530
Minimum		0.125	0.125	0.125	0.125	0.125	0.125	0.624	0.125	0.125	0.125
Maximum		684	9552	1036	20658	2019	345	323	1000	514	2547
Mean		**40**	**203**	**76**	**242**	**182**	**68**	**58**	**115**	**43**	**174**
Standard deviation		70	851	154	979	275	65	66	123	87	240
CV		1.72	4.20	2.02	4.04	1.51	0.97	1.13	1.06	2.00	1.38
Variance		4851	724237	23827	958846	75546	4256	4351	15101	7527	57719

Resource Domain	**C236**	**CMAR**	**CREG**	**V990-2**	**V990**	**VREG**	**VBN2**	**VBN4**	**VBN5**	**VBNA**	**Tailings**
Samples	416	186	1564	860	1332	391	471	131	167	894	321
Minimum	0.125	0.125	0.125	0.125	0.125	0.125	0.125	6.8	0.125	0.125	72.1
Maximum	5092	2254	17167	2762	9803	4761	11531	2109	3754	3250	176
Mean	**95**	**120**	**234**	**132**	**236**	**341**	**324**	**158**	**240**	**142**	**112**
Standard deviation	187	219	685	214	547	532	906	232	363	278	16
CV	1.98	1.83	2.93	1.61	2.32	1.56	2.79	1.47	1.51	1.95	0.15
Variance	35051	48046	468743	45596	299121	283547	820253	54030	131888	77089	260

14.9 Composite Sample Outlier Management

Drill hole and channel composite samples were evaluated for high-grade outliers and those outliers were capped to values considered appropriate for estimation. Outlier values at the high end of the grade distributions were identified for silver and lead from analysis of histograms, log cumulative probability, mean variance, and cumulative metal plots. The spatial distribution of outlier values was also considered. Figure 14-11 is an example of outlier value analysis for Cuerpo Ojuelas. To quantify the impact of capping, the estimate was evaluated to assess the change in metal content for the estimation due to capping. Table 14-8 to Table 14-10 show the declustered composite statistics for outlier value capping.

Figure 14-11: Example of Global Analysis of Outlier Values, Cuerpo Ojuelas



Note: Figure prepared by First Majestic, March 2021.

Table 14-8: Declustered Composite Sample Capping Statistics by Domain, Prieta Complex

Assay	Ag g/t						
Resource Domain	**COJU**	**COJ2**	**COJ3**	**KaGS**	**SknGS**	**CF35**	**CLFE**
Number Samples	233	60	44	93	106	37	62
Maximum Value	4741	1472	2747	739	905	742	572
Mean	194	144	104	60	101	189	122
Number Capped	2	3	2	4	5	4	2
Capping Value	2000	430	200	200	400	425	450
Mean Capped	187	114	51	49	87	162	116
Mean Change %	-4%	-21%	-51%	-18%	-14%	-14%	-5%

Assay	Pb %						
Resource Domain	**COJU**	**COJ2**	**COJ3**	**KaGS**	**SknGS**	**CF35**	**CLFE**
Number Samples	233	60	44	93	106	37	62
Maximum Value	31.6	26.9	35.7	4.4	2.3	6.5	8.1
Mean Value	2.4	2.8	1.7	0.4	0.4	1.1	0.9
Number Capped	6	3	2	1	2	2	3
Capping Value	19	13	8	4	2	3	6
Mean Capped	2.3	2.4	1.1	0.4	0.4	0.6	0.8
Mean Change %	-4%	-13%	-35%	-1%	-1%	-43%	-8%

Note: Domains with relatively few samples are sensitive to value capping.

Table 14-9: Declustered Composite Sample Capping Statistics by Domain, San Javier–Milagros Complex

Assay	Ag g/t						
Resource Domain	**CBXI**	**CBXI**	**CMLX**	**CSJN**	**CSJX**	**EIML**	**C310**
Number Samples	162	1817	1589	352	2456	761	4292
Maximum Value	508	4763	8140	4731	6224	4243	23580
Mean	90	56	253	360	399	521	580
Number Capped	3	3	5	5	4	7	4
Capping Value	300	3200	5000	3000	4000	3300	12000
Mean Capped	87	55	251	345	398	509	572
Mean Change %	-3%	-2%	-1%	-4%	0%	-2%	-1%

Table 14-10: Declustered Composite Sample Capping Statistics by Domain, Vein Systems and Tailings

Assay	**Ag g/t**										
Resource Domain		**VCN2_W**	**VCN2_E**	**VCN4**	**VCNJ**	**VCNS**	**CBN2**	**CBN3**	**VBNZ**	**VDBN**	**VAYO**
Number Samples		282	420	144	563	101	128	144	239	137	530
Maximum Value		684	9552	1036	20658	2019	345	323	999.895	514	2547
Mean		40	203	76	242	182	68	58	115.491	43	174
Number Capped		2	6	1	9	1	4	3	7	2	4
Capping Value		300	2800	800	7000	1200	225	250	600	400	1500
Mean Capped		39	149	76	224	181	65	57	114.159	43	171
Mean Change %		-3%	-27%	-1%	-7%	-1%	-3%	-2%	-0.01153	-1%	-1%

Resource Domain	**C236**	**CMAR**	**CREG**	**V990-2**	**V990**	**VREG**	**VBN2**	**VBN4**	**VBN5**	**VBNA**	**Tailings**
Number Samples	416	186	1564	860	1332	391	471	131	167	894	321
Maximum Value	5092	2254	17167	2762	9803	4761	11531	2109	3754	3250	175
Mean	95	120	234	132	236	341	324	158	240	142	112
Number Capped	2	2	6	3	5	3	5	3	1	2	5
Capping Value	1200	1000	7000	1600	5500	3500	7500	1500	1800	2500	150
Mean Capped	90	115	226	130	232	337	318	154	232	141	111
Mean Change %	-5%	-4%	-3%	-2%	-2%	-1%	-2%	-3%	-3%	0%	-1%

Capping of composite sample values was limited to a select few extreme values. To reduce bias from additional high-grade samples, those outlier values were range restricted. Samples above a specified high-grade threshold value are used at full value out to a specified distance from the sample. Beyond the specified distance the samples are reduced in value to a stated high-grade threshold value.

14.10 Metal Trend and Spatial Analysis: Variography

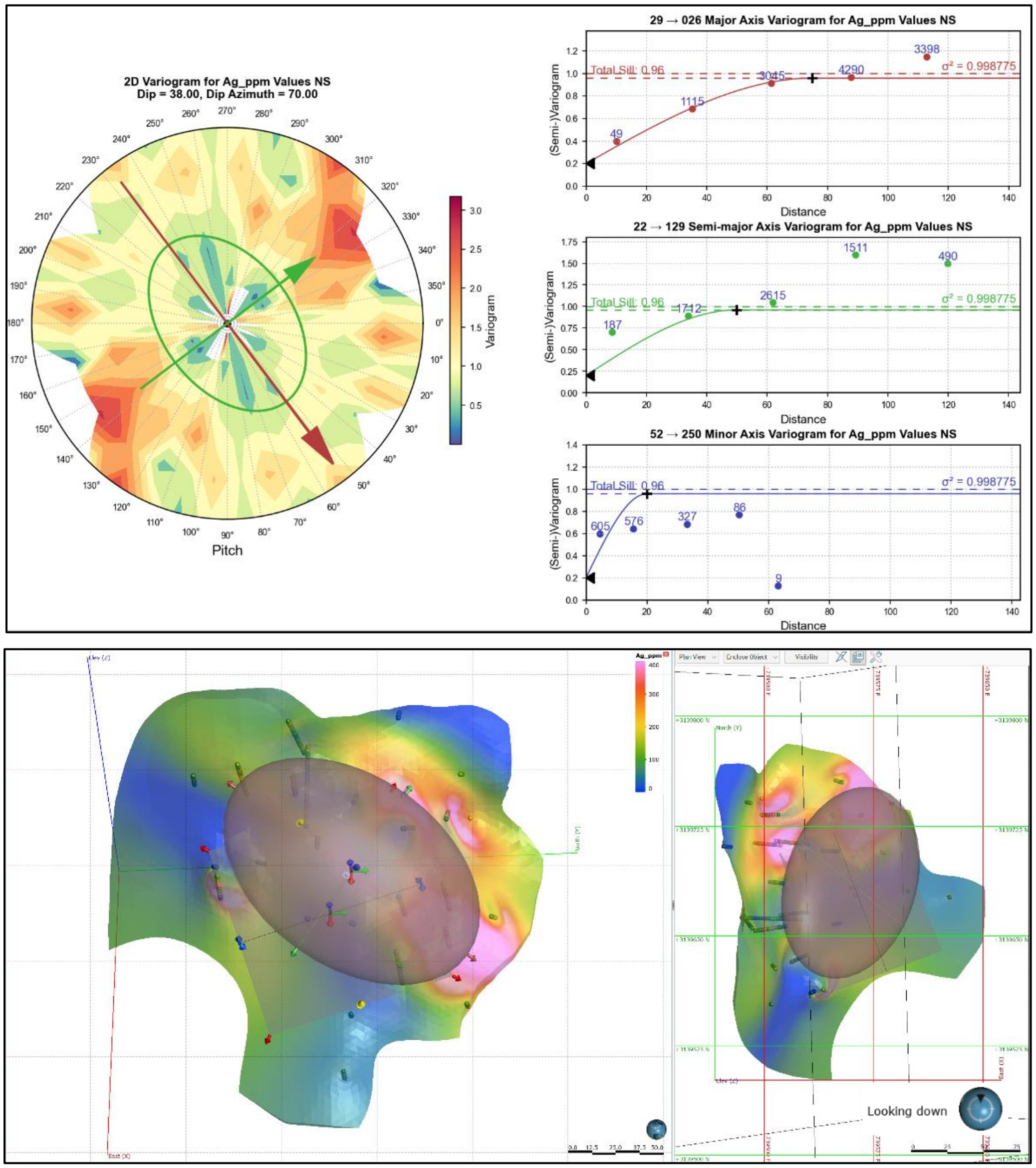
The dominant trends for silver and lead mineralization were identified based on the 3D numeric models for the metal in each domain. Model variograms for silver and lead composite values were developed along the trends identified and the nugget values were established from downhole variograms.

Table 14-11 shows the model variogram parameters used for La Encantada and Figure 14-12 displays an example of variogram plots for silver together with the variogram-oriented ellipsoid for the Cuerpo Ojuelas domain.

Table 14-11: Variogram Model Parameters for La Encantada

Variogram Name	**Direction**			**Type**	**Nugget**	**Structure 1**					**Structure 2**				
	Dip	**Dip Az.**	**Pitch**			**Sill**	**Structure**	**Major**	**Semi-major**	**Minor**	**Sill**	**Structure**	**Major**	**Semi-major**	**Minor**
VDSF Ag P1 All	77	132	32	Variogram	0.15	0.64	Spherical	60	50	20					
VDSF Ag P2 DDH	77	132	32	Variogram	0.15	0.64	Spherical	60	50	20					
V990-2: Ag: DDH	90	324	66	Normal Score	0.30	0.76	Spherical	70	50	10					
V990: Ag: DDH	90	324	44	Normal Score	0.20	0.39	Spherical	40	30	12	0.21	Spherical	65	55	20
COJU: Ag	38	70	53	normal score	0.20	0.76	Spherical	75	50	20					
TLN4_L	5	280	82	normal score	0.17	0.87	Spherical	78	78	30					
TLN4_U	5	280	83	normal score	0.19	0.73	Spherical	80	70	31					

Figure 14-12: Ag Variogram Models for Cuerpo Ojuelas

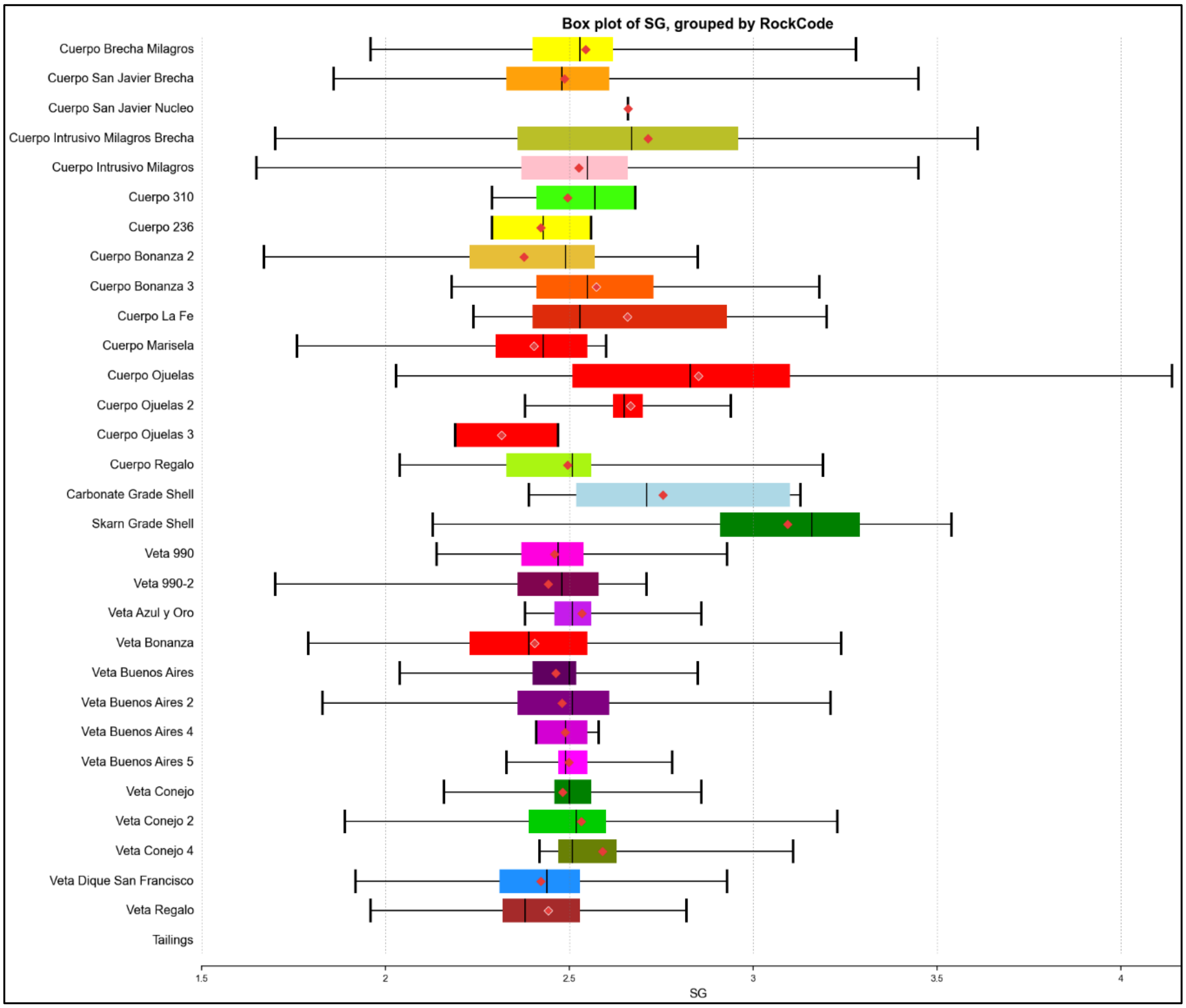


Note: Figure prepared by First Majestic, March 2021. Rotated View of Cuerpo Ojuelas with Silver Grade Trend and Variogram Ellipsoid Orientation

14.11 Bulk Density

Bulk density for the mineral deposits at La Encantada were derived from SG measurements. Bulk density for the resource domains was either estimated into the block models from the SG data or the mean SG value was assigned. The SG statistics for the Mineral Resource domains are displayed in Figure 14-13 and are tabulated in Table 14-12.

Figure 14-13: SG Box Plot Statistics by Resource Domain



Note: Figure prepared by First Majestic, March 2021.

Table 14-12: SG Statistics by Domain

Resource Domain	Count	Mean	Standard deviation	Coefficient of variation	Minimum	Median	Maximum
Cuerpo Brecha Milagros	101	2.5	0.28	0.11	2.0	2.5	3.7
Cuerpo San Javier Brecha	100	2.5	0.23	0.09	1.9	2.5	3.5
Cuerpo San Javier Nucleo	2	2.7	0.00	0.00	2.7	2.7	2.7
Cuerpo Intrusivo Milagros Brecha	41	2.7	0.47	0.17	1.7	2.7	3.6
Cuerpo Intrusivo Milagros	281	2.5	0.24	0.10	1.7	2.6	3.5
Cuerpo 310	4	2.5	0.17	0.07	2.3	2.6	2.7
Cuerpo 236	4	2.4	0.11	0.05	2.3	2.4	2.6
Cuerpo Bonanza 2	13	2.4	0.32	0.13	1.7	2.5	2.9
Cuerpo Bonanza 3	17	2.6	0.25	0.10	2.2	2.6	3.2
Cuerpo La Fe	6	2.7	0.35	0.13	2.2	2.5	3.2
Cuerpo Marisela	10	2.4	0.21	0.09	1.8	2.4	2.6
Cuerpo Ojuelas	43	2.9	0.49	0.17	2.0	2.8	4.1
Cuerpo Ojuelas 2	6	2.7	0.22	0.08	2.3	2.7	3.0
Cuerpo Ojuelas 3	3	2.3	0.19	0.08	2.2	2.2	2.5
Cuerpo Regalo	39	2.5	0.27	0.11	2.0	2.5	3.2
Carbonate Grade Shell	6	2.8	0.30	0.11	2.4	2.7	3.1
Skarn Grade Shell	22	3.1	0.32	0.10	2.1	3.2	3.5
Veta 990	33	2.5	0.16	0.07	2.1	2.5	2.9
Veta 990-2	31	2.4	0.21	0.09	1.6	2.5	2.7
Veta Azul y Oro	14	2.5	0.14	0.05	2.4	2.5	2.9
Veta Bonanza	23	2.4	0.30	0.13	1.8	2.4	3.2
Veta Dique Bonanza	16	2.5	0.23	0.09	2.1	2.4	3.0
Veta Buenos Aires	36	2.5	0.14	0.06	2.0	2.5	2.9
Veta Buenos Aires 2	25	2.5	0.23	0.09	1.8	2.5	3.2
Veta Buenos Aires 4	5	2.5	0.08	0.03	2.4	2.5	2.6
Veta Buenos Aires 5	11	2.5	0.11	0.04	2.3	2.5	2.8
Veta Conejo	21	2.5	0.18	0.07	2.1	2.5	3.1
Veta Conejo 2	89	2.5	0.25	0.10	1.9	2.5	3.4
Veta Conejo 4	20	2.6	0.21	0.08	2.4	2.5	3.2
Veta Dique San Francisco	47	2.4	0.18	0.08	1.9	2.4	2.9
Veta Regalo	16	2.4	0.23	0.10	2.0	2.4	2.8

14.12 Block Model Setup

A total of nine block models were used to estimate the resources. The block models were rotated so that the x and y axes lie parallel to the resource domain trend and the minimum-z direction is perpendicular to the trend. A sub-blocked model type was created that consists of primary parent blocks which are sub-divided into smaller sub-blocks whenever triggering surfaces intersect the parent blocks. The resource estimation domains and depletion boundaries served as such triggers. The size of the parent block was based on the drill hole sample spacing and the planned or active mining methods. Silver and lead grades were estimated into the parent blocks and resource domains were evaluated into the sub-blocks. The parameters for La Encantada block models are provided in Table 14-13.

Table 14-13: Block Model Parameters

Parameters	Prieta Complex	San Javier Milagros	Tailings	Bonanza
Base point:	739060, 3139390, 1950	740090, 3140670, 2220	737400, 3140040, 1698	740250, 3140765, 2006
Parent block size:	5 × 5 × 5	5 × 5 × 5	12 × 12 × 6	10 × 10 × 2
Dip:	0°	0°	0°	87°
Azimuth:	0°	0°	0°	322°
Boundary size:	620 × 430 × 575	380 × 300 × 960	528 × 456 × 84	540 × 380 × 184
Sub-blocking size:	5 × 5 × variable	5 × 5 × variable	4 × 4 × variable	5 × 5 × variable
Minimum Height	minimum height 0.5	minimum height 0.5	minimum height 0.5	minimum height 0.1

Parameters	Veta Dique San Francisco	Conejo	Azul y Oro	Buenos Aires	990
Base point:	740870, 3141130, 2270	740870, 3141350, 2310	741040, 3140800, 2020	740530, 3140230, 1573	740050, 3140030, 1460
Parent block size:	10 × 10 × 2	10 × 10 × 2	10 × 10 × 2	10 × 10 × 2	10 × 10 × 2
Dip:	78°	86°	82°	-90°	-90°
Azimuth:	133°	141°	146°	321°	324°
Boundary size:	1810 × 860 × 160	1430 × 830 × 236	690 × 450 × 126	670 × 500 × 186	1260 × 630 × 212
Sub-blocking size:	5 × 5 × variable	5 × 5 × variable	5 × 5 × variable	5 × 5 × variable	5 × 5 × variable
Minimum Height	minimum height 0.1	minimum height 0.05	minimum height 0.1	minimum height 0.1	minimum height 0.1

14.13 Resource Estimation Procedure

Silver estimates were completed for all domains at La Encantada, and lead estimates for the Prieta complex. All block grades were estimated from composite samples captured within the respective resource domains. Following contact analysis, most domain contacts were treated as hard boundaries with some modified soft boundaries used for San Javier–Milagros domains.

Block grades were estimated primarily by inverse distance squared (ID^2) and less commonly by ordinary kriging (OK). The method selected in each case was based on domain characteristics, data spacing, variogram quality, and which method produced the best representation of grade continuity in the opinion of the resource geologist.

All channel samples that were used during construction of the geological models were reviewed. Only those channels that completely cross the mineralized zone or that in combination properly represent the mineralization were used during grade estimation.

The production channel sampling method has some risk of collecting samples that could result in local bias and poor precision. However, the large number of samples collected and used in the estimation may compensate for this issue. There remains a risk that the channel samples could suffer from a systematic sampling issue that could also result in poor accuracy. These risks are recognized and addressed during resource grade estimation by eliminating the undue influence of channel samples over drill hole samples for blocks estimated at longer distances.

The grade estimation was completed in two successive passes if channel samples were used. The first pass used all composites, including channel samples, and only estimated blocks within a restricted short distance from the channel samples. The second pass applied less restrictive criteria using drill hole composites only. If only drill hole composites were used, the estimation was typically completed with a single pass.

The silver and lead estimation parameters for each of the estimation domains are presented in Table 14-14 to Table 14-17. Figure 14-14 shows an example of the two-pass estimation strategy using channel and drill hole composite samples for the Veta Dique San Francisco domain.

Table 14-14: Summary of Ag and Pb Estimation Parameters for the Prieta Complex Block Models

Mine Area/Complex	Domain	Metal	Estimation Pass	Capping	Estimate	Search Ranges			Ellipsoid Directions				No.Samples		Drillhole Max
				Value	Type	Max.	Interm.	Min.	Dip	Dip Az.	Pitch	Variable?	Min	Max	Samples/Hole
Prieta	CASNF	Ag g/t	Ag: CASNF	500	ID2	120	100	40	84	103	5		6	18	5
Prieta	CF35	Ag g/t	Ag: CF35: ID2	425	ID2	70	60	40	88	236	0		6	20	5
Prieta	CLFE	Ag g/t	Ag: CLFE: ID2	450	ID2	120	100	20				Yes	2	16	4
Prieta	COJ2	Ag g/t	Ag: COJ2: ID2 P1	800	ID2	100	80	40				Yes	5	15	4
Prieta	COJ2	Ag g/t	Ag: COJ2: ID2 P2	800	ID2	100	80	40				Yes	4	15	4
Prieta	COJ3	Ag g/t	Ag: COJ3: ID2	200	ID2	100	100	40				Yes	4	15	4
Prieta	COJU	Ag g/t	Ag: COJU, OK P1	2000	OK	50	40	15				Yes	5	15	4
Prieta	COJU	Ag g/t	Ag: COJU, OK P2	2000	OK	100	80	30				Yes	4	15	4
Prieta	KaGS	Ag g/t	Ag: KaGS: ID2 P1	210	ID2	50	40	20				Yes	5	15	4
Prieta	KaGS	Ag g/t	Ag: KaGS: ID2 P2	210	ID2	100	80	30				Yes	4	15	4
Prieta	SknGS	Ag g/t	Ag: SknGS: ID2 P1	400	ID2	50	40	20				Yes	5	15	4
Prieta	SknGS	Ag g/t	Ag: SknGS: ID2 P2	400	ID2	100	80	30				Yes	2	15	4
Prieta	CASNF	Pb %	Pb: CASNF	2.5	ID2	120	100	40	84	103	5		6	18	5
Prieta	CF35	Pb %	Pb: CF35: ID2	3	ID2	70	60	40	88	236	0		6	20	5
Prieta	CLFE	Pb %	Pb: CLFE: ID2	6	ID2	120	100	20				Yes	2	16	4
Prieta	COJ2	Pb %	Pb: COJ2: OK P1: 3x3x3	13	OK	50	40	30				Yes	5	15	4
Prieta	COJ2	Pb %	Pb: COJ2: OK P2: 3x3x3	13	OK	100	80	40				Yes	4	15	4
Prieta	COJ3	Pb %	Pb: COJ3: ID2	8	ID2	100	80	40				Yes	4	15	4
Prieta	COJU	Pb %	Pb: COJU: OK P1: 3x3x3	19	OK	50	40	30				Yes	5	20	4
Prieta	COJU	Pb %	Pb: COJU: OK P2: 3x3x3	19	OK	100	80	30				Yes	4	15	4
Prieta	KaGS	Pb %	Pb: KaGS, ID2 P1	4	ID2	50	40	20				Yes	5	15	4
Prieta	KaGS	Pb %	Pb: KaGS, ID2 P2	4	ID2	100	80	30				Yes	4	15	4
Prieta	SknGS	Pb %	Pb: SknGS: ID2 P1	2	ID2	50	40	20				Yes	5	15	4
Prieta	SknGS	Pb %	Pb: SknGS: ID2 P2	2	ID2	100	80	30				Yes	2	15	4

Note: P1 = Pass 1, P2 = Pass 2

Table 14-15: Summary of Ag Estimation Parameters for the San Javier–Milagros Complex Block Models

Mine Area/Complex	Domain	Metal	Estimation Pass	Capping	Estimate	Search Ranges			Ellipsoid Directions				No.Samples		Drillhole Max
				Value	Type	Max.	Interm.	Min.	Dip	Dip Az.	Pitch	Variable?	Min	Max	Samples/Hole
San Javier Milagros	C310N	Ag g/t	C310N_Ag	12000	ID2	70	45	30	86	358	85		5	21	
San Javier Milagros	C310S	Ag g/t	C310S_Ag	12000	ID2	70	40	30	86	358	85		7	21	
San Javier Milagros	CBXI	Ag g/t	CBXI_Ag	300	ID2	70	50	30	79	30	90		1	20	
San Javier Milagros	CIMX	Ag g/t	CMLI_Min_Ag	3200	ID2	80	60	40	90	329	85		3	21	
San Javier Milagros	CMLX	Ag g/t	CMLX_Ag	5000	ID2	60	50	30	90	128	90		5	24	
San Javier Milagros	CSJN	Ag g/t	CNUC_Ag	3000	ID2	90	70	35	86	121	83		4	20	
San Javier Milagros	CSJX	Ag g/t	CSJX_Ag	4000	ID2	100	80	35	68	1	85		5	30	
San Javier Milagros	EIML	Ag g/t	EIML_Ag	3000	ID2	60	50	20	87	317	90		3	18	

Note: C310 estimated by three sub-domains with modified soft boundaries.

Table 14-16: Summary of Ag Estimation Parameters for Vein Systems Block Models

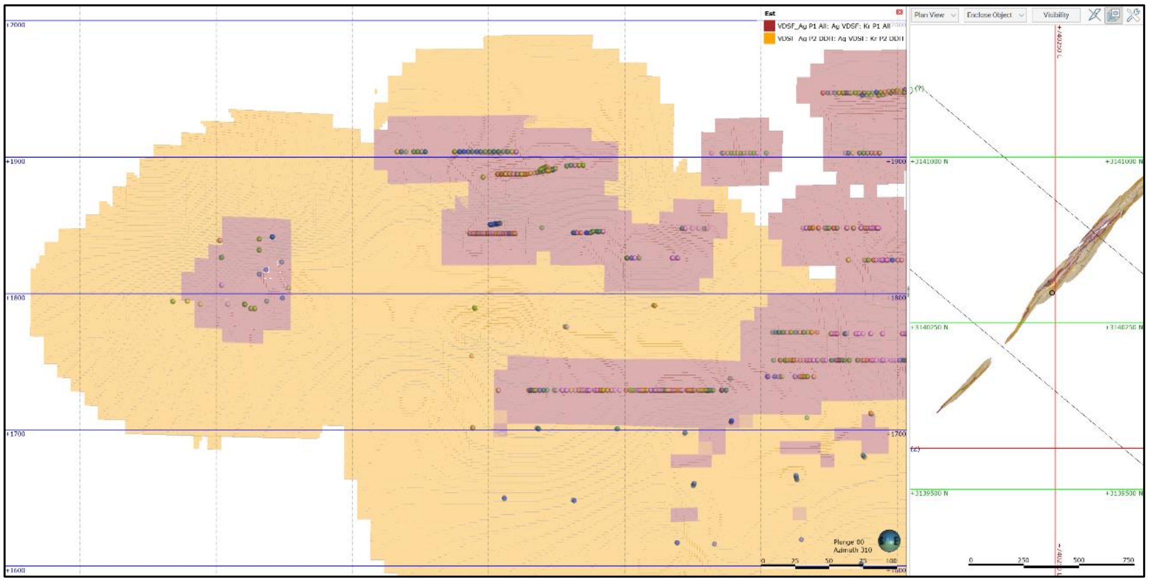
Mine Area/Complex	Domain	Metal	Estimation Pass	Capping	Estimate	Search Ranges			Ellipsoid Directions				No. Samples		Drillhole Max
				Value	Type	Max.	Interm.	Min.	Dip	Dip Az.	Pitch	Variable?	Min	Max	Samples/Hole
Vein Systems	VAYO	Ag g/t	VAYO: Ag: ALL: P1	1500	ID2	20	20	20				Yes	3	24	6
Vein Systems	VAYO	Ag g/t	VAYO: Ag: DH: P2		ID2	100	100	70				Yes	1	20	4
Vein Systems	CBN2	Ag g/t	Ag_CBN2	225	ID2	90	70	20				Yes	2	20	5
Vein Systems	CBN3	Ag g/t	Ag_CBN3	250	ID2	80	80	40				Yes	2	20	5
Vein Systems	VBNZ	Ag g/t	Ag_VBNZ P1 ALL	600	ID2	25	25	20				Yes	2	20	5
Vein Systems	VBNZ	Ag g/t	Ag_VBNZ P2 DDH	600	ID2	100	100	40				Yes	2	18	4
Vein Systems	VDBN	Ag g/t	Ag_VDBN P1 All	400	ID2	25	25	20				Yes	2	20	5
Vein Systems	VDBN	Ag g/t	Ag_VDBN P2 DDH	400	ID2	90	90	20				Yes	2	16	5
Vein Systems	VDSF	Ag g/t	Ag VDSF: Kr P1 All	2000	OK	28	28	20				Yes	6	18	5
Vein Systems	VDSF	Ag g/t	Ag VDSF: Kr P2 DDH	1500	OK	110	100	30				Yes	1	20	6
Vein Systems	VCN2_E	Ag g/t	Ag_VCN2_FEE All P1	2800	ID2	25	25	20				Yes	7	24	6
Vein Systems	VCN2_E	Ag g/t	Ag_VCN2_FEE DDH P2	2800	ID2	80	60	30				Yes	1	20	6
Vein Systems	VCN2_W	Ag g/t	Ag_VCN2_FEW	300	ID2	80	80	40				Yes	1	20	6
Vein Systems	VCN4	Ag g/t	Ag_VCN4	800	ID2	160	120	40				Yes	1	20	6
Vein Systems	VCNJ	Ag g/t	Ag_VCNJ All P1	7000	ID2	20	20	20				Yes	7	30	6
Vein Systems	VCNJ	Ag g/t	Ag_VCNJ DDH P2		ID2	90	70	40				Yes	1	20	6
Vein Systems	VCNS	Ag g/t	Ag_VCNS All P1	1200	ID2	18	15	15	84	142	91		7	30	6
Vein Systems	VCNS	Ag g/t	Ag_VCNS DDH P2		ID2	90	70	40				Yes	1	20	6
Vein Systems	VBN2	Ag g/t	VBN2: Ag: P1 ALL	7500	ID2	25	15	25				Yes	3	20	7
Vein Systems	VBN2	Ag g/t	VBN2: Ag: P2 DDH	600	ID2	75	50	30				Yes	2	20	6
Vein Systems	VBN4	Ag g/t	VBN4: Ag: P1 ALL	1500	ID2	15	15	25				Yes	5	25	6
Vein Systems	VBN4	Ag g/t	VBN4: Ag: P2 DDH		ID2	70	70	30				Yes	1	20	
Vein Systems	VBN5	Ag g/t	VBN5: Ag: P1 ALL	1800	ID2	30	30	30				Yes	6	18	5
Vein Systems	VBN5	Ag g/t	VBN5: Ag: P2 DDH	500	ID2	100	100	40				Yes	1	20	
Vein Systems	VBNA	Ag g/t	VBNA: Ag: P1 ALL	2500	ID2	35	20	30				Yes	8	31	7
Vein Systems	VBNA	Ag g/t	VBNA: Ag: P2 DDH		ID2	75	75	40				Yes	1	20	
Vein Systems	C236	Ag g/t	C236: Ag P1 ALL	1200	ID2	25	25	25				Yes	6	18	6
Vein Systems	C236	Ag g/t	C236: Ag P2 DDH		ID2	70	70	20				Yes	1	18	6
Vein Systems	CMAR	Ag g/t	CMAR: Ag: P1 ALL	1000	ID2	50	50	40	0	0	90		1	18	6
Vein Systems	CREG	Ag g/t	CREG: Ag: P1 ALL	7000	ID2	35	35	35	90	324	100		5	25	
Vein Systems	CREG	Ag g/t	CREG: Ag: P2 DDH		ID2	100	100	40	90	324	100		1	20	
Vein Systems	V990	Ag g/t	V990: Ag: P1 ALL	5500	OK	35	35	35				Yes	6	24	6
Vein Systems	V990	Ag g/t	V990: Ag: P2 DDH	1300	OK	110	100	40				Yes	1	18	6
Vein Systems	V990-2	Ag g/t	V990-2: Ag: P1 ALL	1500	OK	35	35	35				Yes	8	24	6
Vein Systems	V990-2	Ag g/t	V990-2: Ag: P2 DDH	800	OK	75	75	30				Yes	1	20	6
Vein Systems	VREG	Ag g/t	VREG: Ag: P1 ALL	3500	ID2	35	35	35				Yes	8	30	6
Vein Systems	VREG	Ag g/t	VREG: Ag: P2 DDH		ID2	100	100	40				Yes	1	18	6

Note: VCN2 consists of FEE and FEW sub-domains. P1 = Pass 1, P2 = Pass 2.

Table 14-17: Summary of Ag Estimation Parameters for the Tailings Block Model

Mine Area/Complex	Domain	Metal	Estimation Pass	Capping	Estimate	Search Ranges			Ellipsoid Directions				No.Samples		Drillhole Max
				Value	Type	Max.	Interm.	Min.	Dip	Dip Az.	Pitch	Variable?	Min	Max	Samples/Hole
Tailings No. 4	Tailings	Ag g/t	TLN4_L	156	K	125	125	30	5	280	82		4	20	4
Tailings No. 4	Tailings	Ag g/t	TLN4_U	156	K	125	125	30	5	280	82		4	20	4

Figure 14-14: An Example of 2-Pass Estimation Strategy used for the VDSF Domain, Vertical Section with Plan View Reference to the Right.



Note: Figure prepared by First Majestic, March 2021.Composite samples densely arrayed horizontally are production channel samples from underground mine developments. Pass 1 in red.

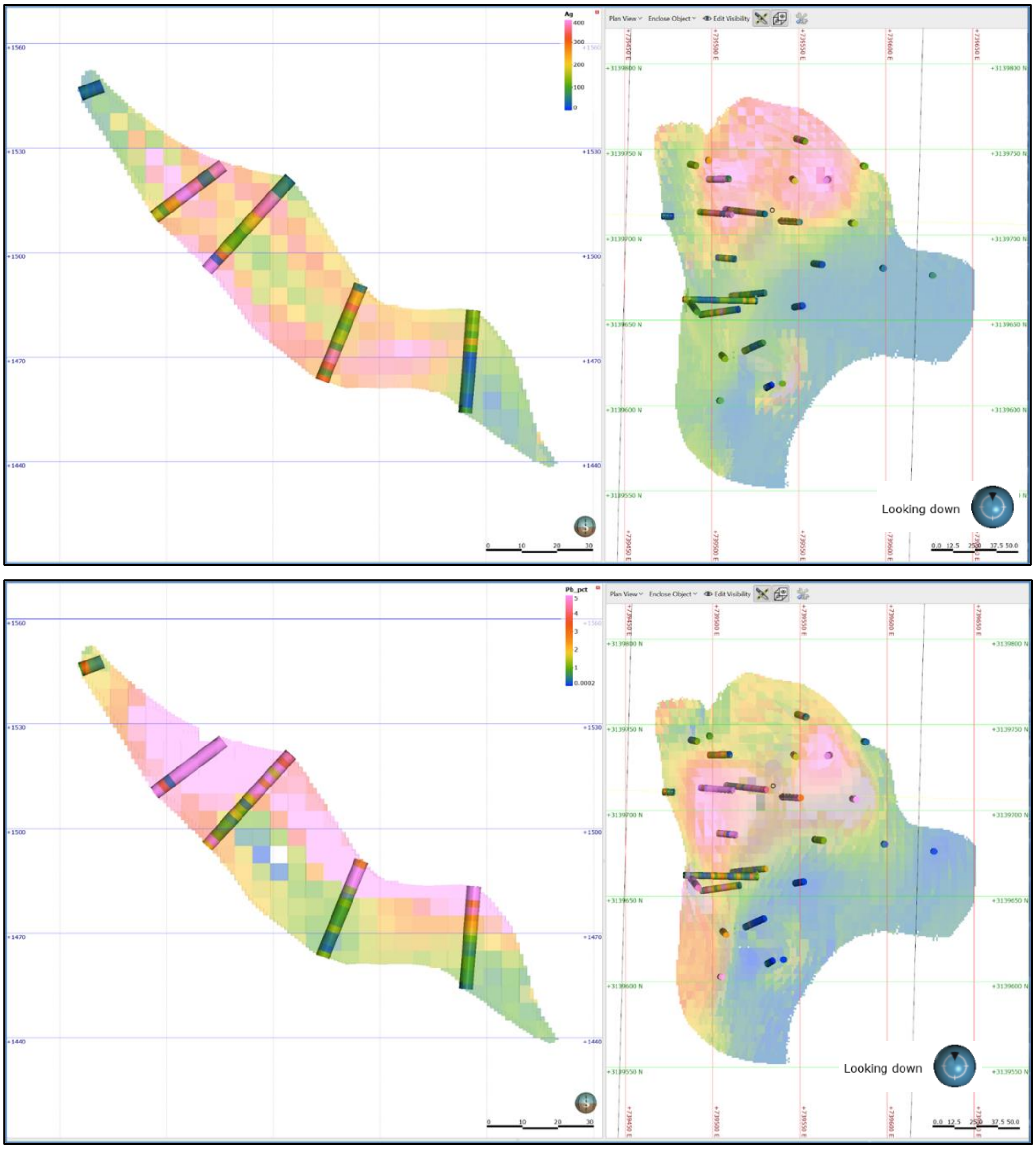
14.14 Block Model Validation

Validation of the estimated grades was completed for each of the domains as follows:

- Comparison of wireframe domain volumes to block model volumes for the domains;
- Visual inspection comparing the composite sample silver and lead grades to the estimated block values;
- Comparison of the silver grades in "well-informed" parental blocks to the average sample values of the composited samples contained within those blocks using scatter plots;
- Comparison of the global mean declustered composite sample grades to the block model mean grade for each resource domain and review of the impact from clustering in the composite sample data set;
- Comparison of local block grade trends to composited sample grades along the three block model axes (i.e., easting, northing, and elevation) with swath grade trend plots.

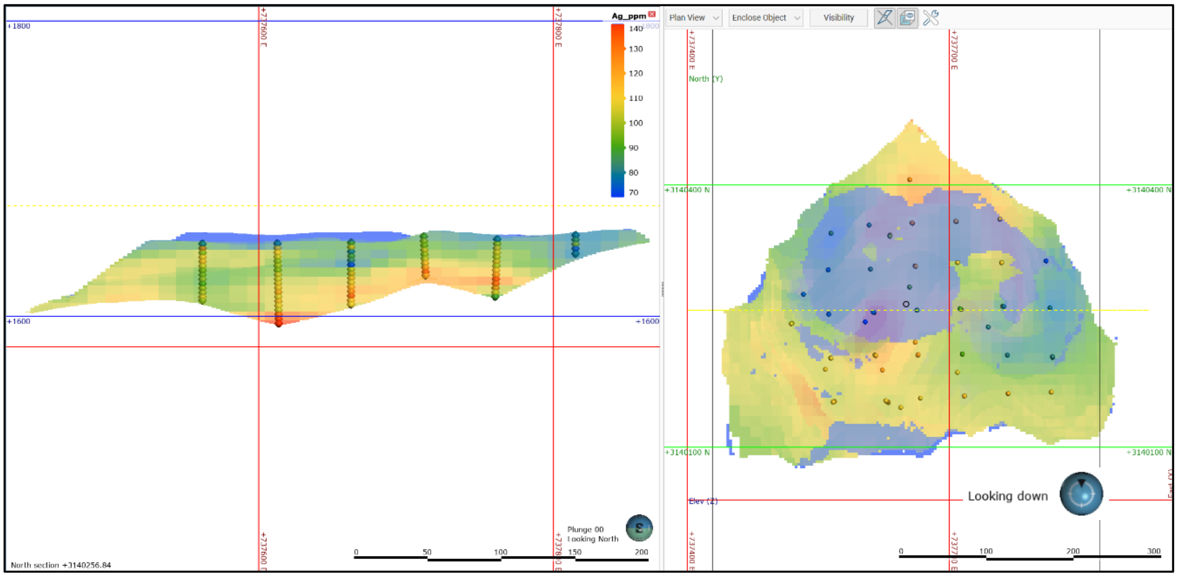
The silver and lead block grades were visually inspected in vertical section. This review demonstrated that the supporting composite sample grades closely matched the estimated block values. Figure 14-15 and Figure 14-16 show examples of the estimated block model silver and lead grades together with the composite sample grades for the Cuerpo Ojuelas and Tailings Deposit No. 4 domains.

Figure 14-15: Visual Inspection of Cuerpo Ojuelas Ag and Pb Block Model Estimates and Composite Sample Values, Vertical Section and Plan View



Note: Figure prepared by First Majestic, March 2021.

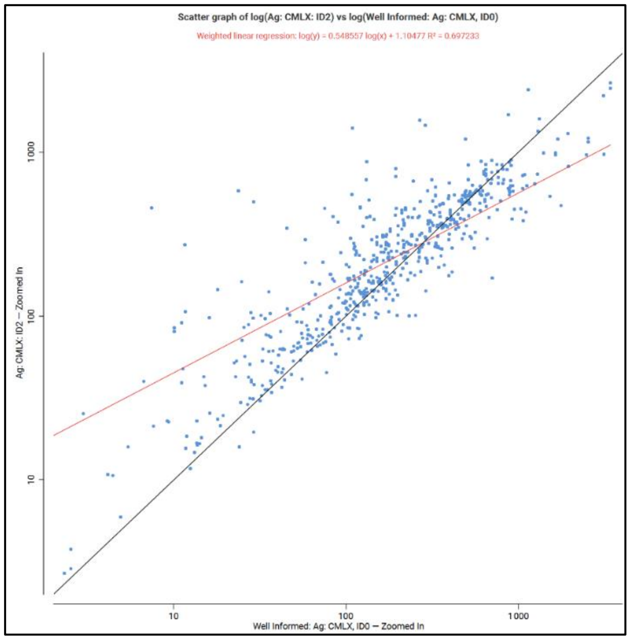
Figure 14-16: Visual Inspection of Tailings Deposit No. 4 Ag Block Model Estimate and Composite Sample Values, Vertical Section and Plan View



Note: Figure prepared by First Majestic, March 2021.

Estimated block grades display conditional bias with higher grades underestimated, lower grades over-estimated, and estimated extreme grades tending to be smoother. Scatterplot comparison of the estimated grades in "well-informed" parent blocks to the average composite sample values contained within those blocks illustrates the conditional bias for the estimate. The scatterplot example from the Cuerpo Milagros Breccia domain in Figure 14-17 demonstrates that the estimated block grades correlate well with the composite sample grades, and that the estimated grades are variable and not overly smooth.

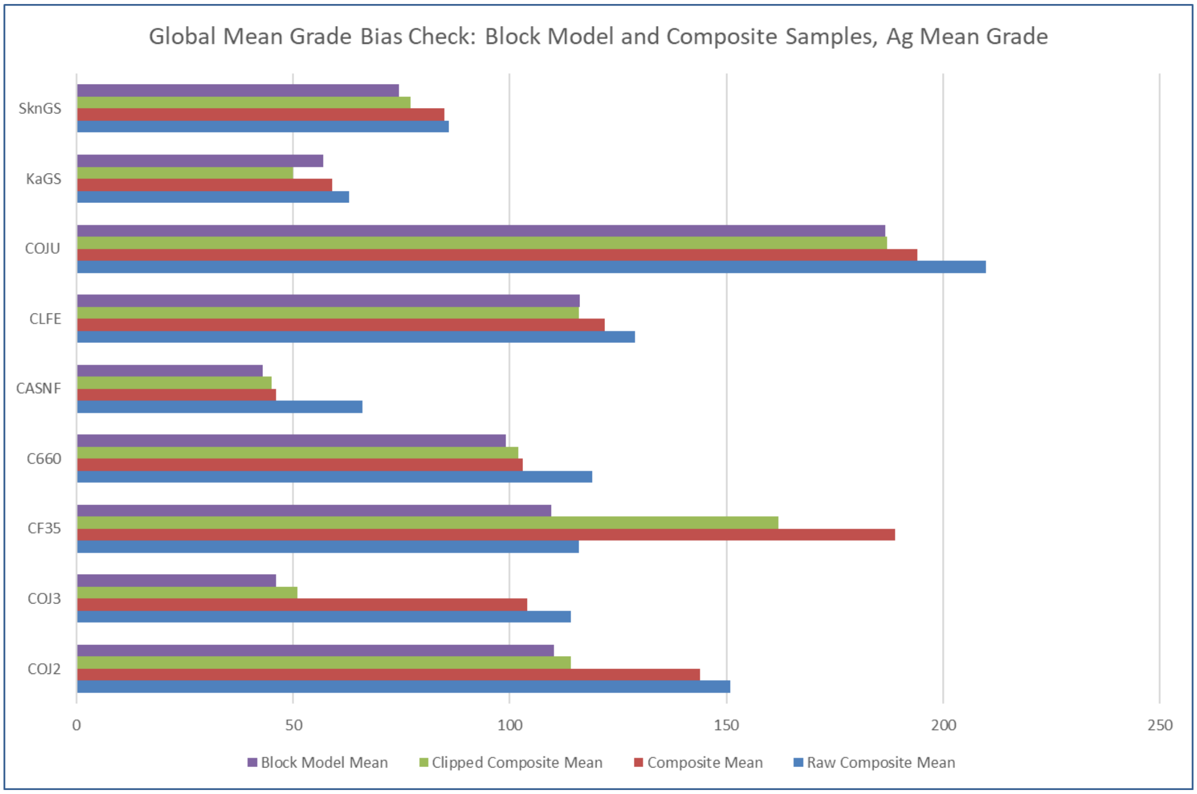
Figure 14-17: Conditional Bias Scatterplot of Ag Composite and Estimated Ag Block Values, Cuerpo Milagros Breccia



Note: Figure prepared by First Majestic, March 2021.

The global estimated mean grades were checked for bias by comparing the estimated grade of the resource domains to the supporting composite data. The mean estimated block model grades are a close match to the declustered mean value for the capped composite samples, and the block model estimates show reasonable bias. Figure 14-18 is an example of a bar plot for mean estimated block and composite grades for the resource domains in the Prieta complex.

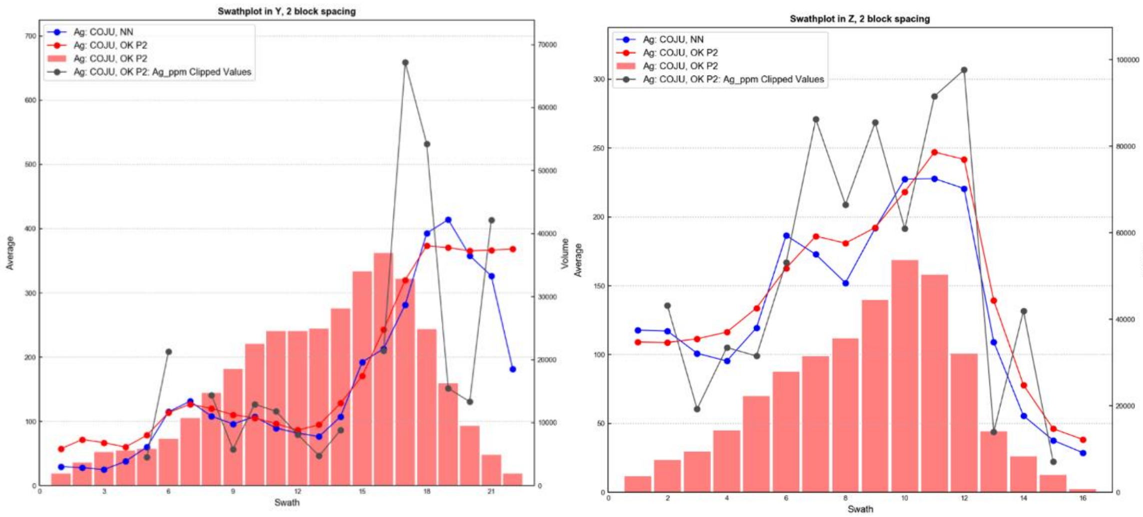
Figure 14-18: Global Mean Ag Grade Bias Check for Resource Domains of the Prieta Complex



Note: Figure prepared by First Majestic, March 2021. Raw composite mean is not declustered. Composite and clipped (capped) composite means are declustered. COJU = Cuerpo Ojuelas.

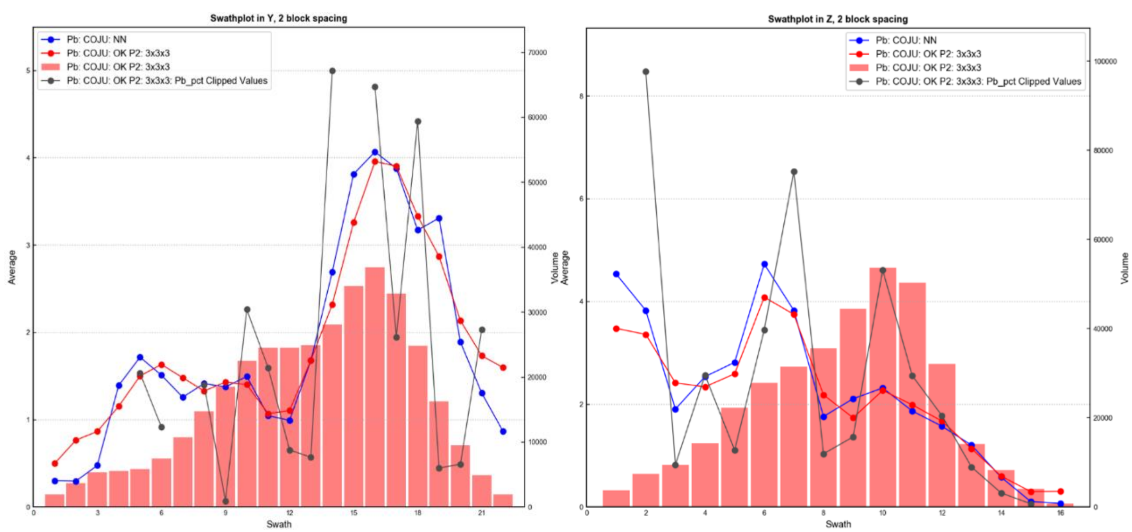
The block model estimates were also validated by comparing the estimated block grades for silver and lead to nearest neighbour block estimates (NN) and to the composite sample values in swath plots oriented in three directions (composite samples averages are not declustered). The mean estimated block grades, NN grades, and composite sample grades are similar in all directions for all resource domains. Figure 14-19 and Figure 14-20 show examples of swath plots for Cuerpo Ojuelas silver and lead grades in the y and z directions.

Figure 14-19: Ag Mean Value Swathplot Across Cuerpo Ojuelas in Y and Z



Note: Figure prepared by First Majestic, March 2021. Gray line is clipped composite sample values.

Figure 14-20: Pb Mean Value Swathplot Across Cuerpo Ojuelas in Y and Z



Note: Figure prepared by First Majestic, March 2021. Gray line is clipped composite sample values.

Overall, the block model validations demonstrate that the current resource estimates are a reasonable representation of the primary input sample data.

14.15 Mineral Resource Classification

Block model resource estimates were classified according to the 2014 “CIM Definition Standards for Mineral Resources & Mineral Reserves” using industry best practices as outlined in the 2019 “CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines”.

Mineral Resources were classified into Indicated or Inferred categories based on the following factors:

- Confidence in the geological interpretation and models;
- Confidence in the continuity of metal grades;
- The sample support for the estimation and reliability of the sample data;
- Areas that were mined producing reliable production channel samples and detailed geological control.

The method used to measure the sample support for the Mineral Resource classification was the nominal drill hole spacing. The nominal drill hole spacing for each block was produced by an estimation pass for each block in the model using the three composite samples with a maximum of one sample per drill hole, which requires three separate drill holes. The average distance for each block to the three closest drill holes was estimated, and then the nominal drill hole spacing was estimated by dividing the average estimated distance to the drill holes by 0.7.

The blocks for all resource domains were flagged to be considered for either Indicated or Inferred categories if the nominal drill hole spacing for the block was less than a specified distance, which was selected to reflect the geologist’s confidence in the geological and grade continuity. The minimum distance threshold to the nearest drill hole was also used to include blocks surrounding drill holes on the perimeter of a region flagged by nominal drill hole spacing. The presence of underground mining and mapping also supported Indicated category classification. The distance thresholds in metres used to flag blocks for classification are shown in Table 14-18.

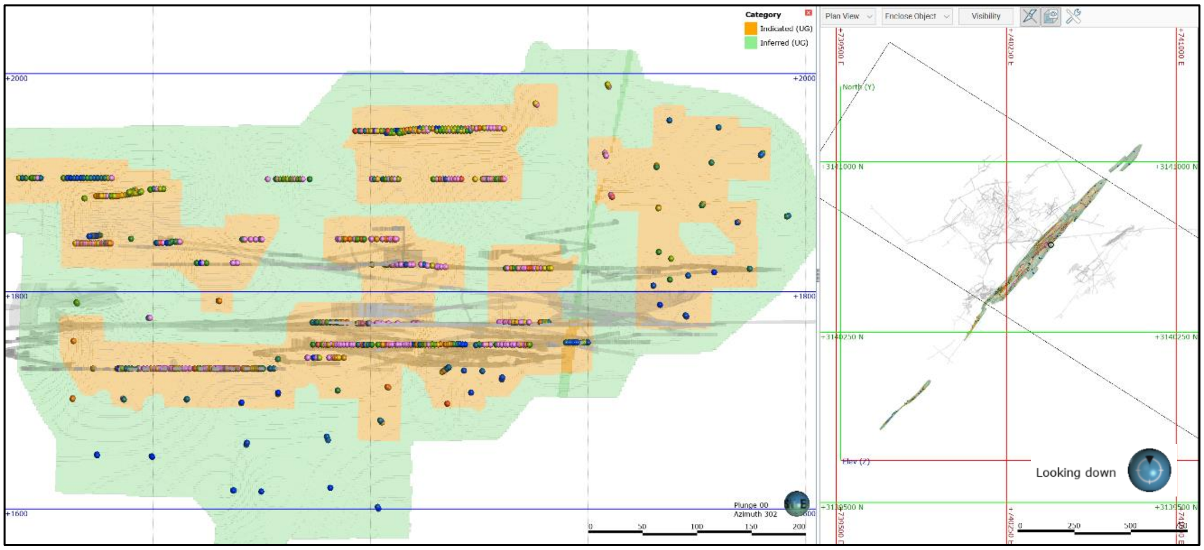
Table 14-18: Nominal Drill Hole Spacing and Minimum Distance to Used to Flag Blocks for Classification.

Reporting Groups	Resource Domains	Code	Indicated		Inferred	
			NDHS (m)	Min Dist (m)	NDHS (m)	Min Dist (m)
Prieta Complex: Ojuelas	Cuerpo Ojuelas	COJU	35	17	70	30
	Cuerpo Ojuelas 2	COJ2	35	15	70	30
	Cuerpo Ojuelas 3	COJ3	35	15	70	30
	Cuerpo 660	C660	-	-	70	-
	Cuerpo Ojuelas Grade Shell Carbonate	KaGS	35	15	70	30
	Cuerpo Ojuelas Grade Shell Skarn	SknGS	35	15	70	30
Prieta Complex: Other	Cuerpo La Fe	CLFE	35	15	70	30
	Cuerpo Falla Asuncion	CASNF	35	15	70	30
	Veta Falla 35	CF35	35	15	70	30
Vein Systems	Cuerpo 236	C236	35	18	70	35
	Cuerpo Bonanza 2	CBN2	35	17	70	30
	Cuerpo Bonanza 3	CBN3	35	17	70	30
	Cuerpo Marisela	CMAR	-	-	70	35
	Cuerpo Regalo	CREG	35	18	70	35
	Veta 990	V990	35	18	70	35
	Veta 990-2	V990-2	35	18	70	35
	Veta Azul y Oro	VAYO	35	18	70	35
	Veta Bonanza	VBNZ	-	17	70	30
	Veta Buenos Aires	VBNA	30	15	60	30
	Veta Buenos Aires 2	VBN2	35	18	70	35
	Veta Buenos Aires 4	VBN4	35	18	70	35
	Veta Buenos Aires 5	VBN5	35	18	70	35
	Veta Conejo	VCNJ	30	15	70	35
	Veta Conejo 2	VCN2	30	15	70	35
	Veta Conejo 4	VCN4	30	15	70	35
	Veta Conejo Splay	VCNS	30	15	70	35
	Veta Dique Bonanza	VDBN	35	17	70	30
	Veta Dique San Francisco	VDSF	-	18	70	35
	Veta Regalo	VREG	35	18	70	35
San Javier Milagros Complex	Cuerpo 310	C310	40	20	70	35
	Cuerpo Brecha Milagros	CMLX	40	20	70	35
	Cuerpo Intrusivo Milagros	CBXI	40	20	70	35
	Cuerpo Intrusivo Milagros Brecha	CIMX	40	20	70	35
Tailings Deposit No. 4	Tailings Deposit No. 4	TLN4	55	25	85	40

Note: Nominal Drill Hole Spacing (NDHS) and Minimum Distance to Drill Holes (Min Dist) in Meters

Wireframes were constructed to encompass block model zones for Indicated and Inferred categories. This process allowed for review of the geological confidence for the estimates, together with drill hole support, and expanded certain areas but excluded others from the classification. Blocks were finally assigned to a classification category by the respective wireframe if the centroid of the block fell inside the wireframe. Figure 14-21 is a long section showing an example of Indicated and Inferred Mineral Resource categories for the Veta Dique San Francisco domain.

Figure 14-21: Indicated and Inferred Mineral Resource Categories, Veta Dique San Francisco Domain



Note: Figure prepared by First Majestic, March 2021. Composite samples used for the estimation and underground mine developments are also shown. Section and plan views.

14.16 Reasonable Prospects for Eventual Economic Extraction

The Mineral Resource estimates were evaluated for reasonable prospects for eventual economic extraction by application of input parameters based on mining and processing information from the last 12 months of mining operations. Economic parameters including operating costs, metallurgical recovery, metal prices and other parameters were used as follows:

- Direct mining cost: dependent on mining method;
    - Cut-and-fill $54.86/t;
    - Longhole stoping $47.67/t;
    - Sub-level inclined caving $31.25/t;
- G&A and indirect mining cost $11.46/tonne;
- Sustaining cost $9.51/tonne;
- Ag metallurgical recovery 70.8%;
- Pb metallurgical recovery 80.0%;
- Ag payable 99.6%;
- Pb payable 95.0%;
- Ag metal price 22.50 USD$/oz;
- Pb Metal Price 0.90 USD$/lb.

These economic parameters result in a silver equivalent (Ag-Eq) cut-off grade of:

- 115 g/t Ag-Eq for narrow thickness veins expected to be extracted by cut-and-fill;
- 100 g/t Ag-Eq for medium thickness veins expected to be extracted by longhole stoping;
- 75 g/t Ag-Eq for breccia pipes and massive lens deposits expected to be extracted by sub-level inclined caving.

Most Mineral Resource domains are silver only where Ag g/t = Ag-Eq g/t. For the Prieta complex resource domains, however, the Ag-Eq metal grades for the Mineral Resource estimates were calculated as follows:

- Ag-Eq g/t = Ag g/t + (Pb % * Pb Factor)
  - Where: Pb Factor = Pb revenue/Ag revenue
  - Ag revenue = (Ag metal price/31.1035) x Ag recovery x Ag payable
  - Pb revenue = (Pb metal price/ 204.62) x Pb recovery x Pb payable

The economic parameters including operating costs, metallurgical recovery, metal prices and other parameters for the Tailings Deposit No. 4 are as follows:

- Direct mining cost: $45.69/t
- G&A and indirect mining cost $2.04/t;
- Sustaining cost $1.44/t;
- Ag metallurgical recovery 66.7%;
- Ag payable 99.6%;
- Ag metal price 22.50 USD$/oz.

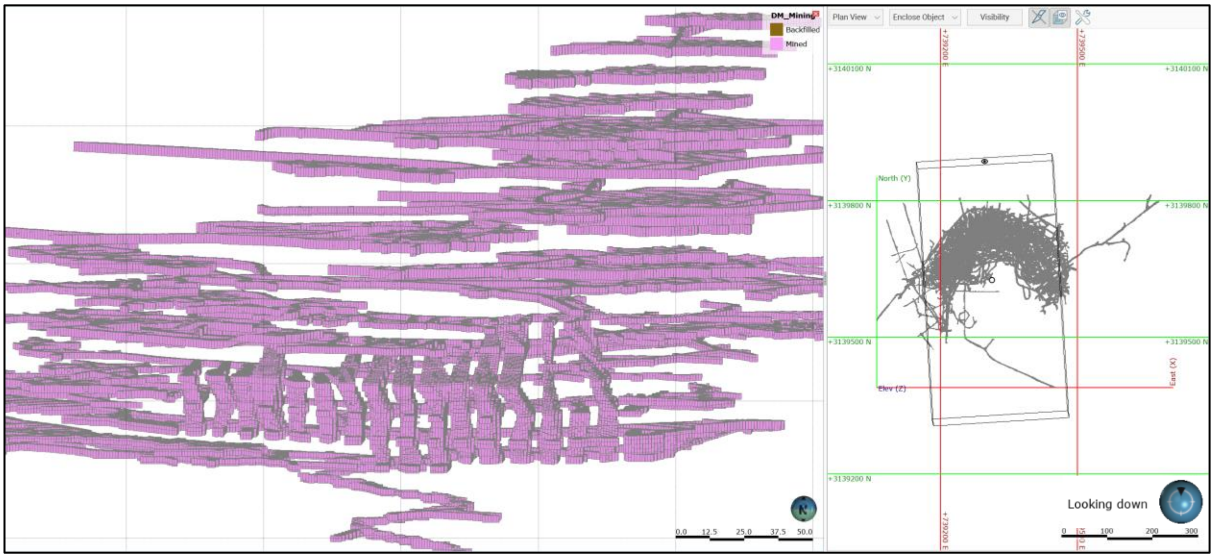
These economic parameters for Tailings Deposit No. 4 result in an Ag-Eq cut-off grade of 105 g/t Ag-Eq. For the Tailings Deposit No. 4. Ag g/t = Ag-Eq g/t.

Vulcan Underground Stope Analyser software was used to identify the blocks that represent mineable volumes that exceed the cut-off value while complying with the aggregate of economic parameters. The tool allows blocks to be aggregated into the minimum stope dimensions and eliminate outliers that do not comply with these conditions.

14.17 Mining Depletion

Models of the underground mining excavations were evaluated into the block models for all domains. These modeled volumes were used to deplete the block model Mineral Resource estimates prior to reporting the resources. Regions within the mine that are in situ but judged to be un-mineable were also removed from the estimates. Figure 14-22 shows an example for underground mining excavations at the Prieta Complex, C660 area.

Figure 14-22: Block Model Example of Underground Mining Excavations at the Prieta Complex, C660 Area



Note: Figure prepared by First Majestic, March 2021. 3D view looking south and plan view.

14.18 Mineral Resource Estimate Statement

The QP for the Mineral Resource estimates at La Encantada is David Rowe, CPG, an internal consultant for First Majestic.

Mineral Resources are reported assuming underground mining methods except for the Tailings Deposit No. 4. Cut-off grades appropriate for the selected mining method are assigned to each domain. Table 14-19 summarizes the reporting groups for the resource domains included in the Mineral Resource estimate and the selected mining method for each domain.

Table 14-19: Mineral Resource Estimate Statement Reporting Groups for La Encantada with Associated Mining Method

Reporting Groups	Resource Domains	Code	Mining Method
Prieta Complex: Ojuelas	Cuerpo Ojuelas	COJU	Sub-level inclined caving
	Cuerpo Ojuelas 2	COJ2	Sub-level inclined caving
	Cuerpo Ojuelas 3	COJ3	Sub-level inclined caving
	Cuerpo Ojuelas Grade Shell Carbonate	KaGS	Sub-level inclined caving
	Cuerpo Ojuelas Grade Shell Skarn	SknGS	Sub-level inclined caving
Prieta Complex: Other	Cuerpo La Fe	CLFE	Sub-level inclined caving
	Cuerpo Falla Asuncion	CASNF	Longhole stoping
	Veta Falla 35	CF35	Longhole stoping
Vein Systems	Cuerpo 236	C236	Longhole stoping
	Cuerpo Bonanza 2	CBN2	Longhole stoping
	Cuerpo Bonanza 3	CBN3	Longhole stoping
	Cuerpo Marisela	CMAR	Sub-level inclined caving
	Cuerpo Regalo	CREG	Sub-level inclined caving
	Veta 990	V990	Cut and fill
	Veta 990-2	V990-2	Cut and fill
	Veta Azul y Oro	VAYO	Cut and fill
	Veta Bonanza	VBNZ	Longhole stoping
	Veta Buenos Aires	VBNA	Cut and fill
	Veta Buenos Aires 2	VBN2	Cut and fill
	Veta Buenos Aires 4	VBN4	Cut and fill
	Veta Buenos Aires 5	VBN5	Cut and fill
	Veta Conejo	VCNJ	Cut and fill
	Veta Conejo 2	VCN2	Cut and fill
	Veta Conejo 4	VCN4	Cut and fill
	Veta Conejo Splay	VCNS	Cut and fill
	Veta Dique Bonanza	VDBN	Cut and fill
	Veta Dique San Francisco	VDSF	Cut and fill
	Veta Regalo	VREG	Cut and fill
San Javier Milagros Complex	Cuerpo 310	C310	Sub-level inclined caving
	Cuerpo Brecha Milagros	CMLX	Sub-level inclined caving
	Cuerpo Intrusivo Milagros	CBXI	Sub-level inclined caving
	Cuerpo Intrusivo Milagros Brecha	CIMX	Sub-level inclined caving
Tailings Deposit No. 4	Tailings Deposit No. 4	TLN4	Tailings

All Mineral Resources are reported using the 2014 CIM Definition Standards with an effective date of December 31, 2020. Indicated Mineral Resources are reported inclusive of Probable Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Indicated and Inferred Mineral Resource estimates for La Encantada are provided in Table 14-20 and Table 14-21 respectively.

Table 14-20: La Encantada Mineral Resource Estimate Statement, Indicated Category (effective date December 31, 2020)

Mine Domain Group	Category	Mineral Type	Tonnage	Grades			Metal Content		
			k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Pb (M lb)	Ag-Eq (k Oz)
Prieta Complex: Ojuelas	Indicated (UG)	Oxides + Mixed	1,133	189	2.31	257	6,870	58	9,370
Veins Systems	Indicated (UG)	Oxides	975	286		286	8,970		8,970
San Javier Milagros Complex	Indicated (UG)	Oxides	706	109		109	2,470		2,470
Tailings Deposit No. 4	Indicated	Oxides Tailings	3,210	116		116	12,010		12,010
ALL	**Total Indicated**	**All Mineral Types**	**6,024**	**156**	**0.44**	**169**	**30,320**	**58**	**32,820**

Table 14-21: La Encantada Mineral Resource Estimate Statement, Inferred Category (effective date December 31, 2020)

Mine Domain Group	Category	Mineral Type	Tonnage	Grades			Metal Content		
			k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Pb (M lb)	Ag-Eq (k Oz)
Prieta Complex: Ojuelas	Inferred (UG)	Oxides + Mixed	404	123	1.35	163	1,600	12	2,120
Prieta Complex: Other	Inferred (UG)	Oxides	495	166	0.80	190	2,650	9	3,020
Veins Systems	Inferred (UG)	Oxides	1,629	231		231	12,090		12,090
San Javier Milagros Complex	Inferred (UG)	Oxides	394	153		153	1,930		1,930
Tailings Deposit No. 4	Inferred	Oxides Tailings	488	117		117	1,830		1,830
ALL	**Total Inferred**	**All Mineral Types**	**3,410**	**183**	**0.28**	**192**	**20,100**	**21**	**21,000**

1) *Mineral Resource estimates are classified in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into NI 43-101.*
2) *The Mineral Resource estimates are based on internal estimates prepared with an effective date of December 31, 2020 by David Rowe, CPG., an internal consultant for First Majestic.*
3) *Silver-equivalent grade (Ag-Eq) is estimated considering metal price assumptions, metallurgical recovery for the corresponding mineral type/mineral process and the metal payable of the mine as of December 31, 2020.*
4) *Metal prices used in the Mineral Resources estimates were $22.5/oz Ag and $0.9/lb Pb.*
5) *Mineral Resource estimates are for silver only where Ag g/t = Ag-Eq g/t, except for the Prieta complex resource domains, where the Ag-Eq metal grades were calculated from silver and lead as follows: Ag-Eq grade = Ag grade + (Pb grade * Pb Factor).*
6) *The cut-off grades used to constrain the Mineral Resource estimates are 75 g/t Ag-Eq for sub-level inclined caving, 115 g/t Ag-Eq for cut-and-fill, 100 g/t Ag-Eq for longhole stoping, and 105 g/t Ag-Eq for tailings.*
7) *Tonnage is expressed in thousands of tonnes; metal content is expressed in thousands of ounces.*
8) *Totals may not add up due to rounding.*
9) *Indicated Mineral Resources are reported inclusive of Probable Mineral Reserves.*
10) *Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.*

14.19 Factors that May Affect the Mineral Resource Estimates

Risk factors that could materially impact the Mineral Resource estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the silver-equivalent grade cut-off grade;
- Changes in the interpretations of mineralization geometry and continuity of mineralized zones;

- Changes to geological and mineralization shape and geological and grade continuity assumptions;
- Changes to geotechnical, mining, and metallurgical recovery assumptions;
- Changes to the assumptions related 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;
- The production channel sampling method has some risk of non-representative sampling that could result in poor accuracy locally. In addition, there is potential for the large number of channel samples to overwhelm samples from the drill holes in some areas. This is recognized and addressed during resource estimation by restricting the area of influence related to these samples to very short ranges.

14.20 Comments on Section 14

The QP is of the opinion that the Mineral Resource estimates for La Encantada were estimated using industry best practices and conform to the 2014 CIM Definition Standards.

To the extent currently known, there are no environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors or risks that could materially affect the development of the Mineral Resources.

15 MINERAL RESERVES ESTIMATES

The Mineral Reserve estimates were prepared by Rebeca Barja, First Majestic's Senior Mining Specialist, under the supervision of Mr. Ramón Mendoza Reyes, P.Eng., Vice President of Technical Services for First Majestic. Mr. Mendoza is the QP for these estimates.

15.1 Mineral Reserves Estimation Methodology

The Mineral Reserve estimation process consists of converting Indicated Mineral Resources to Probable Mineral Reserves by identifying material that exceeds the mining cut-off grades while conforming to specified geometrical constraints determined by the applicable mining method and applying modifying factors such as mining dilution and mining loss. Other factors considered for the conversion of Mineral Resources into Mineral Reserves included the review of the following aspects:

- Status of the mining concessions, and surface land agreements for access and operation;
- Environmental aspects and permits in place that enable mining and processing of the mineralized material;
- Condition and availability of the existing infrastructure and logistics for supplies delivery and transportation of products and goods;
- Status of the selling contract(s) of the doré produced;
- Status of the social license and community relations that enable the continuity of the operation;
- Assessment of the relations with local and state governments in support of the continuity of the operation.

If the Indicated Mineral Resources comply with the previous constraints, Indicated Resource estimates are converted to Probable Mineral Reserves. The conversion of Indicated Mineral Resources to Probable Mineral Reserves estimates involves the following procedures:

- Selection of a viable mining method for each of the geological domains, considering geometry of the deposit, geotechnical and geohydrological conditions, metal grade distribution as observed during the investigation of the block model and other mine design criteria;
- Review metal price assumptions approved by First Majestic's management for Mineral Resource and Mineral Reserve estimates to be considered reasonable and following the "2020 CIM Guidance on Commodity Pricing and Other Issues related to Mineral Resource and Mineral Reserve Estimation and Reporting";
- Calculate the net smelter return (NSR) and silver cut-off grade (COG), based on the assumed metal price guidance, assumed cost data, metallurgical recoveries, and smelting and refining terms as per the selling contracts;
- Prepare the block models ensuring Inferred Mineral Resources are not considered in the Mineral Reserves constraining process;

- Compile relevant mine design parameters such as stope dimensions, minimum mining widths and pillar dimensions;
- Compile modifying factors such as dilution from blasting overbreak and geotechnical conditions as well as mining loss considering benchmarking from actual surveys and underground observations;
- Outline potentially mineable shapes from the block model based on Indicated Mineral Resource estimates that exceed the COG;
- Create potentially-mineable shapes using stope optimization mining software to account for vein widths, minimum mining widths, dilution assumptions and economic factors;
- Refine potentially-mineable shapes by removing permanent sill and rib pillars, removing areas identified as inaccessible or unmineable due to geotechnical or stability conditions;
- Design mine development and mine infrastructure required to access the potentially-mineable shapes;
- Carry out an economic analysis for groups of mineable shapes, such as sublevels or contiguous groups of shapes, removing areas that are isolated from contiguous mining areas that will not cover the cost of development to reach those areas;
- Set the mining sequence and define the production rates for each relevant area to produce the production schedule;
- Estimate capital and operating costs required to extract this material and produce saleable product;
- Estimate expected revenue after discounting selling costs;
- Validate the economic viability of the overall plan with a discounted cash flow model.

Once these steps are completed and a positive cash flow is demonstrated, the Mineral Reserve statement is prepared.

15.2 NSR and Cut-off Grade Estimation

The NSR calculation consists of updating the metallurgical balance based on the metallurgical recovery performance during the year to estimate the silver concentrate grade and the value of the resulting metal to be sold to the smelter after considering deductions and refining costs. A NSR is estimated which is then applied during the silver COG calculation. Table 15-1 shows the assumptions used to calculate the NSR which was applied during the calculation of the COG.

Table 15-1: Assumptions for NSR Calculation

Parameter	Value	Unit
Ag Metal Price	20.00	USD $ / oz
Ag Payable	99.6	%
Ag Processing Recovery - Prieta Complex: Ojuelas	60.0	%
Ag Processing Recovery - San Javier Milagros Complex	78.8	%
Ag Processing Recovery - Veins Systems	65.6	%
Ag Minimum Deductible	0.000	grams / DMT
Transport	0.028	$ / oz Dore
Loading & Representation	0.008	$ / oz Dore
Insurance	0.007	$ / oz Dore
Ag Refining Charges (R/C)	0.215	$ / oz

A multiple COG approach was used for each mining method within each domain consisting of general, incremental and marginal COGs.

The general COG is applied to evaluate the economic viability of developing a new sublevel. The following costs are considered during the calculation of the general COG:

- Mining;
- Haulage to plant;
- Processing;
- Overhead;
- General and administrative;
- Development;
- Sustaining capital costs.

The incremental and marginal COGs are applied to areas where the operation has already invested in development or when there is pre-existing development, and thus assessing the opportunity to extract lower-grade material at no additional investment cost. The incremental and marginal COGs are also applied when lower-grade mineralization must be mined to access the higher-grade material while still covering the costs of incremental haulage, processing costs and overhead costs.

Table 15-2 shows the assumptions considered during the calculation of the incremental and marginal COGs.

Table 15-2: Assumptions for COG Calculation

Parameter	Value	Unit
Mining Costs - Caving	8.49	US$ / t milled
Mining Costs - Longhole Stoping	24.96	US$ / t milled
Mining Costs - Cut & Fill	31.85	US$ / t milled
Haulage to Plant	1.86	US$ / t milled
Processing Cost	20.86	US$ / t milled
Indirect Costs	10.80	US$ / t milled
General and Administrative Costs	0.67	US$ / t milled
Sustaining Mine Equipment (PPE)	1.47	US$ / t milled
Sustaining Plant and Infrastructure	1.44	US$ / t milled
Sustaining Development - Caving	1.29	US$ / t milled
Sustaining Development - Longhole Stoping	6.20	US$ / t milled
Sustaining Development - Cut & Fill	6.20	US$ / t milled
Infill Exploration, Mining Rights, Technical Services	0.11	US$ / t milled
Closure Cost Allocation	0.29	US$ / t milled

Metallurgical recoveries for each domain applied during the calculation of the COG are listed in Table 15-3.

Table 15-3: Silver Recoveries by Domain for COG Calculation

Domain	Metallurgical Recovery Ag
Prieta Complex: Ojuelas	60.0%
San Javier Milagros Complex	78.8%
Veins Systems - San Francisco	78.8%
Veins Systems - Conejo	39.0%
Veins Systems - Azul y Oro	50.0%
Veins Systems - 990	50.0%
Veins Systems - Buenos Aires	50.0%
Veins Systems - Bonanza	50.0%
Veins Systems (weighted average)	65.6%

The calculated COGs for each domain and mining method assumed are listed in Table 15-4.

Table 15-4: Run of Mine COGs by Domain and Mining Method

		Run of Mine Cutoff Grade			
Domain Type	**Mining Method**	**General**	**Incremental**	**Marginal**	**Units**
Prieta Complex: Ojuelas	Sublevel Caving	125	100	75	g/t Ag
San Javier Milagros Complex	Sublevel Caving	105	85	65	g/t Ag
Veins Systems - San Francisco	Longhole	155	115	65	g/t Ag
Veins Systems - Conejo	Longhole	280	205	115	g/t Ag
Veins Systems - All Other Veins	Longhole	220	160	90	g/t Ag
Veins Systems - All Other Veins	Cut&Fill	240	185	90	g/t Ag

15.3 Block Model Preparation

A stope optimizer software is used to build mineable stope shapes based on design factors including the orebody azimuth and dip, stope dimensions (length and height), minimum mining width, planned dilution and COG. The resulting mineable shapes honour the constraints and contain the Mineral Resource block model attributes.

Grade shells generated from interrogating the resource block model were used to assess each domain to select the most appropriate mining method, stope dimensions, minimum mining width and planned dilution prior to running the Stope Optimizer software.

15.4 Mining Modifying Factors – Dilution and Mining Loss

Mine modifying mining factors are the combination of dilution and mining loss that affect the quality and quantity of the material extracted from a mining operation. Dilution is waste material that enters the material movement stream and often has two negative impacts:

- Increased cost (mining, processing, treatment and increasing the storage of tailings);
- Increased mineralized material loss (through increased processing costs and impacting on mining recoveries).

There are multiple sources of dilution, but these can be classified in the following three categories: internal dilution, planned dilution and unplanned dilution. The equation and definitions below show how these categories are used during the Mineral Reserve estimation process.

Total Mining Dilution = Internal Dilution + Planned Dilution + Unplanned Dilution

- Where: Internal Dilution is defined as waste material contained within the mineralized zone of the stope limits;
- Planned Dilution is defined as additional waste that is deliberately mined concurrently with the target mineralized material, allowing the mineralized material to be fully recovered, but results in an overall lower grade being mined. This waste material is

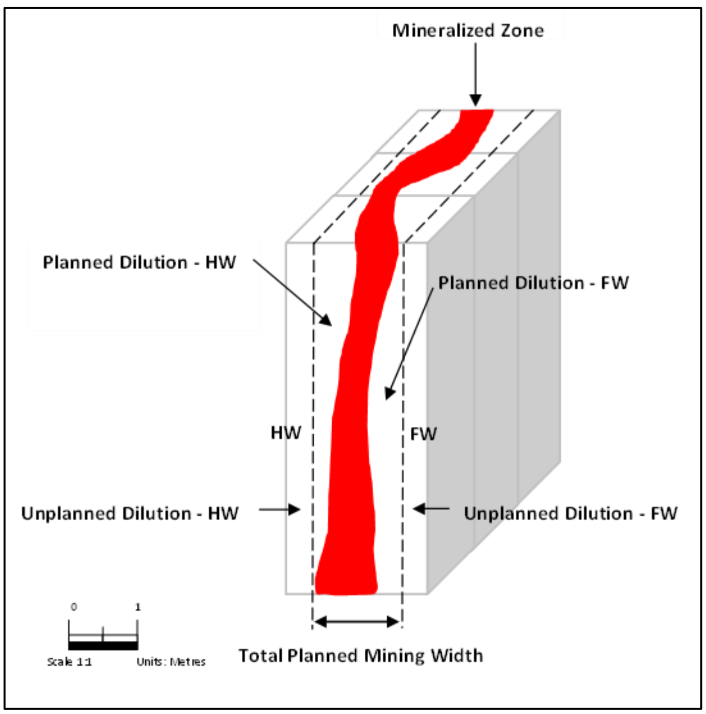
located adjacent to the deposit (on the hangingwall and/or footwall) and is required to meet the minimum mining width of the applied mining method.

- Unplanned Dilution is defined as waste material that unintentionally finds its way into the ore stream during extraction and can be from a variety of sources including:
  - Over-break during mining;
  - Mucking of waste material (or backfill or road base material) during the mucking of mineralized material;
  - Misrouting and dumping of waste material on the ore stockpile (ROM);
  - Misrouting and dumping of waste in ore locations (stockpiles, ore passes) leading to a mixing of mineralized material and waste rock;
  - Backfill dilution from adjacent stopes.

Unplanned dilution is assumed by adding an average of 5% of waste material during mucking and an additional 3% of waste material during rehandling for a total of 8% of unplanned waste material.

An example showing planned and unplanned dilution is shown in Figure 15-1.

Figure 15-1: Schematic of Planned and Unplanned Dilution



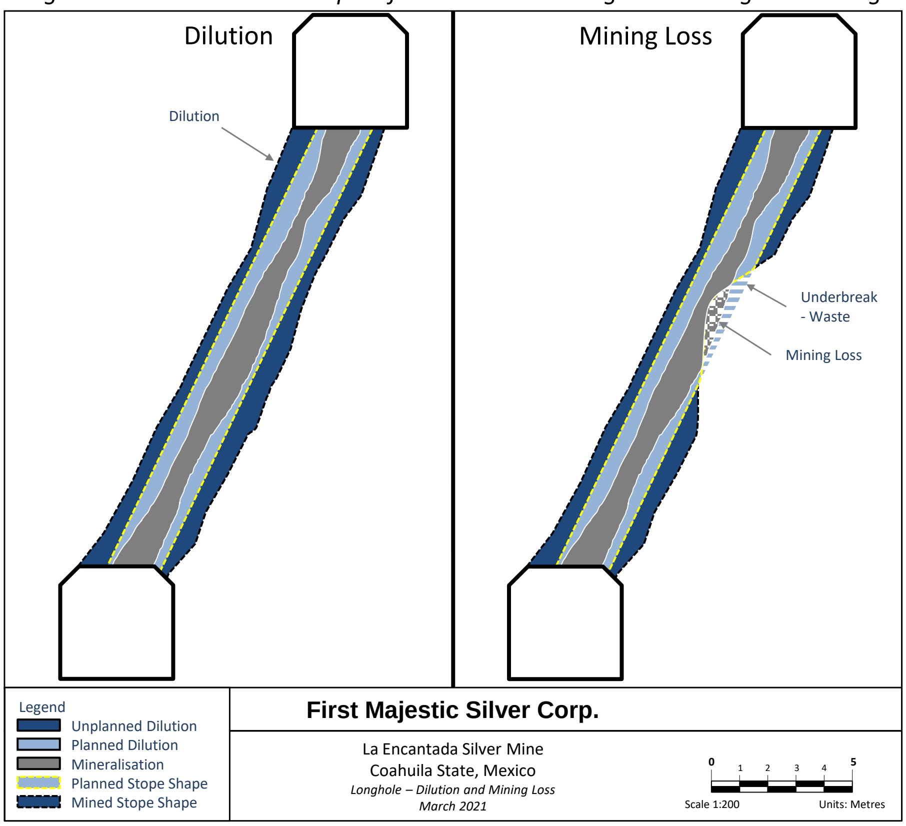
Note: Figure prepared by First Majestic, March 2021

Mining loss refers to the percentage of above COG mineralized material within the mine designs that will not be converted into plant feed for various operational reasons. It has an impact on the economics of the operation, with a reduction of revenue through the loss of mineralised material.

Mining loss can occur in a variety of different ways such as, poor blasting, poor stope recovery or weak ground conditions impacting on the access to the mineralised material. Mining loss occurs in most mining operations and an allowance for a reduction in revenue is prudent for budgeting and assessing for profitability.

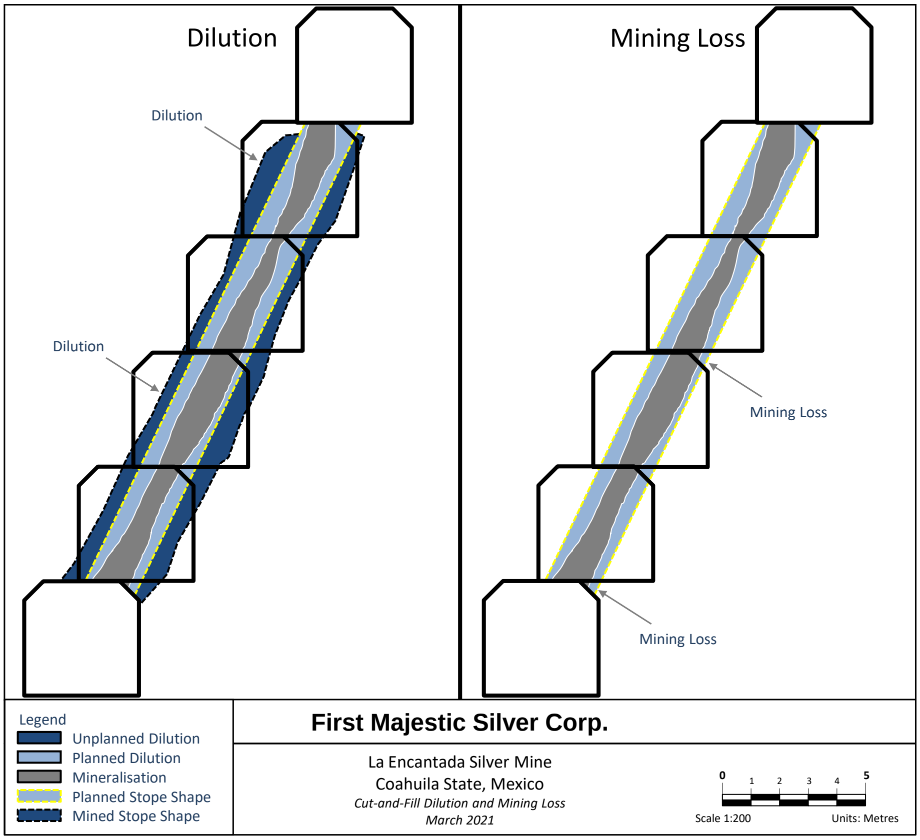
The mining loss has been assumed to be 5%. This can occur due to underbreak resulting from poor blasting practices. Figure 15-2 and Figure 15-3 are schematic examples of dilution and mining loss in longhole and cut-and-fill mining. Note that underbreak in waste is an economic benefit; however, it reflects that the operation is not achieving the targeted mining shape.

Figure 15-2: Schematic Example of Dilution and Mining Loss in Longhole Mining



Note: Figure prepared by Entech Mining Consultants Ltd. for First Majestic, March 2021.

Figure 15-3: Schematic Example of Dilution and Mining Loss in Cut & Fill Mining



Note: Figure prepared by Entech Mining Consultants Ltd. for First Majestic, March 2021.

A caving mining method was selected to mine the Ojuelas deposit. Caving is a bulk mining method that can include internal dilution within the caving extraction design columns. ROM material from Ojuelas includes an estimated internal dilution of 14% from waste contained within the caving extraction design columns as well as an estimated unplanned dilution of 8% resulting from mucking and rehandling.

For the Vein systems deposits, longhole stoping or cut-and-fill mining methods were selected for the various domains. For longhole stoping, a minimum mining width of 1.4 m was designed. This is based on a minimum vein width of 1.0 m, plus an allowance for 0.2 m on the hangingwall and footwall. The 0.2 m of dilution on the hangingwall and footwall are added regardless of the vein width, to ensure that the mineable shapes include a reasonable amount of planned dilution. For cut-and-fill, a minimum mining width of 1.3 m was designed. This is based on a minimum vein width of 1.0 m and an allowance of 0.15 m on the hangingwall and footwall. Where cut-and-fill is employed, the waste surrounding the vein will be slashed out to the width of the drift, creating a floor for the next lift. Table 15-5 shows an example calculation of planned and unplanned dilution for each mining method.

Table 15-5: Example Calculation of Planned and Unplanned Dilution for Vein Systems

Veins Systems	**Mining Dilution Parameters**		
Parameters	**Longhole**	**Cut & Fill**	**Unit**
Minimum Vein Width	1.00	1.00	meter
Planned Dilution - HW	0.20	0.15	meter
Planned Dilution - FW	0.20	0.15	meter
Total Planned Mining Width	**1.40**	**1.30**	**meter**
Planned Dilution - HW	14	12	%
Planned Dilution - FW	14	12	%
Total Planned Dilution	**29**	**23**	**%**
Unplanned Dilution			
Unplanned Dilution - Mucking	5	5	%
Unplanned Dilution - Rehandling	3	3	%
Total Unplanned Dilution	**8**	**8**	**%**
Total Dilution			
Planned + Unplanned Dilution	37	31	%

15.5 Potentially-Mineable Shapes and Mine Design

Deswik Stope Optimizer software is used to create potentially-mineable stope shapes based on Indicated Mineral Resources and incorporating design factors including the orebody azimuth and dip, stope dimensions (length and height), minimum mining width, planned dilution and cut-off grade, by interrogating the resource block model. The selection of these parameters is undertaken in consultation with the mine geotechnical staff and then configured into the Stope Optimizer to generate the potentially-mineable stope shapes. Table 15-6 shows the mining modifying factors that are considered for each mining method.

Table 15-6: Parameters for Creation of Potentially-Minable Stope Shapes

Parameter	**Value**	**Unit**
Extraction Column Area - Caving Ojuelas	10 x 10	m
Minimum Mining Width - Longhole Stoping	1.50	meter
Minimum Mining Width - Cut & Fill	1.40	meter
Planned Dilution - HW / FW - Longhole Stoping	0.40	meter
Planned Dilution - HW / FW - Cut & Fill	0.30	meter

The stope shapes honour the constraints and contain the attributes needed for the subsequent economic evaluation including the resource category, diluted silver metal grade and tonnes. Mine designs are then created to estimate the development required to reach the potentially-mineable shapes. An economic evaluation is completed to determine which areas/sublevels yield a positive cash flow. Only those areas/sublevels with a positive cash flow are used to create the LOM plan and prepare the Mineral Reserve statement.

15.6 Mineral Reserves Estimate

Mineral Reserves are reported using the 2014 CIM Definition Standards, and have an effective date of December 31, 2020. The Qualified Person for the estimate is Mr. Ramón Mendoza Reyes, P. Eng., a First Majestic employee. The Mineral Reserves estimate for La Encantada is provided in Table 15-7.

Table 15-7: La Encantada Mineral Reserves Statement (Effective Date December 31, 2020)

Category	Mineral Type	Tonnage	Grades	Metal Content
		k tonnes	Ag (g/t)	Ag (k Oz)
Probable Prieta Complex: Ojuelas (UG)	Oxides + Mixed	1,096	155	5,470
Probable Veins Systems (UG)	Oxides	389	331	4,140
Total Probable	**All Mineral Types**	**1,485**	**201**	**9,610**

1) *Mineral Reserves have been classified in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into NI 43-101.*
2) *Mineral Reserves have an effective date of December 31, 2020. The information provided was prepared and reviewed under the supervision of Ramon Mendoza Reyes, PEng, and a Qualified Person ("QP") for the purposes of NI 43-101.*
3) *Silver grade (Ag) is estimated considering metal price assumptions, metallurgical recovery for the corresponding mineral type/mineral process and the metal payable of the selling contract.*
4) *Metal prices considered for Mineral Reserves estimates were $20.00/oz Ag.*
5) *Other key assumptions and parameters include: metallurgical recoveries per domain of 60% for Prieta complex: Ojuelas, weighted average of 65.6% for Vein systems and 78.8% for San Javier–Milagros complex; cut-and-fill direct mining costs of US$31.85/t, longhole stoping direct mining costs of US$24.96/t, sublevel caving direct mining costs of US$8.49/t, mill feed, process, and treatment costs of US$20.86/t mill feed and general and administration (indirect costs) of US$11.46/t.*
6) *A two-step constraining approach wasn implemented to estimate reserves for each mining method in use. A general cut-off grade was used to delimit new mining areas that will require development of access, infrastructure and all sustaining costs. A second incremental cut-off grade was considered to include adjacent mineralized material which recoverable value pays for all associated costs, including but not limited to the variable cost of mining and processing, indirect costs, treatment, administration costs and plant sustaining costs but excludes the access development assumed to be covered by the block above the general cut-off grade.*
7) *Modifying factors for conversion of resources to reserves include consideration for planned dilution due to geometric aspects of the designed stopes and economic zones, and additional dilution consideration due to unplanned events, materials handling and other operating aspects. Mineable shapes were used as geometric constraints.*
8) *Tonnage is expressed in thousands of tonnes; metal content is expressed in thousands of ounces.*
9) *Numbers have been rounded as required by reporting guidelines. Totals may not sum due to rounding.*

Factors which may materially affect the Mineral Reserve estimates for the La Encantada mine include fluctuations in commodity prices and exchange rates assumptions used; material changes in the underground stability due to geotechnical conditions that may increase unplanned dilution and mining loss; unexpected variations in equipment productivity; material reduction of the capacity to process the mineralized material at the planned throughput and unexpected reduction of the metallurgical recoveries; higher than anticipated geological variability; cost escalation due to external factors; changes in the taxation considerations; the ability to maintain constant access to all working areas; changes to the assumed permitting and regulatory environment under which the mine plan was developed; the ability to maintain mining concessions and/or surface rights; the ability to renew agreements with the different surface owners in the La Encantada area; and the ability maintain the social and environmental licenses to operate.

16 MINING METHODS

16.1 Overview

Beginning in 2007, First Majestic started producing from both the Prieta and San Javier–Milagros mining areas using cut-and-fill and room-and-pillar mining. In 2010, with the addition of the cyanide plant, the mine processed fresh material from underground and old tailings until 2014. From 2014 to 2018, the mine produced a mixture of material from the old Peñoles low-grade stockpiles, high-grade ore from veins, and recovery of backfill and pillar materials using a hybrid caving method. In 2018, First Majestic activated the San Javier sublevel caving mining to offset production from the Peñoles low-grade stokpiles. Production increased in 2019 with the start of the Prieta cave mining.

16.2 Mining Environment

16.2.1 Hydrogeological Considerations

An inhouse hydrogeological study was completed for La Encantada in 2014. All working areas in the La Encantada mine are above the water-table which is at 1,424 masl, and the mine has a 30 HP pump to supply fresh water to the camp.

The main inflow of water comes from surface filtration during the rainy season, and water from drilling during mining operations.

16.2.2 Geotechnical Considerations

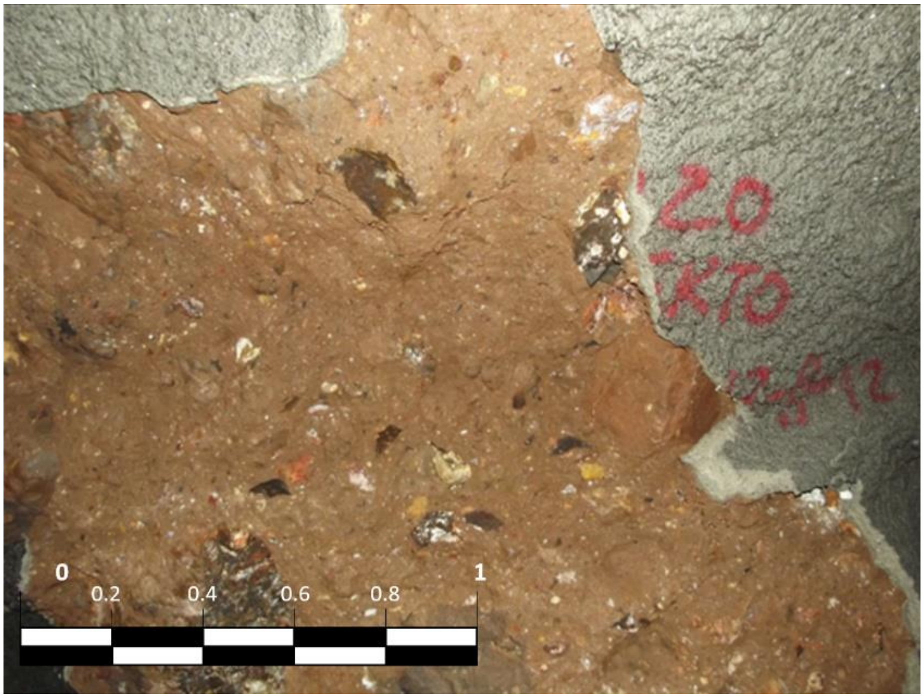
Extensive geotechnical studies were completed on the main mining areas in La Encantada mine consisting of underground mapping of the vein areas, the Prieta and San Javier–Milagros areas and geotechnical logging of Ojuelas deposit drill holes. These studies were used to determine the proper ground support required for the underground development and the most applicable mining method for each deposit.

16.2.3 Rock Mass Characterization

Rock quality for the Milagros and Ojuelas deposits were assessed using both the Bienawski rock mass rating (RMR) and Laubscher RMR methods. Mining method selection used a modification of the Laubscher RMR method, the mining rock mass rating (MRMR).

The Milagros breccia consists of a fine-grained and clay-rich oxidized matrix supporting clasts of intrusive rocks, and limestone. The breccia is considered to be a “Fair” to ”Poor” rock type with a geological strength index (GSI) in the range of 30–35. Being a weak material, it lends itself to caving methods, though care needs to be taken with the ore pass design. Figure 16-1 shows the nature of the breccia exposed on the 1,560 Level. The RMR estimates for the San Javier–Milagros area are shown in Table 16-1.

Figure 16-1: The Cuerpo Milagros Breccia Exposed on 1560 UG Level



Note: Figure prepared by First Majestic, March 2021. Units in m.

Table 16-1: RMR Estimates for the San Javier-Milagros Area

Mineral Deposit	GSI			RQD	RMR Bienawski			RMR Laubscher		
	Structure	Condition	Points		RMR	Adjust	MRMR	RMR	Adjust	MRMR
Milagros Breccia	D	F	30-35	0	39	0.6	23.4	34	0.6	21
San Javier Breccia	BD	G	40-50	20-40	49	0.6	29.4	37	0.6	23
Intrusive Milagros	BD	F	50-55	75	60	0.7	42	50	0.7	34
Limestone	VB	G	50-55	50-60	61	0.7	42.7	52	0.7	35

With such a low rock quality in the breccia, good caveability can be expected, but caving may be prone to multiple hang-ups if extraction is not constant, due to the clay-rich material.

In the Ojuelas deposit the geotechnical properties were obtained by geotechnical logging. The best rock quality was located in the footwall skarn. The overlying oxidized and fractured deposit possesses the lowest quality and friability. Having a friable deposit and a fractured hangingwall are good qualities for caving, helping to ensure the cave propagates to surface. An example of rock quality for the deposit can be seen in Figure 16-2.

Figure 16-2: Example of the Rock Quality in Core for the Cuerpo Ojuelas Deposit

Note: Figure prepared by First Majestic, March 2021.

The calculated RMR is provided for the Ojuelas deposit in Table 16-2.

Table 16-2: Example of Calculated RMR in Geotechnical Logging for the Cuerpo Ojuelas deposit.

Zone	FMS Logging Amec Adjustment			ILE-15-231 Amec Logging			FMS Logging, Raw Data		
	LRMR	MRMR	HR	LRMR	MRMR	HR	LRMR	MRMR	HR
HW	34	24	12	42	29	15	53	37	20
Ore	26	11	7	17	7	6	52	37	20
FW	42	30	15	44	31	15	52	37	20

Mineralized veins are primarily steeply dipping carbonate replacement structures contained in the limestone host rock. Table 16-3 shows the Bienawski RMR values for example vein structures and the host limestone.

Table 16-3: Bienawski RMR Values for Principal Veins

Domain	RMR
Dique San Francisco	21
Veta Conejo	40
Veta Buenos Aires	58
Veta 990 / 990-2	43
Veta Azul y Oro	41
Limestone	61

16.2.4 Subsidence

In 2017, Itasca performed a series of geomechanical studies of cave growth and subsidence potential at La Encantada mine (Garza-Cruz and Pierce, 2017). At that time, Itasca personnel visited La Encantada mine to evaluate the subsidence extent along with the general condition and character of the rock mass, both underground and in the vicinity of the craters. During the site visit, surface cracks were mapped in the La Prieta complex area to provide a more accurate representation of the fracture limit that needed to be captured by the numerical model before any forward prediction was made.

A numerical model was developed and calibrated to simulate the observed conditions at La Prieta complex as well as the level of damage on the mine office building and the Maria Isabel and San Francisco shafts. This numerical model was deemed representative of the 2017 conditions and was used in a forward analysis by incorporating a proposed mining sequence and associated extracted tonnage, with the objective of elucidating the potential impact caving would have on ground subsidence and building damage.

Since 2017, First Majestic has performed a series of georeferenced drone surveys to assess the extent of surface fracturing, resurveyed the deposit in the WGS84 system, and updated their block model. Additionally, some new extraction points with updated production tonnages that were not considered in the 2017 study are being added to the ongoing mining plan, and the LOM plan is extended by planned production from Ojuelas deposits. Therefore, La Encantada requested that Itasca perform a re-evaluation of the surface subsidence with all the updated information and updated mining plan.

To address the objective of this study, prediction of the surface subsidence, the 2017 model was updated with all available geotechnical/geological information, as well as the implemented mining sequence, draw-point locations and tonnages, to obtain a representative model of current conditions. In addition, the updated model was complemented with the Itasca Model for Advanced Strain Softening constitutive model. Therefore, the model had to be recalibrated before performing the predictive analysis. This included validation via back-analysis of the subsidence observed. The calibrated model was then used to provide updated estimates of surface subsidence and building/infrastructure potential damage based on the updated LOM mining plan.

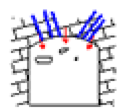
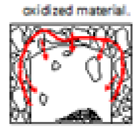
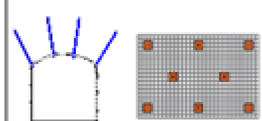
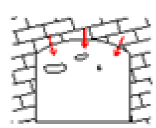
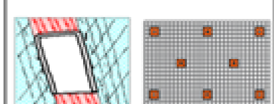
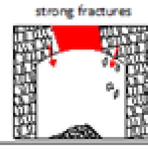
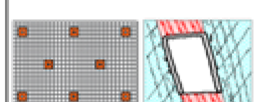
It was determined that the extent of fracture limit and mobilized zone on the surface is not significantly affected by the increase in production projections.

16.3 Mining Methods

16.3.1 Design Parameters

First Majestics staff reviewed the geotechnical parameters, and a total of 13 geotechnical domains were created for the La Encantada mine. Using these domains, it is possible to design support guidelines for the underground mine's different working areas. An example of some of the rock types can be seen in Figure 16-3.

Figure 16-3: Geotechnical Domains for La Encantada

Rock Type		Q	Quality of Rock	Instability Mechanism	Width Without Support	Support Standard
Rock Type 1	Aurora Limestone	3 a 9	REGULAR	**Blocks, Sloughing of Wall** Por discontinuidades locales 	10 mts	Zone without support. If there is high fracture density: localized shotcrete 2" Bolting Pattern Split set Set 2.4 m 1.20X1.20 m Rebar 1.8 m 1.20x1.20 m 
Rock Type 3	Buenos Aires*	3.86 a 5.75	REGULAR	**Progressive Collapse** Bx con limestone clasts of 0.3 a 2.5 m diameter supported in a matrix of oxidized material. 	3m	2" Shotcrete in the Brecciated Zone 
Rock Type 7	Milagros Breccia	0.08 a 0.22	Very Bad	**Progressive Collapse** 60cm clasts of limestone and intrusive supported in a semi-consolidated matrix 	3 m	Systematic Fortification 2" shotcrete + Bolt and Mesh with 2.4m Split set 
Rock Type 13	Dike	0.06 a 0.5	Very Bad	**Progressive Collapse** Altered intrustive with moderate to strong fractures 	1.5 mts	Systematic Fortification 2" shotcrete + Bolt and Mesh with 2.4m Split set 

Note: Figure prepared by First Majestic, March 2021. Geotechnical domains are referred to as Rock Type 1-13.

Due to the different types of deposits and the related geotechnical characteristics, production will be a mix of caving, longhole and cut-and-fill with the development-type widths and support standards shown in Table 16-4.

Table 16-4: Development Types and Support Standards for La Encantada

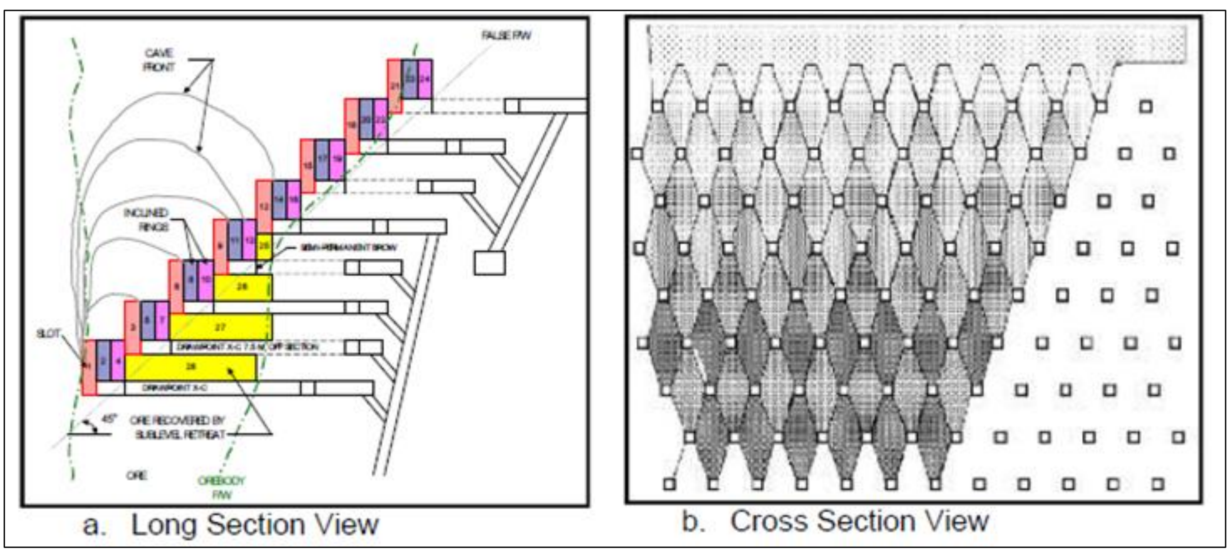
Development Type	Width (m)	Height (m)	Support
Ramps	4	4.5	Localized Support
Access	3.5	3.5	Localized Support
Footwall Drift	3.5	3.5	Localized Support
Drawpoint	3.5	3.5	Shotcrete and Bolting
Sublevel	3	3.5	Bolt and Mesh
Truck Loading bay	4.5	4.5	Localized Support
Ventilation Access	3	3.5	Localized Support
Conventional Raise	1.8	1.8	No Support
Robbins Raise	1.8	diam	No Support
Stock	3.5	4	Localized Support

All development by caving into the mineralized breccia deposits will have 3.5 x 3.5 m dimensions and be supported with a primary coat of 2” fibre shotcrete with bolt and mesh, followed by a secondary 2” coat of shotcrete to prevent unravelling of the weak rock matrix.

16.3.2 Inclined and Sublevel Caving

Due to the varied deposit geometry, different combinations of inclined and sublevel caving will be used to reduce dilution and increase recovery. Figure 16-4 shows a schematic model for inclined and sublevel caving.

Figure 16-4: Inclined and Sublevel Caving Schematic Model



Note: Figure prepared by Amec Foster Wheeler , October 2015.

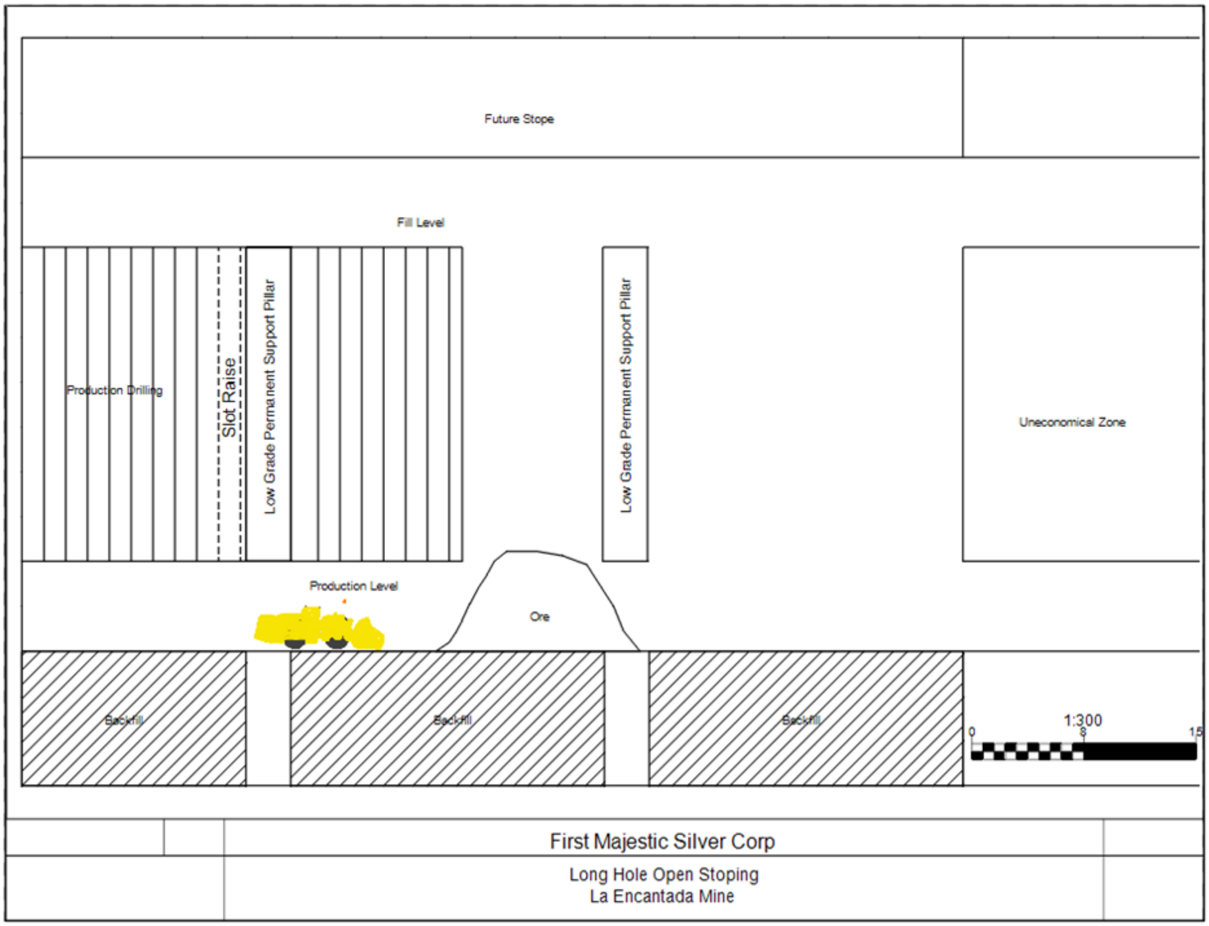
Inclined and sublevel caving is ideal in moderately- to steeply-dipping massive orebodies to allow for a low-cost, high production operation. Both mining methods require a weak orebody with a weak to low quality hangingwall, and a large enough footprint to allow for caving to begin and rock to flow down to the draw points. The disadvantages of the caving method are a lower recovery and higher dilution than other mining methods. Inclined and sublevel caving will be implemented in the Ojuelas deposit.

16.3.3 Longhole Stoping

Steeply-dipping veins vary in width 0.5–8 m. Longhole mining is still a relatively new mining method in La Encantada, and it will be primarily implemented in the Veta Dique San Francisco deposit where the vein has a near vertical dip, a long consistent strike length, and competent wall rock. The minimum planned mining width is 1.4 m, and the stopes will be drilled using a basic two-hole pattern when the width is less than 1.5 m, increasing the number of holes per section as the vein increases in width.

The stopes are designed at two different heights, with 20 m between floor to back being used for the Veta Dique San Francisco deposit and 10–15m high stopes where the vein is more irregular or less consistent between levels. The wall rock is a competent limestone with good geotechnical conditions. A footwall ramp is used to access the vein, and the extent of the economic zone is developed and supported. Production drill holes are drilled along strike length. The hydraulic radius calculation determines the maximum length of the open stope. Waste pillars are left where necessary to increase stope stability. Figure 16-5 is a schematic model for longhole open stoping.

Figure 16-5: Longhole Open Stoping Schematic Model



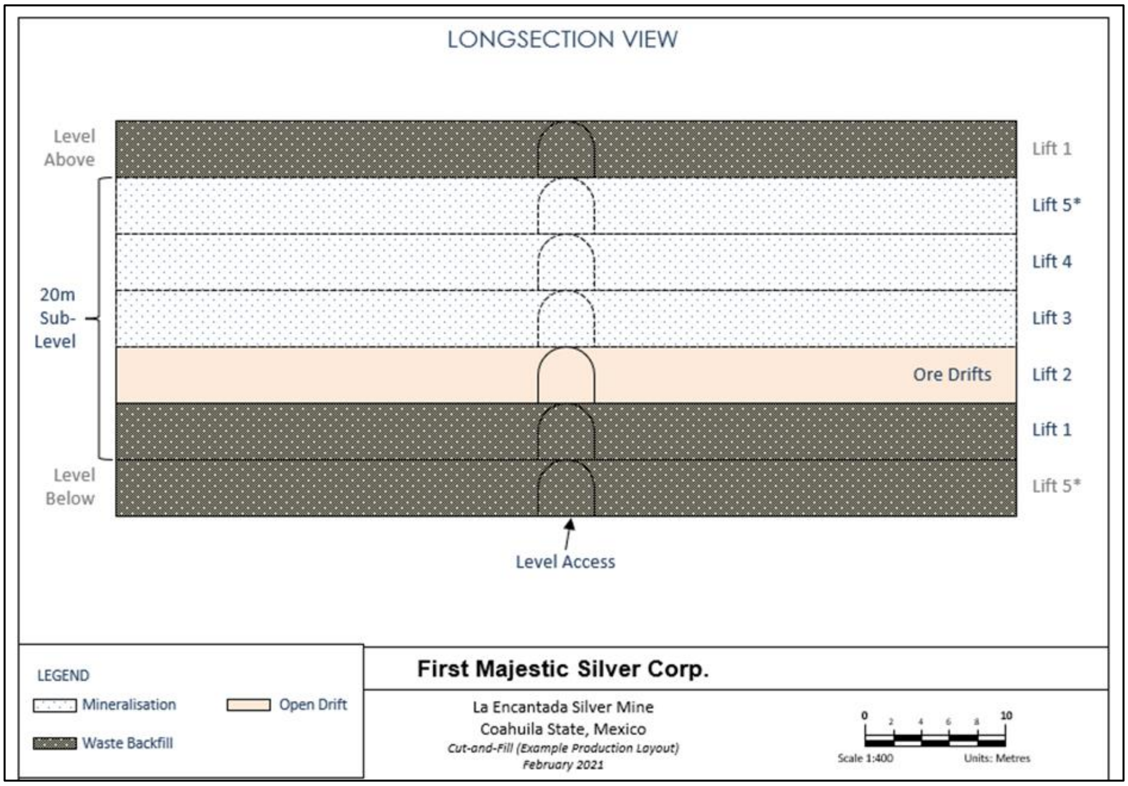
Note: Figure prepared by First Majestic, March 2021.

After completing the extraction of the level, it is then filled, and the sequence is continued. This allows for higher production with a lower cost.

16.3.4 Cut-and-Fill

In the brecciated veins such as Regalo, 990, 990-2 and Buenos Aires, mechanized cut-and-fill is used due to poorer ground conditions with stronger alteration in the hangingwall and footwall. Cut-and-fill is performed using jacklegs drilling along dip and then blasting the material in retreat. Once blasted, the material is mucked and then the access is pivoted and the drift is filled with waste to prepare the second cut. The ramp is designed in the footwall and the first access drift is installed at -15% and then pivoted to 15% to permit the maximum extraction from each access. Figure 16-6 shows the basis of the cut-and-fill design.

Figure 16-6: Cut-and-fill Mining Method Schematic Model



Note: Figure prepared by Entech Mining Consultants Ltd. for First Majestic, March 2021.

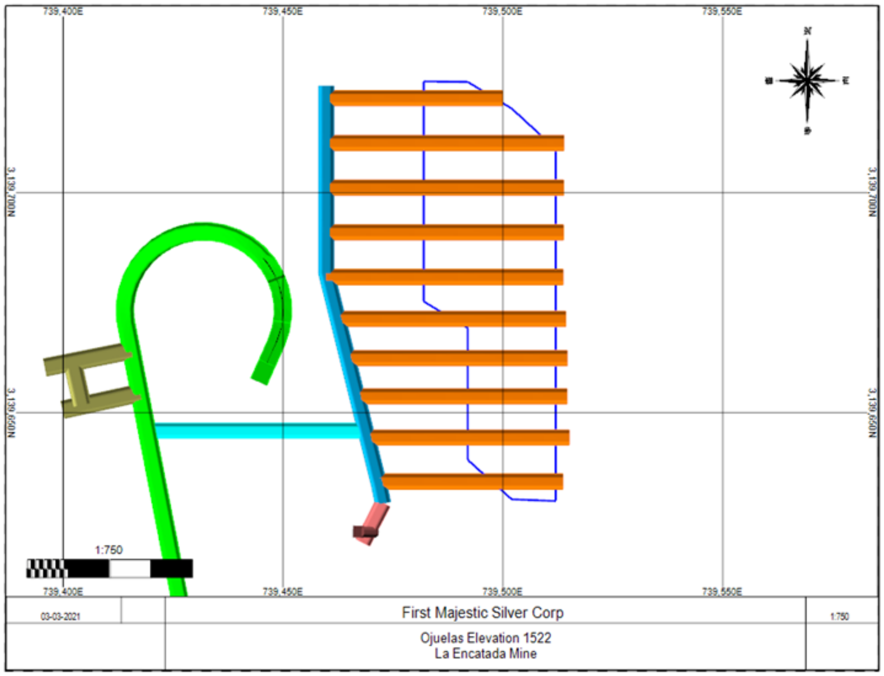
The minimum planned mining width is 1.3 m, based on a minimum vein width of 1.0 m and an additional 0.15 m was added to both the hangingwall and footwall as planned dilution using the Stope Optimizer. The mineralized material is mined using jacklegs where the mineralization and waste are drilled simultaneously. Once drilling is completed, resue mining is performed where the mineralized material is blasted first and mucked, then the waste is blasted and used as fill to speed up the mining cycle. Mineralized material is moved through ore-passes to the haulage level and is extracted using 20 t rigid axle trucks to the surface stockpile.

16.4 Mine Layout-Ojuelas

The mining method selected for the Ojuelas deposit is an adaptation of inclined and sublevel caving. Using the experience gained in the San Javier and Prieta area caves, a similar approach was taken when designing the Ojuelas cave. A review of the rock quality and the hydraulic radius of the footwall, mineralized zone, and the hangingwall showed that the rock was not competent enough for longhole mining, and cut-and-fill was determined to be too expensive. Using the Laubscher method, the minimum hydraulic radius for the mineralized zone was 7 m and the hangingwall zone was 12 m. Due to a smaller footprint at the top of the Ojuelas structure, the hangingwall will not meet the requirements for self-cave until the 1492 elevation, while the mineralized zone will self-cave at the

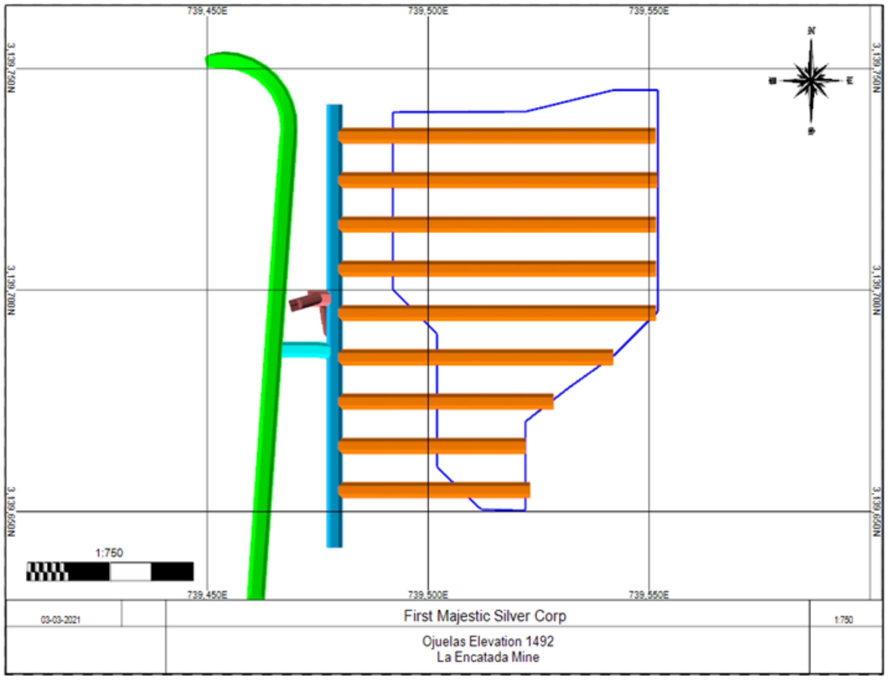
1522 elevation. Figure 16-7 and Figure 16-8 show the elevations were the mineralized zone and hangingwall initiate self caving.

Figure 16-7: Plan View of Ojuelas 1522 Level Showing the Hydraulic Radius



Note: Figure prepared by First Majestic, March 2021.

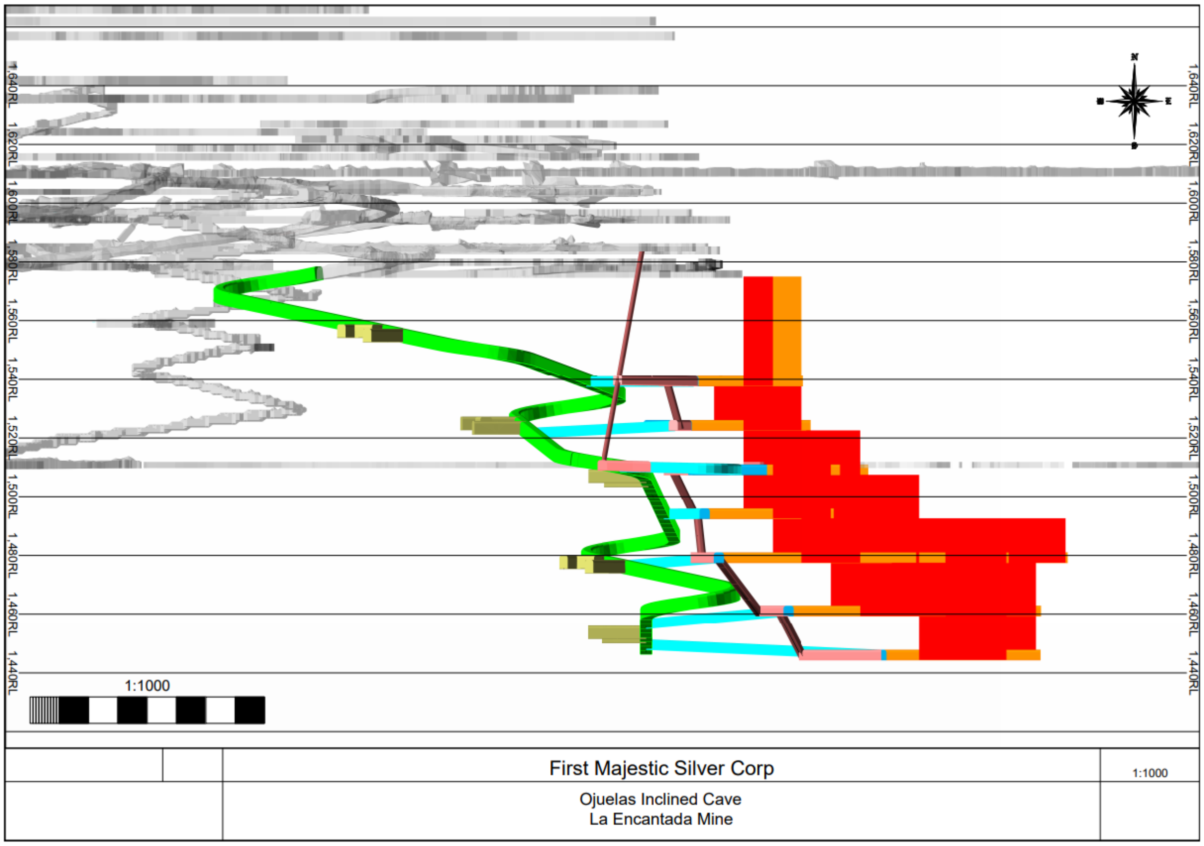
Figure 16-8: Plan View of Ojuelas 1492 Level Showing the Hydraulic Radius



Note: Figure prepared by First Majestic, March 2021.

Due to the inclined nature of the deposit, it was not possible to alternate sublevel accesses. To increase recovery, the draw point levels are spaced at 15 m elevations, and the distance between the draw points on the same elevation is 6 m. Figure 16-9 shows a long section of the Ojuelas inclined cave design.

Figure 16-9: Long Section of the Ojuelas Inclined Cave Design



Note: Figure prepared by First Majestic, March 2021.

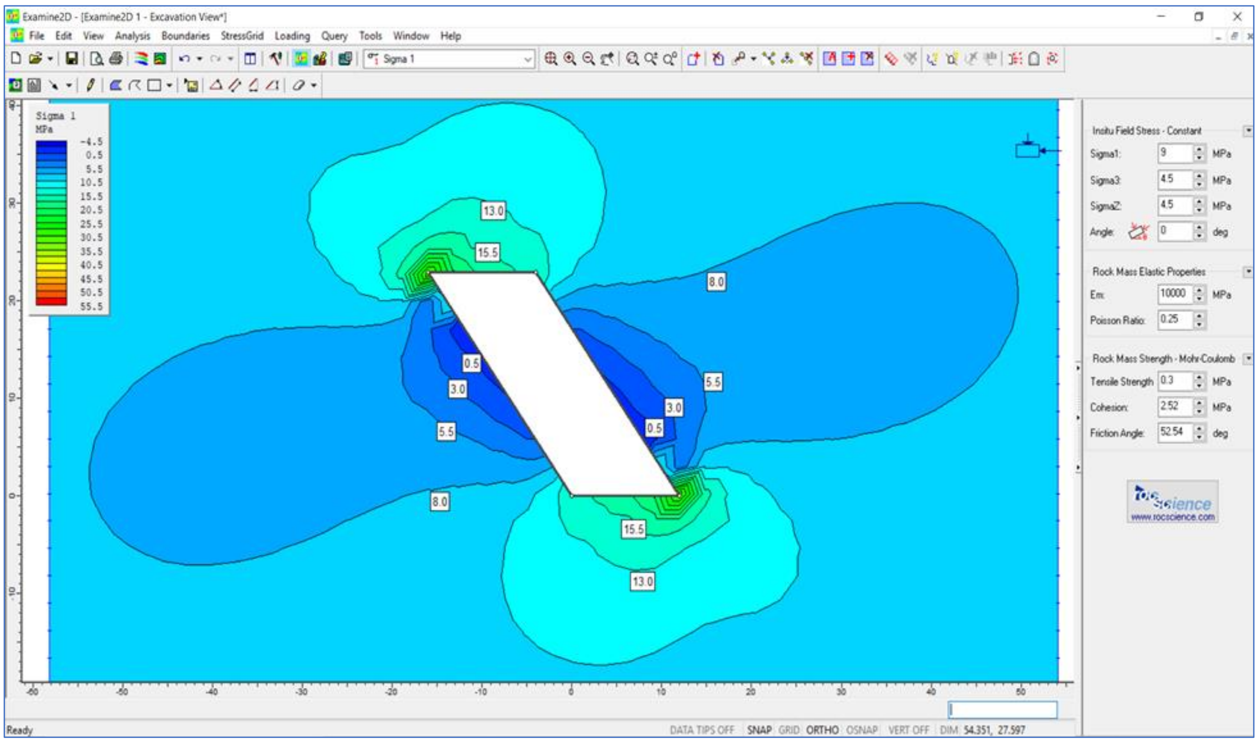
The total mine design consists of 6.3 km of development over two years, and the first production elevation is the 1537 elevation. The final level is at the 1,444 elevation for a total production of over 1 Mt over three years. The deposit will be drilled by longhole pneumatic drills and will require a total of four drill rigs over two years.

All development in the mineralized zone will be supported with two 2” coats of reinforced fiber shotcrete with a layer of rebar and mesh installed between each shotcrete application. Steel arches will be installed at the contact between the skarn and the mineral deposit to reinforce the draw point access. Scoops (3.5 yd^3)will extract the material from the draw points and will stockpile it in a truck loading bay that will be situated near each access level to be hauled to the surface stockpile in 20 t ridged axle trucks. Ventilation will be injected down the main ramp and exhausted out each footwall drift to a raise that will connect to historical workings. Individual draw-points will be ventilated with auxiliary fans.

16.5 Mine Layout Vein-type Deposits

The Vein systems deposits will be mined by a combination of cut-and-fill and longhole. Longhole will be primarily used in the production of the Veta Dique San Francisco deposit due to the good continuity of mineralization along dip and strike. The vein is highly altered and of poor quality, but it is contained by good quality limestone and has a width of 1–8 m. Using the RMR and simulating the stresses exerted on an open stope, an example of a stress cross-section can be seen in Figure 16-10.

Figure 16-10: Section View of the simulated stresses for the Veta Dique San Francisco Stope, Looking North

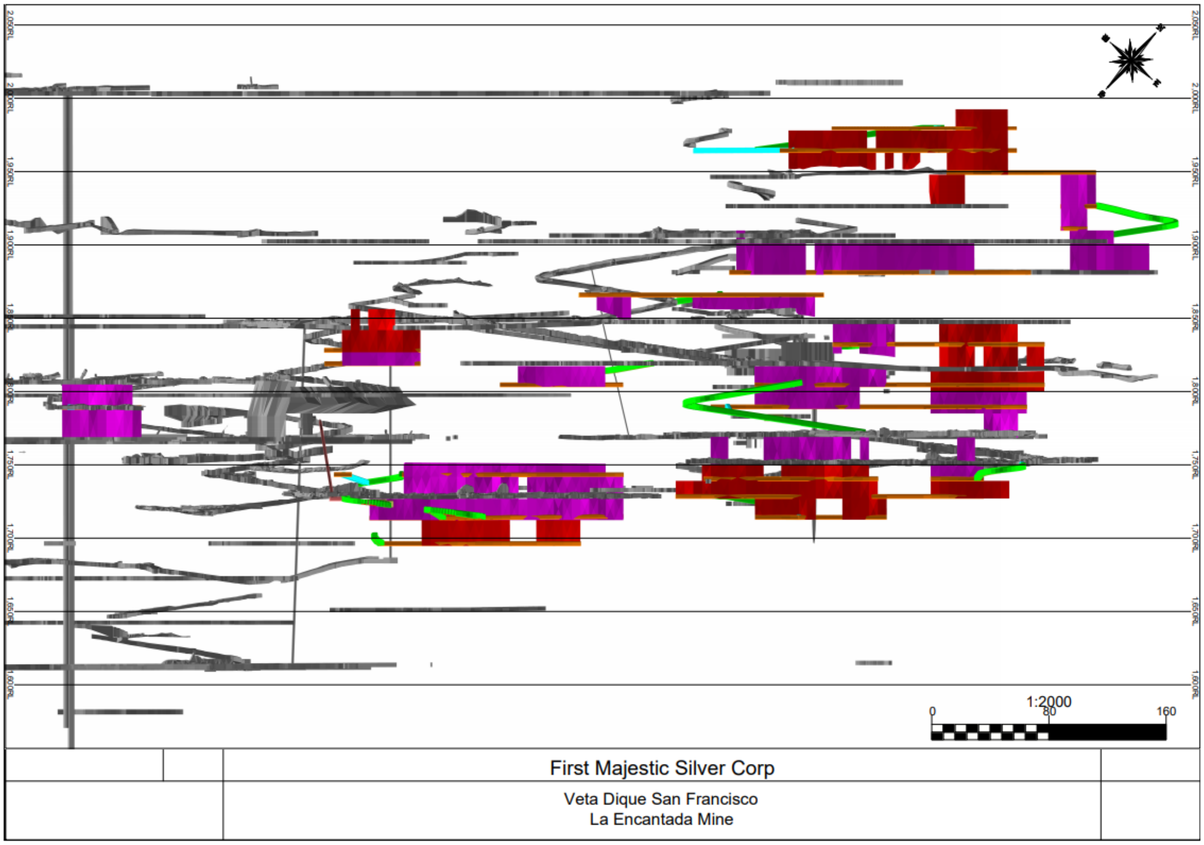


Note: Figure prepared by First Majestic, March 2021.

To determine stope stability the critical hydraulic radius was calculated for the Veta Dique San Francisco deposit, the hangingwall and the footwall. Calculations show that both the hangingwall and footwall are stable with only blast-related damage. The mineralized zone was calculated to be unstable. To add support to the mineralized zone, all developments in the Veta Dique San Francisco will be supported with a two 2" shotcrete layer, followed by rebar and mesh and then a second layer of shotcrete. Longhole drilling will be primarily down holes except for the final stope, which will be recovered using uppers holes. Low-grade pillars will be left where necessary to increase stope stability and reduce unwanted dilution. For dilution calculations, an additional 0.2 m of overbreak on the hanging and footwall was added to the Stope Optimizer design.

The Veta Dique San Francisco area has significant development already in place. The sublevels will be accessed using auxiliary ramps and historical ramps to reduce the quantity of development needed to exploit the Mineral Reserves. Ventilation and material movement will be done using historical raises and ore passes. A cross section of the planned development and stopes can be seen in Figure 16-11.

Figure 16-11: Cross Section View of Mine Plan for the Veta Dique San Francisco Deposit



Note: Figure prepared by First Majestic, March 2021.

A total of 4.8 km will be developed to prepare the longhole stopes. The mining sequence will start at the lower elevations, moving upwards, allowing each stope to be filled before taking the second level. Unconsolidated development waste will be used to fill the longhole stopes.

16.6 Dilution and Mining Loss

The planned dilution is incorporated in the Stope Optimizer for each individual orebody, and additional dilution was considered in each mining method as discussed in Section 15.4.

16.7 Development and Production Schedule

Time studies were used to define a baseline for scheduling and equipment selection. Table 16-5 shows a summary of the development schedule.

Table 16-5: Development Schedule for La Encantada

Type	Size (m)	2021	2022	2023	2024	Total
Main Access Ramp	4.5x4.5	671	191	-	-	862
Main Level Access	3.5x3.5	2,051	827	-	-	2,878
Ancillary	3.5x3.5	2,216	433	-	-	2,649
Drifting for Exploration	4.5x4.5	250	250	-	-	500
Ventilation Raises	2.5 diam.	199	61	-	-	260
Total Waste Development		5,387	1,762	-	-	7,149
Ore Development	3.5x3.5	3,696	3,681	-	-	7,377
Total Development		9,083	5,443	-	-	14,526

The mine plan assumes an advance rate of 25 m/day for 2021 and 15 m/day for 2022. Currently, the mine uses two jumbos and four jackleg crews per shift for both horizontal development and ground support. A third jumbo is available on standby and will be adequate to reach yearly development targets.

16.7.1 Vertical Development

Vertical ventilation raises are excavated by conventional jackleg drill-and-blast or using a raise-bore machine, and both have a diameter of 1.8 m. Slot raises in both longhole and caving mining will be done with the production drill-rig.

16.7.2 Longhole Drilling

Longhole drill speed varies between vein production and caving production. The ground is more competent in the veins, therefore the longhole drill averages between 70–100 m per shift. In the caving area, the average advance is 50 m per shift, due to highly fractured ground and because every hole is cased to prevent squeezing or collapse.

The current fleet of scoops and haul trucks move an average of 3,000 tpd of ROM material and 1,000 tpd of waste. The mine currently has six trucks to achieve the required haulage. Due to the increase in hauling distance in both the Ojuelas and Vein system areas, the mine will need three more 20 t trucks to move the required tonnage. Haulage trucks are assumed to be sourced by contractors.

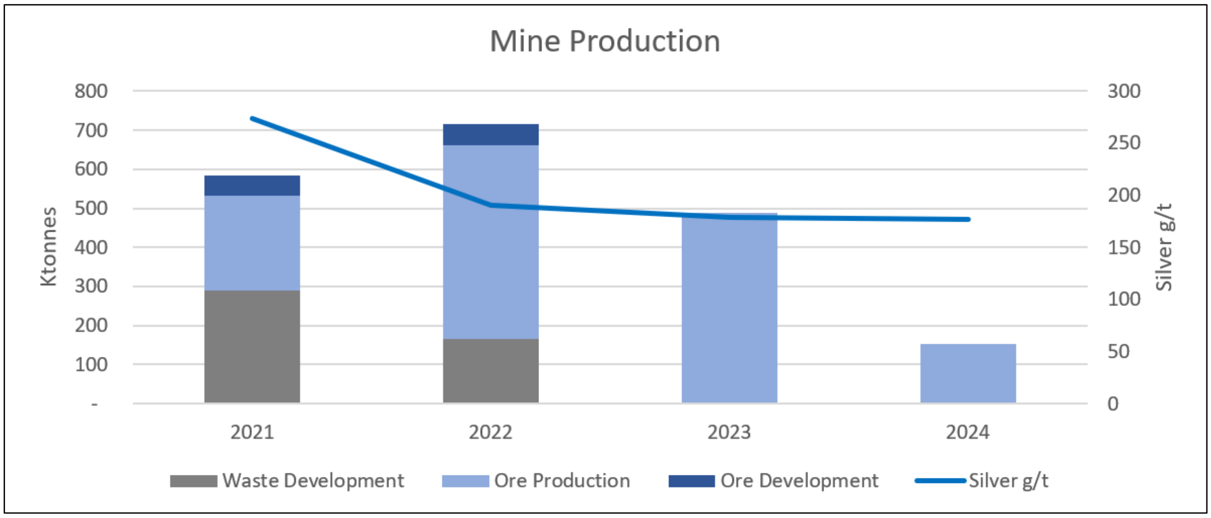
Table 16-6: Equipment Types

Equipment Type	Model	Quantity
LHD	LH 203	7
LHD	LH 307	12
LHD	LH 410	2
Haul Truck	TH 315	4
Haul Truck	20t Rigid Axle	6

16.7.3 LOM Production Schedule

The overall production material movement by year can be seen in Figure 16-12.

Figure 16-12: Mine Production Material Movement



Note: Figure prepared by First Majestic, March 2021.

Table 16-7 shows the LOM production schedule plan.

Table 16-7: Production Schedule

Type	Units	2021	2022	2023	2024	Total
ROM Production / Plant Feed	kt	294	548	489	153	**1,485**
Silver Grade	g/t Ag	273	190	178	177	**201**
Contained Silver	M oz Ag	2.59	3.35	2.81	0.87	**9.61**
Metallurgical Recovery Silver	%	56.5%	61.7%	60.9%	60.0%	**60.2%**
Metallurgical Recovery Gold	%					**-**
Produced Silver	M oz Ag	1.46	2.07	1.71	0.52	**5.76**

A significant increase in production is expected in 2022 as the Ojuelas cave starts to reach full production.

The LOM plan is based on Indicated Mineral Resources. Should the Mineral Reserves remain at their current level with no conversion of Inferred Mineral Resources or additional mineralized material being discovered, then the current mine plan estimates that the La Encantada mine will be depleted over the next four years, i.e. by 2024.

16.8 Mine Services

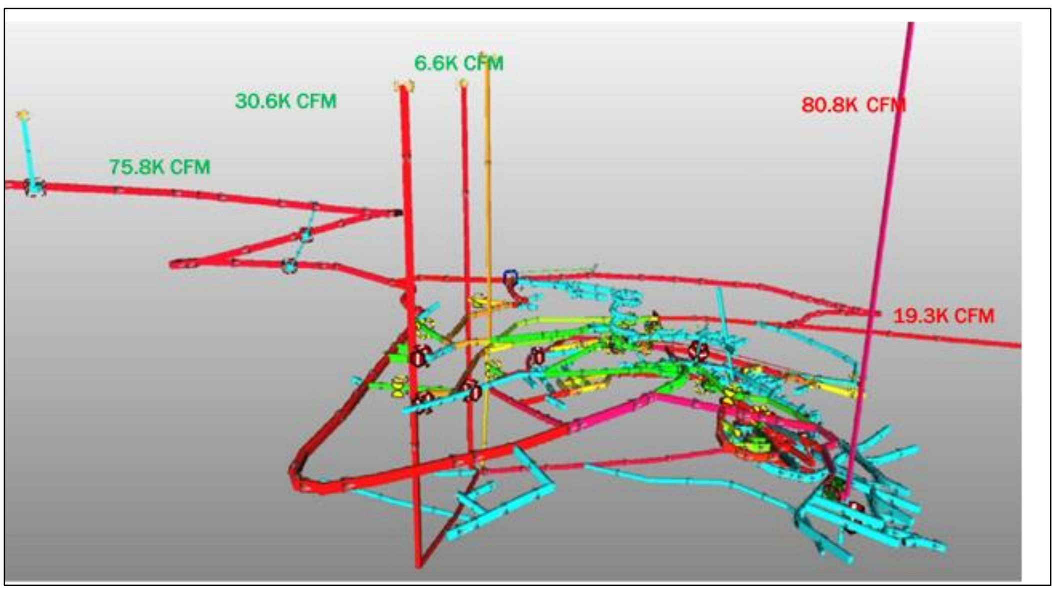
16.8.1 Ore and Waste Handling

Ore is mucked from the stope, caving drawpoints, or development face to the closest remuck, where it is loaded into either an underground mine truck or a contractor's 20 t rigid axle haul truck at a dedicated truck loadout. Waste for fill is taken to empty stopes, and excess waste is taken to the surface storage facility. Mineralization is hauled to the surface via a ramp system and deposited on the San Francisco stockpile if it is high grade and the Canadas stockpile if medium to low grade. A front-end loader then loads a 40-t articulated truck with blended stockpile material to achieve the processing plant's monthly planned grade.

16.8.2 Ventilation

The La Encantada mine is separated into two working areas, the Prieta complex mine and the La Encantada mine. The Prieta mine has two main raises, the Maria Isabel shaft and the 660 vent raise (Robbins). Ventilation is supplied mainly through the Esperanza ramp and the Maria Isabel shaft at 113,000 cfm and is exhausted through the 660 Robbins and through the 1600 tunnel to the old Milagros workings. Figure 16-13 shows the ventilation circuit for the Prieta complex mine.

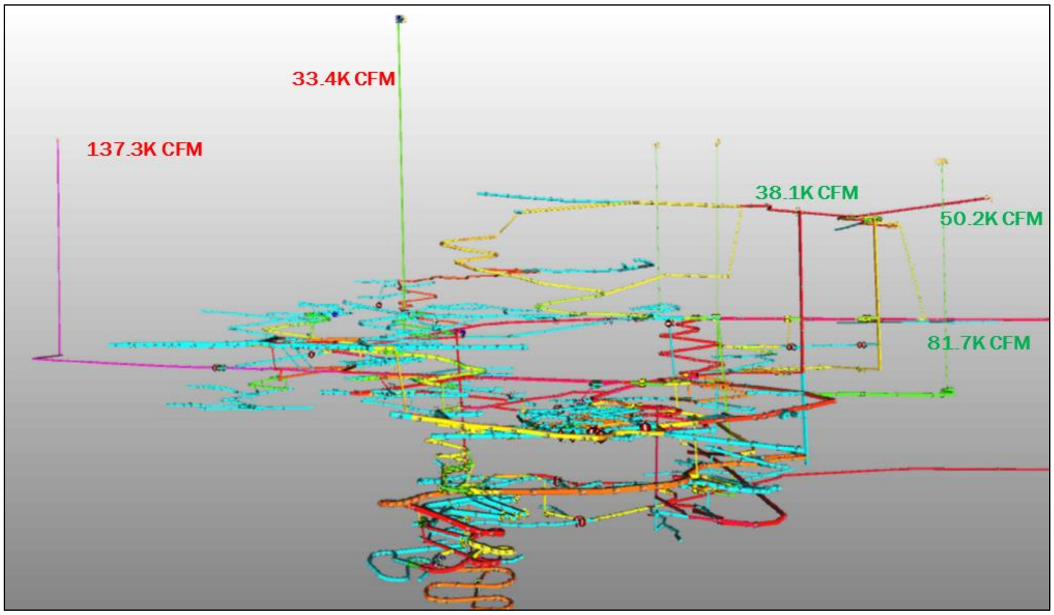
Figure 16-13: Ventilation Circuit for Prieta Complex Mine Area



Note: Figure prepared by First Majestic, March 2021.

In the La Encantada mine area, a total of 170,000 cfm is used for the ventilation of the working areas. Fresh air enters through the old Plomo workings and the 1870 Guadalupe audit, and is exhausted through the Spendrup and Escalera Robbins. Figure 16-14 shows the ventilation circuit for the La Encantada mine area.

Figure 16-14: Ventilation Circuit for La Encantada Mine Area



Note: Figure prepared by First Majestic, March 2021.

16.8.3 Mine Dewatering

La Encantada mine is a dry mine with the only inflow of water being surface filtration during the rainy season and from water used for mining activities. The mine has one dewatering pump located in the Prieta mine area at the 1509 elevation with a capacity of 4.5 gallons per minute. This pumps water up the Maria Isabel shaft which fills the water tanks located at the Guadalupe portal. This water is used in the mine process.

16.8.4 Compressed Air and Services Water

Mine compressed air is supplied by two Ingersoll Rand surface compressors, with 400 HP and 500 HP motors each, which supply 4,600 cfm at a pressure of 120 psi. Three reservoirs on surface store the compressed air. Compressed air is supplied to the mine through an 8” pipeline from surface to the 1790 level. From a secondary reservoir on the 1790 level, the air is supplied to the working areas in the Milagros mine. A secondary 6” pipeline goes down the Maria Isabel shaft to the 1600 working area in the Prieta mine to be supplied to the working areas.

Water is supplied to the San Javier-Milagros mine by a 10,000 L tank located above the Guadalupe portal. A larger tank of 230,000 L, located behind the mine offices, supplies water to the Prieta mine. The water for the mine is supplied by the dewatering pump located at the 1509 elevation.

16.9 Equipment and manpower Requirements

16.9.1 Manpower

The La Encantada mine contains a camp where both contractors and company employees live during their rotation. The mine maintains a rotation of 14-days in, seven-days out with an eleven-hour work shift.

The current staff on site is sufficient for the planned development and production.

16.9.2 Equipment

Jumbos will be used in the Ojuelas area, and for development at Veta Dique San Francisco, while jacklegs will be used for the development of the veins that will be mined using cut-and-fill. The current development and loader fleet is sufficient to meet development and extraction targets of the LOM plan. Additional haul trucks will need to be contracted as the caving extraction increases in 2022. The mine site currently has two longhole rigs on site. Four drill rigs will be required for the mine production, one in the Veta Dique San Francisco longhole and three will be in Ojuelas. Table 16-8 shows the equipment needed during the LOM plan.

Table 16-8: Required Equipment for the LOM plan

Equipment	Model	Quantity
Loader	LH 307	7
Loader	LH 410	2
Jumbos	210	1
Jumbos	311	1
Bolter	311	1
Jaklegs		5
Long Hole Rig	Stope Mate	4
Haul Trucks	TH315	3
Haul Trucks	20t Rigid Axle	9
Carmix		2
Shotcrete Sprayer	CIPSA	2

16.9.3 Main Contractors

The mine site employs contractors for haulage, projects, mine development, core drilling, site security, food preparation, and environmental. The current onsite contractors are not expected to increase for the production schedule planned.

17 RECOVERY METHODS

17.1 Introduction

The processing plant at La Encantada has been operating for several years and has continuously improved silver metallurgical recoveries. The process is based on cyanide tank leaching and Merrill-Crowe of ground ROM ore to produce silver doré bars. The installed plant capacity is for 3,000 tpd for the crushing and grinding area, and 4,500 tpd for the leaching circuit. Throughput levels averaged 2,500 tpd in 2019 and 2020. In the same period, the average plant-feed contained head grades of 154 g/t Ag.

The process plant is divided into two areas: Plant No. 1 and Plant No. 2. Plant No. 1 consists of the crushing and grinding circuits, while Plant No. 2 comprises the leaching circuit.

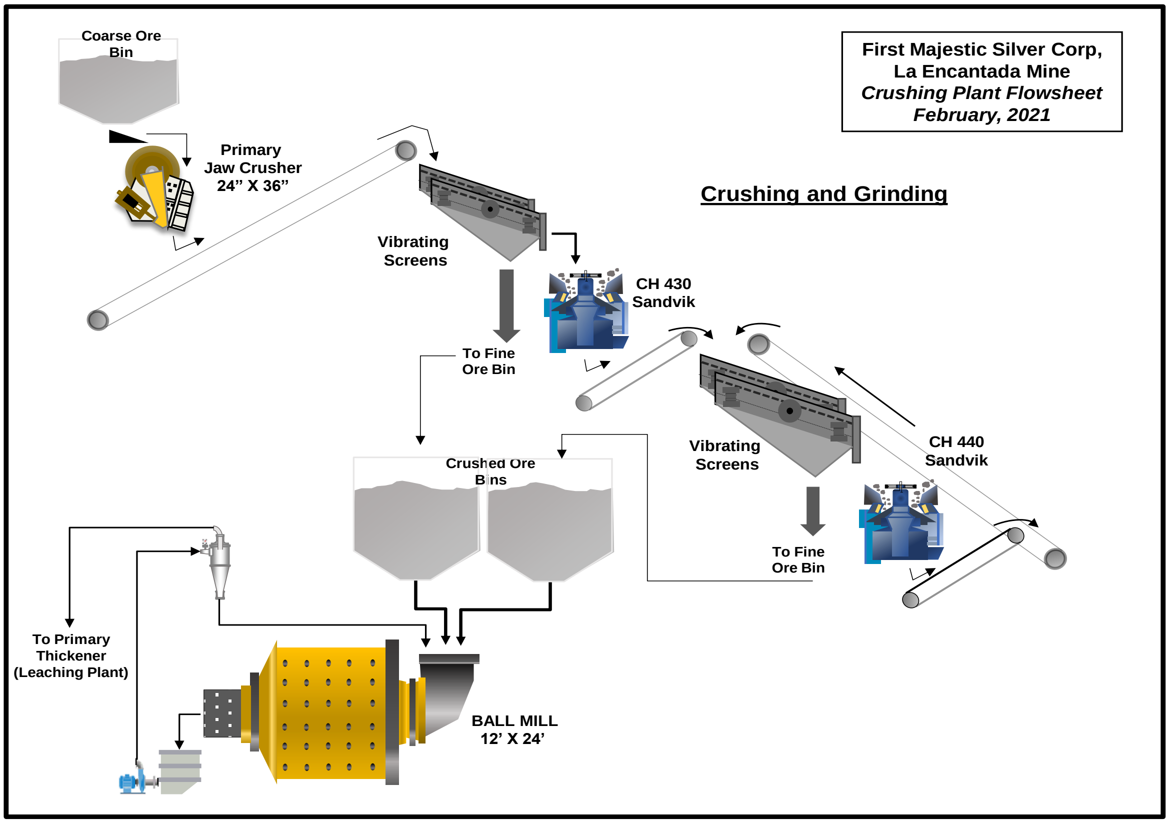
The plants consist of the following operating units:

- Plant No. 1:
  - Crushing: three-stage crushing circuit consisting of a primary jaw crusher, followed by two parallel vibrating screens and a secondary crusher and a closed-circuit tertiary crusher and two parallel vibrating screens;
  - Grinding: one ball mill in closed circuit with hydrocyclones;
- Plant No. 2:
  - Cyanide leaching: 17 agitated tanks;
  - Counter-current decantation (CCD) system: Four CCD thickeners working in series;
  - Merrill-Crowe, precipitate handling and smelting;
  - Tailings management: three press-filters and tailings handling conveyors.
  - A roasting circuit: a train comprised of dryer/pre-heater, rotary kiln and cooler, and a pulverized coal injection plant.

17.2 Process Flowsheet

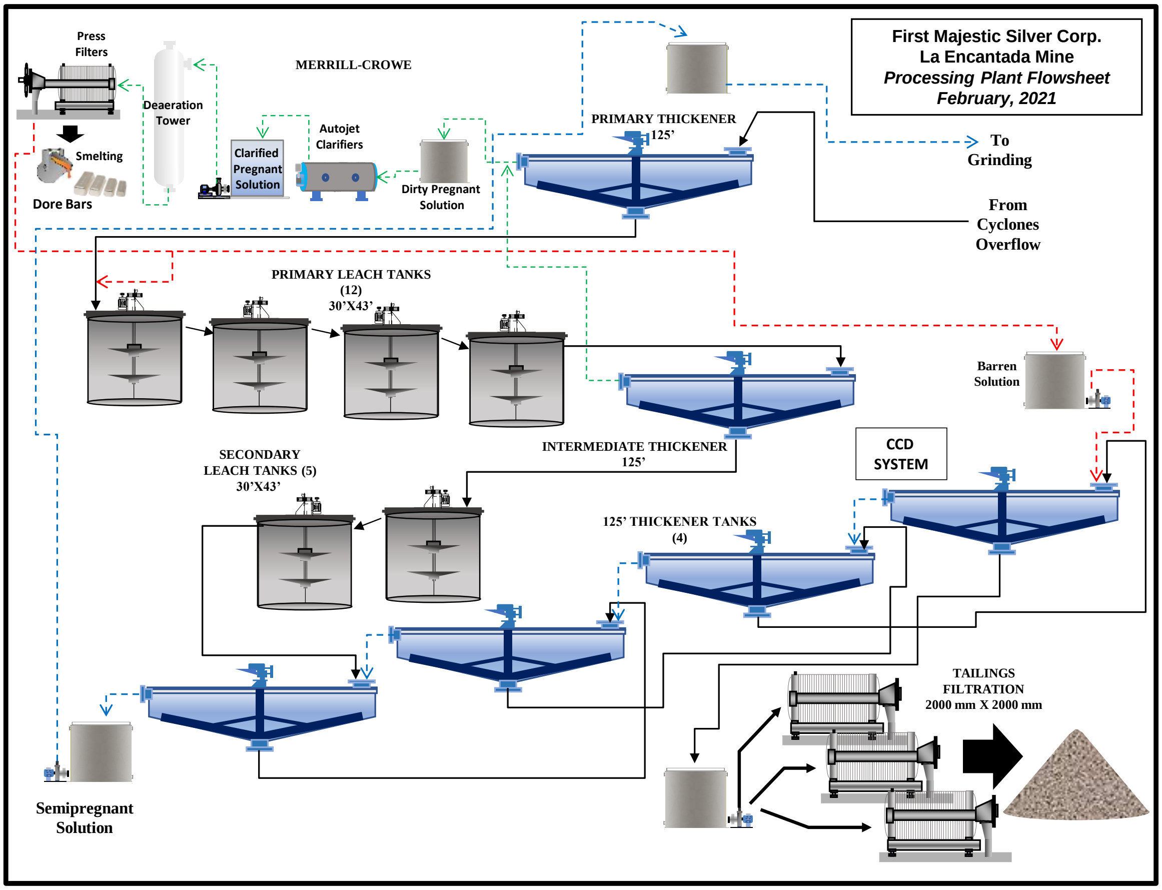
Figure 17-1 presents the comminution and grinding flowsheet and Figure 17-2 presents the processing flowsheet from the ball mill circuit product, cyclone overflow, to the production of the doré bars and tailings management.

Figure 17-1: La Encantada Schematic Comminution Plant Flowsheet, Plant No. 1



Note: Figure prepared by First Majestic, February 2021.

Figure 17-2: La Encantada Processing Plant Flowsheet



Note: Figure prepared by First Majestic, February 2021.

17.3 Process Plant Configuration

17.3.1 Plant Feed

The underground ROM material delivered from the mine is dumped into a steel-made coarse ore bin of 300 t capacity. The coarse ore bin is equipped with a steel rails grizzly at the top. The grizzly has openings of 12” x 12”; oversize material is reduced in size using a hydraulic hammer.

The coarse ore bin is equipped with a vibrating feeder grizzly at its bottom and is set to 4” openings.

17.3.2 Crushing

The oversize material of the grizzly, -12” to +4”, is fed into a 24” x 36” primary jaw crusher and reduced to -3” to -3½”. This crushed product is combined with the grizzly undersize and transported by a 30” wide belt conveyor to the two primary vibrating screens.

These screens are single deck and the sieve aperture is ⅜” x ⅜”. The undersize of the screens contains material with 80 to 90% passing ¼”.

The oversize of the vibrating screens flows into a CH430 Sandvik secondary crusher which reduces the size to -1”. Product from the secondary crusher discharges on a 30” wide conveyor.

The lower discharge of the vibrating screen is conveyed and discharged into the fine-ore bin, constructed of steel plates with storage capacity of 3,000 t. The fine-ore material contains 80 to 90% passing ¼” with average moisture of 3–4%.

The crushing plant has a capacity of 3,000 tpd and operates for 18 hours per day.

17.3.3 Grinding

The grinding section consists of one 12’ D x 24’ effective grinding length Metso ball mill, equipped with an 1,800 HP motor with variable frequency drive. The grinding circuit includes a bench of D-26” Krebs cyclone classification system and two 10” x 8” 250 HP pumps, one in operation and one in stand-by.

The fine ore is discharged through three chutes into a 36” wide conveyor which is equipped with a Ramsey cell that is used to record the mill feed tonnage.

The ball mill media are prepared with three different sizes of balls: 2-½”, 2” and 1-½”.

The average solids percentages that are handled at each point of the circuit are: mill discharge 78%, coarse ore cyclone 81%, and fine ore cyclone 35%. The final ground size is a product with approximately 75% passing 200 mesh, equivalent to a P80 of 90 µm. The grinding circuit product is pumped to Plant No. 2, using a 8” x 6” 200 HP pump, and fed into the primary thickener.

The nominal mill capacity is 3,000 tpd.

17.3.4 Sampling

An automatic sample cutter is installed in the conveyor belt feeding fine-ore to the grinding circuit. Dry-sample cutting is carried out every 15 minutes. A sample is composited for every two-hour period.

Additional slurry samples are collected in several points of the circuit. The samples are prepared and assayed in the La Encantada Laboratory. With this information, a daily balance is calculated that shows the silver grade and the metal contents of the material fed to the plant, tailings, and the pregnant and barren solutions.

Manual sampling is carried out at the following points:

- Cyclones overflow;
- Grinding and regrinding products;

- Pregnant leach solution (PLS);
- Barren solution;
- Final tailings (press-filters cake);
- Each of the leach tanks; and,
- Solution recovered from tailings filtering system returned to plant.

17.3.5 Cyanide Leaching circuit

The following reagents are added to the process:

- Cyanide as briquettes in leach tanks # 1 and 6;
- Lime, in slurry form prepared in a stirred tank, is added in the primary thickener.

Cyclone overflow is pumped to Plant No. 2 and fed into the 125’ primary thickener. The primary thickener underflow is pumped to a series of twelve 30’ x 43’ agitated leach tanks to complete 50-hours leaching time, which is considered the first leaching stage.

Overflow from the 12^{th} leach tank goes to the intermediate thickener, which recovers the pregnant liquor in the overflow while the underflow is pumped to the second leaching stage, consisting of five 30’ x 43’ agitated leach tanks that complete 22 more hours of residence time. Most of the volume of the overflow solution from the intermediate thickener goes to the primary thickener, which produces PLS that is fed to the Merrill Crowe system.

Slurry from the last agitated tank feeds the CCD thickeners. There is a series of four 125’ thickener tanks. Underflow from tank #4 feeds a storage tank which doses the slurry to the three final tailings filters. The CCD final overflow solution is pumped to the grinding circuit located in Plant No. 1.

17.3.6 Counter Current Decantation System

Slurry from the last agitated tank feeds the CCD thickeners. There are four 125’ thickener tanks working in series. Underflow from thickener tank #4 feeds a final tailings storage tank, before feeding the press filters.

The overflow from the fourth thickener goes to the third thickener feed, mixing with the slurry from the second thickener underflow. The fourth thickener receives the barren solution that comes from the tailings press filters.

The overflow from the second thickener goes to the first thickener feed, mixing with the slurry from the last leach tank. Underflow from the first thickener goes to the second thickener feed.

The overflow solution from the first thickener goes to the pregnant solution pond. There it is mixed with the overflow solution from the intermediate and primary thickener tanks.

17.3.7 Merrill Crowe and Precipitate Handling

PLS is sent to a 1,200 m^3 storage tank and then filtered and clarified through three autojet pressure clarifiers. Product from the autojet filters, clean pregnant solution, is stored in a 1,200 m^3 tank before being pumped through two deaerator cylinders to remove dissolved oxygen.

After deaeration, PLS is pumped to three 1,500 mm press-filters. Before being pumped, zinc dust is added to the solution in order to carry out a precipitation reaction. Daily production of PLS is about 18,000 m^3 with a grade of 17 g/t Ag.

The precipitate is dried and then smelted in two induction furnaces, producing 23-kg doré bars with a purity ranging from 60–85% Ag.

The Merrill Crowe system has a capacity of 550 kg of doré per day.

17.3.8 Tailings Management

Final tailings are filtered in three press-filters with 2,000 mm square section and 139 plates each. Filtered tailings are discharged at 16% moisture and deposited on the TMF. The TMF is periodically reviewed by First Majestic's independent consultants to assess geotechnical stability.

Recycled water accounts for 90% of the plant requirements and only 10% is made up from fresh water. Fresh water usage in the plant is estimated at 480 m^3/day (5.5 L/sec).

17.3.9 Roasting Circuit

In 2018, a roasting circuit was added to the Plant No. 2 and industrial-scale testing was performed. During testing, challenges were experienced with material handling in the feeding and product delivery, as well as adequate product cooling and dust handling. The plant is currently in care and maintenance.

The rotary kiln roaster circuit is designed to increase silver recovery during the re-leaching of existing refractory tailings material. The roaster maintains a reducing atmosphere at a temperature of 850°C which is the target temperature for the material. These conditions enable the calcination of refractory minerals and produce a highly porous and readily leachable calcine product that have shown significantly increased silver recovery.

Tailings material is loaded and hauled to the nearby roaster feed area. Challenges during commissioning were linked to the quality and particle size distribution of the material being fed directly to the roasting circuit. The installation of a coarse dry screen is envisioned to prevent large particles or deleterious materials from entering the roaster, the undersize will report to the roaster feed belt. Reagents are added directly onto the feed-belt, including sodium sulfite (Na_2SO_3) and sodium chloride (NaCl). The main feed belt product reports to a bucket elevator conveyor which transfers material to a screw conveyor and onward to the preheater. Water is sprayed onto the material as it passes through the preheater, and recirculated hot air is blown to the discharge end of the preheater after it is recovered from the cooler.

The preheater product reports to the rotary kiln where the bed temperature is further increased until it achieves the target temperature of 850°C. The tailings material is reduced to its calcine product and then it reports to the cooling system which should reduce the calcine temperature to less than 100°C. The cooling system was another component of the system that did not perform well during the industrial-scale test period. The cooled calcine product is expected to be pumped directly to the existing leach circuit. However, the roasting process generates agglomerates that survive the slurrying and pumping steps, hence an adequate deagglomeration step should be added to the flowsheet.

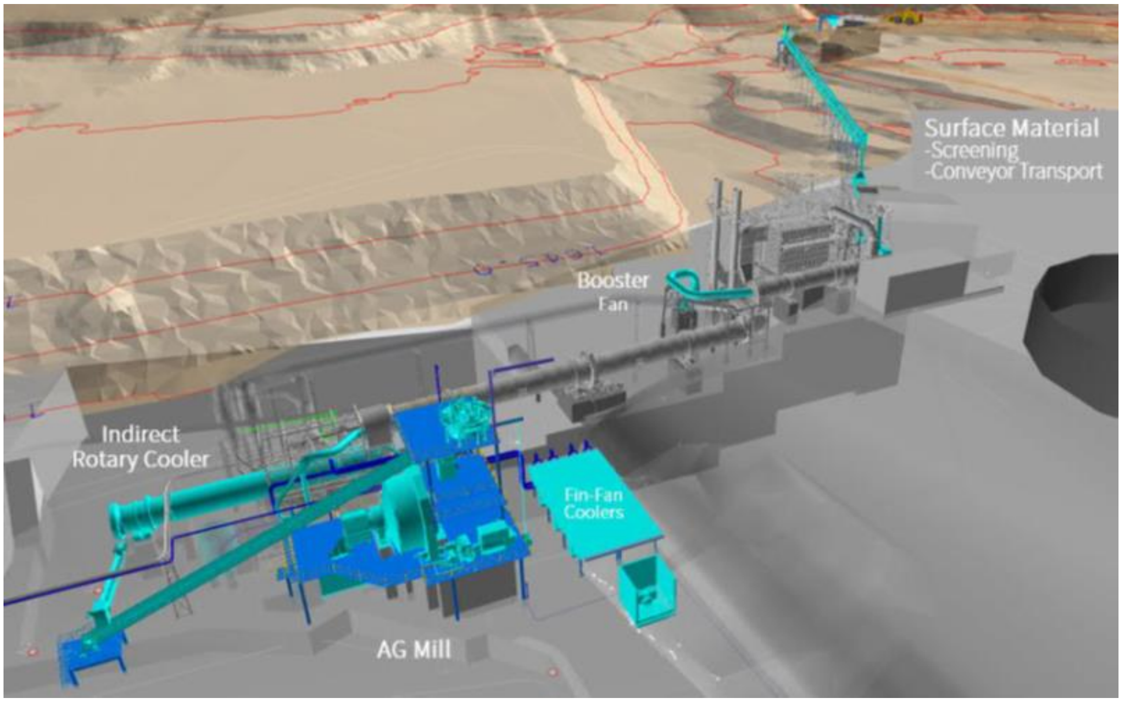
The main fuel source for roasting is mineral coal, which is shipped to site, crushed, pulverized and stored in a dosing system prior to being injected into the kiln burner. Dust is collected via the dust-collection system. Dust and hot gases are also collected at the cooler and preheater feed-end. The hot gases have the dust removed which is added back to the system whereas the gas is released to atmosphere. Improvements to dust suppression and collection are also envisioned as upgrades to the system to mitigate the risk of dust escaping to the environment.

Figure 17-3: Aerial View of the Roaster CircuitFigure 17-3 shows an image taken by drone in early 2019 during the commissioning period for the roaster circuit. Figure 17-4 shows a 3D-model from a recent study that includes the envisioned modifications and proposed additions to the circuit.

Figure 17-3: Aerial View of the Roaster Circuit

Note: Image taken by First Majestic, 2019.

Figure 17-4: 3D-Model of Proposed Improvements for the Roaster Circuit



Note: Image prepared by Hatch for First Majestic, December 2020.

17.4 Processing Plant Requirements

The most relevant requirements supporting the operation of the processing plant, for the production stated in the LOM plan presented in this Report, have been estimated and the projected consumption is listed in Table 17-1, including: electrical energy, fresh water, grinding media, cyanide, lime, flocculant and zinc dust.

Table 17-1: Processing Plant Requirements for the LOM Plan

La Encantada Processing Plant Consumables	KPI	Units	Consumption per year	2021	2022	2023	2024
Power Consumption	39.0	kWh/t	MWh/yr	11,481	21,381	19,082	5,977
Water consumption (fresh water usage)	0.22	m3/t	'000 m3/yr	64.8	120.6	107.6	33.7
Cyanide	1.30	Kg/t	t/yr	383	713	636	199
Griding media (steel balls)	0.17	Kg/t	t/yr	50.0	93.2	83.2	26.1
Lime	1.85	Kg/t	t/yr	545	1,014	905	284
Flocculant	35.0	g/t	t/yr	10.3	19.2	17.1	5.4
Zinc dust	1.00	kg Zn/Kg Ag	t/yr	45.5	64.2	53.2	16.2

All these consumables are regularly supplied to the La Encantada mine, and purchase agreements are in place at the Report effective date supporting the production plan presented in the Report.

18 INFRASTRUCTURE

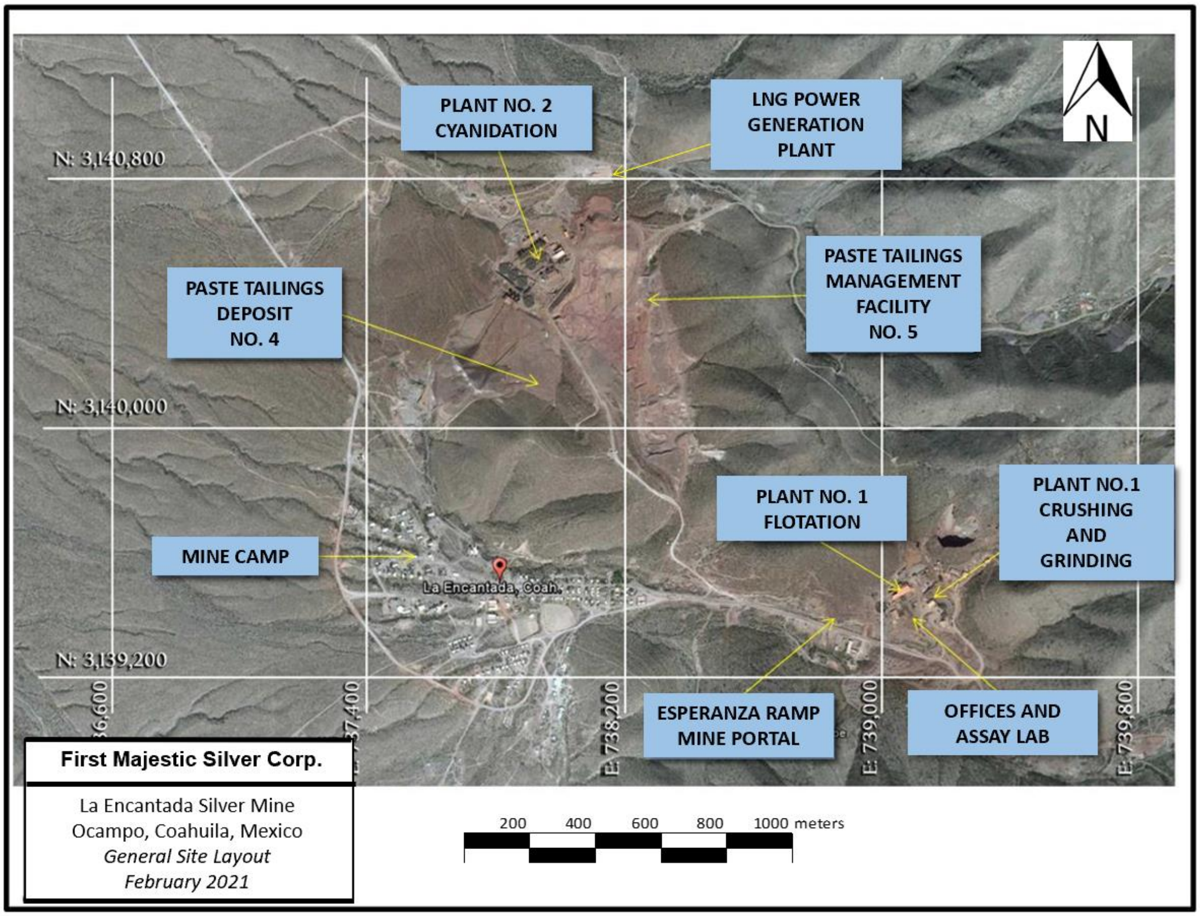
The existing infrastructure at La Encantada can support current mining and mineral processing activities and the LOM plan.

18.1 Local Infrastructure

Most of the operation's support facilities are located near Plant No. 1 and include administrative offices, a medical clinic, warehouse, assay laboratory, core shed, fuel storage facilities, mine compressor building, surface maintenance shop, mine dry, water storage tanks and contractor offices. The mine camp is located approximately 1 km west of Plant No. 1 and the First Majestic-owned airstrip is approximately 6 km west of the mine camp.

Plant No. 2 is located 2 km northwest of Plant No. 1 and holds the leaching and roasting processing facilities, including the tailings filter-press plant. The TMFs are located south and southwest of the Plant No. 2. The liquified natural gas (LNG) power generation plant is adjacent to Plant No. 2. Figure 18-1 shows the local infrastructure layout.

Figure 18-1: Local Infrastructure



Note: Figure prepared by First Majestic, February 2021.

18.2 Transportation and Logistics

Operations personnel are transported by passenger buses from the city of Muzquiz and the town of Ocampo. All equipment, supplies and materials are brought in by road.

18.3 Tailings Management Facilities

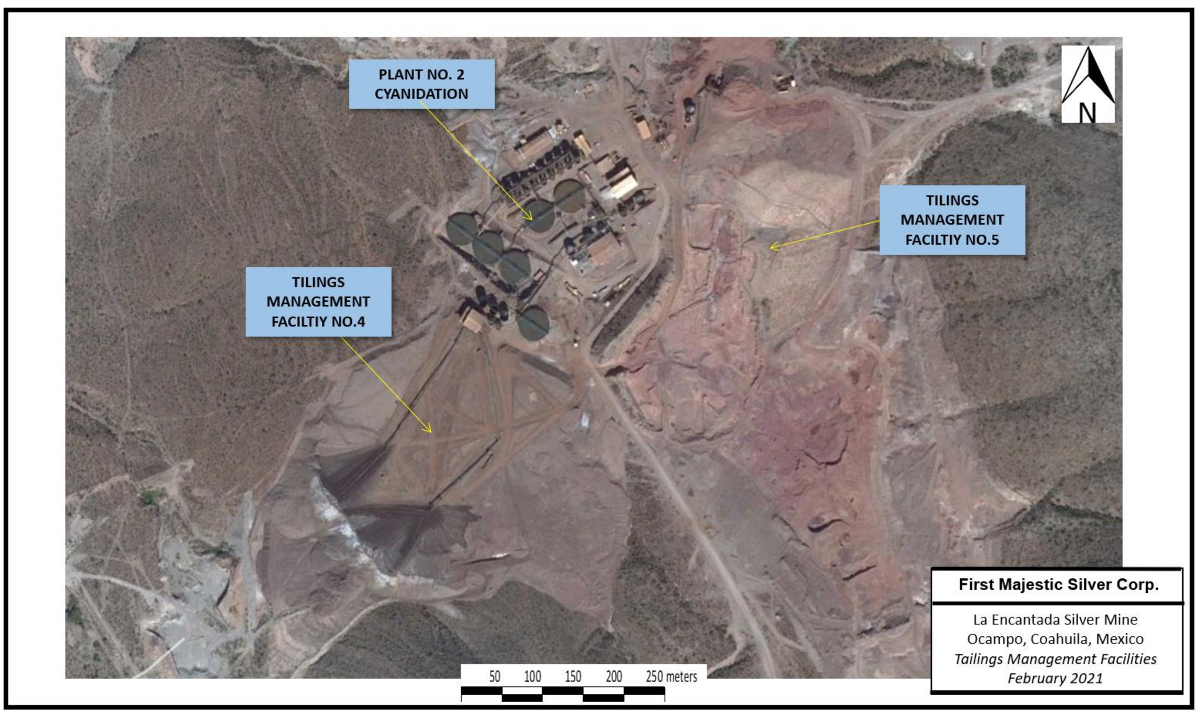
The TMF consists of two different storage areas. Tailings Deposit No. 5 (TMF-5) which is currently in operation and Tailings Deposit No.4 (TMF-4) which is inactive. Figure 18-2 shows the location of the TMF-5 and TMF-4.

The embankment construction of TMF-5 follows the ascending or upstream design with terracing method. Filtered tailings are transported by an overland belt conveyor system, deposited with a series of radial stackers, spread over the crest with track dozers, and finally compacted and graded for erosion control and slope stability.

Rainwater management includes two main diversion channels, one is located to the east of the TMF area, draining from south to north, and the second to the west, draining from north to south. In addition, temporary non-contact water channels have been built to the north of the facility to divert non-contact water downstream. Contact water is diverted to two storage ponds located downstream of Plant No. 2. One of the ponds is equipped with a recirculation pump, sending water to Plant No. 2, and the second pond is a contingency pond to contain flow to the local streams where its treated if needed before discharging.

The storage capacity of TMF-5 is 8.5 Mt of filtered tailings. According to the latest survey conducted in February 2021, the remaining storage capacity is estimated to be approximately 5.5 Mt or more than five years of service life at current production rates, which is sufficient to support the current LOM plan.

Figure 18-2: Tailings Management Facilities



Note: Figure prepared by First Majestic, February 2021.

18.4 Camps and Accommodation

First Majestic's facilities include a camp previously constructed by Peñoles. These facilities were significantly improved in 2020 and include 160 housing units for workers and staff with 440 beds, a new 180 person kitchen/dinning area for salaried staff, accommodations for contractor managers and visitors, offices for the union representatives, an elementary school, a chapel, a grocery store, and recreational facilities. As part of the recent improvements, approximately 7.5 km of new drainage pipelines have been installed.

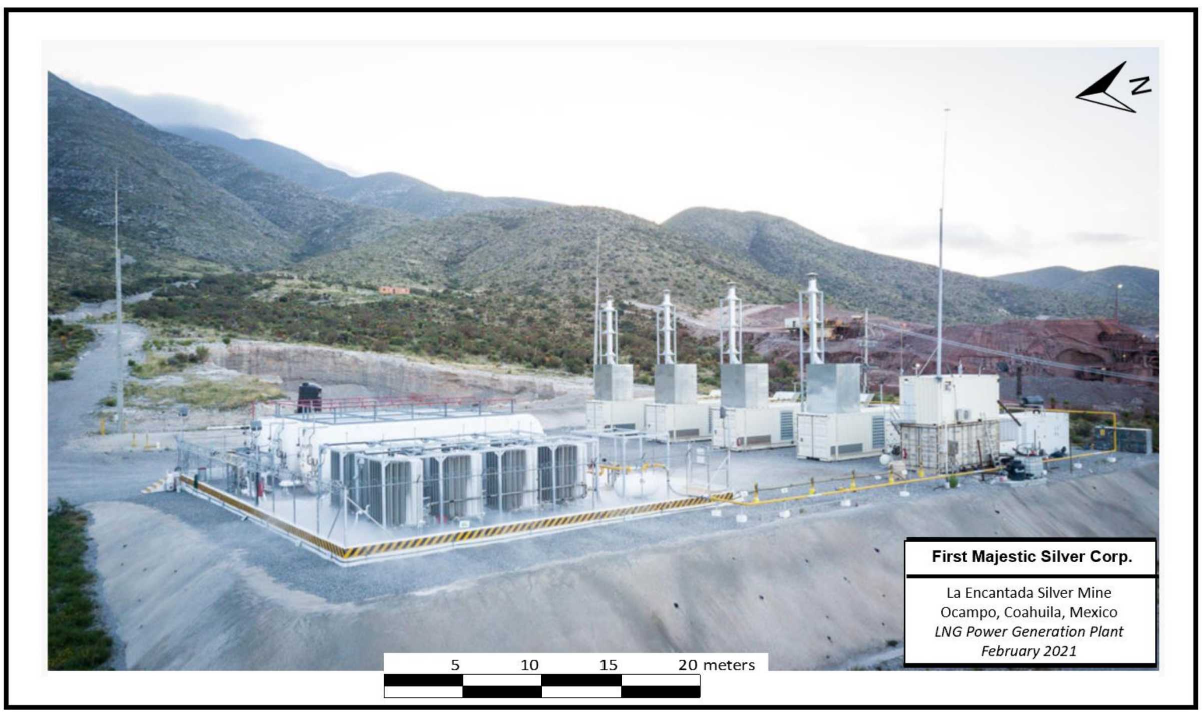
18.5 Electrical Power

The electric power for the operation and supporting infrastructure is generated on-site. The power generation facility consists of a diesel-powered generator and four MTU LNG generators that were installed in 2016.

Power demand is presently 4,000 MW per month, which is being supplied by the four 1.5 MW MTU natural gas generators and the 1.5 MW MTU diesel generator, achieving an average mix of 90% natural gas–10% diesel generation, significantly reducing the greenhouse gas emissions and the energy generation costs.

First Majestic plans to add a fifth 1.5 MW MTU generator, which will further reduce greenhouse gas emissions and energy costs. At the Report effective date, construction was underway, and continuous operation of the additional generator is anticipated for Q2-2021.

Figure 18.6: LNG Power Generation Plant



Note: Figure prepared by First Majestic, February 2021.

18.6 Communications

Communications to and from La Encantada use a satellite system, both for wireless data transfer and for the voice system. La Encantada has a site radio system enabling communications between supervisors, site management, and surface vehicle operators.

18.7 Water Supply

Fresh water for the offices and employee housing is obtained from a well located in the underground mine.

Industrial water for the mine and plant is obtained from a series of wells located 25 km from the La Encantada mine. This water is pumped to site and stored in a series of storage tanks located throughout the plant and mine facilities.

19 MARKET CONSIDERATION AND CONTRACTS

The end product from the La Encantada mine comes in the form of silver doré bars. The physical silver doré bars contain approximately 60–85% silver in weight, plus other impurities. Doré bars are delivered to refineries where they are refined to commercially-marketable 99.9% pure silver.

19.1 Market Considerations

Silver is considered a global and liquid commodity. Silver is predominantly traded on the London Bullion Market Association (LBMA) and COMEX in New York. The LBMA is the global hub of over-the-counter trading in silver and is this metal's main physical market. ICE Benchmark Administration (IBA) provides the auction platform, methodology, as well as the overall administration and governance for the LBMA. Silver is quoted in US dollars per troy ounce.

19.2 Commodity Price Guidance

First Majestic has established a standard procedure to determine the medium- and long-term silver and lead metal price guidance to be used for Mineral Resource and Mineral Reserves estimates. This procedure considers the consensus of future metal price forecasts from different sources including major Canadian and global banks, projections from financial analysts specializing in the mining and metals industry, and metal price forecasts used by peer mining companies in public disclosures.

Based on the above information, a recommendation as to acceptable consensus pricing is put forward by First Majestic's QP to the company executives, and a decision is made to set the metal price guidance for Mineral Resource and Mineral Reserve estimates. This guidance is updated at least annually, or on an as-required basis.

Metal prices used for the December 2020 Mineral Resource and Mineral Reserve estimates are listed in Table 19-1.

Table 19-1: Metal Prices Used for the December 2020 Mineral Resource and Mineral Reserve Estimates.

Metal	Units	Mineral Resource Estimation	Mineral Reserves Estimation
Silver	$/oz Ag	22.50	20.00
Lead	$/lb Pb	0.90	N/A

Foreign exchange rates used in the cost estimates and in the LOM model were USD:CAD 1.30 and USD:MXN 20.00.

19.3 Product and Sales Contracts

Silver produced at the La Encantada mine is sold by First Majestic using a small number of international metal brokers who act as intermediaries between First Majestic and the LBMA. First Majestic delivers its production to a number of refineries, and once they have refined the silver to commercial grade, the refineries then transfer the silver to the physical market for consumption. First Majestic transfers risk at the time it delivers its doré from the processing plant to the armoured truck services that are under contract to the refineries. First Majestic normally receives up to 97% of the value of its sales of doré on delivery to the refinery, depending on the timing of sales with the metals broker, with final settlements upon out-turn of the refined metals, less processing costs.

Contracts with refining companies as well as metals brokers and traders are tendered periodically and re-negotiated as required. First Majestic continually reviews its cost structures and relationships with refining companies and metal traders to maintain the most competitive pricing possible.

19.4 Deleterious Elements

The silver doré bars purity has been historically between 60–85%. Current production projections are showing concentration of silver in the doré in the lower part of that range, due to the presence of base metals such as copper, lead and zinc. Considering the characteristics of the mineralized material, the processing practice and the selling agreement in place, it is reasonable to expect that the La Encantada mine will be able to maintain the ability to sale its silver doré bars with its current purchaser.

19.5 Supply and Services Contracts

Contracts and agreements are currently in place for the supply of goods and services necessary for the mining operations. These include, but are not limited to, contracts for diamond drilling services, mine development, waste and ore haulage, maintenance service for the mining equipment, specialized maintenance service for plant equipment, supply of diesel for mobile equipment operation, supply of LNG for power generation, supply of explosives, supply of process reagents including sodium cyanide, and transportation and logistics services including infrastructure maintenance, catering and personnel transportation.

19.6 Comments on Section 19

The doré produced by the mine is readily marketable.

Metal prices are set corporately for Mineral Resource and Mineral Reserve estimation. The QP has reviewed the consensus future metal price forecasts and the internal analysis results and considers them reasonable to support the metal price assumptions used in this Report.

In the opinion of the QP, the terms, rates and charges set in the relevant service contracts and supply agreements for the mining operation are within industry practice in Mexico.

The QP has reviewed commodity pricing assumptions, marketing assumptions and the current major contract areas, and considers the information acceptable for use in estimating Mineral Reserves and in the economic analysis that supports the Mineral Reserves.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

In February 2021, the La Encantada mine was distinguished as a Socially Responsible Company (ESR) by the Mexican Center for Philanthropy (CEMEFI) for the first time. The ESR award is given to companies operating in Mexico that achieve high performance and commitment to sustainable economic, social, and environmentally positive impact in all corporate life areas, including business ethics, engagement with the community, and preservation of the environment. La Encantada completed the review process successfully by CEMEFI, which included an evaluation of policies, practices, procedures, and management systems to conduct business and community relations sustainably.

20.1 Environmental Aspects, Studies and Permits

20.1.1 Environmental Compliance in Mexico

Mining in Mexico is primarily regulated by Federal laws, though some areas require state or local approval. The principal agency promulgating environmental standards and regulating environmental matters in Mexico is Ministry of Environment and Natural Resources (SEMARNAT). There are Federal delegations or state agencies of SEMARNAT.

An Environmental Impact Manifestation (MIA) must be prepared for submittal to SEMARNAT before applying for a license for a mining operation. The MIA must include an analysis of local climate, air quality, water, soil, vegetation, wildlife, and cultural resources in the project area, as well as a socioeconomic impact assessment. The Unique Environmental License (LAU) is based on an approved MIA and is required before the start of an industrial operation.

A permit must also be obtained from SEMERNAT for Risk Analysis (RA). A study must be conducted to identify and assess the potential environmental releases and risks, and to develop a plan to prevent and mitigate risks, and to respond to potential environmental emergencies. A strong emphasis is placed on the storage and handling of hazardous materials such as chemical reagents, fuel, and tailings.

The Federal Attorney for Environmental Protection (PROFEPA) is the responsible body for enforcement, public participation, and environmental education. After receiving an operation license, an agreement is setup between the operating company and the PROFEPA in order to follow-up on obligations, commitments and monitoring of preventive activities.

A division of SEMARNAT, the National Water Commission (CONAGUA) is the authority for all water-related matters including activities that may impact surface water supply or quality, such as water use permits and fees, diversion of surface waters, constructions in significant drainages, or water discharge.

In Mexico, all land has a designated use. The majority of the land covering the La Encantada concessions is designated as agricultural or forest land. A Change of Land Use (CUS) permit is required for all production areas, and for potential areas of expanded production. The CUS study is based on federal forestry laws and regulations and requires an in-depth analysis of the current land use , the native flora and fauna, and an evaluation of the current and proposed uses of the land and their impact on the environment. The study requires that agreements exist with all affected surface rights holders, and that an acceptable reclamation and restoration plan is in place.

The National Commission for the Protected Natural Areas (CONANP) is the agency responsible for planning, research, development and conservation of national protected areas. If an industrial activity is planned close to one of the protected areas, an assessment and permit from CONANP is required.

Mexican regulations require that the National Institute of Anthropology and History (INAH) reviews project plans prior to construction, and inspects the project area for historical and archeological resources.

20.1.2 Existing Environmental Conditions

La Encantada is a mine with a long production history. Mining activity started in the 1950s and since that time several enterprises have operated in the area. As such, the vicinity had been affected by mining industrial activity before First Majestic began operations in the area in late 2006, including: vacant surface mine infrastructure in the form of old mining camps, areas of surface subsidence above historical mined areas, and low-grade mineralized stockpiles.

Environmental liabilities for the current operation are typical of those associated with an operating underground precious metals mine, including the future closure and reclamation of mine portals and ventilation infrastructure, access roads, processing facilities, power lines, low-grade TMFs, and all surface infrastructure that supports the operations.

20.1.3 Relevant Environmental Impact Aspects

20.1.3.1 Wastewater Discharge

The La Encantada mine does not discharge residual water to the environment, therefore, there are no wastewater discharge concession titles. Sanitary water is conducted through pipelines to a treatment plant built by First Majestic in 2010. From the treatment plant, water is pumped to the cyanidation process in Plant No. 2. The wastewater treatment and water control are necessary to comply with the maximum limits established by the Mexican norm. As water is limited in the region, wastewater control at La Encantada is a positive factor and helps to reduce the freshwater requirements for the process.

20.1.3.2 Processed Water Management

The operation of tailings press filters allows for the recycling of up to 90% of the water utilized in the mill process. There is no underground water discharge, and an underground water well is used to supply potable water to the mine camp and offices for domestic services.

20.1.3.3 Tailings Deposit No. 4

The Tailings Deposit No. 4 was constructed in 2008 when First Majestic expanded processing capacity. This deposit is inactive at the Report effective date. This tailings facility was constructed by placing and spreading paste tailings product from the cyanidation circuit in a beached configuration. The potential failure of the dam is considered low risk due to the low humidity contained in the paste, and the compaction gained by the spreading process. A potential failure could occur only if a torrential rain enters directly into the deposit and is not deflected by the system of established pluvial channels. Nevertheless, a failure could seriously impact seasonal creeks; therefore, First Majestic started the reinforcement of the curtain and terrace conformation in order to increase stability according to the geotechnical design. The environmental permit in place allows an eventual reclaiming of the tailings for reprocessing. Reclamation plans include covering the top and slopes with soil to promote reforestation in medium term, and final reforestation prior to the site closure.

20.1.3.4 Plant No. 1

Plant No. 1 was built and operated as a flotation circuit plant. The flotation circuit is not currently in use, and only the crushing and milling sections and pumping systems are operating. If not reactivated, the flotation circuit will be required to be included in the closure and reclamation plans.

20.2 Summary of Relevant Environmental Obligations

The following is a description of the principal obligations relating to environmental matters for the La Encantada mine.

- Yearly operation report (COA): A report submitted annually, which contains environmental information on the impact of the operation of the mine in regard to water, air, waste discharge, materials, and production.
- Hazardous waste declaration: Records of the handling, storage and final disposal of hazardous materials from the mining and processing operations.
- Water usage right: A quarterly record and rights payment for water usage.
- Monitoring plan for water, air, waste discharge and noise: This plan is prepared in accordance with the different authorizations and conditions set in the official Mexican norms.
- Power generation record: A monthly report on electricity generation, as well as an annual fee for supervision of the Energy Regulatory Commission.

20.3 Permitting

20.3.1 Current Permits

La Encantada is an operating mine, and as such it currently holds all major environmental permits and licenses required by the Mexican authorities to carry out mineral extracting activities. Table 20-1lists relevant permits granted to La Encantada.

Table 20-1: Major Permits granted to La Encantada

Permit	Date Granted	Document No.	Status	Expiration Date
Environmental Licence (LAU)	Dec., 2020	LAU-05-023-047	Current	Permanent
Groundwater use permit	Oct., 2008	BOO.E.21.1.-2470/2008	Current	Permanent
Permit for electrical power generation	Aug., 2013	E/134/GEN/99	Current	Permanent
EIA, TMFs	Mar., 2015	S.G.P.A./496/COAH/2015	Current	2021
EIA, Roasting	Nov., 2017	S.G.P.A./2045/COAH/2017	Current	2032
EIA, Exploration	Aug., 2020	S.G.P.A./618/COAH/2020	Current	2026
EIA, Caving and Subsidence La Prieta	Apr, 2019	S.G.P.A./631/COAH/2019	Current	2023
EIA, Caving and Subsidence El Plomo	Oct., 2019	S.G.P.A./1543/COAH/2019	Current	2023

20.3.2 Permits in Process

The following is a list of the permits in process for La Encantada Silver Mine:

- Request to CONAGUA for the renovation of La Encantada Water Wells Certification.
- Request to CONAGUA to drill two exploratory wells with the objective of replacing two wells of brackish water.

To the extent known, there is no indication that these two permits will not be granted, as the applications are following their due course.

20.4 Mine Closure Aspects

The plan for restoration and closure of the La Encantada mining site is based on the policies and terms documented in the commitments established in the Asset Retirement Obligations (ARO). The restoration plan includes an estimate of the investment that will be required for the support and execution of those works and activities that will return the land to a predetermined state once the activities associated with the mining operation have ceased.

As of December 31, 2020, an amount of $10.44 M has been recorded as a decommissioning liability for La Encantada and is based on the following considerations:

- Sealing underground mines and associated installations;
- Reclaiming the processing plant and above ground associated installations;
- Closing, sealing and reclaiming the TMFs;
- Ancillary service buildings (offices, general service infrastructure, warehouse);
- Reclaiming the waste-rock management facilities.

20.5 Social and Community Aspects

To the extent known, there are no social Issues that could materially impact MLS' ability to conduct exploration and mining activities in the property; on this respect, First Majestic relies on its relationship with the local communities, labour unions, and the government regulators, which are presently businesslike and amicable.

The surface land litigation presented in Section 4.3 of this report does not compromise the ability to operate but could result in negotiations which may imply a payment for the land if the litigation resolution is not in favor of the Company's interests.

21 CAPITAL AND OPERATING COST

The La Encantada mine has been under First Majestic operation since November 2006 and has a well-established cost management system and a good understanding of the costs of operation. Relevant key-performance indicators are compiled and analyzed on a monthly basis to monitor operational performance, analyze financial results and prepare economic projections. Key costs elements include:

- Staff and Labour costs;
- Power consumption and fuel costs;
- Explosives consumption and costs;
- Drilling steel consumption and costs;
- Development and production contractor costs;
- Haulage costs;
- Grinding media consumption and costs;
- Reagents consumption and costs;
- Maintenance parts and costs;
- Overhead and costs related to administration.

21.1 Sustaining Capital Costs

The sustaining capital expenditures are budgeted on an as-required basis, established on actual conditions at the mine and the processing plant infrastructure. The LOM plan includes estimates for sustaining capital expenditures for the planned mining and processing activities.

Sustaining capital expenditures will mostly be allocated for on-going development in waste, infill drilling, mine equipment rebuilding, equipment overhauls or replacements, plant maintenance and on-going refurbishing, and for tailings management facilities expansion as needed.

Estimated sustaining capital expenditures for the life of mine plan are assumed to average $7.9 M per year. The amount of exploration conducted to find new targets, with the objective of replacing and/or expanding the Mineral Resources will be dependent on the success of exploration and core drilling programs. Due to the uncertainty of the exploration success, the potential new sources of mineralization are not included in the LOM plan. Sustaining capital is focused on maintaining current operational capacities, plant and equipment, while expansionary capital is focused on expanding new sources of mineralization. Table 21-1 presents the summary of the sustaining and expansionary capital expenditures.

Table 21-1: La Encantada Mining Capital Costs Summary (Sustaining Capital)

Type (M USD)	Total	2021	2022	2023	2024
Mine Development	$ 9.6	$ 7.2	$ 2.4	$ -	$ -
Infill Drilling	$ 0.4	$ 0.1	$ 0.1	$ 0.1	$ 0.0
Property, Plant & Equipment	$ 11.2	$ 2.2	$ 5.4	$ 2.7	$ 0.8
Other Sustaining Costs	$ 3.4	$ 1.1	$ 1.1	$ 1.1	$ 0.1
Total Sustaining Capital Costs	*$ 24.5*	*$ 10.6*	*$ 9.0*	*$ 4.0*	*$ 0.9*
Near Mine Exploration	$ 0.4	$ 0.1	$ 0.2	$ 0.2	$ 0.0
Total Capital Costs	*$ 25.0*	*$ 10.7*	*$ 9.2*	*$ 4.1*	*$ 0.9*

21.2 Operating Costs

The cost inputs in the economic model supporting the Report are based on site actuals and contractor quotes, the majority of which are priced in Mexican pesos and converted to US dollars (e.g., labour, various supplies, etc.), Although some variances from the estimates used for this Report and the actual costs could be experienced, the total cost of mining and processing is expected to be within ±15% of the estimates, which is considered in sufficient detail that, with the current experience at La Encantada, Mineral Reserves can be supported.

A summary of the La Encantada operating costs resulting from the LOM plan and the economic model used for assessing economic viability is presented in Table 21-2. A summary of the annual operating expense is presented in Table 21-3.

Table 21-2: La Encantada Operating Costs

Type	$/tonne
Mining Cost	15.4
Processing Cost	17.2
Indirect Costs	12.4
Total Production Cost	***45.0***
Selling Costs	1.9
Total Cash Cost	***46.9***

Table 21-3: La Encantada Annual Operating Costs

Type (M USD)	Total	2021	2022	2023	2024
Mining Cost	$ 22.9	$ 6.7	$ 9.0	$ 5.5	$ 1.6
Processing Cost	$ 25.5	$ 5.1	$ 9.4	$ 8.4	$ 2.6
Indirect Costs	$ 18.4	$ 3.6	$ 6.8	$ 6.1	$ 1.9
Total Production Cost	***$ 66.8***	***$ 15.4***	***$ 25.2***	***$ 20.0***	***$ 6.1***
Selling Costs	$ 2.9	$ 0.7	$ 1.0	$ 0.9	$ 0.3
Total Cash Cost	***$ 69.7***	***$ 16.2***	***$ 26.3***	***$ 20.8***	***$ 6.4***

22 ECONOMIC ANALYSIS

First Majestic is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material expansion of current production is planned.

An economic analysis to support presentation of Mineral Reserves was conducted. Under the assumptions presented in this Report, the operations show a positive cash flow, and can support Mineral Reserve estimation.

23 ADJACENT PROPERTIES

This section is not relevant to this Technical Report.

24 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this Technical Report.

25 INTERPRETATION AND CONCLUSIONS

The following interpretations and conclusions are a summary of the QPs' opinions based on the information presented in this Report.

25.1 Mineral Tenure, Surface Rights and Agreements

Information provided by First Majestic technical and legal experts supports that the mining tenure held is valid and is sufficient to support declaration of Mineral Resources and Mineral Reserves; La Encantada has adequate mineral concessions and surface rights to support mining operations over the planned LOM presented in this Report.

For exploration purposes, if new areas of investigation are targeted, it is expected that there will be a need to formalize agreements with surface landowners.

First Majestic has agreements with the landowners in the area and some of these agreements may be subject to renegotiation from time to time. Material changes to the existing agreements may have a significant impact on operations at La Encantada.

If First Majestic is not able to reach an agreement for the use of the lands with the landowners, then First Majestic may be required to pay compensation for the land use and/or modify its operations or plans for the exploration and development of its mines.

25.2 Geology and Mineralization

The current understanding of mineralization and alteration styles, as well as the structural and lithological controls on mineralization at La Encantada are sufficient to support the Mineral Resource and Mineral Reserve estimations.

The silver mineral deposits at La Encantada are high-temperature polymetallic replacement deposits hosted in sedimentary carbonate rocks related to felsic intrusions and controlled by local and regional structures. Carbonate replacement deposits are characterized by irregularly-shaped pods, lenses and massive lenses, and roughly tabular masses of oxides. Some replacement deposits are associated with skarn alteration and mineralization can also hosted be by sedimentary carbonate rocks.

25.3 Exploration and Drilling

The exploration programs completed to date are appropriate for the mineralization styles. Sampling methods (core drill hole and channel sampling) and data collection are acceptable given the deposit dimensions, mineralization true widths, and the nature of the deposits. The programs are reflective of industry-standard practices and can be used in support of Mineral Resource and Mineral Reserve estimation.

25.4 Data Analysis

Collar, downhole survey, lithology, core recovery, specific gravity and assay data collected are considered suitable to support Mineral Resource estimation. Sample preparation, analysis, and quality-control measures meet current industry standards and provide reliable silver and lead results.

25.5 Metallurgical Testwork

The La Encantada mine is an operating mine and the metallurgical test data supporting the initial plant design has been proven and reinforced by plant operating results through the years of operation combined with more recent metallurgical studies. The metallurgical analysis discussed in this report is based on historical plant operational data, mineralogical investigations, and plant performance monitoring tests performed in the Central Laboratory. Composite samples are analyzed monthly to determine the metallurgic performance of the mineralized material fed into the processing plant. The tests performed by the Central Laboratory show good level of repeatability when compared to plant performance.

First Majestic has been running tests to estimate the BWi of the monthly composite samples since January 2013. The tests were carried out using ROM material, and the BWi results demonstrate a relatively low level of variability.

Besides performing laboratory tests using standard plant conditions, metallurgical investigation is conducted on monthly composites to systematically evaluate the effect of key processing variables. The objective of this ongoing program is to explore ways to optimize silver and lead recoveries, and to assist operations in diagnosing production issues and recommending solutions to these issues.

The maturity of the processing operation, the established practices in metallurgical monitoring and investigations, and the knowledge of the future mineralized material support the ongoing metallurgical recoveries considered in the LOM plan presented in this Report and in the economic analysis that supports the Mineral Reserves. The average yearly silver recovery projected in the LOM plan range from 60.0–67.8%. There is risk that the assumed recovery levels will not be fully achieved, if material to be treated in the LOM plan are significantly different to the materials treated historically.

The silver content of the doré produced in La Encantada ranges from 60–85% due to the presence of copper, lead and zinc. The silver concentration impacts the treatment charge, as this charge is levied by weight on the doré produced. A typical treatment charge was included in the cut-off grade calculation and in the economic evaluations of the LOM plan.

25.6 Mineral Resource Estimates

The Mineral Resource estimates for La Encantada are prepared in accordance with the 2014 CIM Definition Standards. The resource estimates are a reasonable representation of the mineralization found in the Project at the current level of sampling.

The estimates are based on the current database of exploration drill holes and production channel samples, underground level geological mapping, geological interpretation and model, surface topography, and underground mining development wireframes available as at December 31, 2020.

The Mineral Resources were classified into Indicated or Inferred confidence categories based on the following factors:

- Confidence in the geological interpretation and models;
- Confidence in the continuity of metal grades;
- The sample support for the estimation and reliability of the sample data;
- Areas that were mined producing reliable production channel samples and detailed geological control.

Factors that may materially impact the Mineral Resource estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the silver-equivalent grade cut-off grade;
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones;
- Changes to geological and mineralization shape and geological and grade continuity assumptions;
- Changes to geotechnical, mining, and metallurgical recovery assumptions;
- 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;
- The production channel sampling method has some risk of non-representative sampling that could result in poor accuracy locally. In addition, there is potential for the large number of channel samples to overwhelm samples from the drill holes in some areas. This is recognized and addressed during resource estimation by restricting the area of influence related to these samples to very short ranges.

25.7 Mineral Reserve Estimates

The Mineral Reserves estimates for La Encantada include considerations for the underground mining methods in use, dilution, mining widths, mining extraction losses, metallurgical recoveries, permitting and infrastructure requirements.

Factors which may materially affect the Mineral Reserve estimates for La Encantada include fluctuations in commodity prices and exchange rates assumptions used; material changes in the underground stability due to geotechnical conditions that may increase unplanned dilution and mining loss; unexpected variations in equipment productivity; material reduction of the capacity to process the mineralized material at the planned throughput and unexpected reduction of the metallurgical recoveries; higher than anticipated geological variability; cost escalation due to external factors; changes in the taxation considerations; the ability to maintain constant access to all working areas; changes to the assumed permitting and regulatory environment under which the mine plan was developed; the ability to maintain mining concessions and/or surface rights; the ability to renew agreements with the different surface owners; and the ability to maintain the social and environmental licenses to operate.

25.8 Mine Plan

Mining operations can be conducted year-round. The underground mine plan presented in this Report was designed to deliver an achievable plant feed, based on the current knowledge of geological, geotechnical, geohydrological, mining and processing conditions. Production forecasts are based on current equipment and plant productivities.

In the opinion of the QP, it is reasonable to assume that if the sustaining capital expenditures expressed in the LOM plan are executed, the La Encantada mine will have the means to operate as planned.

The current mine life to 2024 is considered achievable based on the projected annual production rate and the estimated Mineral Reserves. There is some upside if some or all of the Inferred Mineral Resources can be upgraded to higher confidence Mineral Resource categories.

25.9 Operations Continuity

Although First Majestic has the capacity to continue certain administrative functions remotely, temporary or permanent unavailability of key personnel (including due to contraction of COVID-19 or as a result of mobility restrictions imposed by governments and private actors to combat the spread of COVID-19) may have an adverse impact on the continuity of the operations.

In the opinion of the QP, such interruptions do not preclude First Majestic from extracting the Mineral Reserves after those interruptions have been resolved.

25.10 Processing

The La Encantada process plant is in good operating condition, with about 20 years of operation. The plant design is based on comminution of ROM material and agitated tank-leaching. The process flow is based on well-established technology. Overall plant availability is high, and the risk of catastrophic failures and consequently unplanned long shutdowns is low given the program of sustaining capital considered in the LOM plan and current budget.

In recent years, the addition of a larger ball-mill added operational reliability and increased the comminution capacity to 3,000 tpd.

There is still opportunity for the expansion of the operations, for example: roasting of manganese-encapsulated mineralized material that could increase the potential of processing refractory mineralization.

25.11 Infrastructure

La Encantada's remote location has required the construction of substantial infrastructure, which has been developed during a long period of active operation by First Majestic and the mine's previous owners, Peñoles and Compañía Minera Los Angeles. Power supply to the mine, processing facilities and camp site is from diesel and natural gas generators provided by First Majestic. Potable water supply is also provided by First Majestic Most of the supplies and labour required for the operation are sourced from the city of Múzquiz, Coahuila, or directly from suppliers. The mine has all required infrastructure in place to support operations for the LOM plan presented in this Report.

25.12 Markets and Contracts

The end product from the La Encantada mine is in the form of silver doré bars. The physical silver doré bars, usually containing between 60–85% silver in weight, are delivered to refineries where doré bars are refined to commercially marketable 99.9% pure silver and gold bars. The terms contained within the existing sales contracts are typical of, and consistent with, standard industry practices.

Selling costs, including freight, insurance and representation, as well as refining charges, payable terms, deductions, and penalties terms for La Encantada doré bars, were reviewed by the QP and found to be in line with similar commercial conditions of metal producers in Mexico. All these costs have been incorporated into the long-term economic analysis.

25.13 Permitting, Environmental and Social Considerations

Permits held by First Majestic for La Encantada are sufficient to ensure that mining activities are conducted within the regulatory framework required by the Mexican government and that Mineral Resources and Mineral Reserves can be declared.

Closure provisions are appropriately considered in the mine plan and economic analysis.

25.14 Capital and Operating Cost Estimates

The capital and operating cost provisions for the LOM plan that supports La Encantada Mineral Reserves have been reviewed. The basis for the estimates is appropriate to the known mineralization, mining and production schedules, marketing plans, and equipment replacement and maintenance requirements.

Capital cost estimates include appropriate estimates for sustaining capital.

25.15 Economic Analysis Supporting Mineral Reserve Declaration

First Majestic is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material expansion of current production is planned.

An economic analysis to support presentation of Mineral Reserves was conducted. Under the assumptions presented in this Report, the operations show a positive cash flow, and can support Mineral Reserve estimation.

25.16 Conclusions

Under the assumptions used in this Report, La Encantada has positive economics for the LOM plan, which supports the Mineral Reserve statement.

26 RECOMMENDATIONS

Work or studies recommended by the QPs are presented in two phases. Work or studies recommended in Phase 2 are contingent of their corresponding work or study recommended in Phase 1.

26.1 Phase 1

The proposed work or studies presented in Phase 1 can be carried out concurrently.

The total expenditure for the Phase 1 works is estimated at $7.2 M.

26.1.1 Exploration

First Majestic has been successfully replacing depleted Mineral Resources through near-mine drilling at the La Encantada mine since acquiring the property in 2006. Mineralization remains open along strike to the northeast in the Vein systems. Base-metal potential remains at depth across the entire system. The La Encantada concessions cover 4,076 ha of prospective ground with potential to host additional carbonate replacement deposits. Several brownfield prospects warrant continued exploration. Prospecting, mapping, and geochemical and geophysical surveys are expected to identify new prospects in the under explored areas.

To maintain current and projected production levels and to potentially increase mineral resources, the following annual drilling programs are recommended.

- An annual 1,000 m infill sustaining drill program to support short-term production plans;
- An annual 7,500 m near mine drill program to support mid-term production projections;
- An annual 7,500 m brownfield surface drill program to identify additional mineralization.

This 16,000 m annual exploration drill program is estimated to cost $1.6 M per year excluding related underground access development costs.

In addition, an annual prospect generation program consisting of prospecting, soil and rock geochemical surveys, mapping, and geophysical surveys is recommended. This annual prospect generation program is estimated to cost $70,000 per year.

The amounts and estimated cost of these recommended exploration programs should be reviewed annually as these recommendations are for an ongoing, multi-year drilling program.

26.1.2 Roasting

The Tailings Deposit No. 4 contains significant silver grades and this material is already finely ground. However, most of the silver is associated with manganese and such mineralogical characteristics have proven challenging to recover in the direct tank-leaching process.

Benchmarking and laboratorial testwork was used to prove that with a roasting pre-treatment, silver leaching recovery improves significantly. In 2016 First Majestic launched a project for the addition of a roasting circuit to treat up to 2,000 tpd of the existing tailings. Starting in mid-2018, and during approximately one year of commissioning efforts, it was realized that some components of the circuit could not perform as per design and in 2019 a decision was made to suspend the works and conduct a comprehensive investigation. Several studies have concluded that the components should be modified to improve system performance, including the dust collection and bulk material handling systems for roaster feed and product deliver to the downstream leaching circuit. In addition, it was found that the calcine cooling and the product deagglomeration systems should be replaced so that the roasting pre-treatment can fully achieve the projected recovery rates. The studies have been recently completed at a pre-feasibility level and resulted in a preliminary capital estimate of approximately $25 M to complete the system improvements.

A value engineering study is recommended to better detail some project components and to refine identified opportunities that show good potential for a reduction in the capital requirements. The cost of this study is estimated at $150,000.

26.1.3 Flotation

In the La Encantada mine there are mineralized deposits that contain significant levels of base metals, like lead and zinc. A good example of these mineralized deposits is Ojuelas, which in addition to approximately 180 g/t Ag, contains approximately 6% Pb and 4% Zn. The current mineral processing plant is not able to recovery base metals and all the base metals report to tailings if no modification is implemented to the flowsheet. First Majestic has initiated a preliminary investigation of possible flotation flowsheets and reagents regime that could enable the recovery of lead and zinc. This investigation includes bench-scale laboratorial tests with encouraging preliminary results, not only for the recovery of the base metals but also for the possibility to increase the recovery level of silver.

A Phase 1 study for the plant modifications with the inclusion of a flotation circuit and the corresponding auxiliary systems, e.g. concentrate dewatering and handling is recommended to prove the concepts from the preliminarily investigations. The study should include the development of the processing design criteria, the refinement of the flotation flowsheet, the conduction of pilot-scale tests, the determination of metal recoveries, and the development of feasibility level estimations of capital and operating costs. The estimated cost for Phase 1 is $350,000.

26.2 Phase 2

The total expenditure for the Phase 2 program is estimated at $33–$36 M.

26.2.1 Roasting

If Phase 1 supports the viability of the estimated reduction of the capital estimates, Phase 2 could incorporate the execution of the upgrade of the roasting circuit. The estimated cost of this Phase 2 ranges between $17–$20 M.

26.2.2 Flotation

If Phase 1 confirms the viability of the flotation processing for the recovery of base metals, a second phase could follow with the execution of the processing plant expansion. First Majestic owns a flotation plant which is not in use at the Report effective date. If confirmed that this plant would be adequate for the processing of La Encantada deposits, then only the additional required equipment will be procured. An order of magnitude capital expenditures for this project is estimated in $16 M.

27 REFERENCES

Addison, R. and Lopez L., 2009: Technical Report for the La Encantada Silver Mine, Coahuila State, Mexico. Pincock, Allen & Holt. 134 pp.

AMEC Foster Wheeler (2015): Mining Method Selection Trade-Off Study and Mine Design Revison A, prepared for First Majestic Silver Corp., 68 pp.

Barton, N., R. Lien and J. Lunde, 1974: Engineering Classification of Rock Masses for the Design of Tunnel Support. Rock Mechanics and Rock Engineering 6 (4): p. 189-236.

Bieniawski, Z.T., 1973: Engineering Classification of Jointed Rock Masses. Civil Engineering in South Africa, 15 (12), p. 335-343.

Bieniawski, Z. T., 1989. Engineering Rock Mass Classifications. New York: Wiley.

Boutilier B., Sinuhaji A., Mendoza, R., 2018: The Construction of Two Small-Scale Caving Mines at La Encantada Mine, Mexico, prepared for SME, 7 pp.

Campa, M. F., and Coney, P. J., 1983, Tectono-stratigraphic terranes and mineral resource distributions in Mexico, Canadian Journal of Earth Science, vol. 20, pp.1040 – 1051.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2014: CIM Definition Standards for Mineral Resources and Mineral Reserves, 9 pp.

CIM, 2019: Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (MRMR Estimation Best Practice Guidelines), 74 pp.

CIM Mineral Resource & Mineral Reserve Committee, 2020: CIM Guidance on Commodity Pricing and Other Issues related to Mineral Resource and Mineral Reserve Estimation and Reporting., 9 pp.

Canadian Securities Administrators (CSA), 2011, National Instrument 43-101 Standards of Disclosure for Mineral Projects, 44 p.

Deere, D.U, 1989: Rock Quality Designation (RQD) after twenty years. U.S. Army Corps Engrs. Contract Report GL-89-1.

Diaz-Unzueta R., 1987, Geochemical and isotopic study of calcite stockworks at La Encantada mining district, Coahuila, Mexico: relationships with orebodies and implications for exploration, University of Arizona, Unpublished M.Sc thesis, 121 p.

Diering, T., 2004: Combining Long Term Scheduling and Daily Draw Control for Block Cave Mines, Massmin 2004 Proceedings, Santiago, August, pp. 486-490.

Diering, T., 2004: Computational Considerations for Production Scheduling of Block Cave Mines, Massmin 2004 Proceedings, Santiago, August, pp. 135-140.

González-Sánchez, F., Camprubí, A., González-Partida, E., Puente-Solís, R., Canet, C., Centeno-García, E. and Atudoréi, V., 2009, Regional stratigraphy and distribution of epigenetic stratabound celestine, fluorite, barite and Pb–Zn deposits in the MVT province of northeastern Mexico, Mineralium Deposita, Springer, vol. 44, pp. 343 – 361.

Herrera, G., Negrete, D., Sinuhaji, A., 2018: Support Elements and Monitoring Design for San Javier Breccia, Sublevel Caving Mine at La Encantada Mine. Prepared for SME, 5 pp.

Hoek, E., Kaiser P.K. and Bawden, W.F., 1995: Support of Underground Excavations in Hard Rock, Balkema. 215 pp.

Ingeniería de Rocas LTDA (2013): Análisis Método de Explotación Mina La Encantada, October, prepared for First Majestic Silver Corp., 32 pp.

Itasca Consulting Group (2020): Update of Subsidence Analysis Associated with Caving at La Encantada Silver Mine, prepared for First Majestic Silver Corp. 63 pp.

Kiyokawa M., 1977, Investigación Geológico Minera de la Porción Nor-Occidental del Estado de Coahuila, Consejo de Recursos Minerales, 34 p.

Laubscher, D.H., 1990: A geomechanics classification system for the rating of rock mass in mining. Journal of the Southern African Institute of Mining and Metallurgy, Vol. 90, no 10. pp 257-273.

Lozano, C. G., 1981, Reconocimiento estratigráfico del area La Encantada, Ocampo, Coahuila, Reporte Interno, Peñoles SA. de CV.

Lozej, G. P., and Beals, F., 1977, Stratigraphy and structure of La Encantada Mine area, Coahuila, Mexico, Geological Society of America Bulletin, vol. 88, pp. 1793 – 1807.

Megaw, P., Ruiz, J., and Titley, S., 1988, High temperature, carbonate-hosted Ag-Pb-Zn (Cu) deposits of northern Mexico, Economic Geology and the Bulletin of the Society of Economic Geologists, v. 83, pp. 1856 – 1885.

Mendoza Reyes, R., Vazquez Jaimes, M.E., Velador Beltran, J. and Oshust, P., 2015: Technical Report on Mineral Resource and Mineral Reserve Update for the La Encantada Silver Mine Ocampo, Coahuila, Mexico, 247 pp.

National Instrument 43-101 Standards of Disclosure for Mineral Projects, June 24, 2011, 44 p.

Negrete, D., 2014: Informe Tecnico Barrenacion Larga San Francisco, Internal Report prepared for First Majestic Silver Corp., 10 pp.

Plumlee, G.S., Montour, M., Taylor, C.D., Wallace, A.R., and Klein, D.P., 1995, Polymetallic Vein and Replacement Deposits, in US Geological Survey, Open-File Report OFR-95-0831, Chapter 14, p. 121-129.

Ruiz, J., Sweeney, R., and Palacios, H., 1986, Geology and geochemistry of Naica, Chihuahua, Mexico, in Clark, K. F., Megaw, P. K. M., and Ruiz, J., eds., Lead-zinc-silver carbonate hosted deposits of northern Mexico, El Paso, Texas, Univ. Texas El Paso, Soc. Econ. Geologists Guidebook, pp. 305 – 310.

Sedlock, R. L., Ortega-Gutiérrez, F. and Speed, R. C., 1993, Tectonostratigraphic Terranes and Tectonic Evolution of Mexico, Geological Society of America, Special Paper 278, 153 p.

Solano B., 1991, Geology and mineralization of the La Encantada Mining District, Coahuila, Geological Society of America, The Geology of North America, vol. P-3, pp. 253 – 257.

Starling T., 2014, Structural Review of the La Encantada Mine, Coahuila, Mexico, Internal report prepared for First Majestic Silver Corp., 28 p.

Zonge Engineering and Research Organization, Inc., 2009, Geophysical Survey Report: Natural Source AMT Survey for the La Encantada Project, La Encantada, Coahuila, México, Internal Report Prepared for First Majestic Silver Corp., 35 p.