
MIRASOL RESOURCES LTD.

NI 43-101 TECHNICAL REPORT

AND

UPDATED MINERAL RESOURCE ESTIMATE

FOR THE

VIRGINIA SILVER PROJECT

IN SANTA CRUZ PROVINCE, ARGENTINA

Report Date: 15th October 2023
Effective Date: 30th October 2023

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PatagoniaGEOSCIENCES

October 2023

IMPORTANT NOTICE

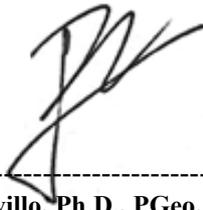
This report was prepared as a National Instrument 43-101 Technical Report by PatagoniaGEOSCIENCES (PGSc). The quality of information, conclusions, and estimates contained herein are based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended to be used by Mirasol Resources Ltd., subject to the terms and conditions of its contract with PGSc. Except for the purposes legislated under Canadian provincial and territorial securities law, any use of, or reliance on, this report by any third party is at that party's sole risk.

CERTIFICATE OF QUALIFIED PERSON

As the author of the “NI 43-101 Technical Report and Updated Mineral Resource Estimate for the Virginia Silver Project in Santa Cruz Province, Argentina”, with the effective date of 30 October 2023, I, Julio Bruna Novillo, hereby certify that:

- 1) I am Consultant Geologist at PatagoniaGEOSCIENCES (PGSc), 1305 Juncal, Montevideo (11000), Uruguay. e-mail jbruna_geo@hotmail.com;
- 2) I hold the following academic qualifications:

Geologist	National University of Córdoba, Argentina, 1993;
MBA	University Institute ESEADE, Argentina, 2009;
Ph.D. (Geology)	National University of Catamarca, Argentina, 2019.
- 3) I am registered at the College of Geologists of the Province of Córdoba (membership # A-759). In addition, I am a member in good standing of several other technical associations and societies, including Fellow AusIMM (CPGeo) Membership # 992246, CIM Membership # 152176 and Society of Economic Geologists, Fellow Member SEG # 104383;
- 4) I have worked as a geologist for 27 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Data Base, sampling, QA/QC, geological modelling 2D-3D, interpretation and genesis of the deposits. Experience ranging from greenfield-brownfield (PEA-PFS-FS) projects to operating mines, including geotechnical, metallurgical and hydrogeological studies.
 - Review and report as a consultant on numerous exploration, development, and production mining projects in South America for due diligence, audit and regulatory requirements.
- 5) I do, by reason of education, experience, and professional qualifications, fulfil the requirements of a Qualified Person as defined by NI 43-101 and CIM Standards. My work experience includes ten years as an exploration geologist for gold and base metal deposits, ten years as a mine geologist in open-pit mines, and more than seven years as a consulting geologist working in base metals, precious metals and lithium brines;
- 6) I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 7) I visited the Virginia Project from 31 August to 1 September, 2023.
- 8) I am responsible for the overall preparation of all Sections except Section 14. I am also responsible for parts of Sections 1, 25 and 26.
- 9) I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 10) I have had no prior involvement with the property that is the subject of the Technical Report.
- 11) I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- 12) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Section Numbers in 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.



Julio Bruna Novillo, Ph.D., PGeo, FAusIMM (CPGeo) (# 992246)

Principal Geologist

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Report Date: 15th October 2023

Effective Date: 30th October 2023

CERTIFICATE OF QUALIFIED PERSON

As the author of the “NI 43-101 Technical Report and Updated Mineral Resource Estimate for the Virginia Silver Project in Santa Cruz Province, Argentina”, with the effective date of 30 October 2023, I, José Antonio Bassan, hereby certify that:

- 1) I am Consultant Geologist at PatagoniaGEOSCIENCES (PGSc), 1305 Juncal, Montevideo (11000), Uruguay. e-mail bassanjo2005@yahoo.com;
- 2) I hold the following academic qualifications:

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Applied Geostatistics	Universidad de Chile, Mining Eng. Department, 2004;
MBA	Universidad del Norte Santo Tomás de Aquino & Universidad Católica de Valparaíso, Chile, 2005;
MSc Mineral Economics	Curtin University of Technology. Perth, Australia, 2009.
- 3) I am a member in good standing of several other technical associations and societies, including; Fellow AusIMM CP (Geo) Membership # 227922, CIM Membership # 151726 and Society of Economic Geologists, Fellow Member SEG # 919300;
- 4) I have worked as a geologist for a total of 26 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - From late 2008 until present, I have worked as an independent consultant in the mining industry, developing projects of base and precious metals, lithium deposits and industrial minerals. Key experience comprises project generation - assessment, geologic mapping, drill program design, development and supervision, QA/QC programs, database analysis, geologic modelling and resource estimation. I have worked in several exploration and production mining companies in Argentina, Chile, Peru, Mexico, USA, China, Philippines, Australia and Finland as an exploration geologist, grade control geologist and resource/reserve geologist.
- 5) I do, by reason of education, experience, and professional qualifications, fulfil the requirements of a Qualified Person as defined by NI 43-101 and CIM Standards. My work experience includes six years as an exploration geologist for gold and base metal deposits, five years as a mine geologist in open-pit mines, and more than fifteen years as a consulting geologist working in base metals, precious metals and lithium brines;
- 6) I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
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- 8) I am responsible for the overall preparation of Section 14. I am also responsible for parts of Sections 1, 25 and 26.
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- 10) I have had no prior involvement with the property that is the subject of the Technical Report.
- 11) I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- 12) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Section Numbers in 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.



José Antonio Bassan, MSc., PGeo, FAusIMM (CPGeo) (# 227922)
Principal Geologist
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Report Date: 15th October 2023
Effective Date: 30th October 2023

ACRONYMS AND ABBREVIATIONS

All units of measure in this Report are metric unless otherwise stated. All amounts are in US dollars (US\$) unless otherwise stated. A list of abbreviations is provided in the Table below, and a glossary of the mining and other related terms is in **Appendix 1**.

Name	Abbreviation
2-Dimensional	2D
Argentine Mining Geological Service	SEGEMAR
Australasian Institute of Mining and Metallurgy	AusIMM
Average	Avg
Canadian Securities Administrators	CSA
Canadian Dollar	CAD
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Cartesian Coordinates, also “Easting”, “Northing”, and “Elevation” (or “Cota”).	X, Y, Z
Centimeter	cm
Coefficient of Variation.	CV
Declaration of Environmental Impact or Declaración de Impacto Ambiental	DIA
Degree Celsius	°C
Environmental Impact Assessment	EIA
Environmental Protection Act	EPA
Exploratory Data Analysis.	EDA
Gram	g
Grams per tonne	gpt; g/t
Gold grades, in grams per ton.	Au
Hectares	ha
Environmental Impact Assessment or Estudio Impacto Ambiental	EIA
Kilogram	kg
Kilometres per hour	kph
Kilometre	km
Meters Above Sea Level	m asl
Million	M
Million tonnes	Mt
Mining Concession or Manifestación de Descubrimiento	MD
Mirasol Resources Ltd.	Mirasol (MRZ)
New York Stock Exchange	NYSE
National Route	RN
Ounce	Oz
Percent	%
Pound (s)	Lb
Parts Per Million	ppm
PatagoniaGEOSCIENCES	PGSc
Percent	%
Provincial Route	RP
Qualified Person	QP
Quality Assurance/Quality Control	QA/QC
Selective Mining Unit.	SMU
Silver grades, in grams per ton or ppm	Ag
Square Kilometers	km ²
Tonne	t
United States Dollars	US\$

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1.0 SUMMARY

1.1 INTRODUCTION

Mirasol Resources Ltd. (Mirasol) retained PatagoniaGEOSCIENCES (PGSc) to review and prepare an updated mineral resource statement for the Virginia property (Project) and provide an updated technical report (Report) under National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

Mirasol Resources Ltd. (TSX-V: MRZ) is a Canadian company incorporated in British Columbia with the head office in Vancouver, of mineral exploration targeting gold, silver and copper (Au, Ag, and Cu, respectively) deposits, mainly in the Atacama-Puna region of northern Chile and Argentina and the Santa Cruz Province of southern Argentina. Both regions are highly prospective and host many large-scale precious and base metal mines operated by some of the world's largest mining companies.

Mineral resource estimates were prepared following with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019) and reported in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM Definition Standards, 2014).

The principal consultants responsible for the Independent Summary and Review and the preparation of this Technical Report have extensive experience in the mining industry and have appropriate professional qualifications:

- Julio Bruna Novillo, Ph.D., PGeo, FAusIMM (CPGeo), Consultant with PatagoniaGEOSCIENCES (PGSc); and,
- José Antonio Bassan, M.Sc., PGeo, FAusIMM (CPGeo), Consultant with PatagoniaGEOSCIENCES (PGSc).

All units of measure in this Report are metric unless otherwise stated.

All amounts are in US dollars (US\$) unless otherwise stated.

1.2 PROPERTY DESCRIPTION, LOCATION AND MINERAL TENURE

The Virginia project is located in south Argentina in the Lago Buenos Aires department, the province of Santa Cruz, just center-west of the Santa Cruz province near the Bajo Caracoles. The area presents elevations ranging from 600 m asl to 1,100 m asl. The exploration and drilling described are centred at approximately the geographic coordinates of 47° 28' 43.81" south latitude and 69° 57' 19.57" west longitude.

The district Deseado Massif deposits are mainly Au-Ag-rich low to intermediate sulphidation epithermal quartz veins, minor stockwork veins, and breccias composed of multistage fracture

fillings. These deposits were formed to extensional to transtensional fault systems active during the Middle-Upper Jurassic rift-related tectonic regime and are mostly hosted in Middle-Upper Jurassic rhyolitic to andesitic volcanic and volcanoclastic rocks.

The Project is located approximately 406 km by road southwest of the coastal city of Comodoro Rivadavia. It is a roughly six-hour journey from Comodoro Rivadavia to the project site, passing through Caleta Olivia, Pico Truncado and Las Heras (211 km). From Las Heras, an important town with the closest services, travel about 52 km to the west, still on a paved road, until the beginning of Provincial Route N° 39, which heads south with a gravel surface but has been widened and consolidated until reaching the town of Bajo Caracoles. After going south for about 96 km along PR N° 39, you come to a detour to the local public road, narrower and less improved, which leads south for 47 km to the buildings of Estancia La Patricia, where the exploration works are based.

Mirasol Resources Ltd. holds the mineral property rights through a wholly-owned subsidiary company in Argentina named Minera del Sol S.A. The land tenure map is shown using the coordinate system Gauss Kruger Campo Inchauspe Zone 69, which is the legal reference datum and projection for mineral land tenure in the province of Santa Cruz.

Minera del Sol S.A. has purchased the surface rights to two ranches (Estancias), so it is now the owner of the surface rights over the Virginia Project area. In total, approximately 63,339.00 hectares were purchased for this purpose. Both ranches were inactive at the time of the purchase, with no livestock or residents, so the purchase caused no relocations. The Estancias purchased are known informally as the “La Patricia” and “8 de Agosto”. They cover all areas drilled to date in Virginia and those recommended for future work at the Virginia Silver Project.

PGSc and the QP offer no legal opinion about the validity of the title to the mineral concessions claimed by Mirasol, as PGSc and the QP are not qualified to comment on such matters.

However, Mirasol has provided PGSc and the QP with a Legal Opinion - Virginia Project dated 27 July 2023, from the legal firm of Ortiz & Macaluzzo, Lawyers, located in Mendoza, Argentina (Ortiz & Macaluzzo, 2023), and the Legal Opinion, reliance letter has been included as **Appendix 2**.

1.3 GEOLOGICAL SETTING AND MINERALIZATION

The lithology in the Virginia property is represented by Quaternary gravels, Tertiary marine sediments, and volcanic rocks of Jurassic age assigned to the Bahía Laura Group by Panza & Márquez. (1994). The Bahía Laura Group is regionally documented to encompass three formations, from oldest to youngest:

- The Bajo Pobre Formation comprises tuffs, flows, and sub-volcanic intrusive rocks of andesitic to basaltic composition.

- The Chon Aike Formation comprises rhyolitic rocks with ignimbritic pyroclastic facies and intrusive/extrusive flow domes.
- The La Matilde Formation is characterized by more epiclastic, water-lain, and aerially deposited ash-rich volcanoclastic deposits.

The age of the Bahía Laura Group is known to be Jurassic, but the precise age is still poorly defined. Panza & Márquez (1994) report Bajocian to Kimmeridgian ages, while Pankhurst et al. (2000) include some ages as old as 185 million years (Ma) (Pliensbachian). A growing database of ages at Cerro Moro shows that the volcanic sequence on the property spans a relatively short time, from 187 to 185 Ma (Pliensbachian), with some later subvolcanic rhyolitic rocks dated at 173 to 169 Ma (Bajocian).

The government's best available published geological mapping is presented at a 1:250,000 scale (Panza and Cobos, 2001). At this scale, the entire area of the mineral properties is mapped as being covered by the Chon Aike Formation, so it is not presented.

Mirasol has completed mapping the whole mineral properties for the first time. Mapping comprised field observation made at field stations around the property and then was compiled at 1:25,000 scale using the point observations with local mapping at greater detail and also remote sensing images including Landsat TM, Aster, Google Earth and World View in order of increasing pixel resolution from 30 m to <1 m.

The Virginia area is characterized by a sequence of felsic, probably rhyolitic, lava flows absent elsewhere in the map area. Associated with these flows are what appear to be sub-volcanic equivalents in the form of domes and also a sequence of felsic pyroclastic volcanic breccias and tuff. These units and the flows appear to be a co-magmatic series, although no petrologic work has been done to test this theory specifically. These related units appear to be overlain by an unrelated unit, an ash flow (ignimbrite), which is also felsic but notably different. It is characterized by a very strong cleavage, typically sub-vertically oriented, which is absent in the underlying units and is interpreted to be induced by cooling. This ash flow effectively separates the Virginia area from the Santa Rita area.

The stratigraphy in the Santa Rita area is unlike that of Virginia. No rhyolite flows are present, and the dominant rock types are felsic ignimbrites. Again, circular structures appear to be present and control the distribution of some of the volcanic units.

The Virginia Window and Santa Rita are the two known areas of mineralization on the Virginia Project, while epithermal in origin, contain markedly different mineralization styles and textures. The differences in host rocks and mineralization styles, along with the 15 km distance separating the two areas, suggest that the two occurrences likely represent different hydrothermal events.

Virginia Window sector presents veins typically dark-coloured with abundant iron and manganese oxides such that the outcrops appear almost black from a distance. The veins

comprise quartz, specular hematite, earthy iron oxides, and manganese oxides, and only very rarely are any sulphides visible, and they are invariably galena. Quartz textures range from chalcedonic quartz to saccharoid to colloform banded and rarely crystalline. Occasionally, pseudomorphs of quartz are seen after barite and/or calcite. The veins are multi-stage, and in many cases, fragments of banded and massive veins are seen in veins/breccias. These vein breccias, typically containing fragments of banded and massive quartz in an iron-rich silica matrix, are common, indicating multiple stages of re-breaking associated with multi-stage vein emplacement and/or tectonic overprints, the latter generally indicated by the presence of vein quartz and/or vein breccia fragments in a clay-rich matrix of fault gouge. The vein outcrops within the Virginia Window are quite spectacular, locally jutting more than five meters above the surrounding gently rolling grassy topography.

The Virginia veins are characterized by very strong silver values, with gold often below the detection limit according to the analytical method (50 ppb).

Mineralized vein outcrop widths range from one to five meters. Vein outcrops, subcrops, and vein float can be traced for hundreds of meters of strike distance. Nearly all veins present an orientation of approximately N20°W (340°Azimuth), with the main exceptions being the Julia South, Ely South, and Ely North, which strike approximately N10°E (10° Azimuth). Vein dips generally range from sub-vertical to -70 ° west, except for the Ely North and Ely South, which dip 65° to 75° east-southeast.

Silver mineralization consists almost entirely of acanthite, which occurs in banded veins, multi-state veins and vein breccias, with silver grades locally reaching “bonanza” levels (125 individual silver assays were greater than 1,000 gpt silver). However, gold content is low, with only three gold assays over 1.0 gpt Au, the highest of which was 1.56 gpt Au. Base metal mineralization is limited to sparse amounts of galena. The silver grades do not extend very deep in the veins of the Virginia system, reaching only 75-100 m deep in the Julia Central, 40-100 m in the Julia Norte, 50-75 m in the Julia Sur, 30-75 m in the Naty, 50-150 m in the Ely Sur, 50-125 m in Ely Norte, 75-100 m in the Martina Vein, 50-75 m in the Ely Central, 50-75 m in the Margarita. In addition to silver, abundant iron and manganese oxides are present in the various Virginia veins, along with local scattered amounts of arsenic, antimony, and mercury, with the latter three typically found in epithermal deposits in varying amounts.

More than 15 veins have been mapped, sampled and drilled according to the ranking of targets defined by Mirasol (Kain, 2012), which include: the Julia South, Julia Central, Julia North, Ely South, Ely Central, Ely North, Margarita, Roxane, Naty, Naty Extension Martina NW, Martina Central, Daniela, Patricia, Mercedes and Maos-Johanna. significant intercepts in extensions of the main veins-breccias (Ely Central, Ely North, Martina NW, Julia South and Margarita)

The mineralization in Santa Rita is distributed in two sectors, one of them called Santa Rita East, whose characteristic is the presence of subvertical quartz veins and veinlets of a general NW direction and thickness variable between a few cm up to approximately 6 m, with an extension of 2.5 km, forming a stockwork that a maximum development of 35 m of wide. These

structures are characterized by presenting a solid texture of saccharoidal silica to crystalline quartz and with little mottling of limonite-type iron oxides. Eventually, textures are observed in breccia formed by clasts of host rock cemented by silica.

The other sector, Santa Rita Main or Santa Rita Breccia, consists of a body with a breccia texture about 500 m long by approximately 20 m wide in sectors and a general NW orientation. Santa Rita's Main mineralization is characterized by white chalcedonic to crystalline quartz veins with low sulphide and iron oxide content generally, with low to moderate silver values and typically some low values in gold. Associated with those veins are rare grey chalcedonic quartz with abundant, fine-grained pyrite, which contains much higher silver values and, again, subordinate gold. Quartz replacements of bladed carbonates are sometimes seen. The textural characteristics and alterations suggest an origin from a superficial hydrothermal system.

In the opinion of PGSc and the QP, the knowledge of the deposit settings, lithologies, structural, and alteration controls and mineralization style are sufficiently well understood to support the current Mineral Resource estimation at the present stage of the property development.

1.4 EXPLORATION

The rock chip samples and the trenching and drilling programs of the Virginia Project focused on testing the potential for new silver zones to expand the existing NI 43-101 resource. All the drilling, except for the holes at the Magi target, focused on untested areas and potential strike extensions along the most known trends hosting the current resource. The program also tested outlying targets not part of the current resource and where trenching has detected silver anomalies with good underlying geophysical support (Mirasol, 2020).

Work completed includes geological mapping, geophysics, surface rock sampling, core drilling, preliminary metallurgical testwork, and mineral resource estimation.

PGSc and the QP have reviewed the exploration work conducted by Mirasol and believe that the Project warrants further exploration to validate and expand on the existing mineralization and identify other mineralized zones on the property to determine the drilling targets to be developed in posterior phases, as well as identify different mineralized zones on the property.

In the opinion of PGSc and QP, the exploration programs completed to date are appropriate for the style of the deposits and prospects within the Project. The strike extent of presently-known veins is likely to be extended with additional drilling in areas of subdued topography and under post-mineral cover. Numerous instances of quartz veins and silicified rock with anomalous silver values remain to be thoroughly evaluated in the Project area.

1.5 DATA VERIFICATION

PGSc and the QPs inspected the drill holes in the section and plan view to review geological interpretation related to the drill hole database and found an acceptable correlation. The scope of the site inspection was to discuss and analyze during the visit general data acquisition

procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralization, structural characteristics, Mineral processing and metallurgical testing, mineral resources estimating, drill pads, core storage, an inspection of drill core recovery and mineralization, infrastructure and permits collected by Mirasol.

PGSc has not collected samples for independent assays for the second drilling campaign (2020-2022). The reason for not verifying is that all its phases of drilling were published in new releases Mirasol uploaded to SEDAR+ and on the company's website, and this is considered sufficient for the QP as evidence of the presence of economic grades of mineralization.

The site visit to the Virginia Properties to complete the NI 43-101 requirements was conducted from 31 August to 1 September, 2023, by Julio Bruna Novillo, CPG and José Antonio Bassan, CPG. Both are independent consultants, Certified Professional Geologists (CPG), Australasian Institute of Mining and Metallurgy members, and Fellow Chartered Professionals in Geology (FAusIMM, CPGeo). PatagoniaGEOSCIENCES (PGSc) is based in Montevideo, Uruguay.

PGSc and the QPs, based on the data verification performed, have an opinion that the collar coordinates, downhole surveys, lithologies, mineralization and assay results comply with industry standards and are adequate for Mineral Resource estimation.

1.6 MINERAL PROCESSING AND METALLURGICAL TESTING

Between 2012 and early 2013, an initial metallurgical testing (scoping study level) of vein and vein breccia and low-grade “halo” mineralization that surrounds the higher-grade vein and vein-breccia from the Virginia deposit was conducted by Blue Coast Metallurgy Ltd. (Blue Coast) at that company’s facility located in Parksville, British Columbia, Canada, under the supervision of Chris Martin, C. Eng, Principal Metallurgist with Blue Coast. The test work completed by Blue Coast focused on froth flotation, cyanidation and combinations of the two to recover silver from the host rock. In addition, a Bond Work Index hardness test was performed on a composite consisting of ¼ core from the Julia North vein to provide comminution energy consumption data, and a mineralogical analysis was performed at Process Mineralogical Consulting to provide information on the nature and occurrence of the various silver phases.

In summary, the vein-breccia samples have shown they respond well and can be processed using standard industry technologies with silver recoveries from 75% to 81% through both agitated leaching and sequential flotation/leaching methods.

Metallurgical recoveries on the halo composite of low-grade mineralization surrounding the Julia North, Central, South, and Naty veins do not achieve those of the vein/breccia material using similar tests and conditions to those described above. Mineralogical studies combined with the metallurgical test results suggest that the halo contains some acanthite, which is being recovered. However, most silver in the halo is present in other minerals that have yet to be specifically identified. In the testing done to date, metallurgical recoveries are very low of the

contained silver (Blue Coast, 2013). At the present time, the low-grade halo should not be considered as a potentially economic material (Earnest & Lechner, 2016).

PGSc and the QP are in complete agreement with Blue Coast's conclusions. They believe that at this time, the low-grade halo mineralization adjacent to Virginia's veins presents a consistently low average grade of this material (55 gpt Ag) with very low recoveries ($\leq 22\%$) achieved in the metallurgical test work completed to date. However, because of the significant volume of this material in the Virginia Project, metallurgical testing is warranted to try and develop a suitable processing method for this material that might improve recoveries.

Samples used for the preliminary testing are not considered to be representative of the entire deposit. Mirasol must continue with metallurgical tests and include samples that involve all known vein sectors. The composite quantity must ensure that the tests were carried out with an adequate sample mass and include the different types and mineralogy of the Vein/Breccia and Halo domains and their blending in the identified vein sectors.

There is no ubiquitous occurrence of arsenic, antimony, or mercury in the various veins, but some localized anomalous values exist. Assessing the materiality of potentially deleterious items at this project stage is difficult. Future studies would need to be completed to make that assessment.

1.7 MINERAL RESOURCE ESTIMATES

José A. Bassan, PGeo., PGSc, reviewed and validated the resource model previously prepared and, based on that review, prepared an updated mineral resource statement.

This update was based on a geological model delivered by Mirasol Resources Ltd.

The database for the estimation of mineral resources consists of 223 historical drill holes with 23,116.55 m, drilled from 2010 to 2012, and 191 channel samples with 95.67 m reported in the document declared on SEDAR+ (Earnest & Lechner, 2016). The holes corresponding to the Silver Mineral Resource Estimate update developed in this report incorporate 70 new drill holes from 2020 to 2022, totalling 10,247 m.

Collars, downhole surveys, assay, lithologies, densities and RQD data were processed and managed with HxGN MinePlan® & MSTorque Manager software, a commercial mining program rented from Hexagon's Mining division (<https://hexagon.com/legal>, client: AR2050).

The update of the new drillings carried out in 2020-2021-2022 does not require restriction for low or bad RQD drillings (poor core recovery).

In general, the topography is acceptable for the work carried out at this exploration stage. However, the entire topography must be adjusted to have better precision with contour lines at 1 m according to the type of deposit of the Virginia Project.

Block density estimation was performed by PGSc, using the inverse distance weighting method to the third power (ID3). The density measurement data are fitted to the geologic wireframes and are encoded in the solids of Vein/Breccia, Halo/Undefined, where the estimate is generated.

The density is not a simple assignment but is estimated as a first option and provides more representative and spatially distributed values according to the anisotropies of the different veins-breccias and halos.

The dilution observed and characteristic at this stage at this project stage is the Geologic Contact Dilution, which refers to the loss of minerals resulting from material extraction with different geological characteristics. It occurs in the transition (contact) between domains of different grades. Contact dilution may be the most important type in reservoirs with more complicated geometries, such as veins with strong structural controls.

The quantification and control of dilution begin with the geological information from drilling, geological mapping, a minimum unit of geological interpretation (0.25-0.50 m) and the final coding to the block model through one of the most commonly used methods in the industry mining, such as subcell coding.

This method ensures that no empirical factors or limits are included in the geological model, respecting the contacts according to Vein/Breccia and Halo according to the minimum unit of geological interpretation modelled by the Mirasol geology team.

The Virginia Project Silver Mineral Resource model update was consolidated into a single block model where all mineralized vein systems are located under a single file (15) within the Minesight® software.

- Minimum Easting: 2,427,000 E;
- Maximum Easting: 2,430,200 E;
- Minimum Northing: 4,737,700 N;
- Maximum Northing: 4,742,100 N;
- Minimum Elevation: 700 m;
- Maximum Elevation: 1,100 m.

Keys defined within this single Recoverable Resource block model:

1. **Non-rotated model:** rotation will not be necessary due to the inclusion of 0.50 m subcells for each of the x, y, and z axes in a uniform block size of 2 m x 2 m x 2 m.
2. **Elevation:** is the crest elevation of the top bench in the model.
3. **Envelope:** the use of a single envelope that sufficiently exceeds the limits of the different Vein/Breccia and Halo domains and in the x, y, and z axes, including each of the mineralizing systems and in this way, the block model is compressed so that it remains easy to use. In this compression, the Minesight software tool “Model Manager/ File is compressed” was used.

4. **Grade and Density:** the subcell block sizes between 2.00 m to 0.50 m in the x, y, and z axes were estimated. The models delivered to Mirasol for Open Pit are the final, diluted and reblocked in final parent block size 2m x 2m x 2m. The categorical variables, domains vein/breccias, halo and undefined in the reblock, are calculated as the majority assignment of these domains from the subcells towards the final parent block.
5. **Open Pit model:** the official Resource Model has a parent block of 2 m x 2 m x 2 m. NI 43-101 defines a mineral resource as that portion of the mineral inventory that has reasonable prospects for economic extraction.
6. Not all blocks inside the Vein/Breccia and Halo domains have been estimated and assumed to have a 0.0 gpt grade. This is due to the limitation imposed by the search ellipsoids and drillhole spacing, which generally do not fill the volume defined by domains. All blocks have a density value.
7. The Ordinary Kriging run performed outside of Vein/Breccia and Halo domains was done mostly to provide Mirasol with additional information regarding those areas away from the main zones. It does not impact the reported resources as they are mostly not contained within the ultimate pit.

Variograms for silver grade and indicator variograms for the Vein/Breccia domain were generated by combining the Ely North-Ely Central-Ely South sectors using both Minesight® and Sage2001® software. The required variography is a function of the estimation method chosen, in this case, the Indicator Modified Ordinary Kriging (IMOK) method only for Ely's combined sector.

The Inverse distance weighting to the third power (ID3) estimation method was used for the rest of the mineralized systems. For the IMOK and the ID3, the three passes were configured so that the search strategy was from smaller to larger volumes seeking to minimize the smoothing of the silver grade estimate using higher outlier restriction, minimums, and maximums of composites and drill holes.

The nearest neighbour model was constructed for silver using the same search parameters used for the inverse distance and IMOK models. The nearest neighbour model was compared with the inverse distance and IMOK model to check for possible biases.

The most important factors that determine the resource classification scheme at the Virginia Project are:

1. Factors such as geologic characteristics and the continuity of Ag mineralization have been confirmed.
2. In the upper parts of the deposit, lateral extents of the mineralized vein breccias to constrain grade estimation can be interpreted confidently for no less than two cross sections at a time, or the equivalent of 50 m-60 m.
3. The anticipated grade ranges for the new drilling were found in the general areas and at levels as expected.

4. The characteristic of the mineralization at the Virginia project is such that it can be considered a medium-high grade in the Vein/ Breccia, bulk-minable deposit at this stage.
5. As the high-grade increases, the drilling indicates a slightly lower variability. The database's CV decreases significantly, mainly in the Vein/Breccia. The current drill spacing within the Open Pit (Reasonable Economic Extraction) area is of acceptable-good density and compares well with other projects of Ag at this stage.
6. At lower levels and laterally of the deposit, near the ultimate pit (Reasonable Economic Extraction) and below-laterally, drill hole density drops rapidly. The current classification downgrades mineralization below certain levels to highlight the increased uncertainty in lower data density levels and provide drilling targets in the near future.
7. In Julia Norte in the previous report (Earnest & Lechner, 2016) to this update, there was detailed work regarding the classification of the category indicated in this update the criteria stated in the points were applied to previous results, concluding that about 70% of the resources indicated in this update correspond to those previously classified, with the criteria used in the past prevailing for Julia Norte. In any case, a greater drilling density will improve the future geological classification confidence.

Extensive graphical validation was completed on the 2023 resource block model for every Vein/Breccia and Halo domains. These included cross-sections and plans that were used to check the block model on the computer screen, check the block grades with the nearby composites, the composite data itself, the topographic surface, reasonable prospects for economic extraction, and finally, the volume within which the interpolation took place were checked. No evidence of any block being wrongly estimated was found. Every block grade can be explained as a function of the surrounding composites; the correlogram models used for Ely North-Central-South, the Indicator Modified Ordinary Kriging (IMOK) applied, and the Inverse distance weighting to the third power (ID3) estimation plan was used for the rest of the Vein/Breccias, Halo and Undefined systems.

Several statistical analyses were also used to validate the 2023 model. The declustering of the 2 m composites was achieved using a Nearest Neighbor (NN) model. There is a very close comparison between the ID3 & IMOK, and NN, less than 5% for grades for Indicated material and a reasonable comparison for Inferred material, and more drilling data should improve the estimate of Inferred material.

Resources have been classified using a multi-stage approach. Initially, the basic criteria used were a function of the data spacing/density; secondly, additional criteria to take into account increased risk at depth were introduced; finally, a solid (shell) for each category was developed to obtain the final triangulations, which are further smoothed and can also be used to tag both the Open Pit Resource model (Reasonable Economic Extraction).

The estimated Mineral Resources were constrained to a pit shell (optimized using a Lerchs-Grossman algorithm) and were generated using parameters outlined in **Table 1-1**.

Table 1-1: Conceptual Pit Parameters for Resources

Parameter	Value
ORE: 1 (Vein/Breccia)	
Silver price (US\$/oz)	25
Ag recovery (%)	80
Mining cost (US\$/tonne)	5
Processing cost (US\$/tonne)	30
G&A cost (US\$/tonne)	4
Pit slope angle (degrees)	50
ORE: 2-3 (Halo/Undefined)	
Ag recovery (%)	22

Source: PGSc, 2023.

The cut-off is based on the generally accepted practice that a decision is made at the pit rim if mined material above the cut-off grade will lose less money if it is sent to the mill rather than if it is sent to the waste dump. It is considered for further processing if it contains a value that is greater than the costs to process it. The assumed preliminary metallurgical recovery is 80% for Vein/Breccia and 22% for Halo/Undefined.

Based upon the cut-off grade, PGSc has chosen a silver cut-off grade of 65 gpt for reporting Mineral Resources potentially amenable to an open pit mining method (**Table 1-2**).

In the Halo/Undefined zone with a recovery of 22%, the resource pit declared in this report uses the Conceptual Pit Parameters, that they can be recovered with a cut-off grade ≥ 250 gpt Ag @ 536,000 Oz of inferred resources. These inferred resources are mainly visualized in contact with the Vein/Breccia bodies in the Halo, quantifying the need to continue incorporating metallurgical analyses that should be developed in the Virginia project to increase not only the confidence of the silver resources in the project but also to evaluate the metallurgical behaviour in the recovery of silver in the different Vein/Breccia domains and mainly in Halo/Undefined.

The Mineral Resource estimates of the Virginia Project located in Santa Cruz, Argentina, were prepared following the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019) and reported in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM Definition Standards, 2014).

The **Table 1-3** have been rounded to reflect that the mineral resource estimate is an approximation. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There are no mineral reserves presently identified on the Virginia Project.

Table 1-2: Vein/Breccia, Diluted Indicated and Inferred Mineral Resource Tabulation

Deposit	Indicated				Inferred			Indicated & Inferred		
	Code/ Prj	Vein/Breccia			Vein/Breccia			Vein/Breccia		
		Tonnes (000)	Ag (gpt)	Ag Oz (000)	Tonnes (000)	Ag (gpt)	Ag Oz (000)	Tonnes (000)	Ag (gpt)	Ag Oz (000)
Julia South	1	93	420	1,250	29	162	153	122	358	1,403
Julia Central	2	247	278	2,207	105	158	532	352	242	2,739
Julia North	3	432	478	6,644	4	286	38	436	477	6,682
Naty	4	31	165	166	219	166	1,169	251	166	1,335
Ely North	5	73	132	310	254	105	861	327	111	1,171
Ely Central	6	57	302	558	366	253	2,975	423	260	3,533
Ely South	7	70	201	451	171	152	833	241	166	1,284
Margarita	8	---	---	---	84	318	861	84	318	861
Martina SE	9	12	188	72	94	143	431	105	148	503
Martina SW	10	---	---	---	---	---	---	---	---	---
Daniela	200	---	---	---	---	---	---	---	---	---
Patricia	600	---	---	---	---	---	---	---	---	---
Undefined	9999	---	---	---	---	---	---	---	---	---
Total		1,016	357	11,659	1,326	184	7,853	2,342	259	19,512

Source: PGSc, 2023.

Note: Martina SE is Martina trend, including MSE, MC and MNW.

Code/Prj: Code is different from a Prj. The Prj (1 to 10, 200, 600 and 9999) combines as the final categorical Code the Vein/Breccia (1 to 10, 200, 600) + Halo/Undefined (11 to 100, 2000, 6000, 9999) by deposit.

Table 1-3: Mineral Resource Statement

Category	Tonnes (000)	Ag Grade (gpt)	Contained Metal Ag Oz (000)
Indicated	1,016	357	11,659
Inferred	1,370	190	8,389

Notes to accompany Mineral Resource Table:

- The Qualified Person for the estimation is MSc José A. Bassan, PGeo., a PGSc independent consultant. Mineral Resources have an effective date of October 30, 2023.
- Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- The QP has determined that the material has reasonable prospects of economic extraction by constraining the Mineral Resource estimate within an optimized pit with a maximum slope angle of 50°. A metal price of US\$ 25/oz was used for silver. A preliminary metallurgical recovery of 80% for Vein/Breccia and 22% for Halo/Undefined was applied based on testwork completed by Blue Coast Research in 2013. A 65.00 gpt silver cut-off for Vein/Breccia and 250 gpt silver for Halo/Undefined was estimated based on a total process and G&A operating cost of 39 US\$/t of ore mined.
- Domains were modelled in 3D to separate mineralized Vein/Breccia and Halo/Undefined from surrounding waste rock. The domains were modelled based on vein-breccia & lithology veining and silver grade continuity.
- Raw drill hole assays were composited to 2.00 m lengths broken at domain boundaries.
- Spatial restriction after a composite of high grades was considered necessary and was completed for each Vein/ Breccia and Halo/Undefined domain. The high-grade spatial restriction for the Vein/Breccia was 3.00 m and 15.00-10.00 m for Halo/Undefined.
- Block grades for silver were estimated from the composites using ID3 and IMOK interpolation into 2 m x 2 m x 2 m & minimum subcell 0.5 m x 0.5 m x 0.5 m blocks coded by domain.
- A dry bulk density was estimated from the samples using ID3 into 2 m x 2 m x 2 m & minimum subcell 0.5 m x 0.5 m x 0.5 m blocks coded by domain, and the non-estimated blocks were assigned a density value of 2.44 t/m³ and 2.09 t/m³ for Halo/Undefined.
- Blocks were classified to the Inferred category in accordance with CIM Definition Standards 2014.
- Inferred blocks for the main veins have been estimated within an ellipsoid that is 70 m x 50 m x 20 m (along-strike, across-strike, and dipping for the major vein breccias), with a minimum of 3 composites and one drill hole used, and 12 composites maximum defined. Indicated blocks have been estimated within an ellipsoid that is mainly 50 m x 25 m x 10 m (along-strike, across-strike, and dipping for the various vein breccias), with a minimum of 5 composites and three drill holes used, and ten composites maximum defined.
- The contained silver figures shown are in situ. No assurance can be given that the estimated quantities will be produced. All figures have been rounded to reflect accuracy and to comply with securities regulatory requirements. Summations within the tables may not agree due to rounding.
- The quantity and grade of reported Inferred resources in this estimation are conceptual, and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured Mineral Resource. There is a reasonable expectation that most of the Inferred Mineral Resources can be upgraded to Indicated with continued exploration and depending on factors that may affect the Mineral Resource Estimate.
- Tonnage and grade measurements are in metric units. Contained silver ounces are reported as troy ounces.

The primary differences between the current PGSc estimate and the February 2016 Resource Evaluation Inc. (REI) and Resource Modeling Inc. (RMI) (Earnest & Lechner, 2016) estimate are:

- The geological interpretation, where PGSc used bounding volumes from Mirasol within the: lithology (Vein/Breccia) > grade silver continuity (Halo) and a minimum width of 0.25-0.50 m, new veins mainly and old veins reinterpretation versus grade silver continuity (Halo) > Lithology by REI-RMI.
- PGSc uses Subcell blocks (2m x 2m x 2m, 0.5m x 0.5m x 0.5m), direct geologic contact dilution into the resources, versus dilution ± 1.00 m from the vein, deterministic boundary by REI-RMI.
- PGSc uses the inverse distance squared (ID3) method and assigns values (not estimated blocks, mean \pm 3SD) from Density samples, versus only assigning values 2.10 g/cm³ Halo and 2.52 g/cm³ by REI-RMI.
- PGSc uses the inverse distance (ID3) estimation and IMOK (Indicator Modified Ordinary Kriging) for Ely South–Central–North, whereas REI-RMI uses only ID3.
- Minimum composite for pass 1 + 2 (#4 - #5 & 2–3 holes) versus minimum one composite used only by REI-RMI.
- PGSc uses a distance outlier restriction of 3 m for Vein/Breccia, 15 m Halo and 10 m Undefined, versus capping and outlier distance restriction used by REI-RMI.
- The differences in defining the categorization of the mineral resources.
- Not rotated block model for 2023 versus 2016 rotated block model.
- Reasonable Prospects of Economic Extraction Vein/Breccia 80% and Halo 22% versus 80% (vein breccia + 1.00 m diluted Halo) used by REI-RMI.

1.8 INTERPRETATION AND CONCLUSIONS

Mirasol Resources Ltd. commissioned the Qualified Persons responsible for this technical Report to review all the available geological information such as geology, geochemical, geophysical, surface trenching and diamond drill core sampling about the Virginia Project (located in the province of Santa Cruz, Argentina) and to compile and update all available information in conformity with compile and update all available information in conformity with CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (2014 and 2019) and to define, validate and update the Silver estimated resources in the mineralized sectors and identifying new sectors by carrying out various stages of exploration in the future.

Mirasol has a very developed system of procedures and protocols that have been implemented, modified and improved over the company's more than twenty-year history of exploration in the Deseado Massif used in the Virginia Project.

PGSc and the QPs believe that there is one risk to the Virginia Project that includes:

- Testwork preliminary on the Halo zone has indicated that most of the silver within this zone is highly refractory to conventional recovery techniques such as flotation,

cyanidation and gravity. Insufficient data relating to geometallurgical considerations used during the modelling and the low-grade halo mineralization that is present adjacent to Virginia's veins present a consistently low average grade of this material (55 gpt Ag) with very low metallurgical recoveries for the contained silver (Blue Coast, 2013). Currently, the low-grade halo should not be considered a potentially economic material (Earnest & Lechner, 2016). However, because of the significant volume of this material in the Virginia Project, metallurgical testing is warranted to try and develop a suitable processing method for this material that might improve recoveries.

This factor represents a high level of risk and thus could impact the project's economics. To assist in mitigating this risk, the following recommendation is proposed:

- Review geometallurgical factors for future resource models, e.g., include recovery variables within the model to report recovered metal. This work would require more extensive metallurgical test work and include samples involving all known vein sectors because samples used for preliminary testing are not considered representative of the entire deposit. The composite quantity should ensure the tests were carried out with an adequate sample mass. It should include the different types and mineralogy of the Vein/Breccia and Halo domains and their combination in the identified vein sectors. There is no ubiquitous occurrence of potentially deleterious items arsenic, antimony, or mercury in the various veins/breccias, but there are some localized anomalous values. Future studies would need to be completed to carry out this evaluation and assess these elements' materiality. Testing work should continue to focus on froth flotation, cyanidation and combinations of the two to recover silver from the geological domains, bond work index hardness testing on a composite consisting of ¼ core of the vein to provide comminution energy consumption data and to continue with mineralogical analyses (EPMA & LA-ICP-MS or other techniques), that Mirasol has requested the Institute of Applied Economic Geology, University of Concepción, Chile, to provide information on the nature and occurrence of the various silver phases, mainly in the low-grade “halo” mineralization that surrounds the higher-grade vein/breccia in the Virginia deposit.

Other than the comment and potential risk discussed above, PGSc is not aware of any other factors (including environmental, permitting, legal, title, taxation, socio-economic, marketing, and political) which could materially affect the exploration data or the exploration potential of the Project as presented in this report.

In the opinion of the responsible QPs, the following interpretations and conclusions are appropriate to the project's current status:

- Information from legal experts supports that the mining tenure held is valid and sufficient to support a declaration of Mineral Resources.
- There is no awareness of any significant environmental, social or permitting issues that would prevent continued exploitation of the Project deposits.

- Knowledge of the deposit settings and lithologies, as well as the structural and alteration controls on mineralization and the mineralization style and setting, is sufficient to support Silver Mineral Resource estimation;
- Deposits within the Property are considered to be examples of epithermal gold-silver deposits. The mineralization suggests that the Virginia Project is of low-intermediate sulphidation epithermal type.
- The exploration programs completed to date are appropriate for the style of the deposits and prospects within the Project. The strike extent of presently-known veins is likely to be extended with additional drilling in areas of subdued topography and under post-mineral cover. Numerous instances of quartz veins and silicified rock with anomalous silver values remain to be thoroughly evaluated in the Project area.
- The quantity and quality of the lithological, geotechnical, collar and down-hole survey data collected during the exploration and delineation drilling programs are sufficient to support Mineral Resource Silver estimation. The collected sample data adequately reflect deposit dimensions, true widths of mineralization, and the style of the deposits. Sampling is representative of the metal grades in the deposit, reflecting areas of higher and lower grades.
- The QA/QC programs adequately address precision, accuracy and contamination issues. Drilling programs typically included blanks, duplicates and CRMs samples. QA/QC submission rates meet industry-accepted standards. The QA/QC programs did not detect any material sample biases.
- Exploration potential remains within the extensive Virginia Property. The veins for which Mineral Resources have been estimated to date are still deemed to have the potential for expansion either along strike or down dip. Regionally, the epithermal low-intermediate sulphidation silver-bearing quartz veins occur in two belts, west and east. Significant potential exists to increase the known mineralization of the western sector by continued drilling of the known quartz veins with silver (Julia, Naty, Ely, Martina, Margarita, etc.). Exploration of known veins east sector in the south and north sectors is also continuing (Jazmin, Maos, Florencia, Johanna, Magi, Daniela, and Patricia). Continue geological mapping, sampling and prospecting between the north, east and south sectors in the central portion of the Project that will focus on extending mineralized zones beneath relatively thin post-mineral cover and in unexplored Virginia Main Window and underexplored Santa Rita and Flecha Rota zones.
- Factors that may affect the Mineral Resource estimates include silver price, assumptions used in the LG (Lerchs-Grossman) shell constraining Mineral Resources, including mining, processing and G&A costs, metal recoveries, and pit slope angle.

1.9 RECOMMENDATIONS

Mirasol has defined the main objectives for the next drilling campaigns in the Project: to increase inferred resources and upgrade current inferred resources to indicated status. It's important to highlight that the immediate focus is not on developing measured resources.

The future goal is to expand inferred resources, which involves advancing exploration and subsequent drilling in prospects with the highest potential and geological evidence by developing new targets with no drilling to date or with limited development, such as Roxanne, Daniela, Patricia, Maos, Magi, Florencia, Johanna, Jazmin, as well as Santa Rita Central and Santa Rita East.

In conclusion, future drilling objectives for the Virginia Project are centred on significantly increasing inferred silver resources and converting existing inferred resources to the indicated category, strengthening the project's resource base for future development opportunities. These objectives align with a commitment to maximizing the project's potential while maintaining a strategic and prudent approach to resource development.

Mirasol proposes to develop the following exploration program with drilling at the Virginia property and plans to spend US\$ 2,100,000 in exploration Phase I for 2024 (7,000 m of diamond drilling), and another US\$ 3,000,000 during its exploration Phase II for 2025 (10,000 m of diamond drilling) for a total preliminary budget of US\$ 5,100,000 in the two phases.

PGSc considers that Mirasol exploration programs are conducted to rigorous standards concerning the exploration data collection. Through exploration of the Virginia property, Mirasol continues to identify the extent of the mineralization contained therein and believes that it will be able to expand the mineral resource base for the property in depth and beyond the area containing the Virginia deposit.

PGSc has reviewed the Mirasol proposal for further work and makes the following additional recommendations to assist Mirasol in its exploration and resource estimation processes:

1. The available information and data should be organized to implement an adequate data management system. A robust and auditable base ensures the reliability and integrity of the data. This will facilitate the interpretation, acceptable use and benefit of previous and future information generated for the Project.
2. Determine the textural and mineralogical relationships in drill core samples, which will allow for identifying the different pulses of mineralization precipitation in the Virginia deposit's different Vein/Breccia and Halo domains.
3. Use a portable infrared mineral analyzer to accurately identify and map alteration mineral assemblages and clay species determination, which is essential to understanding and exploring hydrothermal ore deposits. Data collection must be systematically organized and carried out by a trained operator.
4. Interpret and build a structural model 2D-3D with styles and formation of ore shoots that is the basis and used as support for estimating recoverable resources. The structures with dilatation zones promote fluid flow, host elevated metal grades and wider veins, and sites of fluid mixing at structural intersections.
5. Use an HQ3 triple tube configuration to provide and assure maximum recovery, primarily of the mineralized structures and ensure the representative nature of the samples.

6. Generally, the topography is acceptable for the work carried out at this exploration stage. However, the entire topography must be adjusted to have better precision with contour lines at 1 m according to the type of deposit of the Virginia Project.
7. Prioritize the collection of field duplicates for precision control in these exploratory stages, given that if carefully collected and analyzed at the same laboratory by the same procedure, these splits can estimate the variance contributed by the entire sample collection, preparation and assaying process. The original and duplicate must be represented by 1/4 (HQ diameter) sawn core samples, and 1/2 must be left backup in the wooden box.
8. Continue with the bulk density determination testing in the core shed on each core sample collected, and 10% should be sent to an external laboratory for quality control and measurement validation.
9. Continue with metallurgical tests and include samples that involve all known vein sectors. The samples used for the preliminary metallurgical testing analyses are not considered to be representative of the entire deposit. The composite quantity must ensure that the tests were carried out with an adequate sample mass and include the different types and mineralogy of the Vein/Breccia and Halo domains and their blending in the identified vein sectors.

2.0 INTRODUCTION

2.1 TERMS OF REFERENCE

At the request of Mr. Tim Heenan, President of Mirasol Resources Ltd. (TSX-V: MRZ) (the “Company” or “Mirasol”), PatagoniaGEOSCIENCES (PGSc) has been retained to provide an Independent Review of its resource estimates and prepare an update of its Amended Technical Report, Virginia Project, Santa Cruz Province, Argentina ("Virginia Project" or "the Project"), of February 2016.

Mirasol is a Canadian company incorporated in British Columbia with the head office in Vancouver, of mineral exploration targeting gold, silver and copper (Au, Ag, and Cu, respectively) deposits, mainly in the Atacama-Puna region of northern Chile and Argentina and the Santa Cruz Province of southern Argentina. Both regions are highly prospective and host many large-scale precious and base metal mines operated by some of the world’s largest mining companies.

The most recent Technical Report for Mirasol was entitled *Amended Technical Report, Virginia Project, Santa Cruz Province, Argentina - Initial Silver Mineral Resource Estimate*, report date of February 29, 2016. Mirasol filed that Technical Report in the System for Electronic Document Analysis and Retrieval (SEDAR+), an electronic filing system developed for the Canadian Securities Administrators (CSA).

This report complies with disclosure and reporting requirements outlined in the Canadian Securities Administrators’ National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1. In addition, the Standards and Guidelines of the Canadian Institute of Mines and Metallurgy (CIMM) have been followed in the development of this estimate of Mineral Resources.

In this Report, the term Virginia Project (the Project) refers to the area within the exploration or mining concessions upon which the historical exploration has been conducted, while the term Virginia Property (the Property) refers to the entire land package (mineral claims).

The information in this Report was derived from published material, data, professional opinions, and unpublished material submitted by the professional staff of Mirasol or its consultants, supplemented by PGSc and the Qualified Persons (QPs) independent observations and analysis. Much of this data came from prior reports on the Virginia Project, updated information provided by Mirasol, and information researched by PGSc and the QPs.

PGSc and the QPs do not have any previous material interest in Mirasol or any affiliated companies.

This Report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently

involve a degree of rounding and consequently introduce a margin of error. Where these occur, neither PGSc nor the QPs consider them material.

This Report is intended to be used by Mirasol, subject to the terms and conditions of its agreement with PGSc. That agreement permits Mirasol to file this Report as a Technical Report with the Canadian Securities Administrators (CSA) under provincial securities legislation.

The conclusions and recommendations in this report reflect the authors' best independent judgment in light of the information available to them at the time of writing. The authors reserve the right, but will not be obliged, to revise this Report and conclusions if additional information becomes known to them after the date of this Report. Use of this report acknowledges acceptance of the foregoing conditions.

2.2 INDEPENDENCE

This Report has been compiled by PatagoniaGEOSCIENCES (PGSc) on behalf of Mirasol Resources Ltd. (Mirasol) following with the scope of work determined by Mirasol.

PGSc has exercised reasonable technical skills and diligence. The opinions expressed herein are those of PGSc and are based on information provided by Mirasol. In conducting the Independent Summary and Review, PGSc has found no reason to doubt the reliability or completeness of the data provided by Mirasol.

Whilst PGSc has reviewed the exploration and mining licences, permits and entitlements of the property in so far as these may influence the investigation and development of the mining assets, PGSc has not undertaken legal due diligence on the asset portfolio described in this Report. The reader is therefore cautioned that the inclusion of exploration and mining properties within this Report does not in any form imply legal ownership.

PGSc is an internally owned private company entirely independent of Mirasol and its affiliated companies. The personnel responsible for this review and opinions expressed in this Report are PGSc's full-time employees. For its services in preparing the report, PGSc receives payment based on time and expenses and will not receive any capital stock from Mirasol or any of its affiliated companies. PGSc reimburses its associates based on time and expenses.

2.3 QUALIFIED PERSON, SITE VISIT AND AREAS OF RESPONSIBILITY

The principal consultants responsible for the Independent Summary and Review and the preparation of this Technical Report have extensive experience in the mining industry and have appropriate professional qualifications:

- Julio Bruna Novillo, Ph.D., PGeo, FAusIMM (CPGeo), Consultant with PatagoniaGEOSCIENCES (PGSc); and,

- José Antonio Bassan, M.Sc., PGeo, FAusIMM (CPGeo), Consultant with PatagoniaGEOSCIENCES (PGSc).

The site visit to the Virginia Property was conducted from 31 August to 1 September, 2023, by Julio Bruna Novillo, CPG and José Antonio Bassan, CPG. Both are independent consultants, Certified Professional Geologists (CPG), Australasian Institute of Mining and Metallurgy members, and Fellow Chartered Professionals in Geology (FAusIMM, CPGeo). PatagoniaGEOSCIENCES (PGSc) is based in Montevideo, Uruguay.

The scope of the site inspection by PGSc was to discuss and analyze during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralization, structural characteristics, Mineral processing and metallurgical testing, mineral resources estimating, drill pads, core storage, an inspection of drill core recovery and mineralization, infrastructure and permits collected by Mirasol.

The **Table 2-1** identifies which items of the Technical Report have been the responsibilities of each QP.

Table 2.1: Qualified Persons

Company	Qualified Person	Site Visit	Responsible for
Independent	Julio Bruna Novillo	From 31 August to 1 September, 2023.	All Sections, except Section 14.0
Independent	José Antonio Bassan	From 31 August to 1 September, 2023.	Section 14, parts of 1, 12, 25 and 26.

Source: PGSc, 2023.

This is the third Technical Report for the Project, prepared on behalf of Mirasol and published in the SEDAR+. It is based on data, professional opinions, and unpublished material submitted by the professional staff of Mirasol and its consultants. Much of the data was prepared and provided by Mirasol.

The two previous technical reports are:

- Amended Technical Report, Virginia Project, Santa Cruz Province, Argentina - Initial Silver Mineral Resource Estimate. Report date of February 29, 2016.
- Virginia Silver Project, Santa Cruz Province, Argentina, NI 43-101 Technical Report on Exploration and Drilling. Effective date of February 20, 2014.

PGSc and the QPs are pleased to acknowledge the helpful cooperation of the Mirasol management and Mirasol's personnel, all of whom made all data requested available and responded openly and helpfully to all questions, queries, and requests for material.

2.4 INFORMATION SOURCES

The material in this Report was derived from published material, data, professional opinions and unpublished material submitted by the professional staff of Mirasol or its consultants. Much of this data came from material prepared and provided by Mirasol. The sources for the information in this report are listed in **Section 27.0**.

The geology, mineralization, and exploration descriptions used in this Report are taken from reports prepared by various organizations and companies or their contracted consultants and from various government and academic publications. The conclusions of this Report are based in part on data available in published and unpublished reports supplied by the companies which have conducted exploration on the property and information supplied by Mirasol. Reputable companies supplied the information provided to Mirasol. PGSc and the QPs have no reason to doubt its validity and have used the information where it has been verified through their review and discussions.

Some figures and tables contained within this Report were reproduced or derived from historical reports written on the property by various individuals and supplied to PGSc by Mirasol for this Report. In the cases where others supplied photographs, figures or tables, they are referenced below the inserted item.

3.0 RELIANCE ON OTHER EXPERTS

PGSc has prepared this Technical Report for Mirasol. The information, conclusions, opinions, and estimates contained herein are based on the following:

- Information available to PGSc at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as outlined in this Technical Report.

In this Report, discussions regarding royalties, permitting, taxation, and environmental matters are based on material provided by Mirasol. PGSc and the QPs are not qualified to comment on such matters and have relied on the representations and documentation provided by Mirasol for such discussions.

Mirasol or its consultants initially provided all data used in this Report. PGSc and the QPs have reviewed and analyzed these data and drawn conclusions. All of the documentation supplied by Mirasol and references used by PGSc are noted in **Section 27.0** of this Report.

PGSc and the QP offer no legal opinion about the validity of the title to the mineral concessions claimed by Mirasol, as PGSc and the QP are not qualified to comment on such matters.

However, Mirasol has provided PGSc and the QP with a Legal Opinion - Virginia Project dated 27 July 2023, from the legal firm of Ortiz & Macaluzzo, Lawyers, located in Mendoza, Argentina (Ortiz & Macaluzzo, 2023), and the Legal Opinion, reliance letter has been included as **Appendix 2**.

4.0 PROPERTY DESCRIPTION AND LOCATION

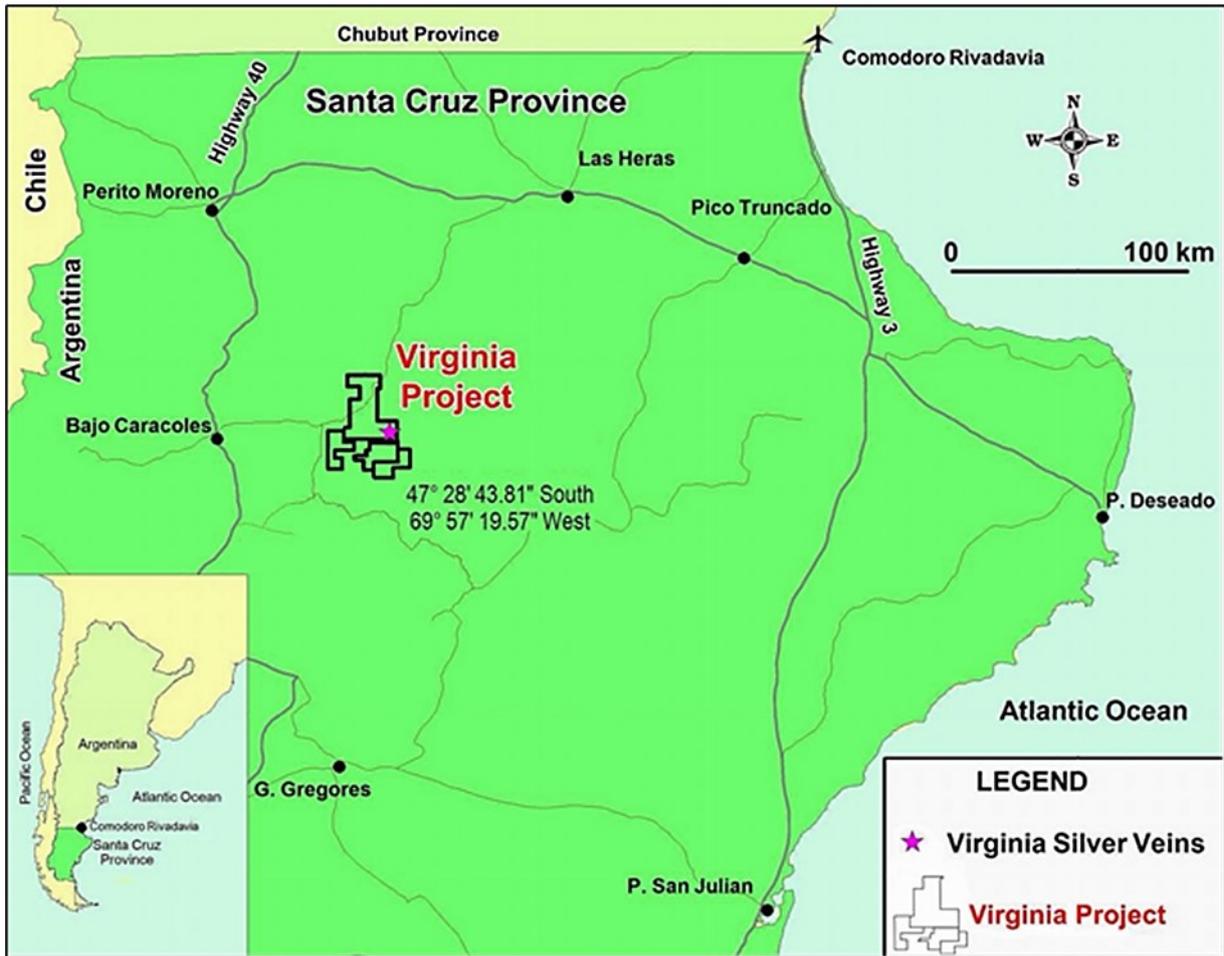
4.1 GENERAL INFORMATION

The Virginia project is located in south Argentina in the Lago Buenos Aires department, the province of Santa Cruz, just center-west of the Santa Cruz province near the Bajo Caracoles. The area presents elevations ranging from 600 m asl to 1,100 m asl. The exploration and drilling described are centred at approximately the geographic coordinates of 47° 28' 43.81" south latitude and 69° 57' 19.57" west longitude.

The district Deseado Massif deposits are mainly Au-Ag-rich low to intermediate sulphidation epithermal quartz veins, minor stockwork veins, and breccias composed of multistage fracture fillings. These deposits were formed to extensional to transtensional fault systems active during the Middle-Upper Jurassic rift-related tectonic regime and are mostly hosted in Middle-Upper Jurassic rhyolitic to andesitic volcanic and volcanoclastic rocks.

The Project is located approximately 406 km by road southwest of the coastal city of Comodoro Rivadavia. It is a roughly six-hour journey from Comodoro Rivadavia to the project site, passing through Caleta Olivia, Pico Truncado and Las Heras (211 km). From Las Heras, an important town with the closest services, travel about 52 km to the west, still on a paved road, until the beginning of Provincial Route N° 39, which heads south with a gravel surface but has been widened and consolidated until reaching the town of Bajo Caracoles. After going south for about 96 km along PR N° 39, you come to a detour to the local public road, narrower and less improved, which leads south for 47 km to the buildings of Estancia La Patricia, where the exploration works are based (**Figure 4-1**).

Figure 4.1: Location and Regional Infrastructure of the Virginia Project



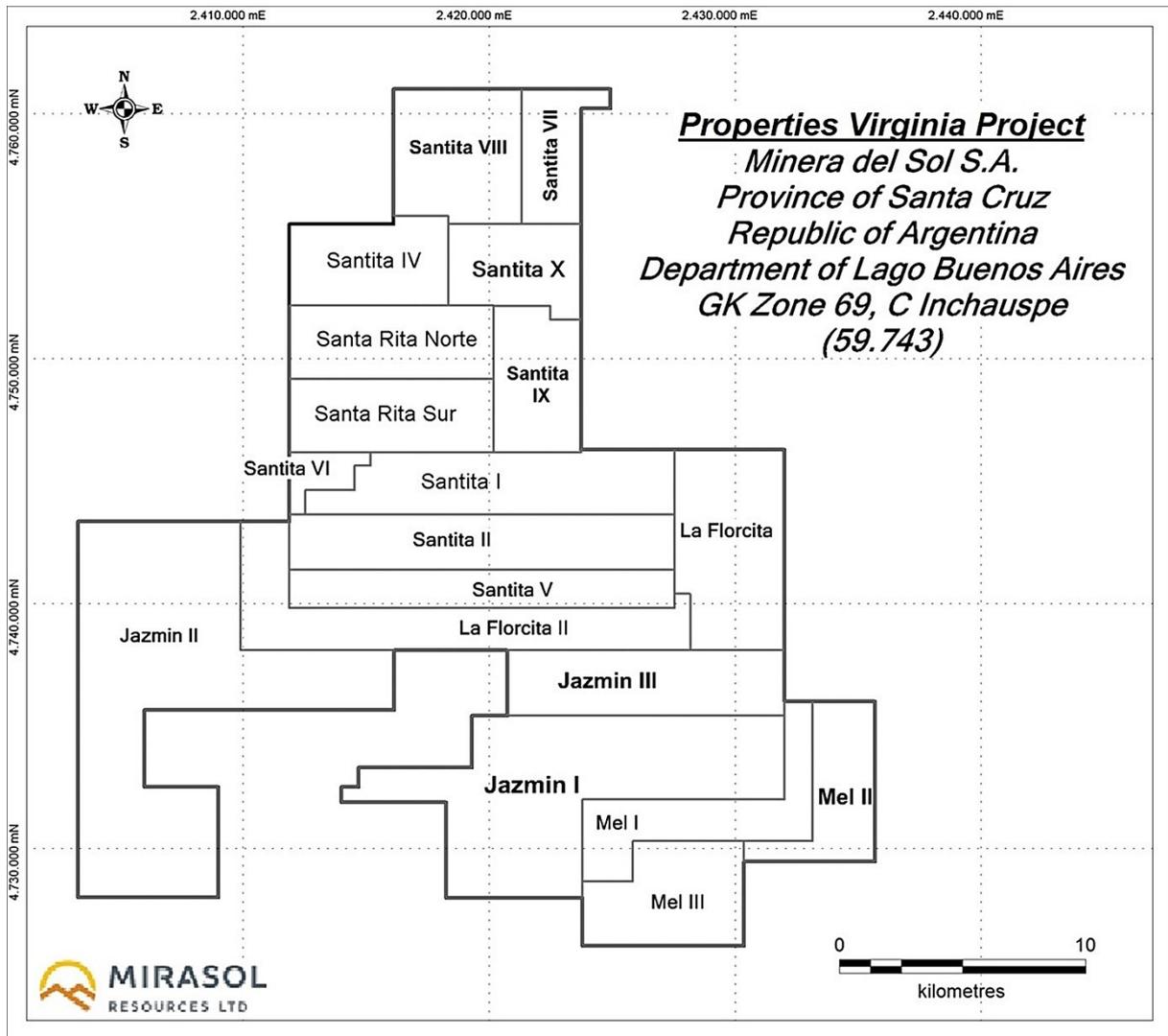
Source: Figure derived and modified from Mirasol, 2014.

4.2 PROPERTY DESCRIPTION AND OWNERSHIP

Mirasol Resources Ltd. holds the mineral property rights through a wholly-owned subsidiary company in Argentina named Minera del Sol S.A. The land tenure map is shown using the coordinate system Gauss Kruger Campo Inchauspe Zone 69, which is the legal reference datum and projection for mineral land tenure in the province of Santa Cruz.

Minera del Sol S.A. holds the nineteen mining concessions covering 59,743 ha (597.43 km²). According to the Gauss Kruger coordinates, all the properties are plotted on the Provincial Mining Cadastre of the province of Santa Cruz and updated to July 2023 (Figure 4-2).

Figure 4.2: Mineral land tenure map of Virginia Project



Source: Figure derived and modified from Mirasol, 2023.

The Virginia property falls within the jurisdiction of the province of Santa Cruz. The property includes sixteen Mining Concession (**Manifestación de Descubrimiento**) totalling 39,489 ha and three Exploration Permits (**Cateo**) totalling 20,254 ha, for a total of 59,743 ha (**Table 4-1**). A total rental payment of US\$ 4,130.43 will be assessed on the exploitation concessions in 2023.

Table 4.1: Legal mining concessions of Virginia Project

Concession Name	File Number	Concession Type	Point	Gauss Krüger Easting	Gauss Krüger Northing	Status	Surface (ha)	Granted Date	Canon, Annual payment (US\$)
JAZMÍN I	432.241/M DS/2015	Exploration Permit (Cateo)	A	2,414,700	4,733,300	Not Granted	7,245.00	NA	NA
			B	2,419,300	4,733,300				
			C	2,419,300	4,735,400				
			D	2,432,000	4,735,400				
			E	2,432,000	4,732,000				
			F	2,423,800	4,732,000				
			G	2,423,800	4,727,955				
			H	2,418,250	4,727,955				
			I	2,418,250	4,731,885				
			J	2,414,000	2,431,885				
			K	2,414,000	4,732,500				
			L	2,414,700	4,732,500				
JAZMÍN II	432.242/M DS/2015	Exploration Permit (Cateo)	A	2,403,309	4,743,349	Not Granted	10,000.00	NA	NA
			B	2,409,900	4,743,349				
			C	2,409,900	4,738,075				
			D	2,416,150	4,738,075				
			E	2,416,150	4,735,650				
			F	2,406,000	4,735,650				
			G	2,406,000	4,732,500				
			H	2,409,000	4,732,500				
			I	2,409,000	4,728,000				
			J	2,403,309	4,729,000				
JAZMÍN III	435.535/M DS/2015	Exploration Permit (Cateo)	A	2,420,750	4,738,075	Not Granted	3,009.00	NA	NA
			B	2,432,000	4,738,075				
			C	2,432,000	4,735,400				
			D	2,420,750	4,735,400				
MEL	434.827/A/ 2016	Mining Concession (MD)	A	2,432,000	4,736,000	Granted	2,402.00	March 29 th , 2022	NA
			B	2,433,153	4,736,000				
			C	2,433,153	4,730,283				
			D	2,425,855	4,730,283				
			E	2,425,855	4,728,650				
			F	2,423,800	4,728,650				
			G	2,423,800	4,732,000				
			H	2,432,000	4,732,000				
MEL II	437.185/A/ 2017	Mining Concession (MD)	A	2,408,664	4,728,000	Granted	1,887.00	May 2 nd , 2022	NA
			B	2,412,000	4,728,000				
			C	2,412,000	4,725,200				
			D	2,417,529	4,725,200				
			E	2,417,529	4,722,000				
			F	2,414,000	4,722,000				

Source: Table derived and modified from Ortiz & Macaluzzo, 2023.

Table 4.2: Legal mining concessions of Virginia Project (cont.)

Concession Name	File Number	Concession Type	Point	Gauss Krüger Easting	Gauss Krüger Northing	Status	Surface (ha)	Granted Date	Canon, Annual payment (US\$)
MEL III	437.594/A/2017	Mining Concession (MD)	A	2,425,855	4,730,283	Granted	2,474.00	March 11 th , 2022	NA
			B	2,425,855	4,729,450				
			C	2,430,360	4,729,450				
			D	2,430,360	4,726,000				
			E	2,423,800	4,726,000				
			F	2,423,800	4,728,650				
			G	2,425,855	4,728,650				
SANTITA I	429.033/M DS/2011	Mining Concession (MD)	A	2,408,664	4,728,000	Granted	3,505.00	August 6 th , 2013	2,409.42
			B	2,412,000	4,728,000				
			C	2,412,000	4,725,200				
			D	2,417,529	4,725,200				
			E	2,417,529	4,722,000				
			F	2,414,000	4,722,000				
			G	2,414,000	4,718,180				
			H	2,412,000	4,718,180				
			I	2,412,000	4,725,000				
			J	2,408,664	4,725,000				
SANTITA II	421.401/M DS/2022	Mining Concession (MD)	A	2,411,891	4,743,617	Not Granted	3,518.00	NA	NA
			B	2,427,535	4,743,617				
			C	2,427,535	4,741,376				
			D	2,411,891	4,741,376				
SANTITA IV	421.649/M DS/2013	Mining Concession (MD)	A	2,411,891	4,755,490	Not Granted	2,223.00	NA	NA
			B	2,416,130	4,755,490				
			C	2,416,130	4,755,802				
			D	2,418,359	4,755,802				
			E	2,418,360	4,752,150				
			F	2,411,891	4,752,150				
SANTITA V	428.267/M DS/2014	Mining Concession (MD)	A	2,411,891	4,741,376	Not Granted	2,465.00	NA	NA
			B	2,427,535	4,741,376				
			C	2,427,535	4,739,800				
			D	2,411,890	4,739,800				
SANTITA VI	428.936/M DS/2014	Mining Concession (MD)	A	2,411,891	4,746,150	Not Granted	504.00	NA	NA
			B	2,415,184	4,746,150				
			C	2,415,184	4,745,617				
			D	2,414,533	4,745,617				
			E	2,414,533	4,744,617				
			F	2,412,542	4,744,617				
			G	2,412,542	4,743,617				
			H	2,411,891	4,743,617				
SANTITA VII	428.931/M DS/2014	Mining Concession (MD)	A	4,761,000	2,421,312	Not Granted	1,430.00	NA	NA
			B	4,761,000	2,424,935				
			C	4,760,218	2,424,935				
			D	4,760,218	2,423,744				
			E	2,423,744	4,755,485				
			F	2,421,325	4,755,485				

Source: Table derived and modified from Ortiz & Macaluzzo, 2023.

Table 4.2: Legal mining concessions of Virginia Project (cont.)

Concession Name	File Number	Concession Type	Point	Gauss Krüger Easting	Gauss Krüger Northing	Status	Surface (ha)	Granted Date	Canon, Annual payment (US\$)
SANTITA VIII	429.653/MDS /2014	Mining Concession (MD)	A	4,761,000	2,416,131	Not Granted	2,790.00	NA	NA
			B	4,761,000	2,421,312				
			C	4,755,485	2,421,325				
			D	4,755,485	2,418,360				
			E	4,755,802	2,418,359				
			F	4,755,802	2,416,130				
SANTITA IX	421.400/MDS /2022	Mining Concession (MD)	A	2,420,191	4,752,150	Not Granted	2,050.00	NA	NA
			B	2,422,491	4,752,150				
			C	2,422,491	4,751,578				
			D	2,423,750	4,751,578				
			E	2,423,750	4,746,150				
			F	2,420,191	4,746,150				
SANTITA X	422.517/MDS /2023	Mining Concession (MD)	A	2,418,360	4,755,485	Not Granted	1,860.00	NA	NA
			B	2,423,750	4,755,485				
			C	2,423,750	4,751,578				
			D	2,422,491	4,751,578				
			E	2,422,491	4,752,150				
			F	2,418,360	4,752,150				
SANTA RITA NORTE	415.113/MDS /2007	Mining Concession (MD)	A	4,752,150	2,411,891	Granted	2,482.00	March 3 rd , 2009	1,721.01
			B	4,752,150	2,420,191				
			C	4,749,150	2,420,191				
			D	4,749,150	2,411,891				
SANTA RITA SUR	406.884/MIR ASOL/2006	Mining Concession (MD)	A	4,749,150	2,411,891	Granted	2,490.00	September 7 th , 2021	NA
			B	4,749,150	2,420,191				
			C	4,746,150	2,420,191				
			D	4,746,150	2,411,891				
LA FLORCITA	429.915/MDS /2014	Mining Concession (MD)	A	4,746,274	2,427,535	Not Granted	3,511.00	NA	NA
			B	4,746,274	2,432,000				
			C	4,738,075	2,432,000				
			D	4,738,075	2,428,183				
			E	4,740,390	2,428,183				
			F	4,740,390	2,427,535				
LA FLORCITA I	433.855/MDS /2016	Mining Concession (MD)	A	4,743,349	2,409,900	Not Granted	3,898.00	NA	NA
			B	4,743,349	2,411,890				
			C	4,739,800	2,411,890				
			D	4,739,800	2,427,535				
			E	4,740,390	2,427,535				
			F	4,740,390	2,428,183				
			G	4,738,075	2,428,183				
Total							59,743.00		4,130.43

Source: Table derived and modified from Ortiz & Macaluzzo, 2023.

Note: The conversion from the Argentinean Peso to the US\$ used an official exchange rate of 276.00 pesos per US\$ dollar for 2023.

NA: Not Applicable.

4.3 MINERAL TENURE AND STATUS

Since Mirasol is the legal owner of the property in **Table 4-1**, it has no obligations, such as required exploration expenditures or payments to third parties to maintain title to the property, other than payments to governments. As for the MDs granted, they do not have an expiration date but rather expire if they do not comply with the conditions of protection of the concession, such as presentation of legal work, request for measurement of mining property, payment of the mining canon and compliance with the Plan and Amount of Investments.

PGSc and the QP have not reviewed the mineral tenure nor independently verified the legal status, ownership of the Project area or underlying property agreements. PGSc and the QP have entirely relied upon and disclaimed responsibility for information derived from legal experts through the following document: *Ref.: Legal Opinion - Virginia Project* dated 27th July 2023, from the legal firm of Ortiz & Macaluzzo, Lawyers, located in Mendoza, Argentina (Ortiz & Macaluzzo, 2023) and the reliance letter has been included as **Appendix 2**.

4.3.1 Categories of Mineral Rights in Argentina

Argentina is a federal republic with 23 provinces and one autonomous city (Buenos Aires). The federal, provincial, and municipal governments all have input into mining regulations, but the National Mining Code regulates the mining activities in Argentina. According to Argentine law, mineral resources belong to the province where the same is located. Each province has the authority to grant exploration permits and exploitation concession rights to private applicant entities. However, the Federal Congress is entitled to enact the National Mining Code and any substantive legislation applicable in all of the country. Provinces have the authority to regulate the National Mining Code's procedural aspects and organize each enforcement authority within its territory.

Argentinian law provides two types of mining rights: Exploration Permits (**Cateo**), which are limited in duration and allow for the exploration of a mineral property, and Mining Permits (**Mina**), which allow for the exploitation of the minerals of the subject property.

In Argentina, mineral rights are acquired by application to the government through a system based entirely on paper staking. A mineral property may go through several classification stages during its lifetime and begins with a Cateo.

Once an application for a Cateo has been made, any mineral discoveries made by third parties belong to the Cateo applicant. A Cateo consists of one to twenty units - each unit being 500 ha in size. A fee, calculated per hectare, is required within five days of the Cateo approval. The term of a Cateo, which varies based on size, begins 30 days after approval. A Cateo of one unit has a duration of 150 days; for each additional unit, its duration is increased by another 50 days. Another requirement is that larger Cateo must reduce in size at certain times. At 300 days after approval, half of the area above four units must be relinquished. At 700 days after approval, half of the remaining space must be released. To move to the next stage, the Cateo holder must apply within the term of the Cateo by reporting a mineral discovery.

Upon approval, this will result in a Mining Concession (**Manifestación de Descubrimiento - MD**) for an area of up to 3.000 ha. Once approved, the holder may conduct a measuring stage until a mineral resource has been defined or a legal survey to apply for a Mina or mining lease. The property will generally stay in the Mining Concession stage until a mineral resource has been determined.

4.3.2 Land Tenure History and Agreements

Mirasol's involvement in the area dates back to the original 2004 staking by a wholly-owned subsidiary of Mirasol Resources Ltd. that was centred on the Santa Rita precious metal showing 15 km northeast of the Virginia Silver Veins several years before Virginia was discovered. Mirasol originally explored the Santa Rita area, developing the property to the stage of drill targeting and then sought a partner.

In 2006, Mirasol entered into an Option-Joint Venture agreement with the Hochschild Mining Corp. which continued to explore the project as an operator. Hochschild had also been working further to the southeast on a geographically separate mineral property (San Agustin). With the Santa Rita option in good standing with Mirasol, Hochschild staked the Cateo Flora II, connecting San Augustin and Santa Rita properties.

In 2008, when Hochschild renounced the Santa Rita option with Mirasol, the Cateo La Flora II became subject to the area of interest surrounding Santa Rita. Mirasol requested that Flora II be transferred to it. Subsequently, Hochschild transferred Cateo Flora II to Mirasol's subsidiary Minera del Sol S.A., which now holds a 100% interest in Flora II with no royalty or any obligations to Hochschild. As a result, all of the properties in **Table 4-1** are now owned by Minera del Sol S.A., which is 100% owned by Mirasol Resources Ltd. None of them are encumbered by any agreements or royalties (other than potential royalties to the government).

4.3.3 Royalties

All mineral properties that make up the Virginia Project are royalty-free, and only in the case of entering into production will the royalties be established.

The only royalties on mineral production regarding the mineral properties in **Table 4-1** are those payable to the government in Argentina. The province of Santa Cruz is paid a royalty on precious and base metal production of 3% of the gross value, less certain costs downstream of the actual mine. The 3% is the maximum allowed under the current national mining law.

4.3.4 Environmental Regulations

The Environmental Protection Act (EPA) of Argentina, enacted in 1996, establishes the guidelines for preparing environmental impact assessment studies for mining projects. The federal nature of the Argentine government leaves the application of the EPA to each province. Initially, the Provinces adhered to the mining law and established the provincial mining secretary as the applicable authority. However, starting in 2002, several provinces re-evaluated

their mining approach and shifted the environmental criteria and authority to the environmental secretary.

A party wishing to commence or modify any mining-related activity as defined by the EPA, including prospecting, exploration, exploitation, development, preparation, extraction and storage of mineral substances, as well as property abandonment or mine closure activity, must prepare and submit to the Provincial Mining and Environmental Authorities an **Estudio de Impacto Ambiental (EIA)** or Environmental Impact Assessment (EIA) before commencing the work. Each EIA must describe the nature of the proposed work, its potential risk to the environment, and the measures that will be taken to mitigate that risk. The provincial authorities have a sixty-day period to review and either approve or reject the EIA; however, the EIA is not automatically approved if the provincial authorities have not responded within that period. Usually, provincial authorities have questions, comments, or require additional information or studies, granting thirty days to the applicant to answer the questions or file additional information or documents.

If accepted by the provincial authorities, the EIA is used as the basis to issue a **Declaración de Impacto Ambiental (DIA)** or Declaration of Environmental Impact (DEI), which the applicant must agree to uphold during the mining-related activity in question. The DEI must be updated at least once every two years. Sanctions and penalties for non-compliance to the DEI are outlined in the EPA. They may include warnings, fines, suspension of Environmental permits, restoration of the environment, temporary or permanent closure of activities, and removal of authorization to conduct mining-related activities.

4.3.5 Works Permitting

Holders of any mineral concessions in the Santa Cruz province must submit an EIA before commencing exploration or mining activities and submit a new report every two years.

These reports' contents vary according to the property's type and stage of activity. The information requested is submitted administratively as an exploration permit and must be renewed every two years or when a change in activity on the property is expected to occur.

The permitting process is simple, and this is usually a 30 to 60-day process.

4.3.6 Permitting and Environmental

Since there is no history of exploration in the Virginia Silver Project area, let alone any history of mining, there are no material environmental liabilities. The only possible liabilities are those associated with exploration drilling and trenching described in this report.

Minera del Sol S.A. complies with the environmental conditions established in the DIA of the Virginia Project. There is no evidence of environmental contingencies related to said project.

Exploration permits to prospect, drill and do mechanical trenching are held by Minera del Sol S.A. and are renewed periodically by filing a description of the work done, work planned, and any remediation done. Mirasol reports to the author that the permits are in good standing to do the work recommended in this report.

As this report recommends, no known factors would impede Mirasol from gaining access and continuing exploration of the Virginia veins.

Surface exploration work in the Virginia area is permitted under different permits:

- *DIA Second Prospecting Stage Update:* For Mel, Mel II and Mel III, obtained through SEM Provision No. 019/22, dated March 2nd, 2022 (current day).
- *DIA Exploration Stage:* It was granted through Resol. SEM No. 124/21, dated June 23, 2021. The update report is being processed before the Mining Authority.
- *Water Extraction Permits granted by the Provincial Water Resources Department:* a) Permit granted by Provision No. 0004/23, collection point: 70° 08' 37.24" / 47° 23' 53.88"; b) Permit granted by Provision No. 0003/23, collection point: 70° 07' 18.9" / 47° 22' 50.8"; Permit granted by Provision No. 090/22, catchment points: 69° 55' 53.1" / 47° 30' 13.2" and 69° 51' 11.3" / 47° 29' 22.5".
- Registration of Minera Del Sol S.A. with the Registry of Hazardous Waste Generators of the province of Santa Cruz: it is in force. It was granted by Provision No. 501/SEA/2022.

When requiring new roads or drilling, it is necessary to present a new EIA that contemplates these stages with the corresponding permits and qualifications.

4.3.7 Closure Considerations

Closure must be covered by submission of a new EIA or an update/amendment to an existing approved EIA. The document must include details of the proposed environmental rehabilitation, reclamation or adjustment activities and discuss how post-closure environmental impacts will be avoided. The EIA must include data on post-closure monitoring, but current regulatory requirements do not entail the submission of formal closure plans.

4.4 SURFACE RIGHTS

The Argentine Mining Code (AMC) sets out rules under which surface rights and easements can be granted for a mining operation and covers aspects including land occupation, rights-of-way, access routes, transport routes, rail lines, water usage and any other infrastructure needed for operations.

In the case of the Virginia Project, the surface rights to two ranches (Estancias) have been purchased by Minera del Sol S.A., so it is now the owner of the surface rights over the Virginia

Project area. In total, approximately 63,339.00 hectares were purchased for this purpose. Both ranches were inactive at the time of the purchase, with no livestock or residents, so the purchase caused no relocations. The Estancias purchased are known informally as the “La Patricia” and “8 de Agosto”. They cover all areas drilled to date in Virginia and those recommended for future work at the Virginia Silver Project.

The Santa Rita area drilled by Hochschild lies within the Santa Rita Estancia. Other estancias cover the remainder of the mineral properties. Minera del Sol negotiates agreements to explore Santa Rita and the other estancias as needed.

Field surveys would be required to determine the exact number of hectares of surface rights owned by Minera del Sol S.A concerning the mineral rights owned by Minera del Sol S.A. However, it is estimated that of the 59,743 hectares of mineral rights, Minera del Sol owns surface rights to approximately 12,900 hectares, including the important ones that cover the Virginia Silver Veins.

4.5 PGSc QP COMMENTS

PGSc and the QP are unaware of any environmental liabilities on the property. Mirasol has all the required permits to conduct the proposed work on the property. PGSc and the QP are unaware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property, and they understand that further permitting and environmental studies could be required if exploration programs continue.

PGSc and the QP have not independently reviewed the project area's ownership and the underlying property agreements. They have also not independently examined the project mineral tenure and the overlying surface rights. It has been based entirely on information from legal experts Mirasol hired and is used in **Section 4.3** of this Technical Report. Assurances of legal title and conformity to environmental regulations are provided in the letter by Ortiz & Macaluzzo Lawyers in **Appendix 2**.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

The Virginia project is located about 406 km by road southwest of the coastal city of Comodoro Rivadavia. It is about a six-hour drive from Comodoro Rivadavia to the project site: Comodoro Rivadavia-Caleta Olivia-Pico Truncado-Las Heras (211 km); NR N°39-Estancia La Patricia (195 km) (**Figure 5-1**).

Comodoro Rivadavia has the closest airport and multiple daily scheduled commercial flights. From there, travel is initially by paved National Route N°3 to the south, then west to localities Pico Truncado and Las Heras, also on paved highway. From Las Heras, the nearest town of any significance with services, travel is west for about 30 km still on a paved highway until the start of Provincial Route N°39 which goes south. After travelling about 96 km in a southerly direction on Route N°39, a turnoff is reached onto local public roads that are narrower and less improved, leading southerly for 45 km to the buildings on Estancia La Patricia, where exploration work is based. It is another 10 km from La Patricia to the centre of the work area on the Virginia Project. The first 2 km are public, with the remainder being private roads built for exploration. Travel time from Comodoro Rivadavia to Virginia is about six hours under optimal conditions.

Comodoro Rivadavia is approximately a 2.5-hour flight south of Buenos Aires.

5.2 CLIMATE

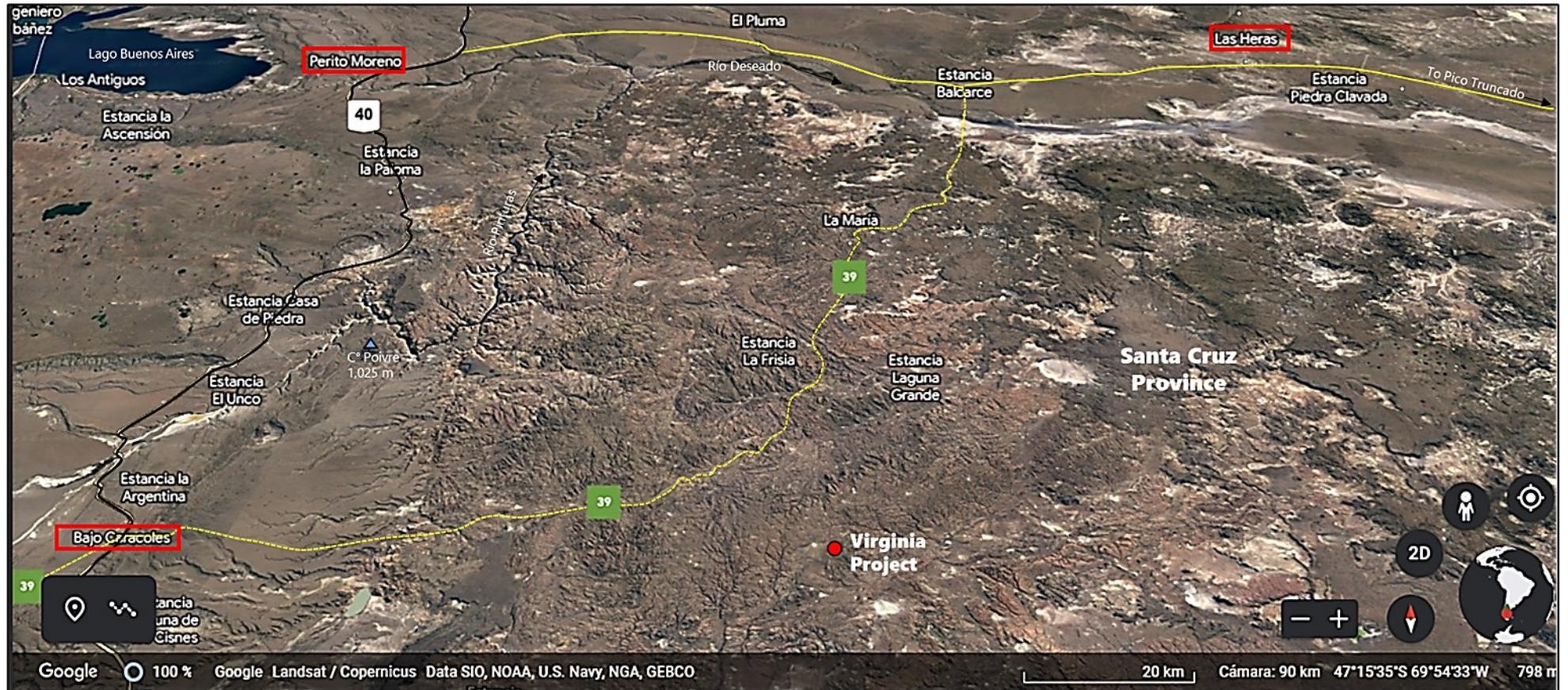
The Virginia project is located in Argentina's arid to semi-arid Patagonian region. The site is affected by strong, persistent westerly winds, particularly in the warmer months (December to February) when the average wind speed is 43.5 km/h. It lies within the steppes of Patagonia but in the western part, where the elevation is somewhat higher.

Vegetation is sparse; trees are absent; scrub brush is in low areas protected from the wind. Grasses and drought-resistant plants generally do not form a continuous soil cover.

The average annual temperature is 7.7°C, between -1.8°C and 21.4°C. The average annual rainfall is 172 mm, and the annual potential evapotranspiration is estimated to be 606 mm, resulting in an overall negative water balance. Average monthly precipitation only exceeds the average potential evapotranspiration during the during winter (May to July).

Precipitation as rain or snow is episodic, not highly seasonal, with annual accumulations of approximately 200 mm. Snow is more common at higher elevations, such as Virginia at 1,000 metres above sea level. Occasionally, brief precipitation events can cause muddy road conditions that impede travel. However, Exploration activities are occasionally curtailed for short periods if weighty snowfall occurs.

Figure 5.1: Location of the Virginia Project and its main geographical features



Source: Figure derived and modified from Google Earth Web. PGSc, 2023

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

The Virginia project is in a relatively undeveloped region in Santa Cruz. The closest towns to the operations are Perito Moreno (population 4,617 as per 2010 census) and Las Heras (population 17,821 as per 2010 census).

The nearest permanent settlement is Bajo Caracoles on National Route N° 40. Still, it is a village of fewer than one hundred people with only the most basic services and communications.

Perito Moreno is a more significant centre of about 4,600 people with a significantly expanded service sector. Further, it serves as a local base for some of the mines, such as Cerro Negro, 70 km to the SE (in production since 2015), Lomada de Leiva, 48 km to the SSE (in production since 2013), and San José to 50 km to the E (in production since 2007).

Las Heras, with 17,800 people, is even larger and has a large service sector, mainly oriented to conventional petroleum extraction.

A gas pipeline runs parallel to National Route N° 40, and a high-tension power line connects Las Heras to the San José mine. Cerro Negro is connected to the power grid, but both these services are still about 70 km distant from Virginia.

Natural springs, diesel generation and satellite links provide services such as water, power and communications locally in Virginia.

5.4 PHYSIOGRAPHY

According to Panza & Cobos (2001), the region is characterized by an irregular morphology, with a landscape in which abruptly shaped hills and isolated volcanic cones stand out, alternating with rounded hills and small plateaus.

The highest elevations are found in the central-western sector (between San Francisco and La Flora Estancia) or southeast (La Virginia Estancia), which make up a set of high peaks with mostly rounded shapes that at their highest point part barely exceed a thousand meters above sea level, and among which the Cerros Corona (1,088 m), La Virginia (1,082 m) and Las Moras (1,078 m). Lower elevations but equally notable in this sector are the Cerros Flecha Negra (916 m), Mojón (960 m), Bayo (837 m) and Piedra Labrada (832 m).

Some cones or volcanic plateaus stand out for their height and are remarkable for the perfection of their shapes. The vast majority exceed 800 m above sea level, mentioning only a few that have a name: El Puntudo (1,026 m), Sombrero (986 m), La Taba (931 m), Negro (902 m), Mirador (823 m) and the Fernández plateau (862 m). This landscape has many endorheic shallows, the central part occupied by temporary lagoons.

Topography in Virginia is generally gently rolling with a few deeply incised valleys.

The Río Deseado pours its waters towards the Atlantic, on whose eastern end is the Ría de Puerto Deseado Natural Reserve, which, with an extension of 615 km, rises in the west, near Lake Buenos Aires, its headwaters being the Ecker River, which is later called Pinturas, and windingly crosses the northern part of the province, until it flows into the Atlantic. The Deseado River system is fed by the melting of the snowy precipitations that fall in the area of its headwaters; part of its waters infiltrate and reappear as springs at the foot of the basaltic plateaus that frame the river.

Low scrub bushes and grass are typical of areas with a harsh climate, and poor soils constitute the vegetation in the area. The Project area generally hosts a lower-than-average vegetation diversity and available biomass relative to values typical of southern Patagonia. Sub-shrubby vegetation covers most of the surface of the project.

Soils are severely limited (climatic conditions, salinity, very high risk of water erosion and shallow depth), which makes them generally unsuitable for cultivation and restricts their extensive grazing use.

The Project area is located in a zone classified as having reduced seismic activity.

5.5 PGSc QP COMMENTS

PGSc and the QP are unaware of any significant factors or risks other than those discussed in this section of this Report that may affect access, title, or right or ability to perform work on the property by Mirasol. If sufficient mineralization is discovered, PGSc and the QP understand that further permitting, environmental studies could be required and further economic studies that demonstrate that the mineralization is sufficient to host a mining operation.

The PGSc and QP also believe that the exploration programs could be completed from October to April, as the two drilling campaigns have been carried out.

The Virginia Project has large enough properties to locate and accommodate the infrastructure necessary to host future mining operations, should sufficient economic mineralization be identified on the property.

PGSc and the QP are unaware of any significant environmental liabilities related to the Project and understand that there is no reason to assume that environmental permits required to conduct exploration would not be issued as required.

6.0 HISTORY

6.1 EXPLORATION HISTORY

Unlike Chile, Bolivia, Perú, or even the northern parts of Argentina, Patagonia has virtually no history of small-scale mining precious metals. Modern mineral exploration in Patagonia dates back to the early 1980s at a low level and then increased in intensity since the early 1990s.

Argentina, specifically Santa Cruz, has no centralized mineral exploration records available to the public. Hence, considerable uncertainty exists about what work has been done in specific areas and when, let alone what the results were. Mirasol has access to historical land tenure data going back to 1998. From 1998 to 2007, when the Cateo Flora II was staked, it appears that Virginia's veins were never previously staked, although many properties were nearby.

A geological map published in 2001 shows the Lejano silver-gold poly-metallic showing and the Sol de Mayo gold-silver showing (Panza and Cobos, 2001). Lejano is located 27 km northwest of Virginia's veins and was discovered by Yamana in 1997. The discovery details of Sol de Mayo, located 15 km north of Virginia, are unclear but appear to trace back to the early or middle 1990s.

Work on the properties began in 2003 when the first claim was staked on behalf of Mirasol over the showing near the Santa Rita farmhouse. The showing was located through a regional targeting program using satellite imagery, structural and geological interpretation and field checking. On October 7, 2005, Mirasol published the first press release on results from the Santa Rita showing (Mirasol, 2005). It showed best results of up to 18.9 m wide grading 80 gpt silver and 0.2 gpt gold, including a high-grade interval of 1.0 m grading 645 gpt silver and 1.3 gpt gold from surface channel samples. Channel samples showed anomalous results over a strike length of 300 m.

As mentioned in **Section 4.3.2**, Hochschild entered into an option/joint venture agreement with Mirasol in 2006 (Mirasol, 2006). They focused most of their work on the showing near the Santa Rita farmhouse, "Santa Rita Main," and, in general, did little work elsewhere on the property. Hochschild work included rock sampling, mapping, a ground-induced polarization (IP) survey using a gradient array, and diamond drilling.

The historical diamond drilling done by Hochschild comprised 2,048.70 m in 12 holes (SRD-01 to SRD-12), all at Santa Rita Main or along strike from the known mineralization on the surface. Results reported to Mirasol by Hochschild include the following intercepts in **Table 6-1**.

Table 6.1: Historic drilling results at Santa Rita Main sector

Hole N°	Length (m)	Au (gpt)	Au (gpt)	AgEq (gpt)
SRD-01	3.40	156.00	0.12	164.00
SRD-01	1.80	40.00	0.06	44.00
SRD-02	2.10	73.00	0.09	79.00
SRD-03	2.50	23.00	0.04	25.00
SRD-03	1.50	55.00	0.12	63.00
SRD-06	1.00	42.00	0.00	42.00
SRD-06	0.60	38.00	0.28	56.00
SRD-07	1.20	21.00	0.18	32.00
Silver Equivalent (AgEq) = Ag + (Au x 65)				

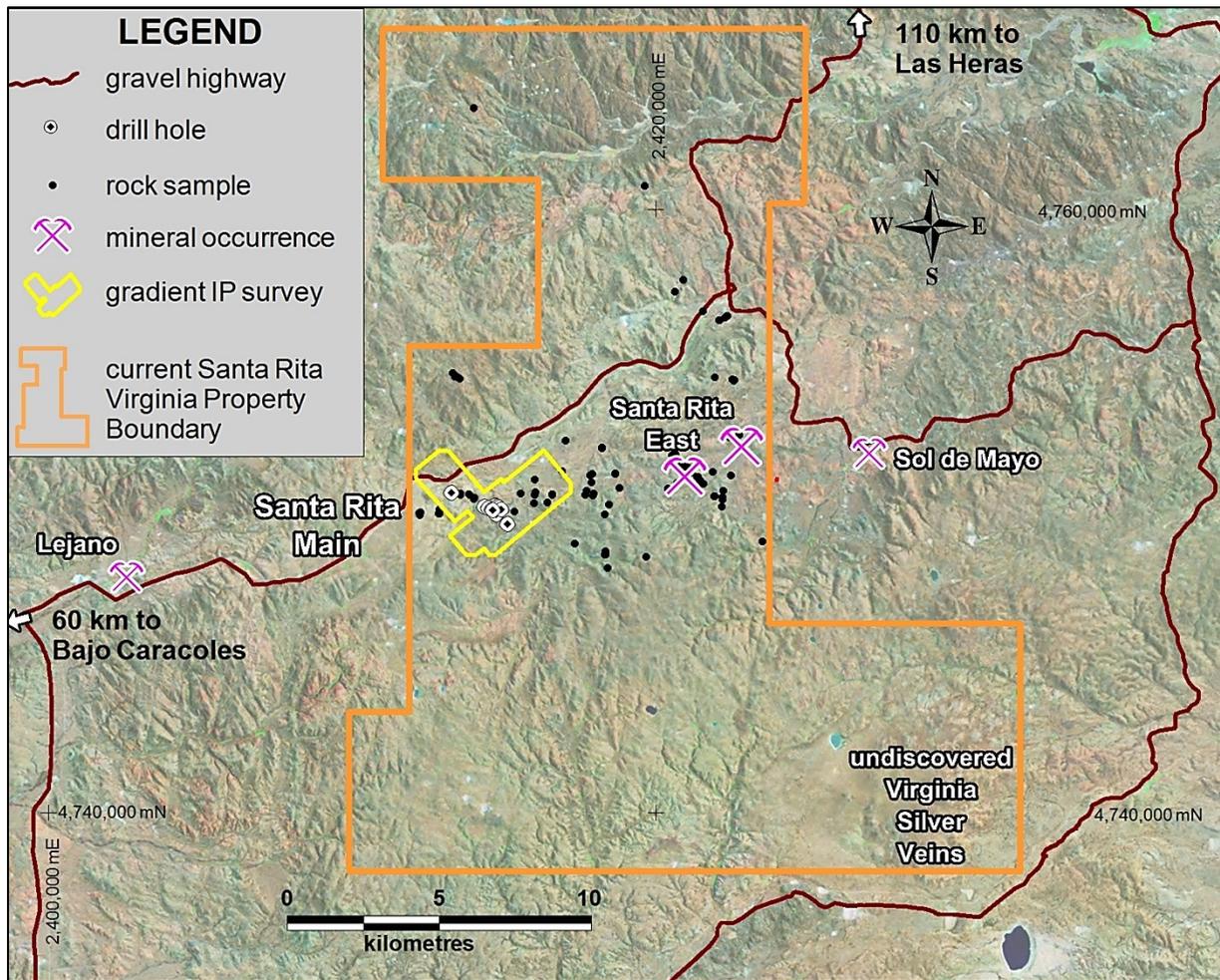
Source: Table derived from Mirasol, 2014.

Based on the results, Hochschild withdrew from its option with Mirasol on the Estancia Santa Rita and returned the properties to Mirasol Argentina in September 2008. When Hochschild renounced the option on Santa Rita with Mirasol, it provided copies of all the exploration work it had done for Mirasol. Mirasol has reviewed that information in detail (Global Ore Discovery, 2009) and has found no indication that Hochschild explored the area where the Virginia silver veins would later be found. Based on its review, Global Ore Discovery (2009) recommended work on several unexplored parts of the property. One of the areas selected for exploration was the Virginia Window area.

Mirasol Argentina then continued exploration work on other portions of the properties, which resulted in the discovery of the Virginia Vein system in November 2009. Ownership of all properties was then transferred to a new Argentinian subsidiary wholly owned by Mirasol called Minera del Sol S.A. in early 2010, and all subsequent exploration work was done under this new subsidiary.

The locations of these historical works to September 2009 are shown in **Figure 6-1**, and the Virginia Veins were not discovered at this time.

Figure 6-1: Map of historical work to September 2009



Source: Figure derived from Mirasol, 2014.

As stated previously, the Qualified Persons responsible for this updated Technical Report have used "Mirasol" and "Minera del Sol" interchangeably where appropriate, and both refer to the same company.

6.2 HISTORY MINERAL RESOURCE ESTIMATES

Discovered by Mirasol in 2009, the Virginia Silver Deposit hosts a high-grade, low-intermediate sulphidation epithermal style mineralization in a series of prominent outcropping vein-breccias associated with a rhyolitic volcanic flow dome field. In 2016, after completing a series of drill programs, Mirasol filed an amended NI 43-101 Resource Estimate with an indicated mineral resource of 11.9 million ounces of silver at 310 gpt silver and a further inferred mineral resource of 3.1 million ounces of silver at 207 gpt silver (see amended NI 43-101 technical report titled "Amended Technical Report, Virginia Project, Santa Cruz Province, Argentina - Initial Silver Mineral Resource Estimate" dated February 29, 2016, prepared by D. Earnest and M. Lechner and filed on SEDAR+).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

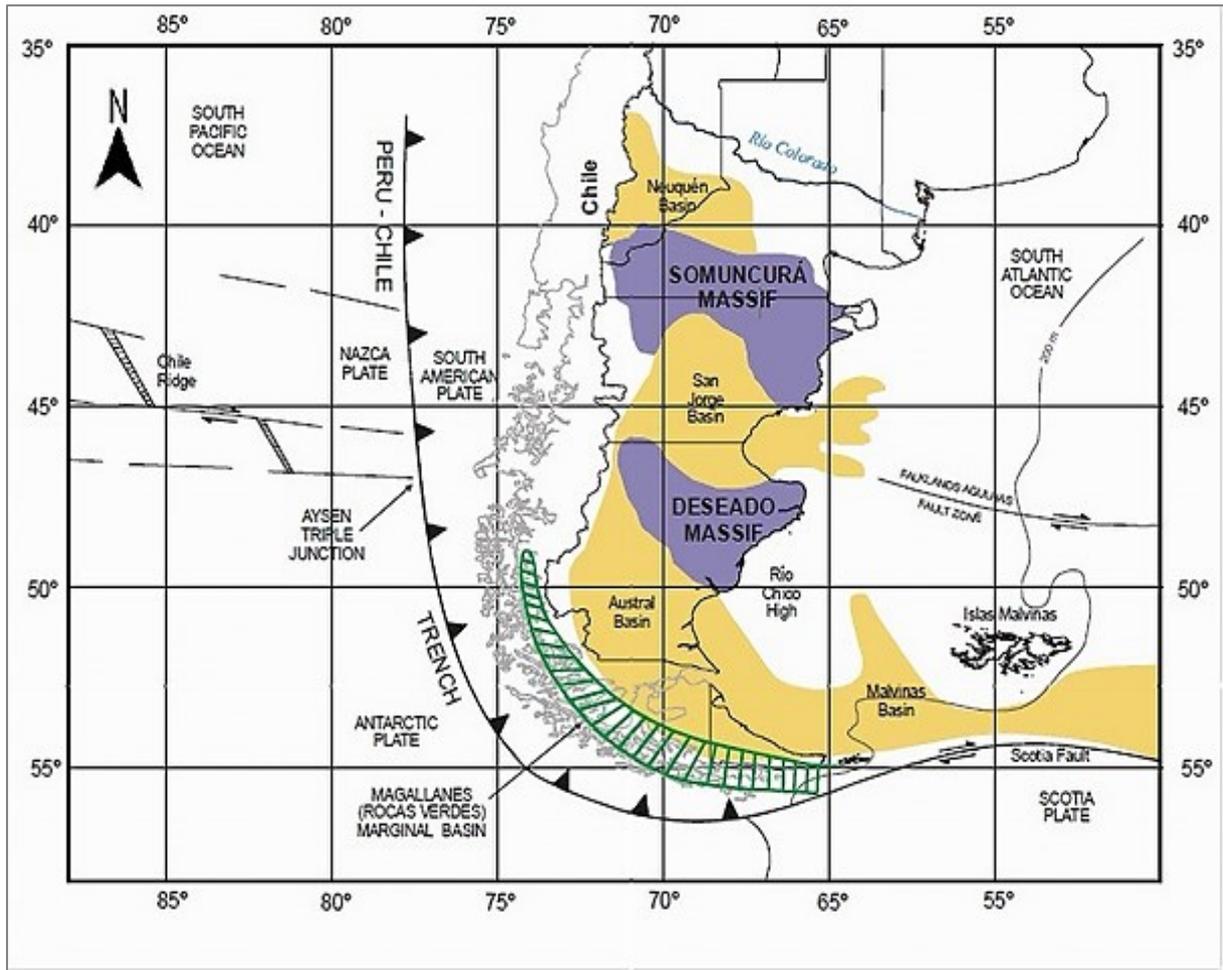
7.1 REGIONAL GEOLOGY

The Argentine portion of extra-Andean Patagonia begins south of the Río Colorado, where the geology changes dramatically from Precambrian and Early Paleozoic basement to the north to a pair of extensive upland physiographic features (massifs) composed of thick sequences of Triassic and Jurassic felsic volcanic rocks separated by post-Jurassic sedimentary basins extending offshore to the South Atlantic passive continental rift margin with very few, if any, outcrops of older rocks. These rocks are not lava flows from volcanoes but are ash-flow tuffs forming blanket "ignimbrite" deposits that erupted from linear fissures or circular collapse features (calderas). They are the products of venting to the surface of large felsic magma chambers emplaced at high crustal levels that, in other continental settings, would have slowly crystallized at depth to form granite batholiths. These Mesozoic volcanic rocks and their ore deposits are intimately related in time and space to the breakup of the Gondwana supercontinent and the opening of the South Atlantic Ocean (Sanders, 2000).

The northernmost ignimbrite plateau, the Somuncurá Massif, is composed of older volcanic rocks than the Deseado Massif, and the Mesozoic volcanism that affected the entire "Gondwana Fringe" Province shows a steadily younging progression beginning with Permo-Triassic age acid volcanism in San Juan Province in the north. The southernmost ignimbrite plateau, the 60,000 km² Deseado Massif, is an important gold-silver producer subject of intense prospecting by international mining companies (**Figure 7-1**).

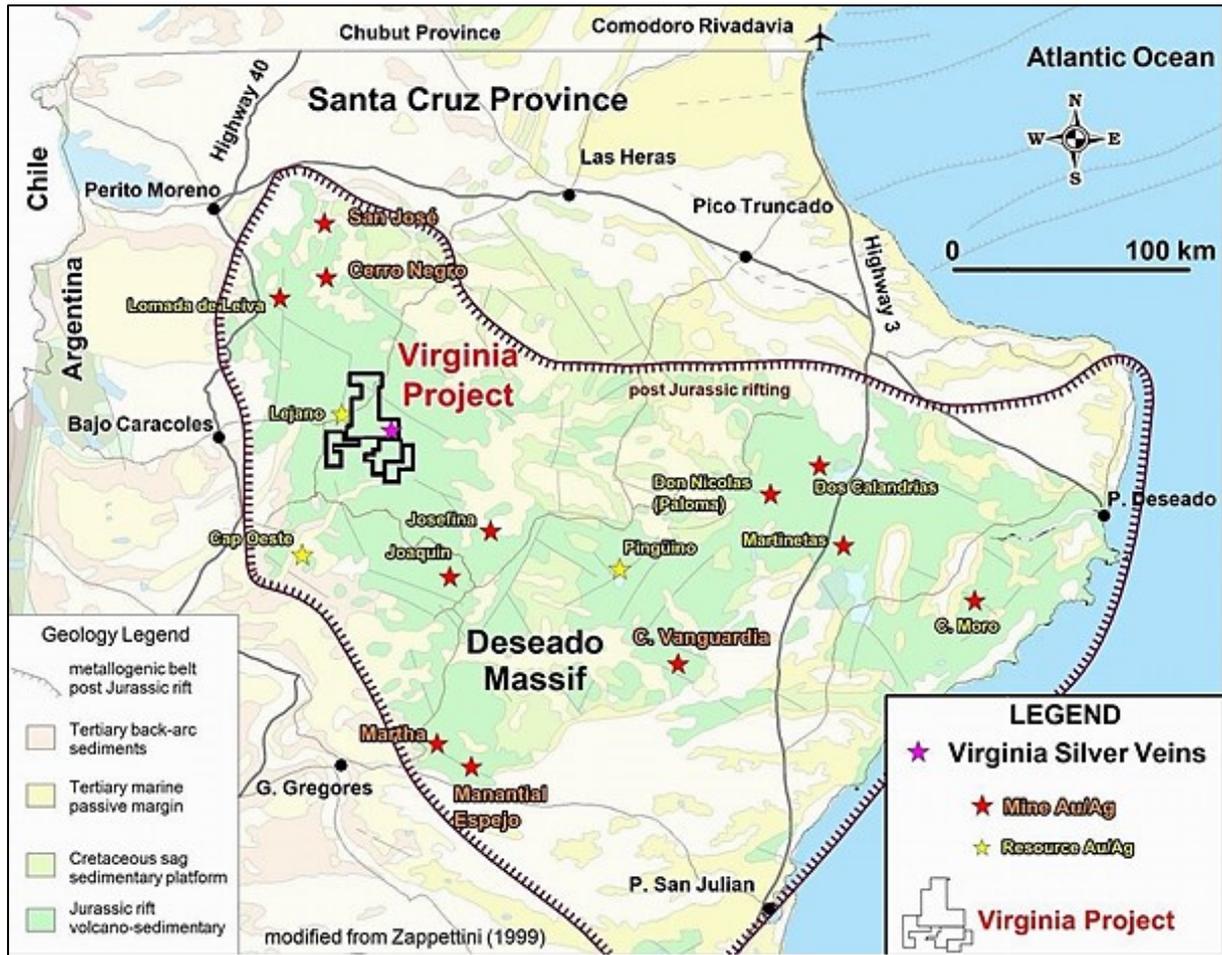
The Virginia project is located in this geological province (Ramos V., 1999), located in Southern Patagonia. The geologic setting and stratigraphy of the Deseado Massif are summarized in **Figures 7-2** and **7-3**. It is a massif (Leanza, 1958) independent of the North Patagonian (Feruglio, 1946), limited to the north by the Deseado River, to the south by the Chico River, to the west by the Mayo River ridge and to the east by the Atlantic Ocean (Zappettini, 1999). It was called a Nesocraton by Harrington (1962), given its superlative tectonic stability, persistently sub-positive nature, and stabilization in the Paleozoic (Ramos V., 1999).

Figure 7-1: Location and plate tectonic setting of the Deseado Massif



Source: Figure derived from Sanders, 2000.

Figure 7-2: Geologic setting map of the Deseado Massif with epithermal Au–Ag deposits



Source: Figure derived and modified from Mirasol, 2014 by PGSc, 2023.

The basement of the massif consists of igneous-metamorphic rocks from the lower Paleozoic, found in small outcrops (Giacosa R., 2002). Sequences of Proterozoic phyllites and schists dated at 540 ± 20 Ma that are intruded by granitoids and subvolcanic rocks of the Silurian age are presented (Ramos V., 1999). The name Río Deseado Complex was proposed for this set of igneous-metamorphic rocks (Panza & Márquez, 1994). On the other hand, in the central-western zone of the massif, a second unit was defined, called La Modesta Formation, composed of low-grade metamorphic rocks of the Silurian-Devonian age (Ruiz, 2012).

The basement is unconformably covered by the continental rift sequences (Ramos V., 1999) of the Tres Cerros Group of the Permian age, which is made up of the La Golondrina and La Juanita formations and by the sedimentites and pyroclastites of the El Tranquilo Formation of Triassic (Marquez, 1993). They were deposited in a generalized extensional regime that continued until the end of the Triassic, with faulting and formation of asymmetric blocks, which generated a system of grabens and hemigrabens, oriented NW-SE, developing a rift basin called La Golondrina (Homoc & Constantini, 2001; Ruiz, 2012)¹. Above, during an epi-pyroclastic event, the Roca Blanca Formation was deposited from the Middle to Late Triassic. These sedimentites are intruded by acidic to intermediate calc-alkaline plutons from

the Early Jurassic La Leona Formation (De Barrio et al., 1999), developing halos of contact metamorphism in the host rocks. Distensive phenomena continue, evidenced by calc-alkaline basaltic to trachyandesitic dikes of the Cerro León Formation of the Upper Lower Jurassic age (Torciano) (Ruiz, 2012).

During the Mesozoic, the tectonic evolution of the massif is related to the breakup of Gondwana and the opening of the Atlantic Ocean (Echavarría & Schalamuk, 2005). The deformation caused by various stress episodes was produced by two different plate tectonic regimes to the west and east of the massif. On the one hand, the compressive stress of the Andean subduction and the extensional of the early stages of the South Atlantic rift (Reimer et al., 1996). This extensional tectonic regime originated a series of hemigrabens in an NNW direction, delimited by listric normal faults associated in time and space with the deposition of volcanic rocks (Gust et al., 1985).

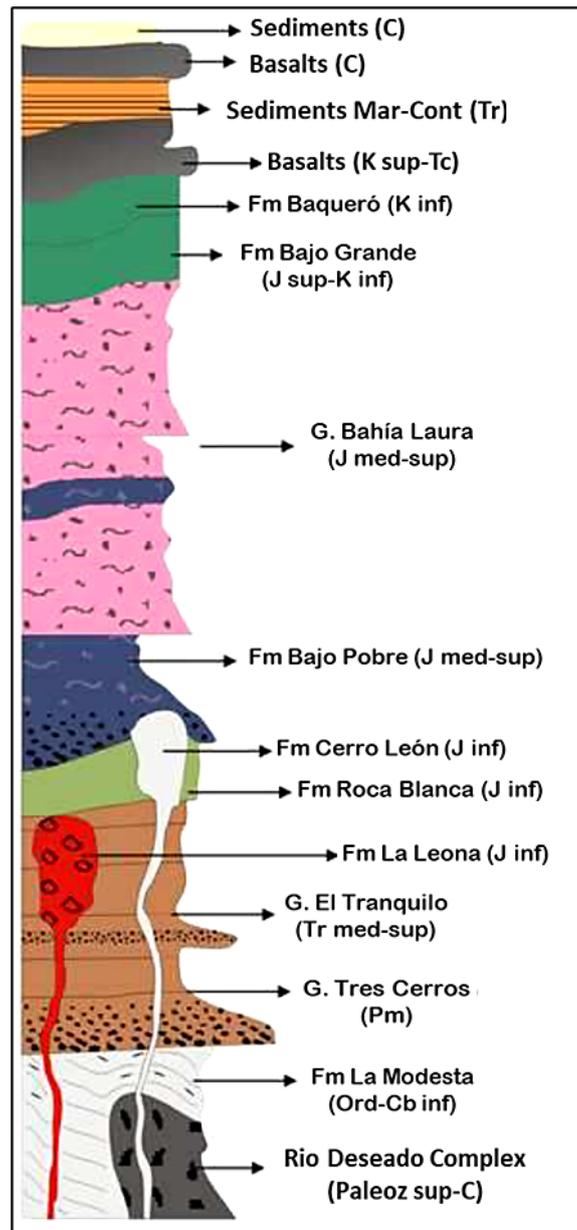
The change in the tectonic regime of the massif started in the Triassic. It caused a general extension that reached its maximum expression in the Jurassic (De Barrio et al., 1999), which gave rise to a volcanic-pyroclastic-sedimentary complex of acid to mesosilicic composition called the Bahía Laura Group, made up of the Chon Aike and La Matilde formations. Although the extension results in extensive rhyolitic magmatism, these are preceded by the basalts of the Bajo Pobre Formation (Ramos V., 2002). The Chon Aike Formation is a potent sequence of rhyolitic ignimbrites and felsitic volcanic agglomerates, which meshes laterally with the laminated tuffs and lacustrine volcanogenic sediments of the Fm. La Matilda (Martinez & De Pasquale, 2011).

Subsequently, in the Upper Jurassic Lower Cretaceous, pyro-epiclastic sediments of the Bajo Grande and Baqueró Formations and the equivalents of the Chubut Group were deposited in a context of distensive and subsiding processes (De Barrio et al., 1999).

The Bajo Grande Formation of the Upper Jurassic to Early Cretaceous age consists of a set of varicolored sedimentary and pyroclastic stones, in which tuffs, tuffites, sandstones, and conglomerates. The Baqueró and Laguna Palacios Formations were deposited in angular unconformity over the Bajo Grande Formation (Giacosa et al., 2010). The first deals with tuffs, sandstones and tuffaceous shales related to an extensional reactivation of the Aptian, in which these pyroclastic stones were deposited (Echavarría & Schalamuk, 2005).

In the Miocene, the continental sediments of the Santa Cruz Formation were deposited, which were later covered in the Mio-Pliocene by extensive basaltic flows. In the Pleistocene, it is unconformably deposited the gravels of the La Avenida Formation and basalt mantles (Schalamuk et al., 1999) (**Figure 7-3**).

Figure 7-3: Stratigraphy of the Deseado Massif



Source: Figure derived and modified from Jovic, 2009 by PGSc, 2023.

7.2 PROPERTY GEOLOGY

The lithology in the Virginia property is represented by Quaternary gravels, Tertiary marine sediments, and volcanic rocks of Jurassic age assigned to the Bahía Laura Group by Panza & Márquez. (1994). The Bahía Laura Group is regionally documented to encompass three formations, from oldest to youngest:

- The Bajo Pobre Formation comprises tuffs, flows, and sub-volcanic intrusive rocks of andesitic to basaltic composition.

- The Chon Aike Formation comprises rhyolitic rocks with ignimbritic pyroclastic facies and intrusive/extrusive flow domes.
- The La Matilde Formation is characterized by more epiclastic and both water-lain and aerially deposited ash-rich volcanoclastic deposits.

The age of the Bahía Laura Group is known to be Jurassic, but the precise age is still poorly defined. Panza & Márquez (1994) report Bajocian to Kimmeridgian ages, while Pankhurst et al. (2000) include some ages as old as 185 million years (Ma) (Pliensbachian). A growing database of ages at Cerro Moro shows that the volcanic sequence on the property spans a relatively short time, from 187 to 185 Ma (Pliensbachian), with some later subvolcanic rhyolitic rocks dated at 173 to 169 Ma (Bajocian).

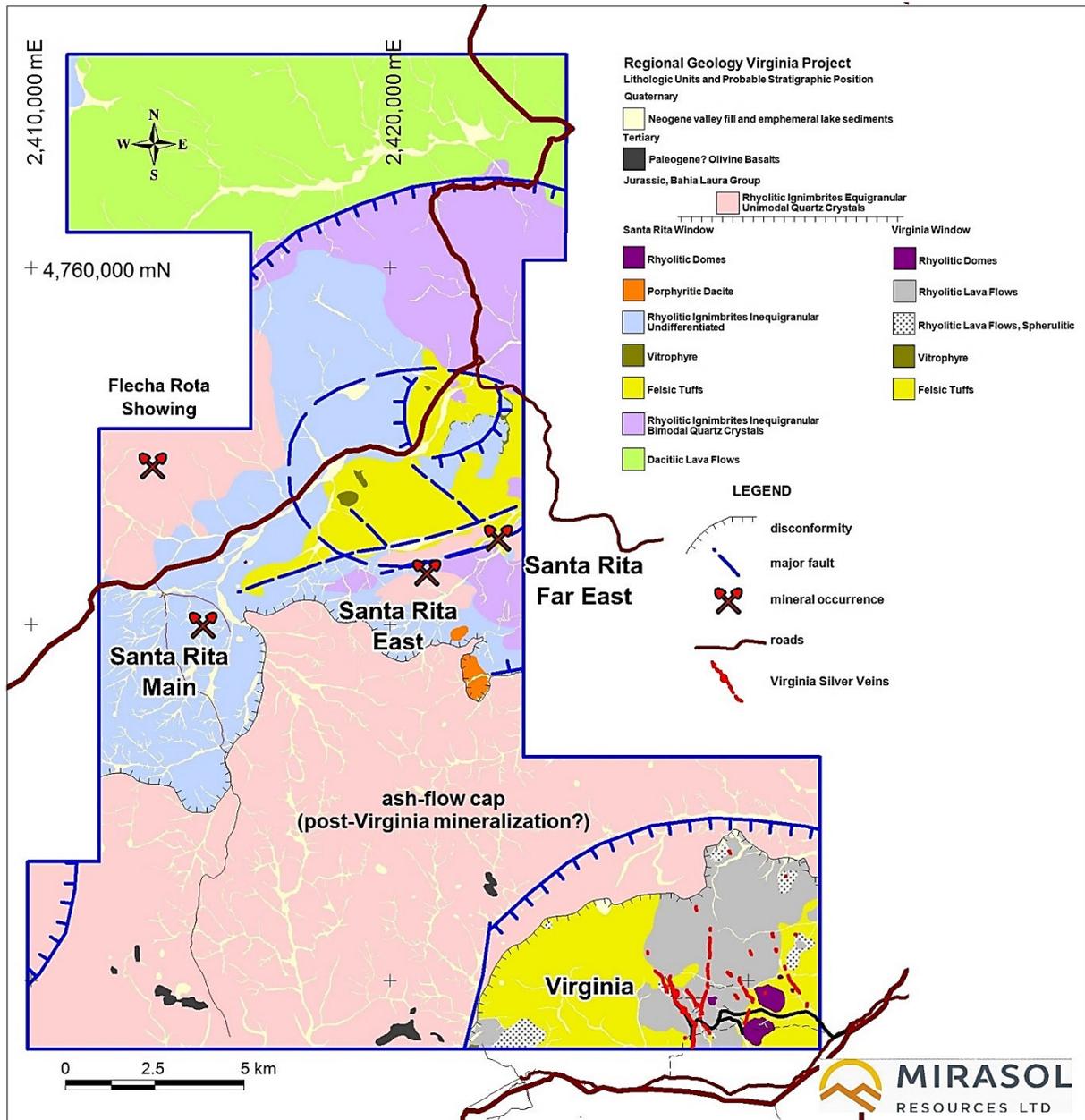
The government's best available published geological mapping is presented at a 1:250,000 scale (Panza and Cobos, 2001). At this scale, the entire area of the mineral properties is mapped as being covered by the Chon Aike Formation, so it is not presented.

Mirasol has recently completed mapping the whole mineral properties for the first time. Mapping comprised field observation made at field stations around the property and then was compiled at 1:25,000 scale using the point observations with local mapping at greater detail and also remote sensing images including Landsat TM, Aster, Google Earth and World View in order of increasing pixel resolution from 30 m to <1 m.

The Mirasol map (**Figure 7-4**) suggests that large circular structures are present in the area and that they control, at least in part, the distribution of the Jurassic volcanic units mapped.

The Virginia area is characterized by a sequence of felsic, probably rhyolitic, lava flows absent elsewhere in the map area. Associated with these flows are what appear to be sub-volcanic equivalents in the form of domes and also a sequence of felsic pyroclastic volcanic breccias and tuff. These units and the flows appear to be a co-magmatic series, although no petrologic work has been done to test this theory specifically. These related units appear to be overlain by an unrelated unit, an ash flow (ignimbrite), which is also felsic but notably different. It is characterized by a very strong cleavage, typically sub-vertically oriented, which is absent in the underlying units and is interpreted to be induced by cooling. This ash flow effectively separates the Virginia area from the Santa Rita area where Hochschild drilled Santa Rita Main show.

Figure 7-4: Property scale geologic map



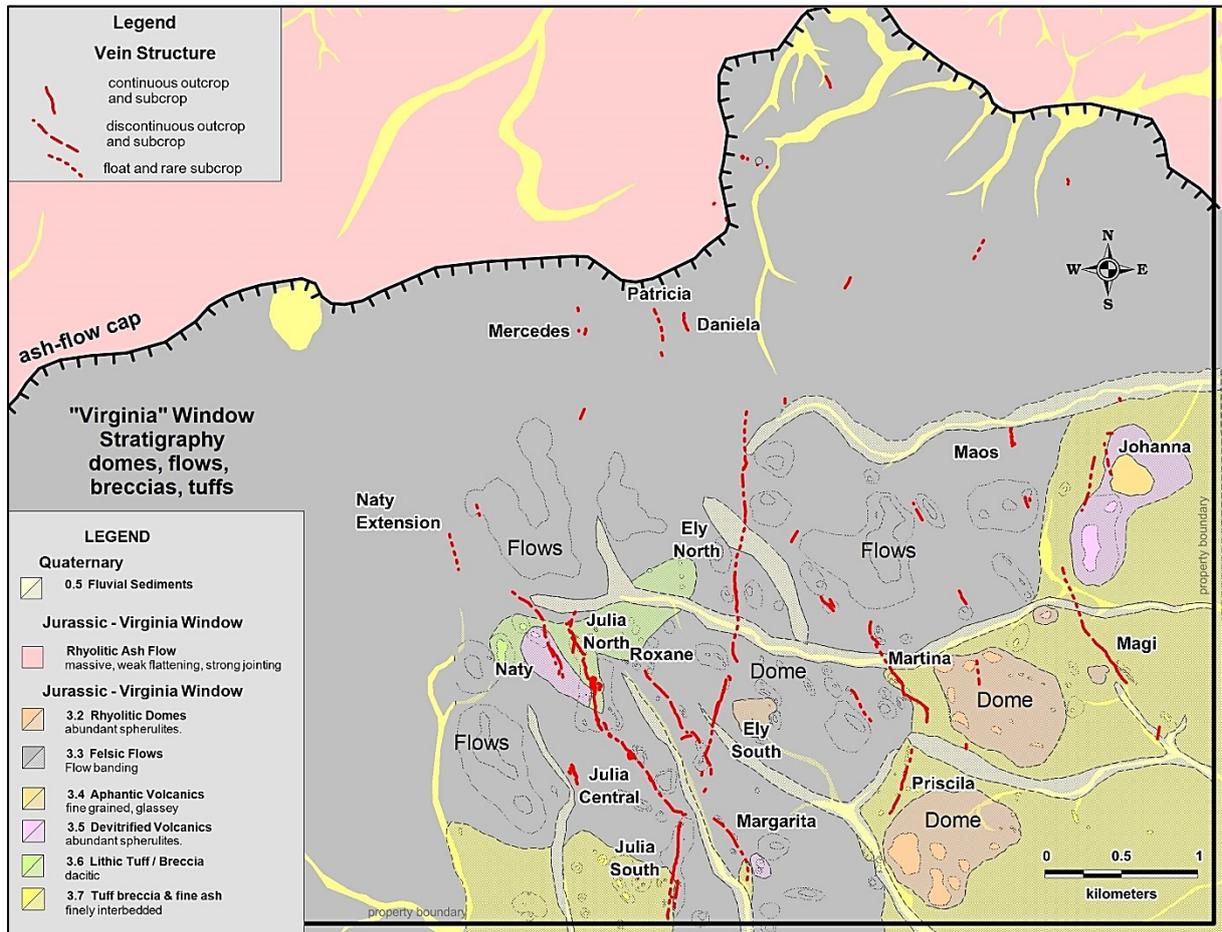
Source: Figure derived from Mirasol, 2014 by PGSc.

The stratigraphy in the Santa Rita area is unlike that of Virginia. No rhyolite flows are present, and the dominant rock types are felsic ignimbrites. Again, circular structures appear to be present and control the distribution of some of the volcanic units.

Tentatively the units are assigned to the Bahia Laura Group of the Chon Aike Formation. Still, an alternative interpretation could be that the Virginia window tuffs and flows are actually part of the Matilde Formation. Detailed mapping, petrogenetic studies and age dating could probably be used to test these interpretations, but work of that kind has not been done.

Most of the Virginia area has been mapped at a scale of 1:10,000, and a compilation of that mapping is presented below in **Figure 7-5**. It shows more detail, adding some minor lithologies that are not mappable at the scale of **Figure 7-4** and also allows the veins to be shown in more detail.

Figure 7-5: Geology of the Virginia Window sector



Source: Figure derived from Mirasol, 2014 by PGSc.

7.3 STRUCTURAL GEOLOGY

According to Panza & Cobos (2001), the region's structural interpretation is based on the study of aerial photographs, satellite images and field observations. The outstanding feature is faulting with subordinate folding structures.

These structures, clearly visible in aerial photographs, appear as breccia zones, silicification, friction mirrors, and veins of silica and/or barite accompanying the breccia strip; however, in most cases, the inclination of the fault plane and the relative movement along it is not evident.

The trace of the faults or fractures is only evidenced by highly silicified locally breached sectors, whose morphological expression is similar to dikes since they constitute thin ridges well-defined.

Different lithostratigraphic units are affected by folding structures. In all cases, they constitute dragging, anticline and syncline folds, almost always of limited areal extension and with very low inclinations of their wings (maximum 10°-15°). Hence, they are not very distinctive structures on the ground. The vast majority have axial axes of dominant courses NE-SW or NW-SE and, in a very subordinate way, north-south or east-west, with shallow dip values.

The structure of the region is of the type of blocks limited by fractures. The differential movement of the rigid blocks of the basement (currently in the area's subsoil) associated with the different fracturing systems produces warping of their cover and some secondary structures, such as drag folds.

The vast majority of the observed structures affect only rocks of the Bahía Laura Group. Locally, faults along an N20°W direction in the area affect the overlying Cretaceous deposits or the tertiary basalts and sediments.

The epithermal deposits of the Deseado Massif are characterized by mineralization in vein systems, stockworks and hydrothermal breccias of quartz, chalcedony, carbonates and sulphides, with a predominant general direction NW (NNW-WNW) and subordinate N-S, NE-SW and E-W. A scale regionally, these systems form clusters or districts constituted by vein arrangements of up to 200 km of linear extension (e.g., Cerro Vanguardia) and with high-grade zones of up to 600 gpt Au (e.g., Cerro Negro, La Josefina) and 45,000 gpt Ag (e.g., Mine Martha). The geographical position and spatial distribution of the associated epithermal and geothermal deposits, mapping regional geological-structural and image analysis satellites, seismic lines and aero-magnetometric data, show that these districts are associated with regional geological and magnetic orientation guidelines WNW and NNW (Giacosa et al. 2010, Guido and Campbell 2011).

7.4 MINERALIZATION

The Virginia Window and Santa Rita are the two known areas of mineralization on the Virginia Project while clearly epithermal in origin, contain markedly different mineralization styles and textures. The differences in host rocks and mineralization styles, along with the 15 km distance separating the two areas, suggest that the two occurrences likely represent different hydrothermal events.

7.4.1 Virginia Window Sector

Lhotka (2014) mentions that in Virginia, the veins are typically dark-coloured with abundant iron and manganese oxides such that the outcrops appear almost black in colour from a distance. The veins comprise quartz, specular hematite, earthy iron oxides, and manganese oxides, and only very rarely are any sulphides visible, and they are invariably galena. Quartz textures at Virginia range from chalcedonic quartz to saccharoid to colloform banded and rarely crystalline. Occasionally, pseudomorphs of quartz are seen after barite and/or calcite. The Virginia veins are multi-stage, and in many cases, fragments of banded and massive veins are seen in vein/breccia. These vein breccias, typically containing fragments of banded and

massive quartz in an iron-rich silica matrix, are common, indicating multiple stages of re-breaking associated with multi-stage vein emplacement and/or tectonic overprints, the latter generally indicated by the presence of vein quartz and/or vein breccia fragments in a clay-rich matrix of fault gouge. The vein outcrops within the Virginia Window are quite spectacular, locally jutting more than five meters above the surrounding gently rolling grassy topography.

The Virginia veins are characterized by very strong silver values, with gold often below the detection limit according to the analytical method (50 ppb).

Mineralized vein outcrop widths range from one to five meters. Vein outcrops, sub crop, and vein float can be traced for hundreds of meters of strike distance. Nearly all veins strike approximately N20°W (340°Azimuth), with the main exceptions being the Julia South, Ely South, and Ely North, which strike approximately N10°E (10° Azimuth). Vein dips generally range from sub-vertical to -70 ° west, except for the Ely North and Ely South, which dip 65° to 75° east-southeast (**Table 7-1**).

Table 7-1: Azimuth and Dip of vein outcrops, subcrops and vein float of the Virginia Window Sector

Vein	Azimuth	Dip
Julia Sur Extension	7°	80° E
Julia Sur	7°	85° E
Julia Central	322°	88° W
Julia Norte	345°	80° W
Naty	325°	83° W
Margarita	320°	73° W
Ely Sur	5°	88° E
Ely Central	12°	86° E
Ely Norte	358°	70° E
Martina NW	337°	85° W
Martina Central	330°	83° E
Martina SE	330°	85° E
Martina SW	0°	70° W
Maggi	325°	80° W
Maos	350°	80° E
Patricia	345°	66° E
Daniela	357°	60° W

Source: Table derived from Mirasol 2023 by PGSc.

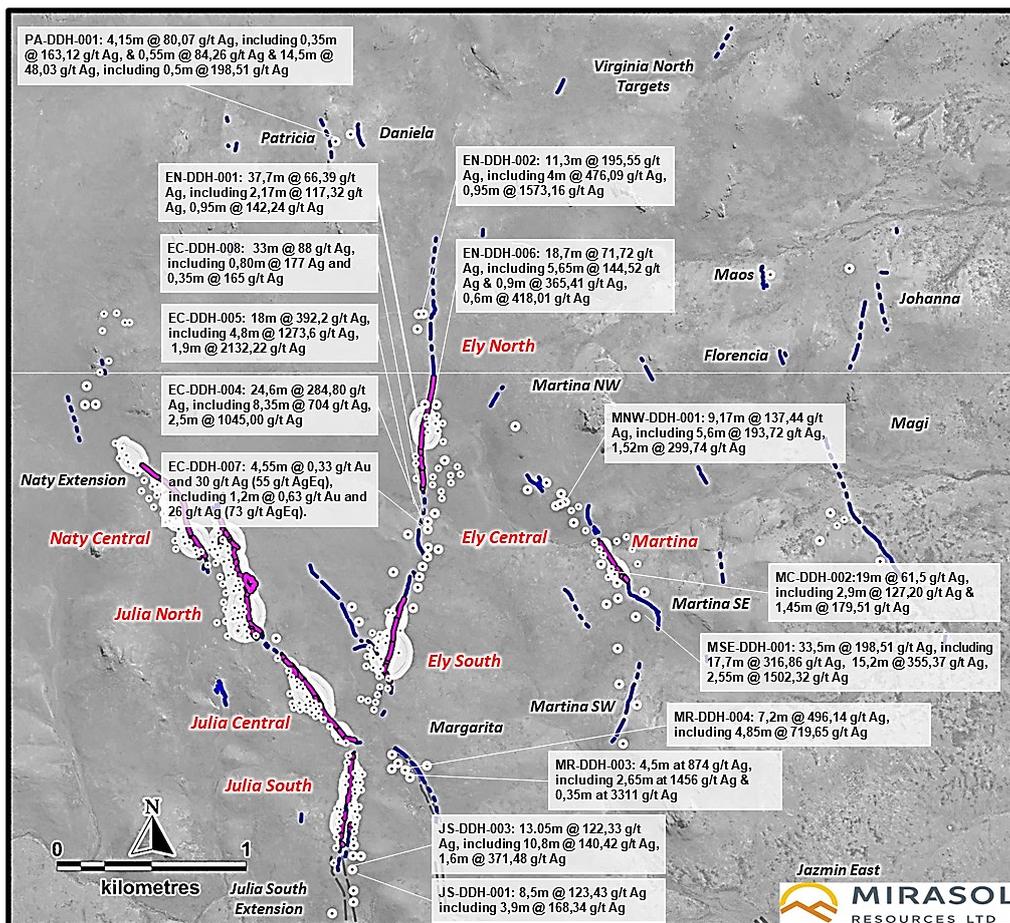
Silver mineralization consists almost entirely of acanthite, which occurs in banded veins, multi-state veins and vein breccias, with silver grades locally reaching “bonanza” levels (125 individual silver assays were greater than 1,000 gpt silver). However, gold content is low, with only three gold assays over 1.0 gpt Au, the highest of which was 1.56 gpt Au. Base metal mineralization is limited to sparse amounts of galena. The silver grades do not extend very

deep in the veins of the Virginia system, reaching only 75-100 m deep in the Julia Central, 40-100 m in the Julia Norte, 50-75 m in the Julia Sur, 30-75 m in the Naty, 50-150 m in the Ely Sur, 50-125 m in Ely Norte, 75-100 m in the Martina Vein, 50-75 m in the Ely Central, 50-75 m in the Margarita.

In addition to silver, abundant iron and manganese oxides are present in the various Virginia veins, along with local scattered amounts of arsenic, antimony, and mercury, with the latter three typically found in epithermal deposits in varying amounts.

More than 15 veins have been mapped, sampled and drilled according to the ranking of targets defined by Mirasol (Kain, 2012), which include: the Julia South, Julia Central, Julia North, Ely South, Ely Central, Ely North, Margarita, Roxane, Naty, Naty Extension Martina NW, Martina Central, Daniela, Patricia, Mercedes and Maos-Johanna. significant intercepts in extensions of the main veins-breccias (Ely Central, Ely North, Martina NW, Julia South and Margarita) (Figure 7-6).

Figure 7-6: Virginia Window Sector with mineralized structures



Source: Figure derived from Mirasol, 2023 by PGSc.

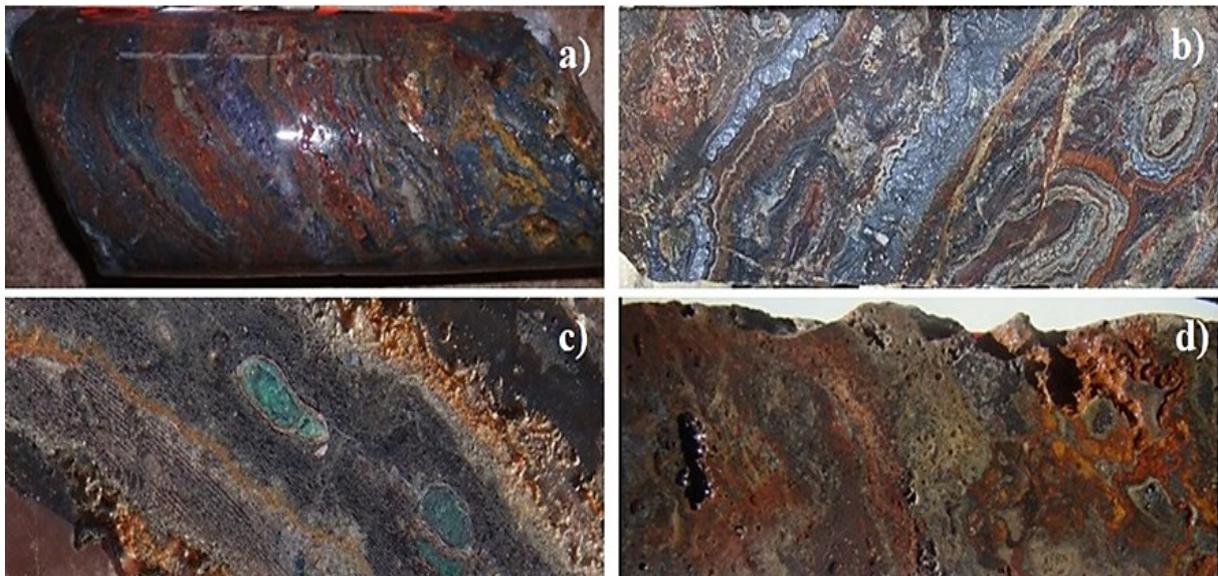
Mirasol (2023) differentiates lithological units in this sector based on their mineralogical and textural composition and their genesis. They are:

Quartz Vein (QV)

Vein of microcrystalline and cryptocrystalline quartz with the development of banded colloform-crustiform textures of green, yellowish-green, and gray colours. It is usually seen interspersed with bands of hematite/goethite. In some sectors it is also observed the development of cocarded textures. An event with the development of massive gray to greenish quartz is also recognized.

This unit is the most important mineralization associated with and the bearer of the highest silver contents, being present as acanthite and, in some specific cases, as halides (Julia and Margarita veins). It is common to observe galena bands' development and very few copper oxides. The predominant alteration is pervasive silicification (**Figure 7-7**).

Figure 7-7: Drill core samples from the Virginia Window sector



- a) Drill Hole VG-025 (65 m). Vein with bands of green and gray cryptocrystalline quartz, silica-hematite, microcrystalline amethyst quartz, and fine sulphides.
- b) Drill Hole MR-DDH-003 (45.40 m). Quartz vein with banded and cocarded textures. Bands of massive galena in the center.
- c) Drill Hole MR-DDH-004 (61.10 m). Banded quartz vein with cavities filled by copper oxides.
- d) Drill Hole VG-017 (36.30 m): Quartz vein with banded texture and leaching.

Source: Figure derived and modified from Mirasol, 2023 by PGSc.

Hydrothermal Breccia with Fragments of Quartz Vein (BXH_VN)

Hydrothermal breccia with a marked predominance of quartz vein fragments with a silica-hematite matrix. The clasts are of variable size and proportions and have an angular to subangular shape and colours that vary mainly between green and gray. It is common to find this domain next to the banded vein, mainly towards the edges, although sometimes this breccia does not show the banded vein and only fragments of it are found.

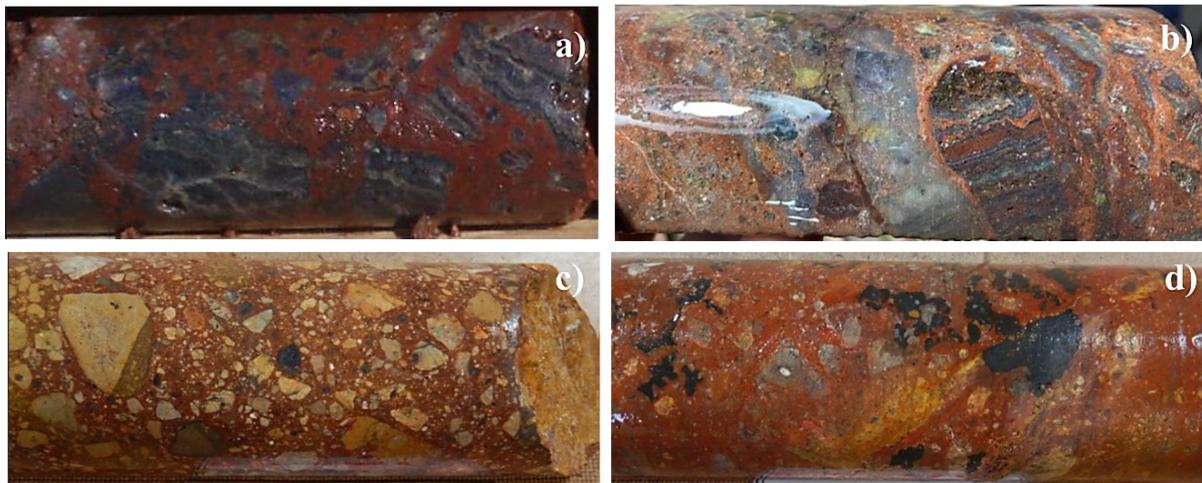
In this lithological domain, silver mineralization is very important and is mainly associated with vein fragments and, to a lesser extent, with the matrix with silica-hematite cement. The predominant alteration is pervasive silicification (**Figure 7-8a and b**).

Polymictic Hydrothermal Breccia (BXH_P)

Hydrothermal breccia with variable participation of vein fragments and bedrock. The clasts have angular to subangular geometries and are variable in size. They are generally matrix-support, although breccias have many clasts and little silica-hematite cement.

The mineralization is significant, although to a lesser extent than the two previous units, since the proportion of vein fragments decreases and the participation of the host rock increases. The dominant alteration is pervasive silicification (**Figure 7-8c and d**).

Figure 7-8: Drill core samples from the Virginia Window sector



- a) Drill Hole VG-028 (71.90 m). Hydrothermal breccia with angular fragments of banded vein in silica-hematite cement.
- b) Drill Hole MR-DDH-005 (56.45 m). Hydrothermal breccia with banded vein fragments and massive quartz.
- c) Drill Hole EC-DDH-007 (176.85 m). Polymictic hydrothermal breccia, silica-hematite support matrix containing subangular fragments of rhyodacite and a smaller amount of cryptocrystalline gray quartz.
- d) Drill Hole EC-DDH-007 (173.80 m). Polymictic hydrothermal breccia with the presence of manganese oxide.

Source: Figure derived and modified from Mirasol, 2023 by PGSc.

Monomictic Hydrothermal Breccia (BXH_VRD)

Hydrothermal breccia with bedrock fragments and no vein fragments. Silica-hematite-manganese oxide cement.

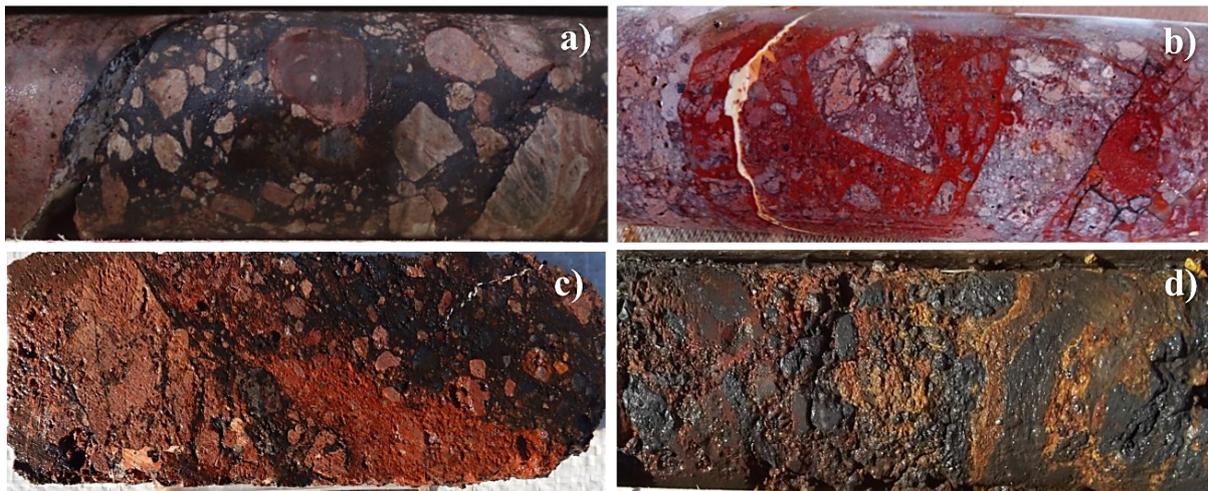
Mineralization is scarce and is mainly associated with the cement of the breccia. The dominant alteration is pervasive silicification, with less intensity than the previous domains (**Figure 7-9a and b**).

Fault Zone (FLT)

Tectonic breccias are characterized by containing fragments of host rock and quartz. Clays usually form the matrix. Silicification is scarce in the clasts and the matrix with little manganese oxide.

The mineralization is variable depending on the location of the tectonic breccia to the mineralized body. This event is later and occurs along the same discontinuities that generated the location of the breccias/veins. For this reason, it usually has significant metallic contents and would be associated with its fragments (**Figure 7-9c and d**).

Figure 7-9: Drill core samples from the Virginia Window sector



- a) Drill Hole VG-123 (69.20 m). Hydrothermal breccia with flow texture and silica-manganese oxide cement and rhyodacite fragments.
- b) Drill Hole EC-DDH-003 (22.80 m). Monomictic hydrothermal breccia with fragments of rhyodacite and manganese oxide surrounding some clasts.
- c) Drill Hole MC-DDH-002 (81.60 m). Fault breccia with a predominance of rhyodacite fragments in a silica-hematite-manganese oxide matrix.
- d) Drill Hole VG-184 (161.60 m). Fault breccia with fragments of rhyodacite and quartz in a matrix with clays and oxides.

Source: Figure derived and modified from Mirasol, 2023 by PGSc.

Crackle Breccia (VRD_BXK)

This lithological domain is characterized by developing a breccia texture with little opening and, therefore, less cement development. It is generally found associated with the edges of the domain, marking a transition towards the halo but with visibly higher silver values, which indicates the importance of the mineralized hydrothermal input.

The lithological units that form part of the case rock of the mineralized structure are the following:

Porphyritic Texture Rhyodacite (VRD)

This lithological domain is characterized by a fine porphyry texture, with phenocrysts mainly of quartz and plagioclase with kaolinitic alteration. It is common to find it interspersed with the flow and devitrification facies, often presenting superimposed textures. Oxidation may be present in variable intensity, and silicification of hydrothermal origin may be strong in the vicinity of the vein/breccia domain.

Flow Texture Rhyodacite (VRD_FB)

Flow-textured rhyodacite is a lava facies whose main characteristic is bands of different colours give the flow texture. Oxidation and silicification are variably present. It is also common to find it alternately with porphyritic and spherulitic textures.

Self-brecciated Rhyodacite (VRD_ABX)

The rhyodacite with a self-breccia texture is a lava facies, the product of incorporating fragments of the lava itself as it cooled at its edges. The main characteristic is the breccia texture with rhyodacite fragments but without hydrothermal input. Oxidation and silicification are variably present.

Rhyodacite with Spherulitic Texture (VRD_SPH)

This lithological unit is characterized by spherulitic textures and radial growth of quartz or alkali feldspar needles from a core and is formed during devitrification. It is common to find it intergrown with the flow bands. It can be found with varying intensities of oxidation and argillization.

Pyroclastic Breccia (PBX)

This lithology is characterized by its chaotic breccia texture due to the dragging of rock fragments resulting from a violent pyroclastic flow. Oxidation and argillic alteration are usually present in clasts and the matrix.

Lithic Tuff (LT)

This lithology is characterized by lithic fragments in variable sizes and proportions and a fine volcanic ash matrix. It is usually found interspersed with more tuffaceous horizons and even pyroclastic breccias. It is often found with incipient stratification. Oxidation and argillic alteration are usually present in clasts and the matrix.

7.4.2 Santa Rita Sector

According to Correa (2007), mineralization found in Santa Rita is distributed in two sectors, one of them called Santa Rita East, whose characteristic is the presence of subvertical quartz veins and veinlets of a general NW direction and thickness variable between a few cm up to approximately 6 m, with an extension of 2.5 km, forming a stockwork that a maximum development of 35 m of wide. These structures are characterized by presenting a solid texture

of saccharoidal silica to crystalline quartz and with little mottling of limonite-type iron oxides. Eventually, textures are observed in breccia formed by clasts of host rock cemented by silica (**Table 7.2**).

Table 7.2: Azimuth and Dip of vein outcrops, subcrops and vein float of the Santa Rita Sector

Vein	Azimuth	Dip
Santa Rita Este	10°	75° E
Santa Rita Central	340°	78° W
Santa Rita Main	110°	65° W

Source: Table derived from Mirasol, 2023 by PGSc.

The other sector, Santa Rita Main or Santa Rita Breccia, consists of a body with a breccia texture about 500 m long by approximately 20 m wide in sectors and a general NW orientation. Santa Rita's Main mineralization is characterized by white chalcedonic to crystalline quartz veins with low sulphide and iron oxide content generally, with low to moderate silver values and typically some low values in gold. Associated with those veins are rare grey chalcedonic quartz with abundant, fine-grained pyrite, which contains much higher silver values and, again, subordinate gold. Quartz replacements of bladed carbonates are sometimes seen. The textural characteristics and alterations suggest an origin from a superficial hydrothermal system.

7.4.3 Mineralization Model

Kain (2012) proposes a **Mineralization Model (Figure 7-7)** for the Virginia Project, as the main characteristics are mentioned:

- The Ag is associated with quartz, mainly a dark gray to greenish saccharoid and less chalcedonic, sometimes cavernous. The quartz textures range from the typical colloforms and crustiforms to the very minor bladed. Jasperoidal silica (silica-hematite) is common, mainly as a breccia filler. This quartz presents several episodes of breccia, for which, in general, the structures appear as vein/breccia.
- Up to the level known in Virginia, to a depth of at least -150 m from the surface, the structures encounter strong supergenic oxidation.
- The sector of central Virginia where the main known structures are located from the surface to a depth of -150 meters would represent the CC (or Colloform-Crustiform) textural zone according to the Buchanan model (1981) and later textural model by Morrison et al. (1990).
- The Julia Sur, Ely Sur and Ely Norte structures show textures from the two CC subzones. In contrast, Julia Central, Julia Norte and Naty show more erosion, mostly showing only the CC superzone's lower subzone. On the other hand, the Martina

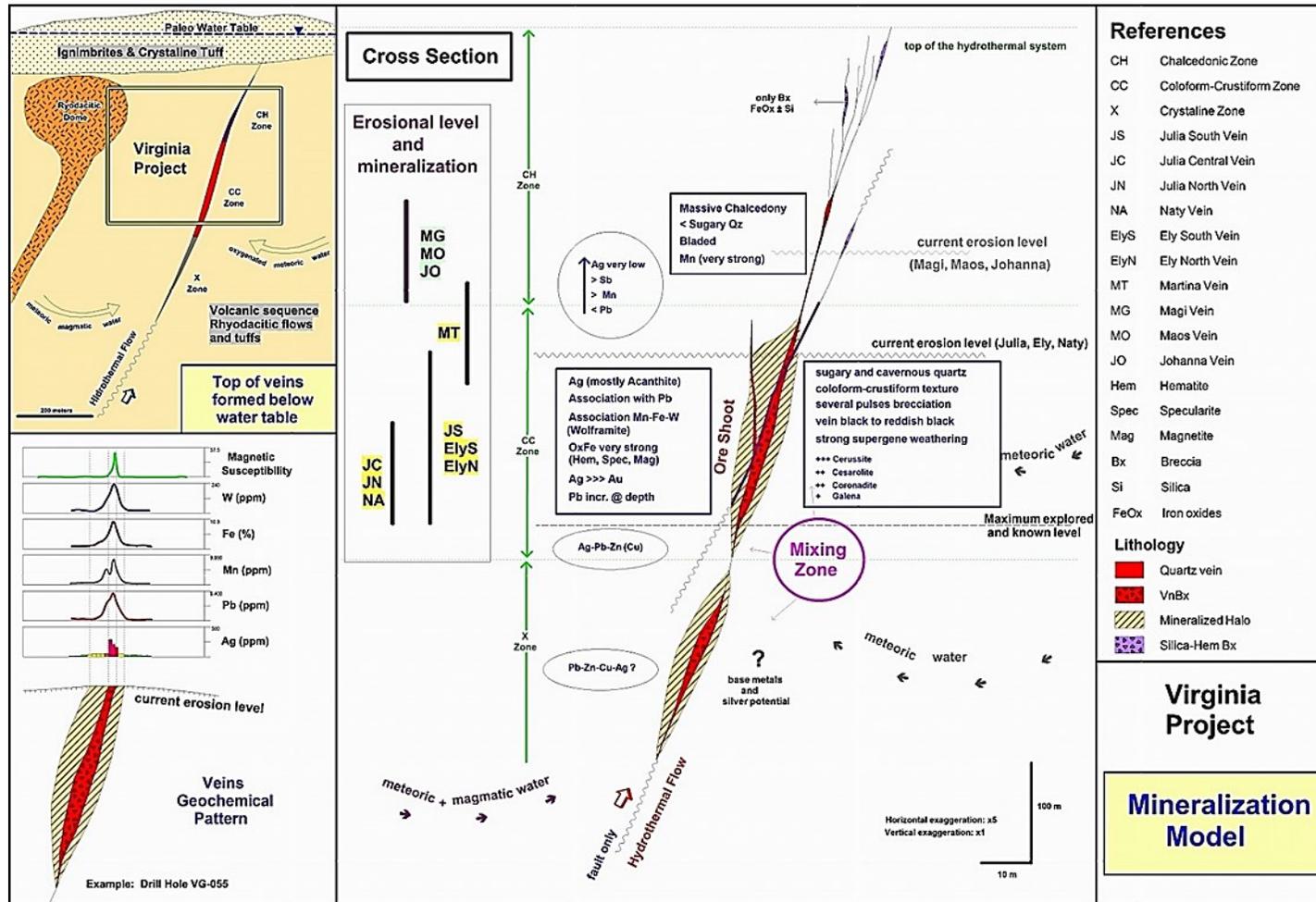
structure is represented by a reduced part of the lower subzone of the CH (Chalcedonian) superzone and the upper CC subzone.

- The E and NE sector of Virginia, which includes the Magi, Maos and Johanna structures, according to the type of chalcedonic quartz, mostly massive, minor colloform textures and bladed textures, plus geochemistry with favourable indicators such as Sb, would seem to represent part of the lower CH subzone of the hydrothermal system so that the system would be less eroded. The potential mineralization of the CC zone would be preserved.
- The top of the hydrothermal system in Virginia appears as a series of fine breccias with a silica-hematite matrix with clasts of bedrock or simply a single Fe-oxide fault breccia. This system reached the crowning stratigraphic unit. The area is informally called “*La Lajosa*” (ignimbrites and acid crystalline tuffs), as seen in the northern sector of the project outside the erosive window.
- On the other hand, based on the increase in Pb and Cu at depth, more elements indicative of possible sulphides at depth are not ruled out in a significant concentration of base metals in zone X of the system.

7.5 PGSc QP COMMENTS

PGSc and the QP believe that the knowledge of the deposit settings, lithologies, structural and alteration controls and mineralization style are sufficiently well understood to support the current Mineral Resource estimation at the present stage of the property development.

Figure 7-10: Mineralization Model for Virginia Project



Source: Figure derived from Kain, 2012 by PGSc, 2023.

8.0 DEPOSIT TYPES

8.1 METALLOGENESIS

In recent years, the Deseado Massif has been a target for precious metals exploration following the discovery of epithermal gold and silver deposits, including Cerro Vanguardia, a world-class 3.5 Moz equivalent deposit, in addition to others such as Manantial Espejo, Mina Martha, and San José and prospects such as Josefina, La Manchuria, Bajo Pobre, Cerro Chato and El Dorado-Monserrat (Echavarría & Schalamuk, 2005). These occurrences led Schalamuk et al. (1999) to propose a new metallogenetic entity: "*The Auroargentifera Province of Deseado.*" These rich gold and silver deposits are deposited in low-sulphidation epithermal vein systems embedded in Jurassic volcanic rocks. They present anomalies in precious metals (Au, Ag) and occasionally As, Sb, Hg, Mo, Pb, Zn, Mn and, and Cu to a lesser extent (Guido et al., 2005). The mineralization is essentially vein-shaped, with few breccias, stockworks and scattered deposits (Schalamuk et al., 1999).

Typically, mineralization is controlled by the structure, with the NW being the predominant direction, whereas the NE and EW directions are less frequent (Guido et al., 2005).

The quartz-gold veins of epithermal origin are located mainly in the ignimbrites of the Fm. Chon Aike and, to a lesser extent, in the basic rocks of the Fm. Bajo Pobre, in Permian sediments and the granitoids of the La Leona formation (De Barrio et al., 1999).

Metalliferous minerals in quartz veins commonly represent less than 1% of the total volume (Guido et al., 2005), with native gold, electrum, native silver, and argentite being the most common major ore minerals. Tetrahedrite, silver sulfosalts, galena, sphalerite and chalcopryrite are present in smaller volumes, and sulphides and tellurides such as uytenboogardite and petzite appear sporadically (Schalamuk et al., 1997). The average size of individual gold and electrum grains is 10-50 μ m, and visible gold is not frequent (Echavarría & Schalamuk, 2005). On the other hand, the gangue consists mainly of silicic minerals, especially quartz, chalcedony and opal, and barite and hematite are found to a lesser extent (De Barrio et al., 1999).

The emplacement of most of the mineralization in veins is consistent with structural solid control, in line with the NNW-SSE and WNW-ESE orientation of the extensional fault systems (Mugas Lobos et al., 2020).

The infill of the veins was deposited in a multi-episode manner, with persistent dilation. The contacts with the bedrock are clear, being it hydrothermally altered, with silicification, argilization and sericitization present, and propylitic alteration in the basic rocks of the Bajo Pobre Formation (Schalamuk et al., 1999). Hydrothermal solutions were largely meteoric, with low salinities and temperatures around 300°C. Gold and silver in the solution were transported by sulphide complexes (Au (HS)- and Ag (HS)-) (De Barrio et al., 1999).

8.2 GEOLOGICAL AND GENETIC MODELS

The Deseado Massif is characterized by the presence of low-sulphidation type epithermal vein deposits (LS) that are spatially, temporally and genetically related to a complex and long-lived (more than 30 Ma) Jurassic bimodal magmatic event associated with tectonic extension that spread out in a surface of 60,000 km². The Deseado Massif is one of the most important mining regions in Argentina and hosts seven mines in production (Cerro Vanguardia, San José, Manantial Espejo, Cerro Negro, Cerro Moro y Don Nicolas) and numerous projects in an advanced state of exploration and excellent gold-silver mineralization targets, defining this region as an important producer of Au-Ag.

Epithermal deposits are high-level hydrothermal systems that usually form within one kilometre of the surface at relatively low temperatures, generally 50°C to 200°C. They commonly represent deeper parts of fossil geothermal systems, and some are associated with hot-spring activity at or near the surface. The term low sulphidation represents a variety of epithermal deposits characteristically deficient in sulphide minerals and are also often called quartz-adularia vein systems after the two most common gangue (non-valuable) minerals in quartz and adularia veins. They are steeply dipping to sub-vertical fissure vein systems associated with intermediate to felsic volcanic centers in areas of regional faulting. They are localized by structures up to a meter or more in width and hundreds of meters to several kilometres in length. Most epithermal systems in the Deseado Massif have steeply dipping tabular veins and breccias. They are comprised of quartz veins, stockwork veins and breccias that carry gold, electrum, silver sulfosalts, and pyrite, with variable, but usually small, amounts of base metal sulphides-sphalerite, galena, and/or chalcopyrite. These base metal and sulphide-rich veins are uncommon in the Deseado Massif and may be better classified as an intermediate-sulphidation style of mineralization. The high base-metal content within the veins indicates that the fluids from which they formed were primarily high-saline magmatic fluids with little or no meteoric component (Sillitoe, 2003).

The richest mineralization commonly occurs in dilational zones caused by structural irregularities along or down the vein. Common gangue minerals in the veins are quartz and other forms of silica, such as chalcedony, together with variable amounts of adularia, sericite, and sometimes distinct blades of calcite and rarely barite, which may be replaced by silica.

Lotka (2014) mentions that some deposits are effectively gold-only (Coyote at Don Nicolas) or silver-only (Virginia), although the majority contain economically significant amounts of both gold and silver. Most deposits have classical structurally-controlled veins or vein/breccia geometries that cut their Jurassic and rarely older (Pingüino) host rocks. Still, exceptions occur in which stratigraphic controls are an important factor (La Negra deposit in part at Joaquín).

Base metals are generally not recovered as co-products or by-products from these precious metal deposits because their base metal contents are typically low.

Most authors have classified these precious metal systems as “low-sulphidation” types, but others have suggested that some are “intermediate-sulphidation.” The low sulphidation types may have abundant adularia, or adularia may be rare or absent. The main gangue mineral is typically quartz, but others can have carbonates.

Given the variations known in the Massif, it is probably wise not to overly restrict the exploration model in early-stage projects, and it is also wise to periodically evaluate new ones. To date, exploration suggests that Virginia's veins are strongly structurally controlled, are epithermal in character, and with classical quartz textures ranging from chalcedonic to saccharoid (the best-mineralized parts) with lesser crystalline quartz (generally unmineralized). Generally favourable characteristics for silver mineralization include banded veins, multi-stage stage veins and vein-breccia, and lead minerals, together with typical epithermal suite elements of antimony, arsenic, mercury, and abundant iron and manganese oxides. Still, care should be taken to understand that silver concentrations seem independent in detail at the metre scale of surface and core sampling of many of the macro-scale characteristics mentioned here.

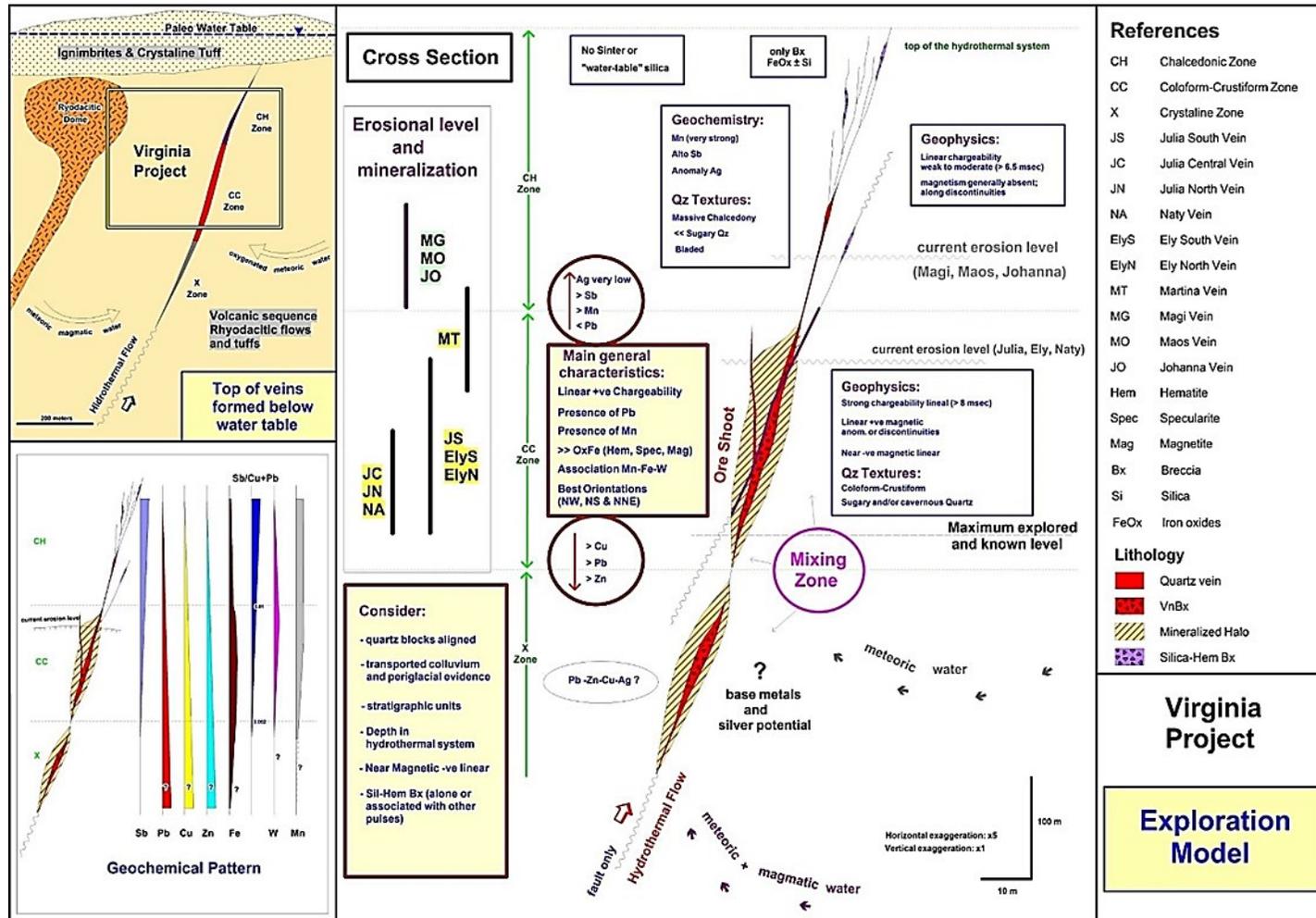
Kain (2012) mentions an analysis of results obtained through data processing geological and geochemical mapping of surface outcrops and from drill holes. This allowed the conclusion of an **Exploration Model** that strictly conforms to the Virginia Project. These models are based on actual information from the Virginia Project, and a minor part is just conceptual interpretation (**Figure 8-1**).

8.3 PGSc QP COMMENTS

PGSc and the QP believe that the knowledge of the deposit settings, lithologies, structural and alteration controls and mineralization style is sufficiently well understood to support Mineral Resource estimation.

In the opinion of the QP, the presence of quartz veins, minor stockwork vein-breccia composed of multistage fracture fillings is an appropriate model of a low to intermediate sulphidation epithermal deposit type to guide exploration in the Project area.

Figure 8.1: Exploration Model for Virginia Project



Source: Figure derived from Kain, 2012 by PGSc, 2023.

9.0 EXPLORATION

The February 2016 Amended Technical Report by RMI-REI discusses the previous exploration programs in detail. This report will focus on the 2020-2022 exploration programs conducted after the exploration discussed in the RMI-REI report (Earnest & Lechner, 2016).

Exploration work that discovered and evaluated an area, including surface geological mapping, rock outcrop sampling, surface geophysics, trenching and diamond drilling.

Mirasol completed surface geologic mapping at a scale of 1:25,000 over the entire area covered by the Cateo and MD concessions.

This mapping was aided by remote sensing images that included Landsat TM, Aster, Google Earth and World View to increase pixel resolution from 30 meters to less than one meter. Local areas within the Virginia Window were geologically mapped in greater detail as required.

The rock chip samples and the trenching and drilling programs of the Virginia Project focused on testing the potential for new silver zones to expand the existing NI 43-101 resource. All the drilling, except for the holes at the Magi target, focused on untested areas and potential strike extensions along the most known trends hosting the current resource. The program also tested outlying targets not part of the current resource and where trenching has detected silver anomalies with good underlying geophysical support (Mirasol, 2020).

9.1 GEOPHYSICAL SURVEY

Mirasol staff includes trained geophysical operators and owns geophysical equipment needed to complete induced polarization (IP) surveys.

Positioning is by differential GPS along lines staked with grid pickets for high topographic and positioning control. All data is collected digitally and downloaded from the receiver.

The equipment used was an Iris Instruments Model Vip 5000 Current Transmitter and a 6-channel Elrec resistivity measuring receiver. The VIP Series Electrical Transmitters are designed explicitly for depth resistivity or induced polarization surveys. The Elrec 6 is a 6-channel resistivity-induced polarization (IP) receiver designed to improve logging and deep drill hole productivity. In addition to the classic arithmetic and logarithmic modes, Elrec 6 offers a Cole-Cole method and ten fully programmable windows for greater flexibility in defining the IP decay curve.

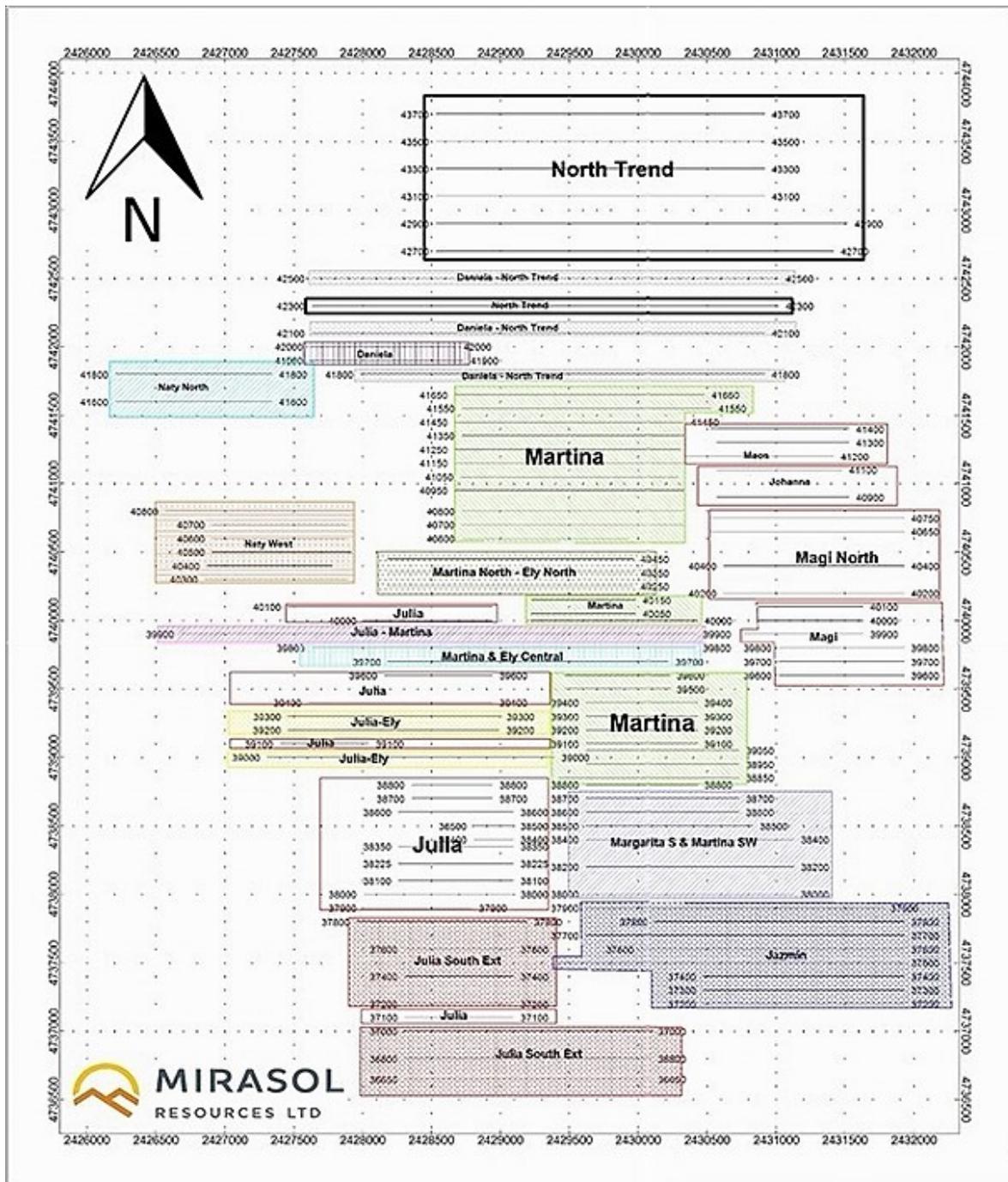
Data processing is done by *Zonge Ingeniería and Geofísica* (Chile) S.A., which undertakes quality control on the data and then processes it and provides processed data back to Mirasol on a contract basis.

Mirasol also completed two IP pole dipole (PDP) geophysical campaigns in the Virginia Project. Most of the previous electrical geophysics at Virginia used the gradient array method,

which effectively maps the chargeable mineralized vein structures. The PDP method was deployed better to understand the orientation of the structures at depth, enabling improved planning for drill campaigns (Gregorio, 2023).

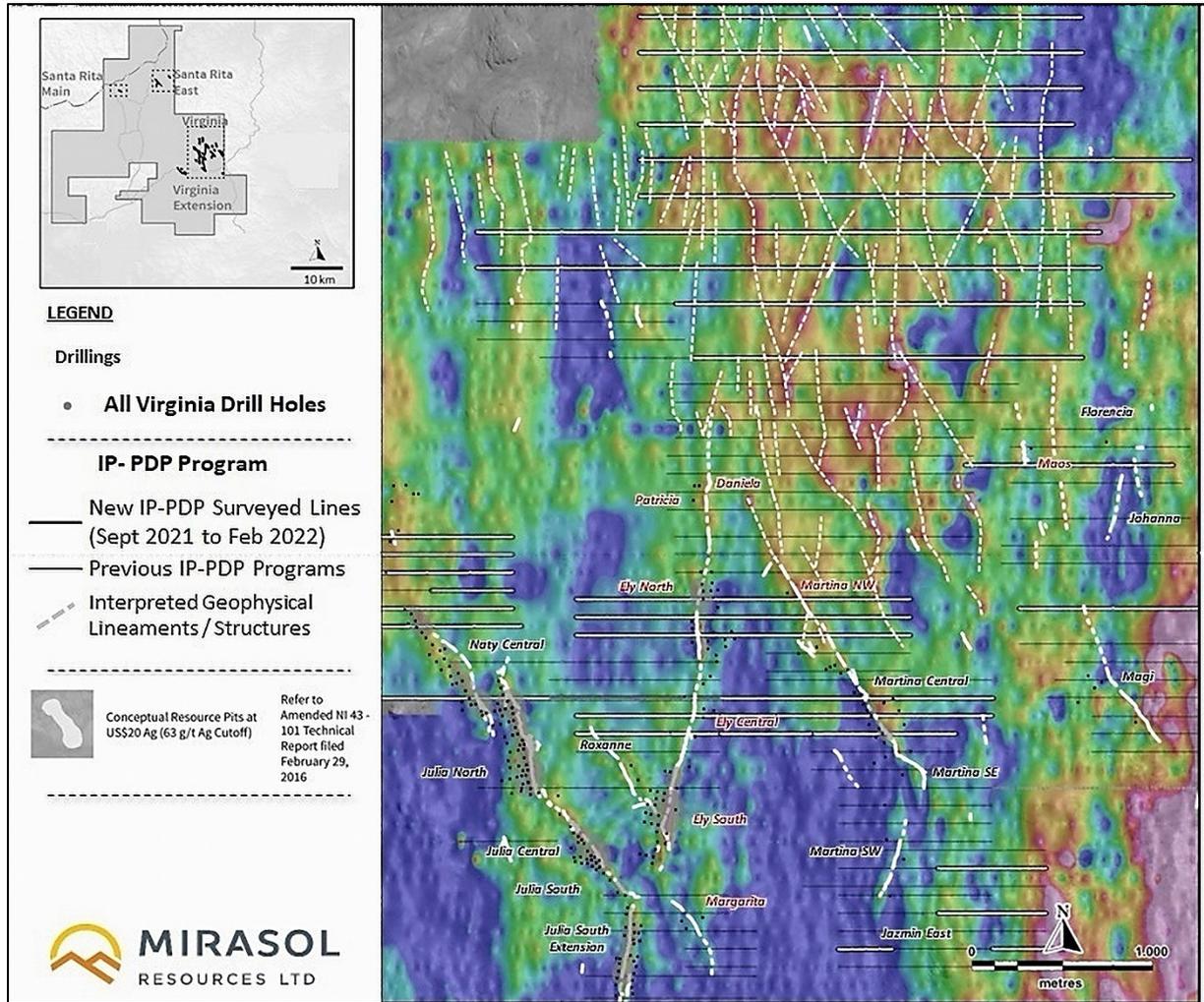
In total, 95.50-line km were completed, with 80.50 km in Virginia Window and 15.00 km at the Santa Rita prospect north of the Project (Mirasol, 2020) (**Figure 9-1 and Figure 9-2**).

Figure 9-1: New IP Line (PDP) in the area of Virginia Window



Source: Figure derived from Mirasol, 2023 by PGSc.

Figure 9-2: Gradient IP chargeability and new IP Lines (PDP). Lineament interpretation from geophysics in the area of Virginia Window



Source: Figure derived from Mirasol, 2023 by PGSc.

9.2 GEOCHEMICAL SURVEYS

Mirasol has a very developed system of procedures and protocols (*MRZ Trench Sample Procedure 20150629*; *MRZ Rock Chip Sample Procedure 20150513* and *DrillingProcedures_20200110*) that have been implemented, modified and improved over the company's more than twenty-year history of exploration in the Deseado Massif used in the Virginia Project.

Initial prospecting and rock sampling at the early stage are conducted using the best available satellite images and using hand-held non-differential GPS locations normally accurate to within ± 2 m. Samples are collected using industry-standard procedures under the supervision of a geologist who records the data (either in a field notebook or directly on digital media). The type of material sampled (outcrop, subcrop, float) and nature (representative, composite, select) and characteristics (lithology, alteration, mineralization) are recorded in coded format and are accompanied by free-form text descriptions. The field geologist records all of this data and then

verifies it by office personnel before being loaded into a digital data storage software program with limited access. Samples are submitted to the laboratory according to procedures with inserted control samples comprising certified standards, blanks and duplicates (*MRZ Control Sample Insertion Rate Policy 20150513*).

Numerous surface samples were collected in excavated trenches in the Virginia Project. 2,531 m of mechanically excavated trenches were mapped, and 1,083 rock chip channel samples were performed.

9.2.1 Virginia Window Sector

The mechanical trenching program focused on defining the continuity of new vein targets identified undercover by previous geochemical rock chips sample programs. In addition, it was exposed bedrock for assessment and geochemical sampling in prospective covered areas, which host coincident IP chargeability and ground magnetic anomalies.

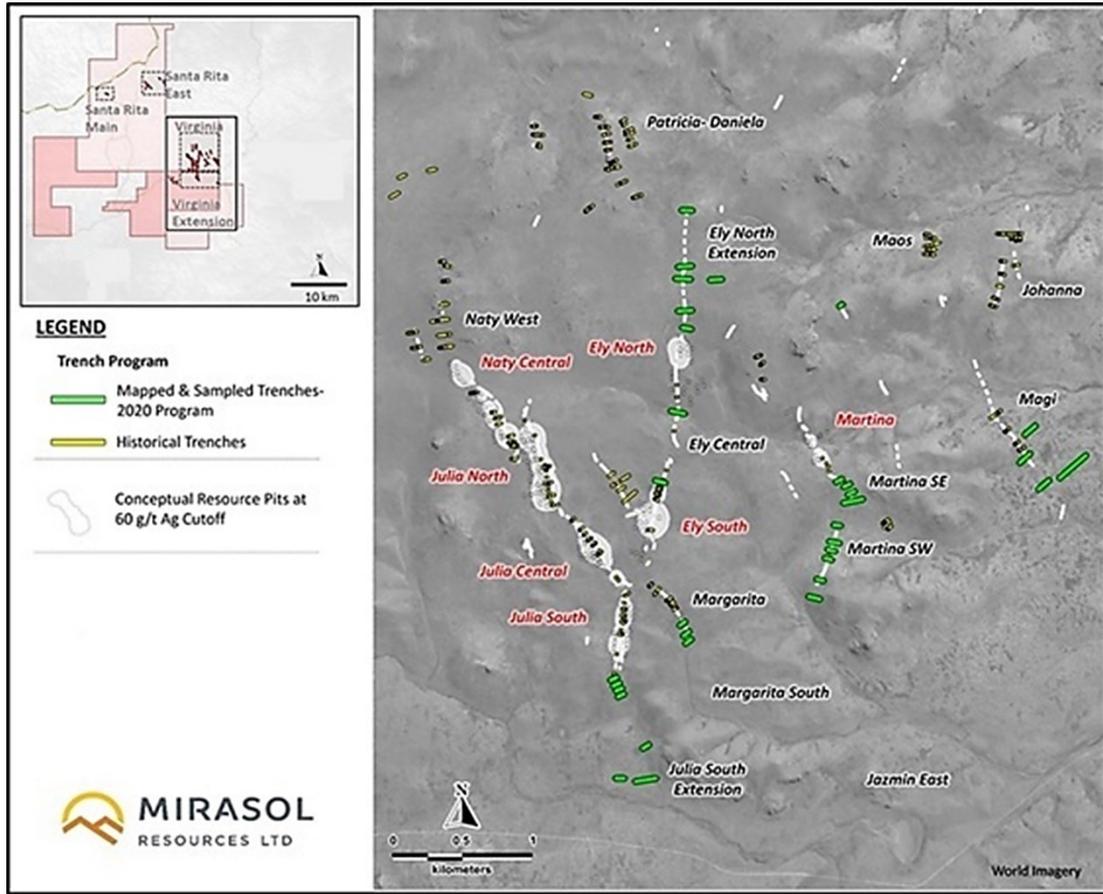
The trenches were excavated using a conventional backhoe, beginning at the vein outcrop walls and extending outwards to the vein walls to allow for sampling of the wall rocks up against the outcrops. Maximum trench depths were limited to 3.0 m due to the limitations of the backhoe used. As with rock chip channels, trenches were located using hand-held non-differential GPS locations ordinarily accurate to within two metres. The best results of samples collected in the trenches are summarized in **Table 9-1**.

A significant benefit of the trenching was the confirmation of the dips of the veins before finalizing the drill plan (Mirasol, 2022) (**Figure 9-3**).

These rock chip assay results added exploration potential to the Virginia Window, including extending the strike length of the undrilled Margarita vein 300 m west of the Virginia resource area infilling and extending the new Julia South Extension. Trend and identifying a series of high-grade silver-vein breccia trends suggest undiscovered veins at the new East Zone target (Mirasol, 2018).

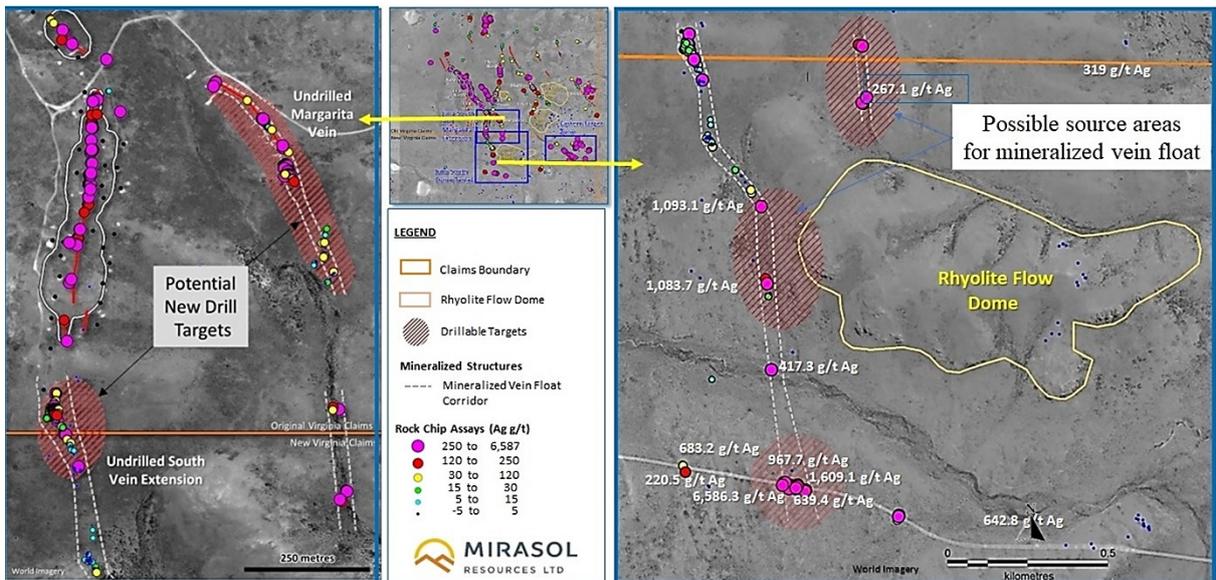
Rock chip sampling of silver mineralization at Margarita has returned assays ranging from below detection (BDL, <0.5gpt Ag) up to 1,723.30 gpt Ag from outcrop, subcrop and float blocks of epithermal veins up to 1.50 m wide. Surface silver mineralization at Margarita has now been traced over a 450 m strike length as defined by 65 trench and rock chip samples with an overall average of 366.0 gpt Ag (Mirasol 2018) (**Figure 9-4**).

Figure 9-3: New mapped and sampled trenches in the Virginia Window sector



Source: Figure derived from Mirasol, 2020 by PGSc, 2023.

Figure 9-4: Results of the rock chip samples in Julia South Extension and Margarita Extension in the Virginia Window sector



Source: Figure modified and derived from Mirasol, 2023 by PGSc.

9.2.2 Santa Rita Sector

The mineralization in Santa Rita is composed of vein-type structures distributed in 4 main sectors explored, which are called:

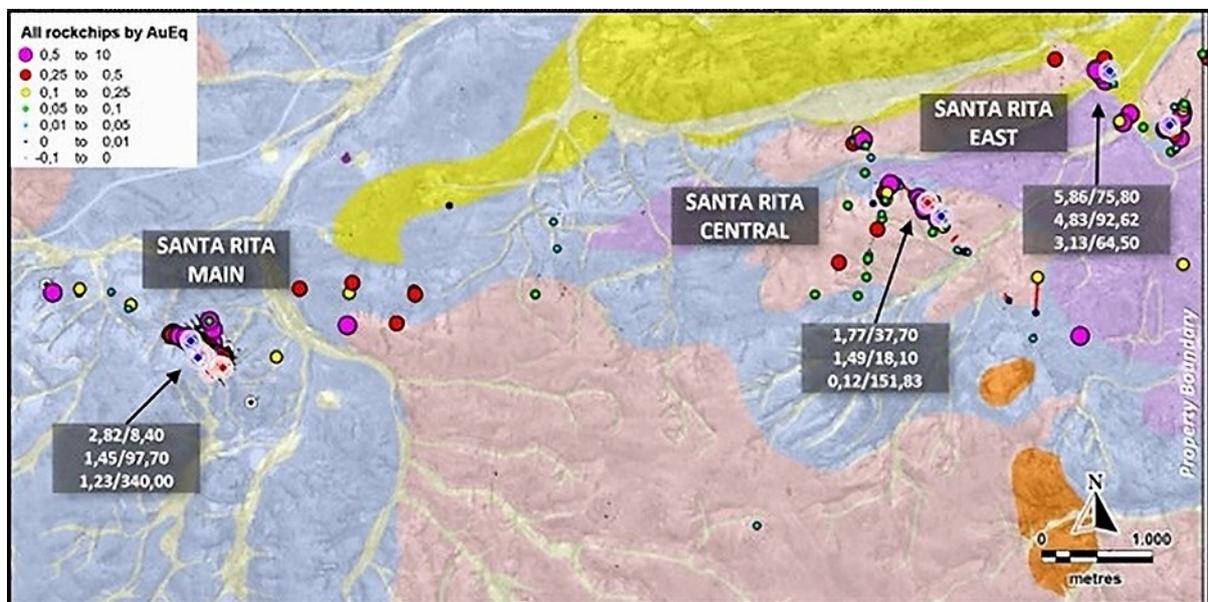
- Santa Rita Main (SRM)
- Santa Rita Central (SRC)
- Santa Rita East (SRE)
- Flecha Rota

These structures, considered in their main sections due to their importance and most relevant Ag and/or Au values, add up to a total of 1,975 discontinuous linear meters and are composed of vein-like structures, veins-breccias and sheeted and/or stockwork sectors, with a Maximum width up to 20 m.

More structures have been mapped as secondary stretches, discontinuous or minor, with characteristics similar to the main ones but weaker to null Ag and/or Au values and altered lineaments with quartz veinlets. These structures add up to a total of 1,130 linear meters.

In summary, the total structures in Santa Rita add up to 3,105 linear meters (**Figure 9-5**).

Figure 9-5: Results of the rock chip samples in the main sectors explored in the Santa Rita sector



Source: Figure derived from Mirasol, 2023 by PGSc.

The Santa Rita prospects have low sulphidation epithermal mineralization signatures characterized by gold values compared to those obtained from the main silver-rich Virginia Window sector vein field. They can potentially benefit the development of the project.

Santa Rita Main (SRM)

The mineralization generally comprises veins, vein-breccias and veinlets with chalcedony silica fillings, belonging to a multiphase tectonic-hydrothermal zone with values of Ag and/or Au.

This mineralized zone presents a general NW trend of azimuth 315°, where its main structure (Hydrothermal Breccia) varies from 280° SE to 300° NW, with secondary veinlets with an average trend of azimuth 330°.

The main structure would be developed primarily in a dilational jog along a regional scale fault zone of azimuth 320°.

This area intersects with the ENE lineament, where most of the Santa Rita structures are located, including the Lejano, Cisne and Sol de Mayo projects. SRM would then be developed in a zone of sigmoidal dilation with a sinistral displacement following the NW regional structures.

Chalcedonian silica is gray to white and has incipient banded textures, lacking boiling textures except for a few fine-bladed textures.

According to what was seen on the ground and the project's background, the host rock in Santa Rita Main is represented by the inequigranular ignimbrite units.

Santa Rita Central (SRC) and Santa Rita East (SRE)

The mineralization in Santa Rita Central and Santa Rita East is represented by veins-breccias, veins and veinlets in the form of stockwork or sheeted, with fillings mainly of solid saccharoid and minor chalcedonian quartz. Crustiform textures are common, sometimes accompanied by bands of adularia. The vein-breccias are the strongest structures that host the best Au and/or Ag values.

According to the field mapping, the mineralized structures are shown in 2 preferential directions. Structures with N-S directions with an average azimuth of 15° and variations between 350° and 20°, and structures with NW directions with an average azimuth of 315° and variations between 305° to 335° but less defined on the ground than the previous ones.

The N-S structures present displacements of a sinistral nature, while in the NW structures the displacements are dextral, generating sigmoidal zones of higher grade in Ag-Au.

In both Santa Rita Central and Santa Rita East, the NW structures appear to be later than the N-S ones since the latter are cut against the NW without apparent continuity.

The widths of the structures vary from 0.1-0.2 m to vein zones concentrated in stockwork with widths of up to 6 m. The strongest structure observed is an N-S vein-breccia at Santa Rita East, with sampled widths of up to 3 meters.

Inequigranular ignimbrite units and fine tuffs represent the box rock at Santa Rita East and Santa Rita Far East.

Flecha Rota

Structure of at least 230 m long and maximum width of 1 m, has an NW orientation of azimuth 312° and belongs to a train parallel to the main ENE alignment of Santa Rita.

The structure associated in the field with a fault is composed in part of a hydrothermal breccia with fragments of silicified host rock, saccharoid quartz and chalcedonian silica with pyrite, goethite and associated hematite and clasts also from previous breccia and gray saccharoid quartz matrix and jasperoid and in part it is simply a fault with silicified box rock with crystalline quartz and saccharoid veinlets. Sometimes, the quartz is cut by fractures filled with hematite, Mn oxides, and a pulse of late chalcedony.

The best values from the sampling correspond to a sample of 0.58 gpt Au with 176 gpt Ag in one of the main structure's secondary trends, presenting a reduced surface sampling. Almost all samples are anomalous in Au and Ag, with an average of 29 gpt Ag and 0.18 gpt Au.

The indicator elements As and Sb show maximums of 1,159 ppm and 104 ppm, respectively, while the averages are 371 ppm As and 52 ppm Sb. The base metals Cu, Pb and Zn present very low values with 9.5, 57 and 20 ppm, respectively.

A total of 130 rock chip samples were recollected. Relevant silver grades derived from samples collected in the trenches are summarized in **Table 9-1**. The Virginia Window sector with the best results above a 40 gpt Ag cutoff grade, and the Santa Rita sector above a 4 gpt Ag cutoff grade.

Table 9.1: Best results of samples collected in the trenches of the Virginia Window and Santa Rita Sectors

Vein	Trench_Site ID	Channel Elevation (m)	Channel Azimuth	Channel Sample_ID	From Depth	To Depth	Sampled Length (m)	Ag (gpt)	Au (gpt)	Cu (gpt)	Pb (gpt)	As (gpt)	Hg (gpt)	Sb (gpt)	Mn (gpt)	Fe (gpt)
Ely N	EN-TR-001	1062.00	86.00	MRR037063	24.00	25.00	1.00	56.94	0.01	60.20	335	267	2.05	380	874	72,100
	EN-TR-001	1062.00	86.00	MRR037088	25.00	26.00	1.00	65.09	0.01	58.70	358	247	3.42	411	1,064	82,700
	EN-TR-001	1062.00	86.00	MRR037065	28.00	30.00	2.00	63.76	0.04	48.90	830	56	0.92	171	511	39,400
Martina SE	MSE-TR-001	970.00	68.00	MRR037179	32.00	34.00	2.00	49.92	0.02	20.70	116	42	1.19	53	439	16,600
	MSE-TR-002	966.00	60.00	MRR037195	20.00	21.00	1.00	61.83	0.01	47.70	2,087	310	0.61	146	21,891	101,300
	MSE-TR-002	966.00	60.00	MRR037198	22.00	22.50	0.50	53.31	0.01	33.70	458	147	0.50	226	1,775	68,700
	MSE-TR-002	966.00	60.00	MRR037205	25.50	26.00	0.50	64.98	0.01	59.90	714	161	3.43	256	1,897	15,800
	MSE-TR-002	966.00	60.00	MRR037196	21.00	21.50	0.50	46.05	0.01	36.30	2,343	725	4.85	213	17,013	185,100
	MSE-TR-002	966.00	60.00	MRR037212	28.00	30.00	2.00	52.88	0.02	52.90	371	60	0.36	119	1,483	33,700
	MSE-TR-003	960.00	65.00	MRR037235	27.00	27.50	0.50	48.55	0.01	18.90	1,295	61	2.75	79	4,265	17,000
	MSE-TR-003	960.00	65.00	MRR037238	28.50	29.00	0.50	47.20	0.01	18.00	415	72	7.20	132	1,818	20,500
	MSE-TR-003	960.00	65.00	MRR037247	38.00	38.50	0.50	55.64	0.01	48.80	1,812	116	3.97	143	22,701	33,500
	MSE-TR-003	960.00	65.00	MRR037254	44.00	44.50	0.50	46.54	0.01	16.50	1,044	81	7.72	88	4,973	35,300
Martina SW	MSW-TR-001	949.00	99.00	MRR037274	20.00	21.00	1.00	92.84	0.01	17.10	3,291	112	5.67	136	34,101	25,800
	MSW-TR-001	949.00	99.00	MRR037275	21.00	21.50	0.50	52.73	0.01	19.10	2,909	200	4.13	223	33,217	23,100
	MSW-TR-002	945.00	80.00	MRR037773	8.00	9.00	1.00	49.06	0.01	4.10	2,285	68	4.03	10	49,932	55,300
	MSW-TR-002	945.00	80.00	MRR037776	12.00	14.00	2.00	47.10	0.01	22.60	92	17	1.38	29	381	14,500
	MSW-TR-002	945.00	80.00	MRR037805	52.00	54.00	2.00	49.10	0.01	26.00	5,962	89	1.81	41	29,705	34,900
	MSW-TR-002	945.00	80.00	MRR037812	62.00	62.50	0.50	49.99	0.00	48.60	592	27	15.81	136	1,291	41,400
	MSW-TR-002	945.00	80.00	MRR037817	64.50	65.00	0.50	76.98	0.00	16.80	2,116	97	7.17	129	60,972	35,100
	MSW-TR-002	945.00	80.00	MRR037818	65.00	65.50	0.50	71.22	0.00	29.40	3,994	139	7.13	151	69,393	55,800
	MSW-TR-002	945.00	80.00	MRR037819	65.50	66.00	0.50	58.19	0.00	22.50	3,742	126	12.19	143	28,104	63,000
	MSW-TR-003	946.00	105.00	MRR037308	32.00	34.00	2.00	50.20	0.02	15.70	382	18	1.95	65	859	11,000
	MSW-TR-004	950.00	99.00	MRR037330	32.00	33.00	1.00	65.37	0.01	36.20	3,542	107	3.54	174	27,217	21,100
MSW-TR-005	958.00	106.00	MRR037358	28.50	29.00	0.50	47.78	0.01	35.40	1,848	56	4.49	159	7,179	24,600	
Santa Rita Central	SRC-TR-001	895.00	76.00	MRR038489	9.00	9.60	0.60	19.34	0.30	20.20	49	29	0.75	6	11,125	12,300
	SRC-TR-003	907.00	59.00	MRR038493	10.20	10.50	0.30	4.31	0.03	29.00	114	42	0.03	6	2,122	16,500
	SRC-TR-004	906.00	60.00	MRR038495	9.45	9.75	0.30	52.17	0.80	43.70	219	50	8.78	9	5,323	30,900
	SRC-TR-004	906.00	60.00	MRR038496	9.75	10.05	0.30	4.60	0.32	48.30	192	138	1.02	5	3,494	36,200
	SRC-TR-004	906.00	60.00	MRR038497	10.05	10.35	0.30	4.42	0.44	21.20	85	53	3.81	4	1,660	13,000
	SRC-TR-005	901.00	23.00	MRR038498	3.10	4.60	1.50	20.90	0.21	28.80	106	10	0.20	6	1,773	10,800
	SRC-TR-005	901.00	23.00	MRR038499	8.60	9.10	0.50	26.55	0.02	83.00	125	158	0.13	4	33,876	85,700

Source: Table reproduced from files delivered by Mirasol, 2023. PGSc, 2023.

Note: The Virginia Window sector with the best results above a 40 gpt Ag cutoff grade, and the Santa Rita sector above a 4 gpt Ag cutoff grade.

Sampled Length: The sampled width is the actual true width that was sampled.

9.3 EXPLORATION POTENTIAL

The Virginia Project is a promising silver advanced project with significant potential for mineral resource expansion. However, what makes this project even more exciting is the untapped potential it offers. Below are the critical areas with potential within the Virginia Project.

Primary Prospects and Untested Gaps

The primary prospects within the Virginia Project, such as Julia, Naty, Ely, Martina, and Margarita, have revealed substantial silver resources but still have untested areas (gaps). These untested zones represent a significant opportunity for further resource expansion. Furthermore, the existing deposits are open at depth, meaning there is substantial potential to continue exploration through deep drilling and discover untapped mineralization extensions.

Less Explored and No Drilled Prospects

The Virginia Project also hosts several prospects that have received limited to no exploration and lack significant drilling. Prospects like Jazmin, Maos, Florencia, Johanna, Magi, Daniela, and Patricia are examples of areas with substantial untapped potential. The absence of geological and drilling data in these prospects presents a unique opportunity to uncover new silver mineralization zones.

Unexplored Virginia Main Window

It is important to highlight that a considerable portion of the Virginia Project's current potential remains unexplored in the area known as the "Virginia Main Window." This area accounts for approximately 30% of the total mining property and has received minimal attention in terms of exploration and development. The lack of work in this area suggests an important potential that could significantly increase the project's resources.

Underexplored Santa Rita & Flecha Rota Zones

The Santa Rita and Flecha Rota prospects within the Virginia Project are considered underexplored, as it still lacks detailed mapping, sampling, and drilling work. To date, only a few meters of drilling have been conducted in this area and no drillings at Flecha Rota up to date.

9.4 PGSc QP COMMENTS

PGSc and the QP have reviewed the exploration work conducted by Mirasol and believe that the Project warrants further exploration to validate and expand on the existing mineralization and identify other mineralized zones on the property to determine the drilling targets to be developed in posterior phases, as well as identify different mineralized zones on the property.

In the opinion of PGSc and QP, the exploration programs completed to date are appropriate for the style of the deposits and prospects within the Project. The strike extent of presently-known veins is likely to be extended with additional drilling in areas of subdued topography and under post-mineral cover. Numerous instances of quartz veins and silicified rock with anomalous silver values remain to be thoroughly evaluated in the Project area.

10.0 DRILLING

10.1 INTRODUCTION

Drilling the various veins that comprise the Virginia Project was conducted in two drilling campaigns. The first was from November 16, 2010, to March 30, 2012, with core drilling in Phases 1, 2, 3 and 4, and the second was from October 29, 2020, to April 29, 2022, with core drilling in 4 Phases as well.

The previous exploration programs are discussed in detail in the amended NI 43-101 technical report dated February 29, 2016, and filed on SEDAR+ (Earnest & Lechner, 2016).

This report will focus on the exploration programs carried out in 2020, 2021 and 2022 (**Appendix 3**).

10.2 DRILLING METHODS AND PROCEDURES

Mirasol (MRZ) completed 70 diamond drill holes (DDH) between 2020 and 2022, with drill core in 4 Phases totalling 10,247 m (**Table 10-1**).

The Drilling contractor was Patagonia Drilling SRL, under the supervision of Mirasol's exploration team, completed all four phases using either a PowerDrill Hydraulic Core Drilling Rig (track-mounted drills) and recovering HQ core (63.5 mm).

Table 10-1: Drilling campaign by phases in Virginia Project from 2020 to 2022

Parameter	Phase 1 2020	Phase 2 2021	Phase 3 2021	Phase 4 2022	Total 2° Drilling Campaign
# of holes	18	20	20	12	70
metres drilled	2,848.00	3,104.00	2,932.00	1,363.00	10,247.00
start date	10/29/2020	1/27/2021	10/9/2021	4/1/2022	10/29/2020
finish date	12/14/2020	3/26/2021	11/26/2021	4/29/2022	4/29/2022
drilling days	46	59	48	29	182
metres/day	62	53	61	47	56

Source: Table reproduced from file *VIR_Collar (2023).xlsx* by PGSc, 2023.

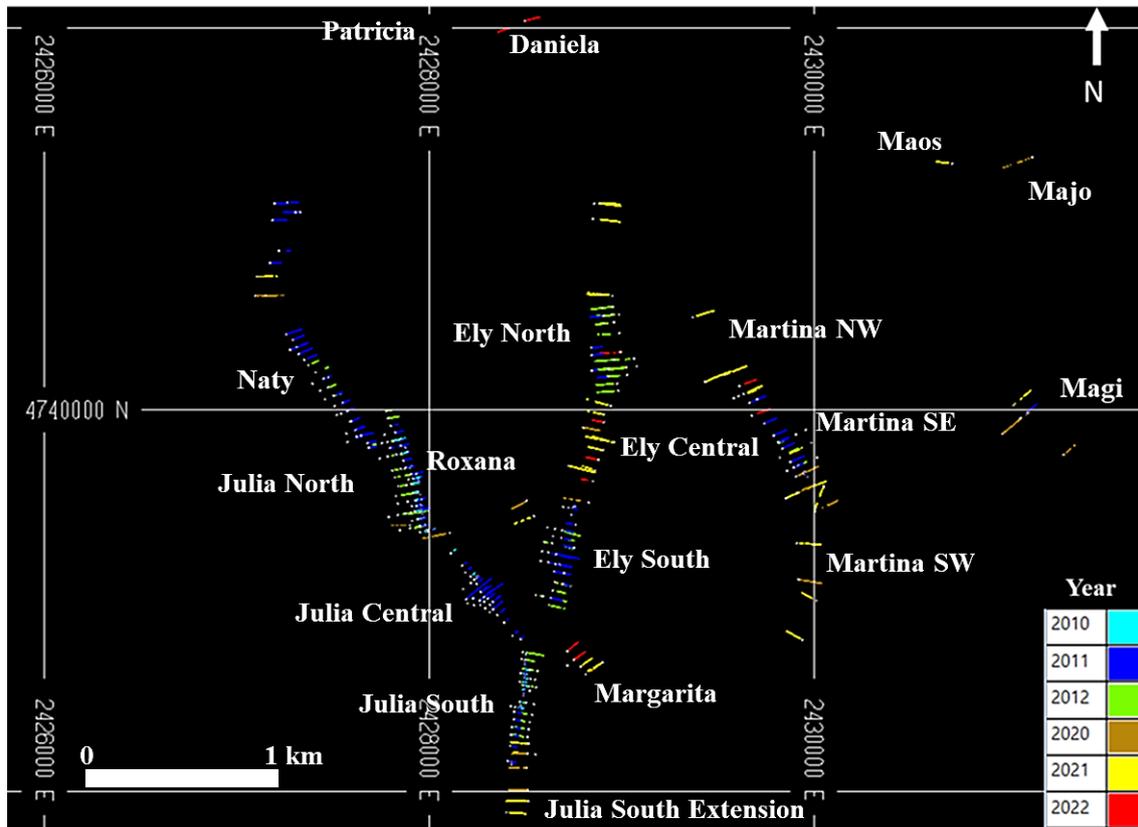
The total meters drilled in the Virginia Project from 2010 to 2022 are summarized in **Table 10-2** and **Figure 10-1**.

Table 10-2: Summary of the drilling campaigns from 2010 to 2022

Company	Year	Area	Type	N° Drill Holes	Name Drill holes	Metres Drilled
MRZ	2010	Julia Sur	DDH HQ/HQ3	10	VG-001 to VG-195	569.00
		Julia Central		3		138.00
		Julia Norte		14		853.60
MRZ	2011	Julia Sur		6		349.10
		Julia Central		29		2,905.35
		Julia Norte		33		2,965.50
		Ely Norte		6		515.60
		Ely Sur		16		1,868.10
		Naty Sur		11		1,069.30
		Naty Central		9		737.20
		Naty Extension		6		633.00
		Naty Extension N		7		663.80
		Magi	2	321.60		
		Martina	16	1,523.40		
MRZ	2012	Julia Sur	9	1,031.70		
		Julia Norte	14	2,269.60		
		Ely Sur	9	1,479.40		
		Ely Norte	15	2,166.40		
		Naty Sur	5	502.90		
		Martina	3	554.00		
Total				223		23,116.55
MRZ	2020	Ely Central	DDH HQ	2	EC-DDH-001; EC-DDH-002;	308.00
		Julia Central		2	JC-DDH-001; JC-DDH-002;	329.00
		Julia Sur		3	JS-DDH-001; JS-DDH-002; JSE-DDH-001;	389.00
		Magi		2	MG-DDH-001; MG-DDH-002;	422.00
		Margarita		1	MR-DDH-001;	90.00
		Martina SE		3	MSE-DDH-001; MSE-DDH-002; MSE-DDH-003;	492.00
		Martina SW		1	MSW-DDH-001;	175.00
		Naty Extension		2	NE-DDH-001; NE-DDH-002;	287.00
		Maos- Johanna		1	MaJo-DDH-001	230.00
		Roxane		1	RO-DDH-001	126.00
MRZ	2021	Ely Central		7	EC-DDH-003 -EC-DDH-009	1,070.00
		Ely Norte		5	EN-DDH-001-EN-DDH-005	859.00
		Julia Sur		4	JS-DDH-003-JSE-DDH-003	628.00
		Margarita		2	MR-DDH-002; MR-DDH-003;	222.00
		Martina NW		6	MNW-DDH-001-MNW-DDH-005A;	1,018.00
		Martina SE		2	MSE-DDH-004; MSE-DDH-005;	515.00
		Martina SW		3	MSW-DDH-002-MSW-DDH-004;	428.00
		Martina Central		1	MC-DDH-001-A	179.00
		Santa Rita Central		2	SRC-DDH-001; SRC-DDH-002;	166.00
		Santa Rita East		4	SRE-DDH-001-SRE-DDH-004;	329.00
		Naty Extension	1	NE-DDH-003;	156.00	
		Magi	1	MG-DDH-003	198.00	
		Maos	1	Maos-DDH-001;	116.00	
		Roxanne	1	RO-DDH-002.	152.00	
MRZ	2022	Ely Central	3	EC-DDH-010; EC-DDH-011; EC-DDH-012	261.00	
		Ely Norte	1	EN-DDH-006;	168.00	
		Martina Central	1	MC-DDH-002;	137.00	
		Martina NW	1	MNW-DDH-006;	131.00	
		Margarita	3	MR-DDH-004; MR-DDH-005; MR-DDH-006;	333.00	
		Santa Rita East	1	SRE-DDH-005;	128.00	
		Daniela	1	DA-DDH-001;	113.00	
		Patricia	1	PA-DDH-001.	92.00	
Total				70		10,247.00
TOTAL				293		33,363.55

 Source: Table reproduced from file *VIR_Collar (2023).xlsx* by PGSc, 2023.

Figure 10-1: Plan map showing drill hole locations by year



Source: PGSc, 2023.

The holes are generally shallow, ranging from 90 m to 320 m. The relatively gentle topography in the areas of the vein outcrops allowed the holes to be spaced along generally parallel lines of azimuth situated normally to the strikes of the individual veins. Nearly all holes were drilled at azimuths that were normal (90°) to the vein strikes and at inclinations of -45° toward the hanging wall sides of the steeply dipping veins, which resulted in acute angles (>45°) of intersection between the holes and the veins.

10.3 COLLAR SURVEYS

Drill hole collar locations were established before drilling using differential GPS equipment. Drill hole azimuths were set by Mirasol geologists using a Brunton compass with the magnetic declination N9°E (https://www.ncei.noaa.gov/maps/historical_declination/) previously corrected to place wooden foresight and back-sight stakes for drill rig alignment. After level set-up of the drills at the proper hole azimuths, drill hole inclinations were set using a Brunton compass clinometer.

The planned collars from the drill holes corresponding to the last four drilling phases (2020-2022) were placed using DGPS SXBLue II-L (<https://geconnect.com.au/sxblue-iii-l/>) and were also surveyed with the same instrument. This instrument works with the Field Manager software used for fieldwork.

The SXBlue II-L GPS takes real-time accuracy, and its accurate code phase measurements and leading-edge multipath mitigation deliver DGPS Horizontal Accuracy < 60cm (2dRMS, 95% confidence) positioning and maximizes your productivity by working directly within your GIS framework.

When the drill and casing were removed from the site, the hole was immediately marked by placing a white four-inch diameter PVC pipe into each hole collar to preserve its location and a permanent marker inscribed with the hole number. A professional independent surveyor lifted all drill hole collar locations and tied them to known geodesic control points (Berasaluce, 2023).

10.4 TOPOGRAPHY

Initially, topographic data for Virginia was obtained from the public source National Aeronautics and Space Administration (NASA) Digital Elevation Model (DEM), which comprised radar data acquired by the Space Shuttle Endeavor during the Shuttle Radar Topographic Mission (SRTM). Radar Interferometry was used to create a DEM, and NASA has made this data available to the public. The raw data comprise measurements on a grid of points with an east-west spacing of 60 m and a north-south spacing of 90 m. Comparisons of the SRTM data with Mirasol's DGPS elevations of IP line stakes and the channel samples suggested no systematic elevation difference between the two data sources. The data were then re-gridded and used for planning of drilling and cross-sections.

Later, when all of the collars of the drilling campaign 2010-2012 were lifted by a professional independent surveyor and data were available, these data were added to the data set after controlling for no systematic deviation between the data sets (Relañez, 2010 and 2012). The data were then re-gridded, and a new DEM was produced, which was used in the final sets of sections to interpret the mineralized zones' location, shapes and dimensions.

A professional independent surveyor lifted the final collars of the second drilling campaign from 2020 to 2022 with a precision of $\pm 0.01\text{m}$ (Berasaluce, 2023). The data were then re-gridded, and a new DEM was produced, used in the final sets of sections to interpret the mineralized zones' location, shapes and dimensions. The current topography does not have this level of precision because it is adjusted considering a radius of influence of 10 m around the new drill holes.

Mirasol uses the standard projection for the province of Santa Cruz: Longitude/Latitude (WGS 84) - EPSG 4326; and Arg69W, Gauss Kruger (EPSG 22192) Campo Inchauspe/Argentina 2.

PGSc believes that, in general, the topography is acceptable for the work carried out at this exploration stage. However, the entire topography must be adjusted to have better precision with contour lines at 1.00 m according to the type of deposit of the Virginia Project.

10.5 DOWNHOLE SURVEYS

The equipment used was the DeviShot Magnetic Multishot from the Devico Company (<https://www.devico.com/product/devishot/>) in drilling phases 1, 2 and 3 and the GyroMaster™ from the Stockholm Precision Tools Company (SPT) in phase 4 (<https://sptab.com/gyromaster/>).

The DeviShot is a magnetic multishot survey tool for surveying in front of the diamond core bit or open holes. The survey tool is the most accurate in rock formations without magnetic disturbance. The results were adjusted for the magnetic declination (9°) before calculating the borehole trajectory, and the measurement was carried out at intervals every 15 or 30 m.

The GyroMaster™ is unaffected by a magnetic field because it measures the earth's angular velocity projection on its rotation axis. The measurement was carried out at intervals every 5 m with an accuracy in the Inclination $\pm 0.05^\circ$ and Azimuth $\pm 0.5^\circ$ with stable three-sigma values. These measurements were made together with the progress of the perforation to detect any deviation error early. However, in many cases, data collection was carried out at the end of the drilling while the bar train was being dismantled.

10.6 SITE SAMPLE, PREPARATION METHODS, AND QUALITY CONTROL FOR DRILL CORE

From 2020 to 2022, Mirasol sampling programs used the following general methodologies:

- All cores were routinely photographed before logging geological.
- Geotechnical data collected by qualified technicians included recovery, RQD, and types of discontinuities at core sampling intervals. Drill core samples have a minimum of 0.30 m and a maximum of 2.00 m in length.
- Logging by geologists with observations and measurements, including lithology, alteration, mineralization, and structure. Drill core sampling was collected under Mirasol geologists' supervision for determining and marking the interval to be sampled, whereby sample selection was based on geological parameters. The geologist determines the sample cut line in such a way that intends to result in both halves of the core will be equally representative of the mineralization.
- All data collected through the logging procedures have been computerized (Excel).
- The HQ drill core is marked up before being cut in the sample preparation laboratory and cut in half using a blade circular rock saw with a diamond blade cooled with water.
- The samples are placed in a plastic bag and identified by a label with codes of the core sample and sampling interval. The other half is transferred to wooden boxes for storage.

- Standards, blanks, and duplicates in a total of 18% were inserted after the core was cut at the logging facility.
- Samples were transported to the ASA laboratory for analysis, and subsequently, for quality control, 2% of the pulps were selected for reanalysis in the external laboratory of ALS in Mendoza.
- The remaining core was stored at MirasSalarol's core shed.

10.7 SAMPLE SECURITY AND CHAIN OF CUSTODY

The geology department is responsible for collecting and transporting drill core samples. All core was handled and transported to the core logging and storage facility at Estancia La Patricia only by a drilling contractor or Mirasol employees.

The core recovered from each hole was placed into wooden boxes (with lids) designed to hold three meters of core. Wooden blocks were inserted at the end of each drill run, with the depth (in meters) and length of the drilling run marked on each block.

Mirasol technicians then reviewed the core under the supervision of a geologist to ensure that box labels (hole number, interval of core contained in the box, and box number) and placements of the wooden run blocks were correct. Any discrepancies observed were immediately addressed with the drill crew.

The core logging facility was located at the project site and locked when unused. The chain of custody during the transportation follows the following sequence: The Mirasol Geologist releases samples at the time of shipping, the Mirasol driver transports samples, and the ASA staff receives the sample shipment. The Mirasol driver reported by phone call to the Mirasol Geologist in two specific places from Estancia La Patricia to Perito Moreno to ensure the sample's security.

The core shed facility is dry and well-illuminated, with metal shelving with sufficient capacity to store all historical drill cores.

10.8 GEOLOGICAL AND GEOTECHNICAL LOGGING

All of the logging was performed on a complete drill core using conventional methods (geologist's lenses, harness pens, magnets, etc.), contacts, lithologies, alterations, mineralization and structures were identified, and mineralized zones were characterized (oxides and sulphides).

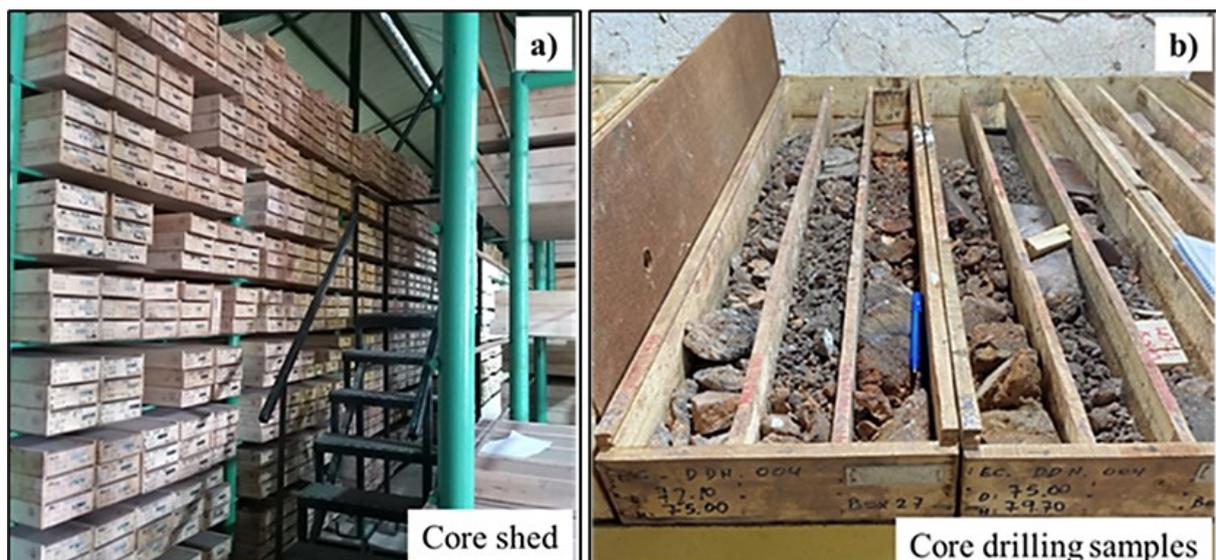
The geologists save the information from each drilling in five Excel spreadsheets with macros that perform validation to detect errors before being sent. Said files are named SDF and separated into Lithology, Mineralization, Alteration, Structure, and RQD. On the other hand, the collar coordinates data of each drill and the survey measurements are loaded into their

corresponding Excel and compile said information from all the drill holes. Then, a second check of all the information is carried out, and the files are sent to the administrators for import into the Micromine Geobank® database software.

Next, a basic geotechnical log was completed for all holes by the technicians, who first recorded all the runs in the hole. For each run, the recovery in metres, rock quality designation (RQD) factor, degree of weathering and hardness are recorded on a form with comments on unusual items. Later, these data are entered into a spreadsheet, and the recovery and RQD are calculated as a percentage.

The core sample is recovered using standard drilling methods with a wireline in the core tube. The core is placed in wooden boxes built according to the size of the individual core diameter. Each wooden core box is marked by the drillers in the platform with the drill hole number, the beginning and the end of the length in the tray, and an arrow indicating the direction of the progress. Additionally, wooden dowels labelled with a black marker are placed at the beginning and the end of a run, indicating the length drilled (**Figure 10-2**).

Figure 10-2: a) Cores are numbered, ordered, and stored in a dry, clean, well-maintained core shed. b) Reviewing and photographic record of cores-drilling of EC-DDH-004 (72.00-79.70m)



Source: PGSc site visit photographs, 2023.

The RQD is defined as the sum of the lengths of core pieces terminated by natural fractures or breaks which measure 10 cm or more in length between a given pair of marking blocks. Unnatural breaks, such as broken cores to fit into the box rows, are not counted. The degree of weathering is recorded as one of four categories as follows: total – all of the rock is affected by weathering; partial - oxidation occurs along fractures and extends out from them but not throughout rock mass; fractures - oxidation occurs only along fractures; none – no oxidation present. These categories are assigned numerical codes from 3 down to 0 for total to no oxidation for graphing purposes. Hardness is recorded as one of five categories: very hard – harder than a nail; hard – scratched by a nail with difficulty; moderate – scratched by a nail;

soft – gouged by a nail; very soft – easily pierced by a nail. These categories are assigned numerical codes from 4 to 0 for (hardest to softest) graphing purposes. The drill strings used in the diamond drilling campaigns were HQ (63.50 mm) and HQ3 (61.10 mm) diameter core.

The geologists of Mirasol have developed logging procedures that have been continuously improved and subjected to external audits that have confirmed that the processes implemented and their results have a good level of certainty.

The units described by Mirasol are summarized in **(Figure 10-3)**.

Figure 10-3: Summary of the geological codes available for drill hole logging

GeolUnit codes	
lib_Geol_Unit	
0	Casing/no recovery (CAS)
VIRGINIA PROJECT CONSOLIDATED LEGEND SURFACE MAPPING ALL SCALES	
1	Quaternary Soil and Sediments
1	Undifferentiated Hydrothermal (BXH) and Tectonic Breccias (BXT)
1	Hydrothermal Breccias (BXH)
1,1	Dense FeOX-Silica Matrix (BHX), Vein clasts dominate
1,2	Milled Matrix + Hematite (BXH), Wall rock clasts dominate
1,3	Porous Matrix (BHX), Vein clasts dominate
	Tectonic Breccias (BXT)
1,4	Tectonic Breccias (BXT), milled rock matrix with clays and limonites
2	Hydrothermal Veins (QV), includes jigsaw breccias (no rotation)
2,1	Banded quartz (B), not brecciated
2.1.	
1	as above but jigsaw brecciated
2,2	Massive quartz (M), not brecciated
2.2.	
1	as above but jigsaw brecciated
3	Jurassic Virginia Window Undifferentiated Felsic Volcanic and Sub-volcanic Sequence (Chon Aike?)
3,2	Rhyolite Domes
3,3	Felsic Flows
3,4	Aphanitic Volcanics
3,5	Devitrified Volcanics
3,6	Lithic-Breccia Tuff
3,7	Breccia-Ash Tuff
4	Fault

Source: Figure derived from Mirasol, 2014 by PGSc, 2023.

PGSc considers the geologic logging procedure (involving lithology, alteration, mineralization, and structure), and the current log sheet design suits this type of deposit.

10.9 CORE RECOVERY AND RQD

These recoveries were compared with the length drilled of 3.00 m. The average core recovery for diamond drill holes is 94.19%, and for RQD is 68.17%. The zones with minor recovery are associated with intensely fractured or faulted material and weathered.

The core recovery and RQD in each campaign are summarized in **Table 10-3**.

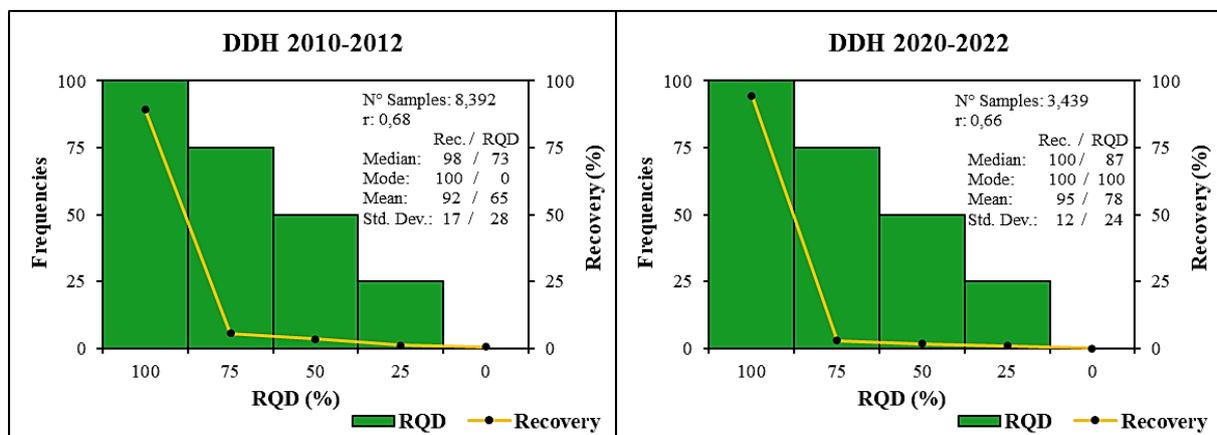
Table 10-3: Summary of the core recovery and RQD for DDH from 2010 to 2022

Year	Recovered Length Meters (Min-Max)	Mean Recovery %	Mean RQD %	Drilling Diameters
2010-2012	0.00-3.10	92	65	HQ, HQ3.
2020-2022	0.10-3.00	95	78	HQ.
Mean		94.15	68.17	

Source: Table derived from the files *VIRGeotech20120821.xlsx* and *VIR_RQD (2023).xslm* by PGSc, 2023.

The average core recovery for diamond drill holes is 94%, with 91% of the samples recovering $\geq 95\%$. The average core RQD diamond drill holes is 68%, with 78% of the samples having an RQD $\geq 75\%$ (**Figure 10-4**).

Figure 10-4: Summary of the statistical distribution of recovery and RQD (%) in the DDH samples from the Virginia Project



Source: Figures from the files *VIRGeotech20120821.xlsx* and *VIR_RQD (2023)* by PGSc, 2023.

Therefore, the core recoveries for Virginia are considered good, mainly in those intervals located near the mineralized structures.

PGSc believes that core drilling should always employ an HQ3 triple tube configuration to provide maximum recovery, primarily of the mineralized structures and ensure the representative nature of the samples.

10.10 DRILLING RESULTS

In the Virginia Window sector, 9,624 m of drilling was carried out in 63 drill holes, and in the Santa Rita sector, 693 m of drilling was carried out in 7 drill holes. A total of 10,247 m in 70 drill holes from 2020 to 2022.

The following information has been obtained from the news release of Mirasol (2020, 2021 and 2022) and validated by PGSc.

10.10.1 Virginia Window Sector

The drill results for 2020-2022 confirm the strong potential to build on Virginia's current resource base within this prospective silver-rich epithermal vein field. The new high-grade Margarita discovery will play an important role in potential future additions to the existing silver resources. The entire Ely Vein trend is potentially coming together to form one continuous 870 m long mineralized zone. In summary, the southern and eastern parts of Virginia are interpreted to represent the higher and cooler levels in the epithermal/hydrothermal system and also a higher level in the local volcanic stratigraphy. Patricia Trend is located approximately 1.50 km to the north of the Ely North resource conceptual pit, delivering indications of stronger silver mineralization (Mirasol, 2022). Some the drill results are summarized below.

Margarita Vein Drill Results

At the Margarita high-grade silver trend, three drill holes for a total of 333 m successfully extended the mineralized vein by more than 150 m to the northwest. The system remains open in both directions. The Margarita Vein has similar mineralization to the Julia Vein, which hosts most of the current silver resources in Virginia.

- MR-DDH-004: 4.85 m at 720 gpt silver, including a discreet intercept of 0.30 m at 1,775 gpt silver, exhibiting a strongly banded epithermal vein with fine-grained sulphides and copper oxides.
- MR-DDH-005: the northernmost hole along Margarita, returned values of 2.00 m at 322 gpt silver and 0.60 m at 673 gpt silver.
- MR-DDH-006: drilled to a vertical depth 100 m below the surface, returned 3.60 m at 185 gpt silver, including 0.50 m at 588 gpt silver, showing that high-grade silver mineralization extends to depth and remains open (Mirasol, 2022).

Ely Central Vein Drill Results

At Ely Central, three holes were drilled for 261 meters, testing the gaps within the 500 m long trend. Notable intersections from the Ely Central drill holes:

- EC-DDH-010: 1.95 m at 195.56 gpt silver, including 0.30 m at 553.06 gpt silver.

- EC-DDH-011: 11.95 m at 124.00 gpt silver, including 1.80 m at 192.00 gpt silver.
- EC-DDH-012: 2.00 m at 87.00 gpt silver, including 0.30 m at 182.00 gpt silver

Further infill drilling is required to test the remaining gaps along the Ely trend. This can potentially connect the Ely Central and Ely South conceptual resource pits. Existing gaps are between drill holes EC-DDH-012 and EC-DDH-002 and also in the northern end. The higher-grade intersections of the adjacent southern zone to the Ely North conceptual resource pit may connect to expand the Ely North resource between drill holes VG-183 and EC-DDH-008 and in the southmost part of Ely Central (Mirasol, 2022).

Ely North Vein Drill Results

One drill hole, EN-DDH-006, tested the northern extension of the 200 m long anomalous southern end of the Ely North vein, which is not currently part of the Ely North conceptual resource pit. The hole intercepted the vein 100 m vertically below the surface, returning 5.65 m at 144.5 gpt silver, including 0.60 m at 418 gpt silver.

This result is significant as it extends the trend 50 m to the north and reduces the gap with the conceptual resource pit at Ely North (gap between EN-DDH-006 and previous drilling VG-186).

A priority geophysical chargeable anomaly located north of hole EN-DDH-006 remains untested and may close the gap with another hole located 50 m north of EN-DDH-006. EN-DDH-001 also extended the northernmost end of the Ely North conceptual resource pit and remains open to the north.

Martina Vein Drill Results (Martina NW and Central)

Two new holes were drilled at the Martina vein trend.

- MNW-DDH-006: 4.80 m at 91 gpt silver
- MC-DDH-002: 2.90 m at 127 gpt silver, including 1.45 m at 179.5 gpt silver

Martina Central drill hole MC-DDH-002 returned silver intersections and was designed to start testing the gap between the Martina Central and northwest trends. Gaps remain along the Martina structure, with silver grades potentially associated with the notable high chargeability responses. Hole MNW-DDH-006 filled the gap in the Martina NW and extended the mineralization along this 200 m long trend (**Figure 10-5**).

Julia Vein Drill Results (Julia South and SE)

- JS-DDH-001: intersected an 8.50 m thick brecciated structure grading 123.43 gpt Ag, including 3.90 m at 168.34 gpt Ag. Colloform to crustiform banded crypto crystalline vein fragments with sulphides returned a peak result of 271 gpt Ag over 0.33 m. This

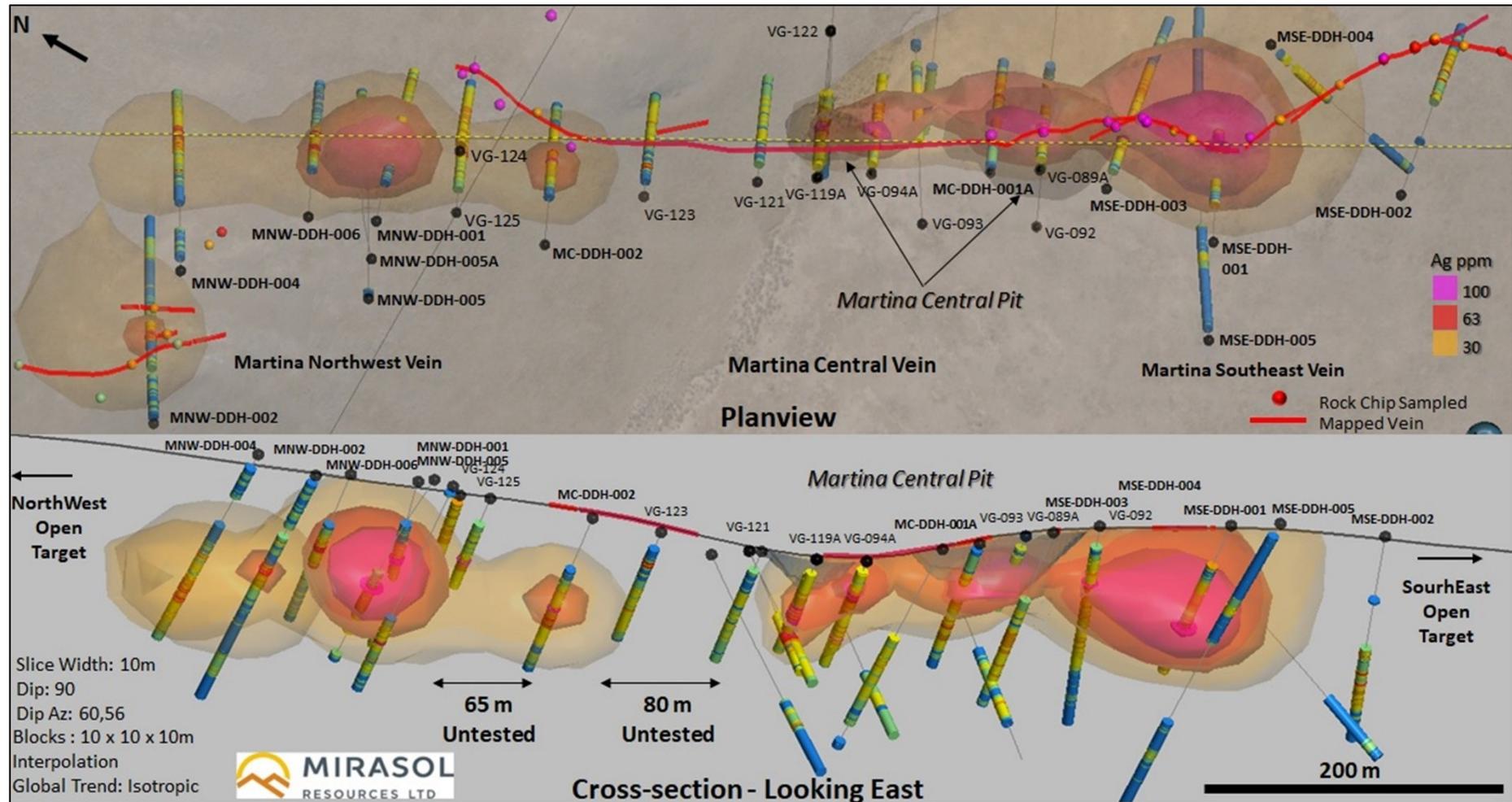
intercept is hosted in low-temperature late cross-cutting chalcedonic silica with later and final manganese oxide (MnOx) rich pulse. Minor hydrothermal breccia structures with Ag anomalies exist throughout the hole. It is interpreted that this hole sits within a downthrown structural block that is less eroded than the area to the north, which hosts a significant part of the Virginia Ag resource.

- JSE-DDH-001: grading 140.27 gpt Ag over 4.20 m at 70 m downhole. Quartz vein fragments display colloform banding and also fine crystalline quartz textures. Some fragments show low-temperature silica species with breccias and veinlets cutting the structure, hosting a peak sample of 483 gpt Ag over 0.35 m. The banded vein fragments mixed with polymictic wall rock breccia suggest that these mineralized fragments have been sourced deeper in the structure, requiring deeper drilling.

Patricia and Daniela Vein Drill Results

One drill hole tested each of these veins, which were untested targets hosting the highest-grade surface rock-chip silver samples. These holes aimed to test for down-dip extensions of the surface expressions. The Patricia drill hole PA-DDH-001 intersected 1.45 m at 120 gpt Ag, 0.50 m at 198.50 gpt Ag, and another parallel structure with 2.95 m at 95.7 gpt Ag and 0.35 m at 163 gpt Ag. These modest drill results did not replicate the extremely high-grade rock chips from near-source float block samples (over 29,000 gpt Ag and 18,800 gpt Ag) from the surface at Daniela and Patricia. Follow-up drilling along the strike will be required to understand the significance of these intersections.

Figure 10-5: Plant view and cross-section of the Martina Vein Trend with interpreted Grade Shells (63.00 gpt Ag cutoff) in Virginia Project



Source: Figure derived from Mirasol, 2023 by PGSc.

10.10.2 Santa Rita Sector

The principal objective of the 2021 drill program was to test new prospective structures at Santa Rita Central and East at shallow (20-30 m) depths below the surface exposures and to get reliable structural orientation data to aid in the planning of deeper holes.

This limited program represents the first drilling in these zones and confirms their prospectivity with encouraging results confirming that gold and silver values increase with depth.

The following information has been obtained from the new release of Mirasol (2022).

Santa Rita East Vein/Breccia Drill Results

At Santa Rita East, four drill holes were completed for a total of 329 m.

Hole SRE-DDH-001 intercepted a robust 5 m-wide zone (from 34.95 to 39.95 m) of polymictic hydrothermal breccia hosting a 0.40 m wide colloform banded quartz adularia vein. This hole returned 5.65 m at 0.68 gpt Au from 35.65 m, including 1.35 m at 1.87 gpt Au.

Hole SRE-DDH-003 was targeted 50 m further south along the same structure trend and intercepted 5.20 m at 0.63 gpt Au and 7.00 gpt Ag from 35.30 m. This interval included a 3 m wide hydrothermal breccia hosting a quartz adularia colloform epithermal vein in the center with a width of 0.6 m. Observed epithermal textures represent multi-pulse hydrothermal events within this structure, essential for forming productive epithermal mineralization. It is important to highlight that the gold and silver values in the drill core are stronger than on the surface and are expected to increase at depth. The structures at depth also significantly increase in width (+5 m) compared to the narrow centimetre-scale expressions on the surface.

The remaining two drill holes, SRE-DDH-002 and SRE-DDH-004, at the other targets in Santa Rita East, intercepted multiple narrow structures of hydrothermal crackle breccias and stockwork zones, including 0.65 m at 0.45 gpt AuEq and 0.4 m at 0.56 gpt Au.

Santa Rita Central Vein/Breccia Drill Results

At Santa Rita Central, two holes were completed along the northwest-trending structure for 166 m.

Hole SRC-DDH-001 was targeted to test the central part of the structure with gold and silver rock chip samples grading up to 1.76 gpt and 321 gpt, respectively. This hole intercepted isolated quartz veinlets and zones of sheeted veinlets, displaying bladed textures and local evidence of incipient banding, also considered typical of the upper levels of these epithermal systems and potentially transitioning into the deeper, more productive part of the system. This hole intersected 1.80 m at 0.25 gpt Au and 28 gpt Ag (0.62 gpt AuEq), which is considered encouraging within this upper level of the system.

Overall, the drilling campaign at Santa Rita Central and East has traced the vein outcrop and aligned float surface expressions to depth. Drilling to date has been very shallow, with the deepest hole only 32 m vertically below the surface. Deeper drilling is required along strike and depth to confirm these targets' full potential. It is evident that Santa Rita, particularly Central and East, represents a more "typical" quartz-adularia low sulphidation epithermal mineralization with significant gold and silver values, distinct from Virginia main.

10.11 RELEVANT SAMPLES

Relevant silver grades that were derived from surface diamond core holes are summarized in **Table 10-4**. The list of drill hole intersections represents continuously mineralized intervals longer than 1.00 m above a 200 gpt silver cutoff grade. An estimate of true thickness was calculated mathematically using the orientation of the bore hole, strike and dip of the vein, and the intersected thickness.

10.12 PGSC QP COMMENTS

PGSc and the QP believe that the drill core is logged by qualified and competent personnel with the proper training and sufficient experience. Also, the drilling method is appropriate for the investigated lithologies and commodities.

Drill hole orientations are generally adequate and suitable for the mineralization style. The selected drill hole diameter provides sufficient representative sample material for geological description, geotechnical characterization, analysis, and stored reference purposes, and core drilling should always use an HQ3 triple tube configuration to provide and assure maximum recovery, primarily of the mineralized structures and ensure the representative nature of the samples.

PGSc and the QP believe that, in general, the topography is acceptable for the work carried out at this exploration stage. However, the entire topography must be adjusted to have better precision with contour lines at 1 m according to the type of deposit of the Virginia Project.

PGSc and the QP believe that the procedures and standards adopted by Mirasol Resources during their exploration activities of the epithermal deposit are adequate for use in a Mineral Resource estimation, which has been estimated in conformity with generally accepted "*CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines*" (2019).

PGSc and the QP identified no other significant factors in the drilling campaign data collection that could significantly affect the mineral resource estimate.

Table 10-4: Relevant core hole samples for DDH from 2020 to 2022

Drill Hole ID	Collar Easting	Collar Northing	Collar Elevation	Hole Azimuth	Hole Inclination	From Depth (m)	To Depth (m)	Intersection Length (m)	True Thickness (m)	Uncapped Ag (gpt)	Vein
EC-DDH-001	2,428,800	4,739,907	1,007	100	-45	96.80	98.30	1.50	1.13	1,056.83	Ely Central
EC-DDH-003	2,428,907	4,739,838	999	280	-45	65.45	68.00	2.55	1.92	969.32	Ely Central
EC-DDH-004	2,428,904	4,739,788	996	280	-45	72.10	74.50	2.40	1.81	290.05	Ely Central
EC-DDH-004	2,428,904	4,739,788	996	280	-45	76.10	80.50	4.40	3.32	806.96	Ely Central
EC-DDH-005	2,428,906	4,739,976	991	280	-45	45.90	49.00	3.10	2.34	667.72	Ely Central
EC-DDH-005	2,428,906	4,739,976	991	280	-45	49.30	50.40	1.10	0.83	581.94	Ely Central
EN-DDH-002	2,428,883	4,741,082	1,062	90	-45	87.60	88.55	0.95	0.86	491.02	Ely Norte
MR-DDH-003	2,428,787	4,738,653	969	50	-45	44.00	46.00	2.00	1.77	621.98	Margarita
MR-DDH-004	2,428,750	4,738,689	968	50	-45	60.05	61.35	1.30	1.15	410.30	Margarita
MSE-DDH-001	2,429,912	4,739,566	973	65	-45	90.50	96.65	6.15	4.71	1,055.86	Martina SE
MSE-DDH-001	2,429,912	4,739,566	973	65	-45	98.30	99.90	1.60	1.23	222.74	Martina SE

Source: PGSc, 2023.

Note: the list of drill hole intersections represents continuously mineralized intervals longer than 1.00 m above a 200 gpt silver cutoff grade.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The February 2016 Amended Technical Report by RMI-REI discusses the treatment of samples collected during the 2010-2012 drilling campaign (Earnest & Lechner, 2016). RMI-REI concluded that *“the sample security, preparation and analysis procedures used by ALS and Alex Stewart are generally acceptable. Based on various reviews of QA/QC procedures and results, this Amended Technical Report section states that the Mirasol assays are reasonable and that the underlying samples are suitable to estimate Mineral Resources.”*

This section discusses the additional sampling undertaken by Mirasol during the 2020-2022 drilling campaign. PGSc considers that, based on discussions with Mirasol personnel during the site visit, the treatment of drill samples was conducted to the high standards of Quality Assurance/Quality Control (QA/QC).

11.1 LABORATORY SAMPLE PREPARATION, ASSAYING, AND ANALYTICAL PROCEDURES

11.1.1 Sampling Methods

Rock chip outcrops were sampled by collecting approximately 1-3 kg of sample. The sample location, length and geological descriptions were recorded.

Two laboratories have prepared and assayed the samples from the Virginia Project.

Alex Stewart International Argentina (ASA) in Mendoza, Argentina, was the primary laboratory for analyzing rock chips and drill cores from Phases 1, 2, 3 and 4. The ALS Laboratory (ALS) in Mendoza was the secondary lab.

11.1.2 Analytical and Test Laboratories

ASA complies with certification ISO 9001:2015, ISO 14001:2015, and accreditation ISO 17025:2017 as part of its internal quality system. The accreditation of the ISO 17025:2017 Standard in January 2021 is for Au4-30 by FA and AAS Li-K by ICP in liquid brines.

All ALS Geochemistry sites operate under a single Global Geochemistry Quality Manual that complies with certification ISO 9001:2015 and accreditation ISO 17025:2017 coupled with a single, global industry-leading LIMS platform.

11.1.3 Sample Preparation, Analysis and Security

The ASA sample preparation and analytical procedures (laboratory procedure codes in parentheses) were as follows:

- Homogenization of pulps for standards only (P1);

- Drying (temperature unspecified), crushing the entire sample to 80% passing -10 mesh, quartering of the sample to approximately 1.20 kg, then pulverizing to 95% passing 105 microns (P5);
- Fire assay (30-gram assay charge) by conventional flux fusion and lead cupellation with gravimetric weight finish; Ag analysis by dissolution in nitric acid with AAS finish (Ag4A-30);
- Fire assay as above except assay prill was dissolved in aqua regia and analyzed for Au by AAS (Au4A-30);
- These methods' detection limit and upper range were 2.00-20,000.00 ppm for Ag and 0.01-100.00 ppm for Au.
- 39-element ICP analysis following aqua regia digestion (ICP-MA-39). Dissolution of 0.20 g in 4 acids: hydrofluoric, perchloric, nitric and hydrochloric (total digestion with partial loss by volatilization of As, Cr, Sb and Hg). Determination in ICP-OES Radial.
- Mercury analysis for all types of exploration samples (G5). Solution of 0.20 g in aqua regia. Determination by Atomic Absorption cold vapour (10-20,000 ppm).

ASA has a LIMS (Laboratory Information Management System) with our own development that allows traceability of the sample, knowing its status and developing a complete report with all the information required in ISO17025, including a QA/QC section.

Assay results were provided in digital format (both spreadsheet and PDF) by the laboratory and were automatically loaded into the database after validation.

Detection limits and ranges are displayed in **Table 11-1**.

Table 11-1: Summary of the Detection Limits (ICP-MA-39), according to ASA Laboratory

Element	Detection Limit								
Ag	0.5-200 ppm	Cr	1-10,000 ppm	Mg	0.01-10%	S	0.01-10%	Ti	0.01-5%
Al	0.01-10%	Cu	1-10,000 ppm	Mn	1-20,000 ppm	Sb	5-2,000 ppm	Tl	5-1,000 ppm
As	5-10,000 ppm	Fe	0.01-10%	Mo	1-10,000 ppm	Sc	5-2,000 ppm	V	1-10,000 ppm
Ba	2-2,000 ppm	Ga	2-2,000 ppm	Na	0.01-5%	Se	10-2,000 ppm	W	20-2,000 ppm
Bi	5-2,000 ppm	Hg	2-500 ppm	Nb	1-10,000 ppm	Sn	20-2,000 ppm	Y	1-2,000 ppm
Ca	0.01-10%	K	0.01-10%	Ni	1-10,000 ppm	Sr	1-2,000 ppm	Zn	1-10,000 ppm
Cd	1-2,000 ppm	La	1-2,000 ppm	P	10-10,000 ppm	Ta	10-1,000 ppm	Zr	1-5,000 ppm
Co	1-10,000 ppm	Li	2-10,000 ppm	Pb	2-10,000 ppm	Te	10-2,000 ppm	-	-

Source: PGSc, 2023.

Sample preparation and analytical procedures at the ALS laboratory (with laboratory procedure codes shown in parentheses) for each sample are summarized as follows:

- Drying at <60°C (DRY-22);
- Crushing to >70% passing 2 mm (CRU-31);
- Riffle splitting to produce a 250-gram primary assay sample (SPL-21);
- Pulverizing of the entire 250-gram sample to >85% passing 75 microns (PUL-31);
- Fire Assay for Au & Ag, using a 30-gram assay charge with gravimetric finish, Ag detection limit = 5 ppm (Ag-Au ME-GRAV21);
- Subsequent analysis of single samples assaying >10,000 ppm Ag by the ALS method used for the analysis of concentrates (Ag-CON01);
- 41-element ICP analysis following nitric-aqua regia digestion (ME-ICP41);
- Re-analysis samples with over-limit ICP Ag, Cu, & Pb results (OG46).

11.2 STORAGE, SECURITY OF DRILL HOLE DATA, AND SAMPLE DISPATCHING

During the site visit to the core shed facilities in Mirasol, PGSc reviewed the core storage and related drill-hole data security. Generally, the stored procedures and documentation of the Mirasol campaigns' cores are appropriate and in line with industry norms.

All the samples from Mirasol campaigns (coarse reject and pulp) have been centralized in a secured storage facility in a warehouse in the Estancia La Patricia. Cores are numbered, ordered, and stored in a dry, clean, well-maintained core shed.

Once drill core samples have been cut and bagged, the bags are double-sealed with two zip strips. The first ordinary zip strip closes the bag around the neck under as much tension as it will support. A second, custom-printed zip-strip seal with Mirasol's name and the matching sample number is affixed to the bag. The numbered seal pierces the bag above the neck of the bag, which is sealed by the first zip strip to make it impossible to slip the ordinary zip strip over the neck of the bag. The lab is required to notify Mirasol if the samples do not arrive with the Mirasol seals intact or if there are missing seals.

Sealed sample bags are placed in rice sacks in sequence for shipment to the lab. A record of all samples shipped is kept by the geologist sending the sample shipment. One of several possible contractors or Mirasol personnel transported samples from the project to the assay laboratory in Mendoza or Perito Moreno. These contractors included private freight services or similar. The sealed bags and customized zip strips ensure the chain of custody between Mirasol and the lab.

No sample preparation was done in the field for samples to be assayed other than that required to cut and sample the core as described in the previous section.

Sample security relied upon the fact that the samples were always attended to or locked at the sample dispatch facility. Mirasol has always undertaken sample collection and transportation. Chain of custody procedures consisted of completing sample submittal forms accompanying the sample shipment sent to the laboratory to ensure the laboratory received all samples.

All the data from the drill holes programs are centralized and controlled within Micromine Geobank® database software (includes collar, survey, assay, geology, geotechnical, and density), and the database is managed by two external administrators who register and edit, and the other users only register information.

PGSc believes that the sample storage procedures and the data security are consistent with general industry practice.

11.3 BULK DENSITY MEASUREMENTS (SPECIFIC GRAVITY)

PGSc has reviewed and validated different files for the bulk density measurements from 2010 to 2022.

Density is a measure of the mass per unit volume of a material. In the case of geological materials, Specific Gravity (SG) is the unitless ratio of the density of the sample to the density of water. At a water temperature of 4°C, the numerical value of density and SG for a given sample is equal. At any other temperature, the values are different; however, for temperatures of less than 40°C, the discrepancy is in the third or fourth decimal place and is thus well within anticipated errors of the methodology. For that reason, density in t/m³ and SG are typically used interchangeably and not reported separately. In the case of the Virginia Project, density and SG data have been collected and used as “density” results. The errors introduced are minimal and do not affect Mineral Resource estimation.

Bulk density determinations were performed by Mirasol's geologic staff using representative diamond core samples from the vein, breccia mineralization and various rock and alteration types from wall-rock material. For the 1st drilling campaign from 2010 to 2012, 406 samples of 10 to 20 cm lengths of half core were selected to include vein, breccia and wall rock (halo-volcanic) from drilling and were sent to Alex Stewart International Argentina Laboratory (ASA) in Mendoza. ASA determined the density of these samples by the paraffin method according to code SC/C (weigh a dried sample in the air without paraffin in the air, coat it with paraffin and weigh in air, weight with paraffin suspended in water). Mirasol (MRZ) then recovered these same cores after they had been cut once again longitudinally (one quarter was sent for chemical analysis the other was used for Mirasol to practice bulk density determinations in the core shack using the same paraffin method that ASA had used).

For the 2nd drilling campaign from 2020 to 2022, 92 samples of 10 to 20 cm lengths of half core from drilling were selected to include Vein/Breccia and Halo (wall rock - volcanic) domains and were sent to ASA in Mendoza.

For the 2020-2022 drilling campaign, no bulk density determinations were made in the Mirasol core shed.

Table 11-2 summarizes basic statistics for bulk density determinations performed by Mirasol and ASA for Vein/Breccia and Halo domains. Note that values in the "ASA+MRZ_SG" column represent commingled results where the ASA results supersede the Mirasol results in cases where both are available.

Table 11-2: Bulk Density - Information of samples collected from drill holes

Lithology	Code	Quantity ASA_SG	Average ASA_SG	Quantity MRZ_SG	Average MRZ_SG	Quantity ASA+MRZ_SG	Average ASA+MRZ_SG
Breccia (BX)	41	90	2.391	66	2.300	66	2.353
Vein (VN)	42	48	2.673	33	2.584	33	2.634
Vein / Breccia (VN/BX)	41+42	171	2.497	99	2.442	99	2.494
Halo (VOL)	43	327	2.061	248	2.062	248	2.072
Total		498	2.279	446	2.347	446	2.388

Source: Table reproduced from files *MIRVIRBulkDens20120924.xls* and *IRVIRBulkDens20120924.xls*.
Validation by PGSc, 2023.

Note: ASA (Alex Stewart International Argentina); MRZ (Mirasol); SG (Specific Gravity).

Table 11-3 summarizes basic statistics for bulk density determinations.

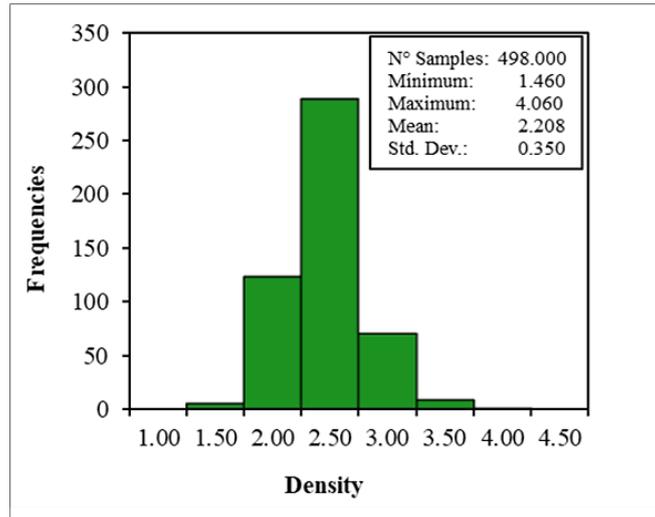
Table 11-3: Bulk Density - Information of samples collected from drill holes

Parameter	2010-2012			2020-2022
	ASA_SG	MRZ_SG	ASA+MRZ_SG	ASA_SG
Number of Samples	406	347	347	92
Mean	2.209	2.157	2.179	2.202
Median	2.160	2.120	2.140	2.200
Min	1.460	1.460	1.460	2.480
Max	3.640	3.640	3.640	4.060
Standard Deviation	0.341	0.294	0.309	0.390
Coefficient of Variation	15%	14%	14%	18%

Source: Table reproduced from files *MIRVIRBulkDens20120924.xls* and *IRVIRBulkDens20120924.xls*.
Validation by PGSc, 2023.

Of the 498 density measurements, 66% correspond to Halo (VOL) and 34% Vein/Breccia (VN/BX) (**Figure 11-1**).

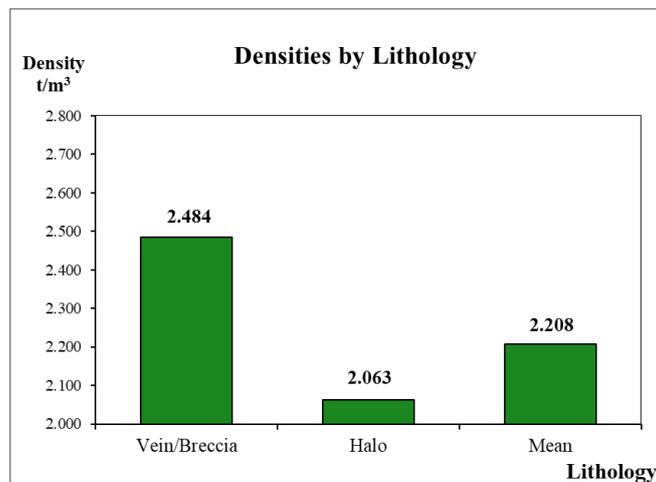
Figure 11-1: Summary of the statistic distribution of the density (t/m³) samples in Virginia Project



Source: Figure reproduced from files *MIRVIRBulkDens20120924.xls* and *MIRVIRBulkDens20120924.xls*. Validation by PGSc, 2023.

From the analysis of the density by lithology and mineralization, it is observed that the values of densities ≥ 2.60 t/m³ correspond to lithology VN/BX, correlated with mineralized domain with silica and sulphides (iron content). The wall-rock values are relatively low compared to the stated typical values of rhyodacite in the literature, which would be expected to be intermediate to rhyolites (2.4-2.6) and andesites (2.5-2.8) hence about 2.5 to 2.6 (Alden, 2012). The reason for this is likely the effects of supergene weathering and hydrothermal alteration, both of which convert feldspars to clays, resulting in a reduction in density, possibly with an attendant increase in porosity, further decreasing density. The mean value of 2.06 is significantly lower than those used to date for the oxide waste and mineralization of La Negra (2.25) and La Morocha (2.35) at Joaquin Project (2011), for instance (**Figure 11-2**).

Figure 11-2: Density graphs by lithology



Source: Figure reproduced from files *MIRVIRBulkDens20120924.xls* and *MIRVIRBulkDens20120924.xls*. Validation by PGSc, 2023.

347 samples were validated between an external laboratory and the measurements made in the core shed (**Table 11-4**).

Table 11-4: Bulk Density – QA/QC samples

Year	MRZ Core shed						ASA Laboratory						Mean RE %
	Mean (t/m ³)	Max	Min	SD	+3SD	-3SD	Mean (t/m ³)	Max	Min	SD	+3SD	-3SD	
2010-2012	2.157	3.64	1.46	0.29	3.04	1.27	2.179	3.64	1.46	0.18	3.11	1.25	1%
Mean	2.157	3.64	1.46	0.29	3.04	1.27	2.179	3.64	1.46	0.18	3.11	1.25	1%

Source: Table reproduced from file *MIRVIRBulkDens20120924.xls*. Validation by PGSc, 2023.

The validation with the external laboratory presents an acceptable precision, where 98.8% are present within the interval of $\pm 3SD$, with a correlation coefficient 0.99.

In 2010-2012, of 347 samples with bulk density determinations, 0.60% (two) presented relative errors $>10\%$, and three samples were outside $\pm 3SD$.

PGSc believes bulk density determination testing should continue in the core shed on each core sample collected, and 10% should be sent to an external laboratory for quality control and measurement validation.

PGSc considers the protocols and procedures applied to the density determinations appropriate for this type of deposit, and the database is adequate to support Mineral Resource estimation.

11.4 QUALITY ASSURANCE-QUALITY CONTROL PROCEDURES

PGSc has reviewed and validated different QA/QC program files from 2010 to 2012 and 2020 to 2022.

Mirasol applies industry-standard exploration sampling methodologies and techniques. All geochemical rock and drill samples are collected under the supervision of the company's geologists. Geochemical assays are obtained and reported under a quality assurance and quality control (QA/QC) program.

Mirasol implemented a rigorous quality assurance/quality control (QA/QC) program for all four phases of drilling and sampling surface at their Virginia project. The QA/QC program included inserting control-type samples as Certified Reference Materials (CRMs), Duplicates, and Blanks into all drill core and channel samples shipped to ASA and ALS Laboratories; both are certified.

11.4.1 Protocols

Mirasol presents % control sample insertion rates in surface samples, 10% for rock chips and 12% for trenches. For core drill samples, it has a 16% insertion rate in control samples (*MRZ Control Sample Insertion Rate Policy 20150513*).

A summary of Mirasol insertion rates from 2010 to 2022 for core drill samples is presented in **Table 11-5**.

Table 11-5: Core-Drilling Quality-Control Program: Mirasol Insertion Rates from 2010 to 2022

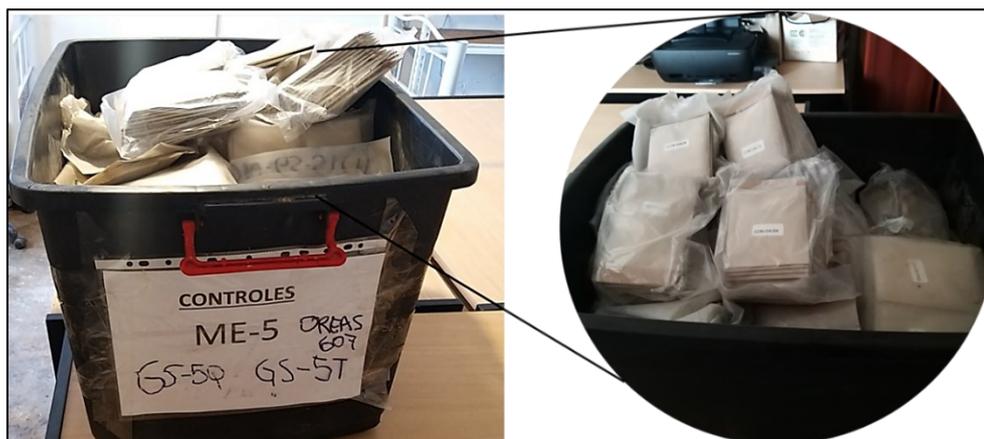
Sample Type	Sample Sub-Type	Code	Insertion Rate	Parameters	
CRMs	High-Grade Standard	STD HG	2%	6%	Accuracy
	Medium-Grade Standard	STD MG	2%		
	Low-Grade Standard	STD LG	2%		
Duplicates	Field Duplicates	DUPL	2%	6%	Precision
	Coarse Duplicates	DUBULK	2%		
	Pulp Duplicates	DUPULP	2%		
Blanks	Coarse Blanks	BLAN	2%	4%	Contamination
	Pulp Blanks	OREAS	2%		
Cross-Check	Check samples	CS	4%	4%	Accuracy
Total			20%		

Source: PGSc, 2023.

The batch is ± 75 samples, and each has its respective control samples to ensure the validity of the precision, accuracy, and degree of contamination in each analysis requirement.

As of 2010, Mirasol, through a process of continuous improvement, has been optimizing and adjusting the QC program. A constant and proactive evaluation of the results is carried out through graphs and statistics that determine the percentages of errors in the results of the sample value (monthly and yearly reports).

During the drilling campaigns, eight CRMs were used (**Table 11-6**), covering Ag and Au grades. These materials were purchased from CDN Resource Laboratories Ltd, Langley, B.C, and Canada. PGSc reviewed all the certificates and final reports of each standard, where the preparation of the material, homogenization test, round robin, and respective statistical analysis are described. These samples are located in Estancia La Patricia's camp office in a closed plastic box and dry conditions (**Figure 11-3**).

Figure 11-3: CRMs samples in a closed plastic box in camp office


Source: PGSc site visit photographs, 2023

ME-04 and ME-05 Expected Values were from 30g FA with GV finish. The other standards' Expected Values were from 4-acid digestion, ICP or AAA finish. ME-04 and five also reported Expected Values for a 4-acid digest. A comparison of the two methods for each standard (ME-04 and 05) shows a higher standard deviation for FA/GV. (ME-4 Expected Value for FA/GV was lower than 4-acid and vice versa for ME-5, so no conclusion can be made re methods and Expected Value).

Table 11-6: CRMs used in core-drill from 2010 to 2022

CRMs		CDN-ME-04 HG		CDN-ME-05 MG		CDN-ME-06 MG		CDN-ME-19 MG	
2010-2022	Element (ppm)	Ag	Au	Ag	Au	Ag	Au	Ag	Au
	Expected value	402.00	2.61	206.1	1.07	101.00	0.27	103.00	0.62
	+2 Std. Dev.	427.00	2.91	219.2	1.21	108.10	0.30	110.00	0.68
	-2 Std. Dev.	377.00	2.31	193.0	0.93	93.90	0.24	96.00	0.56
	+3 Std. Dev.	439.50	3.06	225.8	1.28	111.65	0.31	113.50	0.71
	-3 Std. Dev.	364.50	2.16	186.5	0.86	90.35	0.23	92.50	0.53

CRMs		CDN-ME-12 LG		CDN-ME-15 LG		CDN-ME-1308 LG		CDN-ME-1704 LG	
2010-2022	Element (ppm)	Ag	Au	Ag	Au	Ag	Au	Ag	Au
	Expected value	52.50	0.35	34.00	1.39	45.70	1.40	11.60	1.00
	+2 Std. Dev.	56.80	0.39	37.70	1.49	49.70	1.50	12.90	1.08
	-2 Std. Dev.	48.20	0.31	30.30	1.28	41.70	1.30	10.30	0.91
	+3 Std. Dev.	58.95	0.41	39.55	1.54	51.70	1.55	13.55	1.13
	-3 Std. Dev.	46.05	0.29	28.45	1.23	39.70	1.25	9.65	0.86

Source: Table reproduced from files *certificate.pdf* by CDN Resource Laboratories Ltd. by PGSc, 2023.

Mirasol routinely prepared and submitted duplicate core samples to their primary commercial laboratory. The original and the duplicates represent sawn ½ core (HQ diameter) samples.

Standards and blanks are inserted randomly in all drill core batches submitted to the laboratory, while duplicates are made on the coarse reject (2%) and pulps (2%).

The company submits Blank Materials (with values below the detection limit) to monitor sample preparation contamination and laboratory sample sequencing. Blanks can be coarse or pulverized, ideally reflecting the analyzed sample type. Documenting provenance, mesh size and mass of blanks assists in evaluating assays, especially if blanks change throughout the project.

Mirasol purchased barren rock quartz. Three blanks have been used in the 2010 – 2022 drilling campaigns. Two blanks are a certified pulp OREAS 22e-22f, and the other is a coarse blank.

As a routine part of their QA/QC program, Mirasol randomly selected about 4% of the pulps generated by their primary commercial lab and sent them to an umpire lab for check assay purposes.

PGSc reviewed and validated the results obtained for the two drilling campaigns in the Virginia Project and defined the following sample acceptance criteria following industry standards. They are:

Accuracy

The Bias is the deviation or difference of the results obtained concerning the value accepted as a reference or true value. It allows to estimate the accuracy and represents the systematic error.

Mean Bias < 5%: Good

Mean Bias 5%-10%: Acceptable

Mean Bias >10%: Unacceptable

Precision

The precision evaluation in the analysis requirements must be verified daily, and all the results of the control samples for the precision evaluation must be within acceptable limits.

It is accepted that only 10% of the total samples must be above the Error Line (EL), the maximum conventional error line. Samples above the EL are considered Failed Samples (FS). If a failed sample is found in all the elements analyzed, the laboratory must be notified immediately to take corrective measures.

Global or Mean Relative Error (MER) must be below the following ranges to be considered acceptable duplicate values:

Field Duplicates ≤ 35%

Coarse Duplicates ≤ 25%

Pulp Duplicates ≤ 15%

Contamination

It is used as a maximum limit for contamination, a safe line of five times the minimum detection limit (MDL). It assumes a significant level of contamination if the value of the blanks exceeds the MDL in a proportion of 5 %.

11.4.2 Results of Mirasol QA/QC Assessment

Mirasol employed standards, duplicates, and blank samples in its 2010-2012 and 2020-2022 QC drilling programs, and a total of 19,631 samples were generated, with 16,769 original or primary samples corresponding to diamond drill cores. A total of 2,862 control samples were incorporated into the process, representing 17% of the total samples (**Table 11-7**).

Table 11-7: Control samples for the drill program from 2010 to 2022

Year	Core Samples	Samples QC	Standards	Duplicates	Blanks	Cross-Check					
2010-2012	7,798	1,420	18%	349	4%	354	5%	350	4%	367	5%
2021-2022	8,971	1,442	16%	401	4%	432	5%	444	5%	165	2%
Total	16,769	2,862	17%	750	4%	784	5%	794	5%	532	3%

Source: Table reproduced from files delivered by Mirasol. Validation by PGSc, 2023.

All the quality control samples were inserted on-site. Mirasol's procedure was followed as described in *MRZ Control Sample Insertion Rate Policy 20150513*.

Freyberg (2021) summarized the general results of QC for the drilling programs from 2020 to 2021.

The general results of QC for the drilling programs from 2010 to 2022 are summarized in **Table 11-8**.

PGSc included all standard samples, even those considered Out of Control Samples (OCS) with values outside the range of $\pm 3SD$, which are not considered to calculate the bias in the results. Samples identified with mislabelling were removed from the bias analysis.

Some examples of check graphs are shown in **Figures 11-4; 11-5; 11-6, and 11-7** show some CRMs (Accuracy), the Field Duplicate check (Precision), the Blanks check (Contamination), and the Cross check (Accuracy) yearly from 2010 through 2022.

Four phases were performed in the first drilling campaign from 2010 to 2012. ALS acted as the primary laboratory for drill phases 1 and 2. ASA acted as the umpire lab for those two drill phases. The primary and umpire laboratory roles were reversed for drill phases 3 and 4.

Four phases were performed in the second drilling campaign from 2020 to 2022. ASA was the primary laboratory for all drill phases, and ALS was the umpire lab.

Check assays are performed by the secondary (umpire) laboratory on a representative sampling of previously analyzed pulps.

There has been a strong program of check assaying at Virginia, with just over 3% of all samples from 2010 to 2022 originally assayed at ASA being submitted for check assays to ALS. The results show very good assay accuracy between laboratories, with ALS showing low biases of -3.02% and -0.95% for silver relative to the original results.

Mirasol collected only field duplicates for the 2010-2012 drilling campaign but did not collect field duplicates for the 2020-2022 drilling campaign and only inserted coarse and pulps duplicates control samples.

PGSc believes that the collection of field duplicates for precision control should be prioritized in these exploratory stages, given that if carefully collected and analyzed at the same laboratory by the same procedure, these splits can estimate the variance contributed by the entire sample collection, preparation, and assaying process. The original and duplicate must be represented by 1/4 (HQ diameter) sawn core samples, and 1/2 must be left backup in the wooden box.

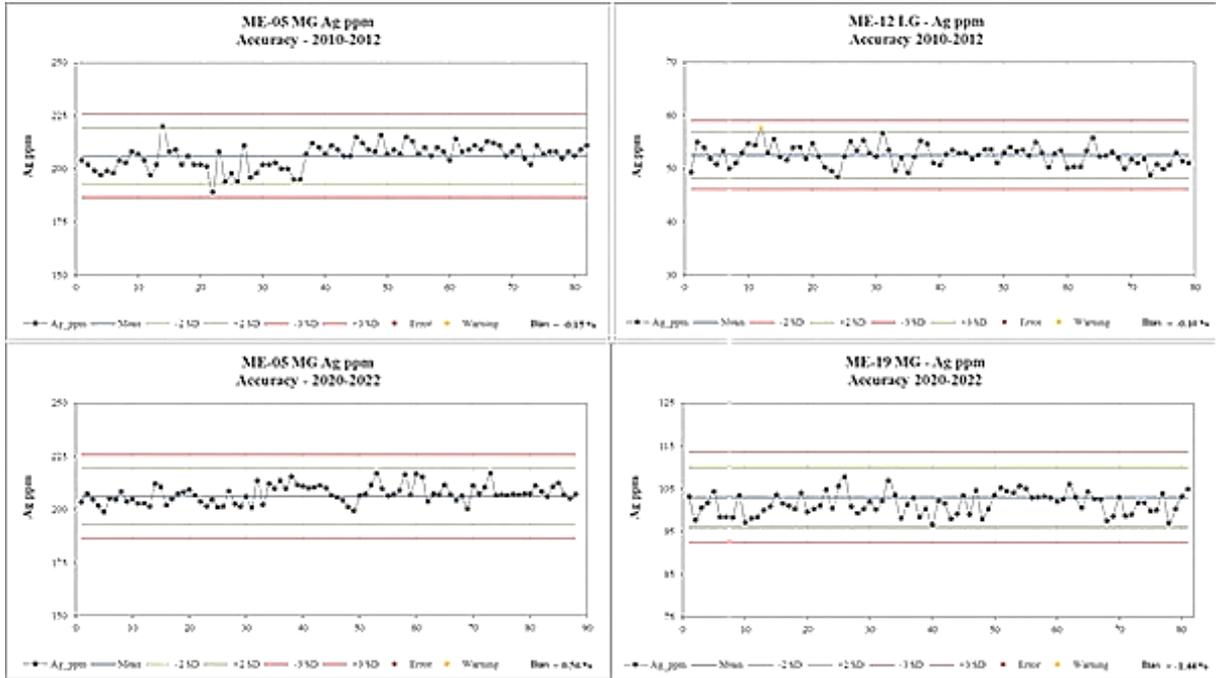
Table 11-8: QA/QC results for sampling surface and drilling programs 2010-2022

Sample Type	Parameters	Sample Sub-Type	Code	N° Totals Sent	2010-2012		2020-2022	
					Ag ppm	Au ppm	Ag ppm	Au ppm
CRMs	Accuracy (Bias %)	CDN-ME-04	STD HG	17	-0.63	3.00		
		CDN-ME-05	STD MG	170	-0.15	2.93	0.56	2.01
		CDN-ME-06	STD MG	87	-4.78	2.68		
		CDN-ME-19	STD MG	81			-1.44	1.19
		CDN-ME-12	STD LG	79	-0.10	-1.13		
		CDN-ME-15	STD LG	118	-2.07	-5.27	1.26	-0.11
		CDN-ME-1308	STD LG	129			3.12	-2.12
		CDN-ME-1704	STD LG	69			-0.87	-0.47
Duplicates	Precision (MRE %)	Field Duplicates	DUPL	354	33.00	-----	-----	-----
		Coarse Duplicates	DUBULK	208	-----	-----	9.00	-----
		Pulp Duplicates	DUPULP	224	-----	-----	10.00	-----
Blanks	Contamination (% samples >5 MDL)	Coarse Blanks	BLAN	624	0.00	0.57	0.00	0.00
		Pulp Blanks	OREAS	170	-----	-----	0.00	0.00
Cross Check	Accuracy (Bias %)	Check samples	CS	691	-3.02	-----	-0.95	-----

Source: Table reproduced from files delivered by Mirasol. Validation by PGSc, 2023.

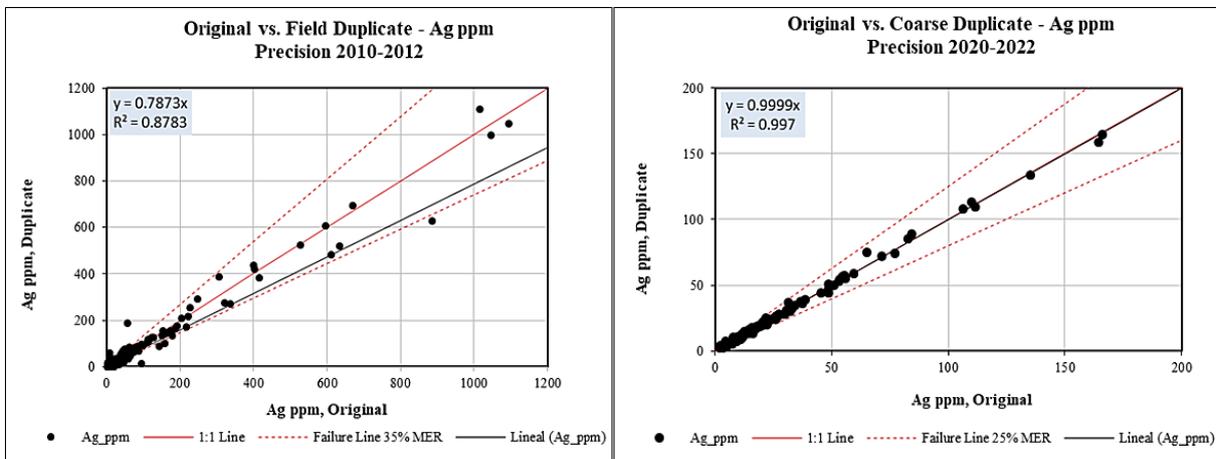
Note: For duplicates samples of Au, 99% are excluded values below 5 times the Detection Limit. In the case of Au 0.05 ppm.

Figure 11-4: Results by drilling campaign for some CRMs: ME-05 MG and ME-12 LG (2010-2012); ME-05 MG and ME-19 MG (2020-2022)

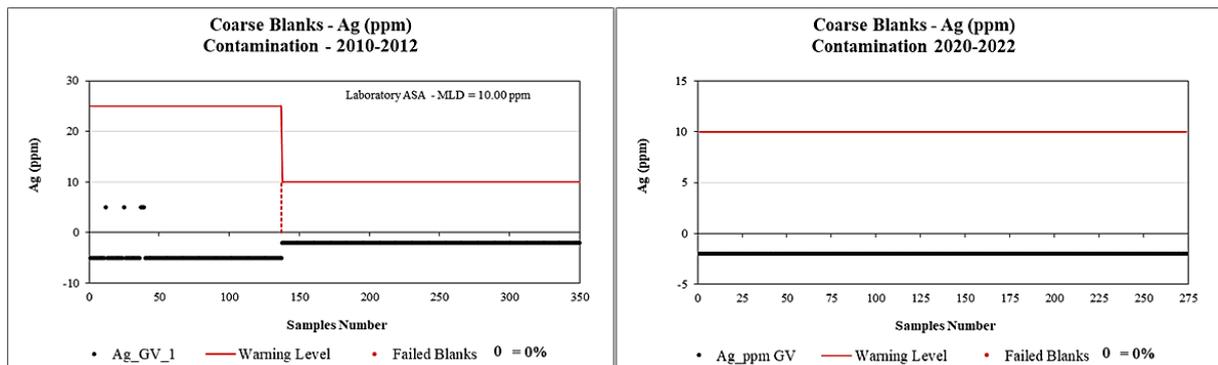


Source: Figures from files delivered by Mirasol. Validation by PGSc, 2023.

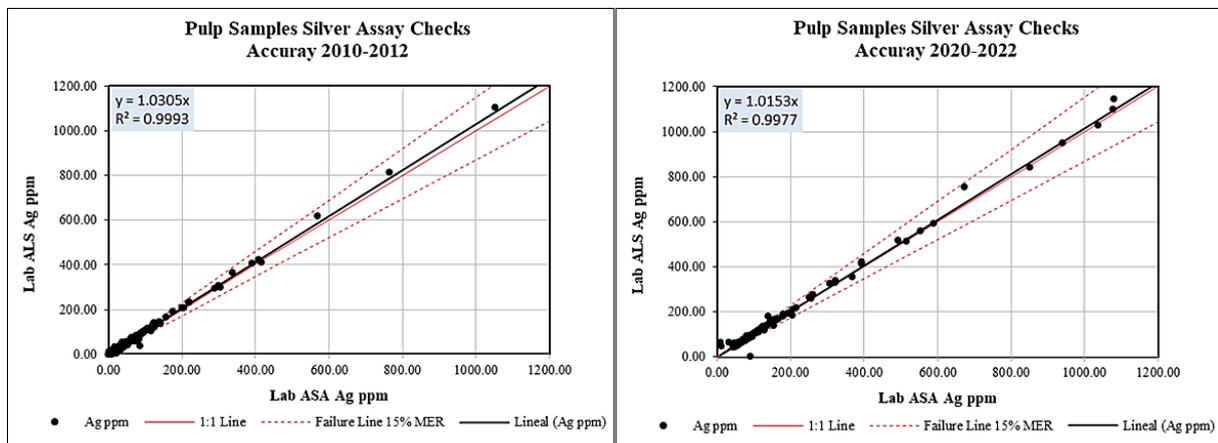
Figure 11-5: Field and Coarse Duplicate Results by drilling campaign for 2010-2012 and 2020-2022



Source: Figures from files delivered by Mirasol. Validation by PGSc, 2023.

Figure 11-6: Contamination Check Results by drilling campaign for 2010-2012 and 2020-2022


Source: Figures from files delivered by Mirasol. Validation by PGSc, 2023.

Figure 11-7: Results of the check assays by drilling campaign for 2010-2012 and 2020-2022


Source: Figures from files delivered by Mirasol. Validation by PGSc, 2023.

11.4.3 Conclusions

The main conclusions of the QA/QC from 2010-2012 and 2020-2022 drilling and assaying program are summarized below:

- The accuracy of the primary laboratory is acceptable for Ag and Au.
 - ✓ Mirasol prepared control charts to assess Ag and Au accuracy in all the drilling campaigns.
 - ✓ For all CRMs, Ag-Au biases fall into acceptable limits ($\leq 5\%$).
- The precision of the primary laboratory is acceptable for Ag.
 - ✓ Mirasol prepared control charts to assess Ag and Au precision in all the drilling campaigns.
 - ✓ For Ag, the Mean Relative Error (MER %) for all duplicate types falls into acceptable limits (<15%, <25%, and <35%).

- For the 2010-2022 campaigns, Mirasol prepared graphs of Ag (ppm) and Au (ppm) in coarse and pulp blanks versus correlative sample numbers and assessed contamination using as a maximum limit for contamination, a safe line of five times the minimum detection limit (MDL). It assumes a significant level of contamination if the value of the blanks exceeds the MDL in a proportion of 5%.
 - ✓ PGSc reviewed all diagrams provided by Mirasol and found no evidence of significant contamination during the sample preparation process of the 2010-2022 drilling campaigns.
- Check assays are performed by the secondary (umpire) laboratory ALS on a representative sampling of previously analyzed pulps. Cross-laboratory validation with ASA and ALS to evaluate the performance of the primary laboratory shows that the data obtained by ASA and ALS are reliable. The comparison of the element Ag is acceptable in all cases.

Based on the results obtained in the QA/QC program framework, the confidence level in the assays is acceptable, and they can be used to support a resource estimate. The results obtained have been confirmed and/or reproduced within reasonable limits by an alternate laboratory.

11.5 PGSC QP COMMENTS

PGSc and the QP believe that the security of samples from acquisition to analysis presents procedures that include the use of secure core logging, sampling, storage, and sample preparation facilities and the prompt, secure, and direct shipping of samples to the laboratories from Virginia Project, according to deposit type, style of mineralization, and the logistical requirements of the Project site. The sample preparation procedures used in core samples are appropriate, and the sample digestion and analytical methods chosen are adequately documented and justified.

PGSc and the QP believe that the collection of field duplicates for precision control should be prioritized in these exploratory stages, given that if carefully collected and analyzed at the same laboratory by the same procedure, these splits can estimate the variance contributed by the entire sample collection, preparation, and assaying process. The original and duplicate must be represented by 1/4 (HQ diameter) sawn core samples, and 1/2 must be left backup in the wooden box.

PGSc and the QP consider that, based on a review of the QA/QC program and data and discussions with Mirasol personnel, they apply reasonable care and diligence in monitoring the sample results obtained from the Virginia Project. The QA/QC procedures and protocols employed at the Project are rigorous enough to ensure that the sample data are appropriate for Mineral Resource estimations.

12.0 DATA VERIFICATION

PGSc and the QPs inspected the drill holes in the section and plan view to review geological interpretation related to the drill hole database and found an acceptable correlation. The scope of the site inspection was to discuss and analyze during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralization, structural characteristics, Mineral processing and metallurgical testing, mineral resources estimating, drill pads, core storage, an inspection of drill core recovery and mineralization, infrastructure and permits collected by Mirasol.

PGSc has not collected samples for independent assays for the second drilling campaign (2020-2022). The reason for not verifying is that all its phases of drilling were published in new releases Mirasol uploaded to SEDAR+ and on the company's website, and this is considered sufficient for the QP as evidence of the presence of economic grades of mineralization.

12.1 SITE VISIT

The site visit to the Virginia Properties to complete the NI 43-101 requirements was conducted from 31 August to 1 September, 2023, by Julio Bruna Novillo, CPG and José Antonio Bassan, CPG. Both are independent consultants, Certified Professional Geologists (CPG), Australasian Institute of Mining and Metallurgy members, and Fellow Chartered Professionals in Geology (FAusIMM, CPGeo). PatagoniaGEOSCIENCES (PGSc) is based in Montevideo, Uruguay.

12.1.1 Certificates Review

The QPs received original assay certificates in cvs and pdf formats for the samples collected in the 2020 to 2022 season in the current database. A random manual check of 10% of the database against the original certificates of Ag was conducted. The error rate within the database is less than 1% based on the number of samples spot-checked. Also checked were drill collar coordinates, downhole deviations, density, lithology, and alteration.

12.1.2 Adequacy of Data

The QPs consider the check assay programme adequate to provide confidence in the data. Samples associated with QA/QC failures are reviewed before inclusion in the exploration databases. The results of the QA/QC programme are discussed in **Section 11.4**.

In addition, data from bulk density measurements were reviewed and are discussed in **Section 11.3**.

Exploration sampling, security, and analysis procedures are being conducted in a manner that meets industry standard practice. The coarse reject samples and the master pulps are safe and available for further checks in a core shed at Estancia La Patricia in Santa Cruz (**Figure 12-1**).

Figure 12-1: Photographs of the core logging place, core samples, pulp master and coarse samples in the core shed



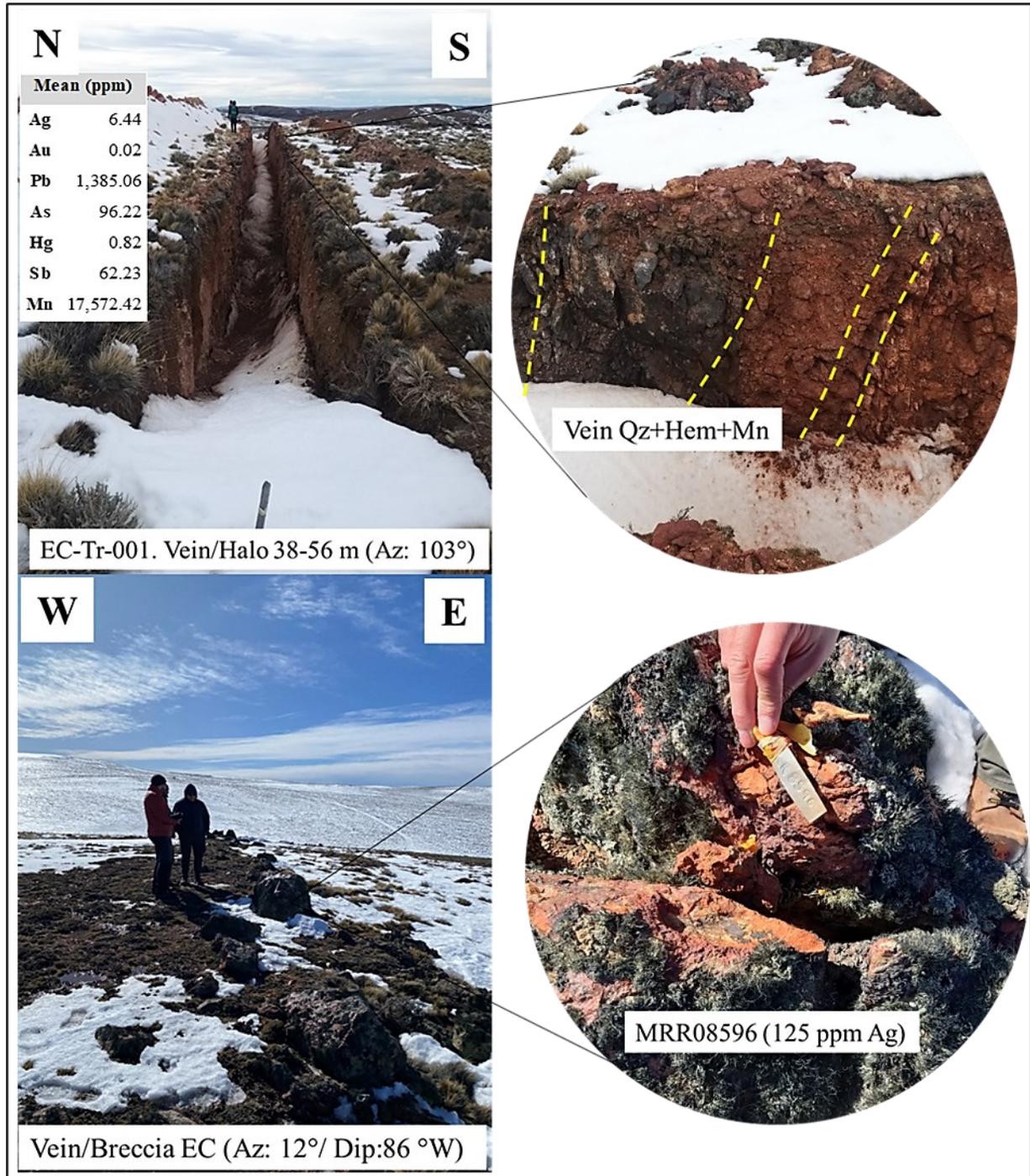
Source: PGSc site visit photographs, 2023.

12.1.3 Geology Verification

PGSc inspected the drill holes in the section and plan view to review geological interpretation related to the drill hole database found an acceptable correlation, and reviewed some drill holes with the most representative sectors of the types of mineralization.

PGSc verified and validated geological data by observing that the local geology corresponds to the general description reported in previous reports. The Ely Central, Julia South, Martina SE and Margarita geology were reviewed (**Figures 12-2 and 12-3; Table 12-1**).

Figure 12-2: Photographs of the Ely Central vein. Trench 001 and outcrops (pervasive silicification and oxides Fe+Mn)



Source: PGSc site visit photographs, 2023.

Figure 12-3: Photographs of the core samples of Ely Central and Margarita's veins



Source: PGSc site visit photographs, 2023.

Table 12-1: Summary of some drill holes reviewed

Vein	Drill Hole ID	From Depth	To Depth	Intersection Length	Ag ppm
Ely Central	EC-DDH-001	96.80	98.30	1.50	1,057
Ely Central	EC-DDH-003	65.45	68.00	2.55	969
Ely Central	EC-DDH-004	72.10	74.50	2.40	290
Ely Central	EC-DDH-004	76.10	80.50	4.40	807
Ely Central	EC-DDH-005	45.90	49.00	3.10	668
Ely Central	EC-DDH-005	49.30	50.40	1.10	582
Ely Norte	EN-DDH-002	87.60	88.55	0.95	491
Margarita	MR-DDH-003	44.00	46.00	2.00	622
Margarita	MR-DDH-004	60.05	61.35	1.30	410
Martina SE	MSE-DDH-001	90.50	96.65	6.15	1,056
Martina SE	MSE-DDH-001	98.30	99.90	1.60	223

Source: PGSc site visit, 2023.

12.1.4 Drill Pads Review

During the site visit, the trenches and drilling programme pads located in Ely Central, Julia South, Martina SE and Margarita were inspected, and a number of the drill hole collars were located. In the central area of the Ely, 9 of the 12 drill hole sites were visited. In addition, two

of the five drill hole sites visited in the Martina SE drilling area and the Margarita drilling area two of the six drill hole sites were seen (**Figure 12-4**).

Figure 12-4: Photographs of drill holes identified and validated in the field



Source: PGSc site visit photographs, 2023.

A Garmin inReach Explorer+ model handheld GPS with a precision of ± 2 m and a Brunton compass type for verification in PVC pipe on the surface and with low precision were used to validate collars. The identification of the drill holes was enabled via the PVC pipes or casings. The hole ID was marked on an aluminum tag and/or written with a marker on the PVC or the cement base.

Locations of the thirteen drill holes inspected during the site visit were compared to the Mirasol reported data, and a summary is reported in **Table 12-2**. The results exhibit small differences between the Mirasol and PGSc data. However, the agreement between the verification measurements and differential GPS data in eastings, northings and elevations is generally excellent.

Table 12-2: Summary results of comparison of locations of thirteen drill holes (Coordinates are Gauss Krüger)

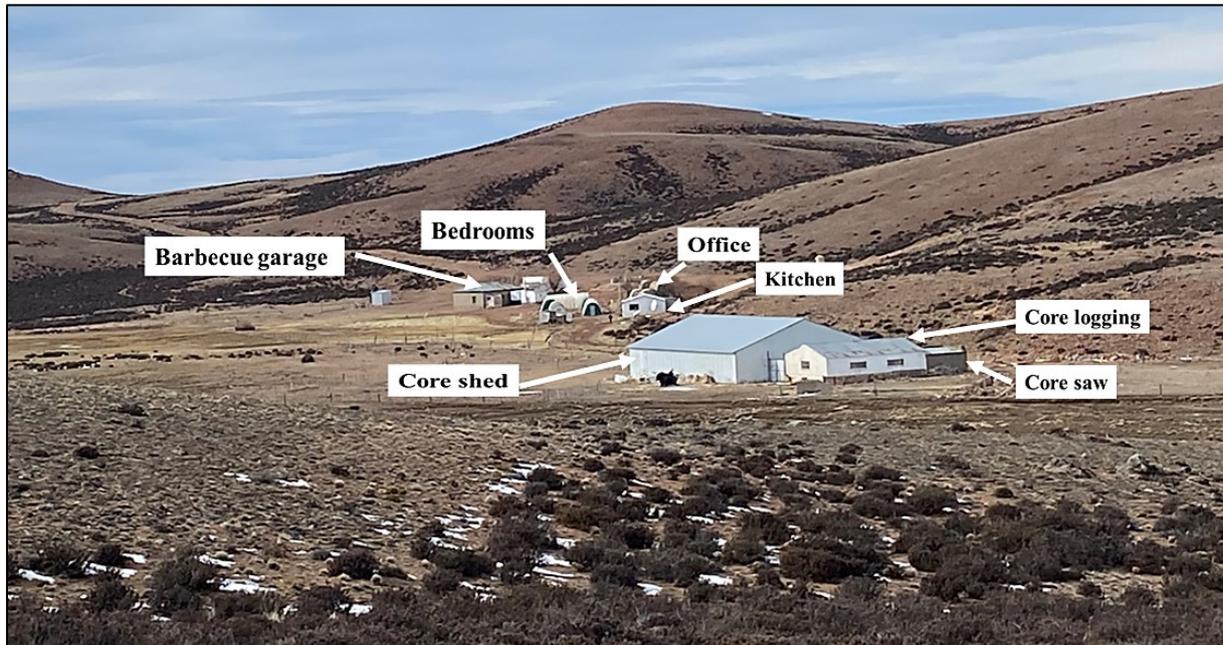
Hole_ID	Vein	MRZ					PGSc					Diff. E (m)	Diff. N (m)	Diff. Elev. (m)	Diff. Az (°)	Diff. Dip (°)
		Easting (GK)	Northing (GK)	Elev. (m)	Az (°)	Dip (°)	Easting (GK)	Northing (GK)	Elev. (m)	Az (°)	Dip (°)					
EC-DDH-001	Ely Central	2,428,800	4,739,907	1,007	100	-45	2,428,800	4,739,910	1,002	90	-50	0	-3	5	-10	-5
EC-DDH-003	Ely Central	2,428,907	4,739,838	999	280	-45	2,428,908	4,739,837	996	275	-45	0	0	3	-5	0
EC-DDH-004	Ely Central	2,428,904	4,739,788	996	280	-45	2,428,876	4,739,837	1,000	270	-43	28	-49	-4	-10	2
EC-DDH-005	Ely Central	2,428,906	4,739,976	991	280	-45	2,428,906	4,739,972	989	280	-45	0	4	2	0	0
EC-DDH-007	Ely Central	2,428,962	4,739,827	992	280	-55	2,428,905	4,739,787	1,000	273	-50	57	41	-8	-7	5
EC-DDH-009	Ely Central	2,428,862	4,739,682	992	289	-45	2,428,910	4,739,429	991	279	-43	-48	253	1	-10	2
EC-DDH-010	Ely Central	2,428,905	4,739,935	994	280	-45	2,428,907	4,739,932	992	270	-45	-2	3	2	-10	0
EC-DDH-011	Ely Central	2,428,878	4,739,737	996	283	-44	2,428,878	4,739,736	997	280	-41	0	1	-2	-3	3
EC-DDH-012	Ely Central	2,428,852	4,739,625	992	280	-45	2,428,856	4,739,624	990	270	-55	-4	1	2	-10	-10
MSE-DDH-001	Martina SE	2,429,912	4,739,566	973	54	-44	2,429,914	4,739,566	970	45	-45	-2	0	3	-9	-1
MSE-DDH-004	Martina SE	2,430,051	4,739,599	969	50	-45	2,430,046	4,739,598	965	45	-45	5	1	4	-5	0
MR-DDH-004	Margarita	2,428,750	4,738,689	968	65	-45	2,428,747	4,738,687	968	60	-45	2	2	0	-5	0
MR-DDH-005	Margarita	2,428,717	4,738,735	968	200	-45	2,428,713	4,738,733	963	190	-45	4	2	5	-10	0

Source: Table derived from files *VIR_Collar (2023).xlsx*, *VIR_Survey (2023).xlsx* and PGSc site visit, 2023.

12.1.5 Camp Review

The camp has been reconditioned, improving its facilities for the exploration campaign staff (Figure 12-5).

Figure 12-5: Photograph of camp Virginia at Estancia La Patricia



Source: PGSc Site Visit Photographs, 2023.

12.2 PGSc QP COMMENTS

PGSc and the QPs, based on the data verification performed, have an opinion that the collar coordinates, downhole surveys, lithologies, mineralization and assay results comply with industry standards and are adequate for Mineral Resource estimation.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 INTRODUCTION

The previous mineral processing or metallurgical testing analyses are discussed in detail in the amended NI 43-101 technical report by RMI-REI, dated February 29, 2016 (Earnest & Lechner, 2016). Also, the information is summarized from a Mirasol press release of February 7, 2013, and both filed on SEDAR+.

Between 2012 and early 2013, an initial metallurgical testing (scoping study level) of vein and vein breccia and low-grade “halo” mineralization that surrounds the higher-grade vein and vein breccia from the Virginia deposit was conducted by Blue Coast Metallurgy Ltd. (Blue Coast) at that company’s facility located in Parksville, British Columbia, Canada, under the supervision of Chris Martin, C. Eng, Principal Metallurgist with Blue Coast. The test work completed by Blue Coast focused on froth flotation, cyanidation and combinations of the two to recover silver from the host rock. In addition, a Bond Work Index hardness test was performed on a composite consisting of ¼ core from the Julia North vein to provide comminution energy consumption data, and a mineralogical analysis was performed at Process Mineralogical Consulting to provide information on the nature and occurrence of the various silver phases.

In summary, the vein/breccia samples have shown they respond well and can be processed using standard industry technologies with silver recoveries from 75% to 81% through both agitated leaching and sequential flotation/leaching methods.

Metallurgical recoveries on the halo composite of low-grade mineralization surrounding the Julia North, Central, South, and Naty veins do not achieve those of the vein/breccia material using similar tests and conditions to those described above. Mineralogical studies combined with the metallurgical test results suggest that the halo contains some acanthite, which is being recovered. However, most silver in the halo is present in other minerals that have yet to be specifically identified. In the testing done to date, metallurgical recoveries are very low of the contained silver (Blue Coast, 2013). At the present time, the low-grade halo should not be considered as a potentially economic material (Earnest & Lechner, 2016).

As with the earlier test work on vein and vein-breccia material, the testing on the halo material focused on flotation and whole rock cyanidation. Flotation to a rougher concentrate resulted in only 7% selective silver recovery. For whole rock cyanidation, grinding very fine to p80=23 microns and leaching for 48 hours at a cyanide concentration of 3.0 g/L NaCN achieved a silver recovery of only 19.3%. Based on these poor results, Blue Coast concluded, *“The data suggests that the majority of the silver is present as refractory to normal processing techniques.”*

13.2 CHARACTERIZATION OF LOW-GRADE "HALO" MINERALIZATION

Mirasol has continued with the initial metallurgical tests (scoping study level) of vein and vein breccia and low-grade “halo” mineralization that surrounds the higher-grade vein and vein breccia from the Julia Central sector in the Virginia deposit and has requested the Institute of Applied Economic Geology, University of Concepción, Chile (Velásquez Acosta, 2023) to carry out two stages of analysis that are in process and with partial results on composite samples (H1-H2) corresponding to the low-grade halo.

The first stage is related to studies exploring visible microparticles containing silver, i.e., mineral particles containing silver recognizable under the petrographic microscope and/or the scanning electron microscope. The purposes of this stage are:

- Determine the mineralogical “framework” of the alteration halo in composite samples.
- Exploration of visible microparticles with silver.
- Selection of “prospect” minerals for “invisible” silver exploration by microanalytical techniques: EPMA & LA-ICP-MS.
- The partially reported findings at this stage are: *"Visible silver-containing particles in halo samples have positive implications for the study's projections. The results show that the silver contents (determined by chemical analysis in the total sample) are concentrated, preliminarily, in Ag-S mineral particles (visible) and that said particles are systematically associated with the same host mineral, i.e., quartz, being found as a mineral inclusion. Findings following the results of sequential extraction provided by the client pointed to an association, "undifferentiated" previously, between silver and minerals refractory to acid digestions, e.g., quartz. With this result, however, it remains to be resolved whether other "refractory" mineral phases can concentrate silver and the mode of occurrence: visible vs. invisible, since no visible microparticles were detected in other recognized minerals, except quartz. Therefore, the next stage of the study is to explore whether there are silver contents that microscopic observation techniques cannot detect, that is, silver that would be considered “invisible” under analytical techniques of mineral description. It is also important to determine which mineral(s) contain these concentrations of silver."*

The second stage is the report with Ag concentration in the different fractions on the composite samples of the alteration halo of the Central Julia sector. This stage aims to determine the Ag concentration using the fire assay method in the composite samples and their corresponding fractions to reconcile the Ag content in the total sample and the “in-situ” Ag concentration in the different phases of minerals.

The preliminary results at this stage are: *"The Ag concentrations in the composite samples, determined at the GEA Institute, are in the same order of magnitude for the average reported by the client: 60.3 and 41.0 ppm. Thus, the data obtained can be used for chemical–chemical*

mineralogy reconciliation. As a preliminary result, it was determined that silver is not concentrated in a specific fraction, i.e., light vs. heavy. This aligns with what was observed in the mineralogical description, where Ag-S microparticles were found in both fractions. In both cases, micro inclusions were found in quartz grains. Host quartz grains have different sizes, i.e., ~ 50 vs. 1,500 μm , which would explain why these grains were concentrated in different fractions, i.e., light vs. heavy."

13.3 PGSC QP COMMENTS

PGSc and the QP are in complete agreement with Blue Coast's conclusions. They believe that at this time, the low-grade halo mineralization adjacent to Virginia's veins presents a consistently low average grade of this material (55 gpt Ag) with very low recoveries ($\leq 22\%$) achieved in the metallurgical test work completed to date. However, because of the significant volume of this material in the Virginia Project, metallurgical testing is warranted to try and develop a suitable processing method for this material that might improve recoveries.

Samples used for the preliminary testing are not considered to be representative of the entire deposit. Mirasol must continue with metallurgical tests and include samples that involve all known vein sectors. The composite quantity must ensure that the tests were carried out with an adequate sample mass and include the different types and mineralogy of the Vein/Breccia and Halo domains and their blending in the identified vein sectors.

There is no ubiquitous occurrence of arsenic, antimony, or mercury in the various veins, but some localized anomalous values exist. Assessing the materiality of potentially deleterious items at this project stage is difficult. Future studies would need to be completed to make that assessment.

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

This section describes the updated Mineral Resource Estimate for the veins identified within the Virginia Project.

José A. Bassan, P.Geo., PGSc, reviewed and validated the resource model previously performed and, based on that review, prepared an updated mineral resource statement.

This update was based on a geological model delivered by Mirasol Resources Ltd.

14.2 KEY ASSUMPTIONS AND BASIS OF ESTIMATE

The QPs performed data verification at the site, and the details are in **Section 12**. They conclude that the collar coordinates, downhole studies, lithologies, mineralization and assay results comply with the industry standards and are suitable to support mineral resource estimation.

The database for the estimation of mineral resources consists of 223 historical drill holes with 23,116.55 m, drilled from 2010 to 2012, and 191 channel samples with 95.67 m reported in the document declared on SEDAR+ (Earnest & Lechner, 2016). The holes corresponding to the Silver Mineral Resource Estimate update developed in this report incorporate 70 new drill holes from 2020 to 2022, totalling 10,247 m (**Table 14-1**).

Not all historical and new holes were used in the update of the new Mineral Resource Estimate since the historical database, and the one updated to date includes holes outside the current geological models delivered by the geology team. of Mirasol, which are the basis of the update of the Silver Mineral Resource Estimate.

Collars, downhole surveys, assay, lithologies, densities and RQD data were processed and managed with HxGN MinePlan® & MSTorque Manager software, a commercial mining program rented from Hexagon's Mining division (<https://hexagon.com/legal>, client: AR2050).

In the present update of the Mineral Resources Estimate, channel samples with Ag grades decreasing rapidly in depth were also included as in the previous estimate (Earnest & Lechner, 2016). Still, they were used with the incorporation of spatial restrictions and minimum and maximum samples per block to be estimated respecting that relative comparison “*drill hole intersections compared relatively well with surface channel samples*” with shallow wells continuous in the vertical distance to the channel samples (**Table 14-2**).

Table 14-1: Summary diamond drilling data by veins and year

Veins	2010		2011		2012		2020		2021		2022		Total Holes	Total Meters
	Holes	Meters	Holes	Meters	Holes	Meters	Holes	Meters	Holes	Meters	Holes	Meters		
Daniela (DA)											1	113.00	1	113.00
Ely North (EN)			6	515.60	15	2166.40			5	859.00	1	168.00	27	3,709.00
Ely Central (EC)							2	308.00	7	1,070.00	3	261.00	12	1,639.00
Ely South (ES)			16	1,868.10	9	1479.40							25	3,347.50
Julia Central (JC)	3	138.00	29	2,905.35			2	329.00					34	3,372.35
Julia North (JN)	14	853.60	33	2,965.50	14	2269.60							61	6,088.70
Julia South (JS)	10	569.00	6	349.10	9	1031.70	1	117.00	2	325.00			28	2,391.80
Julia South Extension (JSE)							2	272.00	2	303.00			4	575.00
Magi (n/a)			2	321.60			2	422.00	1	198.00			5	941.60
Martina (MT)			16	1,523.40	3	554.00							19	2,077.40
Martina Central (MC)									1	179.00	1	137.00	2	316.00
Martina NW (MNW)									6	1,018.00	1	131.00	7	1,149.00
Martina SE (MSE)							3	492.00	2	515.00			5	1,007.00
Martina SW (MSW)							1	175.00	3	428.00			4	603.00
Margarita (MR)							1	90.00	2	222.00	3	333.00	6	645.00
Maos- Johanna (MAJO)							1	230.00					1	230.00
Maos (Maos)									1	116.00			1	116.00
Naty Central (NA)			9	737.20									9	737.20
Naty Extension (NA)			6	633.00			2	287.00	1	156.00			9	1,076.00
Naty Extension North (n/a)			7	663.80									7	663.80
Naty South (NA)			11	1,069.30	5	502.90							16	1,572.20
Patricia (PA)											1	92.00	1	92.00
Roxane (RO)							1	126.00	1	152.00			2	278.00
Santa Rita Cent (SRC)									2	166.00			2	166.00
Santa Rita East (SRE)									4	329.00	1	128.00	5	457.00
Grand Total	27	1,560.60	141	13,551.95	55	8,004.00	18	2,848.00	40	6,036.00	12	1,363.00	293	33,363.55

Source: PGSc, 2023.

Table 14-2: Summary channel samples data by veins and year

Veins	2010		2011		2012		2020		2021		2022		Total Channel	Total Meters
	Channel	Meters	Channel	Meters	Channel	Meters	Channel	Meters	Channel	Meters	Channel	Meters		
Daniela (DA)														
Ely North (EN)														
Ely Central (EC)														
Ely South (ES)			23	8.57									23	8.57
Julia Central (JC)			16	7.97									16	7.97
Julia North (JN)			67	38.77									67	38.77
Julia South (JS)			78	37.79									78	37.79
Julia South Extension (JSE)														
Magi (n/a)														
Martina (MT)			7	2.57									7	2.57
Martina Central (MC)														
Martina NW (MNW)														
Martina SE (MSE)														
Martina SW (MSW)														
Margarita (MR)														
Maos- Johanna (MAJO)														
Maos (Maos)														
Naty Central (NA)														
Naty Extension (NA)														
Naty Extension North (n/a)														
Naty South (NA)														
Patricia (PA)														
Roxane (RO)														
Santa Rita Cent (SRC)														
Santa Rita East (SRE)														
Grand Total			191	95.67									191	95.67

Source: PGSc, 2023.

Table 14-3 describes the maximum composite meters of 2.00 m intervals with which the Mineral Resources were updated, respecting the criteria of non-use of any drillings carried out in 2010-2011-2012 and previously declared (Earnest & Lechner, 2016). The update of the new drillings carried out in 2020-2021-2022 does not require restriction for low or bad RQD drillings (poor core recovery).

Table 14-3: Virginia Project database used to estimate Mineral Resources (meters of composites used with Ag grades (gpt); the total length of the hole is not considered)

2016						
	2010		2011		2012	
	Holes	Meters	Holes & Channels	Meters	Holes	Meters
Core samples	20	419.75	128	7,540.83	55	4,070.08
Channel samples			191	95.67		
Total	20	419.75	319	7,636.50	55	4,070.08

2023							Total	
	2020		2021		2022			
	Holes	Meters	Holes	Meters	Holes	Meters	Holes & Channels	Meters
Core samples	14	1,378.30	31	3,628.09	11	909.15	259	17,946.20
Channel samples							191	95.67
Total	14	1,378.30	31	3,628.09	11	909.15	450	18,041.87

Source: PGSc, 2023.

Note. 2016: Past Resources Estimation (Earnest & Lechner, 2016).

2023: Current Update Resources Estimation.

The QP coincides with what was expressed in the previous report (Earnest & Lechner, 2016), *“The number of surface channel samples is outweighed by the number of core samples, but the surface samples are important in the estimate of near-surface resources.”*

The following table (**Table 14-4**) corresponds to the Ag grade drillings (gpt) not used in the current Mineral Resources estimate because they do not have intercepts of economic interest for Ag, nor were they considered in the Vein/Breccia & Halo geological model.

Table 14-4: Virginia Project database not used to estimate Mineral Resources

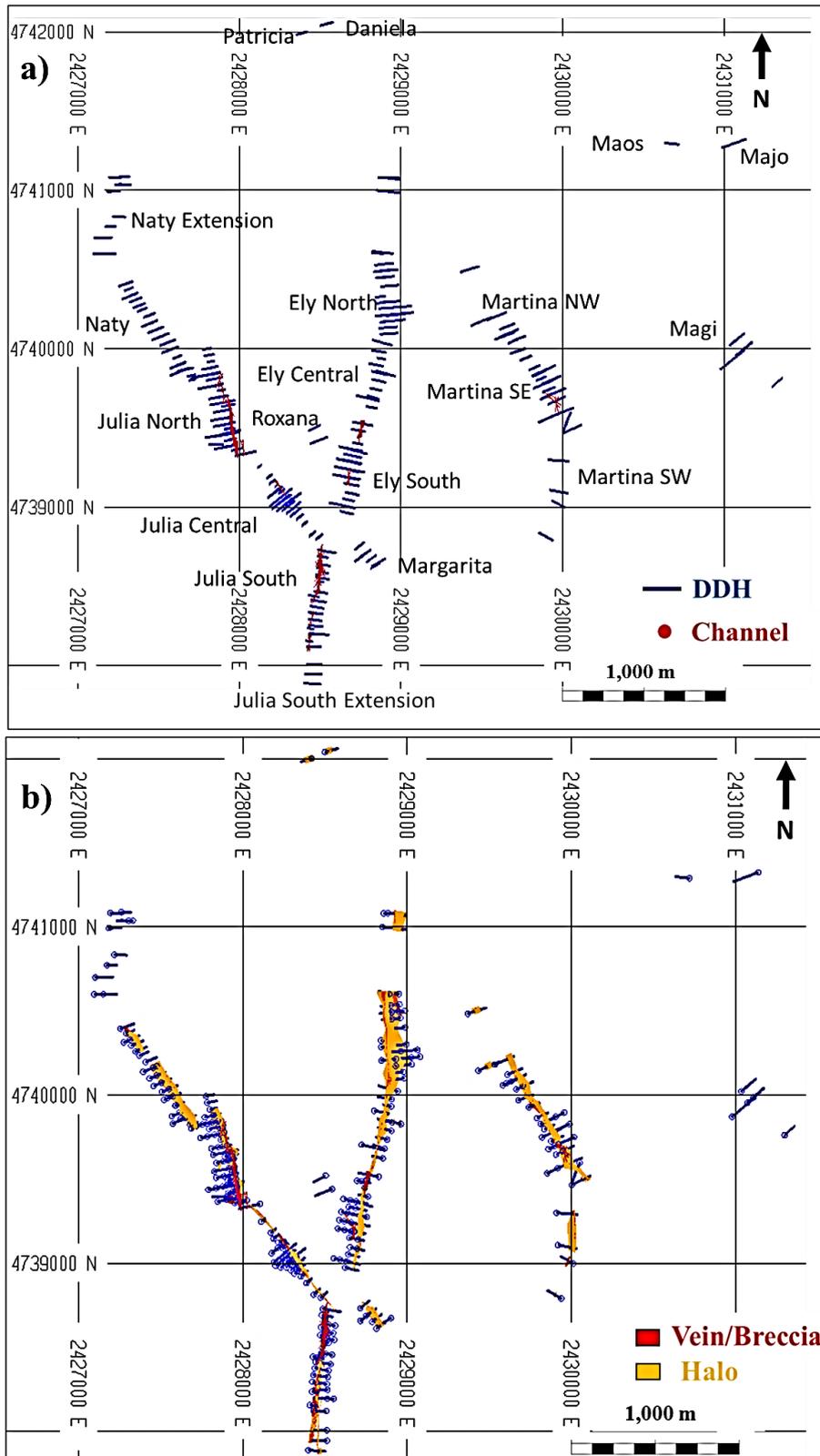
Vein	Drill Holes		
	2020	2021	2022
	Meters	Meters	Meters
Maos- Johanna (MAJO)			
MaJo-DDH-001	59.55		
Maos (Maos)			
Maos-DDH-001		90.00	
Roxane (RO)			
RO-DDH-001	91.25		
RO-DDH-002		64.40	
Magi			
MG-DDH-001	194.10		
MG-DDH-002	38.75		
MG-DDH-003		56.15	
Santa Rita Cent (SRC)			
SRC-DDH-001		65.95	
SRC-DDH-002		77.00	
Santa Rita East (SRE)			
SRE-DDH-001		55.30	
SRE-DDH-002		72.00	
SRE-DDH-003		40.00	
SRE-DDH-004		115.25	
SRE-DDH-005			74.70
Total	383.65	636.05	74.70
Grand Total			1,094.40

Source: PGSc, 2023.

Figures 14-1a and 14-1b show a map without restriction by clipping in a plan where the distribution of diamond drill holes and surface channel samples is displayed for each mineralized zone and the solids geological model's 3D Vein/Breccia and Halo. The location, azimuth, and dip of Virginia diamond drill holes from 2020 to 2022 are listed in **Appendix 3**.

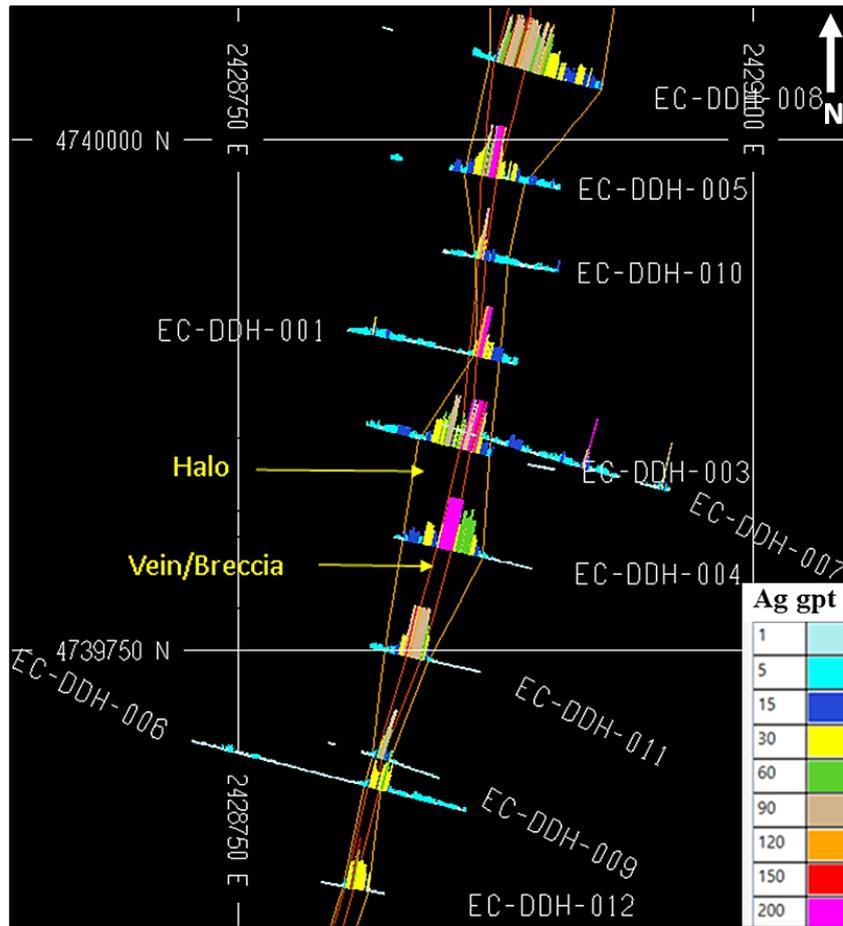
The Silver Mineral Resource estimate update in the Ely Central sector doubled the previously declared resources. Also, it allowed the Mirasol geology team to unite the entire South, Central and North Ely vein system into a single vein with direction N5°-10°E for more than 1,650 m in length (**Figure 14-2**).

Figure 14-1: Sample Location Map. a) Drill holes and channel samples. b) Solid geological model's 3D Vein/Breccia and Halo domains



Source: PGSc, 2023

Figure 14-2: Drill hole samples location map in Ely Central (Section 2D Plan view 959 m & DDH clipping view ±100 m)



Source: PGSc, 2023

14.3 TOPOGRAPHIC DATA

The topographic surface used in the resource update is the same as that declared in the previous estimate and results from “2-meter contours that were then triangulated to make a three-dimensional surface for display and tonnage calculations” (Earnest & Lechner, 2016). The QP compared the drill collars of the new holes with the topographic surface and found differences of generally <1m in elevation between the drill collars and the topography used.

According to the report, all hole collars from 2020 to 2022 were surveyed by a professional independent surveyor with an accuracy of ±0.01m (Berasaluce, 2023). Once available, they were added to the data set after checking that there was no systematic deviation between them. The data were then re-gridded, and a new DEM was produced, used in the final sets of sections to interpret the mineralized zones' location, shapes and dimensions.

In general, the topography is acceptable for the work carried out at this exploration stage. However, the entire topography must be adjusted to have better precision with contour lines at 1 m according to the type of deposit of the Virginia Project.

14.4 BULK DENSITY DATA

Based on available bulk density determinations, in the previous Mineral Resource estimate, it was chosen to assign bulk density values of 2.52 g/cm³ and 2.11 g/cm³ to Vein/Breccia and Halo/Wall rock block model lithologies, respectively (Earnest & Lechner, 2016).

PGSc has reviewed different files for bulk density measurements from 2010 to 2022, and the analysis details can be seen in **Section 11.3**.

Table 14-5 summarizes basic statistics for bulk density determinations for Vein/Breccia and Halo/Undefined domains. Of the 460 density measurements, 70% correspond to Halo/Undefined and 30% Vein/Breccia.

Table 14-5: Summary bulk density statistics

Mineralization Type	Number of Samples	Mean	Standard Deviation (SD)	Interval [Mean±3SD]
All Vein/Breccia	136	2.44	0.35	1.38 ≤ 2.44 ≤ 3.51
Halo/Undefined *	324	2.09	0.28	1.26 ≤ 2.09 ≤ 2.94

Source: PGSc, 2023.

Note: * No wall-rock.

Block density estimation was performed by PGSc, using the inverse distance weighting method to the third power (ID3). The density measurement data are fitted to the geologic wireframes and are encoded in the solids of Vein/Breccia, Halo/Undefined, where the estimate is generated.

The density is not a simple assignment but is estimated as a first option and provides more representative and spatially distributed values according to the anisotropies of the different veins-breccias and halos.

The blocks not reached by the estimation were assigned the arithmetic mean of the vein/breccia and halo, respectively. Only two values for the vein/breccia domain and four for the halo were excluded from the probability interval of (Mean±3SD) and were not part of the estimation and only received only the average allocation for all Vein/Breccia domain of 2.44 t/m³ and 2.09 t/m³ for the Halo of the different veins.

As the project progresses with drilling in its different veins sectors, the insertion of more density samples will make it possible to make the density estimate more accurate for the blocks.

Table 14-6 summarizes the density estimation parameter package in the Vein/Breccia and Halo geologic domains.

Table 14-6: Density estimation parameter package in the Vein/Breccia and Halo geologic domains

Code	Domain	Number of Composites		Ellipsoidal Search Parameters			Z-X-Y LRL Rotation			Samples	
		Vein/Breccia	Min	Max	Major Dist.	Minor Dist.	Vert. Axes	Rot 1	Rot 2		Rot 3
1	Julia South		2	6	120	40	20	9		-85	27
2	Julia Central		2	6	120	40	20	320		85	14
3	Julia North		2	6	120	40	20	348		80	8
4	Naty		2	6	120	40	20	335		80	5
5-6-7	Ely North-Central-South		2	6	120	40	20	6		-80	67
8	Margarita		2	6	120	40	20	320		80	3
9	Martina SE		2	6	120	40	20	335		-85	10
10	Martina SW		2	6	120	40	20	360		80	2
200	Daniela										0
600	Patricia										0
Code	Halo/Wall-rock										
11	Julia South		2	6	120	40	20	9		-85	17
22	Julia Central		2	6	120	40	20	320		85	4
33	Julia North		2	6	120	40	20	348		80	24
44	Naty		2	6	120	40	20	335		80	6
55-66-77	Ely North-Central-South		2	6	120	40	20	6		-80	88
88	Margarita		2	6	120	40	20	320		80	3
99	Martina SE		2	6	120	40	20	335		-85	23
100	Martina SW										2
2000	Daniela										0
6000	Patricia										0
9999	Out Vein/Breccia - Halo		2	6	120	120	20				157

Source: PGSc, 2023.

14.5 GEOLOGIC WIREFRAMES

The Mirasol geology team prepared the Vein/Breccia and Halo 3D solids for each mineralized vein system. The QP reviewed the wireframes regarding drill holes and channels with geochemical results from Ag and geological logging that characterize the Vein/Breccia and the Halo domains.

The 3D Halo solids encompass the Vein/Breccia. A Vein/Breccia can exist with or without a Halo, but a Halo cannot exist without a Vein/Breccia. The 3D Halo solids are not exclusive, and they cover the Vein/Breccia solid so that when it is encoded in the block model in subcells of up to 0.5 m (x, y, and z), there are no crossed triangulations, empty spaces between both domains nor noises that generate poor coding when subtracting the different 3D Vein/Breccia solids from the Halo. All mineralized domains are cut by topography.

Tables 14-7 and 14-8 show the volumes of these domains and the percentages of the volumes of the different sizes of subcells that are part of the block model coding for the estimation of Silver Mineral Resources. It should be noted that the Halo volumes were manually differentiated from the Vein/Breccia 3D solids to obtain their final volume.

According to the experience of the QPs involved in this report, there are normally three types of dilutions in the recoverable resource models depending on the project stage (Rossi, 2009).

Table 14-7: Vein/Breccia domain with an overlay from Lithology and Assay

Geological Unit	Code	# (Intervals)	Total Meters Intervals by Geological Unit Code	% Geological Unit Code	Ag gpt Mean
Fault Breccia	FLT_BX	282	293	20%	133
Polymictic Hydrothermal Breccia	BXH_P	311	253	17%	80
Quartz Vein	QV	280	224	15%	522
Hydrothermal Breccia with Fragments Quartz Vein	BXH_VN	253	201	14%	357
Fault Zone	FLT	140	171	12%	84
Monomictic Hydrothermal Breccia	BXH_VRD	202	132	9%	70
Crackle Breccia	VRD_BXK	85	95	7%	66
Flow Texture Rhyodacite	VRD_FB	38	42	3%	54
Lithic Tuff	LT	25	16	1%	66
Porphyritic Texture Rhyodacite	VRD	15	11	1%	51
Brecciated Lithic Tuff	BXH_LT	17	9	1%	56
Self-brecciated Rhyodacite	VRD_ABX	15	5	0%	53
Pyroclastic Breccia	PBX	7	3	0%	27
Rhyodacite with Spherulitic Texture	VRD_SPH	6	3	0%	50

Source: PGSc, 2023.

Table 14-8: Halo domain with an overlay from Lithology and Assay

Geological Unit	Code	# (Intervals)	Total Meters Intervals by Geological Unit Code	% Geological Unit Code	Ag gpt Mean
Flow Texture Rhyodacite	VRD_FB	1560	2477	43%	30
Lithic Tuff	LT	713	847	15%	31
Fault Zone	FLT	507	692	12%	43
Porphyritic Texture Rhyodacite	VRD	435	586	10%	30
Rhyodacite with Spherulitic Texture	VRD_SPH	318	352	6%	32
Pyroclastic Breccia	PBX	262	309	5%	34
Self-brecciated Rhyodacite	VRD_ABX	392	292	5%	28
Fault Breccia	FLT_BX	55	56	1%	44
Polymictic Hydrothermal Breccia	BXH_P	50	47	1%	29
Monomictic Hydrothermal Breccia	BXH_VRD	67	43	1%	28
Quartz Vein	QV	20	13	0%	138
Crackle Breccia	VRD_BXK	15	11	0%	17
Soil	SU	4	8	0%	18
Hydrothermal Breccia with Fragments Quartz Vein	BXH_VN	10	6	0%	298

Source: PGSc, 2023.

The dilution observed and characteristic at this stage at this project stage is the Geologic Contact Dilution, which refers to the loss of minerals resulting from material extraction with different geological characteristics. It occurs in the transition (contact) between domains of different grades. Contact dilution may be the most important type in reservoirs with more complicated geometries, such as veins with strong structural controls.

These tables show the dominant lithologies from the geological logging for each domain, presenting coherence between what the Mirasol geology team expressed and the interpretation of the different Vein/Breccia and Halo bodies.

The Geological Unit Code with high Ag grades is concentrated within the veins and corresponds to FLT_BX, BXH_P, QV, BXH_VN, and FLT; in summary, the combination of faulted zones with strong structural control, breccias and quartz veins make up 84% of the intervals in the assay file, and the silver averages range from 77 gpt to 522 gpt. This analysis also observed that the Vein/Breccia may contain uneconomic grades of silver.

The quantification and control of dilution begin with the geological information from drilling, geological mapping, a minimum unit of geological interpretation (0.25-0.50 m) and the final coding to the block model through one of the most commonly used methods in the industry mining, such as subcell coding.

The subcell or variable cell method was applied when constructing the block model to define better the volume of the Vein/Breccia and Halo domain, providing a better definition of the

geological contacts as the subcell blocks approach each other geological contacts. At the end of estimating the Silver Mineral Resources in these subcells, they were re-blocked to the “Parent” size. This way, the final diluted grade was reached within the block, maintaining the majority proportions of each geological unit (Vein/Breccia and Halo).

This method ensures that no empirical factors or limits are included in the geological model, respecting the contacts according to Vein/Breccia and Halo according to the minimum unit of geological interpretation modelled by the Mirasol geology team.

For the final subcell size, the assumed Selective Mining Unit (SMU) was taken into account based on the experience of the Mirasol geology team and its past interrelation with other projects in the exploration and exploitation of epithermal Au and Ag veins in the Deseado massif, Province of Santa Cruz, Argentina. As the exploratory stages advance in the Virginia Project, a study of the optimal selective mining unit for this deposit must be carried out.

Table 14-9 shows and summarizes the volumes and tonnages of the Vein/Breccia, Halo and undefined structures that were used to encode the block model into subcells in the first step and finally, the “Parent Majority” from reblocking to deliver the diluted grade coming from the Silver Mineral Resource Estimate and also the majority domain either Vein/Breccia or Halo for each block in the final 2 m x 2 m x 2 m block model.

The column ((Volume $<6 \text{ m}^3 + \geq 6 \text{ m}^3 + \text{No estimated}$)/ Volume (Parent Majority final block from Subcell)) shows the final Parent volumes reported for the 2 m x 2 m x 2 m final block size resources for the different Vein/Breccia and Halo in the subcells are similar.

The column (Volume $<6 \text{ m}^3 + \text{Not estimated}$)/Volume (Parent Majority final block from Subcell) is an approximation where the volumes less than 6 m^3 quantified in the coding of the subcells compared to the final parent volume of 2 m x 2 m x 2 m shows the approximate degree of dilution towards the contacts of the domains, dependent on the thickness and continuity of each of the Vein/Breccia and Halo. In short, there would be no differences if the subcells in the wireframe coding captured the 6 m^3 of each Vein/Breccia y Halo.

It was agreed with the Mirasol geology team to code the different veins numerically, following a clockwise direction where the Vein/Breccia correspond to the numerical codes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 200 and 600, the Halos of each of these veins are 11, 22, 33, 44, 55, 66, 77, 88, 99, 100, 2,000 and 6,000 respectively. All blocks that are not within the Vein/Breccia and Halo domains correspond to code 9999 (undefined) without wireframe, with the same code for the composites.

Table 14-9: Vein/Breccia and Halo wireframes

Code	Domain	Wireframe File Name	MineSight Volume (m ³)	Block Model Tonnes (Parent Majority final block from subcell)	Volumen (Parent Majority final block from subcell)	(Volumen <6m ³ + >=6m ³ + No estimated)/ Volumen (Parent Majority final block from Subcell)	(Volumen <6m ³ + No estimated)/ Volumen (Parent Majority final block from Subcell)
1	Julia South	JS_veta(2023)tr.dm & JSE_vetatr.dm	((254,936-8,363)+78,796)=325,369	904,336	377,838	3%	40%
2	Julia Central	JC_vetatr.dm	469,997	1,278,668	504,960	1%	38%
3	Julia North	JN_veta(2012)tr.dm	473,255	1,227,582	513,648	1%	33%
4	Naty	NA_veta(2023)tr.dm	214,178.72	550,693	227,096	0%	43%
5-6-7	Ely North-Central-South	EN_veta(2023)tr.dm & EC_vetatr.dm & ES_veta2012tr.dm	(627,863.39+461,542.47+388,313.51-945)= 1,476,774	3,691,091	1,568,400	1%	23%
8	Margarita	MR_vetatr.dm	53,001	142,161	58,840	2%	63%
9	Martina SE	martina_veta2023tr.dm	512,526	1,268,659	548,752	0%	41%
10	Martina SW	MSW_vetatr.dm	63,573	175,648	74,512	2%	45%
200	Daniela	DA_vetatr.dm	678				
600	Patricia	PA_vetatr.dm	4,027	10,600	4,600	-5%	251%
TOTAL Vein/Breccia Zone			3,593,378	9,249,438	3,878,646	1%	32%
Code	Halo						
11	Julia South	JS_halo_incluy_cuttopttr.dm & JSE_halo_incl_Cuttopttr.dm	((702,320.35 +173,395.58)-325,369)= 550,347	1,179,813	553,672	-2%	41%
22	Julia Central	JC_halo_incluy_cuttopttr.dm	(1,038,154.16 - 469,997)= 568,157	1,390,205	672,736	-1%	32%
33	Julia North	JN_halo_incluy_cuttopttr.dm	(2,635,018.60-473,255)= 2,161,764	5,486,877	2,607,880	0%	13%
44	Naty	NA_halo_incluy_cuttopttr.dm	(1,134,117.80 -214,179)= 919,939	2,058,312	916,432	0%	24%
55-66-77	Ely North-Central-South	EN_halo_incl_cuttopttr.dm & EC_halo_incl_cuttopttr.dm & ES_halo_incluy_cuttopttr.dm	(4,795,481.59+1,823,431.55+1,087,968.29 - 1,476,774)= 6,230,107	12,776,852	6,236,024	0%	12%
88	Margarita	MR_halo_incluy_cuttopttr.dm	(188,762.25-53,001)= 135,761	278,438	129,768	-1%	49%
99	Martina SE	martina_halo_incl_cuttopttr.dm	(3,948,298.69-512,526)= 3,435,773	7,139,032	3,508,856	0%	12%
100	Martina SW	MSW_halo_incluy_cuttopttr.dm	(372,463.01-63,573)= 308,890	645,766	300,728	-1%	32%
2000	Daniela	DA_halo_incluy_cuttopttr.dm	(26,435.07-678)= 25,757	55,998	26,768	5%	25%
6000	Patricia	PA_halo_incluy_cuttopttr.dm	(60,327.02-4,027)= 56,300	114,100	54,704	-1%	21%
9999	Out Vein/Breccia - Halo/Undefined						
TOTAL Halo Zone			14,392,795				

Source: PGSc, 2023.

14.6 EXPLORATORY DATA ANALYSIS (EDA)

14.6.1 Introduction

Exploratory data analysis (EDA) comprises basic statistical evaluation of the assays and composites for silver and sample length, and the review conducted had the following objectives:

- Determining the geological variables that control the grade distributions on the deposit to define the estimation units.
- Assessing the grade distribution at boundaries between estimation units to determine whether to share samples while estimating.
- Establishing a methodology to treat anomalous values in any estimation unit to control the influence of outlier samples on grade estimation.

14.6.2 Silver Assay Statistics

The EDA analysis was carried out on the database provided by the Mirasol geology team.

A summary of the developed statistics was made showing the laws and, according to the domain corresponding to a cutoff grade (eight different cutoff grades), as progress was made with the update of the new resource model (**Table 14-10 and 14-11**). The EDA developed in the previous report (Earnest & Lechner, 2016) served as a basis and check for the update and development of new exploratory data analyses.

Table 14-10: Summary EDA by geological unit by cutoff Ag gpt

Geological Unit	Cutoff Ag (gpt)	Valid	Length (Sum)	Mean Weight by Length	Mean Unweight by Length	Coef. Variation
All Vein/Breccia	≥0	1,845	1546	226	266	1.91
	≥30	1,559	1286	269	312	1.72
	≥60	1,217	969	343	387	1.50
	≥75	1,046	827	390	439	1.39
	≥100	858	657	468	516	1.24
	≥180	586	426	651	694	1.00
Halo	≥0	4,427	5747	33	34	1.11
	≥30	1,808	2357	53	57	0.94
	≥60	414	526	96	111	0.97
	≥75	240	283	122	143	1.00
	≥100	104	109	181	220	0.99
	≥180	31	28	352	445	0.84

Source: PGSc, 2023.

Table 14-11: Summary EDA by mineralized Vein/Breccia domain by Ag gpt cutoff

Code	Cutoff Ag (gpt)	Valid	Length (Sum)	Mean Weight by Length	Mean Unweight by Length	Co. of Variation
1 (JS+JSE)	≥0	284	168	295	322	1.38
	≥30	246	146	336	369	1.25
	≥60	207	121	397	430	1.11
	≥75	188	108	435	467	1.03
	≥100	173	100	463	500	0.98
	≥180	134	73	589	607	0.81
2 (JC)	≥0	254	286	198	244	1.81
	≥30	195	223	250	314	1.56
	≥60	148	161	329	399	1.32
	≥75	135	145	357	431	1.26
	≥100	121	126	399	471	1.17
	≥180	87	90	505	603	1.03
3 (JN)	≥0	285	274	435	535	1.49
	≥30	260	246	483	585	1.38
	≥60	234	213	550	645	1.26
	≥75	225	204	573	668	1.22
	≥100	199	173	660	744	1.10
	≥180	171	139	787	844	0.96
4 (NA)	≥0	99	126	203	262	2.01
	≥30	88	111	229	293	1.88
	≥60	62	75	319	398	1.56
	≥75	54	63	367	447	1.45
	≥100	45	46	466	519	1.26
	≥180	32	28	677	673	0.99
5 (EN)	≥0	248	203	105	113	1.32
	≥30	221	187	112	124	1.26
	≥60	166	147	131	151	1.18
	≥75	120	109	153	182	1.13
	≥100	79	70	192	233	1.08
	≥180	25	19	357	457	0.97
6 (EC)	≥0	205	99	257	251	2.21
	≥30	191	93	271	267	2.14
	≥60	142	68	354	344	1.86
	≥75	119	58	405	398	1.74
	≥100	85	41	531	521	1.50
	≥180	49	25	791	811	1.18
7 (ES)	≥0	176	184	129	146	1.98
	≥30	132	135	170	189	1.69
	≥60	89	84	245	259	1.39
	≥75	69	64	303	315	1.24
	≥100	53	47	382	385	1.07
	≥180	29	23	637	596	0.71

Source: PGSc, 2023.

Table 14-11: Summary EDA by mineralized Vein/Breccia domain by Ag gpt cutoff (cont.)

Code	Cutoff Ag (gpt)	Valid	Length (Sum)	Mean Weight by Length	Mean Unweight by Length	Co. of Variation
8 (MR)	≥0	51	19	498	539	1.28
	≥30	48	18	538	571	1.20
	≥60	43	16	590	634	1.12
	≥75	40	15	638	676	1.05
	≥100	36	13	711	741	0.96
	≥180	27	9	928	940	0.74
9 (MSE)	≥0	219	178	104	112	2.43
	≥30	165	124	143	144	2.05
	≥60	116	80	199	185	1.78
	≥75	88	59	247	223	1.63
	≥100	62	39	327	280	1.45
	≥180	31	18	551	428	1.12
10 (MSW)	≥0	16	7	31	35	1.05
	≥30	5	2	78	82	0.37
	≥60	4	1	90	92	0.26
	≥75	2	1	115	115	0.01
	≥100	2	1	115	115	0.01
	≥180	0				
200 (DA)	≥0	1	0	58	58	0.00
	≥30	1	0	58	58	0.00
	≥60	0				
	≥75	0				
	≥100	0				
	≥180	0				
600 (PA)	≥0	7	3	109	106	0.50
	≥30	7	3	109	106	0.50
	≥60	6	2	121	119	0.40
	≥75	6	2	121	119	0.40
	≥100	3	1	162	154	0.24
	≥180	1	1	199	199	0.00

Source: PGSc, 2023.

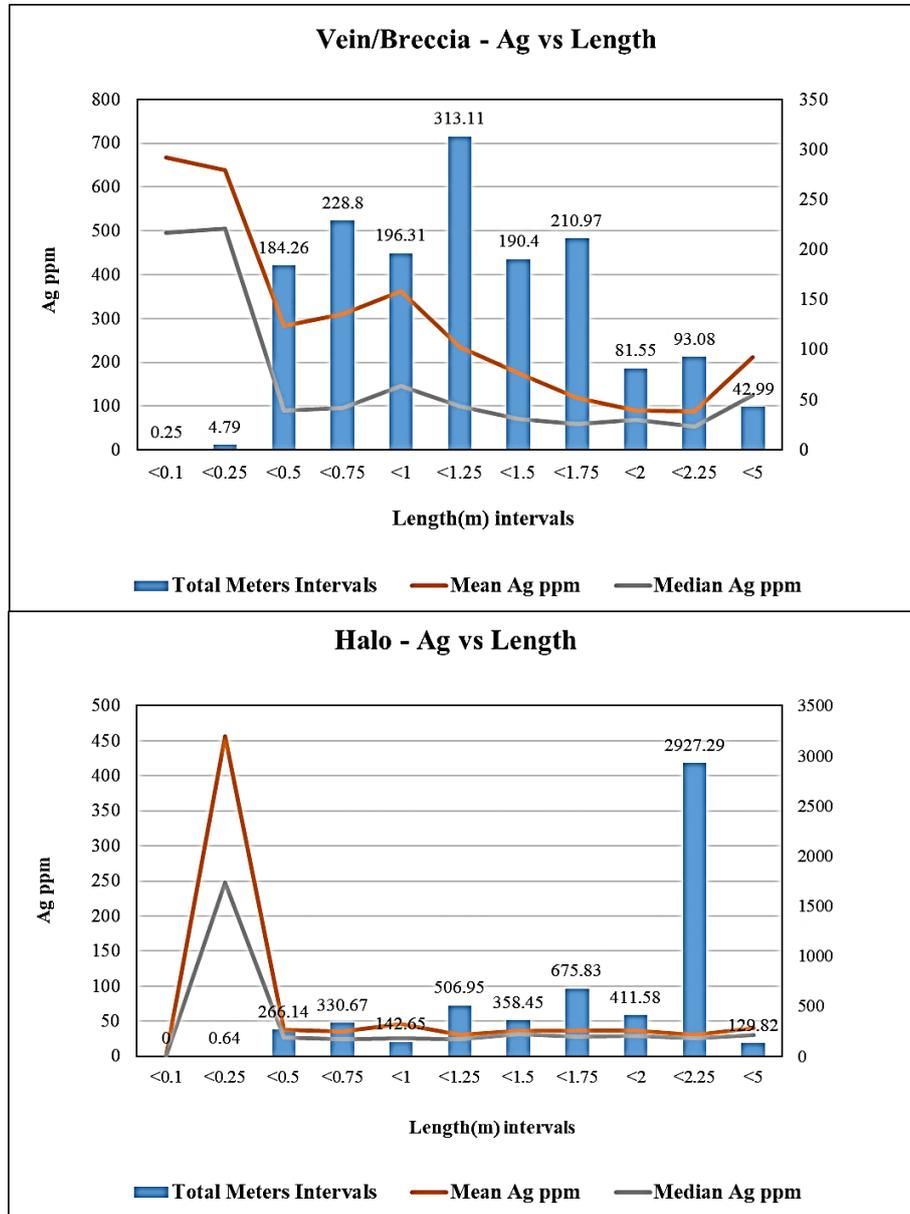
The previous table shows that the different vein/breccia do not have a high coefficient of variation that is more marked in the halo, and as moves away from the 0.00 cutoffs (gpt), this coefficient decreases; what the QP interprets is that the arithmetic mean weighted by the sampling interval is representative of the data set. Therefore, the data set is homogeneous. The above can help new exploration campaigns search for continuity of the veins in the vertical and horizontal.

Figure 14-3 shows the sampling intervals of the assay database with its meter intervals with the mean silver grade and the median.

In the Vein/Breccia domain, the samples show that the sum of the length of the samples between 0.50 m and 1.75 m corresponds to 85.60% of the total meters, length less than 0.50 m to 0.33% and length greater than 1.75 m to 14.07%.

In the Halo domain, the sum of the length of the samples between 2.00 m and 2.25 m corresponds to 51% of the total meters, length less than 2.00 m to 47% and length greater than 2.25 m to 2%.

Figure 14-3: Assay sampling intervals (m) for Vein/Breccia and Halo domains by Ag gpt



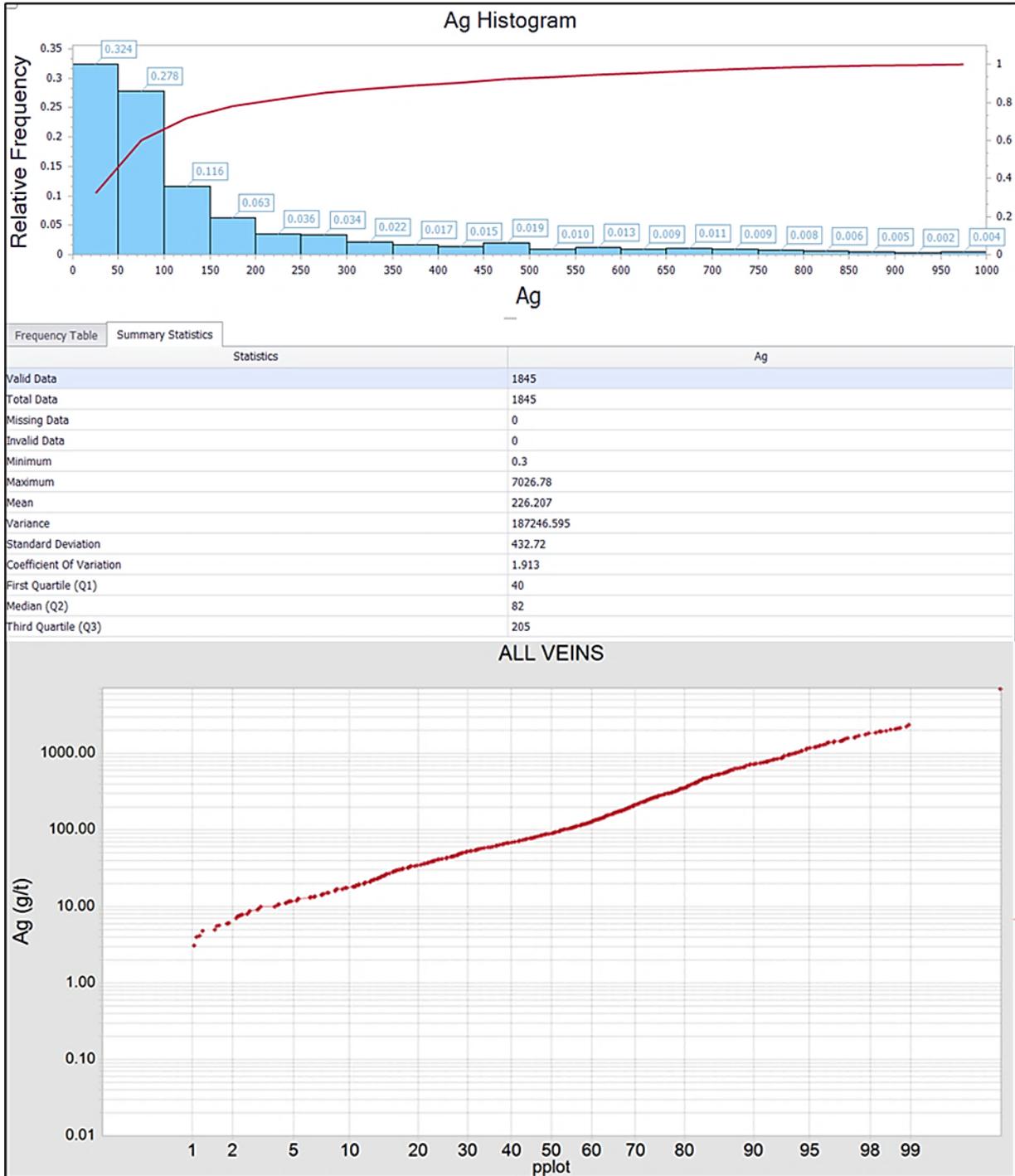
Source: PGSc, 2023.

14.6.3 Histograms, Probability Plots and Box Plots

The histograms and probability plots for silver within the Vein/Breccia and Halo domains show that these domains are different and that the probability plots tend to be log-normal for Vein/Breccia and Halo.

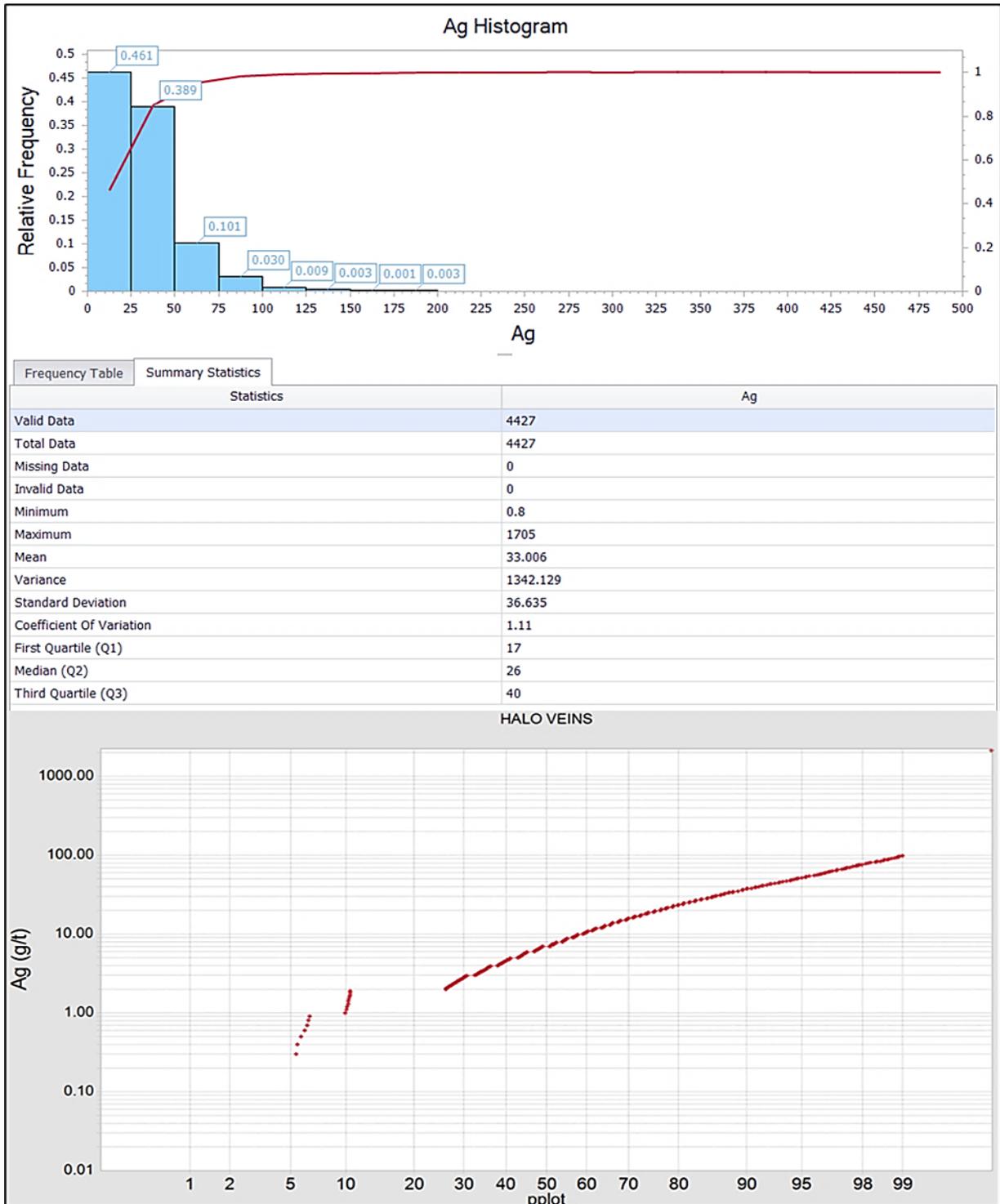
Figures 14-4 and 14-5 summarize part of the EDA work carried out in the assay, lithology and alteration database that includes box plots and other statistical analyses that are not included in this report but are the backup for current and future analyses so the Mirasol geology team can use.

Figure 14-4: All Vein/Breccias histograms and probability plots, silver assays



Source: PGSc, 2023.

Figure 14-5: All Halo histograms and probability plots, silver assays

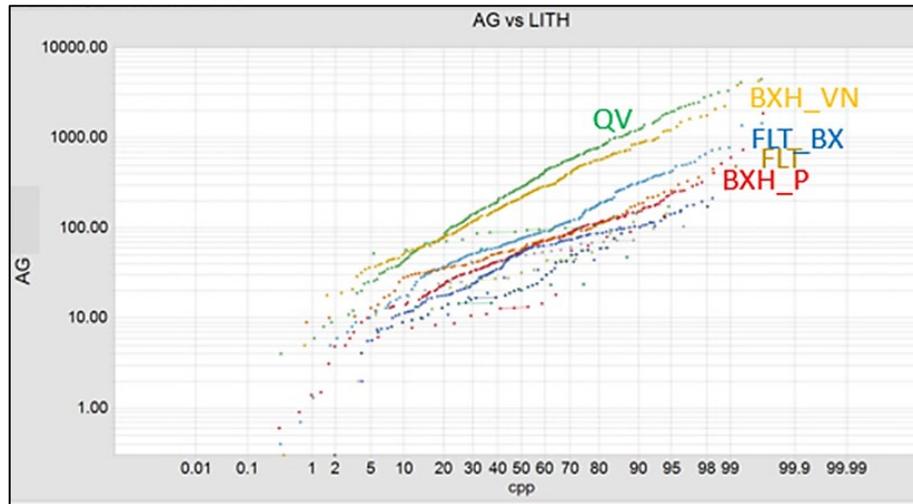


Source: PGSc, 2023.

The probability plots (**Figure 14-6**) show the different lithological populations logged within each mineralized domain, be it Vein/Breccia and Halo, described in this report in **Tables 14-7** and **14-8**. The QV and BXH_VN lithologies stand out within the Vein/Breccia, where they tend to be log-normal in their graph, meaning there is no mixture with other lithological

populations. Also, they are the ones that have the best average grade of silver and add up to 29% of the meters logged within the Vein/Breccia. The rest of the majority lithologies within the Vein/Breccia, such as FLT_BX, FLT, and BXH_P, receive a mixture of other populations with silver mineralization mainly due to structural conditioning by faults.

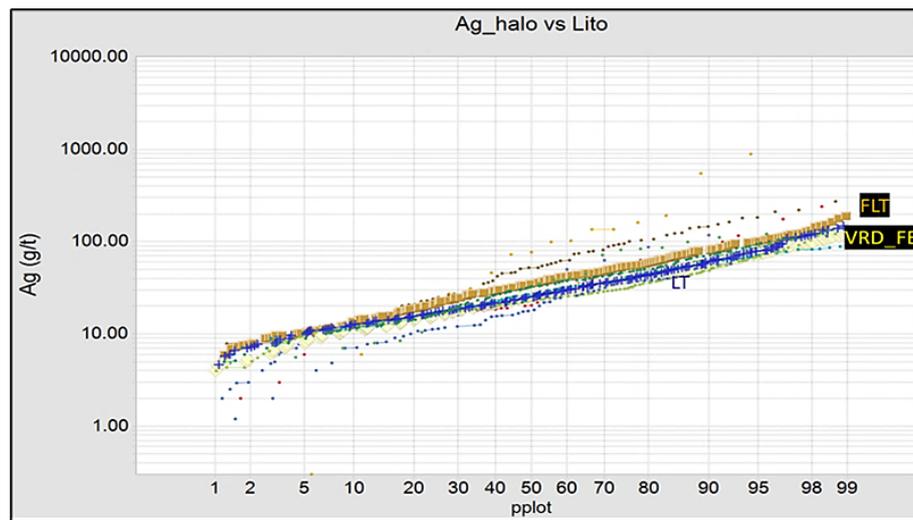
Figure 14-6: All Vein/Breccia vs. logging of meters of the different lithologies and probability plot (Ag gpt)



Source: PGSc, 2023.

In the Halo domain, the dominant lithologies FLT, VRD_FB and LT concentrate 70% of the logged meters within the different Halos. Furthermore, **Figure 14-7** shows the curves tend to be log-normal, differing from the rest of the lithologies as well as in the differentiation with the Vein/Breccia by the % of logged meters and the average of the silver grade, which is much less than that of the domain Vein/Breccia.

Figure 14-7: All Halo vs. logging of meters of the different lithologies and probability plot (Ag gpt)



Source: PGSc, 2023.

14.6.4 High-Grade Outliers

The QP evaluated the length-weighted histograms, normal-scaled box plots, and probability plots of the assays to define the silver outliers for the different mineralized Vein/Breccia and Halo. What was developed in the previous report (Earnest & Lechner, 2016) was also checked for this analysis. The QP concluded that the methodology previously used to establish a spatial restriction on the high-grade outlier values is the correct one and is the one that will be used in this update of Silver Mineral Resources, not applying any capping before or after the composition. Different probability plots that result from transforming the raw data of the assay intervals using the theory of the cumulative normal distribution and representing it on a logarithmic scale for the different Vein/Breccia, identifying the maximum silver grade values to apply the restriction 3D spatial (**Figure 14-8**).

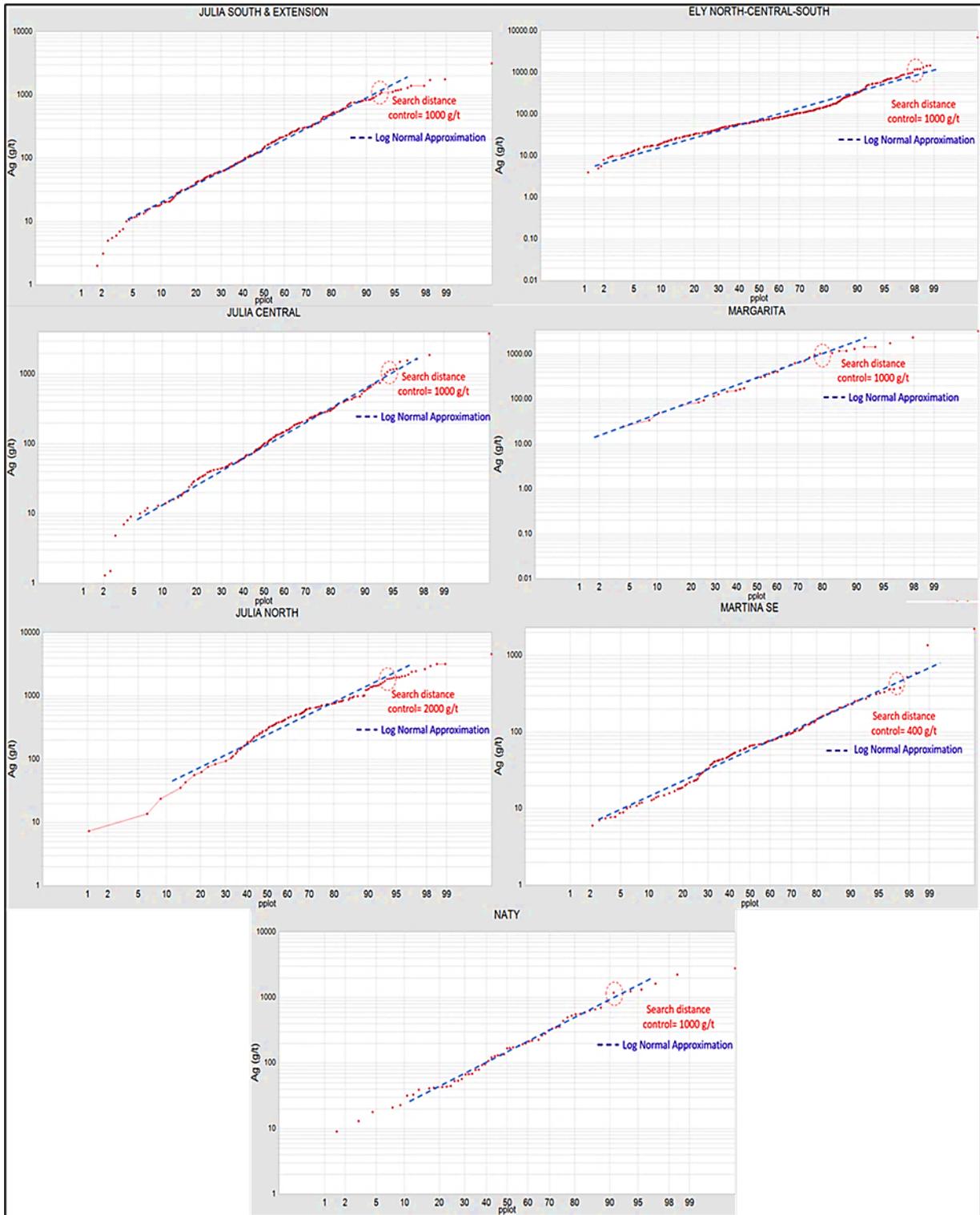
Table 14-12 summarizes silver outlier restriction based on cumulative probability plots for Vein/Breccia, halo, and undefined material applied the same outlier restriction used in the last report (Earnest & Lechner, 2016). Composite grades above the threshold have limited projection distance during block grade estimation, and this spatial restriction may not be applied to all passes, depending on the search distance, the minimum and maximum composite parameters and the number of estimated blocks, always searching for all passes have estimated blocks.

Table 14-12: Outlier restrictions summary in Virginia Project

Domain		Outlier Restriction	
Code	Vein/Breccia	Ag Threshold (gpt) Maximum	Maximum Projection Distance (m)
1	Julia South	1,000.00	3.00
2	Julia Central	1,000.00	3.00
3	Julia North	2,000.00	3.00
4	Naty	1,000.00	3.00
5-6-7	Ely North-Central-South	1,000.00	3.00
8	Margarita	1,000.00	3.00
9	Martina SE	400.00	3.00
10	Martina SW	-	-
200	Daniela	-	-
600	Patricia	-	-
Code	Halo		
11	Julia South	100.00	-
22	Julia Central	100.00	-
33	Julia North	100.00	-
44	Naty	100.00	-
55-66-77	Ely North-Central-South	100.00	-
88	Margarita	100.00	-
99	Martina SE	100.00	-
100	Martina SW	100.00	-
2000	Daniela	100.00	-
6000	Patricia	100.00	-
9999	Out Vein/Breccia - Halo (undefined)	100.00	-

Source: PGSc, 2023.

Figure 14-8: Ag Probability Plot –Vein/Breccia domain



Source: PGSc, 2023.

14.6.5 Assay Compositing

The compositing routine consisted of 2.00 m composites respecting each Vein/Breccia, Halo and Undefined domains, starting and stopping the composition routine at the changes of these domains along the drill holes and channels.

The drillings and sample intervals discarded in the previous report were respected in this update (Earnest & Lechner, 2016). The variable that controls this condition in the assay file is type CHDDH: 1 (DDH's year 2010 to 2022: used), 2: (Channel's year 2011: used), 3: (DDH's year 2010-2011-2012: used) where drilling sections are used and 4: (DDH's year 2010-2011-2012: not used).

Table 14-13 shows how the average grade of Ag in channel samples is higher than that of the composites from the core samples for the different ranges of composite intervals. It is also observed that the coefficients of variation for the different ranges of composites are not high, as described in the previous tables for the assay. The 2.00 m composite within the Vein/Breccia domain concentrates 76% of meters.

Table 14-13: Statistic of composites length intervals inside of all Vein/Breccia domain

Length Intervals (m)	Length (m)	Valid	Total Meters	DDH (m)	Ag Mean DDH	Channel (m)	Ag Mean Channel	Mean Ag gpt	Coeff. Var.
0.01-0.10	0%	14	0.81	0.56	243.76	0.25	711.50	379.71	1.46
0.10-0.25	1%	47	8.37	3.58	95.05	4.79	639.38	396.17	1.20
0.25-0.50	2%	95	33.61	10.63	155.28	22.98	735.55	552.31	0.98
0.50-0.75	3%	73	44.94	18.15	71.72	26.79	801.95	511.86	1.33
0.75-1.00	3%	57	49.37	36.93	186.16	12.44	1007.06	402.19	1.52
1.00-1.25	3%	39	43.91	38.44	257.00	5.47	840.87	331.86	1.21
1.25-1.50	4%	45	60.69	58.03	159.09	2.66	1442.50	216.14	1.60
1.50-1.75	4%	41	66.89	62.21	143.32	4.68	398.33	161.98	1.47
1.75-2.00	4%	33	61.88	59.99	124.48	1.89	343.00	131.10	1.30
2.00	76%	588	1,176.00	1,172.00	202.55	4.00	507.33	203.59	1.59
2.00-2.25	0%	0	0					0.00	0.00

Source: PGSc, 2023.

All of the above described confirms that in this update of Silver Mineral Resources, control must be had over the estimation parameters such as minimum and maximum composites, different search ranges in passes, spatial restrictions of high-grade outlier values in addition to respecting the anisotropy of the different Vein/Breccia and Halo domains, which will allow the estimated global mean grade of Silver to be close to the global mean of the composites for each domain and thus avoid global bias.

14.7 VARIOGRAPHY

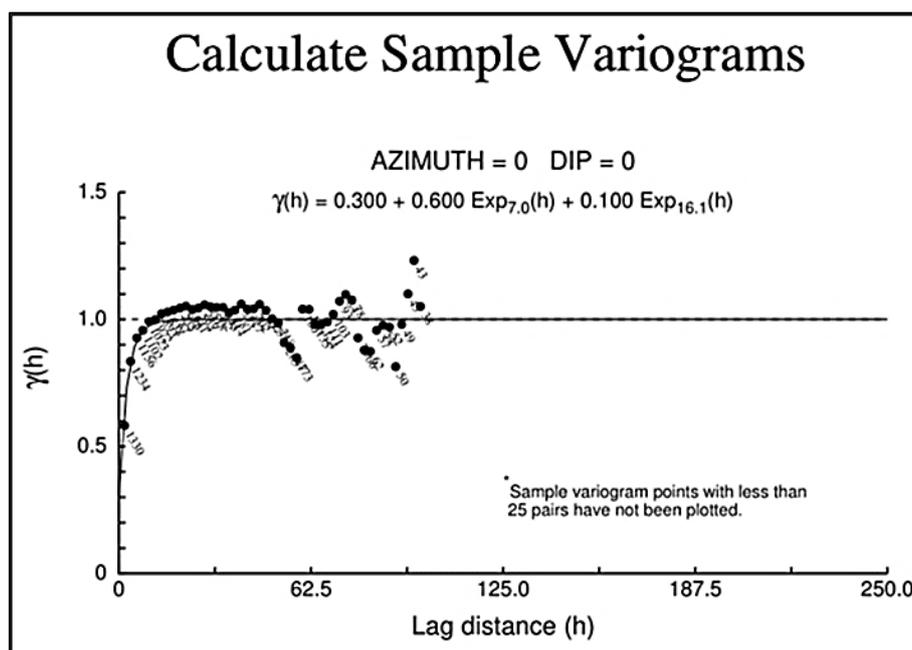
Variograms for silver grade and indicator variograms for the Vein/Breccia domain were generated by combining the Ely North-Ely Central-Ely South sectors using both Minesight® and Sage2001® software. As mentioned in the previous report: *"It was difficult to develop*

meaningful variograms given the limited number of eligible composites." In any case, it sought to ensure that the variograms were stable, including the information from the Vein/Breccia and the Halo domains in the Ely sector.

The combination of the Ely sector was chosen because this mineralization system has 1,339 composites, an acceptable amount compared to the rest of the Vein/Breccias and Halo mineralized structures.

A single exponential model fits the correlogram from downhole variograms shown in **Figure 14-9**. The nugget effect is relatively low, although in the sum with the first structure, 90% of the total variance of the data population is reached in the Ely sector at a short range of 7.00 m and the rest of the variance at 16.00 m, this behaviour of the variography is usual for epithermal vein deposits. Variograms of indicators were also generated for silver grades more significant than 75 gpt and less than this. The coefficient of variation for composites ≥ 75 gpt in the Ely sector is relatively low, close to 1.23, favouring the concept that the mean is representative of the data and the homogeneity & spatial continuity of these grades.

Figure 14-9: Downhole variogram using all composites inside Vein/Breccia and Halo domains in sector Ely_N-C-S



Source: PGSc, 2023.

The required variography is a function of the estimation method chosen, in this case, the Indicator Modified Ordinary Kriging (IMOK) method only for Ely's combined sector.

The spatial continuity estimator chosen was the correlogram. Correlograms were run using 2.00 m composites and included correlograms for the Ag grade above 75 gpt and the corresponding correlogram models for the lower grade (unmineralized) distribution, Ag <75 gpt.

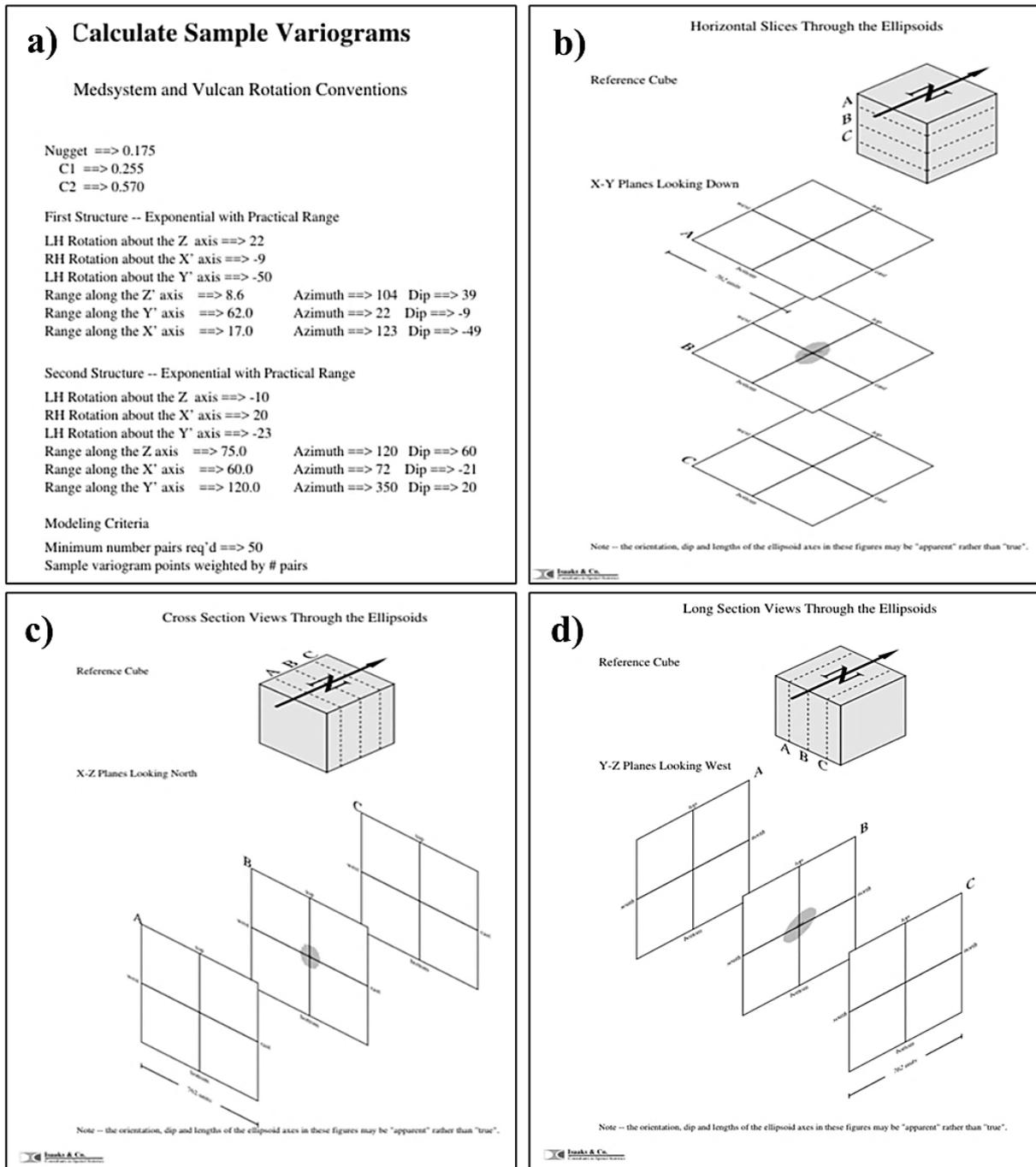
Also, a global Ag correlogram for a run outside the 75 gpt Undefined to check for potential outside resources. Finally, a correlogram model for the overall Ag distribution within the 75 gpt was also obtained for the Ely North-Central-South combined sector to aid in the later classification of the resources and provide a model for the Geologic Contact Dilution study described below.

Additionally, an indicator variogram model for the 75 gpt threshold was obtained, which indicates how continuous the mineralized zones are. The indicator variogram confirms that the 75 gpt correlation is a statistical confirmation of the geologic continuity of the mineralized zone.

The anisotropies and ellipses of continuity for each variogram were checked against known geology and its expected behaviour.

Figure 14-10 shows the summary variogram model and three cuts of the ellipsoid of continuity (horizontal, cross-sectional, and longitudinal, respectively) of the 75 gpt indicator variogram of composites inside the Vein/Breccia domain.

Figure 14-10: a) Summary Variogram model - 75 gpt Indicator, 2 m composites inside of Vein/Breccia; b) Horizontal view through the ellipsoids of continuity; c) Cross-sectional view through the ellipsoids of continuity; d) Longitudinal view through the ellipsoids of continuity.



Source: PGSc, 2023.

14.8 GEOLOGIC CONTACT DILUTION

Geological dilution is the most critical factor in this stage of the Project, where the veins are irregular and not all have regular thicknesses at 2.00 m.

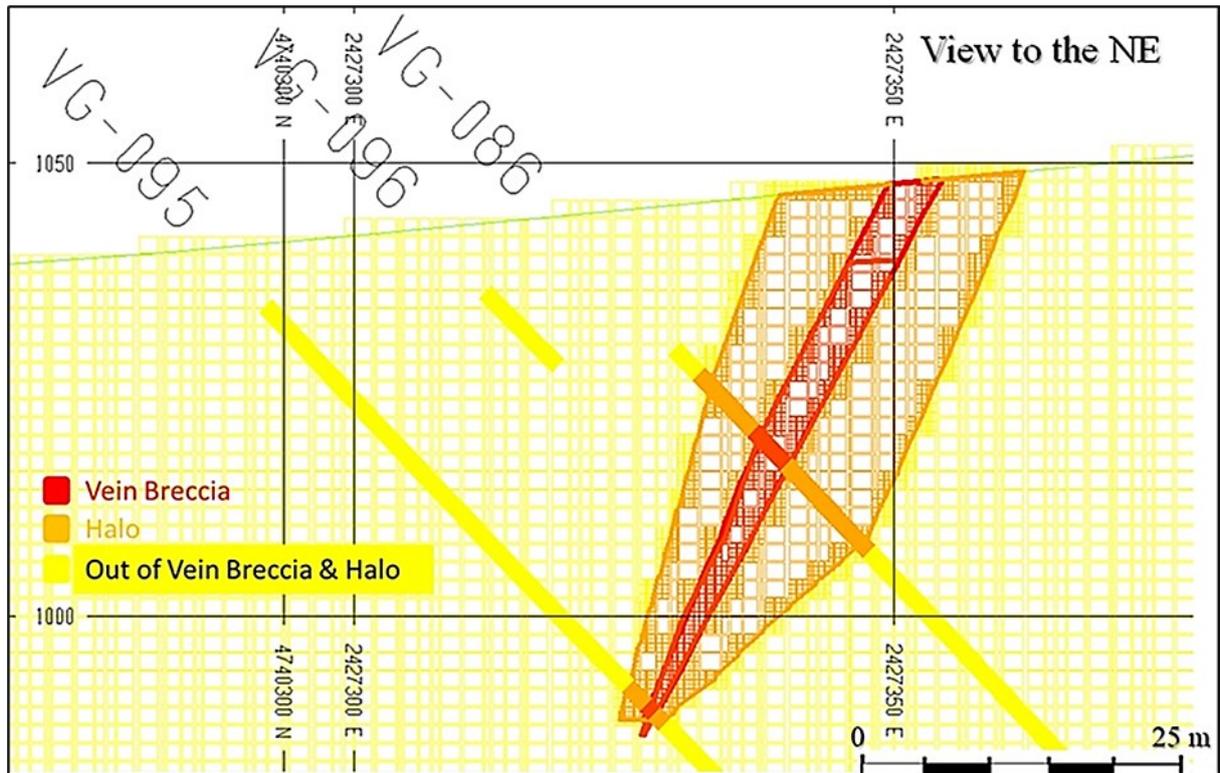
The block model previously defined was 2 m x 2 m x 2 m (Earnest & Lechner, 2016), and consider that this block size is acceptable for this type of veins at this stage of the project, but leaving the opportunity open for future analyses regarding the SMU (selective mining unit) that could change the block size defined in the previously published resources. The block size representing the minimum volume that could be mined is called the Selective Mining Unit (SMU). It is assumed that the bench are 2.00 m congruent with the maximum length of the composites and that the minimum unit of geological interpretation ranges between 0.25 m and 0.50 m. Additionally, the insertion into this model of subcells with a minimum size of 0.50 m for each of the three x, y, and z directions.

The insertion of the subcells in this update of Silver Mineral Resources is consistent not only with the minimum unit of geological interpretation but also much more representative for the SMU previously defined with the block size of 2 m x 2 m x 2 m, where is factored with 1.00 m on each side of the different Vein/Breccia and the precision of the variables VEIN%, END%, DIL% was equal to 0.01 % in the 2 m x 2 m x 2 m block, that is, 0.02 m as SMU if we take a single steering axle. As an empirical method, this factorization risks not including the real dilution of the Ag grade of the different veins/breccias, especially when this mineralized system has irregular thicknesses other than 2.00 m.

The QPs confirm that the subcell method applied to the current Recoverable Resources model with a minimum size of 0.50 m in each of the three axes, x, y, and z, for the Virginia Project is the most direct method for obtaining the diluted grade and the tonnages corresponding to the majority coding of the Vein/Breccia, Halo and Undefined domains within the final block model (parent).

The previous paragraph reveals a point regarding future metallurgical analyses in the Virginia Project, where not only the metallurgy of the different Vein/Breccia, and Halo domains should be looked at individually but also the metallurgical behaviour of the recovery of Silver in the veins with more significant contribution of dilution from the Halo and therefore the composite analysis if we consider the size of the current subcell as the SMU. Therefore, samples for metallurgical analysis should be composed of 1.00 m between the Vein/Breccia and Halo (0.50 m Halo + 0.50 m Vein/Breccia). The latter would be an improvement based on the current 0.50 m subcell used in the Recoverable Resources model depending on future SMU studies (**Figure-14-11**).

Figure 14-11: Cross-section of Naty, Composite (2.00 m), clipping ± 25 m showing subcell blocks, Vein/Breccia, Halo and outside (Cross-Section; Az 54,24004333.90NE)



Source: PGSc, 2023.

14.9 BLOCK MODEL DEFINITION

The Virginia Project Silver Mineral Resource model update was consolidated into a single block model where all mineralized vein systems are located under a single file (15) within the Minesight® software.

- Minimum Easting: 2,427,000 E;
- Maximum Easting: 2,430,200 E;
- Minimum Northing: 4,737,700 N;
- Maximum Northing: 4,742,100 N;
- Minimum Elevation: 700 m;
- Maximum Elevation: 1,100 m.

Keys defined within this single Recoverable Resource block model:

1. **Non-rotated model:** rotation will not be necessary due to the inclusion of 0.50 m subcells for each of the x, y, and z axes in a uniform block size of 2 m x 2 m x 2 m.
2. **Elevation:** is the crest elevation of the top bench in the model.
3. **Envelope:** the use of a single envelope that sufficiently exceeds the limits of the different Vein/Breccia and Halo domains and in the x, y, and z axes, including each of

the mineralizing systems and in this way, the block model is compressed so that it remains easy to use. In this compression, the Minesight software tool “*Model Manager/ File is compressed*” was used.

4. **Grade and Density:** the subcell block sizes between 2.00 m to 0.50 m in the x, y, and z axes were estimated. The models delivered to Mirasol for Open Pit are the final, diluted and reblocked in final parent block size 2m x 2m x 2m. The categorical variables, domains vein/breccias, halo and undefined in the reblock, are calculated as the majority assignment of these domains from the subcells towards the final parent block.
5. **Open Pit model:** the official Resource Model has a parent block of 2m x 2m x 2m. NI 43-101 defines a mineral resource as that portion of the mineral inventory that has reasonable prospects for economic extraction.
6. Not all blocks inside the Vein/Breccia and Halo domains have been estimated and assumed to have a 0.0 gpt grade. This is due to the limitation imposed by the search ellipsoids and drillhole spacing, which generally do not fill the volume defined by domains. All blocks have a density value.

14.10 GRADE ESTIMATION

In the current model, two methods were used to estimate the Ag grade in the Virginia project. One of the methods is used in the previous report and corresponds to the Inverse Distance Cubed estimation method. The other method is the Indicator Modified Ordinary Kriging (IMOK) only for sector Ely North-Central-South combined. In both methods, three estimation passes were used for the silver grades, respecting the anisotropies of each of the mineralized systems, where the 3D Vein/Breccia and Halo solids have a defined strike and dip and are representative of the continuity of the mineralization of the Silver.

This new method used in estimating Ag grades may be the future method used for the rest of the mineralized veins when much more information is available from new drilling campaigns since the Indicator Modified Ordinary Kriging (IMOK) method was first published in 1994 (Rossi & Parker, 1994). It is simple to understand and easy to implement. It is applied when barren or low-grade and higher-grade mineralization within the same domain, making them appear intermingled. It intends to improve local accuracy and reduce bias, considering the change of support effect.

Define mineralized and low-grade or unmineralized grade populations using a suitable grade threshold. There is no theoretical rule on how to define this grade. A second aspect is for the threshold considered to incorporate the "correct" proportion of the unmineralized population into the estimated recoverable resources, including the change of support effect. IMOK allows the presence of two distinct populations. The threshold chosen was 75 (gpt) in the sector Ely North-Central-South combined for Vein/Breccia and Halo. The steps are:

1. Indicator variable which takes the value of 1 for Ag grades ≥ 75 (gpt), 0 otherwise.
2. The proportion of the block that is mineralized is predicted by ordinary kriging the indicator variable, $Prob(Ag) \geq 75$ (gpt). The grade of the mineralized portion of each block is estimated using only the nearby composites above the 75 (gpt) Ag threshold. Similarly, the grade of the low-grade portion of each block is estimated using only the nearby composites below the 75 (gpt) Ag threshold.
3. The estimated indicator for each block is interpreted as the proportion of the block that is mineralized; the proportion can also be interpreted as a probability, although in either case, the final block (or sub-cell) grade is found as a weighted average of the estimates:

$$Z^* = Prob_{75} * Ag_{\geq 75}^* + (1 - Prob_{75}) * Ag_{< 75}^*$$

4. The Ordinary Kriging run performed outside of Vein/Breccia and Halo domains was done mostly to provide Mirasol with additional information regarding those areas away from the main zones. It does not impact the reported resources as they are mostly not contained within the ultimate pit.

The Inverse distance weighting to the third power (ID3) estimation method was used for the rest of the mineralized systems. For the IMOK and the ID3, the three passes were configured so that the search strategy was from smaller to larger volumes seeking to minimize the smoothing of the silver grade estimate using higher outlier restriction, minimums, and maximums of composites and drill holes.

The nearest neighbour model was constructed for silver using the same search parameters used for the inverse distance and IMOK models (**Table 14-14**). The nearest neighbour model was compared with the inverse distance and IMOK model to check for possible biases (**Table 14-15**).

Table 14-14: Vein/Breccia & Halo & Undefined Silver Estimation Parameters

Code	Vein/Breccia	Estim. Pass	Method	Number of Composites			Ellipsoidal Search Parameters			Z-X-Y LRL Rotation			Outlier Restriction		Type CHDDH: 1,2,3 comp.
				Min	Max	Max/Hole	Major Dist.	Minor Dist.	Vert. Axes	Rot 1	Rot 2	Rot 3	Ag (gpt)	Dist. (m)	
1	Julia South	1	ID3	4	8	2	30	15	5	9		-85			169
		2		5	10	2	50	25	10	9		-85	1,000	3	
		3		3	12	3	70	50	20	9		-85	1,000	3	
2	Julia Central	1	ID3	4	8	2	30	15	5	320		85			166
		2		5	10	2	50	25	10	320		85	1,000	3	
		3		3	12	3	70	50	20	320		85	1,000	3	
3	Julia North	1	ID3	4	8	2	30	15	5	348		80	2,000	3	198
		2		5	10	2	50	25	10	348		80	2,000	3	
		3		3	12	3	70	50	20	348		80	2,000	3	
4	Naty	1	ID3	4	8	2	30	15	5	335		80	1,000	3	48
		2		5	10	2	50	25	10	335		80	1,000	3	
		3		3	12	3	70	50	20	335		80	1,000	3	
5-6-7	Ely North-Central-South	Prob. ≥75	IMOK	3	10	3	70	50	20	6		-80			267
		1		4	8	2	50	20	10	6		-80	1,000	3	
		2		5	10	2	60	30	20	6		-80	1,000	3	
		3		3	12	3	70	50	20	6		-80	1,000	3	
8	Margarita	1	ID3	2	12	2	100	50	20	320		80	1,000	3	12
9	Martina SE	1	ID3	4	8	2	30	15	5	335		-85	400	3	93
		2		5	10	2	50	25	10	335		-85	400	3	
		3		3	12	3	70	50	20	335		-85	400	3	
10	Martina SW	1	ID3	2	12	2	100	50	20	360		80			5
200	Daniela														1
600	Patricia	1	ID3	2	12	2	100	50	20	345		-65			2
Code	Halo														
11	Julia South	1	ID3	4	8	2	30	15	5	9		-85			223
		2		5	10	2	50	25	10	9		-85	100	15	
		3		3	12	3	70	50	20	9		-85	100	15	
22	Julia Central	1	ID3	4	8	2	30	15	5	320		85			254
		2		5	10	2	50	25	10	320		85	100	15	
		3		3	12	3	70	50	20	320		85	100	15	
33	Julia North	1	ID3	4	8	2	30	15	5	348		80	100	15	779
		2		5	10	2	50	25	10	348		80	100	15	
		3		3	12	3	70	50	20	348		80	100	15	
44	Naty	1	ID3	4	8	2	30	15	5	335		80	100	15	289
		2		5	10	2	50	25	10	335		80	100	15	
		3		3	12	3	70	50	20	335		80	100	15	
5-6-7	Ely North-Central-South	1	IMOK	4	8	2	50	20	10	6		-80	100	15	1,072
		2		5	10	2	60	30	20	6		-80	100	15	
		3		3	12	3	70	50	20	6		-80	100	15	
88	Margarita	1	ID3	2	12	2	100	50	20	320		80			21
99	Martina SE	1	ID3	4	8	2	30	15	5	335		-85	100	15	461
		2		5	10	2	50	25	10	335		-85	100	15	
		3		3	12	3	70	50	20	335		-85	100	15	
100	Martina SW	1	ID3	2	12	2	100	50	20	360		80			9
2000	Daniela	1	ID3	2	12	2	100	50	20	353		55			7
6000	Patricia	1	ID3	2	12	2	100	50	20	345		-65			19
9999	Outside Vein/Breccia - Halo	1	ID3/OK	3	12	3	10	5	5	According to each Vein/Breccia			100	10	5,619

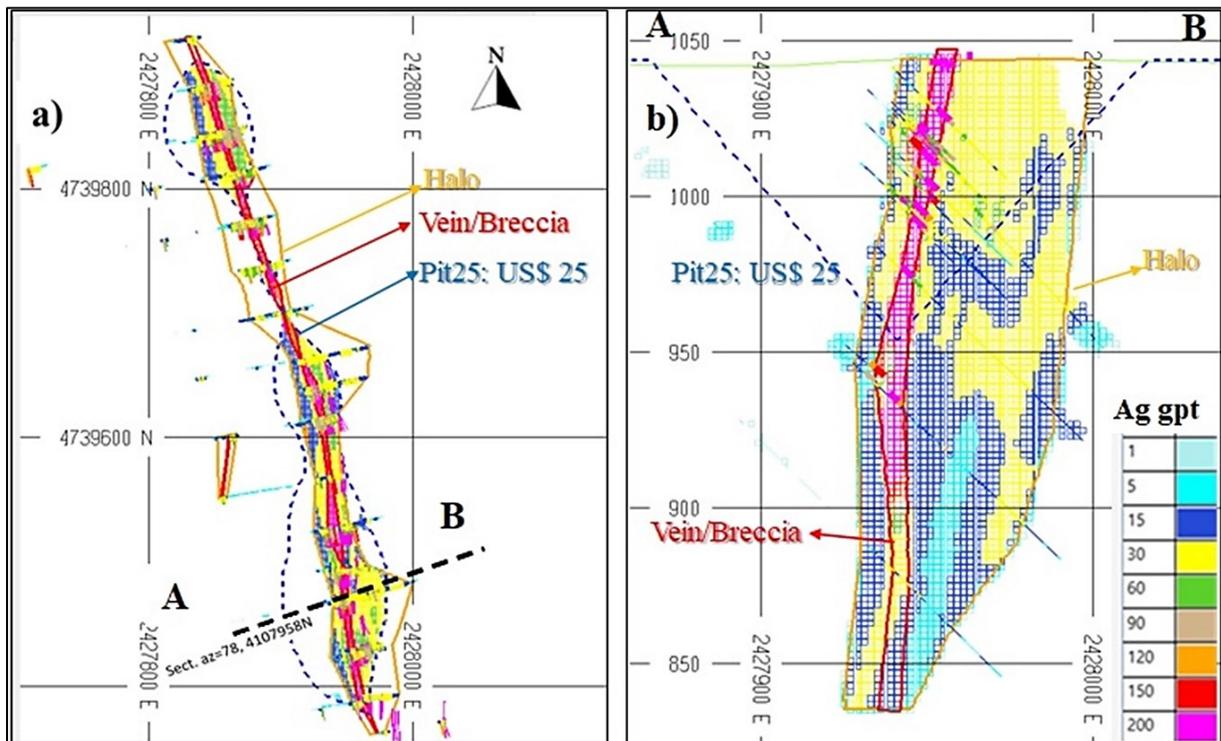
Source: PGSc, 2023.

14.11 GRADE VALIDATION

14.11.1 Visual Validation

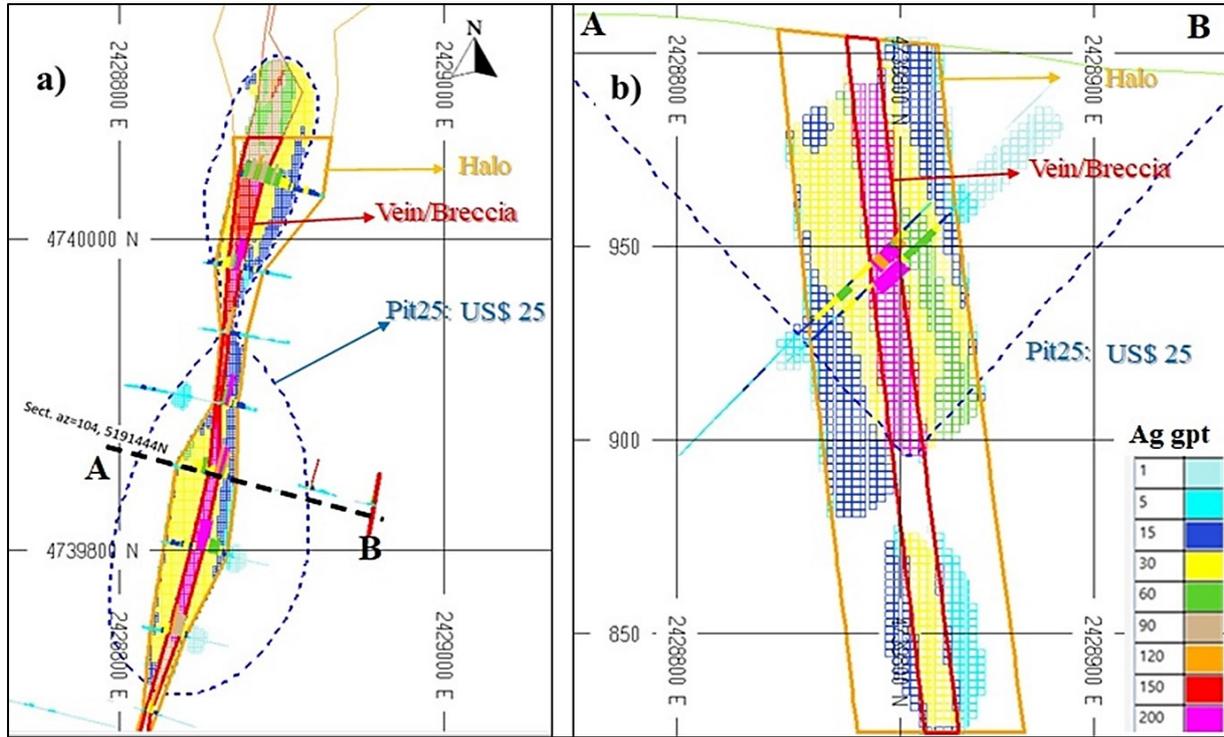
Extensive graphical validation was completed on the 2023 resource block model for every Vein/Breccia and Halo domains. These included cross-sections and plans that were used to check the block model on the computer screen, check the block grades with the nearby composites, the composite data itself, the topographic surface, reasonable prospects for economic extraction, and finally, the volume within which the interpolation took place were checked. No evidence of any block being wrongly estimated was found. Every block grade can be explained as a function of the surrounding composites; the correlogram models used for Ely North-Central-South, the Indicator Modified Ordinary Kriging (IMOK) applied, and the Inverse distance weighting to the third power (ID3) estimation plan was used for the rest of the Vein/Breccias, Halo and Undefined systems (**Figures 14-12; 14-13 and 14-14**).

Figure 14-12: a) Julia North Model-Composite (clipping $\pm 50\text{m}$) Level Plan – 1001 Elevation. b) Julia North Block Model Cross-Section A-B; Az 78, 4107958N.



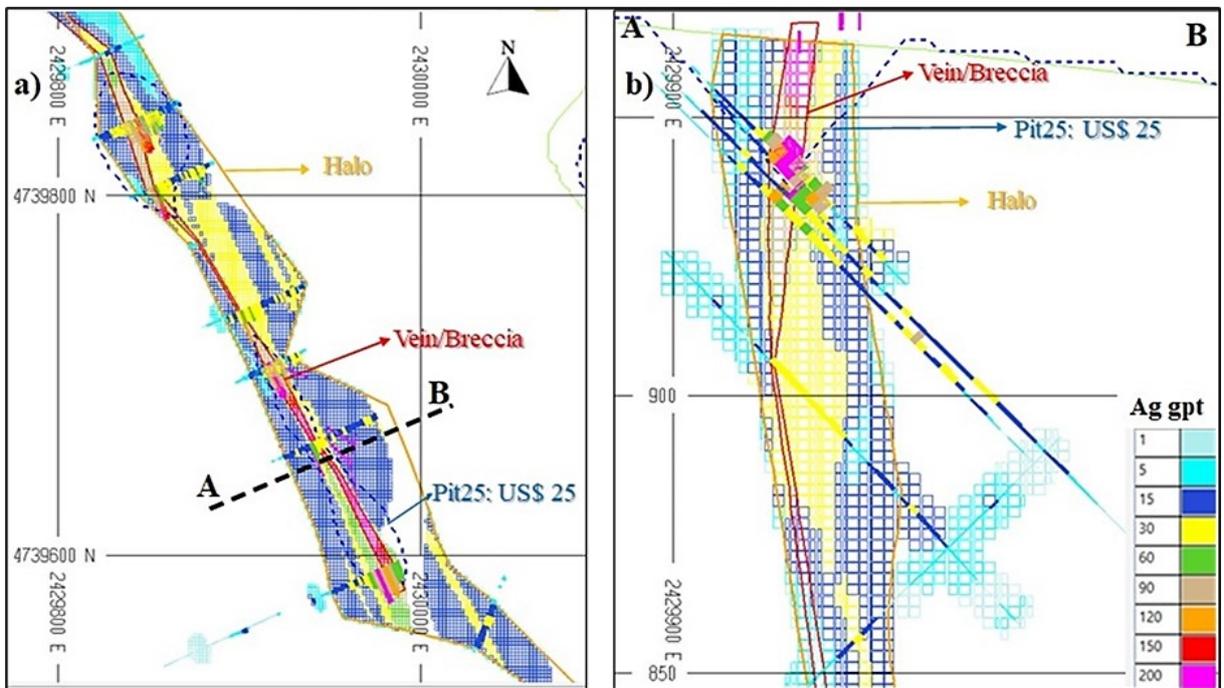
Source: PGSc, 2023.

Figure 14-13: a) Ely Central Model-Composite (clipping ±50m) Level Plan -965 Elevation. b) Ely Central Block Model Cross-Section A-B; Az 104, 5191444N.



Source: PGSc, 2023.

Figure 14-14: a) Martina SE-South Model-Composite (clipping ±50m) Level Plan -945 Elevation. b) Martina SE-South Block Model Cross-Section A-B; Az 65, 3246213N.



Source: PGSc, 2023.

14.11.2 Statistical Validation

Several statistical analyses were also used to validate the 2023 model, of which a few examples are shown in this report; the remaining validation work is available as background information. The comparison of the global average basic statistics between the block model at cutoff 0 gpt and the raw 2.00 m composites declustered by Vein/Breccias and Halo is shown in **Table 14-15** and compares Indicated and Inferred resources global bias check. The declustering of the 2 m composites was achieved using a Nearest Neighbor (NN) model. There is a very close comparison between the ID3 & IMOK, and NN, less than 5% for grades for Indicated material and a reasonable comparison for Inferred material, and more drilling data should improve the estimate of Inferred material.

Table 14-15: Global Bias Checks

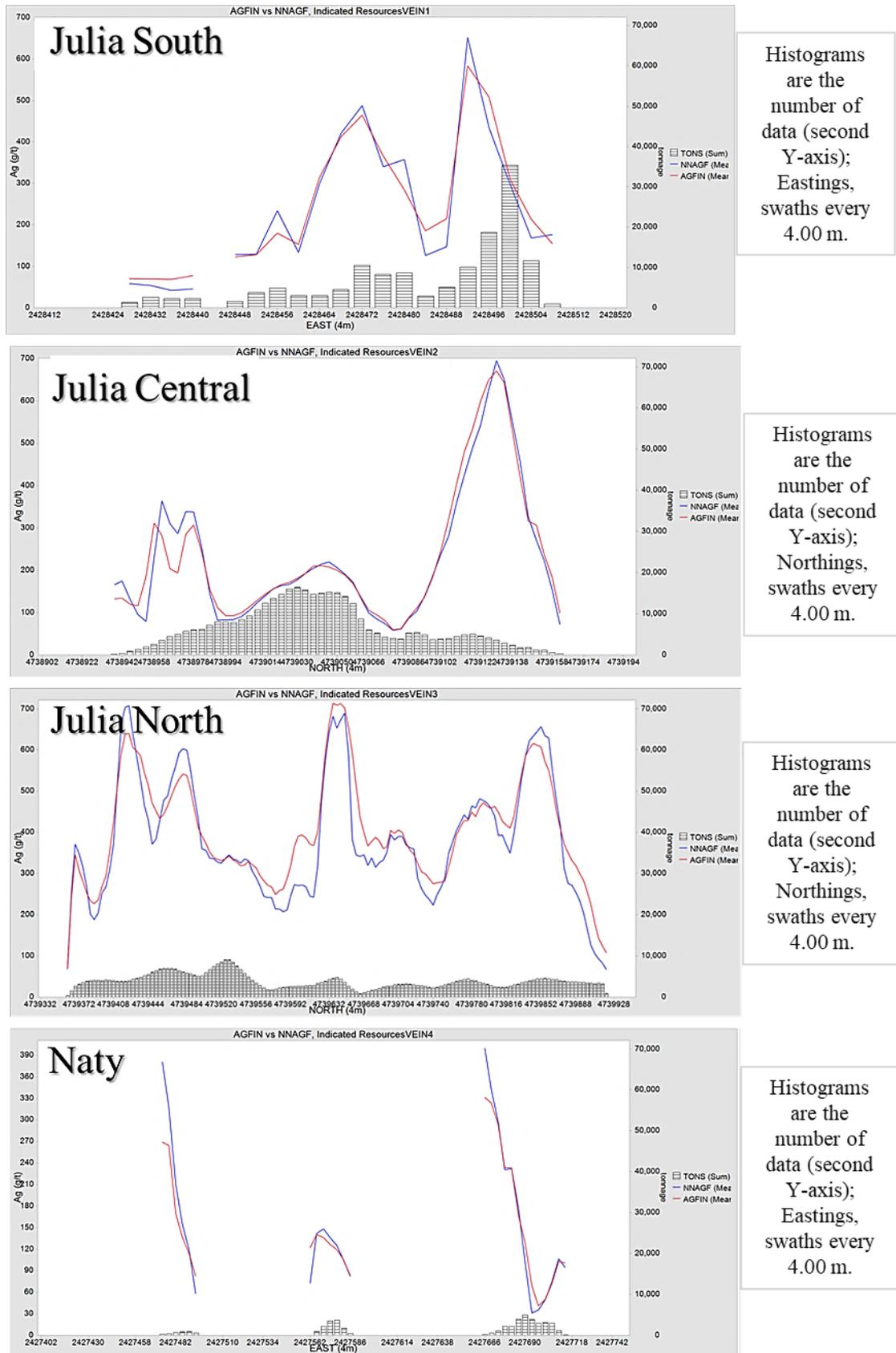
Deposit	Code	Vein/Breccia								Halo / Undefined				
		Indicated				Inferred				Inferred				
		ID3 Ag (gpt)	OK Ag (gpt)	NN Ag (gpt)	% Diff.	ID3 Ag (gpt)	OK Ag (gpt)	NN Ag (gpt)	% Diff.	Code	ID3 Ag (gpt)	OK Ag (gpt)	NN Ag (gpt)	% Diff.
Julia South	1	333	----	322	3%	79		76	4%	11	35		33	6%
Julia Central	2	206	----	205	0%	69		67	3%	22	33		32	5%
Julia North	3	418	----	405	3%	83		71	14%	33	38		38	1%
Naty	4	129	----	127	1%	120		114	5%	44	35		35	0%
Ely North-Central-South	5-6-7	----	170	178	-4%	----	100	107	-7%	55-66-77	----	30	30	-1%
Margarita	8	----	----	----	----	255		250	2%	88	43		44	0%
Martina SE	9	78		81	-4%	60		60	-1%	99	29		29	0%
Martina SW	10	----	----	----	----	11		11	0%	100	16		15	6%
Daniela	200	----	----	----	----	----	----	----	----	2000	19		19	0%
Patricia	600	----	----	----	----	17		16	2%	6000	29		29	0%
										9999	8		8	4%

Source: PGSc, 2023.

It should be noted that the Mirasol Resources geology team reinterpreted the previous solid 3D wireframe models following the lithological and Ag grade guidelines to update the current resources for Naty mainly, minor changes in the sector of the drill hole JC-DDH-001 of Julia Central, minor adjustments in Julia Sur with the insertion of the 2020-2021 drill holes, Ely Norte reinterpretation of the solid 3D wireframes with the insertion of the new drill holes 2021-2022 and Martina SE reinterpretation of the solid 3D wireframes with the new drill holes 2020-2021.

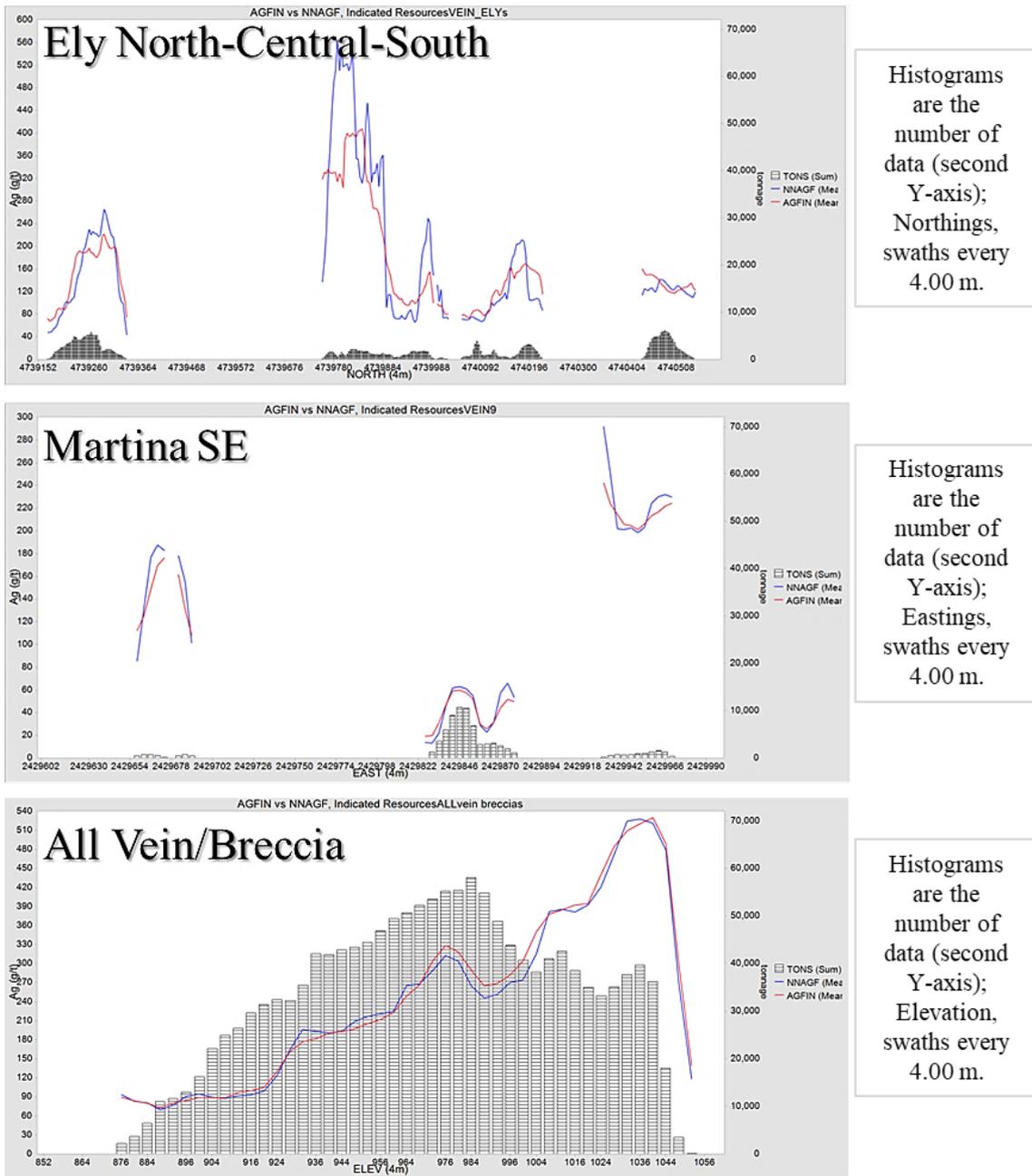
Also, the plots of Ag grade trends of the original 2m declustered composites vs. estimated block grades show that the estimated block grades closely reproduce the grade trends observed in the original 2.00 m composite grades. **Figures 14-15 and 14-16** shows an example of a drift plot with Ag-estimated grades and averages of declustered composites using the Nearest Neighbor (NN) model.

Figure 14-15: Drift Plot, Ag grade estimates vs Declustered composites (NN model).



Source: PGSc, 2023.

Figure 14-16: Drift Plot, Ag grade estimates vs Declustered composites (NN model).



Histograms are the number of data (second Y-axis); Northings, swaths every 4.00 m.

Histograms are the number of data (second Y-axis); Eastings, swaths every 4.00 m.

Histograms are the number of data (second Y-axis); Elevation, swaths every 4.00 m.

Source: PGSc, 2023.

Note: Martina SE is Martina trend, including MSE, MC and MNW.

These and other statistical checks indicate that the block model grades behave as expected, with adequate smoothing and without obvious anomalous values. It is globally unbiased and internally consistent with the composites and correlogram models used to create it.

14.12 RESOURCE CLASSIFICATION

Under the CIM definitions (CIM Definition Standards for Mineral Resources & Mineral Reserves, May 10, 2014, “A Measured Mineral Resource is that part of a Mineral Resource

for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.”

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

Finally, “An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated based on limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.”

The most important factors that determine the resource classification scheme at the Virginia Project are:

1. Factors such as geologic characteristics and the continuity of Ag mineralization have been confirmed.
2. In the upper parts of the deposit, lateral extents of the mineralized Vein/Breccia to constrain grade estimation can be interpreted confidently for no less than two cross-sections at a time, or the equivalent of 50-60 m.
3. The anticipated grade ranges for the new drilling were found in the general areas and at levels as expected.
4. The characteristic of the mineralization at the Virginia project is such that it can be considered a medium-high grade in the Vein/Breccia, bulk-minable deposit at this stage.
5. As the high-grade increases, the drilling indicates a slightly lower variability. The database’s CV decreases significantly, mainly in the Vein/Breccia. The current drill spacing within the Open Pit (Reasonable Economic Extraction) area is of acceptable-good density and compares well with other projects of Ag at this stage.
6. At lower levels and laterally of the deposit, near the ultimate pit (Reasonable Economic Extraction) and below-laterally, drill hole density drops rapidly. The current classification downgrades mineralization below certain levels to highlight the increased uncertainty in lower data density levels and provide drilling targets in the near future.
7. In Julia Norte in the previous report (Earnest & Lechner, 2016) to this update, there was detailed work regarding the classification of the category indicated in this update the criteria stated in the points were applied to previous results, concluding that about 70% of the resources indicated in this update correspond to those previously classified, with

the criteria used in the past prevailing for Julia Norte. In any case, a greater drilling density will improve the future geological classification confidence.

Resources have been classified using a multi-stage approach. Initially, the basic criteria used were a function of the data spacing/density; secondly, additional criteria to take into account increased risk at depth were introduced; finally, a solid (shell) for each category was developed to obtain the final triangulations, which are further smoothed and can also be used to tag both the Open Pit Resource model (Reasonable Economic Extraction).

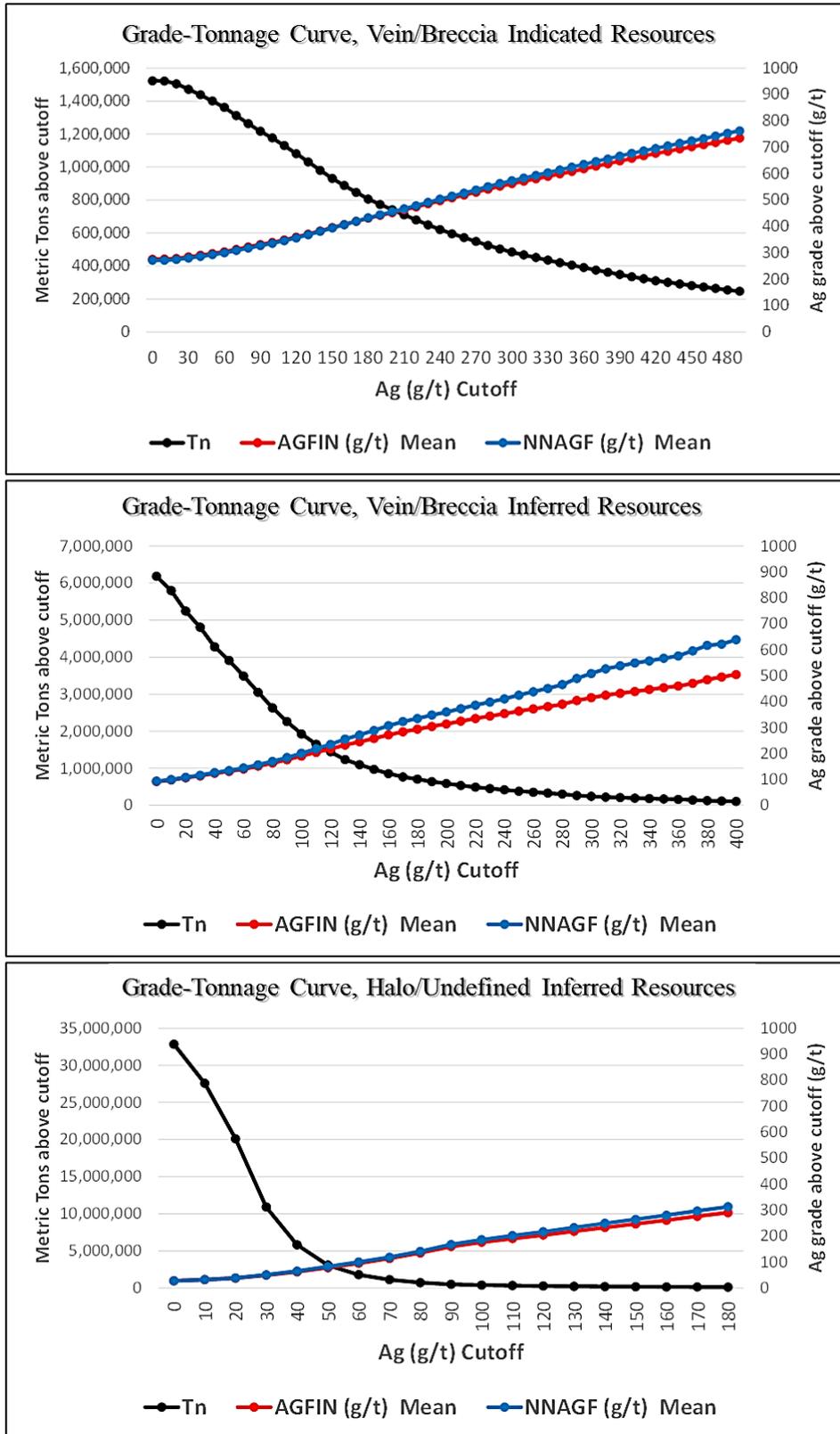
The criteria used in the first stage of the resource classification process were:

1. Indicated blocks have been estimated within an ellipsoid that is mainly 50 m x 25 m x 10 m (along-strike, across-strike, and dipping for the various Vein/Breccia), with a minimum of 5 composites and three drill holes used, and ten composites maximum defined.
2. Inferred blocks have been estimated within an ellipsoid that is 70 m x 50 m x 20 m (along-strike, across-strike, and dipping for the major Vein/Breccia), with a minimum of 3 composites and one drill hole used, and 12 composites maximum defined.
3. Inferred blocks have been estimated within an ellipsoid that is 100 m x 50 m x 20 m (along-strike, across-strike, and dipping for the minor Vein/Breccia: Margarita, Martina SW, Daniela, Patricia), with a minimum of 2 composites and one drill holes used, and 12 composites maximum defined.
4. Outside of the Vein/Breccia wireframes, all the estimated Ag grades correspond to inferred resources. In short, everything corresponding to the Halo/Undefine uses the same criteria in the previous report's classification (Earnest & Lechner, 2016).

The second stage involved the development of wireframe 3D solids for an indicated category, to which minor corrections were applied within the Minesight software using the "Grade Shell" tool for the indicated resources and obtaining the final triangulations that represented indicated category, mostly to ensure that all blocks outside of vein breccias were marked as inferred.

The **Figure 14-17** show corresponding grade-tonnage curves comparing resource Ag (gpt) "AGFIN" vs Nearest Neighbor "NNAGF" for the Virginia Project, globally unrestricted.

Figure 14-17: G/T curves comparing resource Ag (gpt) “AGFIN” vs Nearest Neighbor “NNAGF” for the Virginia Project, globally unrestricted



Source: PGSc, 2023.

14.13 MINERAL RESOURCES

14.13.1 Reasonable Prospects of Economic Extraction

The estimated Mineral Resources were constrained to a pit shell (optimized using a Lerchs-Grossman algorithm) and were generated using parameters outlined in **Table 14-16**.

Table 14-16: Conceptual Pit Parameters for Resources

Parameter	Value
ORE: 1 (Vein/Breccia)	
Silver price (US\$/oz)	25
Ag recovery (%)	80
Mining cost (US\$/tonne)	5
Processing cost (US\$/tonne)	30
G&A cost (US\$/tonne)	4
Pit slope angle (degrees)	50
ORE: 2-3 (Halo/Undefined)	
Ag recovery (%)	22

Source: PGSc, 2023.

As previously explained by using subcells (0.50 m) in the coding of the different wireframes-estimation and finally reblocking to a single final block size 2 m x 2 m x 2 m (parent), the dilution of the material was obtained directly for the indicated and inferred resources of the Vein/Breccia and Halo/Undefined domains of the Virginia Project, without the need to generate any geometric figure or deterministic control around the Vein/Breccia domain, but conceptually respecting the run under Lerchs-Grossmann to each Vein/Brecha domain with the preliminary metallurgy developed.

PGSc assessed the classified blocks for reasonable prospects of economic extraction by applying preliminary economics for potential open-pit mining methods. The assessment does not represent an economic analysis of the deposit but was used to determine reasonable assumptions to determine the mineral resource. The metal prices are suitable for mineral resource estimation at the time of reporting.

14.13.2 Cut-Off Grade Calculation

The cut-off is based on the generally accepted practice that a decision is made at the pit rim if mined material above the cut-off grade will lose less money if it is sent to the mill rather than if it is sent to the waste dump. It is considered for further processing if it contains a value that is greater than the costs to process it. The assumed preliminary metallurgical recovery is 80% for Vein/Breccia and 22% for Halo/Undefined.

Based upon the cut-off grade, PGSc has chosen a silver cut-off grade of 65.00 gpt for reporting Mineral Resources potentially amenable to an open pit mining method (**Table 14-17**).

Table 14-17: Vein/Breccia, Diluted Indicated and Inferred Mineral Resource Tabulation

Deposit	Indicated				Inferred			Indicated & Inferred		
	Vein/Breccia				Vein/Breccia			Vein/Breccia		
	Code/ Prj	Tonnes (000)	Ag (gpt)	Ag Oz (000)	Tonnes (000)	Ag (gpt)	Ag Oz (000)	Tonnes (000)	Ag (gpt)	Ag Oz (000)
Julia South	1	93	420	1,250	29	162	153	122	358	1,403
Julia Central	2	247	278	2,207	105	158	532	352	242	2,739
Julia North	3	432	478	6,644	4	286	38	436	477	6,682
Naty	4	31	165	166	219	166	1,169	251	166	1,335
Ely North	5	73	132	310	254	105	861	327	111	1,171
Ely Central	6	57	302	558	366	253	2,975	423	260	3,533
Ely South	7	70	201	451	171	152	833	241	166	1,284
Margarita	8	---	---	---	84	318	861	84	318	861
Martina SE	9	12	188	72	94	143	431	105	148	503
Martina SW	10	---	---	---	---	---	---	---	---	---
Daniela	200	---	---	---	---	---	---	---	---	---
Patricia	600	---	---	---	---	---	---	---	---	---
Undefined	9999	---	---	---	---	---	---	---	---	---
Total		1016	357	11,659	1,326	184	7,853	2,342	259	19,512

Source: PGSc, 2023.

Note: Martina SE is Martina trend, including MSE, MC and MNW.

Code/Prj: Code is different from a Prj. The Prj (1 to 10, 200, 600 and 9999) combines as the final categorical Code the Vein/Breccia (1 to 10, 200, 600) + Halo/Undefined (11 to 100, 2000, 6000, 9999) by deposit.

In the Halo/Undefined zone with a recovery of 22%, the resource pit declared in this report uses the Conceptual Pit Parameters, that they can be recovered with a cut-off grade ≥ 250 gpt Ag @ 536,000 Oz of inferred resources (**Table 14-18; Figure 14-18**). These inferred resources are mainly visualized in contact with the Vein/Breccia bodies in the Halo, quantifying the need to continue incorporating metallurgical analyzes that should be developed in the Virginia project to increase not only the confidence of the silver resources in the project but also to evaluate the metallurgical behaviour in the recovery of Silver in the different Vein/Breccia domains and mainly in Halo/Undefined (**Figure 14-19 and 14-20**).

Table 14-18: Halo/Undefined, Diluted Inferred Mineral Resource Tabulation

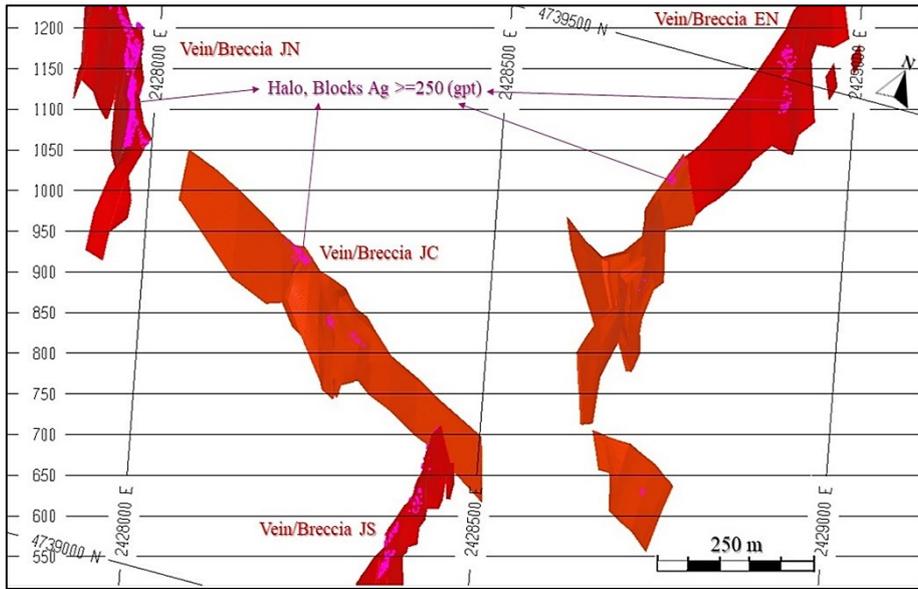
Deposit	Inferred			
	Halo/Undefined			
	Code/ Prj	Tonnes (000)	Ag (gpt)	Ag Oz (000)
Julia South	1	5	344	54
Julia Central	2	2	420	31
Julia North	3	30	379	363
Naty	4	1	286	10
Ely North	5	---	---	---
Ely Central	6	---	---	---
Ely South	7	4	337	42
Margarita	8	1	296	11
Martina SE	9	---	---	---
Martina SW	10	---	---	---
Daniela	200	---	---	---
Patricia	600	---	---	---
Undefined	9999	1	652	24
Total		44	377	536

Source: PGSc, 2023.

Note: Martina SE is Martina trend, including MSE, MC and MNW.

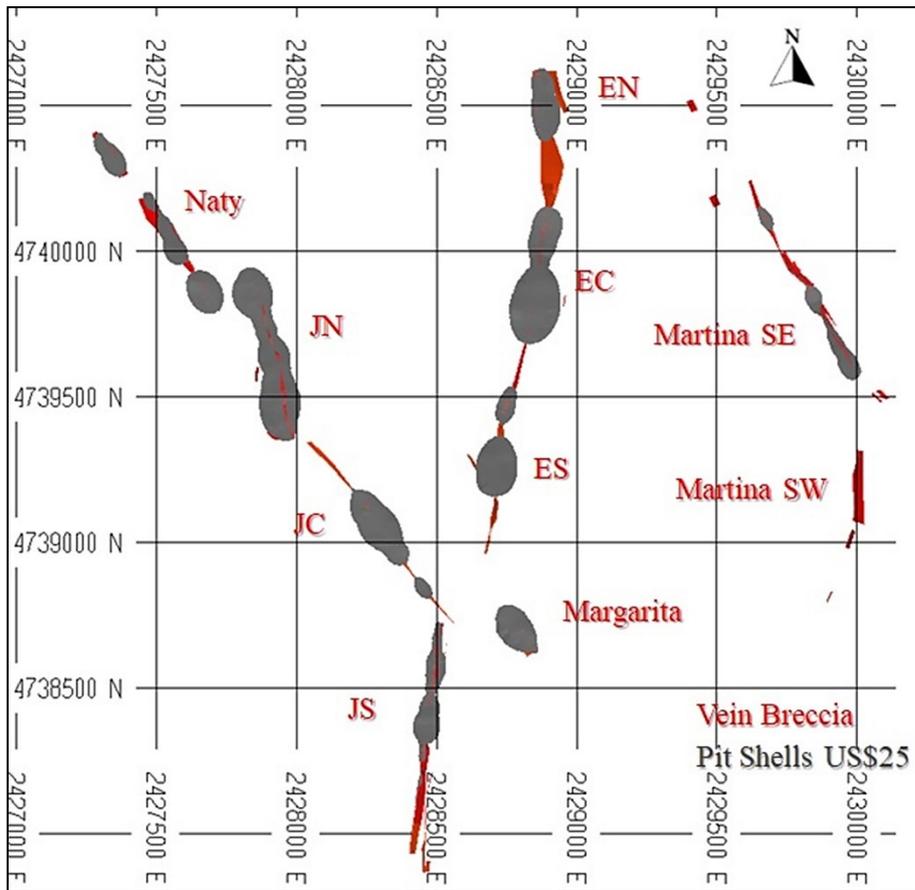
Code/Prj: Code is different from a Prj. The Prj (1 to 10, 200, 600 and 9999) combines as the final categorical Code the Vein/Breccia (1 to 10, 200, 600) + Halo/Undefined (11 to 100, 2000, 6000, 9999) by deposit.

Figure 14-18: Halo/Undefined Blocks Ag \geq 250 (gpt) inside of Pit price US\$ 25



Source: PGSc, 2023.

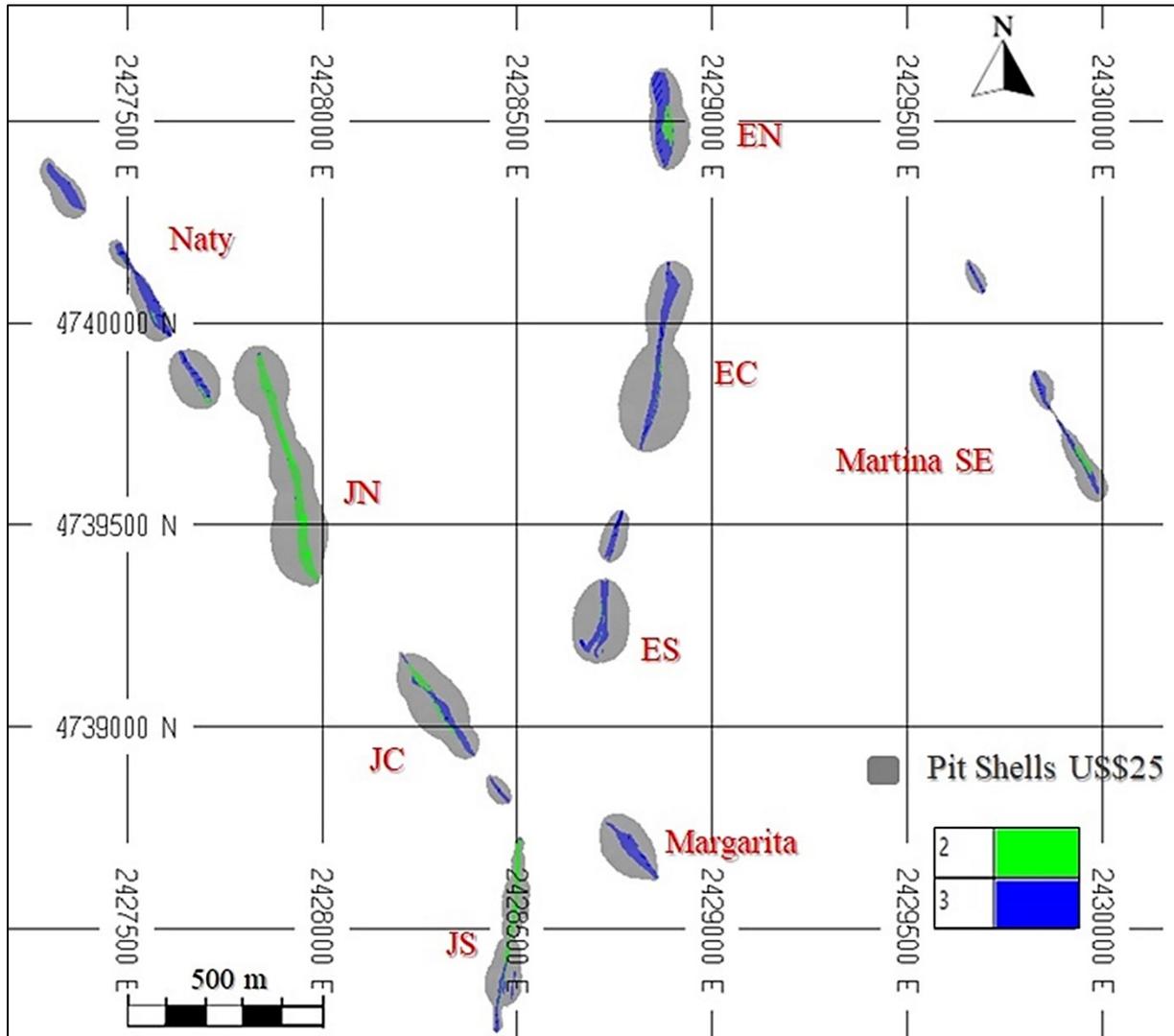
Figure 14-19: Vein/Breccia and Pit Shells price US\$ 25



Source: PGSc, 2023.

Note: Martina SE is Martina trend, including MSE, MC and MNW.

Figure 14-20: Pit Shells US\$ 25 and Indicated (green) & Inferred (blue) blocks



Source: PGSc, 2023.

Note: Martina SE is Martina trend, including MSE, MC and MNW.

14.13.3 Sensitivity of the Mineral Resource

PGSc assessed the sensitivity of the mineral resource to changes in silver prices by reporting the Mineral Resource above lower and higher cut-off grades. The results show that the Mineral Resource for the vein breccias is not highly sensitive to increasing cut-off grades (a proxy for decreasing metal prices) PGSc, therefore concluding that the Mineral Resource is reasonably robust regarding the choice of long-term metal price used for reporting (**Table 14-19**).

Table 14-19: Silver Price Sensitivity

All Deposits	Indicated			Inferred		
	Vein/Breccia			Vein/Breccia		
	Tonnes (000)	Ag (gpt)	Ag Oz (000)	Tonnes (000)	Ag (gpt)	Ag Oz (000)
US\$ 20 Ag (85 gpt Ag Cutoff)	878	385	10,881	874	218	6,124
US\$ 25 Ag (65 gpt Ag Cutoff)	1,016	357	11,659	1326	184	7,853
US\$ 30 Ag (52 gpt Ag Cutoff)	1,084	341	11,899	1,588	172	8,804

Source: PGSc, 2023.

Note: Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The Inferred Mineral Resources summarized in Table 14-20 are based on limited information and sample data. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration and more metallurgical testing (see, 2016-03-29_NI43-101_Virginia_Amended.pdf, page 87).

14.13.4 Factors That May Affect Mineral Resource Estimate

Areas of uncertainty that may materially impact the Mineral Resource estimates include:

- Long-term commodity price assumptions.
- Long-term exchange rate assumptions.
- Operating cost assumptions used.
- Metal recovery assumptions used.
- Changes to the tonnage and grade estimates as a result of new assay and bulk density information.
- Future tonnage and grade estimates may vary significantly as more drilling is completed.
- Changes to the metallurgical recovery assumptions as a result of new metallurgical testwork.
- Any changes to the slope angle of the pit wall due to geotechnical information would affect the pit shell used to constrain the mineral resources.

14.13.5 Mineral Resource Statement

The Mineral Resource estimates of the Virginia Project located in Santa Cruz, Argentina, were prepared following the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019) and reported in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM Definition Standards, 2014).

The **Table 14-20** have been rounded to reflect that the mineral resource estimate is an approximation. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There are no mineral reserves presently identified on the Virginia Project.

Table 14-20: Mineral Resource Statement

Category	Tonnes (000)	Ag Grade (gpt)	Contained Metal Ag Oz (000)
Indicated	1,016	357	11,659
Inferred	1,370	190	8,389

Notes to accompany Mineral Resource Table:

- The Qualified Person for the estimation is MSc José A. Bassan, PGeo., a PGSc independent consultant. Mineral Resources have an effective date of October 30, 2023.
- Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- The QP has determined that the material has reasonable prospects of economic extraction by constraining the Mineral Resource estimate within an optimized pit with a maximum slope angle of 50°. A metal price of US\$ 25/oz was used for silver. A preliminary metallurgical recovery of 80% for Vein/Breccia and 22% for Halo/Undefined was applied based on testwork completed by Blue Coast Research in 2013. A 65.00 gpt silver cut-off for Vein/Breccia and 250 gpt silver for Halo/Undefined was estimated based on a total process and G&A operating cost of 39 US\$/t of ore mined.
- Domains were modelled in 3D to separate mineralized Vein/Breccia and Halo/Undefined from surrounding waste rock. The domains were modelled based on vein-breccia & lithology veining and silver grade continuity.
- Raw drill hole assays were composited to 2.00 m lengths broken at domain boundaries.
- Spatial restriction after a composite of high grades was considered necessary and was completed for each Vein/ Breccia and Halo/Undefined domain. The high-grade spatial restriction for the Vein/Breccia was 3.00 m and 15.00-10.00 m for Halo/Undefined.
- Block grades for silver were estimated from the composites using ID3 and IMOK interpolation into 2 m x 2 m x 2 m & minimum subcell 0.5 m x 0.5 m x 0.5 m blocks coded by domain.
- A dry bulk density was estimated from the samples using ID3 into 2 m x 2 m x 2 m & minimum subcell 0.5 m x 0.5 m x 0.5 m blocks coded by domain, and the non-estimated blocks were assigned a density value of 2.44 t/m³ and 2.09 t/m³ for Halo/Undefined.
- Blocks were classified to the Inferred category in accordance with CIM Definition Standards 2014.
- Inferred blocks for the main veins have been estimated within an ellipsoid that is 70 m x 50 m x 20 m (along-strike, across-strike, and dipping for the major vein-breccias), with a minimum of 3 composites and one drill hole used, and 12 composites maximum defined. Indicated blocks have been estimated within an ellipsoid that is mainly 50 m x 25 m x 10 m (along-strike, across-strike, and dipping for the various vein breccias), with a minimum of 5 composites and three drill holes used, and ten composites maximum defined.
- The contained silver figures shown are in situ. No assurance can be given that the estimated quantities will be produced. All figures have been rounded to reflect accuracy and to comply with securities regulatory requirements. Summations within the tables may not agree due to rounding.
- The quantity and grade of reported Inferred resources in this estimation are conceptual, and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured Mineral Resource. There is a reasonable expectation that most of the Inferred Mineral Resources can be upgraded to Indicated with continued exploration and depending on factors that may affect the Mineral Resource Estimate.
- Tonnage and grade measurements are in metric units. Contained silver ounces are reported as troy ounces.

14.14 PGSC QP COMMENTS

The primary differences between the current PGSc estimate and the February 2016 Resource Evaluation Inc. (REI) and Resource Modeling Inc. (RMI) (Earnest & Lechner, 2016) estimate are:

- The geological interpretation, where PGSc used bounding volumes from Mirasol within the: lithology (Vein/Breccia) > grade Silver continuity (Halo) and a minimum width of 0.25-0.50 m, new veins mainly and old veins reinterpretation versus grade Silver continuity (Halo) > Lithology by REI-RMI.
- PGSc uses Subcell blocks (2m x 2m x 2m, 0.5m x 0.5m x 0.5m), direct geologic contact dilution into the resources, versus dilution ± 1.00 m from the vein, deterministic boundary by REI-RMI.
- PGSc uses the inverse distance squared (ID3) method and assigns values (not estimated blocks, mean \pm 3SD) from Density samples, versus only assigning values 2.10 g/cm³ Halo and 2.52 g/cm³ by REI-RMI.
- PGSc uses the inverse distance (ID3) estimation and IMOK (Indicator Modified Ordinary Kriging) for Ely South–Central–North, whereas REI-RMI uses only ID3.
- Minimum composite for pass 1 + 2 (#4-#5 & 2-3 holes) versus minimum one composite used only by REI-RMI.
- PGSc uses a distance outlier restriction of 3 m for Vein/Breccia, 15 m Halo and 10 m Undefined, versus capping and outlier distance restriction used by REI-RMI.
- The differences in defining the categorization of the mineral resources.
- Not rotated block model for 2023 versus 2016 rotated block model.
- Reasonable Prospects of Economic Extraction Vein/Breccia 80% and Halo 22% versus 80% (vein breccia + 1.00 m diluted Halo) used by REI-RMI.

TECHNICAL REPORT SECTIONS NOT REQUIRED

The following sections, which form part of the NI 43-101 reporting requirements for advanced projects or properties, are not relevant to this Technical Report.

15.0 MINERAL RESERVE ESTIMATES

16.0 MINING METHODS

17.0 RECOVERY METHODS

18.0 PROJECT INFRASTRUCTURE

19.0 MARKET STUDIES AND CONTRACTS

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

21.0 CAPITAL AND OPERATING COSTS

22.0 ECONOMIC ANALYSIS

23.0 ADJACENT PROPERTIES

The Virginia Project is located in the Deseado Massif, an important mining cluster characterized by epithermal deposits of the low to intermediate sulphidation type and with seven mines in production (Cerro Vanguardia, San José, Manantial Espejo, Cerro Negro, Cerro Moro y Don Nicolas) and besides, numerous projects in an advanced state of exploration and excellent gold-silver mineralization targets, defining this region as a considerable producer of Au-Ag.

The Project is located in the WNW segment of the Deseado Massif in known mines, advanced exploration, and exploration projects area. The information reported in this section is available from the companies listed below in the public domain.

The Virginia project is located between 55 and 255 km from five producing precious metal mines and some advanced exploration projects. The mines are:

- 55 km to the SSE is the Cap-Oeste mine of Patagonia Gold Plc. This mineralization is epithermal, with low sulphidation in style. Most mineralization is hosted predominantly as hydrothermal breccia, in combination with replacement, veinlet and disseminated styles of mineralization, rather than as one or more discrete quartz veins. The mineral resource estimate category on December 31, 2018, is Indicated + Measured, 2.493 Mt at 5.57 gpt Au and 186 gpt Ag and Inferred, 0.77 Mt at 4.03 gpt Au and 95.8 gpt Ag.

[\(https://patagoniagold.com/operations/cap-oeste/\);](https://patagoniagold.com/operations/cap-oeste/)

- 105 km to the SSE is the Joaquin mine of Pan American Silver. This mineralization is epithermal, with low sulphidation in style. Most mineralization is hosted within a silicified breccia, with lesser stockworks and veinlets. The mineral resource estimate category on June 30, 2023, is Indicated + Measured, 0.50 Mt at 353 gpt Ag and 0.28 gpt Au and Inferred, 0.20 Mt at 280 gpt Ag and 0.25 gpt Au.

[\(https://www.panamericansilver.com/es/operations/reserves-and-resources/\);](https://www.panamericansilver.com/es/operations/reserves-and-resources/)

- 172 km to the NNW is the Cerro Negro mine of Newmont. This mineralization is epithermal, low sulphidation in style, and hosted in quartz-rich veins, veinlets, breccias and stockworks. The mineral resource estimate has categories Measured + Indicated of 6.0 Mt at 6.19 gpt Au, 0.90 gpt Ag and 1.16 Moz Au. The mineral reserve estimate category is Proven + Probable, 9.0 Mt, at 8.89 gpt Au and 2.56 Moz Au.

[\(https://www.newmont.com/investors/reports-and-filings/default.aspx\);](https://www.newmont.com/investors/reports-and-filings/default.aspx)

- 213 km to the south is the Martha mine of Patagonia Gold Plc. The mineralization suggests that the deposit is of intermediate-sulphidation epithermal type, albeit with some low-sulphidation features, hosted in quartz-rich veins, veinlets, breccias and

stockworks. There are no current mineral resources or mineral reserves on the Martha property. Although Hunt conducted mining and processing, there are no assurances that similar activities will be conducted, and there may be risks associated with such activities without defined mineral reserves. Hunt Mining filed its most recent NI 43-101 technical report for the Martha project on www.sedar.com in October 2018. During its period of ownership (2017), Hunt extracted over 26,000 tonnes of mineralized material from Martha grading 1.01 gpt Au and 771 gpt Ag and processed that material at the Martha mill.

(<https://patagoniagold.com/operations/martha-mill-and-property/>);

- 241 km to the NNW is the San José mine of Hochschild/McEwen Mining. The mineralization at the San Jose property represents a low sulphidation type with quartz sulphide veins with economic silver and gold values. The mineral resource estimate category is Indicated + Measured, 1.80 Moz Ag and 0.027 Moz Au and Inferred, 19.60 Moz Ag and 0.308 Moz Au. The mineral reserve estimate category is Proven + Probable, 16.4 Moz Ag and 0.273 Moz Au.

(<https://www.mcewenmining.com/operations/san-jose-mine/default.aspx>);

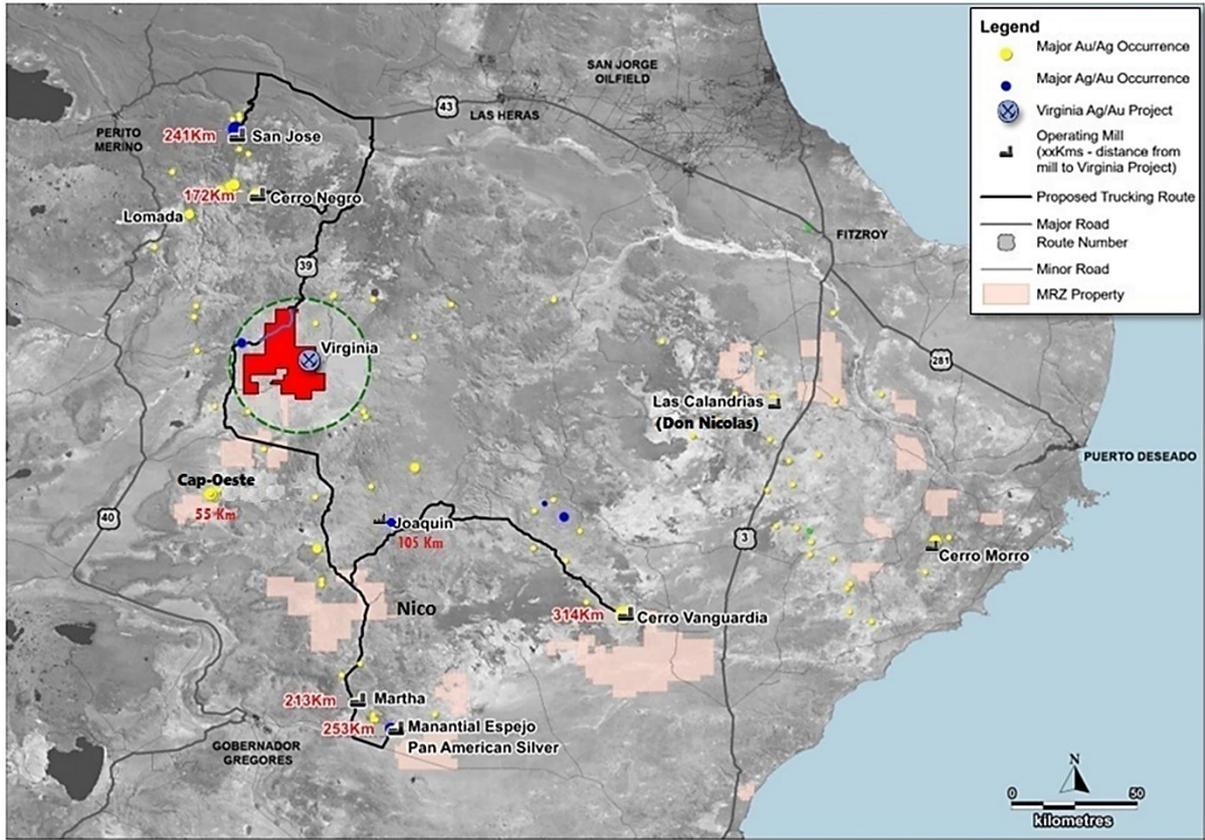
- 253 km to the SSE is the Manantial Espejo mine of Pan American Silver. The mineralization at the Manantial Espejo property is related to a shallow epithermal low sulphidation sub-type of mineralization, characterized by different types and styles of silicification and quartz vein types. The mineral resource estimate category on June 30, 2023, is Indicated + Measured, 1.30 Mt at 152 gpt Ag and 2.70 gpt Au and Inferred, 0.50 Mt at 106 gpt Ag and 1.49 gpt Au.

(<https://www.panamericansilver.com/es/operations/reserves-and-resources/>).

Despite the proximity of these mines to the Virginia Property, the size and other characteristics of the property, there is no guarantee that there is mineralization and a project of similar characteristics.

Figure 23-1 presents the location of the adjacent mines and some advanced projects with respect to the Virginia Project.

Figure 23-1: Location of adjacent mines and advanced projects for the Virginia Project



Source: Figure derived and modified from Mirasol, 2023 by PGSc.

24.0 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information regarding the Virginia Project have been included in other sections of this Technical Report.

PGSc and the QP is unaware of any other data that would make a material difference to the quality of this Technical Report or make it more understandable, or without which the Report would be incomplete or misleading.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 RISKS AND UNCERTAINTIES

PGSc and the QPs believe that there is one risk to the Virginia Project that includes:

- Testwork preliminary on the Halo zone has indicated that most of the silver within this zone is highly refractory to conventional recovery techniques such as flotation, cyanidation and gravity. Insufficient data relating to geometallurgical considerations used during the modelling and the low-grade halo mineralization that is present adjacent to Virginia's veins present a consistently low average grade of this material (55 gpt Ag) with very low metallurgical recoveries for the contained silver (Blue Coast, 2013). Currently, the low-grade halo should not be considered a potentially economic material (Earnest & Lechner, 2016). However, because of the significant volume of this material in the Virginia Project, metallurgical testing is warranted to try and develop a suitable processing method for this material that might improve recoveries.

This factor represents a high level of risk and thus could impact the project's economics. To assist in mitigating this risk, the following recommendation is proposed:

- Review geometallurgical factors for future resource models, e.g., include recovery variables within the model to report recovered metal. This work would require more extensive metallurgical test work and include samples involving all known vein sectors because samples used for preliminary testing are not considered representative of the entire deposit. The composite quantity should ensure the tests were carried out with an adequate sample mass. It should include the different types and mineralogy of the Vein/Breccia and Halo domains and their combination in the identified vein sectors. There is no ubiquitous occurrence of potentially deleterious items such as arsenic, antimony, or mercury in the various veins/breccias, but there are some localized anomalous values. Future studies must be completed to evaluate and assess these elements' materiality. Testing work should continue to focus on froth flotation, cyanidation and combinations of the two to recover silver from the geological domains, bond work index hardness testing on a composite consisting of ¼ core of the vein to provide comminution energy consumption data and to continue with mineralogical analyses (EPMA & LA-ICP-MS or other techniques), that Mirasol has requested the Institute of Applied Economic Geology, University of Concepción, Chile, to provide information on the nature and occurrence of the various silver phases, mainly in the low-grade “halo” mineralization that surrounds the higher-grade vein/breccia in the Virginia deposit.

Other than the comment and potential risk discussed above, PGSc is not aware of any other factors (including environmental, permitting, legal, title, taxation, socio-economic, marketing, and political) which could materially affect the exploration data or the exploration potential of the Project as presented in this report.

25.2 CONCLUSIONS

Mirasol Resources Ltd. commissioned the Qualified Persons responsible for this technical Report to review all the available geological information such as geology, geochemical, geophysical, surface trenching and diamond drill core sampling about the Virginia Project (located in the province of Santa Cruz, Argentina) and to compile and update all available information in conformity with CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (2014 and 2019) and to define, validate and update the Silver estimated resources in the mineralized sectors and identifying new sectors by carrying out various stages of exploration in the future.

Mirasol has a significantly developed system of procedures and protocols that have been implemented, modified and improved over the company's more than twenty-year history of exploration in the Deseado Massif used in the Virginia Project.

25.2.1 Introduction

In the opinion of the responsible QPs, the following interpretations and conclusions are appropriate to the project's current status.

25.2.2 Mineral Tenure, Surface Rights, and Agreements

- Information from legal experts supports that the mining tenure held is valid and sufficient to support a declaration of Mineral Resources;
- Mirasol currently holds sufficient surface rights in the Project area to support the exploration work and mining operations futures. Two ranches (Estancias) of approximately 63,339.00 hectares have been purchased, so it now owns the surface rights over the Virginia Project area. Both ranches were inactive at the time of the purchase, with no livestock or residents, so the purchase caused no relocations. The Estancias purchased are known informally as the “La Patricia” and “8 de Agosto. They cover all areas drilled to date in Virginia and those recommended for future work at the Virginia Silver Project.
- There is no awareness of any significant environmental, social or permitting issues that would prevent continued exploitation of the Project deposits.

25.2.3 Geology and Mineralization

- Knowledge of the deposit settings and lithologies, as well as the structural and alteration controls on mineralization and the mineralization style and setting, is sufficient to support Silver Mineral Resource estimation;
- Deposits within the Property are considered to be examples of epithermal gold-silver deposits. The mineralization suggests that the Virginia Project is of low-intermediate sulphidation epithermal type.

25.2.4 Exploration, Drilling and Data Analysis

- The exploration programs completed to date are appropriate for the style of the deposits and prospects within the Project. The strike extent of presently-known veins is likely to be extended with additional drilling in areas of subdued topography and under post-mineral cover. Numerous instances of quartz veins and silicified rock with anomalous silver values remain to be thoroughly evaluated in the Project area;
- Sampling methods are acceptable, meet industry-standard practice, and are acceptable for Mineral Resource Silver estimation;
- The quality of the silver, gold, and base metals analytical data is reliable, and sample preparation, analysis, and security are generally performed following exploration of best practices and industry standards;
- The quantity and quality of the lithological, geotechnical, collar and down-hole survey data collected during the exploration and delineation drilling programs are sufficient to support Mineral Resource Silver estimation. The collected sample data adequately reflect deposit dimensions, true widths of mineralization, and the style of the deposits. Sampling is representative of the metal grades in the deposit, reflecting areas of higher and lower grades;
- The QA/QC programs adequately address precision, accuracy and contamination issues. Drilling programs typically included blanks, duplicates and CRMs samples. QA/QC submission rates meet industry-accepted standards. The QA/QC programs did not detect any material sample biases;
- The data verification program concludes that the data collected from the Project adequately supported the geological interpretations and constituted a database of sufficient quality to support the use of the data in Mineral Resource Silver estimation; PGSc inspected the drill holes in the section and plan view to review geological interpretation related to the drill hole database and found an acceptable correlation. The scope of the site inspection was to discuss and analyze during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralization, structural characteristics, Mineral processing and metallurgical testing, mineral resources estimating, drill pads, core storage, an inspection of drill core recovery and mineralization, infrastructure and permits collected by Mirasol.
- Exploration potential remains within the extensive Virginia Property. The veins for which Mineral Resources have been estimated to date are still deemed to have the potential for expansion either along strike or down dip. Regionally, the epithermal low-intermediate sulphidation silver-bearing quartz veins occur in two belts, west and east. Significant potential exists to increase the known mineralization of the western sector

by continued drilling the known quartz veins with silver (Julia, Naty, Ely, Martina, Margarita, etc.). Exploration of known veins in the east sector in the south and north sectors is also continuing (Jazmin, Maos, Florencia, Johanna, Magi, Daniela, and Patricia). Continue geological mapping, sampling and prospecting between the north, east and south sectors in the central portion of the Project that will focus on extending mineralized zones beneath relatively thin post-mineral cover and in unexplored Virginia Main Window and underexplored Santa Rita and Flecha Rota zones.

25.2.5 Metallurgical Testwork

- Metallurgical testwork and associated analytical procedures preliminary were performed by recognized testing facilities, and the tests performed were appropriate to the type of mineralization;
- Metallurgical testwork preliminary has shown that the mineralization is amenable to being processed using conventional technologies, and acceptable recoveries were returned in the Vein/Breccia domain;
- Low-grade halo mineralization adjacent to Virginia's veins-breccias presents a consistently low average grade of this material (55 gpt Ag) with low recoveries ($\leq 22\%$) achieved in the metallurgical test work completed to date. However, because of the significant volume of this material in the Virginia Project, metallurgical testing is warranted to try and develop a suitable processing method for this material that might improve recoveries.

25.2.6 Mineral Resource Estimation

- The Mineral Resource estimation for the Project conforms to industry practices and meets the requirements of CIM (2014 and 2019);
- Factors that may affect the Mineral Resource estimates include silver price, assumptions used in the LG (Lerchs-Grossman) shell constraining Mineral Resources, including mining, processing and G&A costs, metal recoveries, and pit slope angle.

26.0 RECOMMENDATIONS

26.1 BUDGET FOR FURTHER WORK

Mirasol has defined the main objectives for the next drilling campaigns in the Project: to increase inferred resources and upgrade current inferred resources to indicated status. It's important to highlight that the immediate focus is not on developing measured resources.

The future goal is to expand inferred resources, which involves advancing exploration and subsequent drilling in prospects with the highest potential and geological evidence by developing new targets with no drilling to date or with limited development, such as Roxanne, Daniela, Patricia, Maos, Magi, Florencia, Johanna, Jazmin, as well as Santa Rita Central and Santa Rita East.

In conclusion, future drilling objectives for the Virginia Project are centred on significantly increasing inferred silver resources and converting existing inferred resources to the indicated category, strengthening the project's resource base for future development opportunities. These objectives align with a commitment to maximizing the project's potential while maintaining a strategic and prudent approach to resource development.

Mirasol proposes to develop the following exploration program with drilling at the Virginia property and plans to spend US\$ 2,100,000 in exploration Phase I for 2024 (7,000 m of diamond drilling), and another US\$ 3,000,000 during its exploration Phase II for 2025 (10,000 m of diamond drilling) for a total preliminary budget of US\$ 5,100,000 in the two phases (**Table 26-1**).

Table 26-1: Mirasol Budget for the Exploration of the Virginia Property

Item	Programme Costs		
	Phase I 2024 (USD)	Phase II 2025 (USD)	Total Cost (USD)
Field Supervision, Geologists	55,000	55,000	110,000
Data Compilation, Geological Mapping	30,000	30,000	60,000
Roads, Access and Drill Site Preparation	135,000	175,000	310,000
Topography	29,000	35,000	64,000
Permits	60,091	60,000	120,091
Camp and meals	200,000	235,000	435,000
Metallurgical Testwork	-----	185,000	185,000
Structural Model 2D-3D	155,000	-----	155,000
Assays	75,000	115,000	180,000
Drilling (7,000 m + 10,000 m DDH)	1,170,000	1,837,273	3,017,273
Subtotal	1,909,091	2,727,273	4,636,364
Contingencies 10%	190,909	272,727	463,636
Total	2,100,000	3,000,000	5,100,000

Source: Table derived from Mirasol, 2023 by PGSc.

Mirasol defines drilling targets are ranked based on their potential through geological rankings defined through a comprehensive process, including:

- Review of new geological data and historical data, including surface sampling, mapping, geophysical data, and previous drilling.
- Geological surface mapping.
- Geophysical analysis: an extensive IP-PDP program has been conducted, allowing for a better understanding of mineralized structures at depth and ongoing terrestrial magnetometry surveys in some of the new target areas.
- 3D geological modeling.
- The current geological model in the project is based on types of mineralization, prioritizing prospects that showed similarities with the main prospects like Julia, Naty, or Ely.

The objectives of the drilling plan for the coming years include:

- Improvement in geological assessment with a consequent understanding of mineralized structures, which are open at depth.
- Increasing resources in the inferred category by developing new targets without drilling to date or those with some initial drilling, increasing the project's value and economic viability.
- Converting inferred resources to indicated resources, increasing confidence in future resource estimates, and bringing the project closer to a development stage.
- Drilling aimed at identifying new prospects with surface samples with high Ag and Au grades.

26.2 FURTHER RECOMMENDATIONS

PGSc considers that Mirasol exploration programs are conducted to rigorous standards concerning the exploration data collection. Through exploration of the Virginia property, Mirasol continues to identify the extent of the mineralization contained therein and believes that it will be able to expand the mineral resource base for the property in depth and beyond the area containing the Virginia deposit.

PGSc has reviewed the Mirasol proposal for further work and makes the following additional recommendations to assist Mirasol in its exploration and resource estimation processes:

1. The available information and data should be organized to implement an adequate data management system. A robust and auditable base ensures the reliability and integrity

of the data. This will facilitate the interpretation, acceptable use and benefit of previous and future information generated for the Project.

2. Determine the textural and mineralogical relationships in drill core samples, which will allow for identifying the different pulses of mineralization precipitation in the Virginia deposit's different Vein/Breccia and Halo domains.
3. Use a portable infrared mineral analyzer to accurately identify and map alteration mineral assemblages and clay species determination, which is essential to understanding and exploring hydrothermal ore deposits. Data collection must be systematically organized and carried out by a trained operator.
4. Interpret and build a structural model 2D-3D with styles and formation of ore shoots that is the basis and used as support for estimating recoverable resources. The structures with dilatation zones promote fluid flow, host elevated metal grades and wider veins, and sites of fluid mixing at structural intersections.
5. Use an HQ3 triple tube configuration to provide and assure maximum recovery, primarily of the mineralized structures and ensure the representative nature of the samples.
6. Generally, the topography is acceptable for the work carried out at this exploration stage. However, the entire topography must be adjusted to have better precision with contour lines at 1 m according to the type of deposit of the Virginia Project.
7. Prioritize the collection of field duplicates for precision control in these exploratory stages, given that if carefully collected and analyzed at the same laboratory by the same procedure, these splits can estimate the variance contributed by the entire sample collection, preparation and assaying process. The original and duplicate must be represented by 1/4 (HQ diameter) sawn core samples, and 1/2 must be left backup in the wooden box.
8. Continue with the bulk density determination testing in the core shed on each core sample collected, and 10% should be sent to an external laboratory for quality control and measurement validation.
9. Continue with metallurgical tests and include samples that involve all known vein sectors. The samples used for the preliminary metallurgical testing analyses are not considered to be representative of the entire deposit. The composite quantity must ensure that the tests were carried out with an adequate sample mass and include the different types and mineralogy of the Vein/Breccia and Halo domains and their blending in the identified vein sectors.

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27.2 WEB-BASED SOURCES OF INFORMATION

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APPENDIX 1

GLOSSARY OF MINING AND OTHER RELATED TERMS

A

Ag: Silver.

Anomaly: something that deviates from what is standard or expected.

Assay: a chemical test is performed on a sample of ores or minerals to determine the amount of valuable metals.

Au: Gold.

Anomaly: something that deviates from what is standard or expected.

B

Base metal: any non-precious metal (e.g., copper, lead, zinc, nickel, etc.).

Bulk sample: a large sample of mineralized rock, frequently hundreds of tonnes, selected in such a manner as to be representative of the potential orebody being sampled. The sample is usually used to determine metallurgical characteristics.

C

Cateo: exploration concession.

Channel sample: a sample composed of pieces of vein or mineralization that have been cut out of a small trench or channel, usually about 10 cm wide and 2 cm deep.

Chip sample: a method of sampling a rock exposure whereby a regular series of small chips of rock is broken off along a line across the face.

CIM Standards: the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council from time to time. The most recent update adopted by the CIM Council is effective as of 27th November 2010.

Contact: a geological term used to describe the line or plane along which two different rock formations meet.

Core: the long cylindrical piece of rock, about an inch in diameter, was brought to the surface by diamond drilling.

Core sample: one or several pieces of whole or split parts of core selected as a sample for analysis or assay.

Cut-off grade: the lowest grade of mineralized rock that qualifies as ore grade in a given deposit is also used as the lowest grade below which the mineralized rock currently cannot be profitably exploited. Cut-off grades vary between deposits depending upon the ore's amenability to gold extraction and production costs.

D

Deposit: an informal term for an accumulation of mineralization or other valuable Earth material of any origin.

Dilution: the inclusion of rock containing little or no economic mineralization that, by necessity, is extracted along with the mineralized material in the mining process, subsequently lowering the overall grade of the mined material.

Dip: the angle at which a vein, structure or rock bed is inclined from the horizontal as measured at right angles to the strike.

E

Epithermal: hydrothermal mineralization formed within one kilometre of the Earth's surface, in the temperature range of 50° to 200°C.

Epithermal deposit: a mineral deposit consisting of veins and replacement bodies, usually in volcanic or sedimentary rocks, containing precious metals or, more rarely, base metals.

Exploration: prospecting, sampling, mapping, diamond drilling and other work involved in searching for ore.

F

Fault: a break in the Earth's crust caused by tectonic forces which have moved the rock from one side to the other.

Fracture: a break in the rock, the opening of which allows mineral-bearing solutions to enter. A "cross-fracture" is a minor break extending at more or less right angles to the direction of the principal fractures.

Flotation: a milling process in which valuable mineral particles are induced to become attached to bubbles and float as others sink.

G

Grade: a term used to indicate the concentration of an economically desirable mineral or element in its host rock as a function of its relative mass. With gold, this term may be expressed as grams per tonne (gpt) or ounces per tonne (oz/t).

Gram: one gram is equal to 0.0321507 troy ounces.

H

Hanging wall: the rock on the upper side of a vein or mineralization.

High grade: rich mineralization or ore. As a verb, it refers to selective mining of the best ore in a deposit.

Host rock: wall (surrounding) rock that confines the mineral occurrence zone.

Hydrothermal: about or related to heated or superheated water deposition of minerals often associated with hot solutions produced by cooling magma.

I

Igneous rock: a rock formed by the solidification of magma.

Indicated Mineral Resource: an Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from the adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between observation points. An Indicated Mineral Resource has a lower confidence level than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

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

Intrusion / Intrusive: a body of igneous rock that invades older rock. The invading rock may be a plastic solid or magma that pushes its way into the older rock.

L

Leaching: the separation, selective removal or dissolving-out of soluble constituents from a rock or ore body by the natural actions of percolating solutions.

M

Magmatic: consisting of, relating to or of magma origin.

Magmatism: emplacement of magma within and/or on the surface of crustal rocks by igneous activity. Volcanism is the surface expression of magmatism.

Measured Mineral Resource: a Measured Mineral Resource is part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between observation points. A Measured Mineral Resource has a higher level of confidence than applying either an Indicated Mineral Resource or an Inferred. Mineral Resource. It may be converted to a Proven Mineral Reserve or a Probable Mineral Reserve.

Mesothermal: hydrothermal mineralization formed within one kilometre of the Earth's surface, in the temperature range of 200° to 300°C.

Mine: a mineral mining enterprise. The term is often used to refer to an underground mine.

Mineral: a naturally occurring homogeneous substance that has definite physical properties and chemical composition and, if formed under favourable conditions, a definite crystal form.

Mineral concession: that portion of public mineral lands which a party has staked or marked out following federal or state mining laws to acquire the right to explore for and exploit the minerals under the surface.

Mineral deposit: a body of mineralization that represents a concentration of valuable metals. The limits can be defined by geological contacts or assay cut-off grade criteria.

Mineralization: the processes by which minerals are introduced into a rock, resulting in a valuable or potentially valuable deposit.

Mineral Resource: a Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided to increase geological confidence into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource. The term mineral resource used in this report is a Canadian mining term defined by NI 43-101. Standards of Disclosure for Mineral Projects under the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the CIM), Standards on Mineral Resource and Mineral Reserves Definitions and guidelines adopted by the CIM Council on December 11, 2005, updated as of 27th November 2010, and more recently updated as of 10th May 2014 (the CIM Standards).

N

Net Smelter Return: a payment made by a producer of metals based on the value of the gross metal production from the property, less deduction of certain limited costs including smelting, refining, transportation and insurance costs.

NI 43-101: National Instrument 43-101 is a national instrument for Canada's Standards of Disclosure for Mineral Projects. The Instrument is a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned by, or explored by, companies that report these results on stock exchanges within Canada. This includes foreign-owned mining entities that trade on stock exchanges overseen by the Canadian Securities Administrators (CSA), even if they only trade on Over Counter (OTC) derivatives or other instrumented securities. The NI 43-101 rules and guidelines were updated as of 30th June 2011.

O

Orebody: a natural accumulation of ore confined to a certain structural and geological element or a combination of such elements.

Outcrop: an exposure of rock or mineralization can be seen on the surface that is not covered by soil or water.

Oxidation: a chemical reaction caused by exposure to oxygen that results in a change in the chemical composition of a mineral.

Ounce: a measure of weight in gold and other precious metals, correctly troy ounces, which weighs 31.2 grams as distinct from an imperial ounce which weighs 28.4 grams.

Q

QA/QC procedures: those systematic procedures that are used to validate the control and testing of samples in a specified manner.

Qualified Person: conforms to that definition under NI 43-101 for an individual: (a) to be an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, related to mineral exploration or mining; (b) has at least five years' experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice; (c) to have experience relevant to the subject matter of the mineral project and the technical report; (d) is in good standing with a professional association; and (e) in the case of a professional association in a foreign jurisdiction, has a membership designation that (i) requires the attainment of a position of responsibility in their profession that requires the exercise of independent judgement; and (ii) requires (A.) a favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or (B.) a recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining.

R

Representative sample: sample(s) selected to effectively capture specific chemical or physical attributes such as grade, mineralogy, hardness for domains, metallurgical units, or designated portions of a mineral deposit.

S

Sampling: the process of studying the qualitative and quantitative composition and properties of natural formations comprising a deposit.

Sampling protocol: those procedures that describe how sampling is performed and to what level of diligence.

Sample selection and collection: the procedure that shows how and why certain samples were collected as being representative.

Satellite imagery: high resolution pictures taken from satellites to identify geological features including structures, faults, cross faults, and linear features.

Sedimentary rock: rock formed by sedimentation of substances in water, less often from the air and due to glacial actions on the land surface and within sea and ocean basins. Sedimentation can be mechanical (under the influence of gravity or environment dynamics changes), chemical (from water solutions upon their reaching saturation concentrations and as a result of exchange reactions), or biogenic (under the influence of biological activity).

Stockwork: a complex system of structurally controlled or randomly oriented veinlets.

Sulphides: a group of minerals containing sulphur and other metallic elements such as copper and zinc. Gold and silver are often associated with sulphide enrichment mineralization.

T

Trenching: in geological exploration, a narrow, shallow ditch is cut across a mineral showing or deposits to obtain samples or to observe character.

Tonne: a metric ton of 1,000 kilograms (2,205 pounds).

V

Vein: tabular geological body formed as a result of mineral substance filling a fracture or due to metasomatic replacement of rock with mineral(s) along a fracture. Unlike dykes formed primarily by magmatic rock, a vein is composed of vein and ore minerals (quartz, carbonated, sulphides, etc.).

Veinlet: a small vein.

W

Wall rocks: rock units on either side of a body of mineralization forming the hanging wall and footwall rocks.

Waste: unmineralized, or sometimes mineralized, rock that is not minable at a profit.

Z

Zone: an area of distinct mineralization.

APPENDIX 2

LEGAL OPINION, RELIANCE LETTER FOR THE VIRGINIA PROJECT

Mendoza, July 27th, 2023

Ref.: Legal Opinion - Virginia Project

PatagoniaGEOSCIENCES

Mr. Julio Bruna Novillo

Dear Sirs:

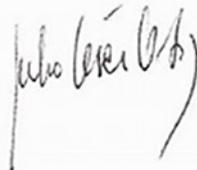
We kindly inform you that up to July 27th, 2023:

Our office has acted as local Legal Counsel of Mirasol Resources Ltd. ("Mirasol"), in connection with their legal affairs at Argentina, and especially regarding the Virginia Project's mining properties ("Property") held by Minera Del Sol S.A. ("Company") at Santa Cruz Province, according to the Appendix A attached -. Hence, we may confirm that:

- (i) The license of the Property is in Good Standing, and it is valid and subsisting under all applicable laws and regulations.
- (ii) The Company has complied with all Property's maintenance requirements, including the respective environmental permits that are necessary for the Company to explore and operate the Virginia Project.

We are available at any time to provide answer to your enquiries or provide further clarification if necessary.

Sincerely,



Julio César Ortiz



María Celeste Macaluzzo

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APPENDIX A

Concession Name	File Number	Owner	Concession Type
Jazmín I	432.241/MDS/15	Minera del Sol SA	Permit Exploration (Cateo)
Jazmín II	432.242/MDS/15	Minera del Sol SA	Permit Exploration (Cateo)
Jazmín III	435.535/MDS/16	Minera del Sol SA	Permit Exploration (Cateo)
La Florcita	429.915/MDS/14	Minera del Sol SA	Mining Concesion (MD)
La Florcita I	433.855/MDS/16	Minera del Sol SA	Mining Concesion (MD)
Santita I	429.033/MDS/11	Minera del Sol SA	Mining Concesion (MD)
Santita II	421.360/MDS/12	Minera del Sol SA	Mining Concesion (MD)
Santita IV	424.649/MDS/13	Minera del Sol SA	Mining Concesion (MD)
Santita V	428.267/MDS/14	Minera del Sol SA	Mining Concesion (MD)
Santita VI	428.936/MDS/14	Minera del Sol SA	Mining Concesion (MD)
Santita VII	428.931/MDS/14	Minera del Sol SA	Mining Concesion (MD)
Santita VIII	429.653/MDS/14	Minera del Sol SA	Mining Concesion (MD)
Santita IX	421.400/MDS/22	Minera del Sol SA	Mining Concesion (MD)
Santita X	422.517/MDS/23	Minera del Sol SA	Mining Concesion (MD)
Mel	434.827/A/16	Minera del Sol SA	Mining Concesion (MD)
Mel II	437.185/A/2017	Minera del Sol SA	Mining Concesion (MD)
Mel III	437.594/A/2017	Minera del Sol SA	Mining Concesion (MD)
Santa Rita Norte	415.113/MDS/07	Minera del Sol SA	Mining Concesion (MD)
Santa Rita Sur	406.884/MIRASOL/06	Minera del Sol SA	Mining Concesion (MD)

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APPENDIX 3

DRILL HOLE INFORMATION

HOLE_ID	VEIN	EASTING	NORTHING	ELEVATION (m)	DEPTH (m)	AZIMUTH (°)	DIP (°)	YEAR
DA-DDH-001	Daniela	2,428,499	4,742,039	1,060	113	75	-45	2022
EC-DDH-001	Ely Central	2,428,800	4,739,906	1,005	124	100	-45	2020
EC-DDH-002	Ely Central	2,428,827	4,739,515	987	184	280	-45	2020
EC-DDH-003	Ely Central	2,428,907	4,739,837	997	141	280	-45	2021
EC-DDH-004	Ely Central	2,428,904	4,739,788	996	111	280	-45	2021
EC-DDH-005	Ely Central	2,428,906	4,739,975	990	120	280	-45	2021
EC-DDH-006	Ely Central	2,428,723	4,739,706	998	206	100	-45	2021
EC-DDH-007	Ely Central	2,428,962	4,739,827	992	209	280	-55	2021
EC-DDH-008	Ely Central	2,428,943	4,740,022	988	182	280	-45	2021
EC-DDH-009	Ely Central	2,428,861	4,739,682	993	101	280	-45	2021
EC-DDH-010	Ely Central	2,428,904	4,739,933	996	80	280	-45	2022
EC-DDH-011	Ely Central	2,428,878	4,739,736	995	92	280	-45	2022
EC-DDH-012	Ely Central	2,428,851	4,739,624	992	89	280	-45	2022
EN-DDH-001	Ely Norte	2,428,891	4,740,600	1,043	102	270	-45	2021
EN-DDH-002	Ely Norte	2,428,883	4,741,081	1,060	150	90	-45	2021
EN-DDH-003	Ely Norte	2,428,850	4,740,999	1,064	198	90	-45	2021
EN-DDH-004	Ely Norte	2,428,857	4,741,081	1,061	230	90	-55	2021
EN-DDH-005	Ely Norte	2,428,950	4,740,600	1,036	179	270	-45	2021
EN-DDH-006	Ely Norte	2,428,995	4,740,301	1,027	168	270	-45	2022
JC-DDH-001	Julia Central	2,428,103	4,739,353	1,033	196	258	-45	2020
JC-DDH-002	Julia Central	2,427,901	4,739,394	1,042	133	270	-45	2020
JS-DDH-001	Julia Sur	2,428,512	4,738,196	970	117	270	-45	2020
JS-DDH-002	Julia Sur Extension	2,428,506	4,738,123	961	130	270	-45	2020
JS-DDH-003	Julia Sur	2,428,514	4,738,248	968	124	270	-45	2021
JS-DDH-004	Julia Sur	2,428,552	4,738,194	964	201	270	-55	2021
JSE-DDH-001	Julia South Extension	2,428,510	4,738,008	936	142	270	-45	2020
JSE-DDH-002	Julia Sur Extension	2,428,512	4,737,946	929	162	270	-45	2021
JSE-DDH-003	Julia Sur Extension	2,428,399	4,737,889	926	141	90	-45	2021
MaJo-DDH-001	Maos- Johanna	2,431,136	4,741,323	921	230	250	-45	2020
Maos-DDH-001	Maos	2,430,718	4,741,288	948	116	270	-45	2021
MC-DDH-001-A	Martina Central	2,429,821	4,739,749	956	179	65	-45	2021
MC-DDH-002	Martina Central	2,429,677	4,739,969	979	137	70.58	-45.5	2022
MG-DDH-001	Magi	2,430,977	4,739,871	924	302	49	-52	2020
MG-DDH-002	Magi	2,431,297	4,739,762	927	120	49	-45	2020
MG-DDH-003	Magi	2,431,034	4,740,021	913	198	49	-50	2021

HOLE_ID	VEIN	EASTING	NORTHING	ELEVATION (m)	DEPTH (m)	AZIMUTH (°)	DIP (°)	YEAR
MNW-DDH-001	Martina NW	2,429,632	4,740,080	1,000	150	65	-45	2021
MNW-DDH-002	Martina NW	2,429,433	4,740,144	1,008	201	65	-45	2021
MNW-DDH-003	Martina NW	2,429,370	4,740,483	1,034	153	65	-45	2021
MNW-DDH-004	Martina NW	2,429,533	4,740,181	1,017	171	65	-45	2021
MNW-DDH-005	Martina NW	2,429,582	4,740,058	998	179	65	-45	2021
MNW-DDH-005-A	Martina NW	2,429,607	4,740,071	999	164	65	-45	2021
MNW-DDH-006	Martina NW	2,429,611	4,740,122	1,007	131	68	-45	2022
MR-DDH-001	Margarita	2,428,812	4,738,613	967	90	55	-45	2021
MR-DDH-002	Margarita	2,428,901	4,738,674	977	121	242	-45	2021
MR-DDH-003	Margarita	2,428,787	4,738,653	970	101	50	-45	2021
MR-DDH-004	Margarita	2,428,749	4,738,687	968	101	55	-45	2022
MR-DDH-005	Margarita	2,428,715	4,738,732	970	101	50	-45	2022
MR-DDH-006	Margarita	2,428,715	4,738,658	965	131	50	-45	2022
MSE-DDH-001	Martina SE	2,429,916	4,739,565	971	134	65	-45	2020
MSE-DDH-002	Martina SE	2,430,003	4,739,467	964	180	65	-45	2020
MSE-DDH-003	Martina SE	2,429,906	4,739,647	971	178	65	-45	2020
MSE-DDH-004	Martina SE	2,430,050	4,739,598	966	195	200	-45	2021
MSE-DDH-005	Martina SE	2,429,851	4,739,535	974	320	65	-45	2021
MSW-DDH-001	Martina SW	2,429,917	4,739,108	943	175	100	-45	2020
MSW-DDH-002	Martina SW	2,429,909	4,739,298	955	180	90	-45	2021
MSW-DDH-003	Martina SW	2,429,938	4,738,791	967	129	295	-45	2021
MSW-DDH-004	Martina SW	2,430,011	4,738,999	948	119	200	-45	2021
NE-DDH-001	Naty Extension	2,427,149	4,740,599	1,042	127	90	-45	2020
NE-DDH-002	Naty Extension	2,427,094	4,740,598	1,036	160	90	-45	2020
NE-DDH-003	Naty Extension	2,427,102	4,740,698	1,040	156	90	-45	2021
PA-DDH-001	Patricia	2,428,418	4,742,001	1,063	92	250	-45	2022
RO-DDH-001	Roxane	2,428,504	4,739,521	1,005	126	240	-45	2020
RO-DDH-002	Roxanne	2,428,543	4,739,441	1,002	152	240	-45	2021
SRC-DDH-001	Santa Rita Central	2,421,161	4,751,298	903	74	60	-45	2021
SRC-DDH-002	Santa Rita Central	2,420,593	4,751,901	935	92	75	-45	2021
SRE-DDH-001	Santa Rita East	2,423,558	4,752,191	884	56	280	-50	2021
SRE-DDH-002	Santa Rita East	2,422,942	4,752,054	858	92	50	-45	2021
SRE-DDH-003	Santa Rita East	2,423,552	4,752,146	884	65	280	-50	2021
SRE-DDH-004	Santa Rita East	2,422,809	4,752,543	886	116	230	-45	2021
SRE-DDH-005	Santa Rita East	2,423,591	4,752,135	882	128	280	-50	2022