NI 43-101 Technical Report
El Zancudo Mineral Resource Estimate
Colombia

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Report Prepared for

Denarius Metals Corp.

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1 Summary

This report was prepared as a National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) for Denarius Metals Corp. (Denarius, or the Company) by SRK Consulting (U.S.), Inc. (SRK) on the El Zancudo Project ("Zancudo" or "Project") in Colombia.

This report has been prepared by SRK Consulting (U.S.) Inc. (SRK) on behalf of Denarius Metals Corp. (Denarius, or the Company), previously known as Denarius Silver Corp. on the Zancudo Project in Colombia. This report summarizes an updated Mineral Resource Estimates (MRE) for the Zancudo Project with an effective date of July 31, 2023. The results of these estimates were made publicly available by Denarius on September 05, 2023. The purpose of this report is to provide an Independent Technical Report (ITR) that documents all supporting work, methods used and results relevant to the reported mineral resources, and that fulfills the reporting requirements in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

1.1 Property Description and Ownership

The Zancudo Project is a gold and silver deposit located in the Municipality of Titiribí, Department of Antioquia, Republic of Colombia. Zancudo is approximately 30 kilometers (km) southwest of the city of Medellin, the capital of the Department of Antioquia. Zancudo is wholly owned by Denarius Metals, Inc.

The Project has a long mining history, but the most recent underground mining activity has not occurred since 1993. Between 1993 and 2010, Consorcio de Inversionistas, C.D.I., S.A. (CDI), built a small pilot plant (120 tonnes per day (t/d)) to process historical waste dumps at Sitio Viejo in 1994, and rehabilitated the historical Independencia, La Matilde and El Castaño mines. In the 2000's, Proyecto Sabaletas S.A.S. (Mineros S.A.) who took ownership of the operation re-processed 70,000 tonnes (t) of scoria dumps at Sabaletas to produce gold (Au) and silver (Ag), and between 2009 and 2013 reportedly re-processed 135,407 t of dumps at Sitio Viejo to produce Au and Ag.

In 2010, Gran Colombia Gold Corp (Gran Colombia), took ownership from CDI of the Project and began systematic exploration. Between 2011 and 2012, a series of drilling programs were completed to confirm the mineralization around the existing mining areas. In 2018 through 2020, IAMGOLD Corporation optioned the Project from Gran Colombia with the First Option for six years for 65% and a Second Option for three more years for 70%. Under the option agreement dated 27 February 2017. the property was held by, IAMGOLD Sucursal Colombia (IAMGOLD Colombia), a branch of IAMGOLD Corporation (IAMGOLD), a company registered in Ontario. The agreement allowed IAMGOLD Colombia to earn an initial 65% interest (the First Option) in the Zancudo Project by making exploration expenditures of US$10 million (M) over six years, subject to meeting specified annual work commitments during this period. The start of the option and Anniversary Date for the annual work commitments was August 3, 2017, the date that the drilling permits were obtained. In addition, the First Option required that IAMGOLD define total NI 43-101 measured, indicated and inferred mineral resources of at least 500,000 ounces (oz) of Gold Equivalent (AuEq) (defined as the amount of gold plus the amount of silver multiplied by the projected silver recovery to gold recovery divided by 60) and complete a NI 43-101 Preliminary Economic Assessment (PEA) between years five and six. IAMGOLD exited the agreement in 2022 as these goals were not reached for reasons unrelated to the Project.

In 2020, ESV Resources Ltd. (ESV) entered a share purchase agreement with Gran Colombia in connection with a proposed Share Purchase Transaction. In 2021, upon completion of the transaction in conjunction with a reverse-takeover transaction, ESV was renamed Denarius Silver Corp, and acquired the Project through the issuance of 27,000,000 common shares from treasury to Gran Colombia. On February 1, 2022, Denarius Silver Corp. announced that it had changed its name to Denarius Metals Corp. (Denarius or the Company) (TSXV: DSLV).

1.2 Geology and Mineralization

The Zancudo Project is located on the western side of the Central Cordillera of the Colombian Andes, which is separated from the Western Cordillera to the west by the Cauca River. The Zancudo deposit lies within the Romeral terrane, an oceanic terrane comprising metamorphosed mafic to ultramafic complexes, ophiolite sequences and oceanic sediments of probable Late Jurassic to Early Cretaceous age. The Romeral terrane is partially covered by continental sediments of the Oligocene to Lower Miocene age called the Amagá Formation, comprising conglomerates, sandstones, shales, and coal seams. The Titiribí porphyry of Late Miocene age intrudes the Arquía Complex schists and Amagá Formation sedimentary rocks. Gold mineralization is related to the emplacement of porphyry stocks.

The host rocks to gold mineralization are schists of the Arquía Complex, sedimentary rocks of the Amagá Formation, and the Late Miocene andesite porphyry intrusions. The sediments have been folded into several synclines cut by high angle reverse faults with a strike of N10-20°W and a steep dip of 50° to 70° east.

Mineralization at Zancudo occurs in multiple stacked mantos and steeper structures exploited over a strike length of 3,500 meters (m). The average vein width is 0.35 m, with a maximum width of 3 m. The known vertical extent of mineralization is approximately 400 m.

Structure formation is related to WNW to NW-SE oriented compression that reactivated earlier fault and probable thrust imbricate structures as sinistral transpressional shear zones. Low angle stacked mantos formed as reverse faults in the footwall of the Santa Catalina structure.

The structures have early-stage base metal sulfides (pyrite, sphalerite, galena, arsenopyrite) infilled by quartz or quartz-carbonate gangue, with banded textures that are typical of epithermal veins. The structure minerals, in order of decreasing abundance, are pyrite, galena, arsenopyrite, sphalerite, silver-sulfosalts, bournonite, boulangerite and jamesonite, with minor chalcopyrite, pyrrhotite, native gold or electrum, and native silver. The gangue minerals are quartz, calcite and clay minerals. The clay minerals identified are kaolinite, muscovite and sericite. Wall rock alteration is sericite, carbonate and disseminated sulfides.

1.3 Status of Exploration, Development and Operations

Zancudo has been exploited intermittently by numerous operations over a long period of time. The 2020 technical report provided a summary of the estimated total production from the Zancudo District from 1793 to 2006 from various sources. The estimates ranged between 1.4 and 2.0 million ounces (Moz) AuEq (43.1 to 64.3 t) according to different estimates.

Between 1985 and 1993, Compañía de Reciclaje Minero, S.A. (COREMINE) carried out studies to extract gold and silver from the scoria dumps at Sitio Viejo. It is reported that a historical proven and probable reserve estimate of the scoria dumps of 574,000 t grading 4.40 grams per tonne (g/t) gold

and 222.25 g/t silver was made in 1991. The estimate is of unknown reliability but is included for purposes of depicting the history and development of the property, the qualified person (QP) has not done sufficient work to classify the historical estimate as current mineral reserves.

Mining contract 5521 was returned to the owner Compañía Minera El Escorial S.O.M., which subsequently made an agreement with Consorcio de Inversionistas, C.D.I., S.A. (CDI) in 1993 to produce gold and silver from the scoria and from underground vein mining. CDI built a pilot plant at Sitio Viejo to treat the scoria in 1994.

CDI rehabilitated the Independencia, La Matilde and El Castaño mines, and built a 120 t/d mineral treatment plant at the Independencia Mine to concentrate ore by gravimetry and flotation. The concentrates were roasted and trucked to the pilot plant at Sitio Viejo for cyanidation. However, the plant was never fully operational.

Gran Colombia and IAMGOLD have carried out systematic exploration of the Zancudo Project since 2011, mainly by mapping and geochemistry on surface and underground in old mine workings. As of the effective date of this Technical Report, the latest exploration was completed by IAMGOLD, mainly focused on drilling. Previous exploration included deposit scale mapping, geochemical (soil and stream sediment) sampling, rock chip sampling, and mapping and channel sampling of select locations from historical mined areas.

All drilling completed on the Project to date has been completed by CDI, Gran Colombia, IAMGOLD and ESV Resources (renamed Denarius Silver Corp. and subsequently changed to Denarius Metal Corp.). A total of 40,099.70 m of diamond drilling in 149 holes has been carried out at the Project, including 33 underground holes drilled in the Independencia Mine. Denarius Metals has not carried out any drilling on the Zancudo Project since completion of the IAMGOLD drilling program.

All of the drilling programs were carried out by DD with wireline core recovery with core diameters mostly of HQ (63.5 mm core diameter), with some NQ (47.6 mm core diameter) and BQ (36.5 mm core diameter). Upon completion, the drill collars were surveyed by total station by a service company using a network of survey points that were surveyed by differential GPS. The underground drillhole collars were surveyed by total station. Gran Colombia conducted downhole surveys using a wireline Reflex multishot instrument. IAMGOLD carried out downhole surveys with readings at depth every 50 m, using a wireline Reflex RZ-Trac multishot instrument.

The results of the drilling have enabled SRK to interpret the key structural controls on the deposit, plus a number of mineralized domains which can been connected both along strike and downdip in the case of the vein material.

No new drilling has been completed since the previous estimate (effective December 31, 2022), exploration work has focused on re-establishing access to the historical underground operations and further validation of geological model. The results of the revised analysis of the drilling have enabled SRK to update the interpretation of the geological model consisting of an upper unit of both steeply dipping structures interpreted as veins and stacked mantos style mineralization over a known strike length of approximately 2.5 km and a vertical extent of over 650 m from surface. The drilling intersections are considered reasonable to provide confidence to the modeled domains, with further validation including review of core photography, used to validate the revised model. The main structures have been identified during geological logging and in conjunction with the assay information. The main zones defined include:

- Manto Antiguo
- Manto Antiguo Upper
- Manto Antiguo Lower
- Manto Inferior
- Miel Vein
- Santa Catalina Vein
- Porvenir Vein
- Panal Vein
- Ortiz A Vein
- Ortiz B Vein

It is the opinion of the QP responsible for the preparation of this Technical Report (TR) that the data used to support the conclusions presented here are adequate for the purposes of the mineral resource.

1.4 Mineral Processing and Metallurgical Testing

Historically limited metallurgical test work has been completed. A predictive metallurgical study of 22 core samples was carried out by Terra Mineralogical Services in 2012-13 by scanning electron microscope SEM-EDS scans of polished thin sections. The objective was to provide a detailed ore characterization and predictive metallurgy assessment of the gold mineralization. The study concluded that the features of the Zancudo gold mineralization suggest that an efficient extractive method for this type of gold-silver mineralization could be gravity extraction followed by regrind and whole ore cyanidation.

Initial test work was completed by selecting a total of seven bulk composites samples taken near the main portal of the historical Ayess Mine. The combined composites totaled approximately 450 kilograms (kg) and assaying was completed at the Aris Metals Segovia Laboratory, Colombia. The average grade for the blended composites is recorded as 7.4 g/t Au and 297.3 g/t Ag . The blended sample was pulverized at #400 mesh and put through a cyanide bottle roll test run. The tests averaged recoveries of 85% for gold and 90% for silver.

In a detailed assessment of the metallurgical performance of the deposit, Zancudo contracted with SGS Laboratories in Lima, Peru, to evaluate three composite samples (one each from the Santa Catalina, Manto Antiguo, and La Miel mineralogical structures). Gold grades in individual samples ranged from 0.44 to 22.36 g/t, and silver grades in individual samples ranged from 1.4 to 788 g/t. The test work included mineralogy, grinding kinetic tests, gravity testing, rougher/cleaner flotation tests and diagnostic leaching to evaluate achievable gold and silver recoveries. Recovery of gold through the

gravity circuit averaged approximately 20.6% between the three composites and flotation gold recovery reported in the mid-80% range. Flotation cleaner tests resulted in grade increases of 4.6 g/t Au (to 31.1 g/t Au) and 119.5 g/t Ag (to 760 g/t Ag), however, recovery decreased by 5.5% Au and 4.7% Ag when comparing to the rougher stage results for the same condition. Bottle roll tests results are not yet available, so the NaCN leaching portion of the Diagnostic Leach Tests completed on whole ore samples were used to estimate leach recovery. The Manto Antiguo sample performed best at 49.2% leach recovery.

SRK has reviewed the results of the analysis, which indicate gravity and rougher flotation recoveries in the order of 86.6% Au and 87.4% Ag , noting this does not reflect recovery through a concentrate leach process. SRK cautions changes in the metallurgical recovery could have a significant impact on the value of the project and notes that changes from test work noted may result in changes to the Mineral Resource. It is SRK opinion that while the initial test work has shown recoverable values but further test work is needed to refine the results, specifically for leaching and process flowsheet design, to support the metallurgical understanding for the Project.

The 2023 metallurgical test work presented in Section 13, shows two sets of recoveries that were defined based on two different processing solutions that have been investigated. In terms of the reporting of the Mineral Resources and the assessment of Reasonable Prospects for Eventual Economic Extraction the QP considers there remains two options, which can be summarized as:

- Production of a rougher concentrate product, which was based on three composite samples and returned average recoveries of 85% Au and 87% Ag. SRK tested the impact on the latest recoveries, which would result in a decrease in the CoG from 4.0 g/t to approximately 3.5 g/t, assuming no other changes to the costs.
- Production of a concentrate, based on test analysis of composite samples at Segovia, which returned lower recoveries than the previous estimate (reporting 62% Au and 69% Ag, compared to 75% Au used previously). SRK ran a test on the impact on the latest recoveries, which would result in an increase in the CoG from 4.0 g/t to approximately 4.6 g/t, assuming no other changes to the costs.

Based on the variability presented, SRK elected to maintain the previous recoveries that sit within the range of the two cases presented above, with the final assumptions set as 75% Au and 80% Ag for the basis of the Mineral Resource. Further test work and engineering work to assess the preferred processing route for the Project should be completed.

1.5 Mineral Resource Estimate

SRK has completed the geological modeling and MRE using Seequent Leapfrog Geo and Leapfrog Edge, respectively. The procedure involved construction of wireframe models for the fault networks, key geological/mineralization domains, data conditioning (compositing and capping) for statistical analysis, geostatistical analysis, variography analysis, block modeling and grade interpolation followed by validation.

SRK completed a statistical analysis on all domains, including testing for geostatistical properties through variography. The results of the variograms were considered low confidence due to a combination of the relatively wide spaced drilling and low sample populations per domain. SRK therefore elected to use estimates based on Inverse Distance Weighting (IDW). Estimations were performed using capped assays which were compiled into vein-length compositing. All domains were

considered “hard boundaries”, meaning only samples within each individual vein could influence the resulting grade in the associated blocks. Grade estimation has been based on block dimensions of 20 m x 20 m x 20 m, for the 2023 model. The block size reflects assumed size variations for any potential underground mining units. Classification has been limited to estimates within 125 m of the closest single hole, located in either vein or manto domains, and by more than two drillholes.

SRK has classified the current Mineral Resource as Inferred based on a combination of the drillhole spacing and the high-level nature of the initial metallurgical test work used to support the benched marked recoveries to determine the cut-off grade. It is SRK understanding that more detailed metallurgical test work has been commissioned since the effective date of the technical report with results expected later in 2023.

The Mineral Resource for Zancudo with an effective date of July 31, 2023 is shown in Table 1-1. The mineral resource evaluation work was completed by Mr. Benjamin Parsons, MAusIMM (CP#222568), Principal Consultant (Resource Geology) with SRK, who is an independent QP. In order to meet the Reasonable Prospects for Eventual Economic Extraction (RPEEE) requirement, Zancudo minimum requirements set a grade cutoff of 4 g/t over a 1 m thickness. The Mineral Resources have been reported based on AuEq with the key assumptions included in the Table 1-1.

Table 1-1: Zancudo Mineral Resource Estimate as of July 31, 2023– SRK Consulting (U.S.), Inc.

Class	Tonnes (kt)	Grade			Material Content		
		Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (koz)	AuEq (koz)
Inferred	4,100	6.53	107	8.1	860	14,090	1,060

Source: SRK, 2023
kt = thousand tonnes
Notes:

- Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures rounded to reflect the relative accuracy of the estimates. Gold and silver assays were capped where appropriate. Given historical production, it is the company’s opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.
- "The Mineral Resources are reported at an in-situ cut-off grade of 4 g/t AuEq over a 1 m mining width, which has been derived using a gold price of US$1,850/oz and silver price of US$23/oz, and suitable benchmarked technical and economic parameters for underground mining (mining = US$105.0, processing = US$42, G&A and selling costs = US$21, Royalties = 3.2%).
- Metal Equivalent is calculated with the formula AuEq = (Au *Au Recovery (75%) * AuPrice + Ag *Ag Recovery (80%) * AgPrice)) / (Au Recovery (75%) *Au Price)
- It assumed that the Project would produce a concentrate product based on assumed conventional gold and silver processing recoveries of 75% Au, and 80% Ag from initial preliminary metallurgical sampling and benchmarked projects within the region.
- The mineral resources were estimated by Benjamin Parsons, BSc, MSc Geology, MAusIMM (CP) #222568 of SRK Consulting (U.S.) Inc

SRK notes that the Project contains relatively high levels of Arsenic in the estimation domains (ranging from an average of 2,860 ppm to 14,550 ppm). These high levels as supported in the metallurgical test work that high arsenic values (>10,000 ppm) in the flotation rougher concentrate should be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting. During more detailed studies tracking of Arsenic levels through estimation maybe required for engineering and metallurgical purposes.

1.6 Environmental Studies and Permitting

Denarius holds the required permits to continue exploration activities on the Project, based on discussions held with the Company to date. SRK does not consider there to be any limitations to

acquire further permits for future exploration activities. SRK considers that all other required permits will be addressed as part of the proposed project development.

To date, the exploration activities completed by Denarius and the previous owners have had a limited social impact. There are currently no regulations directly related to social impacts that limit exploration activities. Denarius has been proactive and implemented a set of activities in order to promote local employment and social benefit in the area of influence of the project. There was reported to have been previous opposition to potential open pit mining in the local area, but with current focus on underground mining methods, which are used in numerous Projects in the area it is not assumed there will be any resistance to potential mining.

ESG is an integral component of Denarius' approach to the projects, and they are working with the local community to ensure they are incorporating the project within the local economy. An example of such actions is the use of a local contract miner who has already commenced activities to rehabilitate the mine workings to ensure safe access for future exploration.

It is the QP's opinion that the Company is continuing to consider Social, Environmental and Governance to an adequate level to support the current study, and by having systems in place which involve direct engagement with community and administration, definition of the required studies for future development can be completed with additional work.

1.7 Conclusions and Recommendations

The Zancudo Project is currently a Mineral Resource stage gold Project located near the town of Titiribí, Department of Antioquia, Republic of Colombia. It is approximately 27 km south of the city of Medellin, Colombia.

Geologically the Zancudo deposit is located on the western side of the Central Cordillera of the Colombian Andes. The deposit lies within the Romeral terrane, covered by continental sediments comprising gray to green colored conglomerates, sandstones, shales, and coal seams.

Gold mineralization occurs in two different types of structures at Zancudo:

- In flat-lying mantos and disseminations in conglomerates and sandstones.
- In N-S striking, steeply dipping veins.

Zancudo has been exploited intermittently by numerous operations over a long period of time. Gold was first discovered in the district in 1746. Mining has been carried out at Zancudo since 1793 in 58 mines. The most important company was the Sociedad de Zancudo that operated for a century from 1848 to 1948, with the most important mining period being from 1863 to 1927.

More recently, exploration on the project was initially completed by CDI between 1999 and 2003 completing six holes for 998.2 m. SRK has not used the CDI drilling information in the current estimates due to a lack of records and concerns over data quality. Between 2011 and 2022, Gran Colombia and IAMGOLD (through its Option Agreement with Gran Colombia) completed multi-staged exploration programs on the Zancudo Project including, geological mapping, rock chip sampling, underground sampling, geophysical surveys, thin section analyses, preliminary metallurgical studies, and DD. No new drilling has been completed in 2023. The database for the MRE includes a total of 40,100 m of diamond drilling in 149 holes, including 33 underground holes drilled in the Independencia Mine, that

was carried out at the Zancudo Project by Gran Colombia Gold and IAMGOLD from 2011 through 2021.

In the opinion of SRK, the geological logging, sampling preparation, and analytical procedures used by Gran Colombia and IAMGOLD are consistent with generally accepted industry best practices and are therefore adequate. No current drilling was being completed during the time of the site inspection, so SRK review has been limited to review of procedures, interviews with the geological staff and review of the historical core.

Both Gran Colombia and IAMGOLD completed detailed QA/QC programs during their exploration. Insertion rates for standard reference materials, blanks and duplicates submitted during the routine submissions exceeded 20% with typical insertion rates of each QA/QC sample at 1 per 25. In SRK opinion, this is at or above typical industry best practices for an exploration stage project.

It is SRK opinion, that the analytical quality control data produced are sufficiently reliable for the purpose of MRE. SRK recommends continued diligence in monitoring the performance of standard reference materials and implementing corrective action as required.

Mineralization at the Zancudo Project occurs in stacked mantos and steeply dipping veins that have been exploited over a strike length of 3,500 m. The average vein width is 0.35 m with a maximum width of 3.0 m. The known vertical extent of mineralization is 400 m.

It is the opinion of the QP responsible for the preparation of this ITR that the data used to support the conclusions presented here are adequate for the purposes of defining the current geological model and associated MRE.

The updated Mineral Resource has been estimated at 4.1 million tonnes (Mt) grading 6.5 g/t gold and 107 g/t silver totaling 860,000 ounces of gold and 14.1 million ounces of silver, at a gold equivalent grade of 8.1 g/t for 1,060,000 gold equivalent ounces in the Inferred category. This represents a 48% increase compared to the December 31, 2022 estimate. Both MREs were based on a 4.0 g/t cut-off grade over a 1.0 m minimum mining width.

The increase in the updated Inferred Resources is attributable to a review of the geological model in conjunction with the Company's preparation of a PEA for the Zancudo Project. Specifically, revisions to coded intersections in conjunction with a review of the core and historical logging has led to an increase in the tonnage and metal above cut-off in the revised geological model.

While SRK considers this current estimate to follow CIM guidelines, it is SRK’s opinion that further work will be required to improve the confidence in the estimate prior to undertaking a more detailed engineering study. The work to date is sufficient to confirm the presence of the mineralization which has been intersected at various locations over the strike length of 2.5 km and over a downdip extension of 650 m. The drilling has confirmed mineralization in the form of either stacked manto structures or steeply dipping veins.

The Zancudo deposit remains open for further expansion in all directions. Overall, SRK considers there remains potential to increase the Mineral Resources at the Project, which should be supported by further exploration to increase the confidence in the geological model via selected infill drilling, and from underground drilling and sampling once access is available to reduce the current drill spacing.

In terms of the current Mineral Resources and potential extensions, and the work completed to date, SRK would recommend Denarius should consider the following:

- The drill spacing currently does not statistically support Indicated Mineral Resource in terms of understanding of the shorter scale grade variability, so a series of infill drilling is recommended to increase the confidence in the estimates. SRK considers this can be done from a combination of surface and underground locations using diamond drilling once underground access has been established.
- Additional underground sampling of mineralized faces is also recommended using protocols which ensure sample representativity via pre-cut channels at the equivalent sample support as the drilling.
- SRK has reviewed the proposed locations for the development of targeted drilling campaigns and SRK agrees that upside potential exists for the Project and that the drilling locations are reasonable. It is estimated that the next drilling campaign will be in the order of 10,000 m split between infill drilling and attempts to extend the current mineralization in the northern areas of the Project.
- Metallurgical test work results have confirmed the possibility to recovery material through flotation and gravity to generate a concentrate. Further test work to refine the potential recoveries is in process and to be finalized.
- Investigate options for improved confidence in the underground mine surveys once access is available.
- On-going validation of the density studies should be completed and with additional routine sampling further analysis of estimates versus regressed assignment of density in future models will need to be completed.
- Update Mineral Resources based on the findings from the above programs and undertake initial engineering studies to assess the preliminary economics for the Project.

2 Introduction

2.1 Terms of Reference and Purpose of the Report

This report was prepared as a National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) for Denarius Metals Corp. (Denarius, or the Company) by SRK Consulting (U.S.), Inc. (SRK) on the Zancudo Project in Colombia

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in SRK's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Denarius subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits Denarius to file this report as a Technical Report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other uses of this report by any third party is at that party's sole risk. The responsibility for this disclosure remains with Denarius. The user of this document should ensure that this is the most recent Technical Report for the property as it is not valid if a new Technical Report has been issued.

This report provides Mineral Resource and Mineral Reserve estimates, and a classification of resources and reserves prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014 (CIM, 2014).

2.2 Qualifications of Consultants (SRK)

The Consultants preparing this technical report are specialists in the fields of geology, exploration, Mineral Resource and Mineral Reserve estimation and classification, underground mining, geotechnical, environmental, permitting, metallurgical testing, mineral processing, processing design, capital and operating cost estimation, and mineral economics.

None of the Consultants or any associates employed in the preparation of this report has any beneficial interest in Denarius Metals. The Consultants are not insiders, associates, or affiliates of Denarius Metals. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Denarius Metals and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience, and professional association, are considered Qualified Persons (QP) as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions. QP certificates of authors are provided in Appendix A. The QP's are responsible for specific sections as follows:

- Benjamin Parsons, Principal Consultant, MAusIMM (CP#222568) (referred to in this document as "QP" or "SRK") is the QP responsible for all sections of this Technical Report.

2.3 Details of Inspection

The QP completed a site inspection in line with the requirements to report Mineral Resource as detailed in Table 2-1.

Table 2-1: Site Visit Participants

Personnel	Company	Expertise	Date(s) of Visit	Details of Inspection
Ben Parsons	SRK	Geology/Mineral Resources	11-14 January 2023	Site visit to inspect site logistics, historical infrastructures, view outcrop and underground adit access, historical drill core review.

Source: SRK, 2023

2.4 Sources of Information

The sources of information include data and reports supplied by Denarius personnel as well as documents cited throughout the report and referenced in Section 27. Minor grammatical changes have been made to quoted sections that do not change intent or meaning. Changes are strictly for grammatical correctness and adjustment from regional colloquial idioms.

The information provided includes:

- NI 43-101 Technical Report entitled “NI 43-101 Technical Report for the Zancudo Gold-Silver Project, Municipality of Titiribí, Department of Antioquia, Colombia, Effective date December 12, 2020, signed February 15, 2021, S. Redwood
- NI 43-101 Technical Report El Zancudo Mineral Resource Estimate Colombia, Prepared for Denarius Metals Corp, by SRK Consulting (U.S.) Inc, dated April 14, 2023
- Geological maps including level plans surface mapping
- Drillhole databases, plus underground sampling database including historical sampling from development, cross-cut sampling
- QA/QC summary charts
- Underground development digitized by the Company from the historical operation covering multiple mine areas
- Logging codes supporting geological interpretation
- Review of core photography
- Results from preliminary metallurgical testwork

2.5 Effective Date

The effective date of this report is July 31, 2023.

2.6 Units of Measure

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

3 Reliance on Other Experts

The Consultant's opinion contained herein is based on information provided to the Consultants by Denarius throughout the course of the investigations. SRK has relied upon the work of other consultants in the project areas in support of this Technical Report.

The Consultants used their experience to determine if the information from previous reports was suitable for inclusion in this technical report and adjusted information that required amending. The QPs have not performed an independent verification of land title and tenure information as summarized in Section 3 of this report. These items have not been independently reviewed by SRK and SRK did not seek an independent legal opinion of these items.

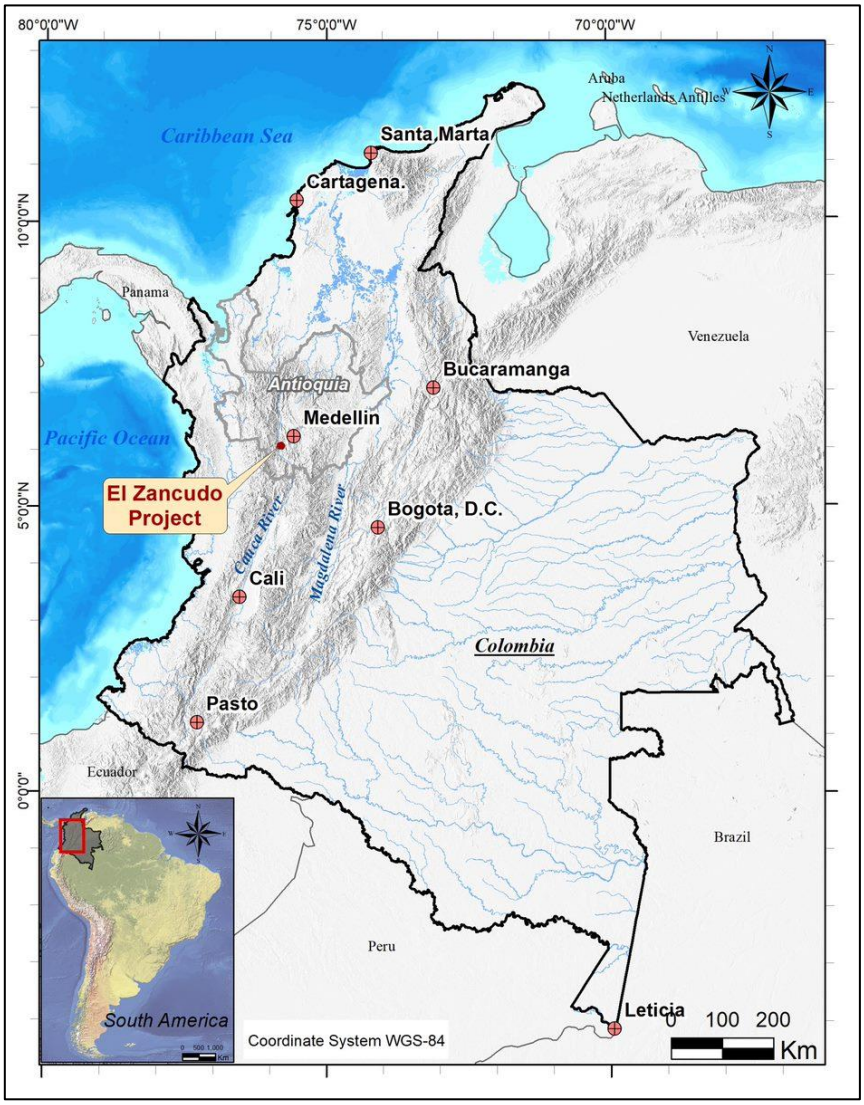
This report includes technical information, which required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the Consultants do not consider them to be material.

4 Property Description and Location

4.1 Property Location

The Zancudo – Titiribí district is located on the western side of the Central Cordillera on the east side of the Cauca River. The topography in the area is abrupt with a relief of about 1,750 m between the Cauca River at 450 meters above sea level (masl) elevation on the west side of the project and the peaks of the nearby mountains south of Titiribí of about 2,200 masl. The Zancudo structures outcrop on the north trending ridge of the mountain of Cerro Vetas at altitudes of between 900 and 1,350 masl.

The Zancudo Project is in the Municipality of Titiribí, Department of Antioquia, Republic of Colombia (Figure 4-1). Zancudo is approximately 30 km southwest of the city of Medellin, the capital of the Department of Antioquia. The geographical coordinates for the village of Sitio Viejo, located within the Zancudo Project, are 6°04'30" N, 75°47'26" W at an altitude of 1,302 masl.



Source: Denarius, 2023

Figure 4-1: Location Map of the Zancudo Project, Department of Antioquia, Colombia

4.2 Mineral Titles

All mineral resources in Colombia belong to the state and can be explored and exploited by means of concession contracts granted by the state. The mining authority is the National Mining Agency (Agencia Nacional de Minería or ANM) except in the Department of Antioquia, where it has been delegated to the Government of Antioquia through its Secretary of Mines. The Ministry of Mines and Energy is in charge of setting and overseeing the Government´s national mining policies. Mining is governed by the Mining Law 685 of 2001 and subsequent decrees and resolutions, except for mining titles granted before that law, which are subject by the law in place at the time of their granting, which is most commonly Decree 2655 of 1988. Under Mining Law 685 of 2001, there is a single type of concession contract covering exploration, construction and mining that is valid for 30 years and can be extended for another 30 years.

Denarius owns three adjoining mining concession contracts and one exploration license at Zancudo with a total area of 1,054.15 hectares (ha) as listed in Table 4-1 and Figure 4-2. The properties are held by Zancudo Metals Corp. (formerly Gran Colombia Gold Titiribí Sucursal Colombia (GCG Titiribí)), a branch of Zancudo Metals Corp., Panamá, (previously called Gran Colombia Gold Titiribí Corp., Panamá (GCG Panamá)).

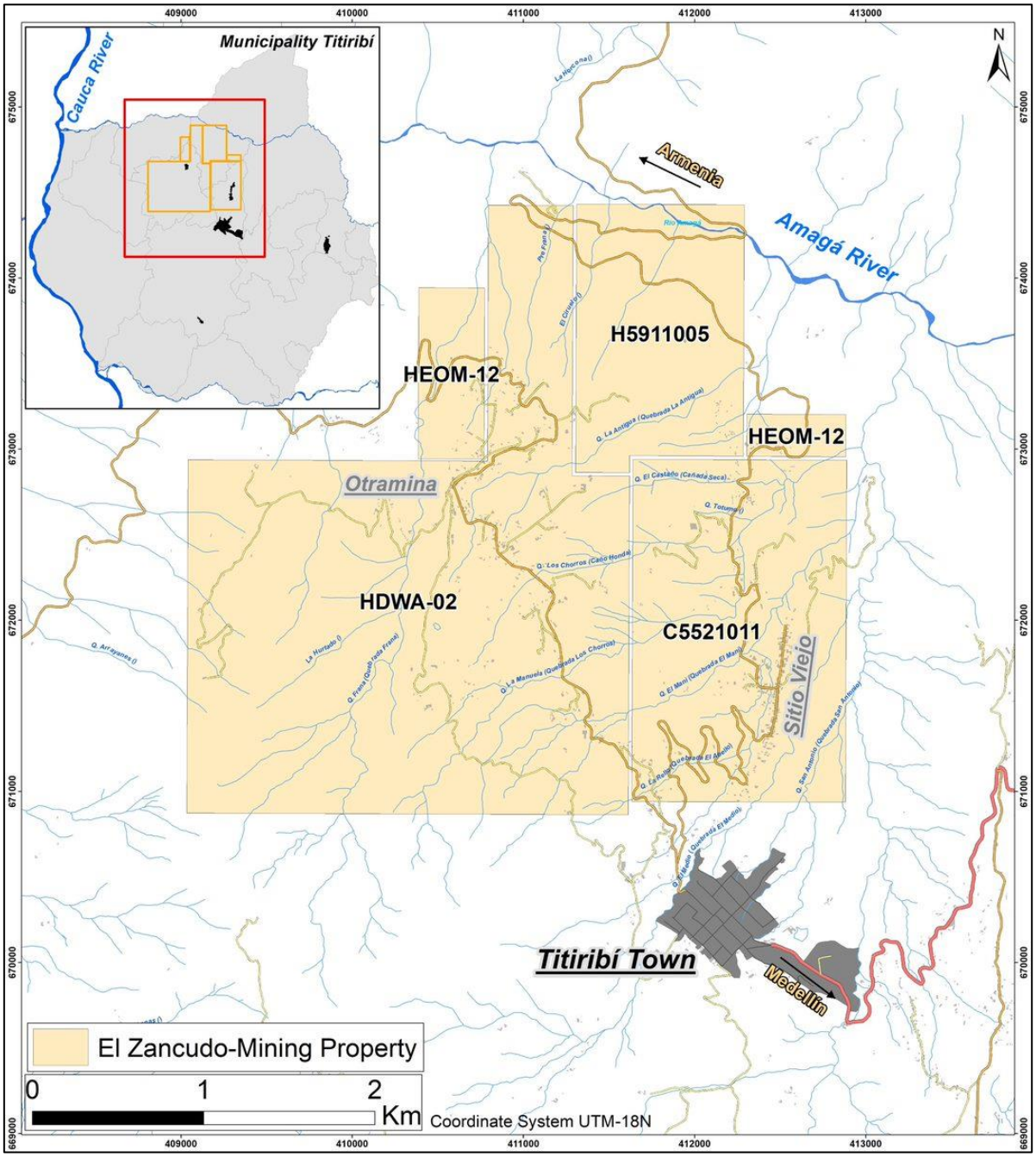
License HEOM-12 in Table 4-1, has been included in the PUEE (PROGRAMA ÚNICO DE EXPLORACIÓN Y EXPLOTACION) document submitted to the regional mining authority (Secretaria de Minas) in Medellin on June 23, 2023. A PUEE is an administrative instrument that allows the integration of areas to resolve legal, technical, and environmental problems. This document has been conceived in agreement with the regional mining authority, with a final approval reportedly expected in Q3-Q4 2023. It is the QP's opinion that the is currently no reasons not to assume this will be granted for extension at the time of reporting.

Table 4-1: Summary of Zancudo Mining Titles

Title Number	National Mining Cadastre (RMN) No.	Old Contract No.	Type	Title Owner	Area (ha)	Date of Registration	Date of Expiry
H5911005	HGIE-07	5911	Concession contract (Law 685 of 2001)	Zancudo Metals Corp.	147.1289	9-May-06	8-May-36
HDWA-02	HDWA-02	5747	Concession contract (Law 685 of 2001)	Zancudo Metals Corp.	604.017	1-Feb-08	31-Jan-38
C5521011	FDHK-01	5521	Concession contract (Decree 2655 of 1988)	Zancudo Metals Corp.	250.1013	19-Dec-07	7-Jan-28
HEOM-12	HEOM-12	4985	Exploration license (Decree 2655 of 1988)	Zancudo Metals Corp.	52.9029	11-Mar-08	10-Mar-09*

* See comments above on HEOM-12
Source: Denarius, 2023

The reader is cautioned that the entrance to the Independencia Mine and the processing plant are located outside of the concession contract but are on land owned by the Company. Under Colombian mining law, the adit or infrastructure of a mine may be located outside the boundaries of a concession provided that the concession holder has a right to use such land by way of a lease, easement or by being the landowner.



Source: Denarius, 2023

Figure 4-2: Map of the Mining Titles at the Zancudo Project

4.2.1 Nature and Extent of Issuer's Interest

Surface Rights

The granting of a concession contract in Colombia does not include a legal right of surface access, for which permission has to be obtained from the landowners or community.

GCG Titiribí owns the surface rights over a land lot located in the District of Sitio Viejo, Municipality of Titiribí, with an approximate area of 4.51 ha. In addition, GCG Titiribí leases the surface rights over two separate land lots, as summarized in Table 4-2.

Table 4-2: Surface Land Ownership and Rental Contracts at the Zancudo Project

License Number	Name	Rights	Owner	Location	Area (ha)	Time (years)	Renewal
033- 11991	La Arabia	Owner	Zancudo Metals Corp.	Sitio Viejo, Titirib	4.51	Permanent	Permanent
	Chumbimbo (Pequeña Toya)	Tennant (rental)	Antonio María Castaño Sánchez	Zancudo, Titiribí		1	Annually
033-1002	Reprocessing Plant	Tennant (rental)	Maria Gilma Deossa Jaramillo	Sitio Viejo, Titiribí	0.45	1	Annually

Source: Denarius, 2023

Legal Access

Denarius, through its wholly-owned subsidiary, Zancudo Metals Corp. (formerly GCG Titiribí), holds the required permits to continue exploration activities on the Project.

Water Rights

Historically, water rights have been negotiated by the Company with the regional environmental authority CORANTIOQUIA. Water rights are typically negotiated at a time when active drilling is being completed on the Project. Four applications are currently in place to allow pumping from the following streams: (AS1-2020-575) for, the La Manuela stream, (AS1-2017-461) for the Los Chorros stream, (AS1-2017-198) for the Lo Rello stream and (AS1-2017-197) for the La Mani stream. Applications are typically awarded for a 3-to-5-year period. It is reported to SRK that while no drilling was completed in 2022 these permits maybe considered inactive but have not expired.

On termination of its Option Agreement, IAMGOLD Corp. was granted a 1% NSR in July 2022 by the Company on future production from the Zancudo Project, payable in cash.

4.3 Royalties, Agreements and Encumbrances

Royalties are payable to the state of 3.2% of the gross value at the mine mouth for gold and silver (Law 141 of 1994, modified by Law 756 of 2002). For the purposes of royalties, the gold and silver price is set by the government and is typically 80% of the average of the London afternoon fix price for the previous month.

As part of the agreement between IAMGOLD and Denarius on termination of its Option Agreement, IAMGOLD Corp. was granted a 1% NSR in July 2022 by the Company on future production from the Zancudo Project, payable in cash.

4.4 Environmental Liabilities and Permitting

4.4.1 Environmental Liabilities

As stated in the 2020 technical report, no large-scale regional environmental liabilities have been identified. Local liabilities are possible at the site do exist due to prior mining activities. As extracted from the prior report, “The regional environmental authority CORANTIOQUIA has not identified any environmental liabilities at the Zancudo Project.

The Zancudo Project has potential environmental liabilities due to past mining activities including surface disturbance and degradation including deforestation; waste rock, scoria and tailings from past mining and smelting operations; and contamination of soil and water by mercury, cyanide, arsenic, acid drainage, heavy metals, and solids from past mining operations.

Under Colombian mining and environmental laws, companies are responsible for any environmental remediation and any other environmental liabilities based on actions or omissions occurring from and after the entry into force and effect of the relevant concession contract, exploration license or mining request, as applicable, even if such actions or omissions occurred at a time when a third party was the owner of the relevant mining title. On the other hand, companies are not responsible for any such remediation or liabilities based on actions or omissions occurring before the entry into force and effect of the relevant concession contract, exploration license or mining request, as applicable, from historical mining by previous owners and operators, or based on the actions or omissions of third parties who carry out activities outside of the mining title such as illegal miners.

There is no known artisanal mining on the project.

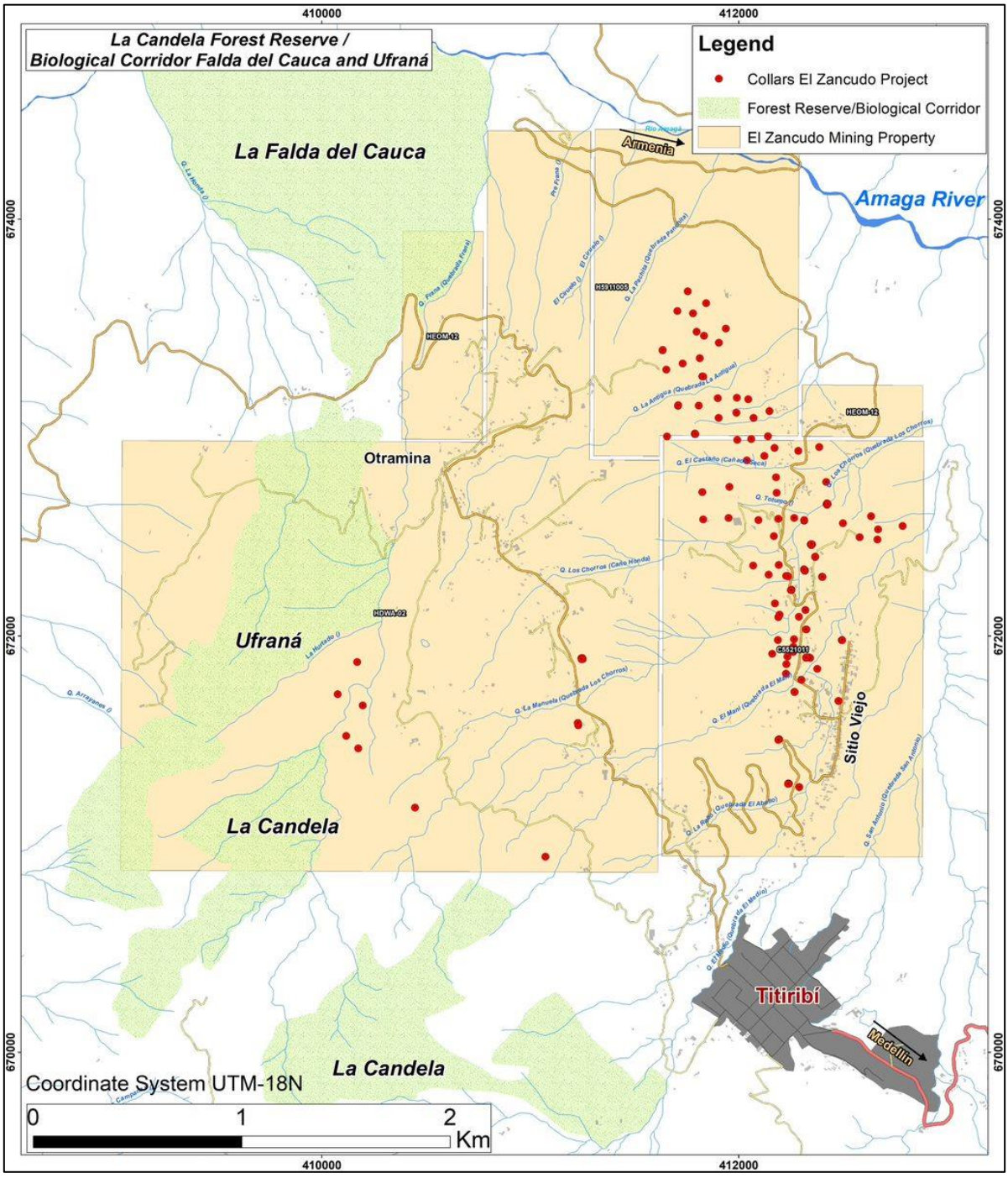
4.4.2 Required Permits and Status

Denarius, through its wholly-owned subsidiary, Zancudo Metals Corp. (formerly GCG Titiribí), holds the required permits to continue exploration activities on the Project, based on discussions held with the Company to date SRK does not consider there to be any limitations to acquire further permits for future exploration activities. SRK considers that all other required permits will be addressed as part of the proposed project development.

4.5 Other Significant Factors and Risks

The same additional factors apply to this reporting period as the historic reports. The La Candela Forest Reserve. It covers part of the land title HDWA-02 (5757) which is shown in Figure 4-3. The Candela reserve was created as a result of Municipal Agreement 007 of the year 2000, where it is defined as a Forest Reserve Zone, it is considered a sensitive area given the environmental characteristics of the area and the repercussions for the inhabitants of Titiribí, but it is not an area which prohibits mining, but further work will be required.

The Falda de Cauca and Franá Biological zones occur on the western side of the concessions and overlap parts of title HDWA-02 and HEOM-12. Current legislation does not restrict mining activities in these zones; however, they are socially and environmentally sensitive zones, and a local municipal agreement has declared these to be Forest Reserves. The area of overlap of the protected areas with the title is not known to be a significant target for exploration.



Source: Denarius, 2022

Figure 4-3: Location Map of La Candela Forest Reserve and the Falda de Cauca - Franá Biological Corridor Overlap with the Zancudo Concession Contracts

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Topography, Elevation and Vegetation

The Project lies within the tropical, moist forest ecological zone of the Holdridge Life Zone climatic classification system. The vegetation is tropical forest that has been partly cleared for pasture, with secondary forest growth. Land use is cattle grazing, coal mining, and minor cultivation of coffee, sugar cane, citrus fruit and bananas.

Field personnel for the exploration program are available from the towns of Sitio Viejo and Titiribí and neighboring districts. There are coal mines in the district, and the district is expected to be able to supply the basic workforce for any future mining operation.

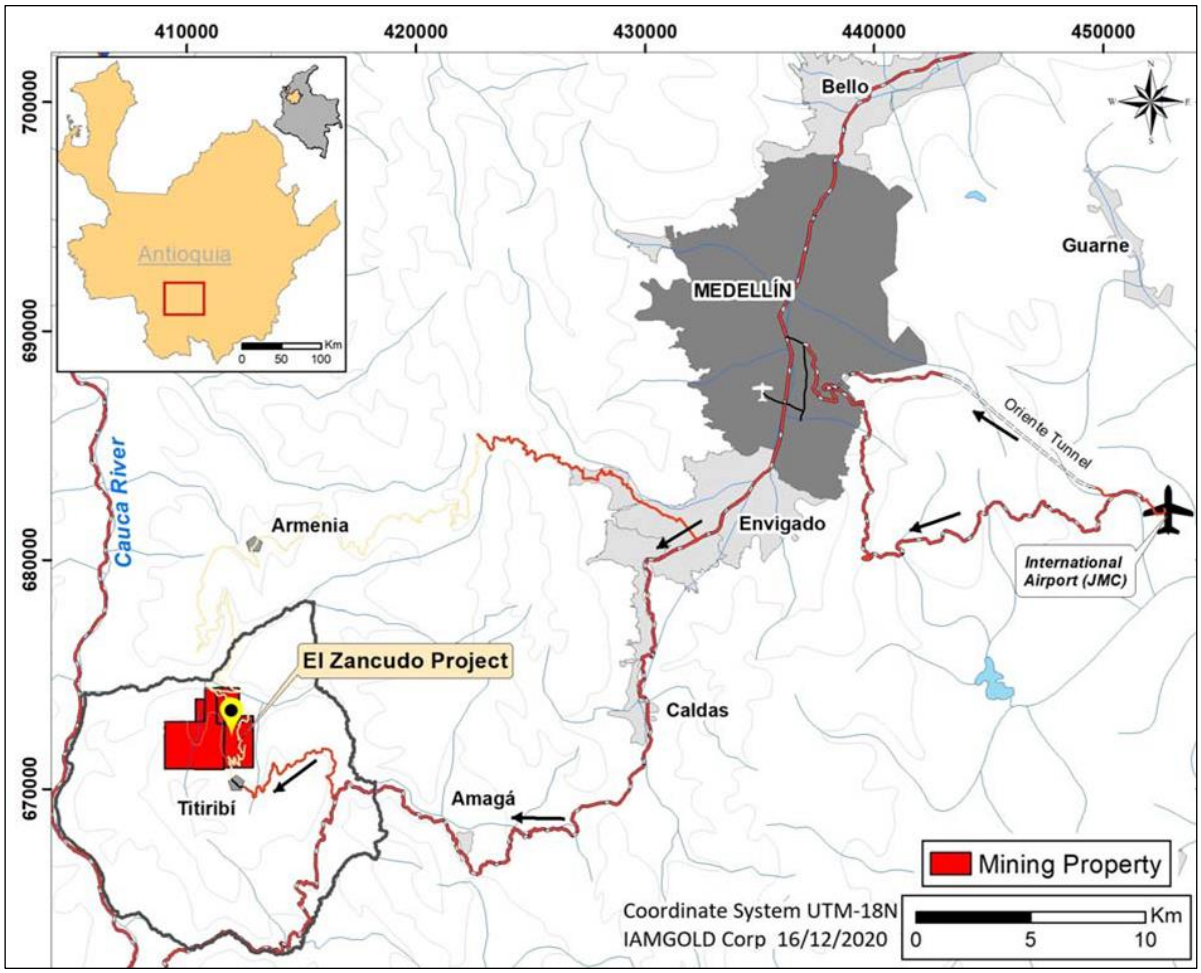
Titiribí is supplied by electrical power on the Colombian national power grid. The region has high rainfall and there are ample water resources available. Water rights belong to the state and are governed by Decree 1541 (1978).

5.2 Accessibility and Transportation to the Property

The Zancudo property is located 30 km southwest of Medellin (population 2.5 million), the capital of the Department of Antioquia and the second largest city in Colombia. Aeropuerto Internacional José María Córdova is an international airport located in Medellin.

The current exploration office is located in the town of Titiribí, which is 56 km and about a 1½ hour drive by paved road from Medellin via the Autopista Sur/Route 25 south to Caldas, then Route 60 west through Amagá, and turn off on to a secondary road to Titiribí, as shown in Figure 5-1.

Access within the Zancudo property is by unpaved road from Sitio Viejo to the Independencia Mine, and another unpaved road at higher altitude from Titiribí to the village of Otra Mina and beyond.



Source: IAMGOLD Corp, 2020

Figure 5-1: Access from Medellin to the Zancudo Project

5.3 Climate and Length of Operating Season

The climate is Tropical rainforest climate (Af) in the Köppen climate classification scheme, characterized by constant high temperatures with an average of 18°C or higher for every month, and average rainfall of at least 60 millimeters (mm) every month. The nearest weather data is for Amagá, located 10 km east of Zancudo at 1,407 masl, where the average annual temperature is 22.0°C and varies from 21.2-22.9°C, the average annual high temperature is 27.6°C, the average annual low temperature is 16.5°C, and the average annual rainfall is 2,187 mm and varies from 76 to 276 mm per month (www.climate-data.org). Rainfall has a bimodal distribution with the wettest months from April to June, and again from August to November. Fieldwork can be carried out all year round.

5.4 Physiography

The Zancudo – Titiribí district is located on the western side of the Central Cordillera on the east side of the Cauca River. The topography in the area is abrupt with a relief of about 1,750 m between the Cauca River at 450 masl elevation on the west side of the project and the peaks of the nearby mountains south of Titiribí of about 2,200 masl. A general view of the physiography of the Zancudo

Project is shown in Figure 5-2. The Zancudo structures outcrop on the north trending ridge of the mountain of Cerro Vetas at altitudes of between 900 and 1,350 masl. The area is bounded on the east side by the valley of the north-flowing Las Juntas creek, on the north side by the valley of the west-flowing Amagá River, and on the west side by the Cauca River. The Cauca is a major, north-flowing river in a deep valley that separates the Western and Central Cordilleras. It is a tributary of the Magdalena River that drains into the Caribbean Sea at Barranquilla.

Source: SRK, 2023

Figure 5-2: Panoramic View of the Physiography of the Zancudo Project Looking West

5.5 Sufficiency of Surface Rights

Access for sampling and drilling needs to be negotiated to allow temporary surface access agreements as required.

5.6 Infrastructure Availability and Sources

5.6.1 Power

Power is currently accessible from the towns of Titiribí and Sitio Viejo to support the current work. Previously at the Independencia floatation plant electrical power was provided by a 15-kilovolt (kV) (630-kilovolt-amp (KVA)) power line that was stepped down to 460 volts (V) in a small substation at the concentrator.

5.6.2 Water

Locally water is supplied through a series of small creeks as needed. At the Independencia Plant the process water was provided from a creek near the concentrator and entrance to the mine.

5.6.3 Mining Personnel

Skilled workers and general services could be sourced from the regional urban centers. Mining operations within the local region use mining staff who commute in from the regional centers on a weekly basis.

5.6.4 Potential Tailings Storage Areas

Insufficient work has been done by the QP to date to determine the size or scale of a potential tailing's storage facility. Further engineering work based on a MRE is currently on-going by the Company to understand the requirements and work with local authorities to identify potential storage areas is in process.

5.6.5 Potential Waste Disposal Areas

Insufficient work has been completed to date to determine the size or scale of a waste disposal requirements. Further engineering work based on the MRE will be required to understand the requirements and work with local authorities to identify potential storage areas.

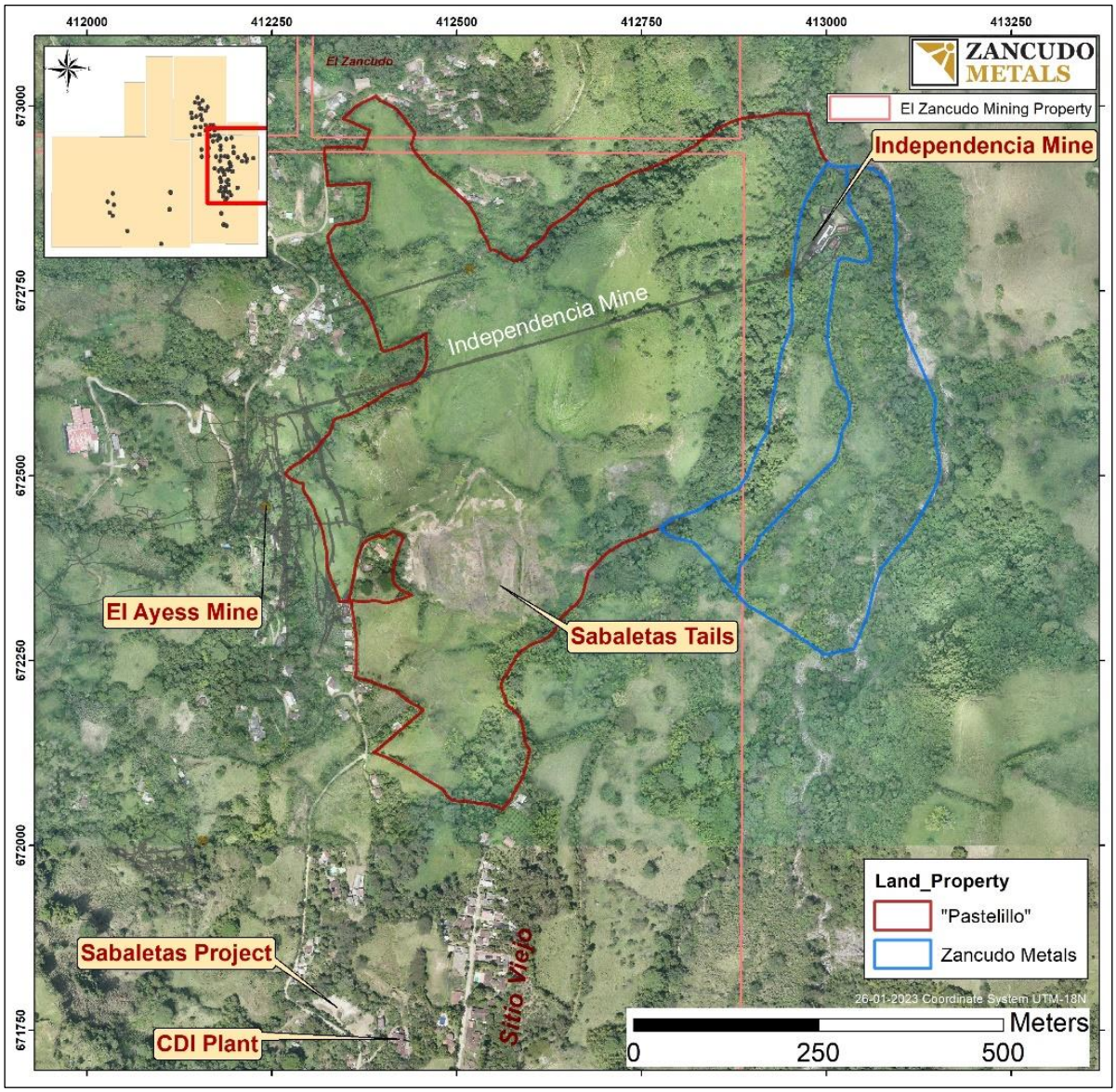
5.6.6 Potential Processing Plant Sites

Insufficient work has been completed as part of the current Mineral Resource estimate to determine the size or scale of a potential processing facility. SRK is aware that the Company is in the process of investigating various options, but these are not included in the current study. The Company is currently advancing construction activities at the Zancudo Project, rejuvenating the Independencia Mine to re-start operations in 2024 to generate gold and silver production.

Two historical small scale (120 to 150 t/d) plants existed on the Project, one dismantled and the other, located near the main entrance of the La Independencia Mine, in the process of refurbishment Figure 5-3 shows the process plant and mine locations. Further engineering work based on the MRE will be required to understand the requirements and work with local authorities to identify potential storage areas.

The process plant flowsheet consisted of crushing, milling, and flotation to produce a gold- and silver-bearing sulfide concentrate. The concentrate was processed at a small pilot plant at Sitio Viejo to extract gold and silver by roasting, regrinding, agitated cyanide leach, and Merrill-Crowe precipitation with zinc.

The second plant is the Sabaletas plant, also referred to as the CDI plant, at Sitio Viejo that was constructed to recover gold and silver from the retreatment of scoria. The plant had a capacity to treat 6,000 t per month. The process consisted of three stages of crushing and two stages of grinding in ball mills to 70% passing minus 325 mesh (-44 microns (µm)), followed by gold and silver dissolution in agitated cyanide leach tanks and Merrill-Crowe precipitation using zinc powder.



Source: GCG Titiribí, 2022

Figure 5-3: Location of the Pastelillo Property and the Independencia Mine

6 History

6.1 Prior Ownership and Ownership Changes

The previous technical report compiled for ESV was entitled “NI 43-101 Technical Report for the Zancudo Gold-Silver Project, Municipality of Titiribí, Department of Antioquia, Colombia”. The author presented the history of the Zancudo district in a concise table which has been extracted and placed below as Table 6-1.

On February 1, 2022 Denarius Silver Corp. (TSXV: DSLV) announced that it changed its name to Denarius Metals Corp.

Table 6-1: Summary of Ownership in the Zancudo Project

Year	Company	Activity
1746	Spanish colonizers	First gold mine discovered in the district in the Amagá River.
1764-1824	Spanish colonizers	Numerous gold mines staked.
1775	Benito del Rio	Founded San Antonio de Real de Minas de los Titiribíes at Sitio Viejo. Became a municipality in 1807. Moved to present location in 1815.
1828	Sociedad de Minas de Antioquia	Company formed.
1848	Sociedad de Zancudo	The most important company in the district was formed in Medellin by Jose Maria Uribe Restrepo.
Unknown	Sociedad de Otra Mina	Another mining company in the district.
Unknown	Sociedad de los Chorros	Another mining company in the district.
1851-1858	Hacienda de Fundicion de Titiribí	First ore roasters installed at Sitio Viejo by Tyrell Moore.
1863-1865	Hacienda de Fundicion dZancudo y Sabaletas	Roasters installed by Sociedad de Zancudo at Sabaletas by Reinhold Paschke.
1898	Compañía Unida de Zancudo	Company formed in Medellin and Paris to recapitalize Sociedad Zancudo, of which it owned 57%.
1945	Sociedad de Zancudo	Zancudo mine closed and company bankrupt.
1945-1985		No significant activity.
1985-1993	Compañía de Reciclaje Minero, S.A. (COREMINE)	Evaluated reserves and metallurgy to re-process scoria dumps at Sitio Viejo.
1993	Compañía Minera El Escoria S.O.M.	Mining contract 5521 returned to owner El Escorial.
1993-2010	Consorcio de Inversionistas, C.D.I., S.A. (CDI)	Built pilot plant to process scoria at Sitio Viejo in 1994. Rehabilitated Independencia, La Matilde and El Castaño Mines. Built 120 t/d plant at Independencia. Minor production.
2000s	Proyecto Sabaletas S.A.S. (Mineros S.A.)	Re-processed 70,000 t of scoria dumps at Sabaletas to produce Au and Ag.
2009-2013	Proyecto Sabaletas S.A.S. (Mineros S.A.)	Re-processed 135,407 t of scoria dumps at Sitio Viejo to produce Au and Ag.
2010	Gran Colombia Gold Corp.	Bought the project from CDI.
2011-2012	Gran Colombia Gold Corp.	Exploration and diamond drilling.
2014	Anglo American plc	Evaluated the porphyry potential of the project.
2017-2022	IAMGOLD Corporation	Optioned the project from Gran Colombia. Exploration and diamond drilling. First Option for 6 years for 65%. Second Option for 3 more years for total 70%.
2020	ESV Resources Ltd.	Share purchase agreement entered into with Gran Colombia in connection with proposed Share Purchase Transaction.
2021	Denarius Metals Corp	Upon completion of the transaction and a reverse-takeover transaction, ESV Resources Ltd, was renamed Denarius Silver Corp and acquired the Project through the issuance of 27,000,000 common shares to Gran Colombia

Source: Redwood, 2021, modified by SRK, 2023 – compiled from historical reports by the history of mining at Zancudo has been described in historical studies by Molina (2003, 2011) and Ramos (2007), and in geological reports, papers and books by Restrepo (1885), Miller & Singewald (1919), Botsford (1926), Grosse (1926, 1932), Emmons (1937), CDI (1994), Gallego & Zapata (2003), James (2006) and Jimenez (2012).

6.2 Exploration and Development Results of Previous Owners

All exploration and drilling were completed by the previous owners and is detailed in Section 9 and 10 of this report.

6.3 Historic Mineral Resource and Reserve Estimates

A qualified person has not done sufficient work to classify the historical estimate as a current resource estimate or Mineral Reserve and the issuer is not treating the historical estimate as a current resource estimate.

Between 1985 and 1993, COREMINE carried out studies to extract gold and silver from the scoria dumps at Sitio Viejo (Flores, 1991). These and subsequent studies are summarized in a report by James (2006). A historical proven and probable reserve estimate was made of the scoria dumps of 574,000 t grading 4.40 g/t gold and 222.25 g/t silver and was dated 1991 and was disclosed in a private disclosure document by Flores (1991) and quoted in a report by James (2006). The estimates are of unknown reliability but are included for purposes of depicting the history and development of the property. The QP has not done sufficient work to classify the historical estimate as a current resource estimate or Mineral Reserve and the issuer is not treating the historical estimate as a current resource estimate.

6.4 Historic Production

Zancudo has been exploited intermittently by numerous operations over a long period of time. The historical production details below have been summarized from the previous technical report.

6.4.1 Mining 1793-1945

Gold was first discovered in the Zancudo district in 1746. Mining has been carried out at Zancudo since 1793 in 58 mines. The nineteenth century mining companies were the Sociedad de Minas de Antioquia, formed in 1828, the Sociedad de Los Chorros and the Sociedad de Otra Mina. The most important company was the Sociedad de Zancudo that operated for a century from 1848-1948, with the most important mining period being from 1863-1927. From 1898 the company was owned 57% by La Compañía Unida de Zancudo of Paris and Medellin, formed as a holding company to recapitalize it. The Zancudo mine was closed in 1945.

The first gold ore roaster was installed in 1851 at Sabaletas, 6 km southeast of Sitio Viejo, and others later at Sitio Viejo to treat refractory gold associated with arsenopyrite using locally- produced coal. The high-grade ore was hand cobbed and sent directly to the roasters. The lower grade ore was crushed in stamp mills, the sands were concentrated by gravity on Wilfley tables and “German” tables, and the fines by flotation. Free gold was panned from the concentrates of the Alto Chorros mines. The smelting process separated the ore by pooling into a primary matte, containing the precious metals, and slag. The primary matters were then refined through progressive oxidation of a mass of crude molten lead. Other metals such as arsenic and lead were also oxidized, leaving a bottom residue of molten precious metals. Hydrometallurgical processes were introduced in 1910 to treat the primary matter by sulfidization to recover silver, leaving a gold-bearing residue which was treated by cyanidation (Grosse, 1926; Flores, 1991; James, 2006). Three of the twelve brick chimneys still stand at Sitio Viejo (Figure 6-1).

Source: ESV, 2021

Figure 6-1: Historical Gold Roaster Chimneys at the Village of Sitio Viejo

Annual production data is generally lacking except for the period of 1912-1922 when the Sociedad de Zancudo reported production of 129,325 ounces (4.2 t) of gold and 958,570 ounces (30.8 t) of silver from 284,370 tonnes of ore (Table 6-2). The recovered grade was reported to be 14.62 g/t gold and 108.37 g/t silver. Free gold reportedly accounted for 53.5% of the total gold, and the balance was produced by smelting (Grosse, 1926). The head grade from 1864-1899 was 16.66 g/t Au and 256.61 g/t Ag (Botsford, 1926).

Table 6-2: Gold and Silver Production by Sociedad de Zancudo, 1912-1922

Years	Ore (t)	Au (oz)	Au (kg)	Ag (oz)	Ag (kg)
1912-1922	284,370	129,325	4,158	958,570	30,819

Source: Grosse, 1926

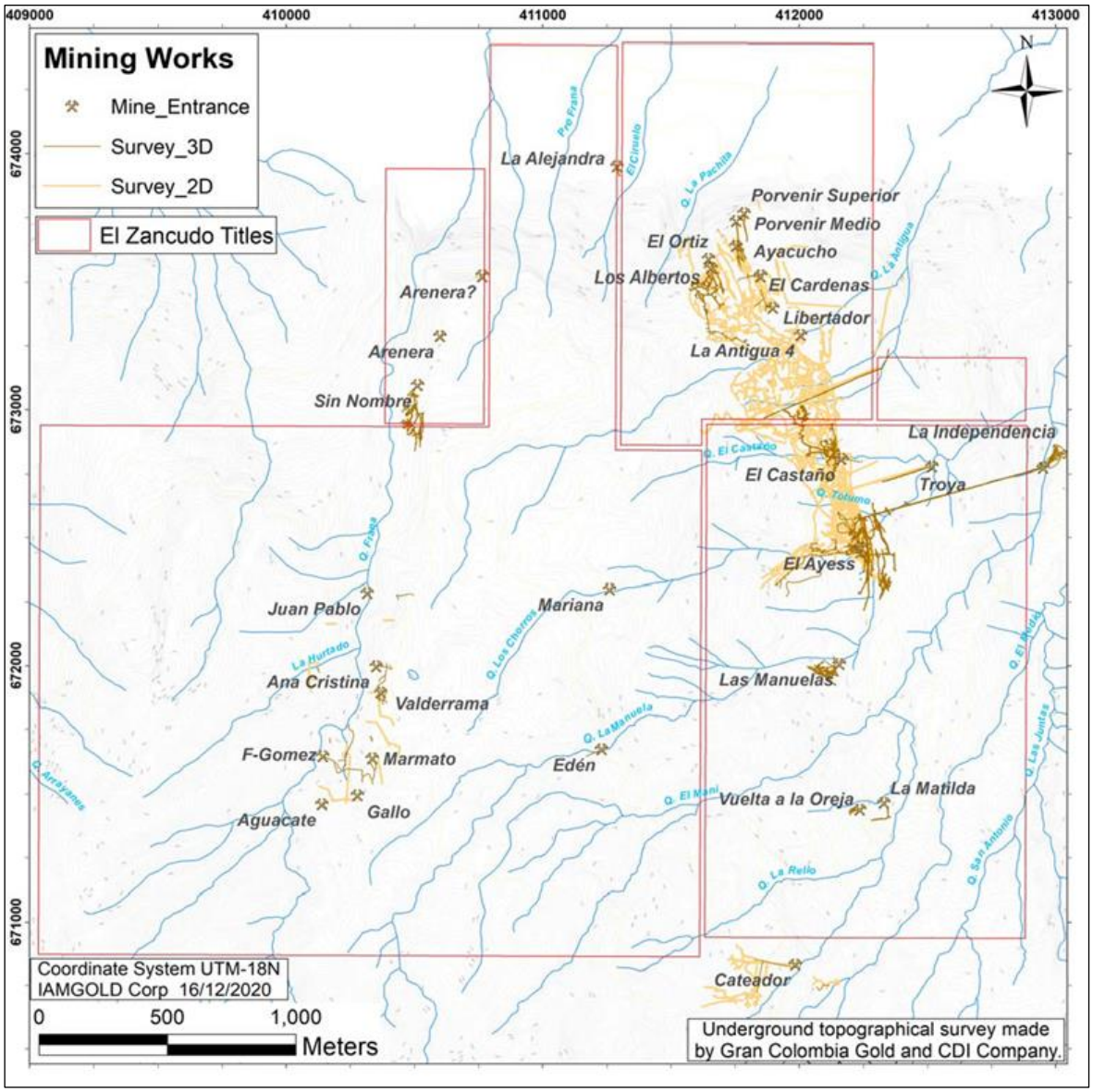
The 2020 technical report provided a summary of the estimated total production from the Zancudo District from 1793 to 2006 from various sources. The estimates ranged between 1.4 and 2 million ounces (Moz) AuEq (43.1 to 64.3 t) according to different estimates (Table 6-3).

Table 6-3: Estimates of the Total Historical Production of Gold and Silver Expressed as Au Equivalent from the Zancudo District

Years	AuEq (Moz)	AuEq (t)	Source
1793-1919	1.451	45.1	Miller & Singewald (1919), Emmons (1937)
1794-1922	1.386	43.1	Botsford (1926)
1793-2006	1.5 to 2.0	48.2 to 64.3	James (2006)

Source: Redwood, 2020

The historical mine workings are shown in Figure 6-2 and have been plotted from historical mine plans and underground surveys carried out by Gran Colombia and IAMGOLD Colombia.



Source: IAMGOLD, 2020

Figure 6-2: Distribution of Historical Mine Workings at the Zancudo Project

6.4.2 COREMINE, 1985-1993

COREMINE carried out studies to extract gold and silver from the scoria dumps at Sitio Viejo between 1985 and 1993. It is reported a historical proven and probable reserve estimate was made of the scoria dumps of 574,000 t grading 4.40 g/t gold and 222.25 g/t silver and was dated 1991 and was disclosed in a private disclosure document by Flores (1991) and quoted in a report by James (2006). The data and methodology used to calculate this estimate has not been verified. This MRE is a historical estimate as defined in NI 43-101, and the mineral reserve categories for this estimate predate the CIM standards and definitions for mineral reserve classification, and therefore do not conform with the current definitions of mineral reserves as stated in NI 43-101. The estimates are of unknown reliability but are included for purposes of depicting the history and development of the property. There is no

plan to conduct any work to verify this historical estimate, and in any event, it is the QP's understanding that these reserves were subsequently mined by a prior operator. A QP has not done sufficient work to classify the historical estimate as current mineral reserves. The historical estimate is not being treated current mineral resources or mineral reserves.

6.4.3 CDI, 1993-2010

Mining contract 5521 was returned to the owner Compañía Minera El Escorial S.O.M., which subsequently made an agreement with Consorcio de Inversionistas, C.D.I., S.A. (CDI) in 1993 to produce gold and silver from the scoria and from underground vein mining. CDI built a pilot plant at Sitio Viejo to treat the scoria in 1994.

CDI rehabilitated the Independencia, La Matilde and El Castaño mines, and built a 120 t/d mineral treatment plant at the Independencia Mine to concentrate ore by gravimetry and flotation. The concentrates were roasted and trucked to the pilot plant at Sitio Viejo for cyanidation. However, the plant was never fully operational. CDI carried out small scale exploitation of the mines from 2002 until about 2009; production in 2006, for example, was 112 oz (3.488 kg) of gold and 303 oz (9.438 kg) of silver (CDI, 2007).

6.4.4 Proyecto Sabaletas S.A.S., 2000's - 2013

Proyecto Sabaletas S.A.S. (Sabaletas), a subsidiary of Mineros S.A. (Mineros), a Colombian gold mining company, reprocessed scoria to recover gold and silver under a contract from CDI in the 2000's to 2013. The company re-processed about 70,000 t of scoria with a grade of 8 g/t Au at Sabaletas. The plant operated at Sitio Viejo from 2009 to 2013 and processed about 135,407 t of scoria grading 4 g/t Au. A summary break down of the reported production is shown in (Table 6-4).

The plant had a capacity to treat 6,000 t per month. It consisted of three stages of crushing and two stages of grinding in ball mills to 70% passing 325 mesh (-44 microns), followed by gold and silver dissolution in agitated cyanide tanks and Merrill Crowe precipitation using zinc powder. The zinc precipitate containing gold and silver was sold to a smelter in Medellin.

Table 6-4: Gold and Silver Production from Scoria Dumps by Proyecto Sabaletas S.A.S., 2009-2011

Year	Milled (t)	Au (g/t)	Au Recovery (%)	Au Production (kg)	Ag (g/t)	Ag Recovery (%)	Ag Production (kg)
2009	18,298	3.94	60.8	45.08	unknown	unknown	
2010	71,480	4.12	64.2	191.98	unknown	unknown	3,397.91
2011	45,629	3.94	59.0	100.46	unknown	unknown	2,234.53
Total	**135,407**	**4.04**	**61.7**	**337.52**			**5,632.44**

Source: ESV, 2021

6.4.5 Gran Colombia, 2010-2021

Gran Colombia bought the Zancudo Project from CDI in 2010 for the price of US$15 million in cash. Gran Colombia carried out exploration and diamond drilling in 2011 and 2012 that is described in a report by Gaviria et al. (2013). The exploration program was operated by its subsidiary Mineros Nacionales S.A. in 2013. Anglo American plc evaluated the porphyry potential of Zancudo in 2014. IAMGOLD Corporation, pursuant to the IAMGOLD Option described in Section 4.4.1, has carried out an on-going program of exploration and diamond drilling since 2017.

In 2018 through 2020, IAMGOLD optioned the Project from Gran Colombia with the First Option for six years for 65% and a Second Option for three more years for a total of 70%. Under the option agreement IAMGOLD Sucursal Colombia (IAMGOLD Colombia), a branch of IAMGOLD, a company registered in Ontario, dated February 27, 2017. The agreement allowed IAMGOLD Colombia to earn an initial 65% interest (the First Option) in the Zancudo Project by making exploration expenditures of US$10 million over six years, subject to meeting specified annual work commitments during this period. The start of the option and Anniversary Date for the annual work commitments was August 3, 2017, being the date that the drilling permits were obtained. In addition, the First Option requires that IAMGOLD Colombia define total NI 43-101 measured, indicated and inferred mineral resources of at least 500,000 oz AuEq (defined as the amount of gold plus the amount of silver multiplied by the projected silver recovery to gold recovery divided by 60) and complete a NI 43-101 PEA between years five and six. IAMGOLD exited the agreement as these goals were not reached.

No production has been completed at the Project since 2011.

6.4.6 ESV Resources, 2020-2021

In 2020, ESV entered into a share purchase agreement with Gran Colombia pursuant to which it would acquire the Zancudo Project in exchange for the issuance to Gran Colombia of 27,000,000 common shares of ESV. No production was completed during this period.

6.4.7 Denarius Metals, 2021-2022

Upon completion of a reverse takeover transaction in February 2021, ESV was renamed Denarius Silver Corp. On February 1, 2022, Denarius Silver Corp. announced that it changed its name to Denarius Metals Corp. In July 2022, in response to a shortfall by IAMGOLD in meeting its annual work commitment, the Company and IAMGOLD mutually agreed to terminate the Option Agreement and the Company granted a 1% net smelter return (NSR) on future production from the Zancudo Project, payable in cash, to IAMGOLD. The focus for the Company to date has been to consolidate the geological information based on the work completed to date, and to start the process of rehabilitating some of the underground mine access to allow further exploration on a more detailed scale and potentially more detailed engineering work required prior to mining.

7 Geological Setting and Mineralization

7.1 Regional Geology

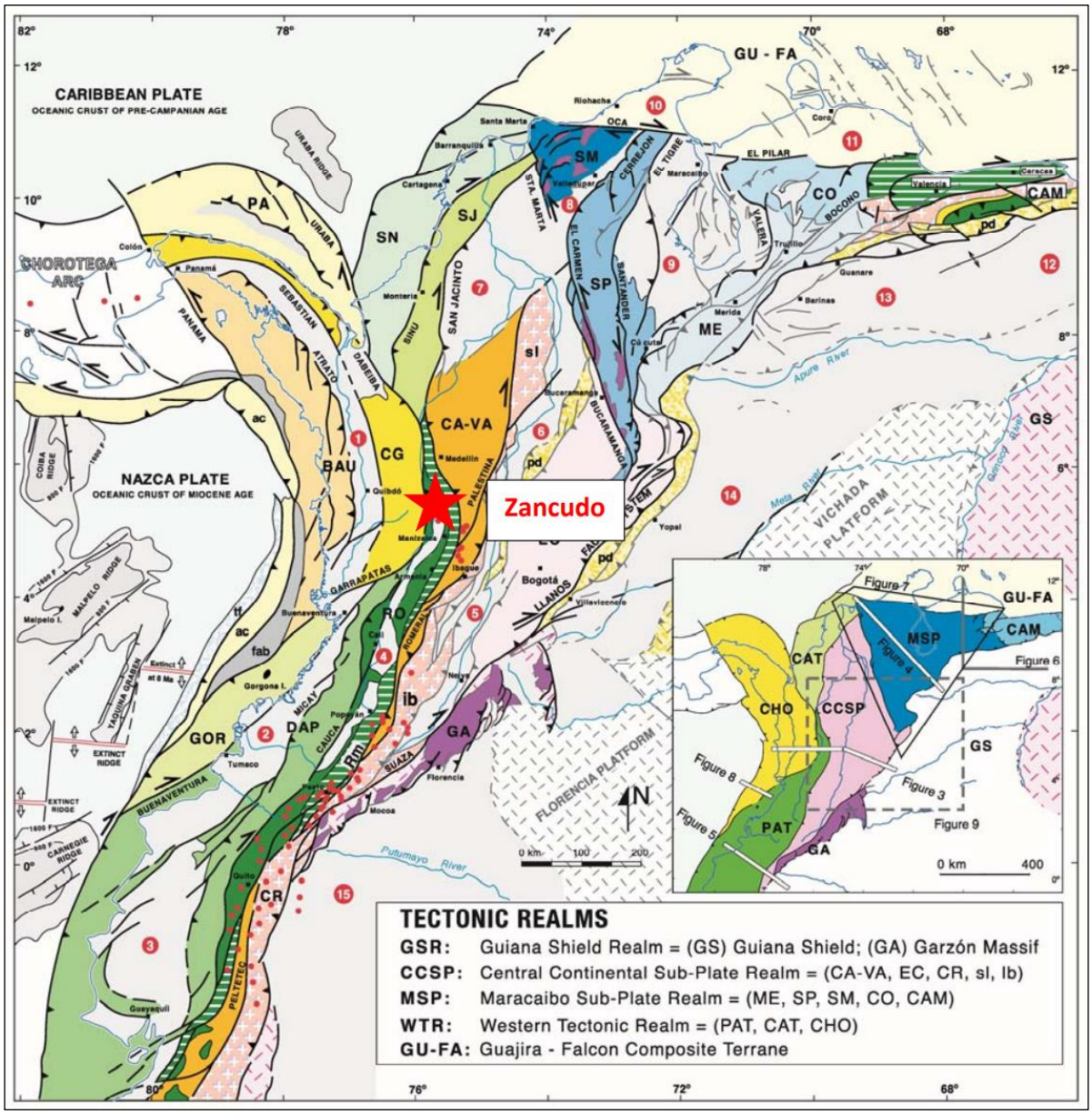
The Zancudo deposit is located on the western side of the Central Cordillera of the Colombian Andes which is separated from the Western Cordillera to the west by the Cauca River. The Zancudo deposit lies within the Romeral terrane, an oceanic terrane comprising metamorphosed mafic to ultramafic complexes, ophiolite sequences and oceanic sediments of probable Late Jurassic to Early Cretaceous age (Figure 7-1) (Cediel & Cáceres, 2000; Cediel et al., 2003). This terrane was accreted to the continental margin along the Romeral Fault, which lies east of Zancudo, in the Aptian (125 to 110 mega annum (Ma)). Movement on the Romeral Fault was dextral indicating that terrane accretion was highly oblique from the southwest.

The terrane is bounded by the Cauca-Patía Fault on the west side. Further west, additional oceanic and island arc terranes were subsequently accreted to the Western Cordillera in the Paleogene and Neogene periods, culminating in the ongoing collision of the Panamá-Choco arc since late Miocene. This reactivated the Cauca-Patía and Romeral faults with left lateral and reverse movements (Cediel & Cáceres, 2000; Cediel et al., 2003). The Central Cordillera is formed of continental crust of Proterozoic and Paleozoic-age comprising metasediments, amphibolites and gneisses.

The Romeral terrane is partially covered by continental sedimentary rocks of Oligocene to Lower Miocene age called the Amagá Formation, comprising gray to green colored conglomerates, sandstones, shales and coal seams, and by thick subaerial basaltic to andesitic volcanic and sedimentary rocks of the late Miocene Combia Formation.

The host rocks for the mineralization at the Zancudo Project are schists of the Arquía Complex and sedimentary rocks of the Amagá Formation. The sediments have been folded into several synclines cut by high angle reverse faults with strike of N10-20°W and a steep dip of 50° to 70° east.

The Titiribí porphyry of Late Miocene age intrudes the Arquía Complex schists and Amagá Formation sedimentary rocks. Gold mineralization is related to the emplacement of the porphyry stocks.



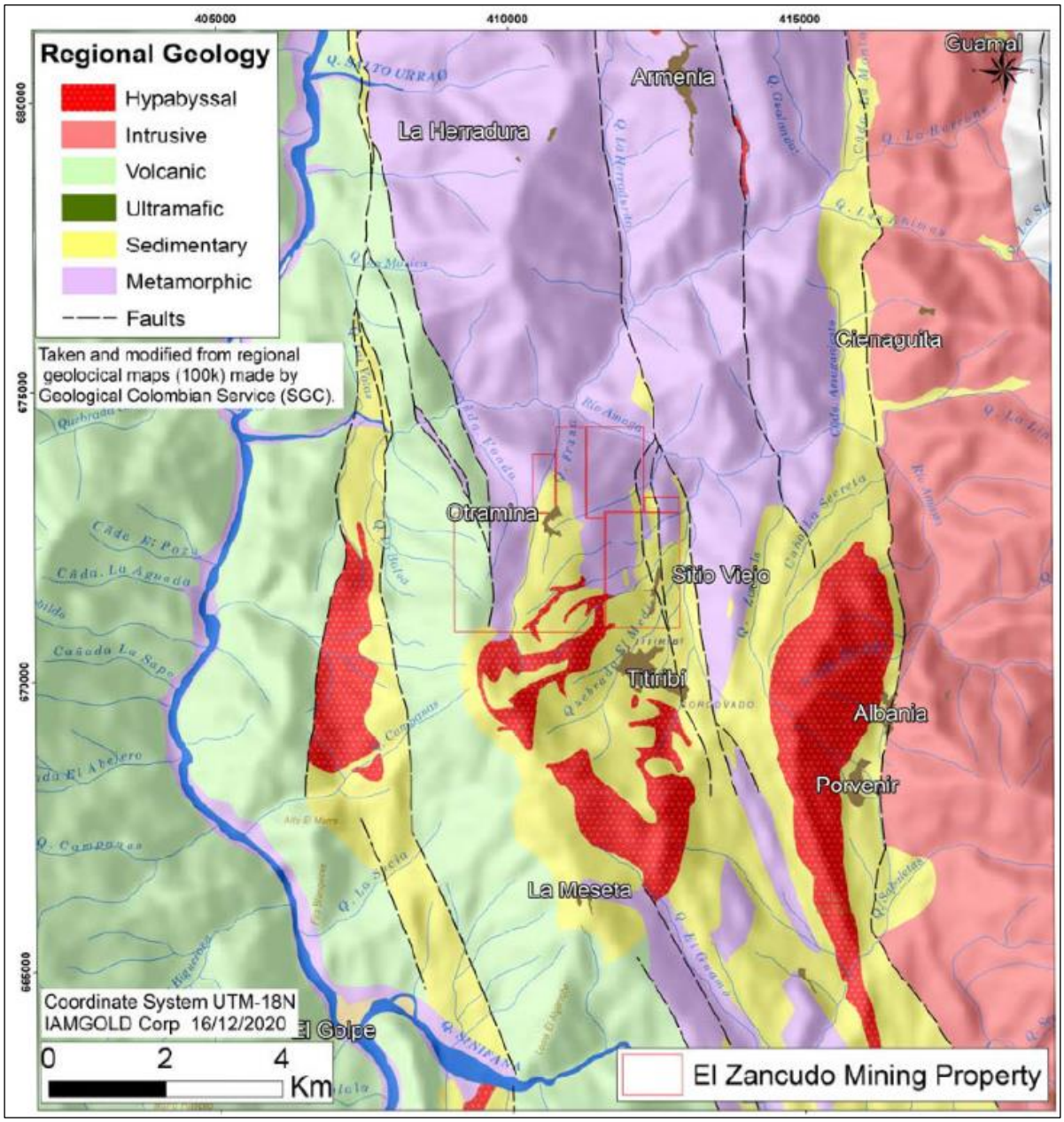
Source: Cediel et al., 2003
Notes: GS = Guiana Shield; GA= Garzon massif; SP = Santander massif-Serrania de Perija; ME= Sierra de Merida; SM = Sierra Nevada de Santa Marta; EC = Eastern Cordillera; CO= Carora basin; CR= Cordillera Real; CA-VA= Cajamarca-Valdivia terrane; sl = San Lucas block; ib = Ibague block; RO = Romeral terrane; DAP = Dagua-Piiion terrane; GOR = Gorgona terrane; CG = Canas Cordas terrane; BAU = Baud6 terrane; PA = Panamá terrane; SJ = San Jacinto terrane; SN = Sinii terrane; GU-FA= Guajira-Falcon terrane; CAM = Caribbean Mountain terrane; Rm = Romeral melange; tab = fore arc basin; ac = accretionary prism; tf = trench fill; pd = piedmonte; 1 = Atrato (Choco) basin; 2 = Tumaco basin; 3 = Manabi basin; 4 = Cauca-Patfa basin; 5 = Upper Magdalena basin; 6 = Middle Magdalena basin; 7 = Lower Magdalena basin; 8 = Cesar-Rancheria basin; 9 = Maracaibo basin; 10 = Guajira basin; 11 = Falcon basin; 12 = Guarico basin; 13 = Barinas basin; 14 = Llanos basin; 15 = Putumayo- Napo basin; Additional Symbols: PALESTINA = fault/suture system; red dot= Pliocene-Pleistocene volcano; Bogota = town or city.

Figure 7-1: Regional Geological Setting showing Lithotectonic and Morphostructural Map of Northwestern South America

7.2 Local Geology

The Titiribí porphyry intrudes the Arquía Complex schists and Amagá Formation siliciclastic sedimentary rocks (Figure 7-2). Gold mineralization is related to the emplacement of the porphyry stocks. High grade epithermal Au-Ag veins of the Zancudo Project occur along the lower eastern flank of the Cerro Vetas porphyry complex of monzodiorite, diorite-granodiorite to quartz monzonite composition (Leal-Mejia et al., 2019).

The porphyry has been dated by potassium-argon method on hornblende from Cerro El Corcovado at Titiribí at 9.0 ± 0.9 Ma and 7.8 ± 1.0 Ma (Gonzalez, 1976), and at 7.6 ± 0.3 Ma by uranium-lead dating of zircon from the Cerro Vetas porphyry (Leal-Mejia et al., 2019). The ages of intrusion, alteration and mineralization are thus Late Miocene. The Titiribí porphyry has been described by Meldrum (1998), Uribe (2013), Kantor & Cameron (2013, 2016) and Ross et al. (2019).

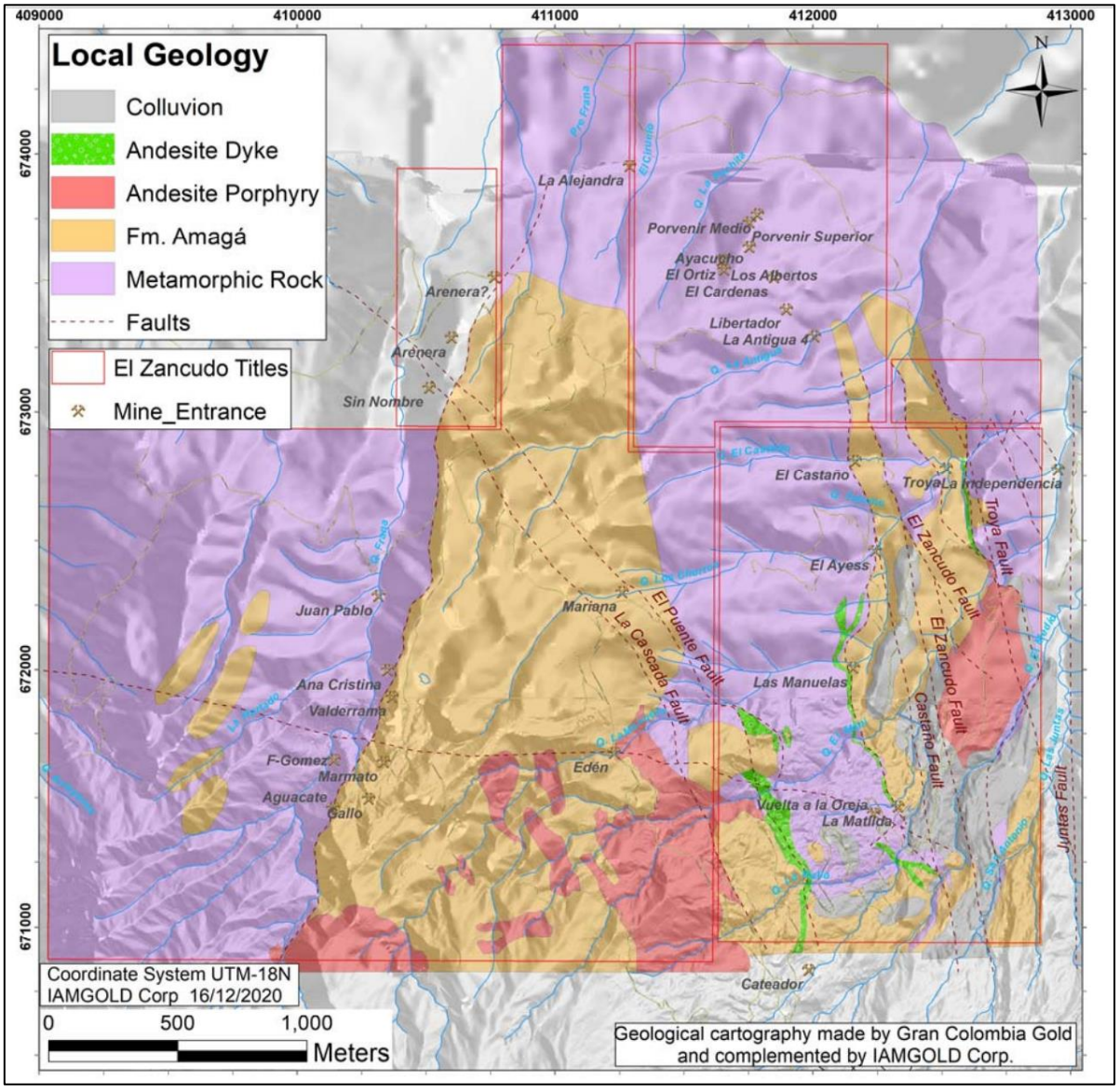


Source: IAMGOLD, 2020

Figure 7-2: Local Geology Map

7.3 Property Geology

The geology of the Zancudo deposit has been described by Botsford (1926), Grosse (1926), Emmons (1937), CDI (1994, 2007), PPM (2002, 2003), Carrillo (2003, 2004) and reports by Gran Colombia (Gaviria et al., 2013) and IAMGOLD Colombia (IAMGOLD, 2020). This section summarizes these descriptions. A property scale geological map is shown in Figure 7-3.



Source: IAMGOLD, 2020

Figure 7-3: Geological Map of the Zancudo Project

7.3.1 Lithological Units

The host rocks in the local area are defined as by three main groups:

- Schists of the Late Jurassic to Early Cretaceous Arquía Complex - The Arquía Complex comprises chlorite schists, quartz-sericite schists and intervals of black graphitic schist. The schistosity trends NS to NW and dips steeply to the west.
- Continental sedimentary rocks of the Oligocene to Lower Miocene Amagá Formation - The sedimentary rocks of the Amagá Formation Lower Member are unconformable on the schists with a basal coarse to medium grained polymictic conglomerate followed by sandstone with carbonaceous beds, carbonaceous sandy mudstone, gray claystone, and in the upper part a

violet claystone with thick lenses of sandstone. The stratigraphic thickness preserved is up to 50 m.

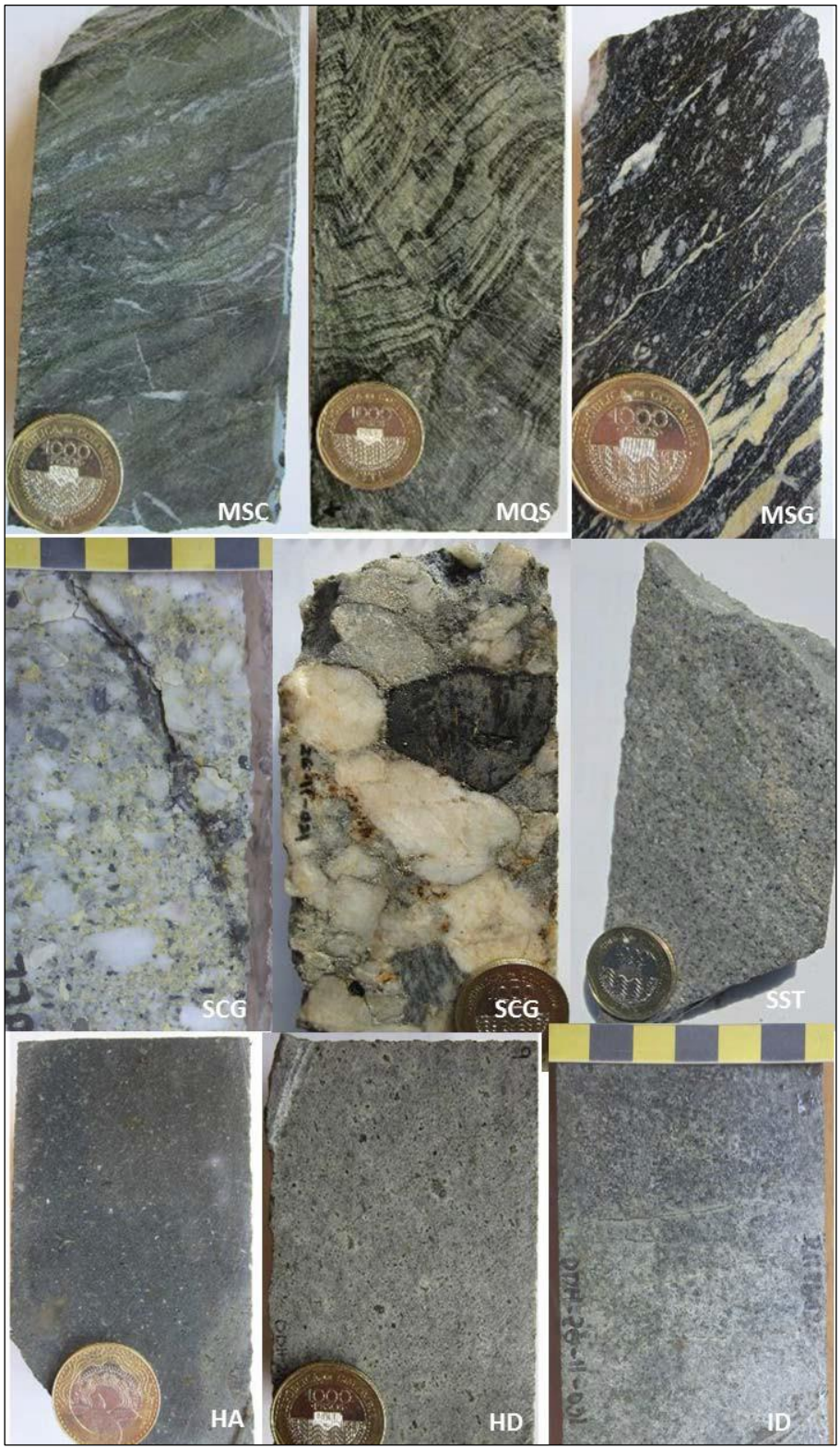
- Late Miocene andesite and dacite porphyry intrusions – The schists and sediments are cut by minor porphyry intrusions in the form of dykes and sills of andesite porphyry and dacite porphyry. There are also fine grained, equigranular diorite intrusions. These intrusions are located on the northern side of the Cerro Vetas porphyry intrusion center.
- Additional logging codes have been used by the geologist for veins, hydrothermal breccias and fault breccias and colluvium which overlay the rocks at the towns of Titiribí and Sitio Viejo.

The lithologies and logging codes are described in Table 7-1 and pictured in Figure 7-4.

Table 7-1: Summary of Key Lithological Units at Zancudo and the Associated Logging Codes in the Database

Code	Lithology	Description
BXF	Fault breccia	Matrix supported breccia. Clasts 0.3-10.0 cm, subangular, of schist, quartz. Matrix graphite, quartz, sulfides.
VEN	Vein	Vein textures may be massive sulfide, banded quartz-sulfide, massive quartz.
BXH	Hydrothermal breccia	Clast supported breccia with angular to subangular clasts of wall rock <4 cm cemented by sulfides.
ID	Diorite	Grey-green color, mottled texture. Fine grained (<1 mm) phaneritic texture. Quartz, plagioclase, hornblende, biotite. Veinlets of quartz-sulfides with epidote halo.
HD	Dacite porphyry	Pale grey-green color. Matrix 70%, very fine grained quartzofeldspathic. Phenocrysts 30%, size <4 mm, of quartz, plagioclase, hornblende, biotite.
HA	Andesite porphyry	Grey-green color. Matrix 80%, very fine grained. Phenocrysts 20%, size <2 mm, of hornblende, plagioclase, biotite and quartz, altered to chlorite and sericite. Moderate magnetic susceptibility.
SST	Sandstone	Light grey colored quartz arenite, grain size 1 mm, subrounded, quartz 90%, biotite 5%, clays 3%, muscovite 1%, pyrite <1%.
SCG	Conglomerate	Clast-supported conglomerate. Clasts 4-40 mm, rounded to subrounded, polymict, white quartz, black rock (graphite schist?). Matrix carbonate(?)
MSG	Graphite schist	Graphite schist with graphite, quartz, sericite(?)
MQS	Quartz-sericite schist	Schist with quartz, green sericite, biotite.
MSC	Chlorite schist	Chlorite schist with chlorite, dark minerals, carbonate.

Source IAMGOLD, 2020.



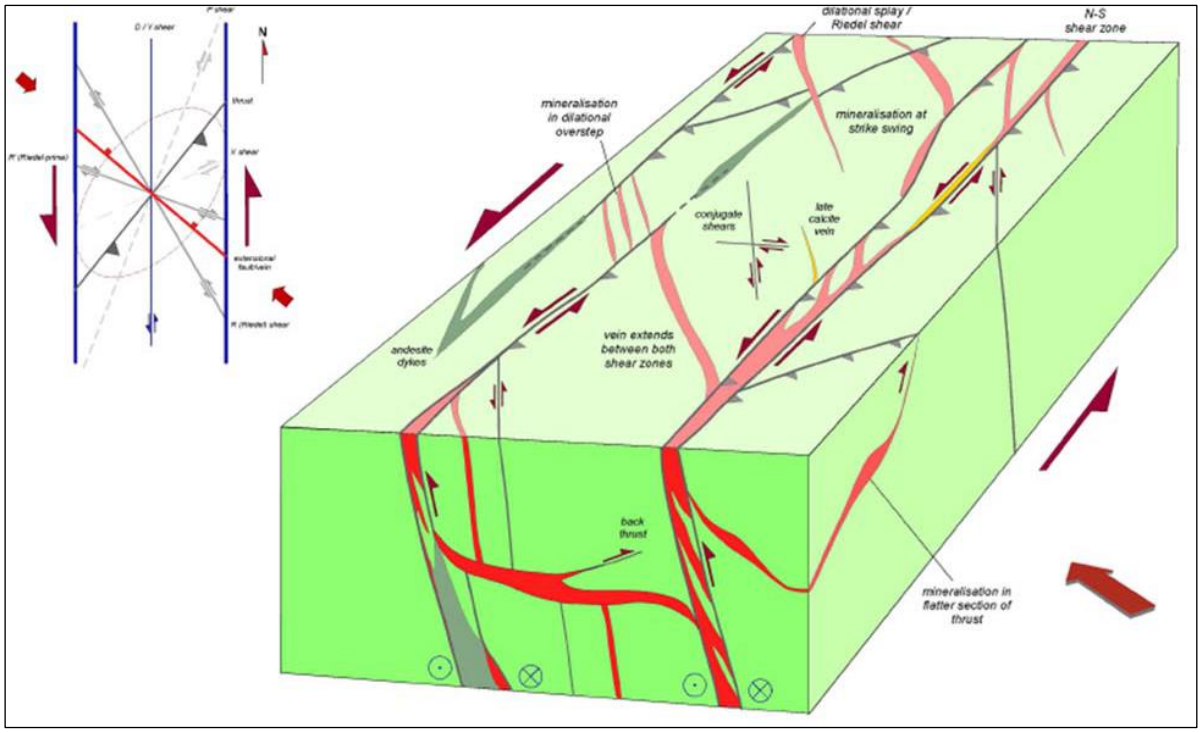
Notes: Top row: MSC, Chlorite schist; MQS, Quartz sericite schist; MSG Graphite schist. Middle row: SCG Conglomerate, SST Sandstone. Bottom row: HA, Andesite porphyry; HD, Dacite porphyry; ID, Diorite.
Source: IAMGOLD, 2020 and photos by S. Redwood.

Figure 7-4: Core Photos of the Main Lithologies of the Zancudo Project

7.4 Structural

A structural study carried out by Telluris Consulting (2012, 2013) defined four phases of deformation:

- Pre-mineralization deformation of the Paleozoic and Jurassic-Cretaceous rocks to form schists (D1).
- NE-SW to E-W compression that resulted in the folding of the Oligocene Amagá Formation sedimentary rocks with the older schists prior to mineralization, and formation of probable thrust faults on the eastern limb with an east dipping imbricate structure (D2).
- WNW to NW-SE oriented compression during the late Miocene associated with emplacement of the Au-Cu porphyries, associated volcanic rocks and the formation of epithermal veins (D3), with reactivation of the D2 structures as sinistral transpressional shear zones, as shown in Figure 7-5. Steeply eastward dipping veins such as Platanal and Colmena formed by reactivation of probable thrust imbricate structures. The unconformable contact of the Amagá Formation sediments with the schists was reactivated as a shear zone to form the Santa Catalina vein. Low angle veins such as Manto Antiguo and Colmena II formed as reverse faults in the footwall of the Santa Catalina vein.
- Continued E-W to WNW-ESE oriented post-mineralization compression (D4) resulting in further folding and faulting such as the Zancudo Fault that defines the eastern margin of mineralization in the Independencia Mine.



Source: Telluris Consulting (2012).

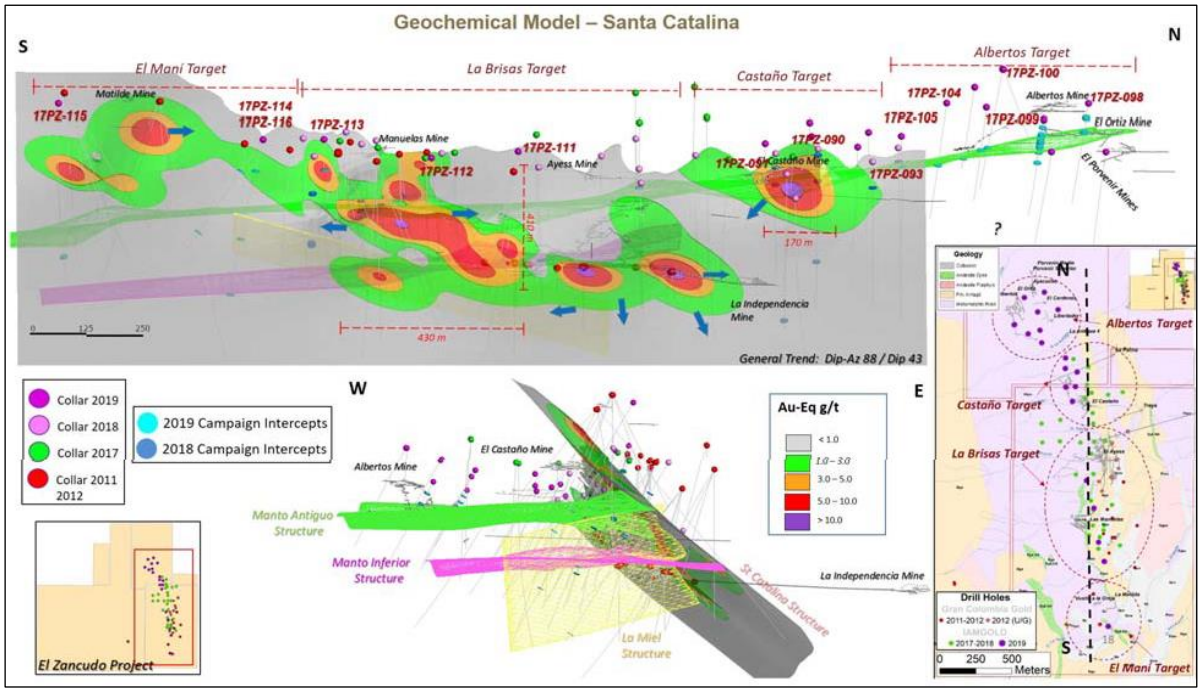
Figure 7-5: Schematic Three-Dimensional Block Model, Looking North, Showing Structural Control on Mineralization During Syn-Mineralization Deformation at Zancudo

The Zancudo deposit occurs on the eastern limb of an upright N-S trending antiform with schists in the core and Amagá Formation sedimentary rocks on the eastern limb.

In the La Independencia Mine the kinematic indicators along the N-S veins indicate that they were activated as sinistral transpressional shears forming NNW to NW steep tensional splay veins with coeval, low-angle, contractional splay structures (thrusts) along NNE to NE trends. In places mineralization is associated with sheared andesite dikes that are silicified and host fine visible gold along sub-parallel structures indicating that the dikes were emplaced during or shortly before the main mineralization event.

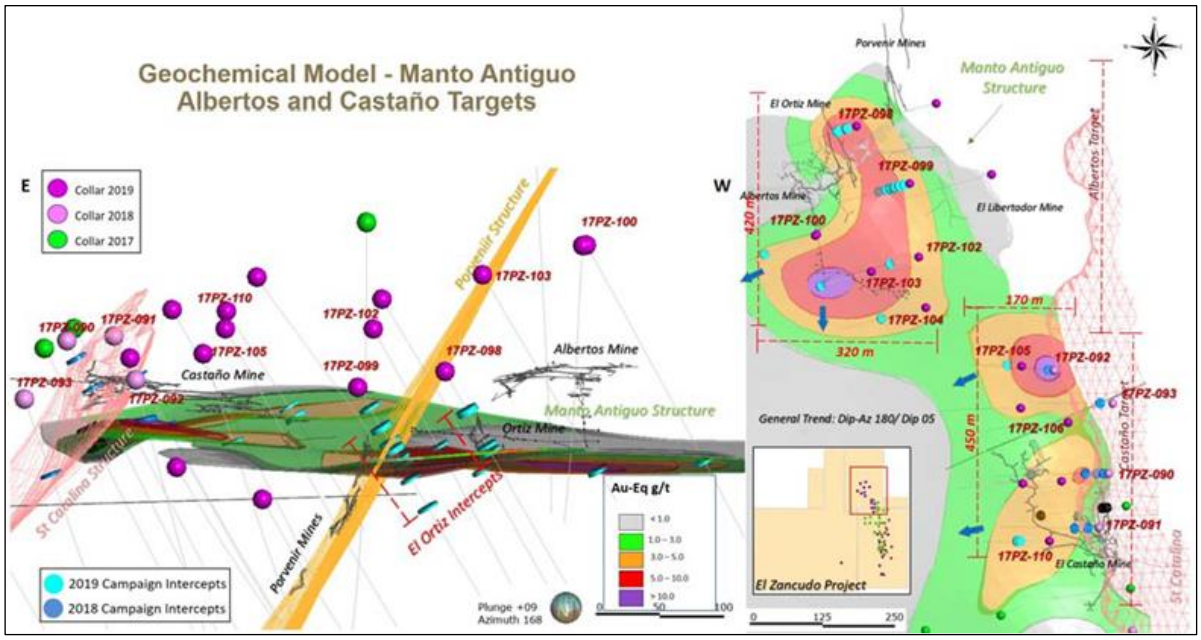
The low-angle veins (mantos) that trend NNE to NE tend to show a SE dip due to NW vergence but in the confined space within the N-S-trending structural corridor, contraction was also accommodated by back-thrusting (i.e., SE vergent, NW-dipping thrusts/veins). Due to the complex interaction of the frontal and back thrusts there are some low angle to sub-horizontal zones of high-grade mineralization where they intersect but their dip and strike continuities are limited by other, steeper veins and faults. In this part of the deposit the mineralization is primarily hosted in banded and massive epithermal-style veins. Although there is some stockwork veining, especially on a small scale at strike-swings and marginal to the main veins, large-scale stockwork or breccia bodies appear to be scarce or absent.

The principal veins that have been drilled by Gran Colombia and IAMGOLD are the steep, N5- 20°W trending Santa Catalina Vein over 2,700 m strike length, divided from north to south into the Albertos, Castaño, Las Brisas and El Mani targets; the high angle Porvenir Vein in the footwall of Santa Catalina with a known strike length of 400 m; the low angle Manto Antiguo (Zancudo) and Manto Las Manuelas veins mined over a strike length of 1,600 m and a width of 400 m; and the newly discovered low angle Manto Inferior and La Miel Veins. These veins are shown in Figure 7-6 and Figure 7-7.



Source: EVS, 2021
Note: Top: long section of the Santa Catalina Vein with contoured AuEq grades of drill intersections. Bottom: 3D image showing the geometry of the Santa Catalina, Manto Antiguo and Manto Inferior Veins.

Figure 7-6: The Geometry of the Vein Systems at Zancudo Showing Drillholes



Source: EVS, 2021

Figure 7-7: The Geometry of the Veins in the Northern Zone at Zancudo (Albertos and Castaño targets) showing 3D Model with Drill Intersections (left) and Plan with Contoured AuEq Grades of Drillholes in the Manto Antiguo Vein (right)

7.5 Alteration

The alteration types defined for logging by IAMGOLD are argillic (sericite, illite-smectite, ± quartz, calcite, dolomite, pyrite), intermediate argillic (kaolinite/dickite, illite-smectite, quartz, pyrite), propylitic (chlorite, calcite, epidote, albite, pyrite) and silicic (quartz or chalcedony (IAMGOLD, 2020). Argillic, intermediate argillic and silicic alteration form alteration halos to the mineralized structures. Pervasive propylitic alteration affects diorite.

7.6 Mineralization

Mineralization at Zancudo occurs in multiple steep or flat lying vein/structures that have been exploited over a strike length of 2,500 m. The average vein width is 0.35 m, with typical veins reaching a maximum of 3 m. The known vertical extent of mineralization is at least 650 m.

Gold mineralization at Zancudo occurs in two different types of structures. Mineralization in flat-lying veins and dissemination in conglomerates and sandstones at or near the base of the sedimentary sequence at the unconformity with the underlying schists. These were historically mined in sub-horizontal structures called “mantos” near surface at Zancudo and Otra Mina and most of the historical gold production came from these. A near continuous zone of flat lying veins occurs west of the Zancudo Fault over a strike length of 1,600 m with a strike of N30°W and a width of 400 m in the northern zone (PPM, 2002, 2003).

Mineralization in higher angle structures is hosted by N-S striking, steeply dipping veins in chlorite schists. These were mined by several long crosscuts with the levels defined in meters above the La Independencia level, namely: Chaverra (+269 m level), Castaño (+230 m), Sucre (+189 m), Palma

(+189 m), Troya (+140 m) and La Independencia (0 m level, at 923 m altitude). These were all made before 1923 and were described by Botsford (1926) and Grosse (1926). The Independencia Mine has a crosscut 740 m long in direction 254°, and four veins (Colmena, Platanal and splays) were exploited over a strike length of about 300 m and to 125 m above the Independencia level.

The veins have early stage, base metal sulfides (pyrite, sphalerite, galena, arsenopyrite) infilled by quartz or quartz-carbonate gangue, with banded textures that are typical of epithermal veins. The vein minerals, in order of decreasing abundance, are pyrite, galena, arsenopyrite, sphalerite, silver-sulfosalts, bournonite, boulangerite and jamesonite, with minor chalcopyrite, pyrrhotite, native gold or electrum, and native silver. The gangue minerals are quartz, calcite and clay minerals. The clay minerals identified are kaolinite, muscovite and sericite. Wall rock alteration is sericite, carbonate and disseminated sulfides.

All three types of structure have halos of argillic alteration. The vein textures are massive sulfide with grain size up to 20 mm; banded quartz-sulfide with wall rock clasts; and quartz veins with cockscomb banding, colloform banding, druses, bladed quartz replacement of calcite, and banded textures. The principal sulfides are arsenopyrite, pyrite, galena, sphalerite, and chalcopyrite.

The Santa Catalina structure follows an andesitic dike that may have strong argillic alteration with a stockwork of narrow sulfide veinlets (IAMGOLD, 2020). The wall rocks may be mylonitized in schists, brecciated in schists and sedimentary rocks, or have strong argillic alteration with quartz veinlets. Disseminated sulfides are common in the matrix of sedimentary wall rock and along the foliation of schists.

The low angle structures or mantos typically have a hydrothermal breccia texture with clasts of quartz and wall rock with sericite alteration, and a quartz-sulfide matrix (IAMGOLD, 2020). Another important texture is a stockwork of narrow quartz-sulfide veinlets.

The sub-vertical structure s commonly have quartz veins with low sulfidation epithermal textures as described above.

There are occurrences of porphyry-style magnetite ± quartz (M type) and quartz ± pyrite (A and B type) veining accompanied by potassic alteration overprinted by propylitic alteration in andesite porphyry, diorite and basalt in the western area of the property.

Gold/electrum occur as inclusions in sphalerite, pyrite, arsenopyrite, and may also be partially surrounded by pyrite, arsenopyrite, sphalerite, and tetrahedrite. About 80% of the gold/electrum grains are below 30 microns in size. Much of the gold/electrum occurs as small inclusions of less than 10 microns in pyrite and arsenopyrite, or intergrown with other minerals. A small proportion of gold occurs in fractures in other minerals. A small percentage is coarse grained (>100 microns). The average Au/Ag ratio is 72/28, and varies from 67/33 to 74/26 (Gallego et al., 2005). Native silver occurs in minor amounts as small grains in contact with silver-rich sulfosalts. The silver-bearing sulfosalts identified are argentian tetrahedrite ($(Cu,Fe)_{12}As_4S_{13}$)- freibergite ($(Ag,Cu,Fe)_{12}Sb_4S_{13}$) solid solution, andorite ($PbAgSb_3S_6$), miargyrite ($AgSbS_2$), diaphorite ($Pb_2Ag_3Sb_3S_8$) and owyheeite ($Pb_{10}Ag_3Sb_{11}S_{28}$). The lead-antimony sulfosalts identified are bournonite ($CuPbSbS_3$), jamesonite ($Pb_4FeSb_6S_{14}$), and boulangerite ($Pb_5Sb_4S_{11}$). The FeS content of sphalerite varies from 0.91 molar percentage (mol %) in the early generation to higher FeS in the later stages that show zoning from 4 to 20 mol %, with a dominant range of 9 to 16 mol % FeS.

7.7 Significant Mineralized Zones

Based on the exploration completed to date drilling has identified the presence of both steeply dipping structures or veins and shallow manto style vein material. The vein textures are massive sulfide with grain size up to 20 mm; banded quartz-sulfide with wall rock clasts; and quartz veins with cockscomb banding, colloform banding, druses, bladed quartz replacement of calcite, and banded textures. The principal sulfides are arsenopyrite, pyrite, galena, sphalerite, and chalcopyrite.

The low angle veins or mantos typically have a hydrothermal breccia texture with clasts of quartz and wall rock with sericite alteration, and a quartz-sulfide matrix (IAMGOLD, 2020). Another important texture is a stockwork of narrow quartz-sulfide veinlets.

The sub-vertical veins commonly have quartz veins with low sulfidation epithermal textures as described above.

Upon completion of the December 31, 2022 estimates SRK concluded that the estimate to follow CIM guidelines it is SRK's opinion that further work will be required to improve the confidence in the estimate prior to undertaking a more detailed engineering study. The work to date is sufficient to confirm the presence of the mineralization which has been intersected at various locations over the strike length of 2.5 km and over a downdip extension of 650 m. The drilling has confirmed mineralization in the form of either stacked manto veins or steeply dipping veins.

Overall SRK considered there remains potential to increase the Mineral Resources at the Project, which should be supported by further exploration to increase the confidence in the geological model via selected infill drilling, and from underground drilling and sampling once access is available to reduce the current drill spacing.

During initial test work on potential stope targets for mining to aid in with exploration planning it was noted that a number of potential explorations targets could be noted

The current strike length of the known mineralization approximately 2.5 km, with a dip ranging from 40° to 60º for the steep to sub horizontal for the manto vein mineralization. The average thickness mineralized sections are summarized in Table 7-2.

Table 7-2: Summary of Thickness per Estimation Domain

Estimation Domains	Thickness (m)
Porvenir	0.99
Santa Catalina	1.56
Manto Antiguo Lower	1.13
Manto Antiguo Upper	0.99
Manto Inferior	1.54
Manto Antiguo	1.23
Miel	1.15
Panal	0.65
Ortiz A	2.38
Ortiz B	0.51

Source: SRK, 2023

8 Deposit Type

8.1 Mineral Deposit

The Zancudo deposit is a high-grade gold-silver-quartz epithermal vein deposit. Epithermal gold and silver deposits of both vein-style and bulk-tonnage style are grouped into high sulfidation (HS), intermediate sulfidation (IS) and low sulfidation (LS) types based on the sulfidation states of their hypogene sulfide assemblages (Simmons et al., 2005). The sulfidation state describes the sulfur activity (logfS2).

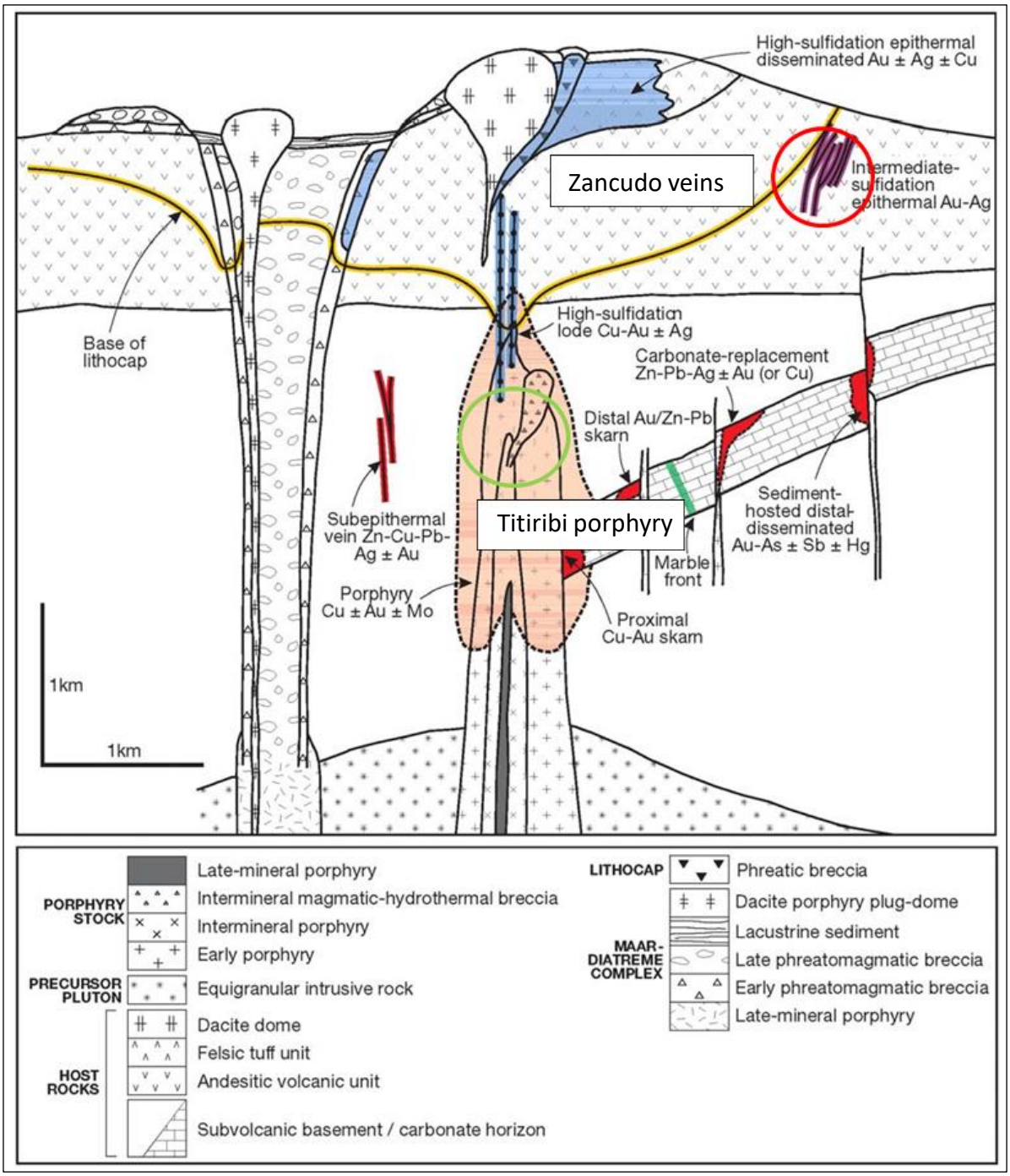
- High sulfidation deposits contain sulfide-rich assemblages of high sulfidation state, typically pyrite with enargite, luzonite, famatinite, and covellite, hosted by leached silicic rock with a halo of advanced argillic minerals.
- Low sulfidation deposits contain the low sulfidation pair pyrite-arsenopyrite, and only minor quantities of sulfides which occur in banded veins of quartz, chalcedony and adularia plus subordinate calcite. Very minor amounts of copper (usually less than 100 parts per million (ppm) to 200 ppm) are present as chalcopyrite or, less commonly, tetrahedrite-tennantite. Pyrrhotite is present in trace amounts in only some low sulfidation deposits.
- Intermediate sulfidation deposits possess sulfidation states between those of high and low sulfidation types, typically with stability of chalcopyrite, tetrahedrite-tennantite, and Fe-poor sphalerite, but lacking appreciable arsenopyrite and pyrrhotite.

Mineralization is deep epithermal vein type with temperatures extending above 300°C into the mesothermal field, with an evolution from low to intermediate sulfidation type. This type of mineralization is considered to be porphyry related. The Cerro Vetas porphyry Au-Cu deposit occurs 3 km southwest of the Zancudo deposit and may have been the source of the hydrothermal fluids that formed the Zancudo veins. However, the veins lie to the east of the porphyry deposit at a lower altitude and dip to the east, suggesting that the fluid source may be another, undiscovered porphyry deposit at lower elevation to the east of Zancudo.

It is reported that Zancudo also has potential for porphyry gold-copper mineralization related to porphyry intrusions, and there are occurrences of porphyry-style alteration and veining in the western area (Redwood, 2012; Gallego, 2014), which has not been the focus of the current MRE.

High sulfidation epithermal deposits may occur in lithocaps above porphyry Cu deposits (Figure 8-1), where massive sulfide lodes tend to develop in deeper feeder structures and Au ± Ag-rich, disseminated deposits within the uppermost 500 m or so. Less commonly, intermediate sulfidation epithermal mineralization, chiefly veins, may develop on the peripheries of the lithocaps. The alteration in porphyry Cu deposits is zoned upward from barren, early sodic-calcic through potentially ore-grade potassic, chlorite-sericite, and sericitic, to advanced argillic, the latter forming the lithocap, which may attain >1 km in thickness if not eroded. Low sulfidation state chalcopyrite ± bornite assemblages are characteristic of potassic zones, whereas higher sulfidation state sulfides are generated progressively upwards as a result of temperature decline and the accompanying greater degrees of hydrolytic alteration, culminating in pyrite ± enargite ± covellite in the shallow parts of the lithocaps. The porphyry Cu mineralization occurs in a distinctive sequence of quartz-bearing veinlets as well as in disseminated form in the altered rock between them. Magmatic-hydrothermal breccias may form during porphyry intrusion, with some of them containing high-grade mineralization because of their intrinsic

permeability. In contrast, most phreatomagmatic breccias, constituting maar-diatreme systems, are poorly mineralized because they formed late in the evolution of systems.



Source: Sillitoe, 2010

Figure 8-1: Porphyry System Model Showing the Zancudo Intermediate Sulfidation Epithermal Au-Ag Veins and the Titiribí Porphyry Au-Cu Deposits

8.2 Geological Model

The Zancudo deposit is broadly classified as a high-grade gold-silver-quartz epithermal vein deposit. The vein mineralization is deep epithermal type with temperatures extending above 300°C into the mesothermal field, with an evolution from low to intermediate sulfidation type. In terms of exploration a number of the structures have been identified through the current relatively wide drill spacing which is sufficient to infer the geological continuity between holes. Exploration should initially focus on infill drilling of these known structures to improve the understanding of grade continuity and distribution. It is the QP's view that the current level of geological knowledge in the model is sufficient to define the Mineral Resources as presented in this report, but as noted with the changes from the previous model, review of the geological model can impact the potential Mineral Resources which are dependent on geological characteristics of the manto and vein style mineralization being logged and defined in the database.

9 Exploration

Gran Colombia and IAMGOLD have carried out systematic exploration of the Zancudo Project since 2011 mainly by mapping and geochemistry on surface and underground in old mine workings. As at the effective date of this Technical Report, ESV exploration has focused on drilling of the Zancudo Project.

9.1 Relevant Exploration Work

The exploration carried out at the Zancudo Project is summarized in Table 9-1. CDI carried out limited exploration of the Independencia Mine in 1994 through 2007, but its focus was on mining. These programs are summarized in reports by Carillo (2003, 2004), CDI (1994, 2007), and PPM (2002, 2003). Gran Colombia and IAMGOLD have carried out systematic exploration of the Zancudo Project in 2011 and 2012 and 2017 to present, respectively, mainly by mapping and geochemistry. ESV Resources has not carried out any exploration of the Zancudo Project to date.

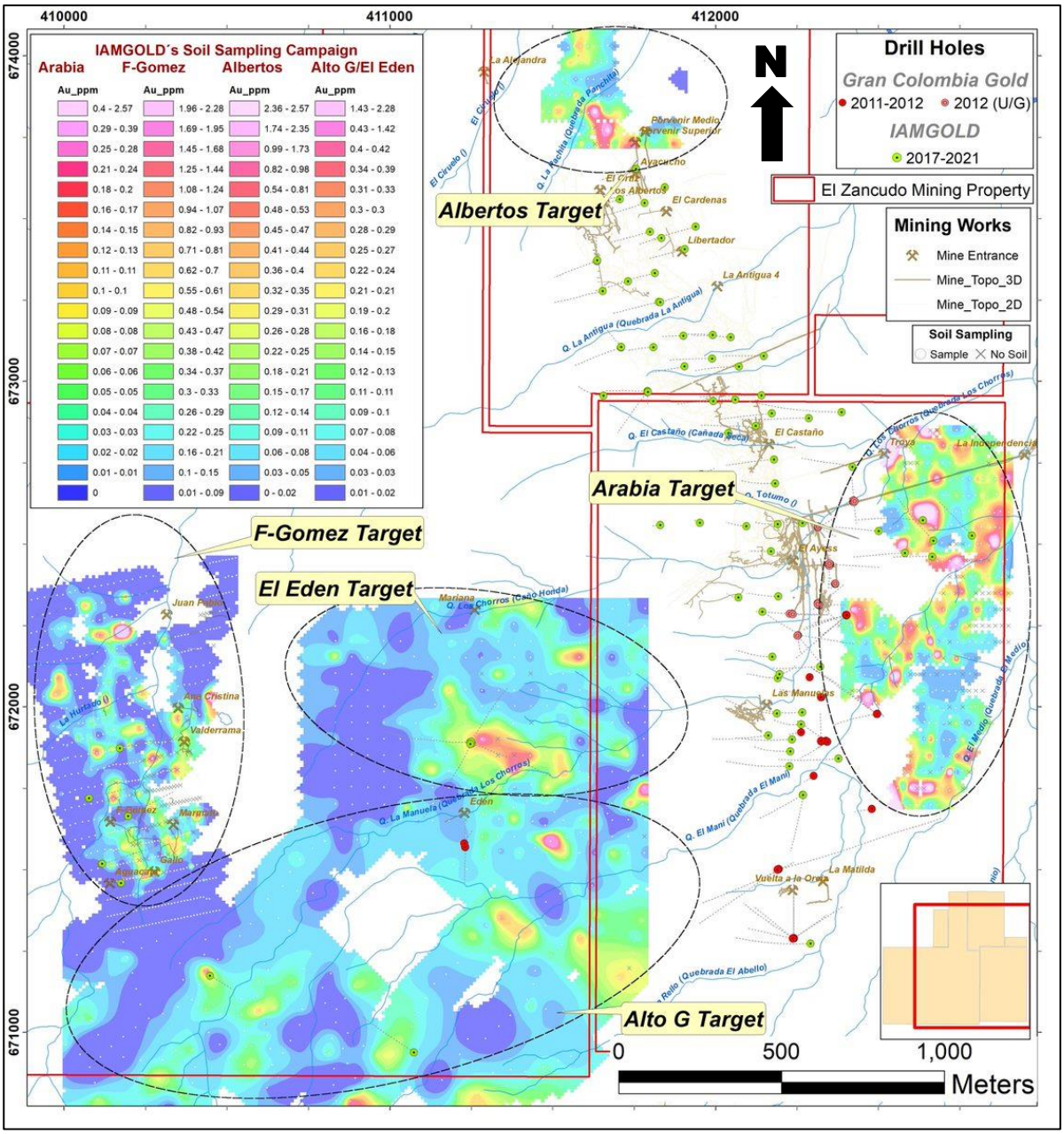
Table 9-1: Summary of Exploration Carried Out at the Zancudo Project

Year	Company	Survey	Units	Number	Notes
1994-2007	CDI	Underground mapping	m	Not known	
		Underground rock sampling	Samples	Not known	
2011-2012	Gran Colombia	Topography	ha	>1050	Aster satellite image, 30 m DEM and contours
		Geological mapping	ha	750	Concessions C5521011 and HDWA-02
		Rock sampling	Samples		
		Underground surveying	m	Not known	Digitize historical mine plans; survey mines
		Underground channel sampling	Samples	116	
		Thin section petrography	Samples	15	E. Tidy, (2012)
		Mineralogy by SEM-EDS	Samples	22	G. Di Prisco, (2013)
2014	Anglo American	Stream sediment sampling	Samples	26	
		Rock chip sampling	Samples	12	
2017-2021	IAMGOLD	Geological mapping	ha	1055	Whole property
		Soil sampling	Samples	1429	Albertos, Arabia, F-Gomez, Alto-G Targets, El Eden Targets
		Rock sampling	Samples	526	Surface and underground

Source: ESV, 2021

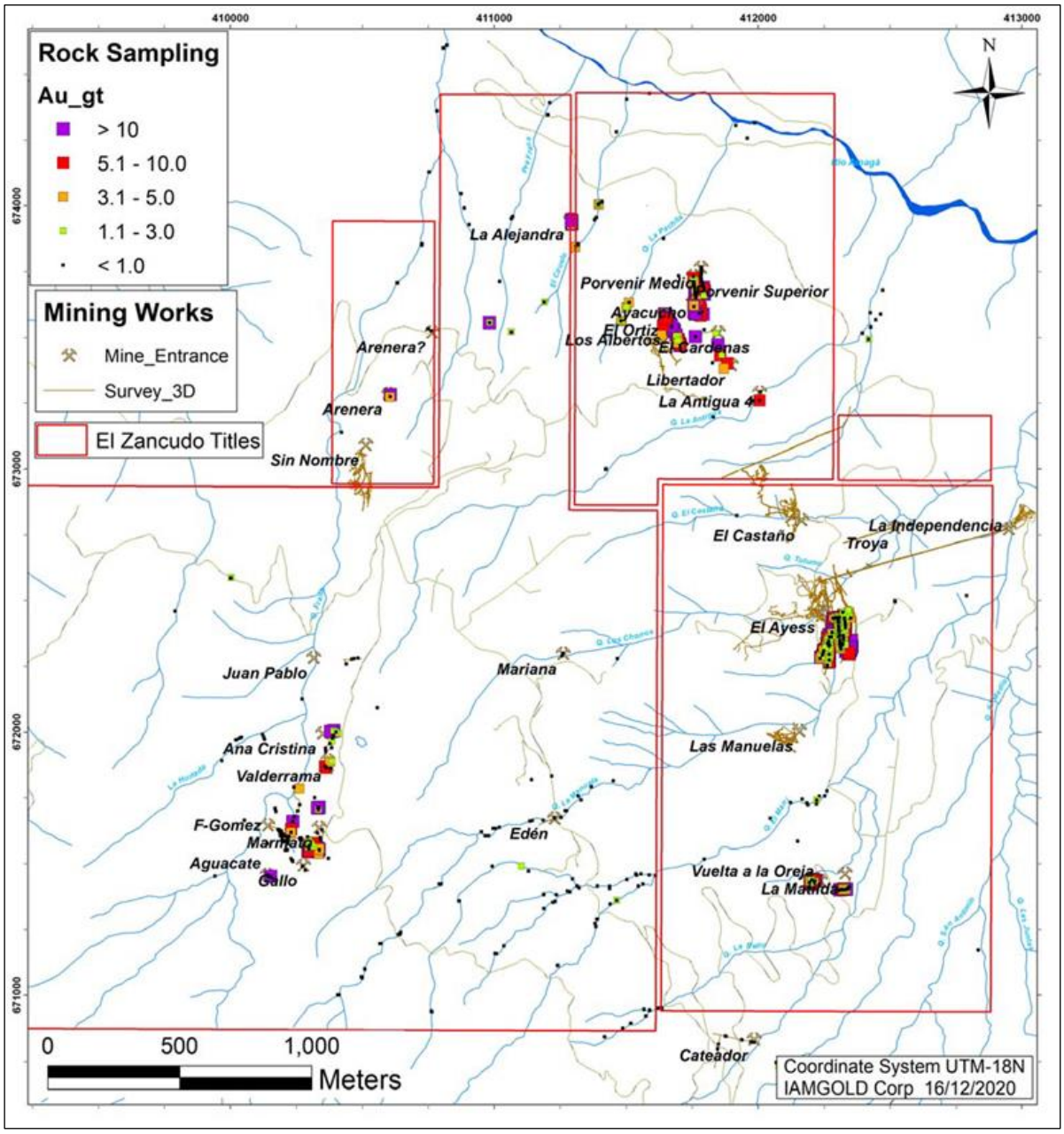
9.2 Sampling Methods and Sample Quality

IAMGOLD carried out soil sampling in local grids in four targets, Albertos, Arabia, F-Gomez, and Alto-G. Limited sampling has been completed over the steep areas surrounding the historical mining areas, with the focus on new targets. The result for Au is shown in Figure 9-1, these results were used to plan exploration drillholes in the subsequent 2021/2022 campaigns. Additional to the soil sampling has included collection and assay of rock channel samples. Gran Colombia and IAMGOLD carried out extensive rock channel sampling both underground and on surface. A summary of the findings for Au are shown in Figure 9-2.



Source: IAMGOLD, 2021

Figure 9-1: Analysis of Soil Sampling Results for Gold at Zancudo



Source: IAMGOLD, 2020

Figure 9-2: Rock Sampling Results for Gold at the Zancudo Project

9.3 Significant Results and Interpretation

Sufficient exploration work and mapping has been completed to provide drilling targets which have formed the basis for this current estimates. Limited geophysics has been completed on the Project but a regional survey of the Titiribí district was completed by Sunward Resources which indicated the presence of a number of magnetic highs with the Zancudo license areas.

10 Drilling

10.1 Type and Extent

A reported total of 41,098 m of DD in 155 holes has been carried out at the Zancudo Project, including 33 underground holes drilled in the Independencia Mine. Denarius Metals has not carried out any drilling on the Zancudo Project to date. Only holes completed by Gran Colombia and IAMGOLD since 2011 have been used in the current estimates due to a lack of confidence in the historical data. In summary a total of 40,099.70 m of diamond drilling in 149 holes has been used in the current estimates.

All the drilling has been completed on the Project by previous owners or as part of the previous Joint Venture (JV) between Gran Colombia and IAMGOLD. The following provides a brief summary of the total drilling completed during each exploration campaign:

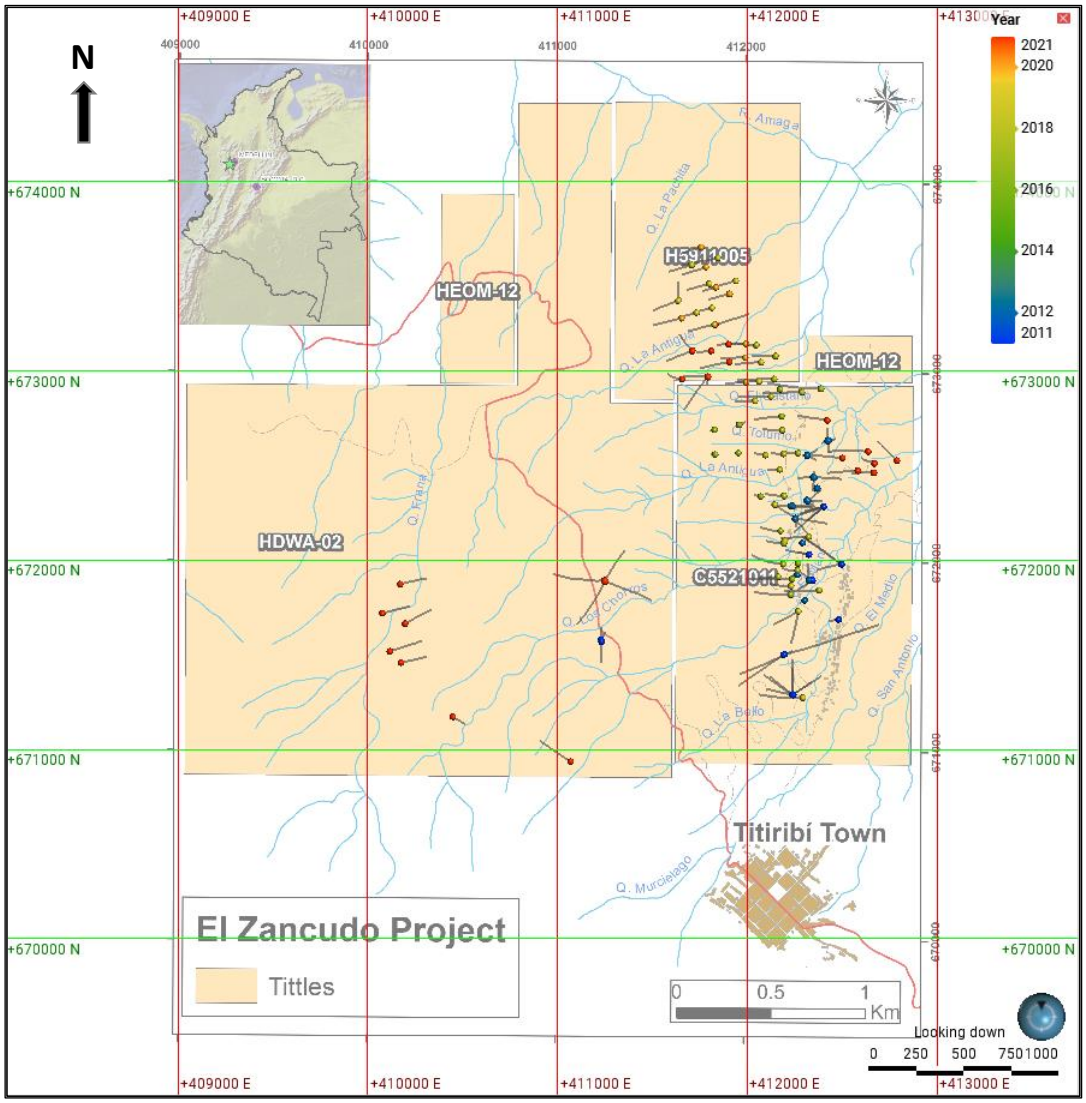
- CDI drilled at the Independencia Mine one hole from surface in 1999 and five underground holes in 2002 and 2003 for 998.2 m. The results of this drilling are not available.
- Gran Colombia drilled 66 holes for 14,121.9 m in 2011 and 2012 using a combination of surface (2011) and underground drilling (2022), with the drilling completed in the second half of the 2012 program was carried out by subsidiary company Mineros Nacionales. All drilling was completed using diamond drilling. Four holes were also drilled on a magnetic high anomaly at La Muriel in the western area (DDH-ZG-11-030 to 033).
- IAMGOLD (through the joint venture) commenced drilling at the Zancudo Project in September 2017 and used a single diamond drill rig drilling from surface and completed a total of 55 holes for 17,385.6 m in 2017-2020.
    - The 2017 drilling program was focused on testing the continuity along strike and downdip of the stacked mantos and the Santa Catalina structure in the north and west zones of the project.
    - The 2018 drilling program focused on the zone where the stacked mantos merge into the Santa Catalina structure and master fault, which usually shows wider and higher-grade intercepts.
    - The 2019 program was aimed at extending a new steeply dipping Porvenir structure in the footwall of the Santa Catalina structure in the northern zone, and at better delineating the high-grade mineralization outlined on the Manto Antiguo, Manto Inferior and La Miel shallow dipping structures.
    - The 2020 program was delayed by the COVID-19 pandemic but started in October 2020. As of the data effective date of this Technical Report, five holes had been drilled on the Manto Antiguo, El Porvenir and El Ortiz structures in the Albertos Target in the north, and results received for one hole.
    - Drilling continued in 2021 for a further 28 holes covering 8,560.9 m. Drilling was targeted on the main structures with some drilling completed in the west of the deposit testing potential F-Gomez, Alto G-Target and the El Eden targets (currently excluded from the current estimates).

A summary of the total drilling per Company is shown in Table 10-1 and collar plot in Figure 10-1.

Table 10-1: Summary of Drilling Completed by Company

Year	Company	Hole No. from	Hole No. to	Total Holes	Length (m)
1999	CDI*	CDI-01-1999		1	590.7
2002-2003	CDI*	CDI-02-2002	CDI-06-2003	5	407.5
2011	Gran Colombia	DDH-ZG-11-001	DDH-ZG-11-033	33	10,370.7
2012	Gran Colombia	DZ-0034	DZ-0049	16	2,003.5
2012	Mineros Nacionales	DZ-0050	DZ-0066	17	1,747.8
2017	IAMGOLD	17PZ-067	17PZ-077	11	3,905.4
2018	IAMGOLD	17PZ-078	17PZ-095	18	6,416.3
2019	IAMGOLD	17PZ-096	17PZ-116	21	5,903.8
2020	IAMGOLD	17PZ-117	17PZ-121	5	1,191.4
2021	IAMGOLD	17PZ-122	17PZ-149	28	8,560.9
Total				**155**	**41,098**

Source: ESV Resources, 2021
* Excluded from Mineral Resource estimates



Source: SRK, 2023

Figure 10-1: Location Map of Drillhole Collars

10.2 Procedures

10.2.1 Drilling Contractors

All of the drilling programs were carried out by DD with wireline core recovery with core diameters mostly of HQ (63.5 mm core diameter), with some NQ (47.6 mm core diameter) and BQ (36.5 mm core diameter). The drill contractors and rig types are listed in Table 10-2. All of the IAMGOLD core was HQ diameter and was oriented.

Table 10-2: Summary of Drilling Types and Drilling Contractors Used at the Zancudo Project

Year	Company	Contractor	Rig Type	Type	Rigs	Holes	Core Size
1999	CDI	Geominas	Not known	DDH	1	1	NQ
2002-2003	CDI	Geominas	Not known	DDH-UG	1	5	NQ
2011-2012	Gran Colombia	Mincivil	Longyear LF-70(?)	DDH	1	38	HQ, NQ
2012	Gran Colombia/Mineros Nacionales	Explomin	Sandvik H-200-1	DDH-UG	1	28	HQ, NQ, BQ
2017	IAMGOLD	Perfotec SAS	Longyear LF-70/Atlas Copco CS 1000 P4	DDH	1	11	HQ
2018	IAMGOLD	Perfotec SAS	Atlas Copco CS 1000 P4	DDH	1	18	HQ
2019	IAMGOLD	Perfotec SAS	Atlas Copco CS 1000 P4	DDH	1	21	HQ
2020	IAMGOLD	Perfotec SAS	Longyear LF-70	DDH	1	5	HQ
2021	IAMGOLD	Perfotec SAS	Atlas Copco CS 1000 P4	DDH	1	8	HQ

Source: Redwood, 2020, modified Denarius, 2023

10.2.2 Collar Surveys

Drillhole collars were initially laid out by the geologist using GPS. Upon completion the drill collars were surveyed by total station by a service company using a network of survey points that were surveyed by differential GPS. The underground drillhole collars were surveyed by total station.

All of the surface drill platforms were restored and revegetated after use. The Gran Colombia collars were marked by a cement monument with the hole number in paint and plastic pipe in the top of the hole. The IAMGOLD collars are marked by a cement monument with plastic pipe in the top of the hole and a metal plaque with the hole information.

10.2.3 Downhole Hole Surveys

Downhole directional surveys using a wireline Reflex multishot instrument. IAMGOLD carried out downhole directional surveys with readings at every 50 m depth during drilling using a wireline Reflex RZ-Trac multishot instrument and corroborated this with a second multishot survey on completion of each hole. The drill collars were surveyed by total station in a closed polygon with to a local network of five survey points surveyed by differential GPS.

10.2.4 Core Transport and Storage

Core from the CDI, Gran Colombia, Mineros Nacionales and IAMGOLD drill programs is stored in several secure buildings at Sitio Viejo including two purpose-built core stores. A short description of the chain of custody for Gran Colombia and IAMGOLD are summarized below.

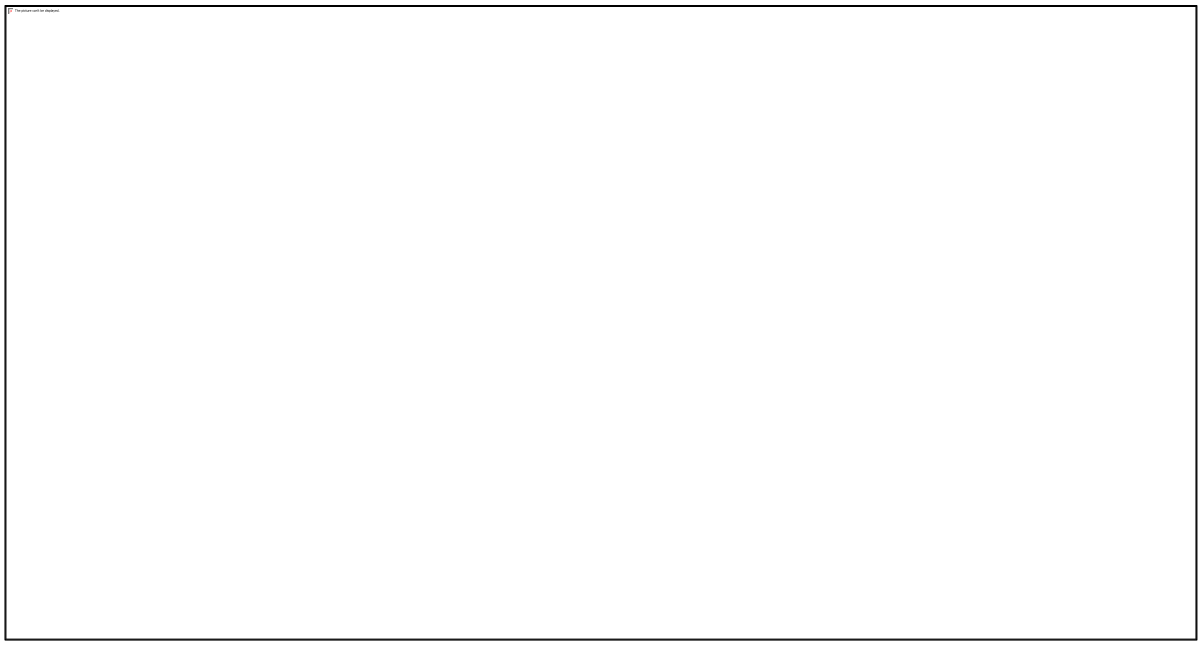
Gran Colombia

- The core is put in wooden boxes at the drill rig by the drillers.
- The core boxes are collected from the drill platform by a Gran Colombia pick-up truck and driver. The lids are screwed onto the wooden core boxes to ensure safe transport. Gran Colombia takes over custody of the core from the drill contractor.
- The core boxes are delivered to core logging facility at Sitio Viejo.

IAMGOLD

- IAMGOLD takes custody of the core from the drill contractor when it comes out of the core barrel. The company has a technician at the drill.
- The core is cleaned, oriented and marked with the orientation line.
- The core is put in plastic boxes with depth markers (tacos) and the boxes marked.
- The core boxes with lids are collected from the drill platform daily by an IAMGOLD pick- up truck and driver. If there is no road access to the platform, the boxes are carried to the road by mule.
- The core boxes are delivered to the core logging facility in Sitio Viejo, in 2022 this was adjusted to core logging and storage within the town of Titiribí which is in close proximity (walking distance), to the exploration office.

One issue SRK noted during the site visit is that the drilling core is currently being stored outside under plastic covers in two separate locations 1. Old plant at Sitio Viejo, 2. Titiribí storage facility (Figure 10-2). SRK did not consider the current status to be at industry standards and recommended Denarius identify a potential facility in the local town to consolidate the storage and provide space for future logging.



Source: SRK, 2023

Figure 10-2: Core Storage Within the Town of Titiribí, dated January 2023

SRK understands that since the time of the site inspection Denarius begun work on moving the core and setting up a new facility. Denarius have reported that all drilling core previously stored outside has been relocated in the covered and secured facility owned by the Company in the town of Sitio Viejo but the QP has not visited the new facility to confirm if best practices are being followed.

10.2.5 Core Logging

Core logging for all Gran Colombia and IAMGOLD exploration drillholes has been completed at the Sitio Viejo facilities. A short summary of the processes is discussed below:

CDI

SRK has not reviewed any of the core logging procedures related to drilling completed by CDI. SRK consider these holes to have lower confidence.

Gran Colombia

- A quick geological log made of the mineralized zones.
- A geotechnical log is made on a paper log sheet to record recovery, RQD, number of fractures, joint condition, degree of breakage and hardness.
- A geological log is made on a paper log sheet.
- Samples intervals are selected for assay. The sampling is selective of the veins and wall rock only, and not of the complete hole. Sample cards with consecutive numbers are filled in, the samples are marked on the boxes, and sample tickets are stapled on the boxes.
- The core is cut by diamond saw.

- Half of the cut core is sampled and is put in a plastic bag. The sample number is written in indelible marker on the bag. The bag is sealed. The samples are stored in a secure room in the office at the logging facility.
- The cut core is photographed.
- The core boxes are stored in the secure core warehouse.

IAMGOLD

- A geotechnical log is made of recovery and RQD and input to Excel.
- A geological quick log is made and input to Excel.
- A geological log is made using Gems Logger software on a laptop computer.
- Magnetic susceptibility readings are made.
- Density measurements are made.
- Samples intervals are selected for assay. The sampling is selective of the veins and wall rock only, and not of the complete hole. The minimum sample length is 0.5 m, and the maximum is 1.5 m. Sample cards are filled in, the samples are marked on the boxes, and sample tickets are stapled on the boxes.
- Photographs are taken of the boxes of whole core.
- The core is cut lengthwise by a diamond saw. One half of the cut core is put in a plastic bag. The sample number is written in indelible marker on the bag and the sample number ticket is taped inside the top of the bag. The samples are stored in the patio of the office at the core logging facility.
- The core boxes are stored in the core warehouse.

10.3 Interpretation and Relevant Results

Diamond drilling is the most appropriate test method for the mine and this technique has been applied by all operators since early exploration and mining. Drilling has been completed from surface with drillholes designed to provide reasonable intersections to the interpreted dip and strike of the mineralization.

SRK has insufficient knowledge of the CDI holes, and discussion with Denarius geological staff indicates low confidence in this data and it has therefore been excluded from the estimates (6 holes for 998.2 m).

A number of factors may influence the reporting of drilling results on the Project which should be considered due to the different orientations on the mineralization within the shallow dipping stacked mantos and the steeper dipping veins. These can be summarized as factors related to intersection length and the reporting of true thickness, or potential issues as related to core recovery and potential bias being introduced in zones of low recovery. As reported in the previous disclosure:

- The average core recovery of the Gran Colombia/Mineros Nacionales holes was 96.38% and of the IAMGOLD holes (up to 17PZ-120) was 97.15%.
- The drill targets were veins, and the holes were drilled at a high angle to the veins but usually not orthogonal, so that the intersection width is usually greater than the vein width. The true widths are estimated to be 80% to 90% of the intersection lengths.

SRK considers average recovery as presented to be reasonable for a deposit of this style and that the sampling taken should be considered representative of the mineralization. In terms of the reporting or

modeling of the true thickness, SRK has not reported significant intersections as the current level of reporting is at the Mineral Resource level. SRK has used caution though during the geological modeling to consider intersections which demonstrate geological continuity from multiple intersections when defining the mineralization units.

The methodology and procedures used by Gran Colombia and IAMGOLD in the QP's opinion currently meet or exceed typical industry standards. Overall, it is the QP's opinion that the drilling conducted on the Property has produced a reliable geological and geochemical database.

The results of the drilling have enabled SRK to interpret the key structural controls on the deposit, plus a number of mineralized domains which can been connected both along strike and downdip in the case of the vein material. The drilling intersections are considered reasonable to provide confidence to the modeled domains. The main structures have been identified during geological logging and in conjunction with the assay information. The main zones defined include:

- Manto Antiguo Lower
- Manto Antiguo Upper
- Manto Inferior
- Manto Antiguo
- Santa Catalina Vein
- Porvenir Vein
- Miel Vein
- Panal Vein
- Ortiz A Vein
- Ortiz B Vein

A summary of the key findings from the Gran Colombia and IAMGOLD drilling programs are summarized below.

10.3.1 Gran Colombia

The various drilling programs intersected numerous significant intervals of vein and manto style mineralization. The drilling returned high-grade gold and silver mineralization over a strike of 450 m and dip length of 170 m on the Santa Catalina structure south of the Independencia Mine. The reported intercepts range from 2.2 to 7.8 m with grades ranging from 0.5 to 21.9 g/t Au and 11.4 to 353.3 g/t Ag.

10.3.2 IAMGOLD

Drilling successfully extended the Santa Catalina structure 300 m to the north. In the South Zone, multiple higher-grade intercepts outline potential high-grade shoots on both the Manto Antiguo and Manto Inferior structures.

In the North Zone of the Project, old mining workings on the Manto Antiguo structure were intercepted with the wall rock showing good grades, such as 4.58 m at 5.15 g/t Au and 87.3 g/t Ag (6.37 g/t AuEq) (17PZ-086), which gives a higher level of exploration interest to the North Zone of the Project, despite extensive historical mining.

Wide intercepts were intersected in the sedimentary sequences such as 7.95 m at 3.43 g/t Au and 20.5 g/t Ag (3.72 g/t AuEq) (17PZ-068), and 3.95 m at 3.12 g/t Au and 5.7 g/t Ag (3.20 g/t AuEq)

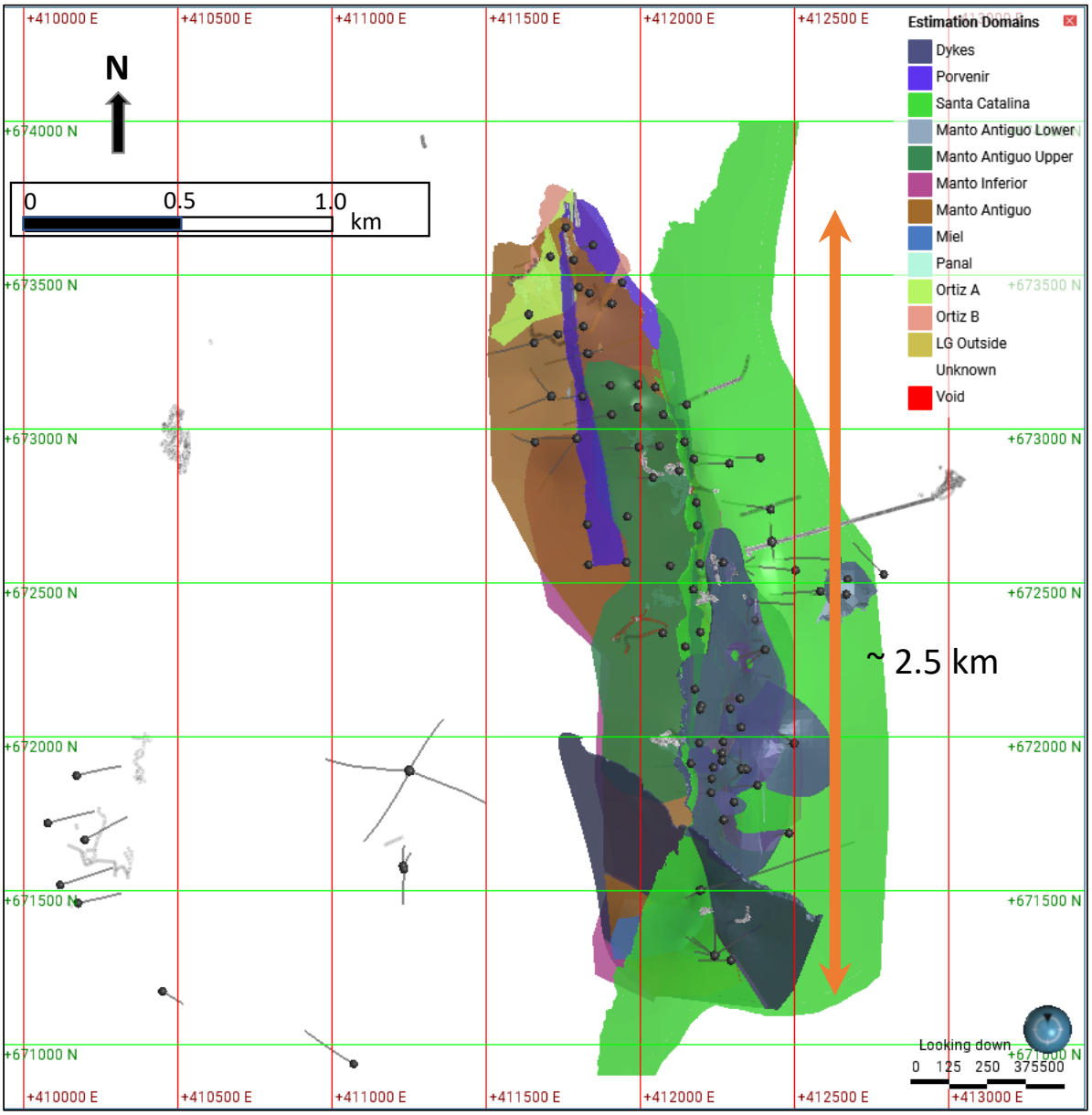
(17PZ-078). Additionally, a series of link-structures in between the stacked mantos were identified, which are interpreted as tensional structures.

In the Albertos Target located in the North Zone of the Project, a new steeply dipping vein named El Porvenir was intersected in the footwall of the Santa Catalina structure, with intersections of 2.00 m grading 2.43 g/t Au and 46.9 g/t Ag (3.10 g/t AuEq) (17PZ-094) and 2.20 m grading 5.66 g/t Au and 23.7 g/t Ag (6.00 g/t AuEq) (17PZ-099). Also, a set of subparallel mineralized veins named El Ortiz and El Libertador was intersected in the footwall of the El Porvenir vein and were interpreted to be oriented along the same structural trend. Intercepts range from 2.5 to 4.3 m in width and grades range from 5 to 9 g/t Au and 11 to 90 g/t Ag (approximately).

Drilling caried out on the El Castaño Target in the North Zone of the Project extended the Manto Antiguo structure by more than 200 m to the north. Assays received include 4.25 m at 11.71 g/t Au and 248.4 g/t Ag (15.17 g/t AuEq). Additionally drilling along the strike length of the Manto Antiguo structure was successful in extending and better delineating some of the potential high-grade shoots outlined by the 2018 drilling campaign. Intercepts range from 2.0 to 3.0 m in width and grades range from approximately 5.5 to 13.4 g/t Au and 60.6 to 124.7 g/t Ag.

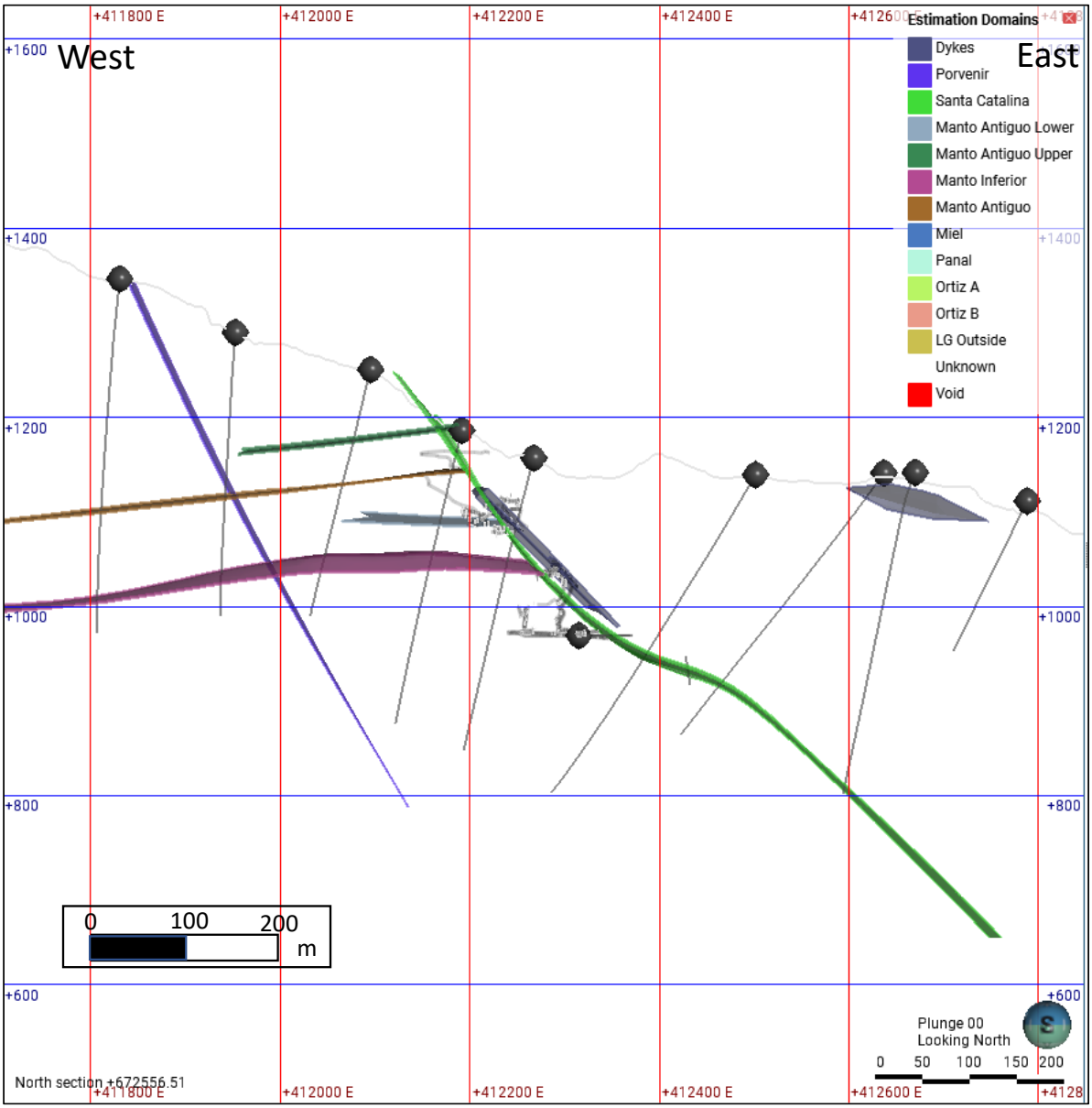
At the southern end of the deposit, a new northerly-dipping manto structure named La Miel was identified by several intercepts. The most significant interval returned 2.00 m at 6.27 g/t Au and 89.2 g/t Ag (7.50 g/t AuEq) (17PZ-114).

The results of the drilling have enabled SRK to interpret the geological sequence consisting of an upper unit of both vein and vein manto style mineralization over a known strike length of approximately 2.5 km (Figure 10-3), and a vertical extent of over 650 m from surface (Figure 10-4).



Source: SRK, 2023

Figure 10-3: Drillhole Collars Plan vs. Modeled Vein Interpretation Over 2.5 km Strike Length



Source: SRK, 2023

Figure 10-4: Cross Section vs. Modeled Vein and Manto Interpretation

10.4 Opinion on Adequacy

In the opinion of SRK, the drilling procedures and geological logging, used by Gran Colombia and IAMGOLD are consistent with generally accepted industry best practices and are therefore adequate. No current drilling was being completed during the time of the site inspection, so SRK review has been limited to review of procedures, interviews with the geological staff and review of the historical core.

11 Sample Preparation, Analysis and Security

No new sampling has been completed since the date of the last technical report. The following provides a summary of the process used by the previous operators.

11.1 Sample Laboratories

Prior to 2011, there is no information of the procedures of sample preparation, analysis and security. Few holes were completed in 1999 and between 2002 and 2003. It is not known which laboratory CDI used for preparation and analysis of drill core samples, nor the sample preparation and analysis methods, and there are no assay certificates or laboratory reports. The core is stored at Sitio Viejo and could be re-logged and re-sampled.

The Gran Colombia/Mineros Nacionales samples collected after 2011 were prepared by SGS at their sample preparation facility in Medellin, Colombia, and were assayed at their laboratory in El Callao, Peru. SGS is certified to ISO 9001:2008.

The IAMGOLD samples were prepared by ALS Minerals at their laboratory in Medellin, Colombia and assayed at their laboratory in El Callao, Peru. ALS Minerals is certified to ISO 9001:2015. SRK notes that a portion of the 2021 exploration program was assayed at SGS, following the same procedures used by Gran Colombia.

11.2 Security Measures

All samples are delivered directly to the selected laboratory by Gran Colombia or IAMGOLD personnel as half core samples in labelled plastic sample bags sealed with cable ties. A hard copy sample submission document is sent with the samples along with a sample manifest. Digital copies of both documents are also sent to the laboratory.

11.3 Sample Preparation for Analysis

Gran Colombia and IAMGOLD utilized similar sample preparation methods (Table 11-1). Samples are dried at 105ºC for min. 8 hours before being further processed. Samples are initially crushed with QA/QC checks run at the laboratory for one in every twenty samples to ensure at least 90% pass through a 10 mesh. Subsamples are taken of the crushed sample is split off for pulverization. Samples are pulverized using a custom-built Ring Mill with a chrome steel grinding bowl. The samples are pulverized until 95% passing 140 mesh. Grind size QA/QC to ensure an adequate grind size are conducted one in every ten samples. Ceramic blank material and air lines are used to clean both the crusher and pulverize after each sample preparation.

Table 11-1: Summary of Sample Preparation Methods and Primary Laboratory Used

Program	Laboratory	Method	Code	Procedure
CDI	Not known	Preparation	Not known	Not known
Gran Colombia	SGS, Medellin & Callao, Peru	Preparation	PRP93	Dry, crush to >90% passing 10 mesh, split 250 g and pulverize to >95% passing 140 mesh.
IAMGOLD	ALS Minerals, Medellin & Callao, Peru	Preparation	PREP-33D	Dry, crush to >90% passing -2 mm, riffle split 1000 g and pulverize to >95% passing 106 microns.

Source: modified from Redwood, 2021

11.4 Sample Analysis

Gran Colombia and IAMGOLD performed two analysis methods for each core sample. The Gran Colombia samples used a combination of fire assay for gold using a standard AAS finish, with gravimetric used on higher grades. Other elements have been assayed using ICP-OES methods for a standard 34 element ICP-OES analysis. Additional assay for sulfur were completed during the Gran Colombia drilling phase using LECO.

The IAMGOLD samples were analyzed using equivalent methods to the Gran Colombia submissions with the exclusion of the sulfur. A summary of the codes used per phase and laboratory are shown in Table 11-2.

During the last campaign (2021), samples were originally submitted to ALS laboratory which accounted for 30 batches totaling 2,435 samples. In October 2021 there was a decision taken to switch the sampling from ALS to SGS which impacts a total of 10 batches totaling 927 samples.

Table 11-2: Summary of Sample Analysis Methods and Primary Laboratory Used

Program	Laboratory	Method	Code	Procedure
CDI	Not known	Au, Ag	Not known	Not known
Gran Colombia	SGS, Medellin & Callao, Peru	Au	FAA313	Fire assay 30 g, AAS
		Au overlimit	FAG303	Fire assay 30 g, gravimetry
		Multielements	ICP12B	34 elements by nitric and hydrochloric acid digestion, ICP-OES
		Ag, As, Fe, Pb, Zn ore grade	AAS41B	Multiacid digestion, AAS
		S	CSA24V	LECO
IAMGOLD	ALS Minerals, Medellin & Callao, Peru	Au	Au-AA24	Fire assay 50 g, AAS
		Au overlimit	Au-GRA22	Fire assay 50 g, gravimetry
		Multielements	ME-ICP41	35 elements aqua regia digestion, ICP-AES
		Ag overlimit	Ag-GRA22	Fire assay 50 g, gravimetry
		As, Cu, Pb, Zn ore grade	AA46	Aqua regia digestion, AAS

Source: Modified from Redwood, 2021

11.5 Quality Assurance/Quality Control Procedures

The following section reflects the results as published in the March 2023 Technical Report (Ni43-101), as no new sampling has been completed.

11.5.1 Standards

Certified Standard Reference Material (CSRM) was submitted to the labs to check accuracy over given range reported by the laboratory. The CSRM was monitored on charts with reference to performance gates of the recommended value and the standard deviation (SD). A result between ±2SD and ±3SD was a warning, two or more consecutive results between ±2SD and ±3SD were a failure and results greater than ±3 SD were a failure. For batches where failures occurred the laboratory was requested to reassay the batch.

Most reference samples performed as expected with a few isolated incidents. Any corrective actions taken for sample results outside of expected ranges are not known. Further analysis of the reference

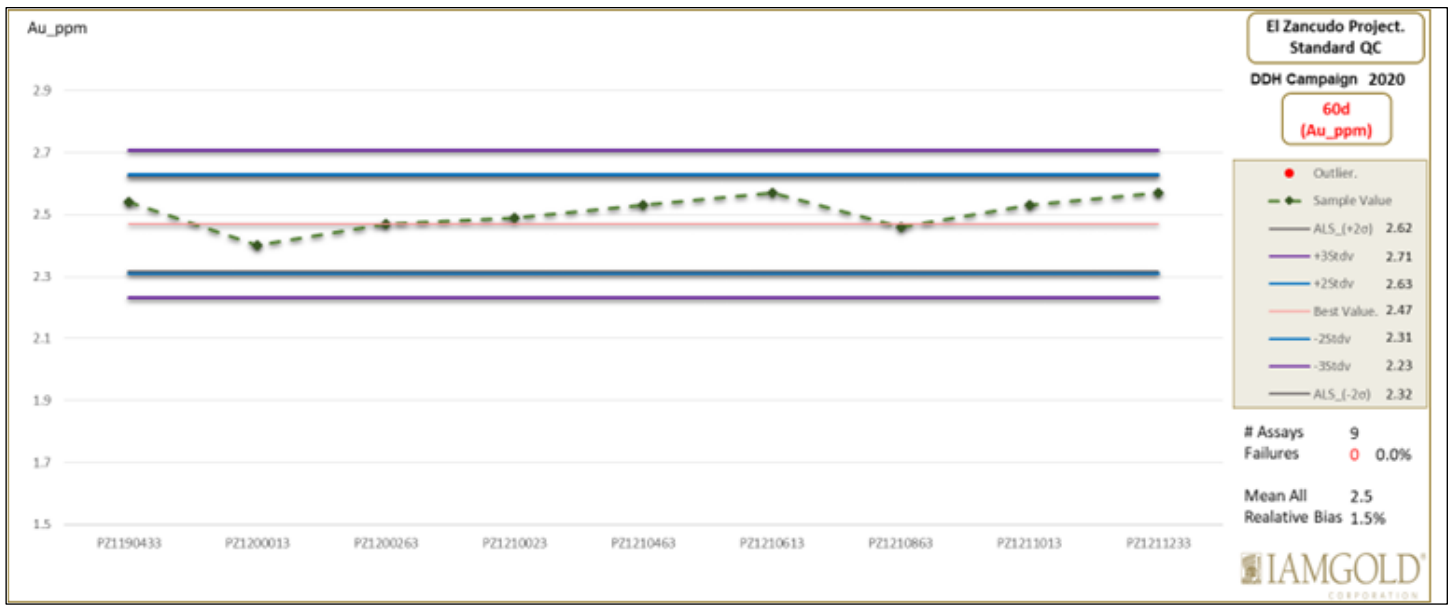
materials was completed to determine the repeatability of results. This study showed some variability in the reference materials and blanks, but well within acceptable limits.

Figure 11-1 provides examples of the results obtained for the analysis of 38 standards used in 2020 and 295 used standards for the 2021 drilling campaign, all of these were used in the first laboratory batches, those used in the second check batch are not yet contemplated laboratory.

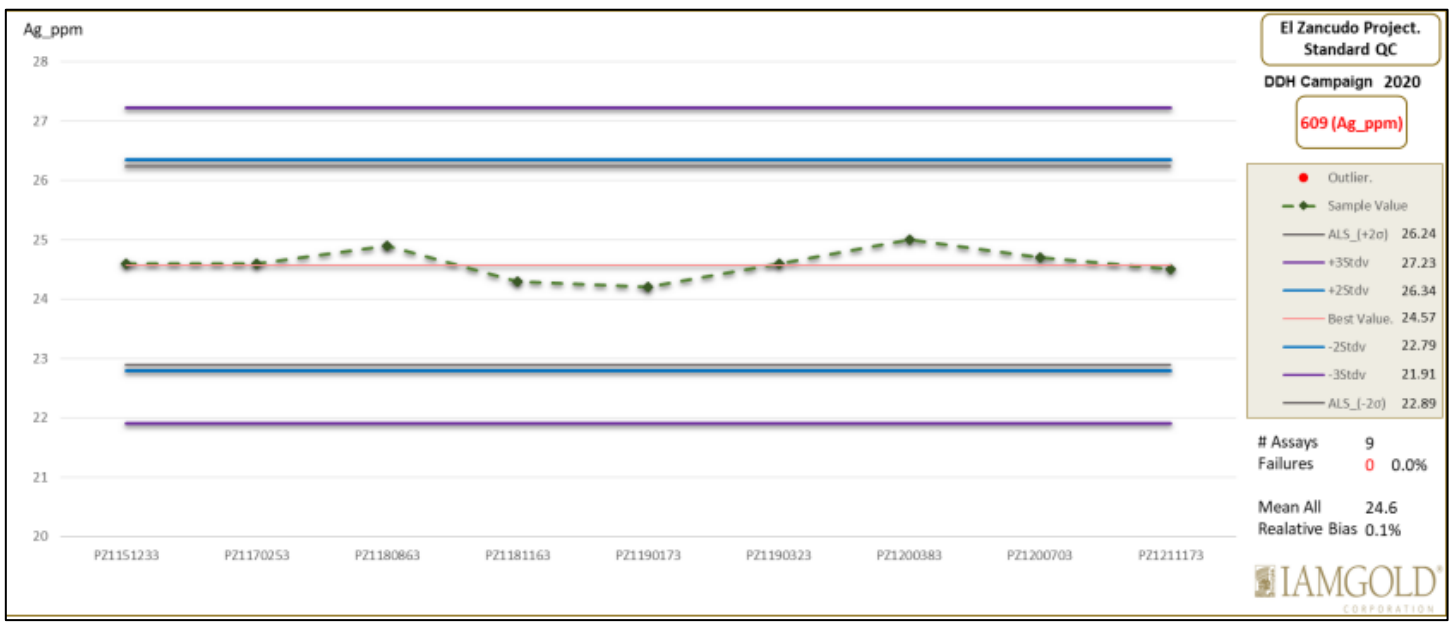
The analysis determined outliers for each certified element in the standards used, using limits defined by the certified reference value +- (3*standard deviation).

The data were treated globally for the campaign; however, controls were carried out on each batch sent to the laboratory, in the global analysis it is observed that the economic elements, Au and Ag do not present a percentage of outliers que exceeds 10% given the accepted metric of this control.

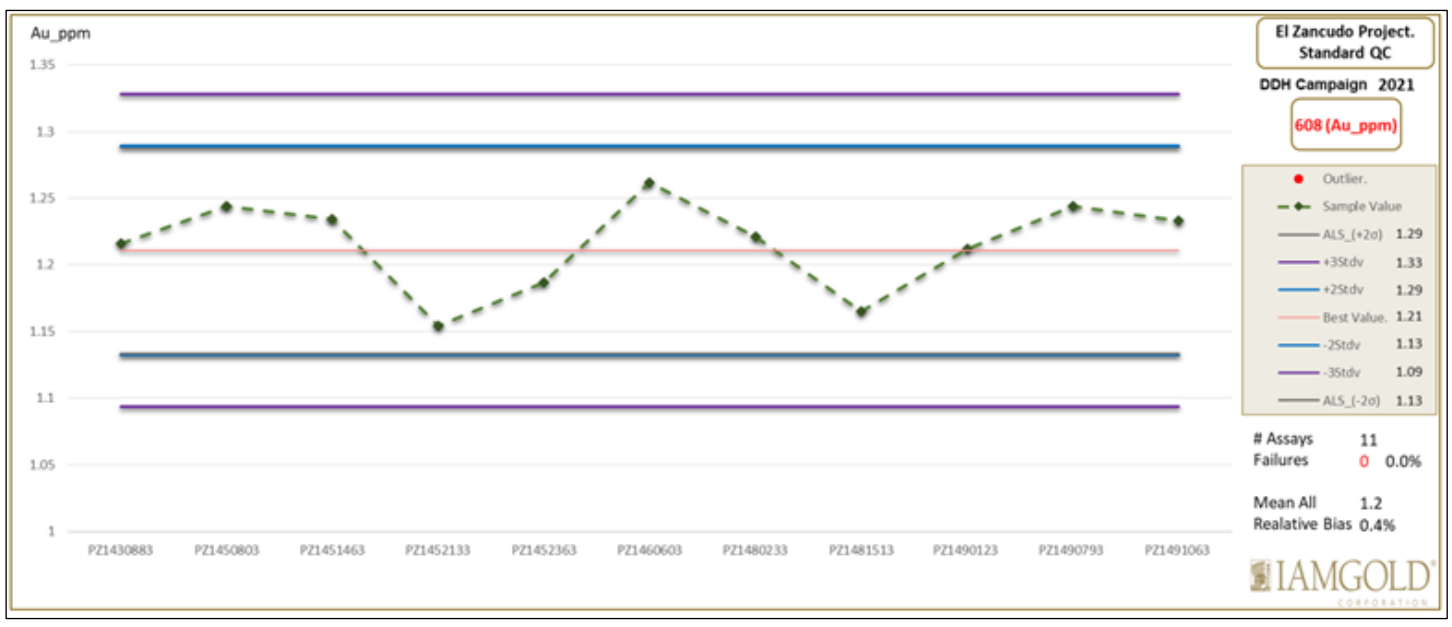
Standard behavior for gold and silver (2020 and 2021) showing a summary of results is demonstrated in Figure 11-1.



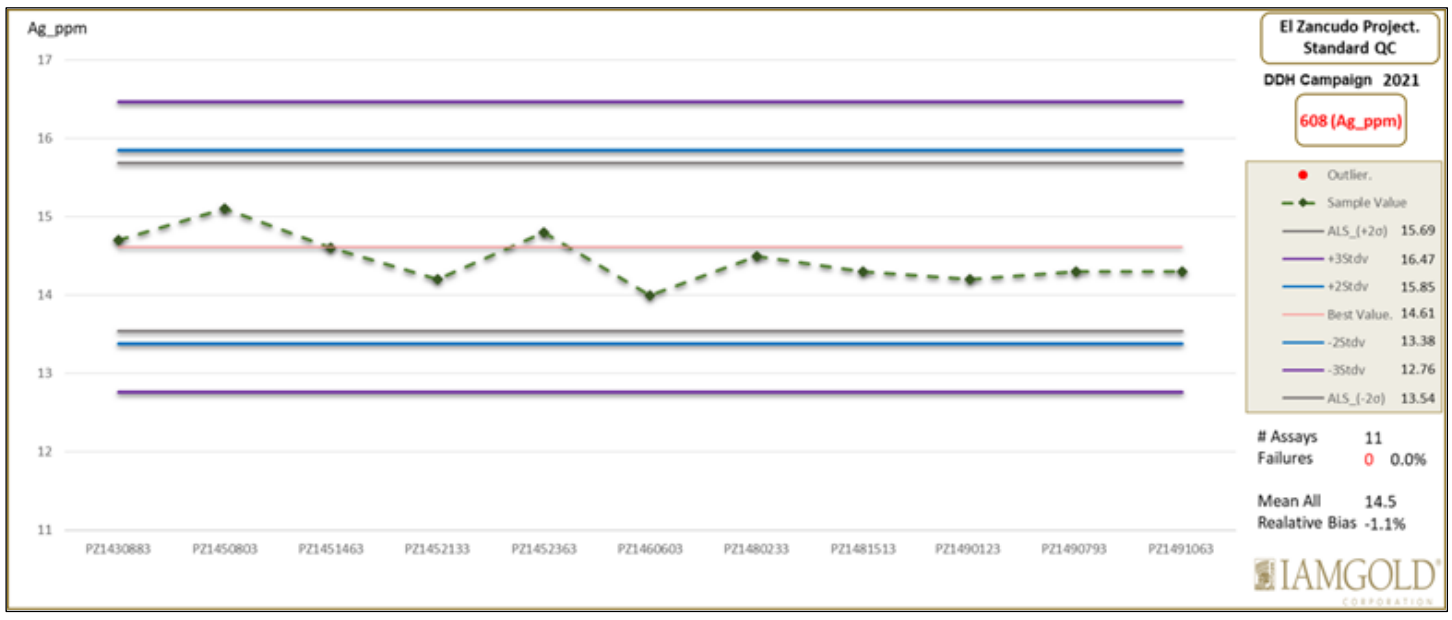
2020 Gold



2020 Silver



2021 Gold



2021 Silver

Source: GCG Titiribí, 2021

Figure 11-1: Example of Certified Reference Samples Submitted During IAMGOLD Submissions in 2020 and 2021

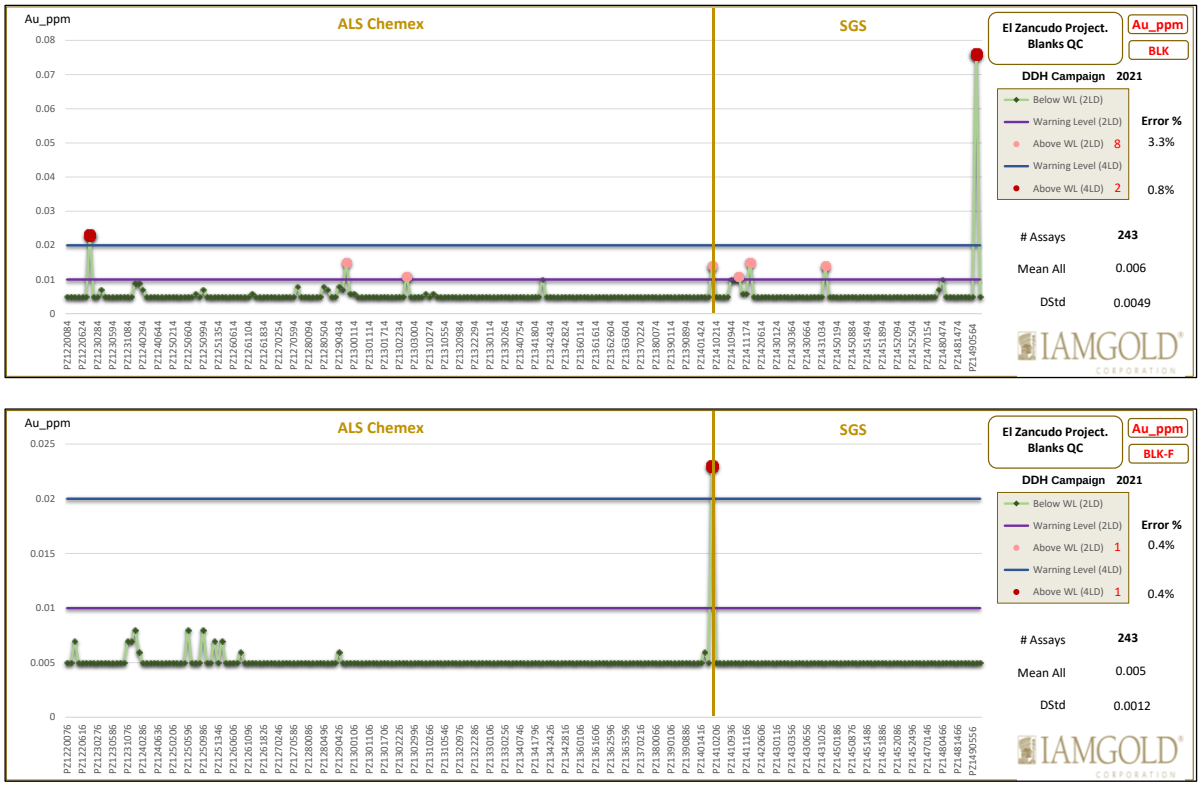
11.5.2 Blanks

Course and Fine Blanks are inserted at various stages of the milling and measuring process for each element. Blanks are known materials with measured grades at or below the minimum measurable limit for each element. The coarse blank was quartz bought in Medellin for Gran Colombia and sourced from is unaltered andesite from an outcrop in Caramanta for the IAMGOLD submissions. For Gran Colombia submissions the blank samples were monitored for Au and Ag by charts with reference to the lower limit of detection (LLD) with a reference line at 5 times the LLD.

Iamgold monitors the blanks for Au, Ag and other certified elements by charts with reference to the LLD with warning and failure lines at 2 and 4 times the LLD respectively. IAMGOLD used fine blanks that are CSRM (OREAS 21e).

As noted in the 2020 technical report, no serious issues had been discovered with blanks which implies that contamination from sample to sample to sample is not an area of concern.

The outliers found in 2020 and 2021 (Figure 11-2) were not concentrated in a single batch or batch of samples and present values close to the limits established in the case of Au, Ag, Sb, Pb, Cu and Zn, for these elements there is no percentage of outliers that exceeds 10% meeting the standard for this method. No graphs were prepared for the 2022 campaign.



Source: IAMGOLD, 2021

Figure 11-2: Analysis of Blank and Fine Blank Material for Au (g/t) at ALS and SGS During 2021 Program

11.5.3 Duplicates

Duplicates are inserted in a variety of ways by use of submitting essentially the same sample to the lab(s) under different identifiers. Sample duplicates error can be measured under a variety of accepted tolerances but the accepted tolerance for Denarius is between 10% and 30% variation in economic elements depending on the type of sample preparation.

Duplicates are inserted into the sample stream as three different styles. These include:

Field Duplicate (FDUP)

The objective is to have control of the precision in the sampling stage by knowing if there is a high nugget effect or sampling errors such as a wrong cut of the core that strongly biases the mineralization. The relative error tolerated by the Company during the analysis is set as 30%.

Samples of at least 1.0 m in length were selected, with minimal fracturing and sufficient competence to guarantee the minimum required weights, 2 kg per field. Duplicates were distributed within the lot at the discretion of the geologist, contemplating that these represent at least 2% of total sample population.

Coarse Duplicate (RDUP)

The laboratory was ordered to make a duplicate of the selected sample once it had been reduced to 2 mm, thus obtaining a gross rejection. The distribution of these samples is given at random; their selection contemplates that they represent at least 2% of the total population of samples.

With this, the precision in the rock preparation process is measured, evidencing deficiencies in the homogenization processes or high nugget effects. The relative error tolerated in this case is 20%.

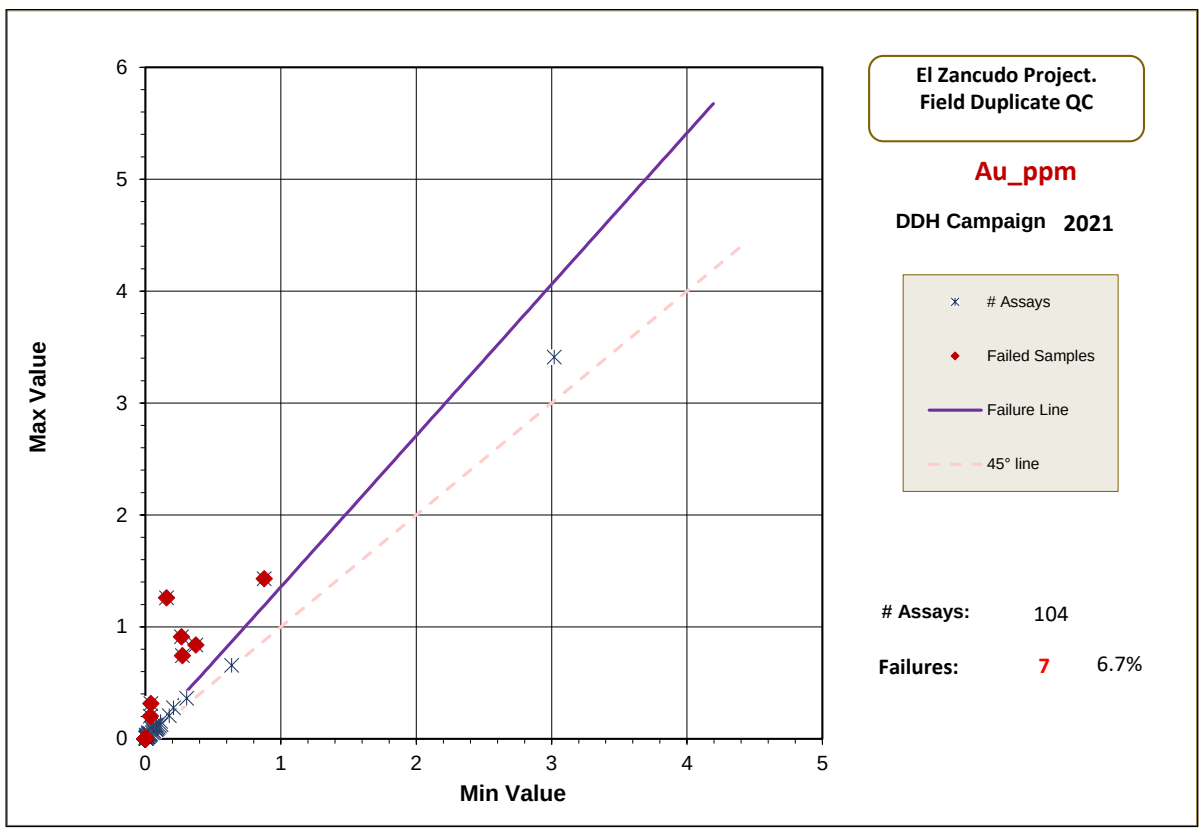
Pulp Duplicate (PDUP)

The laboratory was ordered to make a duplicate of the sample once it was pulverized, thus obtaining a pulp rejection. The distribution of these samples is given at random, and their selection contemplates that they represent at least 2% of the total population of samples.

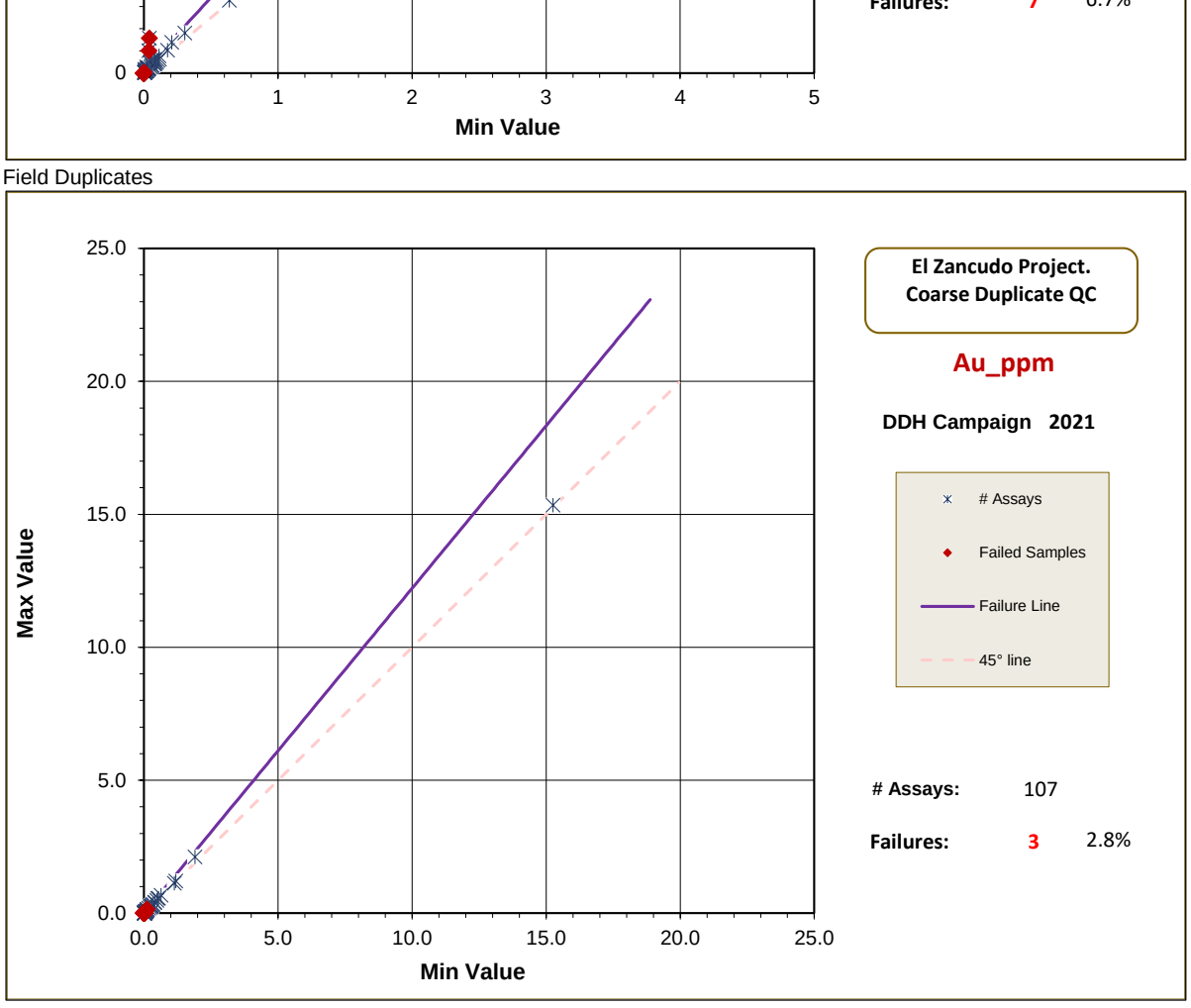
Though some isolated violations of the duplicate limits were measured in 2020 and 2021, the value was far below the 10% overall limit to establish a pattern of poor sampling. The results from these two years are accepted as accurate based on industry standard testing.

With this, the precision in the analytical process of the rock is measured, evidencing deficiencies in the homogenization processes or high nugget effects. The relative error tolerated in this case is 10%.

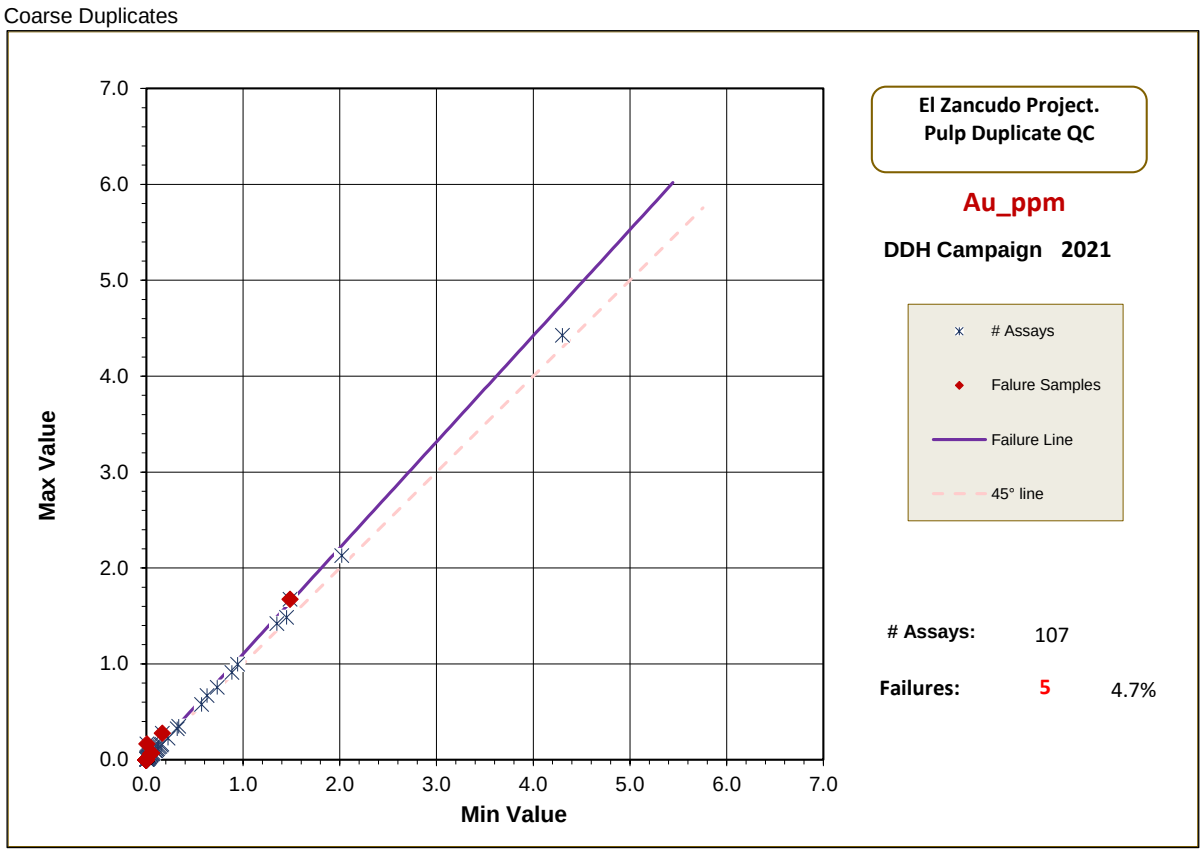
A summary of the performance for 2021 is shown in Figure 11-3.



Field Duplicates



Coarse Duplicates



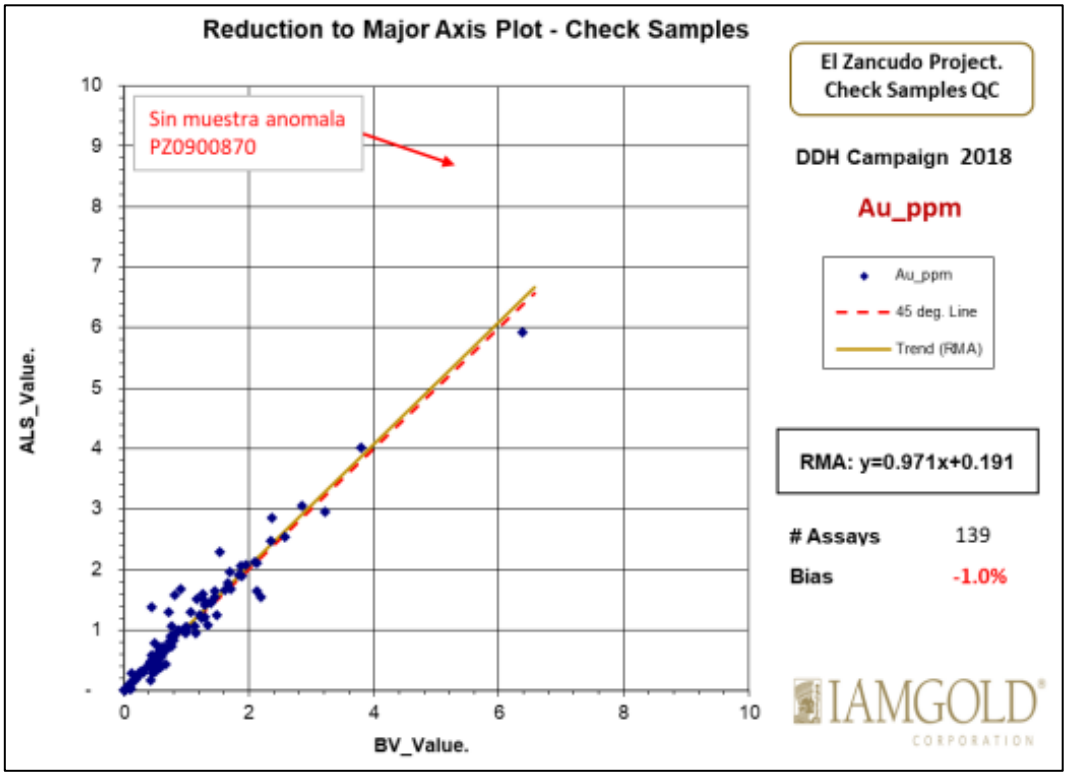
Pulp Duplicates
Source: ESV, 2022

Figure 11-3: Summary of Duplicate Submissions by Sample Type

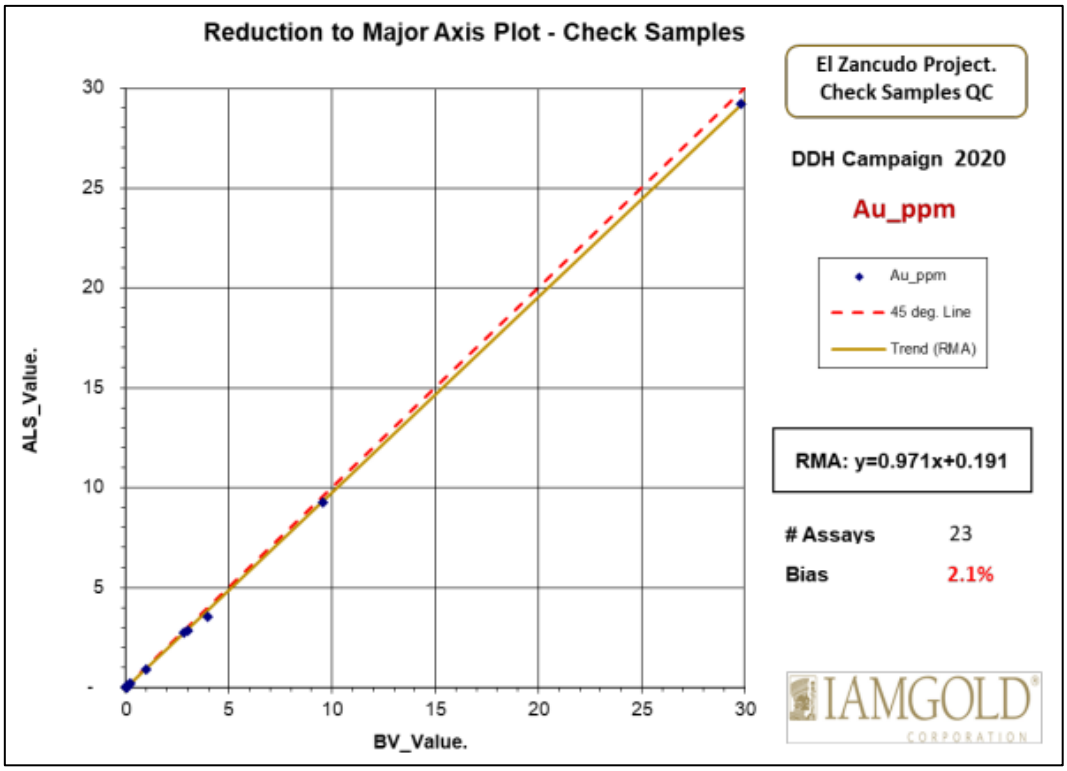
11.5.4 Second Laboratory Checks

The second laboratory checks were carried out by Bureau Veritas, and 562 pulps were sent between 2017 and 2021. Fine blanks and standards were included for quality control of the control check batches. Using scatterplots and the calculation of the difference between the slope of the data and the reference line, it is possible to know the bias. If the bias is less than 10%, the control is accepted.

Examples of scatterplots of second laboratory checks are shown in Figure 11-4.



Au 2018



Au 2020
Source: Iamgold, 2022

Figure 11-4: Summary of Second Laboratory Checks Scatterplots

11.5.5 Actions

No sampling is currently being completed as no drilling and exploration are being completed during 2023. Discussion with the client is that routine review of all QA/QC samples will be completed once drilling and sampling restarts and that when poor results exist these will be reported to the laboratory for further investigation and if required re-assay.

11.5.6 Results

In general, the results of the QA/QC controls inserted during the different campaigns are acceptable and the failures have been managed with the laboratories, including the re-assaying of samples of batches with failures in standards, review of contamination with laboratories and communication with the laboratories.

11.6 Opinion on Adequacy

Sample preparation and storage is deemed to be up to industry standards and within expectations. Sample preparation and handling is considered good with the vast majority of QA/QC data submitted performs within tolerance limits, and the previous owners have actioned where appropriate when these failed to keep within expectations (see action section).

In the opinion of the QP, the methods employed for sampling preparation, security, analytical procedures, and QA/QC protocols are in line with the industry's best practices and are satisfactory.

12 Data Verification

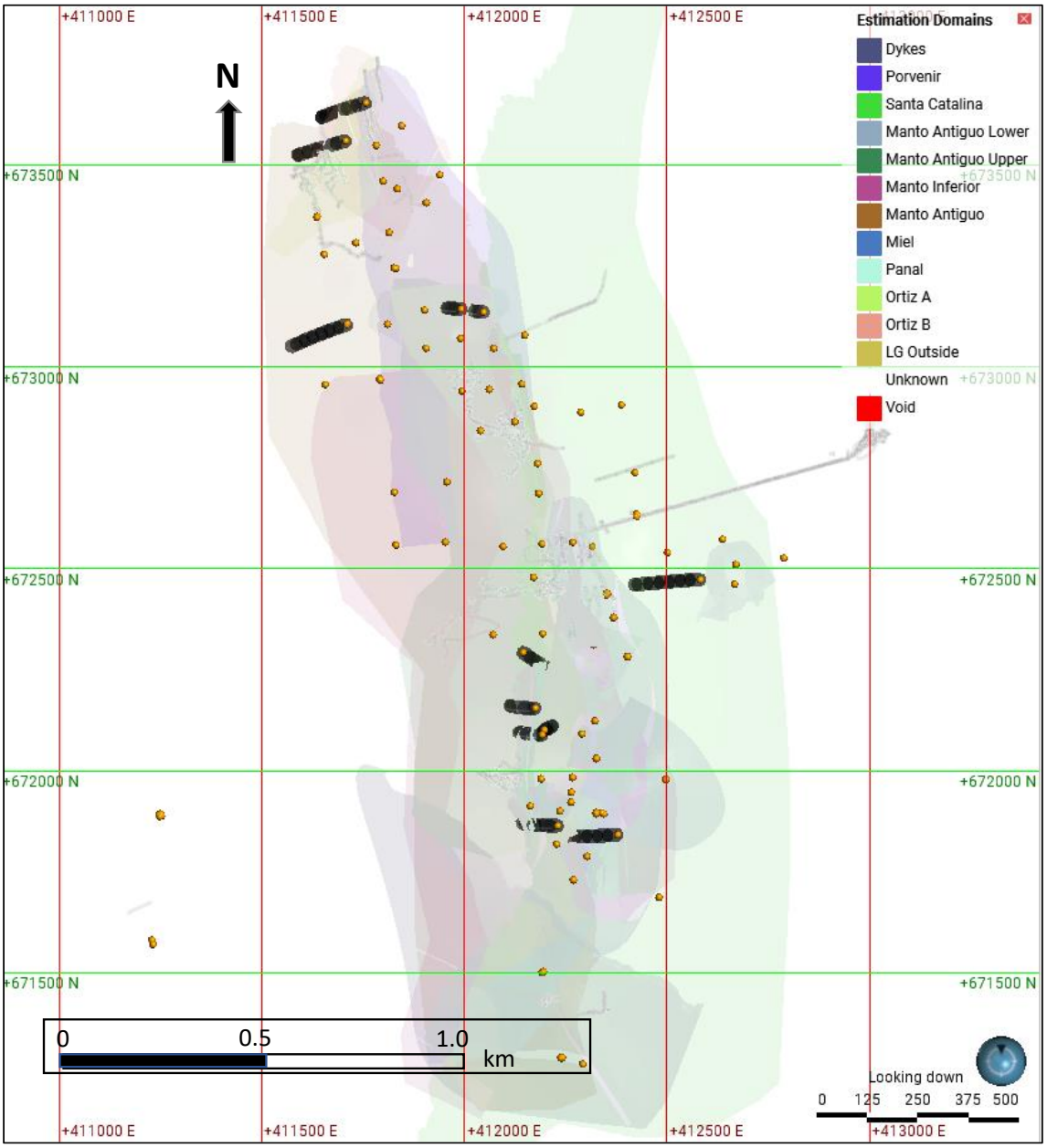
12.1 Procedures

Sampling, sample preparation and assaying comprises the single most important data acquisition activities in any exploration or mining company. Sampling and assaying determine the value (or lack thereof) of a Company's exploration efforts. Since this is the most important part of exploration, it is important to verify the quality and assure the accuracy of results obtained from those samples.

In accordance with NI 43-101 guidelines, SRK visited the Project from January 11 to 14, 2023

The main purpose of the site visits was to:

- Observe the extent of the exploration work completed to date.
- Inspect the core drilling and underground channel sampling completed during the latest phase of exploration.
- Inspect location of historical drilling locations which have since been rehabilitated.
- Complete an audit of drilling and sampling procedures used for both drillholes and underground sampling.
- Review updated core logging protocols and QA/QC used by the exploration team who were present during the last drilling campaigns.
- Inspect the existing and the new core logging and sample storage facilities, which included a review of a number of drillholes from across the Project (Figure 12-1) as listed below:
  - 17PZ-068, 17PZ-073, 17PZ-075, 17PZ-076, 17PZ-078, 17PZ-092, 17PZ-098, 17PZ-105 , 17PZ-111, 17PZ-112, 17PZ-113, 17PZ-117, 17PZ-125, 17PZ-131
- SRK did not visit the laboratory as part of the site inspection but notes these are commercial facilities which hold the required accreditation and in good standing.
- SRK visited the adit entrances which are currently in the process of rehabilitation during the site visit. Access to underground was not deemed to be reasonable at the time of the site visit so review was limited to previous mapping and photographs taken of old work areas. SRK noted outcrops near the entrance of the old adit's which reflected the structural setting and key geological units to support the current model.
- Discuss updated geological and structural interpretations with the geology teams, including the discussion on methods used to correlate intersections between holes.
- Additional visits were taken to view the two existing small scale historical plants exist on the Project by SRK metallurgist, and visits to the underground workings and mine rehabilitation by SRK mining and geotechnical engineers, as part of on-going mining evaluation studies by Denarius.



Source: SRK, 2023

Figure 12-1: Location of Holes (Black) Reviewed for Key Intersections During Site Inspection

SRK completed a phased approach to the data validation on the digital sample database supplied by the Company, which included but was not limited to the following:

- SRK completed a meeting with a senior geologist in charge of the database to review the processes used to log, store and extract data from the central Access database during the site inspection.
- Search for sample overlaps or significant gaps in the interval tables, duplicate or absent samples, errors in the length field, anomalous assays and survey results. Company's

geological team was notified of any issues that required correction or further investigation. No material issues were noted in the final sample database.

- Currently there is not a three-dimensional (3D) volume to accurately reflect the previous mining activity which still remains a risk. SRK has accounted for this by generating a buffer around the digitized polylines reflecting the underground developed as known. SRK has sterilized the grade estimates with 5 m of all digitized underground.
- Undertaken a review of assay certificates to extracts supplied from the Access database.
- Since completion of the December 31, 2022 Mineral Resource Estimate, SRK has continued to work with Denarius site team to investigate potential mining options on the Project, and to identify potential additional mineralization for consideration.

In the previous December 31, 2022, model, SRK created a halo of mineralization around a number of the main structures that was based on the assumption that it may represent more-disseminated style mineralization in some cases. SRK flagged in the model that this may represent some potential upside to the Project. SRK previously noted the following:

- *Mineralization still exists outside the estimated block, but further exploration will be needed to improve the geological confidence to a sufficient level to define mineral resources. SRK estimates approximately 650 to 1,250 thousand tonnes (kt) of material at grades ranging from 5.0 to 6.5 grams per tonne (g/t) Au and 100 to 160 g/t Ag could potentially exist outside of the current estimate. SRK cautions that these estimates of geological volumes and grade estimates are located outside of the current estimates and are too limited to establish grade continuity to meet the present requirements for reasonable prospects for economic extraction. The reader is cautioned that the potential quantity and grade ranges noted above are conceptual in nature, and insufficient exploration has been conducted to define this material as a mineral resource.*

Upon completion of the initial model, SRK completed some initial internal conceptual mining studies of a combined mineralization and exploration potential domains to aid in guiding future exploration. During the review, it was noted that the mineralization outside of the previous classified material fell into two main categories, which can be summarized as:

- Isolated high-grade mineralization, which lacks continuity along strike and downdip which will require further exploration to define potential targets; or
- High-grade material, which was parallel or near to the existing structures and warranted a review of the geological model contacts to identify possible misallocations of structures, or potential additional materials which could be incorporated into the current interpretation to form the basis for a preliminary economic analysis of the Project.

12.2 Revised Geology

SRK completed an initial review of the intersections using these two categories above and noted that there the potential inclusion of the near structure mineralization was material enough that a more-detailed review of the intersections was warranted.

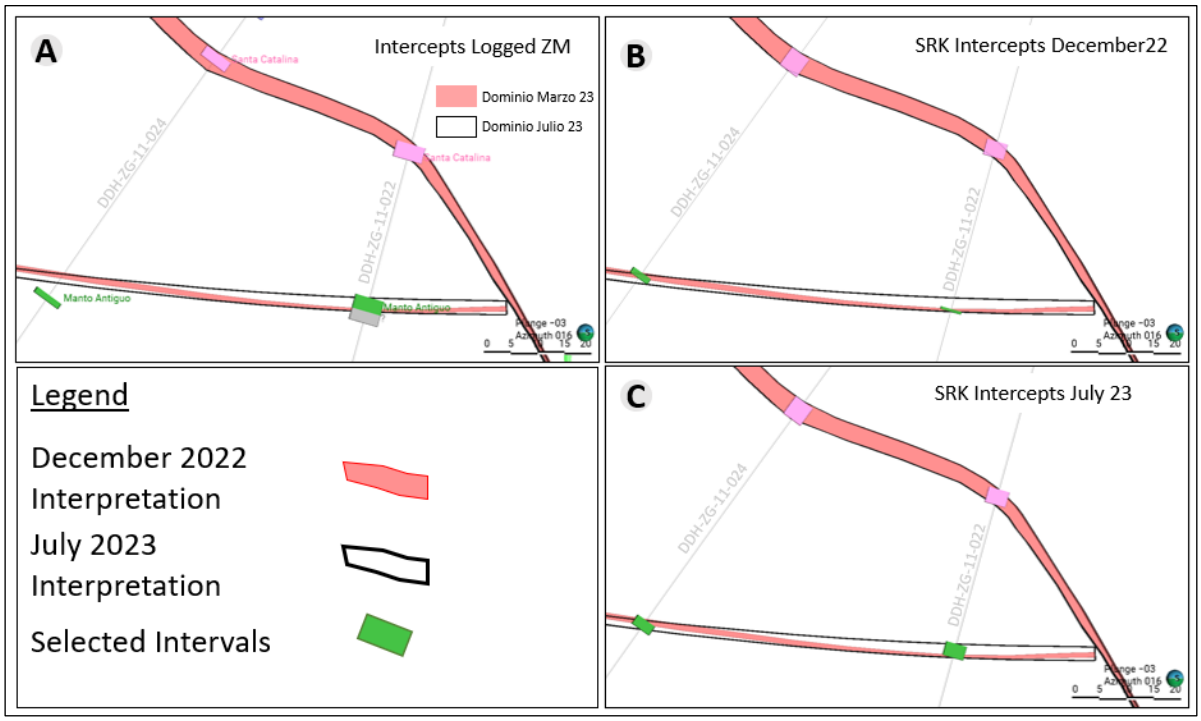
SRK created the first pass on the revised mineralization model during July 2023. To reiterate, no new drilling was completed, but these changes are based on a revision of the model using historical logging and the following method:

- SRK coded the drilling using the DEC22_MRE mineralization domain.
- SRK created a coded dataset which reported high grades outside of the DEC22_MRE, within ±10 m.
- Intersections were initially reviewed in Excel, and high grades or samples coded outside of DEC22_MRE shapes were coded for visual inspection (Table 12-1).
- SRK created a revised mineralization model in Leapfrog using the interval selection tools.
- The initial interpretation was sent to Denarius's geological team for review on August 1, 2023.
- Denarius's geological team reviewed the revised coded intersections in conjunction with a review of the core and historical logging and provided feedback to SRK on August 10, 2023, which confirmed that the DEC22_MRE wireframes should be revised to improve the consistency to some of the original logging. Figure 12-2 shows an example of the type of feedback.
- Based on their feedback, SRK made a further set of edits and minor adjustments to update the interpretation, which was previously cutting through waste, to account for revised intersections. This included a cross check of the core photography to ensure consistency with the logging and potential revised intersections (Figure 12-3).
- The final models were checked for chronological order, with one adjustment being made to terminate the Manto Inferior domain on the footwall contact with Santa Catalina.

Table 12-1: Example of Selected Samples for Core Photo Review based on Revised Intersections

HOLE ID	Selection - 12/31/22						Selection - 07/31/23					
Row Labels	From (m)	To (m)	Length (m)	Au ppm	Ag ppm	As ppm	From	To	Length (m)	Au ppm	Ag ppm	As ppm
17PZ- 069	167.4	170.4	2.98	0.00	0.0	0.0	161.4	163.0	1.59	2.42	5.2	7,370
17PZ- 080	153.6	154.5	0.86	14.90	753.0	26,800	153.6	155.6	2.00	6.91	342.5	13,409
17PZ- 098				0.00	0.0	0.0	71.7	72.7	1.00	21.40	212.0	23,100
17PZ- 104	157.2	158.7	1.46	0.13	1.5	432	155.3	157.2	1.88	7.16	48.2	26,456
17PZ- 109	139.1	143.1	4.01	0.01	0.2	50	146.6	147.5	0.94	2.43	71.2	9700
17PZ-127	205.9	206.6	0.71	8.23	149	28,240	205.5	206.6	1.15	10.93	222.6	39,561
DDH-ZG-11-022	143.1	143.6	0.50	20.26	1796	6,240	141.0	143.6	2.60	5.67	420.9	6,007
DZ-0049				0.00	0	0	120.7	121.1	0.39	5.80	4.70	8,156

Source: SRK, 2023



Source: Denarius, 2023 (modified by SRK)

Figure 12-2: Example Cross Sections Looking North of Changes in Wireframe Interpretation to Include Additional Above Cut-Off Grades at Contact of December Model

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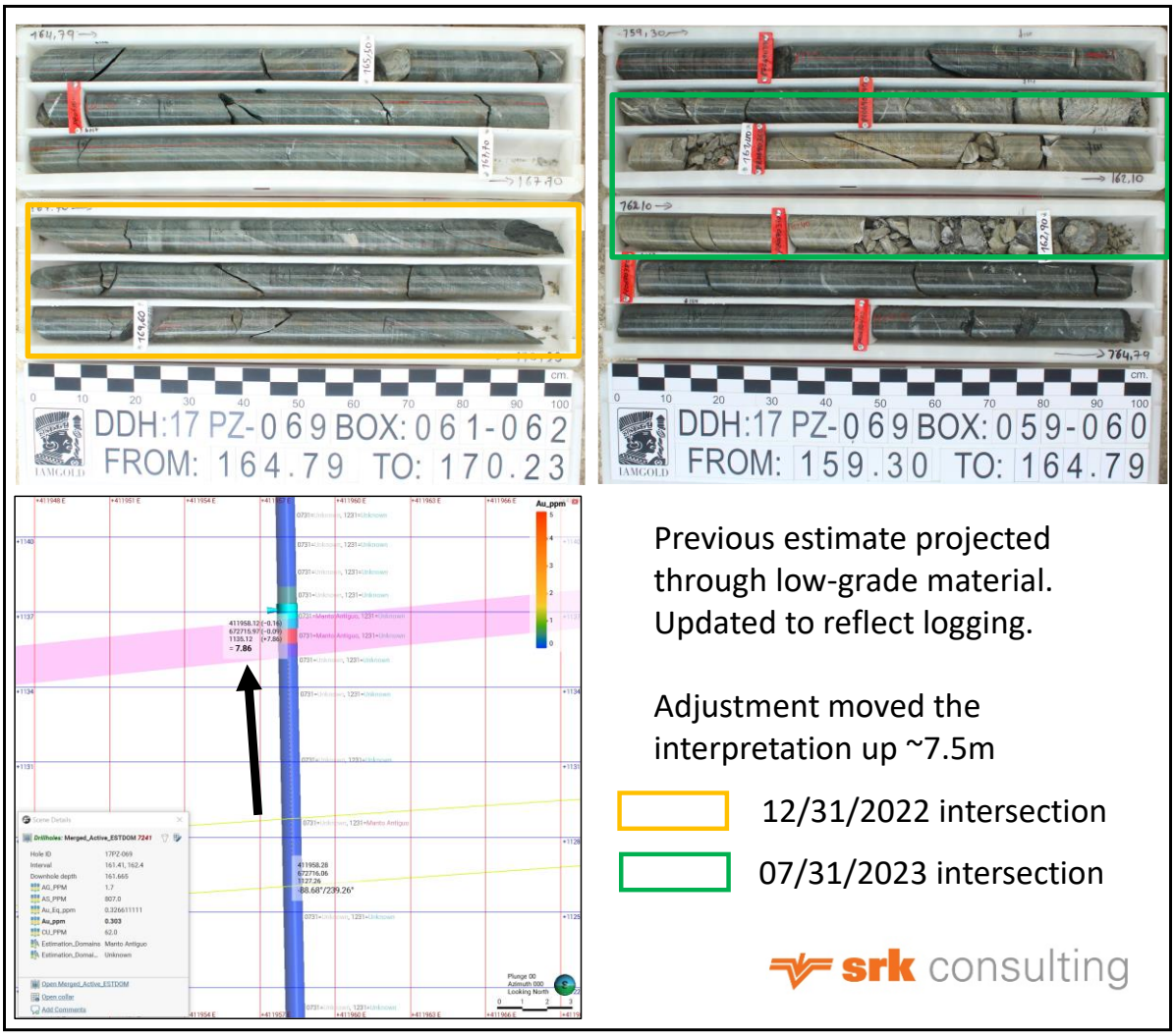


Source: SRK, 2023

Figure 12-3: Example of Workflow from Checked Intersections (Manto Antiguo)

Based on the work completed it is SRK opinion that the revised model represents an improved representation of geological and sampling information, and that the confidence is sufficient to update the interpretation of gold grade distributions appropriate to use in the Mineral Resource model.

12.3 Limitations

SRK did not review 100% of the analyses from the analytical certificates as part of this report. SRK did not review the drilling and logging procedures during the site inspection as no active drilling was being completed. SRK did reviewed drill core from the previous drilling campaign which supported the procedures as documented by the geological team.

SRK has not completed an inspection of the underground workings during the site inspections as safe access was not possible. Further site inspections will be completed upon additional exploration and access to the underground workings which were being rehabilitated at the time, should allow access.

The current estimates are based primarily on the diamond drilling which was completed and therefore the risk of not visiting the underground workings for the current level of estimation is considering low.

12.4 Opinion on Data Adequacy

It is the opinion of the QP responsible for the preparation of this Technical Report that the data used to support the conclusions presented here are adequate for the purposes of defining the current geological model and associated MREs.

13 Mineral Processing and Metallurgical Testing

13.1 Testing and Procedures

13.1.1 Historic

Historically limited metallurgical test work has been completed. A predictive metallurgical study of 22 core samples was carried out by Terra Mineralogical Services in 2012-13 by scanning electron microscope SEM-EDS scans of polished thin sections. The objective was to provide a detailed ore characterization and predictive metallurgy assessment of the gold mineralization. The study concluded that the features of the Zancudo gold mineralization suggest that an efficient extractive method for this type of gold-silver mineralization could be gravity extraction followed by regrind and whole ore cyanidation. Subsequent test work described in the following sections shows this to be an inaccurate assessment for the greater Zancudo deposit.

13.1.2 Summary of Short Channel Sampling Program (December 2022)

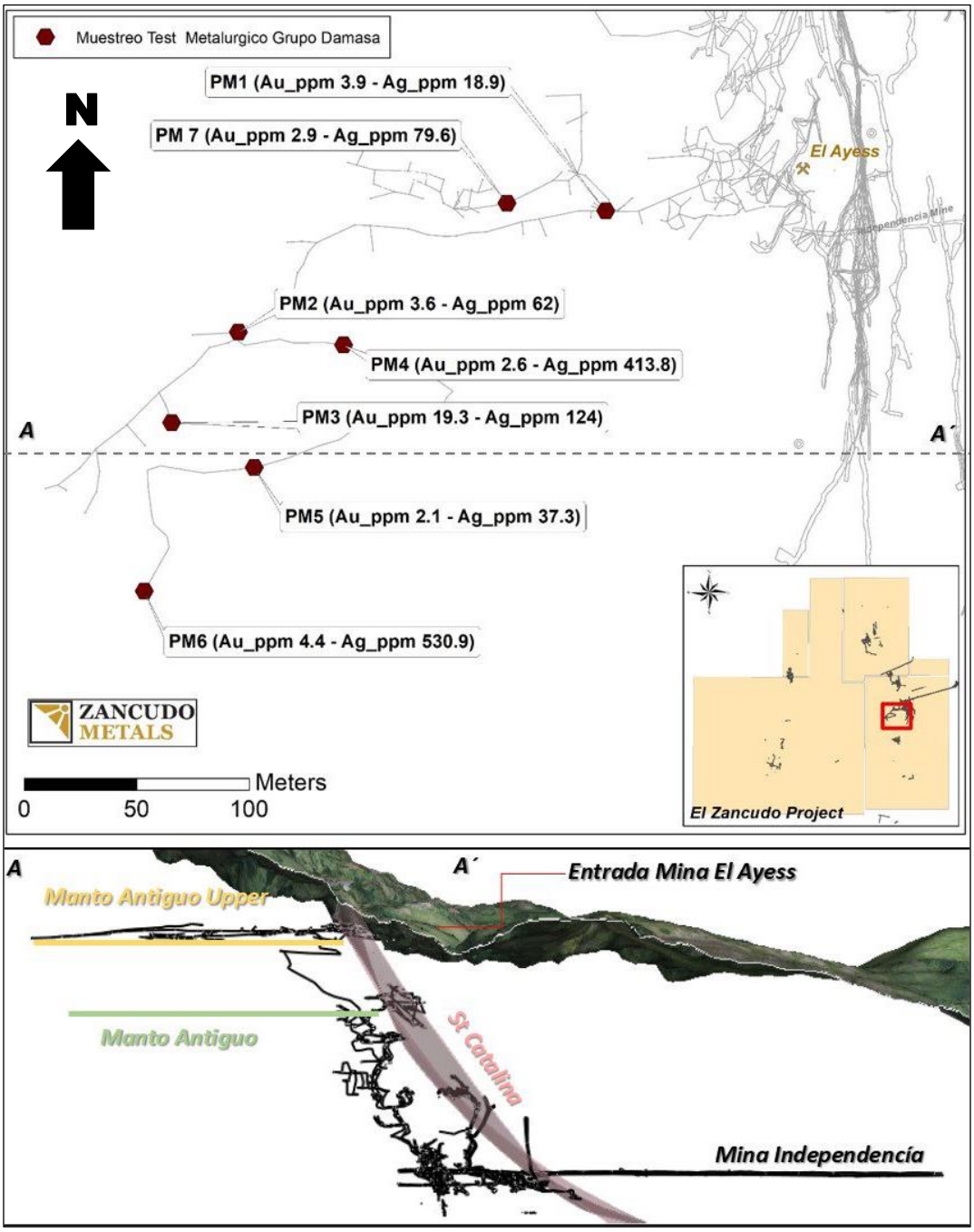
Sample Selection

Initial test work was completed by selecting a total of seven bulk composites samples taken near the main portal of the Ayess Mine (Figure 13-1). The combined composites totaled approximately 450 kg and sampling was completed at the Aris Mining Segovia's Laboratory, Colombia. The average grade for the blended composites was recorded as 7.4 g/t Au and 297.3 g/t Ag with the results per composite shown in Table 13-1. It should be noted that the sample gold grade on Especial PM3 is much higher than the others, potentially skewing the results higher for both grade and recovery. The same can be said for samples Especial PM4 and PM6 for silver.

Table 13-1: Assay results for Au and Ag (g/t) for Samples

Description	% Moisture	Grade Au g/t	Grade Ag g/t
ESPECIAL PM1	15.6	3.9	18.9
ESPECIAL PM2	16.4	3.6	62
ESPECIAL PM3	4.5	19.3	124
ESPECIAL PM4	7.3	2.6	413.8
ESPECIAL PM5	8.3	2.1	37.3
ESPECIAL PM6	12	4.4	530.9
ESPECIAL PM7	5.1	2.9	79.6
Average Blend (PM1-7)	**9.4**	**7.4**	**297.3**
ESPECIAL TITIRIBÍ	8.6	5.2	129.8

Source: Denarius, 2023



Source: Denarius, 2023

Figure 13-1: Location of Composites Taken for Initial Metallurgical Testwork

Leaching

The blended sample was ground to 400 mesh (38 µm) and put through a cyanide bottle roll test run. Gold and silver extractions average 85% and 90%, respectively. Benchmarking against other companies in the region and based on the reports from previous operators at Zancudo, SRK discounted the laboratory results due to the samples not being representative in terms of grade and addressed repeatability with further test work on more representative samples.

13.1.3 Summary of Aris Blending Test Program (June 2023)

Introduction

A single sample of ore from Zancudo was sent to the Aris Mining's Segovia Laboratory in located in Colombia, to evaluate gold recovery in the flotation and leaching processes, as well as to evaluate performance of the mineralization when blending concentrates from Zancudo with Aris material in a ratio of 12.5% and 87.5% respectively (to mimic the approximate daily production from each mine should a toll treatment agreement be reached).

Sample Selection

A 71.2 kg sample of gold bearing mineralization was sent from Zancudo for testing and was split, then ground to 80% passing (P80) 106 µm for rougher flotation tests and P80 38 µm for leaching test work.

A size-by-size assay analysis was completed on the material for determination of the gold distribution according to size fraction shown in Table 13-2.

Table 13-2: Analysis of Au Distribution by Size Fraction

Mesh	Au (g/t)	Mass (g)	% Distribution Au
Mesh +140	28.9	9.2	20%
Mesh +200	11.6	10.1	9%
Mesh +325	5.3	52.6	21%
Mesh -325	3.6	181.4	50%
Recalculated Head	5.2	253.3	

Source: Denarius, 2023

Rougher Flotation

Rougher flotation tests were carried out under the standard processing conditions at the Maria Dama process plant at Segovia, which include a rougher flotation slurry density of 35% solids and a retention time of 12 minutes. The Zancudo mineralization resulted in 62.5% Au recovery and 68.9% Ag recovery into a rougher flotation concentrate containing 31.6 g/t Au and 699.5 g/t Ag (Table 13-3).

Table 13-3: Bulk Rougher Flotation Results

	Mass (g)	Au (g/t)	Ag (g/t)	Rec Au%	Rec Ag%
Head	1000	4.8	96.5		
Concentrate	95	31.6	699.5	62.5%	68.9%
Tail	905	2.0	33.2		

Source: Denarius, 2023

Cyanide Leaching

Cyanide leach tests were conducted on a blend of 12.5% Zancudo flotation concentrate, and 87.5% Segovia flotation concentrate to represent the anticipated contribution from each mine. The blended concentrate was ground to P80 of 38 µm and leached at a cyanide concentration of 1000 ppm NaCN and a slurry density of 31% solids. Gold extraction from the blended concentrate was 96.6% and silver extraction was 62.1% as shown in Table 13-4. These extraction results are solely for leaching and do not include losses during flotation.

Table 13-4: Leaching Results on the Blended Concentrate

	Au (g/t)	Ag (g/t)	Extraction Au%	Extraction Ag%
Head	101.40	301.62	96.6%	62.1%
Tail	3.46	114.21		

Source: Denarius, 2023

Direct cyanide leaching was done on the Zancudo test composite, also ground to P80 of 38 µm, at 31% solids and 1000 ppm NaCN concentration. Results from the Zancudo test composite were lower than the blended leaching tests showing 62.3% Au extraction and 69.1% Ag extraction (Table 13-5). Cyanide Leaching tests on the Zancudo rougher flotation concentrate were not conducted.

Table 13-5: Results of Direct Leaching Zancudo Ore

	Au (g/t)	Ag (g/t)	Extraction Au%	Extraction Ag%
Head	4.80	96.50	62.3%	69.1%
Tail	1.81	29.81		

Source: Denarius, 2023

13.1.4 Summary of SGS Test Program (June 2023)

Introduction

To further assess the metallurgical performance of the deposit, Zancudo contracted with SGS Laboratories in Lima, Peru, to evaluate three composite samples (one each from the Santa Catalina, Manto Antiguo, and La Miel mineralogical structures). The test work included mineralogy, grinding kinetics tests, gravity testing, rougher/cleaner flotation tests and diagnostic leaching to evaluate achievable gold and silver recoveries.

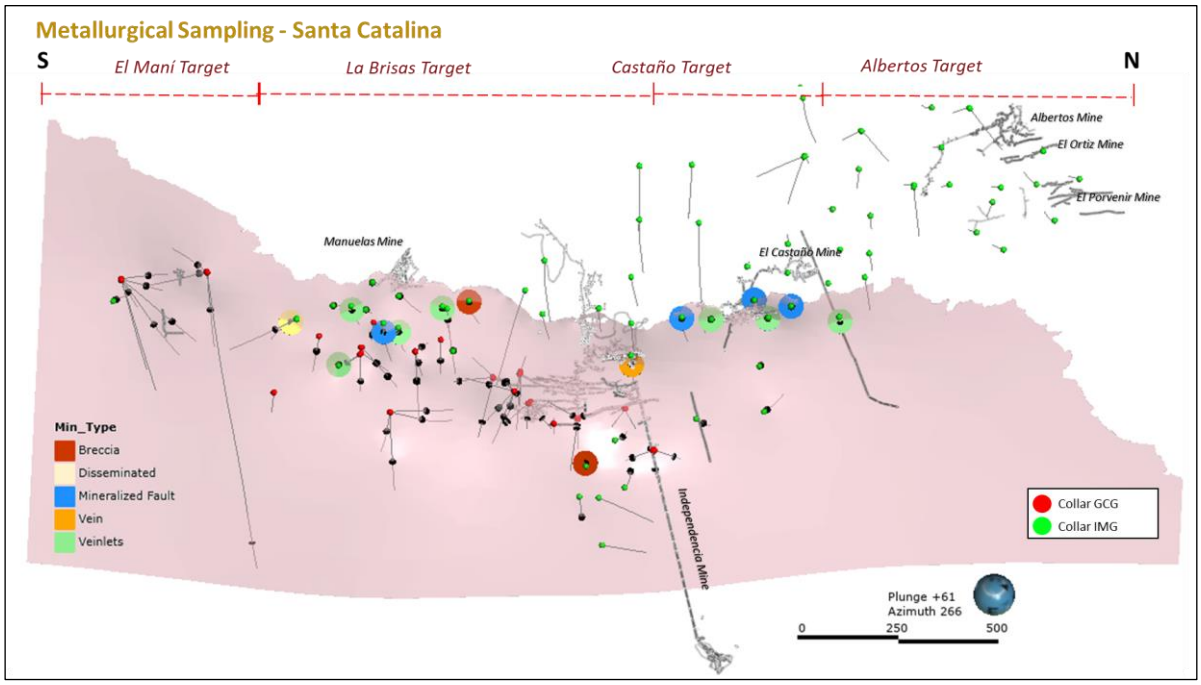
Sample Selection

Table 13-6 shows the grades and quantities of each of the test samples as received by SGS. Gold grades in individual samples ranged from 0.44 to 22.36 g/t, and silver grades in individual samples ranged from 1.4 to 788 g/t. It is important to note that arsenic ranged from 153 to 53,421 ppm. Figure 13-2, Figure 13-3, and Figure 13-4 show the drillhole locations for each of the test composites.

Table 13-6: Metallurgical Test Composites

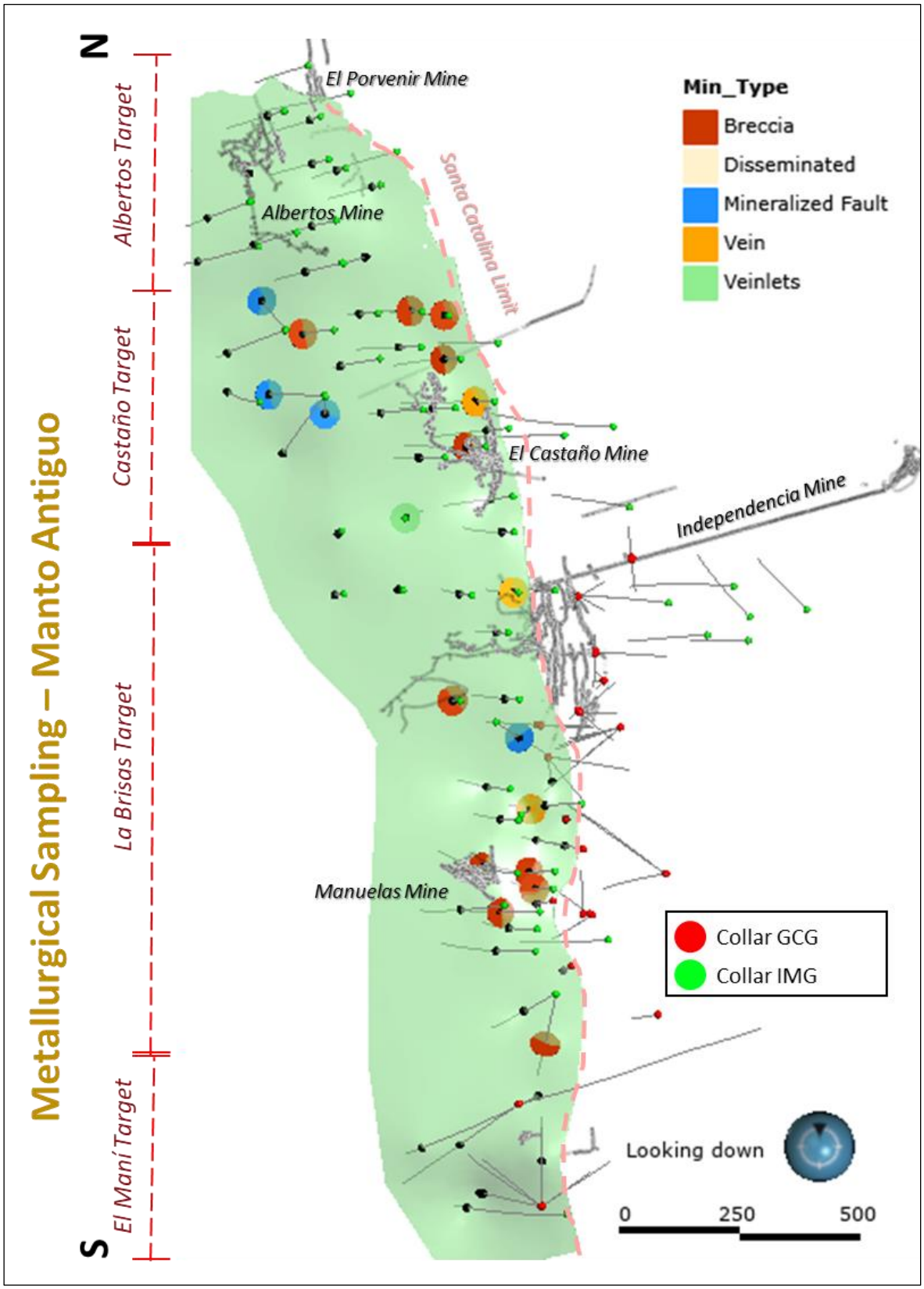
Structure	Metallurgical Sample	Number of Samples	Weight (kilograms (kg))	Assayed Au (g/t)	Assayed Ag (ppm)	Assayed As (ppm)
Santa Catalina	ZM-01M	16.00	35.2	2.23	58.67	3,855
Manto Antiguo	ZM-02M	26.00	53.0	6.15	166.60	14,299
La Miel	ZM-03M	16.00	43.9	2.15	21.12	6,173

Source: Denarius, 2023



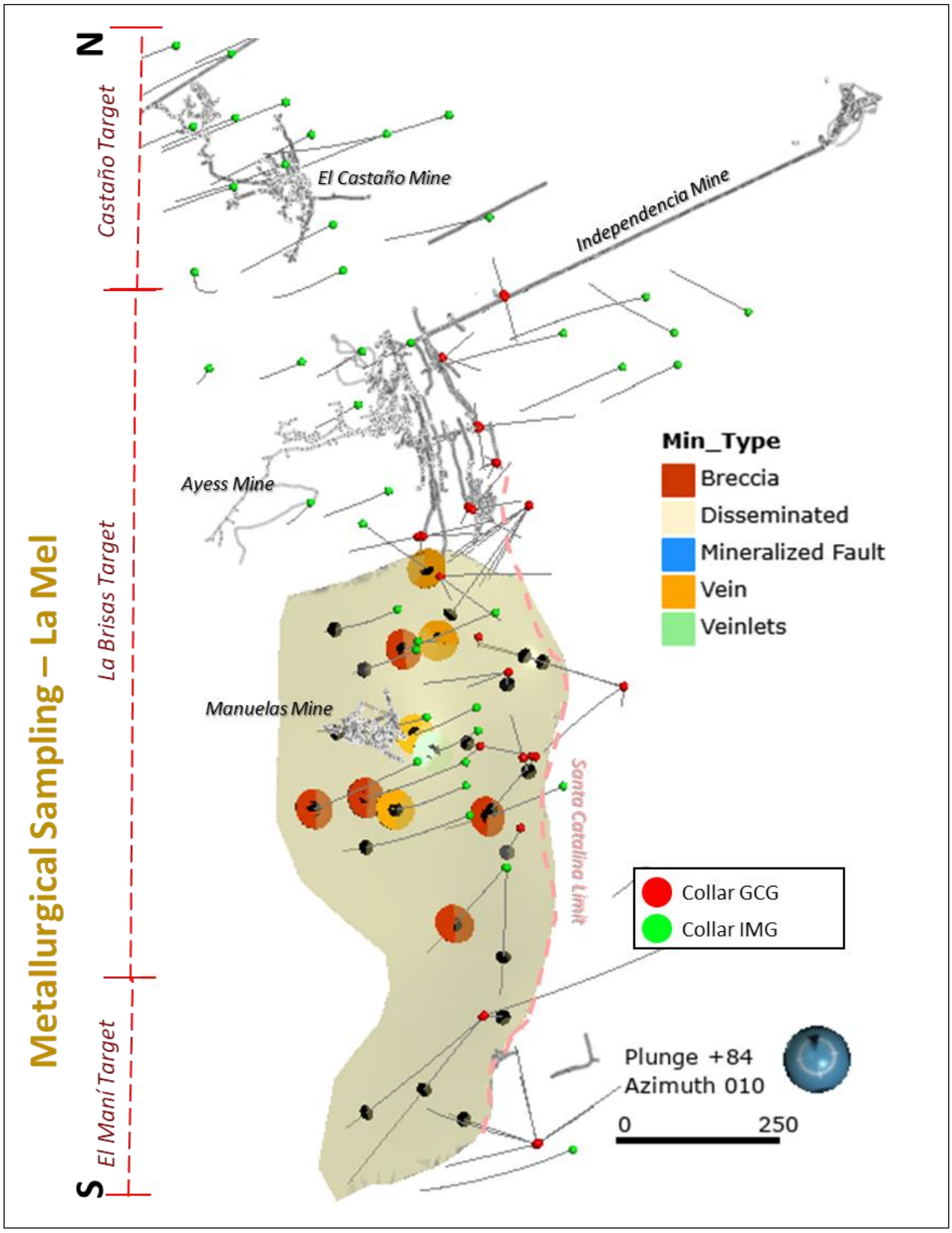
Source: Denarius, 2023

Figure 13-2: Drillhole Locations for the Santa Catalina Metallurgical Composite



Source: Denarius, 2023

Figure 13-3: Drillhole Locations for the Manto Antiguo Metallurgical Composite



Source: Denarius, 2023

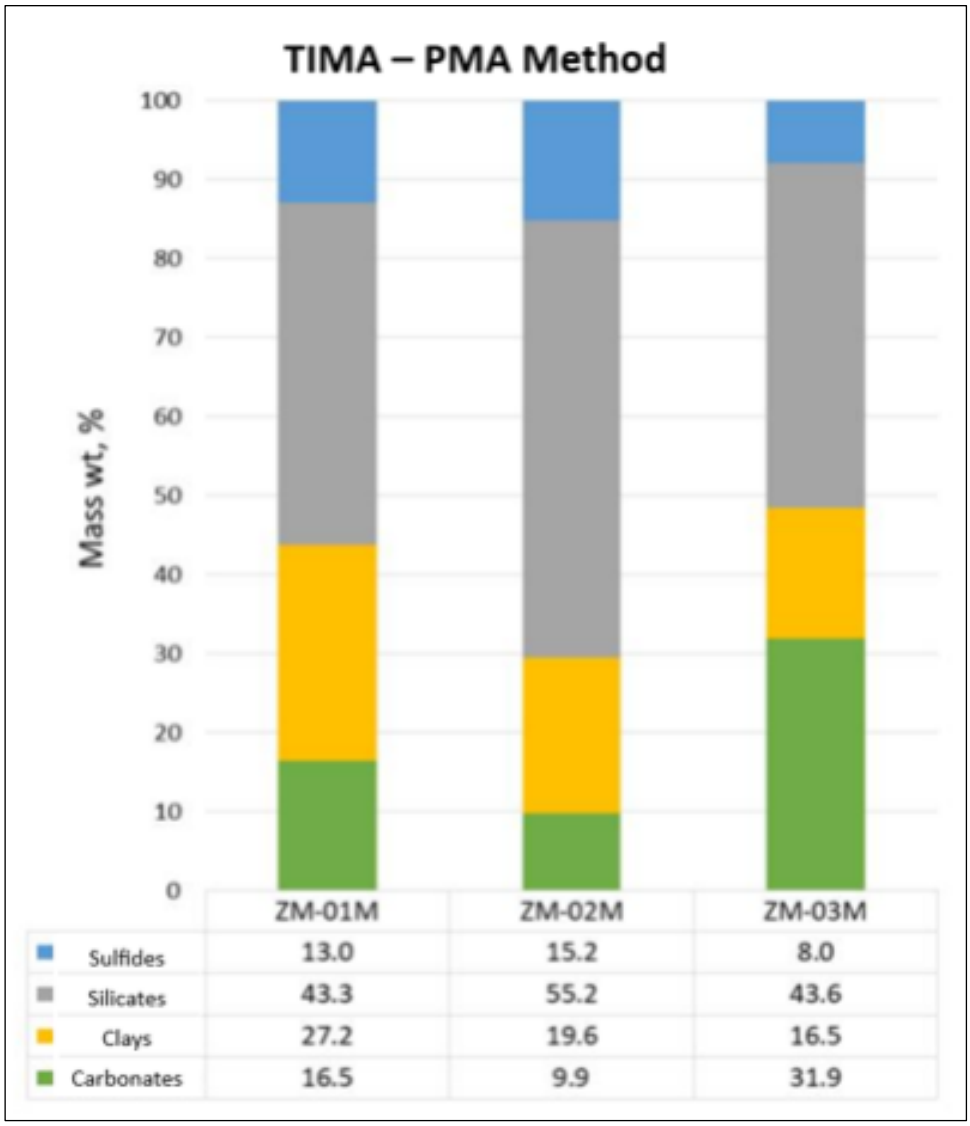
Figure 13-4: Drillhole Locations for the La Miel Metallurgical Composite

No samples were collected, composited, or tested from the Porvenir, Manto Antiguo Lower, Manto Antiguo Upper, Manto Inferior, Panal, Ortiz A, or Ortiz B structural domains. The three tested mineralized domains (Santa Catalina, Manto Antiguo, and La Miel) account for approximately 57% of the current Inferred resource, whereas the non-tested areas account for approximately 43% of the mineral resource. After further evaluation of the mineral resource, the Santa Catalina and La Miel domains represent only 10% and 13% of the gold content, respectively and in comparison, the Manto Antiguo domain accounts for 39% of the gold content. Analysis of the average grades within the Santa Catalina and La Miel structures were also considered to demonstrate lower grades ($\frac{1}{3}$ to $\frac{1}{2}$ the average grade) than proposed in the current mineral resources and therefore may not be full representative of the entire domains. Due to this, only the test results for Manto Antiguo (ZM-02M) were selected for financial modeling and analysis as it is more representative of the entire deposit mineralogically.

Mineralogy

The three head mineral samples were ground to P80 of 212 µm for mineralogical characterization using the TESCAN Integrated Mineral Analyzer (TIMA) in the trace mineral analysis (TMS) and the particle mineral analysis modes (PMA). TIMA-TMS, TIMA-PMA and X-ray diffraction analysis were performed on each sample for mineralogical characterization. The TIMA-TMS test work showed that gold is present in both native form and electrum, which typically respond well to gravity, flotation and cyanidation for recovery methods. The gold ore was not shown to be free grain but rather associated with sulfides: pyrite, arsenopyrite, galena and sphalerite.

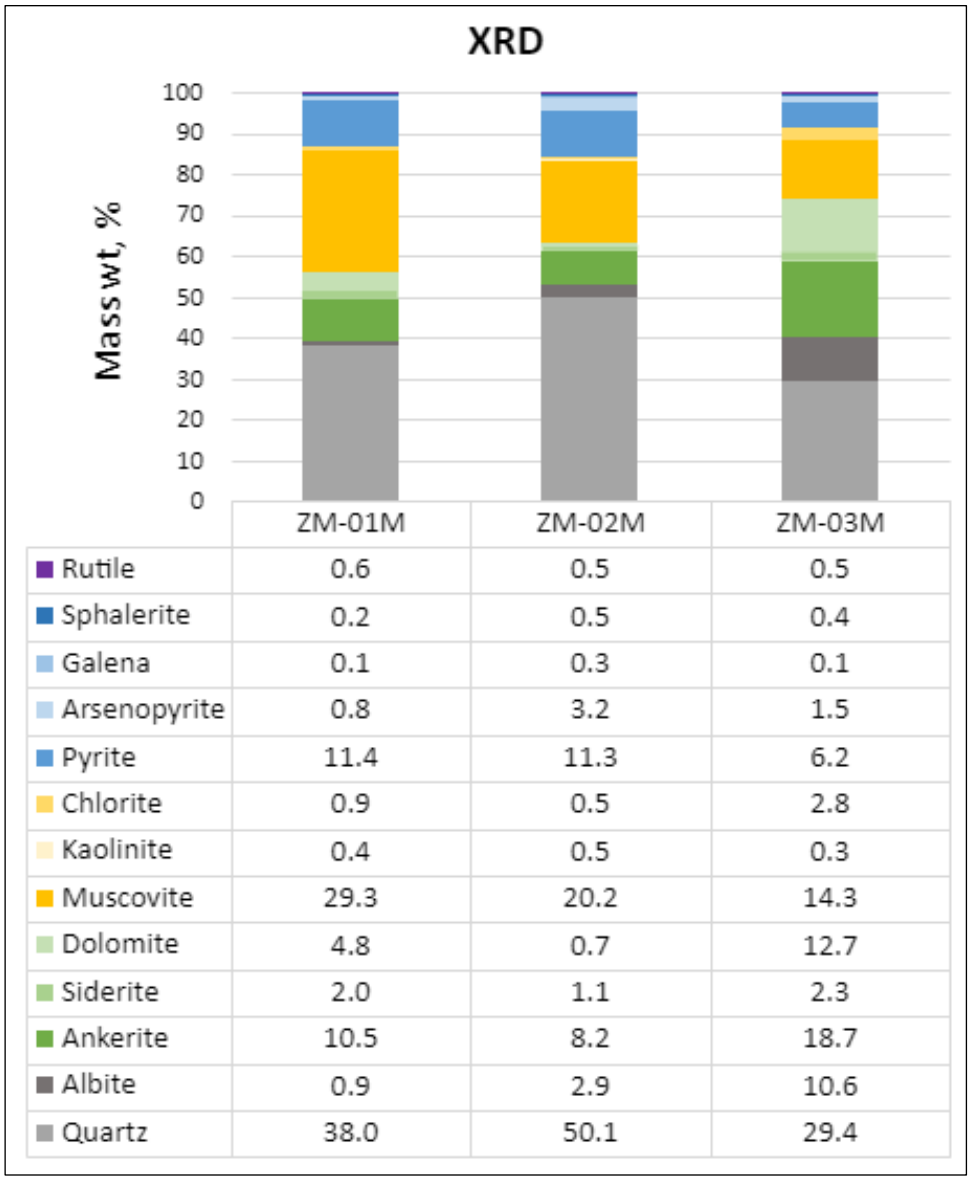
The TIMA-PMA method was performed on each of the three composites at P80 of 212 µm. Figure 13-5, indicates a majority of each sample being silicates. Sulfides range from 8% to 15% across the samples. Clays ranged from 16% to 27% and carbonates ranged from 10% to 32%. Clays and carbonates have the potential to negatively impact gold recovery during flotation, as such, dispersants and gangue mineral depressants were used in the flotation test work.



Source: Denarius, 2023 (modified by SRK)

Figure 13-5: TIMA-PMA Mineralogy

X-ray diffraction (XRD) analysis was performed to identify the mineral content in the composite samples, shown in Figure 13-6. The pyrite content in samples ZM-01M and ZM-02M are around 11% and 6.2% in ZM-03M. Arsenopyrite is highest in sample ZM-02M at a value of 3.2%. As the occurrence of arsenic is present only in arsenopyrite, high values have the potential to impact leach recovery and incur penalties in smelting. The results show there is a high percentage of the clay mineral muscovite in each sample ranging from 14.3-29.3%, ZM-01M being the highest. Further mineralogical analysis shows the muscovite grouping is the clay mineral, illite. Ankerite is a carbonate that hinders the recovery of sulfides and is between 8.2-18.7% across the composites. Quartz in the samples ranges from 29.4% to 50.1%.



	ZM-01M	ZM-02M	ZM-03M
Rutile	0.6	0.5	0.5
Sphalerite	0.2	0.5	0.4
Galena	0.1	0.3	0.1
Arsenopyrite	0.8	3.2	1.5
Pyrite	11.4	11.3	6.2
Chlorite	0.9	0.5	2.8
Kaolinite	0.4	0.5	0.3
Muscovite	29.3	20.2	14.3
Dolomite	4.8	0.7	12.7
Siderite	2.0	1.1	2.3
Ankerite	10.5	8.2	18.7
Albite	0.9	2.9	10.6
Quartz	38.0	50.1	29.4

Source: Denarius, 2023 (modified by SRK)

Figure 13-6: XRD Mineralogical Analysis

Comminution

No comminution test work was conducted as part of the SGS test program. Comminution test work including Bond low energy impact (CWi), Bond ball mill work index (BWi) and abrasion index (Ai) will be required during the next phase of metallurgical testing in order to develop the comminution criteria for process plant design.

Gravity

Tests were conducted using a Falcon centrifugal gravity concentrator in a two-stage arrangement. A 10 kg sample of each composite was passed through the Falcon concentrator at P80 of 212 µm. The concentrate was removed, then the tailings from the first pass were passed through the concentrator

again. The concentrate from both passes were analyzed and used to calculate a total gravity recovery. Table 13-7 summarizes the recovery results for gold and silver.

Table 13-7: Gravity Recovery Results

Structure	Metallurgical Sample	Gravity Au Recovery (%)	Gravity Au Grade (g/t)	Gravity Ag Recovery (%)	Gravity Ag Grade (g/t)
Santa Catalina	ZM-01M	19.0	15.1	7.99	155
Manto Antiguo	ZM-02M	23.2	60.3	4.6	281
La Miel	ZM-03M	19.6	15.4	9.4	76.7

Source: Denarius, 2023

The average gold recovery into a gravity concentrate across all three composites through both stages was 20.6%. However, the average gold grade for the gravity concentrate for the three composites is low at 30.3 g/t, likely requiring further upgrading before selling as a direct concentrate. Bottle roll testing of the concentrate in both normal and intensive leach situations is still required to properly assess the amenability of using a gravity circuit to recover gold and silver.

Flotation

An extensive flotation test work program was conducted on each of the three composites in an attempt to identify optimum flotation characteristics and maximize gold recovery. Tests were conducted to optimize the following parameters:

- Grind size
- Dispersants
- pH
- Depressants
- Frothers
- Collectors
- Activators

Grind size was evaluated at three different size fractions, P80 of 106 µm, P80 of 150 µm and P80 of 212 µm to determine the degree of liberation needed for the highest recoveries. There was not a single size fraction that performed the best in all three samples as clays interfered with creating a stable froth. However, a grind size of , P80 150 µm was selected for the remainder of the metallurgical program and should be reevaluated during the next phase of metallurgical study.

Five separate dispersants were used to depress clays and silicates. Gold recoveries across the samples saw an increase with the use of dispersants, though did not fully depress the clay. Sodium silicate and guar gum dispersants performed the best, with guar gum being selected for the remainder of the test program due to better froth stability.

Flotation tests were conducted to evaluate pH over the range from 7 to 11 and it was found that gold recovery increased at the higher pH.

Sodium carbonate was used to depress clays and resulted in improving gold and silver recoveries, while improving froth conditions.

Two frothers, MIBC and MT352, were tested with MIBC performing the best.

The flotation collectors, PAX (potassium amyl xanthate) and MT4064 were evaluated during the program and it was determined that PAX performed better and was more selective than MT4064. Therefore, PAX was selected for use during the remainder of the test work.

Five conditions with varying $CuSO_4$ and A-407 activator dosages were tested to optimize reagent dosages. Higher values of CuSO4 (35 to 50 g/t) performed the best in terms of gold recovery.

It should be noted, insufficient material from Composite ZM-01M (Santa Catalina) was available to complete the full suite of tests, so the results presented for the Santa Catalina composite are likely not optimized. Based on the increase in recovery of the Manto Antiguo and La Miel composites later in the test work program, it can be assumed the Santa Catalina composite would achieve a further increase in recovery from what is reported below because it performed similarly to these samples in the early test work stages. Table 13-8 summarizes the best recovery results achieved for each composite and the test number in which they were achieved.

Table 13-8: Metallurgical Rougher Flotation Test Composite Recovery Results

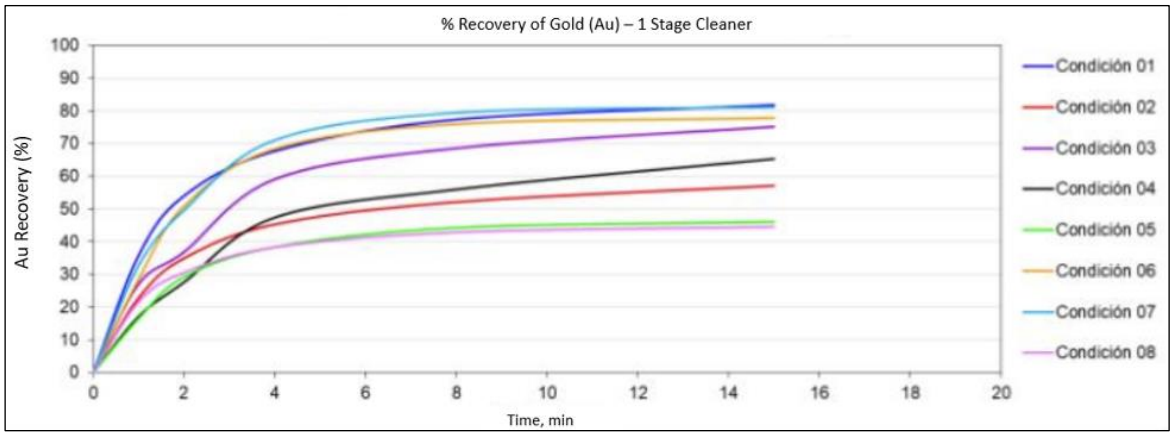
Structure	Metallurgical Sample	Au Recovery (%)	Conc Grade Au(g/t)	Program Test Number	Ag Recovery (%)	Conc Grade Ag(g/t)	Program Test Number
Santa Catalina	ZM-01M	75.8	7.7	15B	88.1	240	15B
Manto Antiguo	ZM-02M	82.5	28.5	24B	86.8	681	24B
La Miel.	ZM-03M	85.0	13	20	88.4	135	13F

Source: SRK, 2023

From Table 13-8, the best individual test for both gold and silver recoveries are represented separately. Optimization is needed to identify the conditions providing the highest recoveries for both gold and silver in a single test. Gold recovery ranges from 75.8% to 85.0% but, as mentioned previously, is likely low for the Santa Catalina composite. The gold grade of the concentrates is low, ranging from 7.7 to 28.5 g/t Au and averaging 16.4 g/t Au.

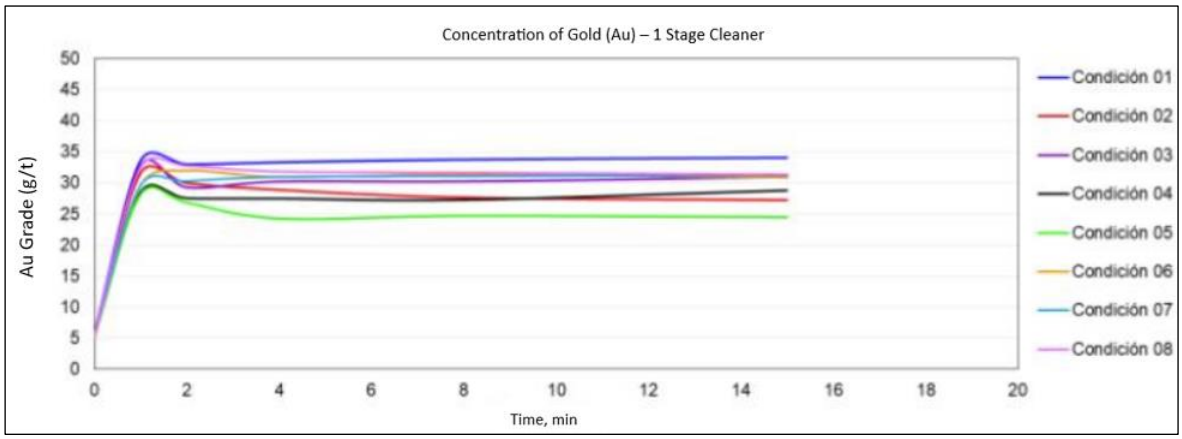
Inductively coupled plasma (ICP) chemical analysis was performed on the flotation rougher concentrate and arsenic values were greater than 10,000 ppm. High arsenic values should be flagged when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with smelting of a final concentrate.

Cleaner flotation tests were performed on ZM-02M to evaluate if higher concentrate grades could be achieved while maintaining gold recoveries. Particle size, pH, and PAX addition rates were evaluated in various conditions to optimize the cleaner flotation circuit. The grade and recovery versus time curves shown in Figure 13-7 and Figure 13-8 summarize the results from these tests.



Source: Denarius, 2023

Figure 13-7: Gold Recovery vs. Time in Cleaner Flotation - Evaluation of P80, pH, and PAX



Source: Denarius, 2023

Figure 13-8: Gold Grade vs. Time in Cleaner Flotation - Evaluation of P80, pH, and PAX

Table 13-9 shows the best cleaner results for ZM-02M in which there was no regrind, 20 g/t of PAX and pH of 11.5. Grades increased by 4.6 g/t Au and 119.5 g/t Ag, however, recovery decreased by 5.5% Au and 4.7% Ag when comparing to the rougher stage results for the same condition. SRK notes that the reduced recovery achieved during the cleaner flotation stage is not offset by the relatively small increase in grade and recommends further optimization should a higher-grade concentrate product be desired. With concentrate grades of around 31 g/t, flotation concentrate is generally considered low grade and would likely need to negotiate agreements with a refiner or smelter to avoid incurring penalties and maximize concentrate grade; Alternatively, the concentrate could be considered for toll treatment by other mineral processing facilities.

Table 13-9:Metallurgical Cleaner Flotation Test Composite Recovery Results

Structure	Metallurgical Sample	Stage	Au Recovery (%)	Grade (g/t)	Program Test Number	Ag Recovery (%)	Grade (g/t)	Program Test Number
Manto Antiguo	ZM-02M	Rougher	84.9	26.5	32	87.4	640	32
		Cleaner	79.4	31.1	32	82.7	760	32

Source: SRK, 2023

Diagnostic Leach Tests

Diagnostic leach tests (DLT) were conducted on 200 g of whole ore samples ground to P95 105 µm from each composite. DLTs are used to provide an indication of gold and silver associations within the ore and the degree to which the ore may be refractory and require additional processing such as pressure oxidation, roasting or finer grinding.

Table 13-10: Diagnostic Leach Test Results

DLT Stage	Mineralogy Association	ZM-01M Au Extraction (%)	ZM-01M Ag Extraction (%)	ZM-02M Au Extraction (%)	ZM-02M Ag Extraction (%)	ZM-03M Au Extraction (%)	ZM-03M Ag Extraction (%)
NaCN	Free or liberated	47.2	68.6	49.19	76.36	16.55	64.86
Hydrochloric acid (HCl)	Associated with carbonates	6.85	4.97	1.77	10.41	4.95	10.29
Agua regia	Associated with sulfides	14.01	22.06	15.69	10.51	26.11	24.04
Residue	Encapsulated in silicates	31.94	4.37	33.34	2.72	52.39	0.82

Source: Denarius, 2023

13.1.5 Sample Representativeness

The individual metallurgical test programs above each have a detailed write-up on sample representativeness and can be found in their respective sections. Given the limited sample population for a number of the domains sample representation remains difficult and further sensitivity work is likely required once more detailed exploration and drilling restarts.

13.2 Relevant Results

Table 13-11 and Table 13-12 summarize the best gold and silver recovery results for the ZM-02M composite at 52.5% and 65.8% respectively. The ZM-02M sample was selected for analysis as ZM-01M and ZM-03M from the SGS test program were deemed non-representative based on the current Mineral Resource and therefore excluded from the Relevant Results.

Table 13-11: Metallurgical Test Composite, Gold Recovery Results

Structure	Metallurgical Sample	Gravity Au Recovery (%)	Flotation Au Recovery* (%)	Leaching Au Extraction** (%)	Overall Au Recovery*** (%)
Manto Antiguo	ZM-02M	23.2	82.5	49.2	52.3

Source: SRK, 2023

*The single best recovery test is reported here. Proven reproducibility is required before this can be accepted as consistently achievable.

**Leaching test results reported are the sodium cyanide (NaCN) leach component of a diagnostic leach test and were conducted on whole mineral samples.

***Overall recovery assumes sequential unit operations for each recovery result presented and is represented by the following equation: Overall Recovery = Gravity Recovery + (Gravity Residual * Flotation Recovery * (Leaching Extraction - 2%)). This assumption may overestimate or underestimate recovery depending on the actual distribution of gold mineralization through each step of the process.

Table 13-12: Metallurgical Test Composite, Silver Recovery Results

Structure	Metallurgical Sample	Gravity Ag Recovery (%)	Flotation Ag Recovery* (%)	Leaching Ag Extraction** (%)	Overall Ag Recovery*** (%)
Manto Antiguo	ZM-02M	4.62	86.8	76.4	65.8

Source: SRK, 2023
*The single best recovery test is reported here. Proven reproducibility is required before this can be accepted as consistently achievable.
**Leaching test results reported are the sodium cyanide (NaCN) leach component of a diagnostic leach test and were conducted on whole mineral samples.
***Overall recovery assumes sequential unit operations for each recovery result presented and is represented by the following equation: Overall Recovery = Gravity Recovery + (Gravity Residual * Flotation Recovery * (Leaching Extraction - 2%)). This assumption may overestimate or underestimate recovery depending on the actual distribution of gold mineralization through each step of the process.

Recovery of gold through the gravity circuit appears to be reasonable at 23.2% Au recovery. Additional test work needs to be completed to assess the economic viability of running a gravity concentration circuit at 23% recovery and whether that same gold would be recovered through the flotation circuit without the gravity concentration. Test work is also needed on the gravity concentrate to evaluate the gold that can be extracted with further processing.

Flotation gold recovery ranged from 62% to 87% across the multiple test work programs of various samples. Additional test work may be able to optimize this result on a representative sample of the ore body and push the recovery slightly higher. Cleaner flotation tests were performed on ZM-02M to evaluate if higher concentrate grades could be achieved while maintaining gold recoveries and did not provide substantial upgrading of gold grade to offset the recovery losses. It is recommended to sell or treat the rougher concentrate, though the flotation concentrate has arsenic values of >10,000 ppm which needs to be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting.

The cyanide leach gold recovery reported at 49.2% is the sodium cyanide (NaCN) leach component of the diagnostic leach test conducted on whole mineral samples. Previous leach test work on the Aris whole ore sample performed better at 62.3% but is a different material composite and cannot be used to coincide with the ZM-02M SGS flotation and gravity recoveries. The results for the bottle rolls on the ZM-02M composite are not yet available. There is potential for further optimization to increase this recovery.

Table 13-13 shows the only gravity and flotation results for the Zancudo ZM-02M sample with 86.6% gold recovery and 87.4% silver recovery. As cyanide leaching results are not available for the ZM02-M sample and not included, these values would only be relevant for a gravity and flotation final concentrate.

Table 13-13: Overall Recovery Results, Gravity and Flotation

	Gravity Recovery (%)	Gravity Grade (g/t)	Flotation Recovery (%)	Flotation Grade (g/t)	Overall Recovery (%)	Overall Grade (g/t)
Gold (Au)	23.2	60.3	82.5	28.5	86.6	32.8
Silver (Ag)	4.6	281.2	86.8	680.9	87.4	626.5

Source: SRK, 2023

SRK has reviewed the results of the analysis, which indicate gravity and rougher flotation recoveries of 86.6% Au and 87.4% Ag, but notes this will not reflect total recovery through a concentrate leach process.

SRK cautions changes in the metallurgical recovery will have a significant impact on the value of the project and notes that changes from test work noted may result in changes to the Mineral Resource. It is SRK opinion that further test work is needed, specifically for leaching and process flowsheet design, to improve the metallurgical understanding for the Project, which will also include more variability studies for the different mineralization domains, once a processing route has been defined.

13.3 Significant Factors

Denarius Metals is in discussion with several 3rd party processors to reach an agreement on toll treatment of whole ore and a rougher concentrate product. If they are successful in reaching those agreements, a combined gravity circuit and rougher flotation recovery of 86.6% Au and 87.4% Ag can be assumed based on the results of the ZM-02M, Manto Antiquo composite sample. This does not reflect recovery through a concentrate leach process. Additional test work is recommended on composite samples from other geological structures in the deposit for repeatability and consistency of recovery.

If no 3rd party processor agreement is established, it should be cautioned that based on current test work the total recovery for gold is 52.3% and for silver is 65.8% using a gravity, flotation, and cyanide leach circuit. Bottle roll and intensive leach tests currently being conducted on the gravity and flotation concentrate products will further define expected performance and inform additional test work.

The high arsenic values (>10,000 ppm) in the flotation rougher concentrate should be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting.

13.4 QP Comments and Assumptions for Mineral Resource Reporting

During the 2023 metallurgical test work presented above, two sets of recoveries were defined based on two different processing solutions that have been investigated. In terms of the reporting of the Mineral Resources and the assessment of Reasonable Prospects for Eventual Economic Extraction the QP considers there remains two options, which can be summarized as:

- Production of a rougher concentrate product, which was based on three composite samples and returned average recoveries of 85% Au and 87% Ag. SRK tested the impact on the latest recoveries, which would result in a decrease in the CoG from 4.0 g/t to approximately 3.5 g/t, assuming no other changes to the costs.
- Production of a concentrate using the plant conditions at the Aris Maria Dama Plant, based on test analysis of composite samples at Segovia, which returned lower recoveries than the previous estimate (reporting 62% Au and 69% Ag, compared to 75% Au used previously). SRK ran a test on the impact on the latest recoveries, which would result in an increase in the CoG from 4.0 g/t to approximately 4.6 g/t, assuming no other changes to the costs.

Based on the variability presented, SRK elected to maintain the previous recoveries that sit within the range of the two cases presented above, with the final assumptions set as 75% Au and 80% Ag for the basis of the Mineral Resource. Further test work and engineering work to assess the preferred processing route for the Project should be completed.

14 Mineral Resource Estimate

14.1 Drillhole Database

No new drilling has been completed in 2023 since the completion of the previous MRE. The changes in the grade estimation are based on reinterpretation of the key structures with tighter control on the contacts between the manto structures and the host rocks (as discussed in Section 12.2).

A total of 40,099.70 m of diamond drilling in 149 holes has been carried out at the Project, including 33 underground holes drilled in the Independencia Mine. No further drilling has been completed in 2023 drilling on the Project. A breakdown of the drilling phases is detailed below, and Figure 14-1 shows collar location:

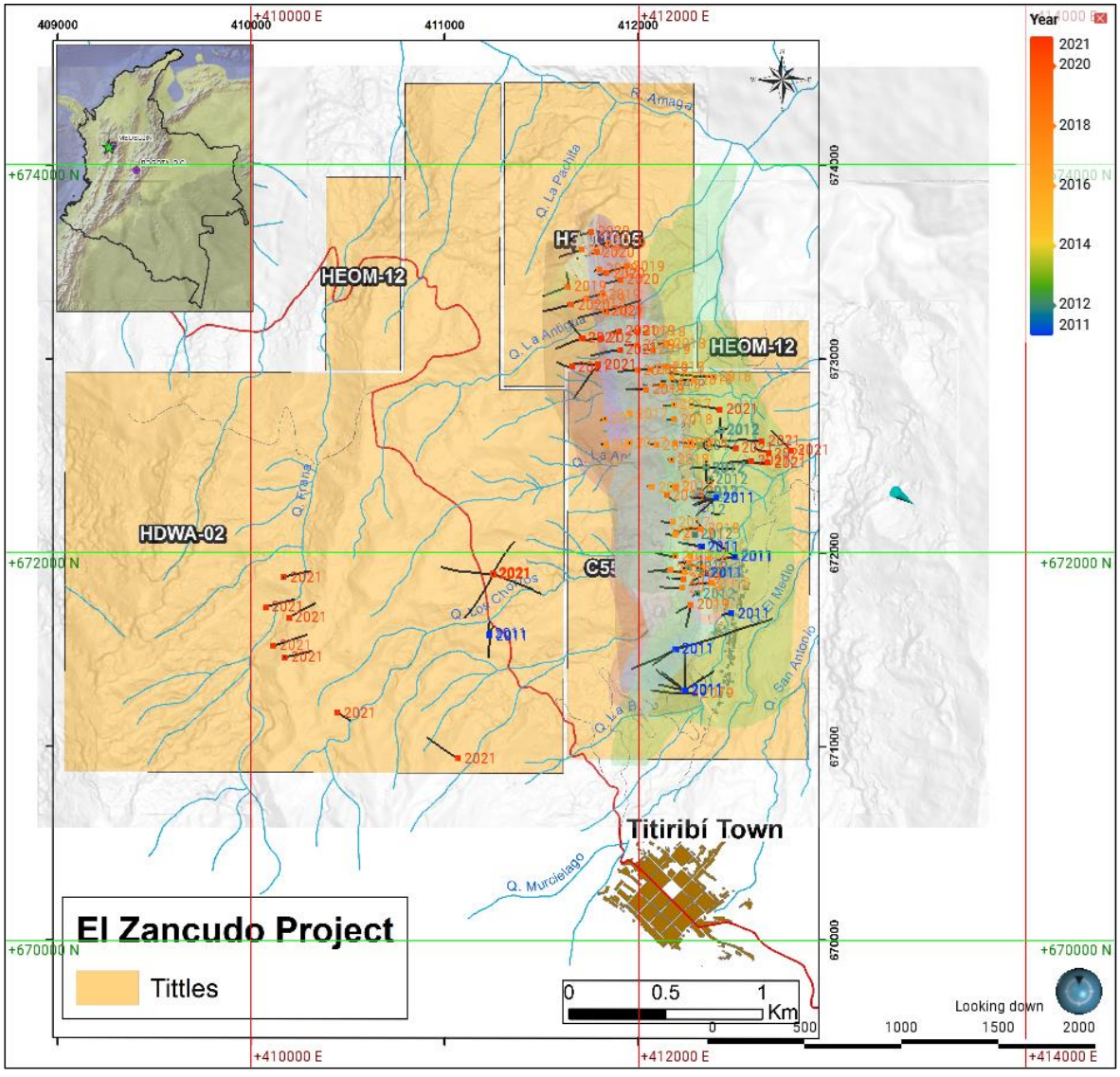
- Consorcio de Inversionistas (CDI) drilled at the Independencia Mine with one hole from surface in 1999 and five underground holes in 2002 to 2003 for 998.2 m. The results of this drilling are not available.
- Gran Colombia drilled 66 holes for 14,121.9 m in 2011 to 2012. Gran Colombia also focused on the Independencia Mine and on defining the continuity of the veins by surface drilling in 2011 to 2012 and by underground drilling in 2012; the second half of the 2012 program was carried out by subsidiary company Mineros Nacionales. Four holes were also drilled on a magnetic high anomaly at La Muriel in the western area (DDH-ZG-11-030 to 033).
- IAMGOLD commenced drilling at the Project in September 2017 and has had one diamond drill rig drilling from surface since that time. IAMGOLD drilled a total of 55 holes for 17,385.6 m in 2017 to 2020:
  - The 2017 drilling program was focused on testing the continuity along strike and downdip of the stacked mantos and the Santa Catalina structure in the north and west zones of the Project.
  - The 2018 drilling program was to test the zone where the stacked mantos merge into the Santa Catalina structure, interpreted as a master fault, which usually shows wider and higher-grade intercepts.
  - The 2019 program was aimed at extending a new steeply dipping structure (called Porvenir), which occurs in the footwall of the Santa Catalina structure in the northern zone, and at better delineating the ore shoots outlined on the Manto Antiguo, Manto Inferior, and La Miel shallow dipping mantos.
  - The 2020 program was delayed by the COVID-19 pandemic but started in October 2020 and totaled 1,191.4 m. The program continued in 2021 for a further 28 holes covering 8,560.9 m. Drilling was targeted on the main structures, with some drilling completed in the west of the deposit testing potential F-Gomez, Alto G-Target, and the El Eden targets (excluded from the current estimates).

The drilling database provided to SRK for use in the current MREs covers all drilling. A summary of the drilling statistics by year is shown in Table 14-1 and Figure 14-1.

Table 14-1: Summary of Drillholes by Year

Year	Count	Length (m)
2011	33	10,370.7
2012	33	3,751.2
2017	11	3,905.4
2018	18	6,416.3
2019	21	5,903.8
2020	5	1,191.4
2021	28	8,560.9
Grand Total	**149**	**40,099.7**

Source: SRK, 2023



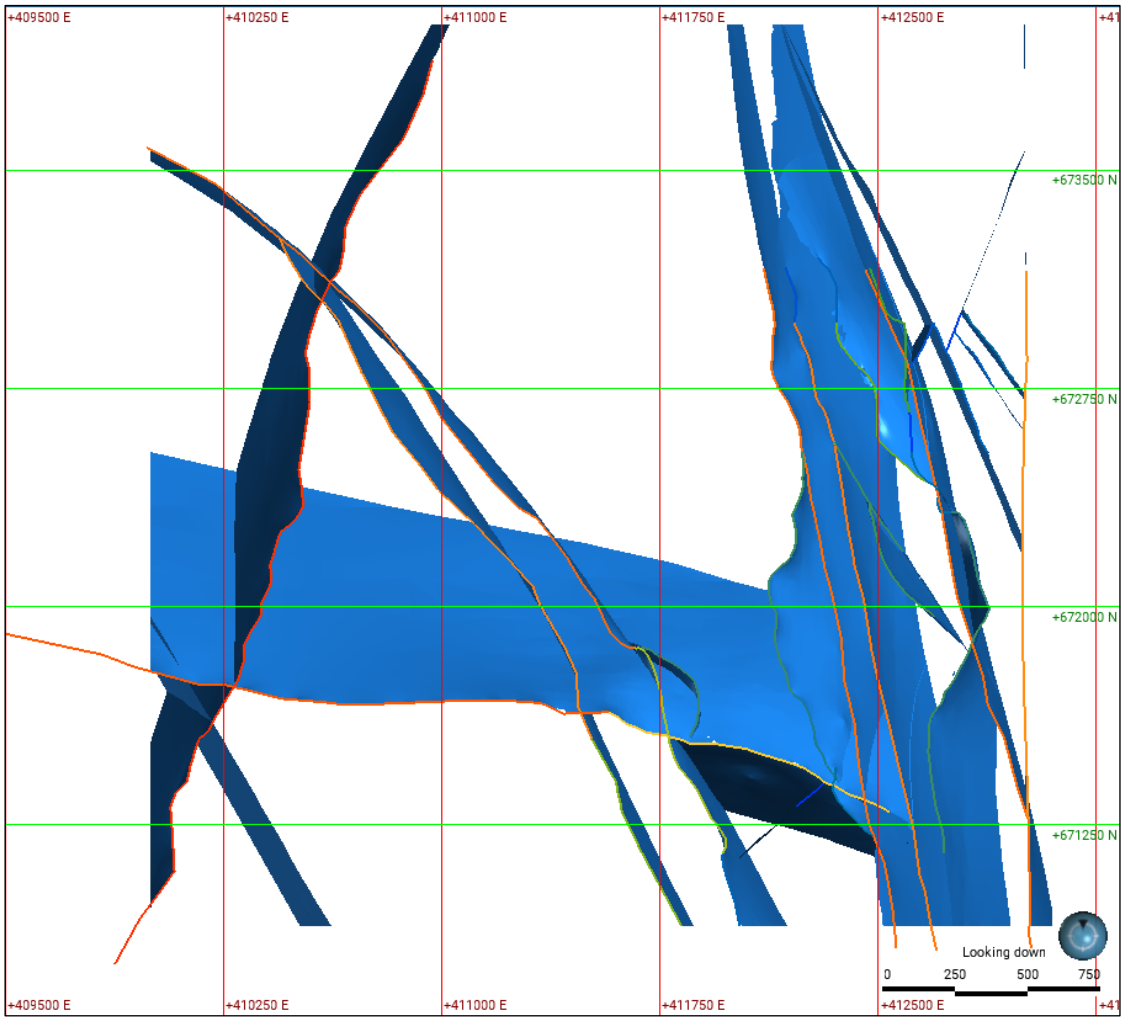
Source: SRK, 2023

Figure 14-1: Collar Plot Colored by Year

14.2 Geologic Model

Structural Review

Several faults have been mapped and logged at the Zancudo property which are believed to be direct controls on mineralization paths and vein geometry. The previous technical report (Redwood, 2021) detailed a structural study carried out in 2012 and 2013 by Telluris Consulting which identified the primary structures and fault chronology of the area. SRK received 35 GIS fault lines and fault segments in polyline format. Based on the format provide SRK has used these initial shapes as a guideline to produce and updated structural model. The 35 mapped lines segments were compiled into 24 three dimensional (3D) shapes which are chronologically reasonable. SRK revised 3D interpretation has integrated all the available geological information as remains consistent with the information contained in the technical report. The result of the reinterpretation is shown in Figure 14-2. Errors and overlaps within the fault systems were corrected honoring findings from prior studies. The fault model has been utilized to inform and restrict the mineralized units and associated grade estimates.



Source: SRK, 2023

Figure 14-2: 3D Modeled Fault System Plan View

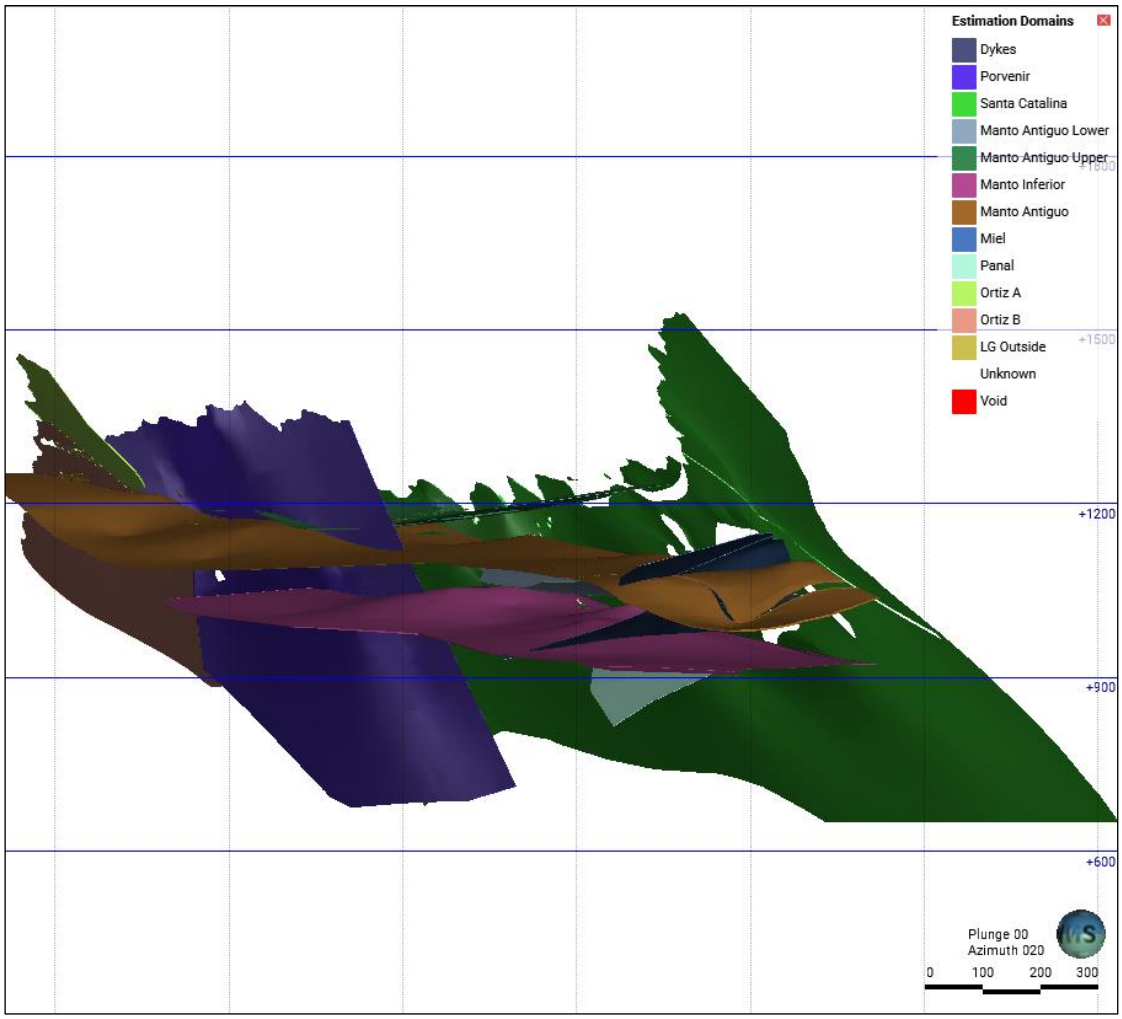
Lithological Model

SRK has not created a completed geological model of all the lithological units but has restricted the interpretation to the key mineralized domains. The veins and manto zones at Zancudo are in the QP's opinion sufficiently understood well enough through drilling, mapping, and prior mining to inform a geological model to a sufficient level of confidence to define Mineral Resources i.e. continuity is established along strike and downdip. The host rock and surrounding material is less well understood due to limited drilling and is not known to host mineralization in quantities that meet economic cutoffs, and therefore the QP made the decision not to model at this stage. During future studies this should be considered to better understand potential ground conditioning for mining during any engineering study.

In the absence of new information, drilling or mapping, SRK recreated the mineralization model of the main known features using more current methods than were previously employed, specifically referring to the use of Seequent Leapfrog Geo and Leapfrog Edge to create vein solids and perform the estimations, respectively. The previous interpretation was used to provide guidance with minor changes observed in the geometry and volumes when implicit modeling algorithms were employed but overall, the modeled lithology has the same thickness and shape.

Based on statistical analysis of mineralized samples within close proximity of the modeled veins, new samples were incorporated into the volumes that had been omitted in prior iterations. These samples were generally low grade but influential in analyzing true width and geometric variation in the structures. It should be noted that a larger property wide geological model has not been created at this early stage of the project, but maybe needed for future engineering studies. The Lithology is best represented at an oblique angle as demonstrated below in Figure 14-3 which shows the various vein zones.

Additionally, dike material was modeled and subtracted from the veins and manto material. The current interpretation is that the dikes intruded in late stage and displaced the existing vein material. The dike material is not shown in Figure 14-3 so the veins appear to have missing zones.



Source: SRK, 2023

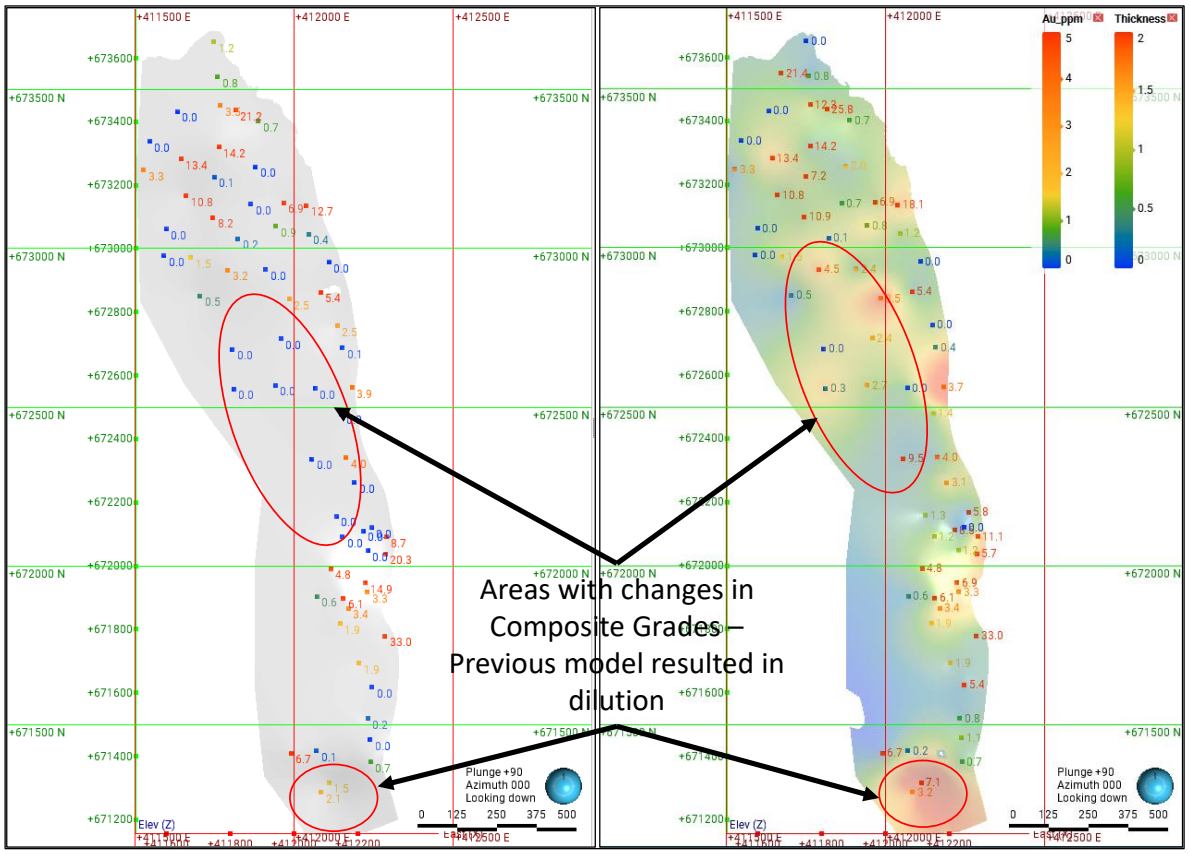
Figure 14-3: Vein Zones Oblique Angle North-Northeast with Zero Dip (Azimuth 20, Dip 0)

Mineralization Model

Mineralization associated with structures in the Zancudo deposit was strictly based on vein and manto geometry. SRK created updated mineralization wireframes based on the revised intersections selected as part of the validation process discussion in Section 12.2 of this report. SRK has limited the updated mineralization model to the vein and manto domains.

The previous model defined a low-grade halo around this mineralization, which is understood to represent more disseminated mineralization with lower geological continuity in a less preferential host material. This zone was domained by use of implicit numerical modeling and used as an estimation domain. Given the lower confidence in this domain SRK considered this domain to be poorly understood and therefore was only completed to a conceptual level. During the 2023 process SRK has completed sufficient geological reviews to capture portions of this mineralization as part of the reinterpretation. All other mineralization was considered to lack sufficient continuity with sufficient confidence to support mineral resources, and therefore has been excluded from the current update. Further drilling will be required to define this domain.

Once the updated mineralization model was completed SRK completed further validation through visual comparison of the selected composites for each domain, plus and analysis of the wireframe volumes to ensure no significant bias from the revised model. An example of the visual comparison in composite grades (gold Au g/t), for Manto Antiguo is shown in Figure 14-4.



Source: SRK, 2023

Figure 14-4: Plan View Showing Dec22 vs. July23 Composites (Au, g/t) for Manto Antiguo

SRK considered the review of the updated composites to be reasonable and from visual inspection on the sample lengths no significant bias was created during the process, with most changes being incrementation along the boundary of the previous estimates, with the exception of a few intersections which demonstrated more significant changes during the validation process. SRK undertook and a comparison of the volume per domain in Table 14-2. SRK considers there to be minimum overall change in the wireframe volumes based on the global comparison (3%), however a review of the individual veins shows there is more variability. The most significant change in terms of percentage is within the Ortiz B vein, which has increase some 68%, but this is also due to the relatively small size of this domain.

Table 14-2: Comparison of Changes in Volume per Domain between Dec22 and July23

Domain	DEC22_MRE WF		07/2023 WF		Changes (Volume)	
	Area (m^2)	Volume (m^3)	Area (m^2)	Volume (m^3)	Volume Change	Change (%)
Manto Antiguo	2,358,800	1,463,100	2,349,300	1,349,000	(114,100)	-8
Manto Antiguo Lower	914,540	500,350	905,190	469,320	(31,030)	-6
Manto Antiguo Upper	827,130	460,680	806,580	543,129	82,449	18
Manto Inferior	1,940,500	1,200,500	1,946,800	1,147,500	(53,000)	-4
Miel	715,850	389,790	715,130	411,090	21,300	5
Ortiz A	147,640	150,400	150,780	179,380	28,980	19
Ortiz B	322,680	88,591	321,370	148,990	60,399	68
Panal	96,251	35,288	104,830	43,520	8,232	23
Porvenir	1,532,500	552,140	1,597,900	536,520	(15,620)	-3
Santa Catalina	4,605,300	2,199,000	4,428,900	2,017,800	(181,200)	-8
Subtotal	**13,461,191**	**7,039,839**	**13,326,780**	**6,846,249**	**(193,590)**	**-3**

Source: SRK, 2023

SRK has not completed a boundary analysis between the host rocks and the veins / manto mineralization. All vein material honored hard boundaries for estimation purposes (to be discussed further in Section 14.5).

14.3 Estimation Domain Analysis

The final estimates for the 2023 MRE efforts are limited to the vein and mantos shapes, the previous low-grade domain as presented in the December 31, 2022, model has been removed from the current estimate. Where possible the previous manto and vein models have been adjusted to incorporate additional mineralization which was located in close proximity to the previous models or excluded from the current model due a lack of continuity. A number of structures outside of the current domains remains but further test work will be required to test these domains. It should be highlighted that there is no guarantee that further exploration result in Mineral Resources outside of the known mineralization.

The current model has focused on the known mineralization which has been update based on the procedures discussed in sections 12.2 and 14.2.

The statistical analysis for each is demonstrated in Table 14-3. The populations for gold and silver were used as the benchmarks for estimation accuracy. The gold population is better-behaved (less variability) than silver as indicated by the Coefficient of Variation (CoV) in each domain. The CoV is a unitless measure of stationarity calculated by dividing the SD by the mean. A CV of < approximately 1 to 1.5 is considered a reasonable population for estimation. When the CV approaches two or three, the population is expected to produce a less reliable estimate. As demonstrated in below, all domains show elevated CoV's, with silver being higher in all domains than gold.

Table 14-3: Comparison of Summary Statistics of Raw Sampling per Domain between Models

Name	December 2022				July 2023				Change (Mean) (%)
	Length (m)	Mean (g/t)	Std Dev	CoV	Length (m)	Mean (g/t)	Std Dev	CoV	
Ag (g/t)	40,201	1.8	28.8	15.8	39,164	1.7	18.5	10.8	
Manto Antiguo	93	64.7	181.7	2.8	93	84.1	124.6	1.5	30
Manto Antiguo Upper	18	16.7	32.9	2.0	28	24.9	44.2	1.8	49
Manto Antiguo Lower	52	19.9	70.3	3.5	50	49.3	121.9	2.5	147
Manto Inferior	64	31.4	107.7	3.4	68	39.5	101.9	2.6	26
Miel	40	37.7	110.3	2.9	40	40.6	99.3	2.4	8
Santa Catalina	180	50.1	180.8	3.6	156	52.4	110.5	2.1	4
Porvenir	43	24.3	53.1	2.2	31	37.4	70.0	1.9	54
Panal	6	78.7	263.3	3.3	9	123.3	229.3	1.9	57
Ortiz A	15	51.8	94.6	1.8	15	52.2	90.1	1.7	1
Ortiz B	5	111.3	229.0	2.1	8	105.2	222.2	2.1	-5
LG Outside	4,706	4.4	38.0	8.7	Not used				
Au (g/t)	40,201	0.11	1.4	12.0	39,164	0.1	0.9	8.0	
Manto Antiguo	93	3.5	6.1	1.8	93	4.9	5.8	1.2	40
Manto Antiguo Upper	18	0.5	0.8	1.8	28	0.8	1.0	1.1	83
Manto Antiguo Lower	52	1.2	3.0	2.4	50	2.7	3.5	1.3	117
Manto Inferior	64	2.1	5.2	2.5	68	2.6	3.8	1.4	25
Miel	40	3.2	7.3	2.3	40	3.4	6.7	1.9	8
Santa Catalina	180	2.2	7.2	3.3	156	2.7	4.2	1.6	22
Porvenir	43	1.5	3.8	2.6	31	2.7	5.9	2.2	81
Panal	6	2.8	13.7	4.9	9	6.5	12.2	1.9	134
Ortiz A	15	4.7	5.5	1.2	15	4.7	4.8	1.0	1
Ortiz B	5	6.3	6.2	1.0	8	6.5	6.1	0.9	4
LG Outside	4,706	0.3	1.8	5.8	Not used				

Source: SRK, 2023
CoV: Coefficient of variability
g/t: grams per tonnes
StdDev: Standard deviation

14.4 Estimation Methodology

The MRE process was completed by SRK using the initial geological models provided by Zancudo geological staff and refined by SRK as discussed in Section 5. The Company provided SRK with an exploration database with logging indicating the main geological features and units. In addition to the database, SRK has worked with the preliminary geological interpretations, which SRK has made minor alterations accordingly.

The resource estimation methodology involved the following procedures:

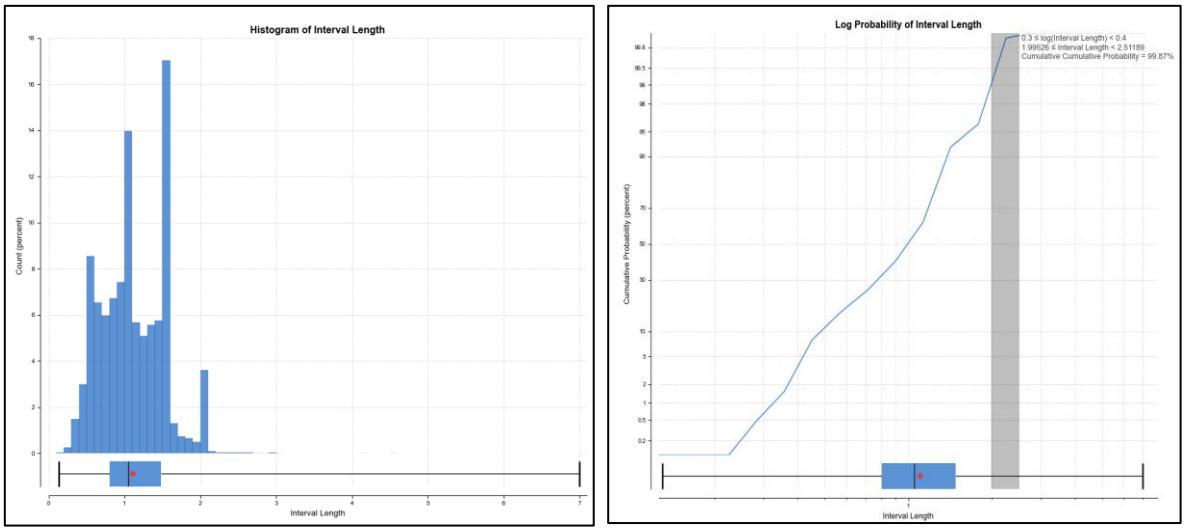
- Database compilation and verification
- Construction of wireframe models for the fault networks and centerlines of mining development per vein
- Definition of resource domains
- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis
- Variography
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades (CoG)

- Preparation of the Mineral Resource Statement

14.5 Assay Capping and Compositing

14.5.1 Compositing

Composites were created to stabilize the deposit variability as well as represent as many samples as possible in each zone. Missing assay data was set to zero and composites were created at “vein width” which were length weighted. This methodology produced variable length composites a total of 99.7% were under 2 m in length (Figure 14-5). Upon compositing SRK completed a review of the sample populations to confirm no bias is generated from the processes. It is the QP’s opinion that the assay populations maintained their distribution and shape in a reasonable manner consistent with common behavior when going from assay scale to composite scale data. Table 14-5 and Table 14-6 demonstrate population changes for gold and silver.



Source: SRK, 2023

Figure 14-5: Analysis of Sample Lengths in Assay File at Zancudo

14.5.2 Outliers

High grade capping is undertaken where data is no longer considered to be part of the main population. SRK completed the analysis based on log probability plots, raw and log histograms which can be used to distinguish the grades at which samples have significant impacts on the local estimation and whose effect is considered extreme. SRK notes that the mean grades within the different veins are sensitive to changes in the capping values. SRK has tracked during the analysis the percentage of metal loss. The capping analysis was completed for all elements and a summary of the final capping levels is shown in Table 14-4.

Elevated CoV’s indicate high variability, which was demonstrated in the poor variography that is observed in all veins. SRK notes that from the raw statistics, even with the higher means shown in the refined new model, the CoV is often lower than previous, indicating a more-homogenous (less-variable) domain. Based on the statistical review of the updated coded samples, SRK elected to maintain the composites lengths used in the previous model (set at 10 m but effectively the width of

the structure) and only made a minor adjustment to the capping levels (Table 14-4) to increase the capped value from 24.0 to 25.0 g/t Au.

Table 14-4: Comparison of Capping levels used in the December 2022 and July 2023 Model

	Domain	Ag (g/t)	Au (g/t)	As (g/t)
December 2022 Model	Higher Angle Vein System	790	68	46,000
	Manto Vein System	640	24	41,000
July 2023 Model	Higher Angle Vein System	790	68	46,000
	Manto Vein System	640	25	41,000

Source: SRK, 2023

Capping has been applied during the estimation process after compositing. Table 14-5 (Au) and Table 14-6 shows a comparison of the raw grades to capped composites.

Table 14-5: Gold Assay vs. Capped Composite Statistics in All Veins

AU	kz101	kz102	kz103	kz104	kz105	kz201	kz202	kz203	kz204	kz205
Count	142.00	33.00	74.00	107.00	70.00	244.00	50.00	18.00	22.00	19.00
Mean	4.89	0.84	2.65	2.63	3.46	2.70	2.67	6.49	4.74	6.53
Std Dev	6.71	1.21	6.27	5.19	7.48	7.29	6.08	19.82	5.48	5.80
CoV	1.37	1.44	2.37	1.97	2.16	2.70	2.28	3.05	1.16	0.89
Variance	45.00	1.46	39.28	26.96	55.99	53.17	36.97	393.02	30.03	33.65
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	34.51	3.91	41.86	29.98	38.89	68.96	28.00	91.07	20.50	20.10
Count	67.00	19.00	41.00	44.00	27.00	67.00	30.00	7.00	6.00	8.00
Mean	4.61	0.89	2.05	2.73	4.61	2.70	2.67	6.29	5.48	8.56
Std Dev	5.84	0.98	3.17	3.95	8.48	5.20	5.49	12.34	7.65	6.34
CV	1.27	1.11	1.54	1.45	1.84	1.92	2.06	1.96	1.40	0.74
Variance	34.10	0.97	10.06	15.57	71.84	27.00	30.15	152.36	58.59	40.14
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61
Maximum	25.00	3.38	13.13	18.89	32.68	36.09	28.00	33.90	19.82	20.10
% Difference	-5.6%	5.8%	-22.4%	3.6%	33.2%	0.1%	0.2%	-3.1%	15.5%	31.2%

Source: SRK, 2023

Table 14-6: Silver Assay vs. Capped Composite Statistics in All Veins

AG	kz101	kz102	kz103	kz104	kz105	kz201	kz202	kz203	kz204	kz205
Count	142	33	74	107	70	244	50	18	22	19
Mean	84.1	24.9	49.3	39.5	40.9	52.4	37.4	123.3	52.2	105.2
Std Dev	182.5	48.6	226.8	114.2	115.8	183.2	71.7	331.8	95.0	210.9
CoV	2.2	2.0	4.6	2.9	2.8	3.5	1.9	2.7	1.8	2.0
Variance	33,304.8	2,359.9	51,444.5	13,042.2	13,399.6	33,580.2	5,147.5	110,073.6	9,019.1	44,463.3
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Maximum	1,796.0	174.0	2,312.0	1,268.0	751.0	1,880.0	276.0	1,436.0	424.0	782.0
Count	67.0	19.0	41.0	44.0	27.0	67.0	30.0	7.0	6.0	8.0
Mean	79.4	25.6	44.3	58.7	58.5	50.5	35.9	135.1	88.3	163.6
Std Dev	125.5	43.5	116.5	136.4	138.0	113.7	64.4	232.0	160.8	268.6
CV	1.6	1.7	2.6	2.3	2.4	2.2	1.8	1.7	1.8	1.6
Variance	15,746.1	1,892.2	13,576.5	18,599.1	19,033.6	12,923.3	4,146.0	53,810.1	25,853.6	72,146.1
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	14.2
Maximum	640.0	170.5	560.3	640.0	663.4	790.0	276.0	592.7	409.7	782.0
% Difference	-5.6%	2.9%	-10.2%	48.7%	42.9%	-3.5%	-3.8%	9.6%	69.1%	55.5%

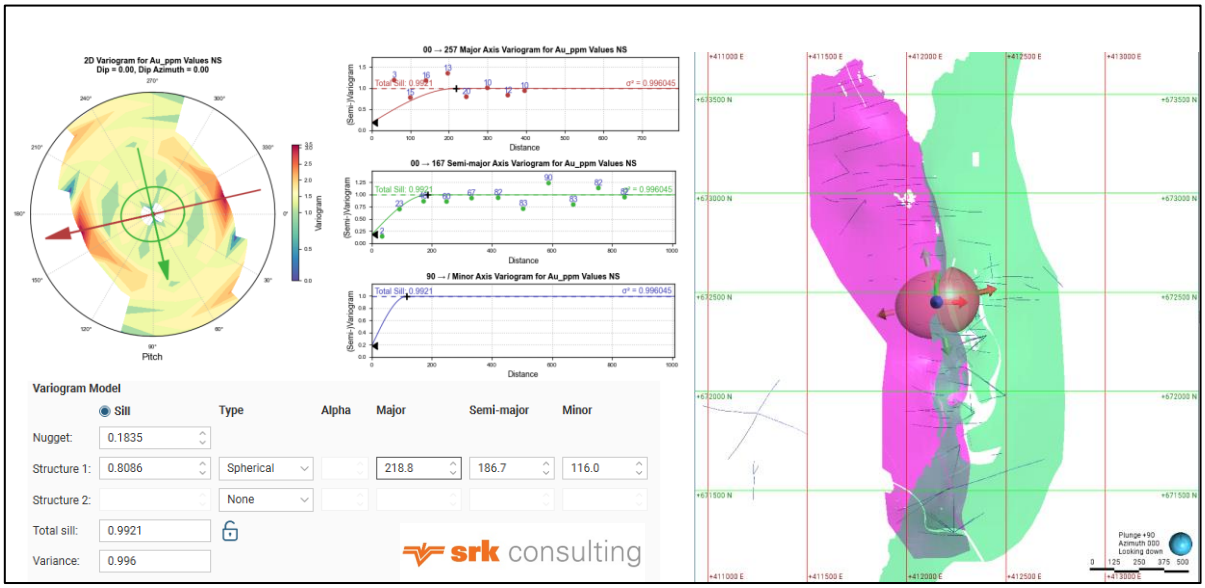
Source: SRK, 2023

14.6 Variogram Analysis and Modeling

SRK reviewed the geostatistical properties of the domains using Leapfrog variogram analysis, this included review of the radial plot (to define the general orientation), then definition of the major, semi-major and minor axis variograms.

Elevated CV's indicate high variability which was demonstrated in the poor variography that is observed in all veins. Further, low sample counts make variogram analysis difficult. An example variogram from Santa Catalina vein is shown Figure 14-6.

Given the low sample populations and relatively wide sample spacing the analysis resulted in poor variograms with limited structure, and therefore, SRK has elected to use Inverse Distance (ID) for the estimation process. Infill drilling combined with potential underground sampling is needed to improve confidence in the current selected parameters.



Source: SRK, 2023

Figure 14-6: Example of Variogram Analysis for Manto Antiguo Gold with a CV of 1.3

14.7 Block Model

SRK has produced block models using Leapfrog Edge. The procedure involved construction of wireframe models for the fault networks, key geological/mineralization domains, data conditioning (compositing and capping) for statistical analysis, geostatistical analysis, variography analysis, block modeling and grade interpolation followed by validation.

The block model was estimated into 20 m cubed parent blocks. Parent blocks were sub-blocked into 64 divisions along each axis creating ~262,000 sub-blocks for each block that sits on the border of each vein. SRK has utilized sub-blocking to accurately reflect the defined mineralization and lithological models, with a sub-block size of 0.3125 m x 0.3125 m x 0.3125 m used to reflect the wireframes (based on Leapfrog's method of splitting parent cells by equal division).

Model extents are listed in Table 14-7.

Table 14-7: Block Model Origin, Extents, and Block Sizes

	Easing (X)	Northing (Y)	Elevation (Z)
Base Point	411,400 m	671,000 m	1,440 m
Extension	1,300 m	3,000 m	860 m
Parent Block Dimensions	20 m	20 m	20 m
Sub-Cell Size	0.3125 m	0.3125 m	0.3125 m

Source: SRK, 2023

14.8 Grade Estimation

Grade estimation has been based on block dimensions of 20 m x 20 m x 20 m, for the 2023 model. The block size reflects the QP's opinion on a representative size variation for any underground smallest mining units (SMU). The primary estimation has been completed using Inverse Distance methodology using a power of 2.5 for all domains.

The search ellipses follow the typical orientation of the mineralized structures, and where appropriate, were aligned along higher-grade plunging features within the mineralized domains where possible. Statistical characteristics such as search volume used, variance measures, and number of samples used in an estimate, were also computed, and stored in each individual block for descriptive evaluations. Estimation parameters are listed below for each domain in Table 14-8.

Table 14-8: Search Parameters by Domain

Domain	Ellipsoid Ranges			Variable Orientation	Number of Samples		Drillhole Limit
	Maximum (m)	Intermediate (m)	Minimum (m)		Minimum	Maximum	Max Samples per Hole
Manto Antiguo	250	250	60	yes	2	7	1
Manto Antiguo Lower	250	250	60	yes	2	7	1
Manto Antiguo Upper	200	200	60	yes	2	7	1
Manto Inferior	150	150	60	yes	2	7	1
Miel	300	150	150	yes	2	7	1
Ortiz A	200	200	60	yes	2	7	1
Ortiz B	200	200	60	yes	2	7	1
Panal	150	150	60	yes	2	7	1
Porvenir	300	250	60	yes	2	7	1
Santa Catalina	200	200	20	yes	2	7	1

Source: SRK, 2023

14.9 Density

Density

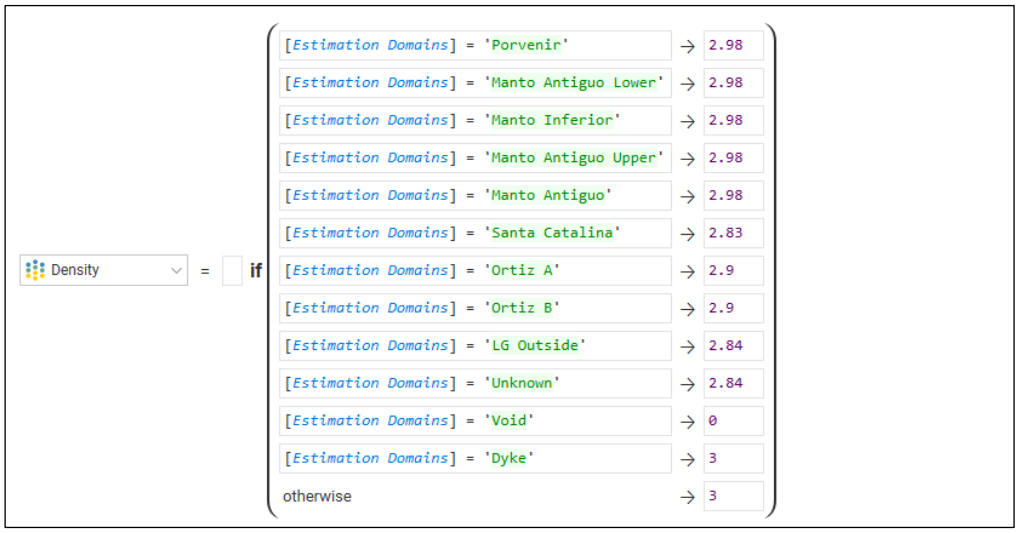
Density is a key factor in any MRE, and SRK has completed a statistical review of the density database. A total of 222 values were included in the analysis which consisted of samples from most domains in the model. Only 60 samples lie within the vein and mantos solids, creating an area of risk to the current mineral resource. These samples have been coded by the final estimation domain models for final analysis. It should be noted this may result in some splitting of samples and therefore the sum of the samples may differ slightly from the original. A breakdown of the average density per domain is shown in Table 14-9.

Table 14-9: Average Density by Company and Estimation Domain from Mineralization Model

Name	Count	Sum Length (m)	Mean (g/cm^3)
Miel	7	0.77	3.15
Manto Inferior	6	0.51	3.14
Manto Antiguo	15	1.43	2.94
Manto Antiguo Lower	1	0.13	2.65
Porvenir	2	0.12	2.39
Subtotal	**31**	**0.98**	**2.98**
Santa Catalina	24	2.02	2.83
Subtotal	**24**	**2.02**	**2.83**
Ortiz B	3	0.20	2.93
Ortiz A	2	0.21	2.86
Subtotal	**5**	**0.20**	**2.90**
LG Outside	24	2.58	2.83
Unknown	138	17.82	2.85
Subtotal	**162**	**0.27**	**2.84**

Source: SRK, 2023
cm^3 = cubic meters

Density has been applied in the final model based on an average density by unit based on grouped statistics for the Manto style mineralization, veins and a minor change for the main Santa Catalina, as summarized in Figure 14-7.



Source: SRK, 2023

Figure 14-7: Extract from Leapfrog Edge Density Assignment Calculations

14.10 Model Validation

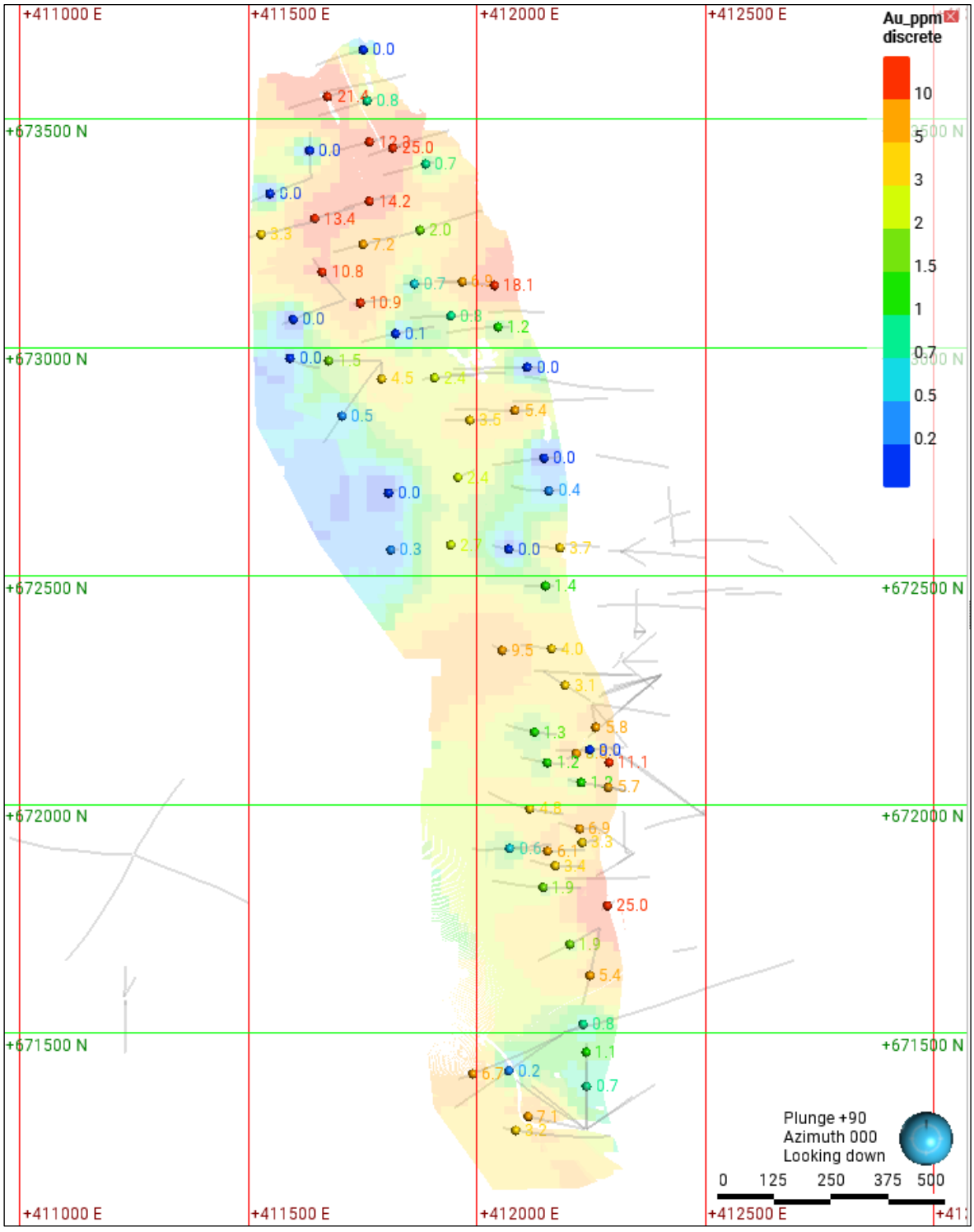
All IDW estimations in individual domains were validated using visual comparison of grade to nearby sampling, statistical population comparisons, and swath plots comparing estimates to drilling and a Nearest Neighbor (NN) estimate.

14.10.1 Visual Comparison

Estimation results were verified by visual comparison of samples and estimated blocks. An example is shown below in Figure 14-8 for the gold grades in the Manto Antiguo domain. Note, that cool colors

for gold grades in samples (spheres) are paired with areas of cool colors in the block model. The same is true for warmer colors, with a reasonable level of gradation between the two relatives to the level of sampling. More drilling may result in more variability in the future. This visual check was performed for each vein individually, to ensure reasonable estimations with as few artifacts as possible. Artifacts are defined as areas in the model where mathematically the estimation calculation produces improbable grade domains.

The visual comparison of the composites to the estimated grades shows no obvious bias with a fair reflection of both the high and low-grade samples. Given the variable sample coverage SRK also inspected the grade continuity which is supported by high-grades in the areas of the previous mining activity. It is the QP opinion that a reasonable correlation between the block estimates and composite data can be observed.



Source: SRK, 2023

Figure 14-8: Plan showing Composite Grades (Au, g/t) vs. Grade Estimates for Manto Antiguo

14.10.2 Comparative Statistics

SRK completed comparative statistical analysis for the validation in two ways, initially through exports of the global estimates which have been compared to the raw and declustered (declust) statistics, and via reporting of the weighted tonnage and grades for the ID and NN estimate. Over SRK notes that each domain typically validated within 10% of NN estimates for gold with the exception of domain 103 (Manto Antiguo Lower), which reported lower grades in the NN model in the order of 16.3%, but the comparison to the capped composites within this domain were considered reasonable. Table 14-10 summarizes the results of the statistical comparison for gold and silver versus the estimates.

Table 14-10: Percent Difference Composites vs IDW vs NN for Gold and Silver

	Statistic	AU (g/t)				% Diff	AG (g/t)				% Diff
		Comp	Declust	ID Est	NN Est		Comp	Declust	ID Est	NN Est	
101	Mean	4.61	4.48	4.12	4.05	1.8%	79.41	79.62	66.14	69.11	-4.3%
	Std Dev	5.80	5.76	3.53	4.80		124.54	124.60	71.72	110.56	
102	Mean	0.89	0.89	0.88	0.89	-2.0%	25.58	25.58	27.32	30.41	-10.2%
	Std Dev	0.96	0.96	0.78	1.02		42.34	42.34	34.85	50.92	
103	Mean	2.05	1.76	2.22	1.91	16.3%	44.32	32.35	41.57	26.94	54.3%
	Std Dev	3.13	2.75	2.07	2.27		115.09	90.29	59.13	75.08	
104	Mean	2.73	2.56	2.22	2.27	-2.0%	58.74	59.34	44.44	44.58	-0.3%
	Std Dev	3.90	3.84	1.87	2.76		134.82	139.17	68.32	99.35	
105	Mean	4.61	3.90	4.03	3.78	6.6%	58.47	54.27	53.91	54.32	-0.7%
	Std Dev	8.32	7.54	4.80	5.41		135.38	136.97	80.67	114.73	
201	Mean	2.70	2.82	1.93	1.93	0.3%	50.54	49.07	36.42	40.34	-9.7%
	Std Dev	5.16	5.46	2.08	3.08		112.83	108.50	70.53	90.69	
202	Mean	2.67	2.83	2.71	2.79	-2.6%	35.94	38.01	38.39	37.91	1.3%
	Std Dev	5.40	5.52	3.93	5.35		63.31	64.15	44.83	64.69	
203	Mean	6.29	5.29	5.67	6.34	-10.6%	135.14	115.51	97.50	109.04	-10.6%
	Std Dev	11.43	10.61	6.20	11.88		214.76	202.50	112.99	214.23	
204	Mean	5.48	6.03	4.33	4.50	-3.8%	88.32	98.17	57.51	57.59	-0.1%
	Std Dev	6.99	7.10	3.86	5.10		146.78	152.58	76.35	99.62	
205	Mean	8.56	8.64	7.60	7.19	5.8%	163.56	163.64	123.72	97.44	27.0%
	Std Dev	5.93	5.95	4.49	6.37		251.25	252.77	133.09	192.22	

Source: SRK, 2023

Table 14-11 compares the weighted estimates for ID and NN which show globally the ID estimates approached a <1% difference from NN values. Overall confidence in the estimate is maintained as gold is the primary contributor to block value.

Table 14-11: Summary report Inferred Material at zero cut-off

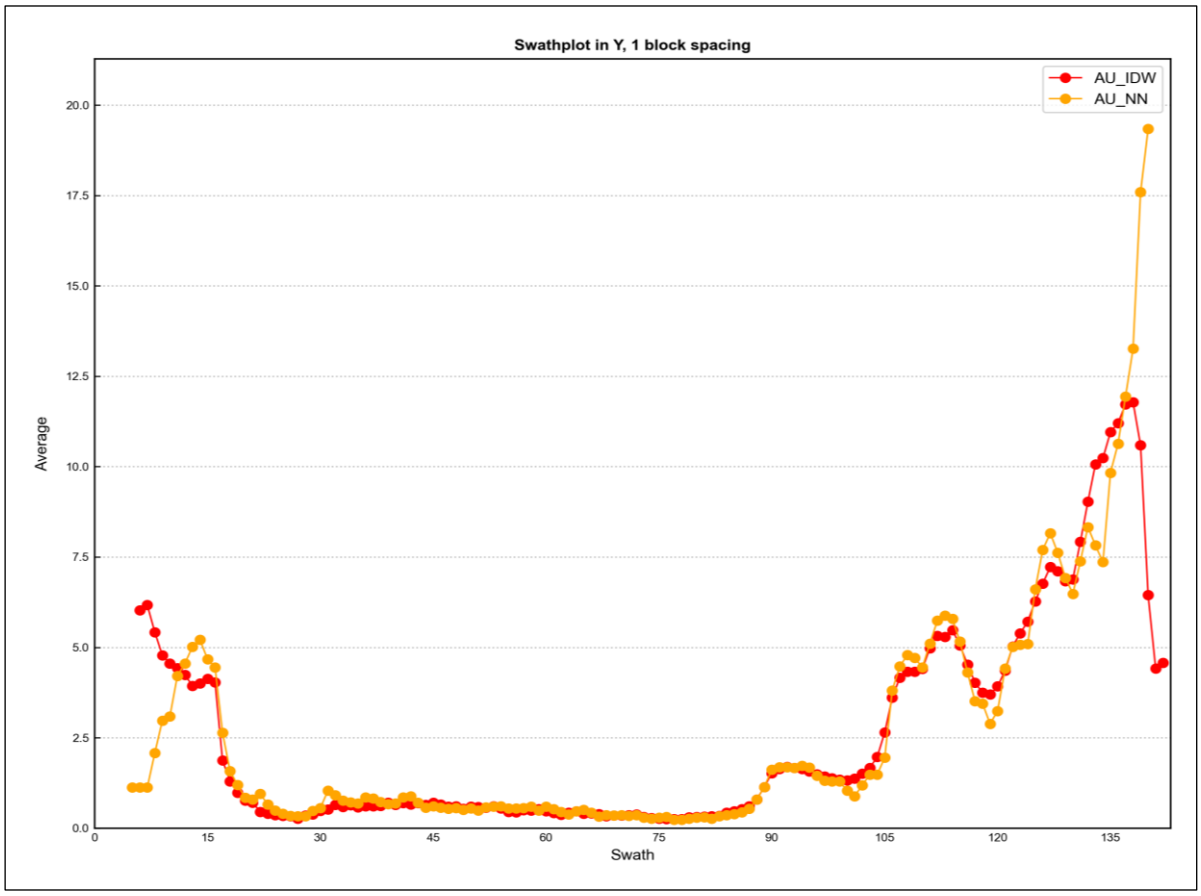
Estimation Domains	Class_V1	Mass (kt)	Average Value			
			AU_IDW (ppm)	AU_NN (g/t)	AG_IDW (ppm)	AG_NN (g/t)
Manto Antiguo	Inferred	3,312	4.30	4.33	69.2	72.4
Manto Antiguo Upper	Inferred	896	0.96	1.00	30.8	32.9
Manto Antiguo Lower	Inferred	1,019	2.62	2.67	49.9	42.9
Manto Inferior	Inferred	1,983	2.40	2.44	45.3	46.8
Miel	Inferred	1,179	4.07	3.71	54.7	50.3
Santa Catalina	Inferred	3,005	1.90	1.85	43.5	42.1
Porvenir	Inferred	1,078	2.75	2.75	39.5	38.5
Panal	Inferred	94	6.37	8.19	114.3	140.2
Ortiz A	Inferred	508	4.32	4.47	57.0	56.3
Ortiz B	Inferred	327	7.54	7.12	121.1	100.8
Total	**Inferred**	**13,401**	**3.08**	**3.06**	**53.3**	**52.8**

Source: SRK, 2023

14.10.3 Swath Plots

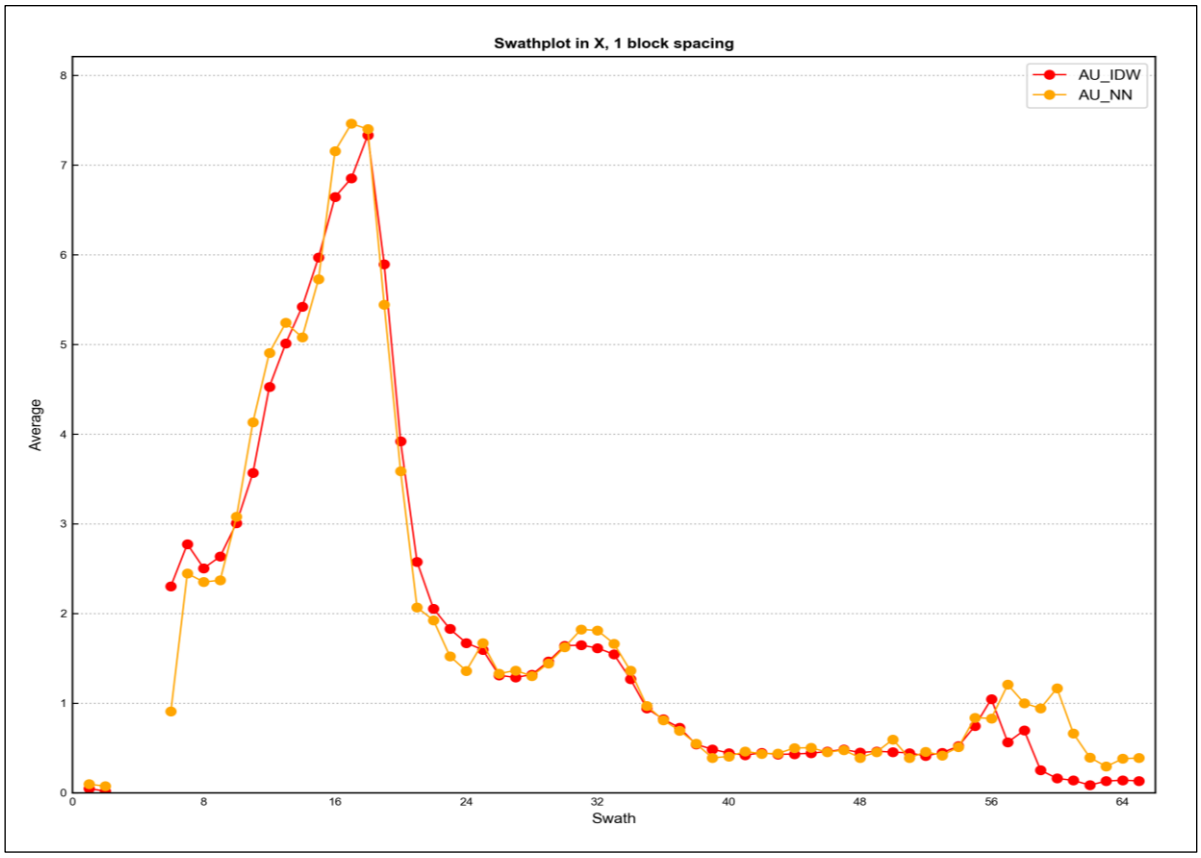
The more local check between the blocks and the composites is made using swath plots. The comparisons show both the varying means of the block and composites (declustered) along swaths or slices through the model, as well as the amount of data supporting the estimate in each swath. Values below in Figure 14-9 and Figure 14-10 , show NN vs ID values along the northerly and easterly direction respectively, for the combined estimate in all veins.

Values were also compared in individual veins between NN and ID, which indicated reasonable correlation between the estimates, which were also compared back to the capped composites to ensure consistency. It is the QP's opinion that the swath analysis demonstrated a reasonable correlation with both high- and low-grade areas reflected in the ID estimates. Overall, no significant bias was identified during the analysis.



Source: SRK, 2023

Figure 14-9: SWATH (Sectional Analysis) of Nearest Neighbor vs. Block Estimates (Manto Antiguo) by Northing Section Line (20-m Increments)

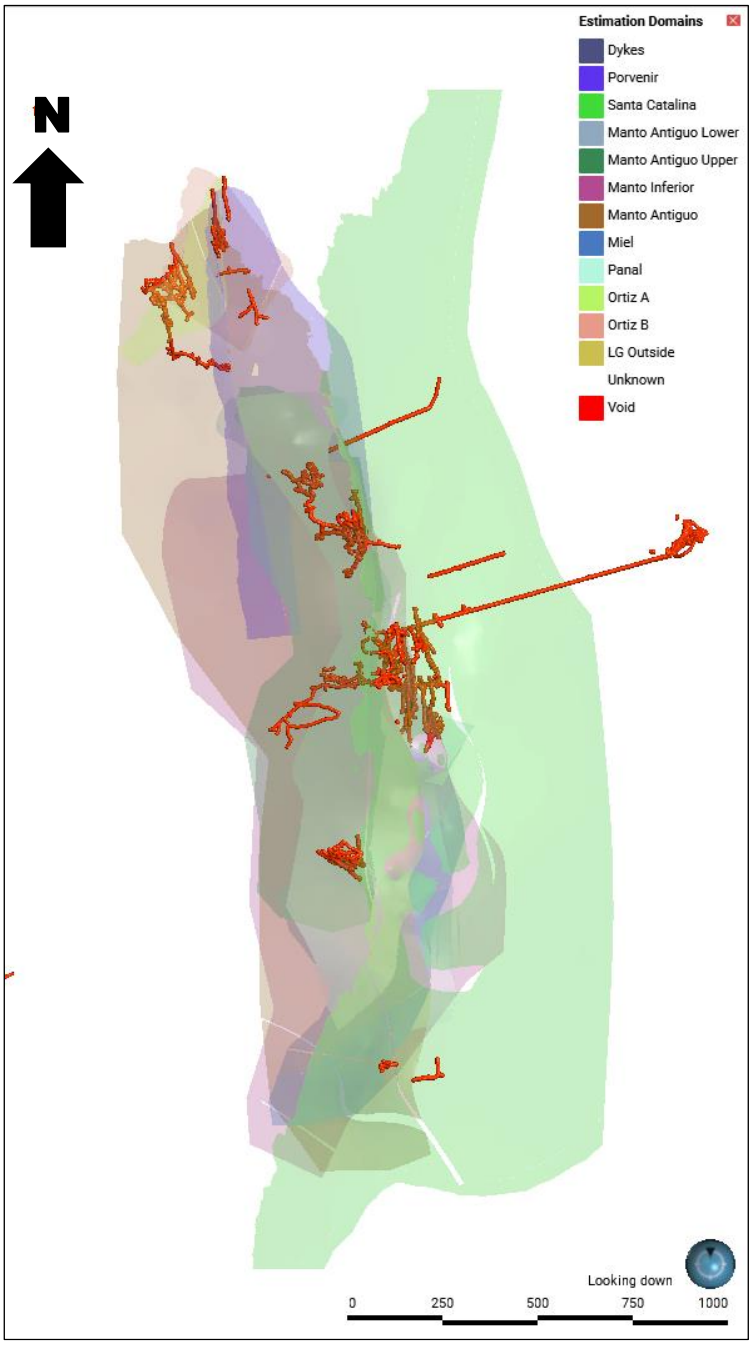


Source: SRK, 2023

Figure 14-10: SWATH (Sectional Analysis) of Nearest Neighbor vs. Block Estimates (Manto Antiguo) by Easting Section Line (20-m Increments)

Depletion

SRK has been supplied with a single file containing polylines from prior mining activities. The depletion is based on digitized maps (level plans). Given the historical nature of the mining, no 3D survey of the mine currently exists and will not be possible until the mine is back in production. SRK has imported the information provided by the company and created updated wireframes incorporating a 5 m area around all lines. SRK created a depletion model using the same prototype as the geological and mineralization models. Overall, SRK considers the depletion model to accurately reflect the information provided while allowing for a margin of error on the conservative side. There is some risk that these maps do not accurately reflect complete picture of mined out areas but given the lack of contradictory information, SRK considers it reasonable for the definition of the current Mineral Resources. An isometric view of the depletion model is shown in Figure 14-11. For expediency and model confidence, all material within the void volume was sterilized (grades set to zero) and assigned a density of zero.



Source: SRK, 2022

Figure 14-11: Plan Showing Location of Underground Mining, Based on the Digitized Development

14.11 Resource Classification

No changes have been made to the classification criteria as applied to the December 31, 2022 estimate. It remains the QP's opinion that the Zancudo deposit currently only supports a classification of "Inferred" based on a variety of poorly understood inputs to the study. Block model quantities and

grade estimates for the Project were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

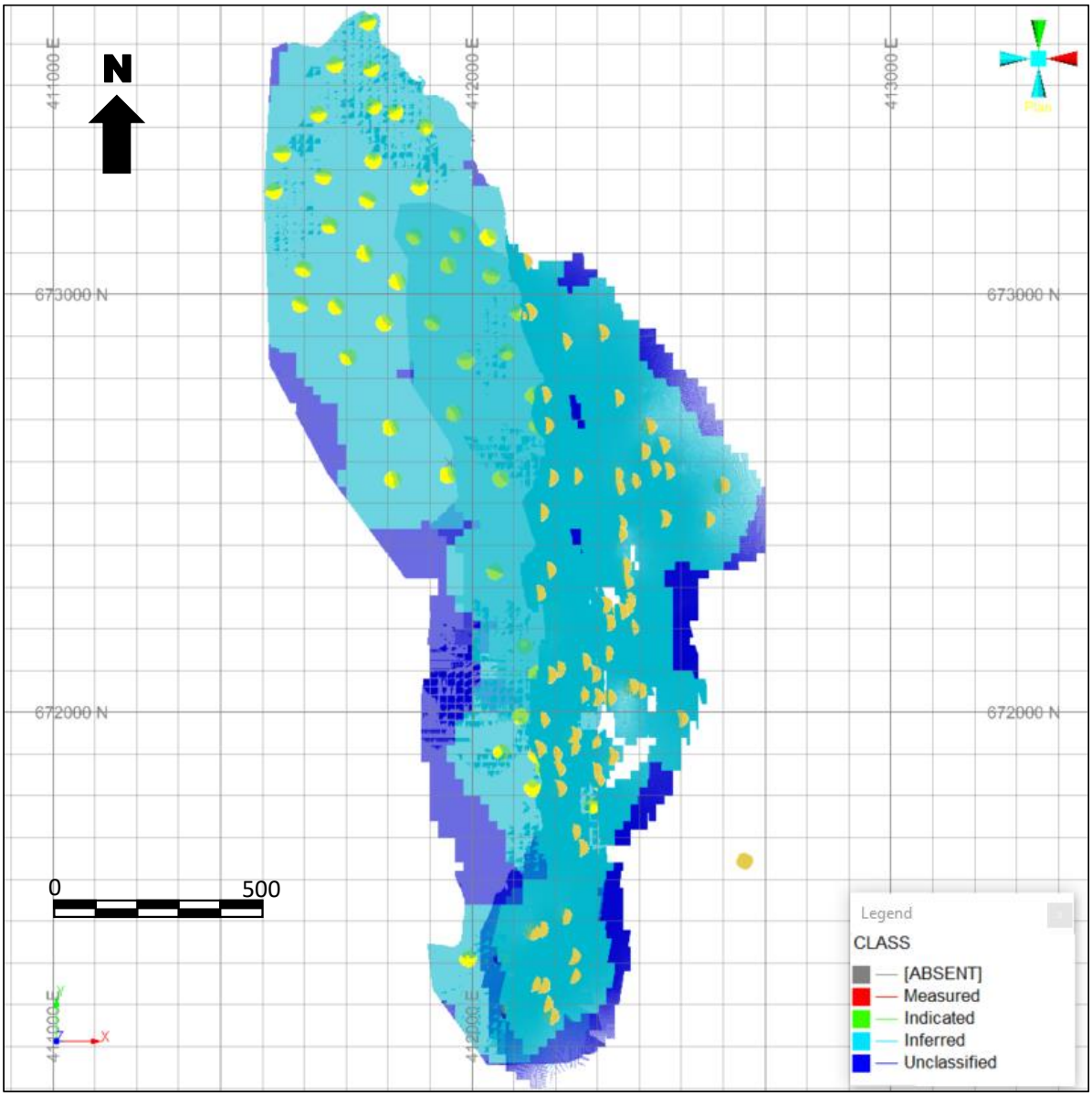
Mineral Resource classification is typically a subjective concept. Industry best practices suggest that classification should consider the confidence in the geological continuity of the mineralized structures, the quality and quantity of exploration data supporting the estimates, and the geostatistical confidence in the tonnage and grade estimates. Appropriate classification criteria should aim to integrate both concepts to delineate regular areas at similar resource classification.

Data quality, drillhole spacing and the interpreted continuity of grades controlled allowed SRK to classify the Project currently in the Inferred Mineral Resources category (Figure 14-12). A limitation to the declaration of Indicated Mineral Resources is a lack of knowledge related to the potential recoveries for several key elements, density data, and drill spacing appropriate to grade variance. For the purpose of this estimate, SRK has used bench marked assumed recoveries, while the current metallurgical test work is completed. SRK considers this to be sufficient to place the currently defined Mineral Resources in the Inferred category.

Drill spacing varies from 75 to 150 m, depending on the vein. Variography, where it could be reasonably understood, suggests predictable variation in grade out to a range of approximately 300 m with the majority of the variance being in the first 100 m. Variability over short distances is not well understood due to the current drill spacing and infill drilling will be required to improve the understanding of the short scale variability. Better understanding of the geostatistical parameters through additional sampling could potentially increase the confidence and support application of alternative estimation techniques such as ordinary kriging (OK).

For the reasons defined above, material that met the criteria listed below was assigned as Inferred:

- Within 125 m of the closest single hole
- Which is located only in the veins or mantos
- Was informed by more than two drillholes
- Held together in cohesive zones of more than three areas of influence



Source: SRK, 2023

Figure 14-12: Plan View of Inferred Domain showing Manto Antiguo and Santa Catalina vein Estimates vs. Composites

14.12 Mineral Resource Statement

CIM defines a Mineral Resource as:

"(A) concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge".

The reasonable prospects for eventual economic extraction requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade (CoG), taking into account extraction scenarios and processing recoveries. To meet this requirement, SRK considers for the purpose of this exercise that the Project is amenable for underground mining.

SRK defined the proportions of mineral resources to have potential for economic extraction for the mineral resource based on a single CoG. To determine the potential for economic extraction, SRK used the following key assumptions for the costing and a metallurgical recovery. Note that in the calculation below, SRK applied the recovery as defined in the previous estimates for comparison.

During the 2023 metallurgical test work, two sets of recoveries were defined based on two different processing solutions that have been investigated. The two options considered are:

- Production of a rougher concentrate product, which was based on three composite samples and returned average recoveries of 85% Au and 87% Ag. SRK tested the impact on the latest recoveries, which would result in a decrease in the CoG from 4.0 g/t to approximately 3.5 g/t, assuming no other changes to the costs.
- Production of a concentrate using the plant conditions at the Aris Maria Dama Plant, based on test analysis of composite samples at Segovia, which returned lower recoveries than the previous estimate (reporting 62% Au and 69% Ag, compared to 75% Au used previously). SRK ran a test on the impact on the latest recoveries, which would result in an increase in the CoG from 4.0 g/t to approximately 4.6 g/t, assuming no other changes to the costs.

As previously noted by SRK, changes in the metallurgical recovery will have a significant impact on the value of the Project and notes that changes from historical work noted may result in changes to the mineral resource. Based on the variability presented, SRK elected to maintain the previous recoveries that sit within the range of the two cases presented above. Further test work and engineering work to assess the preferred processing route for the Project should be completed.

SRK also completed a review of the CoG to adjust for revised price assumptions. Based on the review of consensus market forecasts, SRK increased the gold price from US$1,800/troy ounce (oz) to US$1,850/oz and reduced the silver price from US$24/oz to US$23/oz. The impact on the cut-off is considered marginal, with a drop from 4.0 to 3.9 g/t gold equivalent (AuEq); therefore, SRK elected to maintain the 4.0 g/t AuEq for reporting.

To determine the RPEEE SRK has used the key assumptions listed in Table 14-12 for the costing, and a metallurgical recovery for the base case and provide context to changes in the cut-off assumptions. Engineering work remains ongoing, which could further refine the cost assumptions that will be presented in the upcoming preliminary economic assumptions.

Table 14-12: Key Cost Assumptions – Comparing December 2022 to July 2023

Block Grades			
Metal	**Dec 31, 2022**	**July 31, 2023**	**Unit**
Gold – Average Grade	6	6	g/t
Silver – Average Grade	110	110	g/t
Equivalent Gold	7.56	7.56	g/t
Metal Prices			
Metal	**Value**	**Value**	**Unit**
Gold	1,800	1,850	US$/oz
Silver	24	23	US$/oz
Metallurgic Recoveries			
Metal	**Value**	**Value**	**Unit**
Gold	75%	75%	%
Silver	80%	80%	%
Production Costs			
Area	**Value**	**Value**	**Unit**
Mine (Underground)	105.0	105.0	US$/tonne (t)
Process	42.0	42.0	US$/t
General and Administrative (G&A)	10.0	10.0	US$/t
Sustaining	10.0	10.0	US$/t
Selling	1.0	1.0	US$/t
Subtotal	168.0	168.0	US$/t
Royalties			
Metal	**Value**	**Value**	**Unit**
Gold	3.20%	3.20%	% of revenue
Silver	3.20%	3.20%	% of revenue
Gold Revenue	260.42	267.65	US$/t
Silver Revenue	67.90	65.07	US$/t
Material Revenue	328.32	332.73	US$/t
Cut-Off Net Smelter Return (Underground)	178.51	178.65	US$/t
Cut-Off Equivalent Gold (Underground)	4.00	3.89	g/t

Source: SRK, 2023

Based on the analysis above SRK has calculated a AuEq on a block-by-block basis. The equivalent considers both gold and silver with no other metals and is based on the assumed recovery and metal prices. The following equation has been used based on the economic assumptions shown in Table 14-12.

$$\text{AuEq} = \frac{[\text{Au g/t} * \text{Au Recovery (0.75)} * \text{AuPrice}] + [\text{Ag g/t} * \text{Ag Recovery (0.80)} * \text{AgPrice}]}{[\text{Au Recovery (0.75)} * \text{Au Price}]}$$

SRK has limited the Resource based on a CoG of 4 g/t AuEq over a (minimum mining) width of 1 m. Based on on-going assistance with mine planning SRK considers this cut-off to remain appropriate. The Mineral Resource statement for the Project is shown in Table 14-13.

Table 14-13: Zancudo Mineral Resource Estimate as of July 31, 2023 – SRK Consulting (U.S.), Inc.

Class	Tonnes (kt)	Grade (g/t)			Material Content (koz)		
		Au	Ag	AuEq	Au	Ag	AuEq
Inferred	4,100	6.5	107	8.1	860	14,090	1,060

Source: SRK, 2023
koz: Thousand troy ounces
Notes:

- Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, and zinc assays were capped where appropriate. Given historical production, it is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.
- The mineral resources are reported at an in situ CoG of 4.0 g/t AuEq over a 1.0-m mining width, which was derived using a gold price of US$1,850/oz, a silver price of US$23.0/oz, and suitable benchmarked technical and economic parameters for underground mining (mining = US$105.0, processing = US$42.0, G&A and selling costs = US$21.0, and royalties = 3.2%).
- Metal equivalent is calculated with the formula AuEq = (Au *Au Recovery (75%) * AuPrice + Ag *Ag Recovery (80%) * AgPrice)) / (Au Recovery (75%) *Au Price).
- It assumed that the Project will produce a concentrate product based on assumed conventional gold and silver processing recoveries of 75% Au and 80% Ag from initial preliminary metallurgical sampling and benchmarked projects within the region.
- The mineral resources were estimated by Benjamin Parsons, BSc, MSc Geology, MAusIMM (CP) #222568, of SRK Consulting (U.S.), Inc.

14.13 Mineral Resource Sensitivity

The results of grade sensitivity analysis completed per vein are tabulated in Table 14-14.

This is to show the continuity of the grade estimates at various cut-off increments in each of the vein sub areas and the sensitivity of the Mineral Resource to changes in CoG. The reader is cautioned that the figures in this table should not be misconstrued with the Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of CoG. All figures are rounded to reflect the relative accuracy of the estimates.

Resource sensitivity is also demonstrated via the use of Grade Tonnage curves. Due to the differences in scale between gold and silver, silvers sensitivity must be analyzed based on the AuEq as demonstrated above. Table 14-14 demonstrates sensitivity at differing CoG over the minimum width of 1 m.

Table 14-14: Grades and Material Content at Various Equivalent Gold Cut-Offs

Cut-Off AuEq (g/t)	Mass (Mt)	Average Value				Material Content (koz)		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	Width (m)	AuEq	Au	Ag
2.50	6.6	6.3	5.1	86	1.92	1,355	1,095	18,465
3.00	5.7	6.9	5.5	92	1.95	1,260	1,020	17,000
3.25	5.3	7.1	5.8	96	1.96	1,210	980	16,250
3.50	4.9	7.4	6.0	99	1.96	1,160	940	15,535
3.75	4.5	7.7	6.2	103	1.95	1,115	905	14,845
4.00	4.1	8.1	6.5	107	1.91	1,060	860	14,090
4.25	3.7	8.4	6.8	112	1.90	1,005	815	13,400
4.50	3.4	8.8	7.2	117	1.85	950	770	12,630
4.75	3.1	9.1	7.4	122	1.82	910	740	12,125
5.00	2.8	9.5	7.7	127	1.79	860	700	11,520

Source: SRK, 2023

14.14 Relevant Factors

SRK is not aware of any additional Environmental, permitting, legal, title, taxation marketing or other factors that could affect resources. SRK notes that the Project contains relatively high levels of arsenic in the estimation domains (ranging from an average of 2,860 ppm to 14,554 ppm). These high levels as supported in the metallurgical test work that high arsenic values (>10,000 ppm) in the flotation rougher concentrate should be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting. During more detailed studies tracking of arsenic levels through estimation maybe required for engineering and metallurgical purposes.

15 Mineral Reserve Estimate

This section is not relevant to this Technical Report Summary.

This work is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have modifying factors applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that this economic assessment will be realized.

16 Mining Methods

SRK has not completed any assessment of mining methods as part of this study. The mineral resource estimates presented in Section 14 have not been converted to current mineral reserves through a Pre-Feasibility or Feasibility Study. For the purpose of the RPEEE SRK has assumed underground mining options, but further engineering work will be needed to test the optimum mining methods for the deposit.

The Project has been mined historically and the Company is currently in the process of evaluating the requirements to develop new underground mining, but further work is needed to detail the proposed mining requirements and costs.

17 Recovery Methods

This section is not applicable for the current level of study. The Project has been mined historically and the Company is currently evaluating options for Processing at the project, but further work is needed to detail the proposed processing requirements and costs.

18 Project Infrastructure

This section is not applicable for the current level of study. The Project has been mined historically and the Company is currently in the process of evaluating the requirements to develop new underground mining infrastructure and processing options. Further work is needed to detail the proposed infrastructure requirements.

19 Market Studies and Contracts

This section is not applicable to the current Mineral Resource. no work has been completed regarding market studies. The Company is currently in the evaluating options, but further work is needed to detail the proposed market studies.

20 Environmental Studies, Permitting and Social or Community Impact

The following is a discussion of reasonably available information on environmental, permitting and social or community factors related to the Zancudo Project.

20.1 Project Permitting Requirements

20.1.1 General Mining Authority

Since 1940, the Ministry of Mines and Energy (MME), formerly the Mines and Petroleum Ministry, has been the main mining authority with the legal capacity to regulate mining activities in accordance with the laws issued by the Colombian Congress. The MME can delegate its mining related powers to other national and departmental authorities. Mining regulations in Colombia follow the principle that (except for limited exceptions) all mineral deposits are the property of the state and, therefore, may only be exploited with the permission of the relevant mining authority, which may include the MME, the National Agency for Mining, or the regional governments designated by law.

In 2001, the Congress issued Law 685 (the Mining Code). This law established that the rights to explore and exploit mining reserves would only be granted through a single mining concession agreement (the 2001 Concession Agreement). This new form of contracting did not affect the pre-existing mining titles (licenses, aportes and concessions) which continue to be in force until their terms lapse. The 2001 Concession Agreement includes the exploration, construction, exploitation and mine closure phases and are granted for periods of up to 30 years. This term may be extended upon request by the title holder for an additional 30-year term. According to the Mining Code, the initial term was divided into three different phases:

- **Exploration** – During the first three years of the concession agreement, the title holder will have to perform the technical exploration of the concession area. This term may be extended for two additional years upon request.
- **Construction** – Once the exploration term lapses, the title holder may begin the construction of the necessary infrastructure to perform exploitation and related activities. This phase has an initial three-year term which may be extended for one additional year.
- **Exploitation** – During the remainder of the initial term minus the two previous phases, the title holder will be entitled to perform exploitation activities.

20.1.2 Environmental Authority

In 1993, Law 99 created the Environmental Ministry and then in 2011 the Decree 3570 modified its objectives and structure and changed the name to Environment and Sustainable Development Ministry. The Ministry is responsible for the management of the environment and renewable natural resources and regulates the environmental order of the territory. Also, the Ministry defines policies and regulations related to rehabilitation, conservation, protection, order, management, use, sustainable use of natural resources. Article 33 of the same Law created the regional environmental authorities with the responsibility to manage the environment and renewable natural resources. For the Zancudo Project, the regional environmental authority is Corantioquia.

In 2011, Decree 3533 created the National Authority of Environmental Licenses (Autoridad Nacional de Licencias Ambientales, ANLA). ANLA is responsible that all project, works or activities subject to licensing, permit or environmental procedures comply with the environmental regulations and contribute to the sustainable development of the country. ANLA will approve or reject licenses, permits or environmental procedures according to the law and regulations, and will enforce compliance with the licenses, permits and environmental procedures.

With regard to the licensing process of mining projects, the competence of either ANLA or the designated regional environmental authority (Corantioquia) is determined by the annual volume of material to be exploited. For projects exploiting more than 2 Mt/y, the responsibility will be with ANLA. Both ANLA and Corantioquia can enforce project compliance with the terms of their licenses or permits.

20.1.3 Environmental Regulations and Impact Assessment

Colombian laws have distinguished between the environmental requirements for exploration activities, and those that have to be fulfilled for construction and exploitation works. During the exploration phase, the concession holder is not required to obtain an environmental license. However, the concession holder requires environmental permits which will be obtained from the regional environmental authority (Corantioquia). The concession holder will have to comply with the mining and environmental guidelines issued by the MME and the Environmental Ministry.

In order to begin and perform construction and exploitation operations, the concession holder must obtain an environmental license or the approval of an existing Environmental Management Plan (*Plan de Manejo Ambiental*, or PMA) either from ANLA if the project exploits more than 2 Mt/y or from the regional environmental authority if the mineral exploitation is less than 2 Mt/y.

The approval process begins with the request for Terms of Reference (ToR) to prepare an Environmental Impact Statement (EIS) or update an existing PMA. The approval of the EIS and PMA by the jurisdictional environmental authority includes all environmental permits, authorizations and concessions for the use, exploitation or affectation, or all of the above, of natural resources necessary for the development and operation of a project, work or activity. Additionally, other permits and requirements (non-environmental) are required in order to begin construction and operation of a project.

Non-Governmental Organizations (NGOs) and the local communities have the opportunity to participate in the environmental administrative procedures leading up to the issuance of an environmental license. The environmental process will include participation of, and information to, all communities in the project area including indigenous communities and Afro-descendant communities.

20.1.4 Water Quality and Water Rights

The Colombian regulations that principally govern water quality, including the maximum permissible limits for discharge of wastewater into the environment and freshwater abstraction and their requirements, are Decree 2811 of 1974, Decree 1541 of 1978, Decree 1594 of 1984, and Decree 3930 of 2010, all of which are compiled in Decree 1076 of 2015, and Resolution 631 of 2015. Resolution 631 of 2015 provides updated parameters and maximum limits on point discharges. Corantioquia will enforce compliance with these regulations with respect to the Zancudo Project.

Water rights for mining activities are granted by means of a water concession which is granted by the regional environmental authority (Corantioquia), and which is independent to the mining concession or to land ownership. The water rights related to mining activities are included in the environmental licenses or in an approved PMA and are normally granted for five years. The terms and conditions under which a water concession is granted may depend, amongst others, on the amount of water available in the specific region, the possible environmental impact of the concession, water demand, the ecological flow and the different users that the water source services. The water concession is accompanied with a discharge permit.

20.1.5 Air Quality and Ambient Noise

Decree 948 of 1995, Resolution 650 of 2010 and Resolution 2154 of 2010 provide the main regulations on protection and control of air quality. These regulations set forth the general principles and regulations for the atmospheric protection, prevention mechanisms, control and attention of pollution episodes from fixed, mobile or diffused sources. These regulations also provide emission levels or standards. Among the emission sources regulated are: controlled open burnings, discharge of fumes, gases, vapors, dust or particles through stacks or chimneys; fugitive emissions or dispersion of contaminants by open pit mining exploitation activities; solid, liquid and gas waste incineration; operation of boilers or incinerators by commercial or industrial establishments, etc.

Also, Resolution 627 of 2006 regulates noise emissions in terms of ambient noise. The parameters regulated are: SO_2, NO_2, CO, TSP, PM_{10}, O_3, and noise. Corantioquia will enforce compliance with these regulations with respect to the Zancudo Project.

20.1.6 Fauna and Flora Protection

The main regulations for the protection of fauna and flora are contained in the Natural Resources Code and the Agreement about Biological Diversity entered into in Rio de Janeiro on June 5, 1992, within the framework of the Rio Convention. Also, forest management and use is regulated by Decree 1791 of 1996 and the compensation for biodiversity loss is regulated by Resolution 15717 of 2012. In addition, there are other important regulations on the matter such as the Cartagena Protocol on Biotechnology Security of the Agreement about Biological Diversity entered into in Montreal on January 29, 2000, and the Convention on International Trade of Threatened Wild Fauna and Flora Species (CITES). Endangered species are protected by environmental and criminal law.

In order to perform biodiversity studies, a permit for scientific investigation must first be obtained from the regional environmental authority (Corantioquia).

20.1.7 Protection of Riparian Areas and Drainages

Resolution No. 077 of March 2, 2011, regarding riparian and water channel protection, strictly prohibits the filling of perennial water courses except under very specific terms: road and pipeline crossings, bank and slope protection measures, and installation of public service networks (Title III, Article 9). The backfilling of intermitted or ephemeral channels can be authorized under permit by the regional environmental authority (Corantioquia), provided that the design is appropriate for the conditions, and that surface water and groundwater are properly managed.

20.1.8 Protection of Cultural Heritage or Archaeology

Cultural and natural heritage protection in Colombia is stated in the political constitution and developed through several international treaties and laws of the state. There are strict legal provisions, such as Law 397 of 1997 and Decree 763 of 2009, whereby the heritage is safeguarded and protected. For example, if a citizen finds an archeological specimen, they must inform the Ministry of Culture of the discovery within 24 hours; otherwise they could be sanctioned by the competent authority.

20.1.9 Zancudo Permitting Status

The Zancudo Project is authorized under a number of resolutions issued by the regional environmental authority (Corantioquia). The properties are held by Zancudo Metals Corp. (formerly Gran Colombia Gold Titiribí Sucursal Colombia (GCG Titiribí)), a branch of Zancudo Metals Corp., Panamá, (previously called Gran Colombia Gold Titiribí Corp., Panamá (GCG Panamá)). Zancudo Metals Corp. holds the required permits to continue exploration activities on the Project, based on discussions held with the Company to date SRK does not consider there to be any limitations to acquire further permits for future exploration activities. SRK considers that all other required permits will be addressed as part of the proposed project development.

20.1.10 Performance and Reclamation Bonding

The termination of a mining concession can happen for several reasons: resignation, mutual agreement, and expiration of the term, the concession holder's death, free revocation and reversion. In all cases, the concession holder is obliged to comply or guarantee the environmental obligations payable at the time the termination becomes effective.

The 2001 Mining Code requires the concession holder to obtain an Insurance Policy to guarantee compliance with mining and environmental obligations which must be approved by the relevant authority, annually renewed, and remain in effect during the life of a project and for three years from the date of termination of the concession contract. The value to be insured will be calculated as follows:

- During the exploration phase of the project, the insured value under the policy must be 5% of the value of the planned annual exploration expenditures;
- During the construction phase, the insured value under the policy must be 5% of the planned investment for assembly and construction; and
- During the exploitation phase, the insured value under the policy must be 10% of the value resulting from the estimated annual production multiplied by the pithead price established annually by the government.

According to the law, the concession holder is liable for environmental remediation and other liabilities based on actions and or omissions occurring after the date of the concession contract, even if the actions or omissions are by an authorized third-party operator on the concession. The owner is not responsible for environmental liabilities which occurred before the concession contract, from historical activities, or from those which result from non-regulated mining activities.

According to Denarius, an Environmental Insurance Policy is in effect for the Zancudo Project, though no further information has been reviewed by SRK at this time.

20.2 Environmental, Social and Governance (ESG) Considerations

To date the exploration activities completed by Denarius and the previous owners have had a limited social impact. There are currently no regulations directly related to social impacts that limit the exploration activities. Denarius has been proactive and implemented a set of activities in order to promote local employment and social benefit in the area of influence of the project. There was reported to have been previous opposition to potential open pit mining in the local area, but with current focus on underground mining methods, which are used in numerous Projects in the area it is not assumed there will be any resistance to potential mining.

ESG is an integral component of Denarius approach to the projects, and they are working with the local community to ensure they are incorporating the project within the local economy. An example of such actions is the use of a local contract miner who has already commenced activities to rehabilitate the mine workings to ensure safe access for future exploration.

It is the QP's opinion that the Company is continuing to consider Social, Environmental and Governance to an adequate level to support the current study, and by having systems in place which involve direct engagement with community and administration, definition of the required studies for future development can be completed with additional work.

20.3 Mine Closure

Article 209 of Law 685 of 2001 requires that the concession holder, upon termination of the agreement, shall undertake the necessary environmental measures for the proper reclamation and closure of the operation. To ensure that these activities are carried out, the Environmental Insurance Policy shall remain in effect for three years from the date of termination of the contract. Little else regarding the specifics of mine closure is provided in the Law. Decree 2820 Article 40 Paragraph 2 of 2010 specifically indicates that the concession holder must submit a plan for dismantling and abandonment.

21 Capital and Operating Costs

No capital and operating cost estimates have been made by SRK, as the Project is only at a Mineral Resource stage.

22 Economic Analysis

No economic analyses has been conducted for the current MRE.

23 Adjacent Properties

The Zancudo Project lies on the northern side of the Titiribí Project where porphyry Au-Cu mineralization was discovered by Gold Fields of South Africa Limited and Muriel Mining S.A. in 1998 (Meldrum, 1998). The project was subsequently explored by Gold Plata Mining (formerly Muriel Mining) with partners Debeira Goldfields in 2006-2008, Windy Knob Resources in 2008 and 2009, and Sunward Resources Ltd. in 2009 through 2013 (Kantor & Cameron, 2013). Sunward Resources was subsequently acquired by NovaCopper Inc. in 2015, Brazil Resources Inc. in 2016, and is now called GoldMining Inc. No drilling has been carried out at the Titiribí Project since 2013.

The Titiribí project has NI 43-101 mineral resources that comprise measured mineral resources of 51.6 Mt grading 0.49 g/t Au and 0.17% Cu containing 0.82 Moz Au and 195.1 million pounds (Mlb) Cu, indicated mineral resources of 234.2 Mt grading 0.51 g/t Au and 0.09% Cu containing 3.82 Moz Au and 459.3 Mlb Cu and inferred mineral resources of 207.9 Mt grading 0.49 g/t Au and 0.02% Cu containing 3.26 Moz Au and 77.9 Mlb Cu, all estimated at a 0.3 g/t Au cutoff (Kantor & Cameron, 2016). The resources are hosted in three deposits: the Cerro Vetas porphyry Au-Cu deposit, the Chisperos breccia Au deposit, and the NW Breccia Au deposit.

However, the author has been unable to verify the information in this report regarding the Titiribí project and the information is not necessarily indicative of the mineralization on the Zancudo Project that is the subject of this Technical Report.

24 Other Relevant Data and Information

All relevant data and information regarding the Zancudo Project are included in other sections of this report.

25 Interpretation and Conclusions

25.1 Location

The Zancudo Project is currently a Mineral Resource stage gold Project located in the near the town of Titiribí, Department of Antioquia, Republic of Colombia. It is approximately 27 km south of the city of Medellin, Colombia.

Zancudo has been exploited intermittently by numerous operations over a long period of time. Gold was first discovered in the Zancudo district in 1746. Mining has been carried out at Zancudo since 1793 in 58 mines. The most important company was the Sociedad de Zancudo that operated for a century from 1848 to 1948, with the most important mining period being from 1863 to 1927. Further small-scale mining has taken place in the early 21st Century (2009 to 2011) but was focused on reprocessing old scoria (glassy slag), from the historical dumps, with a total of approximately 135 kt, with an average grade of 4 g/t Au, producing approximately 337 kg (10.8 koz) of Au and 5,632 kg (181.1 koz) of Ag.

25.2 Geology

Geologically the Zancudo deposit is located on the western side of the Central Cordillera of the Colombian Andes. The deposit lies within the Romeral terrane, covered by continental sediments comprising gray to green colored conglomerates, sandstones, shales, and coal seams.

Gold mineralization occurs in two types of structures at Zancudo:

- Mineralization in flat-lying stacked mantos and disseminations in conglomerates and sandstones.
- Mineralization in N-S striking, steeply dipping veins.

Mineralization is interpreted to be of intermediate sulfidation epithermal in style. The fluid source in interpreted to be a porphyry gold-copper system located 3.5 km to the southwest outside of the current mining concessions. The minerals, in order of abundance, are pyrite, galena, arsenopyrite, sphalerite, silver-sulfosalts, bournonite, boulangerite and jamesonite, native gold and native silver.

25.3 Exploration

More recently, exploration on the project was initially completed by CDI between 1999 and 2003 completing six holes for 998.2 m. SRK has not used the CDI drilling information in the current estimates due to a lack of records and concerns over data quality.

Between 2011 and 2022, Gran Colombia and IAMGOLD (through its JV with Gran Colombia) completed multi-staged exploration programs on the Zancudo Project including, geological mapping, rock chip sampling, underground sampling, geophysical surveys, thin section analyses, preliminary metallurgical studies, and DD.

In the opinion of SRK, the geological logging, sampling preparation, and analytical procedures used by Gran Colombia and IAMGOLD are consistent with generally accepted industry best practices and are therefore adequate. No current drilling was being completed during the time of the site inspection, so SRK review has been limited to review of procedures, interviews with the geological staff and review of the historical core.

SRK noted during the site visit that the drilling core is currently being stored outside under plastic covers in two separate locations. SRK does not consider the current status to be at industry standards and recommends Denarius identify a potential facility in the local town to consolidate the storage and provide space for future logging. At minimum the core should be stored in a covered facility to avoid potential degradation.

Both Gran Colombia and IAMGOLD completed detailed QA/QC programs during their exploration. Insertion rates for standard reference materials, blanks and duplicates submitted during the routine submissions exceeded 20% with typical insertion rates of each QA/QC sample at 1 per 25. In SRK's opinion, this is at or above typical industry best practices for an exploration stage project.

It is also SRK's opinion that the analytical quality control data produced are sufficiently reliable for the purpose of MRE. SRK recommends continued diligence in monitoring the performance of standard reference materials and implementing corrective action as required.

It is the opinion of the QP responsible for the preparation of this Technical Report that the data used to support the conclusions presented here are adequate for the purposes of the defining the current geological model and associated mineral resource estimates.

25.4 Mineral Resource Estimate

Denarius is currently in the process of evaluating the requirements to develop new underground mining infrastructure and processing options at the Project, which remains on-going. The current Mineral Resource provides an update on the previously disclosed Mineral Resources (effective date, December 31, 2022). No new drilling has been completed since the previous estimate but during initial studies for underground mining it was apparent potential existed to improve the geological model through a more rigorous process of validation of the historical holes should be completed.

This work was completed between July and August 2023 by SRK, with assistance from Denarius geological team.

The MRE process was completed by SRK using the initial geological models provided by Zancudo geological staff, which have been independently reviewed and refined by SRK. The Company provided SRK with an exploration database with logging indicating the main geological features and units. In addition to the database, SRK has worked with the preliminary geological interpretations, which SRK has made minor alterations accordingly. The resource estimation methodology involved the following procedures:

- Database compilation and verification
- Construction of wireframe models for the fault networks and centerlines of mining development per vein
- Definition of resource domains
- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis
- Variography
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of "reasonable prospects for economic extraction" and selection of appropriate reporting CoG
- Preparation of the MRE

SRK has completed the geological modeling and MRE using Seequent Leapfrog Geo and Leapfrog Edge, respectively. The procedure involved construction of wireframe models for the fault networks, key geological/mineralization domains, data conditioning (compositing and capping) for statistical analysis, geostatistical analysis, variography analysis, block modeling and grade interpolation followed by validation. Grade was estimated using IDW (power 2) estimates for gold and silver. Grade estimation has been based on block dimensions of 20 m x 20 m x 20 m, for the current model. The block size reflects potential size variations for any underground smallest mining units. Classification has been limited to estimates within 125 m of the closest single hole, located in either vein or manto domains, and by more than two drillholes.

The resource evaluation work was completed by Mr. Benjamin Parsons, MAusIMM (CP#222568), according to CIM Definition Standards, who undertook a site inspection in January 2023.

Historical mine plans were digitized by Gran Colombia and the accessible mines were surveyed, but a complete detailed survey of the previous mining is not currently available. SRK has accounted for depletion using the best information available (digitization),

SRK has classified the current Mineral Resource as Inferred based on a combination off the drillhole spacing and the high-level nature of the initial metallurgical test work used to support the benched marked recoveries to determine the cut-off grade. It is SRK understanding that more detailed metallurgical test work has been commissioned since the effective date of the technical report with results expected later in 2023.

While SRK considers this estimate to follow CIM guidelines it is SRK's opinion that further work will be required to improve the confidence in the estimate prior to undertaking a more detailed engineering study, including finalization of on-going metallurgical tests.

It is the QP's opinion that the work to date is sufficient to confirm the presence of the mineralization which has been intersected at various locations over the strike length of 2.5 km and over a downdip extension of 650 m. The drilling has confirmed mineralization in the form of either shallow dipping manto veins in the upper portion and steeply dipping veins in the lower portions of the deposit.

SRK notes that the Project contains relatively high levels of arsenic in the estimation domains (ranging from an average of 2,860 ppm to 14,550 ppm). These high levels as supported in the metallurgical test work that high arsenic values (>10,000 ppm) in the flotation rougher concentrate should be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting. During more detailed studies tracking of arsenic levels through estimation maybe required for engineering and metallurgical purposes.

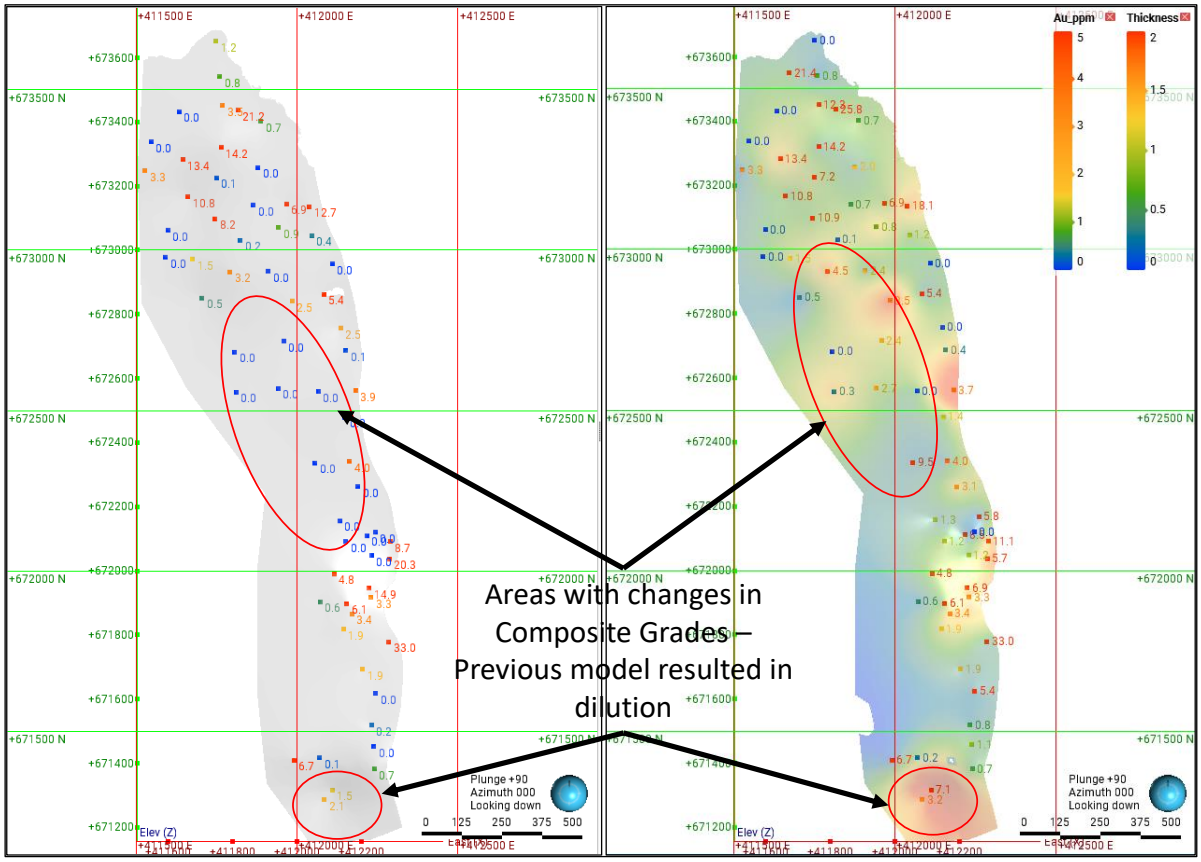
25.5 Comparison to Previous Estimate

SRK completed a comparison of the current estimate to the previous estimate based on the revised geological model, as shown in Table 25-1.

Table 25-1: Comparison of December 31, 2022, MRE vs. July 31, 2023, MRE (Detail)

Class	Tonnes (Mt)	Grade (g/t)			Material Content (koz)		
		Au	Ag	AuEq	Au	Ag	AuEq
Inferred (Dec22)	2.78	6.5	112	8.0	576	9,974	718
Inferred (July23)	4.07	6.5	108	8.1	855	14,075	1,055
Comparison	1.28	0	-4	0	279	4,101	337
% Change	**46%**	**0.6%**	**-3.8%**	**0.8%**	**48.4%**	**41.1%**	**46.8%**

Source: SRK, 2023



Source: SRK, 2023

Figure 25-1: Plan View Showing Dec22 vs. July23 Composites (Au, g/t) for Manto Antiguo

The increase in the mineral resources based on the revised geological model highlights the need to a strong geological model and control needed for the deposit. The current drill spacing remains relatively wide, with intersections typically in the order of 75- to 100-m spacing. More exploration is required to increase the confidence in the estimates and model, which should be completed via a combination of diamond drilling and underground sampling once safe access to historical workings is established.

Based on the review, there has been a significant increase in the tonnage and metal above cut-off. SRK attributes these changes to a more-detailed review of the geological logging and coding used to integrate the narrow structures into the updated estimate. In the December 2022 model, a number of low-grade intersections were incorporated, which resulted in the dilution of grades due to the relatively low data populations supporting the estimate. Detailed review of the contacts and high-grade intersections in close proximity to the immediate hanging wall and footwall plus reinterpretation to

logged intervals by Denarius's geologists resulted in an increase in the average grades on a structure-by-structure basis. The increases in the grades ranges from 4% to greater than (>) 100%, with only one structure (Ortiz B) returning lower grades based on the reinterpretation. Estimation parameters were reviewed but remain consistent (minor change in capping), which have not resulted in a material change.

The biggest changes in terms of the mineral resources are focused on the Manto Antiguo domain, which is the largest domain in the deposit and has increased by approximately 195 koz. Other structures that showed gains were typically in the +20 to +30 koz range from Porvenir, Santa Catalina, Manto Antiguo Lower, Manto Inferior, and Ortiz B. Limited change was noted in Miel, Panal, and Ortiz A domains, at ±5 koz.

The gains in Manto Antiguo are based on the increase in the average of the composites selected, as the December 2022 model contained a number of low-grade to barren intersections in the central portion of the deposit, which effectively limited the projection of grades. The reinterpretation resulted in grades ranging from 3 to 5 g/t in the same areas, which results in more material reporting above the CoG.

25.6 Metallurgy and Processing

The ZM-02M (Manto Antiguo) sample was selected for analysis as ZM-01M (Santa Catalina) and ZM-03M (La Miel) were deemed non-representative and excluded from the overall results.

Recovery of gold through the gravity circuit is at 23.2% Au recovery with additional test work needed to assess the economic viability of running a gravity concentration circuit at 23% recovery and whether that same gold would be recovered through the flotation circuit without the gravity concentration. Test work is also needed on the gravity concentrate to evaluate the gold that can be extracted with further processing.

Flotation gold recovery is at 82.5% and silver recovery at 86.8%. Additional test work may be able to optimize this result and push the recovery slightly higher. Cleaner flotation tests were performed to evaluate if higher concentrate grades could be achieved while maintaining gold recoveries. The cleaners did not provide substantial upgrading of gold grade to offset the recovery losses. It is recommended to sell or treat the rougher concentrate, though the flotation concentrate has arsenic values of >10,000 ppm which needs to be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting.

The cyanide leach gold recovery reported at 49.2% is the sodium cyanide (NaCN) leach component of the diagnostic leach test conducted on whole ore samples at >95% 105 µm. Previous leach test work on the Aris whole ore sample performed better at 62.3% but is a different material composite and cannot be used to coincide with the ZM-02M SGS flotation and gravity recoveries. The results for the bottle rolls on the ZM-02M composite are not yet available. There is potential for further optimization to increase this recovery with evaluation of finer grind size, as well as other leaching parameters.

Overall recovery for the gravity, flotation and cyanide leaching circuit is 52.3% gold and 65.8% silver.

Denarius Metals is in discussion with several 3rd party processors to reach an agreement on toll treatment of whole ore and a rougher concentrate product. If they are successful in reaching those agreements, a combined gravity circuit and rougher flotation recovery of 86.6% Au and 87.4% Ag can be assumed based on the results of the ZM-02M, Manto Antiquo composite sample. Additional test

work is recommended on composite samples from other geological structures in the deposit for repeatability and consistency of recovery.

SRK has reviewed the results of the analysis, which indicate gravity and rougher flotation recoveries of 86.6% Au and 87.4%Ag , noting this does not reflect recovery through a concentrate leach process. SRK cautions changes in the metallurgical recovery will have a significant impact on the value of the project and notes that changes from test work noted may result in changes to the Mineral Resource. It is SRK opinion that further test work is needed, specifically for leaching and process flowsheet design, to support the metallurgical understanding for the Project.

The 2023 metallurgical test work presented in Section 13, two sets of recoveries were defined based on two different processing solutions that have been investigated. In terms of the reporting of the Mineral Resources and the assessment of Reasonable Prospects for Eventual Economic Extraction the QP considers there remains two options, which can be summarized as:

- Production of a rougher concentrate product, which was based on three composite samples and returned average recoveries of 85% Au and 87% Ag. SRK tested the impact on the latest recoveries, which would result in a decrease in the CoG from 4.0 g/t to approximately 3.5 g/t, assuming no other changes to the costs.
- Production of a concentrate using the plant conditions at the Aris Maria Dama Plant, based on test analysis of composite samples at Segovia, which returned lower recoveries than the previous estimate (reporting 62% Au and 69% Ag, compared to 75% Au used previously). SRK ran a test on the impact on the latest recoveries, which would result in an increase in the CoG from 4.0 g/t to approximately 4.6 g/t, assuming no other changes to the costs.

Based on the variability presented, SRK elected to maintain the previous recoveries that sit within the range of the two cases presented above, with the final assumptions set as 75% Au and 80% Ag for the basis of the Mineral Resource. Further test work and engineering work to assess the preferred processing route for the Project should be completed.

25.7 Upside Potential

Overall SRK considers there remains potential to increase the Mineral Resources at the Project, which should be supported by further exploration to increase the confidence in the geological model via selected infill drilling, and from underground drilling and sampling once access is available to reduce the current drill spacing.

25.8 Foreseeable Impacts of Risks

SRK is not aware of any additional environmental, permitting, legal, title, taxation marketing or other factors that could affect resources. SRK notes that the Project contains relatively high levels of arsenic in the estimation domains (ranging from an average of 2,860 ppm to 14,554 ppm). These high levels as supported in the metallurgical test work that high arsenic values (>10,000 ppm) in the flotation rougher concentrate should be considered when evaluating further processing, such as oxidation, and the potential penalties that can be incurred with final concentrate smelting. During more detailed studies tracking of arsenic levels through estimation maybe required for engineering and metallurgical purposes.

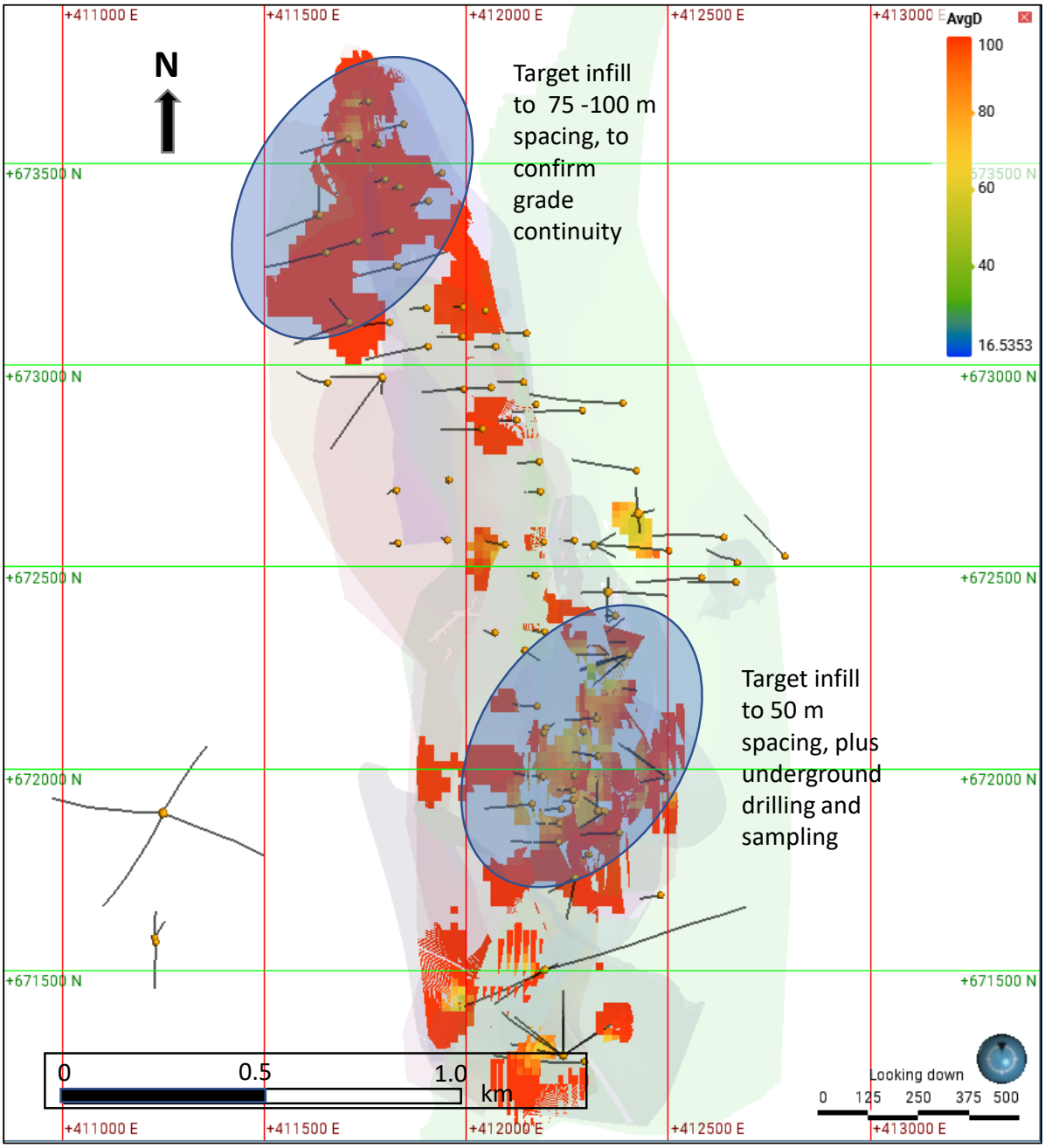
26 Recommendations

26.1 Recommended Work Programs

In terms of the current Mineral Resources and potential extensions, and the work completed to date, SRK would recommend Denarius should consider the following:

- The current drill spacing does not statistically support Indicated Mineral Resource in terms of understanding of the shorter scale grade variability, so a series of infill drilling is recommended to increase the confidence in the estimates. SRK considers this can be done from a combination of surface and underground locations using diamond drilling once underground access has been established.
- Additional underground sampling of mineralized faces is also recommended using protocols which ensure sample representativity via pre-cut channels at the equivalent sample support as the drilling.
- SRK has reviewed the proposed locations for the development of targeted drilling campaigns and SRK agrees that upside potential exists for the Project and that the drilling locations are reasonable. It is estimated that the next drilling campaign will be in the order of 10,000 m split between infill drilling and attempts to extend the current mineralization in the northern areas of the Project (Figure 26-1).
- Continual improvement in the confidence in the metallurgical test results to complement the results from the SGS program should be considered to further understanding the development of the Project and should be completed finalized before advancing to any preliminary engineering levels of study. It is SRK opinion that further test work is needed, specifically for leaching and process flowsheet design, to support the metallurgical understanding for the Project.
- Investigate options for improved confidence in the underground mine surveys once access is available.
- On-going validation of the density studies should be completed and with additional routine sampling further analysis of estimates versus regressed assignment of density in future models will need to be completed.

Update Mineral Resources based on the findings from the above programs and to undertake initial engineering studies to assess the preliminary economics for the Project.



Source: SRK, 2023

Figure 26-1: Summary of Key Areas for Further Exploration and Infill for Detailed Drill Planning (Estimated at 10,000 m)

26.2 Costs

Costs for recommended work programs are summarized in Table 26-1.

Table 26-1: Summary of Costs for Recommended Work

Type of Work	Description	Cost
Exploration Drilling	In-fill drilling aimed to convert some of the Inferred Resources to Indicated within Area A and to confirm grade continuity within Area B (Figure 26-1), aimed to improve the geological confidence to a sufficient level to define Mineral Resources outside the estimated block.	US$1,200,000
Study	Completed on-going Metallurgical testwork	US$75,000
Study	Complete and updated Mineral Resource	US$75,000
Study	Undertake a Preliminary Economic Assessment	US$200,000
Subtotal		**US$1,550,000**

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28 Glossary

The Mineral Resources and Mineral Reserves have been classified according to CIM (CIM, 2014). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

28.1 Mineral Resources

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.

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

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

28.2 Mineral Reserves

A **Mineral Reserve** is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

A **Probable Mineral Reserve** is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

A **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

28.3 Definition of Terms

The following general mining terms may be used in this report.

Table 28-1: Definition of Terms

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with ore.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an orebody or stope.
Gangue	Non-valuable components of the ore.
Grade	The measure of concentration of gold within mineralized rock.
Hanging wall	The overlying side of an orebody or slope.
Haulage	A horizontal underground excavation which is used to transport mined ore.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological	Geological description pertaining to different rock types.
LoM Plans	Life-of-Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve.

Term	Definition
Pillar	Rock left behind to help support the excavations in an underground mine.
RoM	Run-of-Mine.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulfide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).

28.4 Abbreviations

The following abbreviations may be used in this report.

Table 28-2: Abbreviations

Abbreviation	Unit or Term
A	ampere
AA	atomic absorption
A/m^2	amperes per square meter
ANFO	ammonium nitrate fuel oil
Ag	silver
Au	gold
AuEq	gold equivalent grade
°	degree
°C	degrees Centigrade
CCD	counter-current decantation
CIL	carbon-in-leach
CoG	cut-off grade
cm	centimeter
cm^2	square centimeter
cm^3	cubic centimeter
cfm	cubic feet per minute
ConfC	confidence code
CRec	core recovery
CSS	closed-side setting
CTW	calculated true width
°	degree (degrees)
dia.	diameter
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
FA	fire assay
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
g	gram

Abbreviation	Unit or Term
gal	gallon
g/L	gram per liter
g-mol	gram-mole
gpm	gallons per minute
g/t	grams per tonne
ha	hectares
HDPE	Height Density Polyethylene
hp	horsepower
HTW	horizontal true width
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
IFC	International Finance Corporation
ILS	Intermediate Leach Solution
kA	kiloamperes
kg	kilograms
km	kilometer
km^2	square kilometer
koz	thousand troy ounce
kt	thousand tonnes
kt/d	thousand tonnes per day
kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
kWh/t	kilowatt-hour per metric tonne
L	liter
L/sec	liters per second
L/sec/m	liters per second per meter
lb	pound
LHD	Long-Haul Dump truck
LLDDP	Linear Low Density Polyethylene Plastic
LOI	Loss On Ignition
LoM	Life-of-Mine
m	meter
m^2	square meter
m^3	cubic meter
masl	meters above sea level
MARN	Ministry of the Environment and Natural Resources
MDA	Mine Development Associates
mg/L	milligrams/liter
mm	millimeter
mm^2	square millimeter
mm^3	cubic millimeter
MME	Mine & Mill Engineering
Moz	million troy ounces
Mt	million tonnes
Mt/y	million tonnes per year
MTW	measured true width
MW	million watts
m.y.	million years
NGO	non-governmental organization
NI 43-101	Canadian National Instrument 43-101
OSC	Ontario Securities Commission
oz	troy ounce
%	percent
PLC	Programmable Logic Controller
PLS	Pregnant Leach Solution
PMF	probable maximum flood

Abbreviation	Unit or Term
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	second
SG	specific gravity
SPT	standard penetration testing
st	short ton (2,000 pounds)
t	tonne (metric ton) (2,204.6 pounds)
t/h	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
TSF	tailings storage facility
TSP	total suspended particulates
µm	micron or microns
V	volts
VFD	variable frequency drive
W	watt
XRD	x-ray diffraction
y	year

Appendices

Appendix A: Certificates of Qualified Persons

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CERTIFICATE OF QUALIFIED PERSON

I, Benjamin Parsons, MSc, MAusIMM (CP) do hereby certify that:

1. I am a Principal Consultant (Resource Geology) of SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled “NI 43-101 Technical Report El Zancudo Mineral Resource Estimate Colombia” with an Effective Date of July 31, 2023 (the “Technical Report”).
3. I graduated with a degree in Exploration Geology from Cardiff University, UK in 1999. In addition, I have obtained a Masters degree (MSc) in Mineral Resources from Cardiff University, UK in 2000 and have worked as a geologist for a total of 16 years since my graduation from university. I am a member of the Australian Institution of Materials Mining and Metallurgy (Membership Number 222568) and I am a Chartered Professional.
4. 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.
5. I visited the Zancudo property between January 11 and January 14, 2023 for three days.
6. I am responsible for all sections of the Technical Report.
7. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have had prior involvement with the property that is the subject of the Technical Report. I previous completed a Mineral Resource Estimate for the Project which was disclosed in a technical report titled “NI 43-101 Technical Report El Zancudo Mineral Resource Estimate Colombia” with an Effective Date of December 31, 2022
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 20th Day of October, 2023.

“Signed” *“Stamped”*

_____

Benjamin Parsons, MSc, MAusIMM
Principal Consultant (Resource Geology)