S-K 1300 Technical Report Summary

San Gabriel Project, General Sánchez Cerro Province, Peru

Compañía de Minas Buenaventura S.A.A.

Calle Las Begonias 415, San Isidro, Lima, Peru

Prepared by:

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SLR Project No.: 233.065320.00001

Effective Date:

December 31, 2024

Signature Date:

April 23, 2025

Revision: 0

SLR Consulting (Canada) Ltd.
55 University Ave., Suite 501, Toronto, ON M5J 2H7

SLR

April 23, 2025

Consent of Qualified Person

Re: Form 20-F of Compañia de Minas Buenaventura S.A.A. (the "Company")

SLR Consulting (Canada) Ltd. ("**SLR**"), in connection with the Company's Annual Report on Form 20-F for the year ended December 31, 2024 (the "**Form 20-F**"), consents to:

- the public filing by the Company and use of the technical report titled "S-K 1300 Technical Report Summary, San Gabriel Project, General Sánchez Cerro Province, Peru" (the "**Technical Report Summary**"), with an effective date of December 31, 2024 and issue date of April 23, 2025, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Company's Form 20-F;
- the use of and references to our name, including our status as an expert or "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 20-F and any such Technical Report Summary; and
- any extracts from or a summary of the Technical Report Summary in the Form 20-F and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 20-F.

SLR is responsible for authoring, and this consent pertains to, the Technical Report Summary. SLR certifies that it has read the Form 20-F and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

SLR Consulting (Canada) Ltd.

Per:

Jason J. Cox, P.Eng.
Global Technical Director

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CONSENT OF SRK CONSULTING (PERU) SA

SRK Consulting (Peru) SA ("SRK"), a "qualified person" for purposes of Subpart 1300 of Regulation S-K as promulgated by the U.S. Securities and Exchange Commission ("S-K 1300"), in connection with Compañia de Minas Buenaventura S.A.A.'s (the "Company") Annual Report on Form 20-F for the year ended December 31, 2024 and any amendments or supplements and/or exhibits thereto (collectively, the "Form 20-F"), consent to:

- the public filing by the Company and use of the technical report titled "S-K 1300 Technical Report Summary for the San Gabriel Project, General Sánchez Cerro Province, Peru" (the "Technical Report Summary"), with an issue date of April 23, 2025, which was prepared in accordance with S-K 1300, as an exhibit to and referenced in the Annual Report.
- the use of and references to SRK, including the status as an expert "qualified person" (as defined in Sub-Part S-K 1300), in connection with Form 20-F and any such Technical Report Summary; and
- the use of information derived, summarized, quoted or referenced from those sections of Technical Report Summary, or portions thereof, for which SRK is responsible and which is included or incorporated by reference in the Annual Report.

SRK is responsible for authoring, and this consent pertains to the following sections of the Technical Report Summary:

- 1.1.1.1, 1.1.2.1, 1.3.4 to 1.3.6, 6, to 9, 11, 22.1, 23.1 and 24.

Angel Mondragon
SRK Consulting (Peru) S.A. | Director

Antonio Samaniego
SRK Consulting (Peru) S.A. | Director

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1.0 Executive Summary

1.1 Summary

SLR Consulting (Canada) Ltd. (SLR) was retained by Compañía de Minas Buenaventura S.A.A. (Buenaventura) to prepare an independent Technical Report Summary (TRS) on the San Gabriel Project (San Gabriel, the Property, or the Project), located in General Sánchez Cerro Province, Peru. The purpose of this TRS is to support the disclosure of year-end (YE) 2024 Mineral Resource and Mineral Reserve estimates at the Property. This TRS conforms to United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary. SLR's Qualified Persons (QP) visited the Property on January 20 to 22, 2025. SRK Consulting (Peru) S.A. (SRK), the QP for geology and Mineral Resources, visited the Property on December 16 to 18, 2024.

Since Buenaventura acquired a 100% interest in the Project in 2014 and reached land agreements in 2014 and 2016, various studies have been carried out to support the development of San Gabriel as an underground gold project. In 2020, Ausenco Peru S.A.C. (Ausenco) carried out a Feasibility Study (FS) integrating all aspects of the Project including the underground mine, process plant, and both on-site and off-site infrastructure. Various supporting studies were completed on hydrology and hydrogeology, seismicity, and infrastructure including power supply, water storage, and waste material storage. Additional FS work was completed in 2021, including a new resource and reserve model, an updated mining plan, and the optimization of some of the Project's surface infrastructure, and a final FS report was issued by Ausenco in February 2022. Ausenco was awarded the engineering, procurement, construction and management (EPCM) contract. Construction was at approximately 70% completion as of January 2025.

The Project will consist of an underground mine, a process plant, ancillary buildings, and associated infrastructure. The San Gabriel processing plant is designed to treat 1,095 million tonnes per annum (Mtpa) of ore from the underground mine to produce gold and silver doré bars.

The report is an update of Buenaventura's prior Technical Report Summary for the Property, with an effective date of December 31, 2021.

1.1.1 Conclusions

1.1.1.1 Geology and Mineral Resources

The SRK QP has the following conclusions for geology and Mineral Resources.

Sample Preparation, Analyses, and Security

- SRK conducted a comprehensive review of available quality assurance and quality control (QA/QC) data from years 2023 and 2024 and believes that QA/QC procedures are consistent with the best practices accepted in the industry. The SRK QP is of the opinion that sample preparation, chemical analysis, quality control, and the security procedures are sufficient to provide reliable data to support the Mineral Resource and Mineral Reserve estimation and considers that quality has been maintained in comparison to the results obtained in the FS of the San Gabriel Project.

- The insertion rates of control samples appear adequate.
- There is no evidence of significant contamination for the elements Ag, Au, Cu, Pb, Fe, Sb, and S.
- There is good precision in sampling, sub-sampling, and analytical processes.
- The bias evaluation results from standard reference materials (SRM) showed that analytical accuracy of Certimin laboratory's evaluation of all seven elements is within acceptable limits.
- The SRK QP considers that the results of quality control evaluation do not represent a risk to the Mineral Resource estimation.

Database Verification

- SRK found that San Gabriel Project database had only minor findings that correspond mainly to historical data.
- Approximately 30% of the drill holes used in the Mineral Resource estimation do not have collar certificates.
- SRK considers the sample database from the San Gabriel Project to be consistent and acceptable for the Mineral Resource estimation.

Geological Model

- Buenaventura has developed a lithological model that delimits the Mineral Resource model; nevertheless, a strong structural component related to mineralization has not been included in the model.
- The database shared by Buenaventura for the Mineral Resource Audit presents a larger number of drill holes in comparison to those included in the lithological database (39 drill holes, of which 38 correspond to the 2023-2034 campaign and one associated with drill hole CCP11_343 from 2011). These drill holes, although not included in the geological model, were used to define estimation domains.
- An analysis of the grades contained in each high-grade shell, i.e., 5011 and 7011, found low-grade samples that represented 40% and 50% of all samples in each shell respectively; nevertheless, this is attributable to efforts to obtain continuity across domains.
- The Total Organic Carbon (TOC) domains were developed with the Machine Learning Method; the objective was to predict the information in these domains and update as well as validate the continuity with information from new diamond drilling campaigns.
- The lithological model at San Gabriel demonstrates geological continuity and coherence; and the events represented show good correlation between information from geological logging and the lithological domains developed by Buenaventura.

Mineral Resource Estimation

- Buenaventura developed the Mineral Resource estimation of Au, Ag, Fe, Cu, Pb, Sb and S, and SRK was responsible for the Mineral Resource estimation audit of these elements in the San Gabriel Project. These grades were interpolated into a block model using ordinary kriging (OK) and inverse distance (ID) methods. The results were validated visually and through statistical comparisons. The estimation generated was consistent with industry standards across categorizations.

- Samples from diamond drill (DH), reverse circulation (RC), and reverse circulation with diamond tail (RCD) drill holes are being used to estimate Mineral Resources; nevertheless, DH samples represent 90% of all samples of raw data, which indicates that the remainder of samples have no impact on the Mineral Resource estimate. In addition to this, Buenaventura conducted a correlation analysis between the RC and RCD samples with DH using a 15 m radius, where results of more than 80% correlation per domain were obtained.
- The distribution of density samples is not homogenous in each estimation domain, which impedes efforts to estimate density. For this reason, Buenaventura assigns a density volume to each domain that is the equivalent of the mean of the density samples after having removed samples that were outside of the limits of the Mean ± 2 standard deviation (SD).

Block Model: Resource Category

- Buenaventura classifies Mineral Resources according to spacing between drill holes, number of passes, number of drill holes, and minimum number of drill holes used in the block estimation. Additionally, to minimize the “spotted dog” effect, Buenaventura develops wireframes to delimit each smoothed classification.

1.1.1.2 Mining and Mineral Reserves

The SLR QP has the following conclusions for mining and Mineral Reserves.

Geotechnical Considerations

- The underhand drift and fill (UDF) method is the preferred mining approach for the poor-quality rock masses (Rock Mass Rating [RMR] < 40) at the San Gabriel Project. Its sequential excavation and cemented backfill strategy provide robust support and mitigate geotechnical risks associated with structurally and stress-controlled instabilities. By incorporating optimized backfill strength, systematic ground support, and real-time monitoring, UDF promotes safe and efficient mining under challenging ground conditions.

Mineral Reserves

- At the effective date of December 31, 2024, total underground San Gabriel Proven and Probable Mineral Reserves are estimated to be 15.3 million tonnes (Mt) at average grades of 3.71 g/t Au and 6.32 g/t Ag, containing 1.8 million ounces (Moz) of Au and 3.1 Moz of Ag.
- Mineral Reserves were estimated within stope and development designs. The SLR QP has reviewed the Mineral Reserve estimation methodology and is of the opinion that the estimates have been prepared to industry standards.
- The estimated Mineral Reserves support a life of mine (LOM) of 14.6 years. The mine will have a production rate of 3,000 tonnes per day (tpd) increasing to 3,500 tpd in 2034.

Mining

- The San Gabriel mine will be mined using UDF mining methods and cemented fill will be used as backfill.
- The cemented fill plant will be built on site and is designed to have a capacity 17% greater than ore production.
- All haulage operations will be undertaken by contractors. Buenaventura will assume responsibility for mining operations as of 2026.
- The north zone of the mine has not been sampled for metallurgical test work and metallurgical recoveries are based on test work averages completed in the south zone.
- The LOM plan consists of aggressive development rates between 2026 to 2028. Part of the development scheduled in those years can be scheduled later during the LOM.
- As of December 31, 2024 the detailed engineering progress was at 100% complete, construction services and procurement at 100% complete, and mine advance at 33% complete, with 2,000 m of ramp development completed from the North portal and 366 m at the South portal.
- Construction of the underground mine is progressing as per schedule and on time.

1.1.1.3 Mineral Processing

- The status of the Project as of January 2025 is that detailed engineering is 97% complete, construction services, 100% complete, procurement is 100% complete, and construction progress is 62% complete. This mineral processing information in this TRS is based on the FS and some of the information from the detailed engineering stage of the Project. The SLR QP notes that the detailed engineering level process design criteria, flowsheets, and layouts were purported to be complete but were not made available for the writing of this report.
- The San Gabriel processing plant is designed to treat 1,095 Mtpa (3,000 tpd) of ore from the underground mine to produce gold doré bars with silver content. The expected LOM for San Gabriel has been estimated at 14 years. The plant comprises primary crushing, semi-autogenous grinding (SAG) mill and ball mill grinding, gravity gold recovery (GRG) with intensive cyanide leaching, cyclone classification, pre-oxidation using oxygen sparging, carbon-in-leach cyanidation (CIL), INCO SO_2-air cyanide detoxification, Zadra carbon elution, regeneration electrowinning and doré casting, tailings thickening and filtration, and water treatment. The SLR QP agrees with the process flowsheet selected and the level of metallurgical testing performed to support the Project engineering.
- Ore contains preg-robbing organics requiring the use of CIL. The results of the CIL leach tests without gravity recovery ranged from 41.9% to 94.9% with an average gold recovery of 86.7% and a 75th percentile gold recovery of 91.4%. It should be noted that the gold grade of the CIL set of samples averaged 5.2 g/t Au and the gravity CIL set averaged 3.1 g/t Au. TOC averaged 0.68% in the CIL set and 0.54% in the gravity CIL set. Design recovery for the gravity-CIL circuit is 86.48%.
- Gold occurs as native gold and electrum, although in the stockwork type there are significant amounts of maldonite (Au_2Bi). Free gold in the range of 20% to 30% was found to occur in the replacement and breccia ore types, indicating the potential for GRG. The average sulphur content is 12%, mainly as iron sulphides with only minor cyanide soluble copper minerals. There is evidence of organic carbon potentially causing preg-

robbing. The SLR QP indicates that deleterious elements in the San Gabriel mineralization include organic carbon and mercury.

- Based on the results from Laboratorio Plenge (PlengeLab), using the cyclone underflow size distribution, 80% passing (P_{80}) 296 µm, results in a global gravity recovery of 13.7% for gold and 1.7% for silver. In all cases, mass recovery was 0.5%.
- Sedimentation test results for the final tailings thickener indicated an underflow density averaging 55% solids and a thickener specific area of 0.22 m^2/(t/d), equivalent to a 30 m diameter thickener. Rheology variability test work by PlengeLab on the tailings thickener underflow slurry indicated the need to reduce the target density from 55% solids to 47% (range 45% to 50%) due to high slurry viscosity.
- Filtration tests resulted in a specific filtration rate of 0.44 m^2/(t/h) producing a filter cake of 20% moisture, which is higher than the current geotechnical requirement of 14% moisture for final disposal in the dry stacked tailings facility, Filtered Tailings Reservoir (DRF for its abbreviation in Spanish). The SLR QP understands that additional testing is planned to reduce the moisture including surfactants, cake drying, air blowing, and viscosity adjustment by varying pH, and that solving this problem is critical for dry stacked tailings.
- Slurry viscosity increases with an increase in pH and percent solids. The milling process design considers a near neutral (pH 7) milling process using the pre-leach thickener to isolate the milling and CIL circuits.
- The process water is supplied to the process water pond, from the tailings thickener overflow and TSF reclaim water. The treated water from the mine water treatment plant feeds the process water tank which distributes the water to different points within the process plant.

1.1.1.4 Infrastructure

- The site currently has two camps with a total capacity for 1,500 people, which will be reduced to approximately 800 during operation. Camp facilities include administrative buildings, training rooms, recreation rooms, laundry facilities, a medical centre, and kitchen and dining rooms.
- The property is accessed via the National Road MO-106 and a seven kilometre gravel road connects the national road to the site's main gate.
- The power supply to the San Gabriel Substation will be via one 50.3 km long 220 kilovolts (kV) overhead transmission line from the Chilota Substation to the 220 kV/23 kV San Gabriel Substation.
- Fresh water will come from two sources: fresh water dam (built across the Quebrada Agani) and water inflow from the underground mine. Mine, process, and surface contact water will be recycled for plant and mine operations use.
- The Industrial Waste Mine Water Treatment Plant (PTARI) mine water treatment plant has a capacity 60 L/s.
- The SLR QPs visited the site in January 2025, at which time the surface infrastructure construction was approximately 70% complete.

1.1.1.5 Environmental, Permitting and Social Considerations

- No known environmental issues that could materially impact the ability to extract the Mineral Reserves were identified by SLR from the documentation available for review.
- Environmental approval was granted for the Environmental Impact Assessment (EIA) for the Project in 2017. The authorization for operation from the General Directorate of Mining of Perú, and the licences and authorizations from the National Water Authority for water use and water discharge for the operations phase of the Project must be obtained by Buenaventura before commencement of production.
- Buenaventura has an Environmental Policy in place that establishes the environmental management guidelines and standards for its projects and operations (last reviewed in 2022).
- There is an Environmental Management Plan in place, applicable to operations and construction activities. It includes an environmental monitoring program encompassing soil, air quality, noise, surface water and springs quality, sediments, effluents, groundwater, and biodiversity. Bi-annual reports documenting monitoring results for water quality, air quality, and ambient noise are submitted to the Peruvian authorities.
- The SLR QP is not aware of any non-compliance environmental issues raised by the Peruvian authorities. Buenaventura stated in the conclusions of the bi-annual monitoring reports provided to SLR (corresponding to the first half of 2024) that the monitoring results are in compliance with the environmental regulations in force.
- According to the information reviewed, the site water management system meets the typical objectives applicable to mine operations (i.e., implementation of infrastructure for management of contact and non-contact water protective of the receiving environment).
- A Community Relations Plan is in place and was developed as part of the Environmental Management Plan.
- The key social issue associated with the Project is the high expectations from communities within the Project's social area of influence in terms of support and benefits to be provided by Buenaventura.
- Based on the information provided in the reports accessible through the company's website, Buenaventura appears to maintain positive relations with the communities located within the area of influence of its mine operations. Based on the documents provided by Buenaventura and information gathered during the site visit in January 2025, the company appears to maintain positive working and commercial relationships with the communities within the area of influence of its mine operations. San Gabriel prioritizes hiring and buying locally and provides training opportunities to help local workforce and businesses remove barriers to employment and procurement.
- San Gabriel has framework agreements in place with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community and the Corire rural community involving monetary contributions, priority hiring, training, scholarships, establishment of a development fund to be invested in key priority areas, and support for the establishment of community businesses.
- Buenaventura publicly discloses its sustainability performance through integrated annual reports accessible through the company's website.

- A conceptual Mine Closure Plan (MCP) has been developed for all the mine components within the context of Peruvian legislation.

1.1.1.6 Capital and Operating Costs and Economics

- Mining operating costs were estimated for mining operations completed by Buenaventura, and development and support operations completed by contractors. The SLR QP has reviewed the cost calculations and is of the opinion that the estimates include all labour, supplies, consumables, and equipment costs required to sustain the underground mining operations.
- Operating cost estimates for the process plant and associated on-site and off-site infrastructure were prepared by Ausenco with input from Buenaventura. Operating costs were estimated for labour, power, reagents, water supply and treatment, and consumables on an annual basis considering plant flowsheet, process design criteria and the mass balance. Power and reagent costs were calculated from equipment lists, electrical load lists and the results of metallurgical testing.
- Current LOM plan operating cost estimates expanded on the FS operating costs for the concentrator and ADR plant by increasing in the plant maintenance costs and adding operating and maintenance costs for the water treatment plant, PTARI. The FS unit process operating cost is US$26.94/t, and the LOM unit process operating cost used in the current San Gabriel cash flow is US$36.14/t. The SLR QP considers these operating costs to be reasonable.
- The LOM production schedule in the cash flow model is based on the December 31, 2024, Mineral Reserves.
- The economic analysis using the production, revenue, and cost estimates presented in this TRS confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves for a 14.2-year mine life. At LOM long term metal prices of US$2,172.00/oz Au and US$29.00/oz Ag, the Project's Base Case undiscounted pre-tax net cash flow is approximately US$801 million, and the undiscounted after-tax net cash flow is approximately US$474 million. The pre-tax Net Present Value (NPV) at an 8.26% discount rate is approximately US$388 million and the after-tax NPV at an 8.26% discount rate is approximately US$191 million.

1.1.2 Recommendations

1.1.2.1 Geology and Mineral Resources

The SRK QP has the following recommendations for geology and Mineral Resources.

Sample Preparation, Analyses, and Security

1. Insert external control samples in future deliveries, as established in its Quality Control Procedure (2022). Sending external control samples to a secondary laboratory must include a review of the granulometry in 10% of the samples, as well as the insertion of pulp blanks and SRMs in said lots.
2. Complete frequent reviews of the behaviour of the quality control results and inform the laboratory about any problems detected to opportunely establish corrective measures.

Data Verification

3 Periodically monitor and/or review drill hole recovery results. The SRK QP considers a recovery percentage greater than 90% acceptable.

4 The minimum and maximum drill hole sampling length indicated in the Buenaventura Sampling Protocol (2022) should be respected in future drilling campaigns.

5 In future drilling programs, perform bulk density sampling in all drill holes and areas that are important for Mineral Resource estimation.

6 Complete frequent reviews and validation of the control sample database and check that duplicate control samples are correctly associated with their corresponding primary sample.

Geological Model

7 Generate a structural model for subsequent integration in the geological model to ensure a more robust model that provides better understanding on the role of faults and their relation to mineralization.

8 Use the database used to estimate resources in updates of Mineral Resource estimations to update the geological model; this will ensure that the registries in the database for the estimation match the registries in the geological model.

9 More support is needed from samples to confirm and define the continuity of carbonaceous horizons. In future diamond drilling campaigns, the TOC sampling should continue to confirm the geological interpretation.

Mineral Resource Estimation

10 Exclude samples from RC and RCD drill holes in future Mineral Resource estimations. These samples should be replaced with samples from diamond drill holes to ensure that resource estimation is based on a single source of information.

11 Systematic density sampling programs should cover all domains, appropriately distributed along and up the estimation domains.

12 Use best practices in the industry to develop a density sample procedure for non-competent core rock to ensure that representative samples are available for each of the Project’s domains.

13 Implement a reconciliation program that includes the different types of Mineral Resource models, reserves, mine plans, and plant results when the operation starts.

Block Model: Resource Category

14 Consider risk factors such as QA/QC and density in the classification of Mineral Resources.

15 Compare the tonnages between the initial category and the smoothed category in order to validate that the tonnage variation is not greater than 5%. Additionally, it is recommended to include some algorithm that can perform the smoothing process because the complexity may increase over time.

1.1.2.2 Mining and Mineral Reserves

The SLR QP has the following recommendations for mining and Mineral Reserves.

Geotechnical Considerations

1 Study/Data – Carry out further characterization of the Project site, including additional drilling and laboratory tests.

2 Backfill Quality and Strength - Conduct trials to optimize cemented backfill mix (CAF/CRF) and achieve a minimum strength of 2.2 MPa within 7–28 days of curing. Ensure proper topping/filling to achieve roof contact.

3 Excavation Direction - Advance drifts in the SE-NW direction, parallel to the major horizontal stress, to minimize deformation and improve support efficiency.

4 Ground Support - Implement systematic bolting, mesh, and shotcrete based on site-specific conditions.

5 Adjust support design as necessary based on ground performance monitoring.

6 Geotechnical Monitoring - Use real-time monitoring (e.g., convergence meters, stress gauges) to assess drift performance and backfill behaviour.

7 Mining Sequencing - Maintain controlled sequencing of undercutting operations to limit exposure of poor-quality rock and ensure backfill curing time.

Mining

8 Complete metallurgical test work in areas with poor or no test work prior to mining those areas.

9 Review the development schedule to reduce the amount of development between 2026 and 2028.

10 Consider maintaining some contractor involvement in 2026 particularly with development advance.

11 Add a minimum of 10 days for cemented backfill curing time in the LOM schedule where two adjacent drifts will be mined sequentially.

1.1.2.3 Mineral Processing

1 The detailed engineering process was reported to be complete, however, the detailed engineering design criteria, flowsheets, and layouts were not available for the writing of this report. Future reports should include this information.

2 Conduct additional metallurgical test work in areas lacking test work and in areas exhibiting variability in recoveries, such as Estimation Domain A4, and in zones with high TOC content. Current domains are defined by the relationship between Au recovery and TOC, however, relationships between Au recovery and both head grade and sulphide sulphur grade are also significant and should be considered in the modeling. It is therefore advisable to develop metallurgical domains to more accurately define metallurgical recoveries. At present, recovery estimates are based on estimation domains rather than dedicated metallurgical domains, which may not fully capture metallurgical variability.

1.1.2.4 Environmental, Permitting and Social Considerations

1 Review the company's Environmental Policy procedures and protocols and update them at regular intervals to allow for their proper and timely implementation.

2 Develop the governance approach and procedures for the Tailings Storage Facility (TSF) and other dams of the Project before initiating production. An Engineer of Record should be appointed for the TSF. The supporting documents, studies, and analysis should be in place, including Operation, Maintenance and Surveillance (OMS) Manual, a downstream consequence analysis, Emergency Preparedness and Response Plan, Probable Failure Modes Analyses (PFMA), and risk assessment.

3 The San Gabriel social team should continue working and communicating regularly with the other internal departments, such as environment, operations, procurement, communications, and institutional relations, on community-related matters, as their sphere of influence could impact community relationships. For example, the contracting or not of a local business for a specific scope of work, the delay in paying invoices to a local business or contractual breaches can negatively impact the relationships with communities within the social area of influence.

4 Revisit and update the Social Management Plan regularly as social risks requiring mitigations also change and evolve constantly.

5 Develop and implement a procedure and a tool to register commitments and track progress to ensure fulfillment of the social commitments. San Gabriel has numerous social commitments from engagement activities with communities, the EIA, dialogue roundtables, framework agreements with communities, and agreements with districts in the social area of influence.

1.1.2.5 Capital and Operating Costs and Economics

1. Track and collect actual mine operating costs during operations and review cut-off grade estimations for future Mineral Reserve estimates.
2. Developing the capital cost estimate detail to incorporate owner’s costs and contingency calculations.
3. Further develop the Work Breakdown Structure (WBS) to assist with the development of the control budget.
4. Verify capital and operating costs from the completion of process facility construction and initial operation of the plant.
5. Update the metal market overview analysis for gold and silver every two to three years as the most recent available study is from CRU Group in Q2 2021

1.2 Economic Analysis

The economic analysis contained in this TRS is based on the San Gabriel Project Mineral Reserves, economic assumptions, and capital and operating costs provided by Buenaventura corporate finance and technical teams and reviewed by SLR. All costs are expressed in Q1 2025 US dollars. Unless otherwise indicated, all costs in this section are expressed without allowance for escalation, currency fluctuation, or interest.

A summary of the key criteria is provided below.

1.2.1 Economic Criteria

1.2.1.1 Physicals

- Mine Life: 14.2 years (between Q2 2025 and Q1 2039).

- Underground peak mining rate: 3,452 tpd (between 2034 and 2037)
- Total Ore Feed to Process: 15,305 kt ore at 3,71 g/t Au and 6.32 g/t Ag
- Contained Metal
  - Gold: 1,824 koz of Au
  - Silver: 3,111 koz of Ag
- Average LOM Process Recovery:
  - Gold Recovery: 85.3%
  - Silver Recovery: 45.0%
- Recovered Metal
  - Gold: 1,555 oz Au
  - Silver: 1,401 koz Ag

1.2.1.2 Revenue

- Revenue is estimated based on metal prices provided to SLR by Buenaventura, which sourced them from Bloomberg Street Consensus Commodity Price Forecasts from January 2025. The Bloomberg metal price forecast is presented in Table 1-1.

Table 1-1: Economic Analysis Gold and Silver Price Assumptions

Commodity	Unit	2025	2026	2027	2028	2029 and Long-Term
Gold	$/oz	2,000	2,539	2,200	2,172	2,172
Silver	$/oz	26.00	32.50	27.50	29.00	29.00

- Payable metals are estimated at 99.5% for gold and 99.5% for silver. These rates are based on other Buenaventura operations.
- LOM average selling charges of 0.29% of gross revenue (or 6.44 per ounce of gold).
- Royalty to Gold Fields S.A. (Gold Fields): 1.5% NSR.
- LOM NSR revenue is US$3,384 million (after Selling Charges and Royalties).

1.2.1.3 Capital Costs

- Initial capital, based on the Estimate to Complete as at December 31, 2024 of US$177 million for year 2025 in the cash flow model.
- Total LOM sustaining capital costs of US$186 million.
- Mine closure costs total US$17.0 million over the LOM:
  - Concurrent reclamation between 2025 and 2039 of US$3.0 million.
  - Mine closure costs between 2040 and 2041 of US$13.5 million.
  - Post-closure costs between 2042 and 2046 of US$0.5 million.

1.2.1.4 Operating Costs

- Total unit operating costs US$132.14/t ore processed:
  - Underground mining operating costs: US$74.17/t mined.
  - Processing operating costs: US$36.14/t ore processed.
  - Site Services & general and administrative (G&A) costs: US$18.36/t ore processed, or US$21 million per year.
  - Build Own Operate and Transfer (BOOT) costs: US$3.46/t ore processed, or US$4 million per year
- LOM site operating costs of $2,022 million.
- Off-site G&A (Corporate Allocation): US$12 million per year over the LOM.

1.2.1.5 Taxation and Royalties

- Corporate income tax rate in Peru is 29.50%.
- Special Mining Tax Contribution (IEM) LOM average rate: 2.6%.
- Mining Tax Royalty LOM average rate: 4.2%.
- Employees' profit sharing participation: 8.0%.
- Third party Royalty to Gold Fields: 1.5%.
- SLR has relied on a Buenaventura taxation model for calculation of income taxes applicable to the cash flow.

1.2.2 Cash Flow Analysis

SLR prepared a LOM unlevered after-tax cash flow model to confirm the economics of the Property over the LOM (between 2025 and 2039). Economics have been evaluated using the discounted cash flow (DCF) method by considering LOM production on a 100% basis, annual processed tonnages, and gold and silver grades. The associated metal recoveries, metal prices, operating costs, transportation, treatment and refining charges, initial and sustaining capital costs, and reclamation and closure costs, as well as royalties, income tax, and special mining tax were also considered in the DCF.

The economic analysis prepared by SLR considers a base discount date as at January 1, 2025, using beginning of year convention discounting.

The base discount rate for the DCF analysis of San Gabriel was set by Buenaventura's senior management at 8.26% based on their Weighted Average Cost of Capital (WACC) analysis. Discounted present values of annual cash flows are summed to arrive at the Project Base Case NPV. The Internal Rate of Return (IRR) and payback are also calculated, given San Gabriel is a project under construction beginning ROM production in May 2025 and processing plant operations in September 2025.

To support the disclosure of Mineral Reserves, the economic analysis demonstrates that the San Gabriel Mineral Reserves are economically viable at LOM long term metal prices for gold at US$2,172.00/oz and silver at US$29.00/oz.

- San Gabriel's Base Case undiscounted pre-tax net cash flow is approximately US$801 million, and the undiscounted after-tax net cash flow is approximately US$474 million.

- The pre-tax NPV at a 8.26% discount rate is approximately US$388 million and the after-tax NPV at a 8.26% discount rate is approximately US$191 million.
- The San Gabriel Project pre-tax IRR is 33,6% and after-tax IRR is 21.8%.
- The pre-tax payback period is 4.0 years and the after-tax payback period is 5.3 years.

The SLR QP confirms that SLR has also run the economic analysis using flat reserve metal prices, and the analysis demonstrates that San Gabriel's Mineral Reserves are also economically viable at these prices.

The World Gold Council Adjusted Operating Cost (AOC) after by-product credits for the Project is US$1,321/oz Au. The mine life sustaining capital unit cost is US$248/oz Au, for an All-in Sustaining Cost (AISC) of US$1,568/oz Au. The average annual gold production during operation is 109 koz per year.

A summary of the LOM after-tax cash flow prepared by SLR is presented in Table 1-2.

Table 1-2: After-Tax Cash Flow Summary

Description	Units	Total LOM
Production		
LOM	years	14.2
Mill Feed from UG Production	'000 tonnes	15,305
Au grade	gr/t	3.71
Ag Grade	gr/t	6.32
Contained Metal		
Au	koz	1,824
Ag	koz	3,111
Recovered Metal		
Au	koz	1,555
Ag	koz	1,401
Metal Prices		
LOM LT price - Au	US$/oz	2,200
LOM LT price - Ag	US$/oz	29.10
Payable Metal		
Au	koz	1,547
Ag	koz	1,394
Cash Flow		
Gross Revenue	**US$ million**	**3,446**
Transport / TC-RC Charges	US$ million	(10)
Royalties	US$ million	(52)
Net Revenue	**US$ million**	**3,384**
Operating Costs		
Underground Mining	US$ million	(1,135)

Description	Units	Total LOM
Processing Plant	US$ million	(553)
Support Services/Site G&A	US$ million	(281)
BOOT	US$ million	(53)
Off-site G&A (Corporate allocation)	US$ million	(180)
Operating Margin - EBITDA	**US$ million**	**1,182**
Capital Costs		
Initial Capital	US$ million	(177)
Sustaining Capital Costs	US$ million	(186)
Reclamation & Closure	US$ million	(17)
Change Working Capital	US$ million	-
Pre-Tax Net Cash Flow	**US$ million**	**801**
Taxes - Income Tax	US$ million	(57)
Taxes - Workers' Participation	US$ million	(61)
Taxes - IEM/GEM	US$ million	(208)
After-Tax Cash Flow	**US$ million**	**474**
Project Economics		
Pre-Tax		
Pre-tax IRR	**%**	**33.6%**
Pre-tax NPV at 8.26%	**US$ million**	**388**
Pre-tax payback	**years**	**4.0**
After-Tax		
After-tax IRR	**%**	**21.8%**
After-Tax NPV at 8.26%	**US$ million**	**191**
After-Tax payback	**years**	**5.3**

1.2.3 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on after-tax NPV at a 8.26% discount rate. The following items were examined:

- Gold and silver price
- Gold and silver head grade
- Gold and silver metallurgical recovery
- Operating costs
- Capital costs (initial sustaining and closure)

After-tax sensitivities over the San Gabriel Base Case has been calculated for -20% to +20% (for head grade), -5% to +5% (for metallurgical recovery), -20% to +20% (for metal prices), and -

10% to +15% (for operating costs and capital costs) variations, to determine the most sensitive parameter for the Project.

The sensitivity analysis at San Gabriel shows that the after-tax NPV at an 8.26% base discount rate is most sensitive to head grades, then metal prices and metallurgical recoveries, followed by operating costs and capital costs. The SLR QP notes that a 10% reduction in head grades reduces the after-tax NPV at 8.26% by 68% for the Project Base Case.

1.3 Technical Summary

1.3.1 Property Description

The Project is located in the Ichuña district, General Sánchez Cerro Province, Department of Moquegua in southern Peru, approximately 837 km northeast of Lima and 116 km north of Moquegua (both in straight lines).

The main cities around the Project are Arequipa, Moquegua, and Juliaca, from which access is via a network of paved and gravel roads. The total distance from Arequipa is 252 km, including 114 km on paved road from Arequipa to Imata and 138 km on gravel road from Imata to the Project site.

The Project area climate is classified as tundra, presenting rainy semi-frigid weather, with limited precipitation during autumn and winter. Atmospheric humidity is classified as wet. This climate type occurs in the Andean Region, between 3,500 metres above sea level (MASL) and 6,000 MASL. For this region, the yearly precipitation averages approximately 700 mm, and the yearly temperature average is 7°C with permanent snow in high mountains. The annual average precipitation for the Project area is 595 mm, with distinct dry and wet seasons. The wet season is between November and March.

The Project is located entirely within the land, which was acquired from the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua community and Corire community.

1.3.2 Land Tenure

The Project is located on land 100% owned by Buenaventura. The Property consists of three mining concessions and one beneficiation concession. The total area of these three concessions is approximately 52,581 ha. The total effective area of the Project is approximately 53,581 ha. All the mineral concessions are currently in good standing.

1.3.3 History

Numerous exploration, environmental and social, and engineering studies have been completed at the San Gabriel Project. The majority of historical exploration, including mapping, rock and sediment sampling, electromagnetic (EM) and magnetic surveys, and drilling were completed over a period from 2003 to 2015. Historically, the Project was named the Chucapaca Project, renamed by Buenaventura to San Gabriel in 2014.

There has not been any formal production to date on the Property.

1.3.4 Geological Setting, Mineralization, and Deposit

The stratigraphy at San Gabriel is comprised of various formations in the Yura Group, including the Cachicos, Labra, Gramadal, and Hualhuani formations and the Murco Formation. The Yura Group hosts the oldest Mesozoic rocks in the region, and contains mainly quartzites, lutites, limestone, and continental red sandstone.

The San Gabriel deposit is hosted in a complex of intrusive volcanic diatremes that cross through the sedimentary rocks of the Yura Group. This complex includes phreatomagmatic and phreatic breccia, which are related to rhyolitic domes and associated dikes. The geological structure of the deposit is dominated by folds with a west-northeast direction and by a system of faults that controls the distribution of intrusions.

Mineralization at San Gabriel comprises two stages, an early stage of Cu-Ag-As and a main stage of Au-Cu-(Ag), which is economically significant. Mineralization is associated with a magmatic-hydrothermal system with alterations such as sideritization, argillization, and silicification.

1.3.5 Exploration

Exploration at Chucapaca began in the 18th century with silver extraction and intensified in 2002 under Buenaventura and Gold Fields, which focused on Canahuire. Geophysical studies and drilling were conducted, identifying copper and gold. In 2014, Buenaventura acquired the San Gabriel Project and conducted both pre-feasibility and feasibility studies for underground mining until 2021. These studies served a basis for project design in the Ausenco 2022 FS.

The exploration program included rock and soil samples that revealed high levels of metal and epithermal anomalies. Seven mineralized targets were identified: the western extension of Canahuire, West Canahuire, Katrina, South Katrina, Northeast Katrina, Cerro Chucapaca, and Chucapaca.

In 2023 and 2024, Buenaventura's drilling campaigns included a total of 38 drill holes and 9,304 m of drilled area. These recent campaigns generated more support for domain estimation, and a TOC analysis defined the carbonaceous horizons. Recovery from these core samples has been high, reaching 97.8% in 2023 and 96.1% in 2024, with Au values above 1 part per million (ppm), demonstrating a recovery value above 90%.

1.3.6 Mineral Resource Estimates

SRK reviewed the integrity of the database for the San Gabriel Project, which was provided by Buenaventura. The consolidated data included information on sampling, grades, bulk density, and drilling registries. SRK found no significant issues with the database and believes that it is consistent and acceptable for Mineral Resource purposes.

SRK evaluated quality control for the years 2023 and 2024, which included insertion of control samples of blanks, duplication and standard, where the acceptable insertion ratio was 17%. No significant evidence was found of contamination in the chemical analysis of the samples. The precision of the sampling process, preparation and chemical analysis was adequate. The accuracy of the chemical analysis process was adequate, with biases below 5%.

SRK reviewed the mineral resource estimation process at the San Gabriel Project by examining the geological database dated August 30, 2024. The methodology to review the estimation included a review of the geological model (lithology), verification of the definition of estimation domains, and geostatistical analysis. Bulk density was assigned to each lithological domain through a statistical analysis. The process to estimate mineral resources conducted by Buenaventura covered Au, Ag, Cu, Pb, Fe, Sb and S and respected the limits of the lithological model. The estimation methods used and subsequently validated were OK, ID, and nearest neighbour (NN). The process to evaluate the validation model included a review of global and local biases as well as visual validation by sections and plan views. Finally, the criteria used to classify mineral resources was reviewed, based on the following: drill hole spacing, number of passes, number of drill holes, and minimum number of samples. Buenaventura used a smoothing process in its classification efforts to prevent a "spotted dog" effect. This comprehensive focus ensured the reliability of the mineral resource estimate for the San Gabriel Project, which was corroborated by SRK.

Mineral Resources are reported as of December 31, 2024, and detailed in Table 1-3.

Table 1-3: Summary of Mineral Resources – December 31, 2024

Zone	Category	Tonnage (kt)	Grade		Contained Metal	
			Au (g/t)	Ag (g/t)	(koz Au)	(koz Ag)
San Gabriel	Measured	661	2.26	4.21	48	89
	Indicated	7,102	2.37	7.96	540	1,817
	Measured + Indicated	**7,763**	**2.36**	**7.64**	**588**	**1,907**
	Inferred	7,049	3.23	7.34	733	1,664

Source: Buenaventura 2024, audited by SRK 2024.

Notes:

1. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
2. Mineral Resources are exclusive of Mineral Reserves.
3. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
4. The reference point for the Mineral Resources estimate is insitu. The database was of August 30, 2024. Therefore, the estimation was reported as of December 31, 2024. The Qualified Person Firm responsible for the resource estimate is SRK Consulting (Peru) S.A.
5. Marginal Cut-off Value: US$ 92.14 per tonne.
6. Metal prices used in the NSR assessment are US$1,900.00/oz Au and US$24.00/oz Ag.
7. Metallurgical recovery is differentiated by metal and metallurgical class, and ranges between 69.79% and 87.81% for gold and between 40.7% and 48.65% for silver.
8. Extraction, processing and administrative costs used to determine NSR cut-off values were estimated based on average operating costs projections for the Project.
9. Tonnes are rounded to the nearest thousand.
10. Totals may not add due to rounding.

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

1.3.7 Mineral Reserve Estimates

Table 1-4 shows the San Gabriel Mineral Reserve estimate effective as of December 31, 2024.

Table 1-4: Summary of Mineral Reserves – December 31, 2024

Category	Tonnage	Grade		Contained Metal	
	(000 t)	(g/t Au)	(g/t Ag)	(000 oz Au)	(000 oz Ag)
Proven	3,166	4.14	3.78	422	385
Probable	12,139	3.60	6.98	1,405	2,722
Total Proven + Probable	15,305	3.71	6.32	1,827	3,107

Notes:

1. The definitions for Mineral Reserves in S-K 1300 were followed for Mineral Reserves reporting.
2. The Mineral Reserve estimate is reported on a 100% ownership basis.
3. Mineral Reserves represent mill feed material after dilution and mining recovery.
4. Mineral Reserves are reported within mining shapes above a marginal cut-off value of $92.14/t.
5. Mineral Reserves are estimated using average long term metal prices of Au: US$1,900.00/oz, and Ag: US$24.00/oz.
6. Metal NSR factors excluding metallurgical recovery are $60.89/g for gold and $0.77/g for silver.
7. Metallurgical recoveries are accounted for in the NSR calculations based metallurgical test work and are variable as a function of contained organic carbon. LOM average recoveries are 86.2% for Au, and 47.2% for Ag.
8. Dilution factors were applied to account for backfill dilution. Factors vary based on number of faces in contact with backfill. Average dilution is 8.6%.
9. A mining recovery factor of 100% was applied to Mineral Reserve estimates.
10. Numbers may not add due to rounding.

The deposit was divided into domains and an average recovery was assigned to each domain using the average of the test work. The SLR QP noted that some areas of the domains were not properly sampled for metallurgical testing, particularly the northern part of the mine, which accounts for 21% of the total Mineral Reserves. Ore in the northern part of the mine consists of only Probable material and the SLR QP has observed that the areas with poor or no test work will not be mined until Q2 of 2027. Buenaventura has indicated that they are currently planning on collecting more samples and completing more test work to cover the areas with poor/no metallurgical test work.

The SLR QP is not aware of any other risk factors associated with, or changes to, any aspects of the modifying factors such as mining, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

Mineral Reserves were estimated within stope and development designs. Stopes were designed using Deswik Stope Optimizer (DSO). The optimiser was ran using a gold grade lower than marginal cut-off to generate a global set of shapes. NSR values were then calculated for all resulting shapes, taking into account metallurgical recoveries, modifying factors for dilution and mining recovery, and economic value of contained silver.

Shapes below marginal cut-off were rejected while those between marginal and break-even were reviewed against designed development to determine their economic value. Mineral Reserves were estimated from the resulting stopes based on diluted grades and extracted tonnages.

1.3.8 Mining Methods

The UDF method is the preferred mining approach for the poor-quality rock masses (RMR < 40) at the Project. Its sequential excavation and cemented backfill strategy provide robust support and mitigate geotechnical risks associated with structurally and stress-controlled instabilities. By incorporating optimized backfill strength, systematic ground support, and real-time monitoring, UDF promotes safe and efficient mining under challenging ground conditions.

Buenaventura has further evaluated both overhand drift and fill (ODF) and UDF mining methods and compared them on the basis of ground support requirements, productivity, and costs. UDF was selected as the preferred mining method as if offers higher productivity with larger drift sizes, reduced ground support requirement, and better overall factor of safety due to reduced exposure to the surrounding rockmass.

UDF at San Gabriel involves mining the deposit in panels consisting of five to eight sub-levels. Each sub-level will be mined by three sequential drifts in a primary-secondary-tertiary fashion. The primary drifts will be completely mined and backfilled using cemented backfill prior to mining the adjacent secondary drifts, with the process repeating itself for the tertiary drifts. Once a sub-level is mined and backfilled, the access to the next level is developed and mined.

The cemented backfill will be mixed on surface and transported to the underground workings using trucks with push plates for horizontal unloading. The placed cemented fill is then pressed into the voids using a load haul dump (LHD) fitted with a rammer plate to ensure that the fill is compacted into the voids and in contact with the drift roof.

There are currently two mine portals accessing the mine: the North portal and the South portal. At the time of the site visit in January 2025, approximately 800 m of development was completed from the North portal and 2,000 m from the South portal.

1.3.9 Processing and Recovery Methods

Buenaventura contracted Ausenco to develop an FS and the engineering, procurement and construction management (EPCM) for the Project.

The status of the Project as of January 2025 is that detailed engineering is 97% complete, construction services 100% complete, procurement is 100% complete, and construction progress is 62% complete. This document is based on the FS stage Process Design Criteria and Process Flow Diagrams.

The San Gabriel processing plant is designed to treat 1,095 Mtpa (3,000 tpd) of ore from the underground mine to produce gold doré bars with silver content. The expected LOM for San Gabriel has been estimated at 14 years.

The San Gabriel process plant comprises primary crushing, SAG mill and ball mill grinding, gravity gold recovery with intensive cyanide leaching, cyclone classification, pre-oxidation using oxygen sparging, CIL, INCO SO_2-air cyanide detoxification, ZADRA carbon elution, regeneration electrowinning and doré casting, tailings thickening and filtration, and water treatment.

The San Gabriel ore contains preg-robbing organics requiring the use of CIL cyanidation. The results of the CIL leach tests without gravity recovery ranged from 41.9% to 94.9% with an average gold recovery of 86.7% and a 75th percentile gold recovery of 91.4%. Design recovery for the gravity-CIL circuit is 86.5%.

It should be noted that the gold grade ranged from 1.4 g/t to 15.5 g/t, averaged 5.2 g/t Au with a 75th percentile grade of 6.47 g/t Au in the CIL samples tested, and ranged from 0.6 g/t to 6.1 g/t, averaged 3.1 g/t Au with a 75th percentile grade of 3.94 g/t in the gravity CIL samples tested.

TOC ranged from 0.1 % TOC to 61.9 %TOC, averaged 0.68% TOC with a 75th percentile grade of 0.3 % TOC in the CIL samples tested, and ranged from 0.2 % TOC to 2.0 % TOC, averaged 0.54% TOC with a 75th percentile grade of 0.8 % TOC in the gravity, CIL samples tested.

1.3.10 Infrastructure

Project infrastructure will include:

- Access roads
- Power supply and distribution
- Water supply, recovery, and distribution
- Fresh water dam
- Mine water pumping and storage
- Potable water

- Fire water
- Mine water industrial water treatment plants
- Air and oxygen services
- Fuel storage and supply
- Accommodation camp
- Maintenance workshops, including truck shop, mechanical and electrical workshops
- Organic material storage
- Waste material storage
- Filtered tailing storage facility

The main access to the Property is via the National Road MO-106. A seven kilometre gravel road connects the national road to the site's main gate. The national road connects the site to Puno and Arequipa which are located 117 km and 233 km away, respectively. Personnel transfers are done via Puno which has an airport with frequent flights to Lima. Equipment and consumables are typically transported from Arequipa.

The power supply to the San Gabriel Substation will be via one 50.3 km long 220 kV overhead transmission line from the Chilota Substation to the 220 kV/23 kV San Gabriel Substation. The distribution voltages from the San Gabriel Substation are 23,000 V, 10,000 V, 4,160 V, and 480V.

SAG and ball mill power were calculated based on the plant throughput and average ore specific energy (ECS). The specific power for the SAG mill - ball mill circuit is 26.54 kWh/t. This gives a yearly consumption of 29,060 MWh/y. Non-grinding power was calculated by plant area using power factors, operating hours per year, and average demand power taken directly from the electrical load list. Total non-grinding power demand id 6,239 kW for annual consumption of 39,749 MWh/y. Total installed power demand is 10,739 kW and total annual consumption for the operation is 69,240 MWh/y.

Fresh water will come from two sources: fresh water dam and water inflow from the underground mine. Mine, process, and surface contact water will be recycled for plant and mine operations use. Fresh water is pumped to the fresh water transfer tank, which feeds the process plant's fresh/fire water tank and the water is distributed to various points in the process plant.

The fresh water dam will be built across the Quebrada Agani, which is a valley on the west side of the Project. The current dam design includes a bypass system built into the base of the dam wall to return water to the stream and maintain its natural flow, minimizing impacts to downstream water users. The dam will have a maximum storage capacity of 700,000 m^3. The dam will collect sufficient water during the rainy months to support operations during the dry months. Water from the fresh water dam will be used for potable water use and supplement water requirements for mine and process plant operations.

The mine water treatment plant (PTARI) has a capacity of 60 L/s. Water from the underground mine and contact water will be stored within the mine water pond to be fed to the HDS followed by ultrafiltration and nanofiltration circuits that will remove most of the impurities to comply with environmental permits and governmental standards, for water effluent release into the environment.

Since the Project is currently under construction, the current accommodation consists of two camp facilities with a total capacity for 1,500 people. During operation the number of people working on site is expected to be approximately 800 (for two shifts). The number of modules will be decreased to approximately 440 once the mine fully enters in production, which will be sufficient to accommodate the numbers of workers over one rotation. Camp facilities include administrative buildings, training rooms, recreation rooms, laundry facilities, a medical centre, and kitchen and dining rooms.

1.3.11 Market Studies

The principal commodities that will be produced at the Project – gold and silver – are freely traded at prices and terms that are widely known so that prospects for sale of any production are virtually assured. Gold will represent 99% of San Gabriel's gross revenue, while silver will only contribute to 1% of the revenue.

Market information for this section comes from the industry scenario analysis prepared by CRU Group in Q2 2021 for Buenaventura and S&P Global Market Intelligence's Commodity Briefing Reports from January 2025.

In summary, S&P forecasts that gold and silver markets in 2025 are poised to remain bullish, buoyed by economic and geopolitical uncertainty

Buenaventura has based its gold and silver price forecast only from Bloomberg's analysis of consensus industry forecasts with LOM long term metal prices for gold at US$2,172.00/oz and silver at US$29.00/oz.

San Gabriel will produce doré bars. The doré refining terms assumptions are based on refining terms from other Buenaventura operations. These terms are typical and consistent with standard industry practices and similar to contracts for the refining of doré elsewhere.

In addition to future arrangements with refiners for doré sales, San Gabriel will have numerous contracts with suppliers for the majority of the operating activities at the mine site.

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

The Project area is located in the southern Andes of Peru, at an altitude ranging between 4,450 MASL and 5,000 MASL, in the Pacific Hydrographic Region, within the Tambo River watershed.

Baseline characterization of existing environmental conditions for San Gabriel was carried out as part of the environmental studies required for preparation of the Detailed EIA. The Detailed EIA was completed for the Project in 2016 and approved on March 31, 2017 by Directional Resolution (R.D.) No. 099-2017-MEM/DGAAM. The 2016 EIA identified potential negative impacts for most environmental aspects, including: soil, air, noise, water, flora and vegetation, and fauna. However, these impacts were not determined to be significant when considering planned management and mitigation measures.

The 2016 EIA includes a set of management plans aimed at impact mitigation, including air quality, soil, noise and vibration, water and sediments, biodiversity, conservation of wetlands, fauna and flora, solid waste, and social. The Environmental Monitoring Plan includes soil, air quality, noise, surface water and springs quality, sediments, effluents, groundwater, and biodiversity monitoring.

The list of environmental permits for San Gabriel and the status is presented in Section 17.3 of this TRS.

The Project's area of influence comprises rural communities in the Ichuña District, General Sánchez Cerro Province in Moquegua. These communities are mainly dedicated to agriculture, farming, hunting, and forestry for self-consumption. There are few employment opportunities, so community members tend to move to cities like Arequipa or Moquegua, seeking better opportunities. While the direct area of influence involves four rural communities (Santa Cruz de Oyo Oyo, Maycunaca and Antajahua; Corire; San Juan de Miraflores; and Chucapaca), the indirect area of influence includes the Ichuña District.

The Environmental and Social Management Plan developed for the 2016 EIA includes a plan for the mitigation of the social impacts and enhancement of benefits associated with the Project. The plan is comprised of a Community Relations Plan, a Social Cooperation Plan, and a Social Development Plan.

San Gabriel has a Permanent Information Office in Ichuña, where communities from the area of influence can learn about the Project and raise questions and concerns. SLR understands that San Gabriel has implemented a grievance mechanism to receive, assess, and resolve grievances and complaints from stakeholders and impacted local communities.

The most recent MCP prepared for the Project was approved on September 20, 2024. The conceptual MCP addresses temporary, progressive, and final closure actions, and post-closure inspection and monitoring. It proposes one year of progressive closure, two years of final closure, and five years of post-closure. Post-closure monitoring, assumed to extend for five years after closure, will include monitoring of physical, geochemical, and hydrological stability, as well as environmental and social monitoring. A closure cost estimate was included in the MCP. The total financial assurance for progressive closure, final closure, and post-closure is calculated by Buenaventura according to the Peruvian regulations.

1.3.13 Capital and Operating Cost Estimates

The Project's capital cost estimate review highlights a total initial capital expenditure of $177.43 million, allocated primarily to infrastructure, equipment, and other development costs in year 2025. Sustaining capital averages $18 million annually, peaking at $42.75 million in Year 12, with a LOM total of $186.46 million to support ongoing operations and infrastructure upgrades.

The total Project operating costs estimated for mining, processing, G&A and BOOT activities to validate the positive cash flow for the Mineral Reserve LOM are summarized in Table 1-5. Operating costs total US$2,022 million over the LOM, averaging US$152 million per year between 2026 and 2037, all years at full production.

Table 1-5: LOM Operating Costs Summary

Cost Component	LOM Total (US$ millions)	Average Annual[1] (US$ millions)	LOM Average (US$/t milled)
UG Mining	1,135	84.7	74.17
Processing	553	41.9	36.14
G&A / Site Services	281	20.9	18.36
BOOT	53	4.0	3.46
Total Site Operating Cost	**2,022**	**151.5**	**132.14**

Notes:
1. For fully operational years (2026 – 2037)
2. Sum of individual values may not match total due to rounding.

2.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) was retained by Compañía de Minas Buenaventura S.A.A. (Buenaventura) to prepare an independent Technical Report Summary (TRS) on the San Gabriel Project (San Gabriel, the Property, or the Project), located in General Sánchez Cerro Province, Peru. The purpose of this TRS is to support the disclosure of year-end (YE) 2024 Mineral Resource and Mineral Reserve estimates at the Property. This TRS conforms to United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary.

The geology and Mineral Resource sections of this TRS were prepared by SRK Consulting (Peru) S.A. (SRK).

Since Buenaventura acquired a 100% interest in the Project in 2014 and reached land agreements in 2014 and 2016, various studies have been carried out to support its development as an underground gold project with surface processing and infrastructure facilities. In 2020, Ausenco Peru S.A.C. (Ausenco) carried out a Feasibility Study (FS) integrating all aspects of the Project including the underground mine, process plant, and both on-site and off-site infrastructure. Various supporting studies were completed on hydrology and hydrogeology, seismicity, and infrastructure including power supply, water storage, and waste material storage. Additional FS work was completed in 2021, including a new resource and reserve model, an updated mining plan, and the optimization of some of the Project's surface infrastructure, and a final FS report was issued in February 2022 (Ausenco 2022).

The Project will consist of an underground mine, a process plant, ancillary buildings, and associated infrastructure. The San Gabriel processing plant is designed to treat 1,095 million tonnes per annum (Mtpa) of ore from the underground mine to produce gold and silver doré bars.

2.1 Site Visits

The SRK geology and Mineral Resource Qualified Person (QP) visited the site on December 16 to December 18, 2024. During the site visit, they inspected the coreshack. The scope of review of the procedures and activities developed and executed by Buenaventura's personnel included the following: registry of geological logging data, sampling, and quality control. Additionally, the SRK QP selected and subsequently reviewed some sampling intervals that are important to the geological model and Mineral Resource estimation. The SRK QP scheduled a meeting with Buenaventura's geology and exploration teams to review diamond drilling procedures and geological interpretation.

The SRK QP was unable to access the interior of the mine due to an operating incident, which impacted safety. Access to the drilling platforms was impeded by climate conditions. Consequently, the QP was unable to supervise the progress of diamond drilling activities.

The SLR mining and Mineral Reserve QP visited the site on January 21 to 23, 2025. During the site visit, the QP visited the ramp accesses to the underground mine, and surface infrastructure that are currently under construction. The SLR mining engineer QP had discussions with Buenaventura mining technical staff to review the Mineral Reserve estimation procedures including selection and basis of inputs, life of mine (LOM) production schedule methodology, operating costs budgeting, and the general state of operations.

The SLR environmental QP visited the site on January 21 to 23, 2025. During the site visit the QP visited the surface facilities under construction with a focus on the Tailings Storage Facility (TSF) and components of the water management infrastructure such as ponds and channels. The QP had discussions with San Gabriel personnel responsible for construction, environmental management, and community relations activities.

Table 2-1 lists the responsibilities of the SLR and SRK QPs for this TRS.

Table 2-1: Qualified Person Responsibilities

QP	Responsible for
SLR Consulting (Canada) Ltd.	Section 1 (except 1.1.1.1, 1.1.2.1, 1.3.4 to 1.3.6), 2 to 5, 10, 12 to 21, 22 (except 22.1), 23 (except 23.1)
SRK Consulting (Peru) S.A.	Sections 1.1.1.1, 1.1.2.1, 1.3.4 to 1.3.6, 6 to 9, 11, 22.1, and 23.1
All	Sections 24 and 25

2.2 Sources of Information

This TRS was prepared by SLR and SRK.

During the preparation of this TRS, discussions were held with personnel from Buenaventura:

- Marco Antonio Chavez, Head of Long Term Mine Planning, Buenaventura.
- Dante Gavidia, Director of Strategic Planning, Buenaventura.
- Raul Kenny Surichaqui, Planning Engineer, Buenaventura
- Joffre Escudero, Superintendent Planning Engineer, Buenaventura
- Hugo Araoz Zevallos. Environmental Management Superintendent, Buenaventura
- Enver Carhuaz Castro. Head of Community Relations, Buenaventura
- José Enrique Gutierrez, Director of Modeling and Resources, Buenaventura
- Octavio Vargas-Machuca, Head of Modeling and Resources, Buenaventura
- Eliott Hidalgo, Head of Modeling, Buenaventura
- Jhonatan Mallma, Head of Exploration Database, Buenaventura

This current TRS updates a TRS on the Property prepared by Ausenco in collaboration with SRK Consulting (Peru) S.A. and Agnitia Consulting S.A.C (Agnitia) with an effective date of December 31, 2021 (Ausenco 2022).

The documentation reviewed, and other sources of information, are listed at the end of this TRS in Section 24.0 References.

2.3 List of Abbreviations

Units of measurement used in this TRS conform to the metric system. All currency in this TRS is US dollars (US$) unless otherwise noted.

μ	micron
μg	microgram
a	annum
A	ampere
bbl	barrels
Btu	British thermal units
°C	degree Celsius
C$	Canadian dollars
cal	calorie
cfm	cubic feet per minute
cm	centimetre
cm^2	square centimetre
d	day
dia	diameter
dmt	dry metric tonne
dwt	dead-weight ton
°F	degree Fahrenheit
ft	foot
ft^2	square foot
ft^3	cubic foot
ft/s	foot per second
g	gram
G	giga (billion)
Gal	Imperial gallon
g/L	gram per litre
Gpm	Imperial gallons per minute
g/t	gram per tonne
gr/ft^3	grain per cubic foot
gr/m^3	grain per cubic metre
ha	hectare
hp	horsepower
hr	hour
Hz	hertz
in.	inch
in^2	square inch
J	joule
k	kilo (thousand)
kcal	kilocalorie
kg	kilogram
km	kilometre
km^2	square kilometre
km/h	kilometre per hour
kPa	kilopascal
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt-hour
L	litre
lb	pound
L/s	litres per second
m	metre
M	mega (million); molar
m^2	square metre
m^3	cubic metre
MASL	metres above sea level
m^3/h	cubic metres per hour
mi	mile
min	minute
μm	micrometre
mm	millimetre
mph	miles per hour
Mtpa	million tonnes per annum
MVA	megavolt-amperes
MW	megawatt
MWh	megawatt-hour
oz	Troy ounce (31.1035g)
oz/st, opt	ounce per short ton
ppb	part per billion
ppm	part per million
psia	pound per square inch absolute
psig	pound per square inch gauge
RL	relative elevation
s	second
st	short ton
stpa	short ton per year
stpd	short ton per day
t	metric tonne
tpa	metric tonne per year
tpd	metric tonne per day
US$	United States dollar
USg	United States gallon
USgpm	US gallon per minute
V	volt
Vac, Vdc	volt AC, volt DC
W	watt
wmt	wet metric tonne
wt%	weight percent
yd^3	cubic yard
yr	year

3.0 Property Description

3.1 Property Location

The Project is located in the Ichuña district, General Sánchez Cerro Province, Department of Moquegua in southern Peru, approximately 837 km northeast of Lima and 116 km north of Moquegua (both in straight lines).

The Project is located entirely within the land, which was acquired from the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua community and Corire community.

The Property is at elevations ranging from 4,450 MASL to 5,000 MASL, with an average of 4,780 m. The San Gabriel deposit is situated at 332,279.823 mE and 8,208,033.568 mN in UTM coordinates (datum WGS84) (Figure 3-1). These coordinates correspond to drill hole (CCP11-299) located at the middle of the deposit.

Figure 3-1: Property Location

Source: SLR 2025.

3.2 Peruvian Mining Law

3.2.1 Mineral Rights

The term “mineral rights” refers to mineral concessions and mineral claims. Other rights under the General Mining Law, such as beneficiation concessions, mineral transportation concessions, and general labour concessions are not considered under said term.

According to Peruvian General Mining Law (the Law):

1 Mineral concessions grant their holder the right to explore, develop, and mine metallic or non-metallic minerals located within their internal boundaries.

2 A mineral claim is an application to obtain a mineral concession. Exploration, development, and exploitation rights are obtained once the title to the concession has been granted, except in those areas that overlap with priority claims or priority mining concessions. Upon completion of the title procedure, resolutions awarding title must be recorded with the Public Registry to create enforceability against third parties and the Peruvian State.

3 The beneficiation concession grants the right to use physical, chemical, and physical-chemical processes to concentrate minerals or purify, smelt, or refine metals.

4 Mineral rights are separate from surface rights. They are freely transferable.

5 A mineral concession by itself does not authorize the titleholder to carry out exploration or exploitation activities, but rather the titleholder must first:

   a) Obtain approval from the Culture Ministry of the applicable archaeological declarations, authorizations, or certificates.

   b) Obtain the environmental certification issued by the competent environmental authority, subject to the rules of public participation.

   c) Obtain permission for the use of land (i.e., obtain surface rights) by agreement with the owner of the land or the completion of the administrative easement procedure, in accordance with the applicable regulation.

   d) Obtain the applicable governmental licences, permits, and authorizations, according to the nature and location of the activities to be undertaken.

   e) Carry out consultations with Indigenous Peoples under the Culture Ministry, should there be any communities affected by potential exploitation of the mineral concession, as per International Labour Organization (ILO) Convention 169.

6 Mineral rights holders must comply with the payment of an annual fee equal to $3.00/ha, on or before June 30 of each year.

7 Holders of mineral concessions must meet a Minimum Annual Production Target or a Minimum Annual Investment before a statutory deadline. When such deadline is not met, a penalty must be paid as described below:

   a) Mineral concessions must meet a statutory Minimum Annual Production Target of 1 Tax Unit (Unidad Impositiva Tributaria, or UIT) per hectare per year for metallic concessions, within a statutory term of ten years from the title date. The applicable penalty is 2% of the Minimum Annual Production Target per hectare per year as of the 11th year until the 15th year. Starting in the 16th year and until the 20th year, the applicable penalty is 5% of the Minimum Annual Production Target per year and starting in the 21st year until the 30th year, the applicable penalty is 10% of the Minimum Annual Production Target per year. After the 30th year, if the Minimum Annual Production Target is not met, the mining concession will lapse automatically.

8 Mineral concessions may not be revoked as long as the titleholder complies with the Good Standing Obligations according to which mineral concessions will lapse automatically if any of the following events take place.

a) The annual fee is not paid for two consecutive years.

b) The applicable penalty is not paid for two consecutive years.

c) A concession expires if it does not reach the minimum production in Year 30 and cannot justify the non-compliance up to five additional years due to reasons of force majeure described in the current legislation.

9 Agreements involving mineral rights (such as an option to acquire a mining lease or the transfer of a mineral concession) must be formalized through a deed issued by a public notary and must be recorded with the Public Registry to create enforceability against third parties and the Peruvian State.

3.2.2 Beneficiation Concessions

According to the Law:

1 The beneficiation concession grants the right to use physical, chemical, and physical-chemical processes to concentrate minerals or purify, smelt, or refine metals.

2 As from the year in which the beneficiation concession was requested, the holder shall be obliged to pay the Mineral concession Fee in an annual amount according to its installed capacity, as follows:

i. 350 tpd or less: 0.0014 of one UIT per tpd.

ii. greater than 350 tpd to 1,000 tpd: 1.00 UIT

iii. from 1,000 tpd to 5,000 tpd: 1.5 UIT

iv. for every 5,000 tpd in excess: 2.00 UIT

v. “tpd” refers to the installed treatment capacity. In the case of expansions, the payment that accompanies the application is based on the increase in capacity.

3.2.3 Surface Rights and Easements

According to the General Mining Law and related legislation, surface rights are independent of mineral rights.

The Law requires that the holder of a mineral concession either reach an agreement with the landowner before starting relevant mining activities (i.e., exploration, exploitation, etc.) or complete the administrative easement procedure, in accordance with the applicable regulation.

Surface property is acquired through

1 The transfer of ownership by agreement of the parties (derivative title), or

2 Acquisitive prescription of domain (original title).

Temporary rights to use and/or enjoy derived powers from a surface property right may be obtained through usufruct (a right to temporarily use and derive revenue) and easements.

3.2.4 Taxation

Taxation for mining in Peru involves several taxes and a number of additional distributions, imposts and fees as described below. All applicable taxes have been considered in the evaluation of the San Gabriel Project with some specific applications explained in Section 19, Economic Evaluation. Taxes includes:

- Income Tax
- Value Added Tax (VAT or IGV)
- Modified Mining Duty
- Special Mining Tax
- Worker's Profit Sharing
- Miner's Retirement Fund
- OSINERGMIN Fee
- OEFA Fee
- Financial Transactions Tax
- Interest Withholding Tax
- Dividend Withholding Tax.

3.3 Land Title and Mineral Rights

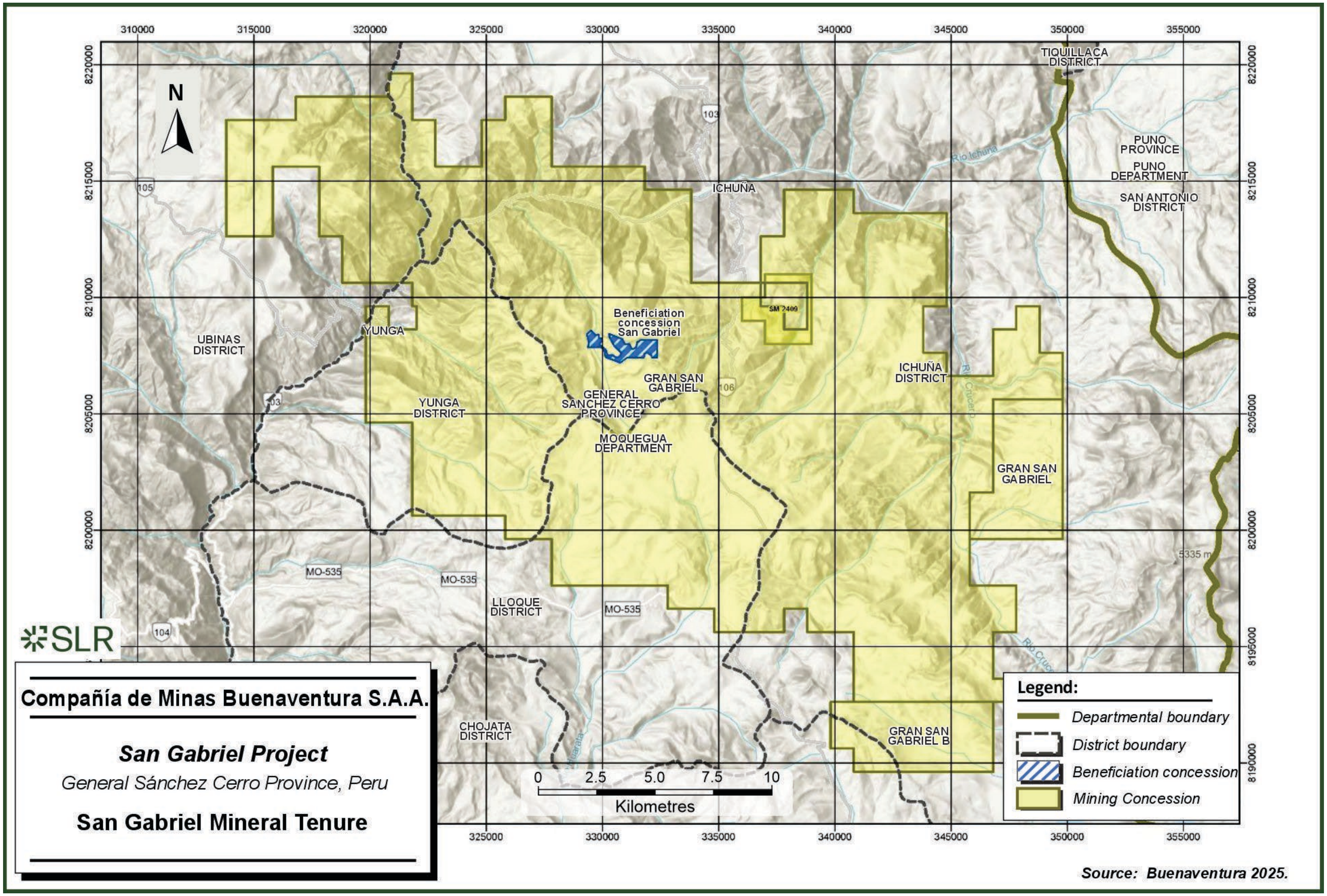
The Project is located on land 100% owned by Buenaventura.

The Property consists of three mining concessions (Table 3-1) and one beneficiation concession as illustrated in Figure 3-2. The total area of the three mining concessions is approximately 52,581 ha. The beneficiation concession is located within the Gran San Gabriel mining concession and has a total area of 49,580 ha. The total effective area of the Project is approximately 53,581 ha. All the mineral concessions are currently in good standing.

Table 3-1: Mining Concessions

Unique Code	Concession Name	Date of Application	Area Granted (ha)	District	Province	Department	Effective Area (Ha)	Date Granted	Public Registered Record	Type
010000322L	GRAN SAN GABRIEL	10/08/2021	49,580.779	ICHUÑA	General Sanchez Cerro	Moquegua	53,580.7295	12/02/2022	004750-2022-INGEMMET/PE/PM	Concession Per Accumulation
							49,580.779	9/16/2024	003709-2024-INGEMMET/PE/PM	Reduction Per Division
010000322LA	GRAN SAN GABRIEL A	10/08/2021	2,000.0000	ICHUÑA/UBINAS/YUNGA	General Sanchez Cerro	Moquegua	1,999.9750	9/16/2024	003709-2024-INGEMMET/PE/PM	Concession Per Division
010000322LB	GRAN SAN GABRIEL B	10/08/2021	1,000.0000	CHOJATA/ICHUÑA	General Sanchez Cerro	Moquegua	1,999.9755	9/16/2024	003709-2024-INGEMMET/PE/PM	Concession Per Division

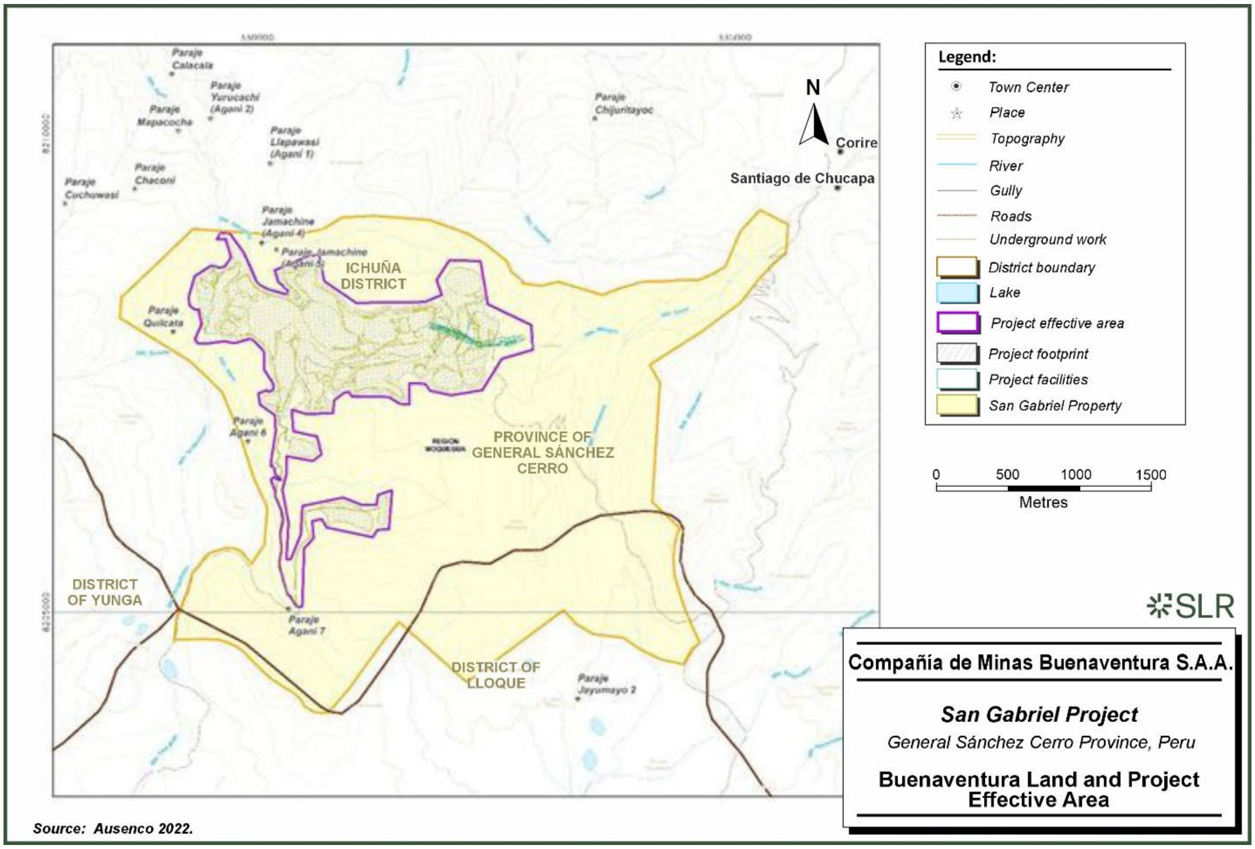
Figure 3-2: San Gabriel Mineral Tenure



Source: Buenaventura 2025.

The company acquired 1,380.15 ha from the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua community in 2018 and 778 ha from the Corire community in 2016. The total area (2,158 ha) is within the current mining concessions for exploration of 57,600 ha which includes the 7,400 ha of the economically administrative unit of the Project as presented in Figure 3-3.

Figure 3-3: Buenaventura Land and Project Effective Area



Source: Ausenco 2022.

As described above, the Property was purchased from the communities of Santa Cruz de Oyo Oyo, Maycunaca and Antajahua and Corire. In Corire's case, there are no current issues. In the case of Santa Cruz de Oyo Oyo, Maycunaca and Antajahua, two payments were made, one to the former owner of the land (the community) and the other to each of the owners at that time. Since then, some former owners have returned and do not wish to leave. To resolve this, a "Land Release Plan" has been prepared by Buenaventura.

The objectives of the Land Release Plan are:

- Release and secure the areas where the Project and operation components will be built.
- Obtain the exit of the people who are using Buenaventura's land, as well as their livestock.
- Demolish the livestock enclosures and have the animals removed
- Carry out the process without any major additional social commitments with the communities of Santa Cruz de Oyo Oyo, Maycunaca and Antajahua, San Juan de Miraflores, and Corire, or the district of Ichuña.

Buenaventura also has framework agreements dating back to 2010 when the Project was under Canteras del Hallazgo S.A.C. Those agreements allowed the company to perform activities related to the Semi-Detailed Environmental Impact Assessment for exploration activities.

3.4 Surface Rights

San Gabriel's surface rights include a total of 2,158.15 ha. The Project components are located on land owned by Buenaventura acquired from private owners . The land includes the lot called Parcela A, with an extension of 1380,15 ha; and the lot called Lote C, with an extension of 778 ha. Parcela A was acquired from the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community on November 5, 2014. Lote C was acquired from the Corire rural community on October 26, 2016.

Buenaventura is in land purchase discussions with approximately six landowners for purchase of additional surface rights. Acquisition of such surface rights is likely to require compensation payment to the landowners for livestock or outbuildings and cabins.

San Gabriel's surface rights are sufficient to support the project construction and future mining operation.

3.5 Royalties

Five royalties are payable on the Gran San Gabriel concession, as presented in Table 3-2. The San Gabriel Project is only liable to 1.5% NSR royalty payable to Gold Fields S.A. (Gold Fields), as the Project is located within the area of that specific royalty contract.

Table 3-2: Royalties

Project/Unit	Royalty Payable to	Type of Agreement	Term	Royalty	Comment	Public Registered Record	Location Record
San Gabriel (Patahuasi 1 Patahuasi 2 and Pichacani Img 2)	IAMGOLD	Transfer to BVN	N/A	2.0% NSR	Currently, these concessions are part of the Gran San Gabriel concession.	11540572	Arequipa
San Gabriel (Ichuña 2img)	IAMGOLD	Transfer to BVN	N/A	1.0%NSR	This concession has three distinct royalties. Now part of the Gran San Gabriel concession.		
	Gold Fields	Transfer to BVN	N/A	2% NSR			
	Gold Fields	Royalty Contract	N/A	1.5% NSR			
San Gabriel	Gold Fields	Royalty Contract	N/A	1.5% NSR	Initially, this royalty was granted to 23 concessions in the San Gabriel area, now included in the Gran San Gabriel concession.		

3.6 Required Permits and Status

Key licences to operate and environmental and other permits relating to the San Gabriel Project are discussed in Section 17.3 of this TRS.

3.7 Other Significant Factors and Risks

SLR is not aware of any environmental liabilities on the Property. Buenaventura has all required permits to conduct the proposed work on the Property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

4.1 Accessibility

The main cities around the Project are Arequipa, Moquegua, and Juliaca, from which access is via a network of paved and gravel roads (Figure 4-1). The total distance from Arequipa is 252 km, including 114 km on paved road from Arequipa to Imata and 138 km on gravel road from Imata to the Project site. From Moquegua, the route follows a paved road to Titire for 149 km and a dirt road from Titire to the Project for 58 km, for a total of 207 km. The shortest route is from Juliaca via Puno, Ichuña, and Corire (for a total of 170 km) or Oyo Oyo (a total of 160 km), but mostly via gravel roads.

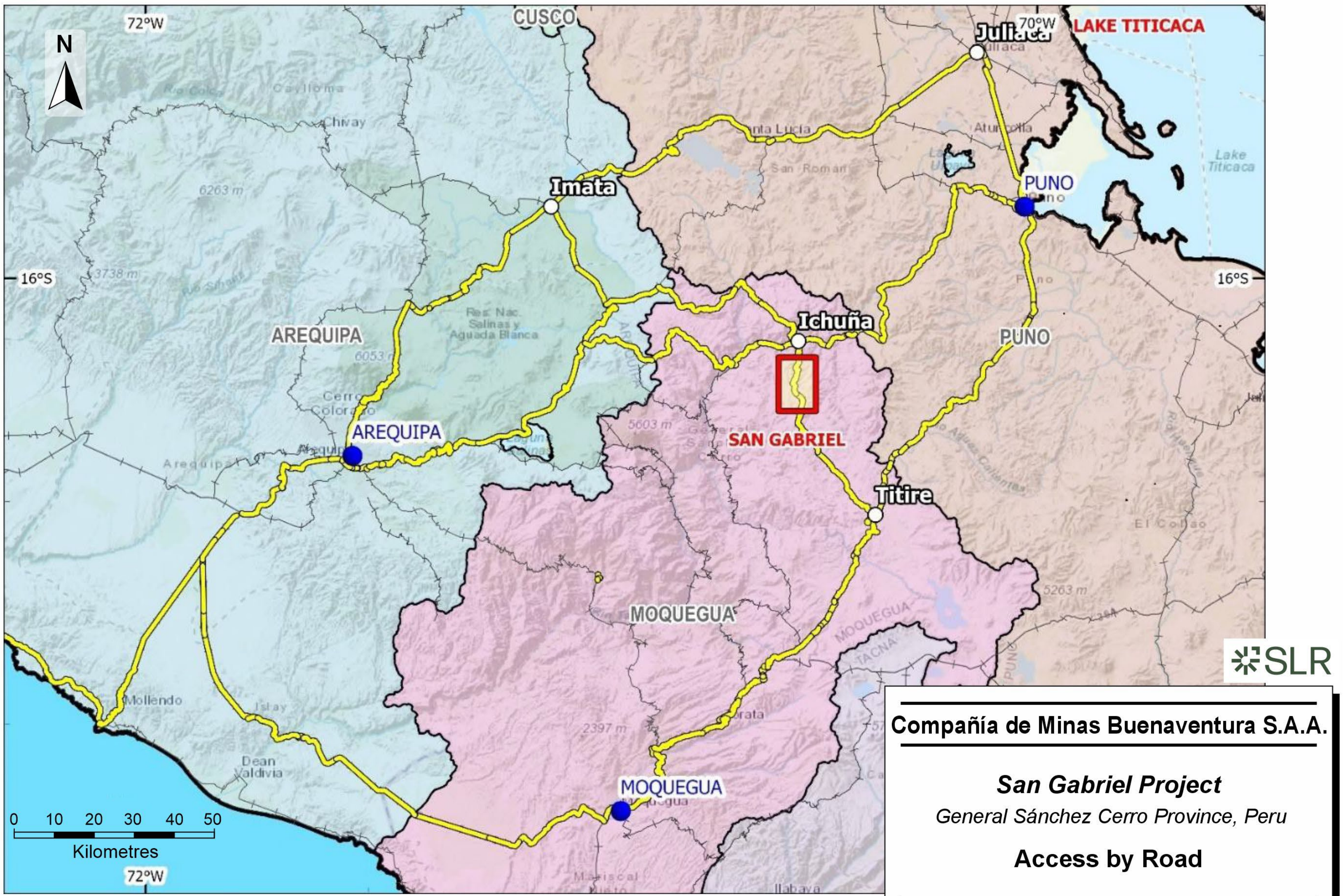
For freight, the Project can be accessed from Lima, through the Panamericana Sur Road (1S) to the city of Nazca, and from there, there are two routes:

- Eastern road for 34A, which runs through the eastern Arequipa region to San Gabriel. This route duration is approximately 23 hours from Lima
- Continue Panamericana Sur (1S) to Arequipa, and then to San Gabriel using the detour. The route duration is approximately 20 hours from Lima.

The closest airports to the Project are:

- The Rodríguez Ballon International Airport in the district of Cerro Colorado approximately 12 km northwest of the Arequipa city centre at an altitude of 2,560 MASL. This airport has regular daily flights from Lima with a flight duration of approximately 1 hour 30 minutes, and is managed by the consortium Aeropuertos Andinos del Sur.
- The Manco Cápac International Airport in Juliaca is located at an altitude of 3,825 MASL. This airport also has regular daily flights from Lima with a flight duration of approximately 1 hour 30 minutes, and is managed by the consortium Aeropuertos Andinos del Sur.

Figure 4-1: Access by Road



Source: Buenaventura 2021.

4.2 Climate

The Project area climate is classified as tundra, presenting rainy semi-frigid weather, with limited precipitation during autumn and winter. Atmospheric humidity is classified as wet.

This climate type occurs in the Andean Region, between 3,500 MASL and 6,000 MASL. For this region, the yearly precipitation averages approximately 700 mm, and the yearly temperature average is 7°C (44.6°F) with permanent snow in high mountains.

The annual average precipitation for the Project area is 595 mm, with distinct dry and wet seasons. The wet season is between November and March with the months of October and April being transitional, with maximum monthly average precipitation of 154 mm falling in January. The dry season is between June and August, and the minimum monthly precipitation is 3 mm in June and July. May and September are considered transition months (Ausenco 2022). Exploration and operations can take place year round.

4.3 Local Resources

The San Gabriel Project is located in the Sanchez Cerro Province, in the Department of Moquegua with the capital city of Moquegua, approximately 835 km south of Lima on the Panamericana Highway. The closest town to the Project is Ichuña, with a population of less than 1,500 people. The closest communities are Santa Cruz de Oyo Oyo, Maycunaca and Antajahua, Corire, and San Juan de Miraflores, which are recognized by the Peruvian State, and have boards of directors, whose members are elected every two years. The communal boards of directors manage the assets and resources of the communities, preserve the public order, and represent the communities against external organizations. The total population of these communities is less than 1,000 inhabitants.

The main economic activities include agriculture, livestock, services, and related jobs:

- Agriculture is the main way of meeting the nutritional needs of community families and includes onion, root plants (olluco), quinoa, potatoes, oca, garlic, etc.. Fishing activities are also performed (trout).
- Livestock includes the breeding of South American camelids (alpacas and llamas), cattle, sheep, and smaller animals (chickens and guinea pigs). Various animal by-products, such as alpaca fibre, sheep wool, milk, cheese, sheep and alpaca jerky, fresh meat, and leather, are consumed by families, sold in the local market or exchanged through barter.

Most of the economically active population is employed in the agriculture sector. A smaller proportion of the population work in the commerce and mining industry. Buenaventura has developed a plan to enhance employment capabilities and working opportunities for the young workforce from the local communities and Ichuña district. During the construction and operations phases, technical training programs are proposed to be held on local economic activities and available jobs will be posted. The local workforce will have preference in hiring if they meet the required profile (Ausenco 2022).

4.4 Infrastructure

The Project infrastructure is described in Section 15 of this TRS.

There are two commercial ports close to the Project, Matarani and Ilo.

The Matarani port is located in the district of Islay in the Region of Arequipa. Matarani is one of three ports on the Peruvian Pacific south coast (the others being Marcona in the Ica Region and Ilo in the Moquegua Region). The port is approximately 370 km by road to the Project via Arequipa. The port has modern infrastructure, extensive operation areas, adequate equipment. It handles many cargo types including general merchandise, solid and liquid bulk, roll-on roll-off cargo, containerized cargo, and refrigerated cargo. The port also has the capacity to handle cruise ships and other industrial and recreational craft. The port has two cranes, Gottwald Crane model HMK 280, and Liebher Crane model LHM 400. The port terminal of Matarani is administered by TISUR and includes facilities for the reception, storage and dispatch of copper concentrates from several mining companies in southern Peru. There are also facilities to receive and unload trucks and railcars.

The Ilo port is located in the Region of Moquegua, managed by ENAPU. The port is approximately 330 km by road to the Project. It handles services for solid and liquid bulk, grain, minerals, container, and passenger cargo. The wharf has a capacity for 35,000 DWT. The open storage area is approximately 38,360 m^2, and the roofed storage area is approximately 8,540 m^2.

The Southern and Southeastern Railway of Peru provides service between the port of Matarani and Juliaca, passing through Arequipa, with a total length of 940 km. The track is currently operated by the Transandino Railroad concession and trains are operated by Peru Rail, Inca Perurail and Andean Railways Corp. The closest passenger station is the Imata bus stop, located approximately 150 km by road from the Project.

4.5 Topography, Elevation and Vegetation

The Project is located northeast of the Moquegua Region, on the west flank of the Andes west range. The following geomorphological units have been identified:

- Units of fluvial origin: fluvial valley, valley-canyon, river erosion slope
- Units of fluvioglacial origin: fluvioglacial valley, fluvioglacial erosion hills

Additionally, according to the classification of the International Geographical Union (IGU), the current use of land is as follows:

- Permanent improved grassland areas
- Natural grassland areas
- A hydromorphic land
- Unused and/or unproductive land

The Project is located in high Andean summits of the Agani-Ansamani micro basin, formed by the watershed of said hydrological unit, with slopes and valleys characterized by a variable topography and altitudes up to 4,500 m, reaching 5,000 m in the highest points of the mountain range. The deposit is at an elevation of approximately 4,780 MASL.

5.0 History

Numerous exploration, environmental and social, and engineering studies have been completed at the San Gabriel Project. The majority of historical exploration, including mapping, rock and sediment sampling, electromagnetic (EM) and magnetic surveys, and drilling were completed over a period from 2003 to 2015. Historically, the Project was named the Chucapaca Project, renamed by Buenaventura to San Gabriel in 2014.

This section is largely based on Ausenco (2022) and references therein.

5.1 Ownership History

In 2003, Minera Gold Fields Perú S.A. (Gold Fields) was granted the mining concessions Chucapaca, Chucapaca Norte, Orcori, Yaretapmap, and Yaretapampa Sur, located in the Chucapaca mountain and surrounding areas. Gold Fields carried out geological exploration, including drilling which resulted in 220 rock chips samples, runoff sediment sampling, and geological mapping. In 2004, Gold Fields completed a reverse circulation (RC) drilling program for a total of 2,500 m.

In February 2008, Gold Fields granted to Buenaventura the rights to carry out exploration activities in the above mining concessions. In January 2008, Buenaventura received the approval from the Corire and Santiago de Chucapaca communities to perform exploration activities within their property limits. A Semi-detailed Environmental Impact Study (EIA-sd) was prepared in 2009.

In 2009, Buenaventura (49%) and Gold Fields (51%) formed a joint venture company, Canteras del Hallazgo S.A.C. (CDH), to proceed with exploration at the Chucapaca exploration project. The EIA-sd was modified in 2010 and 2013 under CDH leadership.

Between March and April 2010, CDH reached framework agreements with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua, Corire, and Santiago de Chucapaca communities to use part of their land for activities related to the EIA-sd of the exploration project and subsequent modifications (5 year period).

In 2014, Buenaventura acquired Gold Fields 51% interest in the joint venture company, becoming CDH's sole owner. Conversations with local communities were resumed reaching a land acquisition agreement with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua community) in November 2014. In October 2016, a land acquisition agreement was reached with the Corire community. These land agreements form the basis for the current San Gabriel Project.

5.2 Exploration and Development History

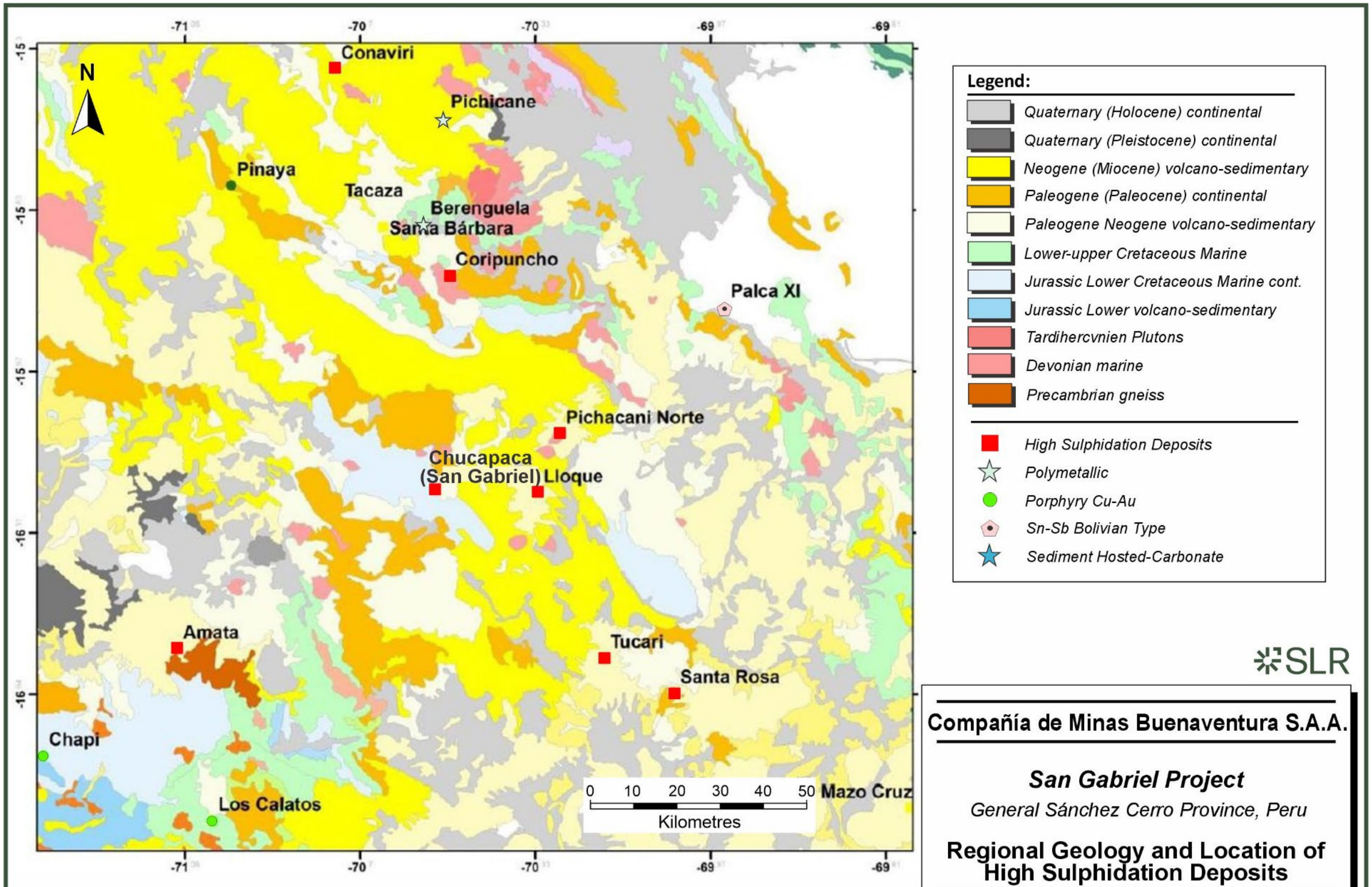
Mining in the Chucapaca region dates back to the 18th century (Loayza et al. 2004), with several small-scale Ag (-Cu-Zn-Pb) mines. In the 20th century, after the discovery of the Aruntani district, exploration for large gold deposits commenced. Most of the gold production in the area comes from epithermal precious metal high sulphidation deposits, including Santa Rosa and Tucari (65 km southeast of Canahuire, Figure 5-1), which are located in the Aruntani district.

The earliest reference to formal mining title ownership over Chucapaca was in 1952. At this time, Compañía de Minas del Perú, a subsidiary of Hoschchild which was mining at San Antonio de Esquilache (Ag-Zn-Pb), controlled approximately 70,000 ha in the region. In a report by

Werner Joseph (1953), there is reference to a principal target in the region referred to as Ichuña, which includes the present day San Gabriel Project. A quote from the report is below:

“This is a zone about 18 km long and 15 km wide, located at both sides of the San Antonio or Ichuña River, 45 km west from Esquilache. This zone is geologically interesting for its extensive surface alterations and gossans. There is also a great number of old Spanish workings, and the remains of several smelters. These smelters are located in the vicinity of the junction of the Crusero and San Antonio Rivers, and near the village Ichuña and near Ichupampa. Slags from these smelters, with significantly high grades in lead, are being reworked at present. The more important mine workings are the following places: a) Crusani and Sayhuani, b) Quimaschata, and c) Chucapaca. All known mine workings have already been reported by others. The veins could not be prospected, because the workings are caved or flooded in their majority. However, the size and importance of these workings, together with the observed geological features, indicate that this region is of considerable interest.”

Figure 5-1: Regional Geology and Location of High Sulphidation Deposits



Source: Buenaventura 2025.

5.2.1 Exploration History

A summary of the exploration history is presented in Table 5-1.

Table 5-1: Exploration History of the San Gabriel Project

Year	Operator/Company	Work Conducted
18th Century		Several small-scale Ag (Cu–Zn–Pb) mines.
1952	Compañía de Minas del Perú	Identified a zone of gossans, old workings, and old smelting sites about 18 km x 15 km in an area near the Ichuña village, noting that Chucapaca had a significant number of old workings.
2002	Gold Fields	A district-scale evaluation program, identifies the Chucapaca area as high-priority target.
2002–2003	Buenaventura	Reconnaissance exploration. Recognized potential for epithermal mineralization but did not pursue further work.
2003–2006	Gold Fields	Acquired concessions in the Chucapaca area, completed reconnaissance exploration on the Chucapaca volcanic dome for epithermal mineralization. Identified the Potosi prospect, but assumed that the mineralizing system was base-metal dominant. Completed 10 RC drill holes for 2,511 m.
2007–2008	Buenaventura	Entered into a joint venture with Gold Fields; Buenaventura was the operator. Identified anomalous copper–gold mineralization at the Potosi prospect, subsequently renamed to Canahuire. Ground magnetic and dipole-dipole induced polarization (IP) geophysical surveys; 28 core holes (7,056 m), including the “discovery hole”.
2009–2010	Canteras del Hallazgo	Gold Fields exercised back-in option. Gold Fields and Buenaventura formed joint venture company Canteras del Hallazgo, with Goldfields being the operator. Completed ground moving loop and fixed loop time-domain EM, gravity, magnetic, gradient IP, pole–dipole IP geophysical surveys, airborne (helicopter) magnetic and radiometric geophysical survey. Completed 39 core holes in May 2009–Jan 2010 (15,234 m); 213 core and RC holes in June 2010–May 2011 (70,815 m); prepared an initial mineral resource estimate and scoping study.
2011	Canteras del Hallazgo; Gold Fields as operator	Feasibility study, assuming open pit mining methods. Open pit found to be sub-economic; alternatives including combined open pit and underground or underground alone recommended to be evaluated.
2011–2013	Canteras del Hallazgo; Gold Fields as operator	Rock chip and soil sampling, 204 core and RC holes completed from June 2011 to September 2012 (33,127 m); mining and geotechnical studies.
2014	Buenaventura	Acquired Gold Fields’ 51% interest in joint venture company, Canteras del Hallazgo (CDH) so now held 100% interest in CDH, giving Buenaventura a 100% interest in the Project. Renamed the project to San Gabriel.

5.3 Past Production

There has not been any formal production to date on the property.

6.0 Geological Setting, Mineralization, and Deposit

6.1 Regional Geological Framework

In this report, the southern region of Peru is divided into two large physiographic zones with distinctive geological characteristics. The Eastern Altiplano, which is located more than 3,500 MASL and reaches altitudes above 5,000 m in young stratovolcanoes, is covered by a sequence of volcanic sediment and Cenozoic lava (Paleogene, Neogene and Quaternary). Small blocks of deformed sedimentary rocks from the Mesozoic Era (Triassic, Jurassic and Cretaceous) outcrop from this volcanic sequence. It is important to note that the structural block of the base of the region of the district of Ichuña is home to the San Gabriel deposit. The western flank of the range descends abruptly to the coast. The sedimentary and Mesozoic sequences present, mainly from the Jurassic to the Eocene, are covered by deposits of Neogene, which were formed by the erosion of the range that was raised. These sequences are intruded by the Coastal Batholith, which dates to the Cretaceous and Paleogene periods and extends through the western flank of the range. Additionally, the Arequipa block, a crystalline base from the Precambrian age, outcrop in the lowest slopes of the range and in the coastal region of southern Peru. The regional geology of the area is represented in Figure 6-1. Geochemical and isotropic analyses of the volcanic rocks of the Cenozoic Era indicate that this ancient crystalline base extends east, underlying the Altiplano (Ausenco 2022).

Figure 6-1: Simplified Geological Map of Peru

Source: Buenaventura 2020.

Note: Approximate location of the Ichuña district is indicated by the red square.

6.2 Stratigraphy

The stratigraphy of San Gabriel is comprised of the Yura Group, Cachicos Formation, Labra Formation, Gramal Formation, Hualhuani Formation and the Murco Formation, as shown in Figure 6-2 (Ausenco 2022).

6.2.1 Yura Group

The region hosts the oldest Mesozoic rocks from the Ichuña triangle, composed primarily by sequences of quartzites with intercalations of shale, limestone, continental red sandstone and some coal beds (Marocco & Del Pino 1996). This group is sub-divided into the Cachios, Labra, Gramadal, and Hualhuani formations.

- The estimated thickness of the Cachios Formation is 50 m; this area is comprised of grey and black shale intercalated with thin levels of grey sandstone, underlying the Labra Formation (Lipa, Valdivia, & Carrasco 2001).
- The Labra Formation consists of grey and black shale with spheroidal nodules that alternate with gray sandstone, which present parallel and cross stratification. This formation concordantly overlies the Cachios Formation (Lipa, Valdivia, & Carrasco 2001).
- The Gramadal Formation consists of massive grey limestones with some levels of dolomites and grey-brown sandstone toward the base (Lipa, Valdivia, & Carrasco 2001).
- The Hualhuani Formation consists of 200 m of white quartz sandstone, which is occasionally intercalated with carbonaceous (Lipa, Valdivia, & Carrasco 2001).

6.2.1.1 Cachios Formation

This area is comprised of grey and black shale and sandstone. The sandstone levels present parallel laminations, and the grey shale is highly fractured. It is assumed to date back to the mid to upper Jurassic period (Lipa, Valdivia, & Carrasco 2001).

6.2.1.2 Labra Formation

This unit includes non-calcareous rocks: quartz-sandstone, sandstone, siltstone and carbonaceous schist stones. The most characteristic feature of this unit are the thin, laminated intercalations of black shale/siltstone in sandstone; nevertheless, the variations of facies within this unit are complex and metric-scale thicker beds of sandstone or shale are also present. It is assumed that this area dates to the upper Jurassic (Lipa, Valdivia, & Carrasco 2001).

6.2.1.3 Gramadal Formation

This unit is characterized by 100 m of massive gray micritic limestone, which includes some levels of dolomite and sandstone in its base. Studies estimate that this area dates to the upper Jurassic – lower Cretaceous (Lipa, Valdivia, & Carrasco 2001). The unit presents a rhythmic sequence of calcareous grainstones and mudstones, which intercalate with the clastic horizons that are part of the Gramadal unit, which will be described later. Three members can be distinguished at San Gabriel:

- Lower member: This member begins with a bed of schistose sandstone that is approximately one metre thick, cemented with calcareous material at the base, and followed by a wackestone bed. On top of this, grainstones with bivalves, which are covered by intercalations of packstone beds between 60 cm and 80 cm thick and accompanied by black carbonaceous schists, can be found. This member is in contact with the Labra Formation and shows a larger siliciclastic contribution given an increase in SiO_2 content.

- Middle member: Is characterized by beds whose grain size increases progressively upward. The base is comprised of black mudstones with a centimetric and undulating thickness while the upper layers contain wackestones and packstones with metric thickness. This member is the most favorable for mineralization given that it presents more consistent alterations and mineralization by substitution. In the deeper areas of the deposit, its thickness can reach 430 m.
- Upper member: This member consists of a succession of mudstones between 10 cm and 20 cm thick with undulating and parallel stratification, black carbonaceous shale that varies between one to 10 m of thickness, and some metric intercalations of grainstone and packstone.

The clastic horizon is intercalated with the calcareous horizons described above, including intercalated quartz sandstone, sandstone and carbonaceous schists, and presents as five distinct intercalations between the Gramadal Formation; these act as useful marker beds that locally define the limits of the CAL limestone described earlier. The individual horizons tend to have thicknesses between 5 m and 20 m.

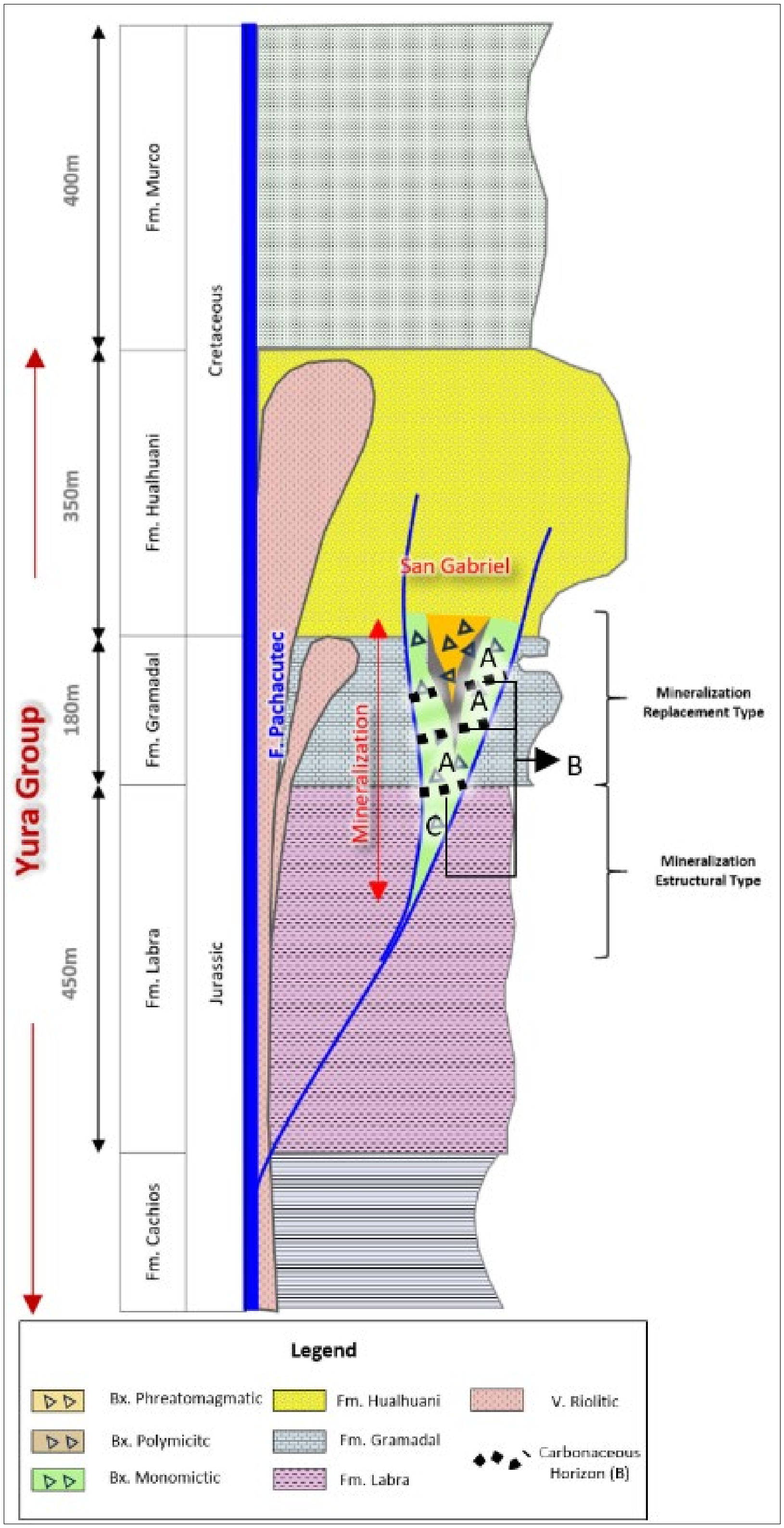
6.2.1.4 Hualhuani Formation

This unit is formed by white quartz sandstone, which presents metric stratification in general and locally, shows cross stratification. The tones of the rock range from white to light gray and the rock itself is comprised of more than 90% quartz grains cemented with silica. In the upper section, intercalations of carbonaceous sandstone, black schists and siltstone. In total, the Hualhuani Formation in the deposit area is more than 500 meters thick and is attributed to the lower Cretaceous period (Lipa, Valdivia, & Carrasco 2001).

6.2.2 Murco Formation

This geological unit is from the Cretaceous period and was formed approximately between 145 and 66 million years ago. The area is comprised mainly of shale, sandstone, and limestone deposited in a marine environment, as is evidenced by the present of marine fossils (Case Shagam & Giegengack 1991).This formation is of great economic interest due to its association with mineral deposits, particularly gold and copper, which make it a key target for mineral exploration (Noble & McKee 1999).

Figure 6-2: Stratigraphic Column of the Ichuña District



Source: Buenaventura 2024.

6.3 Intrusives

The San Gabriel deposit is hosted in the breccias of a complex of intrusive volcanic diatremes that cross through the sedimentary rocks deformed in the Yura Group. The volcanic rocks are found deep in the Canahuire zone and consist of aphanitic rhyolitic volcanic sequences.

The diatreme complex is related to the complex of rhyolitic domes of Chucapaca and associated dikes, and includes various breccias with distinct characteristics of facies. The domes present an aphanitic texture and flow bands. The complex of diatreme breccias comprises phreatomagmatic and phreatic breccias. The latter have been fragmented by steam pressures while the former includes a magmatic component. The breccias show a wide range of composition and size of clasts, matrix, and cement and variations in the internal organization of the breccia.

The diatreme complex presents as an elongated body, which is deeper to the west, is approximately 1,300 m long, 250 m wide and possesses an average thickness of 170 m. It is important to note that the root of the diatreme remains open at depth. Additionally, the breccias appear to have a genetic relation with the mineralization at San Gabriel.

6.4 Regional Tectonic Framework

During the Mesozoic Era, the region experienced a period of marine extension and transgression that facilitated deposits of siliciclastic and carbonated sediments in the Yura Group. Subsequently, in the Late Cretaceous period, a major phase of compressive deformation took place that marked the beginning of the raising and development of the Andes Mountain Range and the magmatic arc, a process that continued throughout the Cenozoic Era. Three main phases of tectonic deformation can be distinguished in this geological framework: the Peruvian, the Inca and the Quechua. The phase known as "Compresiva Peruviana" acted on the foundational structure of Ichuña basement, which influenced the patterns of sedimentation in the region and controlled volcanism in the Cenozoic Era. The Quechua phase of the Neogene directly affected the volcanic complex of Chucapaca, a key element in the geological context of the San Gabriel Project.

6.4.1 Peruvian Phase

This was a compressional deformation event that affected the Coast, Mountain Range and Altiplano. This phase began in the basal Coniacian and culminated in the upper Campanian (90 Ma – 80 Ma). This is considered a stage of cortical thickening within the Upper Cretaceous period (Martinod 2010).

6.4.2 Inca Phase

This is considered the most important phase in the Andean cycle given that it affected central and northern Peru. Within this phase, a modification occurred in the direction of convergence in the clockwise direction, meaning that it constituted the first event of geometric reorganization of tectonic plates. Additionally, it is considered a phase in which a compressive environment predominated in the Andes during the Eocene epoque (Martinod 2010).

6.4.3 Quechua Phase

This corresponds to an acceleration of the convergence between the Nazca Plaque and the South American Plaque after the direction of convergence changed to counter-clockwise.

Additionally, it is considered an episode of cortical thickening throughout the mountainous chain of the Andes in the Neogene period (Martinod 2010).

6.5 Structural Geology

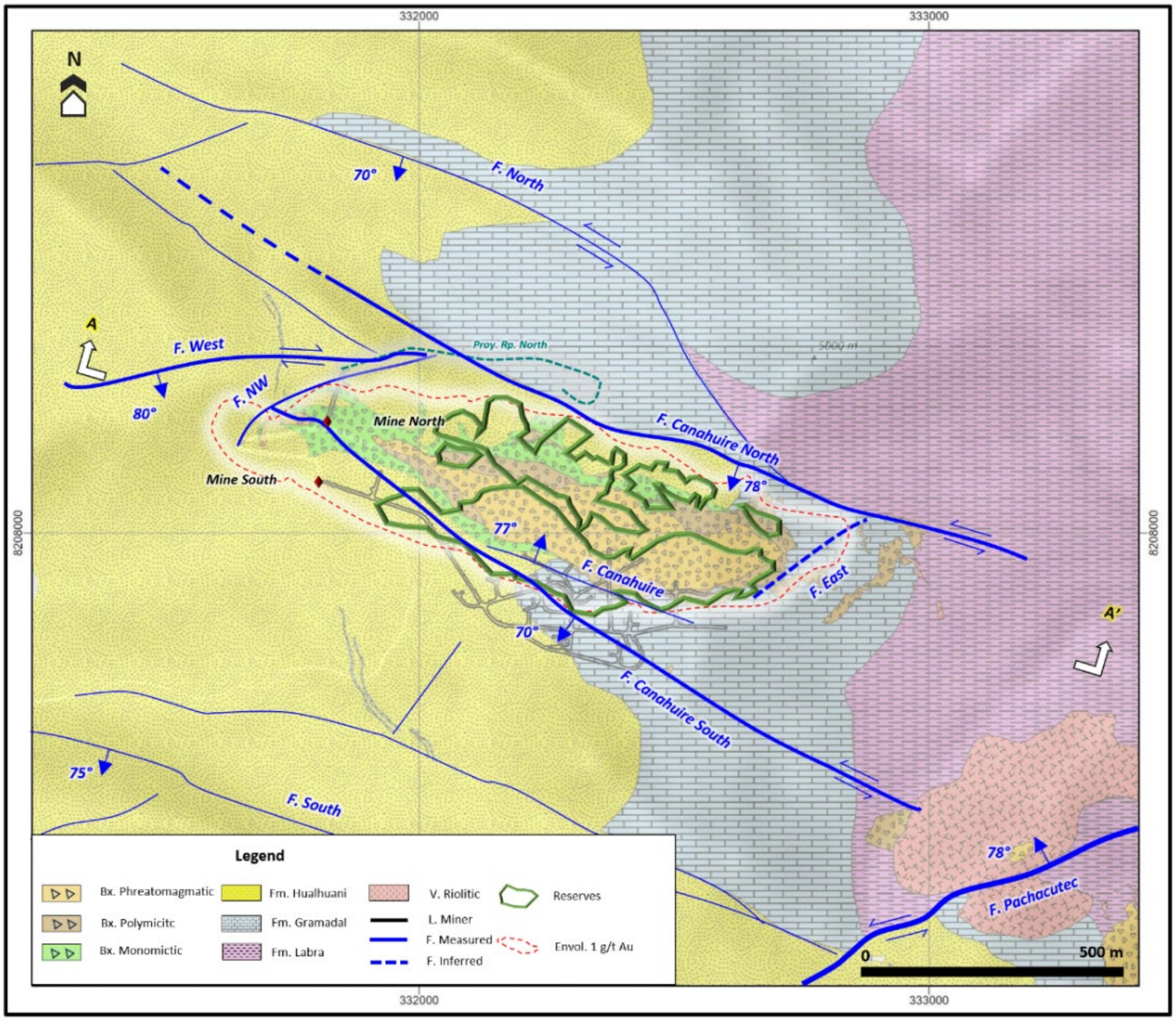
The structural architecture of the San Gabriel deposit is dominated by folds with a west-northeast direction that control the geometry of the sedimentary units of Yura Group, upon which a system of faults, which control the distribution of the bottom intrusions of the breccias of the diatreme, overlie. The folds perform an important role at San Gabriel because they influence the geometry of sedimentary units, including the limestone in the Gramadal Formation, which constitute a favorable host for mineralization. The folding at the deposit scale can be described as open, only slightly inclined and descending superficially toward the west-northeast. This open geometry is not typical of the regional system of unfolding dominated by large tipped folds.

The San Gabriel deposit is in an open hinge of the anticlinal located in the normal flank of a tipped anticline with vergence from north to northeast (N to NNE). The anticline's open hinge contains two individual, smaller anticline that are separated by an intermediate synclinal. The axial planes of these folds face a WNW direction and a present pronounced dip toward the SSW. The axes of the folds present, on average, an inclination of 24° to the WNW, although detailed inspection shows that these folds are not cylindrical and show variations of inclination of the axes, which oscillate between softer values (around 20°) and more pronounced values (around 35°). The section with the greatest inclination is in the center of the deposit, which concentrates the largest portion of mineralization. In general, this geometry makes it so the strata of the area of the deposit are softly inclined toward the SW, W or NW.

At the San Gabriel deposit, a system of faults NW-SE (sinistral–normal) and NE-SW (dextral-normal) permitted the development of a dilatational jog with rhombus shape in plan view (Figure 6-3 and Figure 6-5). Within the block, the sedimentary sequence has been displaced downward, which led to the placement of diatreme breccias (Figure 6-4 and Figure 6-6). The three structural trends that delimit this job (WNW, NE and NW) are present throughout the deposits at different scales. The faults that have these orientations tend to have inclinations that are greater than 60°. The direction of the dip seems to be related to the position of the fault with regard to the rhomboid, which generally inclines toward the interior of the jog. Smaller faults can be found within the rhomboid, some of which significantly displace the sedimentary stratigraphy and appear to imitate this dip pattern.

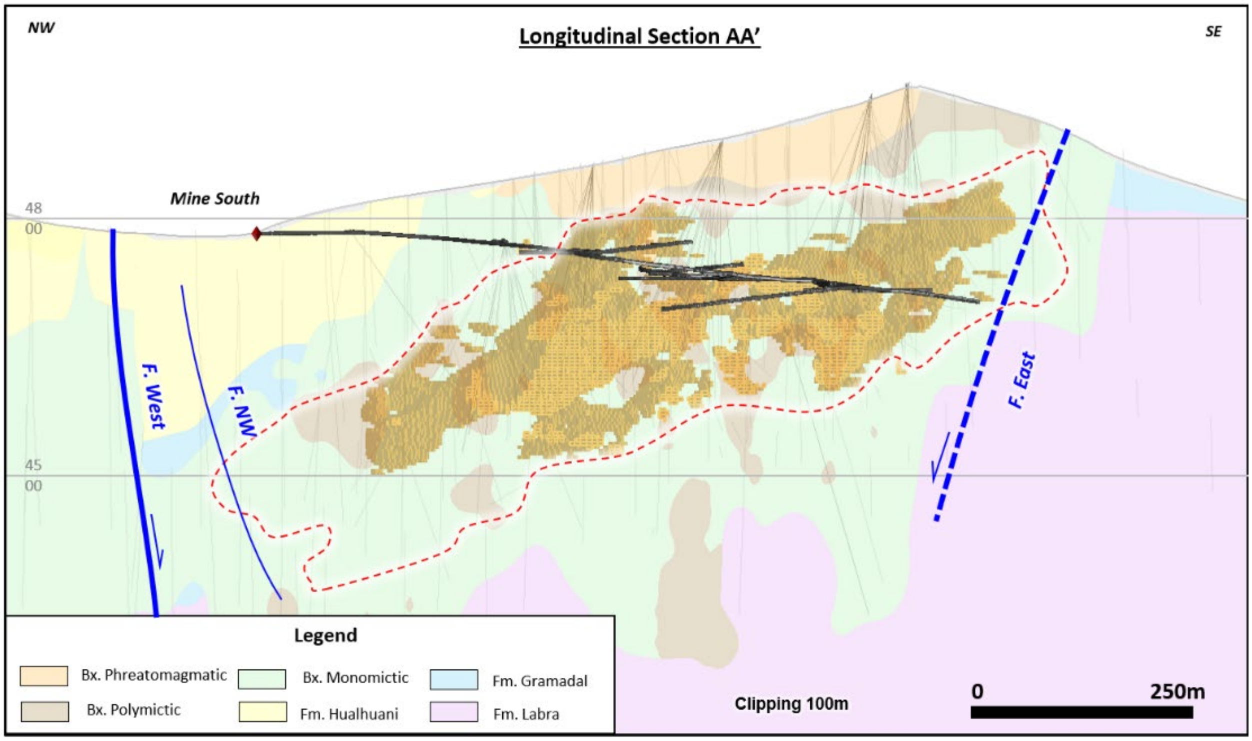
The main faults are characterized by zones of geometric scale that combine fault breccias, gouge and cataclasites with different proportions. The Northern and Southern faults, which delimit the rhomboidal jog, have average true thicknesses modeled at approximately three meters, although this figure can reach 12 m. The damaged zones associated with these faults are wider and can have thicknesses up to dozens of meters, particularly within the rhomboid, where extensive brecciation makes it difficult to distinguish between products of the fault and those of the breccias. The auriferous structures are mainly oriented to the NW and EW, meanwhile the argentiferous structures are interpreted as NW-directed extensional conjugated fault systems.

Figure 6-3: Geological Map with Plan View and Section AA'



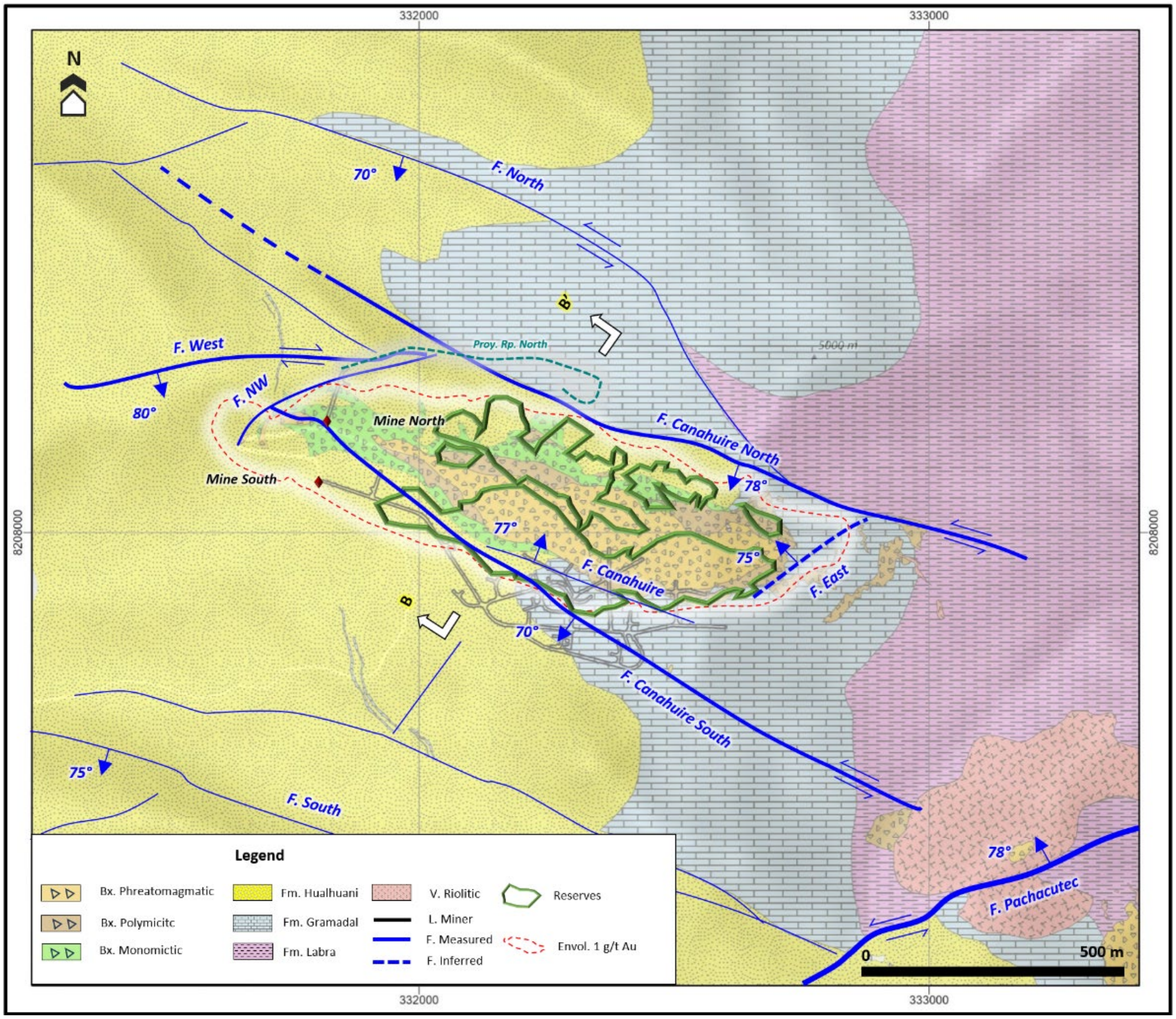
Source: Buenaventura 2024.

Figure 6-4: Longitudinal Section AA' Showing the Mineralization Limited by the East and West Faults



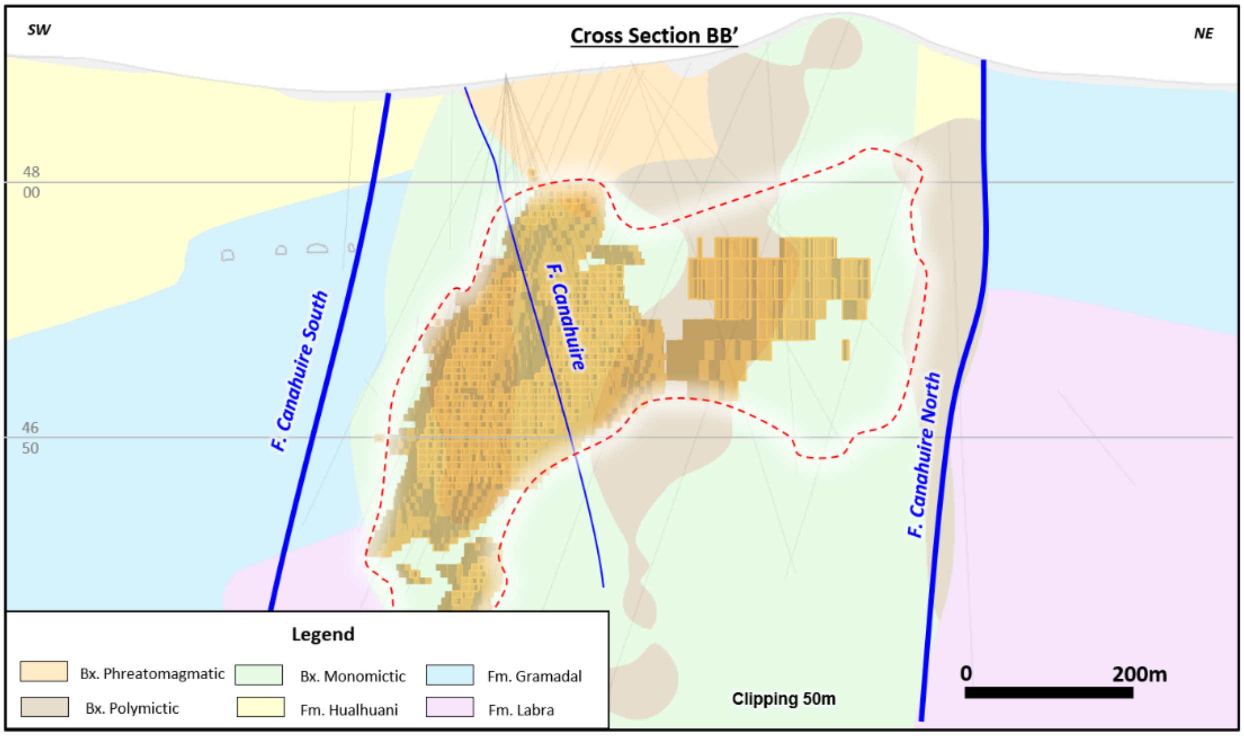
Source: Buenaventura 2024.

Figure 6-5: Geological Map with Plan View and Section BB'



Source: Buenaventura 2024.

Figure 6-6: Longitudinal Section BB' Showing the Mineralization Limited by the Canahuire South and North Faults



Source: Buenaventura 2024.

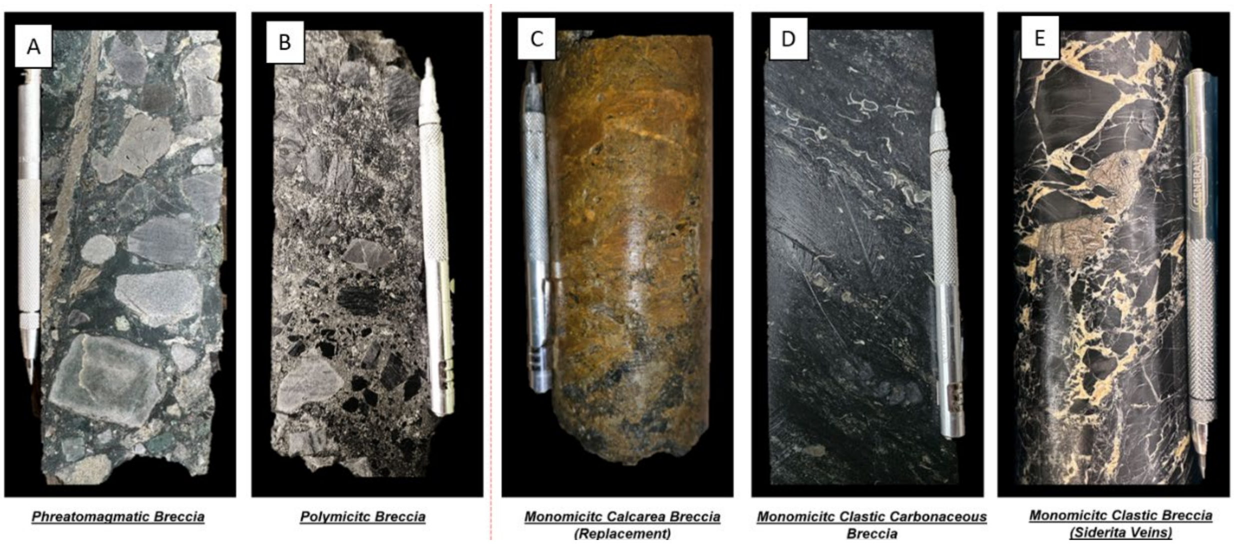
6.6 Local Geology

The zone of Canahuire presents a geological configuration comprised of Mesozoic sedimentary rocks from Yura Group, which have been affected by the intrusion of sub-volcanic domes and bodies with a rhyolitic composition from the Tertiary period (Figure 6-8). These intrusions are associated with a complex of diatreme-type breccias (Marcos 2016).

The current geological model identifies five main types of breccias, five sedimentary units and an intrusive unit. The breccias are locally classified (Figure 6-7) according to the composition of their clasts and the characteristics of their matrix.

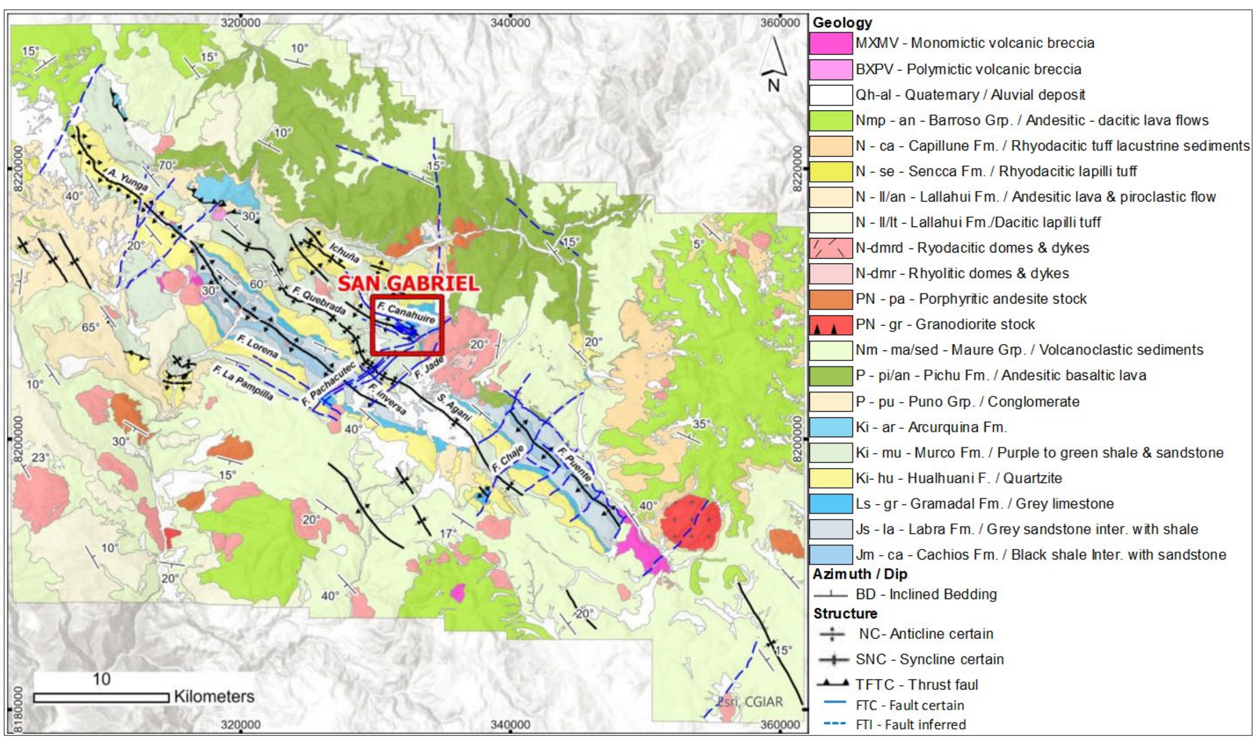
- Phreatomagmatic breccia: Considered polymictic matrix breccia supported by the presence of a volcanic matrix with an andesitic composition and sub-rounded sedimentary and volcanic clasts.
- Polymictic breccia: Considered a sedimentary clastic polymictic breccia supported by the presence of sandstone, shale and to a lesser extent, sideritized limestone.
- Monomictic calcareous breccia (replacement): this is a monomictic crackle breccia with sideritized limestone.
- Monomictic clastic carbonaceous breccia: Contains sandstone and carbonaceous shale; considered a monomictic crackle clastic breccia.
- Monomictic clastic breccia (siderite veinlets): Composed of siderite veinlets.

Figure 6-7: Different Types of Breccias in San Gabriel. A) Phreatomagmatic breccia. B) Polymictic breccia. C) Monomictic calcarea breccia. D) Monomictic clastic breccia. E) Monomictic clastic breccia.



Source: Buenaventura 2024.

Figure 6-8: Geological Map of the Ichuña Region Showing the Location of the San Gabriel Deposit



Source: Buenaventura 2020.

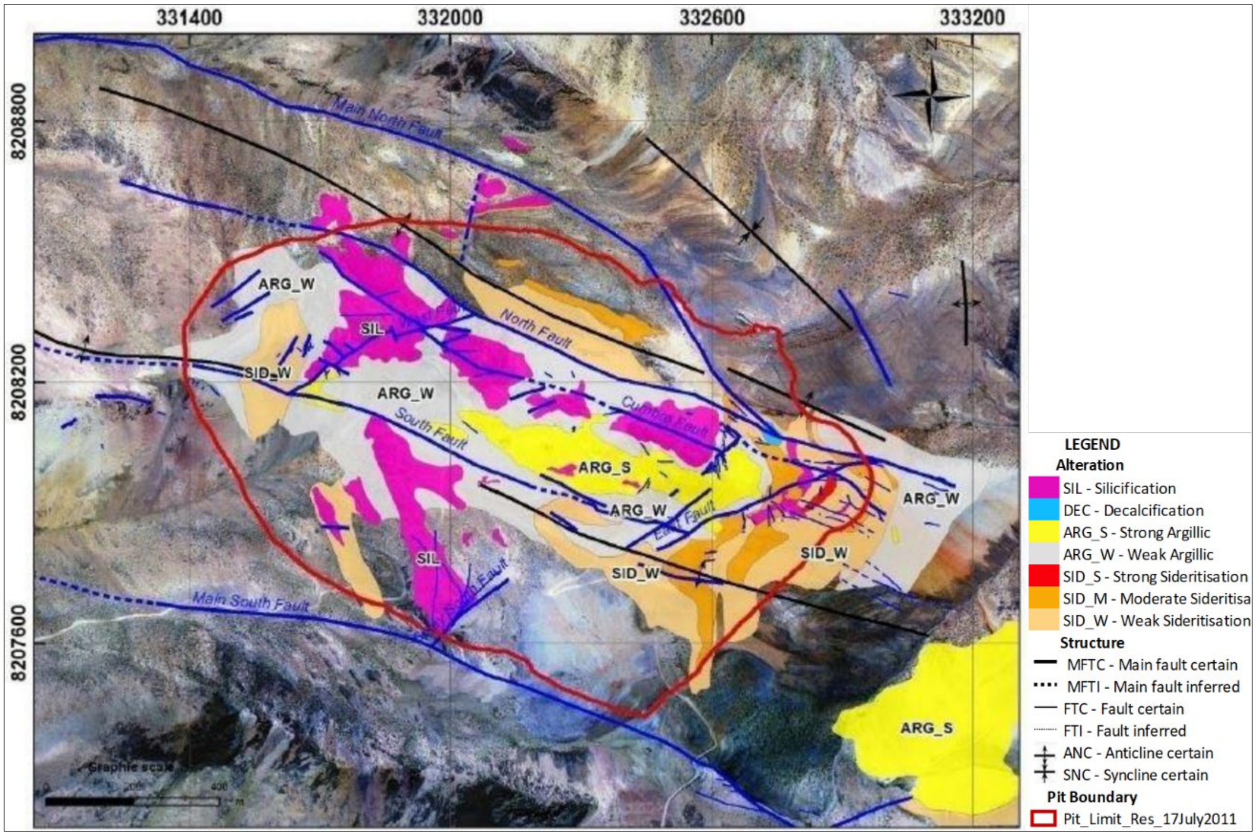
6.7 Hydrothermal Alteration

The alteration and mineralization at San Gabriel are associated with a magmatic-hydrothermal system. The alteration types are influenced by the chemistry of the box rocks; as such, the tri-dimensional distribution of the alterations is related to the geometry of the lithological units. The main alteration is sideritization, which presents primarily as an extensive replacement of the limestone and the calcareous matrix of the diatreme breccia. Weak alterations of siderite can be detected in the limestone in the Gramadal Formation at distances up to 500 meters from the edge of the deposit. The argillic alteration is also significant, particularly in the phreatomagmatic breccia. The silicification is mostly restricted to brecciated and fractured quartz sandstone in the Hualhuani Formation.

The alteration styles present in San Gabriel are as follows (Figure 6-9):

- Sideritization: The most extensive alteration facie is San Gabriel. An extensive replacement of limestone is visible in the Gramadal Formation due to siderite. The siderite also appears in the matrix rich in limestone in the diatreme breccia and as cavity filling. Smaller quantities of quartz associated with siderite are also present. The most intensive alteration in the previously fractured and brecciated limestone units, where it frequently erases the primary textures of the rocks. Multiple generations of siderite are recognized, including an early event evidenced by the presence of massive clasts of siderites in the complex of diatreme breccias.
- Argillization: Argillaceous minerals are predominantly in the polymictic breccia. The main minerals include smectite (montmorillonite), illite-montormorillonite, kaolinite, chlorite and sparse talc. The argillization occurs in the hydrothermal cement of the breccia and in the veins. Other generations of argillaceous alteration are observed, such as diagenetic clays present in sedimentary rocks and associated with early volcanic clasts. The intense argillaceous alteration is limited mainly to the phreamagmatic breccia and, to a lesser extent, to the polymictic breccia, with different generations of overlapping clays.
- Silicification: Is more common in the quartz sandstone of the Hualhuani Formation (locally fractured and brecciated) and in the monomictic breccia. The silicification includes silica, chalcedony and jasper and generally conserve the original textures of the breccia. In non-fractured quartz sandstone, the pores are filled with silica (chalcedony). Silicification is also found in the polymictic breccia and, in a localized manner, in other sedimentary units.

Figure 6-9: Alteration Map of the San Gabriel Deposit



Source: Buenaventura 2024.

6.8 Mineralization

Two stages of mineralization are interpreted. Both, although closely related in space and time, occurred under different conditions.

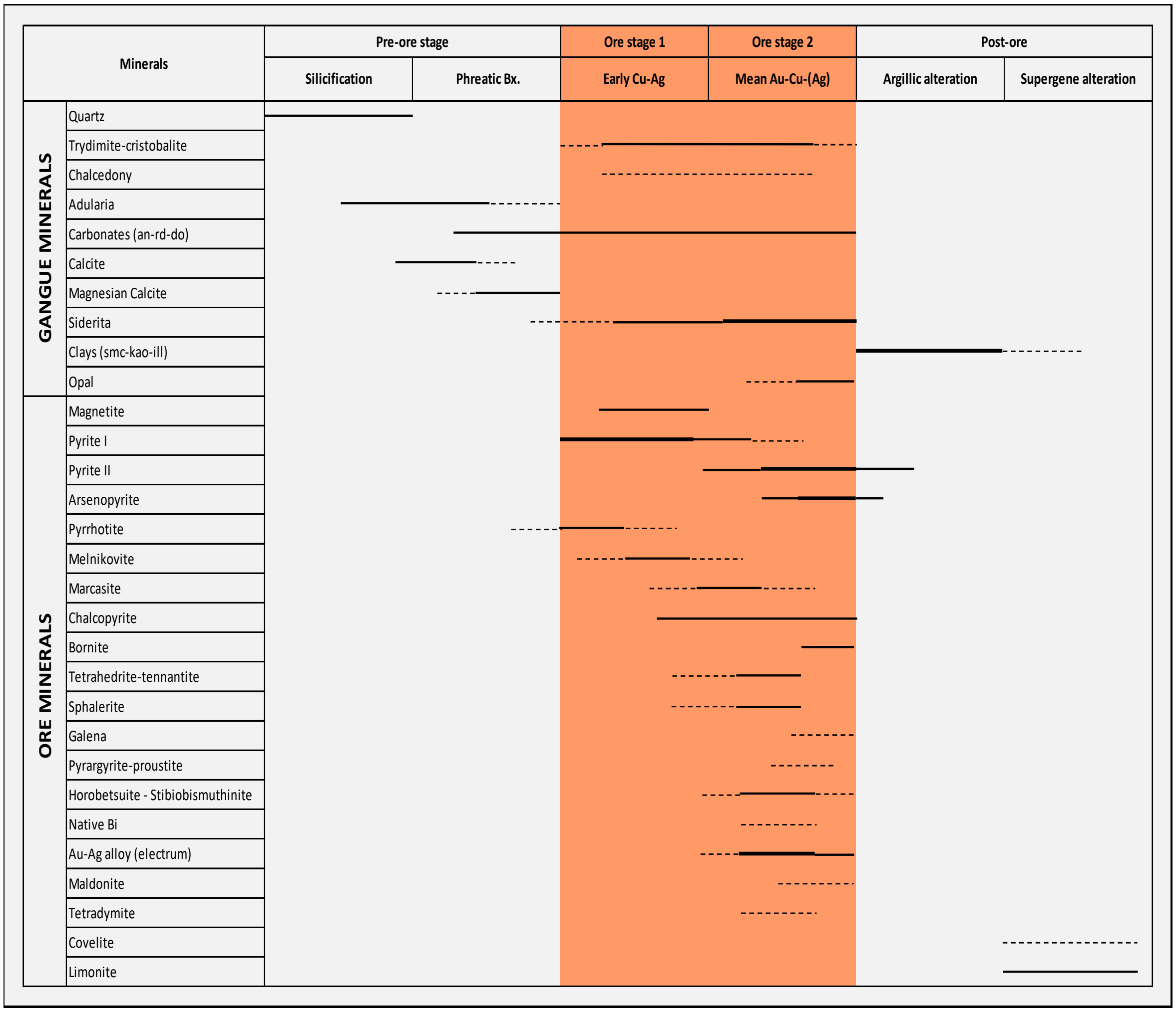
6.8.1 Early Stage Mineralization Cu-Ag-As

Early mineralization of copper and silver is characterized by the presence of pyrrhotite, pyrite 1, chalcopyrite, arsenopyrite 1 and sphalerite; these minerals are present in all the rock types. The pyrite is typically cubic, measures up to 8 mm, and contains small inclusions of pyrrhotite. The chalcopyrite and the arsenopyrite all contain small inclusions of pyrrhotite, which is a distinctive feature of this stage. This early mineralization manifests as cement that fills open spaces in the breccia, acting as a replacement in the limestone of the Gramadal Formation and in the veins and veinlets of the sediments in the Gramadal and Labra formations.

The most common gangue minerals are siderite and carbonate; these are broadly distributed in both rock types, mainly as cement in breccia or as a replacement for veins/veinlets. The magnetite is associated with early mineralization and is found predominantly in sandstone at greater depths, in distal zones of mineralization with pyrrhotite. The early stage represents no economic content.

The paragenetic sequence that summarizes minerals in the before, during and after stages of mineralization are shown in Figure 6-10.

Figure 6-10: Paragenetic Sequence of the San Gabriel Deposit



Source: Buenaventura 2024.

6.8.2 Main Stage Mineralization Au-Cu-(Ag)

The main stage of mineralization of gold, copper and silver represents the most important economic phase of the deposit and partially replaces the early stage. The mineralogy includes gold, electrum, maldonite, pyrite II, arsenopyrite II, marcasite, chalcopyrite, tetrahedrite, tetradymite, sulphosalts of Bi-Sb and Ag, sphalerite and galena. The gangue minerals include carbonates (siderite, ankerite, mixed carbonates and impure rhodochrosite), quartz, chalcedony, opal, clay and adularia.

Gold mineralization is found mainly in the limestone in the middle member of the Gramadal formation, which presents the most continuous replacement alternation and mineralization at San Gabriel. The mineralized areas show strong vertical zoning controlled by lithology, while the lateral limits are defined by brecciated faults or processes related to oblique extension. This zoning is evidenced by the absence of mineralization in the Labra and Hualhuani formations as well as in some portions of the phreatomagmatic breccia.

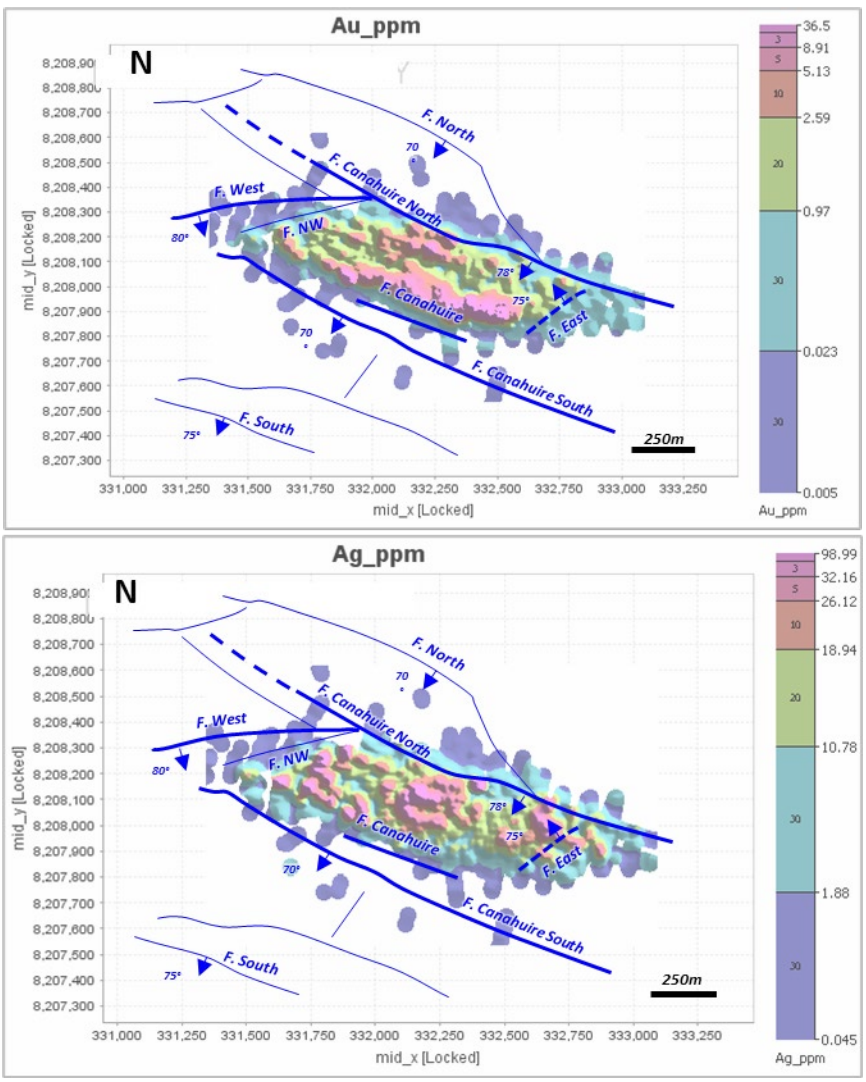
Gold is concentrated mainly in the limestone of the Gramadal Formation, which explains the soft dip of the mineralization to the west-northeast. It is also concentrated in polymictic breccia, which contain variable proportions of clasts and carbonated matrix. The high reactivity of the hydrothermal fluids and limestones controls this mineralization. In the case of phreatomagmatic breccia, the muddy matrix reduces permeability, which limits mineralization to a zone of contact with polymictic breccia.

The higher-grade areas of mineralization, dominated by the hydrothermal replacement, are found in the intersections of the fossiliferous limestones with thicker grains.

6.9 Geochemistry

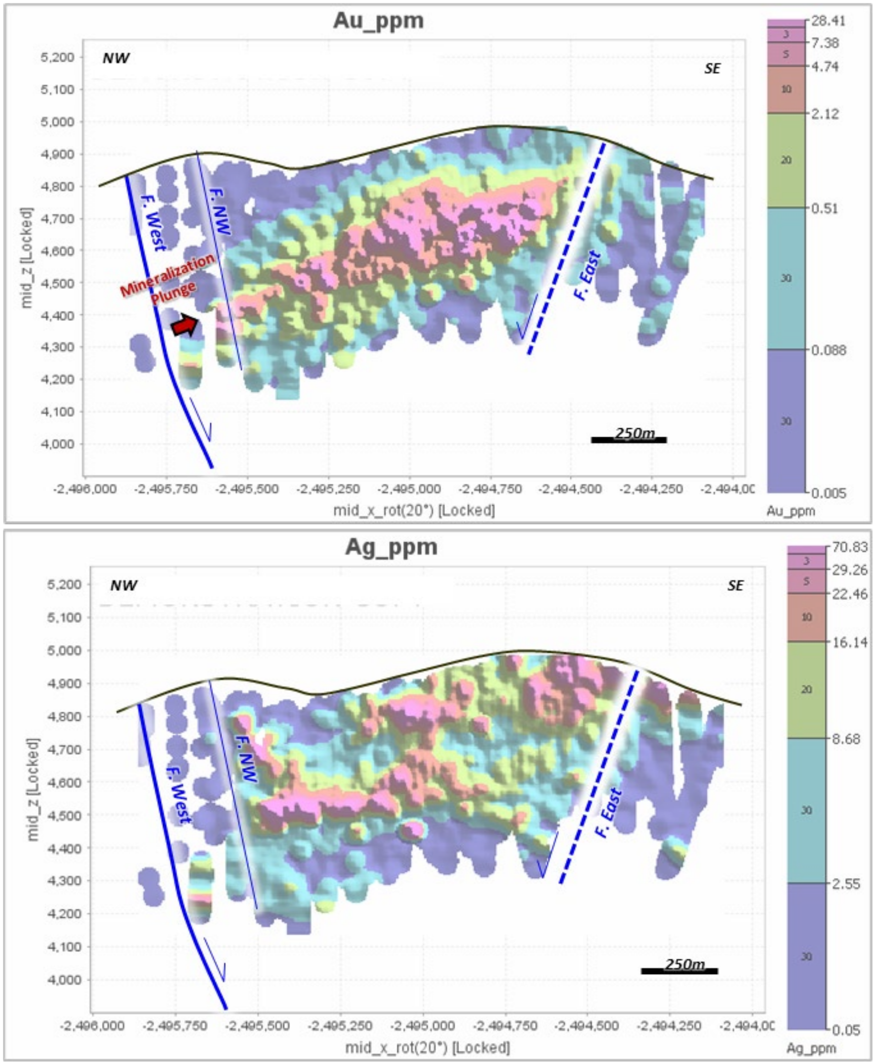
The deposit presents 2 mineralized sectors: San Gabriel Norte and San Gabriel Sur. Economic mineralization of gold is controlled by the NW-SE and NE-SW system (Figure 6-11). The mineralization plunge is NW-SE. The values of silver are in the intermediate and high zones and the copper values are due to the presence of chalcopyrite (Figure 6-12).

Figure 6-11: Geochemical Control of the San Gabriel Deposit



Source: Buenaventura 2024.

Figure 6-12: Plunge of Mineralization of the San Gabriel Deposit



Source: Buenaventura 2024.

6.10 Deposit Types

Epithermal deposits are important sources of silver and gold, but they may also contain sub-products such as copper, lead, zinc and mercury. The characteristics of the individual epithermal deposits can vary widely, depending on their mode of formation, and can result in mineralization of only a few thousand tons to >100 Mt, with grades of 0.1 g/t to 30 g/t of Au and between 1 g/t and 1,000 g/t of Ag.

These commonly represent the most superficial parts of the largest and deepest hydrothermal systems, driven mainly by magmatic heat and, to a lesser extent, by circulation of deep underground waters that run along the faults that border basins.

The epithermal high sulphidation (HS) deposits typically contain mineral associations rich in sulphur and in the state of high sulphidation such as pyrite-bornite, pyrite-enargite, pyrite-luzonite, pyrite-famantinite and pyrite-covellite.

The epithermal deposits with intermediate sulphidation (IS) are of great interest in mining given their economic and scientific importance, whether due to their high content of metals such as Ag-Au-Pb-Zn or as inputs to study epithermal-porphyry systems (Wang et al. 2019). This group of epithermal deposits tends to be closely associated with volcanic and sub-volcanic rocks with an andesitic-dacitic composition and are formed at depths that oscillate between approximately 0.3 km and more than 1 km, and generally at temperatures between 150 °C and 300 °C. The IS deposits are typically related to oxidated magmatism that is calcic or calc-alkaline in nature (Wang et al. 2019).

These deposits tend to occur in tectonic zones that have experienced a prolonged history of subduction and/or collision of plaques and can be found in magmatic arcs, backarc basins, and post-collisional orogenic belts. The porphyry-type intrusions tend to provide the heat source for these hydrothermal systems; as such, the epithermal mineralization can be spatial and genetically related to the mineral deposits of copper and molybdenum associated with porphyry. Epithermal mineralization occurs when focalized ascending and rapidly circulating fluids present a brusque change in their composition a few hundred feet from the surface. The rapid depressurization following hydraulic fracturing or brecciation, focuses the flow of boiling fluids. Oxygen or hydrogen isotope compositions indicate a mixture of magmatic and meteoric water where the diluting meteoric water increases as the hydrothermal system weakens (Wang et al. 2019).

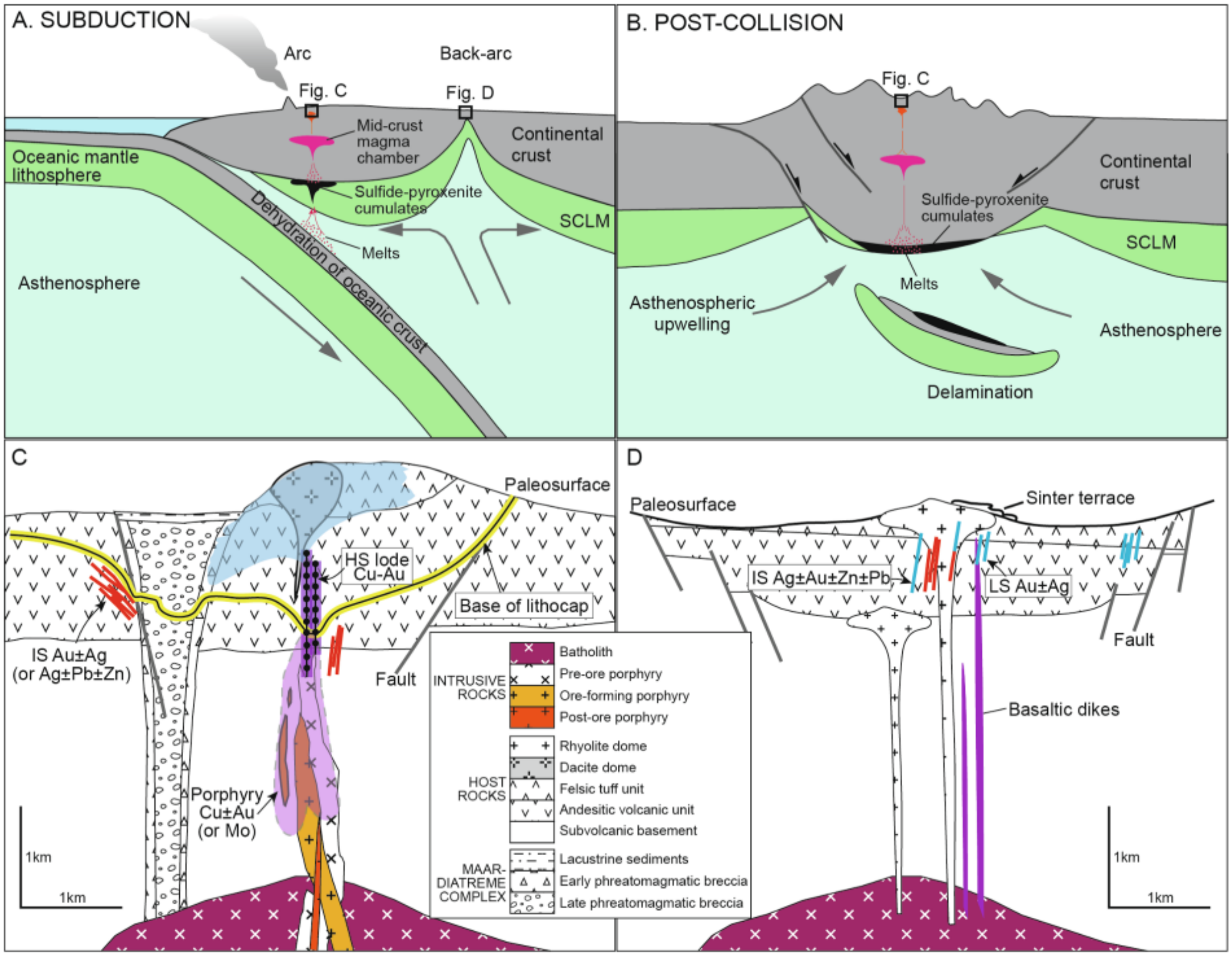
The location and form of the ore bodies in most gold-silver epithermal deposits are intimately related with the structural characteristics associated with igneous (diatreme), sedimentary, tectonic, topographical and hydrothermal fluids. These structures provide routes and barriers for the flow of hydrothermal fluids and sites for the deposit of gangue and ore minerals. Many epithermal deposits contain various types of mineralization due to the interaction of multiple sets of structural characteristics. For example, epithermal deposits of low and intermediate sulphidation commonly present high-grade veins as well as low-grade mineralization that is often disseminated in stockwork and/or breccia; the aforementioned can represent different parts of a single hydrothermal system or mineralization formed at different times.

The majority of IS deposits in the world were formed in the Cenozoic Era. Nevertheless, the presence of IS deposits from the Mesozoic and Paleozoic eras in the Orogenic Belt of Central Asia suggest that great exploration potential exists for pre-Cenozoic deposits in this region (Wang et al. 2019).

In the case of the San Gabriel deposit, this sample shows many characteristics of an epithermal deposit with IS, formed within a backarc environment (Figure 6-13), as described by Wang et al. (2019) as well as Sillitoe and Hedenquist (2003).

Most of the epithermal deposits with IS are found in andesitic-dacitic arcs with a calc-alkaline composition; locally, however, these deposits can be present in more felsic lithologies. Some IS deposits can be located close to advanced argillaceous lithocaps, with or without associated high-sulphidation deposits (HS) (Sillitoe and Hedenquist 2003). The San Gabriel deposit is located next to the Chucapaca Dome Complex and an associated lithocap.

Figure 6-13: Classification of Intermediate Sulphidation Epithermal Deposits



Source: Wang et al. 2019.

7.0 Exploration

7.1 Exploration

The region of Chucapaca was initially explored for silver in the 18th century, where the focus was primarily on narrow veins of Ag-Cu-Zn-Pb within volcanic and volcaniclastic of the Cenozoic (Loyasa et al. 2004). Areas such as Los Rosales, Aladino, and Paltapata were of particular interest. At the Berenguela Mine, sedimentary deposits of Ag-Cu-Mn were exploited. In the district of Arunturi, gold deposits with high levels of sulphidation were located in Santa Rosa and Tucari in the years 1997 and 2000 respectively. Buenaventura began exploration at Chucapaca in 2002, and Gold Fields continued these efforts in 2003, focusing on delimitation and definition of resources in the Canahuire deposit and at other targets including Chucapaca and Katrina. These details are referenced in the report developed by Ausenco (2022).

7.2 History of Exploration

Exploration at the Chucapaca Project was conducted in various phases, beginning with small-scale silver exploitation efforts in the 18^{th} century. In 1952, gossans and the remains of ancient stoves were found near Ichuña. In 2002, Gold Fields began an evaluation program, where Chucapaca was the primary target. In 2003-2006, Buenaventura and Gold Fields conducted exploration in the volcanic dome of Chucapaca and identified the Potosí prospect (later renamed Canahuire), where copper and gold mineralization was found. In 2007-2010, geophysical studies and drilling work were completed to develop the first mineral resource estimation.

7.3 Summary of the Exploration Program

Extensive sampling programs of rock and soil in the areas of Canahuire, Katrinas and Chucapaca were conducted on the San Gabriel Project to 2011. At Canahuire, 6,827 samples of rock fragments were collected and sent to ALS Chemex for analysis via a 50 g fire assay and multi-element geochemical evaluation using digestion with agua regia followed by inductively coupled plasma mass spectrometry (ICP-MS) or atomic emission spectrometry (ICP-AES) analysis. The results showed high levels of Au, Ag, As, Cu, Zn, Pb, Bi, Sb, W and Hg, which presented anomalies in the eastern portion that were associated with alterations and outcropping mineralization. These anomalies suggest epithermal characteristics and the influence of magmatic fluids.

At Katrinas and Chucapaca, 1,135 samples of rock fragments were obtained. Less significant levels of gold contents were found than those obtained from Canahuire but the grades were up to 2.7 g/t of Au. Significant anomalies of As, Sb, Hg, Ag, Pb, and Zn were interpreted as constituting distal parts of the epithermal system of Canahuire.

Soil sampling at Canahuire included 621 samples, which were collected in 100 m x 100 m and 25 m x 25 m meshes. Findings indicated correlations with Au con Bi, Ag and W, as well as anomalies related to geological faults. At Katrinas and Chucapaca, 812 samples were collected in 100 m x 100 m meshes; some areas were more densely sampled with 25 x 25 m mesh. The analytical results show correlations between elements such as Te-Se and Ag-Pb. Anomalies of gold, which were found in the center of the Chucapaca dome and in the northeast section of Katrinas, were associated with hydrothermal alterations and epithermal structures. These findings provided valuable information on mineralization and geological structures in these areas.

7.4 Exploration Targets

Exploration at Canahuire is advanced and multiple opportunities exist to increase current Mineral Resources. High-potential areas include extensions of known mineralization in Canahuire and additional mineralization associated with the complex of rhyolite domes at Chucapaca.

Mineralized targets have been identified at the Project by Buenaventura:

- Western Extension of Canahuire: Mineralization diminishes toward the west where the dilatational jog closes and the diatreme breccia thin. Nevertheless, stratigraphic control and IP anomalies suggest potential in the Gramadal Formation. Recent drilling confirms mineral continuity at greater depth, possibly in deep limestone (Minera Gold Fields 2011).
- Canahuire West (Ichuña Concession): Controlled by a dilatational jog associated with faults with high chargeability to the southeast, detected by IP. Potential mineralization depends on favourable stratigraphy; deep drilling (>600 m) will be needed to evaluate this target.
- Katrina: Presents a complex geological context with diatreme breccia and rhyolitic domes. IP anomalies and weak argillic alteration suggest mineral may exist. New drilling is required to evaluate these anomalies.
- Katrina South: Located in the southern flank of the rhyolitic dome, with anomalies of Au and Cu at depth. Additional drilling was recommended by Ausenco (2022) to evaluate anomalies to the south.
- Katrina Northeast: Focus is on the contact between the rhyolitic dome and sedimentary rocks, with structures that have historically been exploited for baritone and galena. Surface exploration was recommended by Ausenco (2022) to evaluate the extension toward the southeast.
- Cerro Chucapaca: Noteworthy for its variable hydrothermal alternation and low geochemical anomalies. Additional studies are required to delimit anomalies and plan future drilling.
- Chucapaca South: Presents contact between rhyolites and sedimentary rocks, with moderate to strong anomalies in chargeability. Surface samples report high values of various elements, suggesting high exploration potential.
- Buenaventura has been conducting exploration activities in Pachacútec/Pachacútec Norte since 2011. SRK has not received detailed information on these findings, which are considered confidential. In 2015, IP and magnetic geophysical surveys were conducted in the north, central and south zones, and 3,418 m were drilled through eight drill holes; 1,211 samples were collected. In 2021, Buenaventura began a new campaign to integrate recent information and identified bodies of mineralized breccia with gold and copper. The most noteworthy results include 18 m with 1.5 g/t of Au and 10 m with 0.5% of Cu. Pachacútec Norte could be linked to an epithermal gold-copper system with more significant geophysical anomalies than those found in San Gabriel.
- The extensions of Western Canahuire and Canahuire are considered prolongations of the Canahuire deposit. The Katrinas and Chucapaca Sur targets are associated with interaction between the intrusion and favourable stratigraphic control while the

Chucapaca target is related to the dome complex of rhyolite and presents varying degrees of hydrothermal alteration.

7.5 Drilling

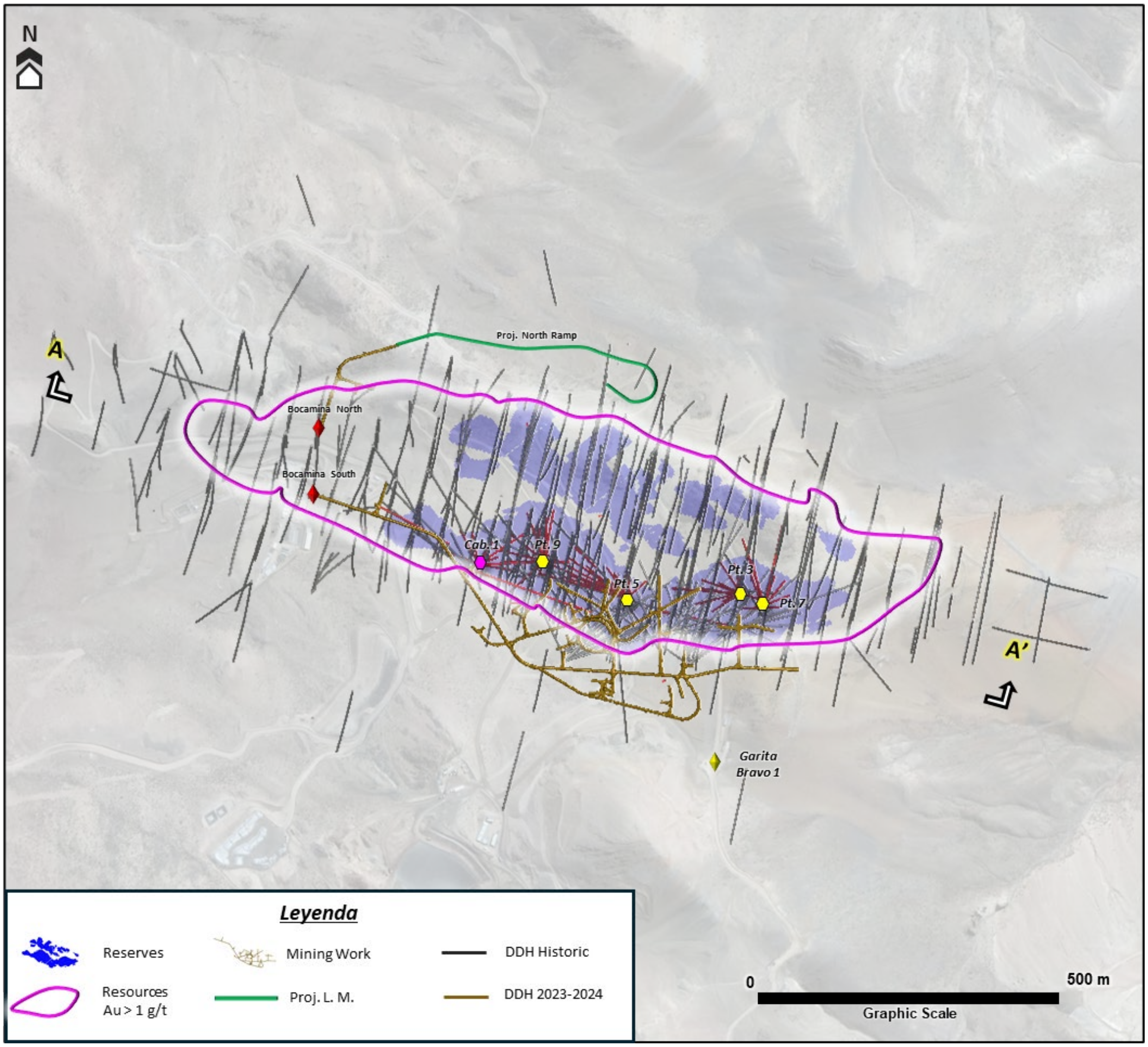
7.5.1 Resource Drilling

In mining drilling, information protocols are vital to ensure that precise and useful data is collected that effectively records drilling patterns and density to accurately represent mineralization. Standardized tools are used to measure coordinates and angles to ensure that drillholes follow the trajectory that has been planned. Data is stored digitally to facilitate analysis and integration with other geological data.

At San Gabriel, drilling activities took place from 2008 to 2019; over this period, 406 drill holes were executed. After this period, no drilling activities were conducted until the campaign in 2023-2024, where 38 additional drill holes were generated as part of the infill program to transform Inferred Resources into Indicated Resources and improve the certainty of Mineral Resources. In total, the Project has conducted 444 surveys and accumulated 137,283 m of drilling to better delimit mantles corresponding to Au and to Total Organic Carbon (TOC). The 38 drill holes generated in 2023-2024 led to the identification of some carbonaceous horizons within the monomictic breccia, which were included in the geological model and estimation domains. Improvements in the definition of carbonaceous horizons may significantly impact the development of metallurgical processes, which should be taken into consideration.

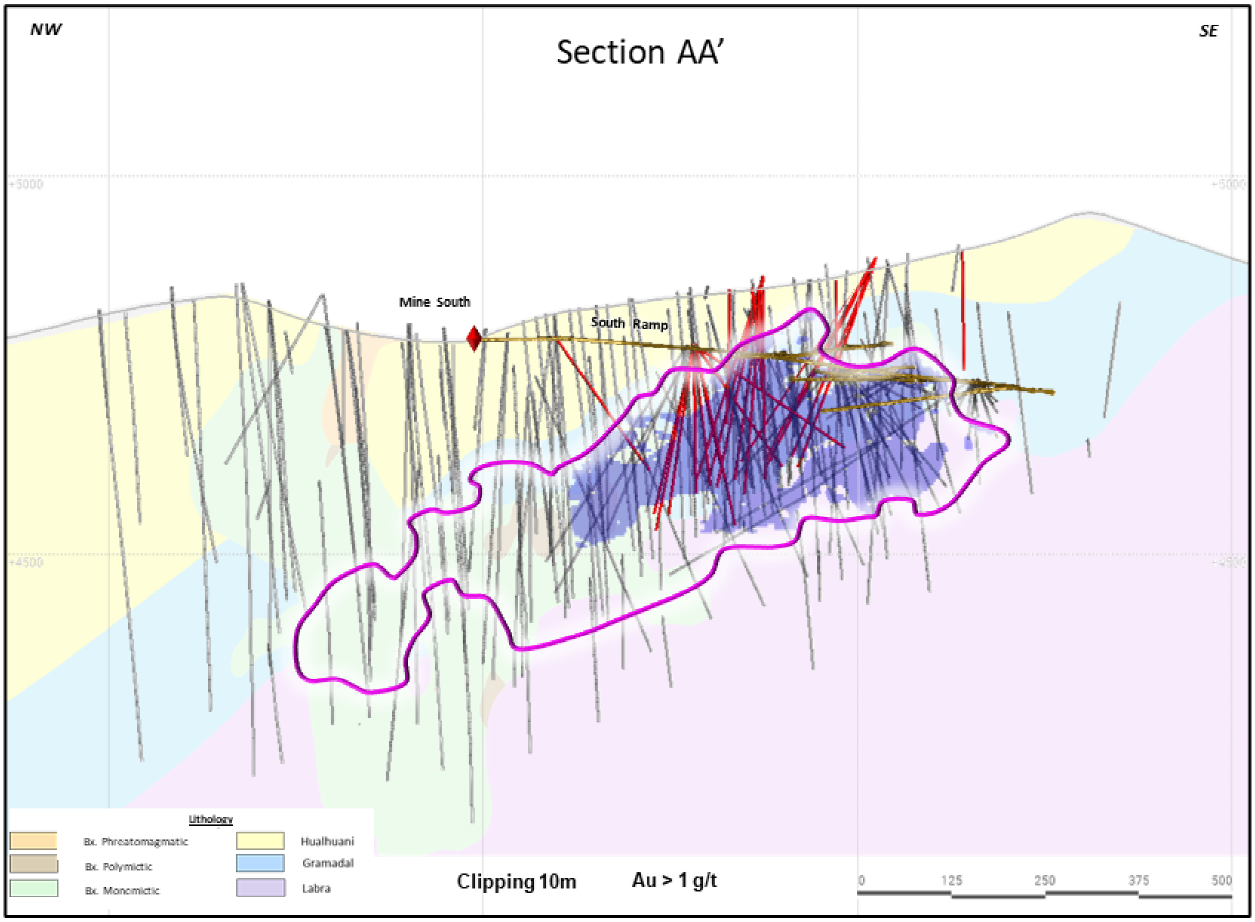
Figure 7-1 and Figure 7-2 show the total drill holes to date at San Gabriel.

Figure 7-1: Plan View of the Drill Holes Utilized in the Resource Estimation Process



Source: Buenaventura 2024.

Figure 7-2: Section AA' of the Drill Holes Utilized in the Resource Estimation Process



Source: Buenaventura 2024.

7.5.2 Exploration Drilling

7.5.2.1 Collar Surveys

Personnel from the topography area are responsible for the procedure to locate collars. These individuals standardize coordinates to ensure that collars are accurately located. Geodesic points, which are projected in the WGS84 system, are used in this process. Coordinates should have initial values (RM_2020_Requerimiento de Perforación) and final values (FRM_2020_Certificado_Collar). Once the collars have been located, staking takes place to verify the positioning of the drill. If the drill hole is inclined, the professional in charge should mark the projection of the azimuth line corresponding to both ends of the platform. The entire process should be supervised, from platform marking through the installation of the machine and marking of the direction.

The equipment used in the drilling campaigns on the Project is listed by year below:

- 2010: Trimble Laser Total Station 5500.
- 2010-2011: Trimble M3 Total Station, angular accuracy of 2 seconds.
- 2011-2012: Trimble M3 Total Station, angular accuracy of 2 seconds.

- 2016: Trimble S3 Total Station, angular accuracy of 2 seconds.
- 2017: Trimble S3 Total Station, angular accuracy of 2 seconds.
- 2019: Trimble S3 Total Station, angular accuracy of 2 seconds
- 2020: Trimble S3 Total Station, angular accuracy of 2 seconds.
- 2021: Trimble S3 Total Station.
- 2023: Trimble S3 Total Station, angular error of 2 seconds
- 2024: Trimble S3 Total Station, angular error of 2 seconds; Leica T507 Total Station, angular error of 1 second.

In 2009, Light Detection and Ranging (LiDAR) technology was used to generate a topographic survey covering 8,000 ha with horizontal accuracy of 2 m. This survey utilized differential GPS and Leica total station to obtain 1,201 measurements to correct elevations.

The control base for this survey is in the nearby town of Ichuña, which is linked to a permanent geodesic station situated in NASA's Astronomy Observatory in Characato, Arequipa. This control is internally identified by Buenaventura with codes 9008 and 9052.

7.5.2.2 Core and RC Recovery

The SRK QP has reviewed core recovery from drilling campaigns on the Project from 2008 to 2024 (444 drill holes; Table 7-1). Results for recovery were good, as shown in Table 7-2 by year, drill type, and bit size. In 2023, recovery reached 97.8% and in 2024, the figure stood at 96.1%.

Table 7-3 shows the percentage of recovery by Au level (using a threshold of 1 ppm) for drill hole and Reverse Circulation Drill Hole (RCD). It is important to note that values ≥ 1 ppm, which was the value used to generate the grade shell used in the mineral resource estimate, shows recovery above 90%.

Table 7-1: Number of Drill Holes per Year (2008–2024)

Year	2008	2009	2010	2011	2015	2016	2017	2019	2023	2024
No. Drill Holes	18	46	93	134	7	65	12	31	4	34

Source: SRK 2024.

Table 7-2: Percentage of Metres Recovered (2008–2024)

Drill Type	% Recovery										
	Core Diameter	(2008) Recoveries (%)	2009 Recoveries (%)	2010 Recoveries (%)	2011 Recoveries (%)	2015 Recoveries (%)	2016 Recoveries (%)	2017 Recoveries (%)	2019 Recoveries (%)	2023 Recoveries (%)	2024 Recoveries (%)
DH	NULL						95.82	90.97	91.43		
	BQ	86.12	82.7								
	HQ	89.61	93.28	95.73	95.76	93.03	94.56	93.4	93.11	97.8	96.1
	HQ3			99.65	92.71						
	NQ	91.57	93.82	88.5	94.76						
	PQ				64.5	93.28					
RCD	HQ			97.73	96.48						
	NQ			89.24	95.18						

Source: SRK 2024.
Note: Drill hole SGB111_17 from the year 2017 had no recovery data.

Table 7-3: Au Grades vs. Recovery

Drill Type	Start_Year / Au_Level	(2008) Recoveries (%)	2009 Recoveries (%)	2010 Recoveries (%)	2011 Recoveries (%)	2015 Recoveries (%)	2016 Recoveries (%)	2017 Recoveries (%)	2019 Recoveries (%)	2023 Recoveries (%)	2024 Recoveries (%)
DH	<1 ppm	90.7	94.8	96.4	95.6	95.2	95.9	93.3	93.1	97.9	98.3
	>=1 ppm	90.2	97.6	98.8	98.5	95	96.4	97.1	98.4	98.9	98.7
RCD	<1 ppm			97.3	96.8						
	>=1 ppm			99.1	99.8						

Source: SRK 2024.

7.6 Geotechnical Data

Please refer to Section 13 for details.

8.0 Sample Preparation, Analyses, and Security

In January 2022, Ausenco issued a "San Gabriel Project, S-K 1300 Technical Report Summary, Preliminary Feasibility Study". The evaluation of quality control was conducted by SRK and focused on the elements Ag, Au, Cu, Pb, Zn, and Sb. SRK concluded that there is no evidence of cross-contamination and, in general, the analytical precision is within acceptable limits. Table 8-1 summarizes the results of this quality control evaluation.

Table 8-1: Results of the Quality Control Evaluation of the San Gabriel Project (2008-2022)

Laboratory	Evaluation	Comments	Primary samples	Primary samples (%)
ALS	Contamination	No evidence of cross-contamination.	8,869	8%
	Precision	The precision of the twin samples was within acceptable limits for all the years studied (35.8% for Au, 18.4% for Ag, 25.9% field.		
	Accuracy	No problems were detected with accuracy.		
SGS	Contamination	Cross-contamination of Cu and Pb was found.	99,265	92%
	Precision	The precision of the twin samples and coarse duplicates was within acceptable limits for all the years studied (18.5% for Au, 37.3% for Ag).		
	Accuracy	No problems with accuracy were found.		
Total samples			108,134	100%

Source: Ausenco 2022.

For this audit, SRK reviewed data on location, deviations, grades and logging for the primary samples of the total of drill holes (444 drill holes), as indicated in Table 8-2, but assessed the quality control solely of the samples analyzed between January 2023 and September 2024. The results are described in chapters 8 and 9.

The data estimation data base for the Project includes information on diamond drilling (82% of the total of drill holes), reverse circulation (RC), and reverse circulation and diamond tail (RCD). A summary of this data can be found in Table 8-2.

Table 8-2: Summary of the Estimation Database by Drilling Type

Drilling Type	Drill Hole	Total Depth (m)	Samples
DH	362	111,308	72,459
RC	32	5,587	5,581
RCD	50	20,388	16,254
Total	444	13,7283	94,294

Source: (SRK, 2024)

Note: DH: Diamond Drill Hole; RC: Reverse Circulation; RCD: Reverse Circulation and Diamond Tail.

SRK reviewed the Au grades by drill hole type for each estimation domain and found some differences in the sample of some resource estimation domains. For example, in the 5011 domain, the RC sample mean for Au is 7.65 ppm, while the DH and RCD means are 4.84 ppm and 4.09 ppm, respectively. Although the RC samples in this domain represent 2% of the total samples in the 5011 domain, this does not represent a risk for the Mineral Resource estimation.

Similarly, differences in Au means are observed for the 7010 and 7011 domains. The graphs supporting this review can be found in Appendix 1 Figure 27-1 to Figure 27-3.

8.1 Sample Preparation Methods and Quality Control Measures

8.1.1 Sampling

Sampling is supervised by the field geologist and/or ore control geologist. Core samples are extracted from the drill holes on the drilling platform and placed in plastic core boxes, which can be transferred to the logging room at the end of the drilling shift.

Sampling of the contents from drill holes is conducted in the core warehouse, which is located in the mining project. Prior to logging, drill cores are cut longitudinally into two halves using a diamond cutting disc, following the cut line that was previously traced by the geologist. Subsequently, the cut cores are placed back in the corresponding boxes.

Boxes of core samples are placed in an orderly fashion on the sampling table. Each sampling ticket includes three labels, and the sampling interval and quality control codes (QC) are duly marked. Two of the labels, along with one of the sample halves, are placed in a polythene bag. The third label is stapled on the outside of the bag. The remaining half of the core sample is stored in the core box. Once sampling of the drill hole is completed, samples are placed in bags for transport to the Certimin preparation laboratory.

In the case of bulk density sampling, geological and mineralization criteria are applied to select representative samples. These samples are between 15 cm to 20 cm long and are taken at regular intervals of 5 m along the drillhole, regardless of whether the interval corresponds to a mineralized area or not. Samples are wrapped in plastic film and appropriately labelled.

The geologist generates a database with all the information related to the samples collected. This information is sent to the individual in charge of the geology database and subsequently recorded on the format for bulk density samples. The technician in charge of measuring bulk density takes a picture of each sample outside of the core sample box and sends it to the corresponding internal or external laboratory to determine density. Once the results are obtained, samples are stored in the core sample room and the data obtained is included in the general database.

8.1.2 Sample Preparation

Mechanical preparation of samples corresponding to the years 2023 and 2024 was conducted by the Certimin laboratory under the supervision of the head of area. This process followed the procedures described in Buenaventura's Sampling Manual (Buenaventura 2020).

The process begins when the area supervisor, who is responsible for reviewing, organizing and inspecting samples to ensure compliance with the standards set forth and with the corresponding request (PC-09-01), receives the samples. Subsequently, information is recorded on the number of samples, which are duly described according to the procedure set forth to create the Batch Code (IC-LAB-027).

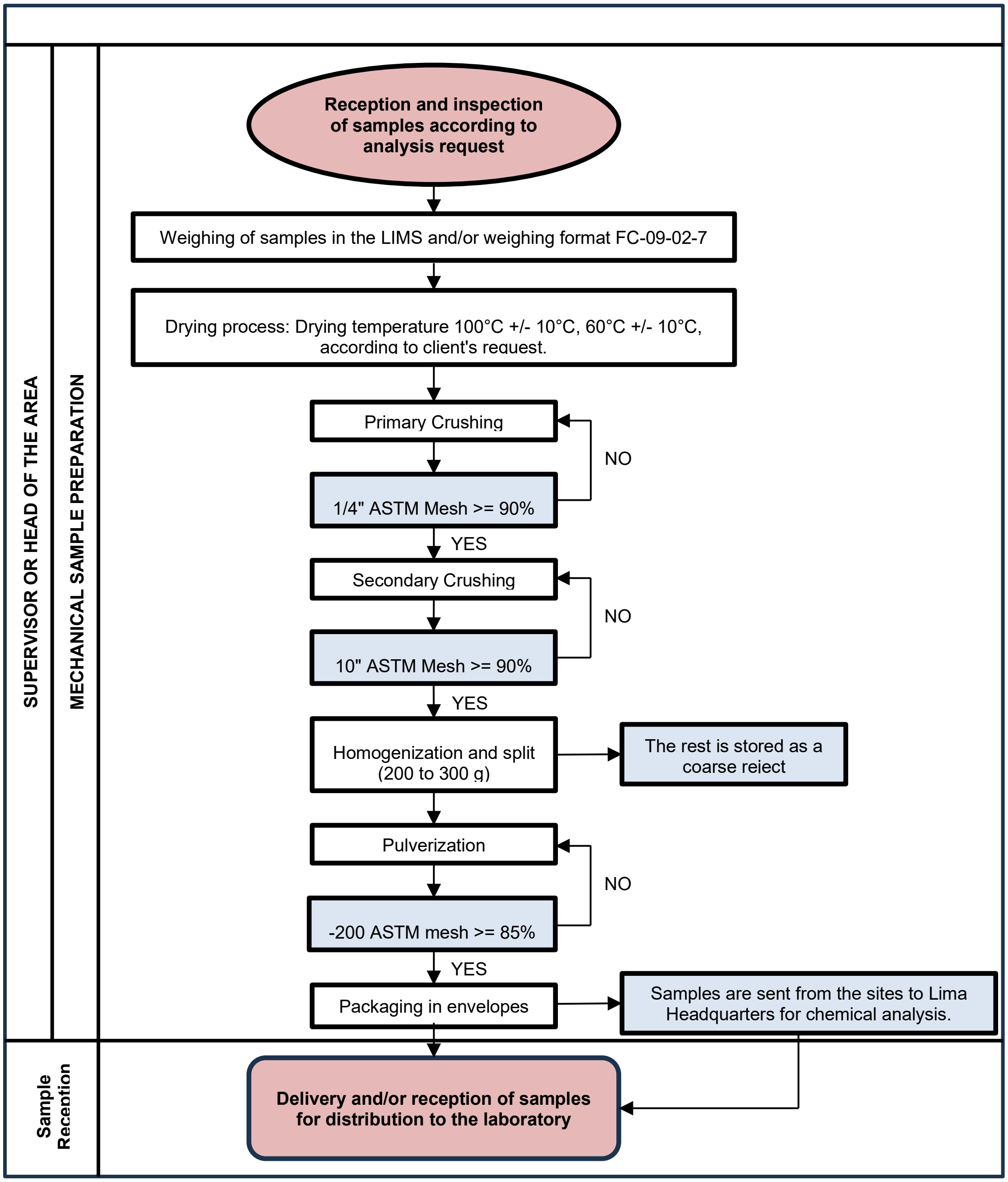
Subsequently, the lot code is generated and the date provided on the service request is registered. Samples are weighed and the date is uploaded to the Laboratory Information Management System (LIMS) or on the weight format FC-09-02-7.

Next, the samples are submitted to a drying process at a temperature of 100°C ± 10°C or 60°C ± 10°C, depending on the client's specifications. Once dried, the samples are submitted to a primary crushing process to 90%- 1/4" (6.3 mm). If this size is not achieved, the samples are subjected to additional adjustments. Subsequently, secondary crushing is performed to 90% - 2 mm (#10 ASTM). If this size is not achieved, the samples are stored as "rejected."

Subsequently, the samples are subdivided to obtain a representative weight between 200 g and 300 g while the remainer is stored as "rejected" for potential additional analysis. The samples selected are to 85%- 75 µm. If the pulverized size fails to meet this standard, the samples are adjusted according to requirements. Finally, the laboratory reviews the internal quality control results during preparation. If the results are satisfactory, the pulp is stored in individual envelopes, which are prepared for delivery to the main offices in Lima, where analysis will be conducted. The complete preparation process conducted at the laboratory is shown in the flowchart below (Figure 8-1).

When preparing samples for bulk density measurement, said samples must be representative of the geological and mineralization models. Tests are conducted with a core sample that is approximately 10 cm long; ideally, the size should be double the diameter of the core sample to minimize relative error. The process includes the following steps: initially, the electronic balance is calibrated and the initial weight of each sample is recorded. Next, the samples are placed in a drying oven at a temperature f105°C ± 5°C for 6 hours, during which each sample will be weighed every 30 minutes to achieve a constant weight and ultimately determine the drying time. Buenaventura uses a paraffin model to calculate bulk density at its geological units.

Figure 8-1: Certimin Laboratory Sample Preparation Flowchart



Source: Certimin 2020.

8.1.3 Chain of Custody

Project geologists are responsible for supervising the chain of custody, which entails the following procedures.

Sample preparation: Samples are kept in a closed container with enough security to prevent contamination; stored in a restricted area to later be grouped consecutively; and packaged in bags to be transported to an external laboratory.

Sample shipment: Batches of samples, including control samples, should be sent with a letter and the respective shipment format (FRM_2010_Envio Muestras GQ, FRM_2020_Envio Muestras Densidad).

Monitoring of sample shipment: During transport, constant communication is maintained with the transportation company to monitor the transfer process. The mobile unit is manned by an individual who supervises custody and ensures the integrity of both the samples and the chain of custody. Once the samples arrive at the laboratory, the receiver signs the chain of custody.

The laboratory sends the analysis results digitally to the administrator of the mining project; this individual reviews and validates the information received.

8.2 Sample Preparation and Analysis Procedures

The samples at San Gabriel were analyzed at the ALS, SGS, and Certimin (CER) laboratories. Details on the distribution of these samples are provided in Table 8-3. All laboratories are independent of Buenaventura.

Table 8-3: Distribution of Samples by Laboratory and Period

Laboratory	Historical (2008-2019)	2023	2024	Samples	Samples (%)
ALS	8,534			8,534	0.08
SGS	92,616			92,616	0.83
CER	2,932	734	6,368	10,034	0.09
Total	104,082	734	6,368	111,184	1
Source: SRK 2024.					

Samples prior to 2023 were analyzed in ALS and SGS laboratories. For the 2021 TRS (Ausenco 2022), these laboratories had the required certifications.

Samples for the years 2023 and 2024 were analyzed in the CER laboratory. Processes to prepare samples (crushing, division and pulverization) were conducted at the office in Juliaca and subsequently, the samples were sent to Lima for chemical analysis. The laboratory is recognized internationally and has obtained ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 certifications.

8.2.1 Sample Analysis

The analytical methods used by the CER laboratory in 2023 and 2024 are shown in Table 8-4.

Table 8-4: Analytical Methods and Detection Limits at the CER Laboratory

Laboratory	Element and Unit	Detection Limit	Method	Description of Method
CER	Au (ppm)	0.005	IC-EF-01	Determination of gold through fire tests - AAS.
	Ag (ppm)	0.1	IC-VH-134	Multi-acid digestion - ICP-OES.
	Fe (%)	0.01		
Source: SRK 2024.				

8.3 Quality Control/Quality Assurance Procedures

QA/QC procedures include insertion of blank, duplicate, and standard samples. To date, Buenaventura has yet to subject samples to external control of sample insertion, which are samples that are sent to a secondary laboratory to check for bias. The evaluation conducted in this section corresponds to information from the years 2023 and 2024 and covers Au and Fe, which are the main elements contemplated in the Mineral Resource estimate.

8.3.1 Insertion Rate

Quality control in 2023 and 2024 presented an insertion ratio of 17% and comprises blank, duplicate, and standard samples. Table 8-5 summarizes the insertion of samples by year while Table 8-6 provides data by control type.

Table 8-5: Insertion of Control Samples at the Certimin Laboratory by Year

Year	Lab.	Primary Samples	Blank		Duplicates			SRM	External Control	Total samples	Insertion rate
			PB	CB	PD	CD	TS	STD			
2023	CER	654	10	11	10	12	8	29	0	734	12%
2024	CER	5,420	127	126	118	121	121	335	0	6,368	17%
	Total	6,074	137	137	128	133	129	364	0	7,102	17%

Source: SRK 2024.

Note: PB: Pulp blank; CB: Coarse blank; PD: Pulp duplicate, CD: Coarse duplicate; TS: Twin sample; MRE: Standard reference material; STD: Standard.

Table 8-6: Summary of Insertion of Control Samples

Sample type	Samples	Insertion ratio
Primary samples	6,074	-
Blanks		
Pulp blanks	137	0.023
Coarse blanks	137	0.023
Subtotal	274	0.045
Duplicates		

Sample type	Samples	Insertion ratio
Pulp duplicates	128	0.021
Coarse duplicates	133	0.022
Twin samples	129	0.021
Subtotal	390	0.064
Standard reference material		
AuOx-18	186	0.031
AuOx36	28	0.005
EPIT-05	84	0.014
EPIT-12	100	0.016
EPIT-28	98	0.016
STRT-05	612	0.101
Subtotal	1,108	0.182
Total control samples	7,102	0.169
Source: SRK 2024.		

SRK is of the opinion that the insertion ratio for pulp, duplicate, and standard samples is adequate and recommends external control of sample insertion.

8.3.2 Contamination Evaluation

SRK assessed the Ag, Au, Cu, Pb, Fe, Sb, and S content in the blank samples inserted in the shipments to the CER laboratory. All the blank materials were certified by Target Rocks (Peru). Table 8-7 provides details for pulp and coarse blanks and their insertion ratios.

Table 8-7: Summary of Blank Insertion Rates

Blank Type	Certifying Laboratory	Material Code	Samples	
			Total	Insertion Ratio
Pulp blanks	Target Rocks	TR-18137	37	0.6%
	Target Rocks	TR-22144	100	1.6%
Coarse blanks	Target Rocks	TR-18136	48	0.8%
	Target Rocks	TR-22146	89	1.5%
		Total	274	4.5%
Source: SRK 2024.				

After assessing the results, the SRK QP is of the opinion that there is evidence of significant contamination in the pulp blanks when the value of the blank is five times higher than the practical detection limit (PDL) of the element. In the case of coarse blanks, SRK determined that there was significant contamination when the value of the blank is 10 times above the PDL of the element. According to SRK's standards, at least 90% of the samples must present no significant contamination to be considered within acceptable limits.

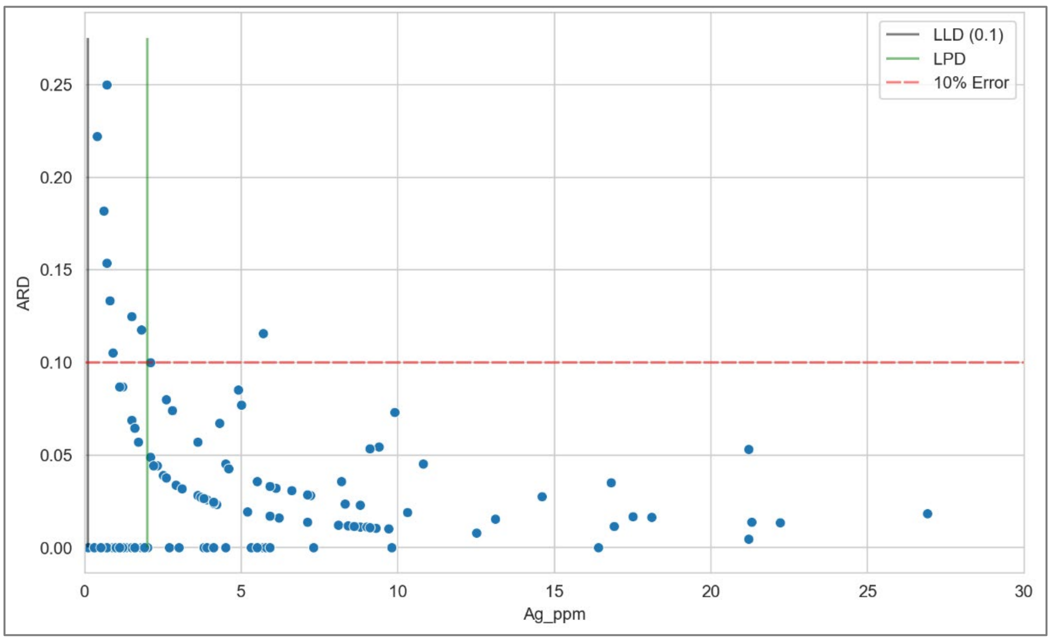
The PDL for the elements analyzed in the CER laboratory was defined by SRK for the contamination and accuracy evaluations (Table 8-8). Figure 8-2 presents the absolute relative deviation (ARD) and the PDL of Ag, Au and Fe.

Table 8-8: PDL of the CER Laboratory

Laboratory	Element	PDL
CER	Ag (ppm)	2
	Au (ppm)	0.1
	Fe (%)	0.1

Source: SRK 2024.

Figure 8-2: PDL of Ag at the Certimin Laboratory



Source: SRK 2024.

The SRK QP is of the opinion that the samples show no evidence of significant contamination. The results of the evaluation are provided in Table 8-9; results for additional elements can be found in Appendix 1 Table 27-1.

Table 8-9: Summary of the Results for Contamination Evaluation

Laboratory	Blank Type	Element	Samples	Samples within Parameters	Samples within Parameters (%)
CER	Pulp blanks	Ag	137	137	100%
		Au	135	135	100%
		Fe	137	137	100%

	Coarse blanks	Ag	137	137	100%
		Au	137	137	100%
		Fe	137	128	93%
Source: SRK 2024. Note: The information of selected element was included, for the remaining elements, please refer to Appendix 1 Table 27-1.					

8.3.3 Precision Evaluation

To assess precision, twin samples and coarse as well as pulp duplicates were inserted in the diamond drilling lots. SRK used the hyperbolic method (Simón 2004) in its analysis to incorporate the effect of distortions generated by low levels of accuracy for values close to the detection limit.

Each pair of samples is assessed by using the quadratic equation of a hyperbola:

$$y^2 = m^2x^2 + b^2$$

Where:

- y: Maximum value of a sample pair.
- x: Minimum value of the sample pair.
- m: Constant according to the duplicate type based on ER limit values of 10%, 20% and 30% for pulp duplicates, coarse duplicates and twin samples respectively.
- b: Constant according to the PLD and duplicate type (Table 8-10).

The hyperbola hereto defined is considered the acceptance limit for duplicate pairs. For SRK, at least 90% of the samples must be within acceptable limits.

Table 8-10: Constants Used in the Hyperbolic Equation

Duplicate Type	Constants	
	m	b
TS	~1.35	10 x PLD
CD	~1.22	5 x PLD
PD	~1.11	3 x PLD
Source: SRK 2024. Note. TS: Twin sample, CD: Coarse duplicate, PD: Pulp duplicate.		

According to the CER laboratory, the results for pulp and coarse duplicates are within acceptable limits. In the case of twin sample, Fe was found outside of said limits; nevertheless, this value is considered acceptable given that it is close to 90%. Table 8-11 summarizes the results of sampling, preparation and analytical precision evaluation conducted by SRK for the Certimin laboratory. The SRK QP is of the opinion that the precision evaluation results were adequate for the samples analyzed by laboratory in question.

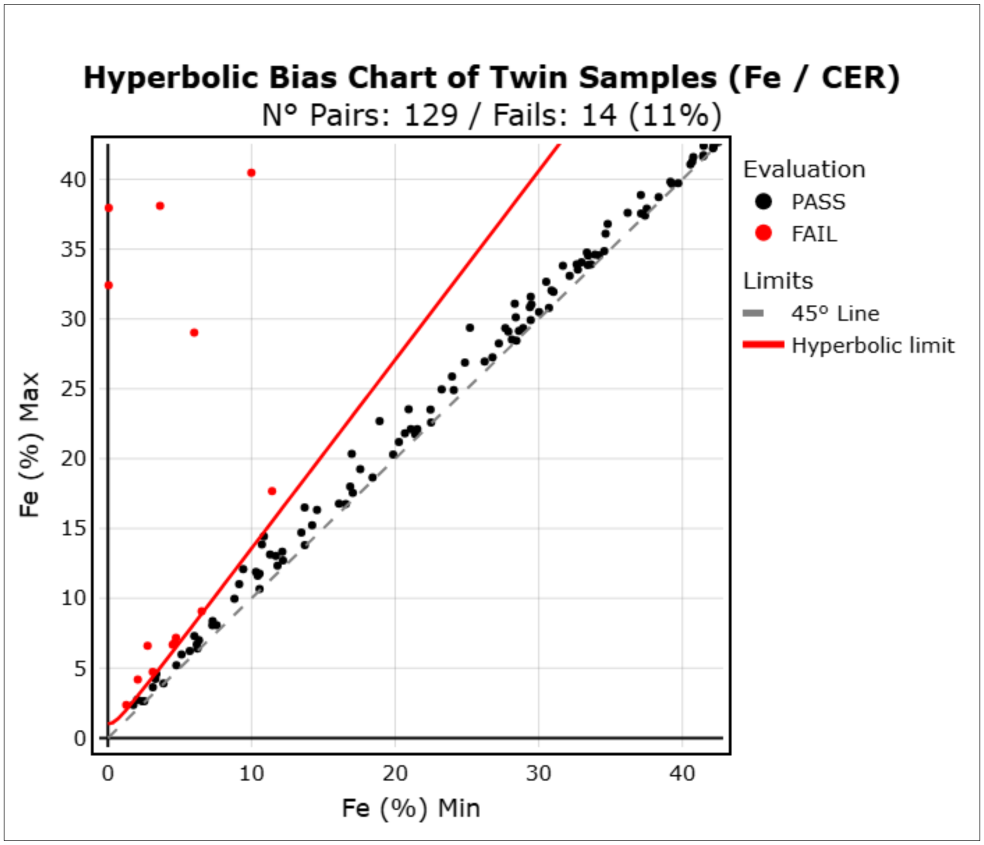
Table 8-11: Results of the Precision Evaluation for Certimin Laboratory

Laboratory	Duplicate Type	Element	Samples	Samples within Parameters	Samples within Parameters (%)
Certimin	Pulp duplicate	Ag	128	128	100%
		Au	128	128	100%
		Fe	128	128	100%
	Coarse duplicate	Ag	133	133	100%
		Au	133	132	99%
		Fe	133	132	99%
	Twin	Ag	129	129	100%
		Au	129	123	95%
		Fe	129	115	89%

Source: SRK 2024.

Note: The information of selected element was included, for the remaining elements, please refer to Appendix 1 Table 27-2.

Figure 8-3: Graph of the Hyperbolic Method for Twin Fe Samples (%) at Certimin Laboratory



Source: SRK 2024.

8.3.4 Accuracy Evaluation

8.3.4.1 Standard Reference Materials

The SRM inserted during the period covered by CER laboratory and referred to in this chapter were certified by "Smee and Associates Consulting Ltd". Table 8-12 shows a summary of the values of the SRM.

Table 8-12: Summary of the Values of the SRM Certificates

Laboratory	SRM	Ag (ppm)		Au(ppm)		Fe (%)	
		Best Value	SD	Best Value	SD	Best Value	SD
Smee and Associates Consulting	AuOx-18	77.8	2.55	2.9	0.1	-	-
	AuOx36	-	-	0.3	0.01	-	-
	EPIT-05	132	3	4.1	0.12	-	-
	EPIT-12	6.8	0.3	1.2	0.04	-	-
	EPIT-28	374	7	7.4	0.25	-	-
	STRT-05	14.9	0.5	0.4	0.01	14.6	0.37

Source: SRK 2024.

Notes:

1. In the table, the best value and the standard deviation (SD) were rounded to 1 and 2 decimals respectively.
2. The information of selected element was included, for the remaining elements, please refer to Appendix 1 Table 27-3.

To assess accuracy, SRK uses a bias analysis as the main indicator of acceptability. Prior to this analysis, SRK determines if anomalous values (outliers) exist, which represent samples outside the limits as determined by ± 3 standard deviations (SD) from the mean.

The bias should be within acceptable limits.

- Good: |Bias| < 5%
- Questionable: 5% ≤ |Bias| ≤ 10%
- Unacceptable: |Bias| > 10%

SRK uses, as a secondary criterion to review the results for standards, a method that is accepted industry-wide. This means that standard samples inserted with values outside the range of best value (BV) ± 3 SD are considered outside acceptable limits. For SRK, 90% of samples must be within acceptable limits.

The SRK QP is of the opinion that the analytical accuracy of the results from the CER laboratory is within acceptable limits.

The bias values do not exceed 5% in any of the SRM or for any of the elements studied (ranging from -2.4% hasta 0.8%). An apparently unacceptable value was found for Au in SRM AuOx36, reporting 86% acceptance via a secondary criterion; nonetheless, this is not considered significant. Table 8-13 provides a summary of the evaluation of the accuracy results obtained by CER laboratory; information on other elements can be found in Appendix 1 Table 27-4.

Table 8-13: Summary of the Accuracy Evaluation of the Certimin Laboratory

Laboratory	Element	SRM	Sample	Outliers	Mean	Best Value	Bias (%)	Coefficient of Variation (%)	Samples within Parameters	Samples within Parameters (%)
Certimin	Ag (ppm)	AuOx-18	93	-	77.52	77.8	-0.40%	2.90%	93	100%
		EPIT-05	42	-	130.88	132	-0.80%	2.20%	42	100%
		EPIT-12	50	-	6.64	6.8	-2.30%	4.00%	50	100%
		EPIT-28	49	-	372.43	374	-0.40%	1.30%	49	100%
		STRT-05	102	-	15.02	14.9	0.80%	2.80%	102	100%
	Au (ppm)	AuOx-18	93	-	2.86	2.88	-0.70%	2.90%	93	100%
		AuOx36	28	-	0.31	0.32	-2.70%	2.40%	24	86%
		EPIT-05	42	-	4.03	4.11	-2.00%	2.50%	42	100%
		EPIT-12	50	-	1.17	1.2	-2.40%	3.20%	50	100%
		EPIT-28	49	-	7.43	7.4	0.40%	1.70%	49	100%
		STRT-05	102	-	0.41	0.41	0.20%	1.70%	102	100%
	Fe (%)	STRT-05	102	-	14.45	14.58	-0.90%	1.50%	102	100%

Source: SRK 2024.

Note: The information of selected element was included, for the remaining elements, please refer to Appendix 1 Table 27-4.

8.3.4.2 External Control Samples

Buenaventura presented no information on external control sample insertion for the years 2023 and 2024.

8.4 Opinion on Sample Preparation, Security, and Analytical Procedures

As part of the review of procedures for preparation, security and analysis of samples, SRK reviewed the QA/QC data received for the years 2023 and 2024.

The SRK QP is of the opinion that Buenaventura's QA/QC procedures are consistent with best practices in the industry. The QP believes that the preparation of samples, chemical analysis, quality control and security procedures are sufficient to provide reliable data to support mineral resource and mineral reserve estimates.

The SRK QP contends that the insertion rate of control samples in the period analyzed was adequate; there is no evidence of significant contamination and both the precision and accuracy of the sampling and chemical analysis of the Ag, Au, and Fe are good for the samples sent to the Certimin laboratory.

The SRK QP recommends that Buenaventura initiate and maintain external control sample insertion, as indicated in its Quality Control Protocol (Buenaventura 2022). Shipments of external control samples to a secondary laboratory should include a granulometric review of 10% of the samples as well as an insertion of pulp and standard blanks in these batches.

The SRK QP suggests frequently reviewing the behaviour of the quality control results to inform the laboratory of any problem detected to take timely corrective action.

9.0 Data Verification

SRK reviewed and verified the drilling database provided by Buenaventura for the San Gabriel Project. The data received consisted of 10 tables in CSV format.

Additionally, Buenaventura shared with SRK the certificates corresponding to measurements of collars; surveys; and the results of the chemical analyses of the samples. All this information is contained in Table 9-1.

The Project database has a closing date of December 4, 2024.

Table 9-1: Summary of Files Provided by San Gabriel

No.	Table	Record	File
1	Collar	444	SGB_collar_20241204.csv
2	Survey	10,887	SGB_survey_20241204.csv
3	Assay	111,184	SGB _assay_20241204.csv
4	Density	6,192	SGB _densidad_20241204.csv
5	Lithology	21,059	SGB _litologia_20241204.csv
6	Alteration	15,779	SGB _alteracion_20241204.csv
7	Mineralization	23,115	SGB _mineralizacion_20241204.csv
8	Structural data	15,850	SGB _estructural_20241204.csv
9	RQD	77,129	SGB _ rqd_20241204.csv
10	Diameter	3,983	SGB _diametro_20241204.csv

Source: SRK 2024.
Note. RQD – Rock Quality Designation.

9.1 Internal Data Verification

Buenaventura indicated that it uses a structured system for database management (acQuire), which constitutes a final repository for geological information that has been designed to guarantee data integrity while minimizing data entry errors. This system operates under specific standards to ensure adequate registry through instruments such as SIGEO (Buenaventura's internal software) and GVMapper, which the geologist uses to visually validate information before entry.

The process begins with system activation. Next, information on the samples is collected and the samples are subsequently sent for either internal or external laboratory analysis. If the samples are sent for external evaluation, the results for grades are uploaded from the CSV provided by the laboratory. If the samples are processed internally at LIMS, the grade results are uploaded directly from the SIGM system. Once the results have been updated, a consolidated report on the ore grades is generated. The procedure applied at San Gabriel ensures efficient and centralized management of samples and guarantees the traceability of the results obtained, regardless of whether external or internal laboratories are used.

9.2 External Data Verification

External validation is conducted via audits by external independent consultants. In January 2022, Ausenco, in conjunction with SRK, issued a report "San Gabriel Project, S-K 1300 Technical Report Summary, Preliminary Feasibility Study".

In 2019 and 2020, SRK estimated the mineral resources at the San Gabriel deposit. To ensure the quality and reliability of data, SRK established and implemented a series of specific verification procedures, including:

- Validation of superimposed and negative intervals.
- Review of drill holes with incomplete information (such as lithology, recovery or sampling).
- Identification of intervals that exceed the total depth of the drill hole.
- These measures reflect a commitment to upholding the highest standards in the industry to ensure the quality of the data used in mineral resource statements and declarations.

9.3 Data Verification

9.3.1 San Gabriel Project Estimation Database

The estimation database contains information on 444 drill holes, 137,283 m of perforated area and 94,294 primary samples.

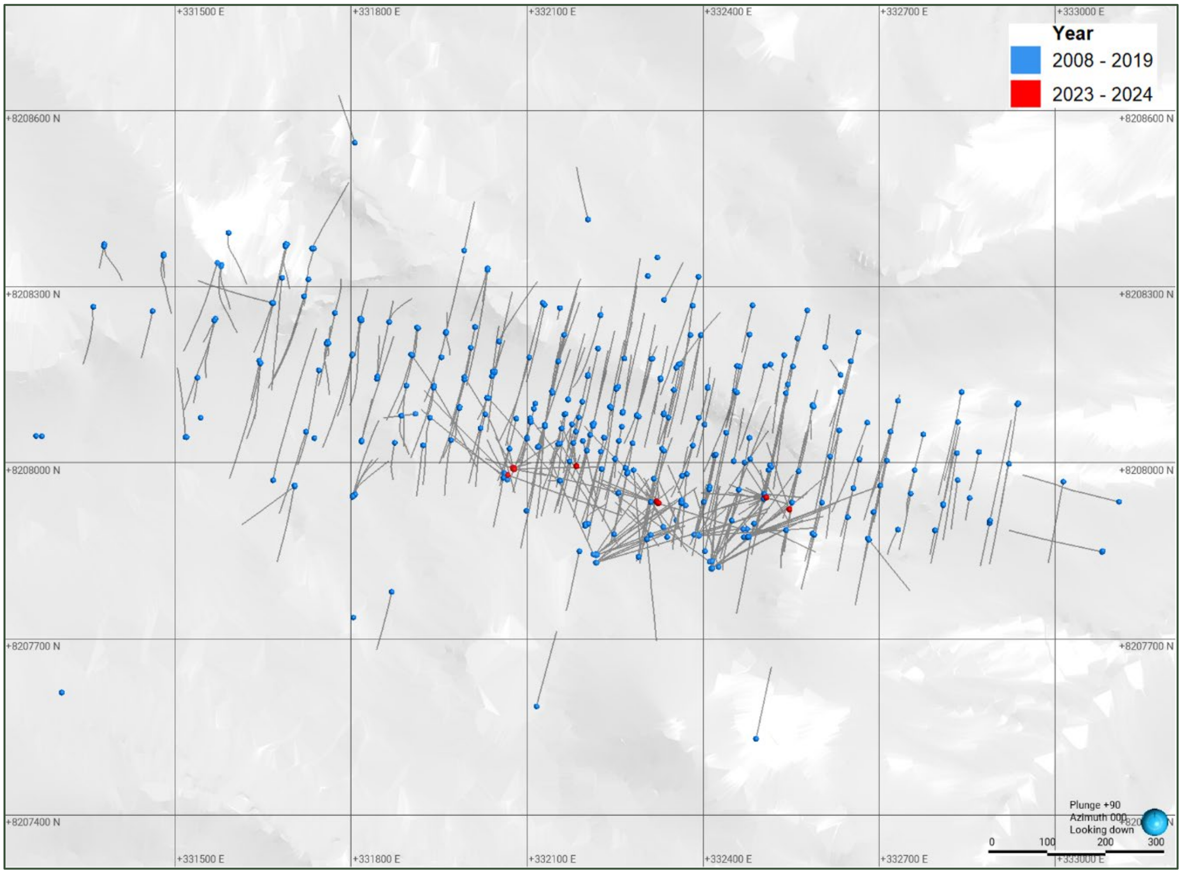
Table 9-2 contains a summary of the information on drillholes, metres drilled, and available samples by year. Figure 9-1 shows the spatial distribution of drill holes, in plan view, with colour segmentation by year.

Table 9-2: Summary of Samples and Drill Holes by Year

Year	Drill Holes	Total Depth (m)	Samples
2008	18	4,647	2,294
2009	46	16,958	9,939
2010	93	29,110	21,747
2011	134	51,991	38,286
2015	7	2,329	1,173
2016	65	11,993	6,245
2017	12	2,819	1,707
2019	31	8,032	6,829
2023	4	1,017	654
2024	34	8,386	5,420
Total	444	137,283	94,294

Source: SRK 2024.

Figure 9-1: Spatial Distribution of the Drill Holes Considered for Estimation by Drilling Year



Source: SRK 2024.

9.3.2 Data Verification Procedures

Verification of the database for resource estimation entailed:

- Reception of information provided by Buenaventura.
- Organization of all information in the database in MS Access.
- Data modelling (assigning relations between tables).
- Constructing a tracker table (dashboard to send samples for chemical analysis).
- Compilation of laboratory testing certificates and pairing with samples in the database.
- Cross-validation of the database and laboratory certificates; generation of an occurrence table.
- Report of significant findings including the following: empty registries, variations or inconsistencies, or errors.
- Validation of other aspects
    - o Collar coordinates left in blank.
    - o Collars without deviation measurements.

- o Deviation measurements greater than the total length of the drill.
- o Measurement angles greater than 10° in azimuth or 10° on slopes.
- o Overlapping of intervals.
- o Negative values.
- o Intervals greater than (in the Assay tables or registry) the total length of the drill.
- o Registered data that does not cover the total length of the drill.
- o Absence of data from the bottom of the pit.

9.3.3 Database Verification Results

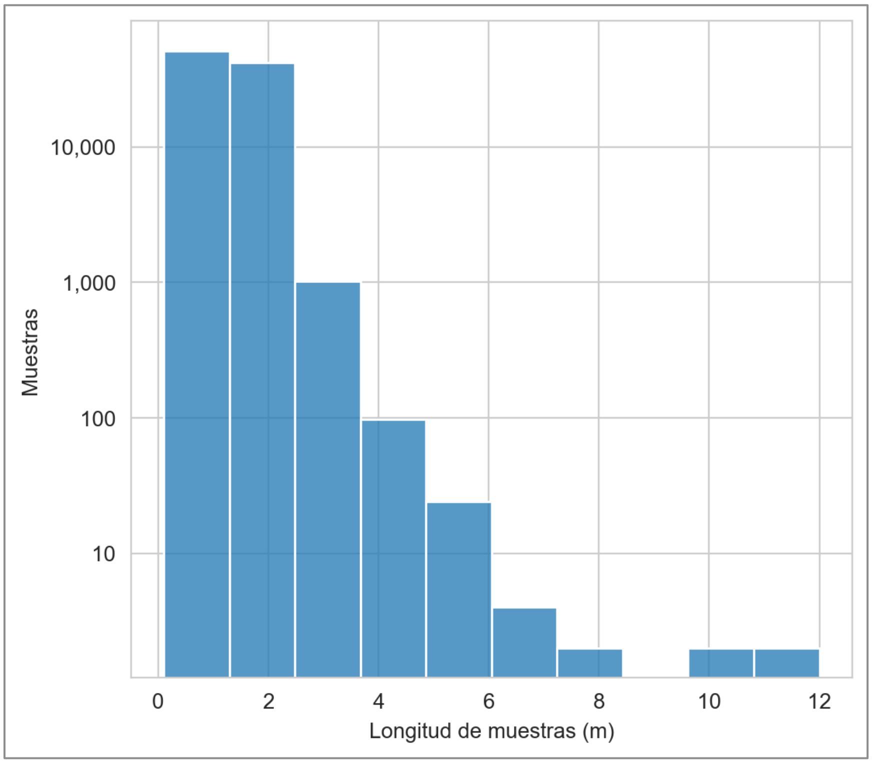
SRK conducted a process to verify the data in the main tables of the Project database. The main occurrence was the following: 60 drill holes (58 drill holes are DH and two drill holes are RC type) have less than 90% average recovery. Table 9-3 presents a summary of the occurrences relative to the client's procedures and those indicated in chapter 9.3.2. Figure 9-2 details the length distribution of the primary samples. No evidence was found of samples that lacked analysis above the detection limit.

Table 9-3: Summary of Occurrences in Database Verification

Table	SRK's Observations
Survey	19 non-vertical drill holes have variations in azimuth that are greater than 10° in contiguous sections.
Assay	188 samples (<1% of total) are less than 0.3 m long. 29,302 samples (31% del total) are longer than 1.5 m and up to 12 meters and 328 (<1%) samples are 3 meters long
Recovery & RQD	47 drill holes (11% of the total) have no recovery record; they belong to historical data. Drill holes "SGB23-001A" and "SGB24-001B" have no recovery record for the first 146 and 137 m, respectively. Drill holes SGB24-006, SGB24-0015, SGB24-0021 and SGB24-0029 report less than 90% average recovery and impact mantles 50 and 70, corresponding to gold envelopes with grades above 2 g/t.

Source: SRK 2024.
Note: a drill hole is considered vertical if the maximum inclination is less than -85°.

Figure 9-2: Logarithmic Histogram of the Length of Primary Samples



Source: SRK 2024.

9.3.4 Assay Cross-Validation (assay table versus laboratory certificates)

SRK conducted a cross-validation of the grades registered in the certificates corresponding to the samples analyzed by the Certimin laboratory. This evaluation covered both the primary and control samples for the years 2023 and 2024. Table 9-4 shows the data registered for the elements Ag, Au and Fe. The SRK QP is of the opinion that the data is appropriate for use in the process to estimate Mineral Resources; information on additional elements can be found in Appendix 1 Table 27-5.

- 7,102 samples were used for the elements analyzed.
- The values detected that were below the detection limit were replaced by said limit.

Table 9-4: Laboratory Cross-Validation Results

Laboratory	Element	Samples	Correct Data (%)	Observations (%)		Total Data (%)
				Values do not match	Rounding	
Certimin	Ag	7,102	100%	0%	0%	100%
	Au	7,102	99.7%	0.3%	0%	100%
	Fe	7,102	100%	0%	0%	100%

Source: SRK 2024.

Note: Two control samples (SD640523 – SD640559), for gold analysis, registry shows that the sample size is insufficient (M.I).

9.3.5 Bulk Density

The database for the San Gabriel Project contains 6,192 density samples that were analyzed by the ALS, CER, and SGS laboratories, as indicated in Table 9-5; information on other elements that were analyzed are included in Appendix 1 Table 27-6. It is important to note that the Project's internal laboratory uses Archimedes' principle for samples covered in paraffin.

Table 9-5: Bulk Density Database Summary by Source

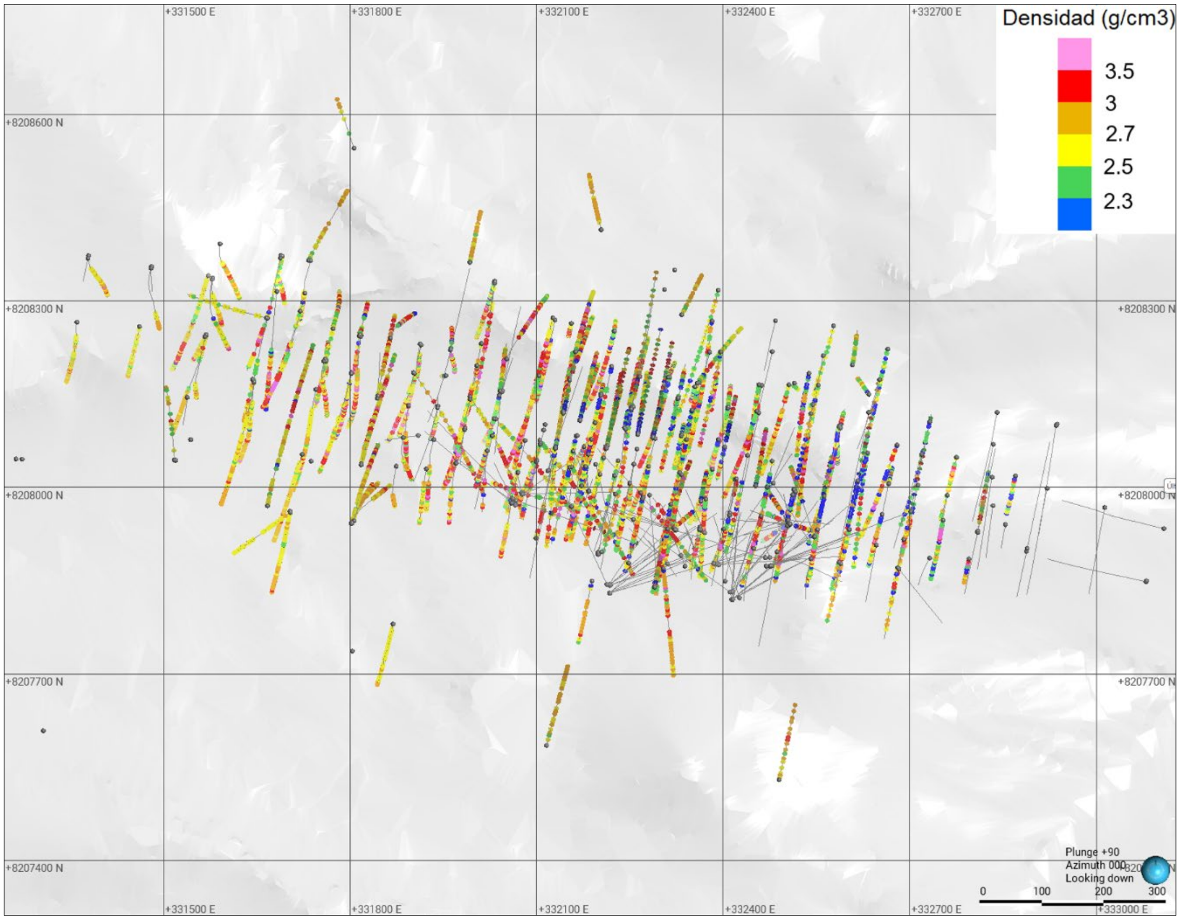
Laboratory	Year	Density Samples
SGS	2008	153
	2009	240
	2010	1,591
	2011	3,228
ALS	2009	72
	2010	92
	2019	691
CER	2023	14
	2024	111
Total		6,192

Source: SRK 2024.

All the density samples have certificates of analysis.

SRK found that 199 drill holes (45% of the total) have no density samples. The existing density samples show good spatial distribution in the areas of interest for resource estimation, as indicated in Figure 9-3. It was also found that 59 samples (1% of the total) are longer than 20 cm, which is the maximum allowed according to Buenaventura's density sampling procedure.

Figure 9-3: Plan View of Bulk Density Samples from the San Gabriel Project



Source: SRK 2024.

9.4 Limitations

This audit presents no limitations.

9.5 Opinions and Recommendations on Data Adequacy

Minor inconsistencies were detected in the process to verify data.

It was found that no recovery information was registered for 11% of the drill holes and 14% register a recovery level below 90% (the majority belong to historical data).

The samples for years prior to 2023 were reviewed in conjunction with SRK in Ausenco's preliminary FS in January 2022.

The SRK QP is of the opinion that the Project database is consistent and acceptable for use in the Mineral Resource estimation process.

The SRK QP recommends periodic monitoring and/or review of the records for recovery from drill holes given that recovery levels above 90% are considered acceptable.

The SRK QP recommends that minimum and maximum lengths for sampling procedures should be respected in future drilling campaigns.

10.0 Mineral Processing and Metallurgical Testing

10.1 Introduction

The San Gabriel orebody has a long history of metallurgical test work, dating back to 2011. This includes testing completed at the various stages of the Project, starting with the conceptual Chucapaca open pit project, through PFS and FS and post feasibility study confirmatory testing. This test work is detailed in the following sections. Recovery of copper by flotation as well as cyanidation of gold was the focus of the earlier test work; more recent work has focused on gold recovery by gravity concentration and cyanidation with minor silver as a co-product.

There has been an evolution of the geological and mineralization model from what was a predominantly replacement style mineralization with minor stockwork and breccia components to the latest geological model of monomictic and polymictic breccias. The metallurgical test work program was carried out in several phases as summarized below.

All laboratories were and are independent of SLR and Buenaventura. Laboratories used for analysis and metallurgical testing included:

- SGS laboratory in Lima (SGS Lima; primary laboratory from 2008–2017). Certificates: ISO 9001, ISO 14001, OHSAS 18001, NTP-ISO 17020, NTP-ISO 17025 and NTP-ISO 17065
- ALS laboratory in Lima (ALS Lima; primary laboratory for eight drill holes in 2009–2010, and primary laboratory from 2019 to date). Certificates :ISO 9001 and NTP-ISO 17025
- SGS Lakefield, Canada, ISO 9001, ISO 17025, NELAP (National Environmental Laboratory Accreditation Program)

10.2 Historical Test Programs

10.2.1 Chucapaca Phase

During the conceptual Chucapaca phase in 2011-2012, an extensive test work program was carried out including gravity concentration, intensive leaching, and comminution, carbon-in-leach (CIL), flotation, and sulphide concentrate characterization. This program determined the optimum grind size to be 45 µm. It should be noted that the impact on filtering the tailings and cake disposal in the Filtered Tailings Reservoir (DRF for its abbreviation in Spanish) was not considered at that time.

10.3 Mineralogical Characterization – SGS Lakefield 2017-2018

10.3.1 Mineralogy

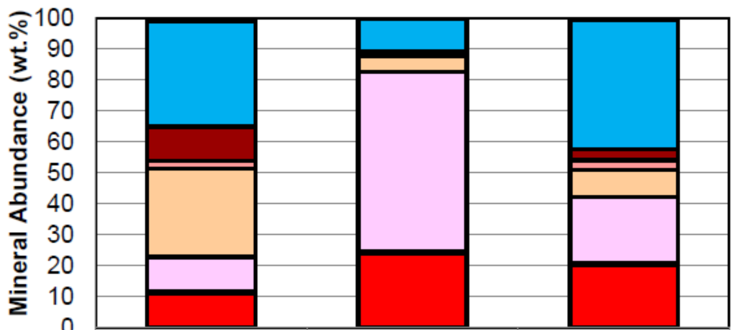
A mineralogical characterization program was carried out in 2017 by the independent SGS Lakefield laboratory in Canada which provided the foundation for the subsequent metallurgical performance predictions. At that time, the San Gabriel mineralization was classified into three main material types:

- Replacement of limestone/carbonates with ore minerals (approximately 70% of mineralization)
- Stockwork structural fracture fillings (veins)

- Breccia fracture fillings (veins)

The SGS (2018) report presents a summary of mineralogical characterization by QEMSCAN, which is graphically illustrated in Figure 10-1.

Figure 10-1: Summary of Modal Mineralogy from the QEMSCAN Analysis



	Stockworks	Brechas	ZR
Other	1.17	0.22	0.74
Siderite	34.0	10.8	41.6
Clays	11.0	1.02	3.59
Chlorites/Micas	2.57	0.15	3.28
Feldspars	28.7	5.2	8.7
Quartz	10.9	58.3	21.2
Other Sulphides	0.03	0.01	0.02
Sphalerite	0.31	0.01	0.11
Chalcopyrite	0.06	0.31	0.27
Arsenopyrite	0.24	0.19	0.24
Fe-Sulphides	11.2	23.9	20.3

Based on the SGS (2018) report, gold generally occurs as native gold and electrum, although in the stockwork type there are significant amounts of maldonite (Au_2Bi). Free gold in the range of 20% to 30% was found to occur in the replacement and breccia mineralization types, indicating the potential for gravity recovery of gold (GRG). Gold is generally encapsulated in sulphides, and approximately 10% of the gold is sub-microscopic in size, indicating a recovery cap of 90% at best. The average sulphur content is 12%, mainly as iron sulphides with minor cyanide soluble copper minerals. Carbon was identified in the sample some of which may be organic carbon with a potential to cause preg-robbing issues.

10.3.2 Variability Testing and Geometallurgical Modelling

Further work by SGS focused on initial variability testing of gravity, flotation and CIL .

A geometallurgical model was developed in 2017 based on:

- The mineralogical characterization (see Section 10.3.1)
- Comminution variability
- Variability testing of gravity, flotation and CIL
- Intensive leaching test work on gravity concentrates

10.4 Process Development for PFS and FS Stages of the Project

During 2018-2019, process optimization tests were performed to develop the process flowsheets for the PFS and FS. The main parameters included:

- Production Rate – 3,000 tpd
- Crushing
- Grinding
- Gravity separation with cyanidation of the gravity concentrates in an inline leach reactor (ILR)
- CIL cyanidation
- ZADRA carbon adsorption – desorption – regeneration (ADR),
- Electrowinning
- Drying and retorting of electrowinning precipitate
- Smelting of precipitated gold sludge to doré ingots
- Tailings cyanide detoxification using the INCO SO_2-air process
- Tailings thickening and filtration

10.4.1 Metallurgical Test Reports

The metallurgical test programs from this phase were referenced in the FS (Ausenco 2022). The main test programs included:

Buenaventura:

- Gold Deportment: 16517-001- FINAL - Report & Appendices -combined - May 7, 2018.pdf
- Variability: 16517-001 - FINAL - Report & Appendices - combined - August 10, 2018.pdf
- Grinding: Informe Final Mina Buenaventura-Proyecto San Gabriel OL_8047 with annexures.pdf – February 2018

Ausenco:

- High level process plant reviews:
  - AUSENCO Reporte Final San Gabriel_RevisionAltoNivel.pdf – June 2018
  - AUSENCO Reporte Final San Gabriel_TradeOffP80.pdf – December 2017
  - AUSENCO 102680-01-RPT-0001 - Reporte Final San Gabriel Revision Alto Nivel de Planta de Procesos.pdf – June 2018

Hatch:

- Geological Block Model Validation Report.pdf – October 2017
- PSG- Grinding Circuit Design Report-Rev-B.pdf – May 2018
- Sampling program: Reporte Programa de Pruebas Metalurgicas.pdf – February 2018

- Sample selection and preparation: Reporte Programa Seleccion y Preparacion muestras.pdf – February 2018

Laboratorio Plenge (PlengeLab):

- Gravity-flotation test work: PLENGE 17865-71 CMBSA San Gabriel Grav-Flot-CN with Annexure.pdf - February 2016
- Gravity-flotation and cyanidation of flotation tailing:
  - PLENGE 18057-58 CMBSA San Gabriel Grav-Flot-CN with Annexure.pdf – February 2016
  - PLENGE 18269-70 CMBSA San Gabriel Grav-Flot-CN with Annexure.pdf – September 2017
- Variability and Geometallurgy: PLENGE: IM18313-18362 Optimizacion NaCN and Variabilidad_Geometalurgica: PLENGE 18313- 18362_Reporte Final.pdf – October 2017

Other Investigations:

- Detoxification of CIL tailings: Bureau Veritas Report Sep 30, 15 and Review of San Gabriel SO2-Air Test work1 – September 2015
- Intensive cyanidation of gravity concentrate:
  - ILR CERTIMIN ENE2022.R17.pdf – January 2017
  - ILR Gekko August 15 Buenaventura Mineralogical 2017 Report-pdf - August 2017
  - ILR T1617 - Productos Prueba Industrial Orcopampa.pdf – October 2017

10.5 FS Test Programs (2019-2020)

The 2019-2020 test work was performed to confirm historical data and assumptions from the previous study phases, and to form the basis of the FS design. Overall gold recovery was determined to be 85% from this test work. The reports produced during this phase of work primarily concerned leach and tailings slurry rheology, filtration, sedimentation, and thickening and include (Ausenco 2022 and references therein):

- POCOCK San Gabriel SLS Report Plenge Lab.pdf (Filt-Sedimt-Thick) – January 2020
- METSO Report SP-41808 Buenaventura San Gabriel.pdf – March 2020
- PLENGE Investigación Metalúrgica No.18508 (Carbon).pdf – February 2020
- PLENGE DOE SAN GABRIEL (Ph, Diesel & Rheology modificator) – July 2020
- PLENGE Viscosidad.pdf – November 2020
- PLENGE 18508 CMBSA Filtrado y Proctor.pdf – September 2020
- PLENGE 18508 CMBSA Filtrado.pdf – September 2020
- PLENGE 18508 Composito D 041120 cambio de pH y presion.xlsx – October 2020
- PLENGE 18508 San Gabriel Composito D Filtrado presión.xlsx – August 2020
- PLENGE Correo Pruebas de Filtracion (12-Aug-2020) – August 2020
- PLENGE 18508 San Gabriel VISITA DIEMME.pdf – September 2020

10.6 Subsequent FS Studies (2021)

The objective of the ongoing studies and laboratory test work performed during 2021 was to confirm the FS design parameters, particularly related to tailings characterization. It also included a variability test program for the development of a revised geometallurgical model, mine plan, and production schedule. The revised model defined two new mineralization types; monomictic and polymictic breccias, replacing the previous material types that included replacement with minor stockwork and breccia components. The key reports for this work were:

- PLENGE 18599 CMBSAA San Gabriel Final.pdf – Variabilidad Cianuración – Destrucción de Cianuro – Sedimentación – and annexure - October 2021 (PlengeLab 2021)
- Golder Associates Perú S.A. (Golder) Informe - Caracterización Geotécnica del Relave de la Planta San Gabriel – August 2022
- Transmin SGAB (Transmin) Au recovery 2021-08-03 Rev A 2021-08-05.pdf (Transmin 2021a)
- Transmin Au Ag recovery models 2021-08-11.pdf (Transmin 2021b)
- Transmin Comminution and Viscosity Geometallurgical Models (Transmin 2022a and b)
- AGNITIA Prog Prod SG 2021NV4620-Final-V2.xlsx – September 2021 (Agnitia 2021)

10.6.1 Sample Selection and Metallurgical Testing

After the completion of the FS in 2020, a new geological model was developed based on the reinterpretation of the deposit lithology; no additional drilling data or geochemical assays were included. A metallurgical sampling campaign was completed by Buenaventura using existing stored drill core samples. A total 5,655 kg and 1,325 m of drill core as detailed in the log sheet "Listado de Sondajes en Ransa_FERZEB JCL JRLT Final AM.xlsx" dated March 2, 2021 were used for testing and ultimately the Transmin Geometallurgical Model.

The samples were transferred to the laboratory PlengeLab in Puente Piedra – Lima, for metallurgical test work according to the defined testing protocol (March 17, 2021) with two objectives:

- Stage 1: Generation of tailings samples for geotechnical, geomechanical, and geochemical tests.
- Stage 2: Confirmation of the Process Flow Diagram, recoveries of Au and Ag and risk reduction where all areas of the flowsheet were tested, particularly during the initial years of operation, taking into account the revised geological model.

For this metallurgical test work campaign, samples were classified as a function of the new geologic model which presents a general lithological domain called breccia (monomictic and polymictic conglomerates).

10.6.1.1 Stage 1 – Tailings Characterization

Laboratory test work was undertaken at PlengeLab. The generated tailings were then used for geotechnical, geomechanical, and geochemical testing by Golder. The following reports on tailings characterization were produced for this work.

- Caracterization de Relaves San Gabriel, July 2021

- Caracterizacion de Relaves San Gabriel, Golder, August 2021
- Final report of Golder: Caracterización Geotenica del Relave De La Planta San Gabriel [Geotechnical Characterization of the San Gabriel Plant Tailing], (Golder 2022).

The reports included sedimentation and filtration results which are being used for the design of the pre-leach and tailings thickeners and supplementing previous test work performed by PlengeLab and Pocock Industrial, Inc. (Pocock 2020) . The final report also presents partial geochemical test results and partial geotechnical tests results for filtration, to supplement the previous work by PlengeLab, Pocock, and Golder. Additional vendor test work was performed by:

- FLOWROX
- METSO-OUTOTEC
- MATEC

The objective of the test work was to obtain dry filtered solids using the filter's compressed air cake drying capability The target moisture for dry stacking of the tailings is 14% H_2O. This test work was performed during September through October 2021 and was used for the final design of the Project filters.

10.6.1.2 Stage 2 – Process Validation and Variability Program

Stage 2 of the test work was performed to validate the process flow diagram and the gold and silver recoveries. These results were used to develop the Project's geometallurgical model. These findings are summarized in Transmin's reports: "SGAB Au recovery 2021- 08-03" and "SGAB Au Ag recovery models 2021-08-11" (Transmin 2021a and b).

Sample Representativity

Samples from 2017 to 2021 were used for the modelling as follows:

- 162 samples for recoveries:
  - 27 from 2017 tests
  - 135 from 2021 tests
- 109 samples for Bond Ball Mill Work Index (BWi)
  - 86 from 2011-2017 tests
  - 23 from 2021 tests
- The samples were analyzed by Transmin to assess their representativeness, considering main features:
  - Au, Ag, Fe, Cu, S, As
  - Lithology
  - Alteration type and intensity
  - Mineral composition
  - Structure style and type

The process flowsheet considered was gravity-CIL.

The samples used for the determination of the BWi were correlated with ore elements to have a BWi predictor for the ore to be mined.

10.6.2 Gold Geometallurgical Model

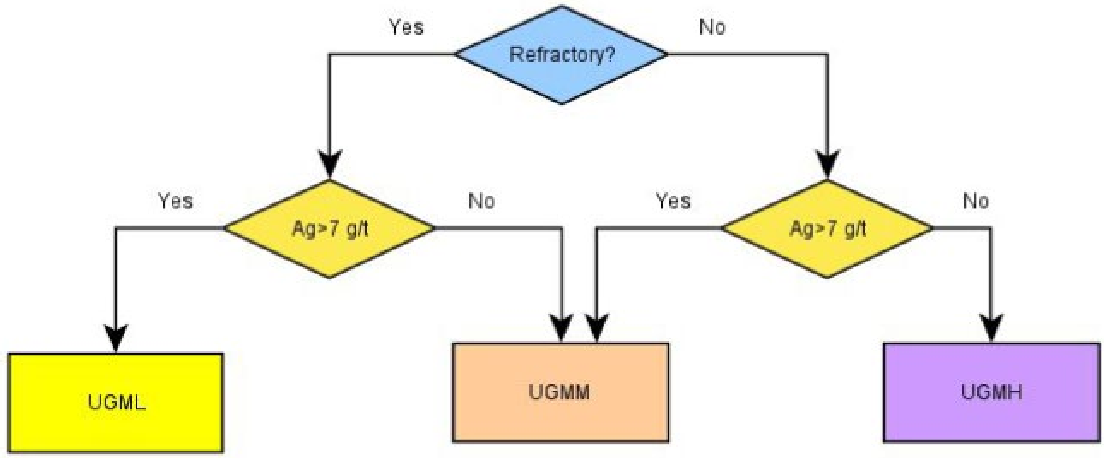
Transmin found through multielement correlations that the silver grade, above or below 7 g/t, defined the three geometallurgical domains (UGMs) summarized in Table 10-1 and Figure 10-2. UGMH is high gold recovery, UGMM is medium gold recovery, and UGML is low gold recovery or refractory. The geometallurgical domains have evolved from the initial replacement, stockworks, and breccia mineralization types to the latest classification introduced by Transmin on August 11, 2021.

The LOM plant production plan was revised using the Transmin Geometallurgical Model. The LOM plan is divided into two stages. The first stage prioritizes mining in the south zone of the orebody. The second stage mines both the south and north zones until the end of the LOM. The ore distribution in the LOM plan is also presented in Table 10-1.

Table 10-1: Revised Geometallurgical Gold Domains

Domain as per Transmin 2021	Tonnes (Mt)	Algorithm	% Ore	Au %Rec.
Zone				
South			61%	
North			39%	
Gold				
UGMH	11.86	Normal, Ag <= 7 gpt	49.2%	88%
UGMM	11.68	Remainder	48.4%	83%
UGML	0.58	Refractory, Ag > 7 gpt	2.4%	70%
Total/Average	24.12		100%	86
Silver				
Hi Ag	14.6		60%	50%
Low Ag	9.66		40%	37%
Total/Average	24.12		100%	45%
Source: Transmin 2021.				

Figure 10-2: Definition of Gold Geometallurgical Units (UGMs)



Source: Transmin 2021.

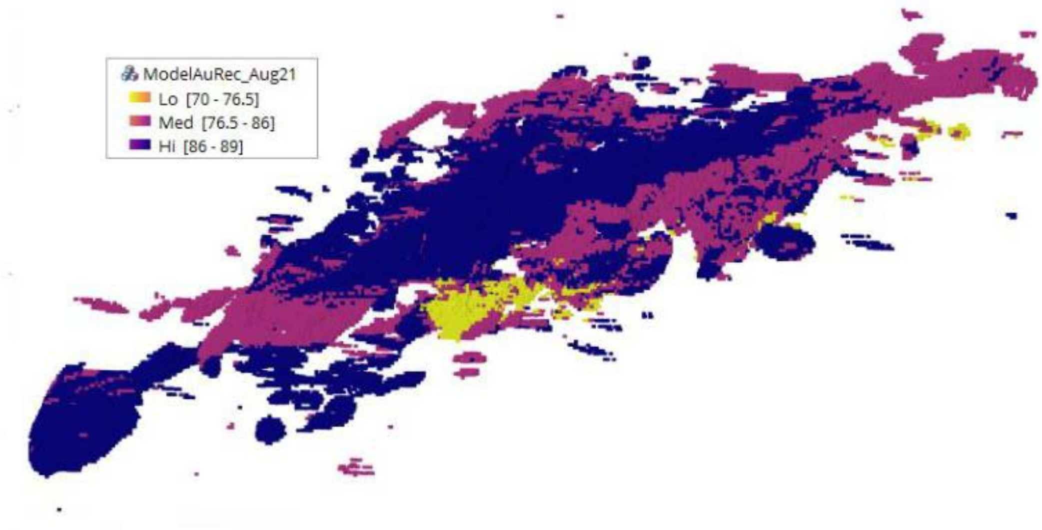
The defining characteristics of the ore types or UGMs include:

- UGMs defined based on the degree of refractoriness, silver grade, and gold recovery.
- High sulphur minerals, 12% on average, with the presence of cyanide-consuming sulphides such as pyrrhotite, marcasite, elemental sulphur, and cyanide-soluble copper (to a lesser degree).
- Presence of carbonaceous material (preg-robbing) of organic origin that can cause gold loss in the leaching process (CIL).
- Variability in hardness by type of ore.

The mineralogical characterization of ore from the San Gabriel Project was carried out at SGS Lakefield-Canada in 2017 and the results are presented in Section 10.3.1.

The gold recovery model projection is presented in Figure 10-3.

Figure 10-3: Gold Geometallurgical Model

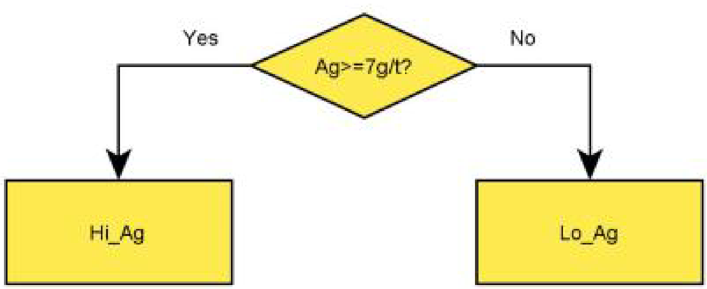


Source: Transmin 2021.

10.6.3 Silver Geometallurgical Model

As per the gold correlation, the geometallurgical silver domains can be represented by silver grades above and below 7 g/t. This is summarized in Figure 10-4.

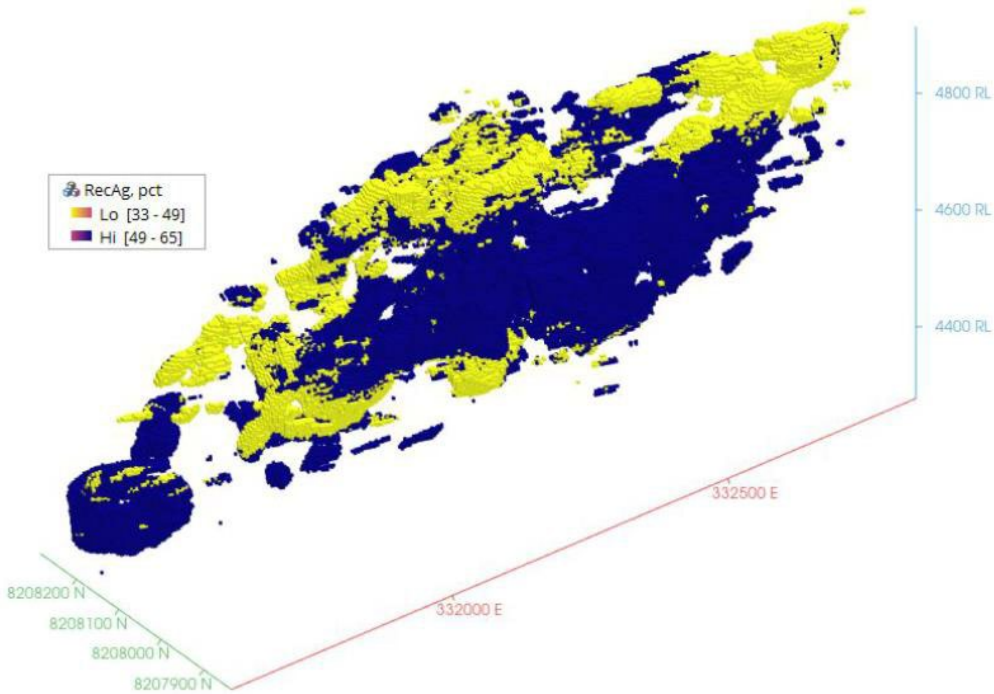
Figure 10-4: Rational for Silver Domaining



Source: Transmin 2021.

The silver recovery model projection is presented in Figure 10-5.

Figure 10-5: Silver Geometallurgical Model



Source: Transmin 2021.

10.6.4 Ore Characteristics

The values used for process design correspond to the percentile 75% (Pct75) of the experimental values or the arithmetic average of samples when the Pct75 is not applicable, as is in the evaluation of recoveries and average grades.

Table 10-2: Ore Characteristics

Description	Value
Specific Gravity (design) SG	3
Bulk Density (design)	Range 1.70 – 1.90, Nominal 1.80
Ore Moisture (ROM) Average	2% to 5%, 5% is used for run-of-mine (ROM) ore design
Au grade (LOM): Average	3.71 g/t (Mine Plan Section 13-6)
Ag grade (LOM): Average	6.32 g/t (Mine Plan Section 13-6)
Cu% (LOM): Average	0.05%
S% (LOM Zona Sur): Average	11.90%
As ppm (LOM Zona Sur) Average	691
Source: Ausenco 2022.	

10.6.5 Comminution

Table 10-3 presents the 75th percentile comminution parameters for the original mineralization types, replacement, stockwork, and breccias.

Table 10-3: Ore Comminution Parameters

Description	Unit	Value
CWi Crushing Work Index Design, (Pct75)	kWh/t	16.2
SPI (Design Pct75)	min	37.6
JK Axb		75
BWi Bond Ball Mill Work Index (Design Pct 75)	kWh/t	16.3

In summary, the San Gabriel material is of low competency for semi-autogenous (SAG) milling but in the hard range for ball milling. A SAG-ball milling circuit (SAB) circuit is indicated, with no requirement for pebble crushing.

The total number of samples tested was 70 and the supporting test work performed was reported in PlengeLab (2021).

10.6.6 Gravity Concentration

Based on the latest results for gravity recovery from PlengeLab, using the size distribution expected from the hydrocyclone underflow, 80% passing (P_{80}) 296 µm, results in a gravity recovery of 13.7% for gold and 1.7% for silver. In all cases, the mass recovery was 0.5%.

Intensive cyanide leach tests on gravity concentrates achieved 97% recovery in 12 hours leaching time, increasing slightly if the leaching time was extended to 24 hrs (PlengeLab 2021).

10.6.7 CIL Cyanidation

A set of 137 CIL tests and 27 gravity gold recovery plus CIL leaching of the gravity tails tests, on 164 individual drill core interval samples, were performed by PlengeLab (2021) in support of the Ausenco FS (2022). The results of the tests are presented in Table 10-4, Table 10-5, and Figure 10-6 to Figure 10-8.

The gravity plus CIL tests achieved overall recoveries ranging from 53.6% to 89.6%, with an average gold recovery of 79.37% and a 75th percentile gold recovery of 85.2%. The highest recovery was with the breccia ore type. There was little gain in recovery with cyanide addition beyond 1.5 kg/t; however, pre-aeration for eight hours did result in an additional 2% recovery.

The results of the CIL leach tests without gravity recovery ranged from 41.9% to 94.9% with an average gold recovery of 86.7% and a 75th percentile gold recovery of 91.4%. It should be noted that the gold grade of the CIL samples averaged 5.2 g/t Au and the gravity CIL samples averaged 3.1 g/t Au. TOC in the CIL averaged 0.68% TOC and in the gravity CIL averaged 0.54% TOC.

Pre-aeration consists of the injection of oxygen (O_2) into three agitated tanks in series for a retention time of approximately eight hours prior to the addition of cyanide. CIL test results relating to the effect of the pH on the slurry rheology indicate a lowering of the leaching pH to

10.5 and increasing the cyanide addition to 1.7 kg/t. The design pre-aeration retention time is 8 hours and the CIL leach retention time is 18 hours, using oxygen sparging in all tanks.

Design recovery for the gravity-CIL circuit is 86.5%, which is in accordance with mineralogical expectations, i.e., 95% practical recovery of the 'recoverable' gold (excluding sub-microscopic material) would yield 86%. Using the mine modelling from Agnitia (2018, 2021), and discounting the GRG (GRG of 25%), the design recovery value for the CIL circuit resulted in a CIL Au recovery of 82%.

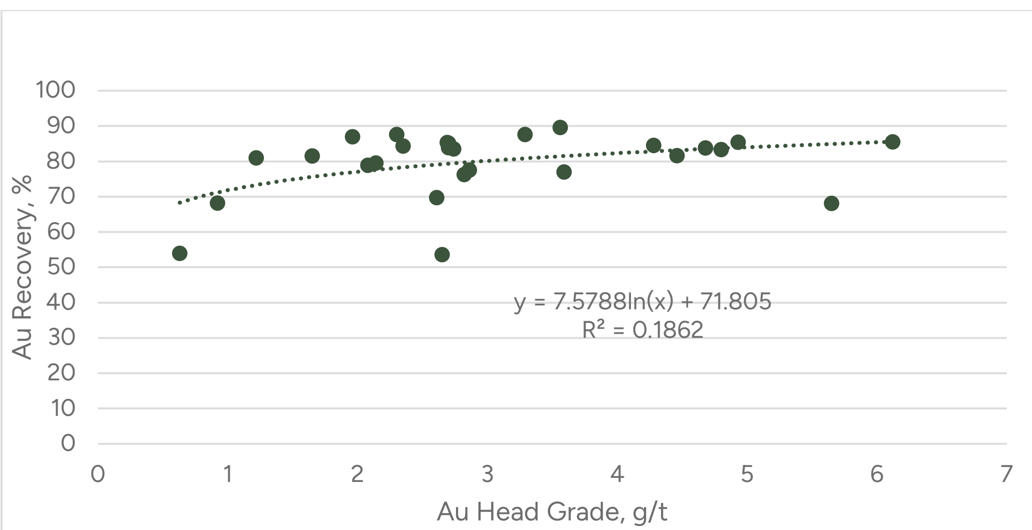
Table 10-4: Results of Gravity – CIL Leach Tests

Gravity CIL Leach	CIL Calc Head, g/t	Au/TOC	Overall Au Rec, %	Overall Ag Rec, %	TOC, %
Gravity CIL Average	3.05	9.20	79.37	47.86	0.54
Max	6.12	26.90	89.60	83.50	2.01
Min	0.63	1.34	53.60	15.90	0.16
75th Percentile	3.94	14.11	85.20	62.45	0.76

Table 10-5: Results of CIL Leach Tests

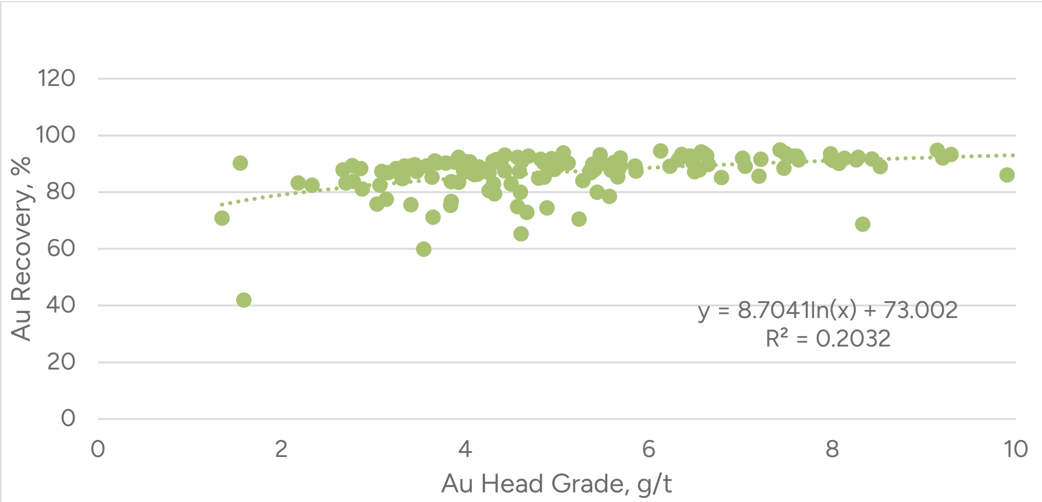
CIL Leach	CIL Calc Head, g/t	Au/TOC	Overall Au Rec, %	Overall Ag Rec, %	TOC, %
Average	5.20	28.38	86.73	46.51	0.68
Max	15.46	92.03	94.90	93.10	61.88
Min	1.35	0.16	41.90	19.10	0.08
75th Percentile	6.47	38.86	91.40	54.73	0.25

Figure 10-6: Gold Head Grade versus Gravity-CIL Leach Gold Recovery



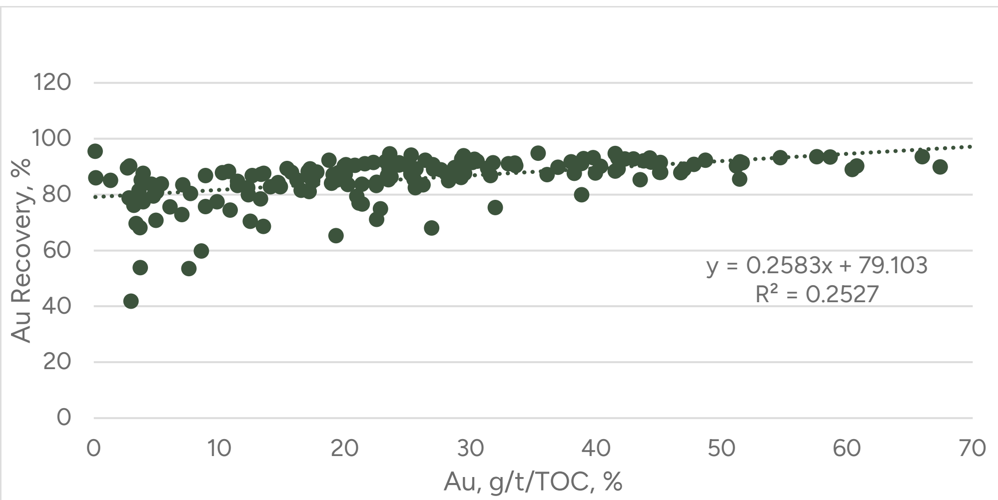
Source: PlengeLab 2021.

Figure 10-7: Gold Head Grade versus CIL Leach Gold Recovery



Source: PlengeLab 2021.

Figure 10-8: Gold Grade/Total Organic Carbon versus Gravity-CIL Leach Gold Recovery



Source: PlengeLab 2021.

10.6.8 Cyanide Destruction

Cyanide destruction testing was performed using the SO_2 - Air process, using sodium metabisulphite, ferrous sulphate, oxygen and copper sulphate, achieved low levels of both weak acid dissociable cyanide (CN_{WAD}) and total cyanide (CN) with addition of reagents:

Table 10-6: Reagent Consumptions – Destruction

Reagent	Consumption
Sodium Metabisulphite (SMBS)	2.29 kg/t
Oxygen (92% O_2)	1.1 kg/t
Copper Sulphate $CuSO_4$	0.07 kg/t

Cyanide detoxification laboratory test work by PlengeLab indicated faster reaction rates using oxygen instead of air. Oxygen is more costly but requires a smaller volume and is more efficient as demonstrated in PlengeLab's Trade-off Study (PlengeLab 2020).

10.6.9 Dewatering Tests

The sedimentation parameters for sizing the pre-leach thickener remain as per the FS, including an underflow density of 45% solids and a specific area of 0.144 $m^2/(t/d)$, equivalent to a 24 m diameter thickener.

Sedimentation test results for the final tailings thickener indicated an underflow density averaging 55% solids and a thickener specific area of 0.22 $m^2/(t/d)$, equivalent to a 30 m diameter thickener. Further developments due to high viscosity indicate the use of a lower percentage of solids in the thickener underflow from 55% to a nominal value of 47% (range 45% to 50%) detected in the variability study by PlengeLab (2021).

Filtration tests resulted in a specific filtration rate of 0.44 $m^2/(t/h)$ producing a filter cake of 20% moisture. This moisture is higher than the current geotechnical requirement of 14% moisture for final disposal in the DRF.

The higher filtered tailings moisture results with respect to geotechnical requirements requires the addition of laydown areas for natural air drying to reduce the moisture of the filtered tailings.

Options for reducing the filter cake moisture beyond additional air drying to meet the geotechnical requirements include:

- Addition of surfactants.
- Additional filter tests to investigate final moisture versus filtering pressure.
- Cake blowing with compressed air through filter plates.
- pH adjustment on final filtering stages to reduce viscosity and water retention.
- Trade-off studies comparing filter cake drying areas versus air blowing time.

10.7 Metallurgical Design Basis

10.7.1 Plant Design

The plant design includes the following unit operations:

- Primary jaw crusher
- SAB circuit with no pebble crusher.
- Gravity concentration with intensive cyanidation of gravity concentrate using Inline Leach Reactor (ILR)
- Pre-leach thickener to condition the slurry in both pH and % solids
- Pre-oxidation of leach slurry with O_2 injection
- Cyanide leaching with CIL configuration
- Cyanide destruction with SO_2-Air process, using O_2 and SMBS
- Tailings thickening
- Pressure filtration

- Filter cake air drying
- Transport of filter cake by trucks
- Natural drying areas for filter cake
- Dry-stacking

10.7.2 Auxiliary Equipment

- Oxygen to be used in CIL and cyanide detoxification.
- Water treatment plant (PTARI) for the mine effluents.
- High density sludge (HDS) treatment plant using lime/limestone for pH control, ultrafiltration, and reverse osmosis to treat a fraction of the recycled water to obtain suitable water for reagent preparation and water release to the environment as per environmental permits. The plant will consist of a number of modules to provide flexibility for the treatment of mine effluents in the flow range of 5 L/s to 40 L/s.

10.7.3 General Operating Parameters

The general design basis is:

- Throughput 3,000 tpd
- Operation 365 days per year
- Primary crusher availability 70%.
- Overall plant availability 92%, yielding annual throughput of 1.095 Mtpa
- LOM head grade 4.04 g/t Au and 6.44 g/t Ag
- LOM recovery of 85.35% (nominal) and 86.7% (design) for gold
- LOM recovery of 44.56% (nominal) and 48.2% (design) for silver

10.7.4 Other Design Considerations

Ore contains preg-robbing organics prompted the development of a special strategy for the addition of active carbon to the CIL circuit. Usually, the CIL process feeds activated carbon in the last of the CIL tanks, from where it is moved in a counter-current direction to the slurry to the first tank, where it is collected as “loaded carbon”. Due to the preg-robbing ore, the San Gabriel strategy is to add additional fresh activated carbon in tanks 1 and 2 to compete strongly with the preg-robbing organics. As the counter-current moving carbon is already loaded from the final tanks, its capacity for competing with the preg-robbing material is reduced.

The ore presents some rheological challenges under alkaline pH and high percent solids conditions: The design considers a near neutral (pH 7) milling process using the pre-leach thickener overflow for water addition in the grinding circuit to isolate the milling and CIL circuits.

The recoveries obtained in the variability test (PlengeLab 2021) are scaled up using a unitary factor as recommended by best practices using bottle roll test work, for the cyanide leaching of gold ores. The samples used for the variability tests were individual core intervals.

10.7.5 Deleterious Elements

The main deleterious elements in the San Gabriel mineralization are organic carbon that has the potential to adsorb gold and silver from the leach solutions, and sulphide minerals such as pyrrhotite that may contribute to high cyanide consumption. The process uses CIL cyanidation to counter the naturally occurring organic carbon.

10.7.6 QP Opinion

It is SLR's opinion that the metallurgical test work completed by San Gabriel, as reported in this Section is sufficient for the FS level of study, however the information provided only included FS and some post FS test work and design information. SLR was not provided with any detailed engineering, procurement and construction information for the preparation of this report. It is understood that detailed engineering has been completed, and the process facilities are approximately 65% constructed.

11.0 Mineral Resource Estimates

11.1 Key Assumptions, Parameters, and Methods

Using the database provided by Buenaventura, which has a closing date of August 30, 2024, Buenaventura conducted the Mineral Resource estimate for San Gabriel. The Mineral Resources are reported as of December 31, 2024.

The San Gabriel Mineral Resource estimation process was carried out by Buenaventura. It should be noted that the results presented by Buenaventura have been validated by SRK. Below is the list of software used by Buenaventura and SRK, and their respective responsibilities.

Buenaventura used Leapfrog Geo®, Supervisor® and Vulcan® to generate the geological model; conduct a geostatistical analysis for the elements to be estimated; and build the block model and estimate the grades respectively.

SRK used the same combination of software to generate the mineralization and alteration models; conduct the geostatistical analysis and estimate grades of Au, Ag, Cu, Pb, Fe, Sb and S; and generate the Mineral Resource report.

For the resource model, SRK followed the following steps:

- Database compilation and verification.
- Review of the construction of the lithological model.
- Definition of estimation domains.
- Top Cut, composition and High Yield restriction for geostatistical analysis and interpolation.
- Data modelling and grade interpolation.
- Classification and validation of Mineral Resources.
- Mineral Resource declaration under the basis of the reasonable prospects of economic extraction (RPEE)

The following sections describe the methodology, procedures, and key assumptions considered for the Mineral Resource estimation of San Gabriel.

11.1.1 Geological Domains and Modelling

The geological model developed at San Gabriel, which includes a geological model, was built to integrate the information and support the Mineral Resource model.

The model was developed in Leapfrog Geo software (v 2024.1.1) and incorporates a variety of geological information including:

- Geological database (lithology).
- Geological maps.
- Drilling data.
- Interpreted polylines.

The lithological model was developed by the Buenaventura geology and resources team and was validated by SRK.

The extension of the Project in which the Lithological Model was generated used the following coordinates (Table 11-1):

Table 11-1: Coordinates that Limit the Models (lithological, alteration and mineralization)

	Minimum (m)	Maximum (m)
East	331,236	333,164
North	8,207,441	8,208,673
Elevation	4,090	5,080
Source: SRK 2024.		

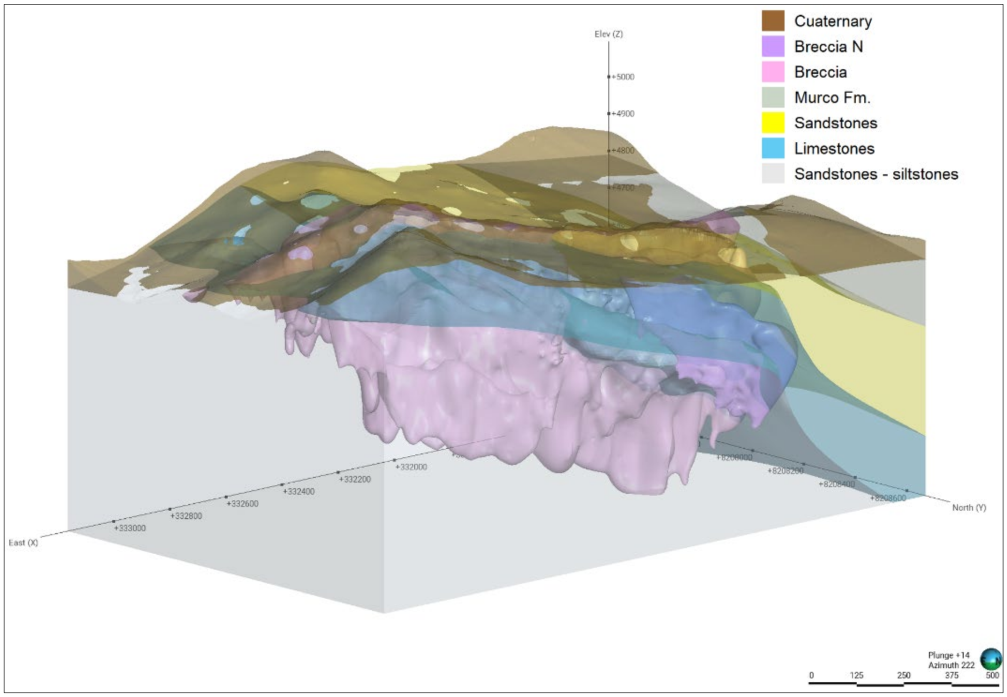
11.1.1.1 Lithological Model

The Lithology model audit prepared by the Buenaventura team consisted of a three-dimensional (3D), sectional, and conceptual inspection of the solids. Recognition of relationships, temporality and continuity of events was carried out. A Refined Model was created based on the Breccia domain to provide detail on the three types of breccia that are limited by this lithology; the breccias utilized were the monomictic, polymictic and phreatomagmatic breccias.

Economic mineralization of Au is controlled by the NW-SE and NE-SW system. The Canahuire Sur fault controls the monomictic, polymictic and phreatomagmatic breccias that contain mineralization. The East and West faults border the far corners of the breccia (Figure 6-3).

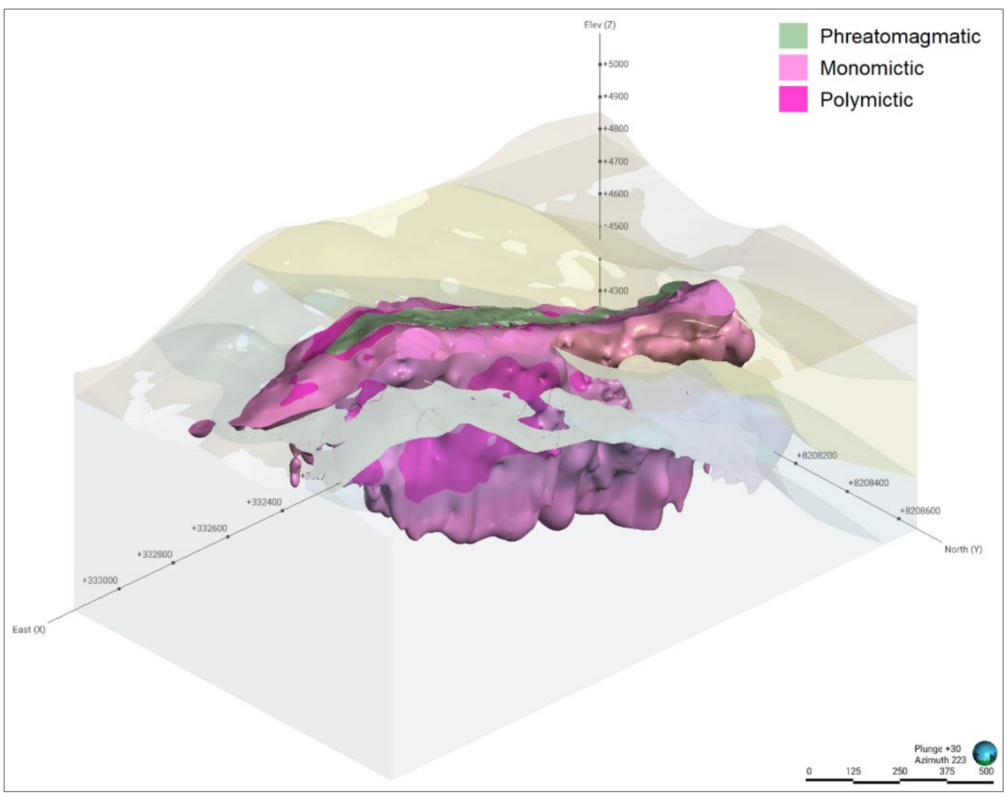
Figure 11-1 shows an isometric view of the lithological model developed by Buenaventura and Figure 11-2 presents the three breccias defined based on the initial Breccia lithology.

Figure 11-1: Isometric View of the Lithological Model



Source: SRK 2024.

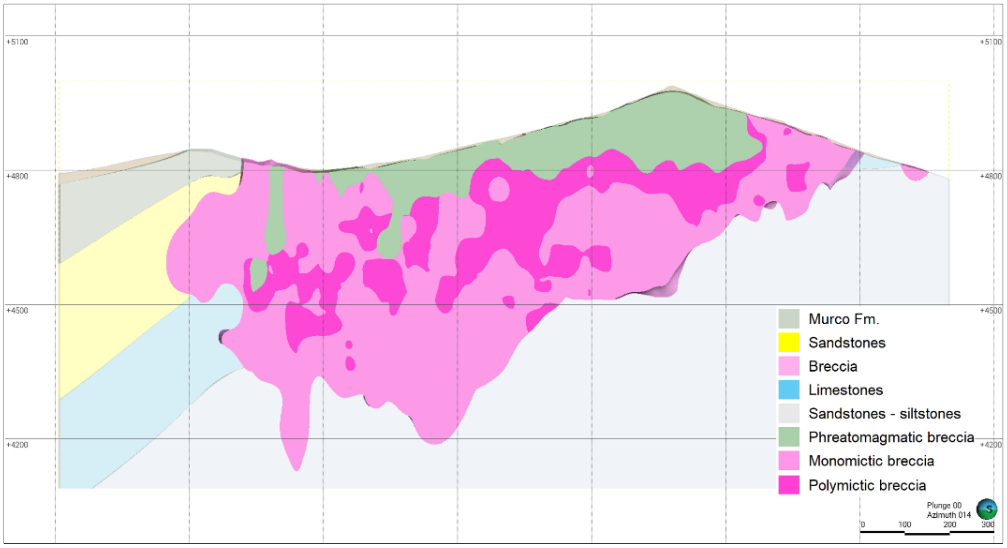
Figure 11-2: Breccias Modelled in a Refined Model



Source: SRK 2024.

In general, San Gabriel's lithological model demonstrates geological continuity and coherence; has a good correlation with the input information; and demonstrates cross-sectional relationships that correspond to the events represented. All these characteristics are evident when viewing the model in a NW-SE section (Figure 11-3).

Figure 11-3: NW-SE Central Section of the San Gabriel Lithology Model



Source: SRK 2024.

11.1.2 Estimation Domains

Based on geological information, Buenaventura differentiated seven main domains. The estimation domains were limited to monomictic and polymictic breccia and utilized grade shells of 1 g/t Au (A calcareous-clastic horizons).

The project's diamond drilling data includes systematic chemical sampling of 42 elements. In advanced stages of the project, the relevance of TOC was identified to delineate the carbonaceous horizons (B1, B2 and B3). These horizons divide sectors of economic mineralization in the deposit and present low metallurgical recovery of gold.

The limited number of samples with TOC data from recent diamond drilling campaigns (2023 and 2024) prevented from adequately modeling the full extent of the B horizons. Therefore, Buenaventura predicted the TOC using Machine Learning algorithms based on systematically sampled and logged variables.

Based on these predictions since 2023, carbonaceous horizons were defined. These horizons have lower Au grades compared to the A horizons and show higher values of TOC (Table 11-2).

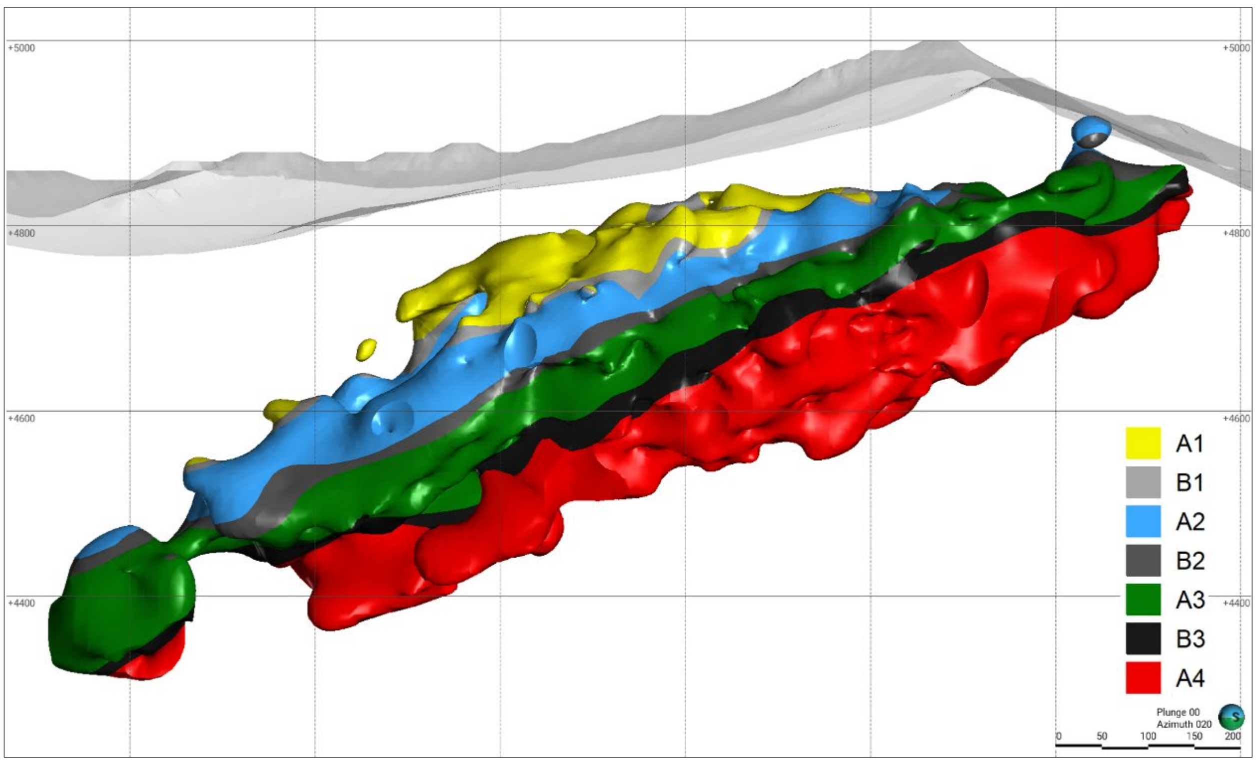
Buenaventura generated two grade shells of Au of 2 g/t for domains A3 and A4, which are named 5011 and 7011.

Figure 11-4 and Figure 11-5 present a view of the NW-SE section of the estimation domains and the grade shells.

Table 11-2: Domain Codification

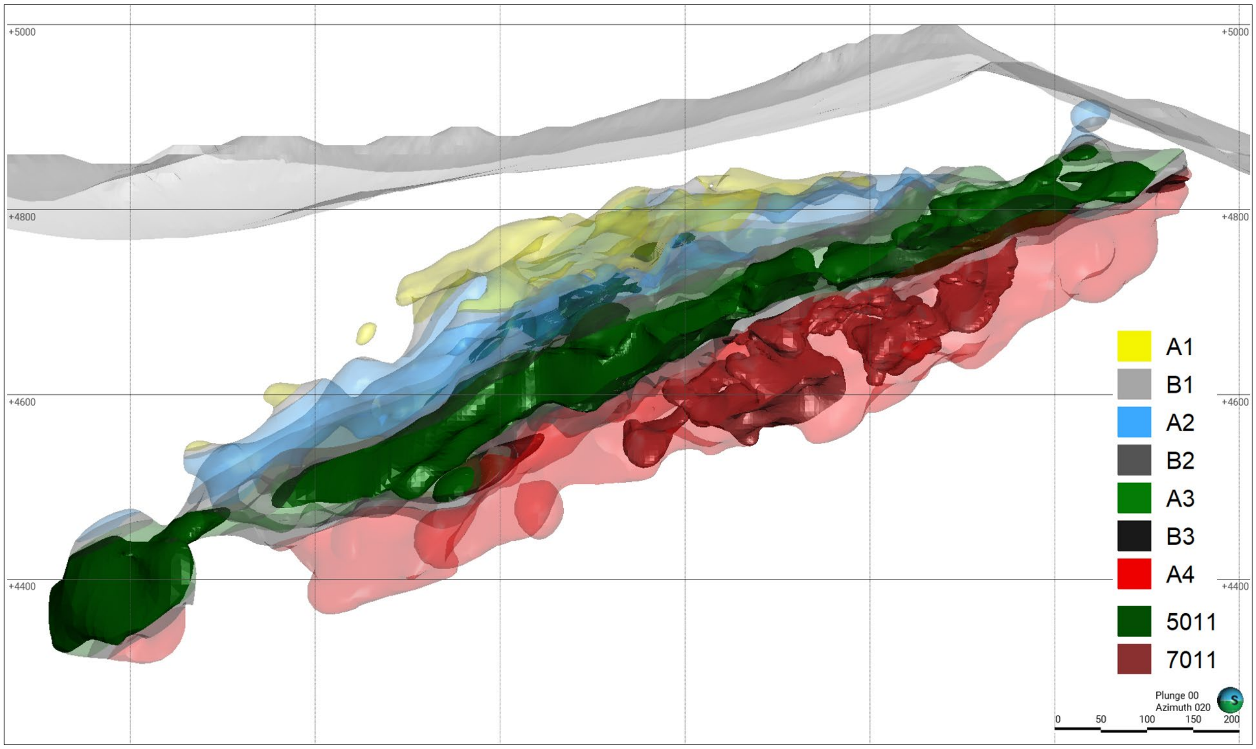
Domain	Codification
A1	10
B1	20
A2	30
B2	40
A3	5010
	5011
B3	60
A4	7010
	7011
Source: SRK 2024.	

Figure 11-4: NW–SE Section View of the San Gabriel Estimation Domains



Source: SRK 2024.

Figure 11-5: NW–SE Section View of the San Gabriel Estimation Domains Highlighting the Grade Shells 5011 and 7011 from Domains A3 and A4, respectively



Source: SRK 2024.

11.1.3 Available Data

The database used to generate the geological model and the Mineral Resource estimation contained information from 444 drill holes (137,283 m) and included collar, survey, assay, lithology, and density information tables.

Table 11-3 summarizes the general statistics of the Au, Ag, and Fe samples from the San Gabriel area.

Table 11-3: Statistical Summary of the San Gabriel Database

Element	Samples	Mean	Min.	Max.	CV	SD
Au (ppm)	94,294	0.94	0.01	3,020.60	14.26	13.38
Ag (ppm)	94,294	6.19	6.19	2,894	2.80	17.32
Fe (%)	94,294	10.54	0.01	55.01	0.78	8.20

Source: Buenaventura 2024.

Note: The information of selected elements was included, for the remaining elements, please refer to Appendix 2 Table 28-1.

11.1.4 Exploratory Data Analysis

The estimation database provided by Buenaventura only includes information from surveys that were used to estimate Mineral Resources; these surveys have been differentiated by estimation domain. Table 11-4 summarizes initial statistics on data by estimation domain.

Table 11-4: Summary of Assay Data Statistics According to Estimation Domain

Element	Domain	Total Samples	Min.	Max.	Mean	SD	CV	Variance
Au (g/t)	1010	2,569	0.01	19.35	1.59	1.70	1.07	2.90
	2010	807	0.01	9.19	0.90	1.05	1.17	1.11
	3010	7,150	0.01	196	2.10	4.77	2.27	22.72
	4010	1,845	0.01	36.97	1.05	1.80	1.72	3.24
	5010	4,608	0.01	96.75	1.25	2.63	2.10	6.91
	5011	4,948	0.01	731	4.83	12.63	2.62	159
	6010	1,961	0.01	42.37	0.96	2.37	2.47	5.62
	7010	4,396	0.01	736	1.89	14.47	7.67	209
	7011	1,837	0.01	3,020	9.18	88.46	9.64	7,826
Ag (g/t)	1040	2,569	0.02	175	9.77	15.00	1.54	225
	2040	807	0.13	56	5.87	7.23	1.23	52.29
	3040	7,150	0.01	440	7.22	10.83	1.50	117
	4040	1,845	0.01	1,393	8.04	38.47	4.79	1,479
	5040	9,556	0.01	440	7.48	14.17	1.89	200
	6040	1,961	0.01	219	3.89	9.69	2.49	93.90
	7040	6,233	0.01	1,292	6.20	19.07	3.08	363
Fe (%)	1030	2,569	0.48	43.47	11.29	6.37	0.56	40.15
	2030	807	0.60	43.49	10.81	7.97	0.74	63.58
	3030	7,150	0.19	45.81	18.07	10.06	0.56	101
	4030	1,845	0.61	43.10	12.11	8.33	0.69	69.34
	5030	9,556	0.50	46.08	18.06	8.18	0.45	66.94
	6030	1,961	0.75	43.60	8.32	5.16	0.62	26.58
	7030	6,233	0.99	40.37	13.72	4.35	0.32	18.93

Source: Buenaventura 2024.

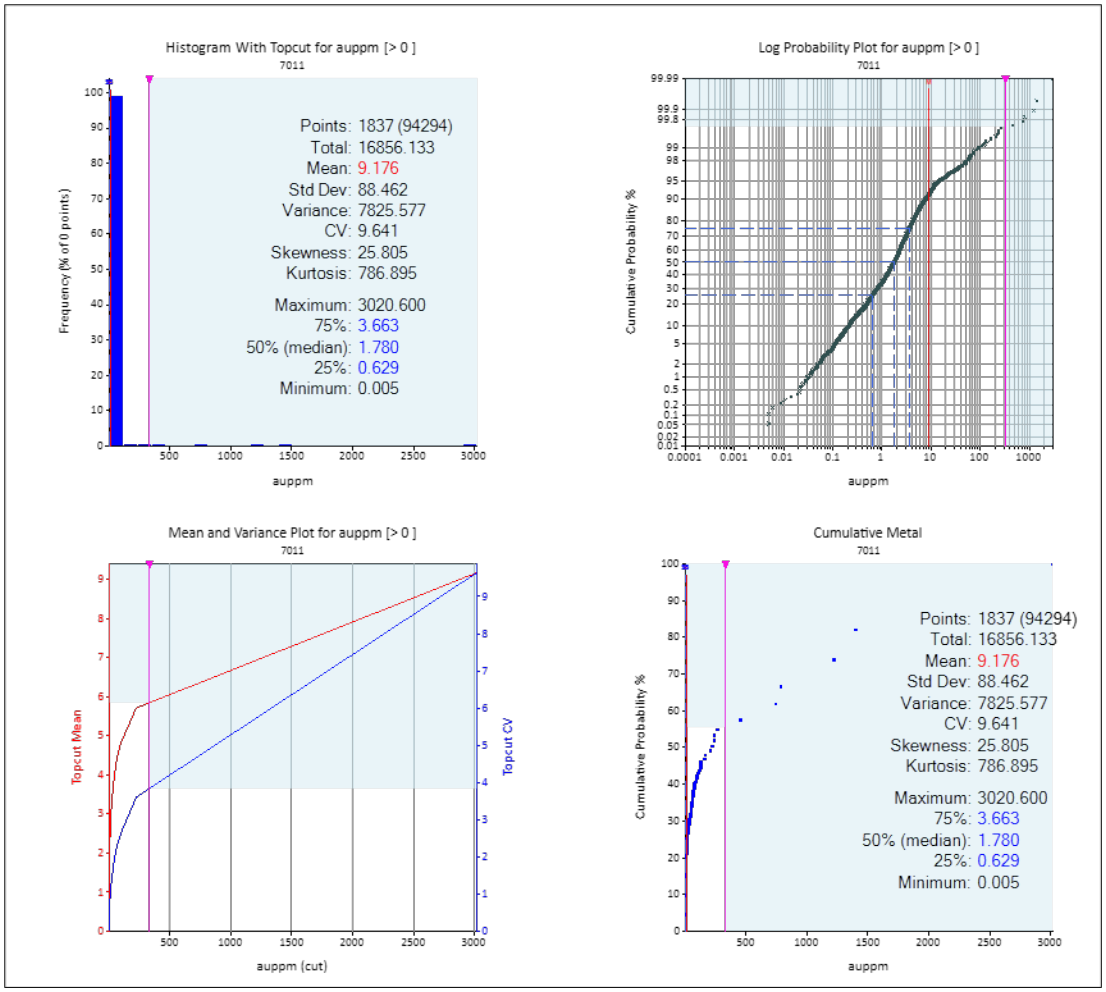
Note: The information of selected elements was included, for the remaining elements, please refer to Appendix 2 Table 28-2.

11.1.5 Capping and Compositing

Atypical values and their influence on average grades within each estimation domain are evaluated with log probability plots. This analysis entails a visual interpretation of the probability curve, grade distribution, percentiles, and coefficient of variation (CV); losses of metal content do not exceed 5%. Domains 7010 and 7011 present a much higher metal content reduction due to the fact that the capped values correspond to outliers reaching values of 736.2 ppm and 3,020.6 ppm, respectively (Table 11-5).

Figure 11-6 provides the histogram, cumulative probability curve, mean and variance, and metal content probability curve plots developed for Au (ppm) for the 7011 domain. Table 11-5 presents the statistics of capped samples by domain for the Au, Ag and Fe elements.

Figure 11-6: Cumulative Probability Curve for the Evaluation of Au (g/t) Capping in Domain 7011



Source: Buenaventura 2024.

Table 11-5: Statistics of Capped Samples for Au (g/t), Ag (g/t) and Fe (%) Applied by Estimation Domain

Element	Domain	Total Samples	Mean	Capping	N° Samples Capped	% Metal Content Reduction	CV
Au (g/t)	1010	2,569	1.58	9.5	10	0.8	1.02
	2010	807	0.88	4.8	10	2	1.09
	3010	7,150	2.03	38	12	3.4	1.67
	4010	1,845	1.03	13	4	1.8	1.53
	5010	4,608	1.2	15	11	4.1	1.4
	5011	4,948	4.7	115	3	2.7	1.56
	6010	1,961	0.91	15	9	4.8	2.05
	7010	4,396	1.41	40	17	25.3	2.35
	7011	1,837	6.1	330	6	33.5	4.12
Ag (g/t)	1040	2,569	9.03	56	50	7.6	1.16
	2040	807	5.39	21	32	8.2	0.98
	3040	7,150	7.01	60	41	2.8	1.18
	4040	1,845	6.37	70	24	20.8	1.82
	5040	9,556	7.21	90	51	3.7	1.53
	6040	1,961	3.41	28	28	12.3	1.57
	7040	6,233	5.95	89	12	4	1.56
Fe (%)	1030	2,569	11.27	37	16	0.2	0.56
	2030	807	10.58	31	33	2.1	0.69
	3030	7,150	18.07	-	1	0	0.56
	4030	1,845	12.11	-	0	0	0.69
	5030	9,556	18.06	-	2	0	0.45
	6030	1,961	8.27	20	16	0.6	0.6
	7030	6,233	13.72	-	1	0	0.32

Source: Buenaventura 2024.
Note: The information of selected elements was included, for the remaining elements, please refer to Appendix 2 Table 28-3.

The assay data used for the interpolation method (ordinary kriging and inverse distance) was composited to a length of 2.5 m; nevertheless, a tolerance of 50% was permitted. As such, each interval sample with a length equal to one metre and a geological code matching that of the section before it was added to the previous composite. The composite length chosen represents a sub-multiple of the block's dimensions (5 m x 5 m x 5 m); care was taken to ensure that interpolation uses the same sections in the block dimensions for each drillhole.

Comparative statistics were recorded before and after compositing; the latter statistics can be found in Table 11-6. No significant statistical changes in the initial information were found following compositing.

The results for basic statistics for capped data and composited data for all mineralized structures show that the difference in the means recorded is below 5% for most of the mineralized structures; the CV of the composites fell due to a change support. These results indicate that the compositing length chosen is valid.

Table 11-6: Summary of the Estimation Domain Composite Data Statistics for Au (g/t), Ag (g/t) and Fe (%)

Element	Domain	Total Composites	Mean	Min	Max	SD	CV	Variance
Au (g/t)	1010	1,253	1.54	0.01	8.17	1.27	0.82	1.61
	2010	385	0.82	0.01	4.54	0.76	0.92	0.57
	3010	3,308	2.00	0.01	30.60	2.78	1.39	7.75
	4010	926	1.02	0.01	12.59	1.35	1.32	1.81
	5010	2,190	1.17	0.01	13.40	1.23	1.06	1.52
	5011	2,316	4.55	0.01	57.84	4.85	1.07	23.49
	6010	1,071	0.86	0.01	14.02	1.48	1.72	2.18
	7010	2,284	1.29	0.01	32.15	2.02	1.57	4.09
	7011	934	5.53	0.01	213	15.08	2.73	227.24
Ag (g/t)	1040	1,253	8.86	0.13	56	9.32	1.05	86.94
	2040	385	4.58	0.20	21	4.58	0.89	20.95
	3040	3,308	6.43	0.01	60	7.53	1.08	56.63
	4040	926	6.86	0.06	68.12	10.36	1.51	107.36
	5040	4,496	7.25	0.05	90	9.89	1.37	97.74
	6040	1,071	3.40	0.01	28	4.82	1.42	23.22
	7040	3,215	5.68	0.03	81.08	7.99	1.41	63.81
Fe (%)	1030	1,253	10.85	1.43	36.96	5.23	0.48	27.38
	2030	385	9.78	1.02	31	6.06	0.62	36.72
	3030	3,308	16.97	0.76	44.96	9.08	0.54	82.51
	4030	926	11.39	1.11	40.10	7.11	0.63	50.59
	5030	4,496	17.31	0.92	45.12	7.28	0.42	52.93
	6030	1,071	7.97	0.85	20	4.43	0.56	19.60
	7030	3,215	13.38	1.50	33.84	3.80	0.28	14.41

Source: Buenaventura 2024.

Note: The information of selected elements was included, for the remaining elements, please refer to Appendix 2 Table 28-4.

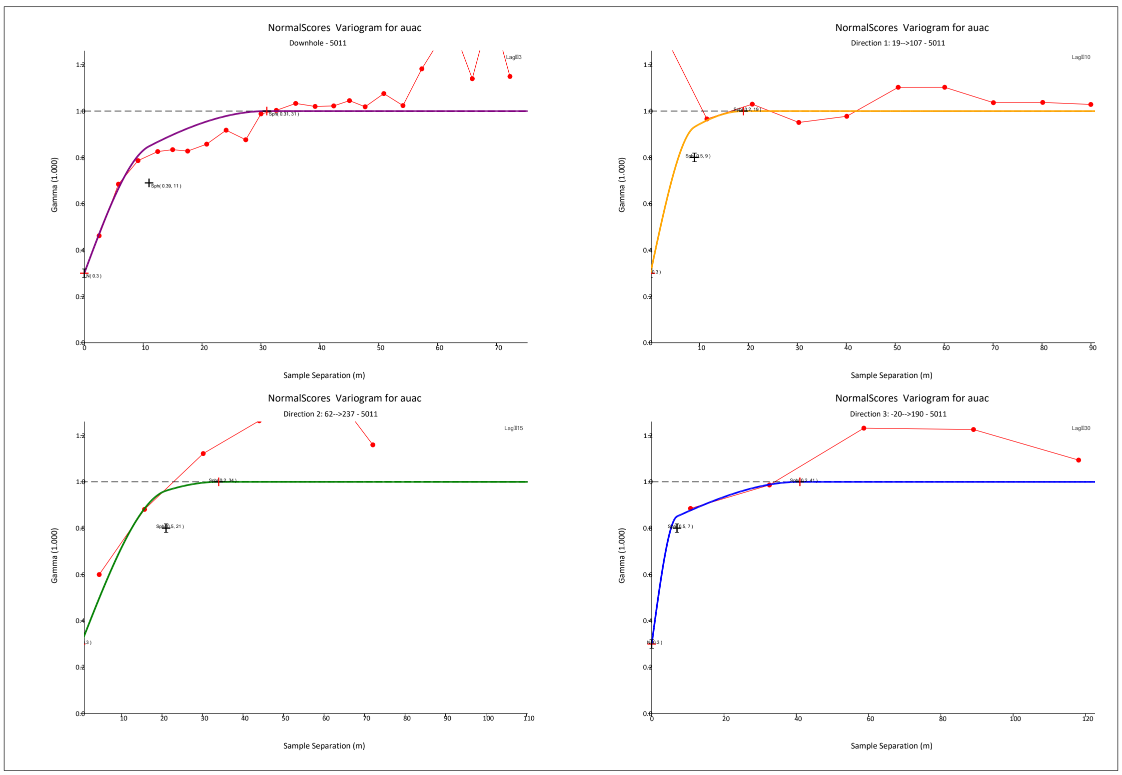
11.1.6 Spatial Continuity

Buenaventura conducted a variographic analysis using the Snowden Supervisor software for each element by estimation domain. The analysis used a conventional semivariogram; mineralization trends and variographic maps were visually interpreted to determine orientations with better continuity; the entire process was validated by SRK.

To conduct a variographic analysis, information was included on Buenaventura's drilling campaigns. The variograms were built with two structures. Sufficient data was available to model directional variograms in all the domains. The variograms used Normal Score and were retransformed for subsequent use in the estimation.

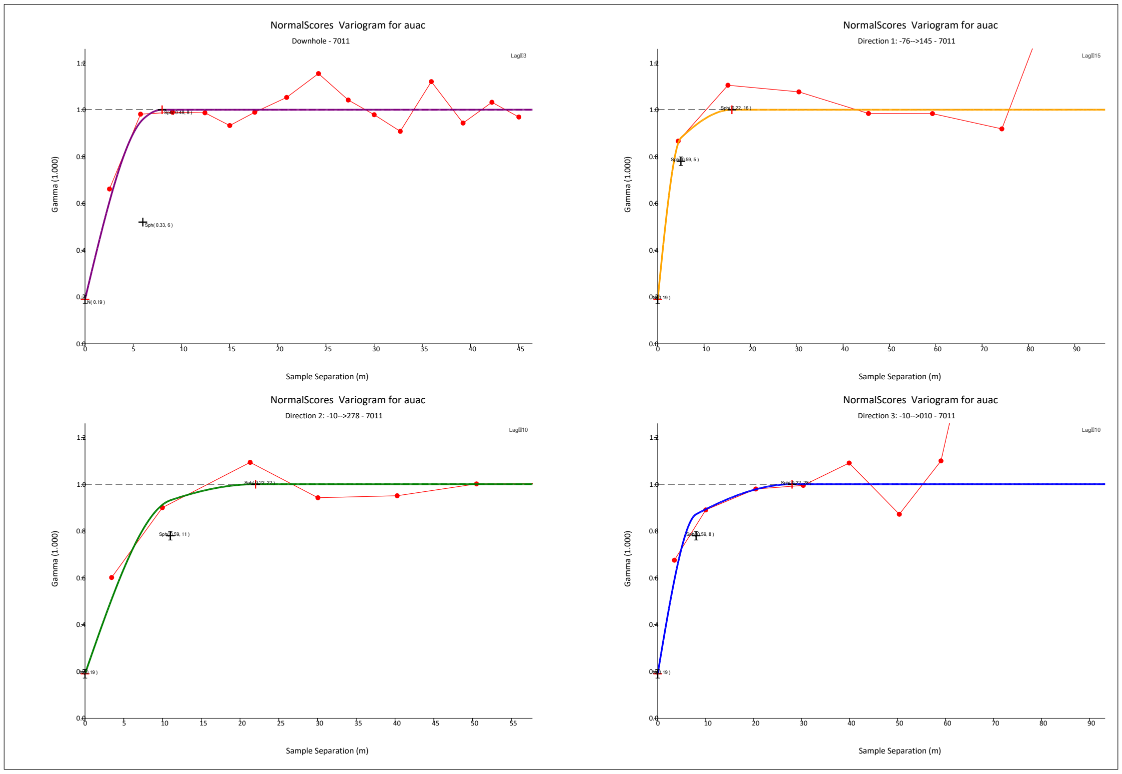
Figure 11-7 and Figure 11-8 show the variograms that were generated by the continuity analysis for Au in the 5011 and 7011 domains, respectively. Table 11-7 summarizes the variographic parameters for Au, Ag, and Fe by estimation domain.

Figure 11-7: Modelled Variogram for Au (g/t) in the Domain 5011



Source: Buenaventura 2024.

Figure 11-8: Modelled Variogram for Au (g/t) in the Domain in 7011



Source: Buenaventura 2024.

Table 11-7: Summary of Estimation Domain Variographic Parameters of Au (g/t), Ag (g/t) and Fe (%)

Element	Domain	Rot Alpha	Rot Zeta	Rot Beta	Nugget	Str1 Sill	Mj Str1 Range	Sm Str1 Range	Mn Str1 Range	Str2 Sill	Mj Str2 Range	Sm Str2 Range	Mn Str2 Range
Au (g/t)	1010	113.90	25.66	-56.31	0.24	0.49	42	14	8	0.27	152	130	21
	2010	78.83	18.75	7.10	0.18	0.37	11	13	17	0.45	44	38	65
	3010	100	30	-90	0.26	0.58	27	17	17	0.17	47	37	44
	4010	105	25	-90	0.30	0.44	24	9	14	0.26	41	28	15
	5010	141.78	62.01	-43.22	0.36	0.37	20	21	7	0.28	52	70	17
	5011	107.10	18.75	-111.17	0.38	0.48	9	21	7	0.14	19	34	41
	6010	90.94	23.40	-68.12	0.20	0.60	63	13	9	0.20	94	35	17
	7010	286.38	-19.68	-100.63	0.32	0.63	8	9	6	0.05	22	33	12
	7011	144.56	-75.89	135.44	0.36	0.57	5	11	8	0.08	16	22	28
Ag (g/t)	1040	113.90	25.66	-56.31	0.09	0.47	30	14	13	0.44	226	53	50
	2040	78.83	18.75	7.10	0.17	0.41	88	81	19	0.43	149	184	47
	3040	100	30	-90	0.21	0.22	32	62	24	0.58	357	157	112
	4040	105	25	-90	0.17	0.31	58	6	26	0.52	460	53	91
	5040	141.78	62.01	-43.22	0.21	0.42	59	43	27	0.37	115	198	98
	6040	90.94	23.40	-68.12	0.19	0.53	78	26	22	0.28	442	113	86
	7040	286.38	-19.68	-100.63	0.03	0.51	26	15	26	0.46	294	155	92
Fe (%)	1030	98.18	19.92	-84.68	0.22	0.48	34	21	42	0.30	127	44	72
	2030	100	20	-90	0.13	0.46	29	16	27	0.41	54	34	43
	3030	110.38	19.29	-105.92	0.12	0.50	9	17	11	0.38	40	48	45
	4030	130	20	-90	0.12	0.35	33	18	18	0.53	43	24	25
	5030	51.38	19.68	-79.37	0.14	0.50	11	20	15	0.36	68	38	34
	6030	91.83	15.19	-48.24	0.15	0.42	31	8	9	0.43	252	52	49
	7030	91.88	21.47	-57.50	0.18	0.49	37	9	21	0.34	220	56	59

Source: Buenaventura 2024.

11.1.7 Block Model Methodology

Buenaventura generated the block model for grade interpolation using the Vulcan© software. The block model was developed based on the estimation domains. The block model has a cell size of 5 m x 5 m x 5 m. Table 11-8 summarizes the parameters used to build the block model.

Table 11-8: Characteristics of the San Gabriel Block Model

Coordinates	Minimum (m)	Maximum (m)	Block Size (m)	No. of Blocks
East	333,025	335,400	5	475
North	8,207,551	8,216,101	5	1,710
Elevation	4,090	8,590	5	900
Source: Buenaventura 2024.				

11.1.8 Estimation Plan

The estimation parameters were defined through Quantitative Kriging Neighborhood Analysis (QKNA) using the Supervisor© software. Grade estimates for Au, Ag and Fe in each domain were generated through Vulcan© software. The estimation methods used for validation purposes were ordinary kriging (OK), inverse distance (ID), and nearest neighbour (NN).

The QKNA used to determine the maximum number of samples to prevent excessive smoothing of the estimation and to minimize the screening effect, which increases the number of negative weights assigned to data. This analysis is also used to determine the minimum number of samples as well as the scopes and discretization, which were subsequently refined with local, global and visual validations. A minimum of five samples and a maximum of 12 were used at the starting point for the 5011 and 7011 domains of Au (within a grade shell of 2 g/t of Au). This configuration was used to determine the appropriate parameters for each domain.

The parameters of estimation used for Au, Ag and Fe Table 11-9, Table 11-10 and Table 11-11, respectively.

Additionally, a High Yield restriction was applied based on a range of 15 m for Au and 5 m for most of the other elements reviewed. The decision to use 15 m to restrict atypical values of Au considered a block size of 5 m x 5 m x 5 m and the fact that visual confirmation of the influence of high grades can be adequately controlled at this distance to prevent overestimation. Table 11-12 provides the restrictions applied to Au, Ag, and Fe by estimation domain.

Table 11-9: Estimation Parameters for Au (g/t) According to Estimation Domain

Element	Domain	Pass	1st Range (m)	2nd Range (m)	3rd Range (m)	Min. Comps	Max. Comps
Au (g/t)	1010	1	60	28	7.5	5	12
		2	120	56	15	3	12
		3	240	112	30	2	8
	2010	1	31	19	14.5	5	12
		2	62	38	29	3	12

Element	Domain	Pass	1st Range (m)	2nd Range (m)	3rd Range (m)	Min. Comps	Max. Comps
		3	124	76	58	2	8
	3010	1	36	28	30	3	8
		2	72	56	60	3	8
		3	144	112	120	2	8
	4010	1	17.5	9	6.5	3	12
		2	35	18	13	3	12
		3	70	36	26	2	8
	5010	1	35	13	12	3	8
		2	70	26	24	3	8
		3	140	52	48	2	8
	5011	1	30	14	6	5	12
		2	60	28	12	3	12
		3	120	56	24	2	8
	6010	1	20	15	10	5	12
		2	40	25	15	3	12
		3	120	70	34	2	8
	7010	1	35	45	21	5	12
		2	70	90	42	3	12
		3	140	180	84	2	8
	7011	1	10	5	5	5	12
		2	20	10	10	3	12
		3	80	40	40	2	8

Source: Buenaventura 2024.

Table 11-10: Estimation Parameters for Ag (g/t) According to Estimation Domain

Element	Domain	Pass	1st Range (m)	2nd Range (m)	3rd Range (m)	Min. comps	Max. comps
Ag (g/t)	1040	1	60	28	7.5	3	12
		2	120	56	15	5	12
		3	240	112	30	2	8
	2040	1	31	19	14.5	5	12
		2	62	38	29	3	12
		3	124	76	58	2	8
	3040	1	22.5	10	7	3	10
		2	45	20	14	5	12
		3	90	40	28	3	10

Element	Domain	Pass	1st Range (m)	2nd Range (m)	3rd Range (m)	Min. comps	Max. comps
	4040	1	35	18	13	3	8
		2	70	36	26	3	8
		3	140	72	52	2	5
	5040	1	35	13	12	5	12
		2	70	26	24	3	12
		3	140	52	48	2	8
	6040	1	30	17.5	8.5	5	8
		2	60	35	17	3	6
		3	120	70	34	2	4
	7040	1	35	45	21	5	12
		2	70	90	42	3	10
		3	140	180	84	2	8
Source: Buenaventura 2024.							

Table 11-11: Estimation Parameters for Fe (%) According to Estimation Domain

Element	Domain	Pass	1st Range (m)	2nd Range (m)	3rd Range (m)	Min. comps	Max. comps
Fe (%)	1030	1	63.5	40	9	5	12
		2	127	30	18	3	12
		3	254	60	36	2	8
	2030	1	45	55	10	5	12
		2	90	110	20	3	12
		3	180	220	40	2	8
	3030	1	29.5	17	11.5	5	12
		2	59	34	23	3	12
		3	118	68	46	2	8
	4030	1	34	24	16	5	12
		2	68	48	32	3	12
		3	136	96	64	2	8
	5030	1	33.5	21.5	17	3	7
		2	67	43	34	3	7
		3	134	86	68	2	7
	6030	1	70	27	36	5	12
		2	140	54	72	3	12
		3	280	108	144	2	8

Element	Domain	Pass	1st Range (m)	2nd Range (m)	3rd Range (m)	Min. comps	Max. comps
	7030	1	46.5	30.5	16.5	3	7
		2	93	61	33	3	7
		3	186	122	66	2	7
Source: Buenaventura 2024.							

Table 11-12: Restrictions for Au (g/t), Ag (g/t) and Fe (%)

Element	Domain	HY Limit	HY Major (m)	HY Semi (m)	HY Minor (m)
Au (g/t)	1010	6	15	15	15
	2010	2.5	15	15	15
	3010	22	15	15	15
	4010	8	15	15	15
	5010	5	15	15	15
	5011	50	15	15	15
	6010	8	15	15	15
	7010	10	15	15	15
	7011	50	15	15	15
Ag (g/t)	1040	28	5	5	5
	2040	12.5	5	5	5
	3040	22	15	15	15
	4040	24	5	5	5
	5040	35	6	6	6
	6040	14	5	5	5
	7040	36	5	5	5
Fe (%)	1030	21	5	5	5
	2030	0	5	5	5
	3030	0	5	5	5
	4030	35	5	5	5
	5030	35	5	5	5
	6030	14	5	5	5
	7030	18	5	5	5

Source: Buenaventura 2024.
Note: The information of selected elements was included, for the remaining elements, please refer to Appendix 2 Table 28-5.

11.1.9 Model Validation

SRK applied the following validation methods at San Gabriel: evaluation of local bias with swath plots; verification of global bias by evaluating the mean difference of OK and ID with NN; and a visual inspection to compare estimated values in the block model with composited data.

Next, SRK presents details on its audit of Buenaventura's estimates for Au.

11.1.9.1 Validation of Au (g/t)

The review of the global bias includes an analysis of the estimated value for Au (OK) versus the nearest neighbor value (NM) for each estimation pass. SRK found that most of the domains had biases below 5%. Table 11-13 shows the review of the Global Bias for Au.

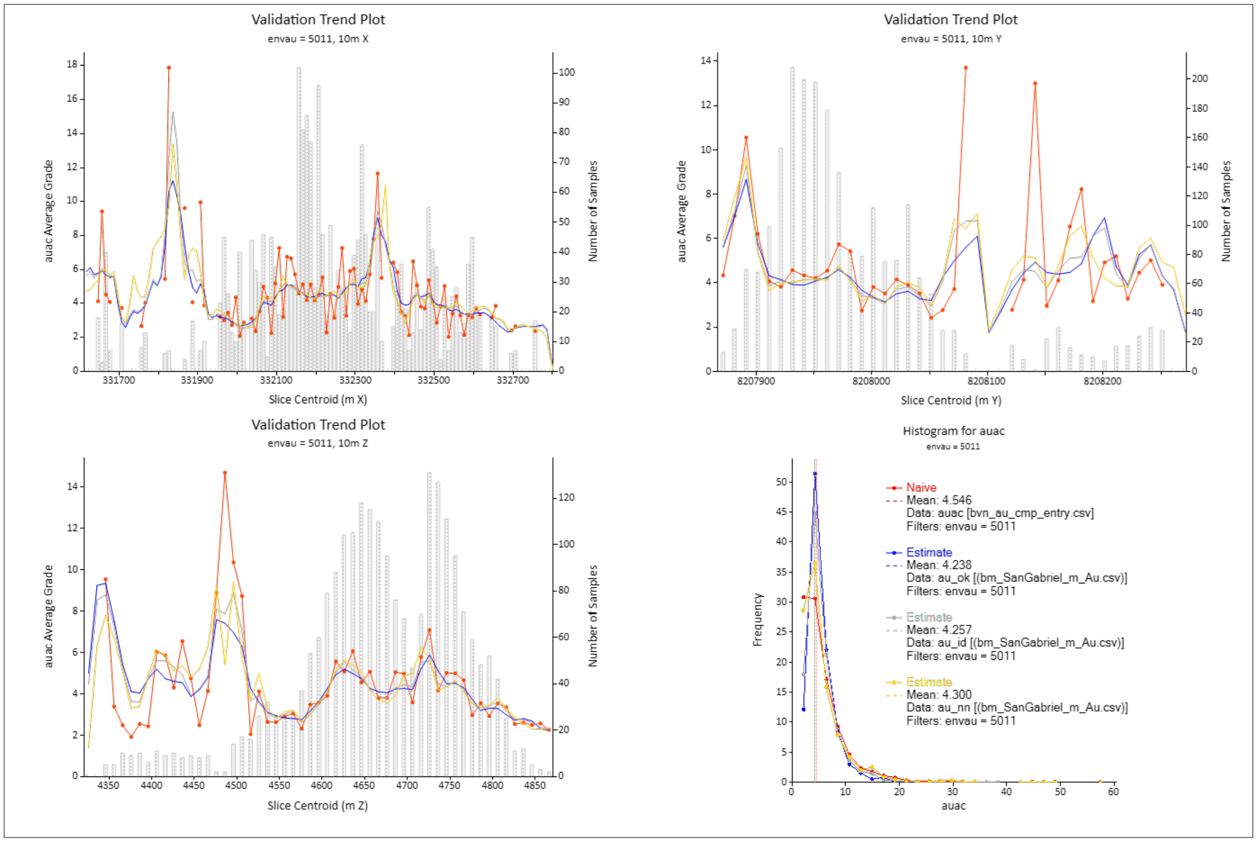
Table 11-13: Review of Estimation Domain Global Bias for Au by Category

Element	Domain	OK	ID	NN	Bias OK vs NN (%)	Bias ID vs NN (%)
Au (g/t)	1010	1.46	1.44	1.46	-0.48	0.96
	2010	0.70	0.70	0.69	-0.58	-0.58
	3010	1.94	1.89	1.93	-0.21	1.97
	4010	0.92	0.91	0.93	1.50	2.58
	5010	1.14	1.13	1.15	0.96	2.00
	5011	4.24	4.26	4.30	1.44	1.00
	6010	0.79	0.81	0.82	3.68	1.23
	7010	1.24	1.23	1.25	1.20	1.76
	7011	4.48	4.62	4.99	10.24	7.37

Source: Buenaventura 2024.
Note: The information of selected elements was included, for the remaining elements, please refer to Appendix 2 Table 28-6.

SRK conducted local validation of the estimation for Au and found that interpolators ID and OK greatly resemble the NN throughout the blocks. Figure 11-9 and Figure 11-10 provide examples of the domain analysis for 5011 and 7011 for Au, respectively.

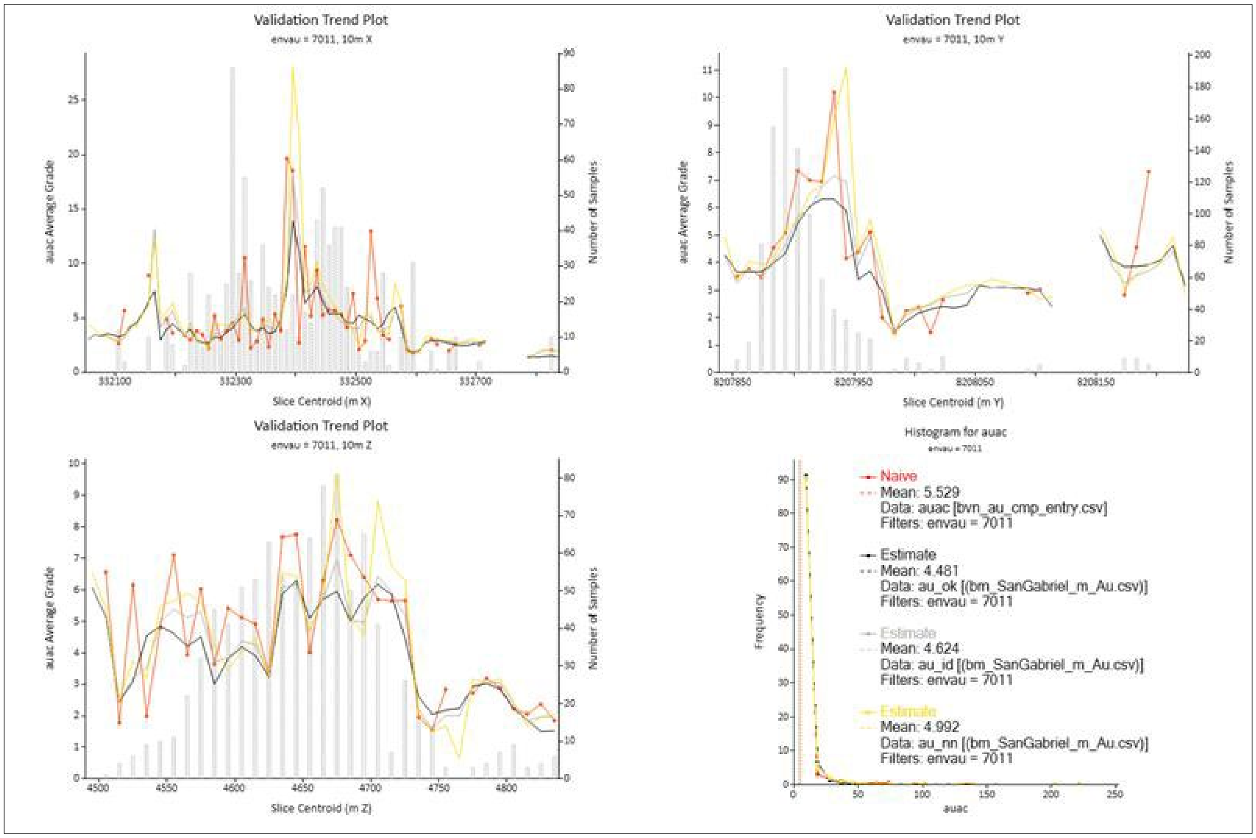
Figure 11-9: Swath Plots for Au (g/t) in Domain 5011



Source: Buenaventura 2024.

Note. Estimation by OK in black, ID in grey, NN in yellow, and samples of Au (g/t) in red.

Figure 11-10: Swath Plots for Au (g/t) in Domain 7011



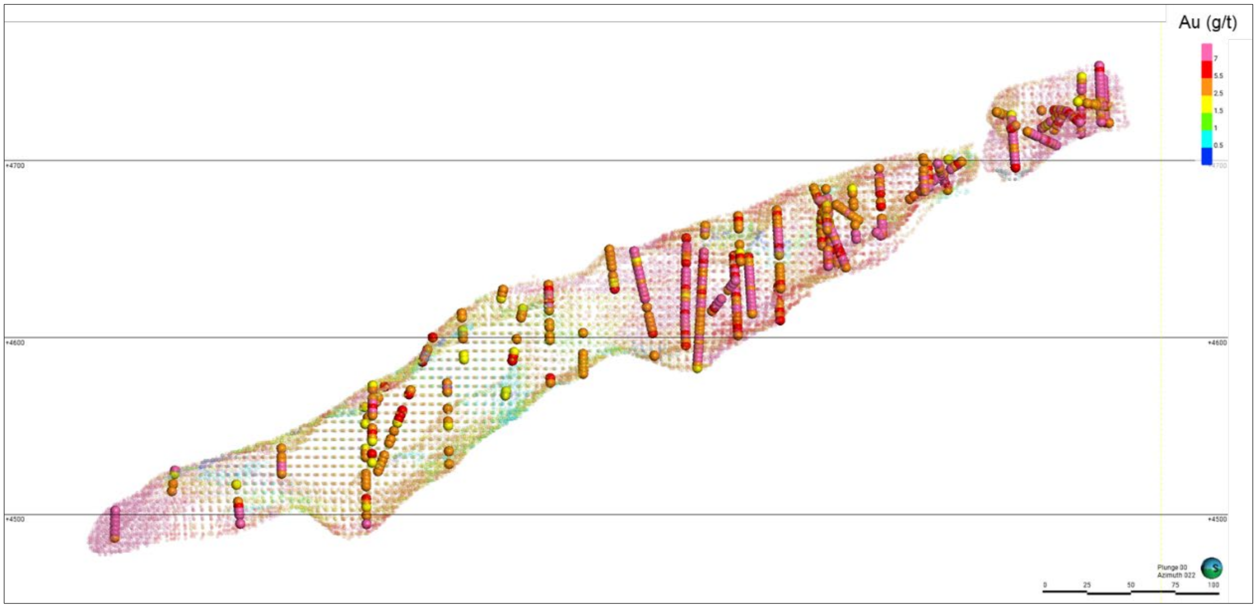
Source: Buenaventura 2024.

Note. Estimation by OK in black, ID in grey, NN in yellow, and samples of Au (g/t) in red.

SRK conducted a visual validation of the sections and planes for each estimation domain of Au. The visual verifications show that the grade ranges present good correspondence between the estimated Au and the Au in the database.

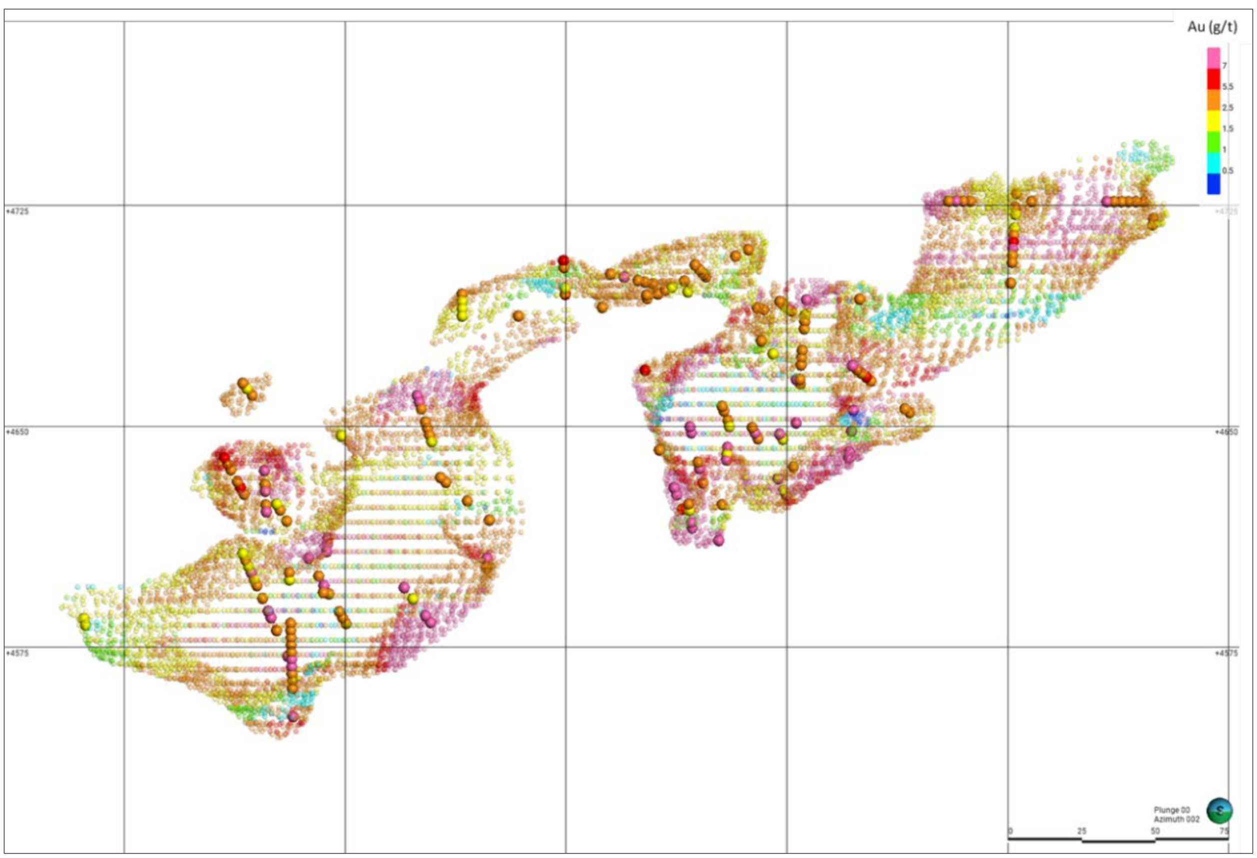
Figure 11-11 and Figure 11-12 show the visual validation in a section for 5011 and 7011, respectively.

Figure 11-11: Comparison of Au (g/t) Estimation versus Composited Data in Domain 5011



Source: Buenaventura 2024.

Figure 11-12: Comparison of Au (g/t) Estimation versus Composited Data in Domain 7011



Source: Buenaventura 2024.

11.1.10 Bulk Density

Information on density tests in the database covers a total of 1,745 samples (some drillholes lack measurements and a continuous distribution of domains). Table 11-14 and Table 11-15 provide statistics of the density raw data and after the analysis of the samples, respectively. Buenaventura also assigned densities by domains by conducting a prior analysis of samples that applied a Mean ± 2SD; samples that were outside these limits were removed and the new mean was assigned per domain.

Table 11-14: Density Statistics by Estimation Domain

Domain	Samples	Minimum	Maximum	Mean	SD	CV	Mean - 2SD	Mean + 2SD
1010	135	2.09	3.63	2.75	0.33	0.12	2.08	3.42
2010	61	1.92	3.42	2.56	0.32	0.13	1.91	3.21
3010	478	2.03	4.3	2.92	0.43	0.15	2.05	3.79
4010	129	2.02	3.96	2.83	0.47	0.17	1.88	3.78
5010	542	1.94	4.19	3.04	0.40	0.13	2.24	3.84
6010	88	1.96	3.79	2.65	0.33	0.13	1.98	3.32
7010	312	1.81	4.14	2.74	0.37	0.13	2.00	3.48
Source: Buenaventura 2024.								

Table 11-15: Density Statistics with Data Filtered by Mean +/- 2SD

Dominio	Samples	Minimum	Maximum	Mean	SD	CV
1010	128	2.09	3.38	2.71	0.29	0.11
2010	58	1.92	3.19	2.52	0.27	0.11
3010	465	2.09	3.78	2.9	0.40	0.14
4010	122	2.02	3.73	2.77	0.42	0.15
5010	523	2.24	3.84	3.04	0.37	0.12
6010	82	2.24	3.24	2.61	0.26	0.10
7010	297	2.06	3.43	2.69	0.29	0.11
Source: Buenaventura 2024.						

11.1.11 Resource Classification and Criteria

Best practices in the industry dictate that Mineral Resource classifications should consider the confidence in the geological continuity of mineralized structures, the quality and quantity of data that supports the estimation, and confidence in the geostatistical process to estimate tonnage and grade. Appropriate classification criteria should integrate these concepts to delineate regular areas in resource classification.

Accordingly, Buenaventura evaluated different aspects of classification criteria, including the representativeness of the data used for estimation; lithological and mineral area controls;

mineralization continuity; the number of samples close to the estimated block; and the number of drillholes used in the estimation.

Buenaventura based its mineral classification strategy on drill hole spacing, number of passes, number of drill holes, and minimum number of samples used in the block estimation (Table 11-16). These verification parameters have been verified by Buenaventura and SRK.

Table 11-16: Definition of the Mineral Resource Category Parameters

Category	Drill Hole Spacing (m)	Pass	No. of Drill Holes	Min. No. of Samples
Measured	0 to 12.5	≤ 3	≥ 3	3
Indicated	0 to 30	≤ 3	≥ 2	2
	0 to 12.5	≤ 3	2	2
Inferred	0 to 60	≤ 3	≥ 2	1
	0 to 30	≤ 3	1	1
	0 to 12.5	≤ 3	1	1

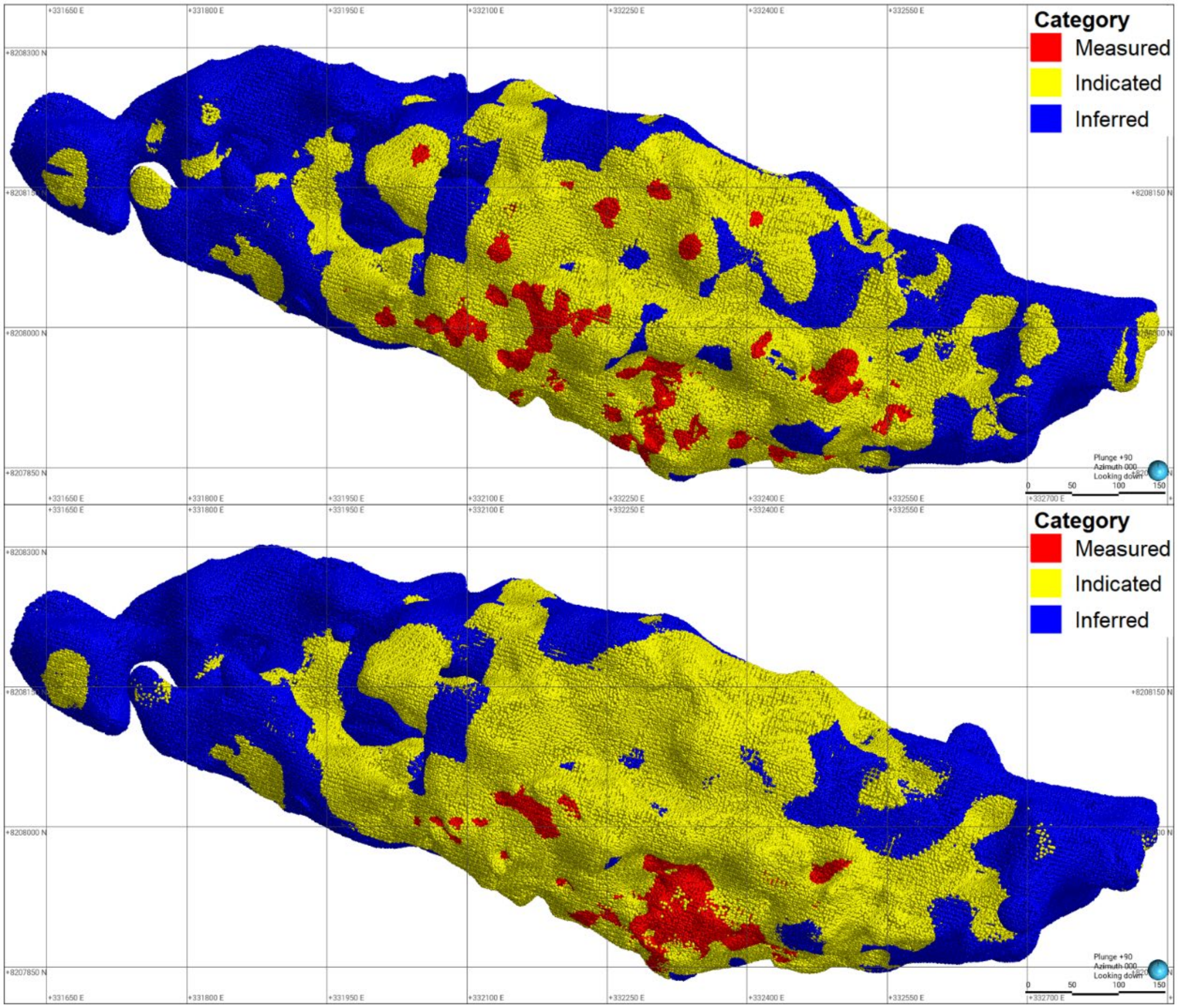
Source: SRK 2024.

Once classification is complete with the previous strategy mentioned, Buenaventura generates wireframes by category to prevent a “spotted dog” effect and eliminate some artifacts in the categorization. The objective is to guarantee the geological continuity represented in resource categorization.

The Mineral Resource Area at Buenaventura defines the criteria used to generate solids by category, utilizing distances between drill holes to define Mineral Resource classifications.

Figure 11-13 shows the Mineral Resource model of San Gabriel before and after smoothing using the aforementioned methodology.

Figure 11-13: Plan View of the San Gabriel Resource Model, Before (A) and After (B) Smoothing



Source: SRK 2024.

11.2 Cut-Off Grade Estimates

The cut-off value used to report Mineral Resources is based on the average operational costs projections, which have been updated to 2024 considering the mining method projected for San Gabriel. The cut-off value is shown in Table 11-17 and the parameters used are listed in the tables below. In agreement with Buenaventura, SRK takes the NSR cut-off value as an input and has not audited its calculation.

Table 11-17: Cut-Off Grade Calculation for Resources

Description	Underhand Drift and Fill (UDF)
	Variable (US$/t)
1. Mine	63
2. Plant	29
3. Services	-
Sub-total Operating Costs	92
4. Administrative Costs	0
5. Offsite Costs	-
6. Sustaining Capital Costs	7
Marginal Cut-off Value	92

Source: Buenaventura 2024.
For the Marginal Cut-off Value estimation, only the variable costs were considered.

An NSR was calculated for each metal, which included the expected commercial terms, average metallurgical recovery, average grade in concentrate, and long-term metal prices. This criteria threshold ensures that the values of all metals produced during the operation can be considered in the Mineral Resource report.

NSR calculation (Table 11-21) considers variable metallurgical recoveries according to the metallurgical class (Table 11-20) and the parameters used are listed below in Table 11-18 and Table 11-19.

Table 11-18: Metal Prices

Metal	Unit	US$
Gold	US$/oz	1,900
Silver	US$/oz	24

Source: Buenaventura 2024.

Table 11-19: "Unit Value" San Gabriel

Metal	Payable	Unit Value
Gold (US$/oz)	99%	60.890
Silver (US$/oz)	99%	0.769

Source: Buenaventura 2024.

Table 11-20: Metallurgical Recovery

Metal	Metallurgical Class	Metallurgical Recovery
Rec Au	A1, A2, A3	87.81%
	A4	77.92%
	B1, B2, B3	69.79%
	LIMPIO	85.84%
Rec Ag	A1, A2, A3	47.81%
	A4	40.7%
	B1, B2, B3	48.65%
	LIMPIO	46.77%

Source: Buenaventura 2024.
Note: A = calcareous-clastic horizons; B = carbonaceous horizons; LIMPIO = class applied when the volumetric percentage of the predominant domain is less than 80%.

Table 11-21: NSR Calculation Formula

Metal	Metallurgical Class	NSR Formula
NSR Au	A1, A2, A3	Au (g/t) * 60.89 * 87.81%
	A4	Au (g/t) * 60.89 * 77.92%
	B1, B2, B3	Au (g/t) * 60.89 * 69.79%
	LIMPIO	Au (g/t) * 60.89 * 85.84%
NSR Ag	A1, A2, A3	Ag (g/t) * 0.769 * 87.81%
	A4	Ag (g/t) * 0.769 * 77.92%
	B1, B2, B3	Ag (g/t) * 0.769 * 69.79%
	LIMPIO	Ag (g/t) * 0.769 * 85.84%

Source: Buenaventura 2024.
Note: A = calcareous-clastic horizons; B = carbonaceous horizons; LIMPIO = class applied when the volumetric percentage of the predominant domain is less than 80%.

It is the opinion of the SRK QP that by reporting resources based on actual mining, processing and smelting costs; actual metallurgical recoveries achieved at the plant; reasonable long-term metal prices; and the application of transparent court laws, Mineral Resources have "reasonable prospects for economic extraction."

11.3 Reasonable Prospects of Economic Extraction for Mineral Resources

To demonstrate RPEE, San Gabriel defined the following mining dimensions (Table 11-22).

Table 11-22: SMU Mining Dimensions

Dimensions	SMU
	4.0 m x 4.5 m
Width	4
Height	4.5
Length	2.5
Source: Buenaventura 2024.	

- Optimization variable: NSR
- Marginal Cut-Off for UDF: 92.14 US$/t
- Measured, Indicated, and Inferred Resources are considered within the optimization in the same process.

11.4 Mineral Resource Statement

An NSR was calculated for each metal considering the expected commercial terms; average metallurgical recovery; average grade in concentrate; and long-term consensus metal prices. Accordingly, all metals produced during the operation can be considered in the Mineral Resource report.

The fields used for reporting are listed in Table 11-23.

Table 11-23: Report Fields

Item	Description
Tonnage	Value of volume by density
Au (g/t)	Au in grams per tonnage
Ag (g/t)	Ag in grams per tonnage
Onz Au (oz)	Au in ounces
Onz Ag (oz)	Ag in ounces
Source: Buenaventura 2024.	

Table 11-24: Summary of Mineral Resources – December 31, 2024

Zone	Category	Tonnage (kt)	Grade		Contained Metal	
			Au (g/t)	Ag (g/t)	(koz Au)	(koz Ag)
San Gabriel	Measured	661	2.26	4.21	48	89
	Indicated	7,102	2.37	7.96	540	1,817
	Measured + Indicated	**7,763**	**2.36**	**7.64**	**588**	**1,907**
	Inferred	7,049	3.23	7.34	733	1,664

Source: Buenaventura 2024, audited by SRK 2024.

Notes:

1. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
2. Mineral Resources are exclusive of Mineral Reserves.
3. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
4. The reference point for the Mineral Resources estimate is insitu. The database was of August 30, 2024. Therefore, the estimation was reported as of December 31, 2024. The Qualified Person Firm responsible for the resource estimate is SRK Consulting (Peru) S.A.
5. Marginal Cut-off Value: US$ 92.14 per tonne.
6. Metal prices used in the NSR assessment are US$1,900.00/oz Au and US$24.00/oz Ag.
7. Metallurgical recovery is differentiated by metal and metallurgical class. For more detail, please refer to 11-20.
8. Extraction, processing and administrative costs used to determine NSR cut-off values were estimated based on average operating costs projections for the Project.
9. Tonnes are rounded to the nearest thousand.
10. Totals may not add due to rounding.

11.5 Mineral Resource Uncertainty Discussion

Mineral Resources are not Mineral Reserves and do not necessarily demonstrate economic viability. There is no certainty that all or part of this Mineral Resource will become a Mineral Reserve. Inferred Mineral Resources are too geologically speculative to apply economically to classify them as Mineral Reserves. Mineral Resource estimates may be materially affected by data quality; the natural geological variability of mineralization metallurgical recovery; and the accuracy of the economic assumptions to support RPEE, including mineral prices, metals, and the costs of extraction and processing. San Gabriel has its own information, which is suitable for use in the estimation of Mineral Resources. However, approximately 30% of the drill holes do not have collar certificates and, to estimate Mineral Resources, samples from DH, RC, and RCD drill holes are being used, where 90% of the samples are from DH.

11.6 Qualified Person's Opinion on Influence for Economic Extraction

It is the opinion of the SRK QP that the Mineral Resource block model is representative of the informative data and that the data is of sufficient quality to support the 2024 Mineral Resource estimate. The December 31, 2024 Mineral Resource estimate for the San Gabriel Project was estimated in accordance with SEC regulations S-K 1300 of December 26, 2018. The 2024 Mineral Resource estimate may be materially affected by any future changes in the NSR cut-off value, which may result from changes in mining costs, processing recoveries, metal prices, or geological knowledge based on new exploration data. The NSR cut-off value used in this resource estimate was calculated based on cost projections, which should be updated when the mining unit begins mining.

12.0 Mineral Reserve Estimates

12.1 Summary

San Gabriel will be an underground mine producing gold and silver. As of the effective date of this TRS, the mine was under construction with mining operations planned to start in Q3 2025. The Project area and mining concessions are wholly owned by Buenaventura. Table 12-1 shows the San Gabriel Mineral Reserve estimate effective as at December 31, 2024.

Table 12-1: Summary of Mineral Reserves – December 31, 2024

Category	Tonnage	Grade		Contained Metal	
	(000 t)	(g/t Au)	(g/t Ag)	(000 oz Au)	(000 oz Ag)
Proven	3,166	4.14	3.78	422	385
Probable	12,139	3.60	6.98	1,405	2,722
Total Proven + Probable	15,305	3.71	6.32	1,827	3,107

Notes:

1. The definitions for Mineral Reserves in S-K 1300 were followed for Mineral Reserves.
2. The Mineral Reserve estimate is reported on a 100% ownership basis.
3. Mineral Reserves represent mill feed material after dilution and mining recovery.
4. Mineral Reserves are reported within mining shapes above a marginal cut-off value of $92.14/t.
5. Mineral Reserves are estimated using long term industry consensus metal prices of Au: US$1,900.00/oz and Ag: US$24.00/oz.
6. Metal net smelter return (NSR) factors excluding metallurgical recovery are $60.89/g for Au and $0.77/g for Ag.
7. Metallurgical recoveries are accounted for in the NSR calculations based on metallurgical test work and are variable as a function of contained organic carbon. LOM average recoveries are 86.2% for Au and 47.2% for Ag.
8. Dilution factors were applied to account for backfill dilution. Factors vary based on number of faces in contact with backfill. Average dilution is 8.6%.
9. A mining recovery factor of 100% was applied to Mineral Reserve estimates.
10. Numbers may not add due to rounding.

The metallurgical recoveries were estimated based on test work completed on a set of 146 samples that were processed by gravity and carbon in leach (CIL) cyanidation due to the presence of preg robbing organic carbon in the selected samples. The geometallurgical modelling in the FS used the relationship between gold and iron (sulphides) and the current model uses the relationship between gold and organic carbon. The SLR QP is of the opinion that both relationships contribute to gold recovery. The deposit was divided into domains and an average recovery was assigned to each domain using the average of the test work. The SLR QP noted that some areas of the domains were not properly sampled for metallurgical testing, particularly the northern part of the mine, which accounts for 21% of the total Mineral Reserves. Ore in the northern part of the mine consists of only Probable material and the SLR QP observed that the areas with poor or no test work will not be mined until Q2 2027. Buenaventura has indicated that they are currently planning on collecting more samples and completing more test work to cover the areas with poor or no metallurgical test work.

The SLR QP is not aware of any other risk factors associated with, or changes to, any aspects of the modifying factors such as mining, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

12.2 Dilution and Mining Recovery

San Gabriel is planned to be mined using underhand drift and fill (UDF) mining method. The stope designs include planned or internal dilution which represents material below marginal cut-off grade within the minimum mining unit. Unplanned or external dilution, which represent material mined beyond stope design limits due to overbreak during blasting, is applied as a factor to in-situ tonnes and grades. Low grade material or waste from unplanned dilution is expected to come from backfill dilution while mining next to or below a backfilled stope. Dilution factors were therefore applied based on the number of faces in contact with cemented backfill. Table 12-2 shows the dilution factors applied based on the number of contacts with backfill.

Since the deposit will be mined using drifting methods, a mining recovery of 100% was utilized for all cuts.

Table 12-2: Dilution Factors

Sub-level	Cut	Number of Backfill Contacts	Dilution (%)	Mining Recovery (%)
Top cuts	Cut 1	0	0	100
	Cut 2	1	5	100
	Cut 3	2	10	100
Undercuts	Cut 1	1	5	100
	Cut 2	2	10	100
	Cut 3	3	15	100

Total unplanned dilution for all stopes averaged 8.6%. The SLR QP is of the opinion that the dilution factors appear reasonable compared to similar projects using UDF as mining method, and are appropriate at the current level of study since there are no actual mining data from the Project. The SLR QP recommends diligently collecting stope surveys during operation to validate the dilution estimates for each cut.

12.3 Net Smelter Return

Ore material from the mine is planned to be processed into doré bars containing gold and silver. Since both gold and silver are considered as saleable metals for this Project, an NSR value was estimated to capture the economic value of each metal. An NSR value was estimated using long term metal prices, metal recoveries, and transport, refining, and treatment costs for each metal. Offsite costs include transport and refining costs, and are based on existing contractual terms.

Buenaventura sources long term metal price forecasts (2028+) from Bloomberg, internally reviews those prices, and selects a set of prices for all mining units. The forecasts were issued in Q3 2024. The SLR QP has reviewed the proposed metal prices, comparing them against forecasts provided by financial institutions and lenders involved in the mining industry, and finds the gold metal price to be conservative compared to current forecasts. Since the underground mine has an expected life of mine greater than 10 years, SLR agrees with the application of long term price forecasts for the estimation of Mineral Reserves.

The inputs used to calculate NSR values are presented in Table 12-3.

Table 12-3: NSR Calculation Inputs

	Unit	Value
Metal Prices		
Au	$/oz	1,900
Ag	$/oz	24.00
Metal Payables – Doré Bars		
Au	%	99.95
Ag	%	99.90
Costs		
Transport	$/oz doré	2.52
Treatment Cost	$/oz doré	0.35
Metal Value – Excl Metallurgical Recovery		
Au	$/g Au	60.89
Ag	$/g Ag	0.77

An average recovery was estimated for each domain, based on metallurgical test work as presented in Table 12-4. The 'A' domains form the bulk of the total mineralized envelope and also where most of the Mineral Reserves are located. Metallurgical recoveries are estimated for each stope based on a majority rule where if 80% of the stope is within a certain domain, then the average recovery of that domain is assigned to the stope; otherwise the weighted average of the test work results is assigned.

Table 12-4: Metallurgical Recovery Assumptions

Geological Formation	Domain	Au Met Recovery (%)	Ag Met Recovery (%)
Gramadal	A1, A2 y A3	87.81	47.81
Labra	A4	77.92	40.70
B Zones	B1, B2, B3	69.79	48.65
Weighted Average		85.84	46.76

The SLR QP has reviewed the estimation of NSR factors in the mine designs and is of the opinion they were properly applied. The SLR QP notes that Ag contributes approximately 1.2% of the total currently estimated Mineral Reserves value. The SLR QP recommends maintaining focus on Au grades for tracking and reporting during operations.

12.4 Cut-off Grade Value

Cut-off grade (COG) values for San Gabriel were developed partly from comparable mining operations and also from forecasted development metres and run-of-mine (ROM) tonnes based on a preliminary LOM plan. Operating costs were split into fixed and variable costs. Fixed costs include labour costs, and general supplies and miscellaneous costs, while variable costs include consumables, power, concrete, contractors, and some miscellaneous costs.

Table 12-5 summarizes the cost inputs used to determine cut-off values. The marginal cut-off value was calculated based on variable operating costs. Marginal ore material is planned to be processed along with ore above break-even cut-off value and will not be stockpiled to be processed separately.

Table 12-5: Cut-off Value Calculation

Cost Centre	Unit	Fixed Cost	Variable Cost	Total
Mining	$/t milled	6.49	62.94	69.43
Processing	$/t milled	8.16	29.20	37.36
G&A	$/t milled	18.70	0.00	18.70
Total Operating Cost	$/t milled	33.35	92.14	125.49
Sustaining Capital	$/t milled			10.00
Marginal Cut-off Value	$/t	92.14		
Break-even Cut-off Value	$/t	125.49		
Break-even (incl Sustaining Capital)	$/t	135.49		

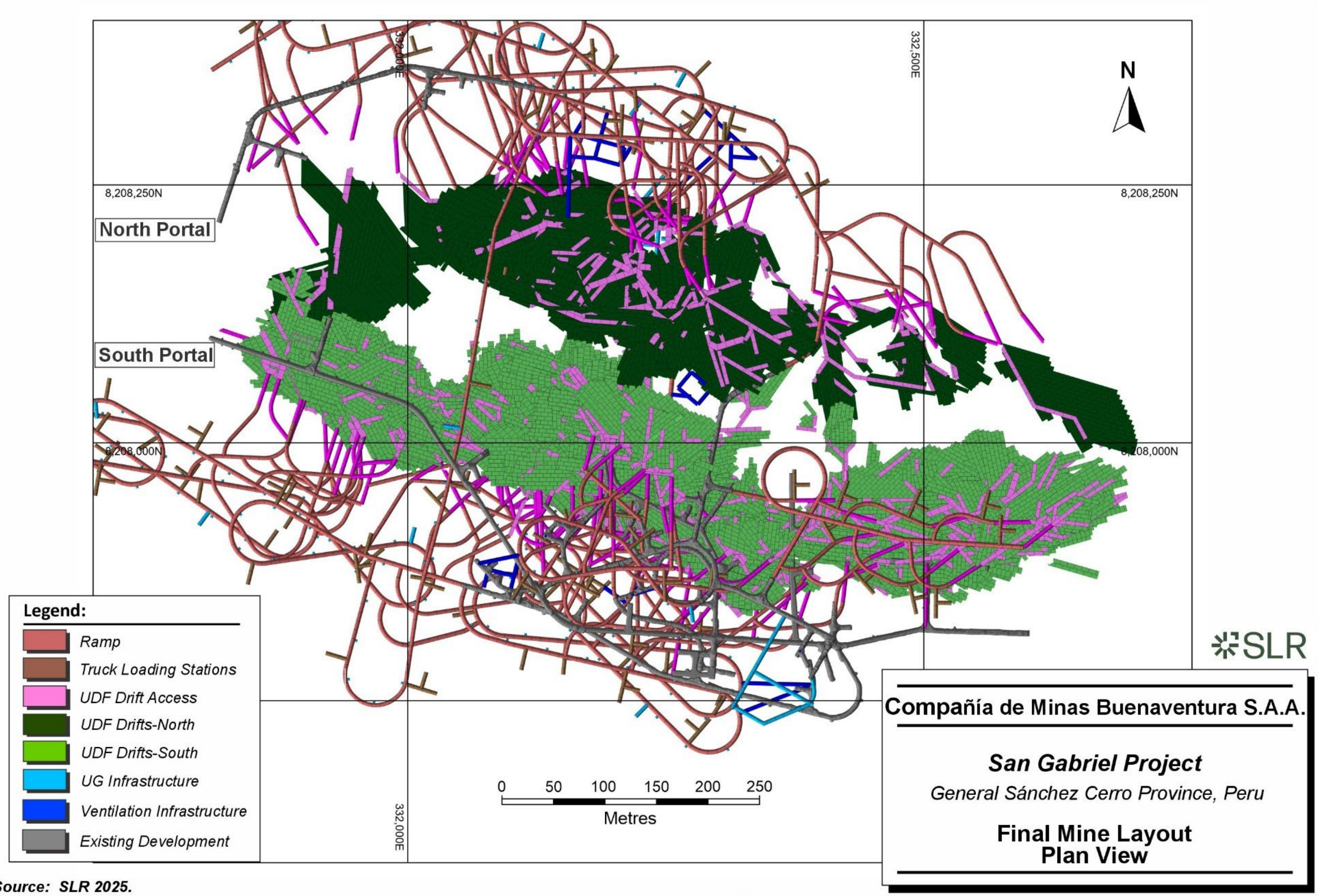
The SLR QP has calculated the amount of marginal material included in Mineral Reserves to be approximately 21% with the remaining 79% consisting of ore above break-even cut-off value, of which 70% is material above break-even cut-off including sustaining capital costs. The same relative ratio is maintained in yearly ore production over the LOM. The SLR QP is of the opinion that the inclusion of marginal material is appropriate.

12.5 Mineral Reserve Estimation

Mineral Reserves were estimated within stope and development designs. Stopes were designed using Deswik Stope Optimizer (DSO). The optimizer was run using a gold grade lower than the marginal cut-off to generate a global set of shapes. NSR values were then calculated for all resulting shapes, taking into account metallurgical recoveries, modifying factors for dilution and mining recovery, and economic value of contained silver.

Shapes below marginal cut-off value were rejected while those between marginal and break-even were reviewed against designed development to determine their economic value. Mineral Reserves were estimated from the resulting stopes based on diluted grades and extracted tonnages. Figure 12-1 illustrates a plan view of the final mine design and Mineral Reserve areas.

Figure 12-1: Final Mine Layout – Plan View



Source: SLR 2025.

12.6 Comparison with Previous Estimate – San Gabriel

The preceding Mineral Reserve estimates were prepared by Agnitia with an effective date of December 31, 2023. The changes in Mineral Reserve estimates are presented in Table 12-6. The updated estimates are based on entirely revised mining method assumptions, metal prices, and metallurgical recoveries. The Resource block model was also updated by SRK in 2024 to include new drill hole data.

Table 12-6: Mineral Reserve Estimate Comparison

Category	Tonnage	Grade		Contained Metal	
	(000 t)	(g/t Au)	(g/t Ag)	(000 oz Au)	(000 oz Ag)
Mineral Reserves as of December 31, 2024					
Proven	3,166	4.14	3.78	422	385
Probable	12,139	3.60	6.98	1,405	2,722
Total Proven + Probable	15,305	3.71	6.32	1,827	3,107
Mineral Reserves as of December 31, 2023					
Proven	983	5.09	2.26	161	71
Probable	13,952	3.97	6.72	1,779	3,016
Total Proven + Probable	14,934	4.04	6.43	1,940	3,087
Difference					
Proven	222%	-19%	67%	162%	439%
Probable	-13%	-9%	4%	-21%	-10%
Total Proven + Probable	2%	-8%	-2%	-6%	1%

Notes:

1. The definitions for Mineral Reserves in S-K 1300 were followed for Mineral Reserves.
2. The Mineral Resource estimate is reported on a 100% ownership basis.
3. Mineral Reserves represent mill feed material after dilution and mining recovery.
4. Cut-off Values:
   a. December 31, 2024 Mineral Reserves are reported within mining shapes above a marginal cut-off value of $92.14/t.
   b. December 31, 2021 Mineral Reserves are reported above an NSR cut-off value of $88.00/t for overhand drift and fill, $90.00/t for underhand drift and fill, and $85.00/t for overhand sub-level retreat mining methods.
5. Metal Prices:
   a. December 31, 2024 Mineral Reserves are estimated using average long term metal prices of Au: US$1,900.00/oz, and Ag: US$24.00/oz.
   b. December 31, 2021 Mineral Reserves are estimated using average long term metal prices of Au: US$1,600.00/oz, and Ag: US$25.00/oz.
6. Metallurgical Recoveries
   a. December 31, 2024 Mineral Reserves average recoveries are 86.2% for Au and 47.2% for Ag.
   b. December 31, 2021 Mineral Reserves average recoveries are 85.0% for Au and 45.0% for Ag.
7. Numbers may not add due to rounding.

13.0 Mining Methods

The Project is currently in construction at approximately 70% completion as of January 2025. In 2020, Ausenco carried out an FS integrating all aspects of the Project including the underground mine, process plant and both on-site and off-site infrastructure. Various supporting studies were completed on hydrology and hydrogeology, seismicity, and infrastructure including power supply, water storage and waste material storage. The feasibility study was updated by both Agnitia and Ausenco in 2021 and Ausenco was awarded the engineering, procurement, construction and management (EPC) contract. In 2024, Buenaventura has taken over the EPCM activities from Ausenco and is currently managing all construction aspects. Construction is planned to be completed by July 2025 and plant commissioning to start in September 2025.

13.1 Geotechnical Considerations

13.1.1 Approach and Data

This section evaluates the geotechnical conditions, and the selection of the preferred mining method based on rock mass conditions and structural geology of San Gabriel. Various studies have been conducted since 2016 to update the geomechanical model and evaluate mining methods. The latest geotechnical modelling work was conducted in October 2024. Geotechnical data in terms of quantities and coverage is suitable (Figure 13-1), though improvements on intact material tests (Table 13-1) can be implemented (see Section 13.1.5).

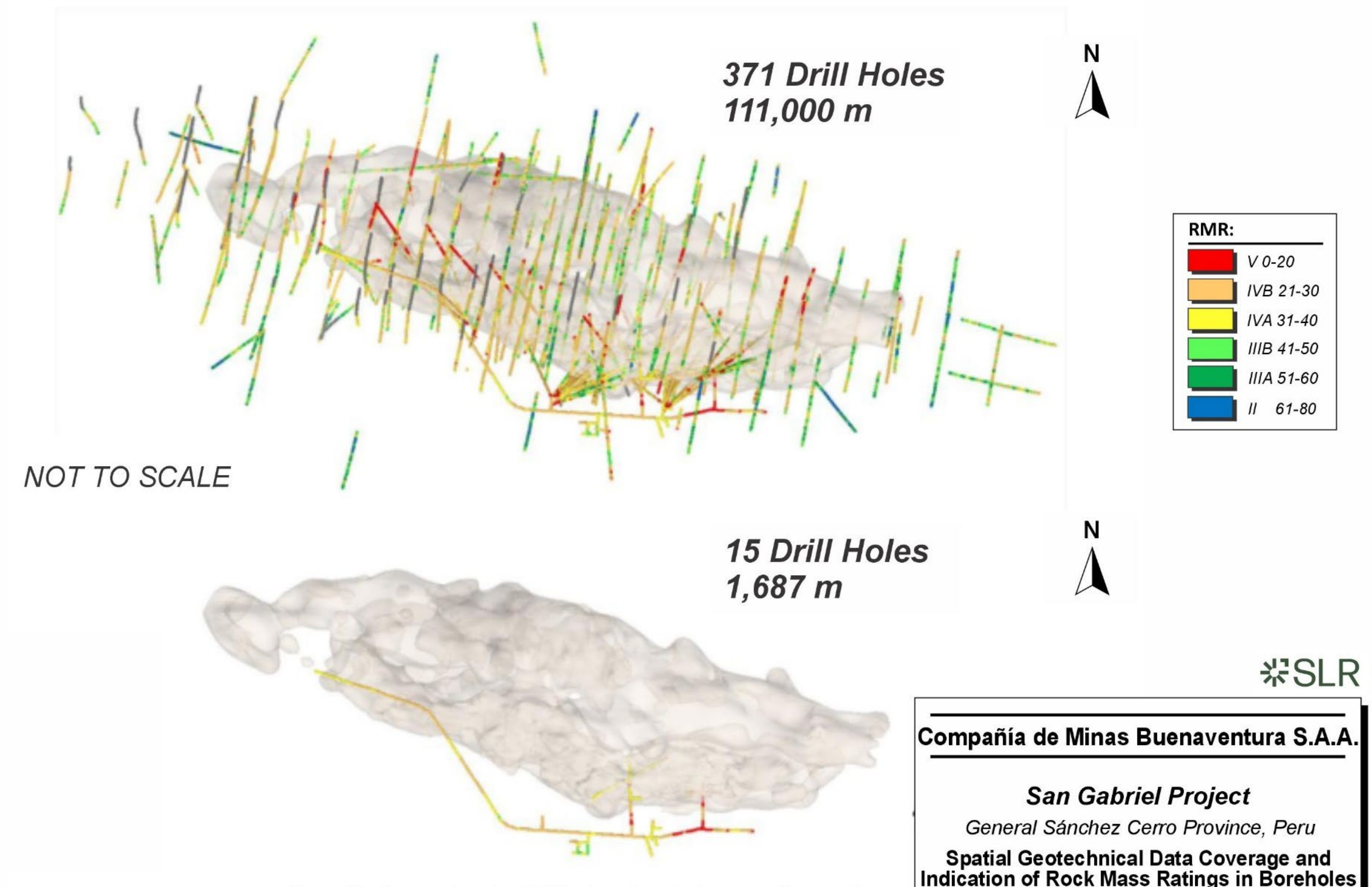
The UDF, overhand drift and fill (ODF), and sub-level ascending with cemented backfill (SARC) mining methods were evaluated for San Gabriel based on geotechnical conditions and rock mass quality. The aim of the geotechnical approach is to promote stability under poor ground conditions, particularly where conventional methods are challenging due to low rock mass strength and significant structural discontinuities.

Table 13-1: Number of Geotechnical Tests Split by Major Lithology

Geological Domain	Rock	Type	Field Laboratory						
			PLT	PF	UCS	RTI	TX	CE	CD
Hualhuani Fm.	Sandstone	Core	356	0	6	9 (9)	0	0	7
Gramadal Fm.	Limestone	Core	317	1 (3)	1	2	1 (3)	0	4
Labra Fm.	Sandstone	Core	176	0	0	0	0	0	1
Monomictic Bx.	Breccia	Core	205	4 (12)	9	8 (16)	4 (36)	2	5
Polymictic Bx.	Breccia	Core	143	0	1	0	0	0	1
Total			1,197	5 (15)		19 (27)	5 (39)	2	18

Notes. Tests (PF: physical properties, PLT: point load, UCS: uniaxial compression, RTI: indirect tensile strength, TX: triaxial compression, CE: elastic constants, CD: direct shear); the numbers in parentheses correspond to total number of broken test samples.

Figure 13-1: Spatial Geotechnical Data Coverage and Indication of Rock Mass Ratings in Boreholes and Planned Underground Development



Source: Buenaventura 2022.

Note: *Top image showing RMR along borehole. Lower image shows anticipated RMR ratings along development.*

13.1.2 Ground Conditions

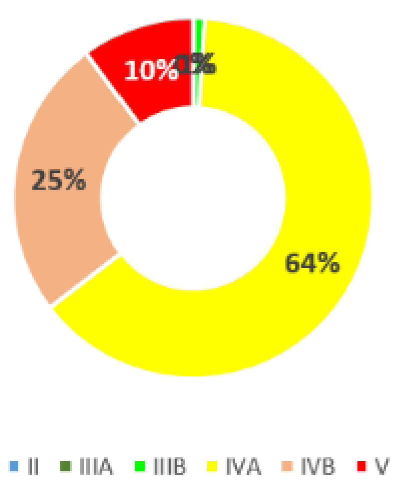
The Project area includes Mesozoic sedimentary rocks, volcanic rocks, and breccias. The deposit is controlled by folding and faulting, influencing the distribution and emplacement of breccias. Analysis of lithology, discontinuities, and rock mass classification has been undertaken to calculate Rock Mass Rating (RMR), which is accompanied by a block model representing the rock mass qualities in 3D space (Figure 13-3).

RMR classification is outlined in Table 13-2 and the pie chart in Figure 13-2 shows that classes IVA and IVB account for the majority of rock mass. "Poor A" (RMR 31-40) and "Poor B" (RMR 21-30) dominate within the mineralized zones (Figure 13-3), particularly in sub-zones extending 30 m to 70 m beyond the orebody. The ground is described as a highly fractured, low-strength rock mass. Elsewhere Regular B (IIIB RMR 41-50) is present, as well as less frequent Very Poor (V RMR < 21), Regular A (IIIA RMR 51-60), and Good (II RMR > 60).

Table 13-2: San Gabriel RMR Classification Ranges

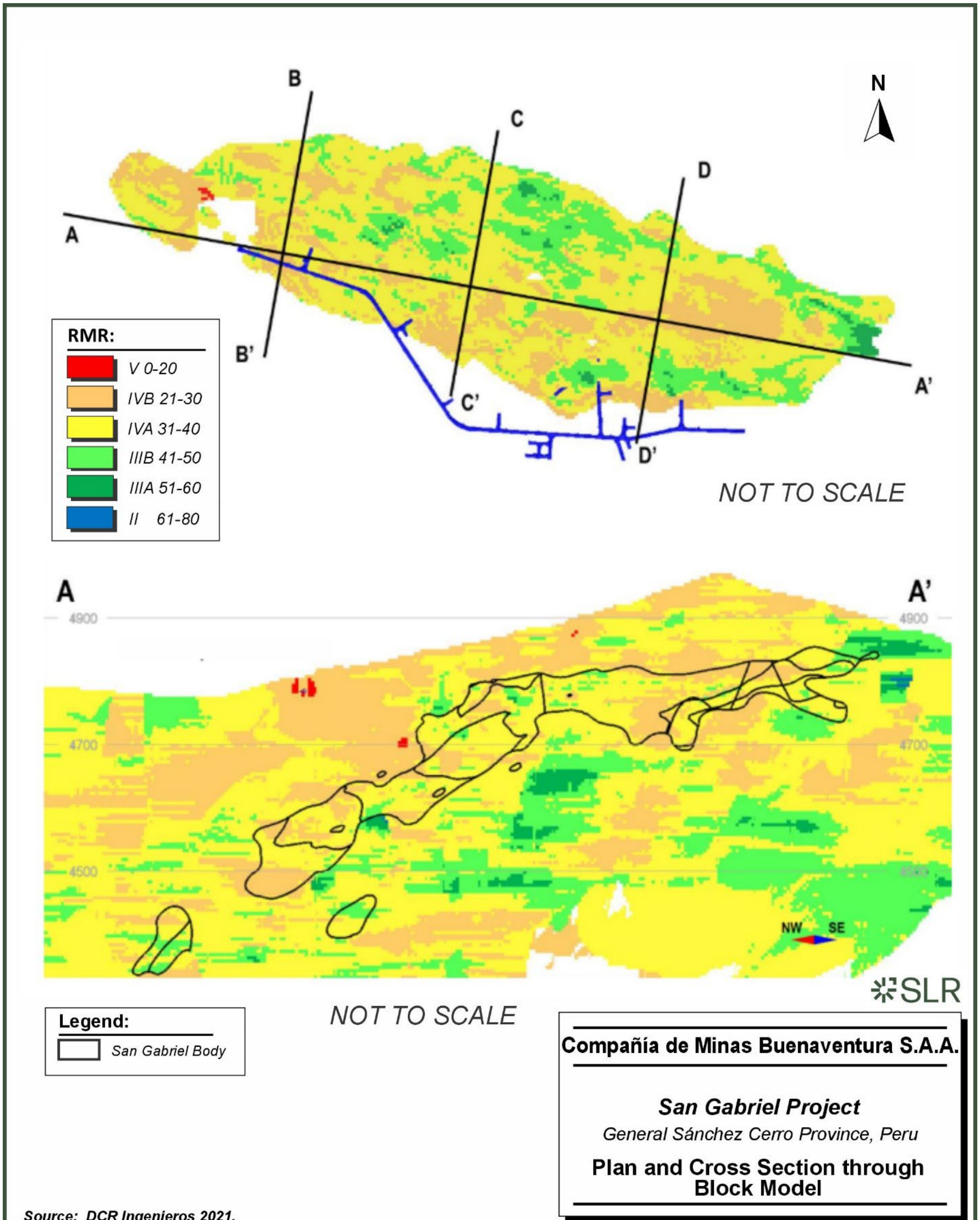
RMR Range	Code - Description
0 - 20	V - Very Poor
21 - 30	IVB – Poor B
31 - 40	IVA – Poor A
41- 50	IIIB – Regular B
51 - 60	IIIA – Regular A
>60	II - Good

Figure 13-2: RMR Pie Chart



Note. see Table 13-2 for RMR classifications

Figure 13-3: Plan and Cross Section through Block Model



Source: DCR Ingenieros 2021.

Differing joint sets exist in the orebody and host rock; ranging from primary NE-NW striking, low-medium dip sets, to NE-NEE medium to high dip angle secondary sets. These are considered likely to combine with the planned mine opening to create adverse.

In-situ stress measurements show that the minor principal stress ($\sigma 3$) is vertical, with major horizontal stress ($\sigma 1$) striking northwest. Stress magnitudes increase with depth, requiring effective support systems during undercutting operations. The following equations provide the principal stress magnitudes:

- $\sigma 1$ (MPa) = 0.0552 x depth (m)
- $\sigma 2$ (MPa) = 0.0383 x depth (m)
- $\sigma 3$ (MPa) = 0.0276 x depth (m)

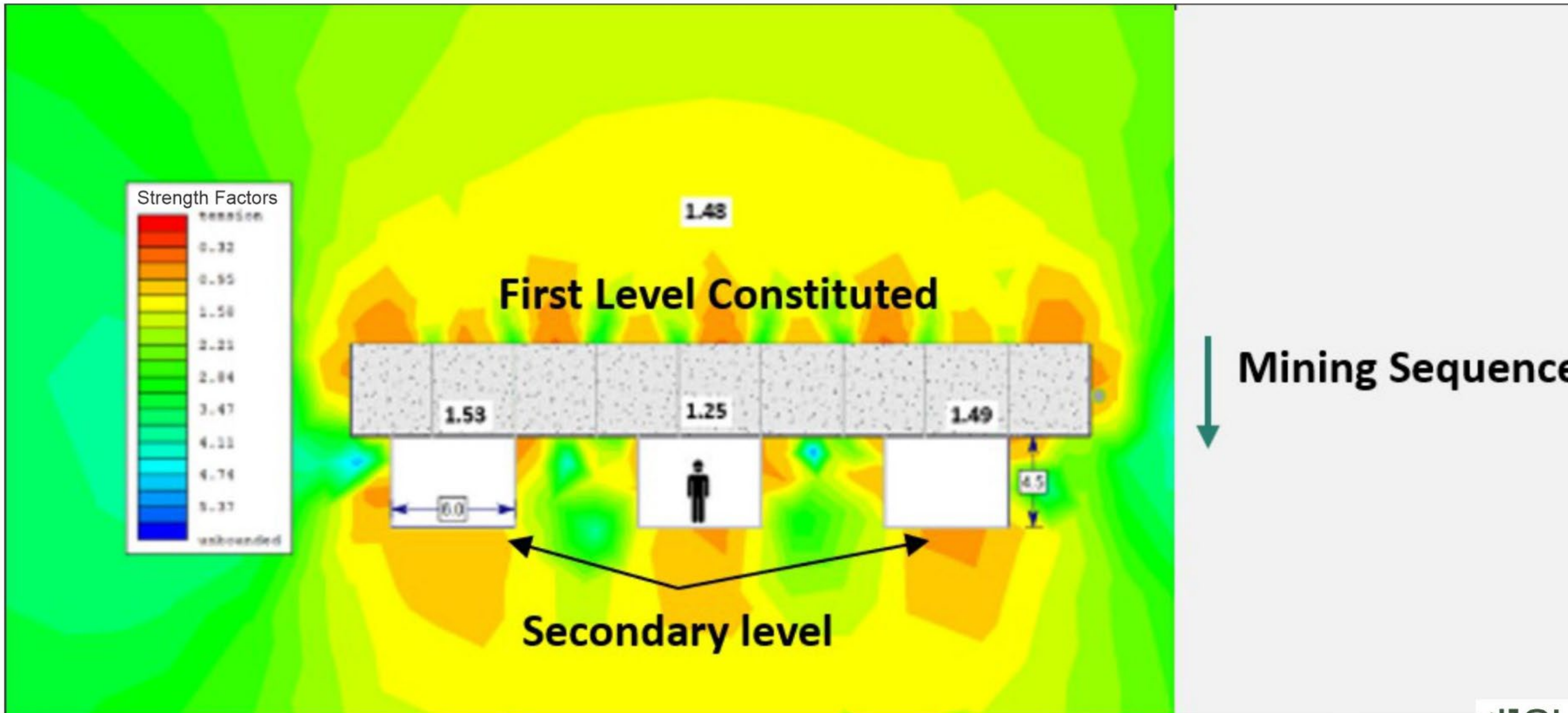
13.1.3 Mining Method Selection and Stability Analysis

The following mining method approaches were assessed:

- ODF: Suitable for Poor A quality rock and above, involves alternating primary and secondary drifts.
- SARC: More suitable for Regular B quality rock and above, involves sequential ascending and retreating mining with cemented backfill.
- UDF is specifically suited for Poor A and B quality rock (RMR < 40), allowing for mining under a pre-placed cemented backfill slab ("topcut"), minimizing the impact of structurally controlled failures.
- Numerical modelling (2D, see Figure 13-4, and 3D) indicates that UDF mitigates mining-induced failures by:
- Providing immediate roof support with cemented backfill.
- Reducing induced stresses during undercut operations compared to unsupported openings.
- Optimization of ground support.

UDF is effective in managing structurally controlled failures due to the topcut backfill, which reduces the potential for block falls from discontinuities. Limited drift sizes (4 m x 4 m) further minimize overstressing and deformation. Ground stresses also align favourably with the UDF excavation sequence when advancing perpendicular to this orientation.

Figure 13-4: Example 2D Modelling Output of UDF



Compañía de Minas Buenaventura S.A.A.

San Gabriel Project

General Sánchez Cerro Province, Peru

Example 2D Modelling Output of UDF

Source: DCR Ingenieros 2021.

13.1.4 Design and Dimensions of UDF

Stope and Drift Dimensions

- Drift Dimensions:
    - o Initial topcut: 4.5 m x 4.5 m
    - o Secondary cut: 6 m width x 4.5 m height.
- Excavation begins under a cemented backfill slab placed in a previous drift (topcut).
- Sequential excavation of "undercut" drifts ensures controlled exposure of poor-quality rock masses.

Cemented Backfill

- Type: Cemented Aggregate Fill (CAF) or Cemented Rock Fill (CRF).
- Strength Requirements: Minimum 2.2 MPa to maintain roof stability during undercut operations.
- Backfill must fully contact the drift roof to provide immediate ground support and minimize deformation.

Support recommendations are available for large openings, intersections, and permanent and temporary excavations. Permanent excavation support recommendations are provided in Table 13-3.

Table 13-3: Permanent Excavation Support Recommendations

Lithology	IIIA			IIIB		
	Spacing Bolts (m)	Length Bolts (m)	Thickness Shotcrete (in)	Spacing Bolts (m)	Length Bolts (m)	Thickness Shotcrete (in)
Sandstone and Limestone	2.0	2.1–2.4	nr	1.5	2.1–2.4	2" (35MPa)
Mineralization	2.0	2.1–2.4	nr	1.5	(2.1–2.4)*	2" (35MPa)
Lithology	IVA			IVB		
	Spacing Bolts (m)	Length Bolts (m)	Thickness Shotcrete (in)	Spacing Bolts (m)	Length Bolts (m)	Thickness Shotcrete (in)
Sandstone and Limestone	1.5	(2.1–2.4)*	3" (35MPa)	1.0	(2.1–2.4)+mesh	4" (35MPa)
Mineralization	1.5	(2.1–2.4)*	3" (35MPa)	1.0	(2.1–2.4)+mesh	4" (35MPa)

Note: (nr) = this support is not required. Use rebar type bolts. * Use electro-welded mesh if required.

13.1.5 Conclusions and Recommendations for UDF Implementation

The UDF method is the preferred mining approach for poor-quality rock masses (RMR < 40) at San Gabriel. Its sequential excavation and cemented backfill strategy provide robust support and mitigate geotechnical risks associated with structurally and stress-controlled instabilities. By incorporating optimized backfill strength, systematic ground support, and real-time monitoring, UDF promotes safe and efficient mining under challenging ground conditions.

The following recommendations are provided to enable the effective use of UDF.

Table 13-4: Recommendations for the Implementation of the UDF Mining Method

Geotechnical Element	Recommendation
Study/Data	Further characterization of the Project site, including additional drilling and laboratory material strength tests.
Backfill Quality and Strength	Conduct trials to optimize cemented backfill mix (CAF/CRF) and achieve a minimum strength of 2.2 MPa within 7–28 days of curing. Ensure proper topping/filling to achieve roof contact.
Excavation Direction	Advance drifts in the SE-NW direction, parallel to the major horizontal stress, to minimize deformation and improve support efficiency.
Ground Support	Implement systematic bolting, mesh, and shotcrete based on site-specific conditions. Adjust support design as necessary based on ground performance monitoring.
Geotechnical Monitoring	Use real-time monitoring (e.g., convergence metres, stress gauges) to assess drift performance and backfill behaviour.
Mining Sequencing	Maintain controlled sequencing of undercutting operations to limit exposure of poor-quality rock and ensure backfill curing time.

13.2 Mining Methods

The geotechnical studies completed on the San Gabriel deposit showed that the general RMR of the rock is low with approximately 64% of the deposit being in an RMR range of 31 to 40 (see Figure 13-2). In order to minimize exposure to discontinuities and reduce the risk of rock fall during mining operations, Buenaventura considered using ODF and UDF mining methods as part of the Mineral Reserve estimate update. The two mining methods were selected based on a numerical ranking that takes into consideration the deposit geometry and grade distribution, rock mechanics characteristics, and operating costs. Drift and fill mining methods were well suited for the San Gabriel deposit for its selectivity and RQD.

Buenaventura has evaluated both mining methods and compared them on the basis of ground support requirements, productivity, and costs. ODF relies on the mining front progressing from bottom to top, therefore new workings will always be under exposed rockmass. In order to minimize exposure and risk to mining personnel, the drift sizes will be limited to 4.0 m wide x 4.5 m high and 2.4 m deep and will all require shotcrete, split sets, and wire mesh as ground support. UDF mining sequence advances top to bottom with the top cut being backfilled with cemented fill before mining progresses to the lower cut. Since the lower cuts are developed under cemented backfill, which is more stable than the surrounding rock mass, the drift sizes can be larger, and only the faces in contact with rockmass will require ground support.

UDF was selected as the preferred mining method, as it offers higher productivity with larger drift sizes, reduced ground support requirement, and better overall factor of safety due to reduced exposure to the surrounding rockmass.

The SLR QP has reviewed the mining method selection approach and agrees with using UDF as the mining method. SLR notes that the mineralization and rock mass qualities are similar to

Carlin-type deposits in Nevada, USA, where several mines utilize the UDF mining method. Buenaventura has also retained external consultants with experience in those mines to support the preparation of mine designs.

The deposit will be mined in panels consisting of five to eight sub-levels. Each sub-level will be mined by three sequential drifts in a primary-secondary-tertiary fashion. The primary drifts will be completely mined and backfilled prior to mining the adjacent secondary drifts, with the process repeating itself for the tertiary drifts. Once a sub-level is mined and backfilled, the access to the next level is developed and mined.

There are currently two mine portals accessing the mine: the North portal and the South portal. The two portals will be connected via an underground haulage drift. Haulage will be undertaken using 30 tonne trucks in 6x4 (six wheels with four of them powered) configuration which will enter the mine via the South portal and exit from the North portal. Ore will be transported to the primary crusher stockpile pad and waste material to the waste storage facility on surface.

The cemented backfill will be mixed on surface and transported to the underground workings using trucks with push plates for horizontal unloading. The placed cemented fill is then pressed into the voids using a load haul dump unit (LHD) fitted with a rammer plate to ensure that the fill is compacted into the voids and in contact with the drift roof.

Ground support for development consists of 2.4 m split sets, wire mesh, and four inches of shotcrete which is applied in two passes of two inches each. Sections with very poor ground are further reinforced with steel arches.

13.3 Mine Design

The first sub-level of a mining panel is referred to as the top cut and the subsequent sub-levels as undercut. The top is developed using smaller drift sizes as the roof in the drifts will be in exposed rock prior to ground support. Table 13-5 shows the stope dimensions of top cuts and undercuts, and the development drift sizes.

Table 13-5: Mine Design Parameters

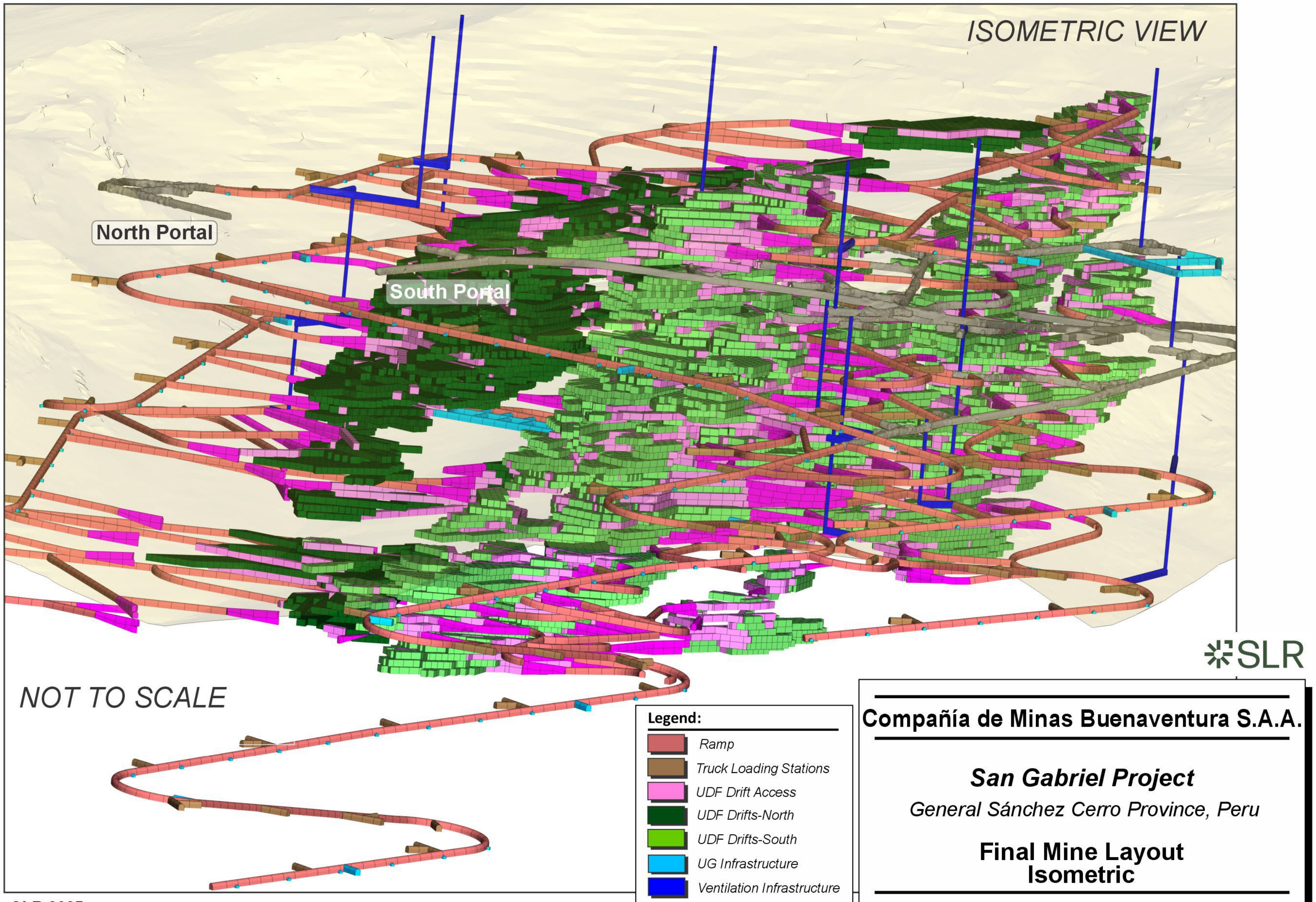
Item	Unit	Value
Top cut	m	4.0 W x 4.5 H
Undercut	m	6.0 W x 4.5 H
Main Access Ramp	m	4.5 W x 4.5 H
Haulage/Crosscuts	m	4.5 W x 4.5 H
Ventilation Raise (diameter)	m	3.4
Turning Radius	m	25
Gradient - Stope Access	°	13
Gradient - Haulage	%	12
Gradient - Haulage (Turns)	%	10
Distance between Safety Bays	m	50
Distance between Remucks	m	200

DSO was used to prepare the stope designs using the dimensions presented in Table 13-5. The development layout was designed to provide access to all stopes, connect haulage circuits between the two mine portals for the transport of ore and waste material, and cemented backfill, connect to the ventilation circuit, and include underground facilities such as workshops, explosive magazines, and refuge stations.

The orebodies were divided into the north zone and south zone and accessed by the North portal and South portal, respectively. The north and south areas of the mine are connected via haulage drifts on the 4,625 m and the 4,705 m elevation. At the time of the site visit in January 2025, approximately 800 m of development was completed from the North portal and 2,000 m from the South portal. Development has also reached mineralized areas which would enable the accumulation of stockpile material for processing once the plant is operational. The mine design also includes remucks every 200 m to limit the maximum distance travelled by scoops.

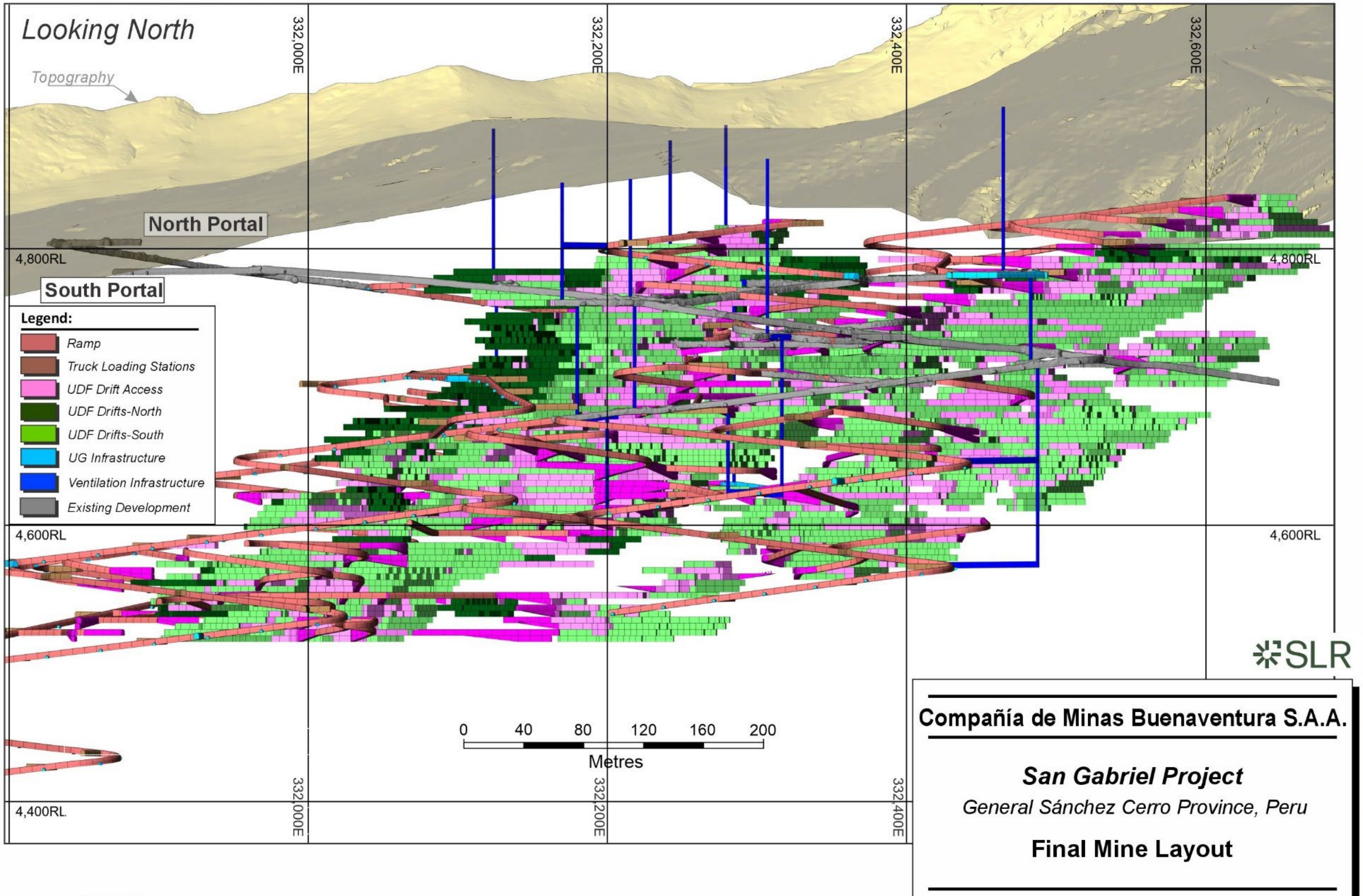
The mine design includes underground infrastructure such as an equipment workshop with nine bays, an explosive and primer storage area, electrical bays, and sumps. The SLR QP has reviewed the mine design and is of the opinion that the proposed layout properly connects all mine services and stoping areas. The SLR QP notes that the current connections between the north and south zones are located on the western part of the mine and do not interfere with potential expansions of the mine, however, additional connections will be needed if the mine expands further east to reduce transport distances. Figure 13-5 and Figure 13-6 show an isometric view and a longitudinal view of the final mine layout.

Figure 13-5: Final Mine Layout - Isometric



Source: SLR 2025.

Figure 13-6: Final Mine Layout – Looking North



Source: SLR 2025.

13.4 Backfill

13.4.1 Backfill Requirements

The San Gabriel mine is planned to have a production rate of approximately 3,000 tpd, or 1.12 million tonnes per year (Mtpa) which is equivalent to an average of 375,000 m^3 of stope voids that would be needed to be backfilled during peak production years. The ROM waste rock has been deemed unsuitable for use as aggregate in the cemented backfill mix. Buenaventura has defined a quarry zone where aggregate will be mined and sized for use as backfill.

13.4.2 Backfill Plant

The backfill plant will be located approximately 300 m from the North portal and 650 m from the South portal. The sized aggregate will be loaded into the plant via hoppers and feeders. The hoppers will have separate storage for coarse and fine aggregates which can be blended based on required proportions. The binder or cement will be stored in two silos which will have capacity for approximately five days of operation. A batch mixer will combine the aggregate, cement, and water to prepare the cemented backfill mix which will be loaded onto trucks and delivered to underground workings. The backfill plant is designed to have a production capacity approximately 17% more than mine production, at 3,500 tpd, and increasing to 4,050 tpd in 2034.

13.4.3 Cemented Backfill Preparation

The aggregate required to prepare the cemented backfill will be sourced from a quarry approximate 1.5 km from the backfill plant. The quarry will be mined using conventional open pit drill and blast mining methods. A study completed by MineFill Services recommends using an aggregate with a top size of 75 mm. The aggregate will be sized on site and will be transported to the backfill plant using 15 tonne trucks.

MineFill Services recommends a cemented backfill mixture with water to cement ratio of 0.8, coarse to fines ratio of 65:35 where fines are aggregates <10 mm, and a binder content of 7%. The backfill strength achieved is expected to be in the range of 2.1 MPa to 4 MPa. The actual strength achieved has to be confirmed during operations.

The cemented backfill will be transported to the underground workings using trucks with push plates for horizontal unloading. The placed cemented fill is then pressed into the voids using a scoop fitted with a rammer plate to ensure that the fill is compacted into the voids and in contact with the drift roof. Figure 13-7 shows an example of a scoop fitted with a rammer plate.

Figure 13-7: Scoop Fitted With A Rammer Plate

Source: Buenaventura 2025.

13.5 Life of Mine Plan

The current underground Mineral Reserve estimate supports a LOM production plan of approximately 14 years. The preparation of the LOM scheduler was completed in Deswik Scheduler software. Production is planned to start in the south zone of the orebody, while the north zone is being developed. Ore production is planned to start in May 2025 and a production rate of 3,000 tpd will be reached in 2026. The production rate is planned to increase to 3,500 tpd in 2034. The UDF cuts will be mined at a rate of 4.0 m/d, which includes time for preparation, drilling, and ground support and backfill will be placed at a rate of 900 tpd.

Figure 13-8 show the operating and capital development by year. Capital development includes ramps, remucks, underground workshops, cross-cuts, haulage drifts, ventilation drifts, and sumps. Operating development includes accesses to the UDF drifts, and the UDF drifts (stoping areas). Figure 13-9 and Table 13-6 show the ore production and grades by year. Figure 13-10 illustrates the mine design by year.

Figure 13-8: Yearly Development Advance

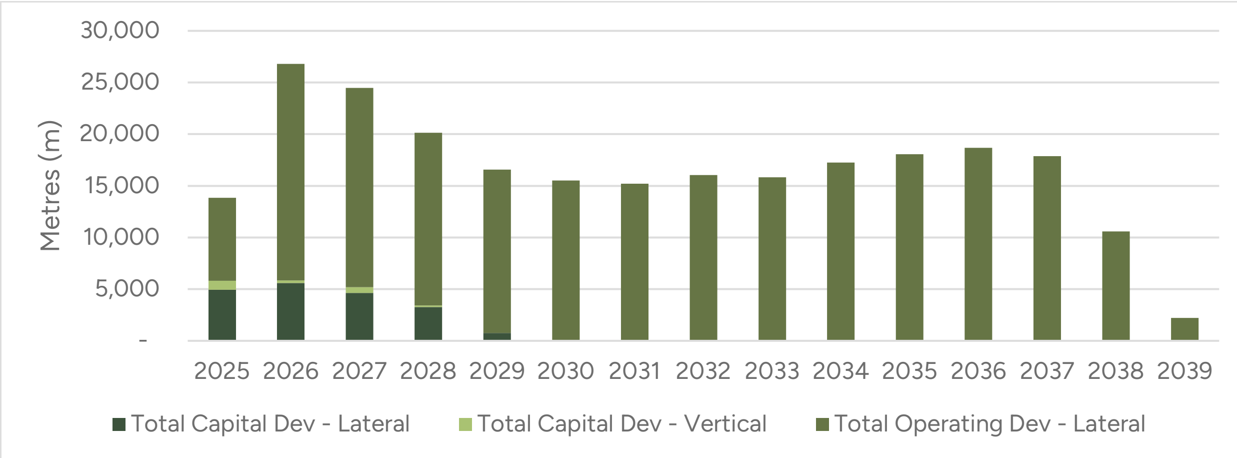


Figure 13-9: Yearly Ore Production

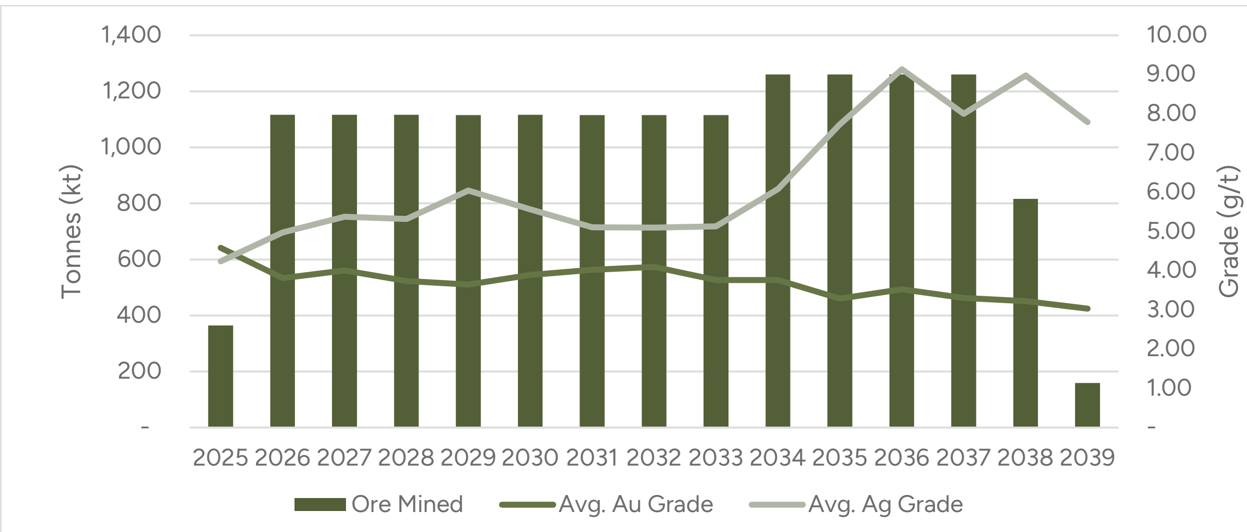
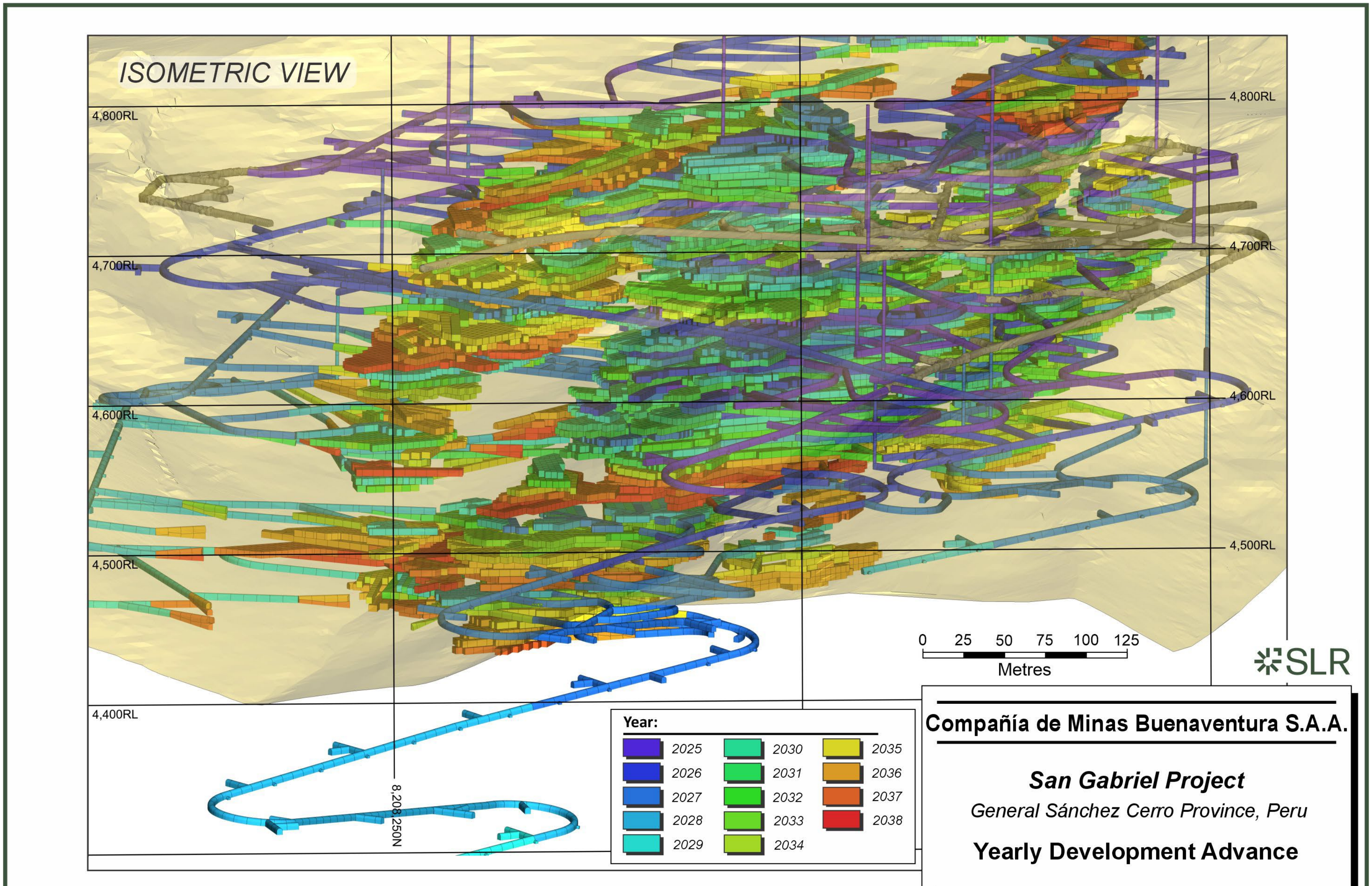


Table 13-6: LOM Plan

	Unit	Total	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Production																	
ROM Ore	kt	15,305	365	1,116	1,116	1,116	1,116	1,116	1,116	1,115	1,116	1,260	1,260	1,260	1,260	816	159
Avg. Au Grade	g/t	3.71	4.58	3.81	4.01	3.73	3.65	3.89	4.02	4.10	3.76	3.76	3.29	3.52	3.31	3.22	3.03
Avg. Ag Grade	g/t	6.32	4.24	4.98	5.38	5.32	6.04	5.56	5.11	5.10	5.13	6.08	7.73	9.13	8.00	8.98	7.79
Development																	
Waste Development	m	25,394	6,588	7,415	6,226	4,041	920	55	-	89	-	61	-	-	-	-	-
UDF Top Cut - 4.0m W x 4.5m H	m	120,831	5,721	16,819	12,386	8,211	7,702	6,895	6,122	8,144	7,776	6,485	9,869	10,443	9,297	3,935	1,024
UDF Undercut - 6.0m W x 4.5m H	m	101,060	641	2,330	5,317	7,741	7,961	8,562	9,071	7,804	8,059	10,712	8,198	8,231	8,590	6,647	1,195
Vertical Development	m	1,848	879	254	559	156	-	-	-	-	-	-	-	-	-	-	-

Figure 13-10: Yearly Development Advance



Source: SLR 2025.

The SLR QP has reviewed the mining sequences and schedule, and is of the opinion that in general the schedule has been properly set up. The SLR QP is of the opinion that the development quantities from 2026 to 2028 are aggressive. Part of the development in waste can be developed later in time based on the planned dates of the associated production areas. Buenaventura has indicated that it intends on transferring mining operations from contractor to owner operated in 2026. The SLR QP recommends reviewing the development schedule to reduce the amount of development between 2026 to 2028 and maintaining some contractor involvement particularly with development advance to support the high rate of development.

The SLR QP, furthermore, notes that in certain areas there is not sufficient time allocated for backfill curing time prior to an adjacent drift being developed. Based on backfill strength testing, a strength of 2 MPa can be achieved after 10 days which the SLR QP recommends applying as a minimum curing time prior to mining next to a backfilled drift. The SLR QP notes that the mine has sufficient working spaces to mitigate any delays in production caused by the added curing time.

13.6 Mine Infrastructure

13.6.1 Drainage System

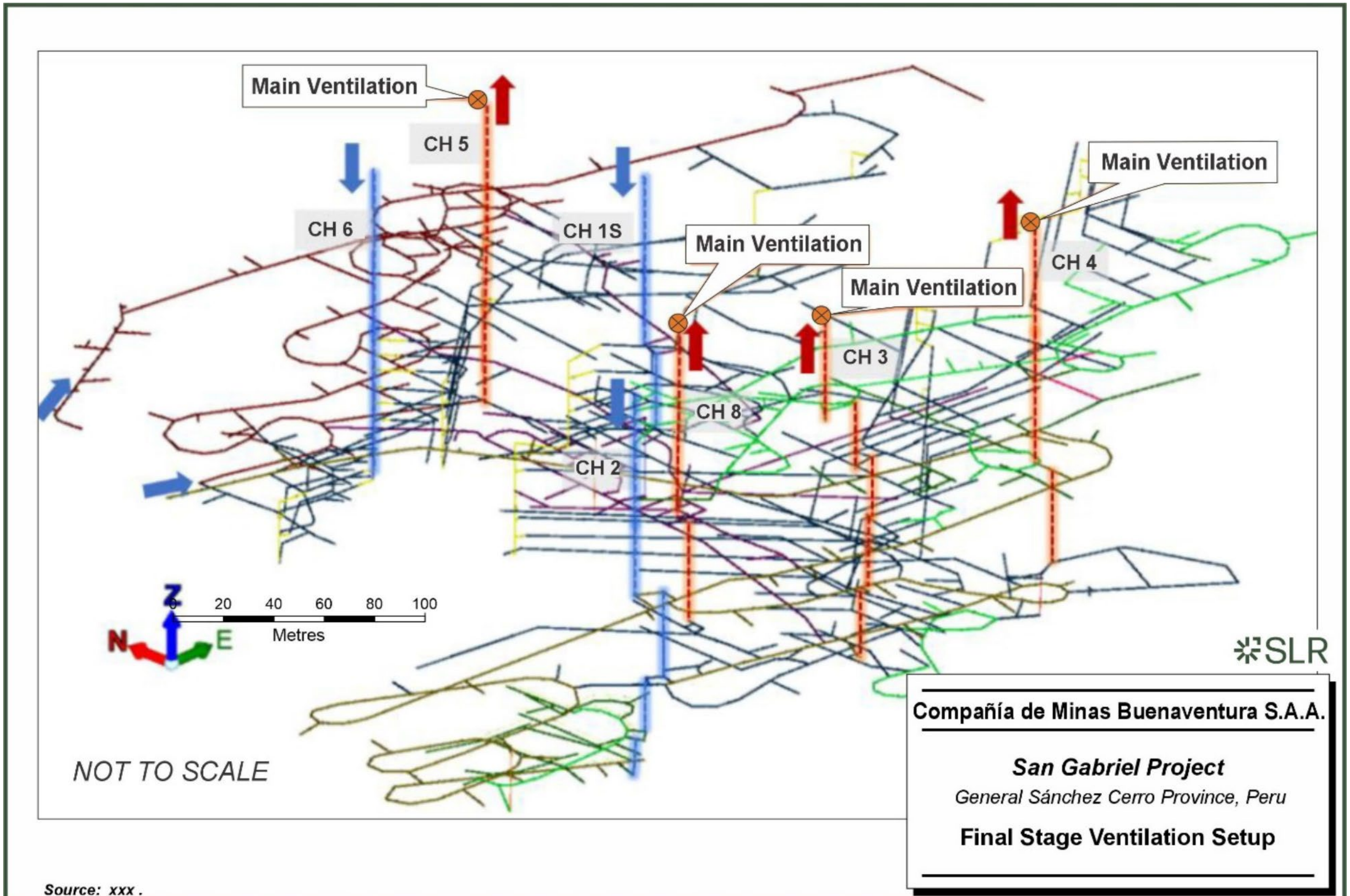
The drainage and pumping system is designed to handle a total water flow of 44 L/s of which groundwater seepage is estimated to account for 30 L/s and water from mining operations of 14 L/s. Water will be pumped and collected in sumps and pumped to a main collection level where it will be pumped to surface. The pumping system is planned to include two additional pumps and pumping lines as contingency.

13.6.2 Ventilation

The total air demand during peak production years has been estimated at 387.8 m^3/s (822 kcfm) which takes into account operation of mobile diesel equipment, number of personnel in the mine, and the mine's air temperature. The estimate assumes that mobile equipment's mechanical availability (considering downtime for maintenance) and utilization factor will be 85% and 60% respectively, and approximately 130 workers will be in the mine for each shift.

During construction, ventilation fans will be placed at the mine portal and air will be distributed via ducting to working areas, and exhaust through main ramps to the mine portal. The final ventilation circuit is designed to pull air from the two mine portals and ventilation raises and exhaust through ventilation raises. The main ventilation fans will be placed on surface where the exhaust raises daylight. Four main ventilation fans are envisaged for the final setup with two fans of 350 hp providing airflows of 350 kcfm and two fans at 100 hp capable of 125 kcfm of airflow. Auxiliary fans will be used to distribute air to the active workings. Figure 13-11shows the final ventilation setup.

Figure 13-11: Final Stage Ventilation Setup



Source: xxx .

13.7 Mine Equipment

The forecasted equipment list in 2026 when Buenaventura will assume mining operations is provided in Table 13-7. During the construction period contractors will be responsible for the majority of mining operations, however, once in production, Buenaventura will take over the development and mining operations while contractors will be used for all haulage activities for the underground mine and surface haulage as well as general surface operations. Buenaventura plans on switching over operational responsibility gradually during Q2 2026. Buenaventura has budgeted 400 m per month of development per crew in their estimates.

Table 13-7: Mobile Equipment List

Equipment	Capacity/Type	Quantity	Comment
Contractor Operated			
Jumbo	2 Boom	2	UG Mine
Scoop	6.0 yd^3	2	UG Mine
Scoop with jammer plate	6.0 yd^3	2	UG Mine
Trucks	15 m^3	16	UG Mine
Bolter	1.5 - 2.4 m	2	UG Mine
Rock Breaker	8.1 m	2	UG Mine
Shotcreter	20 m^3/hr	6	UG Mine
Mixer	5 m^3	12	UG Mine
Front-end Loader	3.5 m^3	3	Surface Ops, Quarry, Process Plant
Excavator	1.47 m^3	1	Surface Ops, Quarry, Process Plant
Rock Drill	7 HP	1	Surface Ops, Quarry, Process Plant
Tractor	3.5 m^2	1	Surface Ops, Quarry, Process Plant
Trucks	15 m^3	5	Surface Ops, Quarry, Process Plant
Backhoe		1	Surface Ops, Quarry, Process Plant
Fuel Truck	1,500 L	1	Service Equipment
Skid Steer		2	Service Equipment
Grader		1	Service Equipment
Crane Truck	3 t	1	Service Equipment
Utility Trucks	5 t	3	Service Equipment
Personnel Trucks	4 x 4	4	Service Equipment
Bus	24-48 passengers	5	Service Equipment
Total Contractor Operated		73	

Equipment	Capacity/Type	Quantity	Comment
Buenaventura Operated			
Jumbo	2 Boom	4	UG Mine
Scoop	6.0 yd^3	4	UG Mine
Scoop with jammer plate	6.0 yd^3	4	UG Mine
Bolter	1.5 - 2.4 m	4	UG Mine
Rock Breaker	8.1 m	2	UG Mine
Front-end Loader	3.5 m^3	1	Service Equipment
Skid Steer		2	Service Equipment
Crane Truck	3 t	1	Service Equipment
Utility Trucks	5 t	4	Service Equipment
Personnel Trucks	4 x 4	3	Service Equipment
Total Buenaventura Operated		29	

13.8 Mine Personnel

Mine personnel will consist of three shifts of eight hours and each shift will work on a 14 days on and 7 days off rotation. The estimated underground mine, quarrying, and haulage personnel requirement as of Q3 2026, when Buenaventura is scheduled to have fully assumed responsibility for mining operations, is presented in Table 13-8.

Table 13-8: Mine Personnel

Area	Contractors	Buenaventura
Supervision	15	10
Technical Staff	16	17
Maintenance	31	
Operators - Underground	124	107
Operators - Surface	147	
Services	9	
Total	**342**	**134**

14.0 Processing and Recovery Methods

14.1 Introduction

Buenaventura contracted Ausenco to develop the FS and the engineering, procurement and construction (EPCM) for the Project. The status of the Project as of January 2025 is as follows: detailed engineering is 97% complete, construction services 100% complete, procurement is 100% complete, and construction progress is 62% complete.

This document is based on the FS Process Design Criteria and Process Flow Diagrams. As stated in Section, SLR has not received any detailed engineering, procurement, and construction information for the preparation of this report.

Figure 14-1 is the overall process flow diagram for the process facility. Figure 14-2 shows the overall plant site plan.

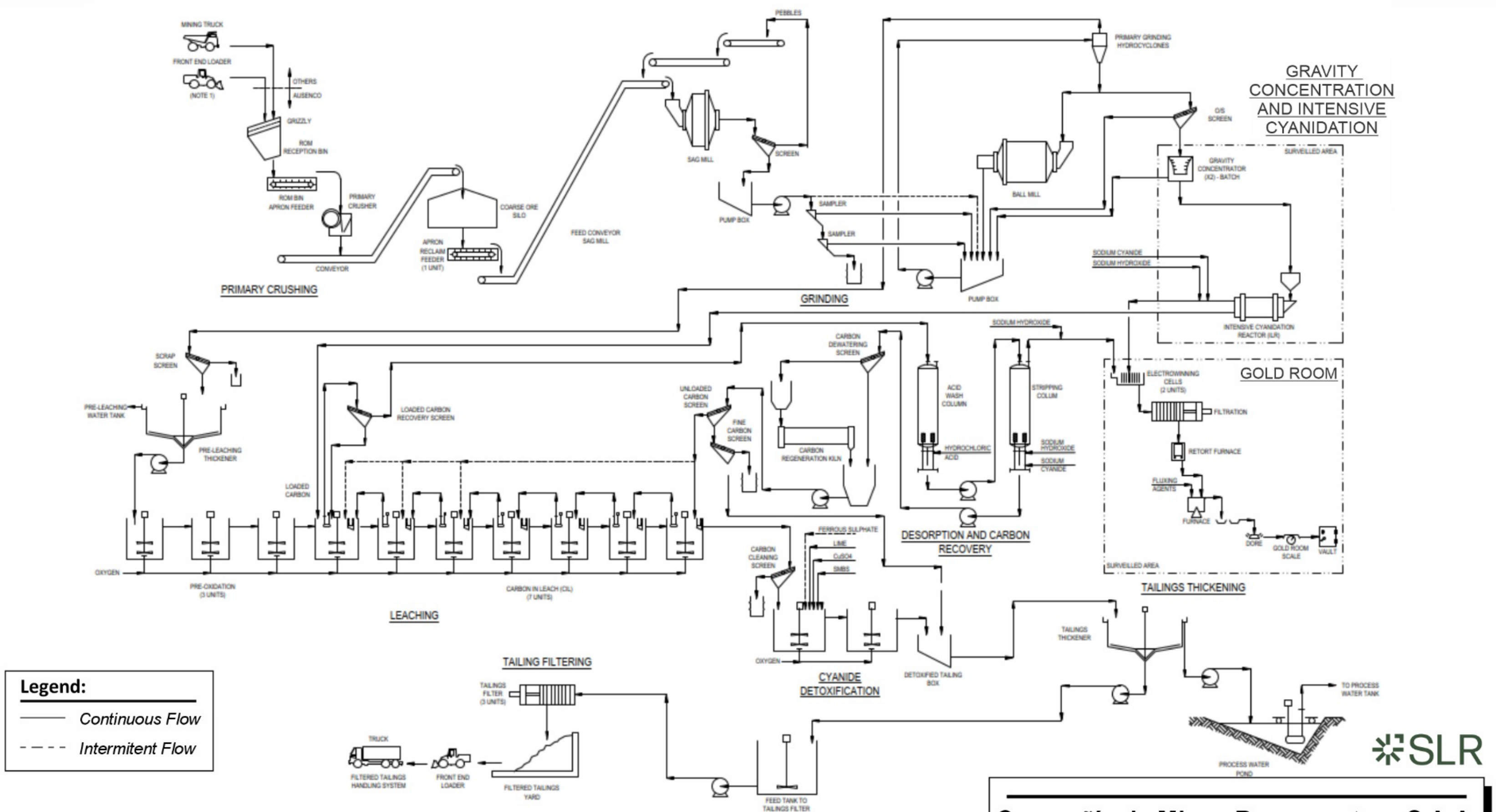
14.2 Summary Process Description

The Project consists of an underground mine, a process plant, ancillary buildings, and associated infrastructure. The San Gabriel processing plant is designed to treat 1,095 Mtpa of ore from the underground mine to produce gold and silver doré bars. The expected LOM for San Gabriel has been estimated at 14 years.

The process unit operations include:

- Primary crushing and crushed ore storage
- SAG mill and ball mill grinding and hydrocyclone classification
- Gravity concentration of a portion of the cyclone underflow
- Intensive cyanidation of gravity concentrate in ILR
- Pre-leach thickening
- Pre-oxidation of leach slurry with sparged oxygen
- CIL cyanidation
- ZADRA carbon elution and carbon regeneration
- Electrowinning of ILR leach solution and CIL carbon eluate
- Doré ingot casting
- SO_2-air detoxification of CIL tailings
- Tailings thickening and filtration
- Dry stacking in the TSF
- Water treatment

Figure 14-1: Process Flow Sheet



Notes:
1. Truck dispatch considered for normal operation purposes front end loader operation only for emergencies.
2. ROM oversize small is treated once per month.

Compañía de Minas Buenaventura S.A.A.

San Gabriel Project

General Sánchez Cerro Province, Peru

Process Flow Sheet

Source: Ausenco 2021.

Figure 14-2: Overall Plant Site Plan

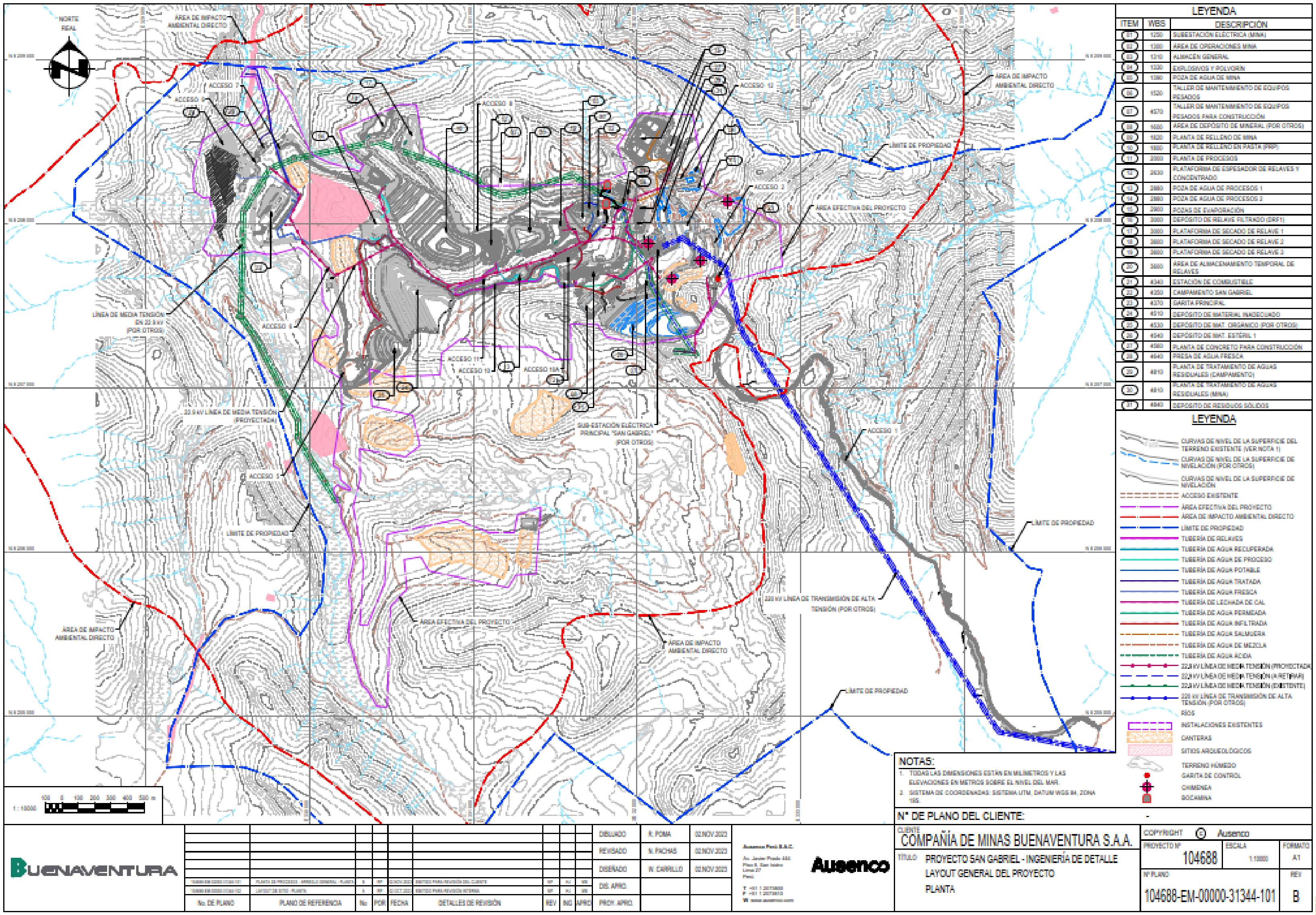


Table 14-1 presents the key process design criteria for the Project.

Table 14-1: San Gabriel Project Process Design Criteria

Description	Units	Value
Plant capacity, total	Mtpa	1.095
	tpd	3,000.0
Crushing operating availability	%	70.0
	h/a	6,132.0
	t/h	178.6
Grinding operating availability	%	90.0
	h/a	8,059.0
	t/h	135.9
Tailings filter capacity	%	150.0
LOM gold grades (South Zone 61% of Ore)	g/t	4.04
LOM silver grade	g/t	7.15
Design gold grade (Year 4 maximum LOM)	g/t	5.78
Design silver grade (80th percentile LOM)	g/t	11.00
LOM gold recovery	%	85.4
Design gold recovery	%	86.7
LOM silver recovery	%	44.6
Design silver recovery	%	48.2
Ore specific gravity		3.0
Grindability (75 percentile LOM)		
Grinding particle size (P80)	µm	45.0
JK Tech Axb parameter		75.0
SAG Power Index, SPI	min	37.6
Bond crushing index, CWi	kWh/t	16.2
Bond rod mill work index, RWi	kWh/t	16.0
Bond ball mill work index, BWi	kWh/t	16.3
Source: Ausenco 2022.		

14.3 Primary Crushing

ROM ore is hauled from the mine to the process plant and either directly dumped through a stationary grizzly with 400 mm square openings, into the 90 ton capacity primary crusher feed bin or stockpiled and dumped into crusher feed bin with a front end loader.

The ROM ore is drawn from the feed hopper by a variable speed apron feeder, which discharges onto a vibrating grizzly feeder. Grizzly undersize material falls through to the crushed ore silo feed conveyor. Grizzly oversize material feeds the primary jaw crusher at a design capacity of 179 t/h, and operating with a closed side setting (CSS) of 80 mm to reduce the ore size to a P_{80} of 68 mm. The crushed ore discharges from the primary crusher and is combined with the grizzly undersize material on the crushed ore silo feed conveyor. The feed conveyor is equipped with a metal detector and a cross-belt electromagnet to remove tramp metal scrap from ore protecting the belt from damage.

The crushed ore silo will have a live capacity of 1,500 tonnes (12 hours live capacity) and will be covered by a light structure to minimize dust from the conveyor discharge.

Material will be drawn from the silo with a apron feeder and fed to the SAG mill feed conveyor, which will be equipped with a weigh scale for SAG mill feed control and accounting.

14.4 Grinding, Classification, and CIL Leaching

The grinding circuit consists of a SAG mill-ball mill–hydrocyclone classification circuit. The SAG discharges onto a vibrating screen, the screen undersize reports to the cyclone feed pump box and the screen oversize pebble is recycled to the SAG mill feed conveyor. The SAG mill discharge slurry is pumped from the SAG mill discharge pump box to the ball mill discharge/cyclone feed pump box where it is combined with the ball mill discharge slurry. The slurry is then pumped to the primary grinding hydrocyclones for classification. The cyclone underflow slurry is split between the ball mill feed and the centrifugal gravity concentrator. The split will be 1/circulating load. The tailings from the gravity concentrator and the ball mill discharge flow return to the cyclone feed pump box. The cyclone overflow slurry flows through a trash screen to the pre-leach thickener. The thickener underflow slurry is pumped a three tank pre-oxidation circuit with oxygen sparging followed by a seven tank CIL circuit.

14.4.1 SAG Mill

The SAG mill is 4.88 m diameter and 3.05 m in equivalent grinding length (EGL) and is equipped with a 1,000 kW variable speed motor and a pinion, which allows the mill to operate at 60% to 80% of its critical speed. It will also be equipped with a retractable spout/chute feed system and a pebble screen to separate and recirculate pebbles to the SAG mill.

The 136.8 m^3/h pebbles screen underflow will feed the SAG mill discharge pump box. Slurry will be pumped from the pump box to a slurry sampling tower. A proportion of the flow will feed a two-stage (primary and vezin) sampler to obtain representative samples for plant feed grade control and metallurgical accounting purposes. Sampler rejects will flow by gravity into the cyclone feed pump box.

The pebble circuit, which can handle a circulating load of up to 30%, consists of two conveyor belts, an electromagnet for the removal of tramp metal and grinding media, and a scale for the control of the recirculation of pebbles. Pebble crushing is not included.

14.4.2 Ball Mill

The ball mill is 5.18 m diameter and 7.92 m EGL with a 3,500 kW drive, retractable spout/chute feeding system and magnetic trunnion discharge system. The ball mill will discharge over a trommel screen to the hydrocyclone feed pump box. The ball mill will operate with a circulating load of between 300% and 400%. Makeup water to the pump box for density control will be supplied from the process water tank which is in turn supplied from the pre-leach thickener overflow solution.

14.4.3 Hydrocyclone Classification

The cyclone feed pump box slurry is pumped to a hydrocyclone cluster at 665.6 m^3/h. The cluster consists of twenty-one 8 in. diameter hydrocyclones (19 operating, two on stand-by). Two of these hydrocyclones will be installed with pneumatically operated valves to allow for remote pressure control. The cyclone underflow will flow to a collection box at 307.8 m^3/h, which will divide the slurry between the centrifugal gravity concentrator and the ball mill feed.

The cyclone overflow slurry at approximately 357.8 m^3/h (P_{80} of 45 µm) will flow by gravity to a collection box, which will feed an inclined vibrating trash screen for the removal of debris and coarse particles in the pulp, prior to flowing into the pre-leach thickener. The screen oversize trash material will be collected in a storage bin while the screen undersize slurry will flow to the pre-leach thickener for density adjustment prior to leaching.

14.4.4 Gravity Concentration and Intensive Cyanidation

The underflow of the hydrocyclone cluster, from the grinding and classification circuit, is sent to a distribution box where a portion of the slurry is diverted to a gravity concentration circuit, and the remainder flows to the ball mill feed chute. The split to gravity concentration will be 1/circulating load, which considering 300% circulating load would be 1/3 of the cyclone underflow feeding gravity concentration.. The feed rate is approximately 102.6 m^3/h, at a solid concentration of 70% w/w.

Prior to gravity concentration, the slurry passes through a coarse particle removal screen, in which particles larger than 2 mm are returned to the grinding circuit, while particles smaller than 2 mm feed two parallel alternately operating centrifugal concentrators. Concentrate produced is diverted to the intensive cyanidation ILR, while gravity tailings are discharged into the gravity tailings pump box and r pumped to the hydrocyclone feed pump box along with the screen oversize material.

During intensive cyanidation, a continuous flow of sodium hydroxide and sodium cyanide is added. The rich gold leach solution from intensive cyanidation is sent for electrowinning, while solid tailings are either pumped to the hydrocyclone feed pump box in the grinding circuit or to the first CIL leach tank.

A vertical shaft sump pump will be installed in the ILR area to facilitate cleanup and spill collection, which will be pumped to the hydrocyclone feed box.

14.4.5 Pre-leach Thickener

The pre-leach thickener feed slurry will be sampled by the automatic Leach Area Feed Sampler. Cyclone overflow slurry at 30% solids will be diluted with clean water and fed into the 25 m diameter pre-leach thickener feedwell. Flocculant is added to assist in solid-liquid separation. The flocculant is prepared by diluting with clean water in a static inline mixer to a concentration of 0.025% w/w. The thickener underflow at 45% solids will be pumped directly into the first agitated pre-oxidation leach tank, while the clear thickener overflow solution will flow by gravity into a pre-leach water storage tank.

14.4.6 Pre-Oxidation and CIL Cyanidation

The underflow of the pre-leach thickener is pumped to the feed box of the pre-oxidation tanks at 209.8 m^3/h. Lime slurry is added to the feed box to adjust the slurry to a pH of 10.5 and process water is added to dilute the slurry to 36% to 38% solids depending on the viscosity, which is monitored by the operator.

There are three 9.25 m diameter by 11.47 m high pre-oxidation tanks in series with oxygen sparged into the bottom of the tanks through oxygen diffusers. Lime slurry is added to maintain the pH levels in the pulp. The pre-oxidation residence time is eight hours.

Slurry from the third pre-oxidation tank flows into the first of seven 9.25 m diameter by 11.47 m high CIL tanks operating in series and providing approximately 18 hours of residence time. Electrowinning bleed solution and the ILR wash solutions are also fed into the CIL tanks. Oxygen will be sparged into all seven CIL tanks, while sodium cyanide solution will be dosed to the first CIL tank only.

Each CIL tank will be equipped with a twin-impeller pump-agitator to ensure uniform mixing. All tanks will be equipped with bypass launders to allow any tank to be removed from service for tank and agitator maintenance. The vertical carbon transfer pumps and in-tank carbon retention screens will facilitate transfer of carbon particles countercurrent to the slurry flow, from the last CIL tank (No. 7) to the first tank, while the slurry flows from the first tank to the last tank.

The viscosity of the San Gabriel ore is variable, therefore in-line viscosity measurement instruments or viscometers will be added to the process control system. Viscosity will be controlled to prevent floating carbon in the CIL tanks through the addition of dilution water at strategic points in the circuit. The CIL tailings will be transferred to the cyanide detoxification circuit.

Above the leach tanks, a hydrogen cyanide gas (HCN) detector will be installed to monitor the concentration of HCN gas generated in the leach tanks.

14.5 Elution and Regeneration of Activated Carbon

The ADR plant is designed to process 7.27 tonnes of carbon per day in maximum 7.5 tonne batches. The acid wash column and carbon elution columns are designed to hold a single 7.5 tonne batch.

14.5.1 Acid Washing of Carbon

Loaded carbon slurry will be pumped from the first CIL tank to the loaded carbon recovery screen in the ADR building. Screen undersize slurry will be returned by gravity to the No. 1 CIL tank while screen oversize carbon is slurried with water and pumped to the carbon acid wash vessel in the ADR plant. A solution of 3% HCl hydrochloric acid w/w is introduced into the acid washing column from the bottom for the removal of calcium (Ca), manganese (Mg), and other elements that can affect the elution process at lower temperatures and pressures.

14.5.2 Elution and Electrowinning

The acid washed carbon is rinsed and then pumped into the elution column for elution in two stages, both using a solution containing approximately 2% sodium hydroxide NaOH and 2% sodium cyanide (NaCN).

The first step is a cold elution stage for recovering copper at an operating pressure and temperature of 65 psig and 30°C, respectively, and a flow rate of 3.0 bed volumes per hour for 80 minutes. The copper eluate is pumped into the CIL tailings cyanide detoxification circuit.

The second stage is a hot elution step performed at 280°F (137.7°C) and 65 psig, in which a hot solution of sodium cyanide NaCN and sodium hydroxide NaOH is pumped through the loaded carbon elution vessel at a flow rate of 3.0 bed volumes per hour for 270 minutes including soaking. Elution solution is pumped through a heat recovery heat exchanger and solution heater to a temperature of 280°C. The solution then flows upwards through the bed of carbon eluting gold and silver cyanides from the carbon. The resulting rich eluate overflows the column and flows through cooling heat exchangers for 30 minutes to the rich eluate tank. The cooled rich eluate is pumped through electrowinning cells to precipitate the precious metals in solution.

The rich eluate from CIL carbon stripping is electrowon in dedicated electrowinning cells, while the rich solution from the gravity intensive cyanidation ILR circuit is stored in a dedicated eluate tank, where it is mixed with sodium hydroxide. The ILR rich gold leach solution is sent to dedicated electrowinning cell for ILR.

A precious metal precipitate is produced in the electrowinning cells. The sludge is manually cleaned from the cells, placed in metal carts and transferred to the filter press area. The barren eluate from the cell is recirculated to the ILR eluate solution tank for future use into the ILR circuit.

Similarly, the rich eluate from the ADR circuit is sent to dedicated electrowinning cells, from which a sludge is produced and sent to the same filter press area as that of the ILR cell. The barren eluate from the electrowinning cell is pumped to the eluate solution tank, in which the solution parameters are adjusted with sodium cyanide, sodium hydroxide, antifouling agents, and raw water before being returned to the ADR circuit.

14.5.3 Carbon Regeneration

Once the elution cycle is complete, the carbon is discharged from the elution vessel and pumped to the carbon dewatering screen, which includes a feed box and the dewatering screen. The screen oversized carbon is stored in a receiving hopper and then fed into a rotating carbon regeneration kiln, which operates at 750°C. The regenerated carbon discharges from the kiln into a water filled quench tank where the carbon is cooled. The carbon is then pumped to the carbon sizing screen for fines removal and the screen oversize carbon is pumped to the No. 7 CIL leach tank for reloading.

Fresh carbon is mixed with fresh water in an agitated tank and then pumped to the carbon sizing screen as described for regenerated carbon to remove any fine carbon before being added to the No. 7 CIL tank. The screen oversize carbon is pumped to the No. 7 CIL tank, while the screen undersize passes over a second screen to remove ultra fines. Second screen oversize fine carbon is stored in bags and the second screen undersize ultrafine carbon is pumped to the tailings detoxification circuit.

A total cycle of 14 hours is expected including five hours of acid washing and 7.1 hours for the elution stage, with 2.9 hours as free time if the elution stage requires additional time.

Two vertical-shaft sump pumps, one for the acid wash area and one for the desorption area, will be available for cleanup and spill collection from each area. Acid spills are pumped into the tailings detoxification area, while desorption spills are pumped to the CIL circuit.

14.5.4 Filtration, Drying-Retorting and Doré Casting

The product obtained in the electrowinning cells (sludge) is sent to a filter press, in which the sludge is dried with high-pressure air before being discharged. Once the cake is dry, it is transferred to the dump cart and manually sent to a retort oven for mercury recovery. In the tray, the dried retort product is mixed with fluxes and loaded into the gold smelting furnace. The resulting metal doré will be poured into molds obtaining doré bars. The doré bars are weighed on a scale before being sent to the security vault of the process plant.

14.5.5 Dust Collection and Gas Cleaning

The dust collection system allows the control of particle emission in the discharge hopper and the doré smelting furnace. The collected powder will be returned to the retort tray. This section of the process plant shall be equipped with sufficient exhaust fans for the electrowinning section and for the retort furnace and smelting section to ensure sufficient air circulation.

14.6 Cyanide Detoxification

The objective of cyanide detoxification is the removal of cyanide present in the CIL tailings. The flow rate is approximately 290.7 m^3/h. CIL tailings and ILR tailings entering the detoxification circuit will pass through a carbon safety screen, consisting of a feed box and a vibrating screen. Screen oversize carbon will be recovered and reused, and the screen undersize slurry will feed the three agitated cyanide detoxification tanks, operating in series for a retention time of two hours. The discharge of the third tank is directed to a detoxified tailings pump box. Detoxified tailings pass through a sampler for quality and environmental control before tailings are pumped to the thickener and filters and deposited as filtered tailings in the DRF.

The cyanide detoxification circuit is designed to reduce CN_{WAD} to less than 8 ppm. The circuit consists of two agitated tanks providing a residence time of two hours for reaction of the sodium cyanide in solution with sulphur dioxide and air.

The addition of reagents will be done directly in the first tank: 10% w/w sodium metabisulphite (SMBS source - SO_2), lime slurry to maintain the desired pH, copper sulphate to catalyze the INCO process (air/SO_2), ferrous sulphate, and process water. Only lime slurry and SMBS are added to the second tank if required.

Oxygen is blown into each of the cyanide detoxification tanks to maintain a high redox potential and maximize cyanide oxidation.

H_2S gas and HCN detectors are located above the cyanide detoxification tanks to monitor the concentration of these two gases.

14.7 Thickening and Filtering of Detoxified Tailings

The detoxified tailings thickening and filtration circuit comprise a single high-rate thickener and a series of filter presses. The detoxified slurry (298.9 m^3/h) is transferred by gravity to the tailings thickener feed well along with the filtrate from the tailings filter press. Flocculant diluted to 0.025% w/w is added to aid solid-liquid separation. The thickener underflow of 181.1 m^3/h is discharged into the tailings filter feed tank with a solid concentration of 45-50% w/w.

The thickener supernatant is gravity discharged into the tailings thickener overflow tank and pumped into the process water pond for recirculation throughout the process.

The tailings thickener will be supplied as a complete package with a hydraulic actuator and a harrow lifting mechanism.

The flocculant is added to the thickener feed stream through a dilution system to achieve better sedimentation in the thickener.

Thickened slurry at 45% solids will be pumped to the three tailings filter presses. The filtered solids will be dewatered and dried with compressed air to approximately 20% moisture and discharged into a stockpile beneath the filters. The stockpiled material will be moved by front end loaders and trucks to the DRF. The filtrate will be collected in a filtered water tank and recycled back into the tailings thickening circuit. Section 10.6.9 discusses alternatives being investigated to reduce the moisture of the filtered tailings from 20% solids to the geotechnical requirement of 14% solids for dry stacking.

Initially, the use of two tailings filters was contemplated. As a process improvement, the design of the filters was updated and a filter was added for a total of three maintaining the treatment capacity.

Tailings filters are part of an independent supplier package consisting of a complete hydraulic package, feed pump, fabric wash pump, press water pump, air compressors, and air receivers.

14.7.1 Pre-leach Thickener Overflow Water

The pre-leach thickener supernatant is discharged into a pre-leach water tank (2810-TK-072). This water is recirculated by pumps to the ore stockpile, primary crushing, milling, and gravimetric concentration areas.

14.7.2 Process Water

The water accumulated in the process water pond from the tailings thickener overflow and TSF infiltrations is treated in the water treatment plant and pumped to the process water tank (2810-TK-060) which pumps water to different points within the process plant.

14.8 Reagents

A summary of the reagents used in the mineral processing facilities and the mine water treatment facilities include:

- Lime Slurry (CIL, Detoxification and Water Treatment)
- Aluminum Sulfate (PTARI)
- Sodium hypochlorite (PTARI and UF/NF)
- Sodium Hydroxide (Elution, ILR and NaCN Preparation)
- Sodium hydroxide (PTARI and UF/NF)
- Sodium Metabisulfite (Detoxification and UF/NF)
- Ferrous Sulfate (Detoxification)
- Flocculant (Pre-Leaching Thickener and Detoxified Tailings Thickener)
- 33% Hydrochloric Acid (Acid Wash)
- Hydrochloric acid (UF/NF)
- Copper Sulfate (Detoxification)
- Sodium Cyanide (CIL, Elution, Gravimetric Concentration, and ILR)
- Fluxes: Litharge, Borax, Sodium Nitrate, Silica, Sodium Carbonate (Refinery)

Process reagents and materials consumptions are provided in Table 14-2.

Table 14-2: Process Materials and Reagent Consumptions

Description	Unit	Consumption
Quicklime (pH modifier)	kg/t	4.06
NaCN - Sodium Cyanide	kg/t	1.794
NaOH - Sodium Hydroxide	kg/t	0.266
HCl (32%) – Hydrochloric Acid	l/d	255
$CuSO_4$ - Copper Sulphate	kg/t	0.1
SMBS - Sodium Metabisulphite	kg/t	2.29
Litharge	kg/d	30
Borax	kg/d	60
Sodium Nitrate	kg/d	5
Silica	kg/d	30
Sodium Carbonate	kg/d	5
Activated Carbon	kg/d	113
Flocculant (Pre-Leach Thickener)	g/t	30
Flocculant (Tailings Thickener)	g/t	60
SAG Ball Media	g/t	339
Ball Mill Media	g/t	1,087
Source: Ausenco 2022.		

14.9 Power Consumption

Power consumption by the process plant and infrastructure is presented in Table 14-3.

Table 14-3: Power Consumption, Process and Infrastructure

Load Description	Installed Power (kW)	Power Consumption (MWh/y)
Grinding, SAG Mill and Ball Mill	4,500.0	29,013.1
Crushing and Conveying	400.0	2,102.4
Grinding and Classification	507.0	3,268.8
Gravity Concentration and ILR	38.0	245.0
Pre-oxidation and CIL	1,171.0	7,549.9
ADR	616.0	3,971.6
Cyanide Detox and Tailings Filtration	684.0	4,410.0
Reagents	129.0	831.7
Plant Services	1,170.0	7,543.4
On-site- Water Management and MA	75.0	483.6

Load Description	Installed Power (kW)	Power Consumption (MWh/y)
On-site Water Services	35.0	225.7
On Site Facilities	9.0	58.0
Waste Disposal	115.0	741.4
Mine Infrastructure	300.0	1,934.2
Other Infrastructure	868.0	5,596.3
Allowance for Small Equipment	122.0	786.6
Total	10,739.0	69,238.2
Source: Ausenco 2022.		

14.10 Personnel

A total of 55 process operations and 35 plant maintenance personnel are included for a total of 90 people.

14.11 Reference Documents and Drawings

The process plant complies with the FS documents and drawings indicated in Table.

Table 14-4: Reference Documents

Document No.	Title
SGB-DES-MEC-000-FS-051	Process Design Criteria
SGB-DES-PFD-000-FS-051	Flowchart - Site General
SGB-DES-PFD-000-FS-052	Flow Diagram - General Process Plant Diagram - 3000 tpd
SGB-DES-PFD-000-FS-053	Flowchart - Primary Crushing and Material Handling
SGB-DES-PFD-000-FS-054	Flowchart - Grinding, Grading & Handling Pebbles
SGB-DES-PFD-000-FS-055	Flowchart - Gravimetry and Intensive Cyanidation
SGB-DES-PFD-000-FS-056	Flowchart - CIL
SGB-DES-PFD-000-FS-057	Flow Chart - Carbon Desorption and Regeneration
SGB-DES-PFD-000-FS-058	Flowchart - Sala Doré
SGB-DES-PFD-000-FS-059	Flowchart - Cyanide Detoxification
SGB-DES-PFD-000-FS-061	Flow Chart - Thickening and Filtering of Detoxified Tailings
SGB-DES-PFD-000-FS-066	Flow Chart - Air Supply and Distribution
SGB-DES-PFD-000-FS-067	Flow Chart - Oxygen Supply and Distribution
SGB-DES-PFD-000-FS-068	Flow Chart - Water Supply & Distribution (1 of 2)
SGB-DES-PFD-000-FS-069	Flow Chart - Water Supply and Distribution (2 of 2)
SGB-DES-PFD-000-FS-070	Flow Chart - Mine Water Treatment Plant
SGB-DES-PFD-000-FS-071	Flow Chart - UF/NF Water Treatment Plant
SGB-DES-PFD-000-FS-072	Flow Chart - Water Evaporation Pond

Document No.	Title
SGB-DES-PFD-000-FS-073	Mass Balance - Current Table (1 of 3)
SGB-DES-PFD-000-FS-074	Mass Balance - Current Table (2 of 3)
SGB-DES-PFD-000-FS-075	Mass Balance - Current Table (3 of 3)
SGB-DES-PFD-000-FS-076	Process Water Balance Diagram

15.0 Infrastructure

The following information is based on a FS completed by Ausenco (Ausenco 2022). At the time of writing this report SLR has not received any updates or changes pertaining to the planned construction of surface infrastructure.

The overall site infrastructure is shown in Figure 15-1

15.1 Access Roads

The main access to the Property is via the National Road MO-106. A seven kilometre gravel road connects the national road to the site's main gate. The national road connects the site to Puno and Arequipa which are located 117 km and 233 km away, respectively. Personnel transfers are done via Puno which has an airport with frequent flights to Lima. Equipment and consumables are typically transported from Arequipa.

15.2 Power

The power supply to the San Gabriel Substation will be via one 50.3 km long 220 kV overhead transmission line from the Chilota Substation to the 220 kV/23 kV San Gabriel Substation.

The distribution voltages from the San Gabriel Substation are 23,000 V, 10,000 V, 4,160 V, and 480 V. Low voltage distribution uses 400 V, 231 V for lighting and 120 Vac and 125 Vdc.

Power will be distributed to the:

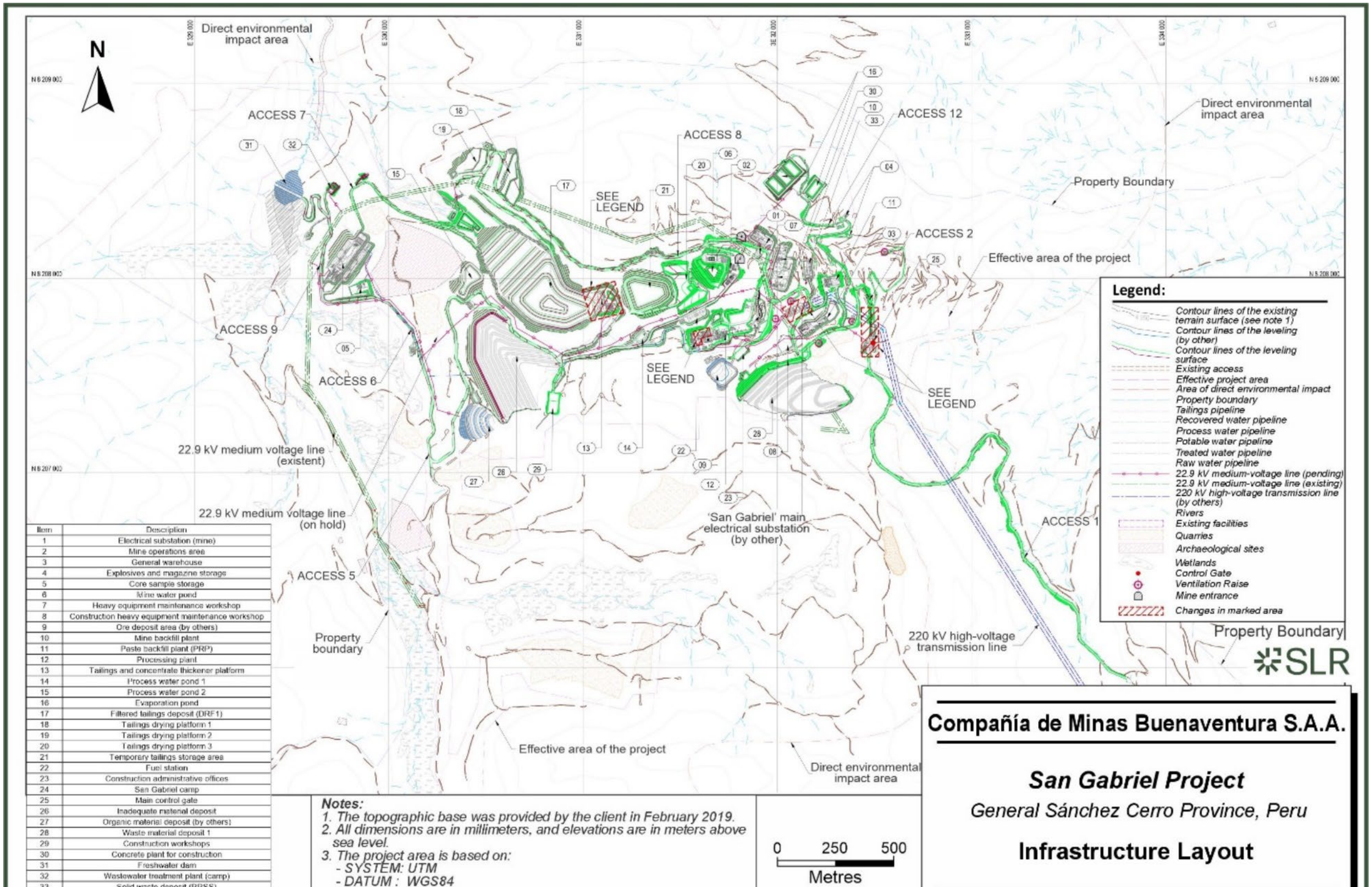
- Mine operations and truck shop
- Main access road gate house
- Warehouse
- Process Plant
- Tailings Thickening, Filtering, and Storage
- Camp Facilities

A maintenance access road must be constructed along the length of the approved 220 kV transmission line alignment to allow access for construction traffic and for the future maintenance. The alignment corridor must be cleared of vegetation where this would interfere with the transmission line.

Design of the lattice transmission line towers is included in the high voltage (HV) powerline contract package. This will also include the design and construction of the concrete foundations for the towers, installation of all insulators, stays, air brakes, switches, and other accessories necessary for the construction, commissioning, and operation of the 220 kV line.

The estimated maximum demand for the Project is 18.4 MVA, including process plant and other surface loads at 14.3 MVA and underground mining at 4.1 MVA. Surface power will be distributed via 22.9 kV pole-mounted supply.

Figure 15-1: Site Infrastructure



Source: Ausenco 2021.

15.2.1 Power Consumption

SAG and ball mill power were calculated based on the plant throughput schedule, and average ore specific energy (ECS) calculated for the ore specific comminution characteristics. The specific power for the SAG mill - ball mill circuit is 26.54 kWh/t. This gives a yearly consumption of 29,060 MWh/y (see Section 14.9).

Power was calculated by plant area using power factors, operating hours per year, and average demand power taken directly from the electrical load list. Total hours per year specified in the process design criteria by area were used to calculate the total power usage in kWh. An allowance of 2% of the total calculated power was included for small power consumers not identified in the equipment list.

The average annual non-milling power for each process area is summarized in Table 15-1.

Table 15-1: Non-Grinding Power Consumption by Area

Load Description	Average Power Demand (kW)	Power Consumption (MWh/y)
Crushing and Conveying	400.0	2,102.4
Grinding and Classification	507.0	3,268.8
Gravity Concentration and ILR	38.0	245.0
Pre-oxidation and CIL	1,171.0	7,549.9
ADR	616.0	3,971.6
Cyanide Detox and Tailings Filtration	684.0	4,410.0
Reagents	129.0	831.7
Plant Services	1,170.0	7,543.4
On-site- Water Management and MA	75.0	483.6
On-site Water Services	35.0	225.7
On-site Facilities	9.0	58.0
Waste Disposal	115.0	741.4
Mine Infrastructure	300.0	1,934.2
Other Infrastructure	868.0	5,596.3
Allowance for Small Equipment	122.0	786.6
Total	6,239.0	39,748.5

15.3 Water Supply, Recovery, and Distribution

Water supply circuits comprise the following types of water:

- Fresh water
- Drinking water
- Fire water

- Pre-leach dilution water
- Process water
- Treated water

15.3.1 Fresh Water

Fresh water will come from two sources: freshwater dam and water inflow from the underground mine. Mine, process, and surface contact water will be recycled for plant and mine operations use. Fresh water is pumped to the fresh water transfer tank, which feeds the process plant's fresh/fire water tank, and is distributed to various points in the process plant, such as gland seal water, dust suppression, reagent mixing, fire suppression services, and the process plant's drinking water treatment plant. Fresh water makeup to the process water tank for distribution as required.

15.3.2 Fresh Water Dam

The fresh water dam will be built across the Quebrada Agani, which is a valley on the west side of the Project. The current dam design includes a bypass system built into the base of the dam wall to return water to the stream and maintain its natural flow, minimizing impacts to downstream water users. The dam will have a maximum storage capacity of 700,000 m^3. The dam will collect sufficient water during the rainy months to support operations during the dry months. Water from the fresh water dam will be used for potable water use and supplement water requirements for mine and process plant operations.

15.3.3 Mine Water

Water collected from the mine by dewatering pumps will be recycled for mine and process plant operations. The collected water will be sent to a water treatment plant to remove unwanted chemicals and impurities prior to re-circulation.

15.3.4 Drinking Water

The camp's drinking water treatment plant is fed by the fresh water transfer tank. Fresh water is filtered and treated to meet drinking water quality and standards. After this treatment, the drinking water will be stored in the camp's drinking water tank and then distributed to the camp and facility.

A portion of the drinking water stored in the camp's drinking water tank will be sent to the plant's drinking water tank, stored, and distributed to eyewash stations and safety showers located around the plant, as well as other mine facilities and plant areas.

15.3.5 Fire Water

The fresh water storage tank will have a dedicated supply exclusively for fire water. The fire water will be distributed to all areas of the plant, laboratory, truck shop, offices, and fuel storage facility using a firefighting water pumping system, which will include three backup pumps (electric, diesel, and jockey pump).

15.4 Mine Water Treatment Plant

15.4.1 High Density Slurry Plant

Water from the underground mine and contact water (Organic Material Deposit [Deposito de Material Organico, or DMO], Improper Material Deposit [Deposito de Material Inadecuado, or DMI], and Waste Material Deposit [Deposito de Material, or DME]) will be stored within the mine water pond to be fed to the High Density Slurry Plant (HDS) consisting of three cascade-fed series tanks (one for conditioning and two for reaction) and a clarifier HDS with filter press to recover sedimented sludge.

Lime slurry, sodium hydroxide, aluminum sulphate, and calcium hypochlorite will be added for pH adjustment and metal precipitation. Dedicated facilities will be constructed for the preparation, storage, and distribution of sodium hydroxide and hydrated lime during construction (approximately two years). The lime slurry will be supplied during operation from the main lime plant through a 700 m pipeline.

Temporary facilities for the preparation of lime slurry are proposed close to the facilities of the Industrial Waste Mine Water Treatment Plant (PTARI); once operations begin, these facilities will be considered as backup for the preparation of lime slurry if necessary.

15.4.2 Industrial Waste Mine Water Treatment Plant

The mine water treatment plant has a capacity of 15 L/s for temporary use, while the construction of the final PTARI is carried out, which is 60 L/s.

Sodium hydroxide and lime slurry will be added automatically to the first tank and manually to the second reaction tank. In addition, aluminum sulphate and calcium chloride will be added as flocculating and oxidizing agents, respectively. Both reagents will have a dedicated dosing system at the PTARI facilities, and both will feed the first tank of the reactor.

The sludge produced will be fed with flocculant and a part of the clarifier discharge to produce the seed effect and enhance the precipitation of metal salts. The clarifier supernatant will be stored in a treated water transfer tank for flocculant dilution, after an in-line filtering stage, to ensure the quality of the treated water, which will then be diverted to the mine for use.

An emergency treated water line from the HDS transfer tank to the process water tank, and an alternative treated water line to supply the ultrafiltration and nanofiltration plants are being considered.

Clarifier sludge will be pumped to a sludge feed tank where it is pumped to a batch filter and filtered sludge, transported by truck to the DRF. The recovered water will be fed back to the clarifier.

15.4.2.1 Ultrafiltration

The water treatment facility has two stages of water filtration to produce high quality water:

- Ultrafiltration (UF)
- Nanofiltration (NF)

After the mine water has been treated by the PTARI, a portion of this water undergoes a second step of water treatment for environmental release: an UF/NF system that will remove most of the ions present in the process water and mine water to comply with environmental permits and governmental standards (EIA 2017- LMP and ECA-3), for water effluent release into the environment.

Water effluent from the processing plant will be treated in an ad-hoc UF/NF plant, while a fraction of the treated solution from the HDS plant will be pumped into the ultrafiltration feed tank to a separate UF/NF module, along with sodium hydroxide and ferric chloride. This mixture will be incorporated into the ultrafiltration array, which consists of a pre-filter and the ultrafiltration module. The ultrafiltered water will be taken to the nanofiltration feed tank, while the waste from the pre-filter and ultrafiltration module will be taken to the brine tank. The chemical cleaning system of this ultrafiltration device will be carried out once a month, using sodium hydroxide, sodium hypochlorite, hydrochloric acid, and the accumulated filtered water from the nanofiltration treatment.

15.4.2.2 Nanofiltration

The ultrafiltered water will be stored and then pumped from the nanofiltration feed tank to the nanofiltration system, along with sodium hydroxide and sodium metabisulfite. This system will consist of a pre-filter and the nanofiltration module, which will perform the final removal of ions from the water. The filtered water will be collected in the filtered water tank for later use as raw water or released into the environment. The waste collected from the ultrafiltration module will be diverted to the brine tank along with the ultrafiltration waste. The nanofiltration system will be cleaned with pure water, which will be stored in the clean-in-place tank. When required, this clean-in-place tank will also be used for cleaning of the ultrafiltration setup, whenever filtered water from the nanofiltration is not available or when more intensive cleaning is needed.

The excess brine from the UF/NF plant will be pumped into four evaporation ponds from which four operational evaporator cannons will pump diluted high-pressure brine to enhance the evaporation of excess water, and the concentrated solution (brine) will return to the pond for further disposal. There will be a spare cannon for standby.

Possible changes in the configuration of the PTARI + UF/NF + evaporation circuit will be considered in case of new water quality release criteria to the environment approved by the authority.

15.5 Air and Oxygen Services

15.5.1 Compressed Air Service

The air from the plant and instrumentation will be supplied by oil-free rotary screw type air compressors. The compressors will operate in a primary/auxiliary configuration to meet peak flow demands. The air from the plant will be stored in the main plant air receiver. The plant air for the press filters will be stored in a separate air receiver near the filtered tailings area.

Instrumentation air for the plant is stored in the instrumentation air receiver, dried, and filtered to remove any contained particulate before being used in the plant.

15.5.2 Oxygen Service

Oxygen is supplied by the oxygen plant for use in cyanide leaching and detoxification circuits, to increase the dissolved oxygen content of the pulp or solution as required. The blowers supply air at 93% purity.

15.6 Fuel Storage and Supply

The Project will have one fuel reception, storage, and dispatch area for all site operations. The facility will be fitted with self-draining slabs that will divert any spillage and contact water to an oil/water separator sump. The fuel loading facility will include four loading bays for both light and heavy mobile equipment. Fuel will be stored in two steel tanks with a total storage capacity of 227 m^3 of fuel which is estimated to support 14 days of operation.

15.7 Accommodation Camp

Since the Project is currently under construction, the current accommodation consists of two camp facilities with a total capacity for 1,500 people. During operation the number of people working on site is expected to be approximately 800 (for two shifts). The number of modules will be decreased to approximately 440 once the mine fully enters in production, which will be sufficient to accommodate the numbers of workers over one rotation. Camp facilities include administrative buildings, training rooms, recreation rooms, laundry facilities, a medical centre, and kitchen and dining rooms.

15.8 Maintenance Workshop

The maintenance platform includes the mechanical workshop, electrical workshop, and maintenance offices. The mechanical workshop (truck shop) is planned to have four bays for heavy vehicles with an overhead crane for operation and maintenance. The electrical maintenance workshop will have an open area for electrical maintenance, areas for welding, a machining shop, an overhead crane, and six rooms for electrical storage. The maintenance platform will also include a vehicle wash bay, mobile equipment parking areas, and warehouse for lubricants, tires, and other supplies.

15.9 Cemented Backfill Plant

The backfill plant consists of an aggregate feed system, cement feed system, water feed system, and a twin shaft batch style mixer. The key equipment required for the plant is listed below:

- Dual aggregate feed hopper with separate bins for coarse and for fine aggregates
- Belt conveyors for the plant operation
- Twin shaft batch mixer, with drive system and ancillaries
- Automatic washing unit, with electrical pumps and local control panel
- Cement storage silos
- Cement screw feeders and weighing hoppers

15.10 Organic Material Storage Facility

Organic material removed from construction excavations will be stored in two storage facilities DMO 1 and DMO 2. DMO 1 includes a retaining dam at the foot of the storage facility, internal accesses, an underdrain system, and crowning diversion channels for surface water runoff management. The retaining dam has been built with a slope of 1.5 horizontal (H) : 1.0 vertical (V) on the side facing the storage facility and a slope of 2.0H:1.0V on the downstream side. The main body of the deposit has been configured with five metre high intermediate banks with slopes of 4.0H:1.0V, generating a global slope of 6.0H:1V.

DMO 2 will store organic material from expansion of surface infrastructure during the LOM. The deposit has a storage volume of 148,130 m^3, capable of storing the estimated volume of 131,561 m^3 of organic material of the projected facilities. The underdrain system will consist of main pipes and secondary branches arranged in a herringbone assembly. The drainage system will be placed in trenches and covered with gravel and non-woven geotextile. DMO 2 will include a retaining dam, built with a slope of 2.0H:1.0V on the side facing the storage facility and a slope of 2.5H:1.0V on the downstream side. Material will be placed in the storage facility following the same design criteria as DMO 1.

15.11 Inadequate Material Storage Facility

Material that has been excavated from construction activities and that cannot be used for construction or backfill in the mine has been classified as inadequate and sent to storage facilities called DMI. Two storage facilities are planned DMI 1 and DMI 2. DMI 1 will store inadequate material during construction, while DMI 2 will store material excavated during operations.

Material at both facilities will be stacked using five metre benches with a slope of 3.0H:1.0V and retaining dams will be built at slopes of 2.5H:1.0V on the side facing the storage facility and 2.0H:1.0V on the downstream side.

15.12 Tailing Storage Facility

The TSF proposed for the Project is a filtered tailings storage deposit (DRF) required to store filtered tailings. The TSF layout is shown in Figure 15-2. The information presented in this section is sourced from the FS (Ausenco 2021 and 2022). No other information associated with the TSF was included within the documentation available for review.

Geotechnical characterization was carried out to support the engineering design (Ausenco 2021) and geotechnical analysis, including slope stability modelling, were conducted to define slopes and bench widths for long-term physical stability (Ausenco 2020c).

The operation of the TSF requires the following elements (Figure 15-3):

- DRF;
- Containment dam;
- Lining system;
- Underdrain, seepage collection, raincoat, and major events ponds;
- Perimeter access, access to ponds and discharge channel;
- Tailings Temporary Storage Area; and
- Tailings Drying Platforms 1, 2, 3, and 4.

The containment dam will be located downstream from the TSF and is intended to contain and stabilize the filtered tailings. Its configuration considers an upstream slope of 2.0H:1V, a downstream slope of 2.5H:1V, and a crest width of 10.0 m, with safety berms on both sides of the slope.

The stability berms consist of structural fill reinforced with uniaxial and biaxial geogrids. The berms will have cross and longitudinal fill slopes of 1H:1V and 0.3H:1V, respectively. The technical specifications call for water proofing of the stability berms immediately after their construction, to avoid the loss of fine soils and not expose the reinforcements of the berms.

The stability channels will contribute to the geotechnical stability of the TSF and consist of trapezoidal channels over cut areas, with a base of 5 m, cut slopes of 1H:1V, and an average height of 5 m. These channels will be lined with Geosynthetic Clay Liner (GCL) plus a 2 mm double sided (DST) high density polyethylene (HDPE) geomembrane, and on the bottom of the channel, there will be a 0.60 m thick Overliner 1 bed that covers a 300 mm HDPE perforated dual wall (DW) collection pipe. This pipe allows to capture the seepage flows and convey them to the TSF collection system.

The TSF will be lined. The purpose of the lining system is to avoid the contact of the seepage water through the deposit with the groundwater, while the purpose of the containment dam lining system is to prevent the runoff flow that runs through the slopes of the deposit from destabilizing the dam. The proposed lining system consists of the materials listed below:

- a 0.30 m layer of low permeability soil (SBP);
- 2.00 mm HDPE DST geomembrane; and
- a 0.25 m thick Overliner 1.

The TSF grading surface has been designed to have a minimum slope of 2.0% in the central zone of the TSF and a maximum incline of 2.0H:1V on its slopes, to allow the lining of the deposit.

The TSF underdrain system has been designed to capture the subsurface water flows from the area and divert them below ground level and below the containment dam to the underdrain pond. The design contemplates the installation of a network of main pipes and secondary branches arranged in a conventional “herringbone” scheme.

The Underdrain Pond was designed with a holding capacity of 320 m^3 and will store the flows from the underdrain system. The captured water will be monitored prior to discharge into a natural stream of the receiving environment. The Underdrain Pond will have a simple lining system and will consist of a smooth 1.5 mm HDPE geomembrane liner which will be supported on GCL.

The purpose of the seepage collection system is to collect and transport the contact water that infiltrates through the TSF to the Seepage Collection pond, downstream of the containment dam. The seepage collection system considers the placement of 300 mm perforated HDPE pipes, with a 2.0% minimum slope, arranged in the lower and central part of the TSF. These pipes will be laid on a 0.20 m thick Overliner 2 layers and covered by 1.00 m thick drainage gravel. An additional layer of 0.20 m thick Overliner 2 will be placed over the drainage gravel and finally, a 0.25 m thick layer of Overliner 1 will be placed that serves as an interface between the drainage gravel and the filtered tailings.

The Seepage Collection Pond was designed with a holding capacity of 950 m^3 and will store the flows from the seepage collection system and the flows from the discharge pipes of the ponds of Tailings Drying Platforms 1 and 2. These will be monitored and pumped back to the process water pond for further treatment.

The Seepage Collection Pond will have a double lining system, consisting of a 1.5 mm thick smooth HDPE geomembrane primary liner that will be exposed, a geonet layer that separates the primary and secondary geomembrane liners, and a secondary liner of smooth 1.5 mm HDPE geomembrane which rests on GCL. The geonet layer will be installed between these two liners and will be connected to a leak detection borehole.

The Raincoat Pond was designed with a holding capacity of 4,010 m^3 and will store the flows coming from the raincoat system, which will be monitored and later discharged towards the natural stream through four solid HDPE pipes SDR21 of 450 mm. The Raincoat Pond will have a simple lining system composed of a smooth 1.5 mm HDPE geomembrane which will lay on GCL.

The Major Events Pond was designed with a holding capacity of 9,130 m^3 and will support the Seepage Collection Pond and Raincoat Pond when a maximum event up to 1 in 100 years return period occur. These ponds will be connected through spillways, and together they will contain the flow generated by the maximum event, which then would be pumped into the Process Water Pond. The Major Events Pond will have a simple lining system composed of a smooth 1.5 mm HDPE geomembrane which will lay on GCL.

As part of the TSF operation, an area to store the tailings during the rainy season is required. The Tailings Temporary Storage Area (TTSA) is located upstream of the Tailings Thickening and Filtering Platform (TTFP). It can store up to 191,030 m^3 of filtered tailings for a filling time of four months (wet season). This area will be lined with a low permeability soil layer, a 2.0 mm HDPE DST geomembrane layer, and a 0.25 cm thick Overliner 1 layer.

The TTSA has an underdrain system that discharges over the TTSA Underdrain Pond located in the TTFP, designed with a capacity of 100 m^3. It also has a seepage collection system similar to the TSF, which allows reducing the moisture of the stored tailings and diverting the flows to the TTSA Seepage Collection Pond located in the TTFP, designed with a capacity of 1,600 m^3.

The TTSA Underdrain Pond will have a simple lining (GCL plus HDPE single sided [SST] 1.5 mm geomembrane), while the TTSA Seepage Collection Pond will have a double lining (GCL plus 1.5 mm HDPE SST geomembrane plus geonet plus 1.5 mm HDPE SST geomembrane) and a leak detection system.

The TTSA will have perimeter channels to capture the surface runoff that falls on the slopes and prevents this flow from entering the tailings storage area. These channels will be lined with masonry.

Tailings Drying Platforms 1, 2, and 3 will be lined with a 0.30 m thick layer of low permeability soil. The platforms will have a minimum slope of 1.0% allowing the flow that runs through the tailings to be captured by internal channels that discharge into the contact water pond of each platform. These channels will be lined with stone masonry.

The contact water pond of each platform will have a simple lining (GCL plus 1.50 mm HDPE SST geomembrane), and will allow monitoring of the flows that run from the TSF to the Seepage Collection Pond.

Tailings Drying Platform 4 is located within the TSF, upstream from the stability berms. During the growth of the TSF stack, Tailings Drying Platform 4 will be covered. However, it will be possible to carry out the tailings drying works at the back of the deposit, where the collection system can capture the infiltrated water and later discharge it into the Seepage Collection Pond.

Observations about the TSF Design

Following are some key observations/comments from the SLR QP on the FS design of the TSF conducted by Buenaventura and its consultants in support of the San Gabriel mine development:

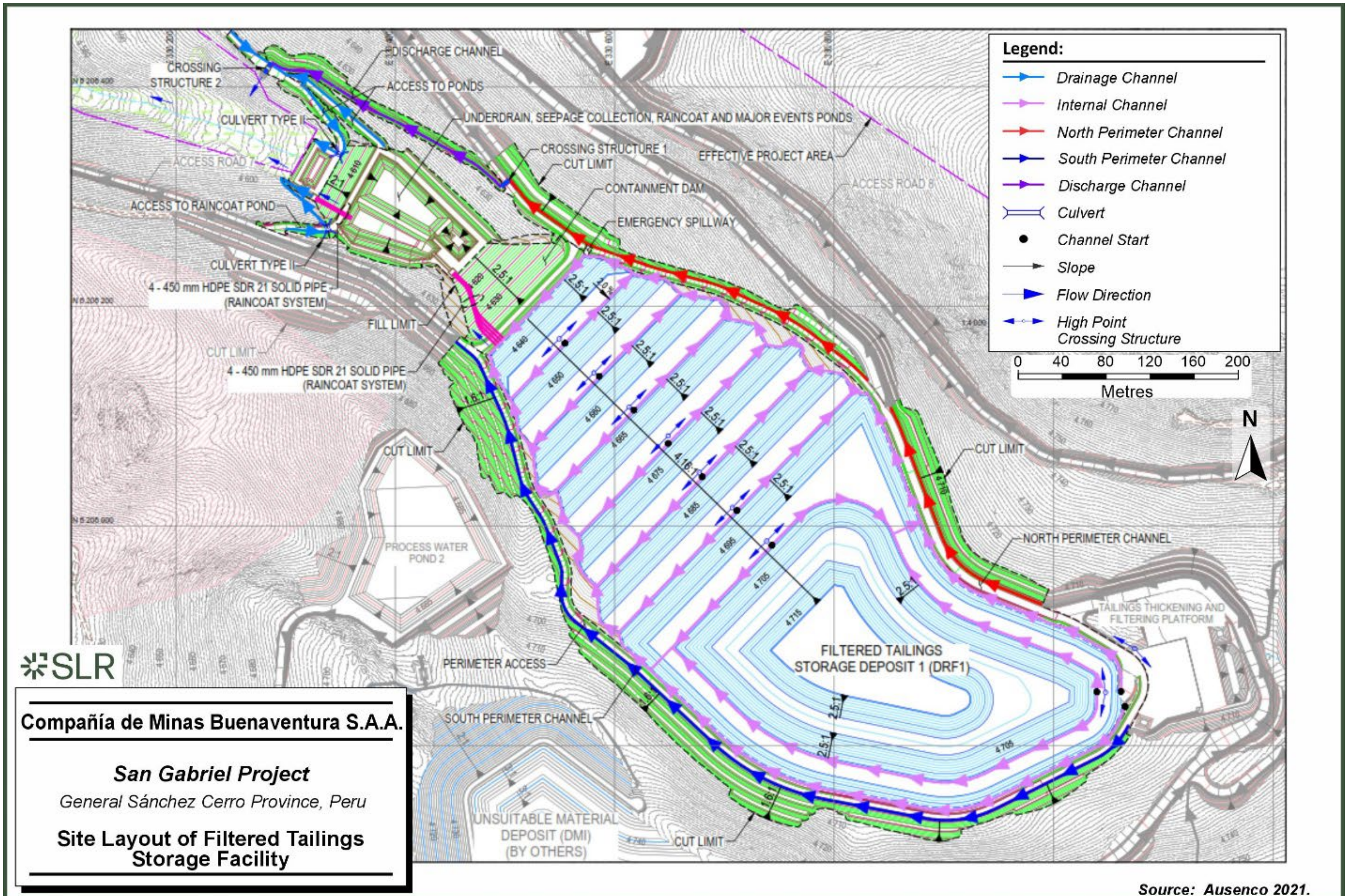
1. The facility has been designed for an earthquake event with a return period of 1 in 475 years. The design adheres to Peruvian standard that requires 1 in 475 years event design for operational condition. The standard practice for a feasibility level design involves assessment of the feasibility of bringing the structure to a stable configuration

under long term closure condition, for which 1 in 10,000 years return period earthquake event should be considered.

2. The design considers the moisture content of the tailings at placement will be brought down from 20% to 14% by spreading in drying pads. Adequate arrangements have been proposed for drying pads. Equipment and labour for such operation and double handling of tailings should be considered for the TSF.
3. The design considered that a moisture content of 14% will bring the tailings to ‘dry’ placement. This should be demonstrated by laboratory and field testing. If tailings are not placed dry of optimum moisture, liquefaction potential of the material should be considered in the design, including in tailings run-out analyses.
4. An underdrain pipe system has been proposed to keep the tailings facility dry and to drain the surface water. Pipe integrity post-earthquake for a larger earthquake event (such as the 1 in 10,000 years event) should be assessed.
5. Slope stability assessment is presented for Type C soil foundation. Kinematic analyses for potential sloping fractured/blocky rock foundation have not been assessed.

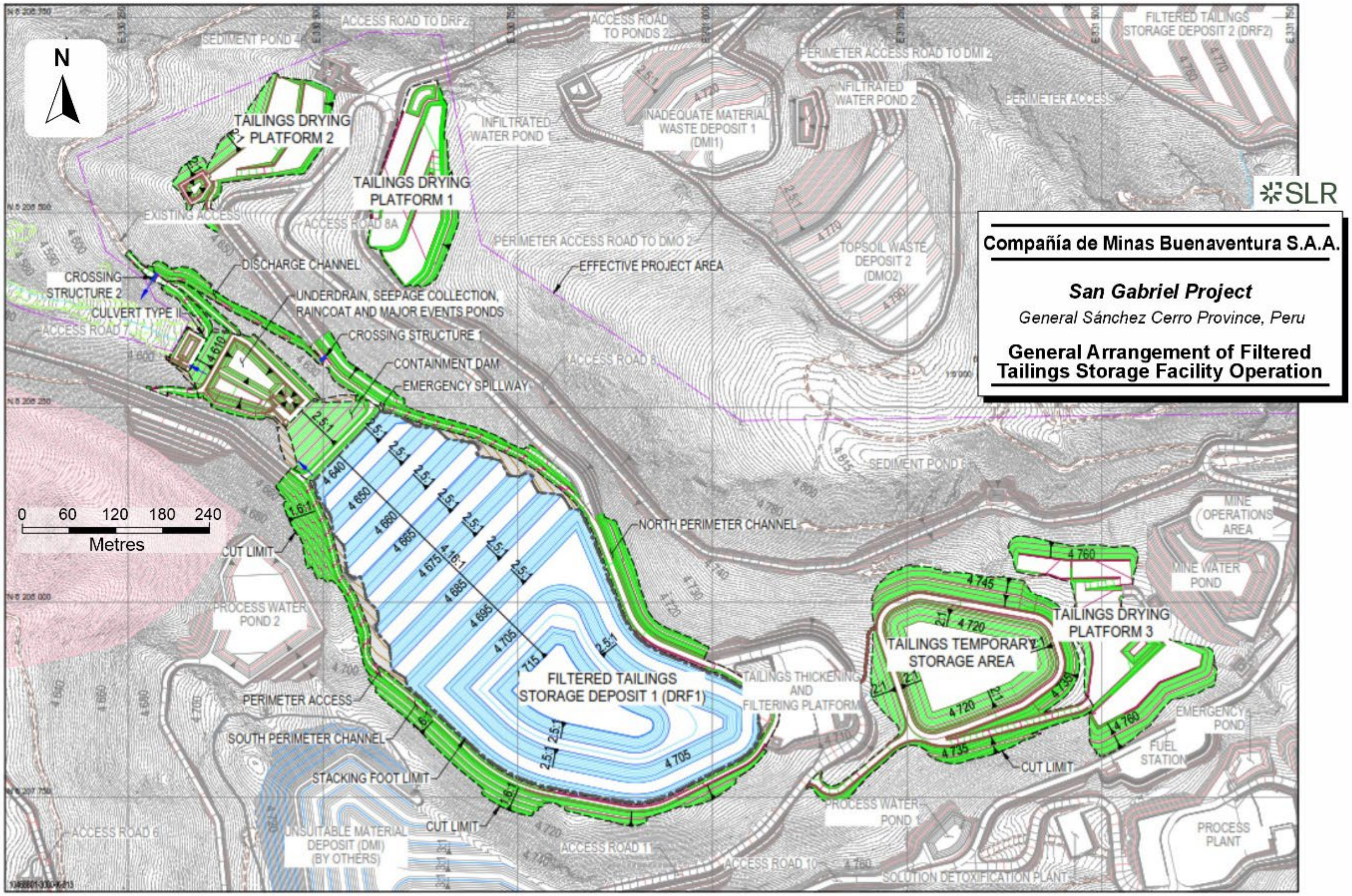
Of note, the SLR QP has relied on the statements and conclusions of reports provided by Buenaventura and its consultants and provides no conclusions or opinions regarding the stability or performance of the stockpiles, dams, and impoundments listed in this TRS.

Figure 15-2: Site Layout of Filtered Tailings Storage Facility



Source: Ausenco 2021.

Figure 15-3: General Arrangement of Filtered Tailings Storage Facility Operation



Source: Ausenco 2021.

16.0 Market Studies

16.1 Markets

The principal commodities that will be produced by San Gabriel – gold and silver – are freely traded at prices and terms that are widely known so that prospects for sale of any production are virtually assured. Gold represents 99% of the estimated San Gabriel gross revenue, while silver will only contribute 1% of the revenue.

Market information for this section comes from the industry scenario analysis prepared by CRU Group in Q2 2021 for Buenaventura and S&P Global Market Intelligence's (S&P) Commodity Briefing Reports from January 2025.

The SLR QP has reviewed the market studies and analyses, and the results support the assumptions in this TRS.

16.1.1 Overview of Gold and Silver Market and Outlook

Gold is a precious metal commonly used for investments and jewellery (rings, necklaces, watches, etc.). Its superior electrical conductivity and resistance to corrosion also make it an important input in various electronic and technology applications. Jewellery accounts for 50% of gold usage. Investments (gold bars and coins) represent 25% of gold usage.

Similar to gold, silver has ancient usage in jewellery and coinage, which now account for 30% and 8% of silver demand respectively. Silver has extensive use in industrial applications, with electrical/electronic uses accounting for 23% of demand. In electronics, silver is used for its excellent electrical conductivity, lack of corrosion, and ease of mechanical use – but given its lower price and higher availability, it sees far more widespread usage than gold in this area.

S&P forecasts that gold and silver markets in 2025 are poised to remain bullish, buoyed by economic and geopolitical uncertainty.

Buenaventura has based its gold and silver price forecast only from Bloomberg's analysis of consensus industry forecasts and has not prepared a recent market study for these commodities. The prices used for the economic analysis are shown in Table 16-1.

Table 16-1: San Gabriel Price Forecast for Economic Analysis

Metal Prices	2025	2026	2027	2028	2029 - Long Term
Gold (US$/oz)	2,000	2,539	2,200	2,172	2,172
Silver (US$/oz)	26.00	32.50	27.50	29.00	29.00

San Gabriel will produce doré bars. The doré refining terms assumptions are based on refining terms from other Buenaventura operations. These terms are typical and consistent with standard industry practices and similar to contracts for the refining of doré elsewhere.

No external consultants or market studies were directly relied on to assist with the sales terms used in this TRS. The SLR QP agrees with the assumptions and projections provided by Buenaventura.

16.2 Contracts

In addition to future arrangements with refiners for doré sales, San Gabriel will have numerous contracts with suppliers for the majority of the operating activities at the mine site, such as:

- Mining operations: Drilling, explosives, loading, hauling, maintenance, and others
- Processing: Electromechanical services, water treatment plant, and laboratory services
- Suppliers for consumables, reagents, maintenance and general services
- General and administrative (G&A) requirements, and other services to support a remote mine operation.

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

17.1 Environmental Aspects

17.1.1 Environmental Setting

The Project is located in the Ichuña District, in the General Sánchez Cerro Province and Moquegua Region, approximately 837 km from Lima and 115.5 km from the city of Moquegua. The Project encompasses land owned by Buenaventura and acquired from the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community and the Corire rural community.

The Project area is located in the southern Andes of Peru, at an altitude ranging between 4,450 MASL and 5,000 MASL, in the Pacific Hydrographic Region, within the Tambo River watershed.

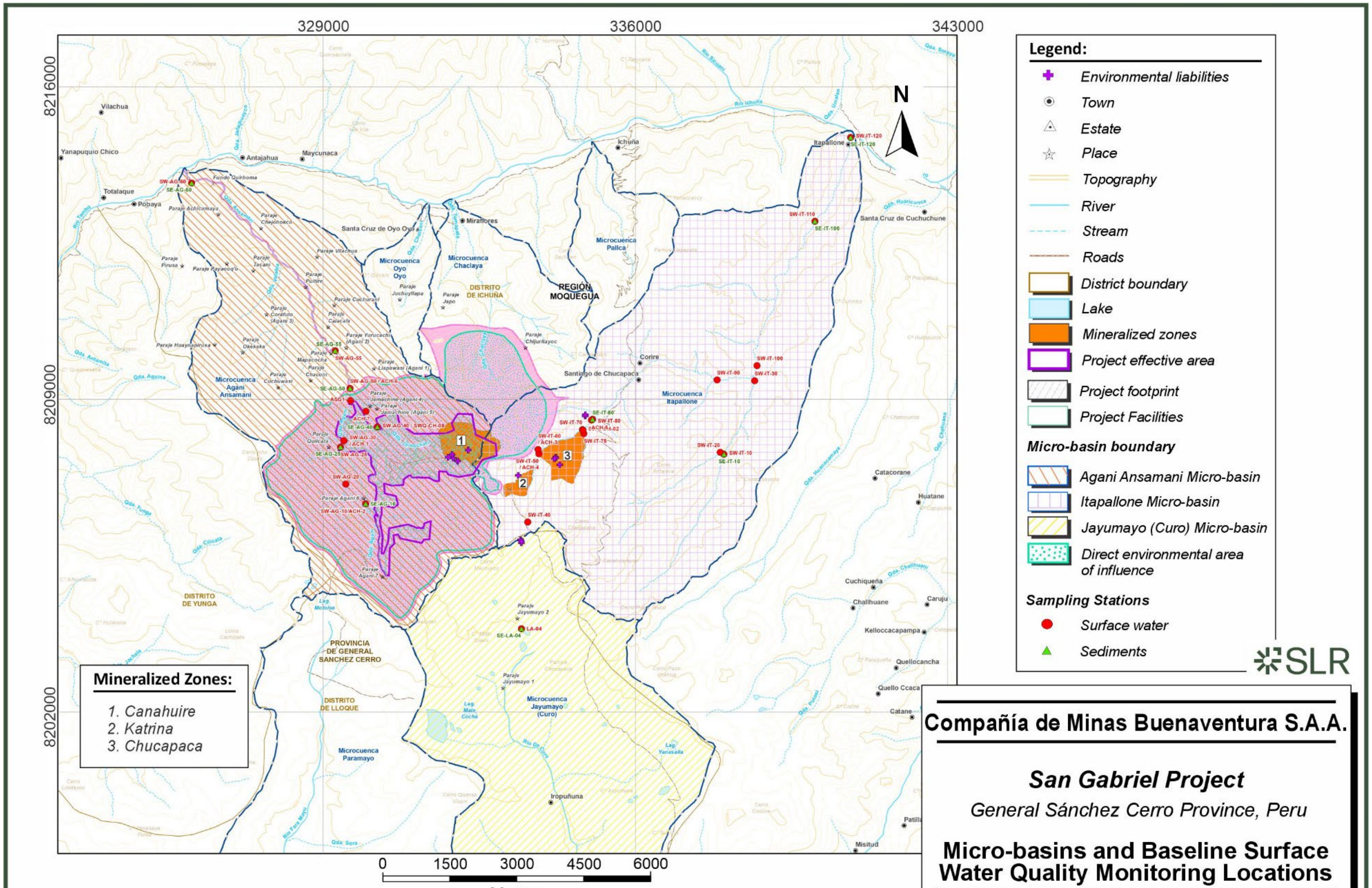
Baseline characterization of existing environmental conditions for San Gabriel was carried out as part of the environmental studies required for preparation of the Detailed Environmental Impact Assessment (EIA).

The environmental setting is described in InsideO (2016):

- Air Quality: Air quality was monitored at 13 stations between 2010 and 2015 in several monitoring campaigns, within the Project area and further afield. Particulate matter, gases (sulphide, nitrite, and carbon monoxide) and metal concentrations measured in particulate samples were below guidelines with very few exceptions.
- Surface water: The Project area straddles two watersheds/micro-basins, with most of the Project area lying within the Agani-Ansamani micro-basin, and a small extension of the underground works is lies within the Itapallone micro-basin (refer to Figure 17-1). The Jamochini, Agani and Chaclaya Rivers flow through the Project area as shown in Figure 17-1.

  Baseline monitoring was conducted at 26 monitoring points between 2010 and 2015 in these micro-basins, as well as the Jayumayo micro-basin (refer to Figure 17-1). Water quality results ranged from acidic to strongly alkaline with elevated metal concentrations above guidelines for aluminum, arsenic, boron, cadmium, cobalt, copper, iron, lithium, manganese, mercury, lead, and zinc in the Agani-Ansamani micro-basin. Water quality results in the Itapallone Micro-basin were mostly acidic, with more metals concentrations above guidelines including aluminum, arsenic, boron, cadmium, cobalt, copper, iron, lithium, manganese, nickel, mercury, selenium, lead, and zinc. The elevated metal concentrations were attributed to the geology and to mine waste from artisanal mining by other parties. Water quality in the Jayumayo micro-basin was measured in a lagoon at the source of the Jayumayo River and was found to be neutral to strongly alkaline, with only one record of arsenic concentrations above guidelines. Several springs were also monitored in the three micro-basins and found to have similar pH and elevated metal concentrations to surface water monitoring points in these micro-basins.

Figure 17-1: Micro-basins and Baseline Surface Water Quality Monitoring Locations



Source: Buenaventura 2025.

- Groundwater: 37 wells were drilled between 2011, 2012, and 2015 and used to characterize the groundwater baseline conditions.

  Groundwater flow direction is radial, starting in the highest parts of the micro-basins. The groundwater flow mimics the surface water flow.

  Groundwater pH ranged from acidic to neutral to alkaline. Elevated metals were found to be similar to that in the surface water samples, although there are no guidelines for groundwater quality to compare the data with. No specific seasonal trends in groundwater quality were noted.

  Geochemical studies were conducted in 2009, 2010, 2011, and 2015 on sterile and mineralized samples and identified five types of material which included non-acid-generating material and four types of potentially acid generating (PAG) material. Geochemical modelling was conducted and showed that contact water from underground workings could have pH as low as 3,6, sulphates up to 5,200 mg/L, arsenic up to 13,79 mg/L, and iron up to 867 mg/L. Contact water from waste rock could have pH as low as 3, sulphates up to 1,000 mg/L, iron up to 145 mg/L, and arsenic up to 6,71 mg/L.

- Biodiversity: The Project is located within the Puna ecoregion. There are no areas recognized nationally and/or internationally for their high biological value within or close to the Project area.

  Fourteen plant species found during baseline studies are categorized as having conservation status by national legislation. Three species are classified as Critically Endangered (*Ephedra rupestris, Nototriche longituba and Stangea wandae*), and nine species are classified as Vulnerable. Seventeen species are endemic to Peru, however, none of these has a distribution restricted to Moquegua, where the Project is located. Ninety plant species are used as animal fodder, 28 species are used for medicinal purposes, thirteen as fuel, nine as food, one as ornamental use, and one species for veterinary purposes by the local population.

  Five bird species have conservation status, one is Critically Endangered (“Suri” bird) and one is Endangered (Andean Condor). Four bird species are used as food and four are used for medicinal purposes by the local population.

  Some mammals identified during baseline studies have conservation status. The taruca (*Hippocamelus antisensis*) is categorized as Vulnerable both by national legislation and by the International Union for Conservation of Nature (IUCN). The vicuña (*Vicugna vicugna*) and the puma (*Puma concolor*) are listed as Near Threatened. A leopard species recorded in the study area could be the Andean cat (*Leopardus jacobita)* which is Endangered category under national and international legislation; however, the presence will need to be confirmed with future monitoring. None of the identified mammal species are endemic to Peru. Four mammal species are used as food, seven species are used in an artisanal way, either for their skins or fibre, three species are used for medicinal purposes, and four are used in magical rituals or ceremonies by the local population.

- Social aspects: The Project is located in the District of Ichuña, in the Province of General Sánchez Cerro and Moquegua Region, approximately 837 km from Lima and 115.5 km from the city of Moquegua. The nearest settlement is Titire, approximately 42 km away. The main economic activity in the region is agriculture, followed by retail trade and public administration.

- Land cover: Scrubland is dominant (approximately 54%), natural meadows (16%) occur, along with areas with little or no vegetation cover (13%).
- Heritage resources: Six archaeological studies were completed and identified four archaeological sites within the Project area.

17.1.2 Environmental Studies

According to the Law of the National System of Environmental Impact Assessment (Law No. 27446, 2021), any activity that can cause significant negative environmental and socio-economic impacts must be evaluated before execution. Management and/or mitigation measures shall be developed to avoid, minimize, mitigate, or compensate for adverse impacts and enhancement measures to maximize positive impacts. Once the EIA study is approved, commitments established in the management plans or other parts of the EIA, including conditions resulting from EIA's approval, become environmental and socio-economic binding obligations that can be audited, and non-compliance is sanctionable.

Similarly, the national regulation requires the mining company to make a technical and economic proposal for rehabilitating the intervened areas to ensure compatibility with the surrounding ecosystem when mining activity ends. Such proposal is the Mine Closure Plan (MCP), which must be implemented during the mine's life cycle (progressive closure) and at the end of operations (final closure and post-closure).

The legal instruments referred to above also consider approaches for managing socio-economic impacts/effects resulting from mining projects. Regulations require the mining proponent to have a Social Management Plan, which is a set of strategies, programs, plans, and social management measures designed to avoid, minimize, mitigate, or compensate for negative social impacts and enhance positive social impacts resulting from the mining project in the respective area of influence. The Social Management Plan(s), Environmental Management Plan(s), and Monitoring Plans are integral parts of the EIA and are approved as part of it.

The Peruvian regulatory framework also requires other sectorial permits before the commencement and development of mining activities, such as permits for using natural resources and protecting natural heritage or culture (as applicable).

In 2009, Buenaventura submitted the semi-detailed EIA for the Chucapaca Exploration Project, which was approved by Directorial Resolution (R.D.) No. 249-2009-MEM-AAM dated August 14, 2009. This semi-detailed EIA considered the implementation of 60 surface drilling platforms, 5,000 linear metres of exploration cuttings, 10 km of access roads, modifications to the Corire camp, and the installation of auxiliary facilities.

Subsequently, in 2010 and 2013, the First and Second Amendments to the semi-detailed EIA for the Chucapaca Exploration Project were submitted and approved by R.D. No. 209-2010-MEM-AAM and R.D. No. 287-2013-MEM-AAM, respectively. In 2015, the Supporting Technical Report (ITS for its acronym in Spanish) for the Second Amendment to the semi-detailed EIA was submitted and approved by R.D. No. 128-2015-MEM-DGAAM. The main objectives of the amendments to the semi-detailed EIA were to add and modify surface drilling sites, including worker camps, borrow pit extraction areas, and auxiliary facilities.

In early 2015, Buenaventura submitted the Third Amendment to the semi-detailed EIA for the Chucapaca Exploration Project, approved by R.D. No. 345-2015-MEM-DGAAM. This amendment primarily contemplated the development of 4.5 km of underground workings, a waste rock deposit, an ore stockpile, an organic material deposit, as well as the installation of new drilling platforms, access roads, and auxiliary components. The First and Second ITS for this modification were then submitted, primarily providing for the inclusion of new drilling platforms and auxiliary components.

Once Buenaventura became the sole owner of the Project, it was redesigned as an underground mine and renamed San Gabriel.

A Detailed EIA was completed for the Project in 2016 (InsideO 2016) and approved on March 31, 2017 by R.D. No. 099-2017-MEM/DGAAM. Baseline characterization studies were conducted in support of the Detailed EIA. A copy of the 2016 EIA was provided to SLR by Buenaventura to support the preparation of this TRS.

The 2016 EIA identified potential negative impacts for most environmental and social aspects, including: soil, air, noise, water, flora and vegetation, fauna, aquatic habitat and socio-economic. Residual impacts refer to those environmental effects predicted to remain after the application of mitigation measures. The residual environmental impacts identified to potentially occur were rated as minor or moderate in the 2016 EIA when considering planned management and mitigation measures. No residual environmental and social impacts were rated as significant or very significant. The main residual impacts highlighted in the executive summary of the 2016 EIA are as follows (InsideO 2016):

- Increase to surface water baseline flow during the operations phase and reduction of average streamflow during the construction phase (with subsequent effects on aquatic habitat) in the Agani-Ansamani micro-basin were rated as moderate. The EIA report notes that this is mainly due to the conservative analysis carried out, and it is anticipated to be temporary.
- Indirect negative social impacts such as unrealized expectations and unfounded perceptions of people being affected by the Project were rated as moderate.
- A slight positive impact on the income of the economically active population in the surrounding area was noted, which would result from the semi-skilled and unskilled labour that the Project will require. The positive economic impacts would not only be produced by the income associated with direct employment, but also by the acquisition of goods and contracting of local services.
- During the operational stage, the mine will contribute royalties and this would have a positive impact on public resources at different levels (local, regional, and national).

The SLR QP notes that the evaluation of potential effects in the 2016 EIA appears to have included numerical groundwater modelling, but no evidence of hydrological modelling and water quality modelling was found within the documentation available for review.

According to the 2016 EIA, there are 19 environmental liabilities identified within the study area, of which only five are within the effective area defined for the Project. In general, these liabilities are of a small magnitude and correspond to remains of artisanal mining activities and material from third parties unrelated to Buenaventura.

The 2016 EIA includes a set of management plans aimed at impact mitigation, including:

- Air Quality Management Plan
- Soil Management Plan
- Noise and Vibration Management Plan
- Water and Sediment Management Plan
- Biodiversity and Landscape Management Plan

- Management and Conservation of Wetlands Plan
- Fauna and Flora Management Plans
- Solid Waste Management Plan
- Social Management Plan
- Environmental Monitoring Plan (includes soil, air quality, noise, surface water and springs quality, sediments, effluents, groundwater and biodiversity monitoring).

In addition, an Environmental Compensation Plan is outlined and is aimed at achieving net-zero biodiversity loss. The plan is to conserve wetland areas in the Agani watershed.

17.1.3 Environmental Monitoring

Bi-annual reports documenting monitoring results for water quality, air quality and ambient noise are submitted to the Peruvian Ministry of Energy and Mines (MEM for its acronym in Spanish). Buenaventura provided SLR with copies of the individual reports for water quality, air quality and ambient noise submitted to MEM on June 28, 2024 documenting the monitoring results for the first half of 2024.

According to the environmental monitoring reports provided by Buenaventura to SLR, the ongoing environmental monitoring program includes the following:

- Two monitoring locations for treated effluent water discharge (industrial and domestic wastewater, respectively);
- Seven monitoring locations for surface water quality in the receiving environment;
- Six monitoring locations for groundwater quality;
- 33 monitoring locations for flow from springs;
- Five monitoring locations for sediment quality;
- Three monitoring locations for air quality;
- One monitoring location for gas emissions; and
- Three monitoring locations for ambient noise.

Biology monitoring is carried out twice a year in the dry season and the wet (rainy) season. Individual reports are prepared for terrestrial (flora and fauna) biology and hydrobiology (aquatic biology). Buenaventura provided SLR with copies of the two reports documenting the biology monitoring during the wet season in 2024.

Buenaventura stated in the conclusions of the bi-annual monitoring reports for 2024 provided to SLR that the monitoring results are in compliance with the environmental regulations in force. No known environmental issues were identified by the SLR QP from the information on environmental studies provided by Buenaventura for review. The SLR QP is not aware of any non-compliance environmental issues raised by the authorities.

17.1.4 Key Environmental Issues

The rating of potential adverse impacts in the 2016 EIA considered four rating categories: compatible with the surrounding environment, moderate, significant, and very significant. None of the adverse residual impacts was rated as significant or very significant. Implementation of environmental monitoring during the operations will provide data to confirm if adverse impacts take place and evaluate the effectiveness of the management plans and mitigation measures to protect the environment. In the SLR QP's opinion, the management plans proposed in the EIA seem adequate to achieve this objective.

The water management system for the Project has been designed with consideration to the potential for acid rock drainage and metal leaching identified from geochemical characterization (see Section 17.2.1 of this TRS). The water management facilities will be equipped with liners to minimize infiltration. All water collected within the Project site will be either used to support mine operation activities (including ore processing) or treated prior to discharge to the environment.

In the SLR QP's opinion, there are no environmental issues that could materially impact the ability to extract the Mineral Reserves based on the review of the available documentation.

17.1.5 Environmental Management System

According to the Integrated Annual Report for 2023 published by Buenaventura on its website, the company has an integrated management system covering Quality, Environment, Safety and Occupational Health that allows Buenaventura to manage both operational and support processes. One of the focuses of this approach is supervising activities to prevent environmental impacts and risks to the health and safety of the company's employees.

The objective set by Buenaventura of the integrated management system (SIB) is to develop, implement, review, maintain, and improve performance in environmental, quality, and safety areas. It is based on the ISO 9001 (Quality Management), ISO 14001 (Environmental Management), and ISO 45001 (Occupational Health and Safety Management) standards. These standards provide systematic guidelines for environmental, quality, and safety performance, allowing the company's performance to be evaluated according to internationally accepted criteria.

The integrated management system comprises policies, commitments, procedures, and regulations applicable to Buenaventura and its affiliated companies and subsidiaries. Below is a list of the key policies developed by Buenaventura:

- Environmental, Social, Health and Safety Policy issued in November 2018
- Environmental Policy issued in July 2022
- Human Rights Policy issued in July 2022
- Commitment to Protecting Biodiversity and Avoiding Deforestation issued in 2023.

17.2 Waste and Tailings Disposal, Site Monitoring, and Water Management

17.2.1 Environmental Geochemistry

According to Ausenco (2020a), geochemical characterization of waste rock was carried out in 2009 by Golder using samples collected from 17 exploration drilling holes from the Canahuire ore deposit. The study was updated by Golder in 2012 and by Amphos 21 in 2015. According to Ausenco (2020a), the study conducted in 2015 considered 28 samples and involved hydro-geochemical modelling. The laboratory tests included: Acid-Base Accounting (ABA), total metal content analysis, sequential extraction, mineralogy, metal leaching, and kinetic tests with humidity cells. The following observations are presented in Ausenco (2020a):

- The results of the ABA tests indicate that most samples are potentially acid generating (PAG).
- The results obtained from the sequential extraction test shows that sulphur is present as primary sulphides. The calcium content is below 1% in most samples. Iron is present between 8% and 30%, and is found mainly as sulphides (probably pyrite or chalcopyrite) and primary oxides (magnetite, hematite, or goethite). Copper content is approximately 100 ppm to 1,000 ppm, associated with primary and secondary sulphides (probably chalcopyrite, chalcocite, or covellite). Lead content is 100 ppm in almost all samples and is associated with primary and secondary sulphides. Arsenic content averages 100 ppm, in some cases reaching 10,000 ppm, associated with secondary sulphides (probably enargite or arsenopyrite).
- The mineralogy test indicates presence of quartz, feldspar, clay, carbonate, zircon, pyrite, marcasite, arsenopyrite, chalcopyrite, wolframite, and iron oxide minerals.
- The results of the metal leaching tests were compared with the Peruvian maximum permissible limits. Based on short-term leaching, the most significant metals exceeding the maximum permissible limits were arsenic, cadmium, copper, iron, lead, and zinc.
- Samples with sulphur content below 1% do not produce metal leaching, and above this percentage, leaching occurs with high concentrations.
- Humidity cell kinetic tests indicate long-term (21 weeks) acidity and metal leaching. Results for pH for samples with high total sulphur content show acidity levels between 2 and 4, exceeding the maximum permissible limit (i.e., pH between 6 and 9). Samples with low total sulphur content show neutral to slightly basic pH levels. Sulphates are related to the oxidation of sulphides. High sulphate concentrations occur at higher sulphur contents, and there is no established maximum permissible limit in Perú for comparison. Regarding the metals tested, such as arsenic, copper, iron, lead, and zinc, the highest concentrations are found in the high-sulphur samples, which exceed the maximum permissible limits.

According to Golder (2022), geochemical characterization of filtered tailings was carried out by Golder using three samples collected from the San Gabriel plant. The laboratory tests included ABA, Net Acid Generation (NAG), Synthetic Precipitation Leaching Procedure (SPLP), and humidity cells. The Peruvian maximum permissible limits and the Peruvian Environmental Quality Standards (ECA for its acronym in Spanish) were used as the reference criteria to support the geochemical evaluation. The following observations are presented in Golder (2022):

- According to the ABA test, sulfates and elemental sulphur were present in all three samples. The test indicated that there are sufficient sulphides available to generate excess acidity if the sulphides are oxidized, which could affect the pH of the contact water to be collected and managed within the Project site.
- All three samples reported pH values between 3.9 and 4.0 according to the NAG test. All three samples were classified as PAG based on the results of the ABA and NAG tests.
- According to the SPLP test, only manganese exceeded the ECA Category 3 reference criteria.
- According to the NAG leaching test, the pH is acidic, and various parameters were identified as exceeding the Peruvian maximum permissible limits and the ECA Category 3 reference criteria (i.e., arsenic, cadmium, iron, manganese, lead, and zinc).

- The humidity cell kinetic test to identify the potential for acidity and metal leaching was carried out for 30 weeks. Relatively low concentrations were observed compared to the Peruvian maximum permissible limits and the ECA Category 3 reference criteria used for evaluation, with the exception of the concentrations of sulphate, manganese, cadmium, and zinc.
- The humidity cell kinetic test indicated that, under neutral conditions (pH between 6.0 and 6.6), there is potential for metal leaching.

17.2.2 Tailings Management

No information on governance aspects of the TSF was included within the documentation available for review. The SLR QP notes that the following should be in place before initiation of the San Gabriel operations phase by Buenaventura:

- Hazard Potential Classification (HPC) according to international guidelines and/or standards such us the Dam Safety Guidelines of the Canadian Dam Association or the Global Industry Standard on Tailings Management (GISTM)
- Appointing an independent Engineer of Record (EOR)
- Development of an Operation, Maintenance and Surveillance (OMS) Manual
- Completing a downstream consequence analysis for the tailings stack and downstream water management structures
- Preparation of an Emergency Preparedness and Response Plan
- Carrying out a Probable Failure Modes Analyses (PFMA) and risk assessment

It is not clear from the information available for review if there will be any instrumentation and monitoring program proposed as part of the design. Data collected through dam instrumentation should be regularly reviewed by the San Gabriel operations staff. Water balance should be updated regularly to develop trends and forecasts in support of the TSF operation. Regular dam safety inspections should be conducted by the San Gabriel staff in accordance with the OMS Manual. Safety inspections should be carried out annually by the EOR. For ensuring objectivity and accountability, the EOR should be independent and report directly to the board, rather than to superintendents, division managers, or other Project stakeholders, to avoid potential conflicts of interest. The EOR should be free from undue influence or pressure from Project stakeholders, ensuring that their engineering decisions are based solely on technical merit and public safety.

The SLR QP recommends that Buenaventura define if the GISTM should become a reference to evaluate the TSF or, even further, whether compliance with the GISTM becomes a corporate objective. The GISTM provides a framework for safe tailings facility management while affording operators flexibility as to how best to achieve this goal. It covers all phases of a TSF's lifecycle, including closure and post closure, addressing both technical and governance aspects. It also requires the disclosure of relevant information to support public accountability.

17.3 Environmental Permitting

The Project is managed according to the environmental and closure considerations presented in three types of documents, which must be approved by directorial resolutions from the Peruvian government:

- EIA and subsequent amendments and modifications

- ITS
- MCP

The permits are Directorial Resolutions (R.D. for its acronym in Spanish) issued by the Peruvian authorities upon approval of mining environmental management instruments filed by the mining companies such as EIAs, ITS, and MCPs.

Buenaventura maintains an up-to-date record of the legal permits obtained to date, documenting the type of document, the approving authority, the file number, the date when the permit application was filed, and the approval date. The list of environmental permits for San Gabriel and the status is presented in Table 17-1.

Table 17-1: Environmental Permits

Type of Document	Approving Authority	File Number	Date of Submission	Status	Date of Approval
EIA	DGAAM	2528371	08/20/2015	Approved	3/31/2017
ITS 1	SENACE	06452-2017	11/30/2017	Approved	1/11/2018
ITS 2	SENACE	M-ITS-00122-2020	08/31/2020	Approved	8/27/2020
ITS 3	SENACE	M-ITS-00306-2021	12/07/2021	Approved	12/4/2021
PdM	DGM	2745330	10/02/2017	Approved	3/23/2022
CdB	DGM	3051768	07/14/2020	Approved	3/29/2022
ITS 4	SENACE	M-ITS-00022-2023	02/02/2023	Approved	8/23/2023
MPdM	DGM	3388198	11/22/2022	Approved	10/03/2023
MCdB	DGM	3409347	01/04/2023	Approved	11/15/2023
ITS 5	SENACE	M-ITS-00330-2023	12/28/2023	Approved	18/03/2024
MPdM	DGM	3696252	03/06/2024	Approved	11/04/2024
MCdB	DGM	3699408	03/08/2024	Under evaluation	-
PAD	DGAAM	Not provided	Not provided	Under evaluation	-
ITS 6	SENACE	-	-	In development	-
ITS 7	SENACE	-	-	In development	-
Aut. Func.	DGM	-	-	In development	-
MPdM	DGM	-	-	In development	-

Notes:
EIA – Estudio de Impacto Ambiental (Environmental Impact Assessment)
ITS – Informe Técnico Sustentatorio (Supporting Technical Report)
PdM – Plan de Minado (Mine Plan)
CdB – Concesión de Beneficio (Beneficiation Concession)
MPdM – Modificacion al Plan de Manejo Ambiental (Environmental Management Plan Amendment)
MCdB
PAD – Plan Ambiental Detallado (Detailed Environmental Plan)
Aut. Func. – Autorización de Funcionamiento (Operation Authorization)

Type of Document	Approving Authority	File Number	Date of Submission	Status	Date of Approval
DGAAM – Dirección General de Asuntos Ambientales Mineros (General Directorate of Mining Environmental Affairs) SENACE – Servicio Nacional de Certificación Ambiental (Environmental Certification for Sustainable Investments) DGM – Dirección General de Minería (General Directorate of Mining)					

Buenaventura is currently applying to the National Water Authority for the licences and authorizations for water use and water discharge for the operations phase of the Project. It is anticipated that the licences and authorizations will be granted in 2025.

17.4 Social or Community Requirements

17.4.1 Social Setting

The Project's area of influence comprises rural communities in the Ichuña District, General Sánchez Cerro Province in Moquegua. These communities are mainly dedicated to agriculture, farming, hunting, and forestry for self-consumption. There are few employment opportunities, so community members tend to move to cities like Arequipa or Moquegua, seeking better opportunities. While the direct area of influence involves four rural communities (Santa Cruz de Oyo Oyo, Maycunaca and Antajahua; Corire; San Juan de Miraflores; and Chucapaca), the indirect area of influence includes the Ichuña District (InsideO 2016).

17.4.2 Key Social Issues

Social issues associated with the Project presented in Buenaventura (2023) are:

- High expectations from community businesses to procure goods and services for the Project;
- High expectations from surrounding communities to derive benefits from the Project, which had led in the past to some temporary interruptions of construction activities;
- Complaints from community businesses against prime mine contractor for contractual breaches (e.g., delayed payments, inappropriate use of equipment, damages); and
- Complaints from former land rights holders leading to some temporary interruptions of construction activities.

17.4.3 Social Management System

The Environmental and Social Management Plan developed for the 2016 EIA includes a plan for the mitigation of the social impacts and enhancement of benefits associated with the Project. The plan is comprised of (InsideO 2016):

- Community Relations Plan, which seeks to build and maintain good relationships with the communities and stakeholders potentially impacted by the Project. It includes stakeholder mapping, communications programs, community relations protocols, grievance mechanisms, and codes of conduct for workers.
- Social Cooperation Plan, which seeks to design and implement mitigation and compensation (compensation program) for the negative social impacts and contingencies related to the Project. It comprises three programs, namely, (i) Mitigation Program, (ii) Compensation Program, and (iii) Social Contingency Program.

- Social Development Plan, which aims to promote sustainable development and help improve the quality of lives in the Project's area of influence. It comprises four programs namely, (i) Institutional Strengthening and Improvement of Capabilities of the Local Organizations, (ii) Local Economic Development, (iii) Local Employment, and (iv) Improvement of Basic Public Services.

17.4.4 Community Engagement and Agreements

In alignment with its Corporate Responsibility Policy, Buenaventura seeks to contribute to the sustainable development of the communities impacted by its operations, prioritizing local employment and contracting and social investment (Buenaventura 2022).

In 2024, the San Gabriel social team implemented the Citizen Participation Plan supported by the communication program and in coordination with the San Gabriel environmental team.

San Gabriel has a Permanent Information Office in Ichuña, where communities from the area of influence can learn about the Project and raise questions and concerns. The Permanent Information Office has informative materials that describe the Project and its environmental and social management and performance. It also has a Project mockup with all its components (InsideO 2016).

SLR understands that San Gabriel has implemented a grievance mechanism to receive, assess, and resolve grievances and complaints from stakeholders and impacted local communities (InsideO 2016). In 2024, San Gabriel received 11 complaints related to possible violations to its Code of Ethics and Good Conduct, policies, and procedures. SLR understands that these complaints were dealt diligently, resulting in the implementation of corrective actions (Buenaventura 2024a).

Based on the information provided by the San Gabriel social team, the company appears to maintain neutral to positive working and commercial relationships with the communities within the Project's area of influence. It has established dialogue roundtables with the communities in its direct area of influence to meet, discuss, and resolve topics of common interest on a regular basis. As part of its communication program, San Gabriel conducts regularly site tours to the Project site and the Permanent Information Office, door-to-door visits to stakeholders and communities, and informational sessions with local organizations and authorities.

SLR understands that the Project provides donations and social investment opportunities in the areas of health, education, capacity-building, and infrastructure development to respond to community needs and priorities. In 2023, social investment initiatives included support for the Productive Development and Commercial Articulation (PRA for its acronym in Spanish) Program, which promotes productive development and commercial articulation. As part of the PRA Program, local farmers and ranchers achieved the following (Buenaventura 2024a):

- Alpaca ranchers sold over 2,000 pounds of fibre and 114 alpacas of high quality
- Local farmers sold more than 4 tons of potatoes, corn, and beans
- 36,742 animals were vaccinated and dewormed
- 79 guinea pig farmers sold approximately 1,155 animals

Regarding capacity-building, over 250 members from Ichuña received training by the Mining Technological Center (CETEMIN for its acronym in Spanish), 100 local people obtained employment certification from the National Training Service for the Construction Industry (SENCICO for its acronym in Spanish), and 150 local businesses were registered in the company's local supplier database (Buenaventura 2024a). In 2024, San Gabriel completed the execution of two irrigation projects to support water resource development in Ichuña and Miraflores, with a total investment of US$65,000. Overall, in 2024, San Gabriel spent over US$2.6 million in areas such as irrigation, sanitation, productive initiatives, and cultural projects in the Ichuña, Yunga, Lloque, and Chojata Districts (Buenaventura 2024a).

San Gabriel has framework agreements in place with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community and the Corire rural community, which were signed in 2018 and 2016, respectively, and subsequently amended in 2022. The agreements with the two rural communities include the following commitments:

- monetary contributions to be paid at key Project milestones;
- priority hiring;
- establishment of a development fund to be invested in key priority areas;
- commitments to train community members in the hospitality and agriculture sectors;
- provision of internship opportunities and scholarships;
- support for the establishment, training and development of community businesses guaranteeing specific jobs for San Gabriel (e.g., fuel delivery, general services); and
- specific donations for the community businesses.

Through the agreement with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community, an Environmental Committee has been established, composed of trained community members to monitor key valued components such as water sources. San Gabriel has also executed Development Agreements with the Yunga, Lloque, and Chojata Districts, involving mayors, district authorities, and other members of those districts.

17.4.5 Indigenous Peoples

The Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community and the Corire rural community are categorized as Indigenous communities. The Peruvian Ministry of Culture recognized these two communities as Quechua communities. SLR is not aware of any specific plan(s) developed by Buenaventura to manage Indigenous community's interests and/or rights. However, the mine has signed framework agreements with these two Indigenous communities (see Section 17.4.4) with mechanisms to address issues and concerns and provide benefits (Buenaventura 2023).

17.4.6 Local Procurement and Hiring

San Gabriel is committed to maximizing economic opportunities in the communities of its area of influence and in the region through local and regional employment and contracting. San Gabriel prioritizes hiring and buying locally and provides training opportunities to help local workforce and businesses to remove barriers to employment and procurement. For example, San Gabriel offers training and internship opportunities to local workers and helps local businesses with training and the registration process in Buenaventura's local supplier data base. Through the framework agreements signed with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community and the Corire rural community, San Gabriel has retained services from local community businesses for fuel delivery and general services, provided they meet the standards required by Buenaventura.

In 2023, San Gabriel employed approximately 4,439 workers. Of them, approximately 97% were contractors as opposed to company's employees (Buenaventura 2024a).

17.4.7 Archaeology and Cultural Heritage

The entire effective area defined for the Project has been the subject of superficial archaeological surveys and subsequent Archaeological Evaluation Projects (Proyectos de Evaluación Arqueológica – PEA for its acronym in Spanish), as well as an Archaeological Rescue Project (Proyecto de Rescate Arqueológico – PRA for its acronym in Spanish). Three Certificates of Non-Existence of Archaeological Remains (Certificados de Inexistencia de Restos Arqueológicos – CIRA for its acronym in Spanish) have been granted for the Project area, as follows:

- CIRA No. 2013-178/MC approved on April 8, 2013,
- CIRA No. 2013-13-DDC-MOQ/MC approved on July 24, 2013, and
- CIRA No. 2016-26-DDC-MOQ/MC approved on May 20, 2016.

According to InsideO (2024b), Buenaventura developed an Archeological Monitoring Plan approved on July 9, 2015 for the Chucapaca Exploration Project by R.D. No. 022-2015-DDC-MOQ/MC.

17.5 Mine Closure Requirements

17.5.1 Mine Closure Plan and Regulatory Requirements

The Peruvian Ministry of Energy and Mines published in March 2025 a new Supreme Decree (D.S. 006-2025-EM) that modifies the Mine Closure regulations previously approved in 2005 through Supreme Decree No. 033-2005-EM. Under Article 20 of the Peruvian mine closure regulations, the first update of the MCP must be submitted to the MEM three years after approval of the initial MCP, and every five years thereafter. Two years before final closure, a detailed version of the MCP will have to be prepared and submitted to the MEM for review and approval. The following is a summary of the MCPs approved to date:

- Initial MCP approved on May 30, 2019 by R.D. No. 081-2019-MEM-DGAAM. This MCP presented mine closure measures applicable to the Project components approved in the 2016 EIA and modified in the first ITS.
- First update to the MCP approved on March 10, 2023 by R.D. No. 0034-2023/MINEM-DGAAM. This MCP presented mine closure measures applicable to the Project components approved in the second and third ITS.
- First amendment to the MCP approved on September 20, 2024 by R.D. No. 0254-2024-MINEM/DGAAM. This MCP presented mine closure measures applicable to the Project components approved in the fourth ITS.

A copy of the first amendment of the MCP approved in 2024 (InsideO 2024b) was included within the documentation available to SLR for review. The conceptual MCP addresses temporary, progressive, and final closure actions, and post-closure inspection and monitoring. It proposes one year of progressive closure, two years of final closure, and five years of post-closure. Post-closure monitoring, assumed to extend for five years after closure, will include monitoring of physical, geochemical, and hydrological stability, as well as environmental and social monitoring.

The specific objectives of the MCP for San Gabriel are as follows:

- Health and safety – Assure public health and safety during execution of closure and post-closure activities, recovering the original environmental quality of the surroundings and developing feasible rehabilitation works from a biological, technical, and financial perspective. Protect the human health and the environment by maintaining physical and chemical stability of Mine components.

- Physical stability – Geotechnical stability of earth structures implementing designs that minimize short term and long term risks of failure following the applicable Peruvian legislation and best international practices.
- Geochemical stability – Feasibility design of encapsulating covers for hazardous materials and materials with potential to cause contamination of the environment. The covers should be designed to employ local materials with physical and geochemical characteristics resistant to degradation and erosion through time. The covers should be compatible with the landscape, favourable to the growth of local vegetation species.
- Hydrological stability – Adequate management of surface runoff. Design flows with adequate return period according to the applicable Peruvian legislation should be evaluated. The need for closure water management structures should be identified.
- Land use – Recovery of original levels for ground surface to the extent feasible in order to make it compatible with predevelopment land uses in the Project area.
- Waterbodies use – Maintain equilibrium in the micro-basins located in the mine area, preserving water quantity and quality, and implementing adequate water management.
- Social objectives – Minimize socio economic impacts creating conditions that promote sustainability for the social stakeholders through execution of social programs.

The MCP for San Gabriel considers temporary closure, progressive closure, and final closure. The temporary closure corresponds to temporary suspension of Project activities, either by decision of Buenaventura or the suspension of activities due to a specific situation. Under this scenario, once the suspension period is concluded, Project activities are expected to resume as soon as possible. The main closure activities under the temporary closure scenario include blocking the Project site access roads and the underground mine access ramps. The water management system remains functional.

Progressive closure corresponds to closure activities undertaken during the operation phase of the Project, ahead of production cessation and final closure. According to the MCP approved in 2024, the facilities subjected to progressive closure include the borrow areas (quarries), access roads to borrow areas, and components of auxiliary infrastructure such as some workshops, some administration offices, and the shotcrete plant.

Final closure is applicable once the operations phase (mining and ore processing) activities are completed and will be carried out on the Project components that have not been progressively closed. Final closure would be completed in approximately two years, giving way to post-closure activities for an additional five years, during which maintenance activities, if necessary, and monitoring will be carried out to ensure compliance with the long-term closure objectives. A summary of the main proposed closure activities is presented in Table 17-2.

Table 17-2: Summary of Main Closure Activities for Final Mine Closure

Mine Component		Closure Activities
Mine	Underground mine	Plugging of mine openings (construction of masonry walls for mine portal and concrete slabs for ventilation shafts).

Mine Component		Closure Activities
		Disconnection, dismantling, and removal of equipment and water management infrastructure.
Waste disposal facilities	Waste Rock Stockpile	Installation of low permeability cover to limit entry of water and oxygen.
	TSF	Levelling and recontouring of the disposed tailings surface. Installation of low permeability cover to limit entry of water and oxygen.
Other infrastructure	Process plant Workshops Water management infrastructure Power transmission lines Hazardous waste storage areas Access roads	Dismantling, demolition, salvaging and disposal of structures. Disposal of concrete in situ. Removal of equipment for recycling, salvaging, or disposal. Removal of solid residues. Transportation to authorized disposal areas. Donation of modular warehouses and shops to rural communities. Levelling, recontouring and scarification of terrain. Backfilling of sections of roads constructed in cut. Blocking roads access with fences or gates.
Staff facilities	Mine camp Administrative buildings Potable water and septic systems	Mobilization of equipment, machinery, and personnel. De-energization. Dismantling and removal of structures and equipment to authorized disposal areas. Dismantling and demolition of concrete structures for disposal in the underground mine. Donation of modular offices to rural communities. Recontouring of terrain. Levelling, recontouring and scarification of terrain.

17.5.2 Closure Cost Estimate and Financial Assurance for Closure

A closure cost estimate was included in the MCP approved in 2024. The total closure cost includes progressive rehabilitation, final closure, and post-closure activities. It was completed considering an inflation rate and a discount rate in accordance with Supreme Decree D.S. 262-2012-MEM/DM. The total closure cost included in the MCP approved in 2024 (InsideO 2024b) is broken down as follows (excluding local taxes):

- Progressive rehabilitation US$3,003,255
- Final closure US$13,493,577
- Post-closure US$533,334
- Total US$17,030,166

In Peru, the proponent should provide financial assurance to the MEM to cover the work required to reclaim and close the site. According to Supreme Decree D.S. N° 262-2012-MEM/DM, the financial assurance is calculated based on inflation and discount rates in order to estimate the Net Present Value (NPV) for the mine closure cost. The total financial assurance (progressive closure, final closure, and post closure) calculated in 2024 considering an inflation rate of 2.75% and a discount rate of 3.95%, is US$16,551,755 (including local taxes). A detailed breakdown of the cost estimate is provided in the first amendment to the MCP for San Gabriel (InsideO 2024b). The closure cost estimate was not reviewed by SLR for this TRS.

17.6 Qualified Person's Opinion on the Adequacy of Current Plans to Address any Issues Related to Environmental Compliance, Permitting and Local Individuals or Groups

In the SLR QP's opinion, the content of the Environmental Management Plan is adequate to address the potential impacts identified in the 2016 EIA and maintain environmental compliance during operations.

No issues or concerns associated with environmental permitting were identified by the SLR QP based on the documentation provided by Buenaventura to SLR for review, and the meetings held with the San Gabriel staff in support of this TRS. The Detailed EIA prepared for the Project was approved. Buenaventura has a high level of confidence that authorizations for water use and water discharge for the operations phase of the Project will be obtained in 2025.

In the SLR QP's opinion, the plans developed as part of the Social Management System are adequate to pursue positive relations with the communities located in the social area of influence, promote social benefits, and contribute to reduce social risk for the San Gabriel operations.

18.0 Capital and Operating Costs

18.1 Capital Costs

A Project-specific Work Breakdown Structure (WBS) defines the Project cost estimate allocation, which has formed the basis for the Project scope and cost distribution within the estimate. As of the effective date, the Project is in construction. The estimate of remaining initial capital spending is updated regularly by Buenaventura's capital projects team.

The estimated remaining initial capital cost as of the effective date of this TRS, which has been included in the cash flow model presented is US$177.4 million. Table 18-1 summarizes the remaining capital spending. The capital cost estimate is inclusive of contingency and indirect costs.

Table 18-1: Remaining Initial Capital Cost Estimate

Description	Totals (US$ millions)
Development (ramps, accesses), Administration/Production/Infrastructure Buildings	131.1
Equipment & Machinery	28.2
Other Equipment & Vehicles	11.2
Other Equipment, Lines, PADs	6.1
Total	177.4

Buenaventura's forecast capital and operating cost estimates related to the development of Mineral Reserves are derived from the Financial Model. According to the American Association of Cost Engineers (AACE) classifications, these estimates would mainly be Class 3 with an accuracy range of -10% to +15%. Given that the Project is in construction, the level of cost estimation exceeds the accuracy of a Class 3 estimate.

The estimated sustaining capital over the LOM, which has been included in the cash flow model presented in this TRS, is US$186.5 million. Table 18-2 summarizes the total capital spend from the end of construction to the end of LOM.

All costs presented are in real US dollar values as of Q4 2024, without any allowance for inflation or escalation.

Table 18-2: Sustaining Capital

Description	Totals (US$ millions)
Tailings	42.5
Underground Mine	40.4
Plant	21.5
Infrastructure	22.7
Assets Overhauls	59.4

Description	Totals (US$ millions)
Total	186.5

Quantities for the capital cost estimate were defined using four methods: detailed take-offs from design drawings, general take-offs from engineering sketches, estimates based on general plot plans and prior experience, and factored quantities derived from previous projects and expected ratios. All take-off quantities were measured as net in place, with waste provisions incorporated into the unit cost rates for accuracy and efficiency in estimation.

The capital spend for the San Gabriel Project, including remaining initial capital and sustaining costs, has been appropriately determined based on underlying support and investigations conducted.

18.2 Operating Costs

18.2.1 Mining Operating Costs

Mining costs were estimated based on the assumption that mining operations are completed by Buenaventura, and development, haulage, and support operations are completed by contractors. The contractor costs are based on quotes developed in 2024 while Buenaventura costs are derived from first principles, using inputs and assumptions from the Ausenco 2022 FS and other similar Buenaventura operations.

The mine direct cost includes mine labour costs, consumables, and equipment costs. Labour costs were estimated from Buenaventura’s existing operations. Consumables costs were based on supplier quotes and estimated monthly requirements. Equipment operation costs were estimated on monthly operating hours and include all equipment consumables. All development costs were included in operating cost estimates. Table 18-3 summarizes the main consumables price assumptions and equipment operating costs, and Table 18-4 shows the LOM and unit mining operating cost breakdown.

Table 18-3: Main Consumable Price Assumptions and Equipment Costs

Item	Unit	Amount
Drill Steel (6 ft - 14 ft)	$/unit	140 to 294
Emulsion Explosive	$/cartridge	0.52 to 0.90
Diesel	$/gal	3.89
Cement	$/kg	0.21
Equipment Cost		
Jumbo	$/hr	47.22
LHD	$/hr	65.01
Production Drill	$/hr	44.99
Bolter	$/hr	55.24
Shotcreter	$/hr	40.31
Truck	$/hr	50.6

Table 18-4: Mining Operating Costs Summary

Cost Area	LOM Total (US$ millions)	LOM Yearly (2026-2037) Avg. (US$ millions/yr)	LOM Avg. Unit Cost (US$/t milled)
Development	38.4	2.9	2.51
Exploration	19.4	1.5	1.27
Underground Mining	816.0	60.8	53.32
Equipment Maintenance	90.6	6.8	5.92
Stope Preparation	11.5	0.7	0.75
Mine Support Services	97.1	7.3	6.34
Mine Supervision and Admin	62.2	4.7	4.06
Total	1,135.3	84.7	74.17

The SLR QP has reviewed the costs calculations and is of the opinion that the estimates include all labour, supplies, consumables, and equipment costs required to sustain the underground mining operations. The SLR QP notes that the average LOM unit cost is lower than the estimated mining cost used for cut-off grade estimation. The SLR QP recommends diligently tracking and collecting actual operating costs during operations and reviewing cut-off grade estimations for future Mineral Reserve estimates.

18.2.2 Process Operating Costs

Operating cost estimates for the process plant and associated on-site and off- site infrastructure were prepared by Ausenco with input from Buenaventura. The process plant operating cost was estimated on a year-to-year basis considering plant throughput and the LOM plan and are based on the FS flow sheet and process design criteria. The battery limits for the process operating cost estimate begin at the crushing facilities and through to the CIL, ADR, tailings detoxification plants, tailings thickening and filtration, and the tailings placement onto the dry stack tailings areas. It also includes plant services and the mine water treatment plant.

Table 18-5 presents a list of the sources of cost data by category.

Table 18-5: Sources of Process Operating Cost Data by Category

Cost Category	Source of Cost Data
Process Labour	Salaries and labour roster for plant were provided by Buenaventura during 2020 and revised during January 2021. A total of 55 process operations and 35 plant maintenance personnel are included for a total of 90 people.
Reagents	Unit costs provided by suppliers and Buenaventura Logistics department during 2021. Consumption rates were taken from process design criteria and reagents calculation sheet updated in Q3 2021.
Consumables	Unit prices provided by suppliers during 2021 for Buenaventura. Grinding media consumption rates were calculated based on abrasion index and taken from media consumption calculation sheet developed in Q3 2021.
Power	Power costs were calculated using ECS stated in the grinding calculation sheet.

Cost Category	Source of Cost Data
	All non-milling costs were calculated using power factors, operating hours per year, and average demand power taken directly from Electrical Load List – Average Demand Rev.B of July 2021. The grid power cost of US$0.065/kWh was supplied by Buenaventura.
Maintenance Spares and Consumables	Estimated at 2.5% of the mechanical equipment and platework cost for each plant area. Commodities costs were taken from the direct capital cost estimate Rev.0B.
Assay and Metallurgical Testing	Laboratory costs were estimated by Buenaventura based on similar underground operations. This cost is allocated within G&A as per Buenaventura indication.
Light Vehicle and Mobile Equipment	Fuel consumption rates were estimated using the Caterpillar Handbook. Annual hours of use were estimated from San Gabriel FS.
Water Treatment Plant	Water treatment plant costs were added to the operating cost during detailed engineering and were not included in the FS estimate. The water treatment plant costs were provided by Tailings Management Area Engineering and Construction, Ausenco, and Buenaventura.

The operating cost estimates for the concentrator plant and ADR plant in the recent LOM operating cost estimate are provided in Table 18-7 and the total FS average operating costs are presented in Table 18-6. The differences between the LOM and FS cost estimates are an increase in the maintenance costs and the addition of the PTARI operating cost in the LOM estimate. The FS unit process operating cost is US$26.94/t, and the LOM unit process operating cost used in the San Gabriel cash flow is US$36.14/t. The SLR QP considers these operating costs to be reasonable.

Table 18-6: San Gabriel 2021 Average Feasibility Study Process Operating Costs

FS Cost Area	Average FS OP Costs (US$ million/yr)	Average FS Unit OP Costs (US$/t)
Power	5.1	4.66
Reagents	10.1	9.31
Consumables	4.2	3.88
Labour	2.6	2.34
Miscellaneous (Mobile Equipment)	1.0	0.91
Maintenance	1.8	1.64
Tailings Transport	3.1	2.85
External Cost	1.5	1.36
Total	**29.5**	**26.94**

Table 18-7: San Gabriel LOM Process Plant Operating Costs for TRS

Cost Area	LOM Costs (US$ millions)	LOM Yearly Avg. (US$ millions/yr)	LOM Unit Costs (US$/t)
Plant			
Smelting	1.8	0.1	0.12
Plant Maintenance	76.6	5.8	5.01
Water Plant Maintenance	1.3	0.1	0.09
ADR Plant	183.1	13.9	11.96
Concentrator Plant	226.7	17.2	14.81
Auxiliary Services	13.1	1.0	0.86
Supervision and Admin	16.1	1.2	1.05
Water Treatment	34.5	2.6	2.26
Total Cost	**553.2**	**41.9**	**36.14**

18.2.3 Site Services & G&A Operating Costs

Table 18-8 presents the site services costs over the LOM which are included in the San Gabriel cash flow analysis. Site services include laundry, catering, lodging, transportation, labour from contractors, and management costs.

Table 18-8: San Gabriel LOM Site Services Operating Costs

Cost Area	LOM Total (US$ million)	LOM Yearly (2026-2037) Avg. (US$ million/yr)	LOM Avg. Unit Cost (US$/t milled)
Management Control	72.9	5.5	4.77
Generation and Energy Transmission	1.4	0.1	0.09
Site Management	63.0	4.8	4.12
Maintenance Management	17.1	1.3	1.12
Social Management Communities	41.2	2.9	2.69
Laboratory	15.9	1.2	1.04
Third Party Manufacturers	3.1	0.2	0.20
Environmental	17.8	1.3	1.16
Projects	24.7	1.9	1.61
Human Resources	18.2	1.3	1.19
Mine Worker Security	5.6	0.4	0.37
Total Cost	**281.0**	**20.9**	**18.36**

18.2.4 Build Own Operate and Transfer Costs

Buenaventura will be using the Build Own Operate and Transfer (BOOT) strategy for the San Gabriel project for the construction and operation of the transmission line.

The BOOT model is widely used in infrastructure projects and public-private partnerships. Under this model, a third party, such as a public agency, entrusts a private entity with the actual work of designing, constructing, operating, and maintaining infrastructure for a specified duration, and then will be finally transferred to the owner.

The San Gabriel project BOOT costs are estimated to be US$4 million per year for the years of full production. The BOOT costs over the LOM total US$53 million and represent US$3.46/t ore processed.

18.2.5 Total Operating Costs

The operating expenses estimated for mining, processing, G&A and BOOT activities to validate the positive cash flow for the Mineral Reserve LOM are summarized in Table 18-9. Operating costs total US$2,022 million over the LOM, averaging US$152 million per year between 2026 and 2037, all years at full production.

Table 18-9: Total LOM Operating Costs Summary

Cost Component	LOM Total (US$ millions)	Average Annual[1] (US$ millions)	LOM Average (US$/t milled)
UG Mining	1,135	84.7	74.17
Processing	553	41.9	36.14
G&A / Site Services	281	20.9	18.36
BOOT	53	4.0	3.46
Total Site Operating Cost	**2,022**	**151.5**	**132.14**

Notes:
1. For fully operational years (2026 – 2037)
2. Sum of individual values may not match total due to rounding.

19.0 Economic Analysis

The economic analysis contained in this TRS is based on the San Gabriel Project Mineral Reserves, economic assumptions, and capital and operating costs provided by Buenaventura corporate finance and technical teams and reviewed by SLR. All costs are expressed in Q1 2025 US dollars. Unless otherwise indicated, all costs in this section are expressed without allowance for escalation, currency fluctuation, or interest.

A summary of the key criteria is provided below.

19.1 Economic Criteria

19.1.1 Physicals

- Production Life: 13.6 years (between Q4 2025 and Q1 2039).
- Underground peak mining rate: 3,452 tpd (between 2034 and 2037)
- Total Ore Feed to Process: 15,305 kt ore at 3.71 g/t Au and 6.32 g/t Ag
- Contained Metal
  - Gold: 1,824 koz of Au
  - Silver: 3,111 koz of Ag
- Average LOM Process Recovery:
  - Gold Recovery: 85.3%
  - Silver Recovery: 45.0%
- Recovered Metal
  - Gold: 1,555 koz Au
  - Silver: 1,401 koz Ag

19.1.2 Revenue

- Revenue is estimated based on metal prices provided to SLR by Buenaventura, which sourced them from Bloomberg Street Consensus Commodity Price Forecasts from January 2025. The Bloomberg metal price forecast is presented in Table 19-1.

Table 19-1: Economic Analysis Gold and Silver Price Assumptions

Commodity	Unit	2025	2026	2027	2028	2029 and Long-Term
Gold	$/oz	2,000	2,539	2,200	2,172	2,172
Silver	$/oz	26.00	32.50	27.50	29.00	29.00

- Payable metals are estimated at 99.5% for gold and 99.5% for silver. These rates are based on other Buenaventura operations.
- LOM average selling charges of 0.29% of gross revenue (or US$6.44 per ounce of gold).
- Gold Fields Royalty: 1.5% NSR.

- LOM NSR revenue is US$3,384 million (after Selling Charges and Royalties).

19.1.3 Capital Costs

- Initial Capital, based on estimate to complete as at December 31, 2024 of US$177 million for year 2025 in the cash flow model.
- Total LOM sustaining capital costs of US$186 million.
- Mine closure costs total US$17.0 million over the LOM:
    - Concurrent reclamation between 2025 and 2039 of US$3.0 million.
    - Mine closure costs between 2040 and 2041 of US$13.5 million.
    - Post-closure costs between 2042 and 2046 of US$0.5 million.

19.1.4 Operating Costs

- Total unit operating costs of US$132.14/t ore processed:
    - Underground mining operating costs: US$74.17/t ore processed.
    - Processing operating costs: US$36.14/t ore processed.
    - Site Services & G&A costs: US$18.36/t ore processed.
    - BOOT costs: US$3.46/t ore processed.
- LOM site operating costs of $2,022 million.
- Off-site G&A (Corporate Allocation): US$12 million per year over the LOM.

19.1.5 Taxation and Royalties

- Corporate income tax rate in Peru is 29.50%.
- Special Mining Tax Contribution (IEM) LOM average rate: 2.6%.
- Mining Tax Royalty LOM average rate: 4.2%.
- Employees' profit sharing participation: 8.0%.
- Third party Royalty to Gold Fields: 1.5%.
- SLR has relied on a Buenaventura taxation model for calculation of income taxes applicable to the cash flow.

19.2 Cash Flow

SLR has reviewed Buenaventura's San Gabriel LOM cash flow model considering gold and silver as final saleable products and has prepared its own unlevered after-tax LOM cash flow model based on the information contained in this TRS to confirm the physical and economic parameters of the Property.

The model does not take into account financing costs.

All costs are in Q1 2025 US dollars with no allowance for inflation. An after-tax cash flow summary is presented in Table 19-2.

Table 19-2: Annual After-Tax Cash Flow Summary

Economic Model Annual Summary

SLR

Company: Compania Minas Buenaventura S.A.A.
Project Name: San Gabriel UG Gold Project
Scenario Name: San Gabriel Reserves LT Prices - Au $2,172/oz, Ag $29.00/oz
Analysis Type: 2024 YE MRMR Audit & SK-1300 TRS

Calendar Year				2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Project Timeline in Years				0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Time Until Closure in Years		US$ & Metric Units	LoM Avg / Total	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	-1	-2	-3	-4	-5	-6	-7	-8
Market Prices																											
Gold, Forecast		US$/oz	**$2,200**	-	-	$2,000	$2,539	$2,200	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	$2,172	-	-	-	-	-	-	-
Silver, Forecast		US$/oz	**$29.10**	-	-	$26.00	$32.50	$27.50	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	$29.00	-	-	-	-	-	-	-
Physicals																											
Total UG Ore Mined		kt	15,305	-	-	365	1,116	1,116	1,116	1,116	1,116	1,116	1,115	1,116	1,260	1,260	1,260	1,260	816	159	-	-	-	-	-	-	-
Total Waste Mined		kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Material Mined		kt	15,305	-	-	365	1,116	1,116	1,116	1,116	1,116	1,116	1,115	1,116	1,260	1,260	1,260	1,260	816	159	-	-	-	-	-	-	-
Total Ore Mine to Stock		kt	265	-	-	265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Ore Stock to Mill		kt	265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	-	-
Total Material Moved		kt	15,570	-	-	630	1,116	1,116	1,116	1,116	1,116	1,116	1,115	1,116	1,260	1,260	1,260	1,260	816	159	-	-	-	-	-	-	-
Total Ore Processed		**kt**	**15,305**	-	-	**100**	**1,116**	**1,116**	**1,116**	**1,116**	**1,116**	**1,116**	**1,115**	**1,116**	**1,260**	**1,260**	**1,260**	**1,260**	**816**	**424**	-	-	-	-	-	-	-
Gold Grade		**g/t**	**3.71**	-	-	**4.17**	**3.81**	**4.01**	**3.73**	**3.65**	**3.89**	**4.02**	**4.10**	**3.76**	**3.76**	**3.29**	**3.52**	**3.31**	**3.22**	**3.90**	-	-	-	-	-	-	-
Silver Grade		**g/t**	**6.32**	-	-	**3.94**	**4.98**	**5.38**	**5.32**	**6.04**	**5.56**	**5.11**	**5.10**	**5.13**	**6.08**	**7.73**	**9.13**	**8.00**	**8.98**	**5.89**	-	-	-	-	-	-	-
Contained Gold		koz	1,824	-	-	13.4	136.6	143.8	134.0	130.8	139.6	144.3	146.8	134.9	152.2	133.3	142.7	133.9	84.6	53.2	-	-	-	-	-	-	-
Contained Silver		koz	3,111	-	-	12.7	178.6	193.0	190.8	216.8	199.6	183.2	182.6	184.1	246.4	313.2	370.0	323.9	235.5	80.3	-	-	-	-	-	-	-
Average Recovery, Gold		%	85.3%	-	-	82.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%	84.7%	85.3%	-	-	-	-	-	-	-
Average Recovery, Silver		%	45.0%	-	-	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	45.3%	41.8%	45.3%	-	-	-	-	-	-	-
Recovered Gold		koz	1,555.1	-	-	11.0	116.5	122.7	114.3	111.6	119.1	123.1	125.2	115.1	129.9	113.7	121.8	114.2	71.6	45.4	-	-	-	-	-	-	-
Recovered Silver		koz	1,401.0	-	-	5.7	80.9	87.4	86.4	98.2	90.4	83.0	82.7	83.4	111.6	141.9	167.6	146.7	98.4	36.4	-	-	-	-	-	-	-
Produced Gold, Total		koz	1,555.1	-	-	11.0	116.5	122.7	114.3	111.6	119.1	123.1	125.2	115.1	129.9	113.7	121.8	114.2	71.6	45.4	-	-	-	-	-	-	-
Produced Silver, Total		koz	1,401.0	-	-	5.7	80.9	87.4	86.4	98.2	90.4	83.0	82.7	83.4	111.6	141.9	167.6	146.7	98.4	36.4	-	-	-	-	-	-	-
Payable Gold, Total		**koz**	**1,547.4**	-	-	**11.0**	**115.9**	**122.1**	**113.7**	**111.0**	**118.5**	**122.5**	**124.6**	**114.5**	**129.2**	**113.1**	**121.1**	**113.6**	**71.3**	**45.2**	-	-	-	-	-	-	-
Payable Silver, Total		**koz**	**1,393.9**	-	-	**5.71**	**80.52**	**86.98**	**86.01**	**97.71**	**89.98**	**82.59**	**82.32**	**82.96**	**111.06**	**141.17**	**166.78**	**146.00**	**97.93**	**36.21**	-	-	-	-	-	-	-
Cash Flow				-	-																						
Gold Gross Revenue	99%	$000s	3,404,962	-	-	21,957	294,313	268,588	247,010	241,195	257,347	266,053	270,581	248,652	280,660	245,733	263,121	246,844	154,839	98,068	-	-	-	-	-	-	-
Silver Gross Revenue	1%	$000s	40,559	-	-	148	2,617	2,392	2,494	2,834	2,609	2,395	2,387	2,406	3,221	4,094	4,837	4,234	2,840	1,050	-	-	-	-	-	-	-
Gross Revenue Before By-Product Credits	**100%**	**$000s**	**3,445,521**	-	-	**22,106**	**296,930**	**270,980**	**249,505**	**244,029**	**259,956**	**268,448**	**272,969**	**251,058**	**283,881**	**249,828**	**267,957**	**251,078**	**157,679**	**99,118**	-	-	-	-	-	-	-
Gold Gross Revenue		$000s	3,404,962	-	-	21,957	294,313	268,588	247,010	241,195	257,347	266,053	270,581	248,652	280,660	245,733	263,121	246,844	154,839	98,068	-	-	-	-	-	-	-
Silver Gross Revenue		$000s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross Revenue After By-Product Credits		**$000s**	**3,404,962**	-	-	**21,957**	**294,313**	**268,588**	**247,010**	**241,195**	**257,347**	**266,053**	**270,581**	**248,652**	**280,660**	**245,733**	**263,121**	**246,844**	**154,839**	**98,068**	-	-	-	-	-	-	-
Mining Cost		$000s	(1,135,252)	-	-	(35,562)	(106,902)	(101,406)	(88,443)	(78,640)	(76,401)	(75,804)	(77,029)	(76,997)	(82,838)	(82,831)	(84,574)	(84,574)	(54,769)	(28,480)	-	-	-	-	-	-	-
Process Cost		$000s	(553,194)	-	-	(7,576)	(41,170)	(41,169)	(41,169)	(41,165)	(41,169)	(41,163)	(41,152)	(41,167)	(43,394)	(43,394)	(43,395)	(43,395)	(28,102)	(14,613)	-	-	-	-	-	-	-
Site Support G&A Cost		$000s	(281,044)	-	-	(9,838)	(21,816)	(21,073)	(20,766)	(21,312)	(20,576)	(20,623)	(21,123)	(20,623)	(20,623)	(21,123)	(20,623)	(20,623)	(13,355)	(6,945)	-	-	-	-	-	-	-
BOOT Costs		$000s	(52,937)	-	-	(1,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(4,000)	(2,590)	(1,347)	-	-	-	-	-	-	-
Selling Cost		$000s	(9,992)	-	-	(64)	(861)	(786)	(724)	(708)	(754)	(778)	(792)	(728)	(823)	(724)	(777)	(728)	(457)	(287)	-	-	-	-	-	-	-
Third Party NSR Royalty		$000s	(51,533)	-	-	(331)	(4,441)	(4,053)	(3,732)	(3,650)	(3,888)	(4,015)	(4,083)	(3,755)	(4,246)	(3,737)	(4,008)	(3,755)	(2,358)	(1,482)	-	-	-	-	-	-	-
Subtotal Cash Costs Before By-Product Credits		**$000s**	**(2,083,952)**	-	-	**(54,371)**	**(179,190)**	**(172,487)**	**(158,834)**	**(149,475)**	**(146,789)**	**(146,384)**	**(148,179)**	**(147,270)**	**(155,925)**	**(155,809)**	**(157,377)**	**(157,076)**	**(101,632)**	**(53,156)**	-	-	-	-	-	-	-
By-Product Credits		$000s	40,559	-	-	148	2,617	2,392	2,494	2,834	2,609	2,395	2,387	2,406	3,221	4,094	4,837	4,234	2,840	1,050	-	-	-	-	-	-	-
Total Cash Costs After By-Product Credits		**$000s**	**(2,043,393)**	-	-	**(54,222)**	**(176,573)**	**(170,095)**	**(156,339)**	**(146,641)**	**(144,179)**	**(143,989)**	**(145,791)**	**(144,864)**	**(152,704)**	**(151,715)**	**(152,541)**	**(152,842)**	**(98,792)**	**(52,105)**	-	-	-	-	-	-	-
Operating Margin	**40%**	**$000s**	**1,361,569**	-	-	**(32,265)**	**117,740**	**98,493**	**90,671**	**94,554**	**113,168**	**122,064**	**124,790**	**103,788**	**127,956**	**94,019**	**110,580**	**94,002**	**56,047**	**45,962**	-	-	-	-	-	-	-
Off-site Admin Expenses (Corporate Allocation)		$000s	(180,000)	-	-	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	-	-	-	-	-	-	-
EBITDA		**$000s**	**1,181,569**	-	-	**(44,265)**	**105,740**	**86,493**	**78,671**	**82,554**	**101,168**	**110,064**	**112,790**	**91,788**	**115,956**	**82,019**	**98,580**	**82,002**	**44,047**	**33,962**	-	-	-	-	-	-	-
Depreciation Allowance		$000s	(363,895)	-	-	(16,485)	(18,467)	(19,139)	(19,953)	(20,935)	(15,945)	(18,298)	(23,642)	(27,011)	(28,998)	(28,817)	(30,147)	(31,781)	(32,138)	(32,138)	-	-	-	-	-	-	-
Earnings Before Taxes		**$000s**	**817,674**	-	-	**(60,750)**	**87,273**	**67,354**	**58,718**	**61,620**	**85,223**	**91,766**	**89,147**	**64,777**	**86,958**	**53,201**	**68,433**	**50,221**	**11,909**	**1,824**	-	-	-	-	-	-	-
Special Mining Tax and Mining Royalties		$000s	(57,206)	-	-	(221)	(5,280)	(4,377)	(3,925)	(3,975)	(4,969)	(5,281)	(5,204)	(4,140)	(5,182)	(3,751)	(4,393)	(3,666)	(1,815)	(1,028)	-	-	-	-	-	-	-
Workers' Participation Tax		$000s	(61,325)	-	-	-	(3,280)	(3,440)	(4,383)	(4,612)	(6,420)	(6,981)	(6,779)	(4,909)	(6,608)	(4,014)	(5,185)	(3,783)	(844)	(87)	-	-	-	-	-	-	-
Peru Corporate Income Tax		$000s	(208,045)	-	-	-	(11,127)	(11,671)	(14,871)	(15,645)	(21,781)	(23,683)	(22,997)	(16,655)	(22,418)	(13,617)	(17,591)	(12,833)	(2,863)	(294)	-	-	-	-	-	-	-
Net Income		**$000s**	**491,098**	-	-	**(60,971)**	**67,587**	**47,866**	**35,539**	**37,388**	**52,053**	**55,820**	**54,168**	**39,073**	**52,751**	**31,819**	**41,264**	**29,940**	**6,386**	**416**	-	-	-	-	-	-	-
Non-Cash Add Back - Depreciation		$000s	363,895	-	-	16,485	18,467	19,139	19,953	20,935	15,945	18,298	23,642	27,011	28,998	28,817	30,147	31,781	32,138	32,138	-	-	-	-	-	-	-
Working Capital		$000s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operating Cash Flow		**$000s**	**854,993**	-	-	**(44,486)**	**86,054**	**67,005**	**55,492**	**58,323**	**67,998**	**74,119**	**77,810**	**66,085**	**81,749**	**60,636**	**71,410**	**61,721**	**38,524**	**32,554**	-	-	-	-	-	-	-
Initial Capital		$000s	(177,433)	-	-	(177,433)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining Capital		$000s	(186,462)	-	-	(4,375)	(27,740)	(8,741)	(9,770)	(10,794)	(6,516)	(21,179)	(42,754)	(23,581)	(11,918)	(8,158)	(5,317)	(4,903)	(715)	-	-	-	-	-	-	-	-
Closure/Reclamation Costs		$000s	(17,030)	-	-	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(6,747)	(6,747)	(107)	(107)	(107)	(107)	(107)
Total Capital		**$000s**	**(380,925)**	-	-	**(182,009)**	**(27,941)**	**(8,941)**	**(9,970)**	**(10,994)**	**(6,716)**	**(21,379)**	**(42,955)**	**(23,781)**	**(12,118)**	**(8,358)**	**(5,517)**	**(5,103)**	**(915)**	**(200)**	**(6,747)**	**(6,747)**	**(107)**	**(107)**	**(107)**	**(107)**	**(107)**
Cash Flow Adj./Reimbursements		**$000s**	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LoM Metrics																											
Economic Metrics																											
a) Pre-Tax																											
Free Cash Flow		**$000s**	**800,644**	-	-	**(226,273)**	**77,800**	**77,552**	**68,701**	**71,560**	**94,452**	**88,685**	**69,835**	**68,007**	**103,837**	**73,660**	**93,063**	**76,899**	**43,132**	**33,762**	**(6,747)**	**(6,747)**	**(107)**	**(107)**	**(107)**	**(107)**	**(107)**
Cumulative Free Cash Flow		$000s		-	-	(226,273)	(148,474)	(70,922)	(2,221)	69,339	163,791	252,476	322,311	390,318	494,155	567,815	660,878	737,777	780,908	814,671	807,924	801,177	801,070	800,964	800,857	800,750	800,644
NPV @ 8.26%	8.26%	**$000s**	**387,811**																								
IRR		**%**	**33.6%**																								
Payback		**years**	**4.0**			1.0	1.0	1.0	1.0	0.03	-																
b) After-Tax																											
Free Cash Flow		**$000s**	**474,067**	-	-	**(226,494)**	**58,114**	**58,064**	**45,521**	**47,329**	**61,282**	**52,739**	**34,855**	**42,304**	**69,630**	**52,278**	**65,893**	**56,617**	**37,609**	**32,354**	**(6,747)**	**(6,747)**	**(107)**	**(107)**	**(107)**	**(107)**	**(107)**
Cumulative Free Cash Flow		$000s		-	-	(226,494)	(168,381)	(110,317)	(64,796)	(17,467)	43,815	96,554	131,410	173,713	243,343	295,621	361,514	418,131	455,741	488,094	481,348	474,601	474,494	474,387	474,281	474,174	474,067
NPV @ 8.26%	8.26%	**$000s**	**190,526**																								
IRR		**%**	**21.8%**																								
Payback		**years**	**5.3**			1.0	1.0	1.0	1.0	1.00	0.3																
Operating Metrics																											
Mine Life		Years	**14.2**																								
Average Daily Mining Rate		t/d mined	**2,956**	-	-	1,500	3,058	3,057	3,057	3,057	3,057	3,056	3,054	3,057	3,452	3,452	3,452	3,452	2,235	839	-	-	-	-	-	-	-
Average Daily Processing Rate		t/d processed	**2,956**	-	-	411	3,058	3,057	3,057	3,057	3,057	3,056	3,054	3,057	3,452	3,452	3,452	3,452	2,235	2,235	-	-	-	-	-	-	-
UG Mining Cost		$ / t moved	**$74.17**	-	-	97.44	95.79	90.87	79.26	70.49	68.46	67.95	69.10	69.01	65.75	65.75	67.13	67.13	67.13	178.80	-	-	-	-	-	-	-
Processing Cost		t/d processed	**$36.14**	-	-	75.76	36.89	36.89	36.89	36.90	36.89	36.90	36.91	36.90	34.44	34.44	34.44	34.44	34.44	34.44	-	-	-	-	-	-	-
Site Support G&A Cost		t/d processed	**$18.36**	-	-	98.38	19.55	18.88	18.61	19.10	18.44	18.49	18.95	18.48	16.37	16.77	16.37	16.37	16.37	16.37	-	-	-	-	-	-	-
BOOT Costs		t/d processed	**$3.46**	-	-	10.00	3.58	3.58	3.58	3.59	3.58	3.59	3.59	3.58	3.17	3.17	3.17	3.17	3.17	3.17	-	-	-	-	-	-	-
Subtotal Direct Operating Costs		**t/d processed**	**$128.68**	-	-	**529.76**	**152.23**	**146.65**	**134.76**	**126.49**	**123.79**	**123.34**	**124.96**	**124.39**	**116.56**	**116.96**	**117.94**	**117.94**	**117.94**	**117.94**	-	-	-	-	-	-	-
Refining and Freight Cost		t/d processed	**$0.65**	-	-	0.64	0.77	0.70	0.65	0.63	0.68	0.70	0.71	0.65	0.65	0.58	0.62	0.58	0.56	0.68	-	-	-	-	-	-	-
NSR Royalty		t/d processed	**$3.37**	-	-	3.31	3.98	3.63	3.34	3.27	3.48	3.60	3.66	3.37	3.37	2.97	3.18	2.98	2.89	3.49	-	-	-	-	-	-	-
Total Operating Cost Before By-Product Credits		**t/d processed**	**$136.16**	-	-	**543.71**	**160.56**	**154.57**	**142.34**	**133.98**	**131.54**	**131.22**	**132.92**	**131.99**	**123.76**	**123.67**	**124.91**	**124.67**	**124.57**	**125.29**	-	-	-	-	-	-	-
Total Operating Cost After By-Product Credits		**t/d processed**	**$133.51**	-	-	**542.22**	**158.22**	**152.42**	**140.10**	**131.44**	**129.20**	**129.08**	**130.78**	**129.83**	**121.21**	**120.42**	**121.07**	**121.31**	**121.09**	**122.81**	-	-	-	-	-	-	-
Off-site Admin Expenses (Corporate Allocation)		t/d processed	**$11.76**	-	-	120.00	10.75	10.75	10.75	10.76	10.75	10.76	10.76	10.75	9.52	9.52	9.52	9.52	14.71	28.28	-	-	-	-	-	-	-
Sales Metrics																											
Au Sales		koz	**1,547**	-	-	11	116	122	114	111	118	122	125	114	129	113	121	114	71	45	-	-	-	-	-	-	-
Ag Sales		koz	**1,394**	-	-	6	81	87	86	98	90	83	82	83	111	141	167	146	98	36	-	-	-	-	-	-	-
Total Cash Cost (After Ag by-product credits)		$ / oz Au	**1,321**	-	-	4,939	1,523	1,393	1,375	1,321	1,217	1,175	1,170	1,265	1,182	1,341	1,259	1,345	1,386	1,154	-	-	-	-	-	-	-
Total AISC (After Ag by-product credits)		$ / oz Au	**1,568**	-	-	6,449	1,868	1,565	1,568	1,528	1,375	1,448	1,611	1,578	1,368	1,521	1,404	1,495	1,567	1,424	-	-	-	-	-	-	-
Avg. LOM Annual Au Sales		koz/yr	**109**																								

19.2.1 Cash Flow Analysis

SLR prepared a LOM unlevered after-tax cash flow model to confirm the economics of the Property over the LOM (between 2025 and 2039). Economics have been evaluated using the discounted cash flow (DCF) method by considering LOM production on a 100% basis, annual processed tonnages, and gold and silver grades. The associated metal recoveries, metal prices, operating costs, transportation, treatment and refining charges, initial and sustaining capital costs, and reclamation and closure costs, as well as royalties, income tax, and special mining tax were also considered in the DCF.

The economic analysis prepared by SLR considers a base discount date as at January 1, 2025, using beginning of year convention discounting.

The base discount rate for the DCF analysis of San Gabriel was set by Buenaventura's senior management at 8.26% based on their Weighted Average Cost of Capital (WACC) analysis. Discounted present values of annual cash flows are summed to arrive at the Project Base Case NPV. The Internal Rate of Return (IRR) and payback are also calculated, given San Gabriel is a project under construction beginning ROM production in May 2025 and processing plant operations in September 2025.

To support the disclosure of Mineral Reserves, the economic analysis demonstrates that the San Gabriel Mineral Reserves are economically viable at LOM long term metal prices for gold at US$2,172.00/oz and silver at US$29.00/oz.

- San Gabriel's Base Case undiscounted pre-tax net cash flow is approximately US$801 million, and the undiscounted after-tax net cash flow is approximately US$474 million.
- The pre-tax NPV at an 8.26% discount rate is approximately US$388 million and the after-tax NPV at an 8.26% discount rate is approximately US$191 million.
- The San Gabriel Project pre-tax IRR is 33.6% and after-tax IRR is 21.8%.
- The pre-tax payback period is 4.0 years and the after-tax payback period is 5.3 years.

The SLR QP confirms that SLR has also run the economic analysis using flat reserve metal prices, and the analysis demonstrates that San Gabriel's Mineral Reserves are also economically viable at these prices.

The World Gold Council Adjusted Operating Cost (AOC) after by-product credits for the Project is US$1,321 per ounce of gold. The mine life sustaining capital unit cost is US$248 per ounce, for an All-in Sustaining Cost (AISC) of US$1,568 per ounce of gold. The average gold production during steady state operation (2026 – 2037) is 119 koz per year.

19.3 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on after-tax NPV at a 8.26% discount rate. The following items were examined:

- Gold and silver price
- Gold and silver head grade
- Gold and silver metallurgical recovery
- Operating costs
- Capital costs (initial sustaining and closure)

After-tax sensitivities over the San Gabriel Base Case has been calculated for -20% to +20% (for head grade), -5% to +5% (for metallurgical recovery), -20% to +20% (for metal prices), and -10% to +15% (for operating costs and capital costs) variations, to determine the most sensitive parameter for the Project.

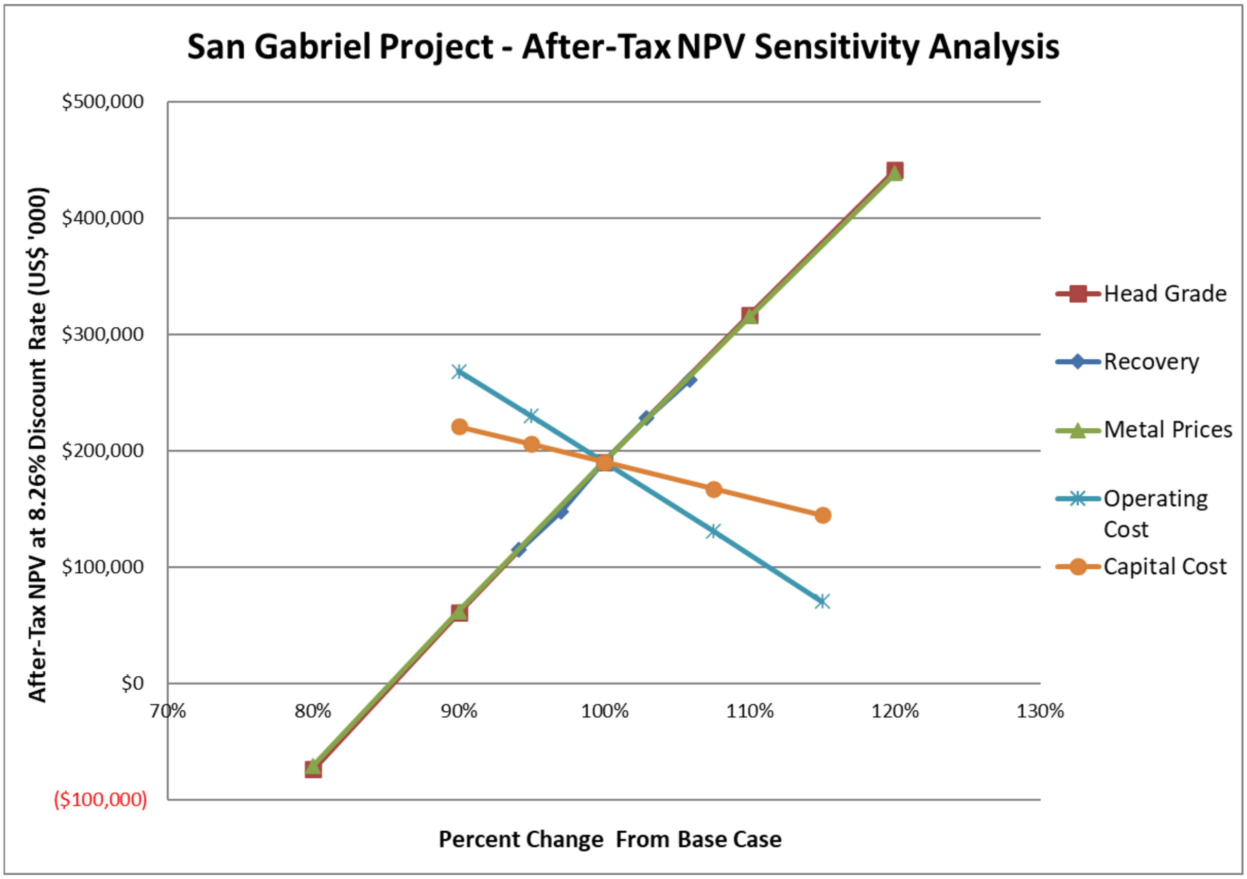
The sensitivity analysis results are shown in Table 19-3 and Figure 19-1.

Table 19-3: After-Tax Sensitivity Analyses

Variance	**Head Grade (g/t Au)**	**NPV at 8.26% (US$000)**
80%	2.97	(73,513)
90%	3.34	60,784
100%	**3.71**	**190,526**
110%	4.08	317,171
120%	4.45	441,322
Variance	**Recovery (% Au)**	**NPV at 8.26% (US$000)**
95%	75.5%	115,043
98%	79.7%	148,079
100%	**85.2%**	**190,526**
103%	90.3%	227,858
105%	94.9%	260,907
Variance	**Metal Prices (US$/oz Au)**	**NPV at 8.26% (US$000)**
80%	1,760	(70,412)
90%	1,980	62,256
100%	**2,200**	**190,526**
110%	2,421	315,786
120%	2,641	438,615
Variance	**Operating Costs (US$/t)**	**NPV at 8.26% (US$000)**
90%	107.03	268,417
95%	119.26	229,669
100%	**132.14**	**190,526**
108%	152.70	131,178
115%	174.76	70,604

Variance	Capital Costs (US$000)	NPV at 8.26% (US$000)
90%	342,833	221,005
95%	361,879	205,765
100%	380,925	190,526
108%	409,495	167,666
115%	438,064	144,806

Figure 19-1: After-Tax Sensitivity Analysis



The sensitivity analysis at San Gabriel shows that the after-tax NPV at an 8.26% base discount rate is most sensitive to head grades, then metal prices and metallurgical recoveries, followed by operating costs and capital costs. The SLR QP notes that a 10% reduction in metal prices reduces the after-tax NPV at 8.26% by 68% for the Project Base Case.

20.0 Adjacent Properties

There are no adjacent properties to report in this section.

21.0 Other Relevant Data and Information

No additional information or explanation is necessary to make this TRS understandable and not misleading.

22.0 Interpretation and Conclusions

22.1 Geology and Mineral Resources

The SRK QP has the following conclusions for geology and Mineral Resources.

Sample Preparation, Analyses, and Security

- SRK conducted a comprehensive review of available QA/QC data from years 2023 and 2024 and believes that QA/QC procedures are consistent with the best practices accepted in the industry. The SRK QP is of the opinion that sample preparation, chemical analysis, quality control, and the security procedures are sufficient to provide reliable data to support the Mineral Resource and Mineral Reserve estimation and considers that quality has been maintained in comparison to the results obtained in the FS of the San Gabriel Project.
- The insertion rates of control samples appear adequate.
- There is no evidence of significant contamination for the elements Ag, Au, Cu, Pb, Fe, Sb, and S.
- There is good precision in sampling, sub-sampling, and analytical processes.
- The bias evaluation results from SRM showed that analytical accuracy of Certimin laboratory's evaluation of all seven elements is within acceptable limits.
- The SRK QP considers that the results of quality control evaluation do not represent a risk to the Mineral Resource estimation.

Database Verification

- SRK found that San Gabriel Project database had only minor findings that correspond mainly to historical data.
- Approximately 30% of the drill holes used in the Mineral Resource estimation do not have collar certificates.
- SRK considers the sample database from the San Gabriel Project to be consistent and acceptable for the Mineral Resource estimation.

Geological Model

- Buenaventura has developed a lithological model that delimits the Mineral Resource model; nevertheless, a strong structural component related to mineralization has not been included in the model.
- The database shared by Buenaventura for the Mineral Resource Audit presents a larger number of drill holes in comparison to those included in the lithological database (39 drill holes, of which 38 correspond to the 2023-2034 campaign and one associated with drill hole CCP11_343 from 2011). These drill holes, although not included in the geological model, were used to define estimation domains.
- An analysis of the grades contained in each high-grade shell, i.e., 5011 and 7011, found low-grade samples that represented 40% and 50% of all samples in each shell respectively; nevertheless, this is attributable to efforts to obtain continuity across domains.

- The TOC domains were developed with the Machine Learning Method; the objective was to predict the information in these domains and update as well as validate the continuity with information from new diamond drilling campaigns.
- The lithological model at San Gabriel demonstrates geological continuity and coherence; and the events represented show good correlation between information from geological logging and the lithological domains developed by Buenaventura.

Mineral Resource Estimation

- Buenaventura developed the Mineral Resource estimation of Au, Ag, Fe, Cu, Pb, Sb and S, and SRK was responsible for the Mineral Resource estimation audit of these elements in the San Gabriel Project. These grades were interpolated into a block model using OK and ID methods. The results were validated visually and through statistical comparisons. The estimation generated was consistent with industry standards across categorizations.
- Samples from DH, RC, and RCD drill holes are being used to estimate Mineral Resources; nevertheless, DH samples represent 90% of all samples of raw data, which indicates that the remainder of samples have no impact on the Mineral Resource estimate. In addition to this, Buenaventura conducted a correlation analysis between the RC and RCD samples with DH using a 15 m radius, where results of more than 80% correlation per domain were obtained.
- The distribution of density samples is not homogenous in each estimation domain, which impedes efforts to estimate density. For this reason, Buenaventura assigns a density volume to each domain that is the equivalent of the mean of the density samples after having removed samples that were outside of the limits of the Mean ± 2SD.

Block Model: Resource Category

- Buenaventura classifies Mineral Resources according to spacing between drill holes, number of passes, number of drill holes, and minimum number of drill holes used in the block estimation. Additionally, to minimize the “spotted dog” effect, Buenaventura develops wireframes to delimit each smoothed classification.

22.2 Mining and Mineral Reserves

The SLR QP has the following conclusions for mining and Mineral Reserves.

Geotechnical Considerations

- The UDF method is the preferred mining approach for the poor-quality rock masses (RMR < 40) at the San Gabriel Project. Its sequential excavation and cemented backfill strategy provide robust support and mitigate geotechnical risks associated with structurally and stress-controlled instabilities. By incorporating optimized backfill strength, systematic ground support, and real-time monitoring, UDF promotes safe and efficient mining under challenging ground conditions.

Mineral Reserves

- At the effective date of December 31, 2024, total underground San Gabriel Proven and Probable Mineral Reserves are estimated to be 15.3 Mt at average grades of 3.71 g/t Au and 6.32 g/t Ag, containing 1.8 Moz of Au and 3.1 Moz of Ag.

- Mineral Reserves were estimated within stope and development designs. The SLR QP has reviewed the Mineral Reserve estimation methodology and is of the opinion that the estimates have been prepared to industry standards.
- The estimated Mineral Reserves support a LOM of 14.6 years. The mine will have a production rate of 3,000 tpd increasing to 3,500 tpd in 2034.

Mining

- The San Gabriel mine will be mined using UDF mining methods and cemented fill will be used as backfill.
- The cemented fill plant will be built on site and is designed to have a capacity 17% greater than ore production.
- All haulage operations will be undertaken by contractors. Buenaventura will assume responsibility for mining operations as of 2026.
- The north zone of the mine has not been sampled for metallurgical test work and metallurgical recoveries are based on test work averages completed in the south zone.
- The LOM plan consists of aggressive development rates between 2026 to 2028. Part of the development scheduled in those years can be scheduled later during the LOM.
- As of December 31, 2024 the detailed engineering progress was at 100% complete, construction services and procurement at 100% complete, and mine advance at 33% complete, with 2,000 m of ramp development completed from the North portal and 366 m at the South portal.
- Construction of the underground mine is progressing as per schedule and on time.

22.3 Mineral Processing

- The status of the Project as of January 2025 is that detailed engineering is 97% complete, construction services, 100% complete, procurement is 100% complete, and construction progress is 62% complete. This mineral processing information in this TRS is based on the FS and some of the information from the detailed engineering stage of the Project. The SLR QP notes that the detailed engineering level process design criteria, flowsheets, and layouts were purported to be complete but were not made available for the writing of this report.
- The San Gabriel processing plant is designed to treat 1,095 Mtpa (3,000 tpd) of ore from the underground mine to produce gold doré bars with silver content. The expected LOM for San Gabriel has been estimated at 14 years. The plant comprises primary crushing, SAG mill and ball mill grinding, GRG with intensive cyanide leaching, cyclone classification, pre-oxidation using oxygen sparging, CIL, INCO SO_2-air cyanide detoxification, Zadra carbon elution, regeneration electrowinning and doré casting, tailings thickening and filtration, and water treatment. The SLR QP agrees with the process flowsheet selected and the level of metallurgical testing performed to support the Project engineering.
- Ore contains preg-robbing organics requiring the use of CIL. The results of the CIL leach tests without gravity recovery ranged from 41.9% to 94.9% with an average gold recovery of 86.7% and a 75th percentile gold recovery of 91.4%. It should be noted that the gold grade of the CIL set of samples averaged 5.2 g/t Au and the gravity CIL set

averaged 3.1 g/t Au. TOC averaged 0.68% in the CIL set and 0.54% in the gravity CIL set. Design recovery for the gravity-CIL circuit is 86.48%.

- Gold occurs as native gold and electrum, although in the stockwork type there are significant amounts of maldonite (Au_2Bi). Free gold in the range of 20% to 30% was found to occur in the replacement and breccia ore types, indicating the potential for GRG. The average sulphur content is 12%, mainly as iron sulphides with only minor cyanide soluble copper minerals. There is evidence of organic carbon potentially causing preg-robbing. The SLR QP indicates that deleterious elements in the San Gabriel mineralization include organic carbon and mercury.
- Based on the results from Laboratorio Plenge (PlengeLab), using the cyclone underflow size distribution, P_{80} 296 µm, results in a global gravity recovery of 13.7% for gold and 1.7% for silver. In all cases, mass recovery was 0.5%.
- Sedimentation test results for the final tailings thickener indicated an underflow density averaging 55% solids and a thickener specific area of 0.22 m^2/(t/d), equivalent to a 30 m diameter thickener. Rheology variability test work by PlengeLab on the tailings thickener underflow slurry indicated the need to reduce the target density from 55% solids to 47% (range 45% to 50%) due to high slurry viscosity.
- Filtration tests resulted in a specific filtration rate of 0.44 m^2/(t/h) producing a filter cake of 20% moisture, which is higher than the current geotechnical requirement of 14% moisture for final disposal in the dry stacked tailings facility, Filtered Tailings Reservoir (DRF for its abbreviation in Spanish). The SLR QP understands that additional testing is planned to reduce the moisture including surfactants, cake drying, air blowing, and viscosity adjustment by varying pH, and that solving this problem is critical for dry stacked tailings.
- Slurry viscosity increases with an increase in pH and percent solids. The milling process design considers a near neutral (pH 7) milling process using the pre-leach thickener to isolate the milling and CIL circuits.
- The process water is supplied to the process water pond, from the tailings thickener overflow and TSF reclaim water. The treated water from the mine water treatment plant feeds the process water tank which distributes the water to different points within the process plant.

22.4 Infrastructure

- The site currently has two camps with a total capacity for 1,500 people, which will be reduced to approximately 800 during operation. Camp facilities include administrative buildings, training rooms, recreation rooms, laundry facilities, a medical centre, and kitchen and dining rooms.
- The property is accessed via the National Road MO-106 and a seven kilometre gravel road connects the national road to the site's main gate.
- The power supply to the San Gabriel Substation will be via one 50.3 km long 220 kV overhead transmission line from the Chilota Substation to the 220 kV/23 kV San Gabriel Substation.
- Fresh water will come from two sources: fresh water dam (built across the Quebrada Agani) and water inflow from the underground mine. Mine, process, and surface contact water will be recycled for plant and mine operations use.

- The PTARI mine water treatment plant has a capacity 60 L/s.
- The SLR QPs visited the site in January 2025, at which time the surface infrastructure construction was approximately 70% complete.

22.5 Environmental, Permitting and Social Considerations

- No known environmental issues that could materially impact the ability to extract the Mineral Reserves were identified by SLR from the documentation available for review.
- Environmental approval was granted for the EIA for the Project in 2017. The authorization for operation from the General Directorate of Mining of Perú, and the licences and authorizations from the National Water Authority for water use and water discharge for the operations phase of the Project must be obtained by Buenaventura before commencement of production.
- Buenaventura has an Environmental Policy in place that establishes the environmental management guidelines and standards for its projects and operations (last reviewed in 2022).
- There is an Environmental Management Plan in place, applicable to operations and construction activities. It includes an environmental monitoring program encompassing soil, air quality, noise, surface water and springs quality, sediments, effluents, groundwater, and biodiversity. Bi-annual reports documenting monitoring results for water quality, air quality, and ambient noise are submitted to the Peruvian authorities.
- The SLR QP is not aware of any non-compliance environmental issues raised by the Peruvian authorities. Buenaventura stated in the conclusions of the bi-annual monitoring reports provided to SLR (corresponding to the first half of 2024) that the monitoring results are in compliance with the environmental regulations in force.
- According to the information reviewed, the site water management system meets the typical objectives applicable to mine operations (i.e., implementation of infrastructure for management of contact and non-contact water protective of the receiving environment).
- A Community Relations Plan is in place and was developed as part of the Environmental Management Plan.
- The key social issue associated with the Project is the high expectations from communities within the Project's social area of influence in terms of support and benefits to be provided by Buenaventura.
- Based on the information provided in the reports accessible through the company's website, Buenaventura appears to maintain positive relations with the communities located within the area of influence of its mine operations. Based on the documents provided by Buenaventura and information gathered during the site visit in January 2025, the company appears to maintain positive working and commercial relationships with the communities within the area of influence of its mine operations. San Gabriel prioritizes hiring and buying locally and provides training opportunities to help local workforce and businesses remove barriers to employment and procurement.
- San Gabriel has framework agreements in place with the Santa Cruz de Oyo Oyo, Maycunaca and Antajahua rural community and the Corire rural community involving monetary contributions, priority hiring, training, scholarships, establishment of a development fund to be invested in key priority areas, and support for the establishment of community businesses.

- Buenaventura publicly discloses its sustainability performance through integrated annual reports accessible through the company's website.
- A conceptual MCP has been developed for all the mine components within the context of Peruvian legislation.

22.6 Capital and Operating Costs and Economics

- Mining operating costs were estimated for mining operations completed by Buenaventura, and development and support operations completed by contractors. The SLR QP has reviewed the cost calculations and is of the opinion that the estimates include all labour, supplies, consumables, and equipment costs required to sustain the underground mining operations.
- Operating cost estimates for the process plant and associated on-site and off-site infrastructure were prepared by Ausenco with input from Buenaventura. Operating costs were estimated for labour, power, reagents, water supply and treatment, and consumables on an annual basis considering plant flowsheet, process design criteria and the mass balance. Power and reagent costs were calculated from equipment lists, electrical load lists and the results of metallurgical testing.
- Current LOM plan operating cost estimates expanded on the FS operating costs for the concentrator and ADR plant by increasing in the plant maintenance costs and adding operating and maintenance costs for the water treatment plant, PTARI. The FS unit process operating cost is US$26.94/t, and the LOM unit process operating cost used in the current San Gabriel cash flow is US$36.14/t. The SLR QP considers these operating costs to be reasonable.
- The LOM production schedule in the cash flow model is based on the December 31, 2024, Mineral Reserves.
- The economic analysis using the production, revenue, and cost estimates presented in this TRS confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves for a 14.2-year mine life. At LOM long term metal prices of US$2,172.00/oz Au and US$29.00/oz Ag, the Project's Base Case undiscounted pre-tax net cash flow is approximately US$801 million, and the undiscounted after-tax net cash flow is approximately US$474 million. The pre-tax Net Present Value (NPV) at an 8.26% discount rate is approximately US$388 million and the after-tax NPV at an 8.26% discount rate is approximately US$191 million.

23.0 Recommendations

23.1 Geology and Mineral Resources

The SRK QP has the following recommendations for geology and Mineral Resources.

Sample Preparation, Analyses, and Security

1 Insert external control samples in future deliveries, as established in its Quality Control Procedure (2022). Sending external control samples to a secondary laboratory must include a review of the granulometry in 10% of the samples, as well as the insertion of pulp blanks and SRMs in said lots.

2 Complete frequent reviews of the behaviour of the quality control results and inform the laboratory about any problems detected to opportunely establish corrective measures.

Data Verification

3 Periodically monitor and/or review drill hole recovery results. The SRK QP considers a recovery percentage greater than 90% acceptable.

4 The minimum and maximum drill hole sampling length indicated in the Buenaventura Sampling Protocol (2022) should be respected in future drilling campaigns.

5 In future drilling programs, perform bulk density sampling in all drill holes and areas that are important for Mineral Resource estimation.

6 Complete frequent reviews and validation of the control sample database and check that duplicate control samples are correctly associated with their corresponding primary sample.

Geological Model

7 Generate a structural model for subsequent integration in the geological model to ensure a more robust model that provides better understanding on the role of faults and their relation to mineralization.

8 Use the database used to estimate resources in updates of Mineral Resource estimations to update the geological model; this will ensure that the registries in the database for the estimation match the registries in the geological model.

9 More support is needed from samples to confirm and define the continuity of carbonaceous horizons. In future diamond drilling campaigns, the TOC sampling should continue to confirm the geological interpretation.

Mineral Resource Estimation

10 Exclude samples from RC and RCD drill holes in future Mineral Resource estimations. These samples should be replaced with samples from diamond drill holes to ensure that resource estimation is based on a single source of information.

11 Systematic density sampling programs should cover all domains, appropriately distributed along and up the estimation domains.

12 Use best practices in the industry to develop a density sample procedure for non-competent core rock to ensure that representative samples are available for each of the Project's domains.

13 Implement a reconciliation program that includes the different types of Mineral Resource models, reserves, mine plans, and plant results when the operation starts.

Block Model: Resource Category

14 Consider risk factors such as QA/QC and density in the classification of Mineral Resources.

15 Compare the tonnages between the initial category and the smoothed category in order to validate that the tonnage variation is not greater than 5%. Additionally, it is recommended to include some algorithm that can perform the smoothing process because the complexity may increase over time.

23.2 Mining and Mineral Reserves

The SLR QP has the following recommendations for mining and Mineral Reserves.

Geotechnical Considerations

1 Study/Data – Carry out further characterization of the Project site, including additional drilling and laboratory tests.

2 Backfill Quality and Strength - Conduct trials to optimize cemented backfill mix (CAF/CRF) and achieve a minimum strength of 2.2 MPa within 7–28 days of curing. Ensure proper topping/filling to achieve roof contact.

3 Excavation Direction - Advance drifts in the SE-NW direction, parallel to the major horizontal stress, to minimize deformation and improve support efficiency.

4 Ground Support - Implement systematic bolting, mesh, and shotcrete based on site-specific conditions.

5 Adjust support design as necessary based on ground performance monitoring.

6 Geotechnical Monitoring - Use real-time monitoring (e.g., convergence meters, stress gauges) to assess drift performance and backfill behaviour.

7 Mining Sequencing - Maintain controlled sequencing of undercutting operations to limit exposure of poor-quality rock and ensure backfill curing time.

Mining

8 Complete metallurgical test work in areas with poor or no test work prior to mining those areas.

9 Review the development schedule to reduce the amount of development between 2026 and 2028.

10 Consider maintaining some contractor involvement in 2026 particularly with development advance.

11 Add a minimum of 10 days for cemented backfill curing time in the LOM schedule where two adjacent drifts will be mined sequentially.

23.3 Mineral Processing

1 The detailed engineering process was reported to be complete, however, the detailed engineering design criteria, flowsheets, and layouts were not available for the writing of this report. Future reports should include this information.

2 Conduct additional metallurgical test work in areas lacking test work and in areas exhibiting variability in recoveries, such as Estimation Domain A4, and in zones with high TOC content. Current domains are defined by the relationship between Au recovery and TOC, however, relationships between Au recovery and both head grade and sulphide sulphur grade are also significant and should be considered in the modeling. It is therefore advisable to develop metallurgical domains to more accurately define metallurgical recoveries. At present, recovery estimates are based on estimation domains rather than dedicated metallurgical domains, which may not fully capture metallurgical variability.

23.4 Environmental, Permitting and Social Considerations

1 Review the company's Environmental Policy procedures and protocols and update them at regular intervals to allow for their proper and timely implementation.

2 Develop the governance approach and procedures for the TSF and other dams of the Project before initiating production. An Engineer of Record should be appointed for the TSF. The supporting documents, studies, and analysis should be in place, including Operation, Maintenance and Surveillance (OMS) Manual, a downstream consequence analysis, Emergency Preparedness and Response Plan, Probable Failure Modes Analyses (PFMA), and risk assessment.

3 The San Gabriel social team should continue working and communicating regularly with the other internal departments, such as environment, operations, procurement, communications, and institutional relations, on community-related matters, as their sphere of influence could impact community relationships. For example, the contracting or not of a local business for a specific scope of work, the delay in paying invoices to a local business or contractual breaches can negatively impact the relationships with communities within the social area of influence.

4 Revisit and update the Social Management Plan regularly as social risks requiring mitigations also change and evolve constantly.

5 Develop and implement a procedure and a tool to register commitments and track progress to ensure fulfillment of the social commitments. San Gabriel has numerous social commitments from engagement activities with communities, the EIA, dialogue roundtables, framework agreements with communities, and agreements with districts in the social area of influence.

23.5 Capital and Operating Costs and Economics

1. Track and collect actual mine operating costs during operations and review cut-off grade estimations for future Mineral Reserve estimates.
2. Developing the capital cost estimate detail to incorporate owner's costs and contingency calculations.
3. Further develop the WBS to assist with the development of the control budget.

4. Verify capital and operating costs from the completion of process facility construction and initial operation of the plant.
5. Update the metal market overview analysis for gold and silver every two to three years as the most recent available study is from CRU Group in Q2 2021

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25.0 Reliance on Information Provided by the Registrant

This TRS has been prepared by SLR for Buenaventura. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this TRS.
- Assumptions, conditions, and qualifications as set forth in this TRS.
- Data, reports, and other information supplied by Buenaventura and other third party sources.

For the purpose of this TRS, SLR has relied on ownership information provided by Buenaventura in Memorandum on Mining and Surface Rights No. 002-1101025 dated April 11, 2025 (Gavidia Cannon 2025). SLR has not researched property title or mineral rights for the San Gabriel Project as we consider it reasonable to rely on Buenaventura's legal counsel who is responsible for maintaining this information.

SLR has relied on Buenaventura for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Property in the Executive Summary and Section 19. As the Property has been in operation for over ten years, Buenaventura has considerable experience in this area.

The Qualified Persons have taken all appropriate steps, in their professional opinion, to ensure that the above information from Buenaventura is sound.

Except as provided by applicable laws, any use of this TRS by any third party is at that party's sole risk.

26.0 Date and Signature Page

This report titled "S-K 1300 Technical Report Summary for the San Gabriel Project, General Sánchez Cerro Province, Peru" with an effective date of December 31, 2024 was prepared and signed by:

(Signed) ***SLR Consulting (Canada) Ltd.***

Dated at Toronto, ON
April 23, 2025

SLR Consulting (Canada) Ltd.

(Signed) ***SRK Consulting (Peru) S.A.***

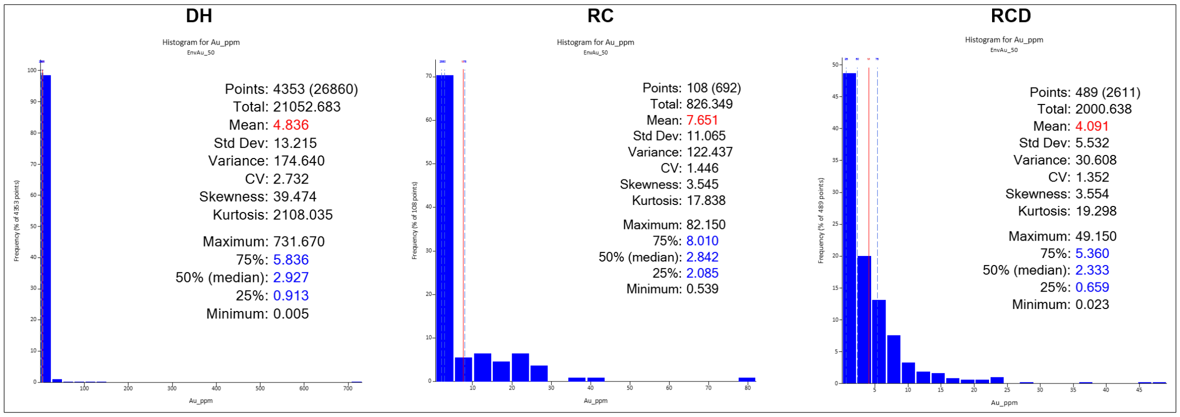
Dated at Lima, Peru
April 23, 2025

SRK Consulting (Peru) S.A.

27.0 Appendix 1

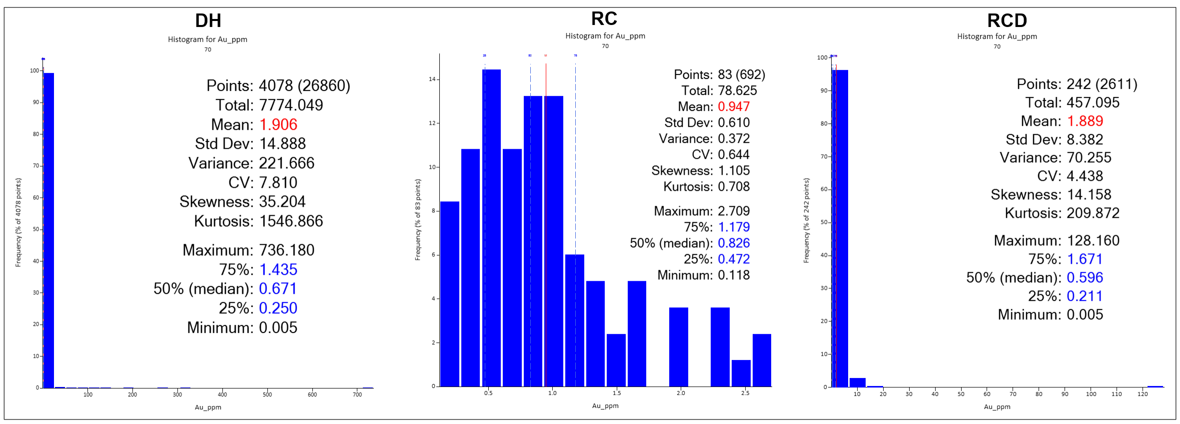
27.1 Sample Analysis Support Information

Figure 27-1: Mean Differences between RC, RCD, and DH Samples for Domain 5011



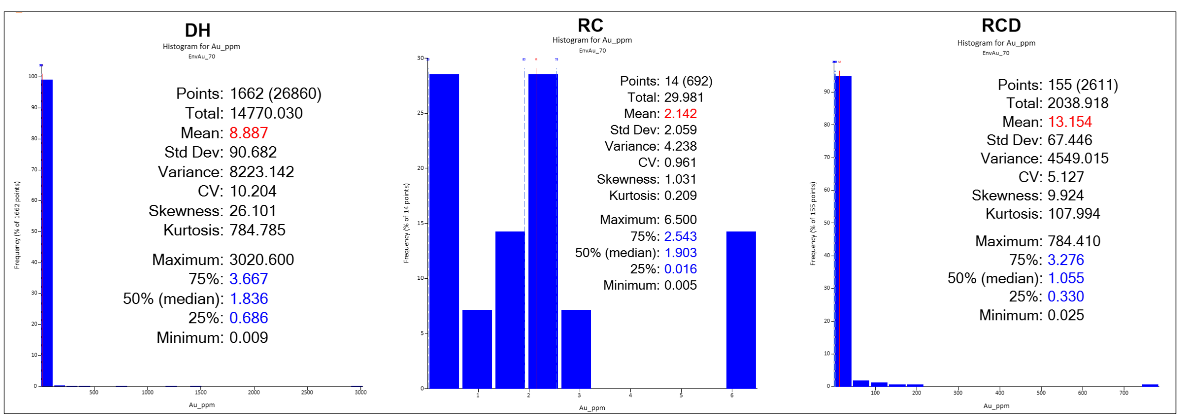
Source: SRK 2024.

Figure 27-2: Mean Differences between RC, RCD, and DH Samples for Domain 7010



Source: SRK 2024.

Figure 27-3: Mean Differences between RC, RCD, and DH Samples for Domain 7011



Source: SRK 2024.

Table 27-1: Contamination Evaluation Results per Element

Laboratory	Blank Type	Element	Samples	Samples within Parameters	Samples within Parameters (%)
Certimin	Pulp blanks	Ag	137	137	100%
		Au	135	135	100%
		Cu	137	137	100%
		Fe	137	137	100%
		Pb	137	137	100%
		S	137	137	100%
		S	137	137	100%
	Coarse blanks	Ag	137	137	100%
		Au	137	137	100%
		Cu	137	137	100%
		Fe	137	128	93%
		Pb	137	137	100%
		S	137	137	100%
		Sb	137	136	99%
Source: SRK 2024.					

Table 27-2: Results of the Precision Evaluation for Certimin Laboratory

Laboratory	Duplicate Type	Element	Samples	Samples within Parameters	Samples within Parameters (%)
Certimin	Pulp duplicate	Ag	128	128	100%
		Au	128	128	100%
		Cu	128	128	100%
		Fe	128	128	100%
		Pb	128	128	100%
		S	128	128	100%
		Sb	128	128	100%
	Coarse duplicate	Ag	133	133	100%
		Au	133	132	99%
		Cu	133	132	99%
		Fe	133	132	99%
		Pb	133	133	100%
		S	133	133	100%
		Sb	133	133	100%
	Twin	Ag	129	129	100%
		Au	129	123	95%
		Cu	129	115	89%
		Fe	129	115	89%
		Pb	129	113	88%
		S	129	110	85%
		Sb	129	113	88%

Source: Buenaventura 2024.

Table 27-3: Summary of the Values of the SRM Certificates

Laboratory	SRM	Ag (ppm)		Au (ppm)		Cu (%)		Fe (%)		Pb (%)	
		Best Value	Std Dev	Best Value	Std Dev	Best Value	Std Dev	Best Value	Std Dev	Best Value	Std Dev
Smee and Associates Consulting	AuOx-18	77.8	2.55	2.876	0.101	-	-	-	-	-	-
	AuOx36			0.318	0.005	-	-	-	-	-	-
	EPIT-05	132	3	4.112	0.12	-	-	-	-	-	-
	EPIT-12	6.8	0.3	1.195	0.042	-	-	-	-	-	-
	EPIT-28	374	7	7.4	0.245	-	-	-	-	-	-
	STRT-05	14.9	0.5	0.41	0.009	0.988	0.017	14.58	0.365	0.1706	0.01295

Source: Buenaventura 2024.

Table 27-4: Summary of the Accuracy Evaluation for Certimin Laboratory

Laboratory	Element	SRM	Sample	Outliers	Mean	Best Value	Bias (%)	Coefficient of Variation (%)	Sample within Parameters	Sample within Parameters (%)
Certimin	Ag (ppm)	AuOx-18	93	-	77.52	77.8	-0.40%	2.90%	93	100%
		EPIT-05	42	-	130.88	132	-0.80%	2.20%	42	100%
		EPIT-12	50	-	6.64	6.8	-2.30%	4.00%	50	100%
		EPIT-28	49	-	372.43	374	-0.40%	1.30%	49	100%
		STRT-05	102	-	15.02	14.9	0.80%	2.80%	102	100%
	Au (ppm)	AuOx-18	93	-	2.86	2.88	-0.70%	2.90%	93	100%
		AuOx36	28	-	0.31	0.32	-2.70%	2.40%	24	86%
		EPIT-05	42	-	4.03	4.11	-2.00%	2.50%	42	100%
		EPIT-12	50	-	1.17	1.2	-2.40%	3.20%	50	100%
		EPIT-28	49	-	7.43	7.4	0.40%	1.70%	49	100%
		STRT-05	102	-	0.41	0.41	0.20%	1.70%	102	100%
	Cu (%)	STRT-05	102	-	0.98	0.99	-1.10%	1.20%	102	100%
	Fe (%)	STRT-05	102	-	14.45	14.58	-0.90%	1.50%	102	100%
	Pb (%)	STRT-05	102	-	0.18	0.17	5.00%	4.60%	102	100%

Source: Buenaventura 2024.

Table 27-5: Laboratory Cross-validation Results

Laboratory	Element	Samples	Correct Data (%)	Observations (%)		Total Data (%)
				Values do not match	Rounding	
Certimin	Ag	7,102	100%	0%	0%	100%
	Au	7,102	99.7%	0.3%	0%	100%
	Cu	7,102	100%	0%	0%	100%
	Fe	7,102	100%	0%	0%	100%
	Pb	7,102	100%	0%	0%	100%
	S	7,102	99.4%	0.6%	0%	100%
	Sb	7,102	100%	0%	0%	100%

Source: Buenaventura 2024.

Table 27-6: Bulk Density Database Summary by Laboratory

Laboratory	Year	Density Samples
SGS	2008	153
	2009	240
	2010	1,591
	2011	3,228
ALS	2009	72
	2010	92
	2019	691
Certimin	2023	14
	2024	111
Total		6,192

Source: Buenaventura 2024.

28.0 Appendix 2

28.1 Mineral Resource Estimate Support Information

Table 28-1: Statistical Summary of the San Gabriel Database

Element	Samples	Mean	Min.	Max.	CV	Std. Dev.
Ag (ppm)	94,294	6.19	6.19	2,894.00	2.80	17.32
Au (ppm)	94,294	0.94	0.01	3,020.60	14.26	13.38
Cu (%)	94,294	0.05	0.00	8.49	2.66	0.13
Fe (%)	94,294	10.54	0.01	55.01	0.78	8.20
Pb (%)	94,293	0.03	0.00	2.59	2.06	0.06
Sb (%)	94,294	106.33	0.05	6,345.00	1.49	157.90
S (%)	94,294	5.03	0.01	70.27	1.15	5.79
Source: SRK 2024.						

Table 28-2: Summary of Statistics per Estimation Domain

Element	Domain	Total Samples	Min.	Max.	Mean	Std. Dev.	CV	Variance
Au (g/t)	1010	2,569	0.01	19.35	1.59	1.7	1.07	2.9
	2010	807	0.01	9.19	0.9	1.05	1.17	1.11
	3010	7,150	0.01	196	2.1	4.77	2.27	22.72
	4010	1,845	0.01	36.97	1.05	1.8	1.72	3.24
	5010	4,608	0.01	96.75	1.25	2.63	2.1	6.91
	5011	4,948	0.01	731	4.83	12.63	2.62	159
	6010	1,961	0.01	42.37	0.96	2.37	2.47	5.62
	7010	4,396	0.01	736	1.89	14.47	7.67	209
	7011	1,837	0.01	3,020	9.18	88.46	9.64	7,826
Ag (g/t)	1040	2,569	0.02	175	9.77	15	1.54	225
	2040	807	0.13	56	5.87	7.23	1.23	52.29
	3040	7,150	0.01	440	7.22	10.83	1.5	117
	4040	1,845	0.01	1,393	8.04	38.47	4.79	1,479
	5040	9,556	0.01	440	7.48	14.17	1.89	200
	6040	1,961	0.01	219	3.89	9.69	2.49	93.9
	7040	6,233	0.01	1,292	6.2	19.07	3.08	363
Fe (%)	1030	2,569	0.48	43.47	11.29	6.37	0.56	40.15
	2030	807	0.6	43.49	10.81	7.97	0.74	63.58
	3030	7,150	0.19	45.81	18.07	10.06	0.56	101
	4030	1,845	0.61	43.1	12.11	8.33	0.69	69.34
	5030	9,556	0.5	46.08	18.06	8.18	0.45	66.94
	6030	1,961	0.75	43.6	8.32	5.16	0.62	26.58
	7030	6,233	0.99	40.37	13.72	4.35	0.32	18.93
Cu (%)	1050	2,569	5.0	33,200	1,710	2,260	1.3	5,107,140
	2050	807	6.0	20,580	1,379	2,367	1.7	5,603,559
	3050	7,150	3.0	35,000	725	1,253	1.7	1,569,942
	4050	1,845	0.2	33,800	530	1,532	2.9	2,348,239
	5050	9,556	3.4	29,500	666	1,257	1.9	1,577,659
	6050	1,961	0.5	22,200	438	1,250	2.9	1,562,128
	7050	6,233	1.9	33,200	545	1,241	2.3	1,539,078
Pb (ppm)	1070	2,569	7.4	5,280	347	384	1.1	147,458
	2070	807	12.7	7,006	337	455	1.4	207,073

Element	Domain	Total Samples	Min.	Max.	Mean	Std. Dev.	CV	Variance
	3070	7,150	2.3	15,440	469	745	1.6	554,386
	4070	1,845	0.2	8,938	318	498	1.6	248,200
	5070	9,556	1.1	25,900	588	905	1.5	819,565
	6070	1,960	0.8	9,929	354	600	1.7	360,291
	7070	6,233	0.8	17,400	437	860	2.0	739,754
Sb (ppm)	1080	2,569	2.3	5,190	207	210	1.0	43,971
	2080	807	6.0	2,755	172	229	1.3	52,365
	3080	7,150	0.1	6,345	142	169	1.2	28,433
	4080	1,845	0.1	3,379	112	169	1.5	28,451
	5080	9,556	3.4	5,366	139	194	1.4	37,787
	6080	1,961	1.2	2,570	83.2	126	1.5	15,935
	7080	6,233	2.1	2,273	98.1	117	1.2	13,573
S (%)	1090	2,569	0.1	44.6	8.4	5.5	0.7	30.7
	2090	807	0.2	34.7	6.6	5.2	0.8	26.9
	3090	7,150	0.1	60.8	7.9	6.1	0.8	37.2
	4090	1,845	0.1	39.3	5.5	5.5	1.0	30.7
	5090	9,556	0.1	56.6	8.6	7.1	0.8	49.9
	6090	1,961	0.1	44.2	4.1	5.2	1.3	26.7
	7090	6,233	0.01	51.3	5.7	5.7	1	32.2
Source: Buenaventura 2024.								

Table 28-3: Statistics of Capping Analysis for the Seven Elements by Estimation Domain

Element	Domain	Total Samples	Mean	Capping	N° Samples Capped	% MC Reduction	CV
Au (g/t)	1010	2,569	1.58	9.5	10	0.8	1.02
	2010	807	0.88	4.8	10	2	1.09
	3010	7,150	2.03	38	12	3.4	1.67
	4010	1,845	1.03	13	4	1.8	1.53
	5010	4,608	1.2	15	11	4.1	1.4
	5011	4,948	4.7	115	3	2.7	1.56
	6010	1,961	0.91	15	9	4.8	2.05
	7010	4,396	1.41	40	17	25.3	2.35
	7011	1,837	6.1	330	6	33.5	4.12
Ag (g/t)	1040	2,569	9.03	56	50	7.6	1.16
	2040	807	5.39	21	32	8.2	0.98
	3040	7,150	7.01	60	41	2.8	1.18
	4040	1,845	6.37	70	24	20.8	1.82
	5040	9,556	7.21	90	51	3.7	1.53
	6040	1,961	3.41	28	28	12.3	1.57
	7040	6,233	5.95	89	12	4	1.56
Fe (%)	1030	2,569	11.27	37	16	0.2	0.56
	2030	807	10.58	31	33	2.1	0.69
	6030	1,961	8.27	20	16	0.6	0.6
Cu (ppm)	1050	2,569	1,611	8,000	59	5.7	1.1
	2050	807	1,270	8,100	21	7.8	1.4
	3050	7,150	702	7,590	49	3.2	1.5
	4050	1,845	451	4,520	31	14.9	1.7
	5050	9,556	620	5,500	113	6.8	1.4
	6050	1,961	352	3,350	50	19.7	1.9
	7050	6,233	518	7,500	38	4.9	1.8
Pb (ppm)	1070	2,569	343	2,270	14	1.2	1.0
	2070	807	317	1,480	16	5.9	1.0
	3070	7,150	463	6,090	17	1.2	1.5
	4070	1,845	291	1,450	56	8.7	1.2
	5070	9,556	568	4,300	95	3.4	1.3

Element	Domain	Total Samples	Mean	Capping	N° Samples Capped	% MC Reduction	CV
	6070	1,960	317	1,550	71	10.6	1.2
	7070	6,233	422	4,650	41	3.5	1.7
Sb (ppm)	1080	2,569	203	1,050	16	2.1	0.8
	2080	807	163	960	12	5.0	1.0
	3080	7,150	141	1,700	10	1.0	1.0
	4080	1,485	105	620	15	5.7	1.0
	5080	9,556	135	1,320	28	2.9	1.0
	6080	1,961	76	350	52	8.2	1.0
	7080	6,233	97	940	13	0.9	1.1
S (%)	1090	2,569	8.4	31	9	0.2	0.7
	2090	807	6.5	24	10	0.9	0.8
	3090	7,150	7.9	40	7	0.1	0.8
	4090	1,845	5.5	30	8	0.4	1.0
	5090	9,556	8.6	40	24	0.1	0.8
	6090	1,961	4.0	30	10	0.8	1.2
	7090	6,233	6.7	35	21	0.2	1.0

Source: Buenaventura 2024.

Table 28-4: Summary of Composite Data Statistics per Estimation Domain

Element	Domain	Total composites	Mean	Min	Max	Std. Dev.	CV	Variance
Au (g/t)	1010	1,253	1.54	0.01	8.17	1.27	0.82	1.61
	2010	385	0.82	0.01	4.54	0.76	0.92	0.57
	3010	3,308	2.00	0.01	30.60	2.78	1.39	7.75
	4010	926	1.02	0.01	12.59	1.35	1.32	1.81
	5010	2,190	1.17	0.01	13.40	1.23	1.06	1.52
	5011	2,316	4.55	0.01	57.84	4.85	1.07	23.49
	6010	1,071	0.86	0.01	14.02	1.48	1.72	2.18
	7010	2,284	1.29	0.01	32.15	2.02	1.57	4.09
	7011	934	5.53	0.01	213	15.08	2.73	227.24
Ag (g/t)	1040	1,253	8.86	0.13	56	9.32	1.05	86.94
	2040	385	4.58	0.20	21	4.58	0.89	20.95
	3040	3,308	6.43	0.01	60	7.53	1.08	56.63
	4040	926	6.86	0.06	68.12	10.36	1.51	107.36
	5040	4,496	7.25	0.05	90	9.89	1.37	97.74
	6040	1,071	3.40	0.01	28	4.82	1.42	23.22
	7040	3,215	5.68	0.03	81.08	7.99	1.41	63.81
Fe (%)	1030	1,253	10.85	1.43	36.96	5.23	0.48	27.38
	2030	385	9.78	1.02	31	6.06	0.62	36.72
	3030	3,308	16.97	0.76	44.96	9.08	0.54	82.51
	4030	926	11.39	1.11	40.10	7.11	0.63	50.59
	5030	4,496	17.31	0.92	45.12	7.28	0.42	52.93
	6030	1,071	7.97	0.85	20.00	4.43	0.56	19.60
	7030	3,215	13.38	1.50	33.84	3.80	0.28	14.41
Cu (%)	1050	1,253	1,605	8.40	8,000	1,551	0.97	2,408,364
	2050	385	1,177.8	7.38	8,100	1,446	1.23	2,091,015
	3050	3,308	684.4	7.92	7,590	880	1.29	773,896
	4050	926	431.8	7.90	4,520	648	1.50	420,305
	5050	4,496	641.9	5.50	5,500	855	1.33	731,753
	6050	1,071	227	0.84	3,350	323	1.82	387,812
	7050	3,215	403	5.36	7,500	809	1.68	655,122
Sb (ppm)	1080	1,253	199	3.73	986	145	0.73	21,150
	2080	385	157.4	11.70	960	148	0.94	21,963

Element	Domain	Total composites	Mean	Min	Max	Std. Dev.	CV	Variance
	3080	3,308	139.6	4.93	1,700	132	0.95	17,497
	4080	926	102.8	6.15	620	96.82	0.94	9,374
	5080	4,496	132.3	3.56	1,320	122	0.93	14,989
	6080	1,071	77.1	2.17	507	78.53	1.02	6,167
	7080	3,215	92.9	5.42	940	95.55	1.03	9,129
S (%)	6090	1,071	3.8	0.10	30	4.25	1.12	18.09
	7090	3,215	4.8	0.09	33.40	4.75	0.90	22.52

Source: Buenaventura 2024.

Table 28-5: Restrictions for the Seven Estimated Elements

Element	Domain	HY Limit	HY Major (m)	HY Semi (m)	HY Minor (m)
Au (g/t)	1010	6	15	15	15
	2010	2.5	15	15	15
	3010	22	15	15	15
	4010	8	15	15	15
	5010	5	15	15	15
	5011	50	15	15	15
	6010	8	15	15	15
	7010	10	15	15	15
	7011	50	15	15	15
Ag (g/t)	1040	28	5	5	5
	2040	12.5	5	5	5
	3040	22	15	15	15
	4040	24	5	5	5
	5040	35	6	6	6
	6040	14	5	5	5
	7040	36	5	5	5
Fe (%)	1030	21	5	5	5
	2030	0	5	5	5
	3030	0	5	5	5
	4030	35	5	5	5
	5030	35	5	5	5
	6030	14	5	5	5
	7030	18	5	5	5
Cu (ppm)	1050	6,500	5	5	5
	2050	4,500	15	15	15
	3050	5,300	5	5	5
	4050	2,860	5	5	5
	5050	2,300	5	5	5
	6050	800	5	5	5
	7050	1,600	5	5	5
Pb (ppm)	1070	0	5	5	5
	2070	0	5	5	5
	3070	0	5	5	5

Element	Domain	HY Limit	HY Major (m)	HY Semi (m)	HY Minor (m)
	4070	0	5	5	5
	5070	0	5	5	5
	6070	0	5	5	5
	7070	0	5	5	5
Sb (ppm)	1080	700	5	5	5
	2080	750	5	5	5
	3080	690	5	5	5
	4080	300	5	5	5
	5080	520	5	5	5
	6080	155	5	5	5
	7080	340	5	5	5
S (%)	1090	0	5	5	5
	2090	0	5	5	5
	3090	0	5	5	5
	4090	15	5	5	5
	5090	0	5	5	5
	6090	8	5	5	5
	7090	12	5	5	5

Source: Buenaventura 2024.

Table 28-6: Summary of Estimation Domain Global Bias by Element

Element	Domain	OK	ID	NN	Bias OK vs NN (%)	Bias ID vs NN (%)
Au (g/t)	1010	1.46	1.44	1.46	0	1
	2010	0.70	0.70	0.69	-1	-1
	3010	1.94	1.89	1.93	0	2
	4010	0.92	0.91	0.93	2	3
	5010	1.14	1.13	1.15	1	2
	5011	4.24	4.26	4.30	1	1
	6010	0.79	0.81	0.82	4	1
	7010	1.24	1.23	1.25	1	2
	7011	4.48	4.62	4.99	10	7
Ag (g/t)	1040	7.94	7.90	7.99	1	1
	2040	4.72	4.71	4.59	-3	-3
	3040	6.84	6.92	7.08	3	2
	4040	6.86	6.43	6.62	-4	3
	5040	7.26	7.23	7.40	2	2
	6040	3.61	3.63	3.72	3	3
	7040	5.61	5.49	5.53	-1	1
Fe (%)	1030	10.22	10.09	10.15	-1	1
	2030	9.49	9.33	9.04	-5	-3
	3030	15.50	15.32	15.21	-2	-1
	4030	11.48	11.47	11.59	1	1
	5030	16.21	16.02	15.94	-2	-1
	6030	8.56	8.30	8.41	-2	1
	7030	12.98	12.89	12.84	-1	0
Cu (ppm)	1050	1614.51	1638.39	1676.91	4	2
	2050	1170.40	1199.67	1297.27	10	8
	3050	695.08	676.37	697.80	0	3
	4050	406.30	404.70	418.90	3	3
	5050	626.73	621.61	624.33	0	0
	6050	319.38	315.77	323.57	1	2
	7050	480.94	478.55	478.02	-1	0
Pb (ppm)	1070	340.99	335.78	352.45	3	5
	2070	311.12	307.97	316.42	2	3

Element	Domain	OK	ID	NN	Bias OK vs NN (%)	Bias ID vs NN (%)
	3070	450.63	438.56	432.48	-4	-1
	4070	253.67	256.89	266.33	5	4
	5070	457.87	456.86	463.96	1	2
	6070	240.25	240.13	246.00	2	2
	7070	285.96	287.07	283.68	-1	-1
Sb (ppm)	1080	191.25	189.74	194.95	2	3
	2080	147.82	145.44	141.45	-5	-3
	3080	140.64	139.60	141.96	1	2
	4080	103.13	103.81	105.20	2	1
	5080	132.24	130.26	132.10	0	1
	6080	71.17	70.62	74.10	4	5
	7080	92.33	92.02	92.77	0	1
S (%)	1090	8.17	8.11	8.30	2	2
	2090	6.14	5.94	5.82	-6	-2
	3090	7.12	7.11	7.14	0	0
	4090	4.63	4.66	4.85	4	4
	5090	8.18	8.11	8.16	0	1
	6090	3.49	3.52	3.70	6	5
	7090	5.00	5.00	5.07	1	1

Source: Buenaventura 2024.

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