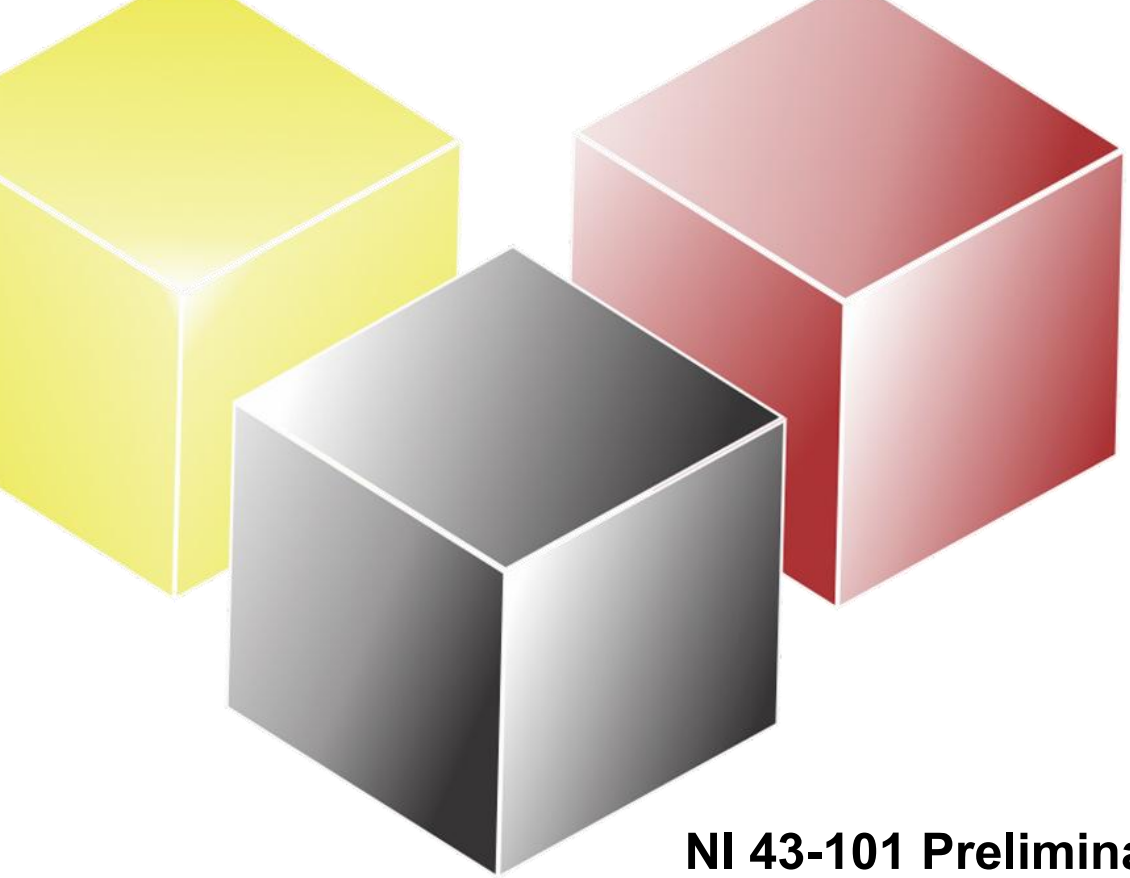

NI 43-101 Preliminary Economic Assessment on the Água Azul Project, Pará, Brazil

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UNITS, SYMBOLS, AND ABBREVIATIONS

Abbreviations	
3D	Three Dimensional
AA	Atomic Absorption
AHD	Average Hauling Distance
AI	Abrasion Index
AMPRD	Absolute Mean Paired Relative Difference
ANM	National Mining Agency of Brazil
ASL	Above Sea Level
BWI -	Bond Work Index
CA	Certificate of Authorization
CAPEX	Capital Expenditure
CFEM	Financial Compensation for Exploitation of Mineral Resources
CFR	Code of Federal Regulations
COG	Cut-off Grade
CP	Competent Person
CRM	Certified Reference Material
Cum	Cumulative
DDH	Diamond Drill Hole
DGPS	Differential Global Positioning System
DWT	Drop Weight Test
EIA	Environmental Impact Assessment
FA	Fire Assay
FS	Feasibility Study
GE21	GE21 Consultoria Mineral Ltda.
GPS	Global Positioning System
GRG	Gravity Recoverable Gold Tests
IBGE	Brazilian Institute of Geography and Statistics
IRR	Internal Rate of Return
JV	Joint Venture
LOM	Life of Mine
LP	Preliminary License
NPV	Net Present Value
NSR	Net Smelter Revenue
OPEX	Operational Expenditure
QA/QC	Quality Assurance and Quality Control
QP	Qualified Person
RIMA	Environmental Impact Report

Units and Symbols	
”	Inch
%	Percentage
°C	Degree Celsius
cm	Centimetre
g	Gram
g/t	Gram per Tonne
Ga	Giga Annum
h	Hour
Ha	Hectare
hp	Horsepower
k	Thousand
k$	Thousand of Dollars
kg	Kilogram
km	Kilometre
kt	Thousand of Tonnes
kV	Kilovolt

Units and Symbols	
l	Litre
m	Metre
M	Million
mg	Milligram
Mt	Million Tonnes
Mtpa	Million Tonnes per Annum
MUS$	Million United States dollars
oz	Ounce
tpa	Tonne per Annum
tpd	Tonne per Day
USD	United States Dollars ($)
V	Volts
w/v	Weight by Volume

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1 EXECUTIVE SUMMARY

1.1 Introduction

ValOre Metals Corp. (“ValOre”) retained GE21 Consultoria Mineral Ltda. (“GE21”) to prepare this Preliminary Economic Assessment (“PEA”) Technical Report for the Água Azul Gold Project (“the Project”), located in the State of Pará, Brazil. This Technical Report has been prepared for ValOre in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”) and Form 43-101F1 and follows applicable guidelines and best practices established by the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) for Mineral Resource estimation and economic evaluation.

ValOre is a Canadian mineral exploration and development company headquartered in Vancouver, British Columbia, whose common shares are listed on the TSX Venture Exchange under the symbol “VO”. The Company is focused on the acquisition, exploration, evaluation and development of precious and critical metals projects in Brazil. ValOre’s principal mineral property is the 100%-owned Pedra Branca Platinum Group Elements (“PGE”) Project, located in Ceará State, northeastern Brazil, which is currently being advanced through metallurgical, engineering and technical studies. ValOre is a member of Discovery Group and is pursuing a strategy of advancing and creating value from its existing mineral assets while evaluating opportunities to acquire and develop additional mineral projects in Brazil.

On November 23, 2026, ValOre entered into a definitive sale and purchase agreement (the "Definitive Agreement") among ValOre, Opportunity Holding Fundo de Investimento em Participações Multiestratégia Resp. Limitada (the "Seller"), Pedra Branca Do Brasil Mineração LTDA., and Bemisa Água Azul Mineração S.A. ("Bemisa"), pursuant to which ValOre will acquire all of the issued and outstanding shares of Bemisa, the owner of the Água Azul Project, and an affiliate entity to be formed to hold certain land interests, from the Seller for total consideration of US$135,000,000 (the "Purchase Price"), subject to standard post-closing adjustments (the “Transaction”).

Bemisa is a Brazilian corporation (sociedade anônima) that holds, as of the effective date of this Technical Report, all mineral rights comprising the Água Azul Project, including Mining Concession No. 850.492/2007 and Exploration Permits No. 850.776/2021, 851.026/2021, and 851.028/2021, issued by the Brazilian National Mining Agency (ANM), covering a total area of approximately 20,608 hectares in the municipality of Água Azul do Norte, Pará State, Brazil. Bemisa also owns or holds possessory rights over certain rural real estate properties used in connection with the Project. In connection with the Transaction, the Seller is required to complete a corporate reorganization prior to closing whereby those rural properties will be transferred by way of spin-off to a newly formed affiliate land-holding company ("LandCo"), whose shares will also be acquired by ValOre. A surface rights agreement will be entered into at closing to ensure that Bemisa retains mining access over the spun-off properties.

The Purchase Price payable on a cash-free and debt-free basis (assuming nil net debt and a minimum net working capital of BRL 10 million), subject to certain customary post-closing adjustments. US$90,000,000 of the Purchase Price is payable in cash at closing. US$20,000,000 of the Purchase Price is payable in cash on the first anniversary of the closing date and US$25,000,000 of the Purchase Price is payable in cash on the second anniversary of the closing date (the “Deferred Payments”). Payment of the Deferred Payments is secured by fiduciary assignments granted in favor of the Seller at closing over 51% of Bemisa's shares and 49% of LandCo's shares, which will remain in effect until the Deferred Payments have been paid in full and, at ValOre's discretion, may be replaced by an irrevocable and unconditional bank guarantee issued by any of Santander, Itaú Unibanco, Banco Bradesco or BTG Pactual.

Prepayment Option: ValOre shall have the option, exercisable only once and only in respect of the entirety of the Deferred Payments, within four (4) months counted from the Closing Date, to discharge its obligation to pay the total amount of the Deferred Payments by paying to the Seller US$ 30,000,000.

Closing is subject to certain conditions precedent, including: the absence of any law or order preventing consummation of the Transaction; receipt of acceptance by the TSX Venture Exchange; the accuracy of each party's representations and warranties; compliance with interim covenants; the absence of a material adverse change; and the completion of the corporate reorganization.

The Água Azul Project is an operating brownfield gold project comprising the Abelhas, Juliano and Campos Altos deposit areas. The Project benefits from historical mining activity, an extensive exploration database, existing infrastructure, and a demonstrated metallurgical processing route. The Project hosts Indicated and Inferred Mineral Resources estimated in accordance with the 2014 CIM Definition Standards, which provide the mineral resource basis for this Preliminary Economic Assessment.

The primary objective of this PEA is to assess the potential economic viability of developing the Água Azul Project as a conventional open-pit gold mining operation, supported by the expansion of the existing processing infrastructure to a nominal throughput capacity of 2.85 Mtpa. The study evaluates the principal technical and economic parameters associated with the mining and processing of the Project’s mineral resources, including pit optimization, mine planning and production scheduling, metallurgical performance, infrastructure requirements and utilization, capital and operating cost estimates, and preliminary economic analysis.

A key focus of the PEA is the evaluation of a phased brownfield development strategy designed to leverage the Project’s existing infrastructure and historical investment, including site access roads, grid power, historical mining areas, processing facilities, and tailings management infrastructure. The proposed development strategy incorporates a staged increase in mining and processing rates, reaching the nominal processing capacity of 2.85 Mtpa by 2031. This phased approach is intended to reduce upfront capital requirements and development risk, optimize the

timing of capital deployment, and provide a practical pathway toward achieving the Project's targeted long-term production profile.

The mine plan evaluated in this PEA contemplates a conventional drill-and-blast open-pit mining operation utilizing hydraulic excavators, off-highway haul trucks, production drills, and ancillary mining equipment. The current life-of-mine ("LOM") plan contemplates the processing of approximately 25.96 Mt of ROM at an average diluted grade of 1.29 g/t Au, over an estimated mine life of approximately 13 years, comprising an initial three-year Phase 1 period followed by approximately 10 years of Phase 2 operations at the expanded processing capacity.

This PEA is intended to provide a preliminary assessment of the technical and economic potential of developing the Água Azul Project and does not establish Mineral Reserves. The economic analysis is based on Mineral Resources and includes Inferred Mineral Resources, which are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves.

1.2 Property Description and Location

The Água Azul Project is located in the municipality of Água Azul do Norte, southeastern Pará State, Brazil, and comprises four contiguous mineral tenure areas covering approximately 20,608 ha. The Project is located within the Carajás Mineral Province and is accessible through established regional road infrastructure, with proximity to the mining centres of Parauapebas, Canaã dos Carajás, São Félix do Xingu, and Ourilândia do Norte.

As of the Effective Date of this Technical Report, the Project mineral rights are held by Bemisa Água Azul Mineração S.A. and comprise one granted Mining Concession (ANM Process No. 850.492/2007), covering 6,494.36 ha, and three Exploration Permits totalling 14,113.59 ha.

The Project is subject to the statutory Brazilian mining royalty ("CFEM"), payable at a rate of 1.5% of gross revenue from gold sales, as well as landowner participation payments prescribed under applicable Brazilian mining legislation.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Project is accessible via paved highways and secondary roads connected to regional mining centres, including Parauapebas, Canaã dos Carajás, Ourilândia do Norte, and Xinguara. The region has established mining-related services, logistics, and access to a skilled workforce associated with the extensive mining activity in the Carajás Mineral Province.

The local climate is tropical, with a rainy season generally extending from January to April and a drier season from June through December. Climatic conditions permit year-round mining and exploration activities.

The Project area is characterized by gently undulating terrain and moderate elevations. Existing site and regional infrastructure include road access, grid power, water supply systems, communications, workshops, accommodation facilities, and mineral processing infrastructure.

The existing infrastructure and terrain have been considered in the proposed layout of the open-pit mining, processing, waste rock storage, and tailings management facilities..

1.4 History

Gold occurrences in the Água Azul Project area have been recognized for several decades, with artisanal and small-scale mining activities reported since the 1980s. Historical workings, shafts, and surface excavations provided early evidence of gold mineralization and subsequently served as guides for systematic exploration programs.

Since 2012, all systematic exploration activities described herein have been conducted by or on behalf of Bemisa Água Azul Mineração S.A. (“Bemisa”). These programs focused principally on the Abelhas-Juliano and Campos Altos areas and included geological mapping, soil and rock geochemistry, trenching, auger drilling, airborne and ground geophysical surveys, topographic surveys, and diamond drilling. The Abelhas-Juliano area includes the Abelhas mine and the Antonino, Juliano, Corredor, and Juquirão targets, while Campos Altos includes the Pão de Guincho, Buracão, Planta, Brejo, and Bacaba targets. Exploration completed by or on behalf of Bemisa included more than 20,000 soil samples, over 1,100 rock samples, approximately 5.6 km of trenching, and 453 diamond drill holes totalling approximately 74,365 m. These programs defined the main mineralized zones at Abelhas-Juliano and Campos Altos and established the geological and drilling database supporting the Mineral Resource estimate presented in this Technical Report.

Bemisa also advanced the Project through permitting, mine development, and production. Mining initially commenced under a Guia de Utilização (“GU”), which authorized limited-scale extraction prior to the granting of the Mining Concession. Following approval of the Final Exploration Report, receipt of the applicable environmental licences, and issuance of Mining Concession Ordinance No. 698 on June 30, 2025, mining continued under the granted Mining Concession, which currently authorizes annual production of up to 200,000 tonnes of ROM material.

Between 2023 and 2025, Bemisa conducted mining and processing operations at the Água Azul Project, producing approximately 6,839 ounces of gold. Annual gold production increased over this period, reflecting the progressive development of the operation. Additional information on historical gold production is presented in Section 6.4.

1.5 Geological Setting and Mineralization

The Água Azul Project is located within the Carajás Mineral Province of southeastern Pará State, Brazil, near the boundary between the Rio Maria and Sapucaia domains. The regional geology comprises Archean granitoid complexes, greenstone belt sequences, mafic intrusive rocks, and major shear-zone systems affected by multiple phases of deformation, magmatism, and hydrothermal alteration.

The Project area is underlain principally by variably deformed granitoid rocks, with subordinate gabbro and other mafic intrusive rocks, hydrothermally altered rocks, and quartz veins. Gold mineralization occurs within a broad structural corridor extending approximately 15 km from the Abelhas-Juliano area to Campos Altos and is principally controlled by shear zones and associated structural splays. At Abelhas, mineralization is concentrated within a steeply dipping, northwest-southeast-trending shear system developed near the granitoid-gabbro contact, with higher-grade mineralized shoots interpreted to have steep plunges.

Hydrothermal alteration associated with mineralization is characterized principally by silicification, potassic alteration, quartz veining, and pyrite-dominant sulphidation. Four principal styles of gold mineralization have been recognized, comprising strongly sheared and hydrothermally altered rocks associated with quartz veining and pyrite; quartz-epidote-magnetite-pyrite veins and veinlets; mineralization hosted by sheared and altered gabbro; and localized Cu-Au mineralization associated with quartz veins and potassic alteration. Mineralized zones have been defined at Abelhas, Juliano, and several targets within the Campos Altos area and remain open along strike and at depth in several areas.

1.6 Deposit Types

The Água Azul mineralization is interpreted as a structurally controlled, shear-hosted hydrothermal gold system developed principally within granitoid rocks and subordinate mafic intrusions. The principal working model is an orogenic or shear-hosted gold system, based on the structural setting, alteration assemblages, quartz veining, pyrite-dominant sulphidation, and similarities to other gold occurrences within the Rio Maria Domain. The genetic classification is not considered definitive, however, and a magmatic-hydrothermal contribution cannot be excluded.

The working exploration model emphasizes major shear corridors and associated splays, high-strain domains, granitoid-mafic contacts, structural bends and intersections, hydrothermal alteration, and the potential continuation of steeply plunging higher-grade shoots. These geological and structural criteria are used to prioritize targets for further exploration and drilling across the Project.

1.7 Drilling

All diamond drilling completed at the Água Azul Project to date was conducted by or on behalf of Bemisa Água Azul Mineração S.A. (“Bemisa”). ValOre has not conducted drilling at the Project as of the Effective Date. The drill hole database supporting the Mineral Resource estimate comprises 453 diamond drill holes totalling approximately 74,365 m, including 397 holes totalling approximately 64,261 m at Abelhas-Juliano and 56 holes totalling approximately 10,104 m at the Pão de Guincho, Planta, Buracão, and Brejo targets within Campos Altos.

Bemisa’s drilling programs were conducted to test geological, geochemical, and geophysical targets and to define the geometry, distribution, and continuity of gold mineralization.

Drill spacing varies across the Project, reflecting the stage of exploration and level of geological confidence in the respective mineralized areas. Drill hole collars were surveyed using high-precision GNSS/RTK equipment. Downhole directional surveys were primarily conducted in deeper drill holes. Surveys were not performed in 159 holes (out of 453), generally around 100 m or less in depth, due to the low risk of significant deviation. For unsurveyed holes, trajectories were based on planned collar orientations.

Based on the available drilling records, no drilling, core recovery, or downhole deviation factors have been identified that are considered likely to materially affect the accuracy and reliability of the drilling results.

1.8 Sample Preparation, Analyses and Security

Sampling, sample preparation, analytical procedures, and security protocols implemented at the Água Azul Project were conducted in accordance with industry-standard exploration and resource development practices. Diamond drill core was transported to secure logging facilities where geological, structural, geotechnical, and alteration information was recorded. Core was photographed, measured, and sampled according to geological boundaries to ensure appropriate representation of mineralized intervals and host lithologies within the analytical database.

Sample preparation and analytical work were performed by independent accredited laboratories, including SGS and ALS facilities. Gold determinations were completed primarily by Fire Assay methods with appropriate analytical finishes, while multi-element analyses were performed using ICP-OES techniques. The analytical methods selected were considered suitable for the style of mineralization encountered and capable of accurately quantifying the grades and elemental concentrations present within the deposit.

A comprehensive Quality Assurance and Quality Control (QA/QC) program was implemented throughout all drilling campaigns. The program included the systematic insertion of certified reference materials, blank samples, and duplicate samples into the analytical stream to monitor accuracy, precision, and contamination. At the Abelhas and Juliano deposits, approximately 2,417 blanks, 2,412 duplicates, and 1,264 standards were submitted. At Campos Altos, the QA/QC program incorporated approximately 298 blanks, 298 duplicates, and 154 certified reference materials.

Review of the QA/QC results indicates that the analytical database is considered suitable for the purposes of the current Mineral Resource Estimate. Although variability in duplicate results and isolated CRM exceedances was observed, the QP concluded that these findings do not materially compromise the overall reliability of the assay database.

Chain-of-custody procedures were maintained from sample collection through laboratory delivery. Samples were securely stored, sealed, and transported using documented procedures that provided tracking and accountability throughout the analytical process.

1.9 Data Verification

The Qualified Persons (QPs) conducted independent reviews of the geological, analytical, metallurgical, mining, environmental, and economic information supporting this Technical Report, including drill hole databases, survey data, assay certificates, QA/QC results, geological models, Mineral Resource estimation procedures, metallurgical testwork, mine planning assumptions, and economic inputs. No material errors, omissions, or discrepancies were identified by the QPs.

1.10 Mineral Processing and Metallurgical Testing

Extensive metallurgical testwork programs have been completed on representative samples collected from the Abelhas and Campos Altos deposits. Programs included mineralogical characterization, comminution testing, gravity concentration, flotation, cyanide leaching, carbon-in-leach (CIL), thickening, settling, filtration, and variability testing. The results demonstrate that the mineralization responds favorably to conventional gold recovery methods.

Mineralogical investigations indicate that gold occurs predominantly as free gold or as gold associated with pyrite, with approximately 75% of gold particles accessible to direct cyanide leaching. Comminution testwork produced Bond Work Index values consistent with conventional milling operations and confirmed no unusual processing challenges.

The recommended processing flowsheet consists of crushing, grinding, gravity concentration, intensive leaching of gravity concentrate, cyanide leaching in a CIL circuit, carbon elution, electrowinning, and doré production. Tailings are treated through cyanide detoxification and filtration prior to dry-stack disposal. Pilot-scale testing confirmed overall gold recoveries between 91% and 97%, supporting the use of a design recovery of 94% for economic evaluation.

The metallurgical performance achieved during testing is consistent with industry expectations for similar gold deposits and supports the technical viability of the proposed process plant.

1.11 Mineral Resource Estimates

Mineral Resources were estimated by GE21 using Ordinary Kriging methodologies and constrained within conceptual open-pit shells demonstrating reasonable prospects for eventual economic extraction. Resource estimation utilized detailed geological wireframes, validated drilling databases, density measurements, variography analyses and industry-standard geostatistical procedures. The effective date of the estimate is July 28, 2026.

The estimate is based on more than 74,000 m of diamond drilling and was prepared in accordance with CIM Definition Standards (2014). Resource classification considered drill spacing, estimation quality, geological continuity, search distances, and confidence in the underlying database. Resources are reported above a cut-off grade of 0.20 g/t Au and within optimized pit shells.

The Água Azul Project contains Indicated Mineral Resources of 22.78 Mt grading 1.27 g/t Au for 931,920 oz of gold and Inferred Mineral Resources of 26.44 Mt grading 1.29 g/t Au for 1,099,910 oz of gold.

The Mineral Resources for the Água Azul Project are summarized by reporting zone (Abelhas, Juliano, and Campos Altos) and by deposit in Table 1.1 and Table 1.2, respectively.

Table 1.1 Mineral Resources table of the Água Azul Project

Region	Weathering	Resource Class	Mass Mt	Average Value Au g/t	Metal Content Au thousand t. oz
Abelhas	Saprolite	Indicated	0.12	0.69	2.74
		Inferred	0.21	0.78	5.18
	Fresh Rock	Indicated	21.53	1.23	851.57
		Inferred	24.60	1.25	986.57
	Total	Indicated	21.65	1.23	854.31
		Inferred	24.81	1.24	991.75
Juliano	Saprolite	Indicated	0.033	1.78	1.89
		Inferred	0.10	2.15	7.23
	Fresh Rock	Indicated	0.54	2.61	45.33
		Inferred	0.66	1.54	32.78
	Total	Indicated	0.57	2.56	47.22
		Inferred	0.77	1.63	40.01
Campos Altos	Saprolite	Indicated	0.011	0.47	0.17
		Inferred	0.032	2.13	2.18
	Fresh Rock	Indicated	0.55	1.72	30.22
		Inferred	0.83	2.46	65.97
	Total	Indicated	0.56	1.69	30.39
		Inferred	0.87	2.45	68.15
Total	**Saprolite**	**Indicated**	**0.17**	**0.89**	**4.80**
		Inferred	**0.34**	**1.32**	**14.59**
	Fresh Rock	**Indicated**	**22.62**	**1.28**	**927.12**
		Inferred	**26.10**	**1.29**	**1 085.32**
	Total	**Indicated**	**22.78**	**1.27**	**931.92**
		Inferred	**26.44**	**1.29**	**1 099.91**

Notes:
1. Mineral Resources are reported using the 2014 CIM Definition Standards and have an effective date of July 28, 2026. The QP for the estimate is Mr. Porfirio Cabaleiro Rodriguez, FAIG, FAusIMM, CBRR, a GE21 director.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Inferred Mineral Resources have a lower level of confidence than Indicated Mineral Resources. Although additional infill drilling and ongoing geological interpretation may increase the level of confidence in certain portions of the Inferred Mineral Resources, there is no guarantee that such work will support their upgrade to the Indicated Mineral Resource category.
4. Mineral Resources are reported on a 100% basis.
5. Mineral Resources considered potentially amenable to open pit mining methods are reported within a conceptual pit shell that uses the following key input parameters: gold price of US$3,288.72/oz; exchange rate of 5.5 BR$/US$; mining cost of US$2.56/t moved; processing costs of US$12.62/t ROM; rehandle costs of US$2.09/t ROM; sustaining process cost of US$1.90/t ROM; mine closure cost of US$0.33/t ROM; site general and administrative costs of US$1.65/t ROM; mine fixed cost (administration) of US$0.24/t ROM; 100% mining recovery; metallurgical recovery of 94.0%, and pit slope angles that range from 47.4 to 51.9º.
6. Mineral Resources considered potentially amenable to open pit mining methods are reported above a 0.20 g/t Au cut-off.
7. The tonnages and grades in the table have been rounded to the estimate relative precision. Values cannot be added due to rounding.

Source: GE21, 2026.

Table 1.2 Mineral Resources table of the Água Azul Project – by targets

Target	Weathering	Resource Class	Mass Mt	Average Value Au g/t	Metal Content Au thousand t. oz
Abelhas	Saprolite	Indicated	0.069	0.65	1.45
		Inferred	0.081	1.13	2.95
	Fresh Rock	Indicated	9.72	1.01	315.21
		Inferred	10.85	1.21	422.72
	Total	Indicated	9.79	1.01	316.66
		Inferred	10.93	1.21	425.67
Abelhas N-S	Saprolite	Indicated	0.008	0.88	0.23
		Inferred	0.014	0.48	0.22
	Fresh Rock	Indicated	7.88	1.58	400.60
		Inferred	8.11	1.56	407.11
	Total	Indicated	7.89	1.58	400.83
		Inferred	8.13	1.56	407.33
Abelhas Norte	Saprolite	Indicated	0.02	0.64	0.36
		Inferred	0.10	0.49	1.53
	Fresh Rock	Indicated	0.55	0.64	11.22
		Inferred	1.65	0.61	32.62
	Total	Indicated	0.56	0.64	11.58
		Inferred	1.75	0.61	34.15
Antonino	Saprolite	Indicated	0.028	0.77	0.70
		Inferred	0.014	1.02	0.47
	Fresh Rock	Indicated	3.38	1.14	124.54
		Inferred	3.99	0.97	124.13
	Total	Indicated	3.41	1.14	125.24
		Inferred	4.01	0.97	124.60
Juliano	Saprolite	Indicated	0.033	1.78	1.89
		Inferred	0.10	2.15	7.23
	Fresh Rock	Indicated	0.54	2.61	45.33
		Inferred	0.66	1.54	32.78
	Total	Indicated	0.57	2.56	47.22
		Inferred	0.77	1.63	40.01
Pão de Guincho	Saprolite	Indicated	0.011	0.47	0.17
		Inferred	0.012	3.50	1.33
	Fresh Rock	Indicated	0.55	1.72	30.22
		Inferred	0.58	2.64	49.49
	Total	Indicated	0.56	1.69	30.39
		Inferred	0.59	2.66	50.82
Planta	Saprolite	Inferred	0.011	1.12	0.39
	Fresh Rock	Inferred	0.19	1.27	7.61
	Total	Inferred	0.20	1.26	8.00
Buracão	Saprolite	Inferred	0.008	1.05	0.28
	Fresh Rock	Inferred	0.026	1.29	1.08
	Total	Inferred	0.034	1.23	1.36
Brejo	Saprolite	Inferred	0.001	5.83	0.18
	Fresh Rock	Inferred	0.039	6.25	7.79
	Total	Inferred	0.040	6.24	7.97
Total	**Saprolite**	**Indicated**	**0.17**	**0.89**	**4.80**
		Inferred	**0.34**	**1.32**	**14.59**
	Fresh Rock	**Indicated**	**22.62**	**1.28**	**927.12**
		Inferred	**26.10**	**1.29**	**1 085.32**
	Total	**Indicated**	**22.78**	**1.27**	**931.92**
		Inferred	**26.44**	**1.29**	**1 099.91**

Notes:
1. Mineral Resources are reported using the 2014 CIM Definition Standards and have an effective date of July 28, 2026. The QP for the estimate is Mr. Porfirio Cabaleiro Rodriguez, FAIG, FAusIMM, CBRR, a GE21 director.

2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Inferred Mineral Resources have a lower level of confidence than Indicated Mineral Resources. Although additional infill drilling and ongoing geological interpretation may increase the level of confidence in certain portions of the Inferred Mineral Resources, there is no guarantee that such work will support their upgrade to the Indicated Mineral Resource category.
4. Mineral Resources are reported on a 100% basis.
5. Mineral Resources considered potentially amenable to open pit mining methods are reported within a conceptual pit shell that uses the following key input parameters: gold price of US$3,288.72/oz; exchange rate of 5.5 BR$/US$; mining cost of US$2.56/t moved; processing costs of US$12.62/t run-of-mine (ROM); rehandle costs of US$2.09/t ROM; sustaining process cost of US$1.90/t ROM; mine closure cost of US$0.33/t ROM; site general and administrative costs of US$1.65/t ROM; mine fixed cost (administration) of US$0.24/t ROM; 100% mining recovery; metallurgical recovery of 94.0%, and pit slope angles that range from 47.4 to 51.9º.
6. Mineral Resources considered potentially amenable to open pit mining methods are reported above a 0.20 g/t Au cut-off.
7. The tonnages and grades in the table have been rounded to the estimate relative precision. Values cannot be added due to rounding.

Source: GE21, 2026.

1.12 Mineral Reserve Estimates

There is no Mineral Reserves disclosure for the Água Azul Project.

1.13 Mining Methods

The Água Azul Project is planned as a conventional drill-and-blast open-pit mining operation utilizing hydraulic excavators, off-highway haul trucks, production drills, and ancillary mining equipment sized to support a staged increase in processing throughput to a nominal processing rate of 2.85 Mtpa. Pit optimization, mine design, production scheduling, and equipment sizing were completed using the July 28, 2026, Mineral Resource estimate and economic assumptions appropriate for a Preliminary Economic Assessment (PEA).

Pit designs were developed using geotechnical parameters derived from preliminary slope stability assessments, with overall pit slope angles ranging from approximately 47° to 52°. The production schedule prioritizes the extraction of higher-grade material during the initial years while maintaining operational flexibility through selective stockpiling and phased pit development.

The Life-of-Mine (LOM) plan contemplates the mining and processing of approximately 25.96 Mt of ROM at an average diluted grade of 1.29 g/t Au, containing approximately 1.08 Moz of gold, based on the selected pit shell and PEA mine design. The process plant feed is sourced primarily from the mine design inventory derived from Indicated and Inferred Mineral Resources, comprising approximately 14.90 Mt of Indicated material grading 1.24 g/t Au and containing 594 koz Au, together with approximately 11.05 Mt of Inferred material grading 1.37 g/t Au and containing 486 koz Au, as summarized in Table 1.3. Low-grade material totalling approximately 10.69 Mt, comprising 6.92 Mt of Indicated material and 3.77 Mt of Inferred material, is scheduled to be stockpiled separately and managed as part of the mine sequencing and stockpile strategy to provide operational flexibility and support process plant feed optimization throughout the mine life.

Table 1.3 PEA Mine Plan Inventory

Materials	Weathering	Volume (Mm³)	Tonnes (Mt)	Au (g/t)	Au (Moz)
High-Grade Mill Feed Material					
Indicated (Au >= 0.39)	Saprolite	0.032	0.053	0.746	0.001
	Fresh Rock	5.500	14.851	1.241	0.593

Materials	Weathering	Volume (Mm³)	Tonnes (Mt)	Au (g/t)	Au (Moz)
	Total	5.532	14.904	1.24	0.594
Inferred (Au >= 0.39)	Saprolite	0.049	0.081	1.175	0.003
	Fresh Rock	4.064	10.972	1.370	0.483
	Total	4.113	11.053	1.37	0.486
Low-Grade Stockpile Material					
Indicated (0.22 <= Au < 0.39)	Saprolite	0.044	0.072	0.276	0.001
	Fresh Rock	2.537	6.850	0.282	0.062
	Total	2.581	6.922	0.28	0.063
Inferred (0.22 <= Au < 0.39)	Saprolite	0.032	0.054	0.264	0.000
	Fresh Rock	1.377	3.717	0.281	0.034
	Total	1.409	3.771	0.28	0.034
Waste Saprolite	8.768	14.555			
Waste Fresh Rock	134.801	363.962			
Total Waste	143.569	378.517			
Total Rock	157.203	415.167			
S.R. (low-grade material included as waste)	14.99				

Notes:
1. "The PEA Mine Plan Inventory" summarized in this table forms part of a Preliminary Economic Assessment (PEA). The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. PEA was estimated by Hugo Ribeiro de Andrade Filho FAusIMM (CP), a GE21 associate, who meets the requirements of a "Qualified Person" as established by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014) (the CIM Standards).
3. PEA was reported with an effective date of July 28, 2026. The reference point for the mill feed material is the point where ROM is delivered from the open pit to the crushing plant.
4. Volumes are reported in millions of cubic metres (Mm³), tonnages in millions of tonnes (Mt), gold grades in grams of gold per tonne (g/t Au), and contained gold in millions of ounces (Moz Au). Volumes, tonnages, grades, and contained metal have been rounded to reflect the relative accuracy of the estimates. Totals may not sum exactly due to rounding.
5. PEA was estimated using the Geovia Whittle 4.3 software for pit optimization and following the geometric and economic parameters.
6. Geometric and economic parameters include:
    a) Mine recovery of 95% and operational dilution of 5%;
    b) Pit optimization used a selective mining unit (SMU) of 5 m x 5 m x 5 m in a regularized block model, resulting in a 26% dilution in grade compared to the Mineral Resource block model, at a marginal COG of 0.16 Au g/t.
    c) Gold price of US$ 3,067.75/oz;
    d) Mining costs US$ 2.56 per ton for mineralization and waste; Rehandle cost US$ 2.09/ ROM; mine closure 0.33 US$/ t of ROM; mine fixed cost of US$ 0.24/t of ROM;
    e) Processing costs of US$ 12.62 per ton of ROM; processing sustaining cost of US$ 1.90/t of ROM; and metallurgical recovery of 94%;
    f) General and Administrative (G&A) costs of US$1.65/t of ROM;
    g) Gold, selling cost of US$ 106.60/oz;
    h) Exchange rate: $1.00 = R$5.50;
    i) Pit slope angles ranging from 47.4° to 51.9°.

Source: GE21, 2026.

As required under NI 43-101, the mine plan is based exclusively on Mineral Resources and does not constitute Mineral Reserves. The inclusion of Inferred Mineral Resources means the PEA is preliminary in nature; however, the study demonstrates that the proposed open-pit mining method provides a practical and technically achievable basis for the extraction of the Água Azul Mineral Resources and supports advancement of the Project to the next stage of engineering evaluation.

1.13.1 Production Schedule

The mine plan contemplates the movement of approximately 415.2 Mt of total material over the LOM, including approximately 378.5 Mt of waste rock, 10.7 Mt of low-grade material, and 26.0 Mt of ROM, resulting in an overall LOM stripping ratio of approximately 14.99:1 (with low-grade material included as waste). The production schedule extends over approximately 13 years,

comprising an initial three-year Phase 1 period followed by approximately 10 years of Phase 2 operations. During Phase 2, processing increases to a nominal capacity of approximately 2.85 Mtpa.

The production schedule incorporates stockpiling and reclaims of mineralized material to manage differences between mine production and processing requirements over the LOM. The annual mine movement and processing schedules are presented in Table 1.4 and Table 1.5, respectively.

Table 1.4 LOM Production Schedule – Mine Movement

	Unit	Total	Year												
			Phase 1			Phase 2									
			Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13
Total Moved	**kt**	**415 167**	**1 910**	**2 832**	**25 040**	**37 007**	**44 026**	**43 971**	**43 979**	**43 914**	**43 798**	**44 097**	**44 232**	**37 218**	**3 143**
ROM	**kt**	**25 957**	**194**	**150**	**593**	**1 493**	**2 867**	**2 836**	**2 887**	**2 669**	**2 553**	**2 852**	**2 874**	**2 883**	**1 106**
Grade	Au (g/t)	**1.29**	1.45	1.59	1.31	1.12	1.19	1.30	1.37	1.02	1.05	1.45	1.24	1.42	2.18
Waste Total	**kt**	**389 210**	**1 715**	**2 683**	**24 446**	**35 514**	**41 159**	**41 135**	**41 092**	**41 245**	**41 245**	**41 245**	**41 358**	**34 335**	**2 037**
Waste Rock	kt	**378 517**	1 654	2 608	24 138	34 449	39 924	40 047	39 986	39 880	40 088	40 173	40 351	33 387	1 831
Low Grade ROM	kt	**10 693**	62	75	308	1 065	1 235	1 089	1 106	1 365	1 157	1 072	1 007	947	206
Stripping ratio [(1)]	w:o	**14.99**	8.82	17.94	41.20	23.79	14.36	14.51	14.23	15.45	16.16	14.46	14.39	11.91	1.84

Note: Stripping Ratio = Waste Total (ROCK+LOW GRADE)/ROM
Source: GE21, 2026.

Table 1.5 LOM Production Schedule – Plant

	Unit	Total	Year												
			Phase 1			Phase 2									
			Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13
Mine to Crush	kt		105	150	200	1 387	2 500	2 836	2 850	2 669	2 553	2 850	2 850	2 850	1 106
Mine to Crush	Au (g/t)		1.59	1.59	1.96	1.17	1.22	1.30	1.38	1.02	1.05	1.45	1.25	1.43	2.18
Stockpile Balance															
Mine to Stockpile	kt		89	-	393	106	367	-	37	-	-	2	24	33	-
Initial Stockpile	kt		-	89	79	472	465	832	818	855	674	377	379	402	436
Stockpile to Crush	kt		-	10	-	113	-	14	-	181	297	-	-	-	436
Final Stockpile	kt		89	79	472	465	832	818	855	674	377	379	402	436	-
	Au (g/t)		1.29	1.24	1.03	0.65	0.83	0.82	0.80	0.65	0.53	0.53	0.53	0.53	-
Processing															
ROM Feed	kt	**25 957**	105	160	200	1 500	2 500	2 850	2 850	2 850	2 850	2 850	2 850	2 850	1 542
Feed Grade (g/t)	Au (g/t)	**1.29**	1.59	1.59	1.96	1.24	1.22	1.30	1.38	1.04	1.02	1.45	1.25	1.43	1.72
Metal Contained	koz	**1 080**	5	8	13	60	98	119	126	95	94	132	114	131	85
Metal Recovery	%	**94%**	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%
Total Au	koz	**1 015**	5	8	12	56	92	112	119	90	88	125	107	123	80
Tailings	Kt	**25 957**	105	160	200	1 500	2 500	2 850	2 850	2 850	2 850	2 850	2 850	2 850	1 542

Note: The production schedules presented herein are derived from the PEA Mine Plan Inventory and include material classified as Inferred Mineral Resources. The reader is referred to the cautionary statement accompanying Table 16.7
Source: GE21, 2026.

1.14 Recovery Methods

Metallurgical test work, including laboratory, pilot-scale, and semi-industrial testing, demonstrated that the Água Azul mineralization is amenable to conventional gold processing methods and supports the selected process flowsheet for the PEA. Mineralogical studies indicate that gold occurs predominantly as free gold and in association with pyrite, with approximately 75% of the gold accessible to direct cyanide leaching. The proposed process plant is designed to treat 2.85 Mtpa (approximately 7,900 tpd) and incorporates crushing, grinding, gravity concentration, intensive leaching of gravity concentrates, cyanide leaching in a Carbon-in-Leach (CIL) circuit, carbon elution, electrowinning, and doré production.

The gravity circuit is expected to recover approximately 35% of the contained gold at a primary grind size of P80 = 75 µm, while overall metallurgical gold recovery is estimated at 93–94%. Pilot and semi-industrial operations successfully validated the process design parameters and confirmed the robustness of the selected treatment route. Tailings management includes cyanide detoxification using the SO_2/air process followed by filtration and dry-stack disposal, with test work confirming residual cyanide concentrations below applicable environmental limits.

1.15 Project Infrastructure

The Água Azul Project is a brownfield site with existing infrastructure supporting current mining and processing activities. Existing infrastructure includes site access roads, connection to the regional power grid, water supply systems, communications, workshops, accommodation and operational support facilities, tailings management infrastructure, and an existing processing facility. The Project is located approximately 7 km from Água Azul do Norte and is connected to regional mining centres by established road infrastructure.

The PEA contemplates the expansion and modernization of existing infrastructure to support a nominal processing capacity of 2.85 Mtpa. Proposed infrastructure includes expanded crushing and processing facilities, ROM stockpiles, waste rock storage areas, filtered-tailings storage facilities, power distribution and water management systems, fuel and explosives storage, maintenance facilities, and other operational support infrastructure.

Power for the expanded operation is planned to be supplied from the regional electrical grid. Project water requirements are expected to be supplied from permitted groundwater and surface water sources, subject to the water availability, infrastructure, and permitting requirements applicable to the expanded operation. Additional waste rock and filtered-tailings storage capacity will be required to accommodate the full LOM inventory contemplated in the PEA. Further engineering, land access, environmental studies, and permitting will therefore be required to establish the additional storage facilities and associated infrastructure necessary to support the full LOM plan.

Water supply for the Project is supported by a combination of licensed surface water and groundwater sources. A surface water abstraction permit issued by SEMAS authorizes water

withdrawal for mining activities from the Água Azul/Itacaiúnas River system, while additional groundwater permits support site infrastructure and auxiliary water requirements. These authorizations provide a regulatory basis for the Project water supply strategy and support the advancement of future project development activities subject to compliance with applicable permit conditions and renewal requirements.

1.16 Market Studies and Contracts

The economic analysis uses a long-term gold price assumption of US$3,609/oz, based on the CIBC Global Mining Group Analyst Consensus Commodity Price Forecasts (June 2026). Gold production is assumed to be sold as doré bullion and refined by third-party facilities, with refining, transportation, insurance, and selling charges incorporated into the economic model.

Existing operations are supported by third-party commercial arrangements for doré sales and refining, secure transportation, fuel supply, and mining services. These arrangements principally support the existing operation and are not relied upon for implementation of the proposed 2.85 Mtpa expansion. Material contracts required for the expanded operation have not yet been entered into and are not currently under negotiation. Such contracts are expected to be established as engineering, procurement, and Project development advance.

1.17 Environmental Studies, Permitting, and Social or Community Impacts

Environmental information for the Água Azul Project is principally derived from the Relatório de Controle Ambiental (RCA), Volumes I and II, and the Plano de Controle Ambiental (PCA), prepared by CERN Consultoria e Empreendimentos de Recursos Naturais Ltda. in support of the environmental licensing process for the Phase 2 expansion to 2.85 Mtpa. The studies include characterization of the physical, biological, and socio-economic environments, identification and assessment of potential environmental impacts, and the development of environmental management, monitoring, mitigation, rehabilitation, emergency-response, and mine closure programs.

The Project is supported by an advanced permitting framework that includes a valid Mining Concession, Operating Licence LO No. 15,535/2025 for the existing operation, Installation Licence LI No. 3,709/2026 for the proposed expansion, and approved water-use permits. Future development of additional waste rock and filtered tailings storage facilities will require further engineering, environmental assessment, land access arrangements, and regulatory approvals.

1.18 Capital and Operating Costs

1.18.1 Capital Costs

The capital cost estimate for the Água Azul Project has been prepared at the Preliminary Economic Assessment (PEA) level and reflects the phased development of the Project, including expansion of the processing facilities to a nominal Phase 2 capacity of 2.85 Mtpa. Initial capital

expenditures are estimated at US$297.0 million, including Phase 1 plant expenditures, the Phase 2 plant expansion, pre-stripping, and contingency, as summarized in Table 1.6.

Table 1.6 Estimated Initial Capital Costs

Item	Value US$ M
Plant Phase 1 (Year 1)	5.0
Plant Expansion (Years 2 to 4)	179.4[1]
Pre-Stripping (Years 1 to 3)	73.8
Contingency (15%)	38.7
Total Initial Capital Costs [2]	297.0

Notes:
1. The Plant Expansion estimate includes a 5% inflation allowance to account for cost escalation during the Year 2 to Year 4 expansion period.
2. Totals may not sum exactly due to rounding
Source: GE21, 2026.

Sustaining capital requirements over the LOM are estimated at US$15.8 million and include plant maintenance, waste and tailings storage facilities, and contingency, as summarized in Table 1.7.

Table 1.7 Sustaining Capital Costs

Item	Value US$ M
Plant Maintenance	10.8
Waste and Tailings Storage Facilities	3.00
Contingency (15%)	2.1
Total Sustaining Costs [1]	15.8

Notes:
1. Totals may not sum exactly due to rounding
Source: GE21, 2026.

1.18.2 Operating Costs

Average LOM operating costs are estimated at US$54.72 per tonne of ROM processed, resulting in total operating expenditures of approximately US$1.42 billion over the mine life. Mining represents the largest cost component at approximately US$38.37/t processed, followed by processing costs of US$12.62/t, rehandling costs of US$2.09/t, and general and administrative ("G&A") costs of US$1.65/t. The operating cost estimates reflect contractor-supported open-pit mining, conventional crushing, grinding, gravity recovery and carbon-in-leach ("CIL") processing, and filtered-tailings management. A summary of the operating cost estimate is provided in Table 1.8.

Table 1.8 Água Azul operating costs summary

Operation Cost	Unit Cost (US$/t ROM processed)	LOM Total (US$ Million)
Mining	38.37	995.8
Processing	12.62	327.5
Rehandling (ROM &Tailings)	2.09	56.4
G&A	1.65	42.8

Operation Cost	Unit Cost (US$/t ROM processed)	LOM Total (US$ Million)
Total Operating Costs	54.72	1,422.5

Source: GE21, 2026.

1.19 Economic Analysis

The Project is expected to operate over an approximately 13-year life-of-mine, comprising an initial three-year Phase 1 development period followed by approximately ten years of Phase 2 operations at the nominal processing capacity of 2.85 Mtpa.

A discounted cash flow analysis was completed for the Água Azul Project using a long-term gold price assumption of US$3,609/oz, a 5% discount rate, and a 100% equity financing scenario. The economic evaluation indicates potential economic viability under the assumptions used in the PEA.

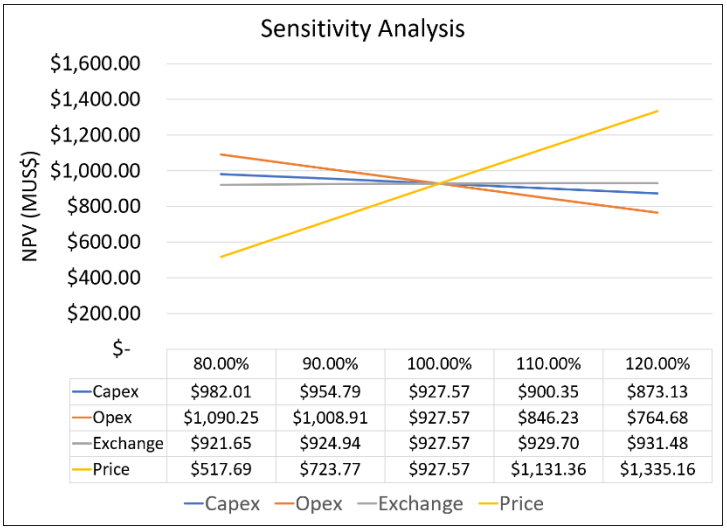
As summarized in Table 1.9 (Summary of Economic Results – After-Tax), the Project generates an after-tax Net Present Value (NPV5%) of US$927.6 million, an after-tax Internal Rate of Return (IRR) of 48%, and a payback period of 5.3 years. The operation is expected to process approximately 25.96 Mt of ROM grading 1.29 g/t Au, containing approximately 1.08 million ounces of gold and producing approximately 1.02 million ounces of recovered gold, based on an average metallurgical recovery of 94%. The PEA mine schedule extends for approximately 13 years, comprising an initial three-year Phase 1 period followed by approximately 10 years of Phase 2 operations at the expanded processing capacity.

Table 1.9 Summary of Economic Results (after-tax)

Parameter	Unit	Value
Gold Price	US$/oz	3,609
After-Tax NPV (5% Discount Rate)	US$ Million	927.6
After-Tax IRR	%	48%
Payback Period	Years	5.3
Cash costs	US$/oz	1,515
All in Sustaining Cost	US$/oz	1,540
Mine Life (Total LOM)	Years	13
Phase 2 Operating Period at Nominal Throughput	Years	10
ROM Processed (LOM) (1)	Mt	25.96
Average Feed Grade	g/t Au	1.29
Gold Contained in Feed	Moz Au	1.08
Metallurgical Recovery	%	94
Recovered Gold Production	Moz Au	1.02
Processing Plant Throughput	Mtpa	2.85
Total Moved	Mt	415.2
Strip Ratio	w:o	14.99

Note: The economic results summarized in this table are based on a Preliminary Economic Assessment (PEA) prepared for the Água Azul Project. The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The economic results presented herein should not be interpreted as demonstrating the economic viability of the Mineral Resources
Source: GE21, 2026.

As shown in Figure 1.1, the Project economics are sensitive to changes in the evaluated assumptions, particularly gold price and operating costs.



	80.00%	90.00%	100.00%	110.00%	120.00%
Capex	$982.01	$954.79	$927.57	$900.35	$873.13
Opex	$1,090.25	$1,008.91	$927.57	$846.23	$764.68
Exchange	$921.65	$924.94	$927.57	$929.70	$931.48
Price	$517.69	$723.77	$927.57	$1,131.36	$1,335.16

Figure 1.1 Sensitivity Analysis

Source: GE21, 2026.

1.20 Adjacent Properties

The Project is situated within the Carajás mining district, which hosts several world-class mining operations, including Vale's Sossego and Salobo mines, as well as operations controlled by BHP, Ero Copper, and other major mining companies. These neighbouring operations demonstrate the significant mineral endowment and mining capability of the region.

1.21 Other Relevant Data and Information

No additional information.

1.22 Interpretation and Conclusions

The Mineral Resource estimate for the Água Azul Project is based on a drilling database comprising 453 drill holes totalling approximately 74,365 m and more than 74,000 samples. The Mineral Resource models were developed and validated using geostatistical methodologies and classified in accordance with CIM standards. As of the effective date of July 28, 2026, the Água Azul Project contains Indicated Mineral Resources of 22.78 Mt grading 1.27 g/t Au, containing approximately 931.9 koz Au, and Inferred Mineral Resources of 26.44 Mt grading 1.29 g/t Au, containing approximately 1,099.9 koz Au, reported above a cut-off grade of 0.20 g/t Au. Several mineralized zones remain open along strike and at depth and provide targets for further exploration.

The PEA evaluates the Água Azul Project as a conventional open-pit gold operation incorporating the existing brownfield setting and a phased expansion of the processing facilities

to a nominal Phase 2 capacity of 2.85 Mtpa. The technical studies completed to date provide an appropriate basis for the Mineral Resource estimate, mine plan, process design, infrastructure requirements, capital and operating cost estimates, and economic analysis presented in this PEA.

The economic analysis indicates positive Project economics under the assumptions used in the PEA, with an after-tax NPV at a 5% discount rate of US$ 927.6 million, an after-tax IRR of 48%, and a payback period of 5.3 years, based on a long-term gold price assumption of US$3,609/oz.

Further technical work is required to support advancement of the Project, including additional drilling, geotechnical and geometallurgical studies, and further engineering and environmental studies. In particular, current waste rock and filtered-tailings storage capacity is insufficient to accommodate the full LOM inventory contemplated in the PEA, and additional storage capacity will require further engineering, land access, environmental studies, and permitting.

The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the results of the PEA will be realized.

1.22.1 Risks and Opportunities

The principal risks identified at the PEA stage relate to geotechnical uncertainty, the high LOM stripping ratio and associated waste movement requirements, and the additional waste rock and filtered-tailings storage capacity required to support the full LOM plan.

1.22.1.1 Mining Methods

1.22.1.1.1 Risk 1 – Limited Geotechnical Basis for Final Pit Slope Design

Geotechnical risk is considered moderate at the current stage of project development. While the slope stability analyses indicate acceptable Factors of Safety for the proposed pit configurations, the limited geotechnical and hydrogeological dataset reduces confidence in the long-term performance of the final slopes. Future investigations may identify adverse structural, hydrogeological, or rock mass conditions that could require flatter slope geometries than currently assumed. Such outcomes could result in increased stripping ratios, reduced economic pit limits, and a negative impact on project value.

1.22.1.1.2 Risk 2 – High Strip Ratio and Waste Movement Requirements

The Life-of-Mine plan requires the movement of approximately 378.5 Mt of waste rock for 26.0 Mt of ROM, resulting in a high strip ratio. The economic performance of the project is therefore sensitive to mining productivity, haulage efficiency, fleet utilization, and pit slope

performance. Any deviation from the assumed mining recovery, dilution, equipment productivity, or haulage distances could materially affect operating costs and project cash flow.

1.22.1.2 Project Infrastructure

1.22.1.2.1 Risk 1 – Insufficient Waste Rock and Tailings Storage Capacity

The current waste storage facilities are reported to accommodate only a portion of the total Life-of-Mine waste volume, with additional facilities required during future project stages. Any delays in land acquisition, geotechnical validation, engineering design, permitting, or construction of the planned expansion areas could constrain mine production and interfere with the scheduled development sequence. Furthermore, modifications to storage facility geometry resulting from future geotechnical studies could increase capital requirements and closure liabilities.

1.22.1.3 Environmental and Permitting

1.22.1.3.1 Risk 1 – Delays in Permitting Future Waste Rock and Filtered Tailings Storage Facilities.

In addition to engineering and construction activities, further environmental permitting, regulatory approvals, and land access arrangements will be required for the development of future waste rock and filtered tailings storage facilities. Delays in obtaining the necessary permits, securing surface access rights, negotiating land-use agreements, or completing land acquisition processes may affect the implementation schedule for future Project expansion stages and could result in increased capital costs or operational constraints.

1.22.2 Opportunities

1.22.2.1 Mineral Resources

1.22.2.1.1 Opportunity 1 – Exploration and Mineral Resources Expansion

Mineralized zones at Abelhas, Juliano, and Campos Altos remain open along strike and at depth in several areas. In addition, exploration targets occur along the broader structural corridor. Further drilling provides an opportunity to test extensions of known mineralization, potentially expand the Mineral Resource base, and improve geological confidence in portions of the existing Mineral Resources.

1.22.2.2 Environmental Studies, Permitting, and Closure

1.22.2.2.1 Opportunity 1 – Progressive Closure and Rehabilitation

The phased development and waste disposal strategy creates an opportunity to implement progressive reclamation throughout the mine life. Early rehabilitation of completed waste dump areas and inactive mine infrastructure may reduce closure liabilities, improve

environmental performance metrics, and support future permitting and stakeholder engagement activities.

1.23 Recommendations

The QPs recommend additional technical work to improve confidence in the Mineral Resource estimate, further evaluate extensions of known mineralization, refine the mine design and processing assumptions, and address infrastructure, environmental, and permitting requirements identified in the PEA. The recommended work is intended to support advancement of the Água Azul Project toward a Pre-Feasibility Study ("PFS").

1.23.1 Mineral Resource Estimates

The recommended Mineral Resource program includes a geostatistical study to assess appropriate drill spacing for Mineral Resource classification and approximately 50,000 m of additional drilling, comprising:

- a geostatistical study to assess appropriate drill spacing for Measured and Indicated Mineral Resource classification;
- approximately 25,000 m of infill drilling to support potential upgrading of portions of the Indicated Mineral Resources to the Measured category;
- approximately 15,000 m of infill drilling to support potential upgrading of portions of the Inferred Mineral Resources to the Indicated category;
- approximately 10,000 m of step-out drilling to test the depth and lateral continuity of known mineralized zones and potentially define additional Mineral Resources.

A unit cost of approximately US$220/m has been estimated for the recommended drilling program. The drilling is recommended to be completed in two phases, comprising approximately 30,000 m in Phase 1 and 20,000 m in Phase 2, with the scope of Phase 2 refined based on the results of Phase 1.

Following completion of the recommended drilling and supporting technical studies, the Mineral Resource model should be updated and incorporated into subsequent mine planning and economic studies to support advancement toward a PFS and, where supported by the results, the estimation of Mineral Reserves.

1.23.2 Mining Methods

A complementary geotechnical and hydrogeological program is recommended to refine the geotechnical domains, validate pit slope design assumptions, assess groundwater conditions, and support subsequent mine design studies. The recommended work may include dedicated geotechnical drilling, oriented core logging, laboratory testing, structural mapping, hydrogeological investigations, and slope stability analyses.

A mining equipment trade-off study is also recommended to evaluate the proposed fleet configuration and mining strategy for subsequent stages of Project development.

1.23.3 Mineral Processing and Metallurgical Testing

A geometallurgical program is recommended to further evaluate metallurgical variability across the defined mineralized domains. The program should incorporate a larger and more spatially representative sample set to improve confidence in the metallurgical response and geometallurgical model used for subsequent stages of Project evaluation.

1.23.4 Infrastructure

Current waste rock and filtered-tailings storage capacity is insufficient to accommodate the full LOM inventory contemplated in the PEA. Additional engineering and environmental studies are therefore recommended to identify, evaluate, and design the additional storage capacity required for the LOM plan.

The work should address geotechnical conditions, land access, hydrology, construction materials, closure requirements, environmental assessment, and permitting requirements, with the objective of defining a LOM waste rock and filtered-tailings management strategy and the associated land, permitting, capital, and development requirements.

1.23.5 Environmental, Social and Permitting Studies

Additional environmental and permitting work is recommended to support the future waste rock and filtered-tailings storage facilities required for the LOM plan. The work should include environmental baseline confirmation, hydrological and hydrogeological assessments, geotechnical investigations, closure planning, stakeholder engagement, and support for future permitting applications.

Environmental monitoring programs established through the PCA should continue and be updated as appropriate to reflect future operational and permitting requirements.

1.23.6 Summary of Recommendations and Estimated Costs

The estimated cost of the recommended work program is approximately US$13.2 million, as summarized in Table 1-10.

Table 1-10 Summary of Recommendations and Estimated costs

Item	Estimated Cost (1,000 x US$)
Geostatistical study to assess drill spacing for Mineral Resource classification	70
Infill drilling to support potential upgrading of Indicated Mineral Resources	5,500
Infill drilling to support potential upgrading of Inferred Mineral Resources	3,300
Step-out drilling to test mineralized-zone extensions	2,200
Mineral Resource update and PFS/Mineral Reserve studies	250
Geotechnical studies for pit slope design	450
Geometallurgical program	250
Mining equipment trade-off study	30
Waste rock and filtered-tailings storage studies	750
Environmental and Permitting Support for Future Waste and Tailings Facilities	400
Total	**13,200**

Source: GE21, 2026.

2 INTRODUCTION

2.1 Project Overview & Historical Context

The Água Azul Project (“the Project”) is a brownfield gold project located in the State of Pará, Brazil, within the Carajás Mineral Province, and comprises the Abelhas, Juliano, and Campos Altos deposit areas. The Project is located approximately 7 km from the municipality of Água Azul do Norte and is accessible by a combination of paved and secondary roads. Existing infrastructure at the Project includes historical open-pit mine workings, mineral processing facilities, site access roads, grid power infrastructure, water supply systems, and tailings management facilities. The Project is also connected by the regional road network to established mining and service centres in southeastern Pará.

Gold mining and exploration activities have been conducted within the Project area over several decades, including historical artisanal and small-scale mining followed by more systematic exploration and mining activities. These activities have generated geological, drilling, geophysical, metallurgical, topographic, mining, and other technical datasets that contribute to the current understanding and evaluation of the Project.

More recent exploration and technical programs have included diamond drilling, geological mapping and interpretation, geophysical surveys, metallurgical testwork, topographic surveys, Mineral Resource estimation, and engineering studies. The available historical and recent technical information, together with the existing site infrastructure and previous mining activity, forms the basis for the technical and economic evaluations presented in this PEA.

2.2 Ownership Status

As of the Effective Date of this Technical Report, Bemisa Água Azul Mineração S.A. (“Bemisa”) holds all mineral rights comprising the Água Azul Project. ValOre has entered into a definitive sale and purchase agreement with Opportunity Holding Fundo de Investimento em Participações Multiestratégia Resp. Limitada and the other parties thereto, pursuant to which ValOre will acquire all of the issued and outstanding shares of Bemisa and of a newly formed affiliate entity (“LandCo”) that, prior to closing, will hold certain rural real estate interests associated with the Project.

The transaction has not closed as of the Effective Date of this Technical Report and remains subject to certain conditions precedent. The transaction structure, consideration, closing conditions, mineral tenure and associated property interests are described in Section 4 of this Technical Report.

2.3 Terms of Reference

This report presents a Preliminary Economic Assessment (PEA), prepared by GE21 Consultoria Mineral Ltda. (GE21), in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101) for the Água Azul Project. The study evaluates the development of a conventional open-pit gold mining operation based on the current Mineral Resource estimate and examines the opportunity to optimize and expand the existing brownfield infrastructure. The scope of the

assessment includes open-pit optimization, mine design, mine scheduling, processing plant expansion, infrastructure utilization, metallurgical performance evaluation, CAPEX and OPEX estimation, and economic analysis utilizing industry-standard discounted cash flow methodologies.

The principal objective of this PEA is to evaluate the potential economic viability of the Água Azul Project and to establish a technical and economic basis for advancing future engineering studies. Project economics have been assessed using standard financial performance indicators, including Net Present Value (NPV) and Internal Rate of Return (IRR), to assess whether the Project demonstrates sufficient potential to warrant advancement to future Pre-Feasibility and Feasibility Study stages.

Mineral Resources and PEA are reported for the Agua Azul Project.

Mineral Resources are reported for the Abelhas-Juliano region and Campos Altos region.

PEA is reported for the Abelhas zone only.

Unless otherwise noted, financial information contained in this Report is reported in United States dollars (US$).

Units of measure used throughout this Report are metric, unless otherwise indicated.

Canadian English have been adopted throughout this Report.

2.4 Sources of Information

This Technical Report is based on information made available to the Qualified Persons (QPs) by Bemisa Água Azul Mineração S.A. and ValOre Metals Corp., and on public-domain technical literature. The principal sources are:

- the exploration, drilling, sampling, and assay databases maintained by Bemisa for the Abelhas-Juliano and Campos Altos deposits;
- the previous technical report on the Property (Bergmann & Soares, 2025), prepared by GE21 on behalf of Bemisa;
- the environmental documentation prepared by CERN Consultoria e Empreendimentos de Recursos Naturais Ltda. (RCA Volumes I and II, 2025; PCA, 2025);
- the engineering, capital, and operating cost studies prepared by AUSENCO (2026), Walm Engenharia (2026), and EDEM Engenharia de Minas (2026);
- the mineral tenure records of the Agência Nacional de Mineração (ANM), consulted on June 15, 2026; and
- the long-term commodity price forecasts published by the CIBC Global Mining Group (June 2026).

A complete list of the documents consulted is presented in Section 27 – References.

2.5 Qualified Persons

The following professionals have acted as QPs for this Technical Report, as defined by NI 43-101, and meet the requirements of Form 43-101F1:

- Mr. Porfirio Cabaleiro Rodriguez, B. Sc Mining Engineer, FAIG, FAusIMM, GE21;
- Mr. Leonardo de Moraes Soares, MAIG, Senior Geologist, GE21;
- Mr. Hugo Ribeiro de Andrade Filho, FAusIMM, Master Consultant, GE21;
- Mr. Paulo Roberto Bergmann Moreira, FAusIMM, Mining Engineer, GE21.

2.6 Site Visits and Scope of Personal Inspection

2.6.1 Mr. Leonardo de Moares Soares

Mr. Soares visited the Água Azul Project on October 28–30, 2024, and October 9–10, 2025, as part of previous technical studies on the Property. The visits focused on data verification activities, including reviews of geology, drilling, sampling procedures, QA/QC protocols, mining operations, and project infrastructure. The observations and information collected during these visits are considered valid and representative for the purposes of the current Mineral Resource Estimate and data verification program.

2.6.2 Mr. Paulo Bergmann Moreira

Mr. Bergmann visited the Água Azul Project on July 28, 2026, to assess the processing facilities and evaluate the suitability of the existing process plant and metallurgical flowsheet for the production assumptions adopted in the PEA. The review included the crushing, grinding, gravity concentration, CIL, filtration, and process control circuits.

2.6.3 Mr. Porfirio Cabaleiro Rodriguez

Mr. Rodriguez has not conducted a personal inspection of the Água Azul Project site. His contribution to this Technical Report is based on the review of technical documentation, databases, and information provided by Bemisa and ValOre, and on the observations reported by the QPs who conducted the personal inspections described in this section.

2.6.4 Mr. Hugo Ribeiro de Andrade Filho

Mr. Filho has not conducted a personal inspection of the Água Azul Project site. His contribution to this Technical Report is based on the review of technical documentation, engineering studies, and cost information provided by Bemisa, ValOre, and their consultants, and on the observations reported by the QPs who conducted the personal inspections described in this section.

2.7 Effective Dates

The Technical Report is based on information current as of a number of effective dates, including:

- Effective date of the Mineral Resource estimate: July 28, 2026;
- Effective date of the economic analysis that supports the PEA: July 28, 2026

3 RELIANCE ON OTHER EXPERTS

3.1 Introduction

For matters involving ownership, contractual property arrangements, mineral tenure, surface rights, royalties, and marketing assumptions, the QPs based their assessment on supporting reports developed by subject-matter experts.

3.2 Mineral Tenure, Surface Rights, Royalties, and Agreements

The QPs did not independently verify legal ownership of the Project, contractual agreements, surface rights, royalty interests, or the legal status and terms of the Transaction pursuant to which ValOre has agreed to acquire Bemisa and LandCo. The QPs relied on information provided by ValOre, together with the supporting legal and technical documentation made available to them, and assumed that such information was accurate and complete as of the Effective Date of this Technical Report.

Related to mineral tenure, the QPs have verified the information available from the Agência Nacional de Mineração (ANM – https://sistemas.anm.gov.br/SCM/site/admin/Default.aspx.), accessed on June 15th, 2026.

The ownership structure, material terms of the Transaction, mineral tenure and associated property interests are described in Section 4 of the Report and has been considered in the preparation of Sections 14 and 22 used to support this PEA.

3.3 Environmental

The QPs have not independently verified information relating to environmental baseline studies, permitting, environmental licensing, mine closure planning, closure cost estimates, or social and community matters.

For these subjects, the QPs relied upon environmental documentation prepared by appropriately qualified specialists and made available by Bemisa. The QPs relied principally on the Relatório de Controle Ambiental (RCA) Volumes I and II and the Plano de Controle Ambiental (PCA) prepared by CERN Consultoria e Empreendimentos de Recursos Naturais Ltda., in 2025, to understand the environmental baseline conditions, permitting status, environmental management programs, closure planning framework, and environmental monitoring requirements applicable to the Project

The QPs reviewed these reports solely for the purpose of understanding the current environmental and permitting status of the Project and have assumed the information contained therein to be accurate for use in this Technical Report.

This information supports the discussions presented in Sections 4 and 20 of this Report.

3.4 Markets and Contracts

The QPs reviewed available market information, commodity price forecasts, and commercial assumptions relevant to the preparation of the PEA. Where appropriate, the QPs relied upon published market information and information provided by ValOre.

The principal external reference used to assess long-term commodity price assumptions was:

- CIBC Global Mining Group Analyst Consensus Commodity Price Forecasts – June 2026.

The commodity price information was reviewed by the QPs as a benchmark to assess the reasonableness of the economic assumptions adopted for this PEA. However, the gold price used for Mineral Resource pit optimization, mine planning, and economic evaluation was intentionally selected below both the prevailing consensus forecast and current spot market conditions. This approach reflects a prudent long-term planning basis intended to reduce sensitivity to short-term commodity price volatility and does not constitute a forecast of future gold prices.

Actual commodity prices, market conditions, commercial arrangements, operating costs, and project outcomes may differ materially from the assumptions adopted in this Report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

This section summarizes the key property-related aspects of the Água Azul Project, including its ownership status, geographic location, mineral tenure holdings, and applicable royalty obligations. The Project comprises four contiguous mineral titles located in the municipality of Água Azul do Norte, Pará State, Brazil, covering a total area of approximately 20,608 hectares. Information presented herein is based on records maintained by the Brazilian National Mining Agency (ANM) and documentation provided by ValOre as of the Effective Date of this Technical Report.

On November 23, 2026, ValOre entered into a definitive sale and purchase agreement (the "Definitive Agreement") among ValOre, Opportunity Holding Fundo de Investimento em Participações Multiestratégia Resp. Limitada (the "Seller"), Pedra Branca Do Brasil Mineração LTDA., and Bemisa Água Azul Mineração S.A. ("Bemisa"), pursuant to which ValOre will acquire all of the issued and outstanding shares of Bemisa, the owner of the Água Azul Project, and an affiliate entity to be formed to hold certain land interests, from the Seller for total consideration of US$135,000,000 (the "Purchase Price"), subject to standard post-closing adjustments (the “Transaction”).

Bemisa is a Brazilian corporation (sociedade anônima) that holds, as of the effective date of this Technical Report, all mineral rights comprising the Água Azul Project, including Mining Concession No. 850.492/2007 and Exploration Permits No. 850.776/2021, 851.026/2021, and 851.028/2021, issued by the Brazilian National Mining Agency (ANM), covering a total area of approximately 20,608 hectares in the municipality of Água Azul do Norte, Pará State, Brazil. Bemisa also owns or holds possessory rights over certain rural real estate properties used in connection with the Project. In connection with the Transaction, the Seller is required to complete a corporate reorganization prior to closing whereby those rural properties will be transferred by way of spin-off to a newly formed affiliate land-holding company ("LandCo"), whose shares will also be acquired by ValOre. A surface rights agreement will be entered into at closing to ensure that Bemisa retains mining access over the spun-off properties.

The Purchase Price payable on a cash-free and debt-free basis (assuming nil net debt and a minimum net working capital of BRL 10 million), subject to certain customary post-closing adjustments. US$90,000,000 of the Purchase Price is payable in cash at closing. US$20,000,000 of the Purchase Price is payable in cash on the first anniversary of the closing date and US$25,000,000 of the Purchase Price is payable in cash on the second anniversary of the closing date (the “Deferred Payments”). Payment of the Deferred Payments is secured by fiduciary assignments granted in favor of the Seller at closing over 51% of Bemisa's shares and 49% of LandCo's shares, which will remain in effect until the Deferred Payments have been paid in full and, at ValOre's discretion, may be replaced by an irrevocable and unconditional bank guarantee issued by any of Santander, Itaú Unibanco, Banco Bradesco or BTG Pactual.

Prepayment Option: ValOre shall have the option, exercisable only once and only in respect of the entirety of the Deferred Payments, within four (4) months counted from the Closing Date, to discharge its obligation to pay the total amount of the Deferred Payments by paying to the Seller US$ 30,000,000.

Closing is subject to certain conditions precedent, including: the absence of any law or order preventing consummation of the Transaction; receipt of acceptance by the TSX Venture Exchange; the accuracy of each party's representations and warranties; compliance with interim covenants; the absence of a material adverse change; and the completion of the corporate reorganization.

4.2 Location

The Água Azul Project comprises four contiguous mineral rights (ANM claims) covering a total area of 20,608 hectares in the municipality of Água Azul do Norte, southeastern Pará State, northern Brazil (Figure 4.1). In the surroundings of Água Azul do Norte, strategic municipalities such as São Félix do Xingu, Ourilândia do Norte and Canaã dos Carajás are known for their mining and agricultural development. The region also has a strong socioeconomic influence from the Parauapebas mining hub, home to the Carajás project, one of the world's largest iron mining complexes.

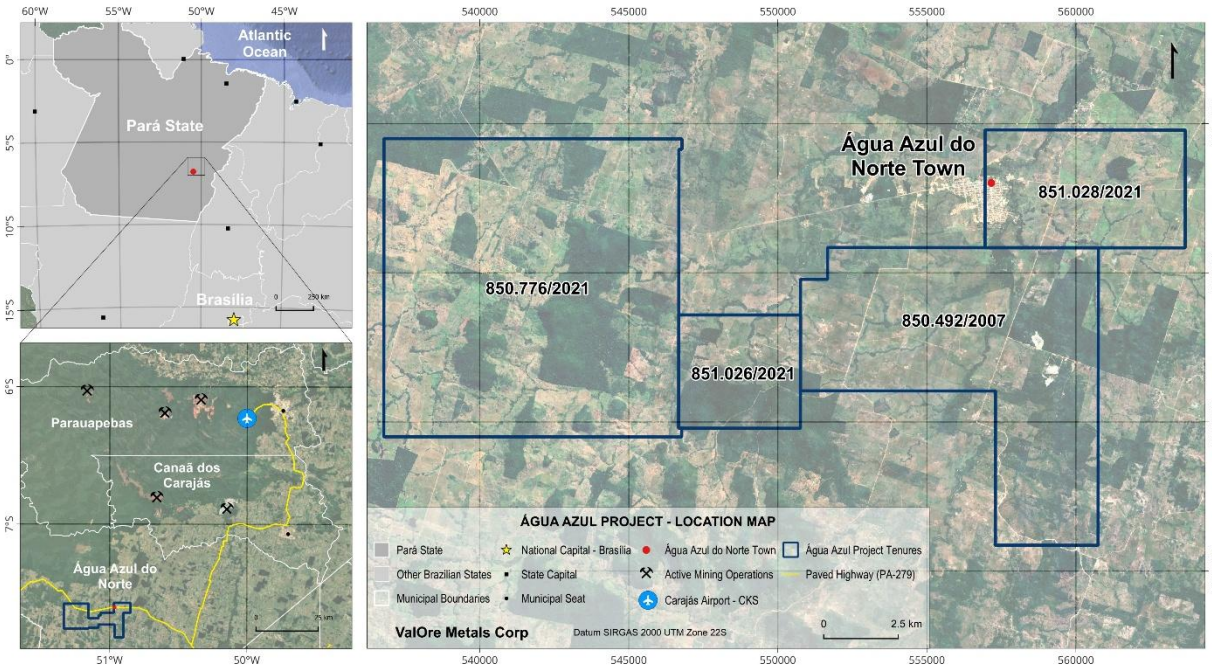


Figure 4.1 Regional Location and Mineral Tenure of the Água Azul Project

Source: GE21, 2026.

4.3 Review of Mineral Tenure Areas and Titles

As of the Effective Date of this Technical Report, the mineral rights comprising the Água Azul Project are held by Bemisa Água Azul Mineração S.A. and consist of one Mining Concession and three Exploration Permits issued by the Brazilian National Mining Agency (ANM), as summarized in Table 4.1.

Table 4.1 Água Azul Project Mineral Tenure Summary

ANM Process No.	Mineral Right	Status	Grant Date	Expiry Date	Area (ha)
850.492/2007	Mining Concession (Concessão de Lavra).	Granted	30/06/2025	-	6,494.36
850.776/2021	Exploration Permit (Autorização de Pesquisa)	Extension Requested(1)	28/05/2021	01/10/2024(2)	9,905.43
851.026/2021	Exploration Permit (Autorização de Pesquisa)	Extension Requested(1)	29/11/2021	29/11/2024(2)	1,553.13
851.028/2021	Exploration Permit (Autorização de Pesquisa)	Granted	13/01/2026	13/01/2029	2,655.03

Notes:
1. In accordance with the applicable ANM procedures, applications to extend the terms of ANM Process Nos. 850.776/2021 and 851.026/2021 were submitted together with the respective Partial Exploration Reports (Relatórios Parciais de Pesquisa) and remained pending ANM review as of the Effective Date of this Technical Report.
2. The expiry dates shown represent the original permit terms. Based on the applicable ANM procedures, the Exploration Permits remain in effect while the extension applications are under review.
Source: GE21, 2026.

The principal mining title, ANM Process No. 850.492/2007, comprises an area of 6,494.36 ha and was granted as a Mining Concession (Concessão de Lavra) on June 30, 2025. Under Brazilian mining legislation, Mining Concessions do not have a fixed expiry date and remain valid for the life of the mineral deposit, provided the holder maintains compliance with applicable legal, regulatory, environmental, fiscal, and reporting obligations, including the submission of annual mining reports and payment of applicable royalties and fees.

The holder is required to maintain these titles in good standing through compliance with ANM regulations, including the completion of authorized exploration activities, submission of technical reports and statutory filings, and payment of applicable annual fees.

Under Brazilian mining legislation, the holder of the Mining Concession (ANM Process No. 850.492/2007) is required to maintain compliance with operational, reporting, environmental, fiscal, and regulatory obligations in order to preserve the validity of the mining title. These obligations include, among others, the annual submission of the Relatório Anual de Lavra (RAL) to the National Mining Agency (ANM), payment of the Tax for Inspection of Mineral Activities (TAH), payment of the Financial Compensation for the Exploitation of Mineral Resources (CFEM), maintenance of all applicable environmental permits and water-use authorizations, and compliance with the approved mine plan and applicable mining regulations.

The TAH is an annual fee established by Federal Law No. 7,886/1989 and is payable by holders of mining rights in accordance with ANM requirements. The amount payable is adjusted periodically by the federal government. In addition, the concession holder must maintain compliance with reporting and operational obligations associated with the Mining Concession and any related environmental licences.

For the Exploration Permits comprising the Água Azul Project, maintenance of the titles requires compliance with applicable exploration commitments, submission of partial and final exploration reports when required by ANM, payment of applicable annual fees, and compliance with the conditions established in the relevant exploration authorizations. Failure to comply with these obligations may result in penalties, suspension, or cancellation of the respective mineral titles

4.3.1 ANM Process No. 850.492/2007

ANM Process No. 850.492/2007 is held under a Mining Concession (Concessão de Lavra). The mineral tenure covers 6,494.36 ha in the municipality of Água Azul do Norte, Pará State, and includes rights for gold and copper. The concession area is defined by a polygon referenced to the tie-point coordinates of latitude 06°49'20.972"S and longitude 50°27'00.528"W. A summary of the tenure description is provided in Table 4.2.

Table 4.2 Descriptive report of ANM Process No. 850.492/2007

Latitude	Longitude
-06°49'20"972	-50°27'00"528
-06°54'46"090	-50°28'52"764
-06°51'57"517	-50°32'26"076
-06°50'34"697	-50°32'26"213
-06°49'55"697	-50°31'56"562
-06°49'20"979	-50°29'04"178
-06°54'45"973	-50°27'00"467
-06°54'46"090	-50°28'52"781
-06°50'34"730	-50°32'26"082
-06°50'34"697	-50°32'26"132
-06°49'21"000	-50°31'56"565
-06°49'20"973	-50°27'31"606
-06°54'45"985	-50°28'52"764
-06°51'57"488	-50°28'52"814
-06°50'34"730	-50°28'52"814
-06°49'55"699	-50°28'52"814
-06°49'20"979	-50°29'04"412
-06°49'20"972	-50°27'00"528

Source: ANM, 2024.

4.3.2 ANM Process No. 850.776/2021

ANM Process No. 850.776/2021 is held under an Exploration Permit (Autorização de Pesquisa). An application to extend the term of the Exploration Permit was filed with ANM on August 1, 2024. The mineral tenure covers 9,905.43 ha in the municipality of Água Azul do Norte, Pará State, and was filed for gold. The licence area is defined by a polygon referenced to the tie-point coordinates of latitude 06°47'34.066"S and longitude 50°34'39.179"W. A summary of the tenure description is provided in Table 4.3.

Table 4.3 Descriptive report of ANM Process No. 850.776/2021

Latitude	Longitude
-06°47'34"066	-50°34'39"179
-06°50'34"694	-50°34'39"179
-06°50'34"694	-50°34'39"153
-06°52'38"479	-50°34'39"153
-06°52'38"479	-50°34'39"130
-06°52'38"501	-50°34'39"130
-06°52'38"505	-50°34'39"130
-06°52'38"505	-50°34'35"824
-06°52'38"585	-50°34'35"824
-06°52'47"996	-50°34'35"824
-06°52'47"996	-50°40'01"548

Latitude	Longitude
-06°52'47"861	-50°40'01"548
-06°47'22"441	-50°40'01"548
-06°47'22"441	-50°35'59"491
-06°47'22"495	-50°35'59"491
-06°47'22"502	-50°34'35"824
-06°47'34"043	-50°34'35"824
-06°47'34"043	-50°34'39"153
-06°47'34"062	-50°34'39"153
-06°47'34"062	-50°34'39"178
-06°47'34"066	-50°34'39"179

Source: ANM, 2024.

4.3.3 ANM Process No. 851.026/2021

ANM Process No. 851.026/2021 is held under an Exploration Permit (Autorização de Pesquisa). An application to extend the term of the Exploration Permit was filed with ANM on August 1, 2024. The mineral tenure covers 1,553.13 ha in the municipality of Água Azul do Norte, Pará State, and was granted for gold. The licence area is defined by a polygon referenced to the tie-point coordinates of latitude 06°50'34.735"S and longitude 50°34'39.130"W. A summary of the tenure description is provided in Table 4.4.

Table 4.4 Descriptive report of ANM Process No. 851.026/2021

Latitude	Longitude
-06°50'34"735	-50°34'39"130
-06°50'34"730	-50°32'26"082
-06°52'38"495	-50°32'26"072
-06°52'38"501	-50°34'39"130
-06°50'34"735	-50°34'39"130

Source: ANM, 2024.

4.3.4 ANM Process No. 851.028/2021

ANM Process No. 851.028/2021 is currently under Exploration Permit (Autorização de Pesquisa). The mineral tenure covers 2,655.03 ha in the municipality of Água Azul do Norte, Pará State, and was filed for gold. The licence area is defined by a polygon referenced to the tie-point coordinates of latitude 06°47'12.292"S and longitude 50°25'25.670"W. A summary of the tenure description is provided in Table 4.5.

Table 4.5 Descriptive report of ANM Process No. 851.028/2021

Latitude	Longitude
-06°47'12"292	-50°25'25"670
-06°49'20"966	-50°25'25"654
-06°49'20"979	-50°29'04"412
-06°47'12"298	-50°29'04"412
-06°47'12"298	-50°29'04"225
-06°47'12"306	-50°29'04"225
-06°47'12"292	-50°25'25"670

Source: ANM, 2024.

4.4 Royalties

4.4.1 CFEM Royalty

The Água Azul Project is subject to the Compensação Financeira pela Exploração de Recursos Minerais (CFEM), the statutory Brazilian mining royalty. For gold production, CFEM is payable at a rate of 1.5% of gross revenue from gold sales and has been incorporated into the economic assumptions adopted for this PEA.

4.4.2 Landowner's Statutory Royalty

Under Brazilian mining legislation, the owner of the surface rights is entitled to receive a statutory participation payment equal to 50% of the applicable CFEM royalty. This payment is the responsibility of the mining concession holder and has been incorporated into the economic assumptions adopted for this PEA.

4.5 Environmental Liabilities

Historical artisanal and small-scale gold mining activities have occurred within portions of the Água Azul Project area since the 1980s and were followed by experimental and commercial mining operations conducted by Bemisa. Environmental baseline studies, environmental assessments, permitting documentation, and site inspections completed to date have identified locally disturbed areas associated with historical workings, access roads, mining excavations, and other mining-related activities.

These disturbances are typical of historical and current mining activities in the region and are being addressed through the Project's environmental management, monitoring, permitting, and closure planning programs. Based on the information available as of the Effective Date, no known environmental liabilities have been identified that are considered material to the current Mineral Resource estimate, the proposed development of the Project, or the reasonable prospects for eventual economic extraction.

4.6 Other Significant Factors and Risks Affecting Title, Access and Property Rights

As of the Effective Date, no known factors have been identified that are expected to materially affect access to the Property, the validity of the mineral tenure, or the right and ability to conduct exploration, development, mining, processing, or related activities within the Project area. The mineral rights comprising the Água Azul Project are either held under a granted Mining Concession or exploration titles administered by the Brazilian National Mining Agency (ANM), and no material challenges to title ownership are known.

The Property is accessible through existing public and private road networks, and the Project benefits from established land access arrangements and surface rights required for current activities. The Qualified Persons are not aware of any known overlapping mineral claims, unresolved land access disputes, significant social opposition, or legal proceedings that could materially affect the Project.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The Água Azul Project is located in the municipality of Água Azul do Norte, within an important mineral province in southeastern Pará, known for its diverse Mineral Resources and strong mining activity.

The area offers favourable conditions, including easy road access, flat terrain, nearby infrastructure, and abundant water resources. It is connected regionally by the PA-279 and PA Transcanadá highways, while Carajás Airport in Parauapebas provides access to major cities.

The municipality is logistically integrated with nearby urban centres and export corridors, especially through the ports of Vila do Conde and Itaqui, which support the flow of regional mineral production.

Figure 5.1 shows the area where the targets of the Água Azul Project are located.

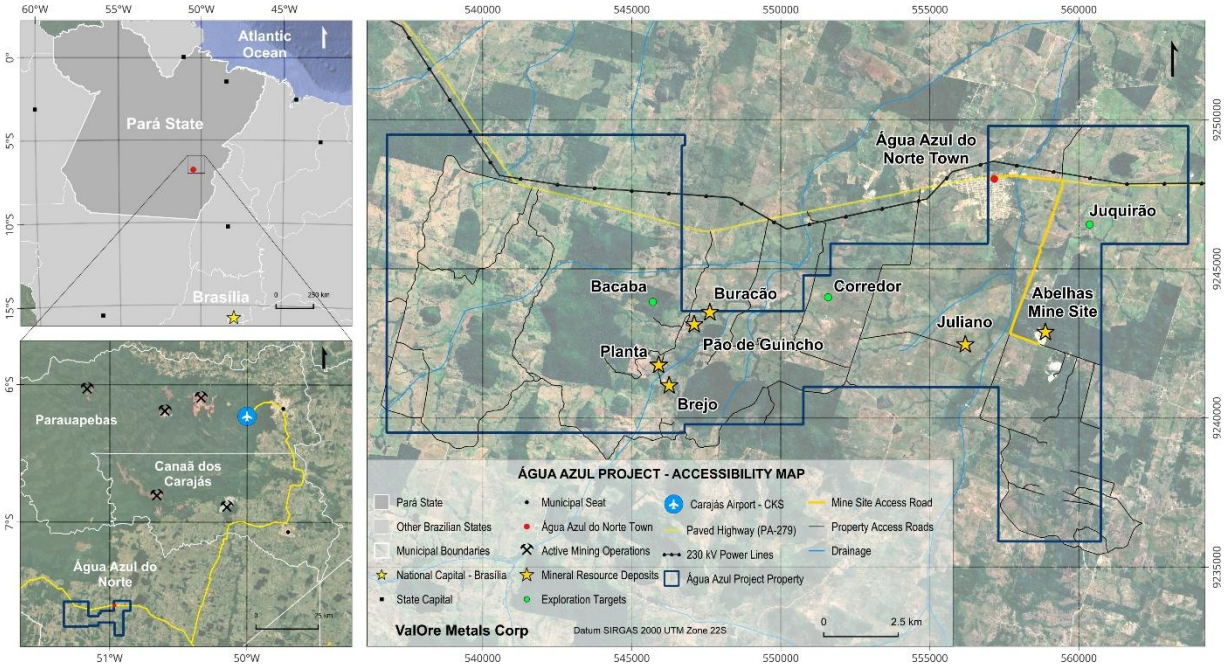


Figure 5.1 Accessibility map with emphasis on the four mineral tenure areas of the Água Azul Project Property

Source: GE21, 2026.

5.2 Climate

The region has a humid tropical climate (Am and Aw), with a rainy season from January to April and a drier period from June to December. It is characterized as humid to sub-humid, with elevated temperatures, high humidity (~85%), and approximately 1,800 hours of sunshine annually, mainly between June and November.

5.3 Local Resources

The project area is in Água Azul do Norte, within a mining-intensive region that includes cities such as Parauapebas, Canaã dos Carajás, and Ourilândia do Norte, where mining is a key economic driver supported by diverse Mineral Resources.

The site presents favourable conditions for development, including easy access, flat terrain, nearby infrastructure, and abundant water resources. Although the municipality has a low HDI (0.564), it offers basic infrastructure, while nearby cities provide strong industrial, logistical, and agricultural support.

5.4 Surface Rights, Infrastructure and Local Resources

The Água Azul Project benefits from sufficient surface rights and land access conditions to support the infrastructure and mining activities contemplated in this Technical Report. The principal project facilities, including the open pits, processing plant, ROM stockpiles, administrative areas, water supply infrastructure, access roads, and a significant portion of the waste rock and tailings storage facilities, are located on properties owned or controlled by Bemisa Água Azul Mineração S.A. Additional areas have been identified for the future expansion of waste rock disposal facilities required to support the full Life-of-Mine plan. Electrical power is available through the regional grid operated by Equatorial Energia, which is expected to supply the forecast project demand.

The Project is located within the established Carajás mining district and benefits from access to a skilled mining workforce, specialized contractors, equipment suppliers, and support services available in nearby mining centres such as Parauapebas, Canaã dos Carajás, Ourilândia do Norte, and Xinguara. Existing and planned surface infrastructure areas are considered adequate to support the proposed mining, processing, waste disposal, water management, and ancillary facilities required for the development of the Água Azul Project.

Electrical power supply availability was confirmed through the connection budget and technical assessment issued by Equatorial Energia Pará (2026), which identified available capacity to supply a demand of 16,426 kW at 138 kV and outlined the distribution system upgrades required for project connection.

Water supply for the Project is supported by a combination of surface water and groundwater sources located within the Project area. A surface water abstraction permit issued by the Pará State environmental authority (SEMAS) authorizes the withdrawal of up to 3,605.76 m³/day from the Água Azul/Itacaiúnas River system for mining-related activities. In addition, groundwater abstraction permits have been granted for three tubular wells within the Project area to support ancillary uses and site infrastructure requirements. The current permits establish a regulatory framework for water use during Project development, and provide evidence of authorized water abstraction from both surface and groundwater sources.

5.5 Physiography

5.5.1 Relief and Soil

The area is part of the Middle Xingu Depression, formed by gradual erosional subsidence and connected to adjacent depressions and plateaus. The relief is predominantly characterized by flattened and gently inclined surfaces shaped by successive erosion processes, alongside localized rugged features with small hills of low elevation.

Soils are mainly residual and related to the underlying rock, typically showing yellowish to reddish colours with silty-clay composition and quartz content. In more weathered zones, soils may reach up to 2 m in depth, with shallow organic layers. Locally, sandy quartz soils also occur in specific geological settings.

5.5.2 Hydrography

The hydrographic network is dominated by the Tocantins and Araguaia systems and their tributaries, with important headwaters of the Itacaiúnas River located within the municipality. The Pium and Água Azul rivers are the main local watercourses, both perennial, with seasonal variations in water level that expose rocky substrates during dry periods.

Drainage follows a predominantly north-south direction, with meandering channels and secondary streams forming dendritic to sub-rectangular patterns. These streams create alluvial plains and lowland areas. Overall, the region has a well-developed drainage network active throughout the year, and the gently sloping terrain is suitable for infrastructure development and tailings storage.

5.5.3 Vegetation

Vegetation in the region is divided into two main groups: Open Forest with forest/cerrado enclaves and Dense Forest. The Open Forest is characterized by species such as babassu, breu-preto, and carnauba, interspersed with grasses and typical cerrado vegetation, including small, twisted trees and shrubs.

The Dense Forest occurs in flatter areas and is composed of medium to large trees such as Brazil nut, Manilkara, and mahogany, with riparian forests along rivers and streams. A sizable portion of the native vegetation has been cleared and replaced by pasturelands.

6 HISTORY

Gold occurrences in the Água Azul region have been recognized for several decades, with artisanal and small-scale mining activities reported since the 1980s. Historical workings, abandoned shafts, and surface excavations identified across the property provided the initial evidence of significant gold mineralization and served as important guides for the systematic exploration programs that followed.

6.1 Ownership

The Água Azul Project has been held and operated by Bemisa Água Azul Mineração S.A., part of the Bemisa Group, throughout its exploration and development history. Bemisa Group is a Brazilian mining group with more than 18 years of experience and a diversified portfolio of mineral assets at various stages of development, including iron ore, gold, nickel, phosphate, limestone, and rare earth element projects.

As of the Effective Date of this Technical Report, Bemisa continues to hold the mineral rights comprising the Água Azul Project. ValOre has entered into a definitive sale and purchase agreement pursuant to which it has agreed to acquire all of the issued and outstanding shares of Bemisa and LandCo. The Transaction has not closed as of the Effective Date and remains subject to certain conditions precedent. The Transaction and current ownership of the Project are described in Section 4.

6.2 Exploration and Development History

Except for the earlier historical activities specifically identified herein, and unless otherwise stated, the exploration, drilling, sampling, technical studies, and development activities described below were conducted by or on behalf of Bemisa.

The Água Azul Project comprises two exploration areas: Abelhas-Juliano, in the central and eastern portions of the property, and Campos Altos, in the western portion. Abelhas-Juliano hosts the Abelhas mine – currently in active gold production – together with Antonino, Juliano, Corredor, and Juquirão targets. Campos Altos hosts the Pão de Guincho, Buracão, Planta, Brejo and Bacaba targets.

Modern exploration at Abelhas-Juliano began in 2012 with regional stream sediment, soil, and rock geochemical sampling, followed by geophysical surveys, which together delineated the Antonino, Abelhas, and Juliano targets. Systematic exploration at Campos Altos began a decade later, in 2022, following reconnaissance visits that identified further artisanal workings associated with quartz-vein-hosted gold mineralization; the surrounding area additionally shows potential for other mineral systems, including nickel and copper.

Regional stream sediment sampling was carried out at the outset of exploration to help identify potential source areas for gold anomalies, complementing subsequent rock and soil geochemical sampling, which together totalled 1,118 rock samples and 20,457 soil samples across the property.

From 2022 to 2023, an auger drilling program comprising 99 holes totalling 561.87 meters of drilling and 725 samples collected, tested the Bacaba target at Campos Altos. Within Abelhas-Juliano

region, a total of 258 auger holes were completed between 2019 and 2021, totalling 1,158.32 meters drilled and 1,354 samples collected covering the Abelhas and Corredor targets. Considering all the drilling campaigns across the property, 73 auger holes returned mineralized composites, highlighting: hole TD-058 at Bacaba target – 0.30 m at 4.19 g/t Au; hole TD-202 at Abelhas target – 5.00 m at 2.54 g/t Au; and TD-242 at Corredor target, returning 0.78 g/t Au over 1.65 m.

A trenching program, executed between 2019 and 2023, comprising 63 trenches, tested the Abelhas and the Corredor targets, a total of 5,581.94 meters were excavated and 3,260 rock samples collected and analyzed. At Abelhas target, mineralized intervals returned gold grades such as 2.00 m at 14.84 g/t Au from 66.00 to 68.00 m (TR-017); and, at Corredor target, best intercepts returned 1.00 m at 8.69 g/t Au from 40.20 to 41.20 m (TR-045) and 4.16 g/t Au over 1.60 m, from 48.00 to 49.60 m (TR-044).

Ground geophysical surveys at Abelhas-Juliano were carried out in two campaigns: an induced polarization (IP) survey in 2012, covering 15 linear km to follow up geochemical anomalies over the Abelhas and Antonino targets, and combined IP and magnetometry survey in 2018, covering 16.4 linear km at Juliano target. At Campos Altos, a separate ground geophysical survey was completed in 2022, comprising magnetometry and gamma-ray spectrometry over 66,640 linear m and induce polarization and electrical resistivity over 23,000 linear m, supporting delineation of the Pão de Guincho, Planta, Brejo, Buracão and Bacaba targets. A regional airborne HTEM survey, totalling 1,227 linear km, was flown in 2023, further refining drill targeting at Campos Altos and outlining the structural corridor extending from the Abelhas mine westward, identifying additional prospective grounds such as Corredor target.

A drone-based (UAV) topographic survey covering approximately 2,830 ha of property was completed in 2020, generating a digital terrain model and 1-metre contour lines.

Exploration activities executed within the Água Azul Project are summarized in Table 6.1.

Table 6.1 Summary of Exploration Activities Conducted by Bemisa by Target Area – Água Azul Project

Region	Activity	Period	Totals	Objective/Products
Abelhas-Juliano	Reconnaissance/Mapping	2012 - present	—	Geological mapping and definition of areas of interest
	Rock Sampling	2012 - 2022	728 samples	Definition of geochemical anomalies and areas of interest
	Soil Sampling	2012 - 2023	13,626 samples	Definition of geochemical anomalies and areas of interest
	IP Survey	2012	15 linear km	Follow up geochemical anomalies
	IP/Mag Survey	2018	16.4 linear km	Follow up geochemical anomalies
	Auger Drilling	2019 - 2021	258 drill holes 1,158.32 m drilled 1,354 samples	Subsurface investigation at Abelhas and Corredor targets
	Trenching	2019 - 2023	63 trenches 5,581.94 m 3,260 samples	Target delineation
Campos Altos	Reconnaissance/Mapping	2020 - present	—	Geological mapping and definition of areas of interest
	Rock Sampling	2020 - 2024	390 samples	Definition of geochemical anomalies and areas of interest
	Soil Sampling	2020 - 2023	6,831 samples	Definition of geochemical anomalies and areas of interest
	IP/ER Survey	2022	23 linear km	Target delineation
	Mag/Rad Survey	2022	66.64 linear km	Target delineation
	Auger Drilling	2022 - 2023	99 drill holes 561.87 m drilled 725 samples	Subsurface investigation at Bacaba Ni target
Água Azul Project	UAV Topography	2020	2,830 ha	Project Development
	Airborne Geophysics (HTEM)	2023	1,227 line-km	Regional Targeting

Source: GE21, 2026.

Diamond drilling campaigns at Abelhas-Juliano comprised 397 holes and 64,260.95 m of drilling across nine phases between June 2018 and September 2025, progressively densifying the drill grid across the Abelhas, Abelhas Norte, Antonino, and Juliano deposits and establishing the geological continuity of the mineralized zones.

At Campos Altos, diamond drilling campaigns were completed through 56 holes and 10,103.60 m drilled across two phases in 2022 and 2023, led by Pão de Guincho with 26 holes and 5,067.23 m drilled, followed by Planta, Brejo, and Buracão targets. Results confirmed structurally controlled gold mineralization hosted in quartz veins and hydrothermal alteration halos.

A summary table of the diamond drilling campaigns executed by Bemisa or on behalf of Bemisa within Água Azul Project is presented in Table 6.2.

Table 6.2 Summary of Drilling and Sampling Conducted by Bemisa by Deposit – Água Azul Project

Region	Deposit	No. Drill Holes	No. Samples	Drilling Length (m)
Abelhas-Juliano	Abelhas	288	41,667	39,354.43
	Abelhas Norte	15	2,571	2,582.05
	Antonino	59	16,850	17,076.63
	Juliano	35	5,494	5,247.84
	Total	397	66,582	64,260.95
Campos Altos	Pão de Guincho	26	6,022	5,067.23
	Planta	15	2,525	2,294.71
	Brejo	9	1,320	1,339.10
	Buracão	6	1,242	1,402.56
	Total	56	11,109	10,103.60
Água Azul Project	**Totals**	**453**	**77,691**	**74,364.55**

Source: GE21, 2026.

6.3 Mining and Permitting History

A summary of the key permitting, licensing, and development milestones for the Água Azul Project is presented in Table 6.3. The Project advanced from the exploration stage to commercial production through a series of regulatory approvals obtained between 2021 and 2025. Initial mining activities were undertaken under Guia de Utilização (GU) No. 115/2021, which permitted experimental mining operations prior to receipt of a Mining Concession. Following approval of the Final Exploration Report, issuance of the required environmental permits by SEMAS/PA, and grant of Mining Concession Ordinance No. 698 by ANM, the Project transitioned to commercial mining operations. The Mining Concession currently authorizes production of up to 200,000 tonnes of ROM per annum.

Table 6.3 Água Azul Project Permitting and Development History

Date	Permit / Authorization	Issuing Authority	Description
Sep. 16, 2009 – Apr. 10, 2022	Exploration Permit No. 11.108 and extensions	ANM	Exploration activities were conducted under Exploration Permit No. 11.108 and its subsequent extensions. During this period, ANM authorized experimental mining activities through the issuance of a Guia de Utilização (GU).
Nov. 30, 2021	Final Exploration Report (RFP) submission	ANM	The Final Exploration Report was submitted to ANM for approval.
Oct. 18, 2021	Guia de Utilização (GU) No. 115/2021	ANM	ANM authorized experimental mining activities under GU No. 115/2021, allowing limited-scale mining operations prior to the granting of a Mining Concession.
Sep. 20, 2022	Operating Licence (LO) No. 13.709/2022	SEMAS/PA	Operating Licence issued with validity until Sep. 19, 2025, providing environmental authorization for mining activities.
Oct. 2022	Start of mine development	BEMISA	Development activities associated with the experimental mining program commenced under GU No. 115/2021.
Dec. 26, 2022	Operating Licence (LO) No. 13.879/2022	SEMAS/PA	Replaced the previous operating licence and included mining, processing, and supporting infrastructure activities.
Dec. 28, 2022	Approval of Final Exploration Report	ANM	ANM approved the Final Exploration Report through a determination published in the Federal Official Gazette.
Jan. 2023	First ROM production	BEMISA	ROM production commenced and was subsequently reported in the 2023 Annual Mining Report (RAL).
May 20, 2024	Operating Licence (LO) No. 14.878/2024	SEMAS/PA	New operating licence issued, replacing the previous licence and remaining valid until Dec. 29, 2025.
Aug. 5, 2024	Extension of GU No. 115/2021	ANM	ANM approved a three-year extension to the validity of the Guia de Utilização. Its effective validity remained limited by the term of the environmental operating licence.
May 9, 2025	Installation Licence (LI) No. 3.609/2025	SEMAS/PA	Installation Licence issued with validity until May 8, 2028.
May 9, 2025	Operating Licence (LO) No. 15.535/2025	SEMAS/PA	Operating Licence issued with validity until May 8, 2030, supporting the transition to full mining operations.
Jun. 30, 2025	Mining Concession Ordinance No. 698	ANM	Mining Concession granted, authorizing commercial mining operations at the Água Azul Project. Following its issuance, GU No. 115/2021 ceased to have legal effect.
Jun. 30, 2025, onwards	Commercial Mining Operations	ANM / BEMISA	Mining Concession Ordinance No. 698 authorizes annual ROM production of up to 200,000 tonnes.
Jun. 12, 2026	Installation Licence (LI) No. 3.709/2026	SEMAS/PA	Installation Licence for Phase 2 issued with validity until September 11, 2029.

Source: ValOre, 2026.

6.4 Historical Production

The Água Azul Project commenced gold production in 2023, with mining and processing operations continuing through 2024 and 2025. During this period, the Project produced approximately 6,839 ounces of gold, with annual production increasing as operations progressively developed. Historical gold production is summarized in Table 6.4.

Table 6.4 Historical Gold Production – Água Azul Project

Year	Gold Produced (oz)
2023	1,446
2024	2,564
2025	2,828
Total	**6,839**

Source: Bemisa, 2026.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geological Context

The Água Azul Project is located within the Carajás Mineral Province (CMP), one of the world's most significant Archean mineral provinces, in the southeastern portion of Amazonian Craton.

The CMP has been interpreted either as an independent Archean province (Santos, 2003) or as an integral block of the Central Amazonian Province (Tassinari & Macambira, 2004). Geophysical, geological, and structural studies conducted over recent decades have refined the recognition of geological units previously grouped under the Xingu Complex (Silva et al., 1974), leading to several proposals for the tectonic compartmentalization of the province into distinct crustal segments (Althoff et al., 2000; Costa et al., 1995; Souza et al., 1996; Dall'Agnol et al., 2006, 2013; Vasquez et al., 2008; Feio & Dall'Agnol, 2012). The southern portion of the province, initially termed the Rio Maria Granite-Greenstone Terrain (TGGRM), comprises the oldest rocks in the province, with well-preserved igneous features, while the northern portion is characterized by an extensive volcano-sedimentary sequence intruded by syntectonic granitoids affected by Neoarchean tectonothermal events (Souza et al., 1996).

The boundary between these two domains remains a matter of debate: some researchers place it immediately south of the Xinguara Granite, while others position it north of the Sapucaia Greenstone Belt (Dall'Agnol et al., 1997; Souza et al., 1996). Dall'Agnol et al. (1997) proposed that the region extending from Xinguara to the southern portion of Serra dos Carajás represents a transition zone, having been affected by tectonothermal events related to the Carajás Block; they informally termed this segment the "Transition Domain", later redefined as the Transition Subdomain by Feio and Dall'Agnol (2012). CPRM (Brazilian Geological Survey) subsequently formalized the tectonic compartmentalization of the Carajás Province into two domains (Santos, 2003; Vasquez et al., 2008): the Mesoarchean (3.0-2.86 Ga) Rio Maria Domain (DRM) to the south, and the Neoarchean (3.0-2.7 Ga) Carajás Domain to the north.

Subsequent advances in the tectonic-geological understanding of the province led researchers from the Granitoid Petrology Research Group (GPPG) at Federal University of Pará (UFPA) to demonstrate that the area considered the basement of the Carajás Basin – the former Transition Domain, extending from its southern edge to the boundary with the DRM – did not correspond to a tectonically homogeneous crust. This finding led to the individualization of two separate domains, the Canaã dos Carajás Domain (DCC) and the Sapucaia Domain (DS), representing the northern and southern portions, respectively, of the crustal segment previously grouped under the "Transition Domain" (Dall'Agnol et al., 2013). Figure 7.1 ilustrates the individualization of these domains.

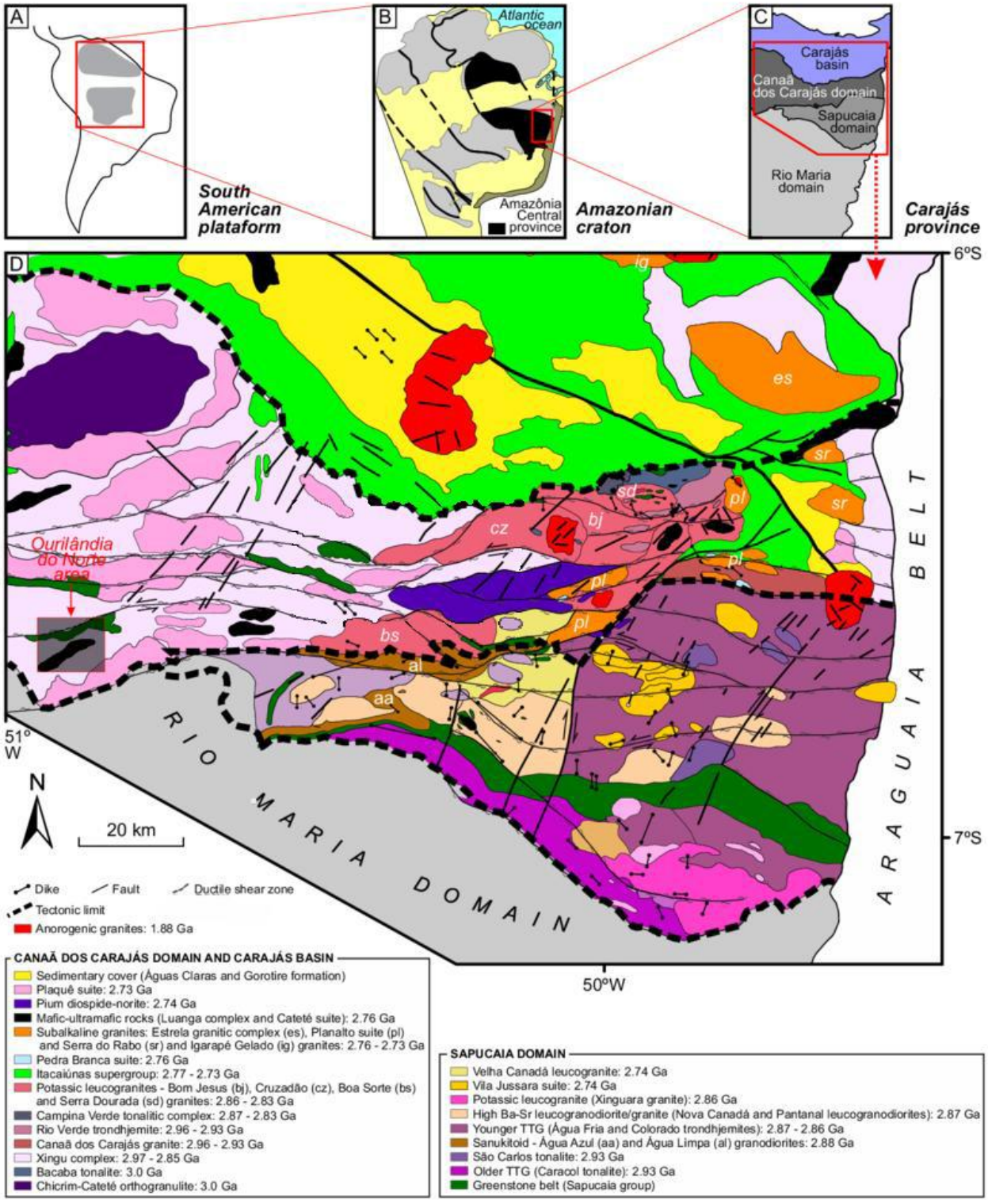


Figure 7.1 Tectonic framework of the Carajás Province

Legend: (A) Location of the Amazonian Craton within the South American Platform; (B) Location of the Carajás Province within the Amazonian Craton (Tassinari & Macambira, 2004); (C) Tectonic compartmentalization of the Carajás Province (Dall'Agnol et al., 2013).
Source: GE21, 2025

7.1.1 Rio Maria Domain (DRM)

The Rio Maria Domain, in the southern portion of the Carajás Province, comprises units of predominantly Mesoarchean age (3.0 - 2.85 Ga) that represent the oldest rocks exposed in the province.

It is composed of the greenstone belt associations of the Andorinhas Supergroup (3.0-2.9 Ga; Avelar, 1996; Lafon et al., 2000; Macambira & Lancelot, 1991; Pimentel & Machado, 1994; Rolando & Macambira, 2003; Souza et al., 2001), and the Tucumã Group – originally included within the Andorinhas Supergroup (DOCEGEO, 1988) and later differentiated and formally named by Araújo and Maia (1991), in addition to several granitoids of Archean age:

(a) TTG Series (2.98-2.92 Ga) – emplaced in two crystallization episodes. The oldest rocks, represented by the Arco Verde Tonalite and Mogno Trondhjemite (2.98-2.96 Ga; Almeida et al., 2010, 2011; Macambira & Lafon, 1995; Rolando & Macambira, 2003), were followed by a younger generation comprising the Caracol Tonalitic Complex, Mariazinha Tonalite, and Água Fria Trondhjemite (2.94-2.92 Ga; Almeida et al., 2011; Leite et al., 2004). Almeida et al. (2010) proposed that these TTG suites were derived from sources similar to the metabasalts of the Andorinhas Supergroup, classifying them into three geochemical groups reflecting depth of magma generation: (i) a high La/Yb, Sr/Y, and Nb/Ta group, consistent with generation at high pressure (>1.5 GPa) from a garnet- and amphibole-bearing residue; (ii) an intermediate La/Yb group, formed at intermediate pressure (~1.0-1.5 GPa) within the garnet stability field; and (iii) a low La/Yb, Sr/Y, and Nb/Ta group, formed at low pressure (≤1.0 GPa) from a plagioclase-bearing residue.

(b) Rio Maria Sanukitoid Suite (~2.89-2.85 Ga) – comprising high-Mg, calc-alkaline granitoids, represented principally by the Rio Maria Granodiorite and associated rocks (Oliveira et al., 2009, 2011; Santos et al., 2013a; Santos & Oliveira, 2016). This suite also includes the Rancho de Deus Granite (Dias, 2009) and the unit originally defined as the Parazônia Tonalite (DOCEGEO, 1988; Huhn et al., 1988), later redefined as the Parazônia Quartz-Diorite (~2.87 Ga; Guimarães, 2009).

(c) Calc-alkaline potassic leucogranites (~2.87-2.86 Ga) – represented by the Mata Surrão Granite and associated rocks (Almeida et al., 2010; Lafon et al., 1994). The Mata Surrão Granite yields a Pb-Pb age of 2.88-2.87 Ga on zircon and whole rock (Lafon et al., 1994; Rolando & Macambira, 2003) and is characterized by monzogranites with a restricted occurrence of granodiorites.

High Ba-Sr leucogranodiorites-granites (~2.87-2.86 Ga) – represented by the Grotão Granodiorite and the Guarantã Suite, the latter comprising three plutons (Guarantã, Azulona, and Trairão), with restricted occurrences also identified in the Bannach and Xinguara regions (Almeida et al., 2010, 2013, 2017; Althoff et al., 2000; Guimarães, 2009). These rocks are interpreted as products of magma mixing, in variable proportions, between TTG-type trondhjemitic magmas and Ba-Sr-rich leucogranitic magmas (Almeida et al., 2010). Representing the youngest magmatic event recorded in the DRM (~2.87 Ga), this group marks the final phase of cratonization of the domain, associated with tectonothermal reworking. These rocks are unconformably overlain by transgressive clastic sedimentary rocks of the Rio Fresco Group (DOCEGEO, 1988), which were subsequently intruded by Paleoproterozoic (~1.88 Ga) A-type granites of the Jamon Suite (Dall'Agnol et al., 2005; Dall'Agnol & Oliveira, 2007) and by dikes of varying composition (Silva et al., 2016).

7.1.2 Sapucaia Domain (DS)

The Sapucaia Domain lies between the DCC and the DRM, it comprises rocks broadly similar to those of the DRM, consisting of TTG associations affected by deformation and intruded by Neoarchean magmatism:

(a) The greenstone belts are represented by metamafic and metaultramafic rocks and metasedimentary rocks of greenschist- to amphibolite-facies grade, typical of the Sapucaia Group (Costa et al., 1994; DOCEGEO, 1988; Hirata et al., 1982). Sousa et al., (2014) proposed that the Sapucaia Group represents remnants of oceanic plateaus or islands generated during the Mesoarchean.

(b) The Mesoarchean TTGs (2.98-2.92 Ga) comprise the oldest TTG rocks outcropping in this domain, including the Caracol Tonalite and tonalitic body with N-S planar structuring similar to the Mariazinha Tonalite. The Caracol Tonalite occurs in the northwestern portion of Xinguara, with a crystallization age of 2.94-2.93 Ga (Almeida et., 2011; Leite et al., 2004), and comprises strongly deformed biotite tonalites and/or trondhjemites. More recently, Santos et al. (2018) identified a trondhjemitic body of TTG affinity (~2.93 Ga) in the Água Azul do Norte region, which remains formally unnamed. Amphibole-biotite tonalites of the São Carlos Tonalite are also recognized within this domain (Silva et al., 2014).

(c) Sanukitoid-affinity granitoids are represented by the Água Azul and Água Limpa granodiorites, dated between 2.88-2.87 Ga (Gabriel et al., 2010; Gabriel & Oliveira, 2014; Santos et al., 2013a; Souza et al., 2010), predominantly characterized by porphyritic biotite-amphibole granodiorite, with subordinate biotite granodiorite and biotite-amphibole tonalite.

(d) The younger TTGs are represented by the Água Fria Trondhjemite (2.86-2.84 Ga; Almeida et al., 2011; Leite et al., 2004) and the Colorado Trondhjemite (~2.87 Ga; Silva et al., 2010a). The former is intrusive into the rock association forming the Sapucaia greenstone belts and the Caracol Tonalite, and is broadly coeval with the Xinguara Granite, being cut by leucogranitic dikes and veins (Leite & Dall'Agnol, 1997).

(e) The calc-alkaline potassic leucogranites comprise: (i) the Xinguara Granite (2865±1 Ma; Leite et al., 2004), composed of monzogranites and syenogranites with an intrusive contact relationship with the greenstone belts, the Caracol Tonalite, and the Rio Maria Granodiorite (Leite, 2001); and (ii) the Velha Canadá Leucogranite (2.74-2.73 Ga; Santos et al., 2010b; Santos & Oliveira, 2012; Souza et al., 2010).

(f) The high Ba-Sr leucogranodiorites-granites are related to the Guarantã Suite, represented by the Nova Canadá (Leite-Santos & Oliveira, 2014) and Pantanal (Teixeira et al., 2013) leucogranites.

Subsequent syntectonic events produced Neoarchean, subalkaline A-type magmatism, generating several genetically distinct granitoids differentiated into the Vila Jussara Suite and the Planalto Suite. The first is characterized by amphibole-bearing granites sensu stricto, with subordinate tonalites and granodiorites, dated between 2.74-2.75 Ga (Oliveira et al., 2010; Silva et al., 2010b; Souza et al.,

2010); it is distinguished from the second by its oxidized character and greater modal diversity (Dall'Agnol et al., 2017).

7.1.3 Canaã dos Carajás Domain (DCC)

The Canaã dos Carajás Domain (DCC) lies in the northern portion of the Carajás Province, bounded by the Carajás Basin (BC) to the extreme north and the Sapucaia Domain (DS) to the south. It comprises granites sensu stricto and charnockite, with rare TTG granitoids. Mafic (3.05-2.93 Ga) and felsic (2.89-2.84 Ga) granulites have been reported in the Ouro Verde area by Marangoanha et al. (2019b), which were considered the basement of the Carajás Basin. Sanukitoid affinity units have not yet been described in this domain; however, tonalites with amphibole geochemically distinct from the TTG series have been found (Feio et al., 2013; Moreto et al., 2011).

Recently, in the transition between the Carajás Domain and the Rio Maria Domain, orthopyroxene-granodiorites, clinopyroxene- and/or amphibole-monzogranites, and gabbronorites have also been described, which were related to the gabbronorite-charnockite-granite series of rocks (Felix et al., 2020). This crustal segment records successive Meso- and Neoarchean reworking events, the first referring to crustal thickening processes and the peak of regional metamorphism (2.89 - 2.84 Ga – Marangoanha, 2018), while the second refers to the closure of the Carajás Basin (Feio et al., 2013; Martins et al., 2017; Marangoanha et al., 2019a, b, 2020; Oliveira et al., 2018; Santos et al., 2013b; Tavares, 2015; Tavares et al., 2018). The DCC can thus be subdivided into six main rock groups, as follows:

(a) Granulite rocks are represented by: (i) the Chicrim-Cateté Orthogranulite (Vasquez et al., 2008), comprising high-grade metamorphic rocks associated with charnockites of the Pium Diopside-Norite – a unit of igneous origin assigned a Neoarchean age by Santos et al. (2013b) and later by Marangoanha et al. (2020); and (ii) the granulite cores of Vila Ouro Verde, formed from mafic (3.05-2.93 Ga) and felsic (2.89-2.84 Ga) orthogranulites, interpreted as the basement of the Carajás Basin (Marangoanha, 2018; Marangoanha et al., 2019b, 2020).

(b) Amphibole-bearing tonalites are represented by: (i) the Bacaba Tonalite (~3.0 Ga; Moreto et al., 2011), composed of fine grained tonalites with hornblende and biotite; and (ii) the Campina Verde Tonalitic Complex (2.87-2.85 Ga; Feio et al., 2013), composed of biotite-hornblende or biotite tonalites, with subordinate diorites, granodiorites, and monzogranites (Feio et al., 2013). These units are geochemically distinct from the TTG series identified elsewhere in the province.

(c) The Canaã dos Carajás Granite (2.95 Ga; Feio et al., 2013) comprises subordinate monzogranites and granodiorites of calc-alkaline Signature and sodic affinity, strongly deformed.

(d) TTG associations, although rare in the DCC, are represented by the Rio Verde Trondhjemite (2.92-2.86 Ga; Feio et al., 2013), the Chicrim-Cateté granulitic protoliths (3.0 Ga; Vasquez et al., 2008), and a further association identified in the Vila Ouro Verde region (3.05-2.93 Ga; Delinardo, 2018; Marangoanha, 2018; Marangoanha et al., 2019a, 2019b).

(e) Potassic leucogranites represent the most expressive units of the DCC, comprising: (i) the Cruzadão Granite (2.84 Ga; Feio et al., 2013); (ii) the Boa Sorte Granite (2.85 Ga; Rodrigues et al., 2014); (iii) the Bom Jesus Granite (2.83 Ga; Feio et al., 2013); and (iv) the Serra Dourada Granite (2.86 Ga and 2.83 Ga; Feio et al., 2013; Moreto et al., 2011).

Neoarchean associations comprise a diverse group of rocks, namely Cateté Intrusive Suite (2.76 Ga; Lafon et al., 2000), consisting of the Serra da Onça, Serra do Puma, Serra do Jacaré, Serra do Jacarezinho, Igarapé Carapanã, Fazenda Maginco, Ourilândia, and Vermelho plutons, among others not yet formally named.

7.1.4 Carajás Basin (BC)

The Carajás Basin (BC) corresponds to supracrustal rocks belonging to the Carajás Domain, comprising metavolcano-sedimentary rocks (metagraywackes, metarkoses, volcaniclastics, and tholeiitic metabasalts), pelitic schists, and banded iron formations, in addition to occurrences of paragneisses, amphibolites, and rhyolites, metamorphosed in greenschist- to amphibolite-facies conditions, with ages ranging between 2.77-2.73 Ga (DOCEGEO, 1988; Galarza et al., 2008; Hirata et al., 1982; Machado et al., 1991). The basin comprises rocks belonging to the Grão Pará, Igarapé Salobo, Igarapé Pojuca, Igarapé Bahia, Rio Novo, Aquiri, São Félix and São Sebastião groups, previously grouped within the Itacaiúnas Supergroup (DOCEGEO, 1988; Vasquez et al., 2008). During the Paleoproterozoic (~1.88 Ga), the terrain comprising the BC, and the DCC was intruded by anorogenic granites of the Serra dos Carajás Suite (Dall'Agnol et al., 2006; Teixeira et al., 2017). These anorogenic granites share similarities with those described in the province, particularly in the Rio Maria Domain, though their geochemical peculiarities suggest distinct sources and crystallization histories between the two occurrences (Dall'Agnol et al., 1994).

7.1.5 Structural Framework

The structural framework of the Carajás Province in this sector – located in the northern portion of the Rio Maria Domain, near its boundary with the Sapucaia Domain – is predominantly developed within trondhjemitic crust. The internal ductile deformation of the TTG crust is heterogeneous, distributed across at least two structural domains: a low-deformation domain (DBD) and a high-deformation domain (DAD). This distribution is strongly controlled by the presence of amphibolite dikes and intrusive leucogranites, both associated with magmatic events younger than the TTG granitoids. The most prominent foliation (S-surfaces) in TTG rocks is spaced and compositional, expressed as banding formed by the alternation of quartz-feldspathic layers and mafic-enriched levels, which is overprinted by a continuous foliation defined by the alignment of micas and deformed quartz-feldspathic aggregates.

In areas of high deformation, mylonitic foliation develops, characterized by porphyroclasts embedded in a finer-grained matrix of quartz, feldspar, and mica, deformed under sinistral kinematics and expressed as spaced, anastomosing foliation. Associated planar structures include stretching lineations of quartz-feldspathic aggregates which, where clearly developed, plunge from subvertical to sub-horizontal. Compositional banding is commonly disrupted by centimetre-scale folds and related shear bands. Structurally complex folds occur only in contact zones with leucogranite intrusions, associated with

migmatization processes and the occurrence of pegmatite veins; intrafolial, symmetrical folds are rarely observed. Ductile shear bands range from centimetric to metric in thickness and occur both as single structures and in conjugate pairs, displaying sinistral or dextral displacement along subvertical planes with sub-horizontal slip vectors. Within DBD, in the central portion of the area, the TTG crust is cut by restricted leucogranite intrusions and preserves magmatic features associated with the compositional banding. Foliation strikes E-W to NE-SW and dips northward; where observable, mineral stretching lineations plunge within the high-angle foliation planes.

The overlapping continuous tectonic foliation is sub-parallel to both the compositional banding and the axial planes of the folds. Within DAD – in the western and eastern portions of the area – TTG rocks are cut by an NNE-trending amphibolite dike and by leucogranite intrusions that produced migmatization features in the host rocks. Foliation orientations are heterogeneous, and four main groups can be distinguished: an E-W-striking set with moderate to subvertical dips to the north and south; an NE-SW-striking set dipping to the northwest, with stretching lineations plunging north-northeast; an NW-SE-striking set with moderate to subvertical dips to both the southwest and northeast; and an N-S-striking set with moderate to subvertical dips to east and west (Santos et al., 2017).

7.2 Local Geology

Outcrops of in situ rocks are scarce across the exploration areas, where the landscape is instead dominated by fields of randomly scattered rock blocks and fragments. Geological investigation therefore relied on a combination of rock-block sampling, trenching, auger and diamond drilling, and mapping of variations in soil, drainage patterns, and occasional rock slabs.

Geological mapping identified granodioritic rocks and gabbros, variably deformed within NW-SE-trending shear zones and affected by hydrothermal alteration. These processes resulted in the development of potassic granites, sheared gabbros, hydrothermally altered rocks, and quartz veins. These units are, in turn, crosscut by basalts and pegmatitic veins, which display irregular orientation, locally concordant with the main structural fabric, or else discordant, particularly in the case of the basalts.

7.2.1 Metagranodiorites

The metagranodiorites (Figure 7.2) constitute the dominant unit in the area. They are variably deformed, ranging from mylonitic to protomylonitic in character, medium- to coarse-grained, and mineralogically composed of plagioclase, quartz, and potassium feldspar, with a mafic phase represented by amphibole and biotite, and alteration minerals comprising sericite, chlorite, epidote, quartz, and sulphides.



Figure 7.2 Metagranodiorite occurrences

Legend: A) Macroscopic field view. B) View in drill core.
Source: GE21, 2025.

This unit is cut by quartz-feldspathic veins. Whitin the central grid, a single outcrop of greenish, intensely chloritized, sheared, and foliated metagranodiorite is observed (Figure 7.3) with foliation orientations ranging from N35W/80SW to N55W/subvertical and a stretching lineation of 308/15. Despite intense shear deformation, which obliterated the original structural fabric, the rock's chemistry and mineralogy were only minimally affected, preserving the textural and compositional characteristics of the granodiorite protolith.



Figure 7.3 Metagranodiorite outcrop showing 308/15 mineral lineation

Source: GE21, 2025.

At the Campos Altos area, the metagranodiorites (Figure 7.4) display several variations, including sericite-biotite metagranodiorite, epidote-sericite metagranodiorite, and magnetite-sericite

metagranodiorite. These rocks typically exhibit a lepidoblastic texture with foliation ranging from well-developed to incipient, reflecting variable hydrothermal overprinting of the primary mineralogical fabric.



Figure 7.4 Outcrops of the metagranodiorite occur with varying degrees of preservation and deformation, resulting in both isotropic and anisotropic features

Source: GE21, 2025.

7.2.2 Potassic Granite

These rocks occur as elongated bodies oriented along the NW-SE trend, representing products of hydrothermal alteration of the metagranodiorite described above. They are characterized by strong potassic alteration, indicative of an intense alteration halo developed near shear zones in the presence of hydrothermal fluids. The unit is typically deformed, ranging from incipient foliation to mylonitic fabric, and comprises coarse-grained, weakly magnetic rocks composed mineralogically of potassium feldspar, plagioclase, and quartz, with biotite and, locally, sericite, hematite, chlorite, and magnetite (Figure 7.5).



Figure 7.5 Potassic granite

Legend: A) Macroscopic field view. B) View of the drilling core.

Source: GE21, 2025.

In the field, intensely sheared and recrystallized potassic granite was recorded in association with allochthonous hydrothermalite blocks (Figure 7.6). Where connected to the shear corridors, these rocks display strong obliteration of the original texture together with intense sulphidation (up to 5%), represented by the pyrite ± chalcopyrite assemblage.



Figure 7.6 Potassic granite showing strong obliteration of the original texture and sulphidation

Source: Bemisa, 2023.

In the Campos Altos region, lithotypes belonging to the Seringa Granite unit were also identified (Figure 7.7) outcropping in the southwestern and central portions of the mapped area as rounded-topped hills with rugged relief. This unit comprises mainly two petrographic sets – monzogranitic and syenogranitic rocks – with crystallization textures ranging from fine-grained to porphyritic and medium-grained equigranular.

The outcropping rocks of this unit lack significant hydrothermal alteration or tectonic deformation, and were consequently excluded from further mineral exploration. This relationship suggests a later stratigraphic position for the Seringa Granite relative to the other mapped units.

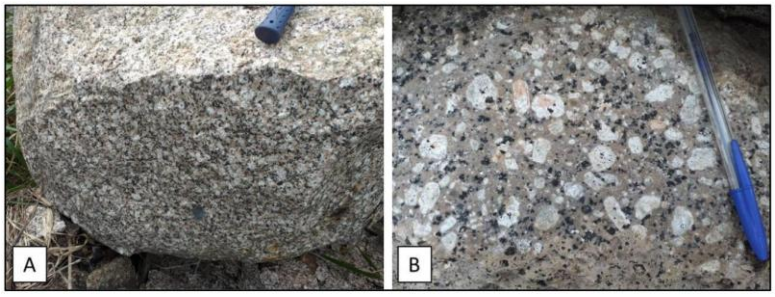


Figure 7.7 General aspects of the Seringa Granite

Legend: (A) Block of coarse-grained monzogranite, typical of the exploration area. (B) Block of porphyritic monzogranite.
Source: Bemisa, 2023.

7.2.3 Gabbro

These rocks are predominantly isotropic, with a restricted geographic distribution, occurring in the southeastern portion of the Abelhas target. Where exposed to shear zones, they undergo an abrupt change in textural and structural character, displaying intensely deformed fabrics. The unit occurs within an area of strongly eroded relief and, where isotropic, exhibits coarse equigranular texture, mineralogically

composed of amphibole, pyroxene, plagioclase, and quartz as essential minerals, with the iron-magnesian phase variably altered to chlorite and carbonates. This rock is commonly sheared, generating a mylonitic fabric that acts as a conduit for pegmatite and quartz veins, which may or may not contain sulphides and gold (Figure 7.8).

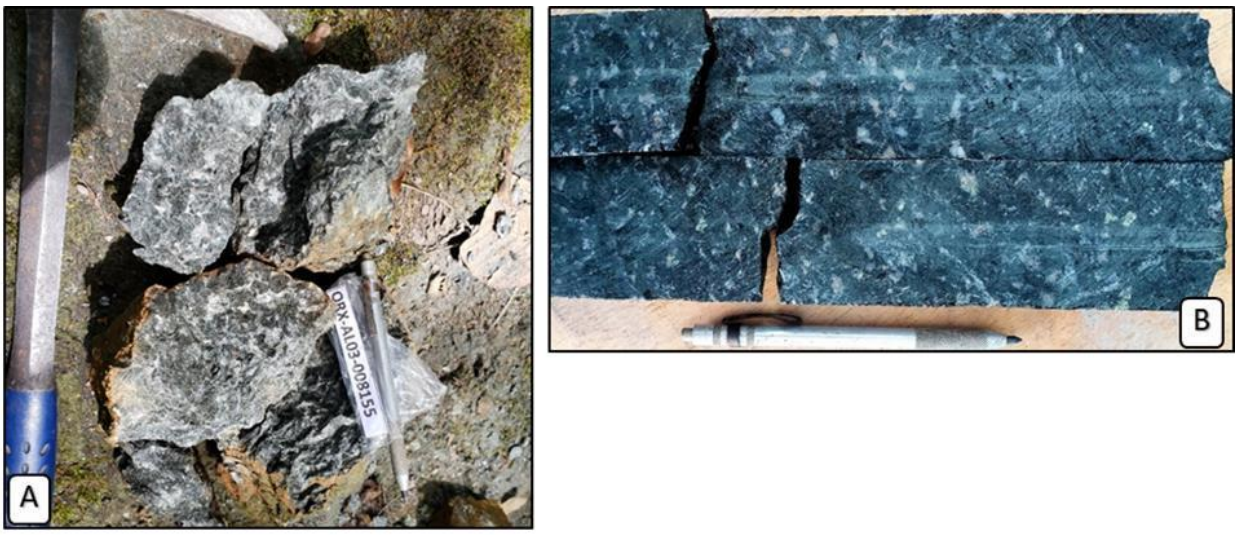


Figure 7.8 Metagabbro occurrences

Legend: A) Macroscopic field view. B) View in drill core.
Source: Bemisa, 2023.

7.2.4 Hydrothermalite

These rocks form a continuous, anastomosing arrangement aligned along the NW-SE trend, with local N-S inflections. Informally named, they represent the product of intense hydrothermal alteration, with mineralogy and geochemistry thoroughly transformed and, in many cases, complete destruction of the original textures and structure (Figure 7.9). Macroscopically, they display variable colouration – from light grey and moss green to pale pink – and range from solid texture to an ultramylonitic foliation marked by parallel, millimetre-scale banding. Mineralogically, they comprise quartz, potassium feldspar, sericite, chlorite, hematite, magnetite, pyrite, chalcopyrite, and gold. A distinctive feature of these rocks is their generally weak sulphide concentration, averaging 1–2% by rock volume; however, in portions located near artisanal mining pits, sulphidation reaches significantly higher levels, up to 30% solid pyrite. Gold assays from 69 hydrothermalite rock samples ranged from 0.11 to 82.21 g/t Au (samples ORX-AL03-015045 and ORX-AL03-008114, respectively), with a median grade of 2.43 g/t Au. These samples were selectively collected and are not necessarily representative of the overall grade or mineralization of the hydrothermalite unit. The presence of gabbroid bodies, acting as rigid, low-permeability barriers, may have played a critical role in channelling the hydrothermal fluids responsible for the formation of the hydrothermalites.

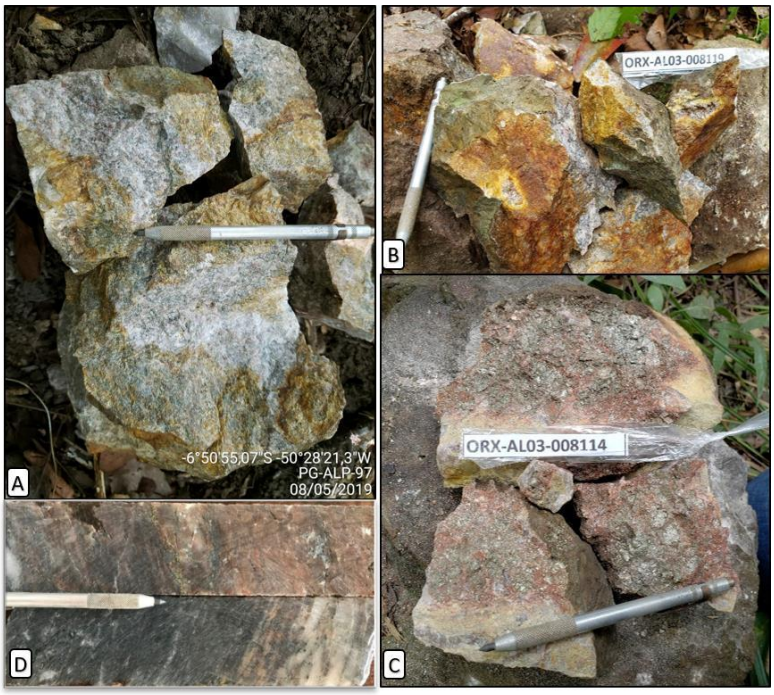


Figure 7.9 Hydrothermalite occurrences

Legend: A) Silicified and recrystallized hydrothermalite with fine dispersed sulphides @6.03 g/t Au. B) Hematized hydrothermalite with 3% sulphides @7.77 g/t Au. C) Hematized hydrothermalite with ~30% solid Py @82.21 g/t Au. D) Drilling core showing ultramylonitic foliation with parallel millimetre-scale bands.
Source: Bemisa, 2023.

7.2.5 Metamafic rock

These rocks occur as small mafic dikes (diabase). Macroscopically, they are pale green in colour, foliated (Figure 7.10) and characterized by persistent carbonate (calcite) and quartz veinlets, locally accompanied by pyrite. They display a folded and transposed (sheared) Sn foliation, defined by recrystallized mineral aggregates – predominantly amphibole in well-developed crystals – and exhibit nematoblastic, lepidoblastic, and granoblastic textures. The unit occurs as lenticular bodies with the following petrographic characteristics: schistose fabric, medium equigranular grain size, and mineralogy dominated by biotite, with subordinate chlorite and quartz mica.



Figure 7.10 Metamafic rock occurrences

Legend: A) Macroscopic field view showing foliation. B) View of the drilling core with millimetre-scale bands of calcite and quartz veins.

Source: Bemisa, 2023.

7.2.6 Basalt

These rocks form a morphology expressed as aligned E-W hills, occurring preferentially in the northern portion of the area. They represent younger dikes that intrude the other units. Petrographically (Figure 7.11) they are dark green in colour, with an aphanitic texture, strongly magnetic, and locally contain carbonate amygdules. They are truncated by carbonate and chlorite veinlets.



Figure 7.11 Basalt occurrences

Legend: A) Macroscopic field view showing aphanitic texture. B) View of the drilling core.
Source: Bemisa, 2023.

In the field, in situ basalt occurrences were recorded, typically forming E-W-trending hills or, alternatively, cropping out within granite exposures, where they intrude the metagranodiorite unit along an N45W trend (Figure 7.12).

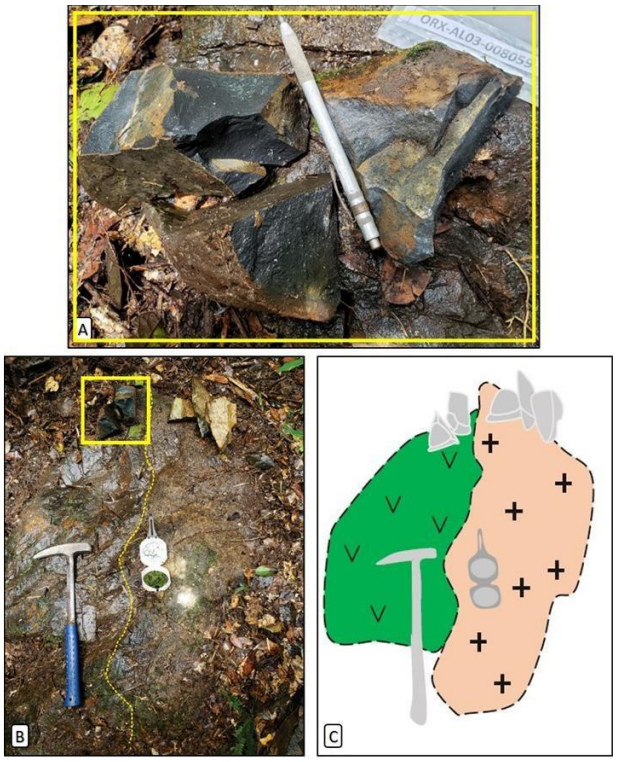


Figure 7.12 Basalt occurrence within granitic rocks

Legend: A) Macro view of basalt plagioclase amygdules. B) Contact relationship of the basalt with metagranodiorite according to the N45W trend. C) Schematic layout of the contact relationship.
Source: Bemisa, 2023.

7.2.7 Quartz Vein

Quartz veins are common throughout the area, occurring predominantly as float, forming small hills (Figure 7.13) oriented E-W, with occasional NW-SE deviations. Four distinct varieties of quartz vein were recorded, differing in their textural, structural, and compositional characteristics.

Type 1 (VQZ-1) is the dominant phase, whitish in colour, with a solid texture and rare occurrences of white mica and fine-grained sulphides (pyrite). Type 2 (VQZ-2) occurs as stretched bodies associated with shear zones, displaying recrystallization features, a whitish colour, and fine-grained sulphides. Type 3 (VQZ-3) has a solid, rarely saccharoidal texture and a whitish-red colour; hematitization is a common process in this type, producing boxwork structures resulting from the weathering of pyrite. This type is associated with the best gold grades recorded in the area, together with tungsten (expressed as scheelite – calcium tungstate, $CaWO_4$).

During geological mapping, possible occurrences of native gold associated with VQZ-3 were identified, including a single hand sample that returned the highest assay of the quartz vein sampling program at 373.45 g/t Au (sample ORX-AL03-008008). Gold assays from the 162 quartz vein rock samples collected ranged from 0.10 to 373.45 g/t Au (samples ORX-AL03-015096 and ORX-AL03-008008, respectively), with a median grade of 1.37 g/t Au; these samples were selectively collected and are not necessarily representative of the overall grade or mineralization of the quartz vein unit.

Type 4 quartz vein (VQZ-4) is less common, occurring with a solid texture and a whitish grey (smoky) colour, with occasional pyrite and chalcopyrite. Despite its lower representativeness, this type constitutes an important mineralization host, reflecting high Au and W grades.

In the Campos Altos region, two distinct varieties of quartz vein were recorded, differing in their textural, structural, and compositional characteristics (Figure 7.14). The most significant phases are the later-stage veins, which display strong sulphidation, as recorded at the Brejo and Planta targets.



Figure 7.13 Typology of quartz veins

Legend: A and B) VQZ-1 occurs with a solid texture and weak sulphidation; C) type 2 (VQZ-2) occurs as stretched bodies associated with shear zones; D) type 3 (VQZ-3) occurs with a solid, rarely saccharoidal texture, displaying a whitish-red colour and strong hematitization; E) type 4 (VQZ-4) quartz vein with a solid texture and smoky colour; F) detail of thick gold specks associated with VQZ-3.

Source: Bemisa, 2023.



Figure 7.14 General aspects of the lithotypes

Legend: A) Intensely sulphidized vein (40% Py) from the Brejo target (Campos Altos region); B) slightly limonitized quartz vein with Py and rare Cpy; C) general feature of the potassic granite; D) hydrothermalite interdigitated with quartz veins.
Source: Bemisa, 2023.

7.2.8 Pegmatite Veins

These units were recorded only as rare float during mapping but occur very frequently in rotary diamond drilling cores. Based on recent geological studies, these rocks have been characterized as belonging to Água Azul Granodiorite (Gabriel et al., 2012), previously included within the broader Xingu Complex. This unit comprises rocks that are variably deformed and affected by extensive shear zones with a regional E-W orientation and localized NW-SE inflections. They range from slightly deformed, generating incipient foliation, to mylonitic and ultramylonitic, with complete obliteration of the original texture. Structural data indicate a predominance of NW-SE and NNW-SSE trends, consistent with a rotational deformation character under sinistral kinematics.

7.3 Mineralization

Gold mineralization at the Água Azul Project is predominantly hosted by granitic to granodioritic rocks and, locally, mafic intrusive rocks affected by regional-scale shear zones and associated hydrothermal alteration. Mineralization occurs within a broader structural corridor extending approximately 15 km from the Abelhas area toward Campos Altos. The corridor is broadly NW-SE in the Abelhas-Juliano area and undergoes local changes in orientation and structural geometry toward Campos Altos.

Based on geological mapping, drill core logging, and historical exploration data, four principal styles of gold mineralization have been recognized at the Project. These styles represent descriptive

mineralization and alteration associations and may occur together or transition between one another within the same structural corridor.

Style 1 – Shear-hosted silicification and potassic alteration

Style 1 represents the principal style of gold mineralization recognized at the Project and is associated with strongly sheared zones characterized by intense silicification and potassic alteration. These altered rocks have historically been referred to as “hydrothermalites.” They typically occur as lenticular, intensely deformed bodies developed within shear corridors and are commonly associated with quartz-carbonate veining and disseminated sulphides (Figure 7.15).

The hydrothermalites are heterogeneous in composition and texture, with variable proportions of strongly altered host rock, quartz, carbonate, and sulphides. Quartz-rich domains may be intercalated or interdigitated with intensely altered wall rock, and the apparent thickness of the mineralized zones varies with the geometry and intensity of shearing and hydrothermal alteration.

Mineralization is therefore not restricted to the rocks historically logged as hydrothermalite, but also occurs within associated quartz-rich veins, veinlets, and alteration halos developed along the same shear corridors. This relationship indicates a strong structural control on the distribution of both alteration and gold mineralization.

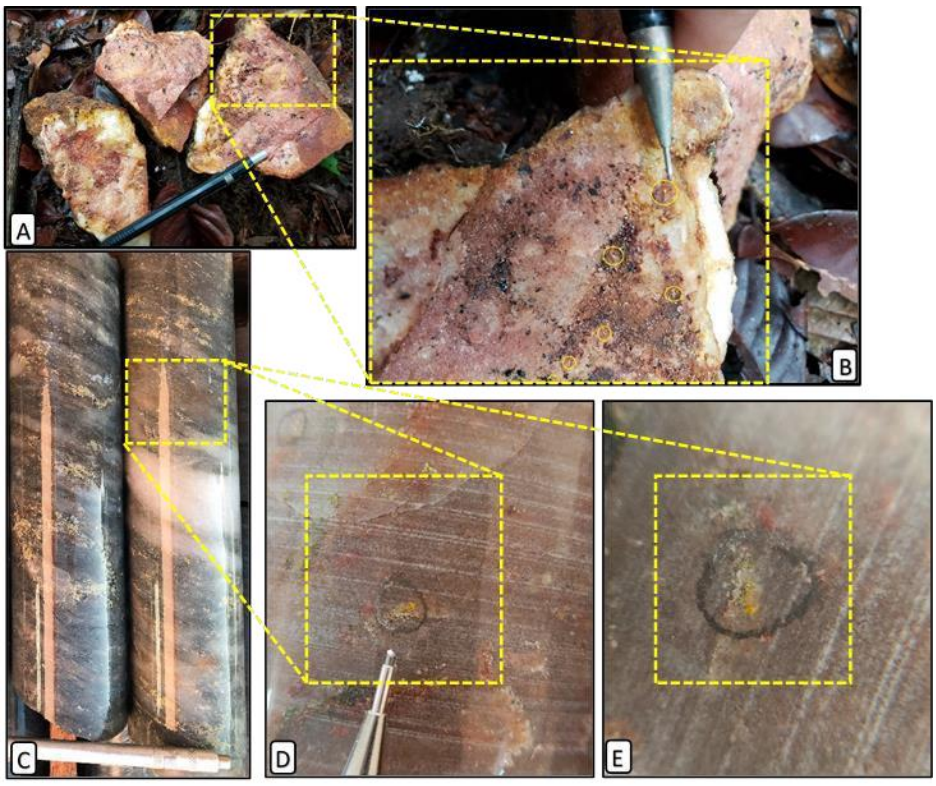


Figure 7.15 Gold mineralization and associated sulphides in hydrothermally altered rocks

Legend: ((A–B) Oxidized quartz vein containing six visible gold grains (373.45 g/t Au) and hematite-altered sulphide nodules. (C) Interdigitated hydrothermalite and milky quartz veins containing abundant disseminated sulphides and two visible gold grains. (D) Detail of visible gold associated with hydrothermalite. (E) Detail of visible gold associated with chlorite-rich hydrothermalite.

Source: Bemisa, 2023.

Sulphide abundance is generally low to moderate, locally reaching approximately 5%. Pyrite is the dominant sulphide mineral, with subordinate chalcopyrite (Figure 7.16). Although sulphide content is variable, increased pyrite abundance is commonly associated with gold mineralization and provides a useful visual indicator during geological logging.

Quartz veins and veinlets are common and range from milky white to locally smoky in appearance. Visible gold has been observed both in surface exposures and in diamond drill core, most commonly as fine grains or specks and, less commonly, as coarser grains.

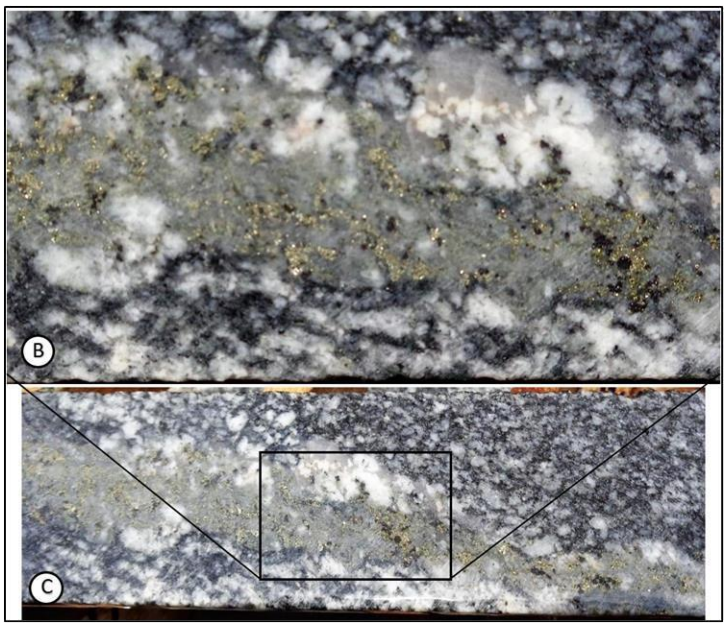


Figure 7.16 Gold mineralization associated with quartz + pyrite + magnetite veins

Legend: Drill hole AGZ-001 at 96.18 m; sample interval returned 0.101 g/t Au.
Source: Bemisa, 2023.

Style 2 – Quartz-epidote-magnetite-pyrite ± scheelite veining

Style 2 is characterized by quartz-epidote-magnetite-pyrite veins and veinlets, locally associated with scheelite (Figure 7.17). These veins occur within strongly potassic-altered, reddish-coloured host rocks and may also be interdigitated with sheared metagranodiorite. Individual veins are commonly milky white and locally contain sulphide-rich lenses or scheelite-bearing veinlets.

Gold mineralization associated with this style appears to be controlled by the distribution and geometry of the vein systems and their relationship with the regional shear fabric.

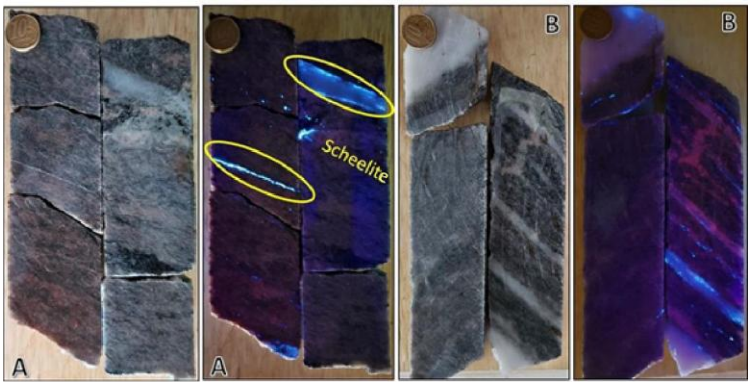


Figure 7.17 Quartz Veining with Sulphides and Scheelite

Legend: A) Drill hole AGZ-037, 119.83 m to 120.42 m, grading 3.17 g/t Au and 1,457 ppm W; quartz vein containing thin lenses of disseminated sulphides and a scheelite-bearing veinlet. (B) Sheared metagranodiorite interdigitated with sulphidized quartz-pyrite veins and an associated scheelite-bearing veinlet; interval from 150.63 m to 151.05 m grading 14.78 g/t Au and 334 ppm W.

Source: Bemisa, 2023.

Style 3 – Mineralized mylonitic gabbro

Style 3 is hosted by strongly deformed to mylonitic gabbro developed within shear corridors broadly parallel to the principal mineralized structures. The gabbro is locally cut by abundant quartz veins and veinlets and exhibits pervasive hydrothermal alteration, including potassic alteration, sericite, carbonate, and sulphides (Figure 7.18).

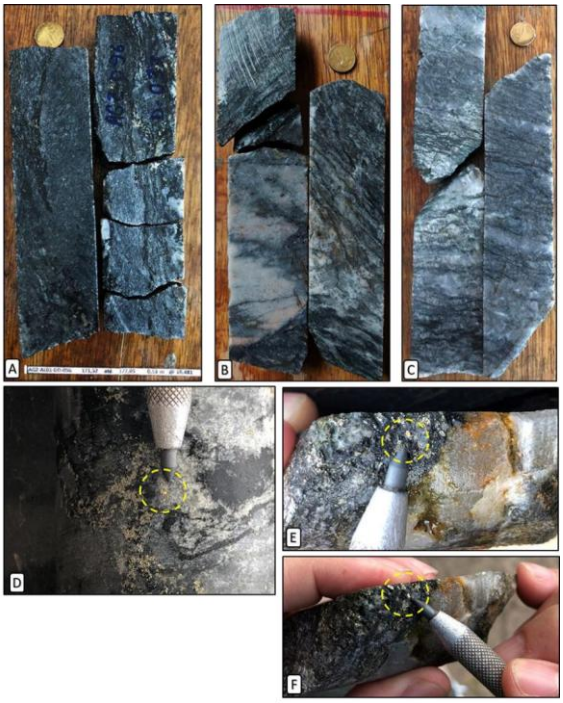


Figure 7.18 Mylonitic gabbro hosting gold mineralization

Legend: (A) Drill hole AGZ-096, 171.52 m to 172.05 m, grading 16.48 g/t Au. (B) Drill hole AGZ-036, 34.29 m to 34.71 m, grading 23.55 g/t Au. (C) Drill hole AGZ-047, 101.48 m to 102.16 m, grading 21.96 g/t Au. (D–F) Examples of coarse visible gold in drill hole AGZ-082, 27.14 m to 27.53 m, grading 35.60 g/t Au.

Source: Bemisa, 2023.

Quartz veining ranges from foliation-parallel veins to interdigitated and cross-cutting vein systems, locally forming stockwork-like zones. Sulphidation can be more intense than in the granitic-hosted mineralization and consists predominantly of pyrite and chalcopyrite. Chalcopyrite is locally more abundant in this style than in the other mineralization styles recognized at the Project.

The occurrence of mineralization within strongly deformed gabbro, together with the spatial association between mineralization and mafic intrusive contacts elsewhere at Água Azul, indicates that mafic bodies and their margins may have influenced the localization of deformation, hydrothermal alteration, and gold mineralization

Style 4 – Cu-Au-bearing quartz veins

Style 4 comprises localized Cu-Au mineralization identified in drill hole AGZ-014 at the Juliano target. Mineralization is associated with quartz veining containing pyrite and chalcopyrite within potassic- and sericite-altered granite. Malachite has also been observed locally.

In drill hole AGZ-014, the interval from 86.43 m to 86.83 m returned 53.01 g/t Au and 1.54% Cu over 0.40 m and is associated with a quartz vein containing abundant pyrite and chalcopyrite (Figure 7.19). Based on the currently available drilling, this style appears to be localized, and its extent and relationship to the broader gold mineralizing system remain to be established.



Figure 7.19 Cu-Au Mineralization in Drill Hole AGZ-014, Juliano Target

Legend: Drill hole AGZ-014, 86.43 m to 86.83 m; potassic- and sericite-altered granite containing quartz-pyrite-chalcopyrite veining. The 0.40 m interval returned 53.01 g/t Au and 1.54% Cu
Source: Bemisa, 2023.

Abelhas

At Abelhas, mineralization is predominantly represented by Style 1, comprising strongly silicified and potassic-altered rocks developed within shear corridors, with local occurrences of Style 2 quartz-epidote-magnetite-pyrite ± scheelite veining and Style 3 mineralization hosted by mylonitic gabbro.

The mineralized system is hosted principally by metagranodiorite and, to a lesser extent, gabbro. The principal mineralized zone is associated with a NW-SE-trending, steeply southwest-dipping shear corridor, with an approximate orientation of 225°/78°. Within this structural framework, higher-grade mineralization locally defines steeply plunging shoots with an interpreted orientation of approximately 150°/72°, broadly consistent with stretching lineations observed in oriented drill core and pit exposures.

The geometry of the mineralization is locally complex. Mineralized zones may comprise individual or imbricated lenses associated with shearing, hydrothermal alteration, and quartz veining, and local

changes in structural orientation can result in variations in apparent thickness and grade continuity. The interpreted high-grade shoot geometry is not fully represented in the current geological and Mineral Resource models and remains an area for further geological investigation.

Drilling has defined mineralization over an approximate strike length of 1,000 m and to depths of approximately 650 m. Mineralization remains open below the deepest drilling and locally along strike. Repeated intersections of hydrothermally altered and quartz-veined mineralized zones across successive drill sections support continuity of the broader mineralized system, although the geometry and grade distribution of individual lenses can vary along strike and down dip.

Juliano

The Juliano target is located approximately 1.5 km west of Abelhas along the same broader structural corridor. Mineralization is predominantly represented by Style 1, with local occurrences of Style 3 mineralization associated with deformed gabbro and localized Style 4 Cu-Au-bearing quartz veining.

Mineralization is structurally controlled by predominantly NW-SE-trending shear zones and has been delineated by drilling over an approximate strike length of 1,400 m and a vertical extent of approximately 250 m. Mineralized zones remain open locally along strike and at depth.

The similarity in structural orientation, alteration assemblages, and mineralization styles between Abelhas and Juliano supports their interpretation as components of the same broader shear-hosted mineralized system, although the geometry and continuity of individual mineralized zones vary locally.

Campos Altos

Within the Campos Altos area, gold mineralization has been identified at four principal targets: Pão de Guincho, Buracão, Planta, and Brejo. These targets occur along a regional shear corridor that trends broadly east-west but exhibits significant local changes in orientation. The mineralized structures trend NE-SW at Pão de Guincho and Buracão, with an average dip of approximately 69° to the southeast, and rotate toward a more north-south orientation at Planta, where the average dip is approximately 70° to the east. These variations are interpreted to reflect a system of fault-zone splays developed within the broader Abelhas-Campos Altos structural corridor, resulting in local changes in the orientation and geometry of the mineralized zones.

Mineralization is represented principally by Style 1 shear-hosted silicification and hydrothermal alteration and Style 2 quartz-epidote-magnetite-pyrite ± scheelite veining. Host rocks include metagranodiorite, potassic-altered granite, and metamafic rocks.

The broader mineralized corridor at Campos Altos extends for approximately 4 km. Individual mineralized zones defined by drilling have approximate dimensions of 650 m in strike length and 280 m vertically at Pão de Guincho; 450 m by 220 m at Buracão; 420 m by 160 m at Planta; and 415 m by 135 m at Brejo. Mineralization remains open beyond the current limits of drilling at several of these targets.

8 DEPOSIT TYPES

Gold mineralization at the Água Azul Project is presently interpreted as a structurally controlled, shear-hosted hydrothermal gold system developed principally within granitoid and mafic intrusive rocks. The observed mineralization styles, structural controls and hydrothermal alteration are reasonably well defined from mapping, drilling, and geological modelling; however, the genetic classification and metallogenetic evolution of the system have not yet been established through detailed mineralogical, geochronological, isotopic or fluid-inclusion studies.

The geological characteristics of Água Azul show important similarities to Archean orogenic gold systems of the Rio Maria Domain, although a contribution from, or relationship to, magmatic-hydrothermal processes cannot presently be excluded. Accordingly, an orogenic or shear-hosted gold model is considered the principal working exploration model, rather than a definitive genetic classification.

8.1 Geological Characteristics and Deposit Model

Gold mineralization at Água Azul occurs within regional-scale structural corridors developed along the Sapucaia-Seringa trend. At the deposit scale, mineralization is strongly controlled by zones of deformation and hydrothermal alteration and occurs as quartz veins and veinlets, quartz-sulphide veins, stockworks, and broader zones of altered and sulphidized wall rock.

At Abelhas, the best-defined mineralized area of the Project, gold mineralization is preferentially concentrated along a high-strain contact between granitoid rocks, principally metagranodioritic to dioritic compositions, and a more mafic intrusive body commonly logged as gabbro. The mafic body predates the observed gold mineralization and appears to have acted as an important lithological and rheological control on the localization of deformation, hydrothermal alteration and gold deposition. Mineralized zones are also developed away from the principal mafic contact, indicating that the contact itself is not the sole control on mineralization.

The principal mineralized zones generally occupy steeply dipping shear zones and associated splays. At Abelhas, higher-grade mineralization locally forms steeply plunging shoots within these zones. The geometry of these shoots appears to be related to variations in the orientation and geometry of the sheared lithological contact and associated high-strain domains, which may have generated localized sites of enhanced permeability and dilation during hydrothermal fluid flow.

Hydrothermal alteration associated with mineralization is characterized by intense silicification, potassic alteration, quartz veining, sulphidation dominated by pyrite, and locally developed Na-Fe metasomatism. More distal or locally developed alteration assemblages include carbonate, sericite and chlorite alteration. Magnetite, epidote and minor chalcopyrite are locally present, but are not ubiquitous components of the gold-bearing assemblage.

Available multielement geochemical data indicate that gold has its clearest positive association with sulphur, consistent with the observed spatial relationship between gold and pyrite. No comparably systematic association between Au and Cu, Mo or other analyzed metals has been demonstrated in the

current dataset. This relatively simple Au-S association is an important characteristic of the Água Azul system and distinguishes the principal gold mineralization from many polymetallic magmatic-hydrothermal systems recognized elsewhere in the Carajás Mineral Province.

An important distinction, however, is that the presently defined Água Azul mineralization is hosted predominantly by granitic to intermediate intrusive rocks and subordinate mafic intrusive rocks, rather than by metavolcanic and metasedimentary sequences that constitute the most characteristic host rocks of many classical greenstone-hosted orogenic gold deposits. This does not preclude an orogenic affinity. Orogenic gold systems can extend from greenstone sequences into adjacent granitoids and can be preferentially localized along rheological contrasts, intrusive contrasts and regional shear zones. Nevertheless, the granitoid-dominated host-rock association at Água Azul should be recognized explicitly rather than assigning the deposit directly to a conventional greenstone-hosted subtype.

The possibility of a magmatic-hydrothermal contribution remains unsolved. Potassic alteration, Na-Fe metasomatism, local magnetite development and the spatial relationship between mineralization and intrusive rocks are features that can occur in magmatic-hydrothermal systems. The current geological data do not establish, however, that the mafic or granitoid intrusive rocks at Água Azul were the source of the mineralizing fluids or metals. In particular, the mafic body at Abelhas is demonstrably older than the mineralization and may have functioned primarily as a competent rheological body that focused strain and hydrothermal fluid flow along its margins.

For these reasons, an IOCG model is not considered an appropriate primary genetic model for Água Azul. The principal metallogenetic question is whether the system represents a predominantly deformation-controlled orogenic hydrothermal system or one involving some contribution from magmatic-hydrothermal processes.

8.2 Regional Metallogenic Context

The Água Azul Project lies within the Carajás Mineral Province, which records a complex Archean to Paleoproterozoic tectonic, magmatic, and hydrothermal history. Of particular relevance to Água Azul is the Rio Maria Domain, where a number of Archean, structurally controlled gold deposits are documented, including Sapucaia, Babaçu, Lagoa Seca, Mamão, Seringa, Tucumã, and Inajá. These deposits are commonly associated with regional shear zones and quartz-carbonate-sulphide hydrothermal systems affecting greenstone-belt sequences and associated granitoids (Villas & Santos, 2001), and are generally more gold-dominant and base-metal poor than the major Cu-Au systems of the Carajás Domain.

Gold systems within the Rio Maria Domain nevertheless show considerable variability. Many known deposits are hosted by metavolcanic or metasedimentary rocks of greenstone-belt sequences, whereas some occurrences extend into or are hosted by granitoid rocks. Cumaru is a particularly relevant regional example: although also structurally controlled, gold mineralization there is spatially associated with, and has been genetically linked to, the Cumaru Granodiorite, with isotopic and fluid-inclusion data indicating a hybrid fluid source involving both metamorphic and magmatic components (Santos et al., 1998). At Lagoa Seca, geochemical and isotopic data have similarly been interpreted to reflect mixing of metamorphic and magmatic fluids during the late Mesoarchean (Souza et al., 2020). These examples

indicate that the distinction between metamorphic/orogenic and magmatic fluid sources within the Rio Maria Domain is not always straightforward.

8.3 Exploration Implications and Further Work

For exploration purposes, Água Azul is presently treated as a structurally controlled, shear-hosted gold system with probable orogenic affinity. The exploration model emphasizes the identification and continuation of major shear corridors and associated splays, high-strain domains, favourable intrusive contacts, and associated hydrothermal alteration rather than reliance on a specific genetic classification. At the deposit scale, key exploration criteria include the continuity and geometry of shear zones; strongly deformed granitoid-mafic contacts; structural bends, splays and intersections; zones of silicification, potassic alteration and quartz veining; pyrite-bearing sulphidation; Na-Fe metasomatism; and structural orientations associated with steeply plunging higher-grade gold shoots.

At the district scale, these criteria provide the geological basis for evaluating the approximately 15-km-long structural corridor and analogous structures elsewhere within the Project area. In particular, these criteria are used to prioritize extensions of known mineralized shear zones, favourable structural and intrusive contacts, and geochemical anomalies occurring within comparable structural settings. These concepts form the basis for the exploration targets and follow-up activities described in Section 9.

Despite the relatively clear field relationships and exploration controls, the metallogenesis of the Água Azul gold system remains insufficiently studied. Detailed studies have not yet established the age of gold mineralization, source and composition of the hydrothermal fluids and metals, or the temporal relationships between mineralization, deformation, and intrusive activity.

Further work should include alteration and sulphide petrography and paragenetic studies; systematic whole-rock and trace-element geochemistry; geochronology, where suitable minerals are available; stable-isotope and fluid-inclusion studies; and continued integration of structural, alteration, and geochemical datasets.

Until these relationships are better constrained, the QP considers a shear-hosted gold model with probable orogenic affinity appropriate as the principal exploration concept for Água Azul, while a possible magmatic-hydrothermal contribution remains unresolved.

9 EXPLORATION

As part of its due diligence review of the Água Azul Project, ValOre compiled, reviewed and reinterpreted the historical exploration data generated by Bemisa to assess exploration potential and identify areas for potential follow-up work. ValOre has not conducted the historical exploration programs summarized in Section 6 – History. The work undertaken by ValOre to date has principally comprised review and interpretation of the existing geological, geochemical, geophysical, drilling, and other technical datasets, together with field observations made during due diligence activities.

ValOre's review identified a number of areas that warrant additional exploration beyond the currently defined Mineral Resources, including targets along an approximately 15 km structural corridor characterized by gold-in-soil anomalies, anomalous rock samples, partially tested mineralized zones, and geochemical anomalies that have not been tested by drilling (Figure 9.1).

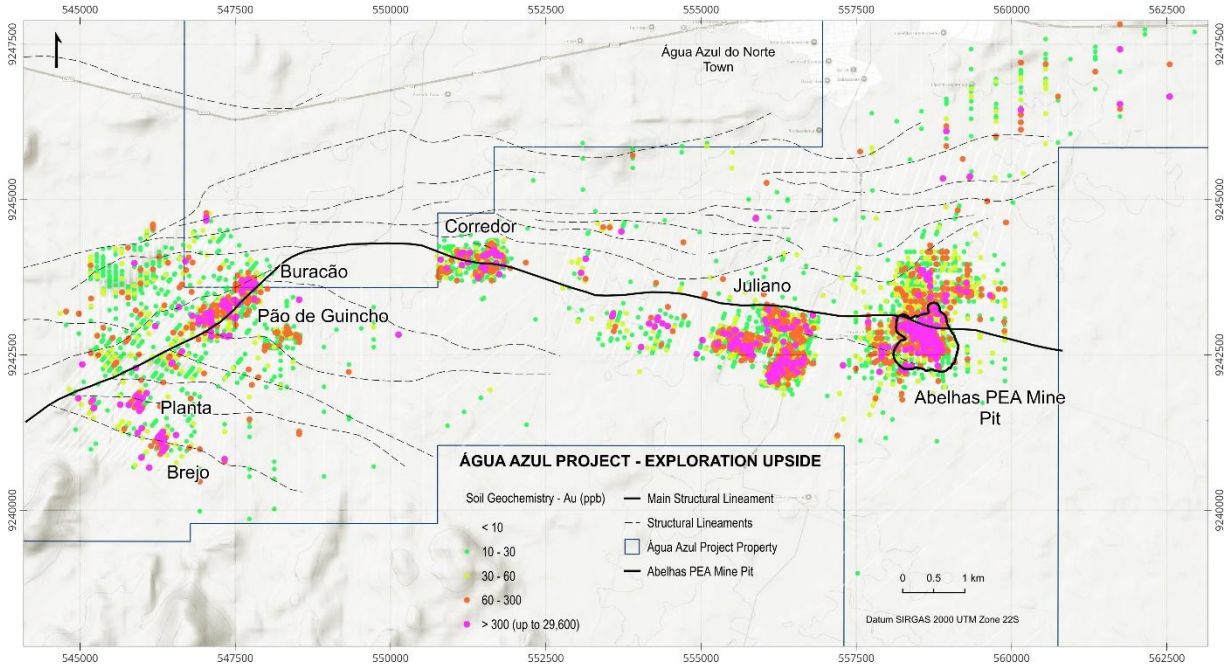


Figure 9.1 Exploration Targets and Prospectivity Along the Água Azul Structural Corridor

Source: ValOre Metals Corp., 2026, based on historical exploration and drilling data provided by Bemisa.

Historical drilling is unevenly distributed along the approximately 15 km structural corridor, with the majority of drilling concentrated in and around the Abelhas area. Approximately 59,000 m of drilling in 362 drill holes has been completed across Abelhas, Abelhas Norte and Antonino, compared with approximately 5,250 m in 35 drill holes at Juliano and approximately 10,100 m in 56 drill holes across the Campos Altos area. The contrast between Abelhas and Juliano is illustrated in Figure 9.2: drilling at Abelhas has tested mineralization to vertical depths of approximately 600 m, whereas drilling at Juliano has been largely restricted to the upper 150 m. Relative to its surface geochemical footprint, Juliano remains significantly underexplored compared with Abelhas.

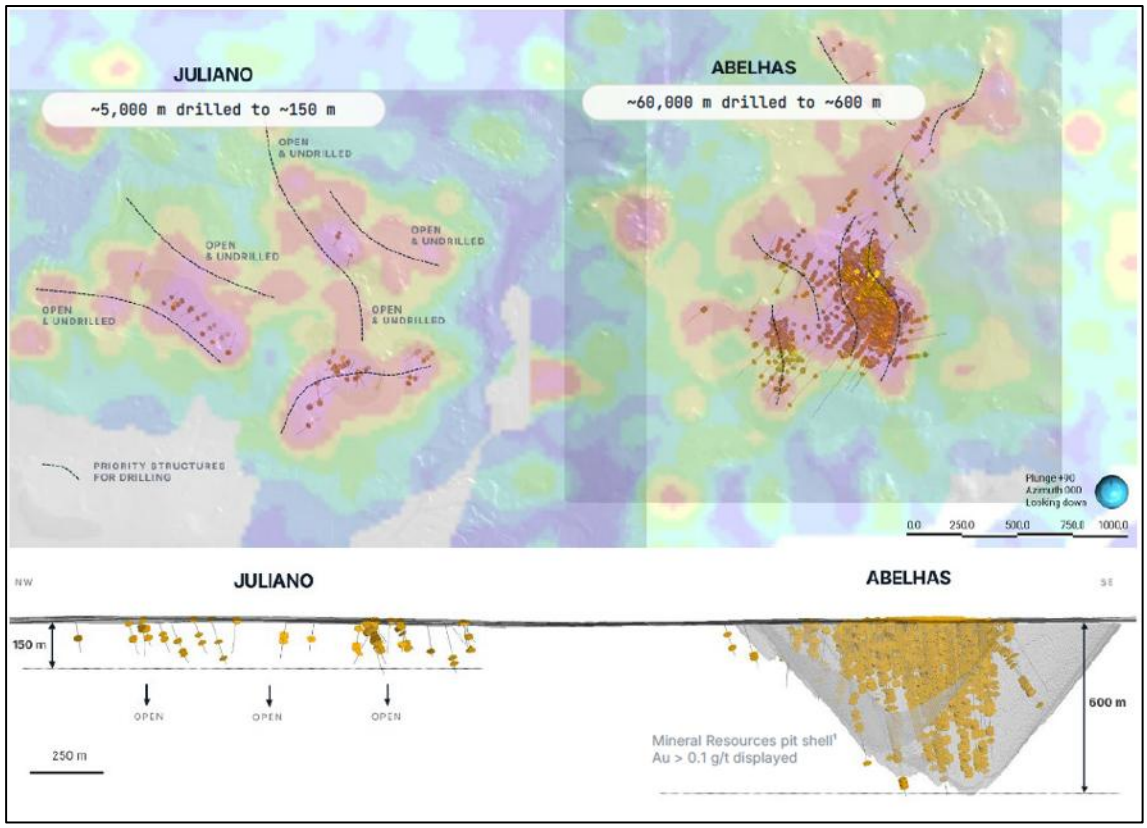


Figure 9.2 Plan View and NW-SE Long Section Showing Drilling Density at Juliano and Abelhas

Note: Plan view shows gridded gold-in-soil geochemistry, diamond drill hole traces and interpreted priority structures for drilling. The long section displays drill hole intervals with Au >0.1 g/t and the conceptual Mineral Resource pit shell described in Item 14. “Open” indicates that mineralization has not been closed off by drilling and does not imply continuity of mineralization. The PEA is preliminary in nature, includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the PEA will be realized.
Source: ValOre Metals Corp., 2026, based on exploration and drilling data provided by Bemisa.

Beyond Abelhas and Juliano, significant portions of the structural corridor remain untested by drilling, including the Corredor target, where gold-in-soil anomalies and anomalous trench results have not yet been followed up by diamond drilling. The distribution of drilling and gold-in-soil anomalies along the full corridor is illustrated in Figure 9.3.

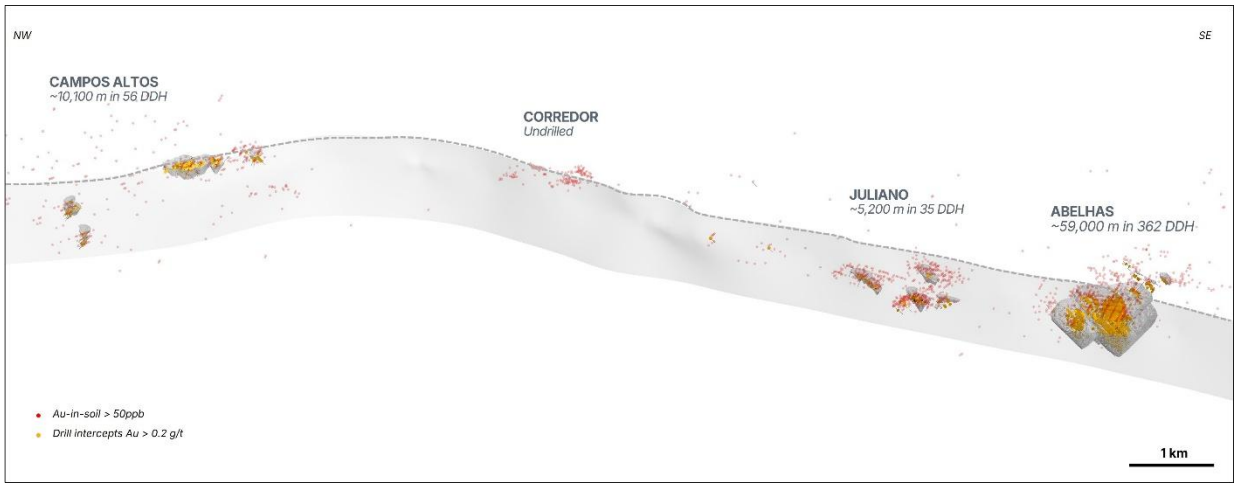


Figure 9.3 Perspective View of Historical Drilling and Gold-in-Soil Anomalism Along the Água Azul Structural Corridor

Note: Historical drilling totals and distribution by area are described in Item 10 and summarized in Table 10.1. Drill intercepts shown represent Au grades >0.2 g/t. Gold-in-soil anomalies shown represent Au values >50 ppb.
Source: ValOre Metals Corp., 2026, based on historical exploration and drilling data provided by Bemisa

Based on its review of the available Project data, ValOre identified the following areas for potential follow-up exploration. The QP has reviewed these targets and considers them reasonable areas for further investigation.

- **High-grade shoot continuity at Abelhas**: structural interpretation indicates an approximately 150/72 orientation for higher-grade mineralized shoots within the principal mineralized zone (~225/78), consistent with stretching lineations observed in oriented drill core and pit mapping. A plan-view visualization of gold grades above 0.2 g/t Au highlights interpreted higher-grade mineralized trends associated with elevated sulphur concentrations, interpreted to reflect pyrite enrichment (Figure 9.4). This interpretation is not currently incorporated into the geological or Mineral Resource model and provides a basis for targeted drilling to test the continuity and geometry of these higher-grade shoots. Selected significant drill intercepts are presented in Item 10 and Table 10.2, while the Mineral Resource estimate and classification are described in Item 14;
- **Gabbro-contact exploration vector**: gold mineralization at Abelhas, Juliano, and targets within the Campos Altos area commonly occurs proximal to contacts with mafic intrusive rocks, including gabbro. Additional gabbroic bodies have been interpreted outside currently drilled areas, suggesting that these contacts may provide a useful exploration vector across the Project;
- **Juliano extensions**: gold mineralization intersected by historical drilling remains open in certain areas along strike and at depth. Gold-in-soil anomalies located proximal to the existing drilling have not been tested by drilling and represent additional exploration targets (Figure 9.2);

- **Corredor target**: gold-in-soil anomalies and anomalous trench sampling results occur at the Corredor target, situated along the broader structural corridor that hosts the Abelhas deposit. Corredor has not been tested by diamond drilling;
- **Near-mine targets at Abelhas**: anomalous surface and auger geochemistry occurs within and adjacent to the Abelhas mine area in locations that have not been tested by diamond drilling and warrant additional evaluation (Figure 9.5); and
- **Regional targets**: additional gold-in-soil anomalies occur outside the currently defined target areas, including areas south of Abelhas, and warrant follow-up geological mapping and surface geochemical sampling.

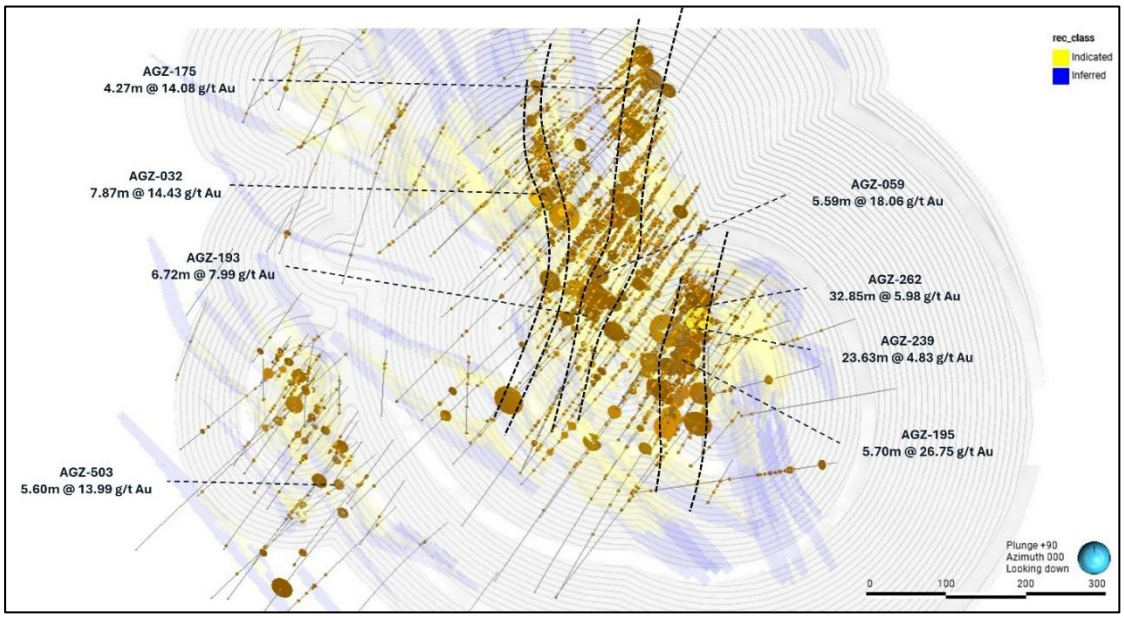


Figure 9.4 Plan View of Gold Grade Distribution and Interpreted Higher-Grade Mineralized Trends at Abelhas

Note: Au grades >0.2 g/t are displayed. Weighted-radius visualization highlights higher-grade Au values associated with elevated S concentrations (interpreted pyrite enrichment). Selected drill intercepts shown are reported as downhole lengths; estimated true widths are approximately 65% to 85% of reported lengths but may vary with local mineralized-zone and drill-hole geometry. Selected significant drill intercepts and drilling information are presented in Item 10 and Table 10.2. Sampling, analytical procedures and QA/QC are described in Item 11, and data verification is described in Item 12. Mineral Resource classification is shown for spatial context only; the Mineral Resource estimate and classification methodology are described in Item 14. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability
Source: ValOre Metals Corp., 2026, based on historical drilling data and the Mineral Resource model described in Item 14.

Near-pit exploration potential at Abelhas is illustrated in the north–south cross-section presented in Figure 9.5. A gold-in-soil anomaly (>60 ppb Au) extends approximately 700 m north of the current PEA pit limits. Twelve diamond drill holes totalling approximately 2,200 m have been completed in this area, all of which intersected gold mineralization above 0.1 g/t Au, including 5.38 m at 0.87 g/t Au (AGZ-101) and 2.50 m at 1.51 g/t Au (AGZ-217). South of the pit, drill hole AGZ-523, originally drilled as a condemnation hole approximately 250 m from the pit limit, intersected 4.70 m at 5.02 g/t Au, and drill hole AGZ-490 intersected 6.63 m at 4.32 g/t Au near the southern pit wall. Reported intercepts are downhole lengths; true widths are estimated at approximately 65% to 85% of reported lengths. Drill density in these areas is currently insufficient to define continuity of mineralization, and these results support additional step-out drilling north and south of the Abelhas pit.

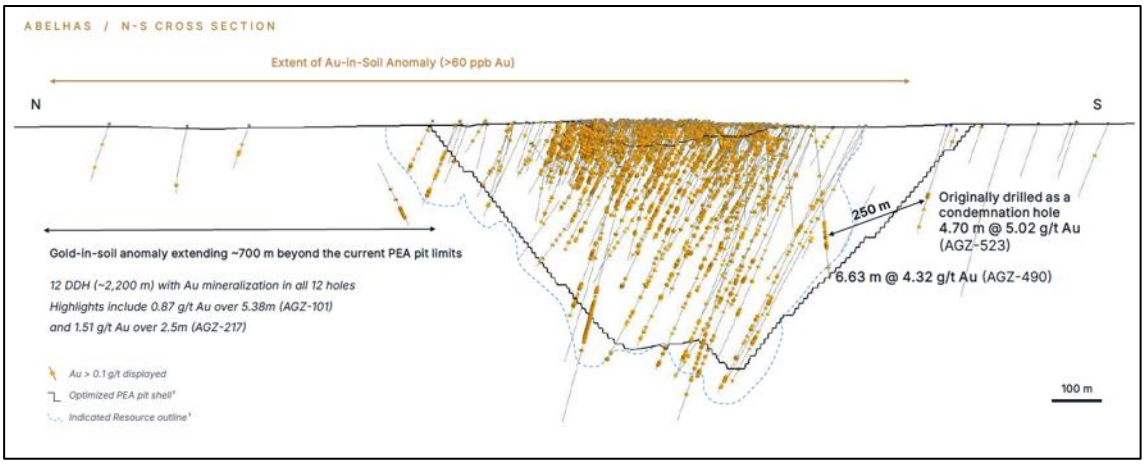


Figure 9.5 North–South Cross-Section Through the Abelhas Deposit Showing Near-Pit Exploration Potential

Note: Drill hole intervals with Au >0.1 g/t are displayed. The optimized PEA pit shell and Indicated Mineral Resource outline are described in Items 14 and 16. Intercepts are reported as downhole lengths; estimated true widths are approximately 65% to 85% of reported lengths. The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the PEA will be realized.
Source: ValOre Metals Corp., 2026, based on drilling data provided by Bemisa and the Mineral Resource and pit models described in Items 14 and 16.

Subject to completion of the proposed transaction, ValOre intends to undertake additional exploration at the Água Azul Project, with initial programs expected to focus on testing extensions to known mineralization and evaluating additional targets identified through its review of the historical exploration database.

10 DRILLING

All diamond drilling completed at the Água Azul Project to date was conducted by or on behalf of Bemisa. ValOre has not conducted any drilling at the Project. The drill hole database used for the current Mineral Resource estimate comprises 453 diamond drill holes totalling 74,364.55 m, all attributable to Bemisa.

A summary of drilling by target is presented in Table 10.1 and drill hole locations are shown in Figure 10.1 and Figure 10.2.

Table 10.1 Summary of Exploration Drilling and Sampling by Deposit

Region	Deposit	No. Drill Holes	No. Samples	Drilling Length (m)
Abelhas-Juliano	Abelhas	288	41,667	39,354.43
	Abelhas Norte	15	2,571	2,582.05
	Antonino	59	16,850	17,076.63
	Juliano	35	5,494	5,247.84
	Total	397	66,582	64,260.95
Campos Altos	Pão de Guincho	26	6,022	5,067.23
	Planta	15	2,525	2,294.71
	Brejo	9	1,320	1,339.10
	Buracão	6	1,242	1,402.56
	Total	56	11,109	10,103.60
Água Azul Project	**Totals**	**453**	**77,691**	**74,364.55**

Source: GE21, 2026.

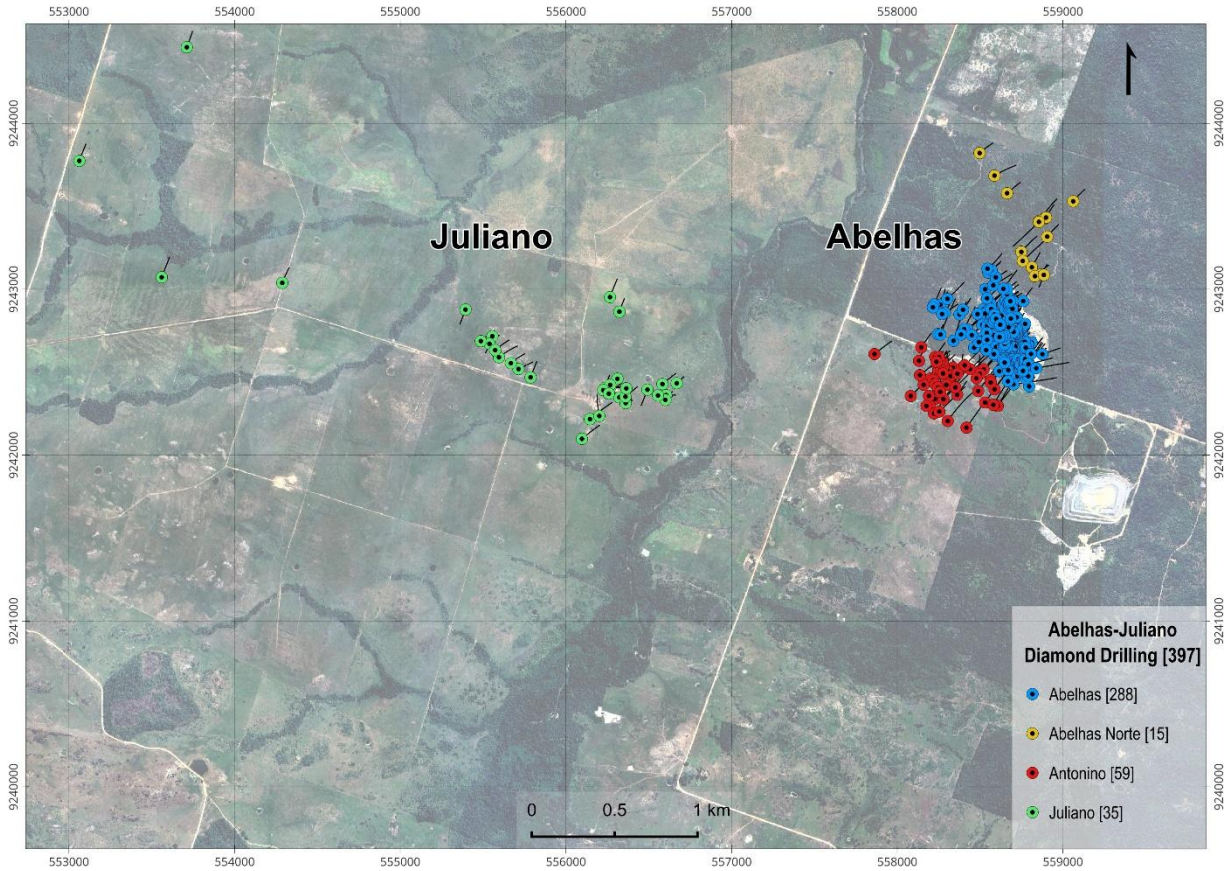


Figure 10.1 Spatial distribution of diamond drill holes at the Abelhas-Juliano Zone, Água Azul Project

Source: GE21, 2026.

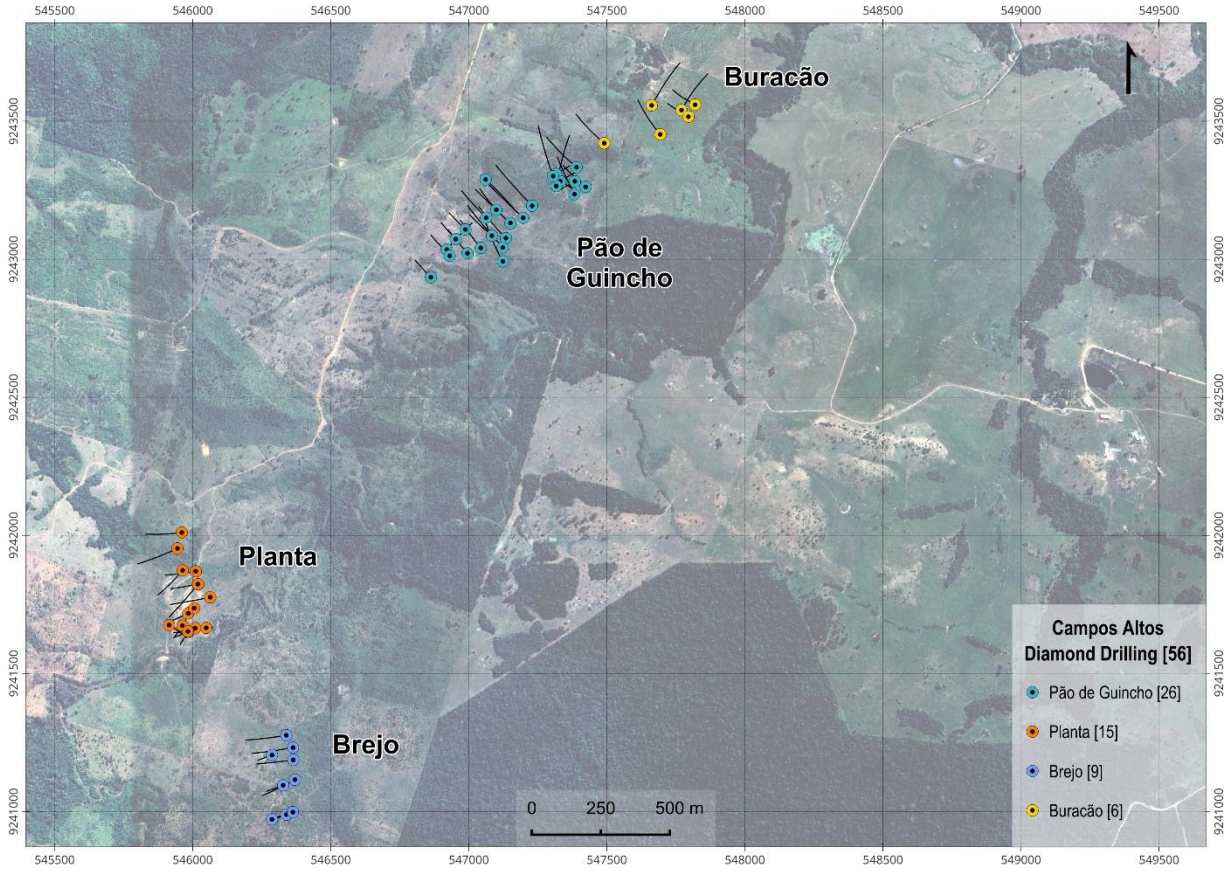


Figure 10.2 Spatial distribution of diamond drill holes at the Campos Altos Zone, Água Azul Project

Source: GE21, 2026.

Drilling at Abelhas-Juliano comprised 397 holes totalling 64,260.95 m across nine phases between June 2018 and September 2025, progressively increasing drill density across the Abelhas, Abelhas Norte, Antonino, and Juliano areas. This sustained drilling effort directly supported the Abelhas deposit's transition from exploration to production: following approval of the Final Exploration Report and required environmental permits, ANM granted Mining Concession Ordinance No. 698, authorizing commercial production, which totalled approximately 223,000 of ROM and 10,000 oz of gold between 2023 and 2025.

Drilling at Campos Altos comprised 56 holes totalling 10,103.60 m completed during two campaigns in 2022 and 2023. Drilling was concentrated at Pão de Guincho, with 26 holes totalling 5,067.23 m, with additional drilling completed at Planta, Brejo, and Buracão.

Selected representative drill hole intercepts across the Project are presented in Table 10.2 and Figure 10.3.

Table 10.2 Selected Significant Gold Intercepts from Diamond Drilling Programs at the Água Azul Project

HOLE ID	AZ (°)	DIP (°)	FROM (M)	TO (M)	LENGTH (M)	AU (G/T)	GRADE x LENGTH (G/T*M)
AGZ-AL01-DD-262	35	-50	0.00	32.85	32.85	5.98	196.35
AGZ-AL01-DD-195	10	-50	87.97	93.67	5.70	26.76	152.51
AGZ-AL01-DD-115	35	-49	168.52	179.38	10.86	13.58	147.48
AGZ-AL01-DD-239	215	-70	23.70	47.33	23.63	4.83	114.08
AGZ-AL01-DD-032	40	-49	70.80	78.67	7.87	14.43	113.58
AGZ-AL01-DD-420	45	-65	235.56	243.96	8.40	12.42	104.31
AGZ-AL01-DD-059	35	-51	129.21	134.80	5.59	18.06	100.96
AGZ-AL01-DD-512	45	-63	418.60	468.82	50.22	1.84	92.35
AGZ-AL01-DD-127	45	-51	100.25	103.71	3.46	23.58	81.60
AGZ-AL01-DD-503	46	-54	356.00	361.60	5.60	13.99	78.33
AGZ-AL01-DD-264	35	-50	0.00	25.00	25.00	2.75	68.78
AGZ-AL01-DD-311	40	-50	40.19	45.87	5.68	11.92	67.70
AGZ-AL01-DD-506	36	-55	439.74	441.68	1.94	32.68	63.39
AGZ-AL01-DD-493	40	-55	345.27	349.63	4.36	14.36	62.63
AGZ-AL01-DD-175	45	-54	90.84	95.11	4.27	14.08	60.10
AGZ-AL01-DD-422	35	-60	194.14	203.53	9.39	6.38	59.92
AGZ-AL01-DD-047	30	-49	94.04	108.89	14.85	3.93	58.38
AGZ-AL01-DD-177	35	-49	81.69	95.22	13.53	4.06	54.96
AGZ-AL01-DD-193	35	-45	39.71	46.43	6.72	7.99	53.66
AGZ-AL01-DD-117	40	-45	31.82	50.11	18.29	2.75	50.38
AGZ-AL01-DD-490	80	-50	280.66	287.29	6.63	4.33	28.69
AGZ-AL01-DD-523	50	-50	177.92	182.62	4.70	5.02	23.60
AGZ-AL01-DD-101	50	-54	163.19	168.57	5.38	0.87	4.69
AGZ-AL01-DD-217	40	-48	22.50	25.00	2.50	1.51	3.79
AGZ-AL02-DD-147	50	-51	92.42	93.30	0.88	33.20	29.22
AGZ-AL02-DD-014	200	-51	85.88	87.60	1.72	12.61	21.68
AGZ-AL02-DD-029	20	-50	108.38	109.92	1.54	11.04	17.00
AGZ-AL02-DD-007	200	-50	34.00	36.79	2.79	3.51	9.79
AGZ-AL02-DD-132	90	-50	0.00	6.01	6.01	0.96	5.74
CPA-AL01-DD-002	215	-50	18.34	21.84	3.50	3.98	13.93
CPA-AL01-DD-013	120	-48	56.96	59.00	2.04	4.65	9.49
CPA-AL01-DD-018	30	-51	80.95	85.22	4.27	1.64	7.00
CPA-AL01-DD-012	250	-50	25.41	28.12	2.71	2.54	6.88
CPA-AL01-DD-015	40	-49	143.00	143.75	0.75	2.17	1.63

Notes:
1. Reported intercepts are downhole lengths. True widths are estimated at approximately 65% to 85% of reported lengths but may vary with local mineralized-zone and drill hole geometry.
Source: *ValOre Metals Corp., 2026*.

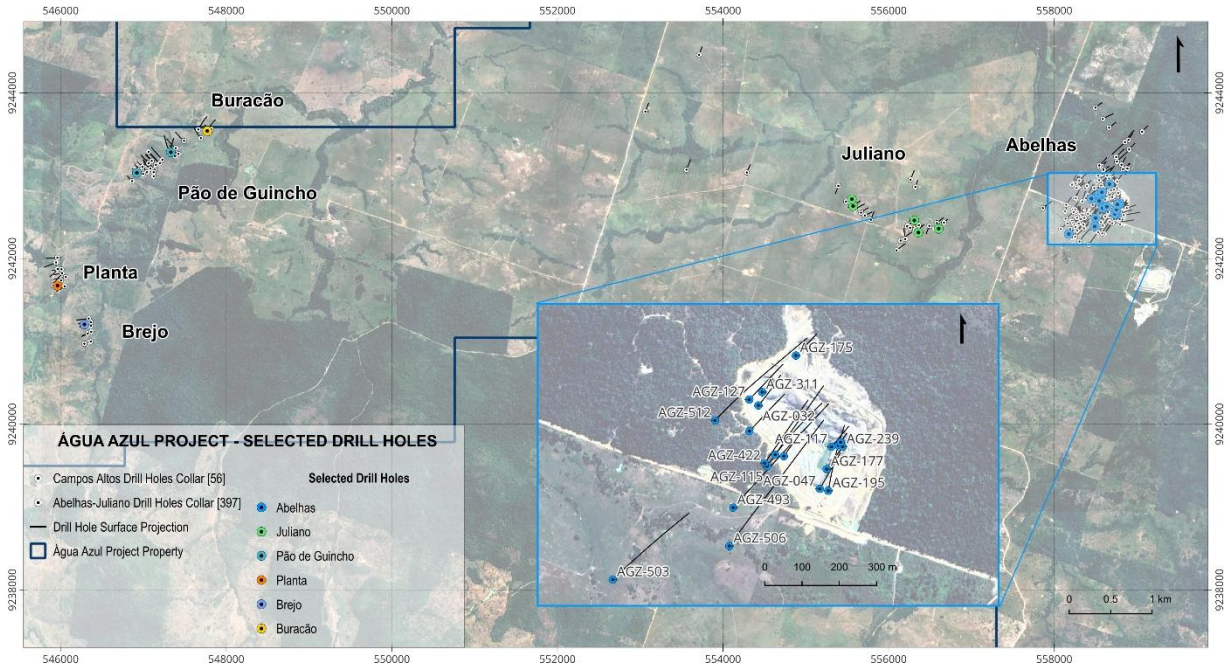


Figure 10.3 Location of selected drill holes at the Água Azul Project

Legend: Main map shows the distribution of diamond drill hole collars across the Abelhas-Juliano region (397 holes) and the Campos Altos region (56 holes), with selected drill holes highlighted by target — Abelhas, Juliano, Pão de Guincho, Planta, Brejo, and Buracão — corresponding to the significant intercepts summarized in Table 10.2. Inset (lower right) shows detail of the selected drill hole collars within the Abelhas deposit.
Source: *ValOre Metals Corp., 2026*.

Drill hole collars were surveyed using high-precision GNSS/RTK equipment and referenced to an IBGE geodetic benchmark located in Água Azul do Norte. Downhole directional surveys were primarily conducted in deeper drill holes. Surveys were not performed in 159 holes (out of 453), generally around 100 m or less in depth, due to the low risk of significant deviation. For unsurveyed holes, trajectories were based on planned collar orientations.

Drilling activities followed established procedures for collar location, drill depth, core handling, geological logging, and core recovery. Based on the available drilling records, no drilling, core recovery, or downhole deviation factors have been identified that are considered likely to materially affect the accuracy or reliability of the drilling results. Core sampling, sample preparation, security, analytical procedures, and QA/QC are described in Section 11.

The drilling data, together with geological, geochemical, and structural information, support the interpretation of mineralization geometry and continuity and form the basis for the Mineral Resource estimate presented in Section 14.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sample preparation, analysis and security procedures at the Água Azul Project were designed and implemented by Bemisa and are described in this section as documented by Bemisa.

Sample preparation and analysis were conducted by SGS Geosol, an independent commercial laboratory contracted by Bemisa and certified to ISO 9001:2015, ISO 14001:2015, and ISO/IEC 17025:2017, with preparation completed at the SGS facility in Parauapebas (Pará State) and analysis at the SGS facility in Vespasiano (Minas Gerais State). ALS Chemex, certified to ISO 9001:2015 and ISO/IEC 17025:2017 and also operating facilities in Brazil, was used as an independent check laboratory. Neither SGS nor ALS Chemex is affiliated with Bemisa or ValOre.

Upon arrival at the core shed, drill core was logged against the corresponding drilling reports, photographed by interval, and archived in a project database. Core was cut along a line oriented relative to the structures observed, with one half retained as a permanent physical archive and the other used for sampling, as shown in figures below.



Figure 11.1 Arrival of the core boxes in the shed and their organization on the benches

Source: GE21, 2024.

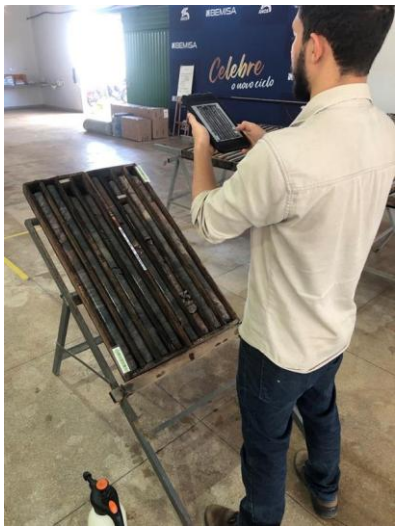


Figure 11.2 Photographs of 2 in 2 boxes with details of drill hole identification and depth interval

Source: GE21, 2024.



Figure 11.3 Orientation and marking of drill cores perpendicular to the registered structures

Source: Bemisa, 2024.



Figure 11.4 Longitudinal cutting of cores

Source: GE21, 2024.

11.1 Sampling

Sample intervals were defined by the technical geology staff based on core logging, following lithological contacts, structural characteristics, hydrothermal alteration, and mineralization. Mineralized intervals were sampled to an average length of 1.0 m (minimum 0.3m, maximum 1.0 m recovered), while barren intervals were sampled at the discretion of the geologist in charge. Samples were sealed, weighed, and bagged in tracked batches prior to shipment to the laboratory.

11.2 Density Determination Tests

The methodology for bulk density determination for fresh rock and saprolite (transition zone) employs the water displacement method, based on Archimedes' principle. It is calculated as the ratio of the sample's mass to its absolute volume expressed in grams per cubic centimeter (g/cm³).

Samples are selected at intervals of 5 to 10 meters within zones of primary interest selected in drill core samples. Each core sample must have a length of at least 10 cm and no more than 15 cm.

The density test database contains results from 14,551 tests for the Abelhas, Abelhas Norte, and Antonino targets (the Abelhas area). The database for the Campos Altos area contains results from 2,895 samples.

11.3 Sample Preparation and Analysis

Gold was determined by fire assay (fusion and atomic absorption), with the FAA525 method applied to samples returning gold grades above 10,000 ppb. Other elements were determined by ICP-OES following multi-acid digestion, with detection limits specific to each element (Table 11.1).

Table 11.1 Detection limits for ICP-OES analysis

Determination by multi-acid digestion (20 ml)				0.25 g of sample - ICP-OES			
Ag	3 - 100 (ppm)	Al	0.01 - 10 (%)	As	10 - 10000 (ppm)	Ba	3 - 10000 (ppm)
Be	3 - 10000 (ppm)	Bi	20 - 10000 (ppm)	Ca	0.01 - 15 (%)	Cd	3 - 10000 (ppm)

Determination by multi-acid digestion (20 ml)				0.25 g of sample - ICP-OES			
CO	8 - 10000 (ppm)	Cr	3 - 10000 (ppm)	Cu	3 - 10000 (ppm)	Fe	0.01 - 15 (%)
K	0.01 - 15 (%)	La	20 - 10000 (ppm)	Li	3 - 10000 (ppm)	MG	0.01 - 15 (%)
Mn	0.01 - 15 (%)	Mo	3 - 10000 (ppm)	Na	0.01 - 15 (%)	Ni	3 - 10000 (ppm)
P	0.01 - 15 (%)	Pb	8 - 10000 (ppm)	S	0.01 - 10 (%)	Sb	10 - 10000 (ppm)
SC	5 - 10000 (ppm)	Se	20 - 10000 (ppm)	Sn	20 - 10000 (ppm)	Sr	3 - 10000 (ppm)
Th	20 - 10000 (ppm)	Ti	0.01 - 15 (%)	Tl	20 - 10000 (ppm)	U	20 - 10000 (ppm)
V	8 - 10000 (ppm)	W	20 - 10000 (ppm)	Y	3 - 10000 (ppm)	Zn	3 - 10000 (ppm)
Zr	3 - 10000 (ppm)						

Source: Bemisa, 2023.

11.4 Sample Security

Chain-of-custody procedures included numbered external and internal sample labels. Sample batches were closed at 80 samples through the seventh drilling campaign and at 40 samples from the eighth campaign onward, in both cases maintaining a quality control sample rate of approximately 6 to 12.5% per batch. Prepared samples were transported from the field to the analytical laboratories by 4x4 vehicle under Bemisa's responsibility.

11.5 Quality Assurance/Quality Control

Bemisa's QA/QC program monitored the precision and accuracy of sample preparation and analysis through the routine insertion of blank, duplicate, and standard reference samples into each batch, complementing the laboratories' own internal QA/QC procedures.

Table 11.2 presents a summary of the quantity of QA/QC control samples used within Água Azul Project.

Table 11.2 Summary of control samples

Region	Type of control	Samples No.	Percentage in relation to the samples used in the estimate
Abelhas-Juliano	Blank	2,417	3.6%
	Duplicate	2,412	3.6%
	Standard	1,264	1.9
	Samples for Mineral Resource estimate	66582	100%
Campos Altos	Blank	298	2.7%
	Duplicate	298	2.7%
	Standard	154	1.4%
	Samples	11109	100%

Source: Bemisa, 2023.

11.5.1 Blank

Bemisa's blank sample program comprised 2,417 samples for the Abelhas-Juliano targets and 298 for the Campos Altos targets, applying an acceptance limit of five times the detection limit (0.025 ppm Au). At Abelhas-Juliano, samples exceeding this limit were attributed by Bemisa to the use of an uncertified control material containing anomalous gold; at Campos Altos, a single sample exceeded the limit, potentially due to mislabelling.

Reference	Blank
Variable	Au (ppm)
Number of analysis	2 417

Reference Value - Limit of Detection (LOD)	0.005
Standard deviation	0.015
Upper limit (5 x LOD)	0.025

Minimum	0.0025
Maximum	0.34
Average	0.0040
Median	0.0025

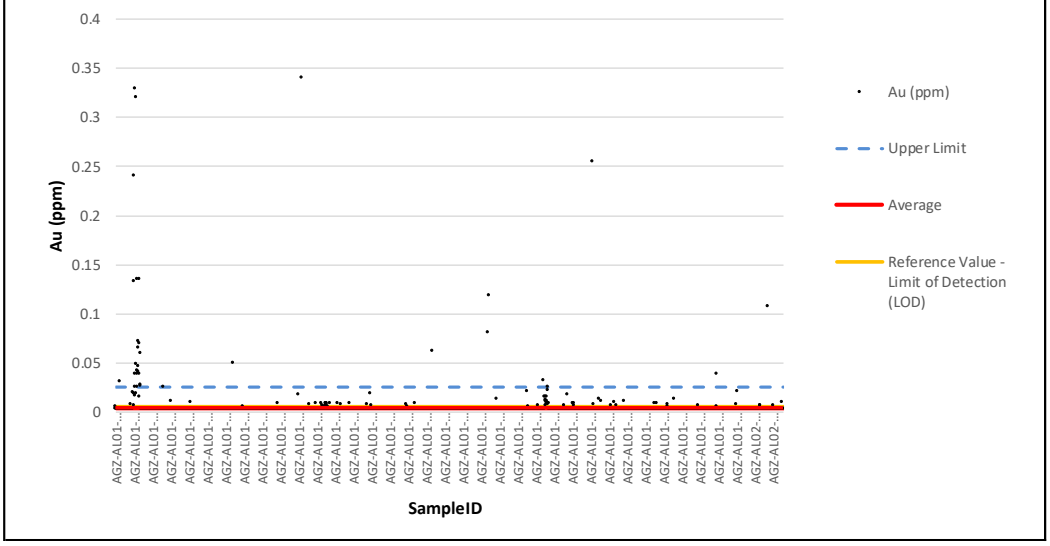


Figure 11.5 Blank chart for the Abelhas-Juliano targets – Au ppm variable

Source: GE21, 2024.

Reference	Blank
Variable	Au (ppm)
Number of analysis	298

Reference Value - Limit of Detection (LOD)	0.005
Standard deviation	0.002
Upper limit (5 x LOD)	0.025

Minimum	0.00499
Maximum	0.0310
Average	0.0051
Median	0.0050
Bias	2.69%

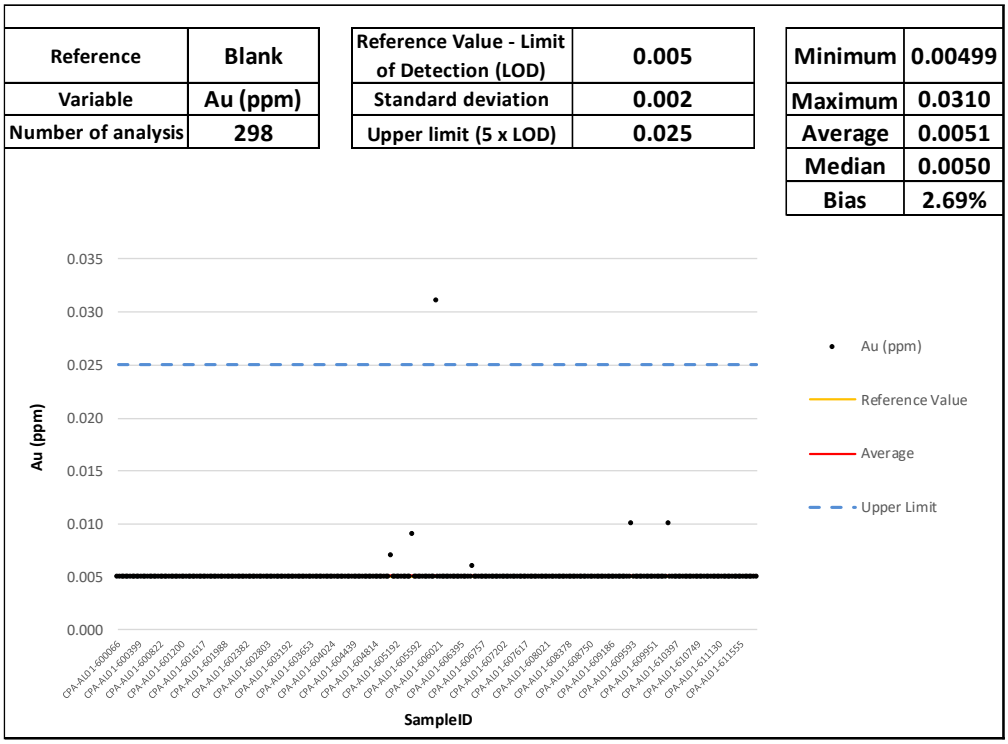


Figure 11.6 Blank chart for the Campos Alto targets – Au ppm variable

Source: GE21, 2024.

11.5.2 Duplicates Samples

Duplicate sampling frequency increased during the more recent drilling campaigns; however, duplicate samples were predominantly collected from lower-grade intervals, with limited representation of

mineralized intervals. Consequently, the available duplicate data provide a more limited assessment of sampling precision at higher gold grades. Increased duplicate sampling within mineralized intervals is recommended for future drilling programs.

Variable	Au (ppm)
Accuracy limit	15%
Number of pairs	2412
Reference	Field duplicate

	SAMPLE	DUPLICATE
Minimum	0.00	0.00
Maximum	3.99	6.14
Average	0.02	0.02
Median	0.00	0.00
Within the precision limit	74.4%	

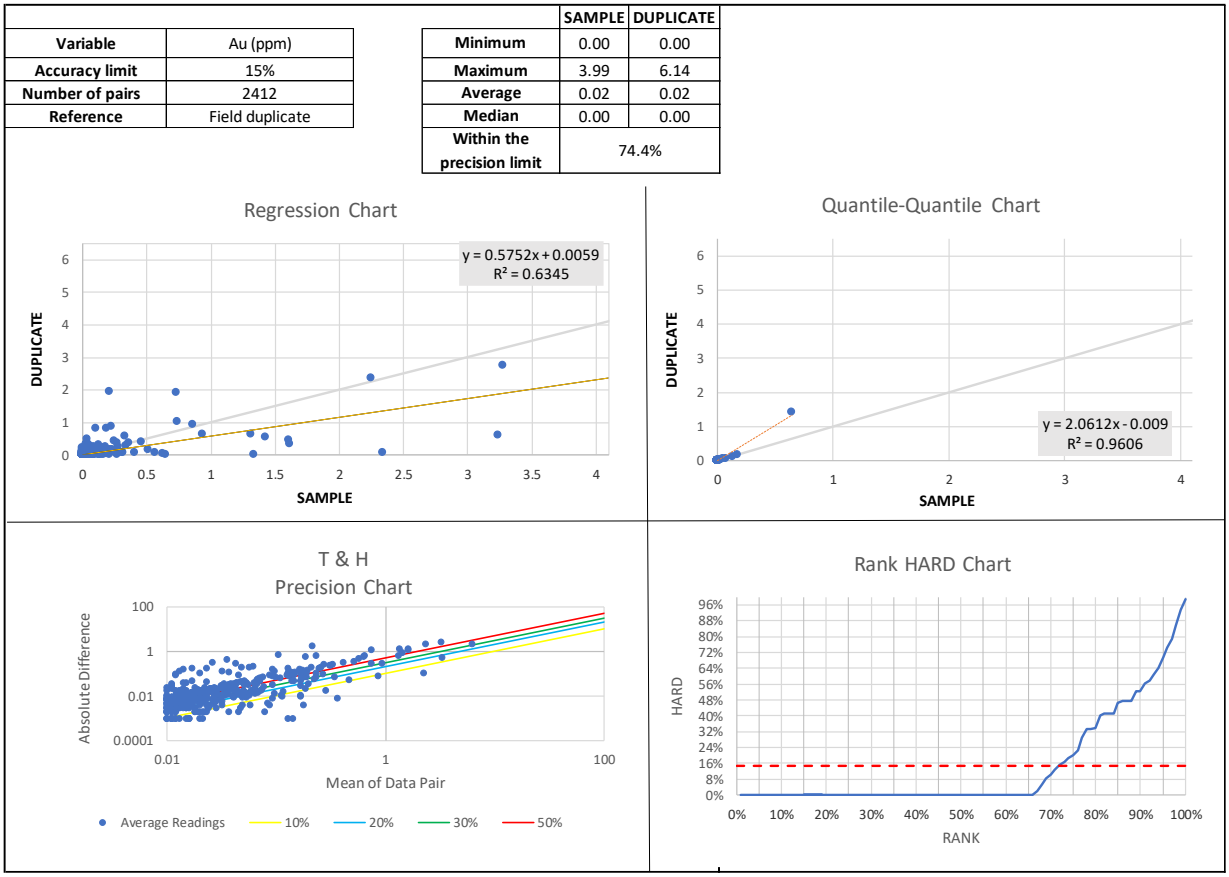


Figure 11.7 Duplicate chart for the Abelhas-Juliano targets – Au ppm variable

Source: GE21, 2024.

Variable	Au_ppm
Accuracy Limit	15%
Number of pairs	298
Type of Control	Duplicate

	SAMPLE	DUPLICATE
Minimum	0.005	0.005
Maximum	0.522	0.688
Average	0.011	0.013
Median	0.005	0.005
Samples contained within the acceptance limit of the hyperbola	89.9%	

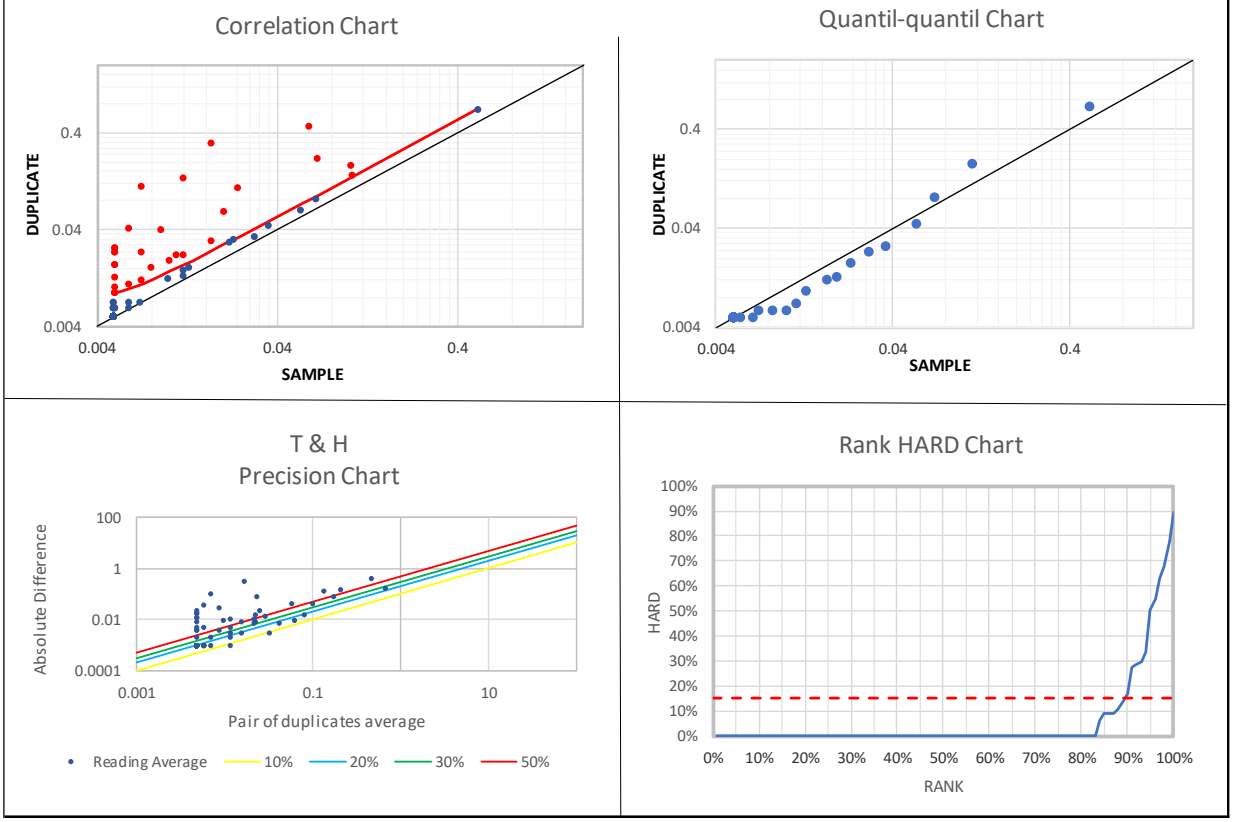


Figure 11.8 Duplicate chart for the Campos Altos targets – Au ppm variable

Source: GE21, 2024.

11.5.3 Standards

Ten certified reference materials (CRM standards), spanning gold grades of approximately 1.4 to 18.0 g/t Au, were used across the property to monitor analytical accuracy: seven standards (ITAK-546, G912-3, G915-2, G312-4, G915-4, G915-5, and ITAK-536), applied across 1,264 samples at Abelhas-Juliano targets, and three standards (G312-4, G912-3, and G915-4), applied across 154 samples at Campos Altos targets.

At Abelhas-Juliano, all seven standards were reported by Bemisa as returning results within acceptance limits, with no significant failures identified. At Campos Altos, two of the three standards (G912-3 and G915-4) similarly returned results within accpetance limits, with isolated exceedance rate of 16% of samples, which Bemisa attributed to potential sample exchange or mislabelling rather than analytical bias, and which was considered to reflect accptable CRM performance once this factor was discounted.

Table 11.3 contains a summary of the seven standards adopted in the Abelhas-Juliano targets.

Table 11.3 Summary of standards used in the Abelhas-Juliano Targets

Standard Certified Reference	Certified Average Au (g/t)	Standard Deviation Au (g/t)	Number of Samples
ITAK-546	1.41	0.07	60
G912-3	2.09	0.08	365
G915-2	4.98	0.19	65
G312-4	5.3	0.22	334
G915-4	9.16	0.35	379
G915-5	17.95	0.86	12
ITAK-536	18.04	1.00	49

Source: GE21, 2024.

- ***ITAK-546***

Figure 11.9 presents the analytical results of the standard sample, which were considered within acceptance limits.

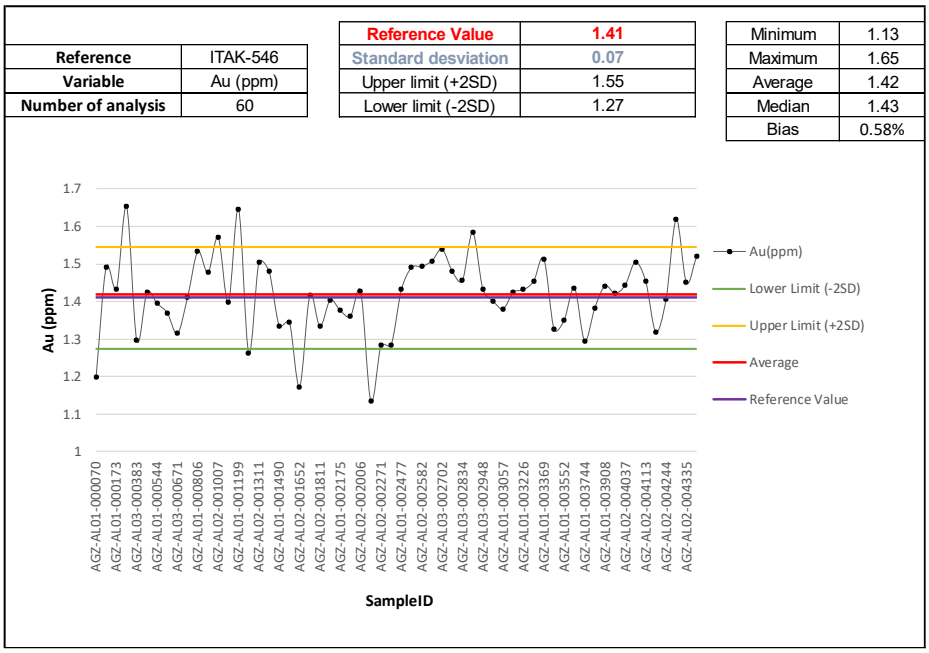


Figure 11.9 ITAK-546 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

- ***G912-3***

Figure 11.10 presents the analytical results of the standard sample, which were considered within acceptance limits.

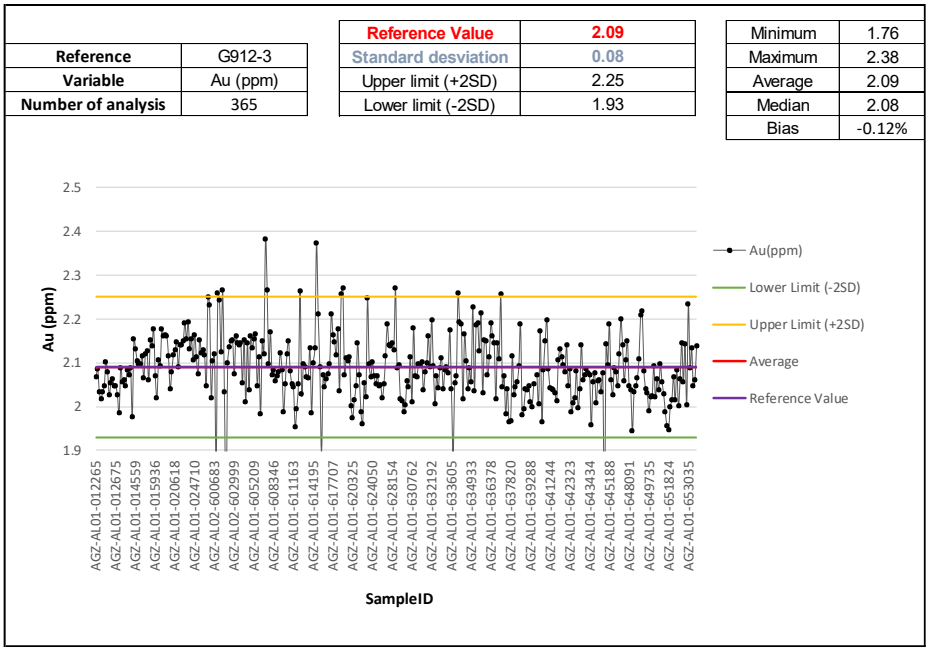


Figure 11.10 G912-3 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

- ***G915-2***

Figure 11.11 presents the analytical results of the standard sample, which were considered within acceptance limits.

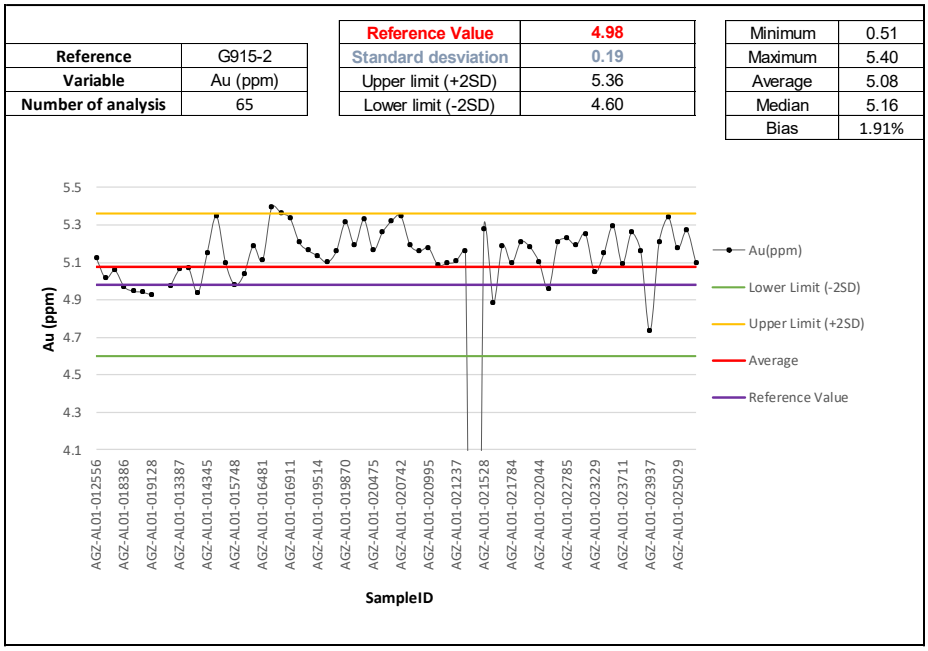


Figure 11.11 G915-2 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

- ***G312-4***

Figure 11.12 presents the analytical results of the standard sample, which were considered within acceptance limits.

Reference	G312-4
Variable	Au (ppm)
Number of analysis	334

Reference Value	5.30
Standard desviation	0.22
Upper limit (+2SD)	5.74
Lower limit (-2SD)	4.86

Minimum	5.03
Maximum	6.87
Average	5.54
Median	5.47
Bias	4.49%

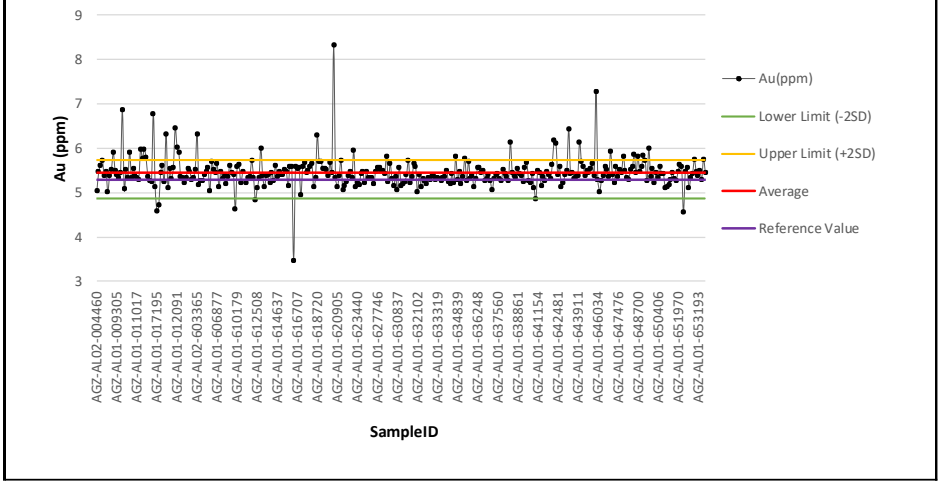


Figure 11.12 G312-4 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

- ***G915-4***

Figure 11.13 presents the analytical results of the standard sample, which were considered within acceptance limits.

Reference	G915-4
Variable	Au (ppm)
Number of analysis	379

Reference Value	9.16
Standard desviation	0.35
Upper limit (+2SD)	9.86
Lower limit (-2SD)	8.46

Minimum	0.97
Maximum	45.96
Average	9.25
Median	9.22
Bias	0.99%

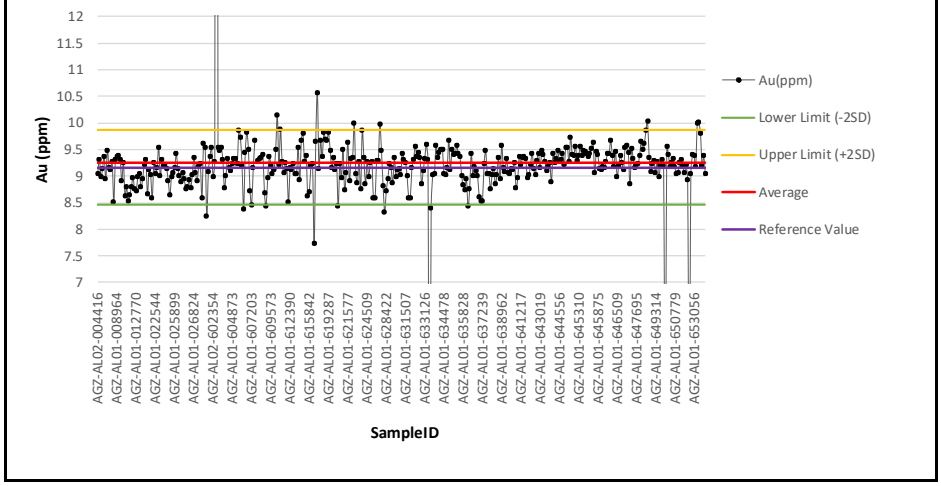


Figure 11.13 G915-4 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

- ***G915-5***

Figure 11.14 presents the analytical results of the standard sample, which were considered within acceptance limits.

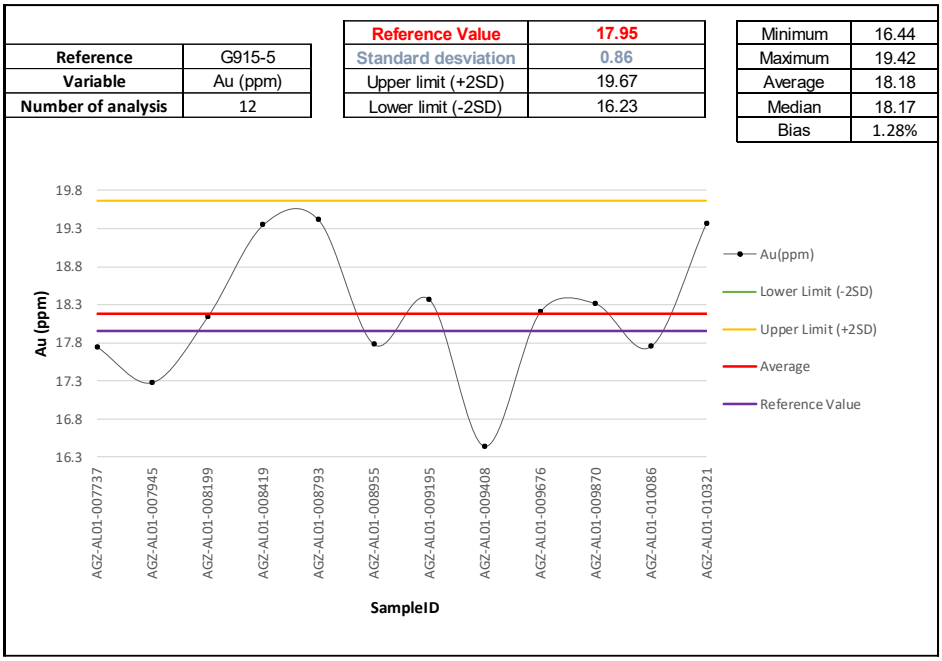


Figure 11.14 G915-5 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

- ***ITAK-536***

Figure 11.15 presents the analytical results of the standard sample, which were considered within acceptance limits.

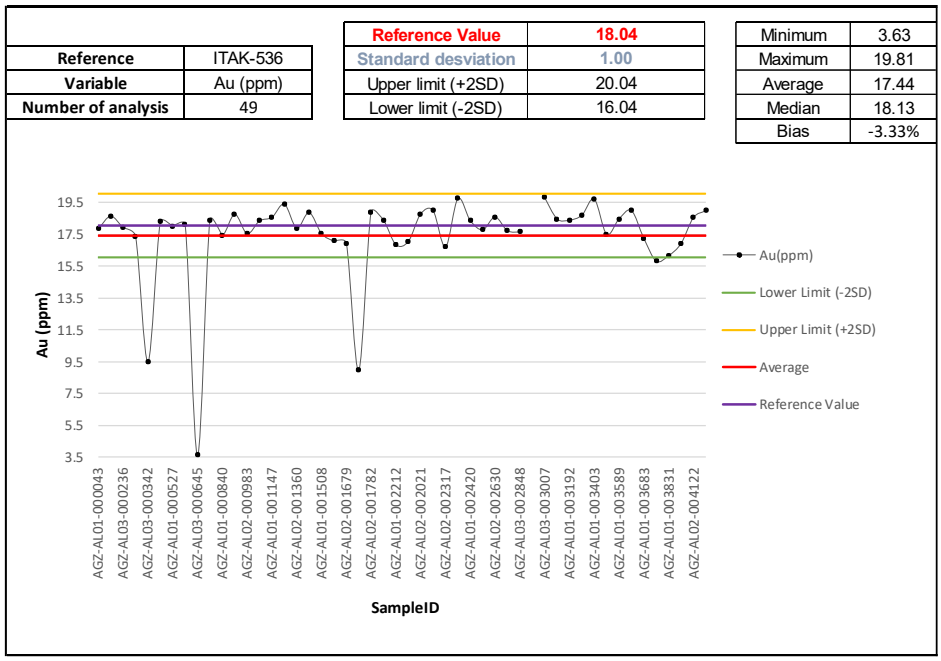


Figure 11.15 ITAK 536 standard – Abelhas-Juliano Targets

Source: GE21, 2024.

Table 11.4 below is a summary of the three standards used in the Campos Altos targets.

Table 11.4 Summary of standards used in the Campos Altos targets

Standard Certified Reference	Certified Average Au (g/t)	Standard Deviation Au (g/t)	The quantity of patterns used
G312-4	5.30	0.22	56
G912-3	2.09	0.08	54
G915-4	9.16	0.35	44

Source: GE21, 2024.

- ***G312-4***

Figure 11.16 presents the analytical results of the standard sample, which were considered within acceptance limits.

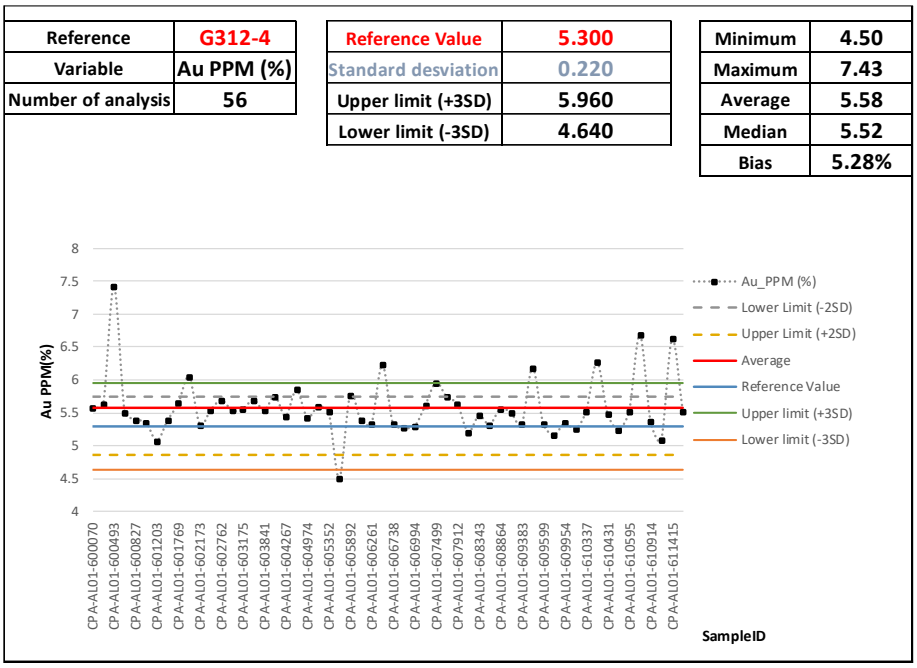


Figure 11.16 G312-4 standard – Campos Altos targets

Source: GE21, 2024.

- ***G912-3***

Figure 11.17 presents the analytical results of the standard sample, which were considered within acceptance limits.

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Reference	G912-3
Variable	Au PPM (%)
Number of analysis	54

Reference Value	2.090
Standard desviation	0.080
Upper limit (+3SD)	2.330
Lower limit (-3SD)	1.850

Minimum	1.89
Maximum	2.29
Average	2.11
Median	2.11
Bias	0.72%

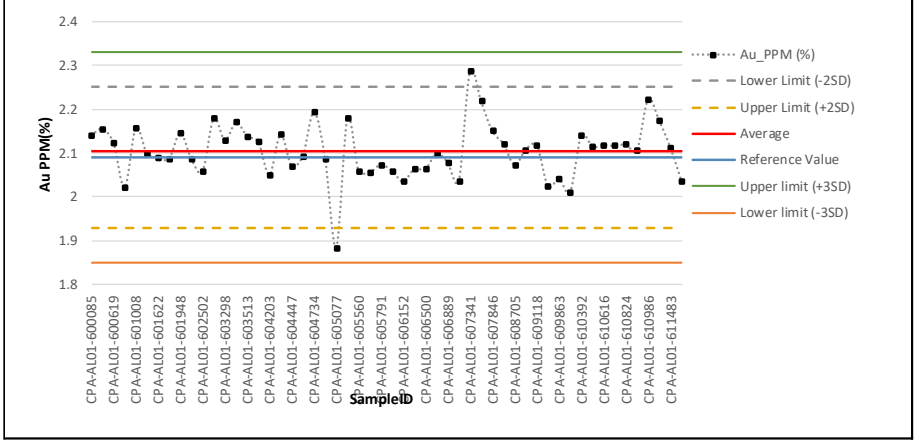

Figure 11.17 G912-3 standard – Campos Altos targets

Source: GE21, 2024.

- ***G915-4***

Figure 11.18 presents the analytical results of the standard sample, which were considered within acceptance limits.

Reference	G915-4
Variable	Au PPM (%)
Number of analysis	44

Reference Value	9.160
Standard desviation	0.350
Upper limit (+3SD)	10.210
Lower limit (-3SD)	8.110

Minimum	4.73
Maximum	10.03
Average	9.08
Median	9.24
Bias	-0.89%

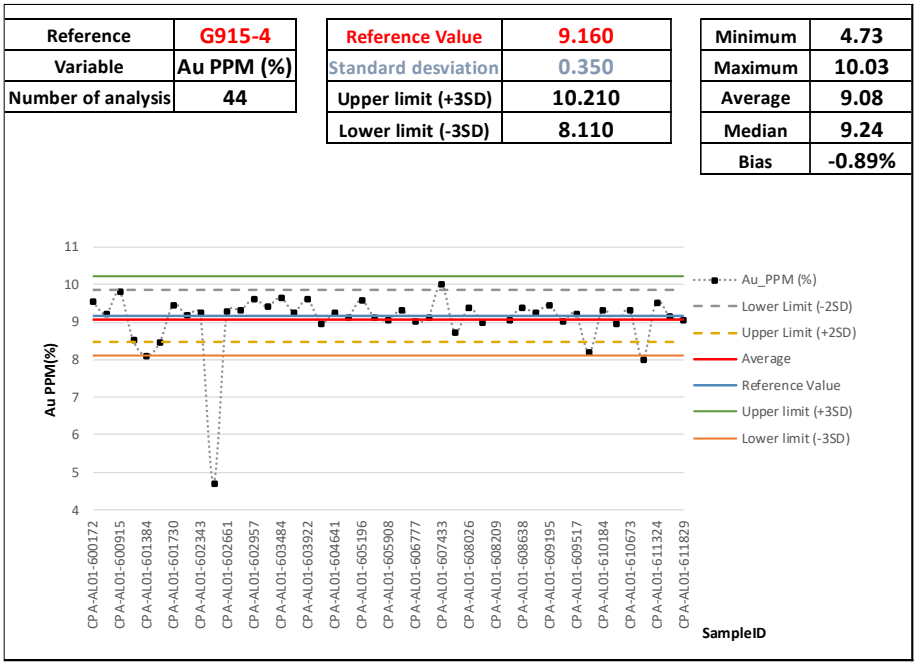

Figure 11.18 G915-4 standard – Campos Altos targets

Source: GE21, 2024.

11.6 QP Opinion - Quality Assurance / Quality Control

Standard reference samples were historically inserted at a rate of approximately 2% of assay samples, Bemisa increased this rate, together with the rate of duplicate sampling within higher-grade intercepts beginning with the 2024 drilling campaign, in line with prior recommendations. No material issues were identified that would adversely affect the reliability of the analytical database or the resulting Mineral Resource estimates.

The QP acknowledges the variability observed in duplicate sample results and the isolated exceedances identified in the CRM analyses. These observations were considered in conjunction with the overall QA/QC results and available data verification work. In the QP's opinion, these findings do not materially compromise the reliability of the analytical database for the purposes of the current Mineral Resource Estimate.

In the opinion of the Qualified Person, the sample preparation, security, and analytical procedures applied by Bemisa at the Água Azul Project, together with the precision, accuracy, and contamination control demonstrated by its QA/QC program, are adequate to support the current Mineral Resource estimate.

12 DATA VERIFICATION

12.1 Introduction

The QPs conducted independent data verification activities to assess the quality, reliability, and adequacy of the technical, geological, metallurgical, mining, environmental, permitting, and economic information supporting the Água Azul Project. The verification process was completed through site visits and comprehensive desktop reviews of the available documentation, databases, engineering studies, metallurgical reports, economic models, and supporting technical information provided by ValOre and other Project consultants. The scope of the verification work reflected each QP's area of expertise and was intended to confirm that the information used in this Report is appropriate for Mineral Resource estimation, metallurgical recovery assumptions, mining methods, and the PEA of the Project.

12.2 Data Verification Performed by the QPs

12.2.1 Site Visits

Two site visits to the Água Azul Project were completed by GE21 personnel in support of the technical studies described in this Technical Report. Mr. Leonardo de Moraes Soares, MAIG, Senior Geologist at GE21, the QP responsible for the data verification activities presented herein, conducted site visits on October 28–30, 2024, and October 9–10, 2025, during the preparation of previous technical studies for the Project. Although these inspections predate the Effective Date of this Technical Report, they were conducted on the same mineral deposit and were based on substantially the same geological model, exploration database, and Mineral Resource information that support the current Mineral Resource Estimate. Based on his review of the information available as of the Effective Date, Mr. Soares considers the observations and information collected during these visits to remain valid and representative for the purposes of the current data verification activities. In addition, Mr. Paulo Bergmann, FAusIMM, Principal Metallurgical Engineer at GE21, conducted a site visit on July 28, 2026, to review the processing facilities and assess the suitability of the current process plant and metallurgical flowsheet for the production assumptions considered in the PEA. Together, these visits provided direct observation of the Project's exploration, mining, and processing activities and contributed to the overall technical understanding of the Project.

12.2.1.1 Site Visit Mr. Paulo Bergmann

A site visit to the Água Azul Project was conducted on July 28, 2026, by Mr. Bergmann, as part of the due diligence activities supporting this Technical Report. The visit focused on a general inspection of the existing processing facilities and an assessment of the plant's suitability to support planned short-term production objectives. The review included the crushing, grinding, gravity concentration, carbon-in-leach (CIL), cyanide destruction, filtration, and process control circuits. The visit was limited to visual observations and discussions with site personnel, and no independent verification of operating parameters, metallurgical performance, process controls, or production data was undertaken.

At the time of the visit, the plant was operating as a gravity-CIL facility processing approximately 20 t/h, equivalent to an annualized throughput of about 160,000 t. The process flow consisted of crushing followed by rod and ball milling, hydrocyclone classification, gravity concentration, CIL leaching and adsorption, cyanide destruction, and pressure filtration of tailings. Several operational observations and improvement opportunities were identified during the inspection. These included the bypassing of the gravity concentration circuit due to water-quality-related operational issues, elevated solids concentrations in the CIL circuit relative to typical industry practice, potential optimization of hydrocyclone performance and cyanide management, and possible filtration capacity constraints relative to planned future throughput.

Based on the observations made during the visit and information provided by Bemisa personnel, GE21 concluded that the current process route is generally appropriate for treatment of the Água Azul mineralized material. The consultant noted that plant performance could potentially be improved through optimization of several operating parameters and by addressing identified bottlenecks within the processing circuit.

Overall, the site visit did not identify any material issues that would prevent continued operation of the existing processing plant under the current flowsheet, and Mr. Bergmann considers that the process flowsheet is appropriate for the mineralization currently being mined and processed at the Água Azul Project.

12.2.1.2 Site Visit Mr. Leonardo Soares

Mr. Soares completed site inspections of the Água Azul Deposit during previous technical studies prepared for Bemisa, including visits conducted on October 28–30, 2024, and October 9–10, 2025. These site visits were originally undertaken as part of Mineral Resource evaluation and update programs for the same mineral deposit that forms the basis of the current PEA.

The current PEA is based on the same mineral deposit, geological model, exploration database, and mineral resource inventory that were evaluated during the aforementioned site visits. Consequently, the QP considers these inspections representative of the deposit and sufficient to satisfy the personal inspection requirements established by NI 43-101 for the purpose of this Technical Report.

During the site visits, unrestricted access was provided to the project facilities, active mining areas, drill core storage facilities, exploration infrastructure, and operational areas. The QP reviewed drilling procedures, geological logging practices, sampling protocols, sample preparation procedures, security measures, QA/QC practices, database management, and the general condition of the mineral property.

The verification activities included inspection of the core storage facilities and core handling procedures (Figure 12.1), evaluation of drill core organization and storage conditions (Figure 12.2), examination of representative mineralized drill core intervals used to support the geological interpretation and Mineral Resource Estimate (Figure 12.3), and review of the process plant infrastructure operating at the site (Figure 12.4).



Figure 12.1 Core shed

Source: GE21, 2025.



Figure 12.2 Core box storage

Source: GE21, 2025.

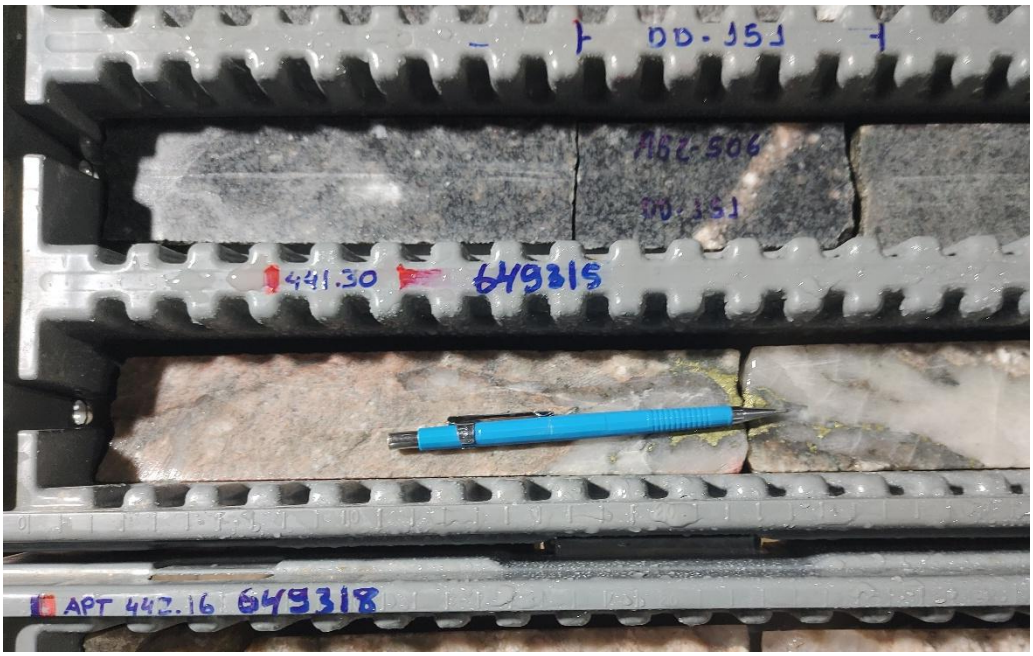

Figure 12.3 Detail of the mineralized intersections of the drill hole AGZ-0506 at depth 441.30 m

Source: GE21, 2025.



Figure 12.4 Beneficiation plant

Source: GE21, 2025.

The QP also verified selected drill hole collar monuments and surveyed locations (Figure 12.5), inspected active mining operations within the Água Azul Deposit (Figure 12.6), and observed drilling activities in progress, including drilling equipment and operational procedures (Figure 12.7). These observations provided additional confidence regarding the reliability of the exploration database and the understanding of the deposit geology



Figure 12.5 Drill hole AGZ-0434 and AGZ-490 landmarks

Source: GE21, 2025.



Figure 12.6 Operations at Água Azul Mine on October 10, 2025

Source: GE21, 2025.



Figure 12.7 Drilling rig in operation during Site Visit

Source: GE21, 2025.

The site inspections confirmed that the geological characteristics observed in the field are consistent with the geological model adopted for the project and that the exploration and sampling programs were conducted according to accepted industry standards. No material discrepancies were identified between the field observations and the information contained in the technical database used in support of this PEA.

12.2.2 Mr. Leonardo Soares

Based on the site inspections, review of the available documentation, and verification of the exploration and sampling procedures, Mr. Leonardo is of the opinion that the data used in support of this PEA are suitable for their intended purpose.

Although the site visits were originally conducted in support of a previous Mineral Resource Estimate update, they were completed on the same Água Azul Deposit that forms the basis of the current PEA. Since no material changes have occurred in the deposit setting, project infrastructure, drilling database, sampling procedures, or resource model that would affect the conclusions drawn from those inspections, Mr. Leonardo considers the site visits valid and sufficient to fulfill the data verification requirements of NI 43-101 for this Technical Report.

12.2.3 Mr. Porfirio Cabaleiro Rodriguez

Mr. Rodriguez has not visited the Água Azul Project.

Mr. Rodriguez conducted a comprehensive review of the Report, including the property description and location, accessibility, climate, local resources, infrastructure, physiography, project

history, geological setting and mineralization, deposit types, exploration activities, drilling programs, sample preparation and analytical procedures, data security and verification processes, and the Mineral Resource estimate.

As part of this assessment, he examined the tenure documentation, project access conditions, infrastructure descriptions, and historical exploration information using source materials provided by ValOre. The geological framework and deposit-type interpretations were validated through comparisons with drill core logging, surface geological mapping, and supporting petrographic and geophysical datasets.

The drilling and sampling programs were reviewed through the verification of collar coordinates, downhole surveys, assay results, and density data. Laboratory certificates were also examined, together with independent spot checks of selected sample intervals. Additional verification work included the review of sample preparation procedures, chain-of-custody documentation, and QA/QC performance, including the evaluation of standards, blanks, and duplicate samples.

For the Mineral Resource estimate, the QP evaluated the database validation and close-out procedures, compositing methodology, grade capping approach, variography, block model parameters, Mineral Resource classification criteria, and model validation results. No significant local or global grade biases were identified. The methodologies applied for grade estimation and density assignment within the discretized geological domains were considered appropriate for Mineral Resource classification purposes.

Overall, the quality of the available data is considered adequate to support the current Mineral Resource classification in accordance with the CIM Definition Standards (2014). Mr. Rodriguez is of the opinion that the information reviewed and the verification work completed provide a suitable and reliable basis for the conclusions and purposes presented in the Report.

12.2.4 Mr. Hugo Filho

Mr. Filho has not visited the Água Azul Project.

Mr. Filho completed an independent desktop review of the mining methods associated with the open-pit operation, market studies and contractual arrangements, capital and operating cost estimates, economic analyses, environmental studies, permitting status, social and community impact assessments, adjacent properties, and other relevant technical and economic information.

As part of the mining method review, the QP directly supervised the preparation, evaluation, and application of the Mineral Resource block model inputs, modifying factors, pit-optimization parameters, cut-off grades (COGs), dilution and mining-loss assumptions, mine designs, and production schedules used to support the PEA and mine planning studies. The resulting outputs were reviewed against the relevant engineering studies and supporting technical documentation. Mining method assumptions and operational parameters were further assessed through the review of geotechnical and hydrogeological investigations, equipment fleet requirements, operational constraints, and production scheduling information.

Mr. Filho reviewed the metallurgical testwork and supporting technical documentation prepared for the Água Azul Project, including mineralogical characterization, comminution, gravity concentration, cyanidation, carbon adsorption, leaching, thickening, filtration, and geometallurgical studies. He also evaluated the metallurgical recovery assumptions and the proposed process flowsheet, which incorporates crushing, ball milling, hydrocyclone classification, and gravity concentration. Based on this review, the QP concluded that the metallurgical investigations and associated technical studies provide an adequate basis for the process design and recovery assumptions adopted in the Report and are sufficient for the purposes of this PEA.

The review of market studies and commercial arrangements included an assessment of commodity price assumptions, treatment and refining charges, contractual terms, and the basis of capital and operating cost estimates. Mr. Filho also evaluated the economic analysis, including the cash-flow model, financial assumptions, sensitivity analyses, and the resulting economic indicators. These were reconciled, where applicable, against supporting quotations, vendor budgets, benchmarking information, and other available source documentation.

In addition, Mr. Filho reviewed the available environmental studies, permitting documentation, and social and community impact information to assess the status of environmental compliance, regulatory approvals, and stakeholder-related considerations relevant to the Project.

Based on the information available and the specific characteristics of the Project, Mr. Filho is of the opinion that the operating cost and capital expenditure estimate for the Água Azul Project are reasonable, appropriate, and adequately supported by service agreements, engineering studies, and first-principles calculations.

Mr. Filho considers that the information reviewed and the verification work completed through the desktop review process are sufficient and appropriate for the purposes of the Report.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Mineral processing and metallurgical testwork for the Água Azul Project are based on samples from the 2020 Abelhas Deposit and the 2024 Campos Altos Region (Planta and Pão de Guincho targets), as reported by Bemisa (2023b) and TESTWORK (2024). The program comprises sample characterization, comminution testing, and an extensive suite of metallurgical assays conducted by specialized laboratories, with the objective of defining the optimal processing route and assessing gold recovery performance. The evaluation includes mineralogical characterization, gravity concentration, flotation, leaching (including CIL), solid-liquid separation, and pilot-scale testing, supported by representative samples covering key lithologies, grade ranges, and pit development scenarios, thereby establishing the technical basis for process design and performance forecasting.

13.2 Samples

The main mineralization zones include pegmatite veins, quartz veins, basalt, hydrothermalites, metamafic, gabbro, potassic granite, metagranodiorite and saprolite. Eleven samples were generated to study the processing of the mineralization zone of the Abelhas Deposit and two for the Campos Altos Targets, where (Table 13.1):

- Two samples representative of high-grade and medium grade;
- Five samples for variability tests representing the main lithologies;
- Two samples representing distinct levels of the pit;
- One sample representing the Planta target;
- One sample representing the Pão de Guincho target.

Table 13.1 General identification of samples

Type	Sample Number	Description
Average	AGZ 01	Average Sample Content 1.7 g/t Au
	AGZ 02	High Content Sample 6,0 g/t Au
Variability	AGZ 03	Saprolite
	AGZ 04	Quartz Vein
	AGZ 05	Gabbro
	AGZ 06	Pegmatitic Vein
	AGZ 07	Granodiorites
Average	PP1	Level 0 m to Level 60 m of the pit
	PP2	Level 60 at the base of the pit
	PLT	Planta target
	PDG	Pão de Guincho target

Source: Bemisa, 2023b; Testwork, 2024.

13.2.1 Composition of the Samples

All samples used for the development of the process route were collected from diamond drilling cores, sawn longitudinally into half or quarter cores.

- Sample AGZ-01 has an average Au content of 1.7 g/t, and it was the main sample used in the exploratory process and characterization tests. The sulphidation grade of aliquots ranged from 0.35 to 0.5% S, reaching values up to 0.7%. The mass of this composite was 53.75 kg. Table 13.2 shows the lithologies that composed the sample.

Table 13.2 Lithologies part of the composite of the sample AGZ-01

Sample AGZ-01				
Lithology	**Count**	**% by Lithology**	**Weight (g)**	**% by Weight**
Gabbro	8	9	5255	10
Potassic-Altered Granite	8	9	4800	9
Hydrothermalite	37	40	22205	41
Metagranodiorite	17	18	9820	18
Pegmatite Vein	9	10	5305	10
Quartz Vein	9	10	6365	12
Metamafic Rock	4	4	0	0
Total	**92**	**100**	**53750**	**100**

Source: Bemisa, 2023.

- Sample AGZ-02 represents the high-grade zones of the deposit, with a mass of 46.75 kg and grades ranging from 5 to 6.0 g/t, with sulphidation grade slightly higher than AGZ-01. Table 13.3 shows the lithologies that composed the sample.

Table 13.3 Lithologies part of the composite of the sample AGZ-02

Sample AGZ - 02				
Lithology	**Count**	**% by Lithology**	**Weight (g)**	**% by Weight**
Gabbro	7	14	7910	17
Potassic-Altered Granite	8	16	9025	19
Hydrothermalite	11	22	11450	24
Metagranodiorite	10	20	9520	20
Pegmatite Vein	7	14	3660	8
Quartz Vein	6	12	5190	11
Total	**49**	**100**	**46755**	**100**

Source: Bemisa, 2023.

Both samples were predominantly composed of hydrothermalites and secondarily by metagranodiorites and potassified granite.

- Samples AGZ-03 to AGZ-07 were destined for variability tests and represent each major lithology of the deposit. Table 13.4 shows the lithologies for each variability test.

Table 13.4 Variability of samples' lithologies

Sample ID	**Lithology**
AGZ-03	Saprolite, fine-grained, dominant in the superficial horizon
AGZ- 04	Quarts veins
AGZ-05	Gabro mineralized
AGZ-06	Pegmatite veins
AGZ-07	Granodiorites

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

- Sample PP1 is representative of the mineralization between the 0 m and 60 m mine levels, while sample PP2 is representative of the mineralization below the 60 m level.

  Samples PP1 and PP2, each one with 404 kg, had grades of 1.96 g/t and 2.05 g/t, respectively, and were composed of the lithologies shown in Table 13.5 and Table 13.6.

Note that composite PP1 includes a significant amount of saprolite.

Table 13.5 Lithologies part of the composite of the sample PP1

PP1 - Total Sample: 404.68 kg - Grade: 1.96 g/t		
Lithology	**Mass (kg)**	**% of Sample**
Gabbro	48.825	12%
Potassic-Altered Granite	64.934	16%
Hydrothermalites	147.6	37%
Metagranodiorite	50.19	12%
Metamafic Rock	2.025	1%
Pegmatite	17.555	4%
Quartz Veins	22.358	6%
Saprolite	49.995	12%
		100%

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

Table 13.6 Lithologies part of the composite of the sample PP2

PP2 - Total Sample: 403.98 kg - Grade:2.05 g/t		
Lithology	**Mass (kg)**	**% of Sample**
Gabbro	33.355	8%
Potassic-Altered Granite	52.02	13%
Hydrothermalites	205.685	51%
Metagranodiorite	52.575	13%
Metamafic Rock	8.715	2%
Pegmatite	33.585	8%
Quartz Veins	14.535	4%
		99%

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

- The PLT and PDG samples were homogenized and quartered. Two 3-kg-subsamples were taken for gold analysis, reporting Au grades of 0.85 and 1.18 g/t, respectively.

13.2.2 Quantities and Destination of Samples

Sample AGZ-01 was sent to LCT/USP for technological characterization.

Samples AGZ 01 to AGZ 07 were sent for metallurgical recovery testing at Testwork Laboratory, in Nova Lima, Minas Gerais, Brazil. Filtration tests were carried out by Diemme Filtration (Italy), Outotec (Sorocaba, SP) and Brasfelt (Belo Horizonte, MG). Comminution tests were performed by MinPro Solutions (São Paulo, SP), Metso (Sorocaba, SP), and SGS-Geosol (Vespasiano, MG).

The samples PP1 and PP2 were composited to produce a larger-volume sample and sent to Testwork, MinPro Solutions, and Metso Outotec laboratories. Residues from these laboratories were sent to Brasfelt and SGS Geosol for complementary testworks.

The samples PLT and PDG were sent to Testwork Laboratory for chemical analysis (FAA323). To prevent bias in the results due to the nugget effect, the protocol established a gravimetric pre-concentration step through a Knelson MD3 centrifugal concentrator. The entire concentrate was fused, and rejects were sampled and analyzed to compose the gold and copper head grade.

13.3 Technological Characterization

The technological characterization comprised the following studies:

- mineralogical;
- comminution;
- metallurgical tests (gravimetric concentration, flotation, leaching, and neutralization of cyanide on a bench and pilot scale, sedimentation, and filtration tests);
- potential for generating acid drainage and leaching of metals from tailings – MABA;
- As part of the characterization, a variability study was carried out.

13.4 Mineralogical Characterization

The mineralogical characterization of the Água Azul Project was carried out in the sample AGZ-01 by the Technological Characterization Laboratory of the Polytechnic School of USP (University of São Paulo/Brazil) in November 2020, according to the procedure shown in Figure 13.1:

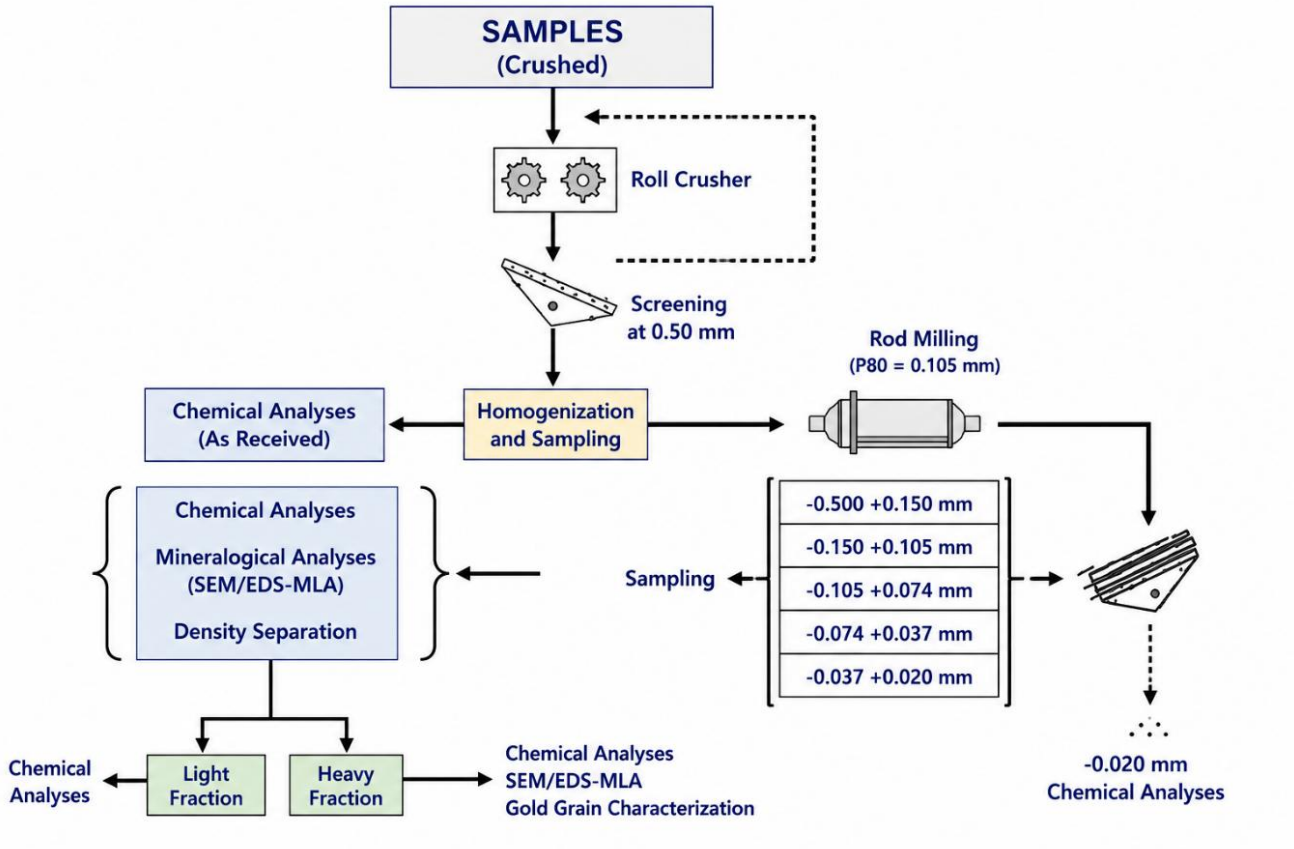

Figure 13.1 Mineralogical characterization flowsheet

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

The sample was crushed, ground, classified into different particle sizes, and analyzed by electron microscopy and dense media separation. The results showed a gold grade of 1.71 g/t, average of two aliquots, with low silver, sulphur, and iron contents. Most of the gold is contained in intermediate particle sizes, representing 89.4% of the sample mass and 81% of the gold contained in the sample.

The mineralogical composition of the sample is shown in Figure 13.2. The main minerals are quartz (33%), feldspar (45%), and mica (14%). The remainder consists of chlorite, carbonates, pyroxene-amphibole, and sulphides (mainly pyrite – 1%). A small portion, 1.1%, is constituted by K-feldspar, apatite, manganese oxide, hydrated iron, zircon, and gibbsite,

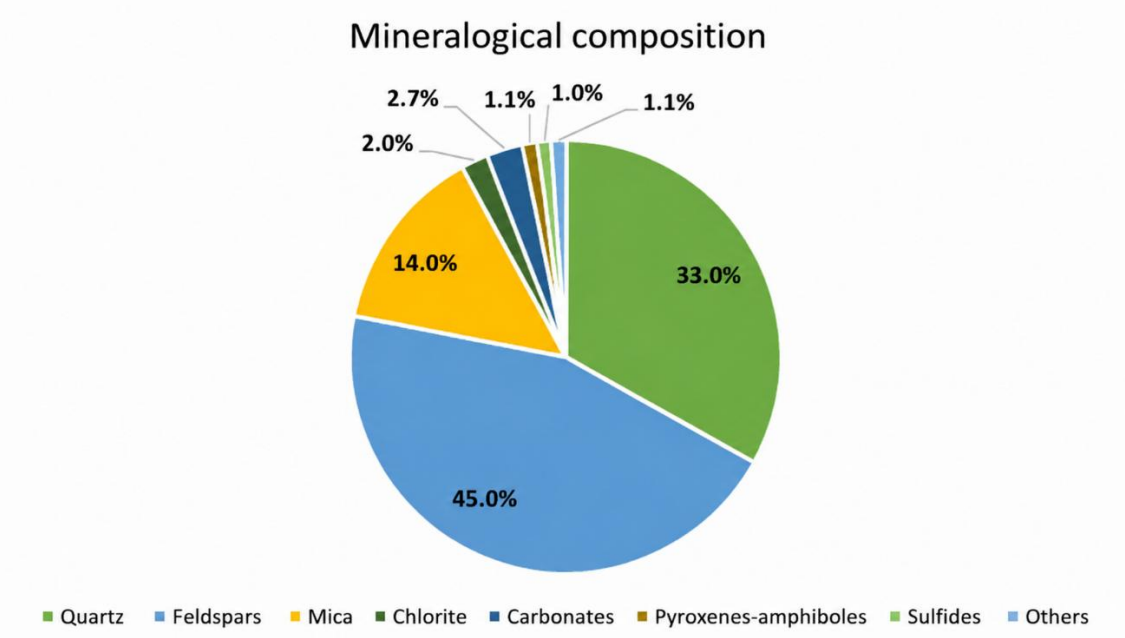

Figure 13.2 Mineralogical composition

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

As shown in Table 13.7, arsenic, lead, and zinc were detected at levels of 11 g/t, 225 g/t, and 348 g/t, respectively. Although these elements occur at relatively higher concentrations compared to other minor constituents, available metallurgical testwork indicates that they do not represent deleterious elements or processing factors that could have a material impact on the potential economic extraction of the mineralization. This conclusion is supported by leaching test results, which achieved gold extraction recoveries exceeding 97%, demonstrating that the presence of these elements does not adversely affect the metallurgical performance of the studied material.

Table 13.7 Summary of the chemical composition of the sample

Chemical Analysis Results		
Au (1)	g/t	1.86
Au (2)	g/t	1.55
Au Average (1) & (2)	g/t	1.71
Ag	g/t	0.50
Fe	%	2.18
S	%	0.46
As	g/t	11.00
Cu	g/t	38
Pb	g/t	225
Zn	g/t	348
Results by SGS-Geosol Laboratory		

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

The sulphides represent 0.6% of the sample, and they are classified as free, binary composite particles and ternary composite particles. Table 13.8 shows a summary of the association.

Table 13.8 Distribution of particle composites by size

Composite Particles	Particle Size (mm) Distribution %					
	Total[(1)]	-0.5+0.15	-0.15+0.105	-0.105+0.074	-0.074+0.037	-0.037+0.020
Free	91.7	82.0	94.0	91.0	94.0	97.0
Binary Composites	6.9	18.0	2.6	8.6	5.3	2.1
Ternary Composites	1.4	0.8	3.7	0.1	0.8	0.4

Notes:
1. The totals may not add up to exactly 100% due to rounding and analytical precision
Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

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The dense medium separation (DMS) test (Table 13.9), conducted at a cut density of **2.95 g/cm³**, indicated that 3.3 wt.% of the feed reported to the sink product. This fraction assayed 21.5 g/t Au, accounting for 53.1% of the gold contained in the sample.

The float product represented 80.8 wt.% of the feed, with an average grade of 0.48 g/t Au, accounting for 27.9% of the gold contained in the sample.

The −0.020 mm fraction, which was not subjected to the DMS test, represented 15.9 wt.% of the feed. This fraction assayed 1.68 g/t Au, corresponding to 19.0% of the gold contained in the sample.

The Ag grade in the sink product was 21.5 g/t, whereas the −0.020 mm fraction assayed <5 g/t Ag.

Gold occurs both as free grains and associated mainly with pyrite and, to a lesser extent, other minerals. About 75% of the gold in particles larger than 37 µm is accessible to leaching, while the remainder is locked in sulphides, silicates, or other minerals.

Table 13.9 Chemical analysis of DMS products

Products	% Mass	Grade of Au (g/t)		Distribution (%)	
		Au	Ag	Au	Ag
Feed	100.0			100	100
Floats	80.8	0.48	...	27.9	ND
Sinks	3.3	21.5	17	53.1	...ND
-0.020 mm	15.9	1.68	<15	19.0	...ND

Source: Bemisa, 2023.

The sink product was subjected to a SEM/EDS-based grain counting analysis to quantify the occurrence of free gold grains and gold grains associated with other mineral phases. The results are presented in Table 13.10 and illustrated in Figure 13.3.

Table 13.10 Gold grain in sink fraction

Gold Grain Count in the Sink Fraction				
Size (mm)	Au Grade (g/t)	Au Distribute. (%)	Qty of Particles	Au Grains Counted
-0.50+0.15	15.70	5.2	69	8
-0.15+0.105	16.10	10.1	61	86
-0.105+0.074	16.00	10.8	49	68

Gold Grain Count in the Sink Fraction				
-0.074+0.037	30.20	14.1	62	86
-0.037+0.020	41.50	12.9	43	46

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

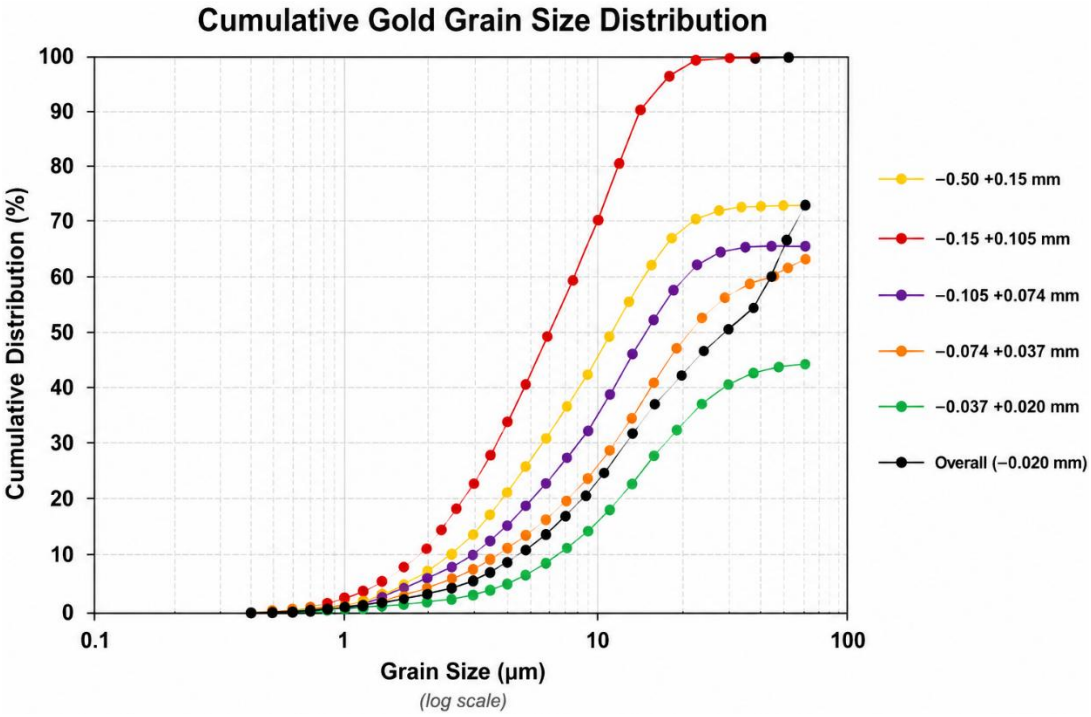


Figure 13.3: Gold grain size cumulative distribution

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

The mineralogical characterization included an analysis of gold particles associated with other minerals in the range size between -0.50 mm and +0.020 mm. The results are presented in Table 13.11 and Figure 13.4.

Table 13.11 Gold association by particle size range

Fraction (mm)	Gold associations in contact perimeter (%)							
	Free Grain (1)	Pyrite	Other Sulphides	Clayed Minerals	Feldspars	Quartz	Pyroxenium-Amphibole	Others
-0,50 + 0,15	8.9	72	2	3.7	8.4	1.8	2.4	1.1
-0,15 + 0,105	14	45	5.1	21	5.6	2.3	6.5	1.0
-0,105 + 0,074	46	45	7.8	0.2	0.3		1.0	
-0,074 + 0,037	45	41	4.9	1.1	2.1	2.3	2.7	1.2
-0,037+0,020	71	23	2		0.6		3.2	0.6
Total + 0,020	59	31	3.4	1.0	1.3	0.7	2.9	0.7

Note: Grain perimeter fully exposed, without contact with other minerals: other sulphides. Sphalerite, pyrrhotite and BiS (Te). Others: K-feldspar, apatite, psilomelane, iron oxide-hydroxide, zircon, and gibbsite.

Source: Bemisa, 2023b.

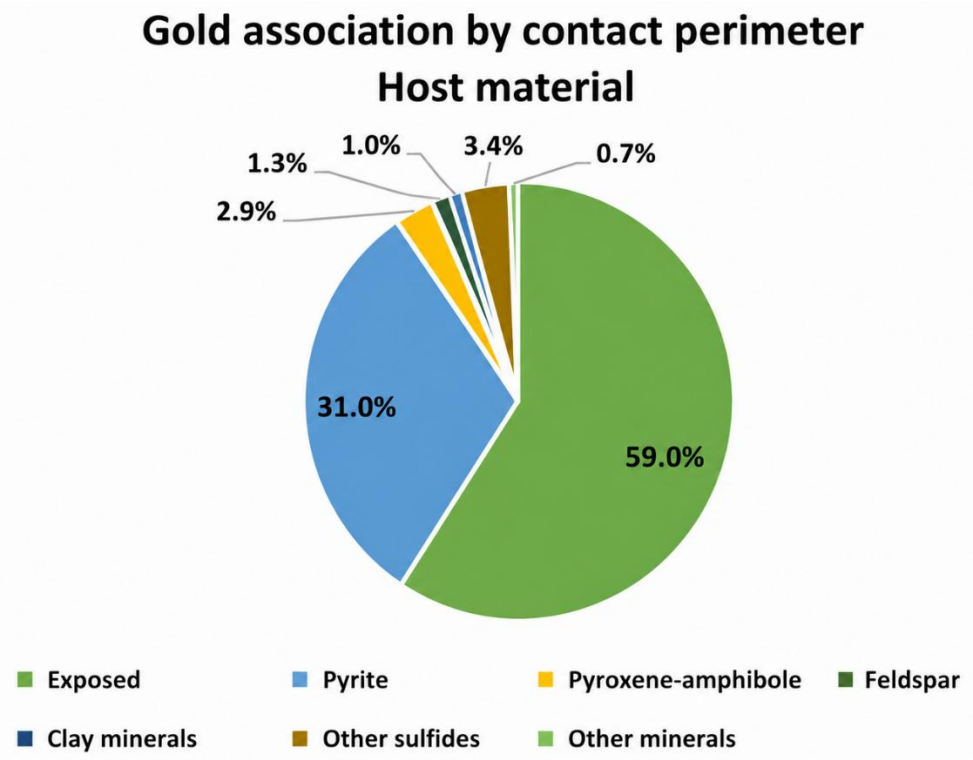


Figure 13.4 Gold association by particle size range

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

From Table 13.11, for the overall -0.50 +0.020 mm size fraction, 59% of the total gold grain perimeter occurs as liberated grains, while 31% of the total exposed perimeter is associated with pyrite. An additional 3.4% is associated with other sulphides (pyrrhotite, chalcopyrite, bornite, and sphalerite). The associations with the remaining minerals are presented in Figure 13.4. The proportion of liberated gold is between 9% and 14% for the >105 µm size fraction, 45–46% for the 105–37 µm fraction, and 71% for the 37–20 µm fraction, as presented in Table 13.11.

The gold accessibility was estimated based on the properties of each grain association and SEM. For the sink fraction between 0.020 mm and 0.50 mm, 75% of the gold is accessible, suggesting that they are recoverable by leaching, 11% encapsulated in pyrite, 5% encapsulated in silicates and 9% in other minerals, as shown in Figure 13.5.

Figure 13.6 shows the gold accessibility by size. The finer the sample, the greater the accessibility to the gold grains.

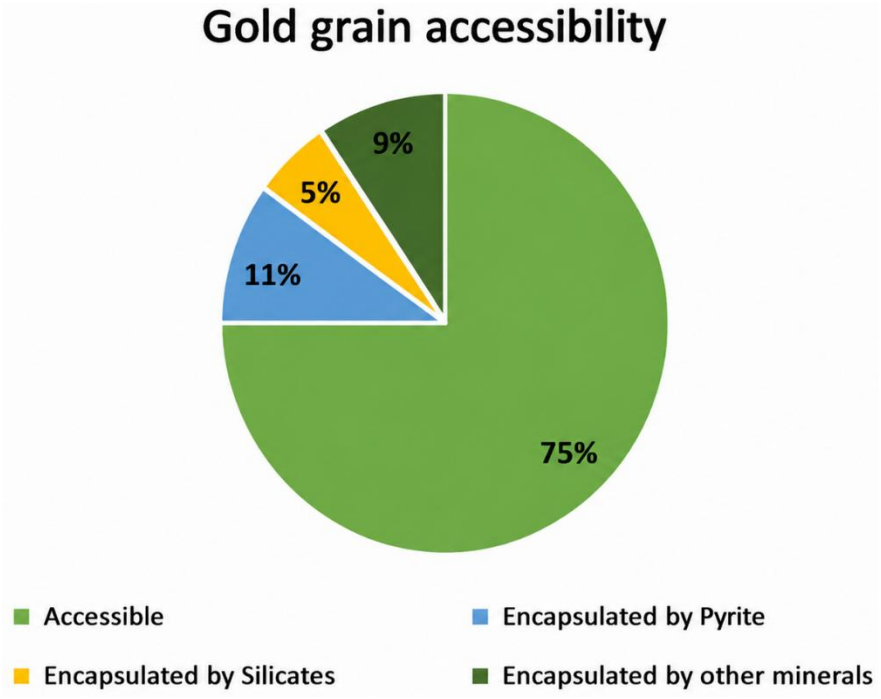


Figure 13.5 Gold grain accessibility -0.50mm+0.020 mm

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

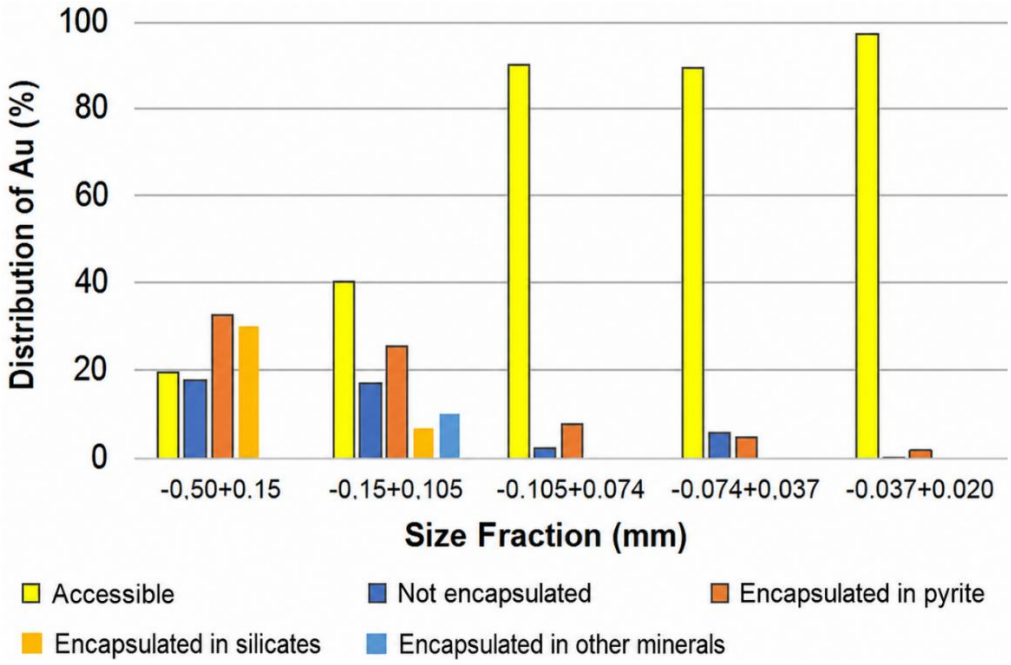


Figure 13.6 Gold grain accessibility by size

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

13.5 Characterization of Comminution

13.5.1 Crushability

The testworks were carried out in the laboratory of Metso-Outotec, using the samples P1 and P2, prepared for pilot plant tests. Results are presented in Table 13.12.

Table 13.12 Summary of results from crushability index determination

Crushability Characterization						
Parameter	**Laboratory**	**Sample**	**Result**	**Unity**	**Reference**	
Ai Bond	Metso-Outotec	PP1	0.438	g	Abrasive	0.35–0.55
		PP2	0.414	g	Abrasive	0.35–0.55
	MinPro Solutions	PP1	0.438	g	Medium-hard	0.401–0.5
		PP2	0.489	g	Medium-hard	0.401–0.5
Ai Macon	Metso-Outotec	PP1	1196	g/t	Medium	600–1200
		PP2	1242	g/t	Medium	600–1200
Crushability	Metso-Outotec	PP1	35.1	%	Medium	30–40
		PP2	32.7	%	Medium	30–40
Bulk density	Metso-Outotec	PP1	1.66	t/m^3	Sample 12 - 0 mm	
		PP2	1.67	t/m3		
Specific Gravity	Metso-Outotec	PP1	2.60	t/m3		
		PP2	2.59	t/m3		
Volumetric Capacity	Metso-Outotec	PP1	49.78	%		
		PP2	53.41	%		
Strength index	Metso-Outotec	PP1	139.38	%	Hard	
		PP2	159.74	%	Very Hard	>150
Shape Factor	Metso-Outotec	PP1	2.36	%	Cubic	0–20
		PP2	4.42	%	Cubic	0–20

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

13.5.2 Grindability Indexes

PP1 and PP2 samples were subjected to Bond Work Index (Wi) testing in accordance with the standard test procedure. The tests were conducted by the Metso Outotec laboratory, and two comminution routes were evaluated: (i) the conventional route, involving feed size reduction using conventional crushing equipment, and (ii) pre-crushing using a High-Pressure Grinding Roll (HPGR).

Table 13.13 shows the results obtained from these tests.

Table 13.13 Bond Wi results

Bond Wi Results with and Without HPGR					
Sample	**Laboratory**	**Scenario**	**Wi Bond (kW.h/t)**	**References**	**Ratio %**
PP1	Metso: Outotec	W/O HPGR	14.48	-	11.26%
		With HPGR	12.85	-	
	MinPro Solutions	W/O HPGR	14.80	Moderately high toughness	6.76%
		With HPGR	13.80	Moderately high toughness	
PP2	Metso: Outotec	W/O HPGR	14.98	-	13.22%
		With HPGR	13.00	-	
	MinPro Solutions	W/O HPGR	15.70	Moderately high toughness	10.83%
		With HPGR	14.00	Moderately high toughness	
AGZ-02	SGS-Geosol	W/O HPGR	12.60	-	

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

Pre-reduction using a High-Pressure Grinding Roll (HPGR) reduced the Bond Work Index (Wi) by approximately 11% for sample PP1 and 13% for sample PP2, according to testwork performed by

Metso Outotec. Testwork conducted by MinPro Solutions indicated corresponding reductions of approximately 7% and 11%, respectively.

For AGZ-02, only direct Bond Testwork was conducted, resulting in a Wi of 12.6 kW.h/t.

Bond Wi determination was also carried out in the variability samples. Table 13.14 shows the results. For sample AGZ-03, the particle size distribution was not suitable for the test. The remaining samples present a homogeneous behaviour.

Table 13.14 Wi results for variability samples

Bond Wi Results for Variability Samples				
Sample	**Laboratory**	**Laboratory**	**Wi Bond (kW.h/t)**	**References**
AGZ-03*	Saprolite	SGS-Geosol	ND	ND
AGZ-04	Quartz veins		14.30	Moderately high toughness
AGZ-05	Gabbro		14.80	Moderately high toughness
AGZ-06	Pegmatite veins		14.40	Moderately high toughness
AGZ-07	Granodiorites		14.40	Moderately high toughness
*Particle size distribution unsuitable for testing				

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

A new Wi campaign was carried out in samples collected from drilling cores in 2023. Results showed a Wi higher than the previous tests, ranging from 15.8 to 19.2 kW.h/t.

MinPro Solutions laboratory carried out tests to determine the DWT (Drop Weight Test) for samples PP1 and PP2. The results are summarized in Table 13.15.

Table 13.15 DWT results

Sample	Parameters			Reference	
	A	**b**	**IQ**	**Value**	**Classification**
PP1	79.9	0.37	29.6	IQ 20.0 - 29.9	Extremely high impact resistance
PP2	83.6	0.35	29.2		

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

13.6 Metallurgical Testing

Metallurgical tests were conducted to evaluate the behaviour of the samples in conventional processes, as gravity concentration followed by CIL (carbon-in-leach) and gravity concentration followed by flotation. Tests were conducted at different particle sizes.

13.6.1 Gravity Concentration

Composite AGZ-01 and AGZ-02 were submitted to gravity concentration, where the rejects were sent to concentration by flotation. Figure 13.7 and Figure 13.8 shows the gravity recovery for samples AGZ-01 and AGZ-02 for three different P_{80}.

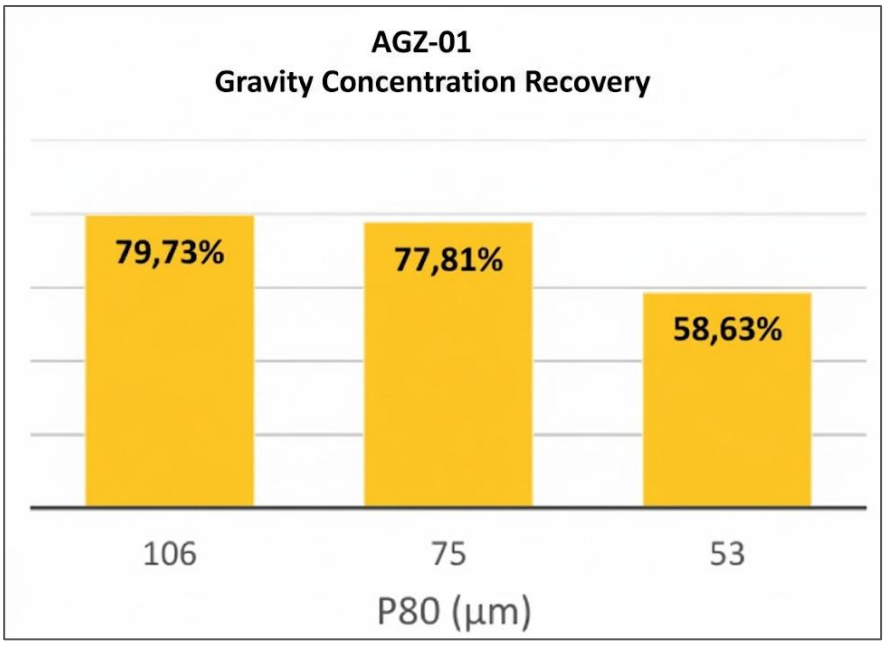


Figure 13.7 Sample AGZ-01 – gold recovery in gravity concentration

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

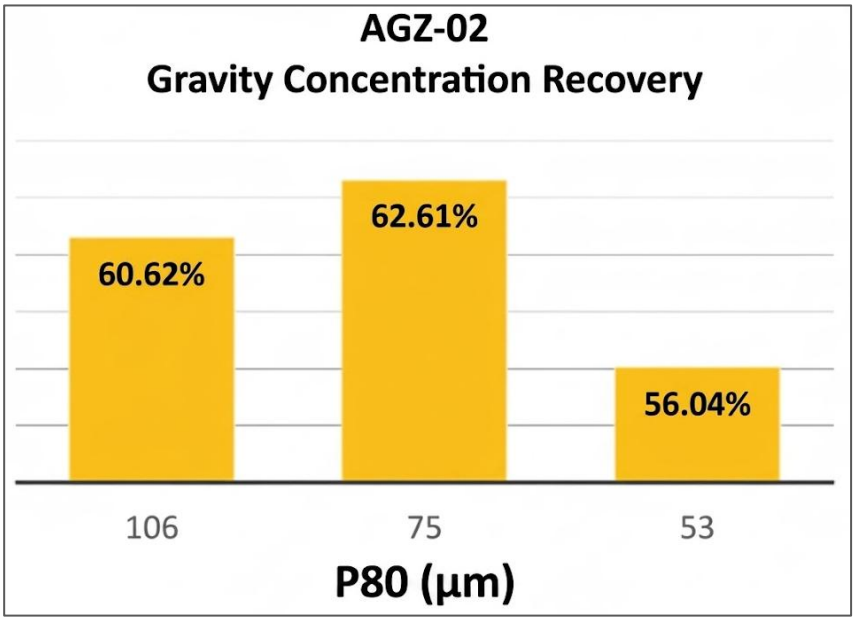


Figure 13.8 Sample AGZ-02 – gold recovery in gravity concentration

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

Tests were carried out in a centrifugal concentrator in lab scale, model Knelson MD3. To a certain extent, P_{80} coarser is more suitable for gold recovery.

13.6.2 Flotation Concentration

Flotation was performed on the tailings of gravity concentration from sample AGZ-01. The tests were conducted in conventional lab scale cell, using common reagents for gold and sulphide flotation, such as copper sulphate, xanthates and frothers. Residence time was fixed at 20 min.

Figure 13.9 shows the kinetics curves for both P_{80} 75 µm and 53 µm.

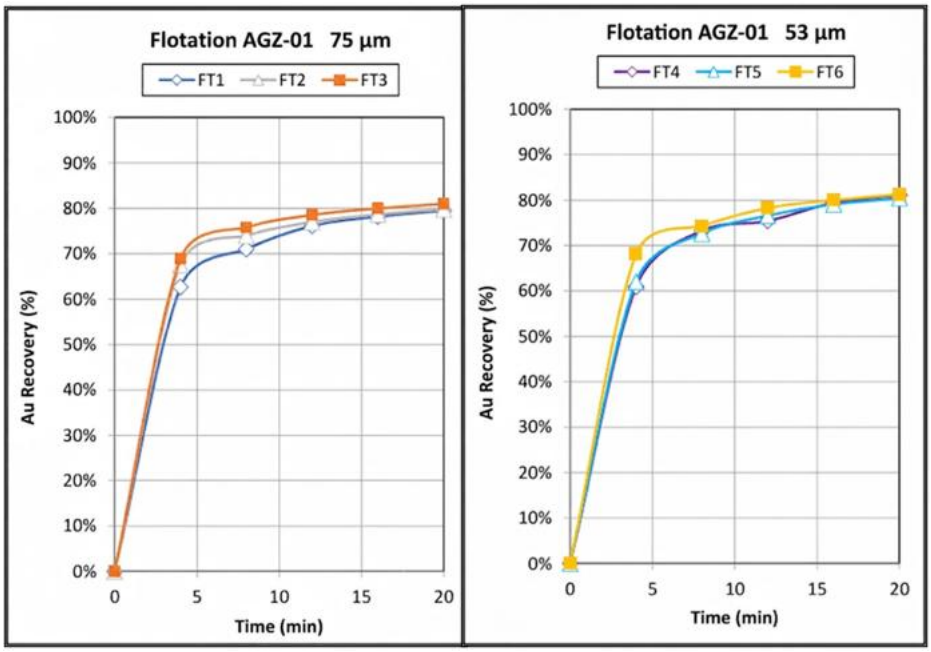


Figure 13.9 Flotation kinetics curves for sample AGZ-01, P_{80} of 75 µm and 53 µm

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

13.6.3 Leaching Tests

Samples AGZ-01 and AGZ-02 were leached with cyanidation process, to simulate the following conditions:

- Direct leaching, without gravity concentration.
- Leaching with carbon, without gravity concentration.
- Direct leaching of gravity concentration tailings;
- Leaching with carbon of gravity concentration tailings.

Figure 13.10 and Figure 13.11 show the extraction curves for the sample AGZ-01, considering the conditions above.

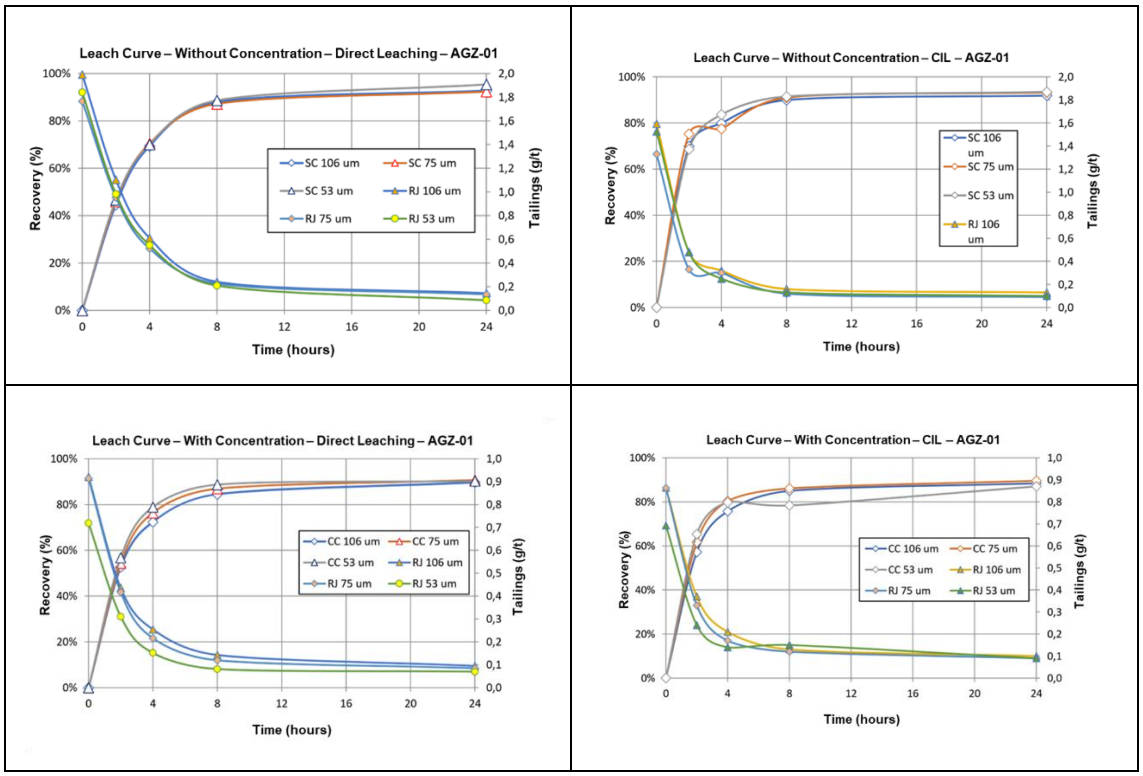


Figure 13.10 Leaching extraction curves for sample AGZ-01

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

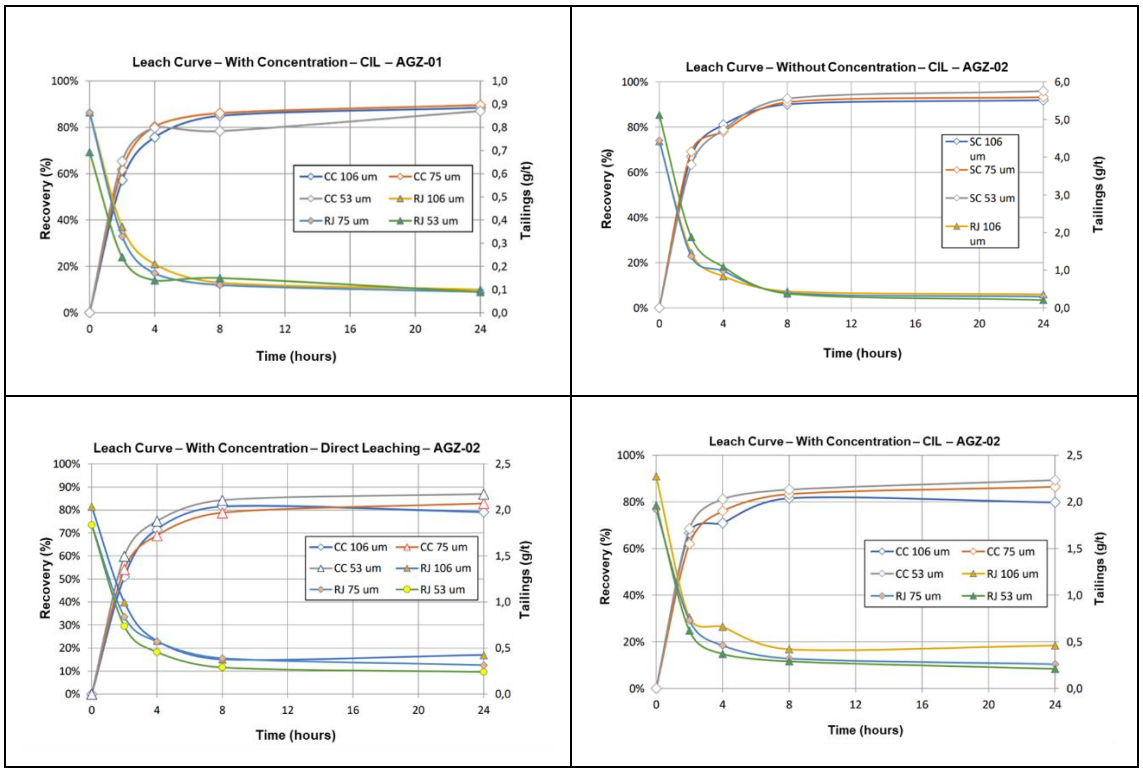


Figure 13.11 Leaching extraction curves for sample AGZ-02

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

The graphics shown in the Figure 13.12 and Figure 13.13 summarize the results for cyanidation for samples AGZ-01 and AGZ-02. The best condition for sample AGZ-01 was obtained at P_{80} size of 106 µm and 75 µm. The results are not affected by leaching with activated carbon.

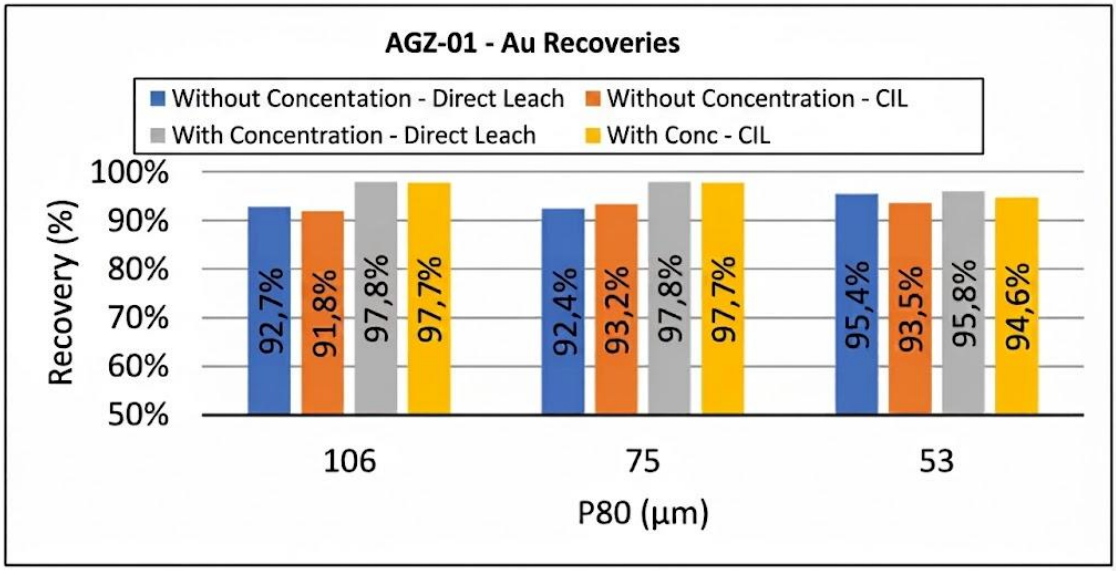


Chart 22: Global recovery of gold contained in sample AGZ-01, for the conditions: 1- Without Gravity Concentration, direct leaching. 2- Without Gravity Concentration, CIL. 3- With Gravity Concentration, direct leaching. 4- With Gravity Concentration, CIL. Respectively. Divided by granulometry, of 106, 75, and 53 µm

Figure 13.12 Summary of results – leaching of sample AGZ-01

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

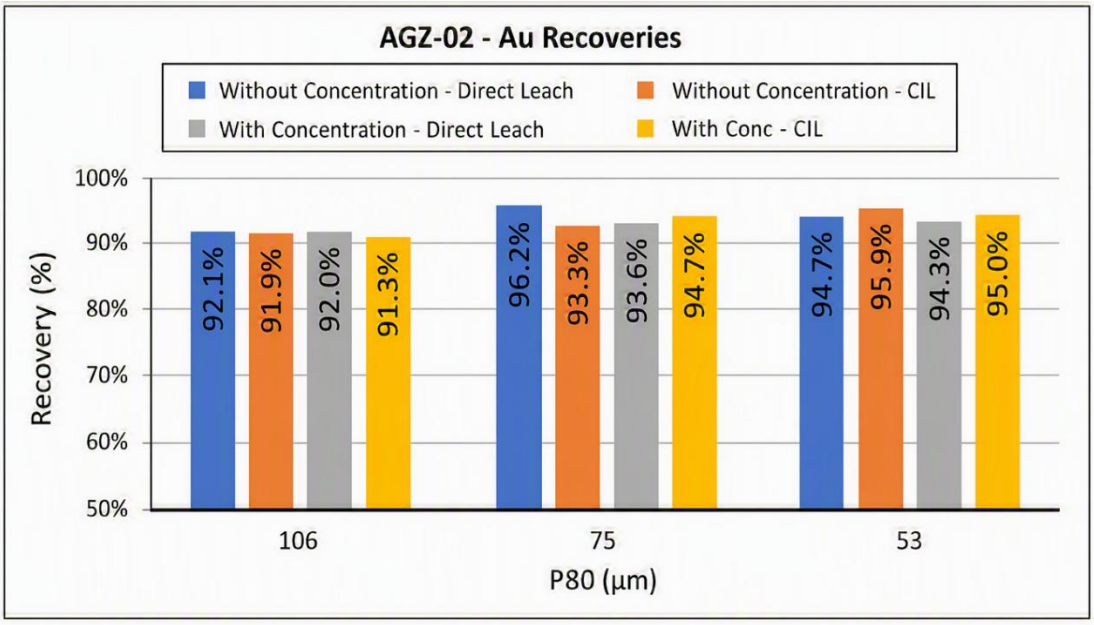


Chart 29: Global recovery of gold contained in sample AGZ-02, for the conditions: 1- Without Gravity Concentration, direct leaching. 2- Without Gravity Concentration, CIL. 3- With Gravity Concentration, direct leaching. 4- With Gravity Concentration, CIL. Respectively. Divided by granulometry, of 106, 75, and 53 µm.

Figure 13.13 Summary of results – leaching of sample AGZ-01

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

For sample AGZ-02, the results are slightly different. The best results are in the finer size, indicating the necessity for a better particle liberation.

13.7 Variability Tests

Two campaigns for sampling for variability tests were carried out in 2021 and 2023. The results of the first campaign are summarized in Table 13.16.

Table 13.16 Leaching results of variability samples – 75 µm particle size

Samples	Lithology	Feeding Grade Au (g/t)	Tailings Grade of Au (g/t)	Recovery in Gravimetry	Recovery in Leaching	Total Recovery
AGZ-03	Saprolite	1,09	0,03	54,0%	43,50%	97,50%
AGZ-04	Quartz vein	10,7	0,46	73,80%	21,90%	95,70%
AGZ-05	Gabbro	2,28	0,11	70,10%	26,08%	96,2%
AGZ-06	Pegmatitic Vein	1,50	0,04	62,60%	34,72%	97,32%
AGZ-07	Granodiorites	1,69	0,08	56,34%	39,22%	95,56%
PDG	Blend	2,4	0,28	48,42%	82,65%	91,03%
PLT	Blend	1,05	0,08	30,24%	89,14%	92,39%

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

In the second campaign, new samples representing different lithologies were collected and submitted to gravity concentration and rolling bottle leaching tests. Table 13.17 shows a summary of the results.

Table 13.17 Variability samples standard procedures results

Variability Samples - Standard Tests Results					
Lithology	Au (g/t)	Recoveries			
		P_{80} 106 µm		P_{80} 75 µm	
		Gravity	CIL (24h)	Gravity	CIL (24h)
Hydrothermalite	1,67	52,3%	85,6%	44,2%	87,9%
Quartz Veined	3,78	50,2%	90,8%	47,8%	92,6%
Potassic Granite	1,03	34,7%	85,6%	35,2%	89,7%
Granodiorites	0,66	47,3%	91,5%	47,6%	94,2%
Gabbro 8,86%	1,3	28,8%	85,2%	41,1%	88,1%
Pegmatitic Vein	1,58	45,1%	91,5%	52,3%	95,6%
Oxidized	0,96	43,5%	95,8%	46,3%	96,2%
Metamafic	1,08	33,8%	83,4%	30,7%	86,3%

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

From this table, some groups are distinct for both the gravity and cyanidation processes. A broad metallurgical study must be carried out to define different domains. The kinetics are too fast, and more than 88% of the gold is extracted in 16 h.

Gravity concentration is more sensitive to particle size variations than cyanidation. Additional testwork is recommended to establish the optimum process parameters. Overall, the finer grind size (P80 of 75 µm) resulted in higher gold recovery gravity concentration

The tests were carried out in a Knelson centrifuge concentrator, model MD3. 136 kg of the sample PP1 and 135 kg of the PP2 sample were treated in batches of 20 kg. For all tests, the water was added at a flow of 5 L/min and acceleration at 60G.

The results are presented in Table 13.18.

Table 13.18 Summary of gravity concentration results – pilot plant

Gravity Concentration Results - Pilot Plant				
Sample		Mass (%)	Au Grade (g/t)	Au Recovery (%)
PP1	Concentrate	0,40%	235,38	46,79%
	Tailings	99,6%	1,08	53,21%
	Calculated feed	100	2,07	100%
	Analyzed feed	100	1,91	
PP1	Concentrate	0,44%	228,64	47,69%
	Tailings	99,6%	1,09	52,31%
	Calculated feed	100%	2,17	100%
	Analyzed feed	100%	1,74	

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

13.7.1 Carbon in Leach

Pilot tests were carried out on the tails from the gravity concentration of samples PP1 and PP2. Figure 13.14 and Figure 13.15 show a schematic diagram of the process and balance for samples PP1 and PP2.

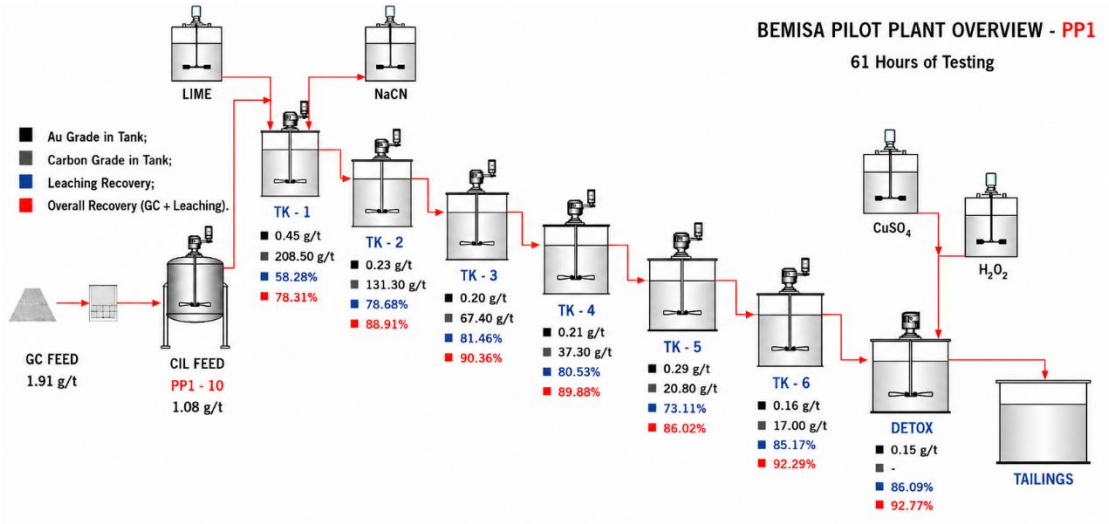


Figure 13.14 Schematic flowsheet and met balance for sample PP1

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

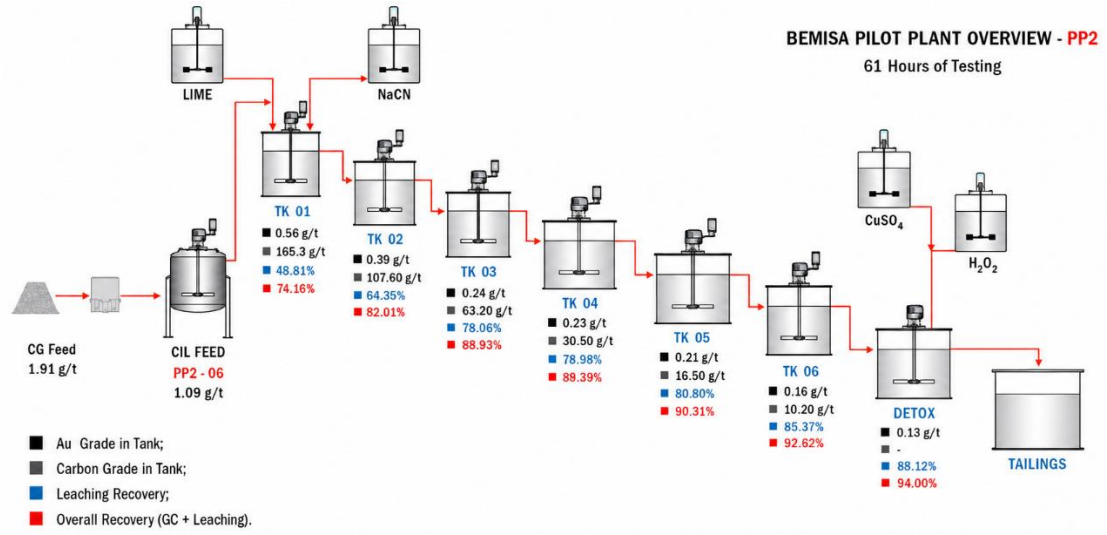


Figure 13.15 Schematic flowsheet and balance for sample PP2

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

This continuous pilot plant consisted of leaching in six agitated tanks. Lime (CaO) and sodium cyanide (NaCN) were added only to the first leach tank, while cyanide detoxification was performed in the seventh tank through the addition of copper sulphate ($CuSO_4$) and hydrogen peroxide (H_2O_2).

The pilot campaign demonstrated stable operation, with consistent tailings quality and gold recovery achieved approximately two hours after the plant reached steady-state conditions. Attention was given to the cyanide detoxification stage. The detoxification procedure was progressively optimized during the pilot campaign, and the results indicated either complete cyanide destruction or residual cyanide concentrations below the applicable environmental discharge limits.

13.7.2 Settling Tests

In the first campaign, the samples PP1 and PP2 were submitted to settling tests to estimate the diameter of the thickener. The results indicated a diameter of 12 m, according to Table 13.19.

Table 13.19 Settling tests for samples PP1 and PP2

Sample	Flocculant Type	Dosage (g/t)	Feed Solids (%)	Settling Velocity (m/h)	Unit Area (m²/t/day)	Final Solids (%)	Thickener Diameter (m)
PP1	Pochteca F367	15	15%	16.75	0.352	46%	12
PP2	Pochteca F367	15	15%	43.56	0.354	49%	12

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

In the second campaign, variability samples were collected for tests by lithology. The results are shown in Table 13.20.

Table 13.20 Settling tests for variability samples – 2nd campaign

Lithology	Flocculant	Feed Solids (%)	Target Solids (%)	Actual Solids (%)	Dosage (g/t)	Compaction Time (min)	Settling Velocity (m/h)
Oxide	SNF NA 905 VHM	15%	50%	35%	40	12.0	3.96
Quartz Vein	SNF NA 905 VHM	15%	50%	50%	10	11.5	21.78
Pegmatite Vein	SNF NA 905 VHM	15%	50%	50%	10	8.0	17.42
Gabbro	SNF NA 905 VHM	15%	50%	50%	10	7.2	14.52

Lithology	Flocculant	Feed Solids (%)	Target Solids (%)	Actual Solids (%)	Dosage (g/t)	Compaction Time (min)	Settling Velocity (m/h)
Metamafic	SNF NA 905 VHM	15%	50%	50%	10	6.0	14.52
Hydrothermalite	SNF NA 905 VHM	15%	50%	50%	10	4.6	21.78
Potassic Granite	SNF NA 905 VHM	15%	50%	50%	10	11.2	14.52
Metagranodiorite	SNF NA 905 VHM	15%	50%	50%	10	11.0	10.89

Source: Relatório de Caracterização Tecnológica, Bemisa, 2023.

The settling velocity shows a significant variability and complementary studies to define the size of the thickener are of paramount importance.

13.7.3 Filtration Tests

In September 2021, thickening and filtration tests were carried out when 23 kg of samples were sent to Diemme, Italy, for thickening and filtration tests, 11 kg of sample PP1 and 12 kg of PP2, both on a dry basis. The samples sent were previously subjected to the CIL process and then to DETOX on a pilot scale, as per item 3.3.4 of this chapter, classified as gold tailings samples. In addition, granulometric analysis of both samples was provided. Therefore, the following parameters were adopted for the tests:

- Solids concentration at thickener inlet: 14.8% (m/m);
- Target solids concentration for U/F: 50% (m/m);
- pH 8 - 10, temperature 30 °C, altitude above sea level 300 m.
- Required residual moisture in samples: 15% (m/m).

The first step was the characterization of the samples prepared for the target underflow concentration, between 50 and 55% (w/w). The results are presented in Table 13.21.

Table 13.21 Characterization of samples PP1 and PP2

Parameters	PP1	PP2
Temperature (ºC)	Room Temperature	Room Temperature
pH	8-10	8-10
Pulp density (Kg dm-3)	1,472	1,495
Liquid phase density (Kg dm-3)	1,0	1,0
Total solids (% w/w)	53,1	52,9
Total solids (g dm-3)	782	791
L.O.I. (% w/Wss)	1,95	2,20
Solid density	2,63	2,63
CST18	28,3	19,0

Source: Bemisa, 2023b.

For the thickening tests, the ideal flocculant was chosen. Two anionic flocculants with different charge and molecular weight (Magnafloc 919 and 5250) and one non-ionic flocculant (Magnafloc 251) were tested. The flocculant that showed the best consistency in the flocs formed was Magnafloc 919, presenting sedimentation rates like Magnafloc 5250. The results can be seen in Table 13.22 and Figure 13.16.

Table 13.22 Comparison between flocculants

Flocculant Type	Flocculant Concentration (%w/w)	Dosage (ppm)	Pulp Concentration (%w/w)	Floc Quality	Supernatant Quality	Settling Speed (m/h)
MF 5250	0,025	10	7	Small	Clean	43,2

Flocculant Type	Flocculant Concentration (%w/w)	Dosage (ppm)	Pulp Concentration (%w/w)	Floc Quality	Supernatant Quality	Settling Speed (m/h)
MF 5250	0,025	20	7	Medium	Clean	49,8
MF 5250	0,025	30	7	Medium-Large	Clean	55,5
MF 351	0,025	10	7	Small	Clean	27,7
MF 351	0,025	20	7	Small	Turbid	33,8
MF 351	0,025	30	7	Small	Turbid	36,6
MF 919	0,025	10	7	Medium	Clean	35,3
MF 919	0,025	20	7	Medium	Clean	46,3
MF 919	0,025	30	7	Medium-Large	Clean	51,2

Source: Bemisa, 2023b.

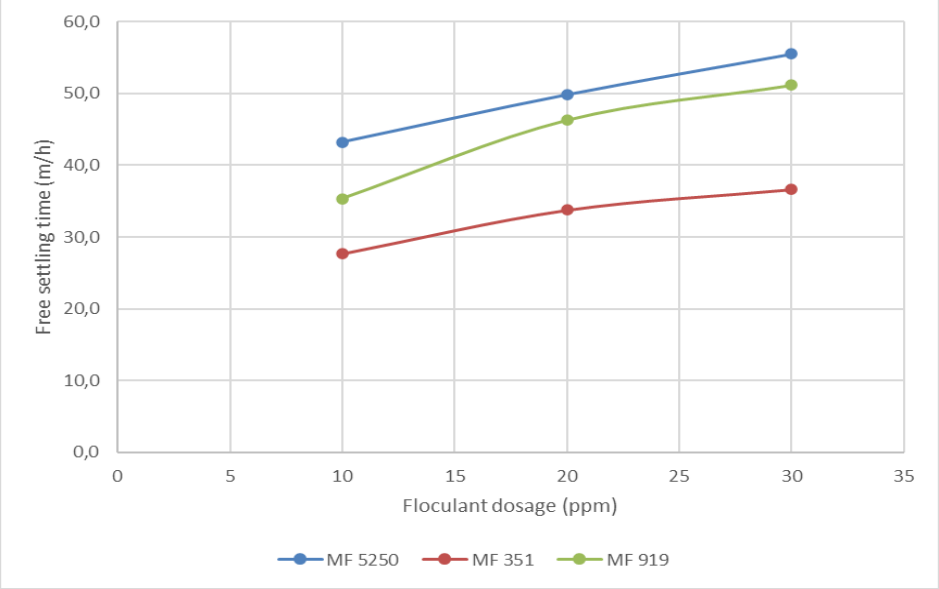


Figure 13.16 Comparison of flocculants used

Source: Bemisa, 2023b.

After selecting the flocculant, dynamic sedimentation tests were performed, the results of which are consolidated in Table 13.23.

Table 13.23 Dynamic sedimentation test results

Test No.	Feed		Flocculant		O/F		U F	
	Concentrated Solid. (% w/w)	Solid Flux (ton h me)	Type	Dosage (ppm)	Clarity (ppm)	Liquor R/R (m/h)	Conc. (% w/w)	Yield stress (Pa)
1 - PPI	12 7	0.5	MF 919	15	61.7	3.6	55.6	31.2
2 - PPI	12.7	0.7	MF 919	15	25.5	5.1	53.8	23.7
3 - PPI	12 7	0.9	MF 919	15	15.6	6.5	48.9	22.3
4 - PP2	12 7	0.7	MF 919	15	n.a.	5.1	63.3	47.8

Source: Bemisa, 2023b.

In the filtration tests, the main process variable evaluated was the chamber thickness and Air Blow consumption.

13.8 Conclusions

Gravity concentration improves recovery for some samples, especially for coarser particle sizes tested. The leaching cycle stabilizes after eight hours, and CIL accelerates the reaction without significantly increasing final recovery.

The ROM responds well to conventional processing methods, with gold recoveries generally above 92%. Gravity concentration is effective for coarse sizes, while CIL slightly improves process kinetics. The ROM requires moderate grinding energy and shows consistent behaviour across different lithologies. Cyanide consumption is expected to decrease at larger processing scales, and solid-liquid separation can be effectively managed with appropriate reagents and equipment.

14 MINERAL RESOURCE ESTIMATES

The Mineral Resource Estimate presented herein is based on the exploration database generated by Bemisa for the Água Azul Project through geological mapping, surface sampling, diamond drilling, density determinations, metallurgical testwork, and geological modelling.

The Qualified Person independently reviewed and validated the available exploration data, geological interpretations, and supporting documentation, and determined that they are suitable for Mineral Resource estimation.

Using this validated database, the Qualified Person prepared the Mineral Resource Estimate presented in this Technical Report, effective as of the Effective Date. The estimate incorporates the estimation methodology, reporting assumptions, cut-off grade, and Mineral Resource classification criteria described in this chapter and reflects the Qualified Person's current interpretation of the available data

14.1 Database

The drilling, sampling and assay database used to support the geological modelling and Mineral Resource estimate were provided to GE21 in Microsoft Excel (.xlsx) file format.

For reporting purposes, the Água Azul Project is presented as three Mineral Resource reporting zones:

- Abelhas Zone, comprising the Abelhas, Abelhas N-S, Abelhas Norte and Antonino deposits;
- Juliano Zone; and
- Campos Altos Zone, comprising the Pão de Guincho (PDG), Planta (PLT), Brejo (BRJ) and Buracão (BUR) deposits.

For estimation purposes, however, exploratory data analysis, statistical assessment and development of estimation parameters were undertaken using two principal estimation datasets:

- the Abelhas–Juliano estimation dataset; and
- the Campos Altos estimation dataset.

Throughout this chapter, references to "Abelhas–Juliano" and "Campos Altos" refer to these respective estimation areas unless otherwise noted.

Variography, interpolation parameters and Mineral Resource estimation were subsequently developed or assigned at the mineralized-domain or deposit level, as appropriate, considering geological continuity, statistical similarity, and data availability.

The Abelhas–Juliano drilling database comprises 397 diamond drill holes, totalling 64,260.95 m drilled (Figure 14.1). The Campos Altos drilling database comprises 56 drill holes, with 10,103.6 m drilled (Figure 14.2).

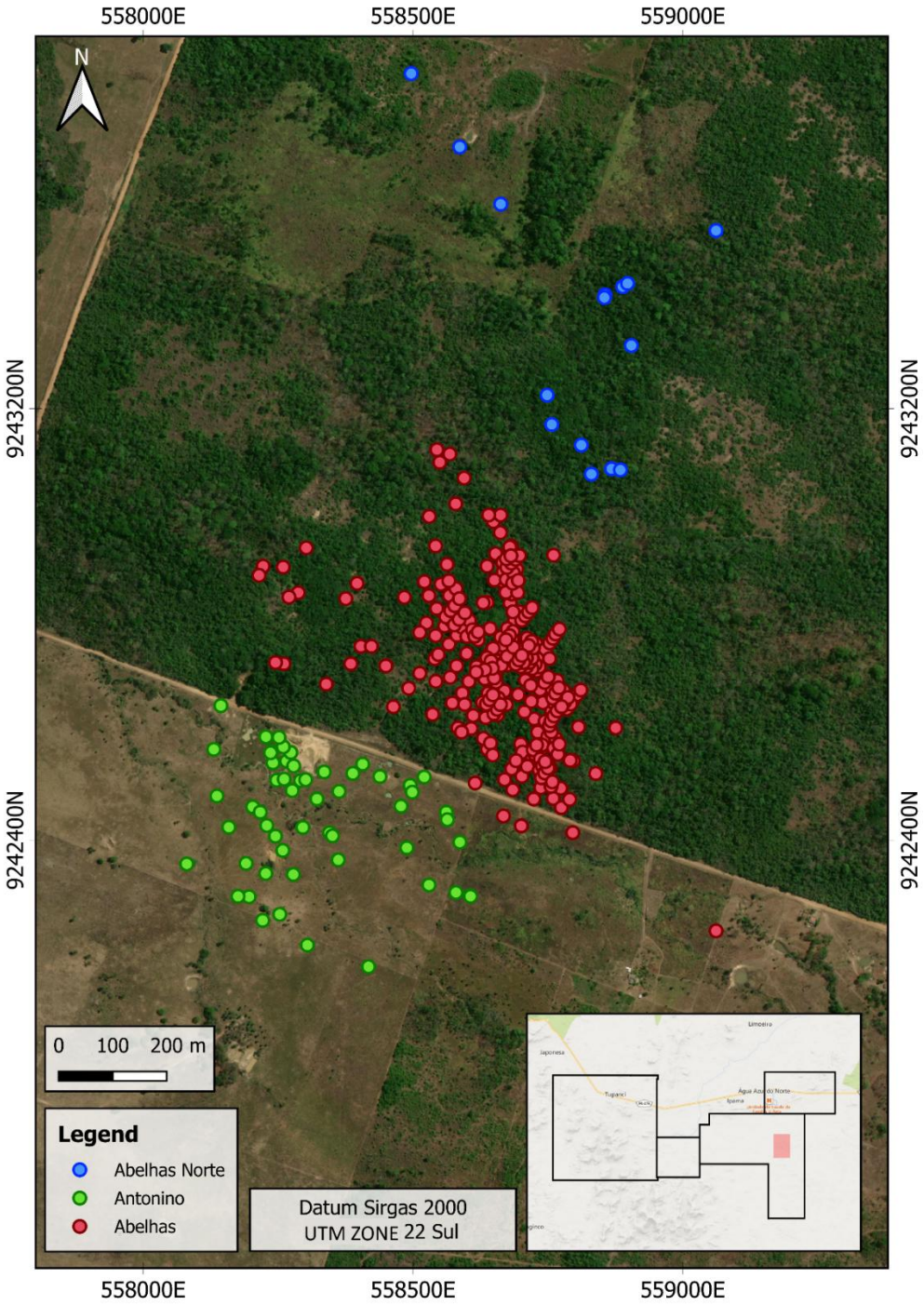


Figure 14.1 Spatial distribution of diamond drill holes in the Abelhas Region. (Abelhas N-S is part of Abelhas Target)

Source: GE21, 2026.

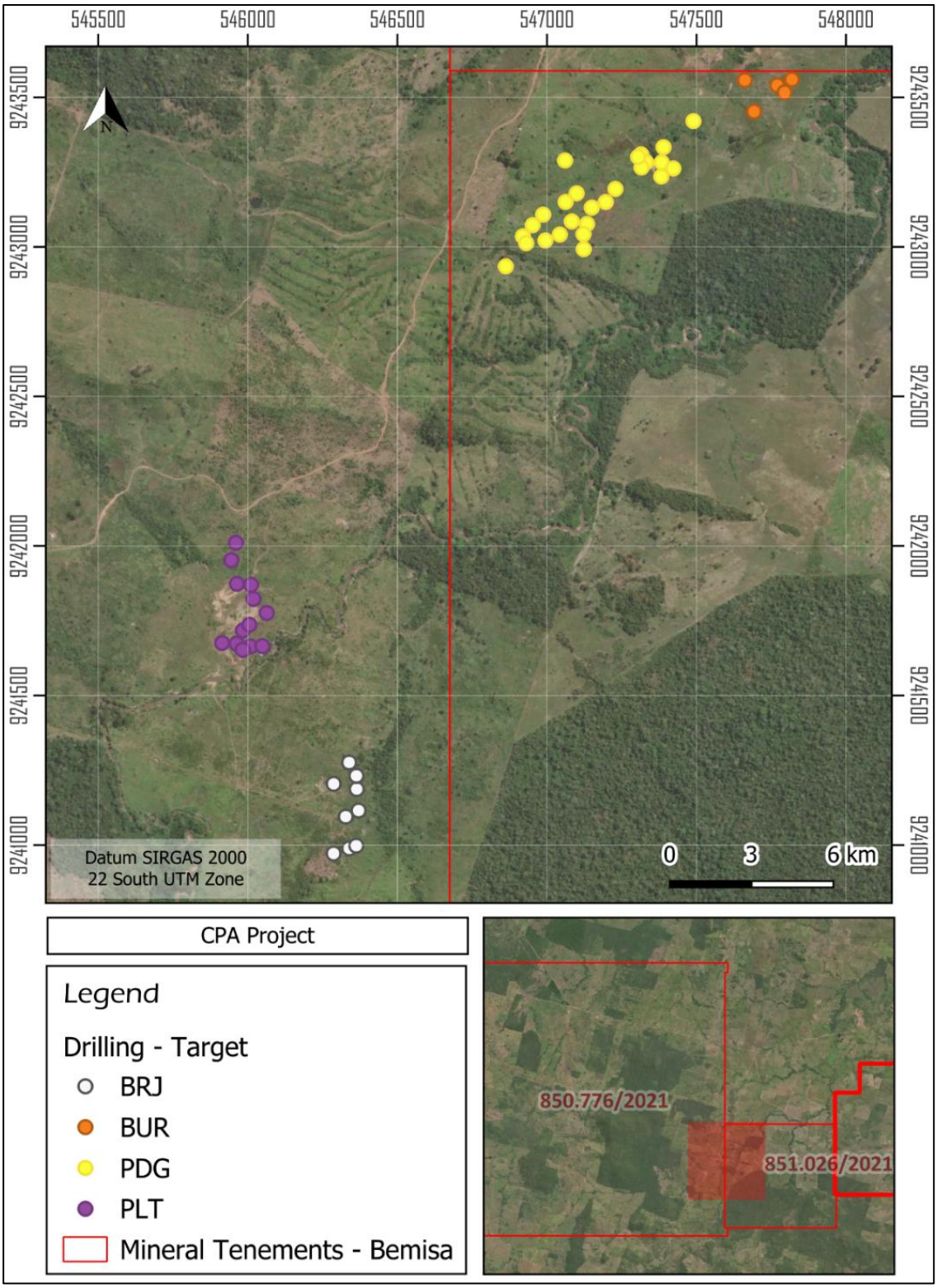


Figure 14.2 Spatial distribution of drilling in the Campos Altos Project per target

Source: GE21, 2026.

The number of drill holes and metres drilled per target is detailed in Table 14.1.

Table 14.1 Summary of the drilling database by estimation dataset and deposit

Project	Target	No. Drill holes	No. Samples	Drilling length (m)
Abelhas-Juliano	Abelhas	288	41,667	39,354.43
	Abelhas Norte	15	2,571	2,582.05
	Antonino	59	16,850	17,076.63
	Juliano	35	5,494	5,247.84
	Total	397	66,582	64,260.95
Campos Altos	Brejo	9	1,320	1,339.10
	Buracão	6	1,242	1,402.56
	Pão de Guincho	26	6,022	5,067.23
	Planta	15	2,525	2,294.71
	Total	56	11,109	10,103.60

Source: GE21, 2026.

The database provided for the Abelhas-Juliano, and the Campos Altos zones consist of the following tables:

- Collar (HoleID, Northing, Easting, Elevation, Maximum depth, Dip, and Azimuth)
- Survey
- Lithology
- Assay (Hole ID, From, To, SampleID, Au ppb, Au ppm, Ag ppm, Al pct, As ppm, Ba ppm, Be ppm, Bi ppm, Ca pct, Cd ppm, Co ppm, Cr ppm, Cu ppm, Fe pct, K pct, La ppm, Li ppm, Mg pct, Mo ppm, Na pct, Ni ppm, P pct, Pb ppm, S pct, Sb ppm, Sc ppm, Se ppm, Sn ppm, Sr ppm, Th ppm, Ti pct, Ti ppm, U ppm, V ppm, W ppm, Y ppm, Zn ppm and Zr ppm)
- Density (Campos Altos)

The assay database includes original laboratory results and, where applicable, repeat analyses. For Mineral Resource estimation, the Au ppm field was populated using the applicable original, averaged, or replacement assay values according to the database validation procedures. At Abelhas-Juliano, the Au ppm field incorporates the arithmetic mean of original and repeat laboratory analyses where available (826 samples, representing approximately 1.2% of the dataset), while the original results are used for all other samples. The QP reviewed the treatment of repeat assays and considers the resulting dataset appropriate for the current Mineral Resource Estimate.

The Leapfrog Geo 2025 software was used to check and correct inconsistencies detected in the audit of the database. This process includes checking for overlaps, depth inconsistencies, and missing intervals, among others. Based on the database review and validation procedures completed by GE21, no material issues were identified that would adversely affect the Mineral Resource estimate.

14.2 Density

Average density values were applied to the mineral resource model for the Água Azul Project, separately for the saprolite and fresh rock zones. The density value for the soil was inferred for the region based on premises discussed with the project's technical team, in the absence of specific, relevant density tests results.

The density database provided by Bemisa presents results from 14,551 tests, covering the Abelhas, Abelhas Norte, and Antonino targets. These average density values were applied to the mineral resource model for the four targets of the Abelhas area (Table 14.2).

The density database for the Campos Altos area estimation dataset contains results from 2,895 bulk density determinations collected across the Pão de Guincho, Planta, Brejo, and Buracão deposits. The average bulk density values adopted for each deposit are presented in Table 14.3 to Table 14.5.

Table 14.2 Density used for the Abelhas-Juliano Zone

Density data (g/cm³) of AGZ	
Fresh rock	2.70
Sap	1.66

Source: GE21, 2026.

Table 14.3 Density used for the Buracão and Brejo targets, Campos Altos Zone

Density data (g/cm³) of AGZ	
Fresh rock	2.71
Sap	1.60
Soil	1.20

Source: GE21, 2026.

Table 14.4 Density used for the Planta target, Campos Altos Zone

Density data (g/cm³) of AGZ	
Fresh rock	2.71
Sap	1.60
Soil	1.30

Source: GE21, 2026.

Table 14.5 Density used for the Pão de Guincho target, Campos Altos Zone

Density data (g/cm³) of AGZ	
Fresh rock	2.70
Sap	1.60
Soil	1.20

Source: GE21, 2026.

14.3 Topography

Topographic data for the Abelhas-Juliano area was obtained through an aerial survey carried out by drone, fully covering the pit area. This dataset was integrated with a regional survey with images from the ALOS PALSAR radar sensor, which has a spatial resolution of 12.5 m.

For the Campos Altos area, the topography shown in Figure 14.3 was used, which was received by GE21 with the integration date of June 2023.

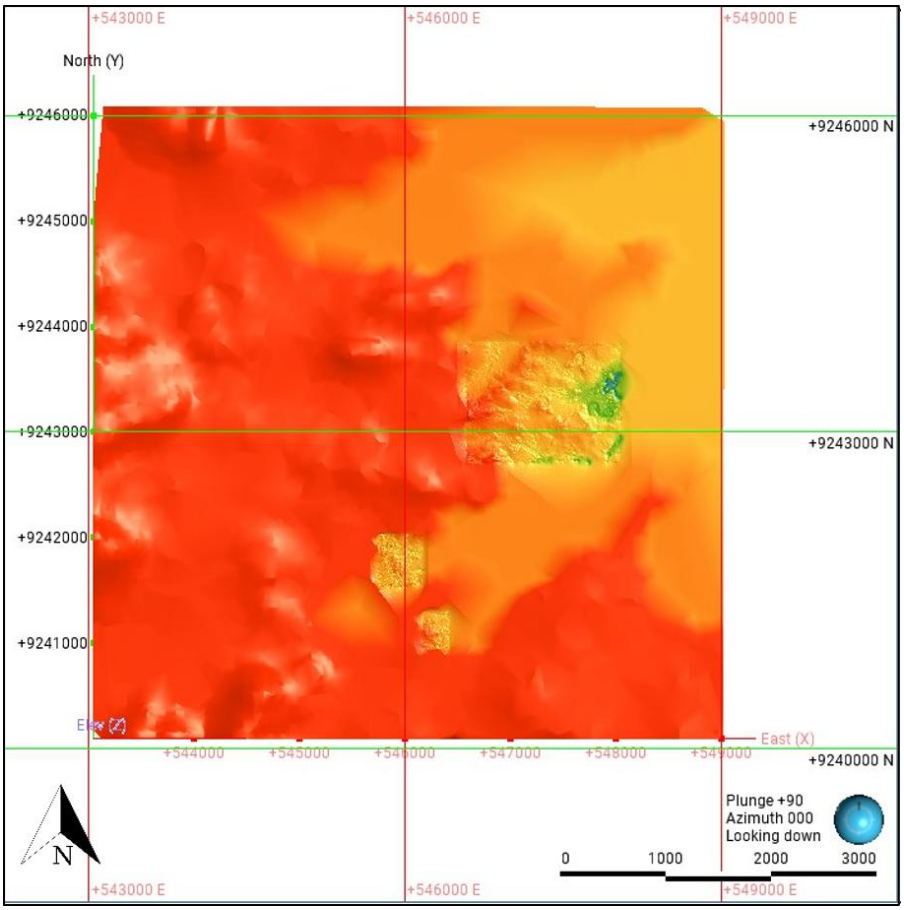


Figure 14.3 Topography of the Campos Altos Area

Source: GE21, 2026.

For the Abelhas-Juliano region, the topography dated from November 2023 (Figure 14.4) was received by GE21 and used in the geological modelling. As mining activities occurred after completion of the original topographic survey, an updated topographic surface dated June 8th, 2026 (Figure 14.5) was used for Mineral Resource reporting to account for mining depletion.

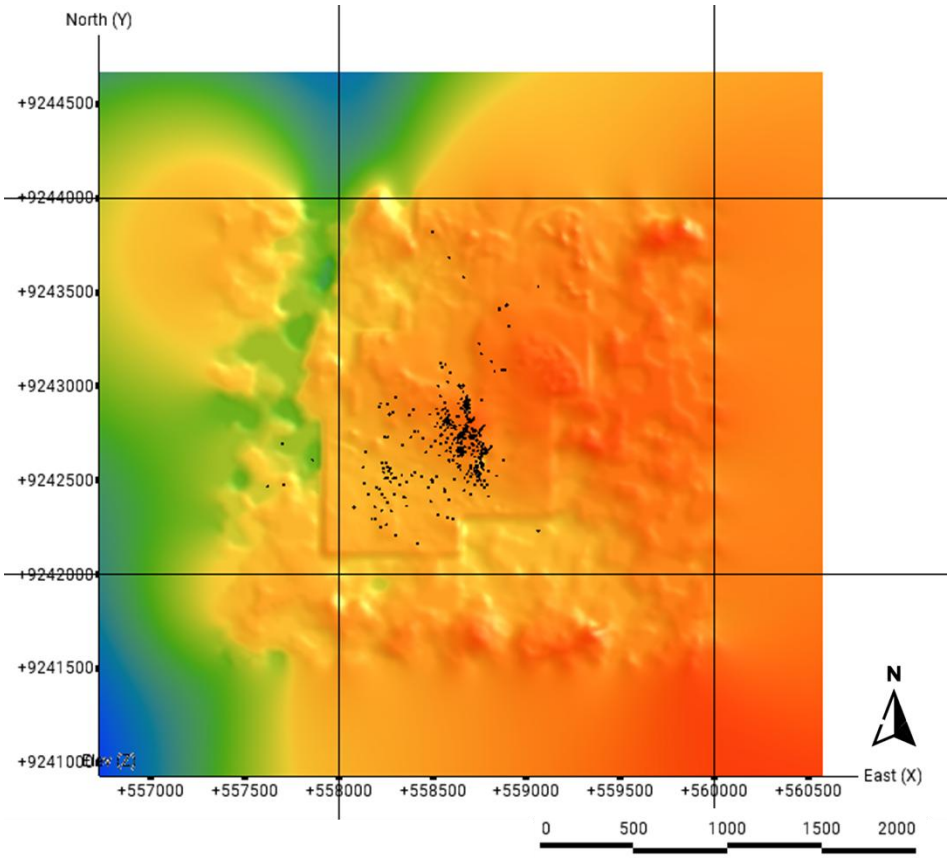


Figure 14.4 Topography of the Abelhas-Juliano region used in the modelling

Source: GE21, 2026.

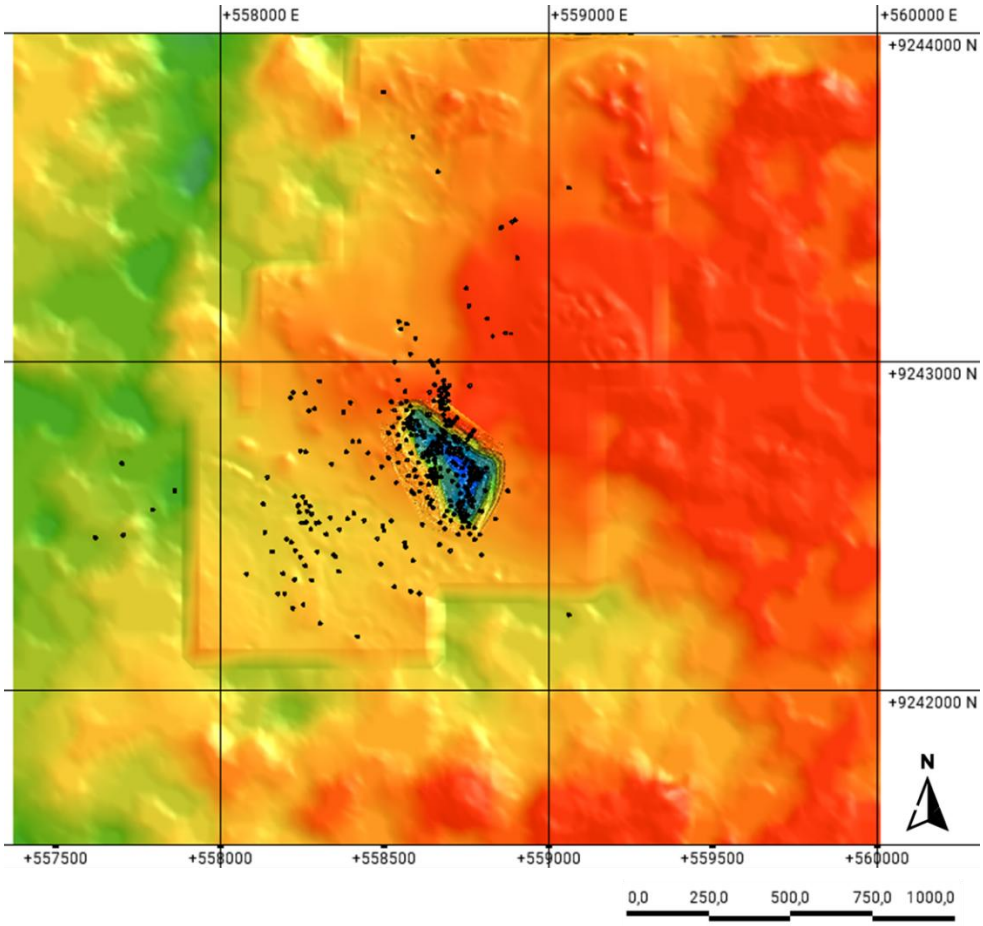


Figure 14.5 Updated topography used to prepare the Mineral Resource estimate. Survey date: June 8, 2026

Source: GE21, 2026.

14.4 Geological Modelling

Three-dimensional mineralization and weathering wireframes, modelled using Leapfrog Geo 2025.1, were provided to GE21 and independently reviewed and validated prior to use in the Mineral Resource estimate. No material inconsistencies were identified, such as internal intersections, disconnected triangulations, adherence with drill holes and topography, among others. The solids were modelled based on information contained in diamond drilling interval tables.

14.4.1 Mineralization Interpretation

Validation of the mineralized solids confirmed that the geological interpretation is consistent with style of mineralization and the conceptual geological model for the Agua Azul Project. Figure 14.6 and Figure 14.7 illustrate the geological model for the Abelhas Zone, comprising the Abelhas, Abelhas Norte, Abelhas N-S and Antonino deposits.

No additional drilling has been completed in the Juliano or Campos Altos zones since the development of the existing geological interpretation. Accordingly, the geological wireframes for these

areas were independently reviewed and validated by the Qualified Person and considered suitable for use in the current Mineral Resource estimate.

Figure 14.8 to Figure 14.11 illustrate the geological models for the Campos Altos Zone, including the Buracão, Pão de Guincho, Planta and Brejo deposits.

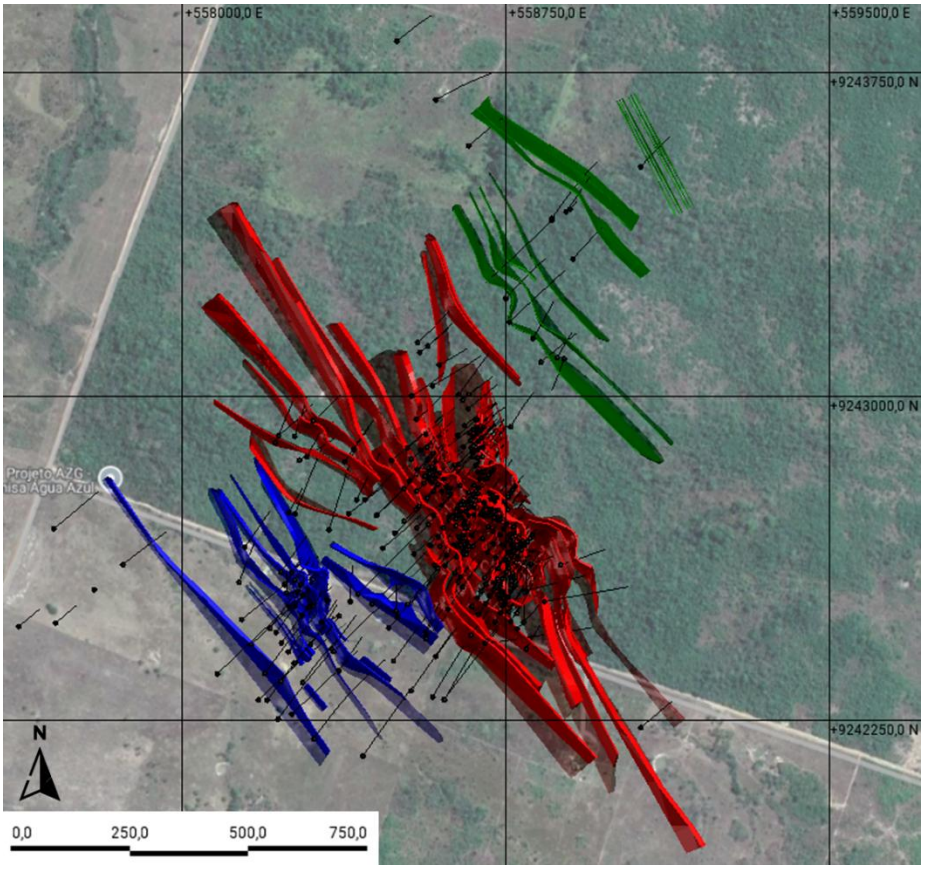


Figure 14.6 3D mineralized wireframes of the Abelhas Zone, plan view

Source: GE21, 2026.

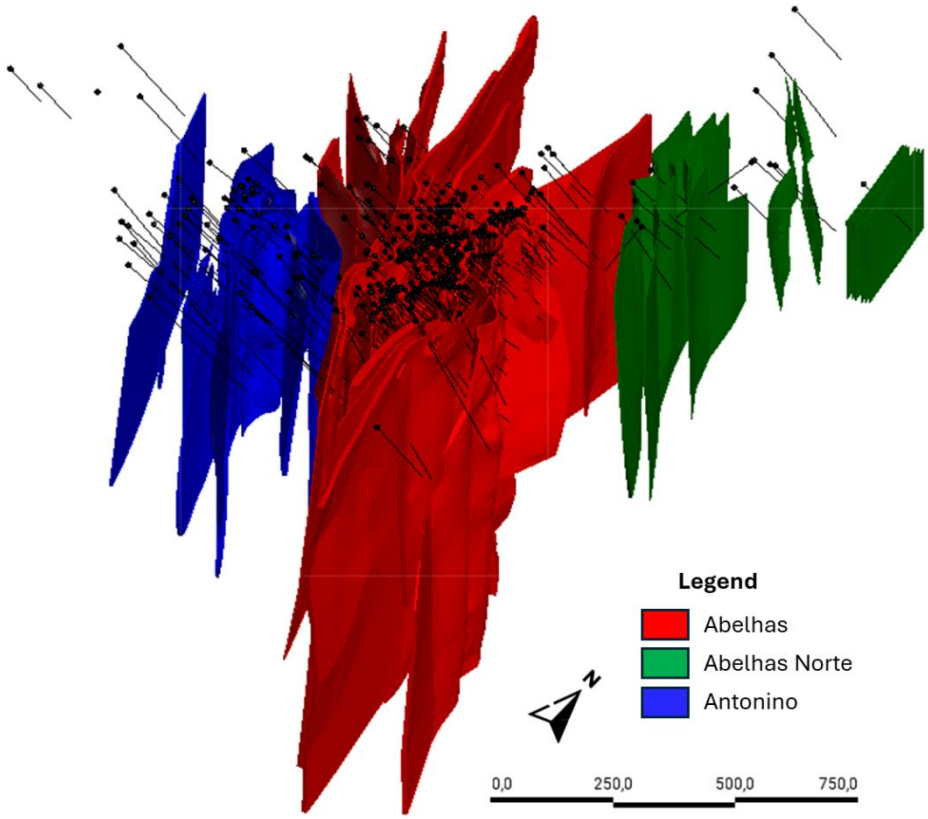


Figure 14.7 3D mineralization model of the Abelhas Zone

Source: GE21, 2026.

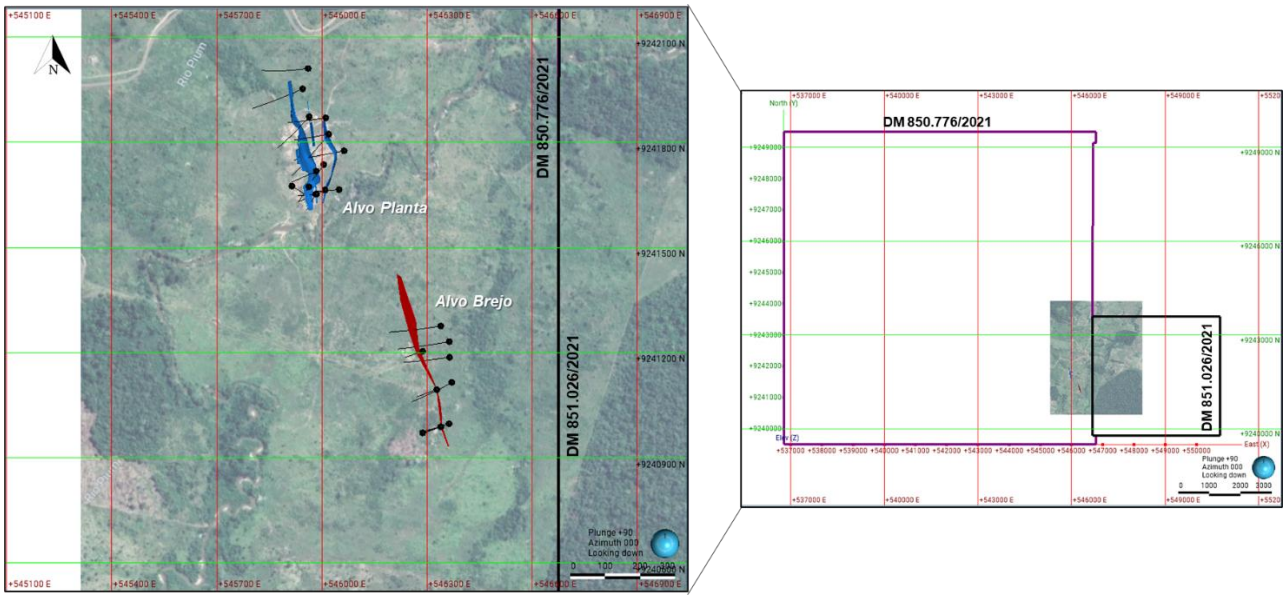


Figure 14.8 3D mineralized wireframes of the Planta and Brejo deposits, plan view

Source: GE21, 2026.

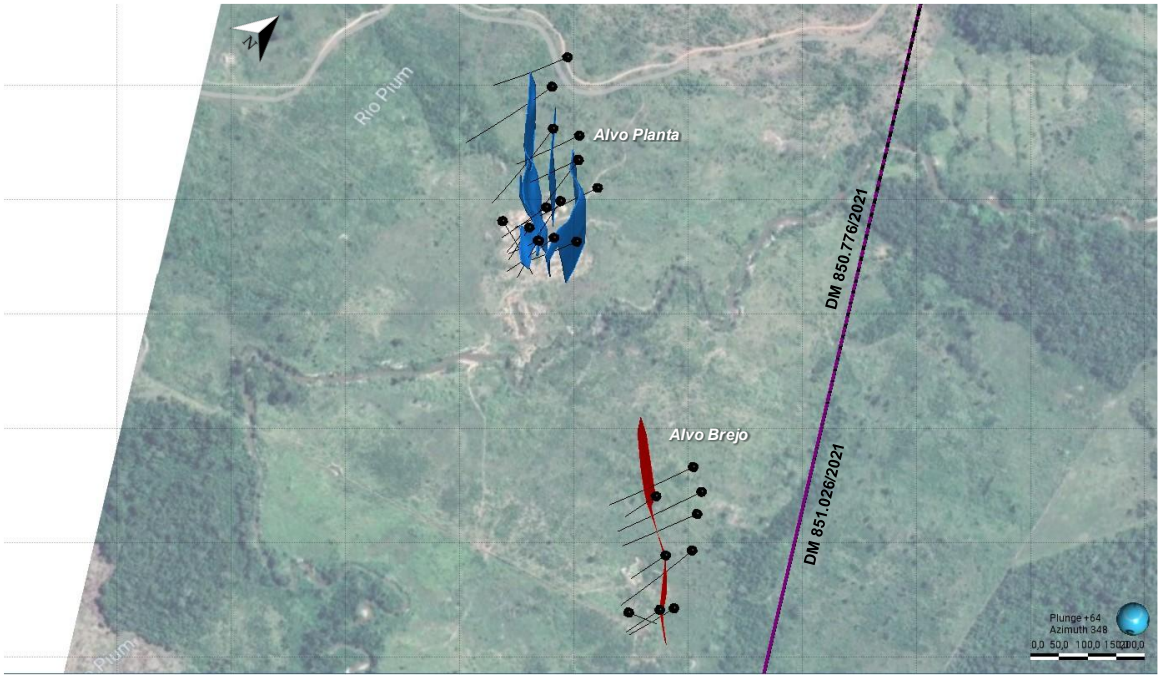


Figure 14.9 3D mineralized wireframes of the Planta and Brejo deposits

Source: GE21, 2026.

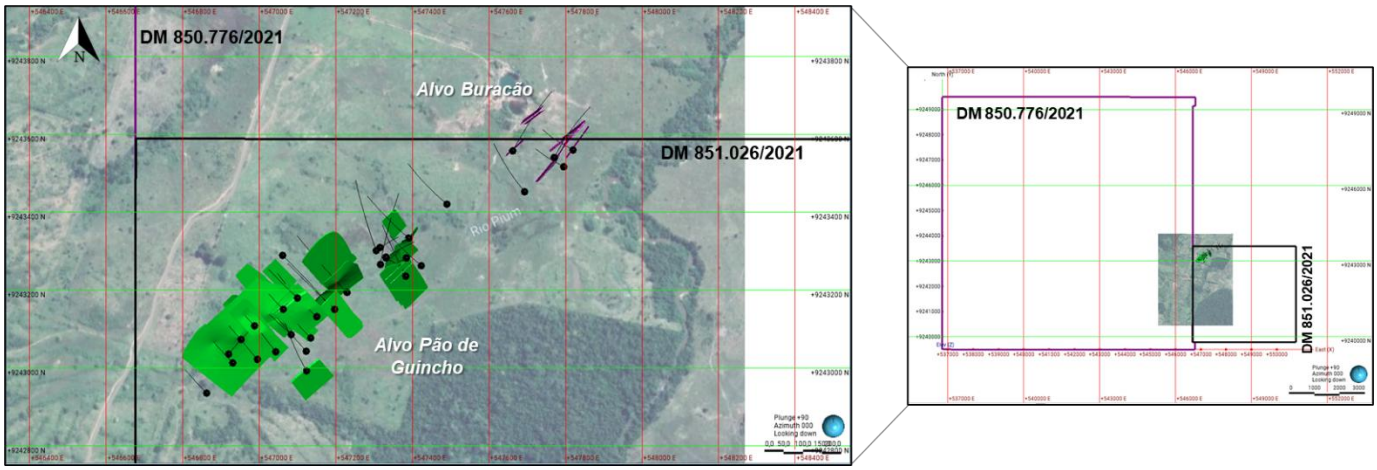


Figure 14.10 3D mineralized wireframes of the Pão de Guincho and Buracão deposits, plan view

Source: GE21, 2026.

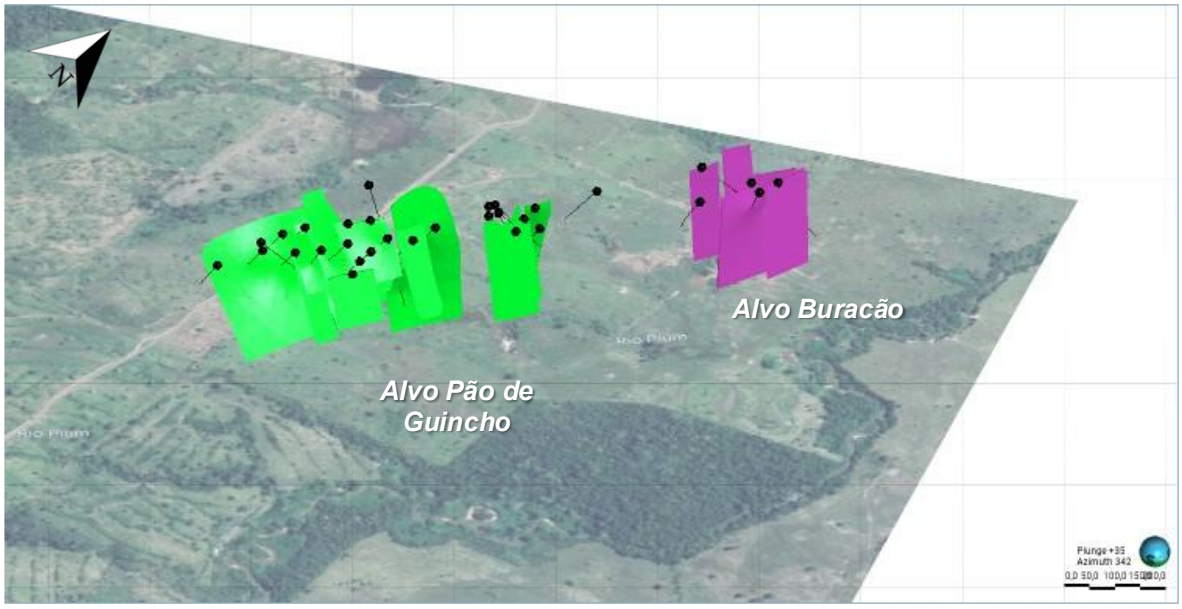


Figure 14.11 3D mineralized wireframes of the Pão de Guincho and Buracão deposits

Source: GE21, 2026.

14.5 Compositing

The process of compositing the samples based on the same size and volume is performed from the raw sample dataset, prior to the grade estimation process, with the aim to:

- Achieving a uniform sample volume;
- Reducing the impact of random variability; and
- Minimizing the effect of different sample sizes on the variance in gold grades.

The appropriate sample length is determined by investigating the raw sample data for the deposit globally and individual domains to ensure that the integrity of the support used for the estimate is preserved. The sample composition was made specifically for the mineralized zone.

In the Abelhas-Juliano estimation dataset, the analysis showed that approximately 75% of the sample interval lengths are equivalent to 1.15 m (Figure 14.12). In the Campos Altos estimation dataset, in turn, the samples were at most 1.52 m in length (Figure 14.14).

For both Abelhas-Juliano and Campos Altos, 1-metre composites were created within mineralized domains, with a final residual length equally distributed if it is less than 0.50 m (Figure 14.13 and Figure 14.15).

The value of 70% of the accumulated distribution was used as a reference for the minimum nominal length to reduce the effect of the greater weight of longer samples in the sample regularization process.

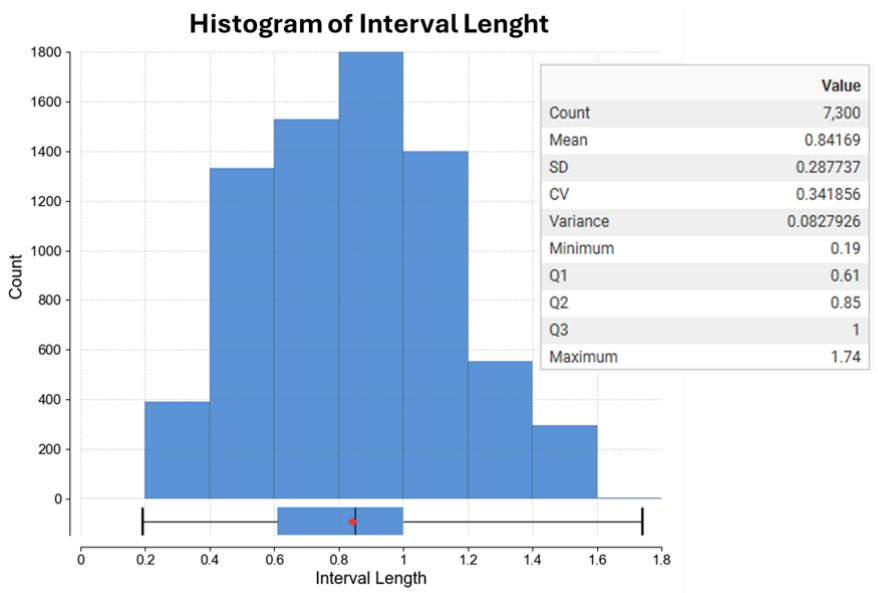


Figure 14.12 Histogram of non-composited samples for mineralized domains from the Abelhas-Juliano database

Source: GE21, 2026.

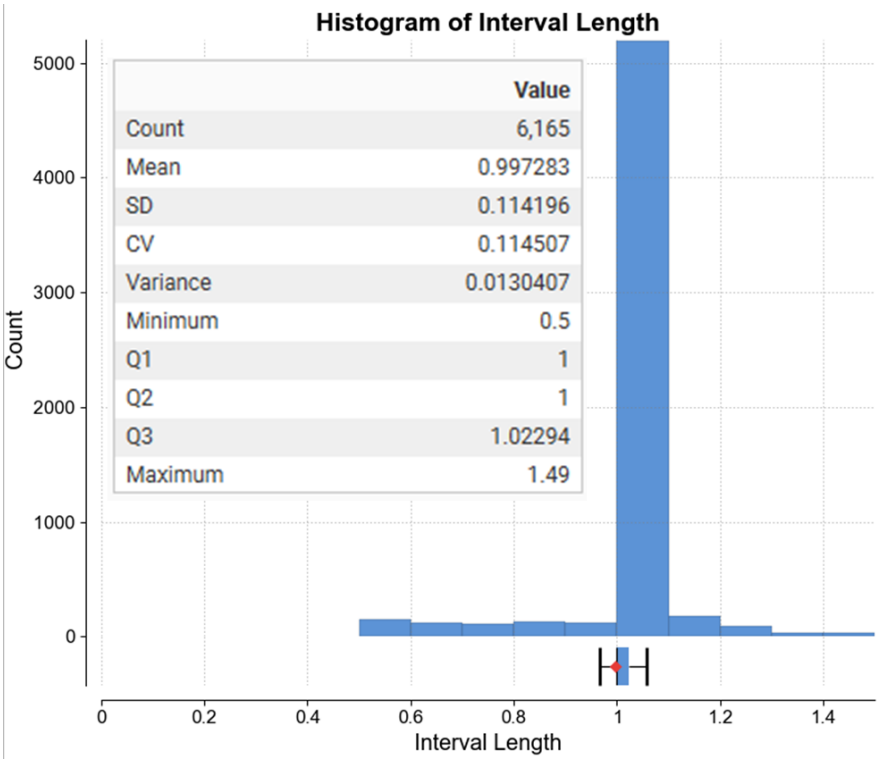


Figure 14.13 Histogram of standardized samples for mineralized domains from the Abelhas-Juliano database

Source: GE21, 2026.

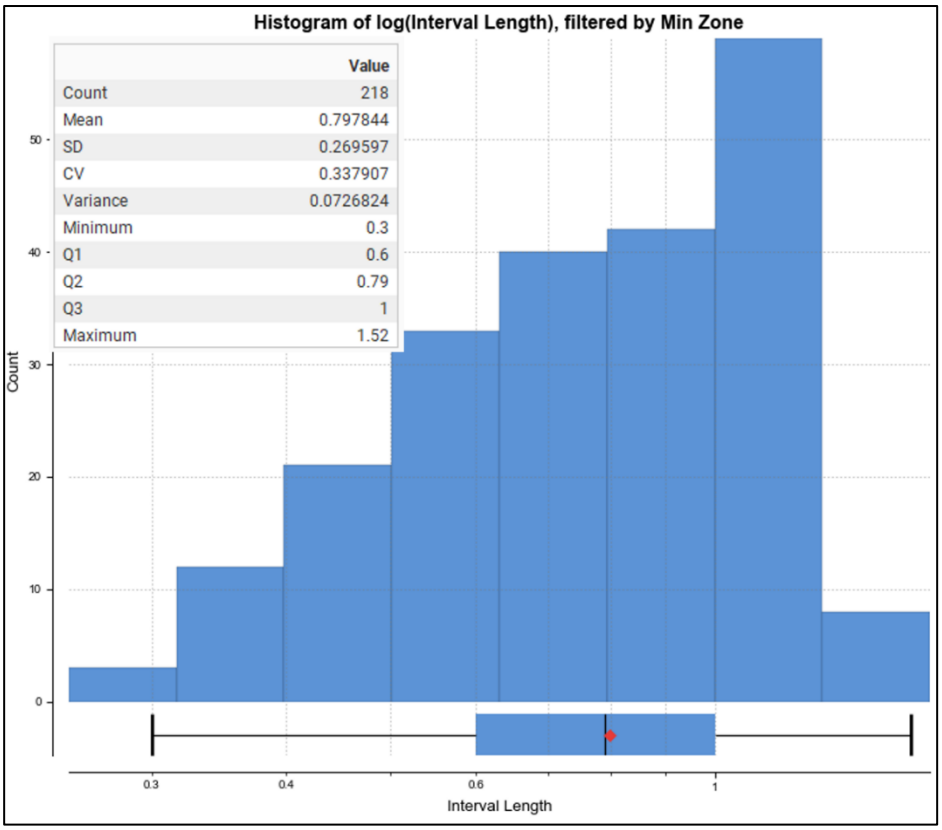


Figure 14.14 Histogram of non-composited samples for mineralized domains from the Campos Altos database

Source: GE21, 2026.

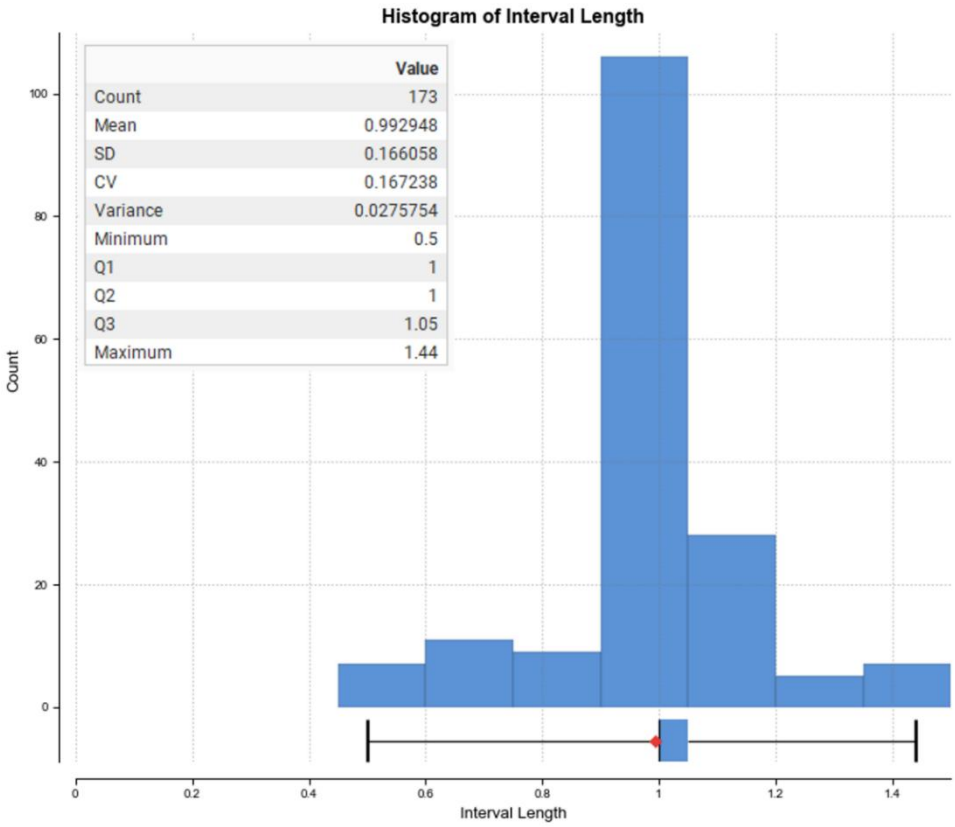


Figure 14.15 Histogram of standardized samples for mineralized domains from the Campos Altos database

Source: GE21, 2026.

14.6 Exploratory Data Analysis (EDA)

Leapfrog Geo and Minitab were used to undertake exploratory data analysis (EDA) t of the drilling database, including assessment of grade distributions and identification of potential outliers in the Au (ppm) variable. The EDA supported the characterization of the data and the development of variographic models and grade estimation parameters.

Table 14.6 to Table 14.9 summarize the results of the exploratory data analysis for the Abelhas–Juliano and Campos Altos databases, including the complete datasets and the filtered mineralized domains.

Table 14.6 Statistical summary for the complete Abelhas-Juliano database

Name	Count	Length	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Lower quartile	Median	Upper quartile	Maximum
Au_PPM	66,582	63,992	0.13	1.59	12.08	2.53	0.0025	0.0025	0.0025	0.14	209.59

Source: GE21, 2026.

Table 14.7 summary for mineralized domains from the Abelhas–Juliano database

Name	Count	Length	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Lower quartile	Median	Upper quartile	Maximum
Au_PPM	7,300	6,144.3	1.04	4.88	4.70	23.90	0.0025	0.015	0.197	0.703	209.59

Source: GE21, 2026.

Table 14.8 Statistical summary for the complete Campos Altos database

Name	Count	Length	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Lower quartile	Median	Upper quartile	Maximum
Au_PPM	11,109	10,102.01	0.07	1.34	20.37	1.80	0.005	0.005	0.005	0.01	127.67

Source: GE21, 2026.

Table 14.9 Statistical summary for mineralized domains from the Campos Altos database

Name	Count	Length	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Lower quartile	Median	Upper quartile	Maximum
Au_PPM	218	173.93	2.34	9.29	3.96	86.24	0.005	0.24	0.56	1.43	127.67

Source: GE21, 2026.

14.6.1 Cluster Analysis

To perform a variance analysis of the sample grades, a Cluster Analysis was applied using Minitab software.

The analysis incorporated the variables Au_ppm, K%, Na%, Ca%, and S%. Figure 14.16 presents boxplots of the resulting clusters. Cluster 3 identified a distinct geochemical population corresponding to the Abelhas N-S domain, which exhibits a stronger affinity with the gabbro geochemical signature. This cluster assignment was subsequently used as an auxiliary variable to support the 3D geological modelling.

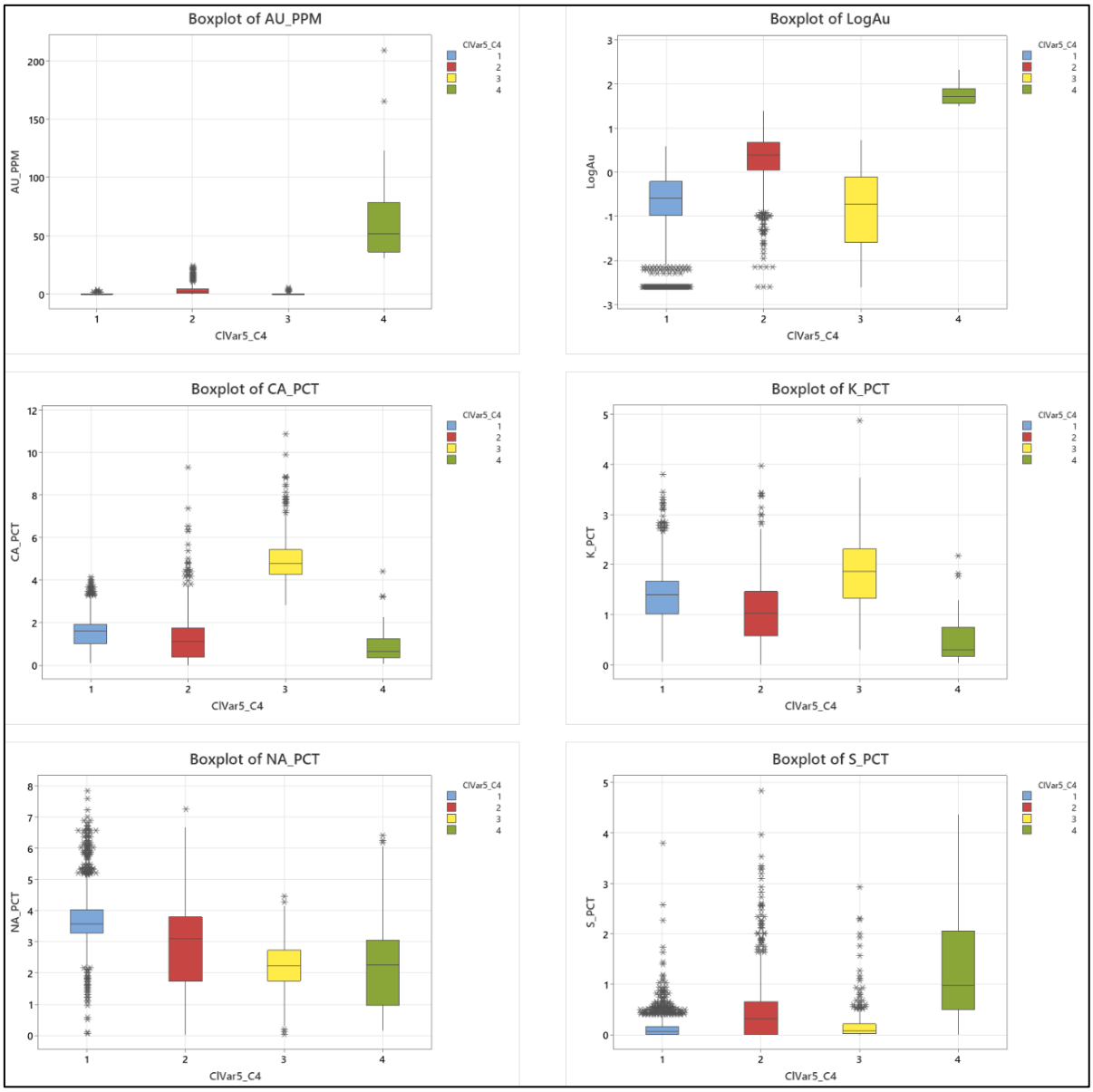


Figure 14.16 Cluster analysis – box plots

Source: GE21, 2026.

14.6.2 Analysis of Outliers

GE21 analyzed outlier values by identifying breaks in probability graph distribution curves and histograms for the Au_ppm mineralized zone within the defined domains of the mineralized zone. The outlier limit was defined by the QP as 31.6 g/t of Au for the Abelhas-Juliano database (Figure 14.17 and Figure 14.18) and 8.9 g/t for the Campos Altos database (Figure 14.19).

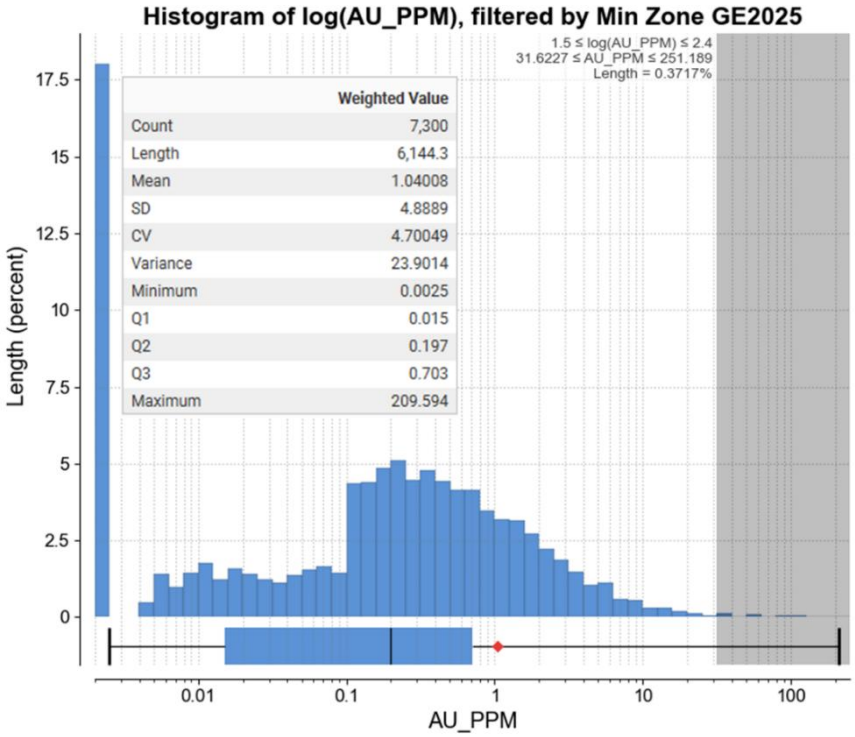


Figure 14.17 Histogram of Au_ppm within the mineralized zone

Source: GE21, 2026.

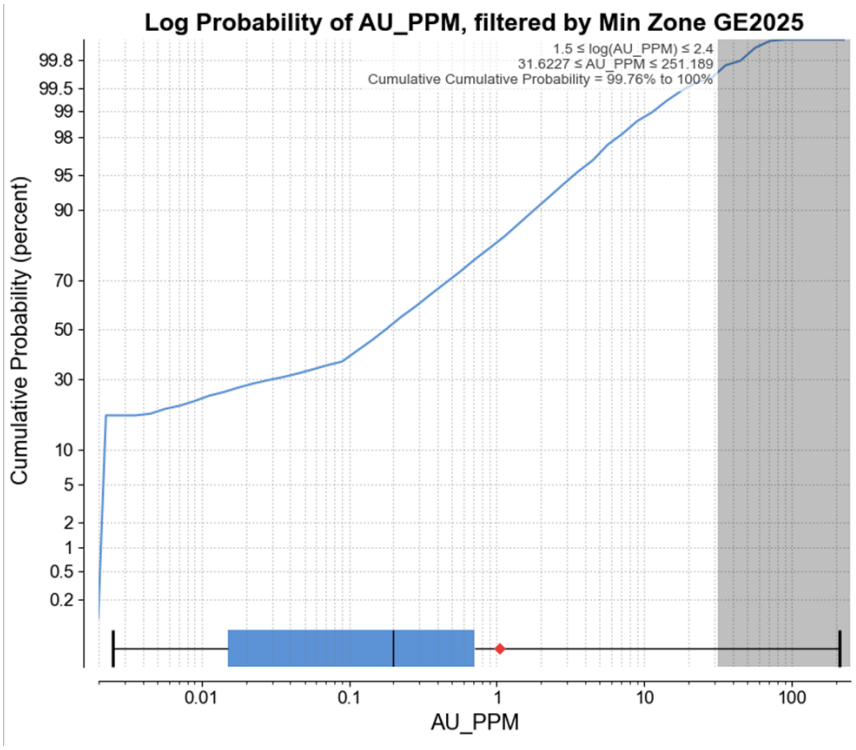


Figure 14.18 Log probability of Au_ppm within the mineralized zone

Source: GE21, 2026.

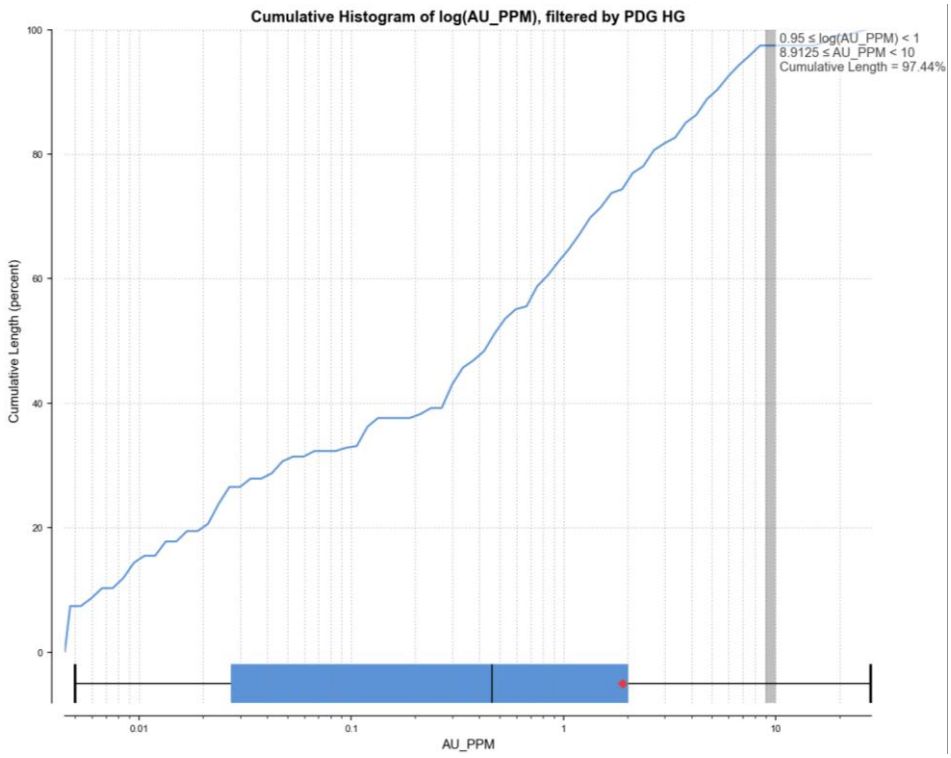


Figure 14.19 Cumulative histogram for Au_ppm for the Campos Altos database

Source: GE21, 2026.

14.7 Variography

Variographic models are produced for the selected domains to study the continuity of the grade throughout the 3D space, thus enabling the grade estimate in the Mineral Resource model. This strategy is also adopted to:

- Mathematically structure the variability between two points in space and measure the influence area and the grade and type of variability restricted to a homogenous field.
- Establish a spatial distribution model of a regionalized variable and measure the precision of the grade estimation.

For the Abelhas-Juliano database, an unfolding methodology was applied to samples from the Abelhas and Abelhas N-S targets using Isatis NEO software. Samples were projected onto mathematically unfolded surfaces to enable variographic analysis along the folded mineralized domains.

Dynamic anisotropy was applied to produce the Abelhas-Juliano variograms for Abelhas and Abelhas N-S targets (Figure 14.20 and Figure 14.21). The variogram model developed for the Abelhas N-S deposit was subsequently assigned to the Antonino and Abelhas Norte deposits, as the available sample density was insufficient to support the development of reliable deposit-specific variogram models.

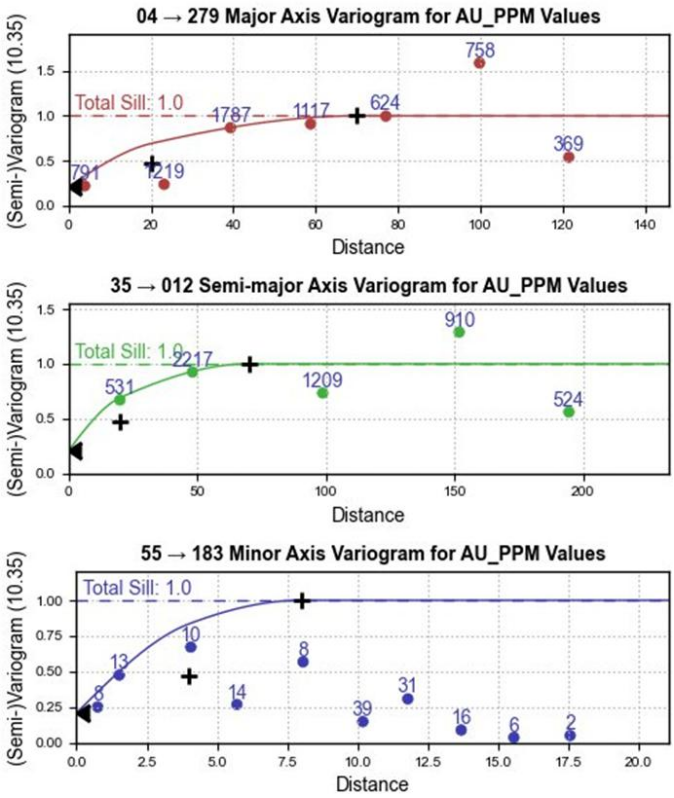


Figure 14.20 Variogram for Au_ppm of the Abelhas target

Source: GE21, 2026.

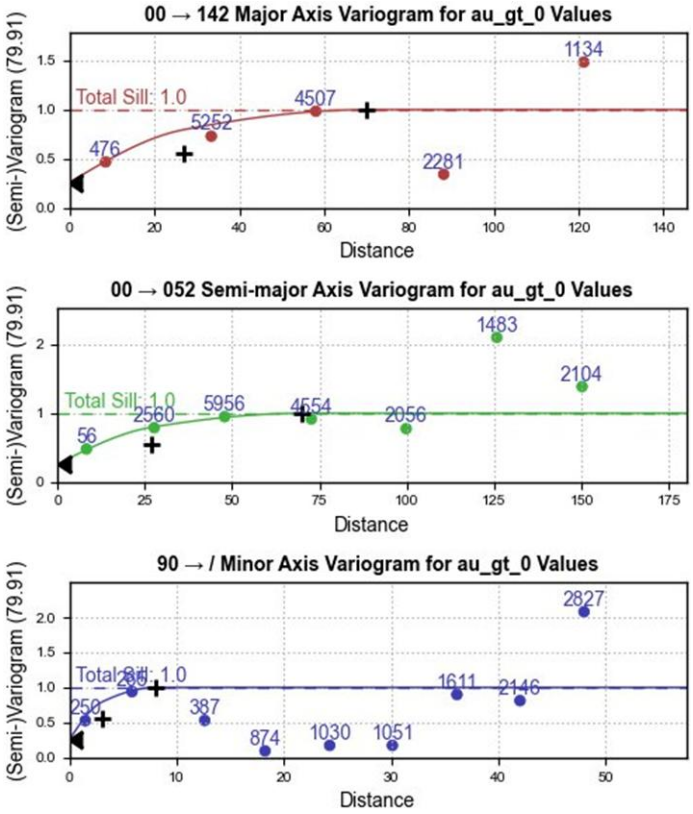


Figure 14.21 Variogram for Au_ppm of the Abelhas N-S target

Source: GE21, 2026.

Table 14.10 summarizes the variogram parameters developed for the Abelhas and Abelhas N-S deposits within the Abelhas-Juliano database.

Table 14.10 Variographic parameters of the Abelhas database

Target	Direction			Structure	Nugget	Structure 1				Structure 2			
	Dip	Dip Az.	Pitch			Norm. Sill	Major	Intermediate	Minor	Norm. Sill	Major	Intermediate	Minor
Abelhas	85	227	82	Spherical	0.21	0.26	20	20	4	0.53	70	70	8
Abelhas N-S	75	55	98	Spherical	0.26	0.29	27	27	3	0.45	70	70	8

Source: GE21, 2026.

An anisotropic variogram model with ranges exceeding 60 m was developed and applied with dynamic anisotropy to define the search ellipsoid orientations for grade estimation (Figure 14.22). Table 14.11 summarizes the variogram parameters adopted for the Campos Altos database.

Table 14.11 Variographic parameters of the Campos Altos database

Target	Direction			Structure	Nugget	Structure			
	Dip	Dip Az.	Pitch			Norm Sill	Major	Intermediate	Minor
BUR-MM 1	90	34	90	Spherical	0.3928	0.6021	60	60	5
BUR-MM 2	90	78	90	Spherical	0.3928	0.6021	60	60	5
BUR-MM 3	84	37	90	Spherical	0.3928	0.6021	60	60	5
BUR-MM 4	90	24	90	Spherical	0.3928	0.6021	60	60	5
BUR-MM 5	86	71	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 1	45	127	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 10	64	133	90	Spherical	0.3928	0.6021	60	60	5

Target	Direction			Structure	Nugget	Structure			
	Dip	Dip Az.	Pitch			Norm Sill	Major	Intermediate	Minor
PDG-HG 11	49	132	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 12	70	159	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 13	49	140	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 14	46	131	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 15	50	135	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 2	64	128	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 3	40	122	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 4	75	158	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 5	51	129	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 6	64	143	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 7	48	136	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 8	64	149	90	Spherical	0.3928	0.6021	60	60	5
PDG-HG 9	75	175	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 1	54	140	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 10	44	135	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 2	42	134	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 3	51	129	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 4	60	147	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 5	44	132	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 6	48	112	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 7	38	136	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 8	64	144	90	Spherical	0.3928	0.6021	60	60	5
PDG-LOW 9	49	133	90	Spherical	0.3928	0.6021	60	60	5
PLT- MM 1	87	47	90	Spherical	0.3928	0.6021	60	60	5
PLT- MM 4	77	86	90	Spherical	0.3928	0.6021	60	60	5
PLT- MM 2	87	39	90	Spherical	0.3928	0.6021	60	60	5
PLT- MM 3	82	29	90	Spherical	0.3928	0.6021	60	60	5
PLT- MM 5	74	21	90	Spherical	0.3928	0.6021	60	60	5
BRJ - MM	75	25	90	Spherical	0.3928	0.6021	60	60	5

Source: GE21, 2026.

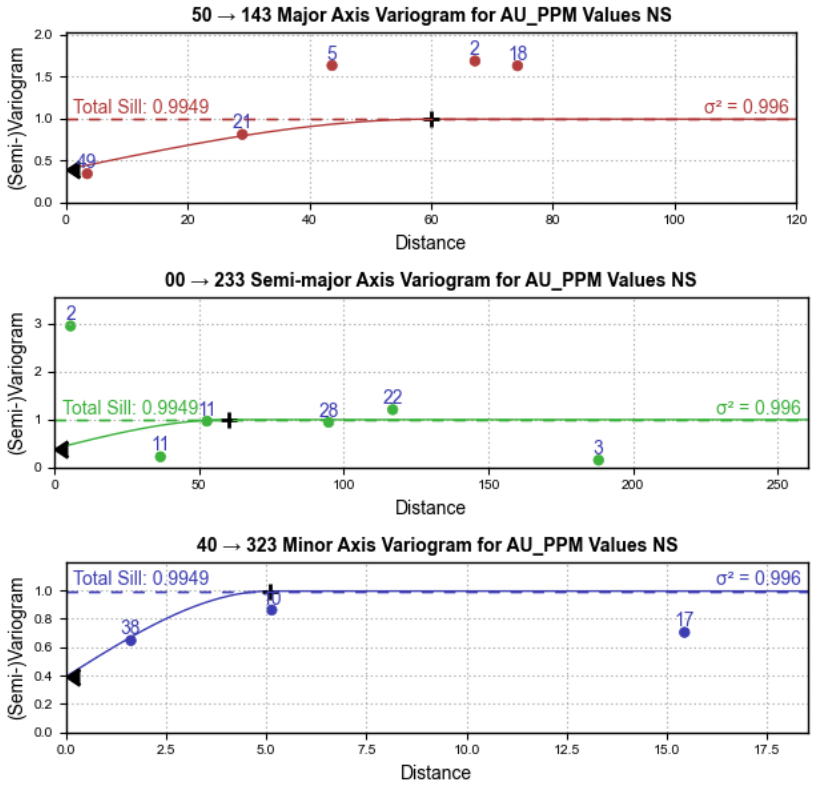


Figure 14.22 Variogram of the Campos Altos Targets

Source: GE21, 2026.

14.8 Block Model

Block models for the Abelhas-Juliano and Campos Altos databases were created using Leapfrog Edge 2025. A single block model was developed for the Abelhas Zone, while individual block models were developed for the Juliano deposit, and each deposit within the Campos Altos Zone.

Block dimensions were selected based on the average drill spacing within each area. Sub-blocking was applied to ensure accurate representation of the mineralized wireframes within the block models. Figure 14.23 to Figure 14.32 show the block models of the Abelhas Zone, Juliano and the Campos Altos deposits. Table 14.12 to Table 14.23 summarize the geometry and attributes of the corresponding block models.

Table 14.12 Summary of the Abelhas Zone block model

Project: Abelhas Targets: Abelhas, Abelhas Norte, Abelhas N-S, and Antonino			
Item	**X**	**Y**	**Z**
Base Point	557,060.00	9,242,756.00	315.00
Boundary Size	2,200	2,130	815
User Block Size	10	10	5
Minimum Block Size	1.25	2.5	2.5
Size in blocks	193x213x140		
Rotation	45° (Azimuth)		

Source: GE21, 2026.

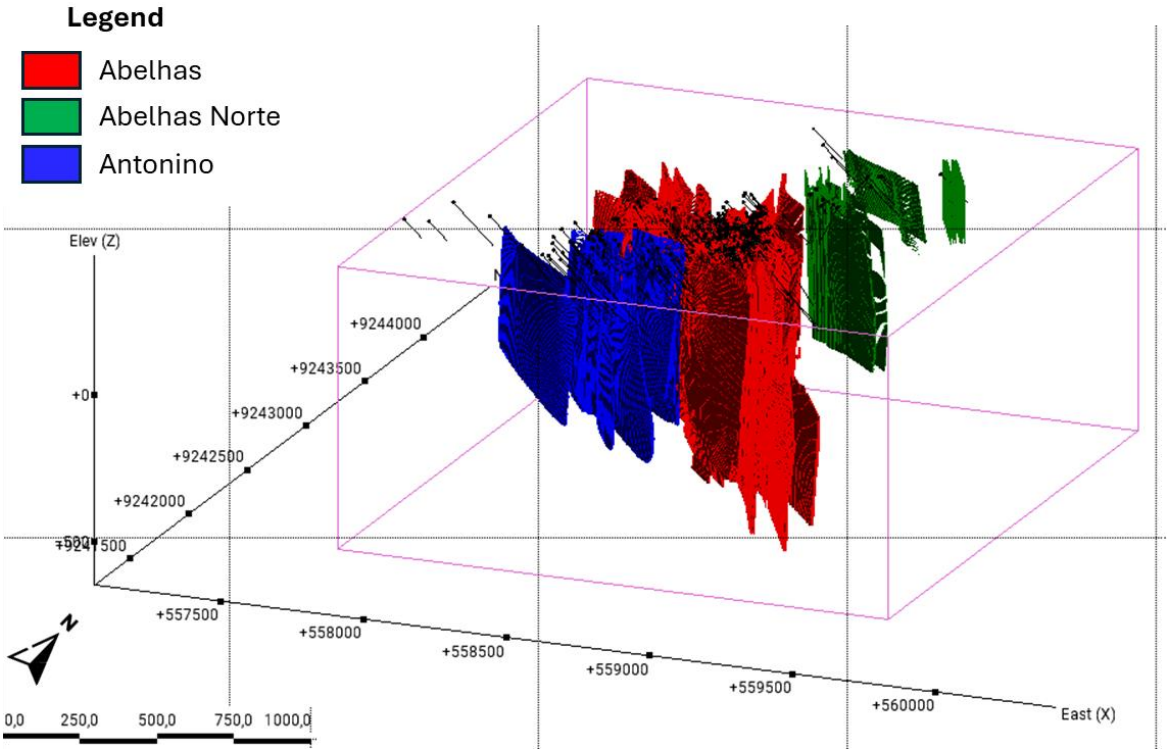


Figure 14.23 3D block model for the Abelhas Zone coloured by mineralized domain

Source: GE21, 2026.

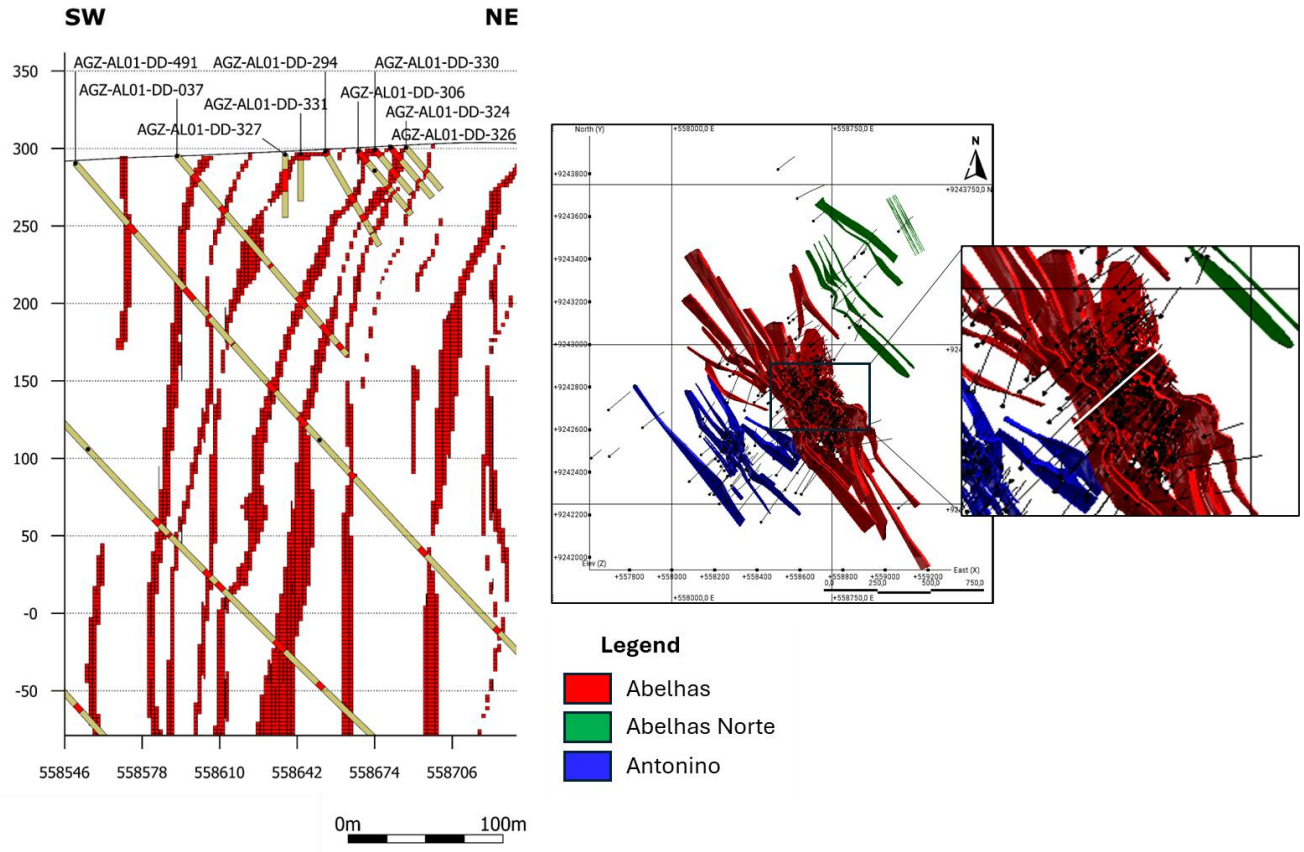


Figure 14.24 Cross-section through the Abelhas Zone block model

Source: GE21, 2026.

Table 14.13 Attributes of the Abelhas Zone block model

Attribute Name	Type	Description
Dens	Real	Density (g/cm³)
rec_class	Categorical	Resource Classification: 1= measured; 2=indicated; 3=inferred;
NN_Au	Float	Gold grade estimated by Nearest Neighbour In grams per tonnes (g/t)
OK_Au	Float	Gold grade estimated by Ordinary Kriging in grams per tonne (g/t)
Intemp	Categorical	Weathering Model (Rock and Saprolite)
MinZone	Categorical	Mineralization Model (Abelhas, Abelhas Norte, Abelhas N-S, and Antonino)
Pass	Integer	Steps for Au estimation
GM_Topo	Categorical	Topography Model
GM_ABL_RECURSOS	Categorical	Mineralization Model (Abelhas, Abelhas Norte, Abelhas N-S, and Antonino)

Source: GE21, 2026.

Table 14.14 Summary of Juliano target block model

Project: Abelhas Target: Juliano			
Item	**X**	**Y**	**Z**
Base Point	555223.00	9241802.00	301.00
Boundary Size	1770	1470	375
User Block Size	10	10	5
Minimum Block Size	1.25	1.25	0.625
Rotation	0° (Azimuth)		

Source: GE21, 2026.

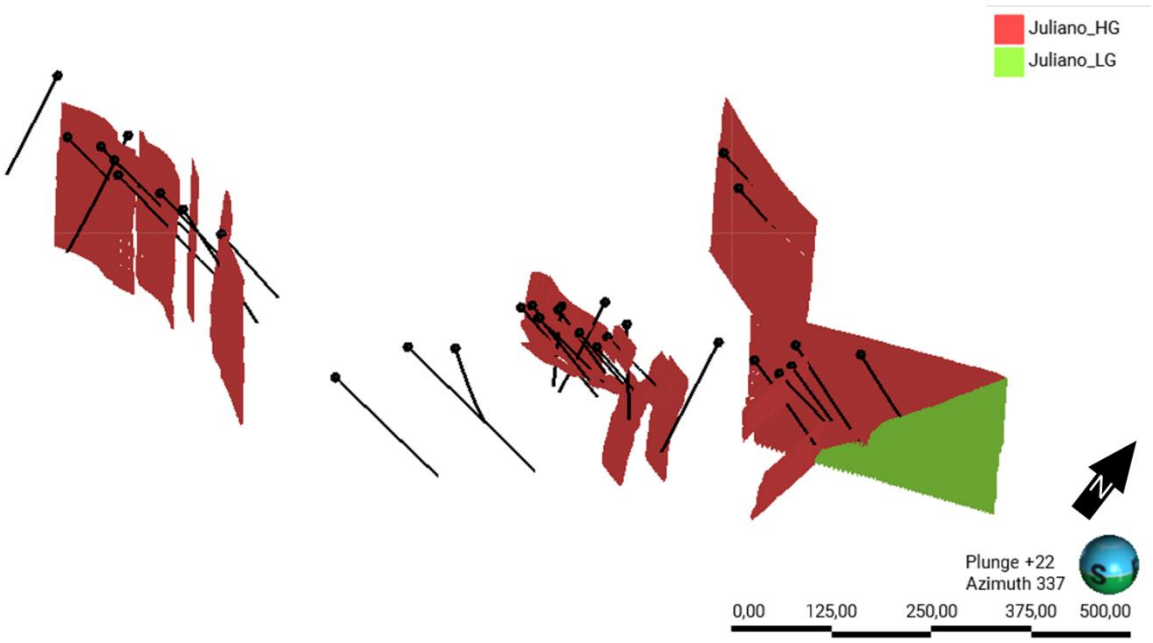


Figure 14.25 3D block model for the Juliano deposit coloured by the attribute of the domain

Source: GE21, 2026.

Table 14.15 Attributes of the Juliano deposit block model

Attribute Name	Type	Description
Density	Real	Density (g/cm³)
rec_class	Categorical	Resource Classification: 1= measured; 2=indicated; 3=inferred;
NN_Au	Float	Gold grade estimated by Nearest Neighbour In grams per tonne (g/t)
OK_Au_31	Float	Gold grade estimated by Ordinary Kriging in grams per tonne (g/t)
Gm_Intemp_juliano	Categorical	Weathering Model (Rock and Saprolite)
GM_solidos_juliano	Categorical	Mineralization Model by grade domain

Source: GE21, 2026.

Table 14.16 Summary of the Buracão block model, Campos Altos Zone

Project: Campos Altos Target: Buracão			
Item	**X**	**Y**	**Z**
Base Point	547600.00	9243410.00	350.00
Boundary Size	340.00	380.00	254.00
User Block Size	20	20	21
Minimum Block Size	1.25	1.25	0.5
Size in blocks	17x19x127		
Rotation	0°		

Source: GE21, 2026.

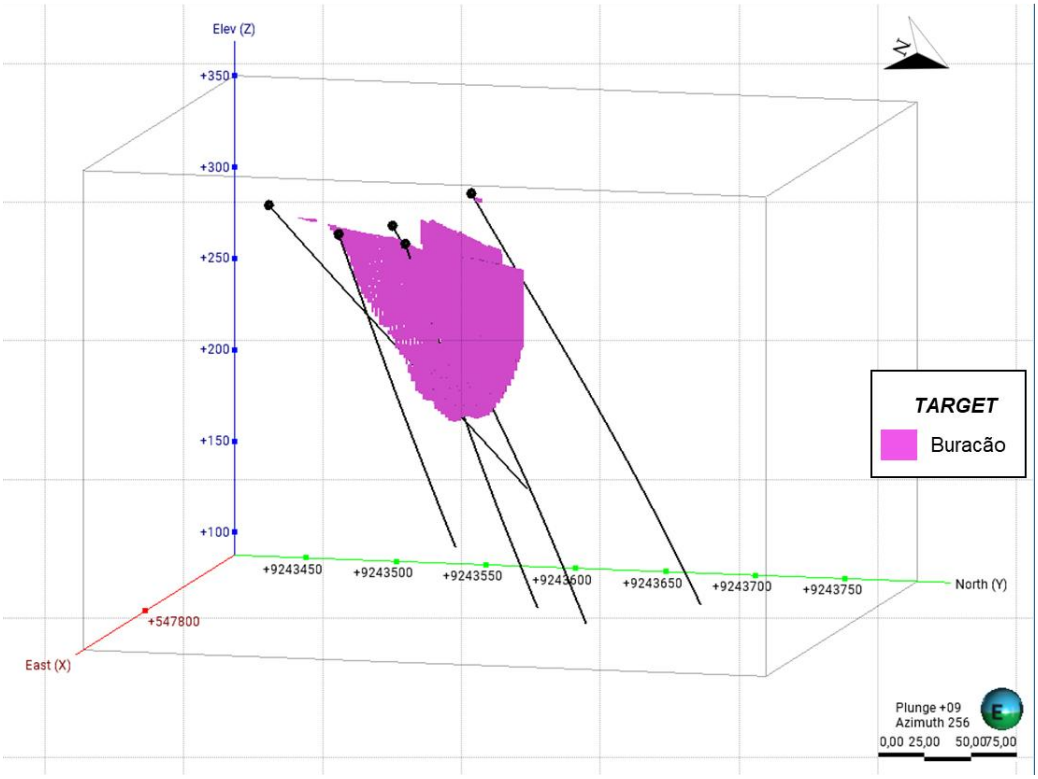


Figure 14.25 3D block model of the Buracão target, Campos Altos Zone

Source: GE21, 2026.

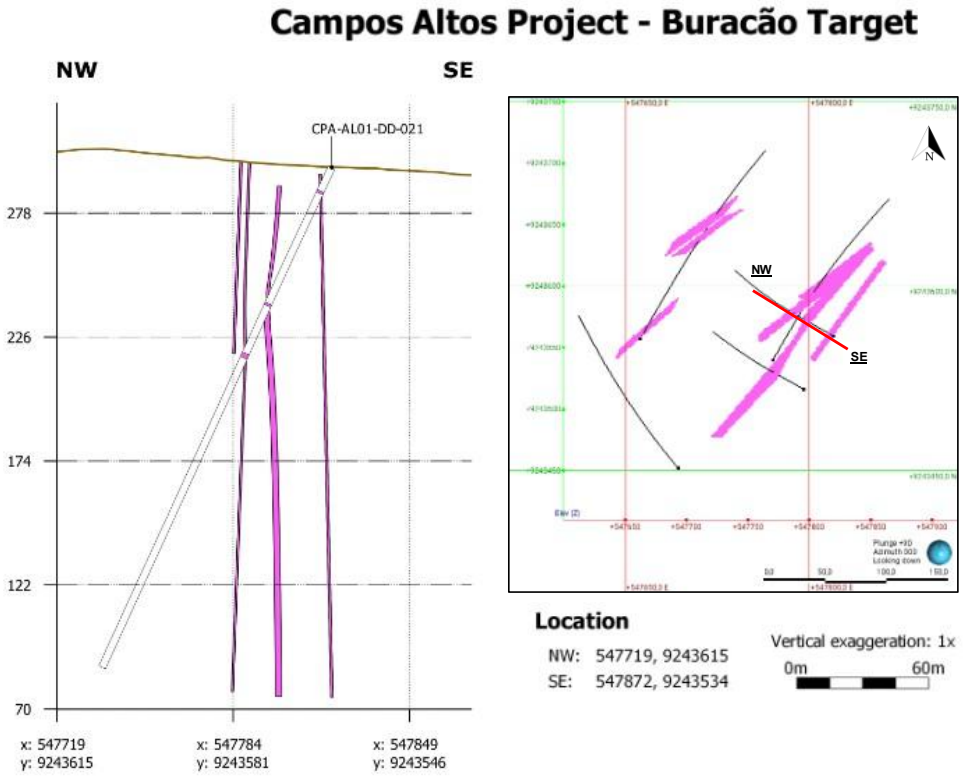


Figure 14.26 Schematic cross-section showing the Buracão block model, Campos Altos Zone

Source: GE21, 2026.

Table 14.17 Attributes of the Buracão target block model

Attribute Name	Type	Description
Density	Real	Density (g/cm³)
rec_class	Categorical	Resource Classification: inferred
BUR_Au(ppm)_GE21_NN	Float	Gold grade estimated by Nearest Neighbour in ppm
BUR_Au(ppm)_GE21_OK	Float	Gold grade estimated by Ordinary Kriging in ppm
BUR_Au(ppm)_GE21_IDW	Float	Gold grade estimated by Inverse Distance in ppm
WM_BUR	Categorical	Weathering Model (Rock, Soil and Saprolite)
GM_BUR	Categorical	Mineralized Material and Waste domains
Pit_BUR_2026	Categorical	Buracão Pit

Source: GE21, 2026.

Table 14.18 Summary of the Pão de Guincho target block model, Campos Altos Zone

Project: Campos Altos Target: Pão de Guincho			
Item	**X**	**Y**	**Z**
Base Point	547210.96	9244097.48	330
Boundary Size	1360	1360	272
User Block Size	20	20	2
Minimum Block Size	1.25	1.25	0.5
Size in blocks	68x68x136		
Rotation	140° (Azimuth)		

Source: GE21, 2026.

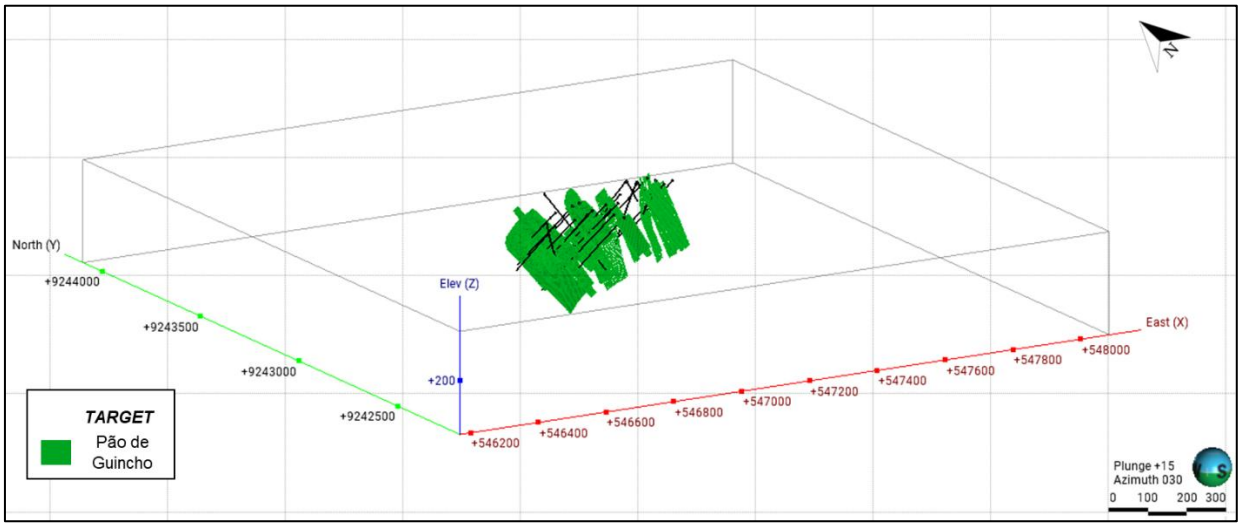


Figure 14.27 3D block model of the Pão de Guincho target, Campos Altos Zone

Source: GE21, 2026.

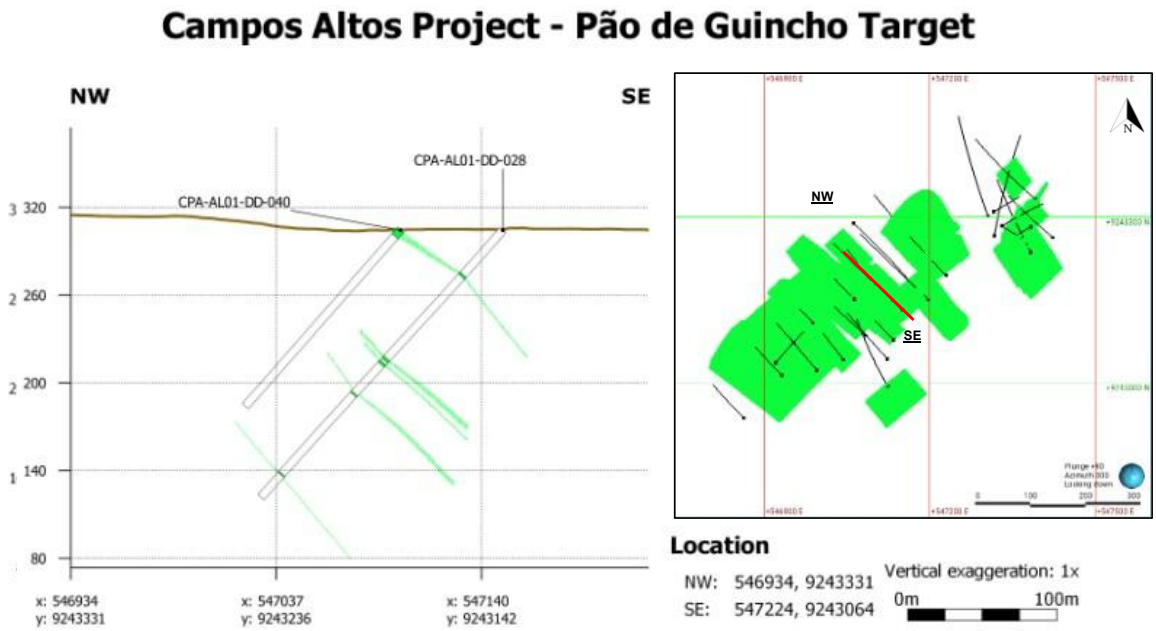


Figure 14.28 Schematic section representing the Pão de Guincho block model

Source: GE21, 2026.

Table 14.19 Attributes of the Pão de Guincho block model

Attribute Name	Type	Description
Density	Real	Density (g/cm³)
rec_class	Categorical	Resource Classification: indicated, inferred;
PDG_Au(ppm)_GE21_NN	Float	Gold grade estimated by Nearest Neighbour in ppm
PDG_Au(ppm)_GE21_OK	Float	Gold grade estimated by Ordinary Kriging in ppm
PDG_Au(ppm)_GE21_IDW	Float	Gold grade estimated by Inverse Distance in ppm
WM_PDG	Categorical	Weathering Model (Rock, Soil and Saprolite)
GM_PDG	Categorical	Mineralized Material and Waste domains
Pit_PDG_2026	Categorical	Pão de Guincho Pit

Source: GE21, 2026.

Table 14.20 Summary of the Planta target block model for the Campos Altos Zone

Project: Campos Altos Target: Planta			
Item	**X**	**Y**	**Z**
Base Point	545780.00	9241490.0	330
Boundary Size	400.00	620.0	308.0
User Block Size	20	20	2
Minimum Block Size	1.25	1.25	0.5
Size in blocks	20x31x154		
Rotation	-		

Source: GE21, 2026.

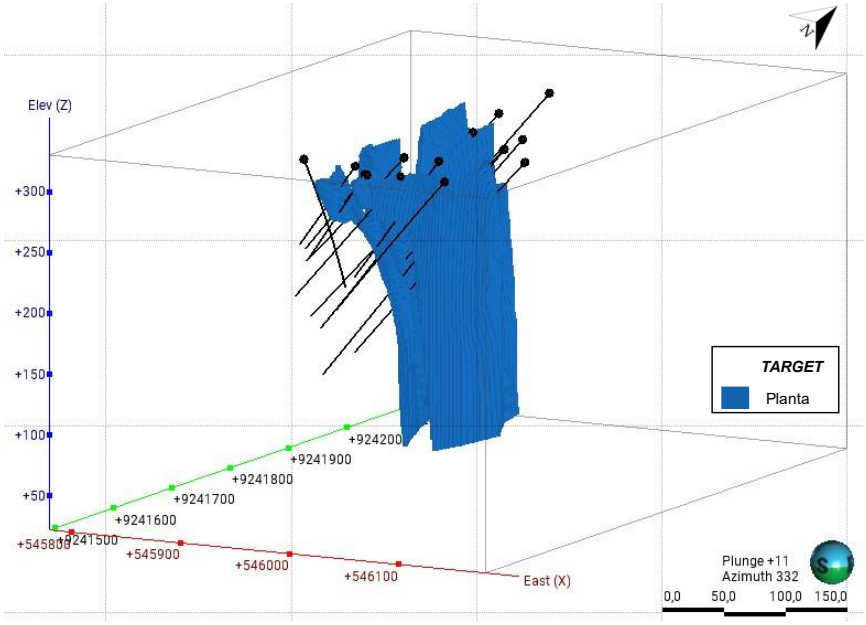


Figure 14.29 3D block model of the Planta target, Campos Altos Zone

Source: GE21, 2026.

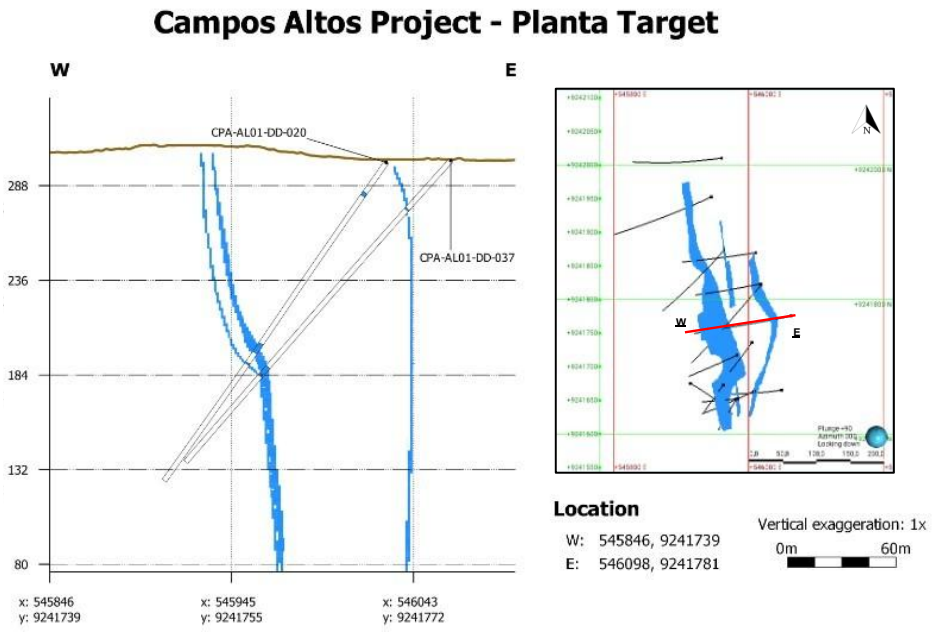


Figure 14.30 Schematic section representing the Planta target block model

Source: GE21, 2026.

Table 14.21 Attributes of the Planta target block model

Attribute Name	Type	Description
Density	Real	Density (g/cm³)
rec_class	Categorical	Resource Classification: inferred;
PLT_Au(ppm)_GE21_NN	Float	Gold grade estimated by Nearest Neighbour in ppm
PLT_Au(ppm)_GE21_OK	Float	Gold grade estimated by Ordinary Kriging in ppm
PLT_Au(ppm)_GE21_IDW	Float	Gold grade estimated by Inverse Distance in ppm
WM_PLT	Categorical	Weathering Model (Rock, Soil and Saprolite)
GM_PLT	Categorical	Mineralized Material and Waste domains
Pit_PLT_2026	Categorical	Planta Pit

Source: GE21, 2026.

Table 14.22 Summary of the Brejo target block model, Campos Altos Zone

Project: Campos Altos Target: Brejo			
Item	**X**	**Y**	**Z**
Base Point	546050.00	9240810.00	330.00
Boundary Size	480	720	260
User Block Size	20	20	5
Minimum Block Size	0.3125	0.3125	1.25
Size in blocks	24x36x52		
Rotation	-		

Source: GE21, 2026.

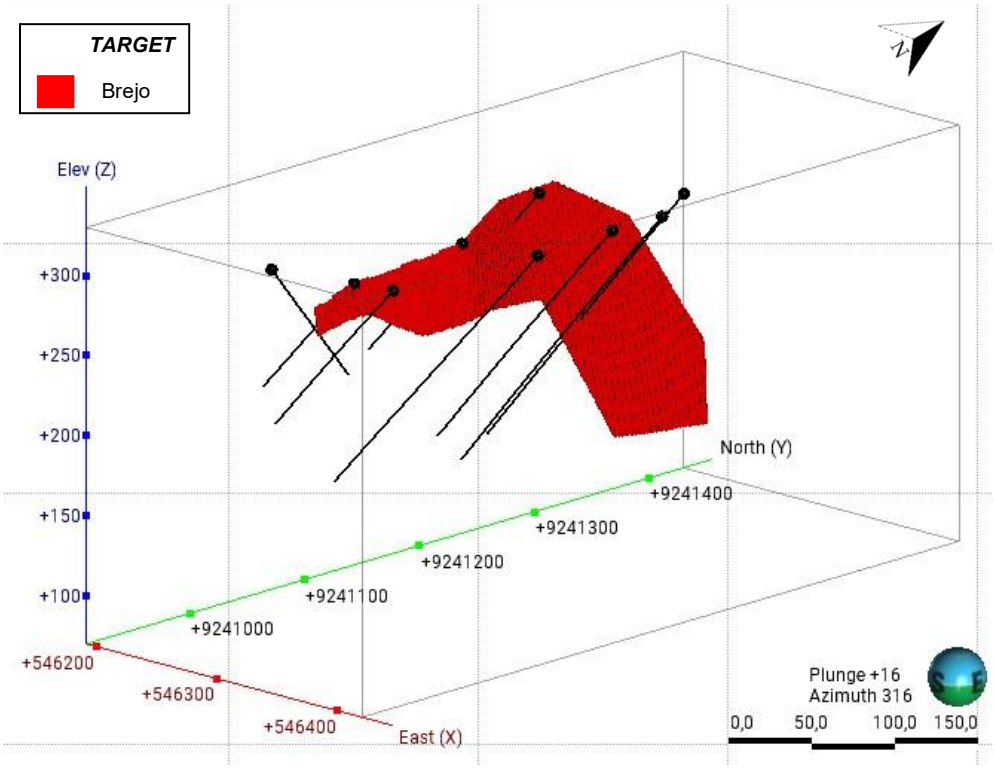


Figure 14.31 3D block model of the Brejo target, Campos Altos Zone

Source: GE21, 2026.

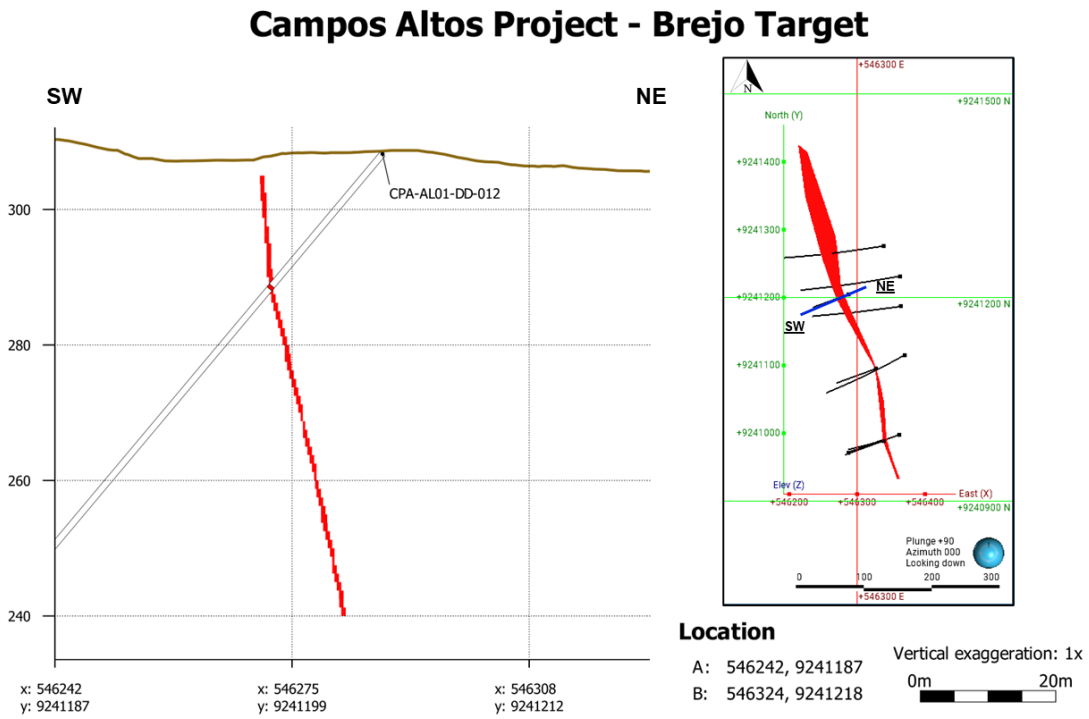


Figure 14.32 Schematic section representing the Brejo block model

Source: GE21, 2026.

Table 14.23 Attributes of the Brejo target block model

Attribute Name	Type	Description
Density	Real	Density (g/cm³)
rec_class	Categorical	Resource Classification: inferred;
PLT_Au(ppm)_GE21_NN	Float	Gold grade estimated by Nearest Neighbour in ppm
PLT_Au(ppm)_GE21_OK	Float	Gold grade estimated by Ordinary Kriging in ppm
PLT_Au(ppm)_GE21_IDW	Float	Gold grade estimated by Inverse Distance in ppm
WM_BRJ	Categorical	Weathering Model (Rock, Soil and Saprolite)
GM_BRJ	Categorical	Mineralized Material and Waste domains
Pit_BRJ_2026	Categorical	Brejo Pit

Source: GE21, 2026.

14.9 Grade Estimate

Gold grades (Au, g/t) within the mineralized domains were estimated using the Ordinary Kriging (OK) interpolation method. The estimation strategy considered the orientation, geometry, spatial continuity of the mineralization, and drill spacing within each mineralized domain. Estimation parameters were derived from the variogram analysis and incorporated the treatment of outliers. Dynamic anisotropy was applied to orient the search ellipsoids according to the local geometry of each mineralized body.

Ordinary Kriging is a widely used geostatistical method in mineral resource estimation. In this interpolation technique, the contributing composite samples are selected using a search neighbourhood centred on each block, and kriging weights are determined from the spatial distribution of the selected composites and the modelled variograms to minimize estimation variance. The weighted composite grades were then used to estimate the gold grade of each block.

Grade estimation for the Abelhas–Juliano database was completed in four successive passes using the search parameters summarized in Table 14.24. The corresponding estimation parameters for the Campos Altos database are presented in Table 14.25.

Table 14.24 Kriging strategy for the Abelhas-Juliano Database

Pass	Ellipsoid Ranges			Orientation	Number of Samples		Outlier Restriction			Sample limit per hole
	Maximum	Intermediate	Minimum		Minimum	Maximum	Method	Distance (m)	Threshold (ppm)	Maximum Quantity
Pass 1	40	40	6	Dynamic Anisotropy	3	8	Clamp (1)	0	31.6	2
Pass 2	90	90	12	Dynamic Anisotropy	3	8	Clamp	0	31.6	2
Pass 3	200	200	20	Dynamic Anisotropy	3	8	Clamp	0	31.6	2
Pass 4	3000	3000	300	Dynamic Anisotropy	1	8	Clamp	0	31.6	2

Note:
1. Clamp definition: a grade capping method that limits assay values exceeding a specified sill to that sill value prior to estimation, thereby reducing the influence of extreme outliers on the resource model

Source: GE21, 2026.

Table 14.25 Kriging strategy for the Campos Altos Database

Pass	Ellipsoid Ranges			Orientation	Sample number		Outlier Restriction			Sample limit per hole
	Maximum	Intermediate	Minimum		Minimum	Maximum	Method	Distance (m)	Threshold (ppm)	Maximum Quantity
Pass 1	60	60	10	Dynamic Anisotropy	3	8	Clamp (1)	0	8.9	2
Pass 2	120	120	20	Dynamic Anisotropy	3	8	Clamp	0	8.9	2
Pass 3	300	300	40	Dynamic Anisotropy	3	8	Clamp	0	8.9	2
Pass 4	600	600	150	Dynamic Anisotropy	1	8	Clamp	0	8.9	2
Pass inf	6000	4000	2000	Dynamic Anisotropy	1	8	Clamp	0	8.9	2

Note:
1. Clamp definition: a grade capping method that limits assay values exceeding a specified sill to that sill value prior to estimation, thereby reducing the influence of extreme outliers on the resource model

Source: GE21, 2026.

14.10 Estimation Validation

A validation of the block models was performed by comparing the geological wireframes and the block models both visually and volumetrically. The results demonstrate an acceptable correspondence, as indicated by the volumetric ratio (defined as the wireframe volume divided by the block model volume), summarized in Table 14.26.

Table 14.26 Volume validation

Project	Target	Volume Validation		Adherence (%)
		Geological Model Wireframe (m³)	Block Model (m³)	
CPA	Brejo	25560.00	25576.78	100%
	Buracão	163641.00	163823.44	100%
	Pão de Guincho	539803.60	545837.50	99%
	Planta	265620.20	265070.31	100%
ABL		76265528.80	76222484.38	100%

Source: GE21, 2026.

The estimated block models were also visually compared with the drill hole database in a 3D environment using the sample grades (Figure 14.33).

GE21 performed a visual audit of the grade estimates using cross-sections through the Abelhas Zone. The same validation procedure was applied to the Juliano deposit and the Campos Altos deposits. The visual validation demonstrated an acceptable degree of grade smoothing and good correlation between the drill hole sample grades and the estimated block grades.

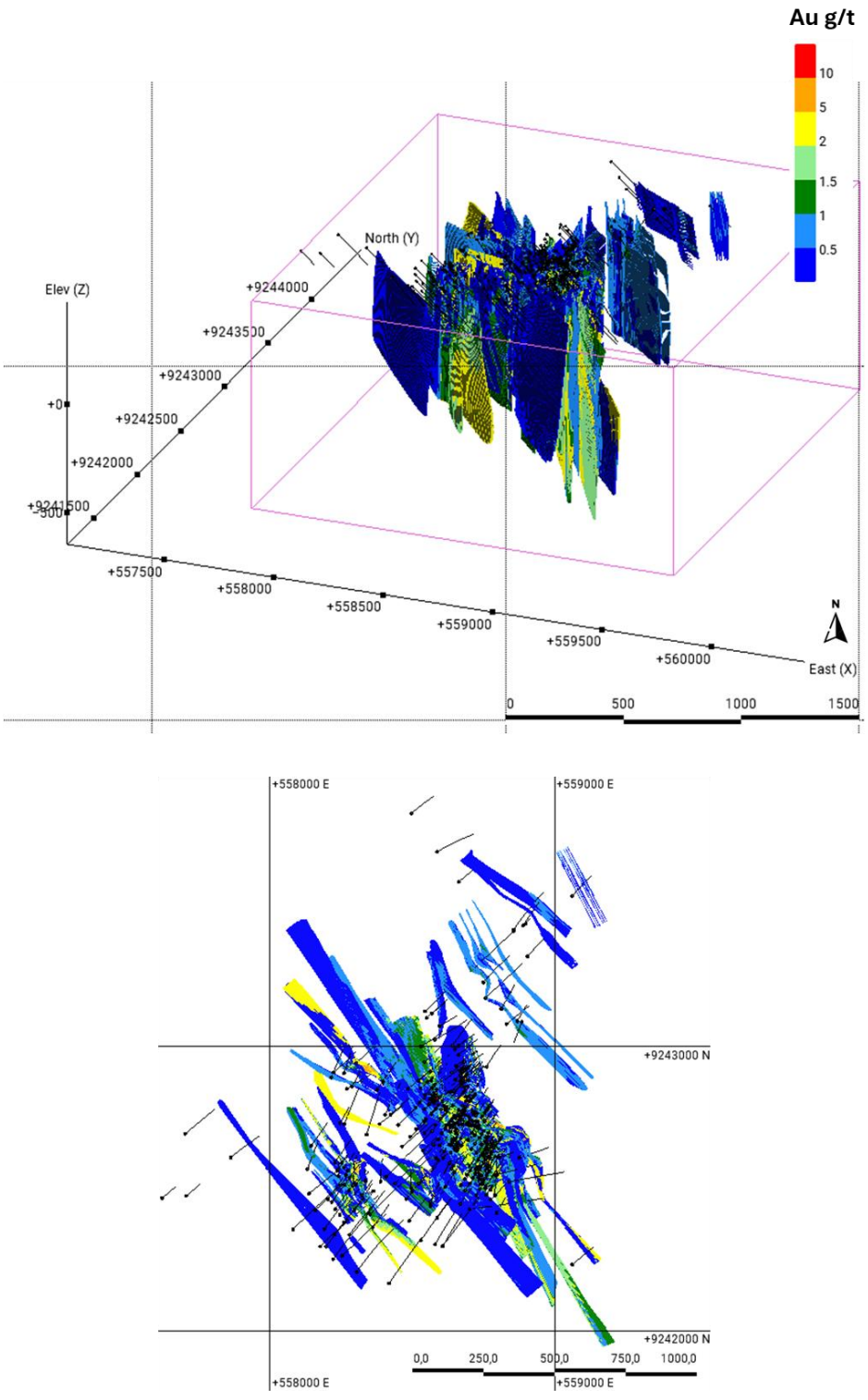


Figure 14.33 Visual validation of the Abelhas Zones

Source: GE21, 2026.

GE21 assessed the global bias of the grade estimation by comparing the Ordinary Kriging (OK) estimates with those obtained using the Nearest Neighbour (NN) method. In the NN method, each block is assigned the grade of the nearest sample, based on the geospatial anisotropy parameters defined by the search ellipsoid. Comparison of the NN and the OK estimates provides a measure of the potential influence of smoothing and sample distribution on the block model.

Validation of the estimates included kriging histograms, scatter plots, and quantile-quantile (Q-Q) plots to assess global bias and the degree of smoothing associated with the OK interpolation.

The NN validation confirmed a slight smoothing effect associated with the OK estimates, which is considered acceptable for this style of mineralization and the adopted block dimensions. The comparison with the NN estimates also indicates that the OK estimation did not exhibit significant global bias.

Figure 14.34 presents the NN comparison for the Indicated Mineral Resources in the Abelhas Zone, as described in subsection 14.11. Figure 14.35 to Figure 14.39 present the NN comparisons for the Indicated and Inferred Mineral Resources in the Campos Altos deposits (subsection 14.11).

Vizinho mais próximo

Variável	Au
Domínio	nan;nan;nan
N. amost	727564
Mínimo	0.003
Máximo	95.563
Média	0.887
Variância	10.444
Desv. Pad	3.232

Percentil

	Value
2.5%	0.002
5%	0.002
25%	0.021
Mediana	0.223
75%	0.703
95%	3.62
97.5%	4.921

Krigagem Ordinária

Variável	Au
Domínio	nan;nan;nan
N. amost	727564
Mínimo	0.003
Máximo	31.335
Média	0.859
Variância	1.249
Desv Pad	1.118

Percentil

	Value
2.5%	0.004
5%	0.008
25%	0.219
Mediana	0.522
75%	1.093
95%	2.829
97.5%	3.695

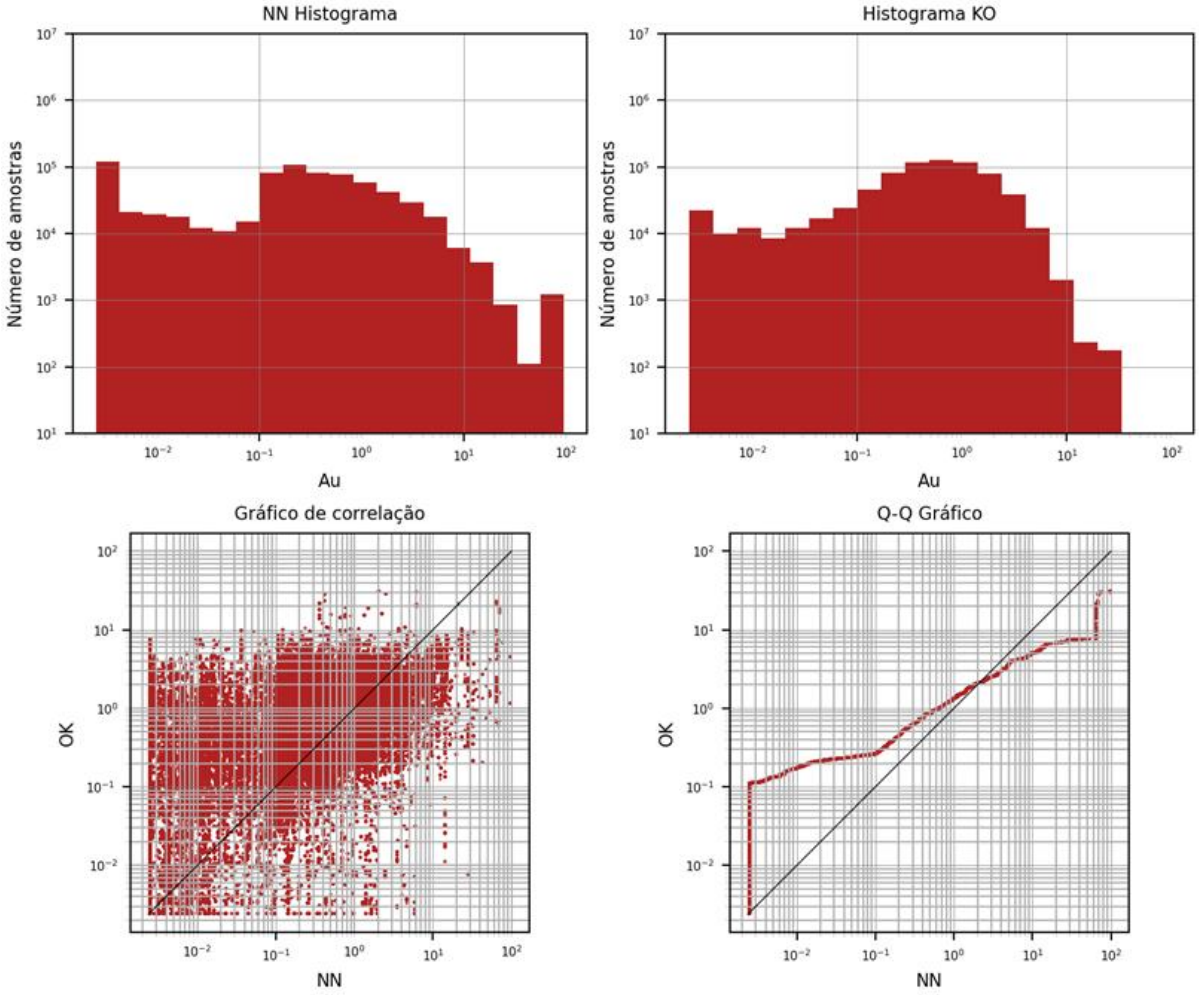


Figure 14.34 NN-Check considering Indicated Mineral Resource, for the estimated variable, in the Abelhas Zone

Source: GE21, 2026.

Nearest Neighbour

Variable	Au
Domain	
N. Sampl	120400
Minimum	0.005
Maximum	24.2
Average	1.902
Variance	11.704
Std Dev.	3.421

Percentile

	Value
2.5%	0.005
5%	0.009
25%	0.191
Median	0.553
75%	1.569
95%	11.576
97.5%	11.576

Ordinary Kriging

Variable	Au
Domain	
N. Sampl	120400
Minimum	0.051
Maximum	7.941
Average	2.497
Variance	3.45
Std Dev.	1.86

Percentile

	Value
2.5%	0.14
5%	0.155
25%	0.648
Median	2.435
75%	3.748
95%	5.113
97.5%	5.762

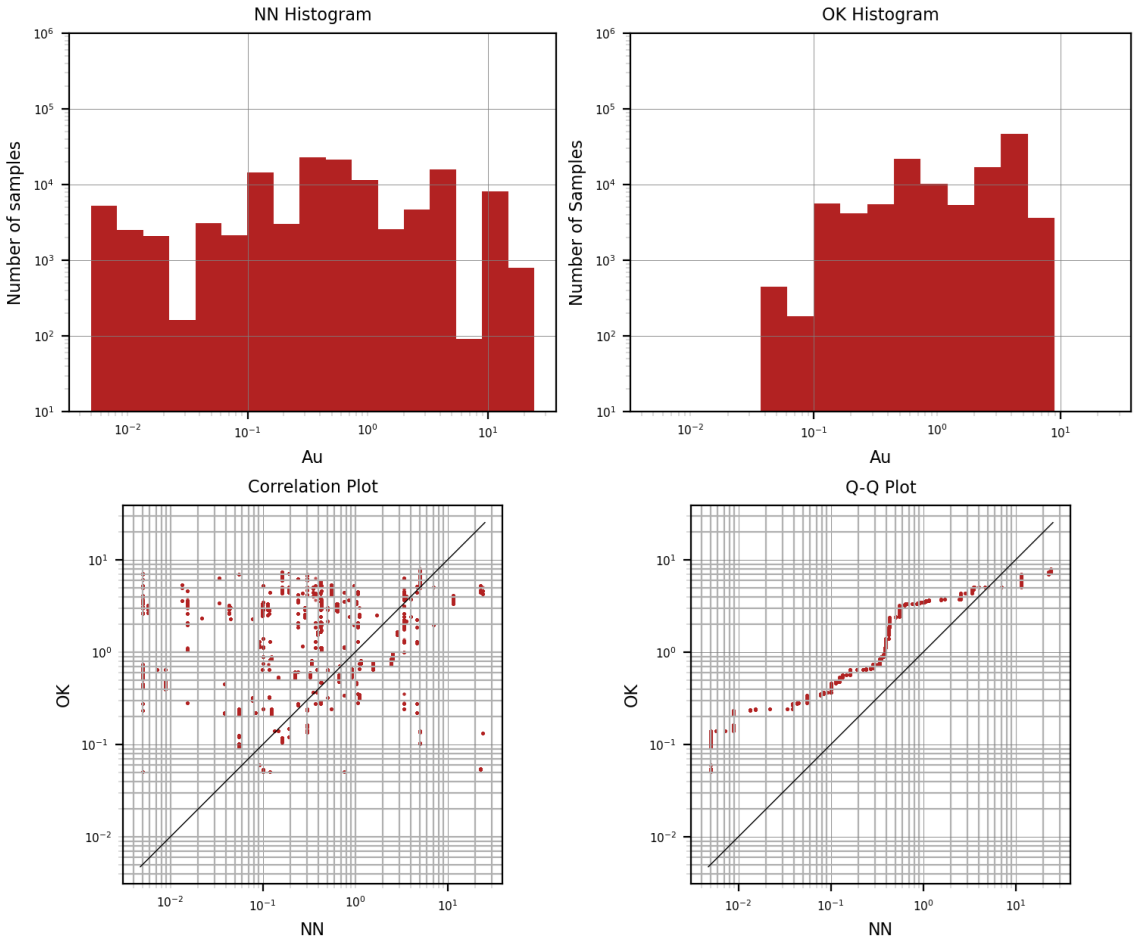


Figure 14.35 NN-Check considering Indicated Mineral Resource, for the estimated variable, in the Juliano Zone

Source: GE21, 2026.

Nearest Neighbour

Variable	Au
Domain	
N. Sampl	18872
Minimum	0.005
Maximum	1.928
Average	0.94
Variance	0.501
Std Dev.	0.708

Percentile

	Value
2.5%	0.22
5%	0.22
25%	0.352
Median	0.622
75%	1.928
95%	1.928
97.5%	1.928

Ordinary Kriging

Variable	Au
Domain	
N. Sampl	18872
Minimum	0.011
Maximum	2.199
Average	1.187
Variance	0.31
Std Dev.	0.56

Percentile

	Value
2.5%	0.272
5%	0.272
25%	0.684
Median	1.382
75%	1.558
95%	2.181
97.5%	2.187

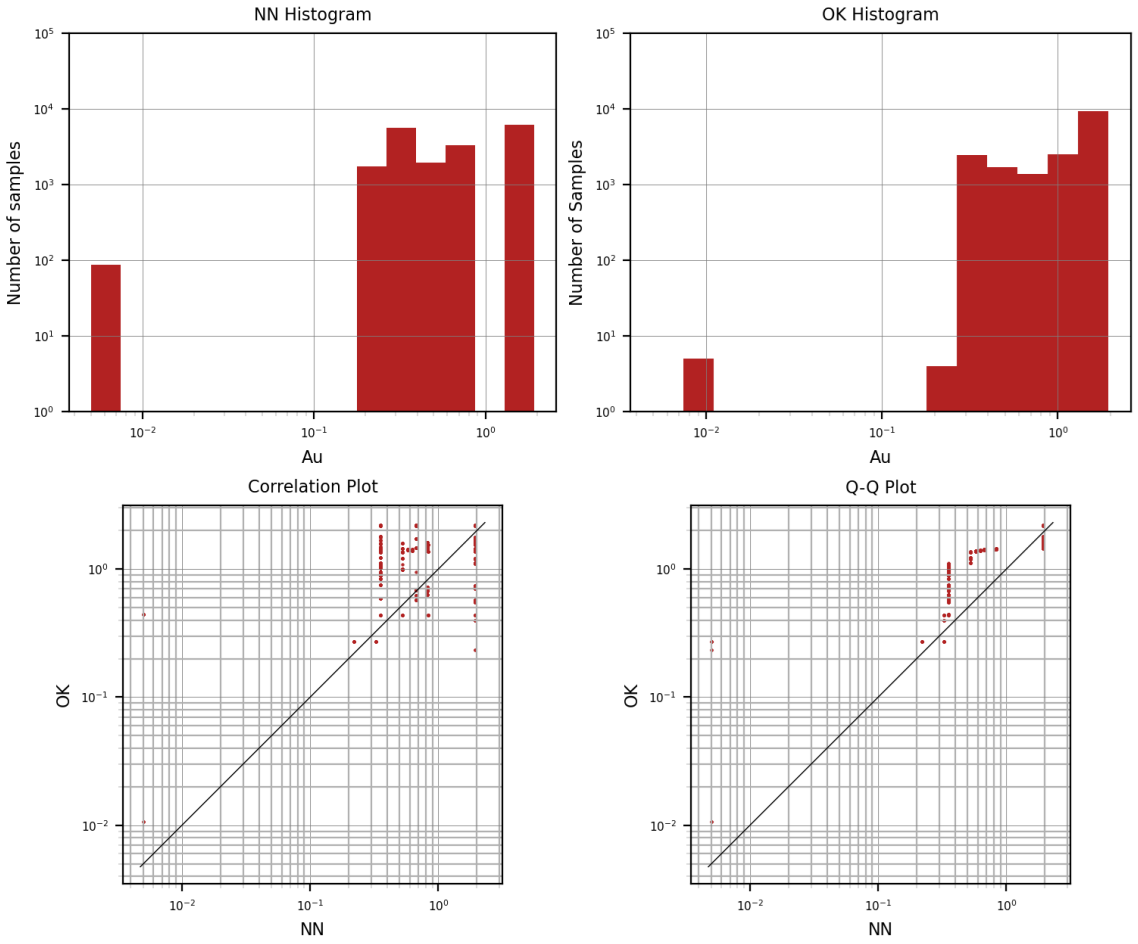


Figure 14.36 NN-Check considering Inferred Mineral Resource, for the estimated variable, in the Buracão target

Source: GE21, 2026.

Nearest Neighbour

Variable	Au
Domain	
N. Sampl	172405
Minimum	0.006
Maximum	45.128
Average	2.279
Variance	26.289
Std Dev.	5.127

Percentile

	Value
2.5%	0.009
5%	0.079
25%	0.556
Median	0.952
75%	1.769
95%	7.957
97.5%	8.556

Ordinary Kriging

Variable	Au
Domain	
N. Sampl	172405
Minimum	0.252
Maximum	6.404
Average	1.84
Variance	2.14
Std Dev.	1.46

Percentile

	Value
2.5%	0.316
5%	0.388
25%	0.55
Median	1.196
75%	3.053
95%	4.627
97.5%	5.059

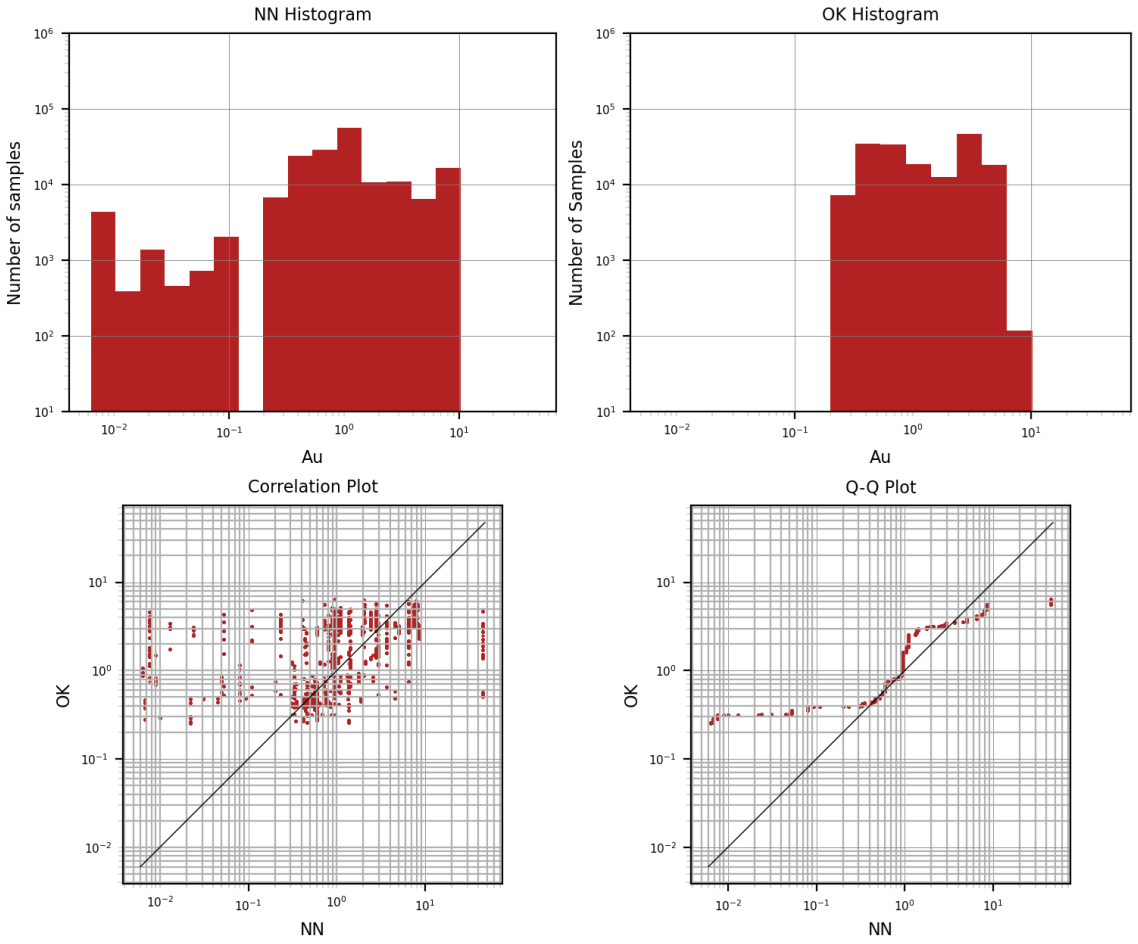


Figure 14.37 NN-Check considering Indicated and Inferred Mineral Resource, for the estimated variable, in the Pão de Guincho target

Source: GE21, 2026.

Nearest Neighbour

Variable	Au
Domain	
N. Sampl	85674
Minimum	0.226
Maximum	4.149
Average	1.018
Variance	0.672
Std Dev.	0.82

Percentile

	Value
2.5%	0.239
5%	0.239
25%	0.412
Median	0.637
75%	1.808
95%	2.229
97.5%	2.232

Ordinary Kriging

Variable	Au
Domain	
N. Sampl	85674
Minimum	0.258
Maximum	3.2
Average	1.271
Variance	0.23
Std Dev.	0.48

Percentile

	Value
2.5%	0.443
5%	0.459
25%	0.849
Median	1.301
75%	1.767
95%	1.843
97.5%	2.103

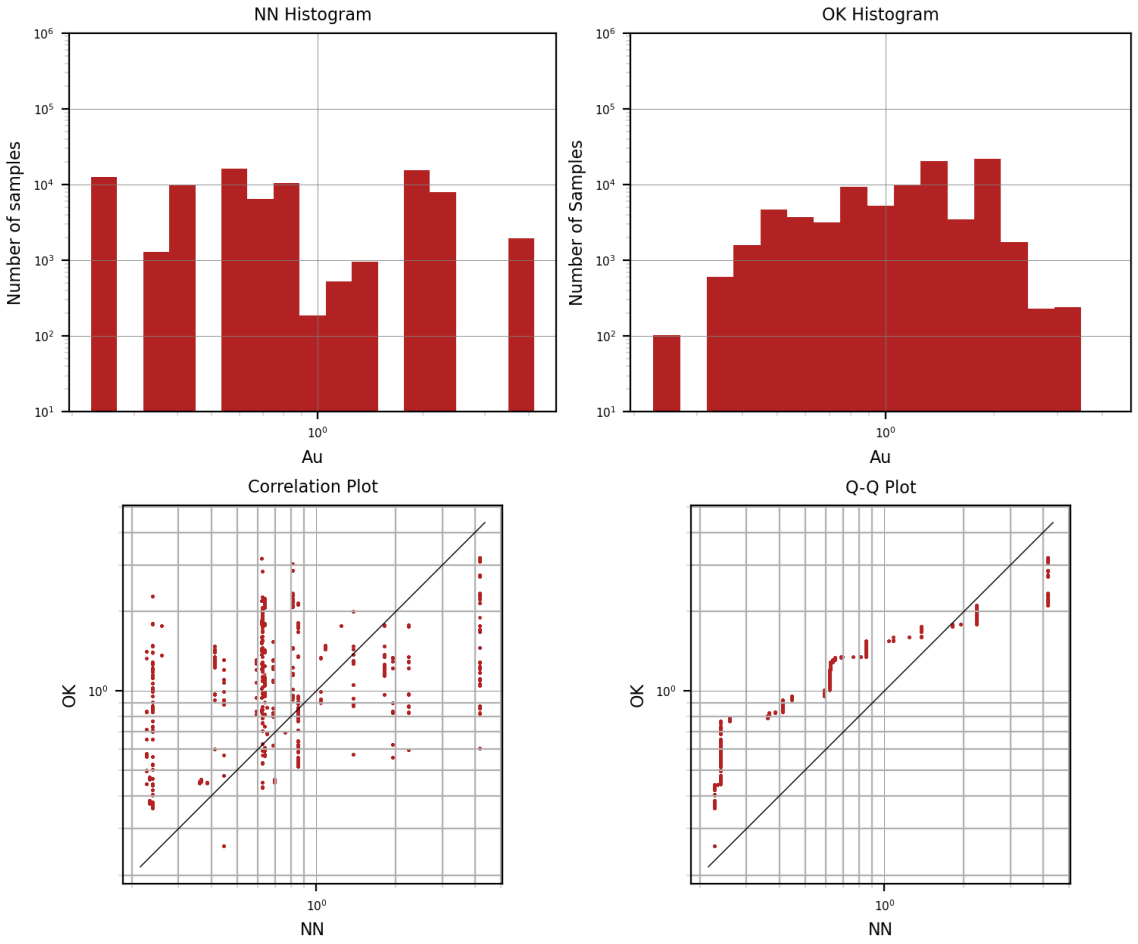


Figure 14.38 NN-Check considering Inferred Mineral Resource, for the estimated variable, in the Planta target

Source: GE21, 2026.

Nearest Neighbour

Variable	Au
Domain	
N. Sampl	85842
Minimum	0.392
Maximum	11.043
Average	6.36
Variance	11.04
Std Dev.	3.323

Percentile

	Value
2.5%	0.392
5%	0.392
25%	4.633
Median	6.29
75%	11.043
95%	11.043
97.5%	11.043

Ordinary Kriging

Variable	Au
Domain	
N. Sampl	85842
Minimum	4.749
Maximum	7.679
Average	6.224
Variance	0.77
Std Dev.	0.88

Percentile

	Value
2.5%	4.915
5%	5.23
25%	5.569
Median	5.659
75%	7.287
95%	7.345
97.5%	7.61

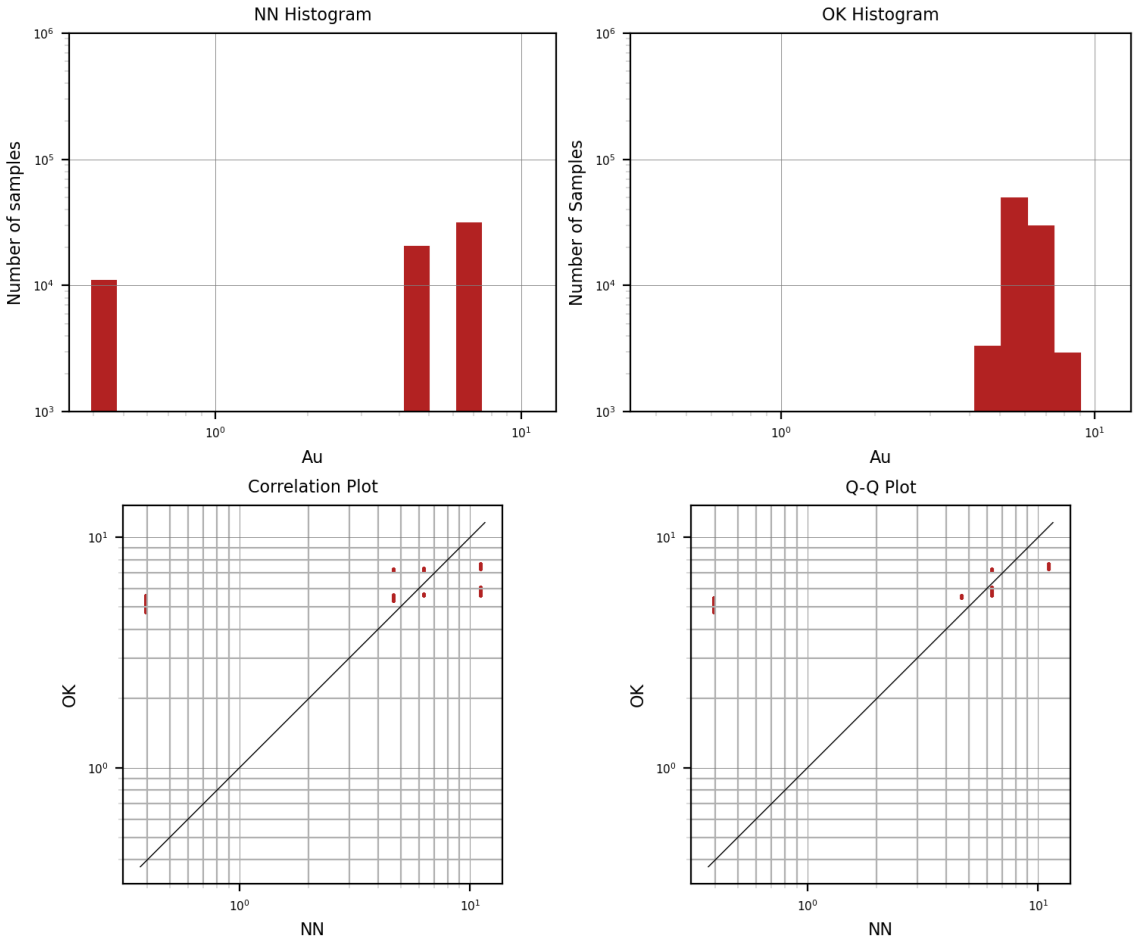


Figure 14.39 NN-Check considering Inferred Mineral Resource, for the estimated variable, in the Brejo target

Source: GE21, 2026.

Drift analysis was performed to assess the occurrence of any local bias. The method compares the average gold grades estimated by the OK and the NN methods along identical X, Y, and Z coordinates using swath plots. The results indicate that local bias is within acceptable limits for both the Abelhas–Juliano and Campos Altos databases.

Swath Plots for the Abelhas-Juliano database, in the X, Y and Z directions are presented in Figure 14.40 to Figure 14.45. For the Campos Altos database, the local validation also included

comparison with the Inverse Distance Weighting (IDW) method, as presented in Figure 14.46 to Figure 14.57.

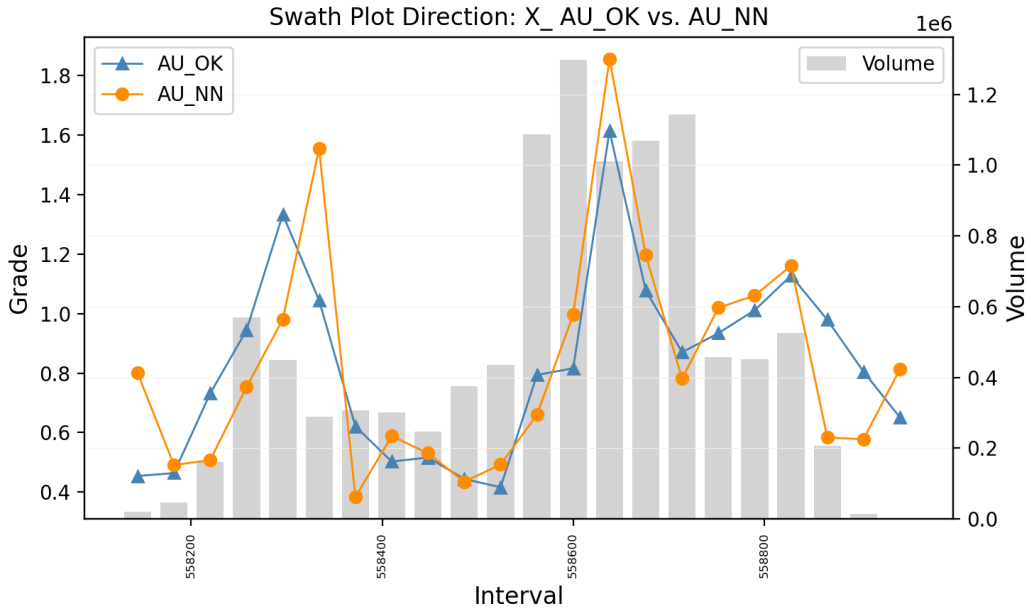


Figure 14.40 Swath plot for variable Au, Abelhas Indicated Class, X axis

Source: GE21, 2026.

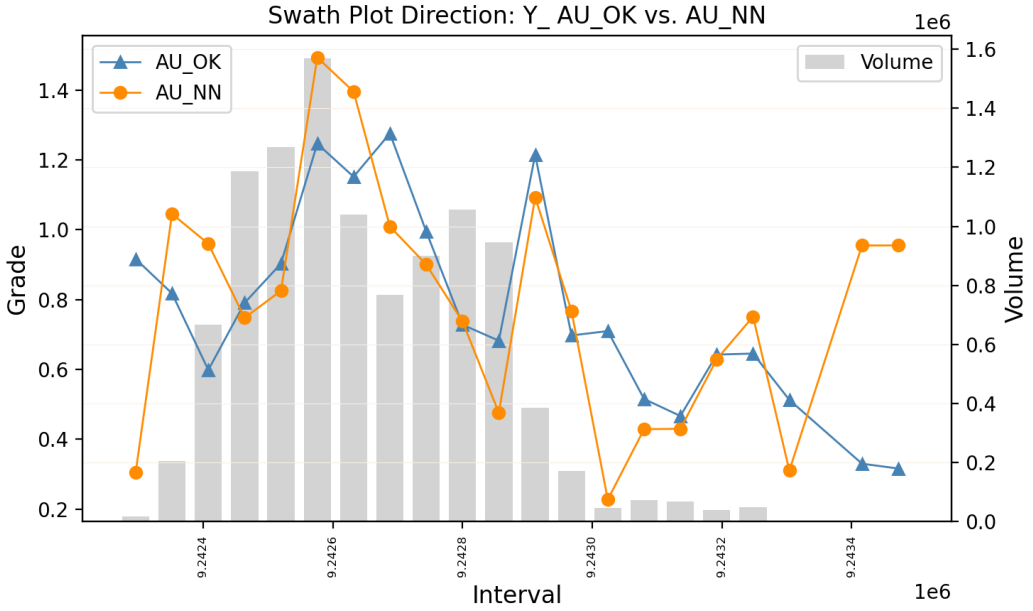


Figure 14.41 Swath plot for variable Au, Abelhas Indicated Class, Y axis

Source: GE21, 2026.

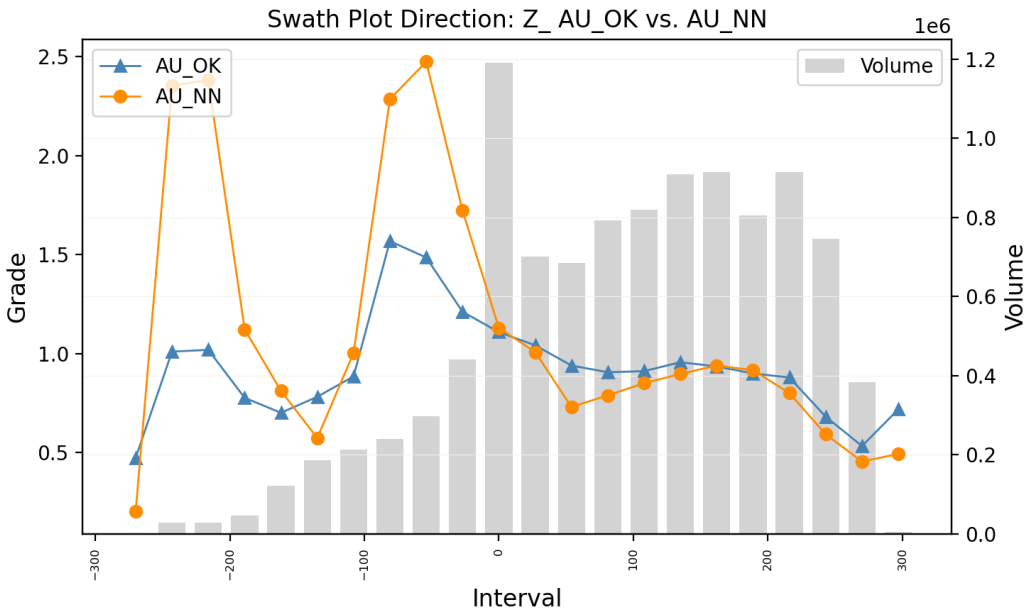


Figure 14.42 Swath plot for variable Au, Abelhas Indicated Class, Z axis

Source: GE21, 2026.

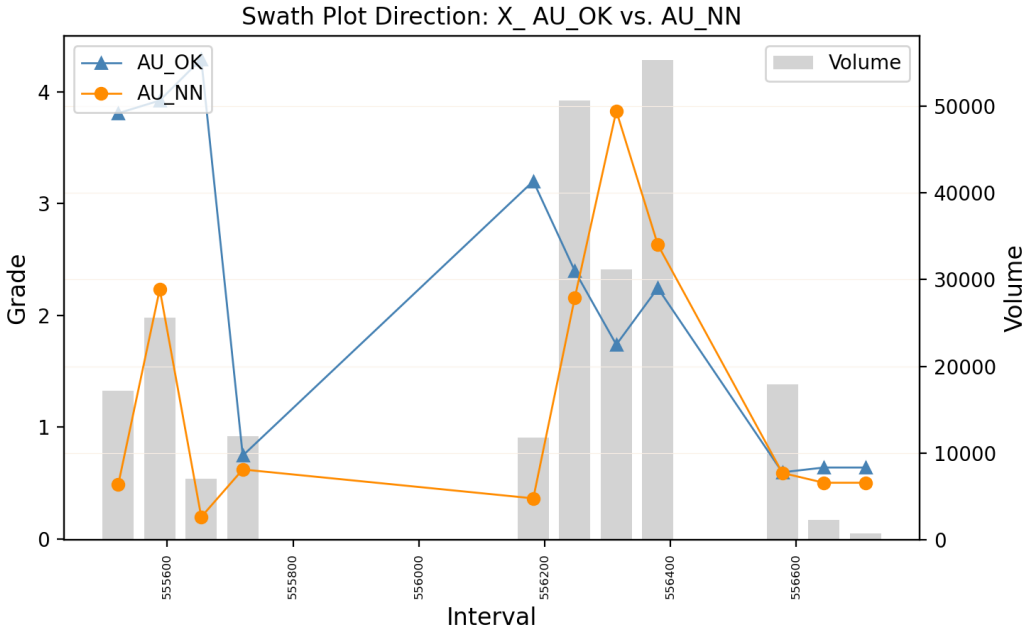


Figure 14.43 Swath plot for variable Au, Juliano Indicated Class, X axis

Source: GE21, 2026.

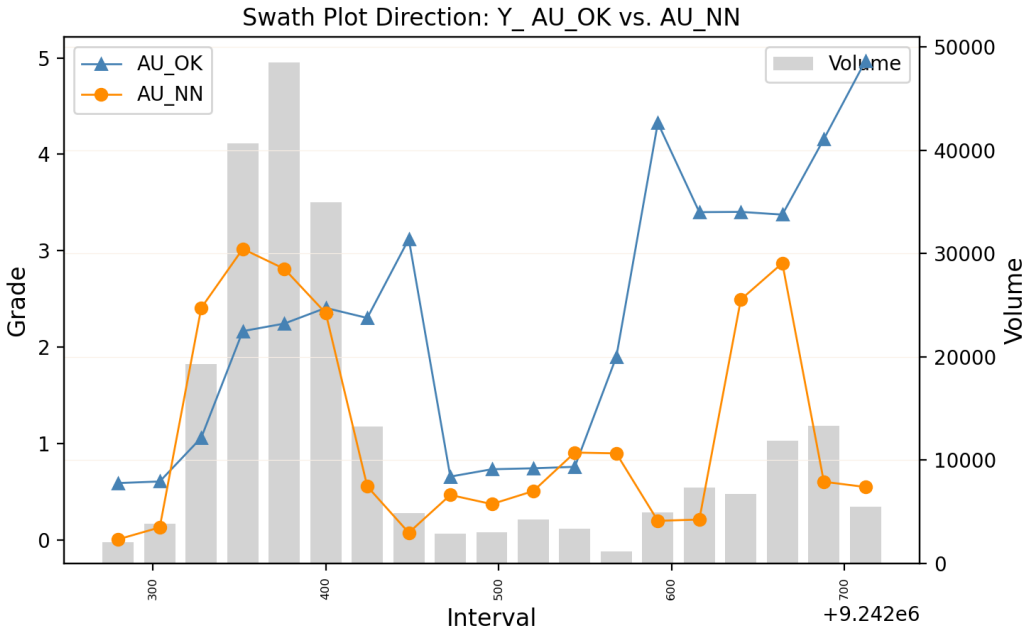


Figure 14.44 Swath plot for variable Au, Juliano Indicated Class, Y axis

Source: GE21, 2026.

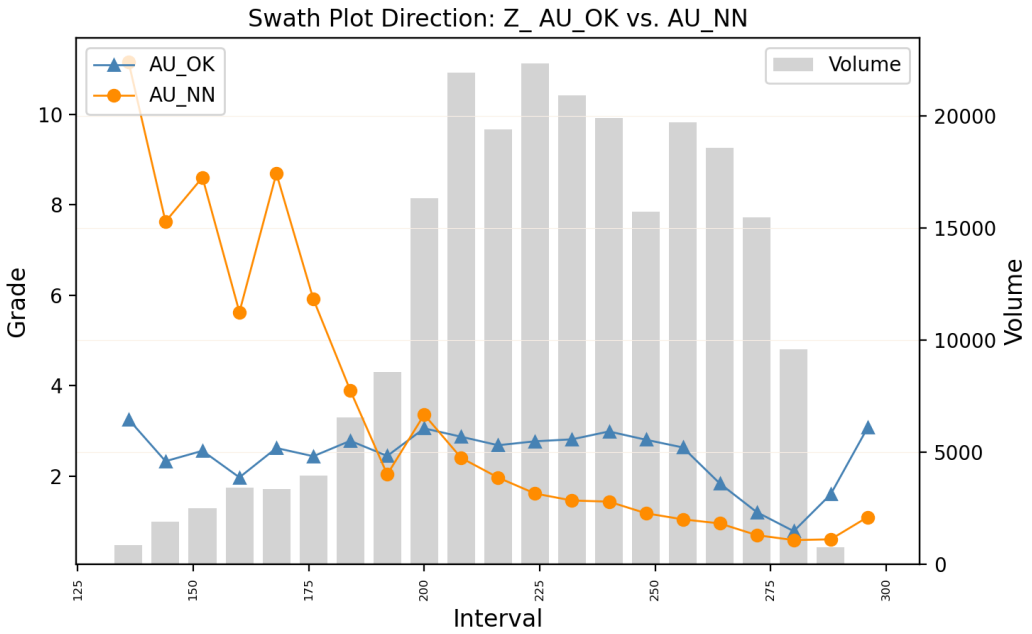


Figure 14.45 Swath plot for variable Au, Juliano Indicated Class, Z axis

Source: GE21, 2026.

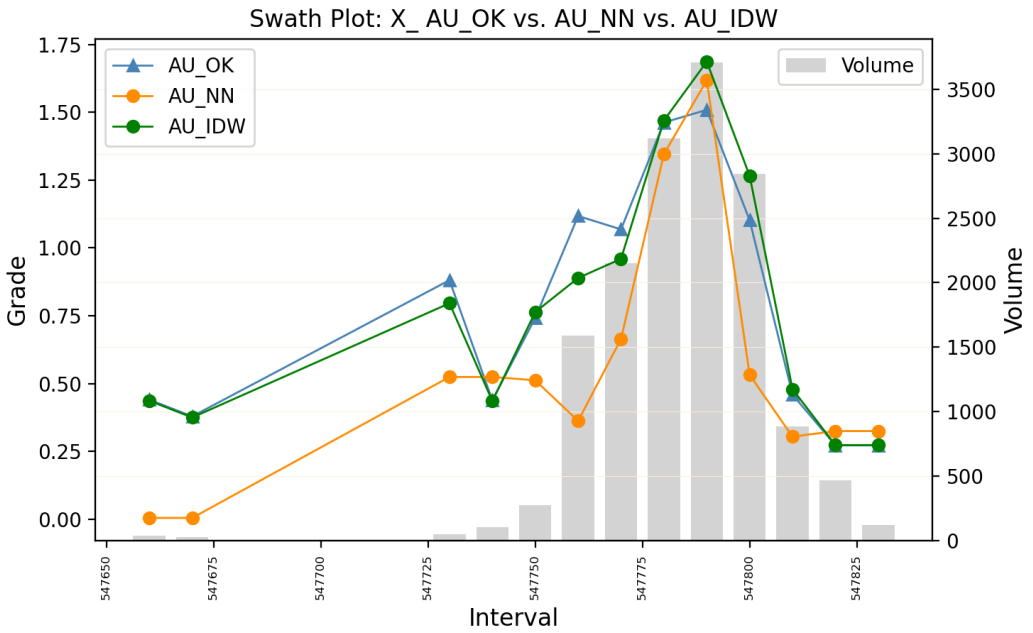


Figure 14.46 Swath plot for variable Au, Buracão target, Campos Altos Inferred Class, X axis

Source: GE21, 2026.

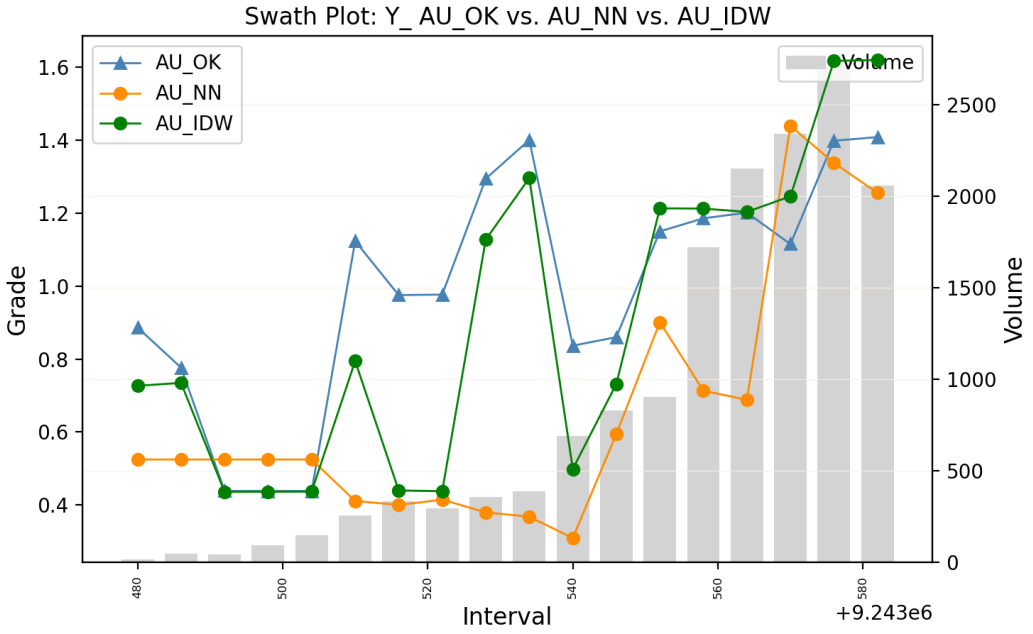


Figure 14.47 Swath plot for variable Au, Buracão target, Campos Altos Inferred Class, Y axis

Source: GE21, 2026.

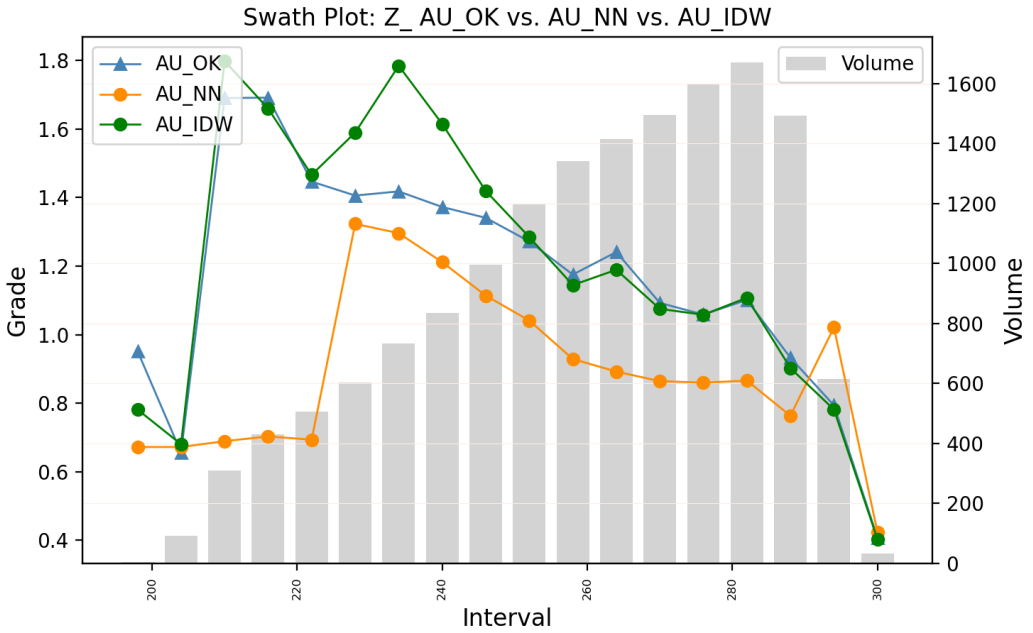


Figure 14.48 Swath plot for variable Au, Buracão target, Campos Altos Inferred Class, Z axis

Source: GE21, 2026.

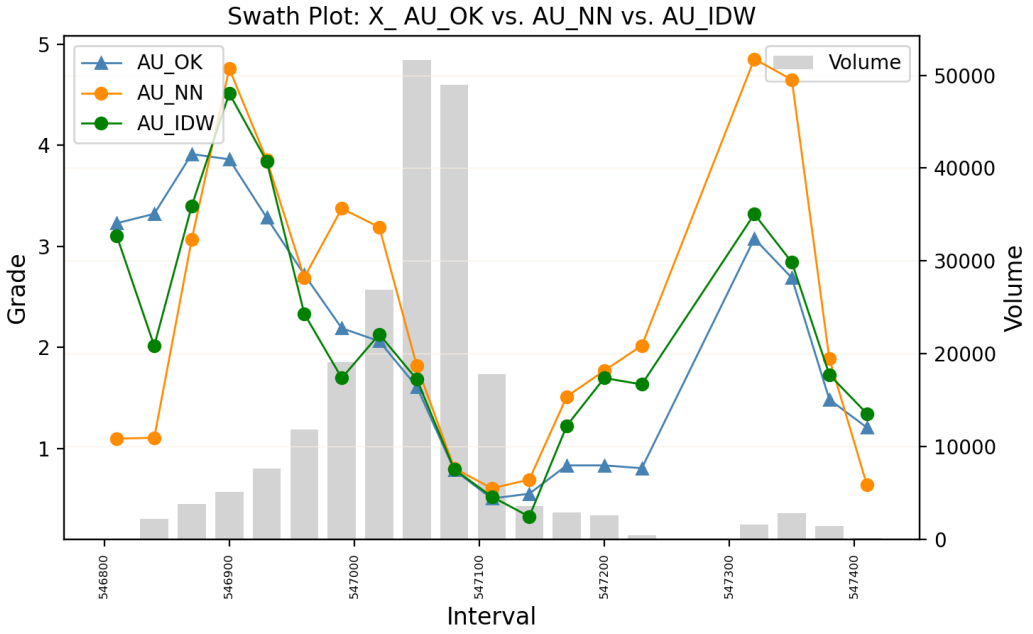


Figure 14.49 Swath plot for variable Au, Pão de Guincho target, Campos Altos Indicated Class, X axis

Source: GE21, 2026.

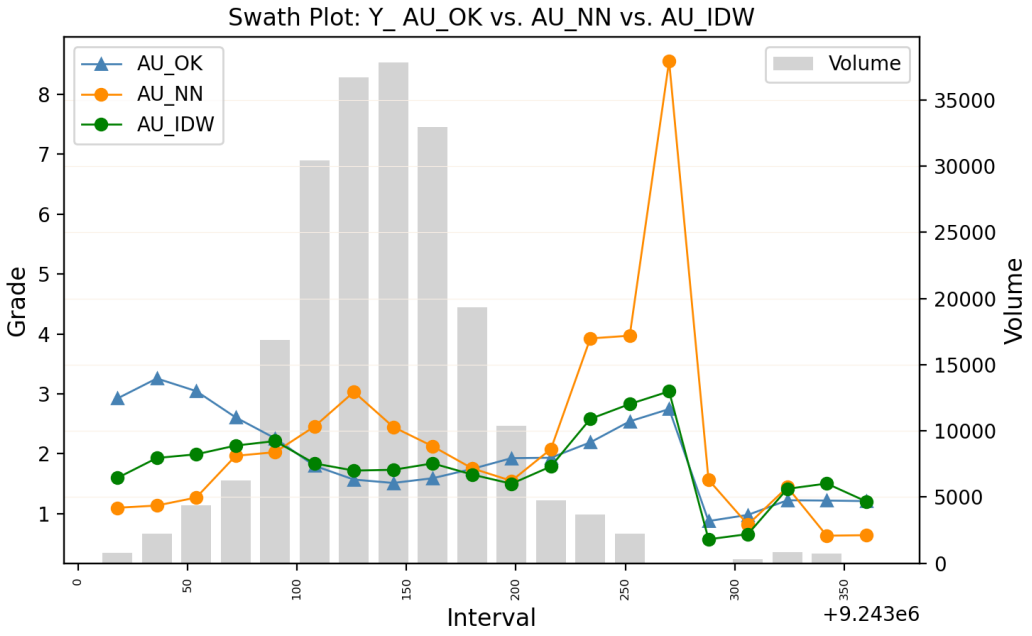


Figure 14.50 Swath plot for variable Au, Pão de Guincho target, Campos Altos Indicated Class, Y axis

Source: GE21, 2026.

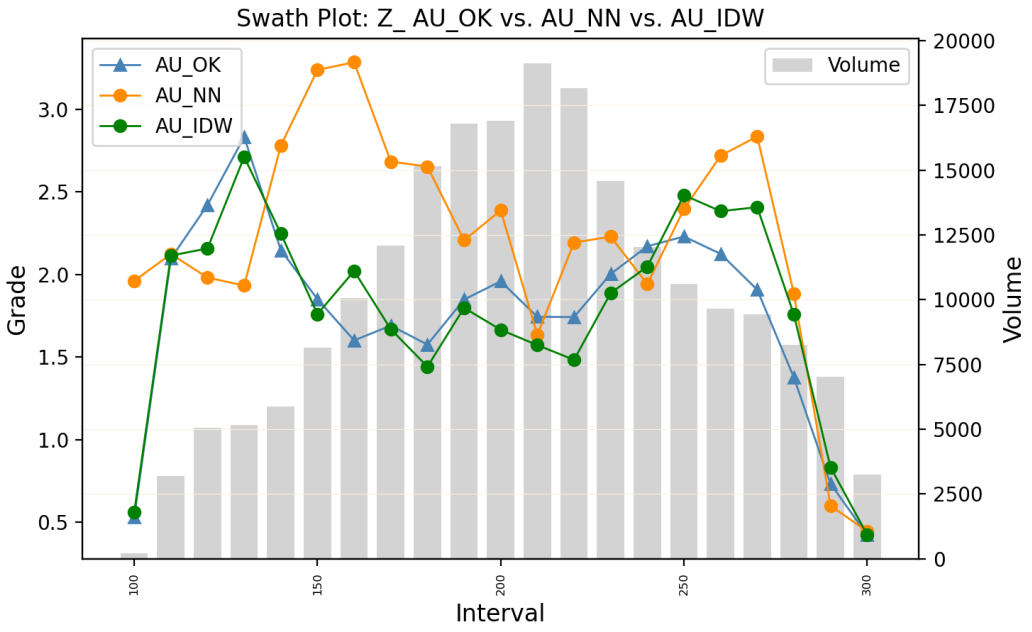


Figure 14.51 Swath plot for variable Au, Pão de Guincho target, Campos Altos Indicated Class, Z axis

Source: GE21, 2026.

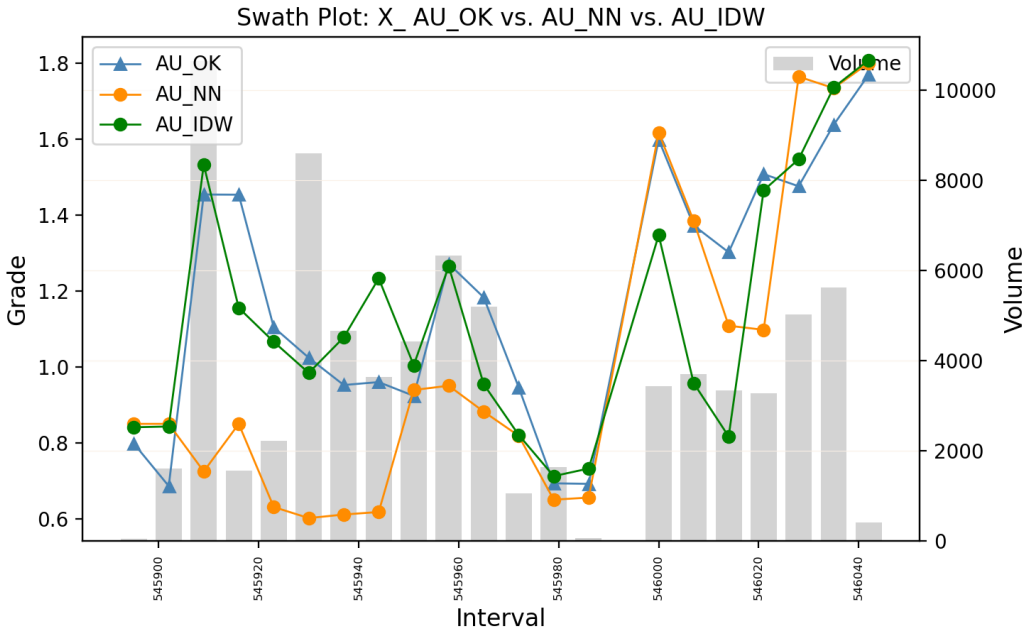


Figure 14.52 Swath plot for variable Au, Planta target, Campos Altos Inferred Class, X axis

Source: GE21, 2026.

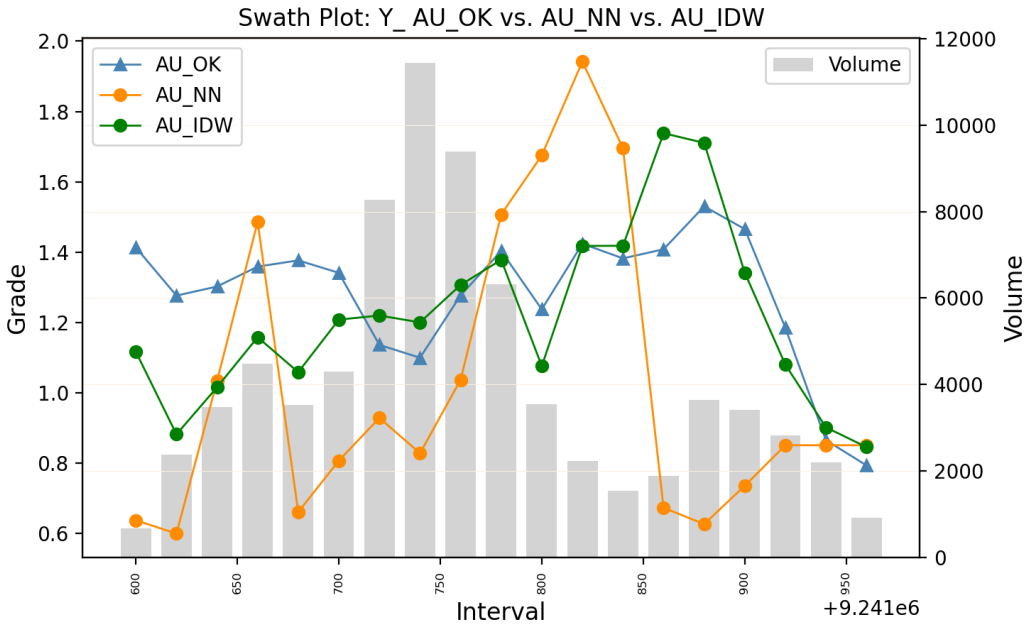


Figure 14.53 Swath plot for variable Au, Planta target, Campos Altos Inferred Class, Y axis

Source: GE21, 2026.

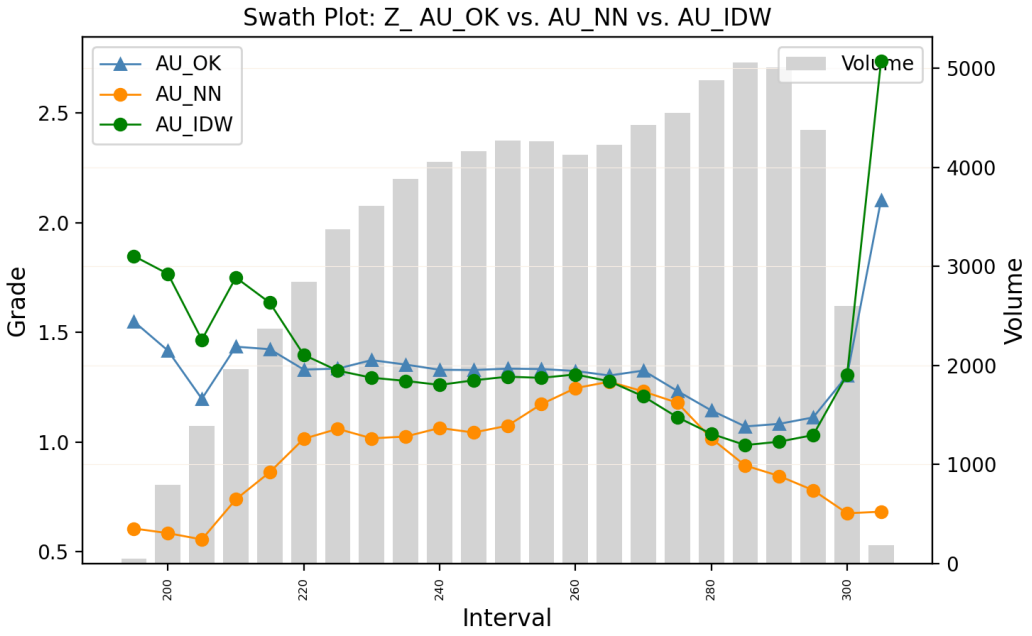


Figure 14.54 Swath plot for variable Au, Planta target, Campos Altos Inferred Class, Z axis

Source: GE21, 2026.

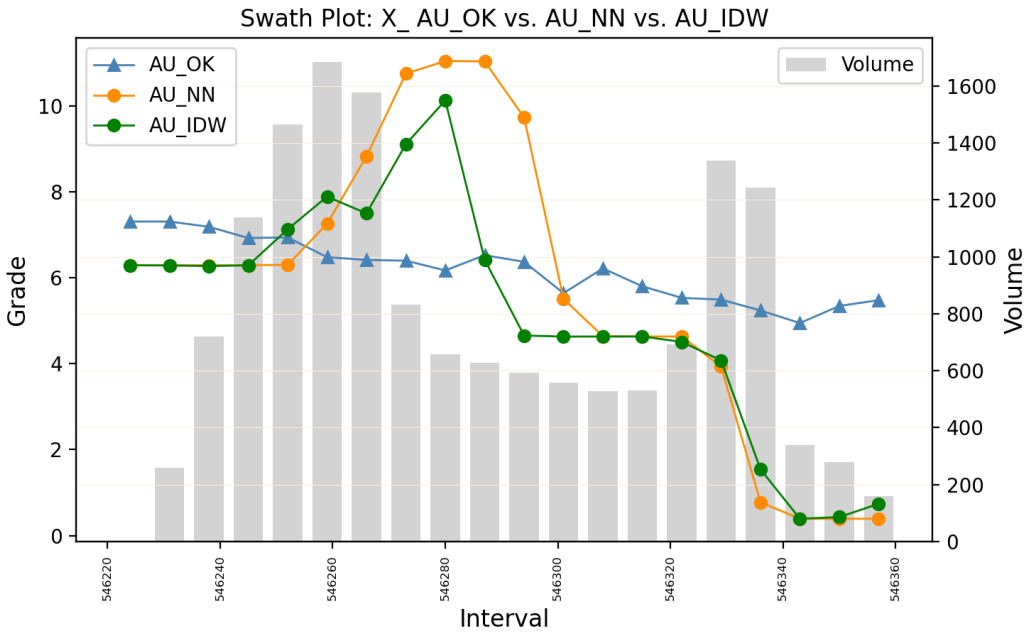


Figure 14.55 Swath plot for variable Au, Brejo target, Campos Altos Inferred Class, X axis

Source: GE21, 2026.

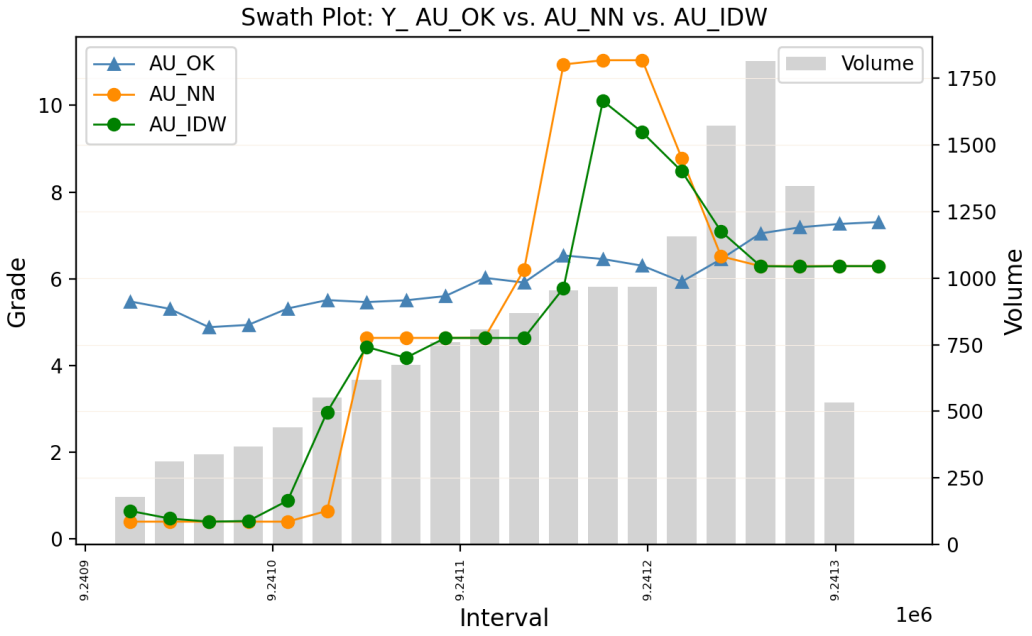


Figure 14.56 Swath plot for variable Au, Brejo target, Campos Altos Inferred Class, Y axis

Source: GE21, 2026.

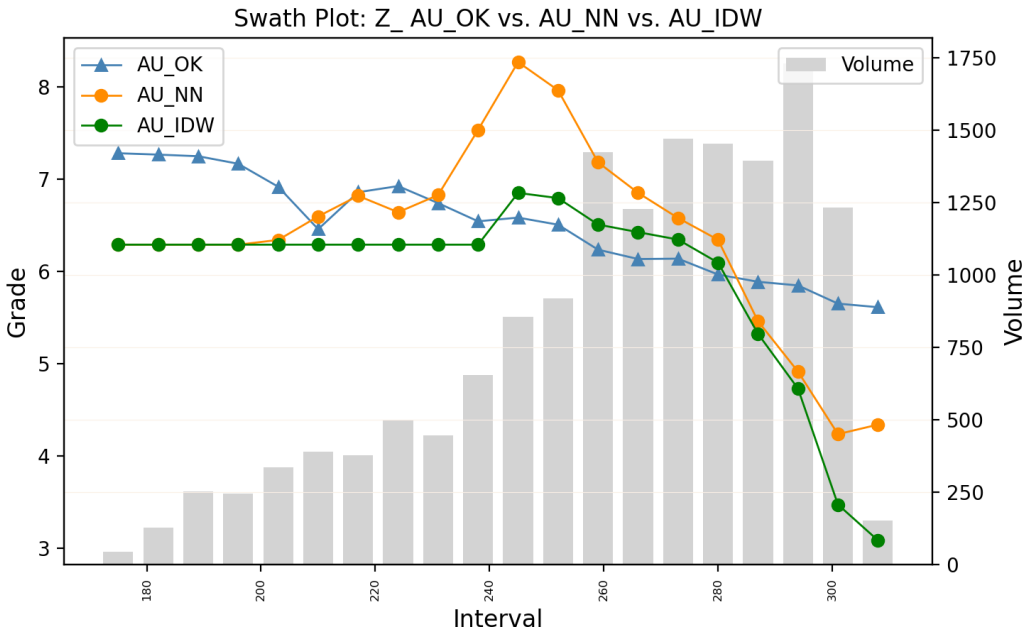


Figure 14.57 Swath plot for variable Au, Brejo target, Campos Altos Inferred Class, Z axis

Source: GE21, 2026.

The results of NN-Check and Swath Plot validations demonstrate that the degree of grade smoothing, as well as the global and local biases, are within the acceptance limits for Mineral Resource classification, considering the confidence assigned to the different estimated portions

of the block model. Based on these validation results, the Mineral Resources were classified as described in the following section.

14.11 Classification of Mineral Resources

Mineral Resources were classified according to the CIM Standards and the CIM Guidelines using geostatistical and/or classical methods, in addition to economic and mining parameters appropriate to the type of deposit.

A “Mineral Resource” is a concentration or occurrence of solid material of economic interest, in or on the Earth’s crust, with reasonable prospects for eventual economic extraction, based on form, grade, quality, and quantity. The location, quantity, grade, geological characteristics, and continuity of a Mineral Resource are known, estimated, or interpreted from specific geological evidence and knowledge.

- An “Inferred Mineral Resource” is that part of a Mineral Resource for which the quantity and grade or quality can be estimated based on geological evidence, limited sampling and reasonably presumed but not verified geological and grade continuity. The estimate is based on limited information and sampling collected using appropriate techniques from locations such as outcrops, trenches, wells, drilling work, and drill holes.
- An “Indicated Mineral Resource” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters and support mine planning and assessment of the deposit’s economic viability. The estimate is based on thorough and reliable exploration and testing information gathered using appropriate techniques from locations such as outcrops, trenches, wells, drilling work, and drill holes spaced close enough together for geological and grade continuity to be reasonably assumed.
- A “Measured Mineral Resource” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with sufficient confidence to allow the appropriate application of technical and economic parameters and support production planning and assessment of the deposit’s economic viability. The estimate is based on thorough and reliable exploration, sampling, and analysis information gathered using appropriate techniques from locations such as outcrops, trenches, wells, drilling work, and drill holes spaced close enough together to confirm geological and grade continuity.

The classification limits in the Indicated and Inferred Resource categories were established based on the combination of sample spacing, progressive increase of the search radius adopted during grade estimation, the minimum Euclidean distance to informing samples,

and the results of RPEEE assessment for the Água Azul Project. The classification criteria applied to each deposit are summarized below:

- **Indicated Mineral Resources** were defined using blocks estimated during the second and third Ordinary Kriging (OK) passes, with a maximum Euclidean distance of 60 m for the Abelhas and Juliano deposits and 50 m for Campos Altos deposits, corresponding to approximately 80% of the modelled variogram range.
- **Inferred Mineral Resources** were defined by the lateral and vertical extensions of the mineralized domains beyond the Indicated classification, considering blocks estimated within a maximum Euclidean distance of 140 m, corresponding to approximately twice the modelled variogram range.

Mineral Resource classification was restricted to material contained within the optimized pit shell derived from the RPEEE assessment, using the parameters summarized in Table 14.27.

Table 14.27 RPEEE pit optimization parameters for the Água Azul Project

Category	Item	Unit	RPEEE
Financial	Metal Price (Au)	US$/oz	3288,72
	Exchange	USD/BRL	5.5
Optimization	Processed Mineral Resource	-	Indicated, Inferred
	Category	-	Sulphided, Oxidized
Mining	Average Mining Cost	US$/t mined	2.56
	Recovery in Mining	%	100
	Dilution	%	0
	Slope Angle - Oxidized	°	47.4
	Slope Angle - Sulphide	°	51.9
	Block Size	m x m x m	2.5 x 2.5 x 1.00
Procedure	Total Process Cost	US$/t ROM	12.62
	Recovery – Campos Altos – Sulphide	%	92
	Recovery – Abelhas – Sulphide	%	94
	Recovery – Oxidized Zone	%	89
Other Costs	Sustaining process cost	US$/t ROM	1.90
	Mine closure cost	US$/t ROM	0.33
	G&A	US$/t ROM	1.89

Source: GE21, 2026.

Table 14.28 and Table 14.29 summarize the Mineral Resources for the Água Azul Project. Table 14.28 presents the Mineral Resources by reporting zone (Abelhas, Juliano, and Campos Altos), while Table 14.29 provides the corresponding Mineral Resources by deposit.

Figure 14.58 illustrates the Mineral Resource classification model for the Abelhas Zone, and Figure 14.60 to Figure 14.61 present the Mineral Resource classification models for the Juliano deposit and the Campos Altos deposits.

Table 14.28 Mineral Resources table of the Água Azul Project

Region	Weathering	Resource Class	Mass Mt	Average Value Au g/t	Metal Content Au thousand t. oz
Abelhas	Saprolite	Indicated	0.12	0.69	2.74
		Inferred	0.21	0.78	5.18
	Fresh Rock	Indicated	21.53	1.23	851.57
		Inferred	24.60	1.25	986.57

Region	Weathering	Resource Class	Mass Mt	Average Value Au g/t	Metal Content Au thousand t. oz
	Total	Indicated	21.65	1.23	854.31
		Inferred	24.81	1.24	991.75
Juliano	Saprolite	Indicated	0.033	1.78	1.89
		Inferred	0.10	2.15	7.23
	Fresh Rock	Indicated	0.54	2.61	45.33
		Inferred	0.66	1.54	32.78
	Total	Indicated	0.57	2.56	47.22
		Inferred	0.77	1.63	40.01
Campos Altos	Saprolite	Indicated	0.011	0.47	0.17
		Inferred	0.032	2.13	2.18
	Fresh Rock	Indicated	0.55	1.72	30.22
		Inferred	0.83	2.46	65.97
	Total	Indicated	0.56	1.69	30.39
		Inferred	0.87	2.45	68.15
Total	**Saprolite**	**Indicated**	**0.17**	**0.89**	**4.80**
		Inferred	**0.34**	**1.32**	**14.59**
	Fresh Rock	**Indicated**	**22.62**	**1.28**	**927.12**
		Inferred	**26.10**	**1.29**	**1 085.32**
	Total	**Indicated**	**22.78**	**1.27**	**931.92**
		Inferred	**26.44**	**1.29**	**1 099.91**

Notes:
1. Mineral Resources are reported using the 2014 CIM Definition Standards and have an effective date of July 28, 2026. The QP for the estimate is Mr. Porfirio Cabaleiro Rodriguez, FAIG, FAusIMM, CBRR, a GE21 director.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Inferred Mineral Resources have a lower level of confidence than Indicated Mineral Resources. Although additional infill drilling and ongoing geological interpretation may increase the level of confidence in certain portions of the Inferred Mineral Resources, there is no guarantee that such work will support their upgrade to the Indicated Mineral Resource category.
4. Mineral Resources are reported on a 100% basis.
5. Mineral Resources considered potentially amenable to open pit mining methods are reported within a conceptual pit shell that uses the following key input parameters: gold price of US$3,288.72/oz; exchange rate of 5.5 BR$/US$; mining cost of US$2.56/t moved; processing costs of US$12.62/t ROM; rehandle costs of US$2.09/t ROM; sustaining process cost of US$1.90/t ROM; mine closure cost of US$0.33/t ROM; site general and administrative costs of US$1.65/t ROM; mine fixed cost (administration) of US$0.24/t ROM; 100% mining recovery; metallurgical recovery of 94.0%, and pit slope angles that range from 47.4 to 51.9º.
6. Mineral Resources considered potentially amenable to open pit mining methods are reported above a 0.20 g/t Au cut-off.
7. The tonnages and grades in the table have been rounded to the estimate relative precision. Values cannot be added due to rounding.

Source: GE21, 2026.

Table 14.29 Mineral Resources table of the Água Azul Project – by targets

Target	Weathering	Resource Class	Mass Mt	Average Value Au g/t	Metal Content Au thousand t. oz
Abelhas	Saprolite	Indicated	0.069	0.65	1.45
		Inferred	0.081	1.13	2.95
	Fresh Rock	Indicated	9.72	1.01	315.21
		Inferred	10.85	1.21	422.72
	Total	Indicated	9.79	1.01	316.66
		Inferred	10.93	1.21	425.67
Abelhas N-S	Saprolite	Indicated	0.008	0.88	0.23
		Inferred	0.014	0.48	0.22
	Fresh Rock	Indicated	7.88	1.58	400.60
		Inferred	8.11	1.56	407.11
	Total	Indicated	7.89	1.58	400.83
		Inferred	8.13	1.56	407.33
Abelhas Norte	Saprolite	Indicated	0.02	0.64	0.36
		Inferred	0.10	0.49	1.53

Target	Weathering	Resource Class	Mass Mt	Average Value Au g/t	Metal Content Au thousand t. oz
	Fresh Rock	Indicated	0.55	0.64	11.22
		Inferred	1.65	0.61	32.62
	Total	Indicated	0.56	0.64	11.58
		Inferred	1.75	0.61	34.15
Antonino	Saprolite	Indicated	0.028	0.77	0.70
		Inferred	0.014	1.02	0.47
	Fresh Rock	Indicated	3.38	1.14	124.54
		Inferred	3.99	0.97	124.13
	Total	Indicated	3.41	1.14	125.24
		Inferred	4.01	0.97	124.60
Juliano	Saprolite	Indicated	0.033	1.78	1.89
		Inferred	0.10	2.15	7.23
	Fresh Rock	Indicated	0.54	2.61	45.33
		Inferred	0.66	1.54	32.78
	Total	Indicated	0.57	2.56	47.22
		Inferred	0.77	1.63	40.01
Pão de Guincho	Saprolite	Indicated	0.011	0.47	0.17
		Inferred	0.012	3.50	1.33
	Fresh Rock	Indicated	0.55	1.72	30.22
		Inferred	0.58	2.64	49.49
	Total	Indicated	0.56	1.69	30.39
		Inferred	0.59	2.66	50.82
Planta	Saprolite	Inferred	0.011	1.12	0.39
	Fresh Rock	Inferred	0.19	1.27	7.61
	Total	Inferred	0.20	1.26	8.00
Buracão	Saprolite	Inferred	0.008	1.05	0.28
	Fresh Rock	Inferred	0.026	1.29	1.08
	Total	Inferred	0.034	1.23	1.36
Brejo	Saprolite	Inferred	0.001	5.83	0.18
	Fresh Rock	Inferred	0.039	6.25	7.79
	Total	Inferred	0.040	6.24	7.97
Total	**Saprolite**	**Indicated**	**0.17**	**0.89**	**4.80**
		Inferred	**0.34**	**1.32**	**14.59**
	Fresh Rock	**Indicated**	**22.62**	**1.28**	**927.12**
		Inferred	**26.10**	**1.29**	**1 085.32**
	Total	**Indicated**	**22.78**	**1.27**	**931.92**
		Inferred	**26.44**	**1.29**	**1 099.91**

Notes:

1. Mineral Resources are reported using the 2014 CIM Definition Standards and have an effective date of July 28, 2026. The QP for the estimate is Mr. Porfirio Cabaleiro Rodriguez, FAIG, FAusIMM, CBRR, a GE21 director.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Inferred Mineral Resources have a lower level of confidence than Indicated Mineral Resources. Although additional infill drilling and ongoing geological interpretation may increase the level of confidence in certain portions of the Inferred Mineral Resources, there is no guarantee that such work will support their upgrade to the Indicated Mineral Resource category.
4. Mineral Resources are reported on a 100% basis.
5. Mineral Resources considered potentially amenable to open pit mining methods are reported within a conceptual pit shell that uses the following key input parameters: gold price of US$3,288.72/oz; exchange rate of 5.5 BR$/US$; mining cost of US$2.56/t moved; processing costs of US$12.62/t run-of-mine (ROM); rehandle costs of US$2.09/t ROM; sustaining process cost of US$1.90/t ROM; mine closure cost of US$0.33/t ROM; site general and administrative costs of US$1.65/t ROM; mine fixed cost (administration) of US$0.24/t ROM; 100% mining recovery; metallurgical recovery of 94.0%, and pit slope angles that range from 47.4 to 51.9º.
6. Mineral Resources considered potentially amenable to open pit mining methods are reported above a 0.20 g/t Au cut-off.
7. The tonnages and grades in the table have been rounded to the estimate relative precision. Values cannot be added due to rounding.

Source: GE21, 2026.

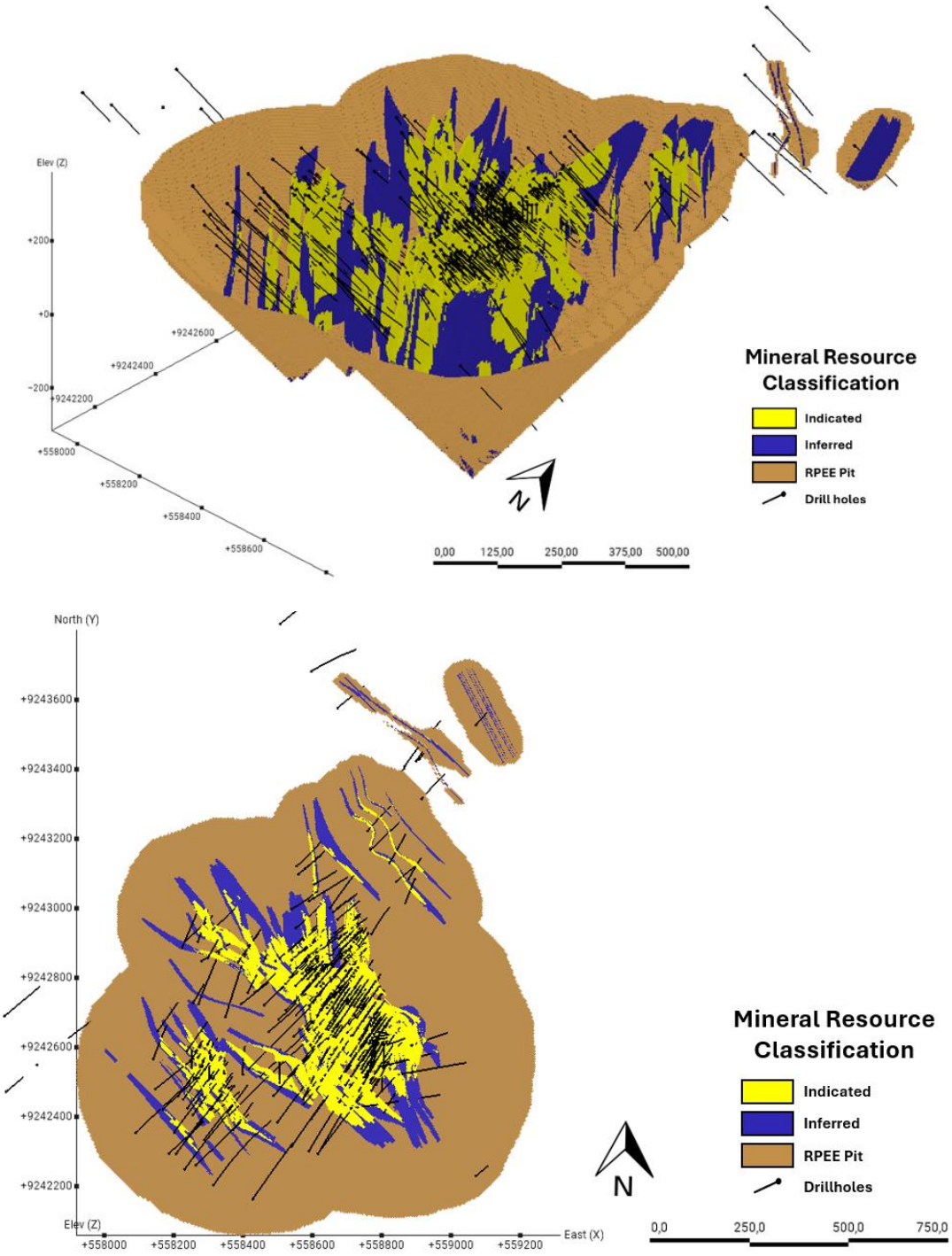


Figure 14.58 Mineral Resource classification model for the Abelhas Zone (Indicated and Inferred categories)

Source: GE21, 2026.

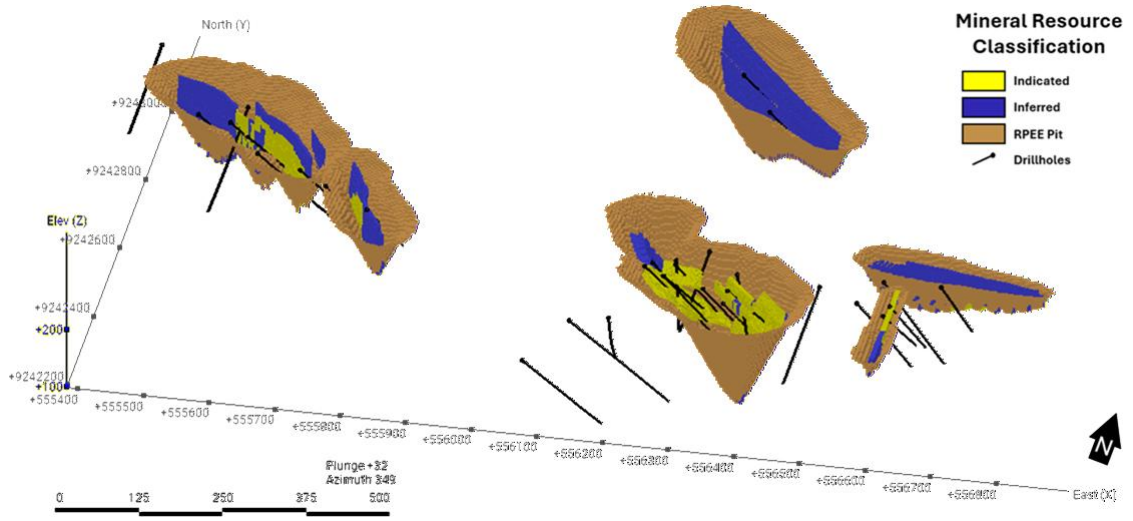


Figure 14.59 Mineral Resource classification model for the Juliano deposit (Indicated and Inferred categories)

Source: GE21, 2026.

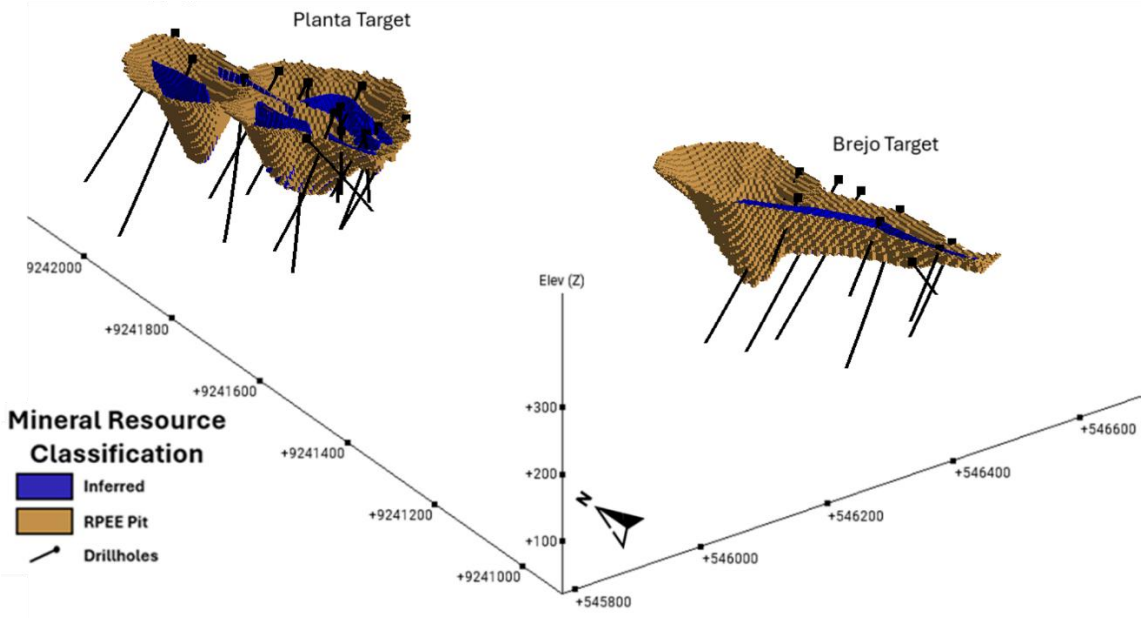


Figure 14.60 Mineral Resource classification model for the Planta and Brejo deposits, Campos Altos Zone (Inferred category)

Source: GE21, 2026.

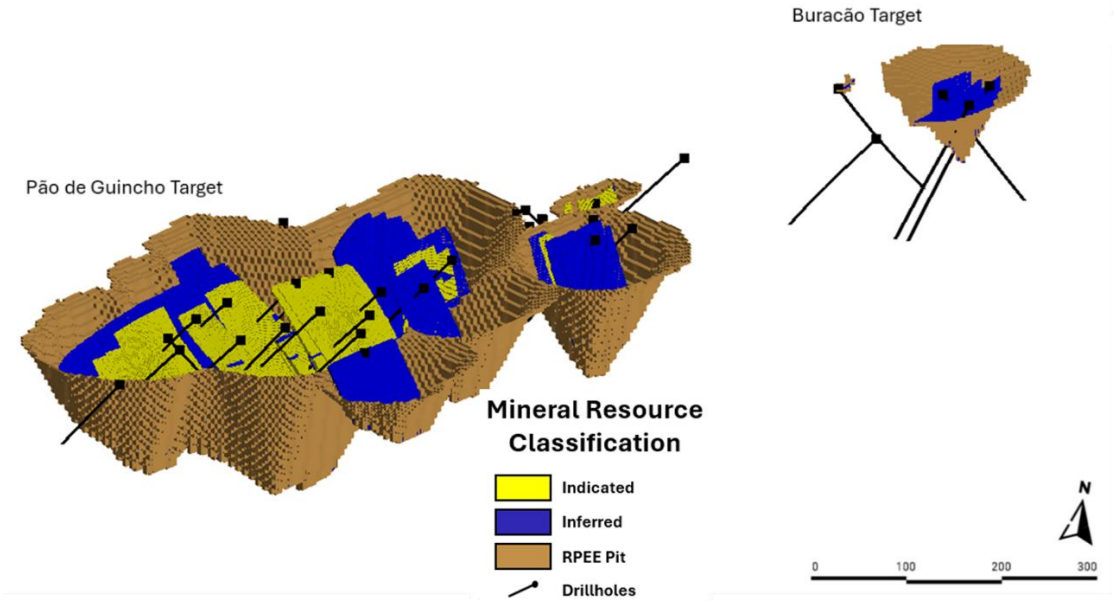


Figure 14.61 Mineral Resource classification model for the Buracão and Pão de Guincho deposits, Campos Altos Zone (Indicated and Inferred categories)

Source: GE21, 2026.

14.12 Factors That May Materially Affect the Mineral Resource Estimate

The Mineral Resources reported herein have been estimated within conceptual open-pit shells demonstrating reasonable prospects for eventual economic extraction. At the Effective Date, there are no known legal, political, environmental, permitting, title, taxation, socio-economic, marketing, or other relevant factors that are expected to materially affect the Mineral Resource estimate. Changes in commodity prices, operating costs, permitting requirements, environmental obligations, land tenure, taxation, market conditions, or other modifying factors may materially affect the reasonable prospects for eventual economic extraction and the reported Mineral Resources in the future.

15 MINERAL RESERVE ESTIMATES

There is no Mineral Reserves disclosure for the Água Azul Project.

16 MINING METHODS

The Água Azul Project is planned as an open-pit mining operation with a plant feed rate of approximately 2.85 Mtpa. The Agua Azul Life of Mine (LOM) is structured in two development phases. Phase 1 covers the initial three years of operation, during which the processing plant is constrained to a capacity of 200 kt per year, allowing for a staged increase in processing throughput and early production from the project. Phase 2 begins following the plant expansion, increasing processing capacity to 2.85 Mt per year, which enables full-scale operation and supports the long-term production profile of the mine over the remainder of the LOM.

Due to the required ROM selectivity and high waste stripping volumes, mining will utilize 70 t off-highway trucks (OHT) and 114 t-class hydraulic excavators, with smaller excavators assigned to ROM mining. As the existing operation is contractor-managed, equipment selection is based on Phase 2 requirements. During the transition year 3, Phase 2 pre-stripping activities will be accounted for separately from the completion of Phase 1.

The PEA pit design is expected to cover approximately 1,186 m × 933 m, with an average ROM haulage distance of 2.15 km to the processing plant. Filtered tailings will be co-disposed with waste rock in waste dumps using 8×4 vocational trucks.

Mining faces will be accessed by 18 m-wide haul roads, with a maximum ramp gradient of 10% and two-way traffic. Nine-metre-wide ramps with a grade of up to 10% were used for the pit bottom, which is considered adequate considering this is a low traffic area.

The mining method is based on conventional, highly mechanized rock excavation and includes:

- Grade control sampling using dedicated drilling equipment.
- Drill-and-blast mining, with hydraulic top-hammer drills for ROM and waste.
- Mechanical excavation using bulldozers and hydraulic excavators.
- ROM loading with 53 t hydraulic excavators and 3.2 m³ buckets.
- Waste loading with 114 t hydraulic excavators and 8.5 m³ buckets.
- ROM haulage using 8×4 on-road trucks with 22 m³ bodies.
- Waste haulage using off-road trucks with 38 m³ bodies.

16.1 Pit Optimization and PEA Mine Plan Material

GE21 completed pit optimization incorporating the geological, geotechnical, mining, metallurgical and economic assumptions considered appropriate for this PEA. The optimization used Indicated and Inferred Mineral Resources and was undertaken to support the development of the conceptual open-pit mine plan evaluated in this study.

The pit-constrained Mineral Resources are described in Item 14.11. For mine planning purposes, the Mineral Resource block model was regularized and mining assumptions, including

dilution and mining recovery, were applied to develop the mineralized material included in the PEA mine plan.

The resulting mineralized material included in the PEA mine plan, illustrated in Figure 16.1, forms the basis of the production schedule and economic analysis presented in this PEA. This material does not constitute a Mineral Reserve, and no Mineral Reserves have been estimated for the Project. The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

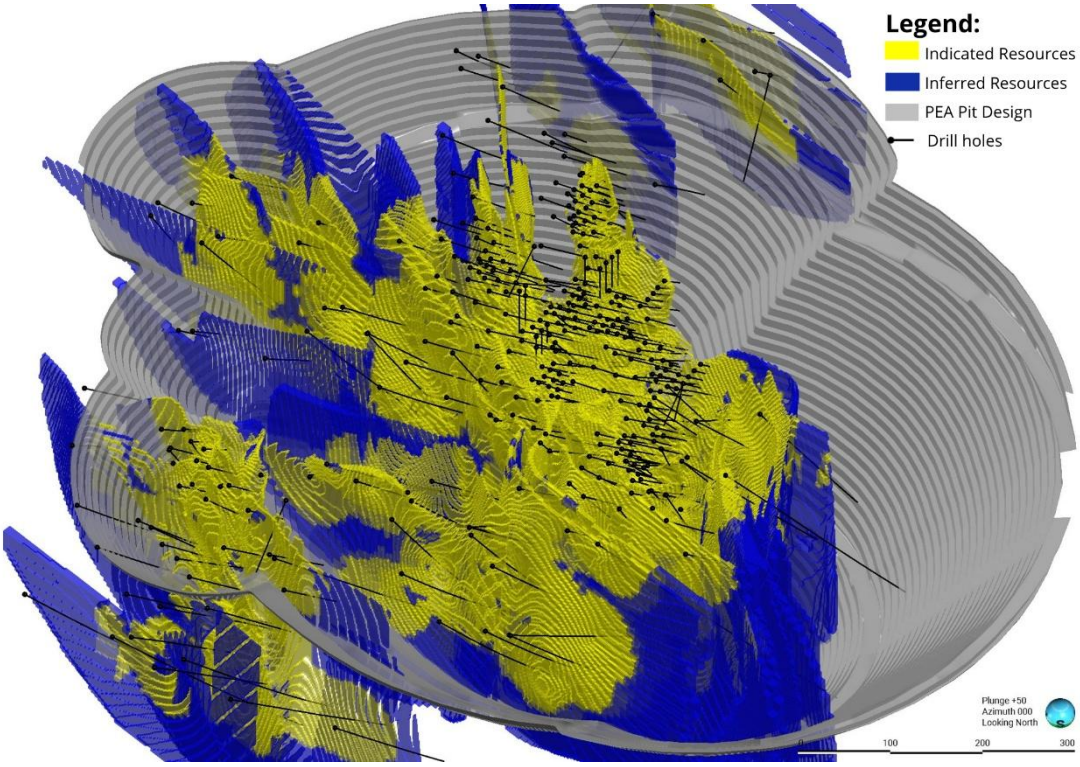


Figure 16.1 Mineralized Material Included in the PEA Mine Plan within the PEA Pit Design, Classified as Indicated and Inferred Mineral Resources

Source: GE21, 2026.

16.1.1 Block Model

GE21 has reviewed the updated Abelhas Mineral Resources block model, which included Mineral Resources classified as Indicated or Inferred. The block model was of the sub-celled type, with a parent block size of 10 m × 10 m × 5 m and a minimum cell size of 1.25 m × 2.5 m × 2.5 m.

To ensure compatibility with the planned selective mining approach, the block model was adjusted through the application of a Selective Mining Unit (SMU), resulting in a regularized block size of 5 m × 5 m × 5 m for ROM lithologies and a minimum cell size of 2.5 m × 2.5 m × 2.5 m in waste lithologies. The SMU size was defined by GE21 considering the current Água Azul mining practices, including grade control, mining operations, and mining equipment.

16.1.2 Dilution and Mining Recovery

A comparative dilution analysis was performed to evaluate the impact of reblocking the geological model on tonnage, grade, and contained metal. The assessment compared the volumes generated from the Mineral Resource block model (1.25 m × 2.5 m × 2.5 m in mineralized material) with those from the re-blocked mine planning model (5 m × 5 m × 5 m in in mineralized material) used for mine planning purposes.

The re-blocked model demonstrates an increase in total tonnage compared to the Mineral Resource model, accompanied by a decrease in grade, which aligns with the loss of selectivity associated with larger block dimensions. When analyzed by Mineral Resource category, as shown in Table 16.1, the Indicated material exhibits an approximate 38% increase in tonnage and a 30% decrease in gold grade, while the Inferred material shows a 26% increase in tonnage and a 23% decrease in grade. Despite these reductions in grade, the contained metal remains stable for the Indicated and Inferred materials.

Table 16.1 Dilution

Dilution			
Class	**Mass (%)**	**Au (%)**	**Contained Metal**
Indicated	38%	-30%	-4%
Inferred	26%	-23%	-3%
Total	**32%**	**-26%**	**-3%**

Note: Pit optimization used a selective mining unit (SMU) of 2.5 x 5 x 5 in a regularized block model, resulting in a 26% dilution in grade compared to the Mineral Resource block model, at a marginal COG of 0.16 g/t Au.

Source: GE21, 2026

Overall, the transition from the 1.25 m × 2.5 m × 2.5 m model (in ROM) to the 5 m × 5 m × 5 m re-blocked model results in an aggregated dilution effect of approximately 32% additional tonnage and a 26% decrease in average gold grade, along with a decrease of about 3% in contained gold. These outcomes reflect the expected smoothing and ROM-waste blending inherent in reblocking procedures and highlight the operational implications of utilizing a SMU that is compatible with the planned selective mining approach. In addition, 5% of operational dilution has been included in the Mine Design Inventory estimate.

Related to the mining recovery, a mining extraction of 95% was applied in the Whittle pit optimization.

16.1.3 Geotechnical

The geotechnical studies carried out by Walm (2025) for the Água Azul Project included the analysis of structural data obtained from oriented drill cores, which enabled the identification of two main foliation sets trending E–W and NW–SE, with moderate to very steep dips, as well as additional foliation sets in some structural domains. Based on the observed foliation orientations, the project area was subdivided into distinct structural domains. Three principal joint sets were also identified, although the number of fracture measurements available was relatively limited. Stability assessments considered planar, wedge, direct toppling, and non-circular failure

mechanisms, with analyses focused primarily on the bench scale due to the limited persistence of the discontinuities.

A three-dimensional geomechanical model was developed using geotechnical and geological data through implicit modelling techniques, allowing the interpolation of geomechanical classes between drill holes, and supporting the definition and subsequent refinement of the PEA pit geometries. The rock mass is predominantly classified as Class II-I, occupying most of the deposit, whereas weaker materials occur mainly near the surface and along pit boundaries. For higher-quality rock masses, 20 m-high double benches were initially recommended, subject to operational constraints imposed by mining equipment (Table 16.2 and Figure 16.2).

Table 16.2 Geometry proposed by Walm for PEA Pit Design

Geomechanical Class	Sector	Lithotype	Bench Height (m)	Berm (m)	Face Angle (°)	**Inter-Ramp Stacking Height (m max.)**	Inter-Ramp Angle (°)	Safety Berm (m)
Weak Rocks	All	All	10	7	45	40	30	-
Class IV	All	All	10	7	55	40	36	20
Class III	1	Metagranodiorite	20	9	65	120	48	20
Class II	2	Gabbro	20	9	60	120	44	20
Class I	3	All	20	9	65	120	48	20
Class I	4	All	20	9	70	120	51	20
Class I	5	All	20	9	75	120	54	20
Class I	5	All	20	9	80	120	58	20

Source: Walm, 2025.

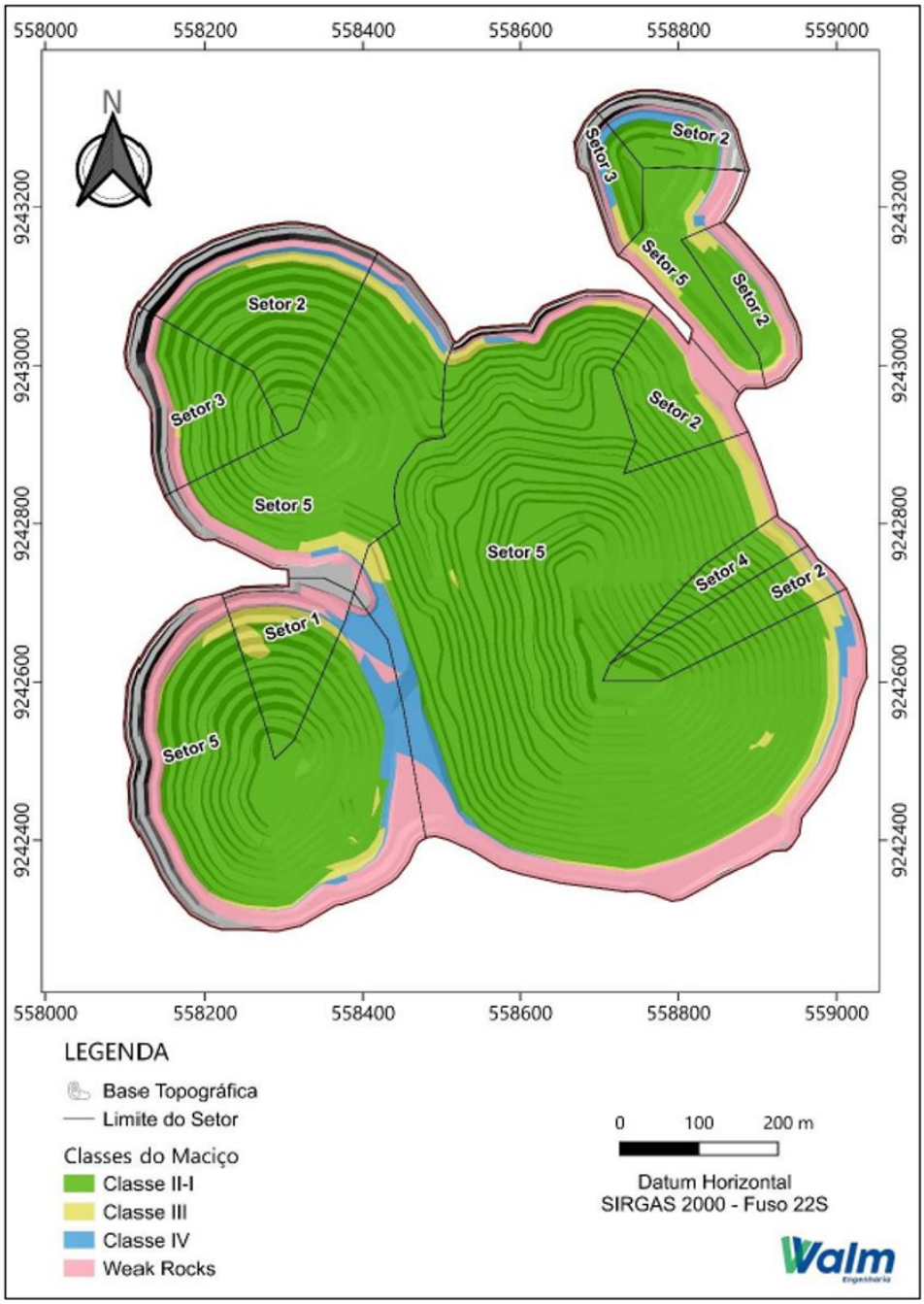


Figure 16.2 Simplified geomechanical map for PEA Pit Design

Source: Walm, 2025.

The geotechnical parameters adopted in the study were defined based on technical reviews of laboratory and field test results, applying the Hoek & Brown failure criterion to characterize the strength of intact rock and rock masses. These parameters were complemented by strength properties for discontinuities and by geotechnical parameters for overburden and saprolite materials. To better evaluate potential instability mechanisms, the pits were divided into geometric sectors considering the relationship between rock mass structure and slope orientation, facilitating kinematic analyses and the practical application of results in mine design.

The study emphasizes that most of the currently available structural information comes from oriented drill holes and highlights the importance of conducting detailed geological, structural, and geomechanical mapping as mining progresses and pit walls become exposed. Such work will be essential to validate or revise the current structural interpretations. Additional recommendations include regularly updating kinematic analyses, installing hydrogeological monitoring instruments, maintaining strict blasting control to prevent damage to crests and berms, and carrying out further investigations whenever field observations indicate geotechnical conditions different from those assumed in the design.

Regarding hydrology and hydrogeology, rainfall records collected since the beginning of operations indicate that February, March, and May were the wettest months. A numerical hydrogeological model was developed using FEFLOW 7.5 to estimate dewatering requirements and assess groundwater behaviour throughout the LOM. The model was calibrated under steady-state conditions representing the October 2022 pit configuration and subsequently applied to projected mining scenarios for years 2, 5, and 8. The simulations estimated groundwater inflow rates of approximately 600 m³/h at a depth of 300 m in year 2, 628 m³/h at 305 m in year 5, and 1,055 m³/h at 330 m in year 8. Although a more comprehensive drainage model is currently being developed, the available hydrological and hydrogeological information was considered adequate for this stage of the study, with no significant drainage-related cost impacts expected compared to similar mining operations in the region. Nevertheless, future studies are expected to improve the understanding of the interaction between groundwater and mining activities, allowing for more effective mitigation and water management planning.

16.1.4 Cut-off Grade (COG) Calculation

The optimization assumptions adopted in this study were defined jointly by ValOre and GE21. Long-term metal price forecasts were provided by ValOre based on market analyses, while the technical and commercial specifications applied to the bullion were established from information presented in EDEM Technical Report (2026).

Operating costs for mining, processing, and G&A were based on Ausenco's report through quotations obtained from mining contractors and First Principles methodology, reviewed by GE21.

Processing sustaining capital, and mine closure costs were established from information presented in EDEM Technical Report (2026) and reviewed by GE21.

Metallurgical recovery assumptions have been supported by preliminary metallurgical testwork conducted by Bemisa (2023).

The resulting assumptions were applied as the basis for the optimization analyses completed by GE21. The optimization assumptions adopted in this study are summarized in Table 16.3.

Table 16.3 COG parameters

Parameter	Unit	Value
Exchange rate	U$/R$	5.50
Ounce	Oz/gr	31.10348
Gold Price	US$/oz	3,067.75
Mining Dilution	%	5.00%
Mine Recovery	%	95%
Metallurgical recovery	%	94.00%
Selling costs		
CFEM, royalties refining and transport costs	U$/oz	106.60
Mining Costs		
Mine fixed cost (Administration)	USD/t ROM	0.24
Process, G&A and Other costs		
Total Processing Costs	USD/t ROM	12.62
Rehandle	USD/t ROM	2.09
G&A and Others	USD/t ROM	1.65
Sustaining process cost	USD/t ROM	1.90
Mine Closure cost	USD/t ROM	0.33
COG		
COG	g/t	0.22

Source: GE21, 2026.

16.1.5 Pit Optimization Results

Pit shells results are shown in Table 16.4 and Figure 16.3. The selected pit shell for the PEA pit design was based on US$ 3,067.8/oz at a revenue factor (RF) of 0.85.

Table 16.4 ValOre AGZ PEA pit optimization results

Pit #	Revenue Factor	Rock	Waste	ROM	Strip Ratio	Au	Cashflow
		Tonnes x 10^3	Tonnes x 10^3	Tonnes x 10^3		g/t	US$ x 10^6
1	0.3	5 068	4 441	627	7.08	2.33	111
2	0.35	23 626	21 332	2 293	9.30	1.94	282
3	0.4	35 368	32 215	3 153	10.22	1.88	357
4	0.45	45 280	41 267	4 013	10.28	1.76	404
5	0.5	102 802	94 433	8 369	11.28	1.53	611
6	0.55	320 035	297 880	22 156	13.44	1.39	901
7	0.6	334 298	310 029	24 270	12.77	1.33	915
8	0.65	354 044	327 466	26 578	12.32	1.28	928
9	0.7	386 402	356 546	29 856	11.94	1.22	945
10	0.75	398 989	367 094	31 895	11.51	1.18	950
11	0.8	416 402	382 212	34 190	11.18	1.14	956
12	0.85	438 898	402 270	36 629	10.98	1.10	961
13	0.9	452 084	413 321	38 763	10.66	1.06	962
14	0.95	502 255	459 474	42 781	10.74	1.02	964
15	1	522 588	477 454	45 134	10.58	0.99	964
16	1.05	530 772	483 959	46 813	10.34	0.97	964
17	1.1	557 145	507 659	49 486	10.26	0.94	962
18	1.15	691 774	634 652	57 123	11.11	0.90	948

Source: GE21, 2026.

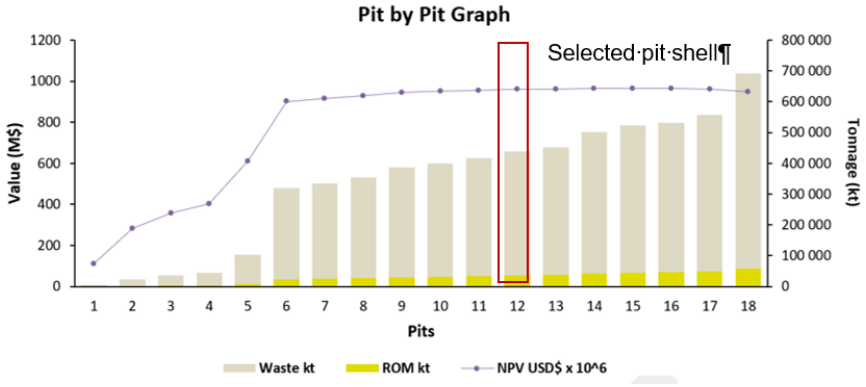


Figure 16.3 ValOre AGZ pit optimization results

Source: GE21, 2026.

16.2 Pit Design Criteria

The pit walls are single-benched (10 m) in fresh rock and saprolite zones, consistent with geomechanical behaviour and operational efficiency. Berm widths vary according to the overall slope angle, with 6 m-wide berms adopted in areas with a 51.9° inter-ramp slope and 8 m-wide berms in areas with a 47.4° inter-ramp slope, providing adequate catchment capacity and slope stability performance (Figure 16.4 and Table 16.5).

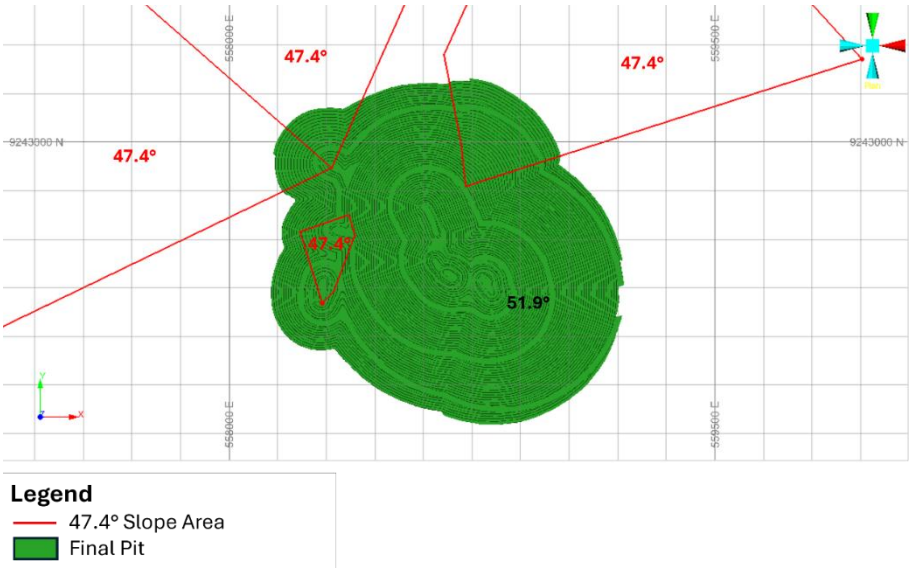


Figure 16.4 Slope areas

Source: EDEM, 2026.

Table 16.5 Mine design bench configuration

Sector	Global Angle (°)	Inter-Ramp Angle (°)	Face Angle (°)	Bench Height (m)	Berm Width (m)
2, 3, 4	47.4	45.7	80	10	8
5	51.9	52.2	80	10	6

Source: GE21, 2026.

Ramp design assumed a width of 18 m and a maximum gradient of 10%, sufficient for two-way traffic of the selected truck fleet (Table 16.6). This width also accommodates the installation of drainage systems and safety berms along the ramp crest as shown in Figure 16.5. Ramps were designed without tapering in the downhill direction, ensuring safe access to berms for maintenance, drainage clearing, and emergency escape routes. Nine-metre-wide ramps with a grade of up to 10% were used for the pit bottom, which is considered adequate considering this is a low traffic area.

Table 16.6 ValOre AGZ pit design parameters

Pit Dimensions	Unit	Value
Pit Length	m	1 186
Pit Width	m	933
Surface Area	m^2	894 322
Maximum Pit Depth	m	480
Pit Bottom Elevation	masl	-190
Pit Exit Elevation	masl	304
Maximum Ramp Grade	%	10
Ramp Width	m	18
Zone 1	°	47.4
Zone 2	°	51.9
Mining Bench Height	m	10

Source: GE21, 2026.

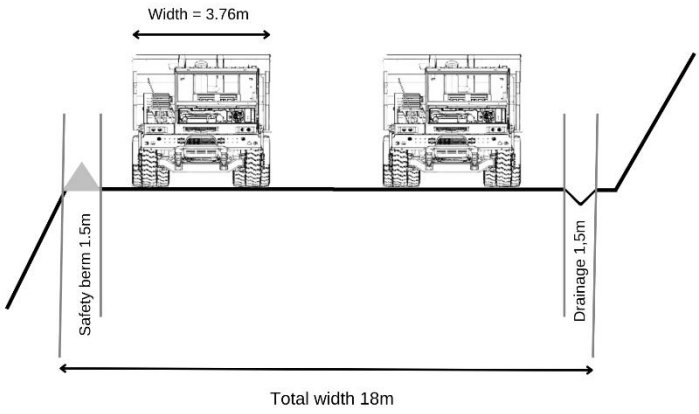


Figure 16.5 Schematic Representation of Two-Lane Ramp Width Based on Geometric Design Criteria

Source: GE21, 2026.

The PEA pit design was generated in Datamine Studio OP 2022 based on the approved mining, geotechnical, and economic assumptions. The resulting ultimate pit shell contains 25.96 Mt of high-grade mill feed material at an average grade of 1.29 g/t Au, of which 14.90 Mt at 1.24 g/t Au is classified as Indicated and 11.05 Mt at 1.37 g/t Au is classified as Inferred. An additional 10.69 Mt of low-grade stockpile material at 0.28 g/t Au is contained within the pit, comprising 6.92 Mt of Indicated material and 3.77 Mt of Inferred material. The ultimate pit also contains 378.52 Mt

of waste rock, including 14.56 Mt of saprolite waste and 363.96 Mt of fresh rock waste. The total material inventory within the pit amounts to 415.17 Mt, corresponding to a stripping ratio of 14.99 when low-grade material is treated as waste (Figure 16.6, Figure 16.7 and Table 16.7).

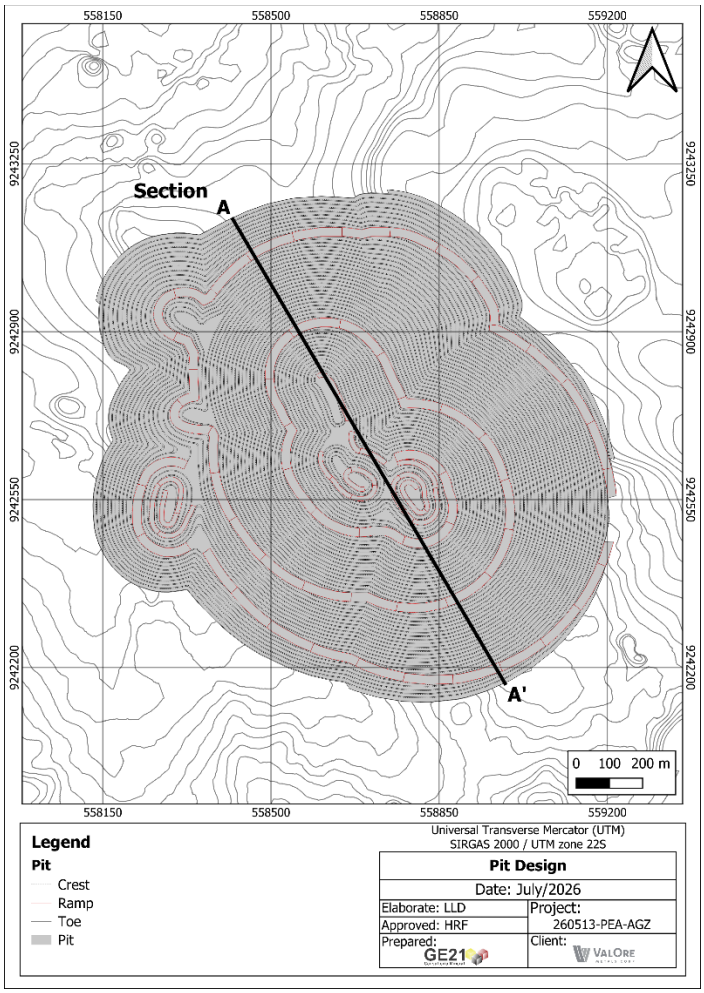


Figure 16.6 PEA Pit Design

Source: GE21, 2026

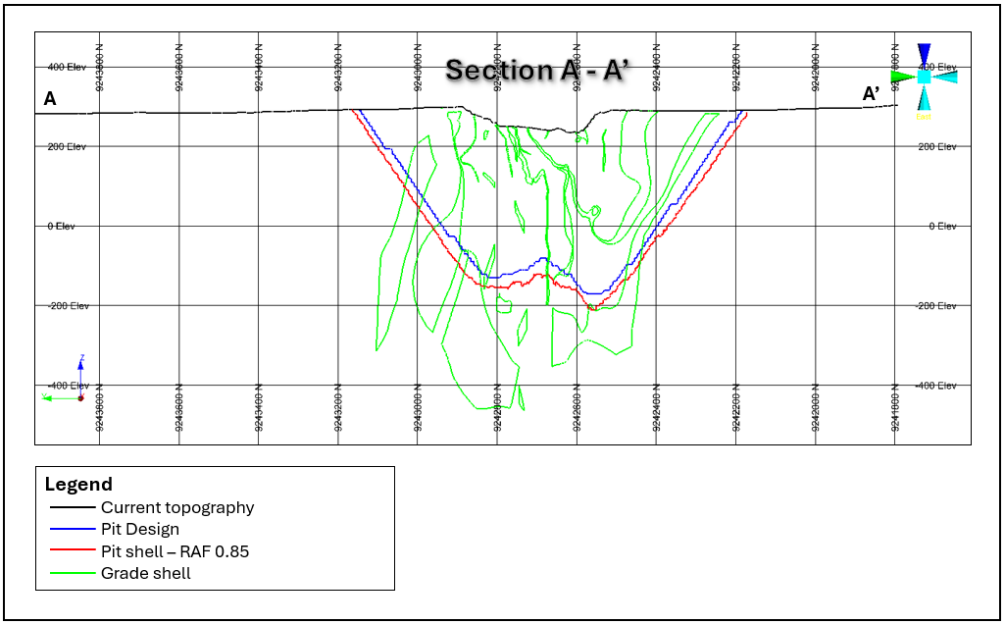


Figure 16.7 Section PEA Pit Design

Source: GE21, 2026

Table 16.7 PEA Mine Plan Inventory

Materials	Weathering	Volume (Mm³)	Tonnes (Mt)	Au (g/t)	Au (Moz)
High-Grade Mill Feed Material					
Indicated (Au >= 0.39)	Saprolite	0.032	0.053	0.746	0.001
	Fresh Rock	5.500	14.851	1.241	0.593
	Total	5.532	14.904	1.24	0.594
Inferred (Au >= 0.39)	Saprolite	0.049	0.081	1.175	0.003
	Fresh Rock	4.064	10.972	1.370	0.483
	Total	4.113	11.053	1.37	0.486
Low-Grade Stockpile Material					
Indicated (0.22 <= Au < 0.39)	Saprolite	0.044	0.072	0.276	0.001
	Fresh Rock	2.537	6.850	0.282	0.062
	Total	2.581	6.922	0.28	0.063
Inferred (0.22 <= Au < 0.39)	Saprolite	0.032	0.054	0.264	0.000
	Fresh Rock	1.377	3.717	0.281	0.034
	Total	1.409	3.771	0.28	0.034
Waste Saprolite		8.768	14.555		
Waste Fresh Rock		134.801	363.962		
Total Waste		143.569	378.517		
Total Rock		157.203	415.167		
S.R. (low-grade material included as waste)			14.99		

Notes:

1. "The PEA Mine Plan Inventory" summarized in this table forms part of a Preliminary Economic Assessment (PEA). The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. PEA was estimated by Hugo Ribeiro de Andrade Filho FAusIMM (CP), a GE21 associate, who meets the requirements of a "Qualified Person" as established by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014) (the CIM Standards).
3. PEA was reported with an effective date of July 28, 2026. The reference point for the mill feed material is the point where ROM is delivered from the open pit to the crushing plant.
4. Volumes are reported in millions of cubic metres (Mm³), tonnages in millions of tonnes (Mt), gold grades in grams of gold per tonne (g/t Au), and contained gold in millions of ounces (Moz Au). Volumes, tonnages, grades, and

contained metal have been rounded to reflect the relative accuracy of the estimates. Totals may not sum exactly due to rounding.
5. PEA was estimated using the Geovia Whittle 4.3 software for pit optimization and following the geometric and economic parameters.
6. Geometric and economic parameters include:
    a) Mine recovery of 95% and operational dilution of 5%;
    b) Pit optimization used a selective mining unit (SMU) of 5 m x 5 m x 5 m in a regularized block model, resulting in a 26% dilution in grade compared to the Mineral Resource block model, at a marginal COG of 0.16 Au g/t.
    c) Gold price of US$ 3,067.75/oz;
    d) Mining costs US$ 2.56 per ton for mineralization and waste; Rehandle cost US$ 2.09/ ROM; mine closure 0.33 US$/ t of ROM; mine fixed cost of US$ 0.24/t of ROM;
    e) Processing costs of US$ 12.62 per ton of ROM; processing sustaining cost of US$ 1.90/t of ROM; and metallurgical recovery of 94%;
    f) General and Administrative (G&A) costs of US$1.65/t of ROM;
    g) Gold, selling cost of US$ 106.60/oz;
    h) Exchange rate: $1.00 = R$5.50;
    i) Pit slope angles ranging from 47.4° to 51.9°.

Source: GE21, 2026.

16.3 Considerations of Low-Grade COGs

During the selection of the pit shell to define the PEA pit design, considerations were made to optimize the mill feed material grade while minimizing the generation of waste material. Consequently, the selected pit shell was based on a gold price of US$ 3,067.8/oz and revenue factor 0.85. As a result of this analysis, the final CoG was established at 0.39 g/t Au. Within the mining sequence, it was determined that material with a gold grade greater than or equal to 0.22 g/t Au, which is the CoG calculated from pit optimization parameters, but lower than 0.39 g/t Au would be classified as low-grade material. Although this material contains recoverable gold values, it would not be processed by the plant under the current economic and operational assumptions. This approach reflects a strategic decision to maximize the efficiency of the mining operation by prioritizing the processing of higher-grade material while minimizing operating costs and optimizing resource utilization. As a result, a total of 10.69 Mt of low-grade material, with an average grade of 0.28 g/t Au, has been classified as low-grade material for the purposes of this study and will be strategically stockpiled in a dedicated low-grade stockpile for future reclaim and processing opportunities.

16.4 Waste Dump Design

The waste disposal system will be directed to a designated waste rock storage facility. The existing facilities, as designed for waste storage in previous report (EDEM, 2026) were forecasted to accommodate approximately 45% of the total projected volume of waste rock to be mined, as well as the tailings generated by the processing plant. The main specifications as follows in Table 16.8.

Table 16.8 Dumps parameters

Parameter	Value
Total pile height	110 to 111 m
Slope face angle	27°
Maximum bench height	10 m
Berm width	8 m
Volumetric capacity – South Waste Dump Pile	50.6 Mm³
Volumetric capacity – North Waste Dump Pile	36.1 Mm³

Parameter	Value
Total volumetric capacity	86.7 Mm³
Approximate mass capacity – South Waste Dump Pile ***(based on an approximate density of 2.0 t/m³)***	101.2 Mt
Approximate mass capacity – North Waste Dump Pile ***(based on an approximate density of 2.0 t/m³)***	72.2 Mt
Total approximate mass capacity ***(based on an approximate density of 2.0 t/m³)***	173.4 Mt

Source: EDEM, 2026

Since the previously proposed waste rock dumps are insufficient to accommodate the total waste rock volume expected to be generated throughout the mine life, GE21 has developed a revised mine layout incorporating three additional potential waste rock dump (WRD) locations, which are presented in Section 18.

Mineralized materials stockpiles will be strategically located near the processing plant to minimize material rehandling and optimize average haulage distance (AHD).

16.5 Production Schedule

The mine plan includes a staged increase in processing throughput, reaching the nominal processing capacity of 2.85 Mtpa in Year 4. Thereafter, the plant operates at its full design capacity for the remainder of the mine life.

The mine plan considers a maximum vertical advance rate of 90 m per year for each mining phase. Mining sequences and ROM delivery schedules were developed to provide a consistent plant feed and to minimize fluctuations in the average gold grade delivered to the process plant. Annual bullion production is estimated based on the processed ROM tonnage, the average ROM grade (g/t Au), and the expected metallurgical recovery assumptions adopted for the Project.

The mine plan includes a one-year pre-production phase during which approximately 24 Mt of waste material will be mined to establish initial pit access and expose sufficient mill feed material for the commencement of operations. This pre-stripping activity will also support the development of mine infrastructure and provide operational flexibility during the early years of production.

Mining will commence in Phase 1 and progressively advance through subsequent phases in accordance with the mine development strategy. The phase sequencing has been designed to maintain operational continuity, provide flexibility in ROM sourcing, and support a balanced delivery of mill feed throughout the mine life (Figure 16.8).

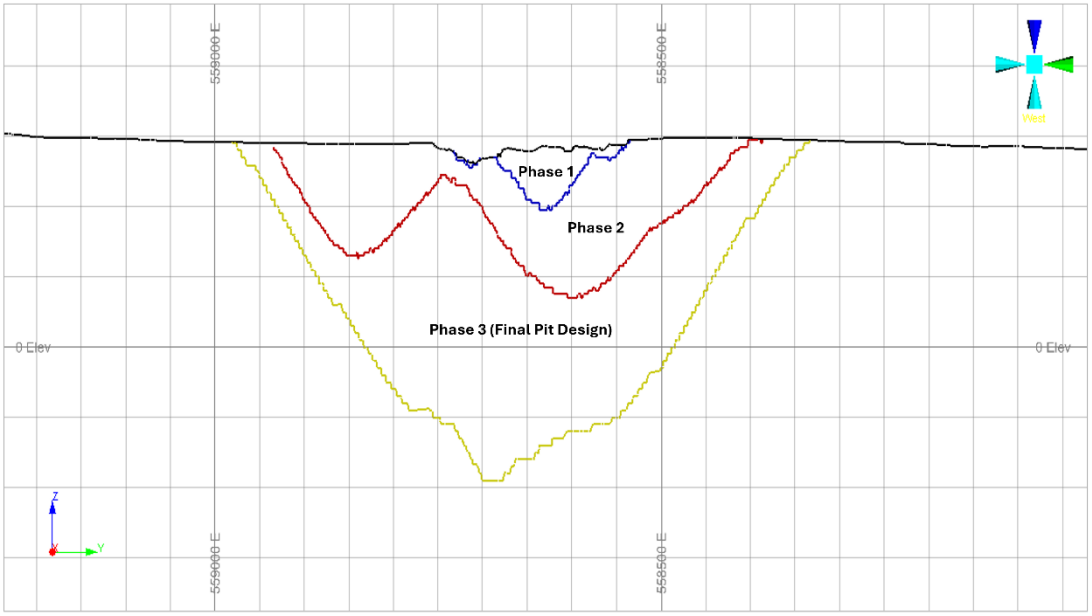


Figure 16.8 Mine plan phases

Source: GE21, 2026

The total material mined per year increases in line with the staged increase in processing throughput, reaching a steady-state rate upon achievement of the nominal plant throughput. The annual average gold grade delivered to the plant remains generally consistent with the average grade of the mineralized material included in the PEA mine plan, with local variations reflecting the sequencing of mining phases and stockpile management strategies.

16.5.1 Stockpiling Strategy

To enhance feed grade management and maximize operational flexibility, ROM will be stockpiled according to four gold grade categories:

- Middle Grade (0.39 to 0.80 g/t Au),
- High Grade (0.80 to 1.50 g/t Au),
- Super Grade (1.50 to 2.00 g/t Au),
- Top Grade (>2.00 g/t Au).

This stockpiling strategy allows selective blending of material from different grade ranges to maintain a consistent feed grade to the process plant throughout the mine life. The availability of segregated stockpiles provides greater flexibility to manage short-term variations in ROM grade resulting from mine sequencing, supports achievement of production targets, and helps optimize bullion production by smoothing fluctuations in plant feed quality. In addition, the strategy reduces operational risk by providing alternative ROM sources during periods of mining variability and facilitates the efficient utilization of lower-grade material that may otherwise be deferred until later stages of the operation.

The mine production schedule by year, mining phase, and material classification is presented in the corresponding following Figure 16.9, Table 16.9, Table 16.10, Figure 16.10 and Figure 16.11.

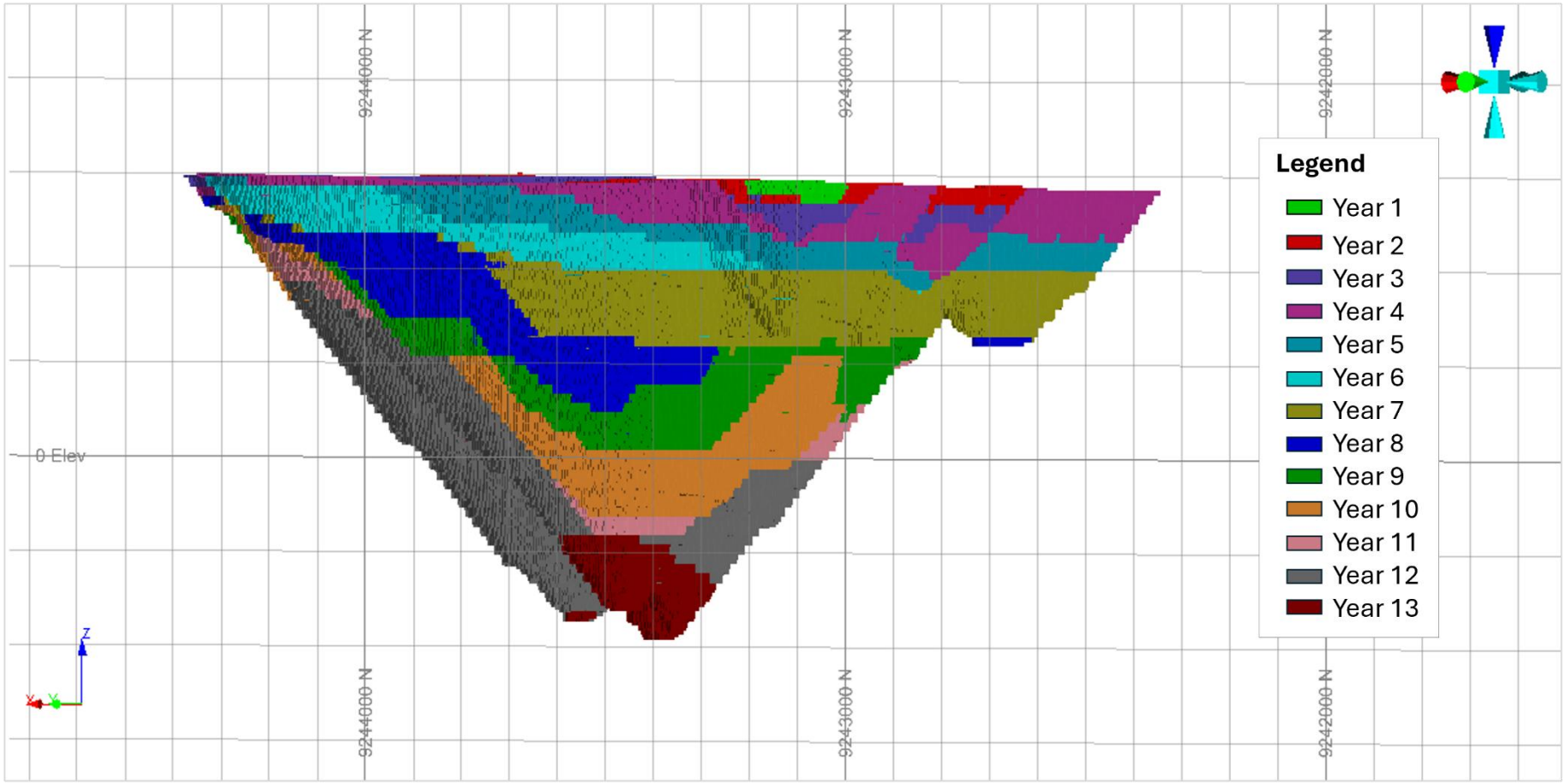


Figure 16.9 Schedule by year

Source: GE21, 2026

Table 16.9 LOM Production Schedule – Mine Movement

	Unit	Total	Year												
			Phase 1			Phase 2									
			Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13
Total Moved	**kt**	**415 167**	**1 910**	**2 832**	**25 040**	**37 007**	**44 026**	**43 971**	**43 979**	**43 914**	**43 798**	**44 097**	**44 232**	**37 218**	**3 143**
ROM	**kt**	**25 957**	**194**	**150**	**593**	**1 493**	**2 867**	**2 836**	**2 887**	**2 669**	**2 553**	**2 852**	**2 874**	**2 883**	**1 106**
Grade	Au (g/t)	**1.29**	1.45	1.59	1.31	1.12	1.19	1.30	1.37	1.02	1.05	1.45	1.24	1.42	2.18
Waste Total	**kt**	**389 210**	**1 715**	**2 683**	**24 446**	**35 514**	**41 159**	**41 135**	**41 092**	**41 245**	**41 245**	**41 245**	**41 358**	**34 335**	**2 037**
Waste Rock	kt	**378 517**	1 654	2 608	24 138	34 449	39 924	40 047	39 986	39 880	40 088	40 173	40 351	33 387	1 831
Low Grade ROM	kt	**10 693**	62	75	308	1 065	1 235	1 089	1 106	1 365	1 157	1 072	1 007	947	206
Stripping ratio*	w:o	**14.99**	8.82	17.94	41.20	23.79	14.36	14.51	14.23	15.45	16.16	14.46	14.39	11.91	1.84

Note: * Stripping Ratio = Waste Total (ROCK+LOW GRADE)/ROM.
Source: GE21, 2026.

Table 16.10 LOM Production Schedule – Plant

	Unit	Total	Year												
			Phase 1			Phase 2									
			Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13
Mine to Crush	kt		105	150	200	1 387	2 500	2 836	2 850	2 669	2 553	2 850	2 850	2 850	1 106
Mine to Crush	Au (g/t)		1.59	1.59	1.96	1.17	1.22	1.30	1.38	1.02	1.05	1.45	1.25	1.43	2.18
Stockpile Balance															
Mine to Stockpile	kt		89	-	393	106	367	-	37	-	-	2	24	33	-
Initial Stockpile	kt		-	89	79	472	465	832	818	855	674	377	379	402	436
Stockpile To Crush	kt		-	10	-	113	-	14	-	181	297	-	-	-	436
Final Stockpile	kt		89	79	472	465	832	818	855	674	377	379	402	436	-
	Au (g/t)		1.29	1.24	1.03	0.65	0.83	0.82	0.80	0.65	0.53	0.53	0.53	0.53	-
Processing															
ROM Feed	kt	**25 957**	105	160	200	1 500	2 500	2 850	2 850	2 850	2 850	2 850	2 850	2 850	1 542
Feed Grade (g/t)	Au (g/t)	**1.29**	1.59	1.59	1.96	1.24	1.22	1.30	1.38	1.04	1.02	1.45	1.25	1.43	1.72
Metal Contained	koz	**1 080**	5	8	13	60	98	119	126	95	94	132	114	131	85
Metal Recovery	%	**94%**	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%
Total Au	koz	**1 015**	5	8	12	56	92	112	119	90	88	125	107	123	80
Tailings	Kt	**25 957**	105	160	200	1 500	2 500	2 850	2 850	2 850	2 850	2 850	2 850	2 850	1 542

Note: The production schedules presented herein are derived from the PEA Mine Plan Inventory and include material classified as Inferred Mineral Resources. The reader is referred to the cautionary statement accompanying Table 16.7.
Source: GE21, 2026.

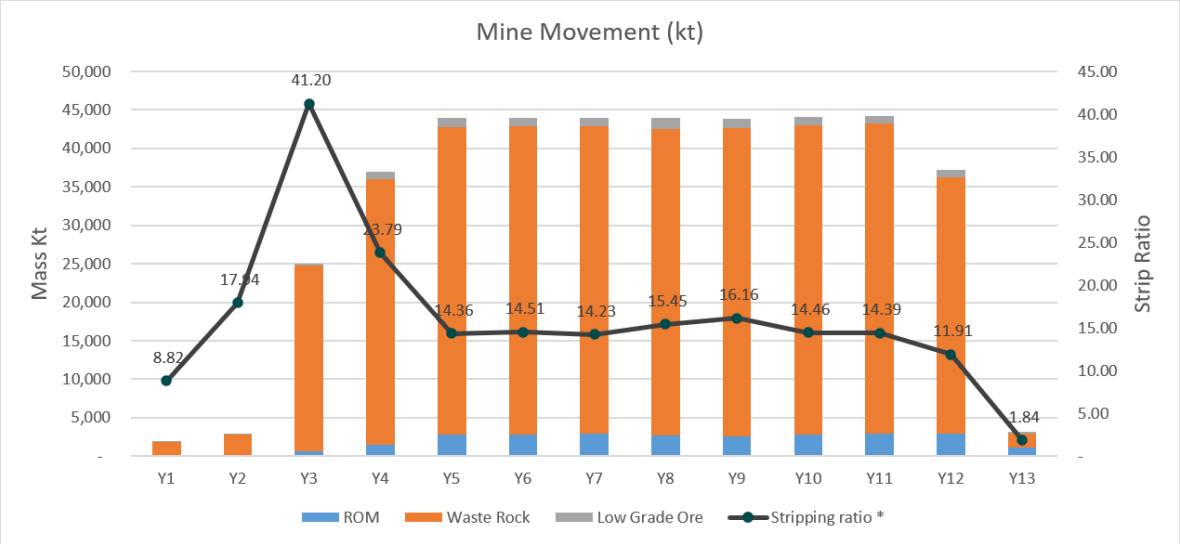


Figure 16.10 Mine movement

Source: GE21, 2026

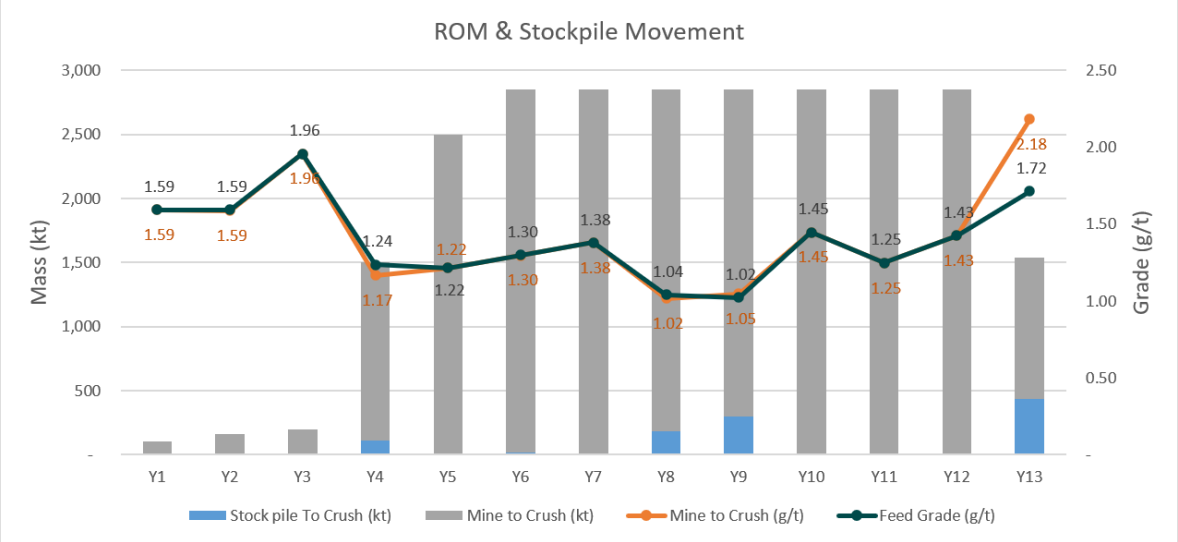


Figure 16.11 ROM & stockpile movement

Source: GE21, 2026

16.6 Mining Equipment Sizing

GE21 reviewed and estimated the main equipment requirements for drilling, blasting, loading, and hauling using a first principles approach which consists of estimating the amount of work required based on the mining schedule and the productivity of each equipment unit, thereby determining the total operating hours required. By applying the expected mechanical availability and utilization factors, these operating hours were converted into the required fleet size for each equipment category.

The mine operation will be supported by four mining crews operating on a two-shift, 12-hour-per-shift schedule, seven days per week. A specific roster was not assumed for the mining

operation estimates, as the four crews are considered sufficient to accommodate a range of shift arrangements and operating schedules.

GE21 reviewed and updated the ancillary and support fleet sizing for the Água Azul Project, establishing the equipment requirements based on the current mine plan, production schedule, and operational support needs.

16.6.1 Drilling and Blasting

Production drilling for ROM and waste material will be carried out using top-hammer drill rigs. ROM benches with 10 m height will be drilled with 89 mm (3.5) diameter holes, while waste benches will be drilled with 127 mm (5.0) diameter holes.

No overburden is considered in this estimate; therefore, all drilling and blasting activities are associated with ROM and waste rock mining.

Bulk emulsion explosives will be used for blasting operations. Blasting calculations were completed assuming an emulsion density of 1.20 g/cm³. The blast design parameters, including burden, spacing, and powder factor, were developed to provide adequate fragmentation while meeting the production requirements of the mine plan. The drilling and blasting parameters adopted for the Project are summarized in Table 16.11.

Table 16.11 Drilling and blasting parameters

Parameter	Rock	Unit	Value
Bench Height	ROM	m	10
	WASTE		10
Burden	ROM	m	2.4
	WASTE		3.0
Spacing	ROM	m	3.2
	WASTE		4.5
Blast pattern	ROM	m	2.4 x 3.2
	WASTE		3 x 4.5
Sub-drilling	ROM	m	1.0
	WASTE		1.0
Hole length	ROM	m	11.0
	WASTE		11.0
Rock density	ROM	t/m³	2.70
	WASTE		2.70
Tonnes per hole	ROM	t	207.4
	WASTE		364.5
Total holes	ROM	unit	13,744
	WASTE		112,894
	Total		126,639
Total drilling (per year)	ROM	m	151,186
	WASTE		1,241,838
	Total		1,393,024
Stemming	ROM	m	2.5
	WASTE		2.7
Explosive density		g/cm3	1.20
Linear charge of explosive	ROM	kg/m	7.44
	WASTE		15.19
Hole diameter	ROM	pol	3 1/2

Parameter	Rock	Unit	Value
	WASTE	pol	5
Explosive charge per hole	ROM	kg	63.28
	WASTE		126.11
Specific Charge per Mass	ROM	kg/ton	0.305
	WASTE		0.346
Specific Charge per Volume	ROM	kg/m³	0.824
	WASTE		0.934

Source: GE21, 2026.

Based on a penetration rate of 25 m/h and the planned mining schedule, the required drilling fleet was estimated to support the production requirements as shown in Table 16.12. Figure 16.12 shows the typical top hammer machine proposed to drill 3.1/2” and 5”.

Table 16.12 Parameters for estimating the fleet related to waste fresh rock drilling machines

Parameters	Units	Value
Calendar hours per year	h	8,760
Availability	%	85%
Utilization	%	75%
Working hours per year	h	5,585
Production per year (1)	m	1,532,327
Productivity	m/h	25
Equipment required	unit	10.98
Equipment required (rounded)	unit	11

Note: Average drilling per year estimated in table 16.7, Including an additional 10% allowance in total metres for presplit in the PEA pit design.

Source: GE21, 2026.



Figure 16.12 Typical rock drilling rig for drilling 5.0” diameter holes

Source: GE21, 2026.

16.6.2 Loading and Haulage

Table 16.13 Loading/haulage match cycles and productivity

Item	Description	Units	Excavator/truck match productivity			
			Mine - ROM	Mine - Waste	Stockpile	Tailings
Equipment	Excavator reference	Model	CAT352 53t	EX1200 114t	CAT352 53t	CAT980 412HP
	Truck reference	Model	8X4 40t	70t	8 X 4 35t	8 X 4 40t
Materials specification	Dry Density	(dt/bcm)	2.70	2.70	2.70	2.70
	Moisture Content	(%)	3.0%	3.0%	3.0%	20.0%
	Swell Factor	(%)	33%	33%	33%	3%
	Wet Density Loose	t/m^3	2.09	2.09	2.09	3.15
	Wet Bank Density	t/m^3	2.78	2.78	2.78	3.24
Excavator specifications	Bucket Capacity	(m^3)	3.20	8.50	3.20	5.40
	Fill Factor	(%)	95%	95%	95%	95%
	Effective bucket volume	(lcm)	3.04	8.08	3.04	5.13
	Bucket Payload	(t)	6.4	16.9	6.4	16.1
	Bucket Capacity Adopted	(lcm)	3.04	8.08	3.04	5.13
	Bucket Capacity Adopted	(bcm)	2.29	6.07	2.29	4.98
	Bucket Capacity Adopted	(t)	6.4	16.9	6.4	16.1
Truck specifications	Bucket volume	(m3)	22.0	38.0	18.0	22.0
	Fill Factor	(%)	88%	88%	95%	60%
	Maximum Volume	(lcm)	19.4	33.4	17.1	13.2
	Payload	(t)	40.5	69.9	35.8	41.5
	Volume limit	(bcm)	14.6	25.1	12.9	12.8
	Passes Per load	Qty	6.37	4.14	5.63	2.57
	Passes Per load	(rounded)	7.0	5.0	6.0	3.0
	Volume payload	(bcm)	14.6	25	13	13
	Maximum Payload	(wt)	40	70	36	42
Excavator Productivity	Cycle Time	(sec)	40.0	40.0	40.0	30.0
	Efficiency Factor	(%)	96%	96%	96%	96%
	Effective cycle Time	(sec)	280.0	200.0	240.0	90.0
	Truck exchange	(sec)	45.0	45.0	150.0	45.0
	Loading Time	(min)	5.4	4.1	6.5	2.3
	Productivity	(bcm/oh)	154	353	113	326
	Productivity	(dt/oh)	416	953	306	881

Source: GE21, 2026.

Table 16.14 shows the assumed average speed in function of the haul road gradient of each segment, according to GE21 internal database for similar projects in Brazil.

Table 16.14 Assumed haul speeds

Condition speed	Profile	Unit	Speeds	
			Fresh Rock	Stockpile/Tailings
Loaded Speed	Up	km/h	12	12
	Flat	km/h	25	25
	Down	km/h	20	25
Empty Speed	Up	km/h	20	20
	Flat	km/h	38	38
	Down	km/h	25	25

Source: GE21, 2026.

Table 16.15 Parameters for estimating the fleet related to loading and haulage

Parameters	Units	Mine - ROM	Mine Waste	Stockpiling	Tailings
Calendar hours per year	h	8,760	8,760	8,760	8,760
Working hours per year	h	5,585	5,957	5,957	5,957

Parameters	Units	Mine - ROM	Mine Waste	Stockpiling	Tailings
Average Haulage Distance (AHD)	m	2,600	3,300	950	2,700
Production per year	kt	2,850	42,000	80	2,850
Trucks					
Reference Model		8X4 40t	XG105	8X4 40t	8X4 40t
Fixed load time	min	5.4	4.1	6.5	2.3
Variable time	min	15.1	17.9	3.8	10.7
Total cycle time	min	21	22	10	13
Productivity	t/h	118	191	209	165
Availability	%	85%	85%	85%	85%
Utilization	%	80%	80%	80%	80%
Equipment required	unit	5.38	39.00	0.52	2.90
Equipment required (rounded)	unit	6	40	1	3
Excavator/Loader					
Reference Model		CAT352	EX1200	CAT352	CAT980
Productivity	t/h	416	953	306	881
Availability	%	85%	85%	85%	85%
Utilization	%	75%	80%	80%	80%
Equipment required	unit	1.63	8.33	0.35	0.51
Equipment required (rounded)	unit	2	9	1	1

Source: GE21, 2026.



Backhoe excavator for primary mining – ROM – 53t / 3.2 m³



Backhoe excavator for primary mining – waste – 114t – 6.7 m³



8xt truck–40t payload - ROM



Off-road truck–70t payload - Waste

Figure 16.13 Main Mine Equipment for Agua Azul Project

Source: GE21, 2026.

16.6.3 Ancillary and Infrastructure Equipment

Auxiliary and infrastructure activities, including haul road and surface drainage maintenance, dust suppression through water spraying on main access roads, and the spreading and compaction of material at waste rock and tailings storage facilities, will be carried out by a specialized third-party contractor. These services will be performed using conventional earthmoving equipment, including bulldozers, motor graders, water trucks, wheel loaders, and small backhoe hydraulic excavators.

16.6.4 Mining Fleet Summary

The summary of estimated fleet size reviewed by GE21 for mining operation is presented in Table 16.16.

Table 16.16 Mining fleet summary for mining operation – Água Azul Project

Description	Reference Supplier	Reference Model	Capacity	LOM
Main Operations				
Hydraulic Drilling - 3.5" / 5.0"	SANDVIK	PANTERA DP1500I	89-152mm	11
Sub-Total				11
Wheel Loader - 20T	KOMATSU	WA380-8	2,70 m^3	2
Hydraulic Excavator - 114T	HITACHI	EX1200	8,50 m^3	9
Hydraulic Excavator - 53T	CATERPILAR	CAT352	3,20 m^3	2
Sub-Total				13
Vocational Truck 8X4 - 40T	VOLVO / ROSSETTI	FMX 8X4R	40 t	10
OHT Highway - 70T	XCMG	XG105	70 t	40
Sub-Total				50
Ancillary and Infrastructure				
Bulldozer - 40T	CATERPILLAR	D8	10.3 m3	3
Sub-Total				3
Hydraulic Breaker 3 t onto 35 Hydr. Excavator	KOMATSU	PC350LC-8	3 t	1
Water Tank Truck - 20.000 l	VW / GASCOM	MB 31.320 / PROSOLO	20.000 litres	4
Hydraulic Excavator - 20T	KOMATSU	PC200	1,20 m^3	1
Hydraulic Excavator - 53T	CATERPILAR	CAT352	3,20 m^3	1
Wheel Loader - 20T	CATERPILAR	CAT980	5,20 m^3	1
Moto Grader - 17T	KOMATSU	GD655-5	-	2
Backhoe Loader 4X4	JCB	4CX ECO	0,76 m^3	1
Vibrating Compact Roll - 13T	DYNAPAC	CA250	2.130 mm	1
Bulldozer- 22T	KOMATSU	D61EX-23M0	3,80 m^3	1
Wheel Dozer - 38T	CATERPILAR	834	-	1
Sub-Total				14
Total				91

Source: GE21, 2026.

17 RECOVERY METHODS

17.1 Introduction

The design of the beneficiation plant for the Água Azul Project is based on a defined and robust process flowsheet intended for the treatment of gold-bearing ROM and the production of doré. The proposed configuration relies on metallurgical testwork described in Chapter 13, established industry practices, and conventional unit operations. The process route is further supported by over two years of continuous operation of a semi-industrial plant with a nominal capacity of approximately 100,000 tonnes per year.

The process plant has been designed to treat 2.85 Mt per year of run-of-mine (ROM) and comprises comminution, gravity concentration, cyanide leaching through a Carbon-in-Leach (CIL) circuit, elution, and gold recovery systems. Tailings from the CIL circuit are subjected to cyanide detoxification and subsequently dewatered through filtration prior to dry stacking.

The principal design criteria adopted for the process plant are as follows:

- Nominal throughput of 2.85 Mt per annum of ROM.
- Crushing circuit availability of 65%.
- Availability of 92% for downstream circuits, including milling, gravity concentration, flotation cells, CIL leaching, gold recovery, and tailings handling systems, considering critical equipment performance and the presence of a crushed ROM stockpile.
- Residence time in the CIL circuit of 20 hours.
- Inclusion of a cyanide detoxification circuit designed to achieve weak acid dissociable (WAD) cyanide concentrations below 5 ppm.
- Selection of equipment based on functional suitability, operational reliability, and ease of maintenance.
- Plant layout configured to allow simultaneous construction in multiple areas and to provide adequate access for operation and maintenance activities.

The semi-industrial plant incorporates the key unit operations of the proposed industrial facility. Despite its lower level of automation, it has validated the selected process route, including metallurgical recovery, reagent consumption, and mine-to-plant reconciliation procedures. Project Criteria

For project development, the criteria design presented in Table 17.1 was assumed.

Table 17.1 Project criteria

Area	Criterion	Unit	Nominal value
General	Nominal annual feed	tpy	2,850,000
	Daily Processing	tpd	7,809
	Crushing Availability	%	65.0
	Availability of the metallurgical plant	%	92.0
	Average head Au contained	g/t	1.23
	Average recovery	%	93.30
Crushing	Bond Work Index - Crushing	kWh/t	19.40
	Axb - JK	-	29.60

Area	Criterion	Unit	Nominal value
	ROM top size	mm	800.0
	P_{80} in the Crushing Plant	mm	10.80
	Bond Abrasion Index	g	0.50
	Surge stockpile live capacity residence time	h	10
Milling	Bond's Work Index (WI)	kWh/t	16.40
	P_{80} in Grinding product	µm	75
Gravity concentration	Gravity concentrator recovery	% Au Fed	35.0
Pre-leaching Thickening	Underflow density	% (w/w)	51.0
	Sedimentation rate by unit area	ton/h/m^2	0.40
CIL	Pre-Leaching Tanks Qty	-	2
	Cil Tanks Qty	-	6
	Total residence time	h	20.0
	Circuit feed pulp density	w/w %	47.0
Elution	Carbon Batch size	t	8.0
	Elution Type	-	Pressurized AALR
Detox	Number of stages	-	2
	Residence time	min	120

Source: EDEM, 2026

17.2 Semi-Industrial Operation

The semi-industrial installed comprises the unitary process units of a conventional CIL plant, comprising crushing, grinding, CIL, elution, and smelting.

The plant was commissioned and ramped-up in 2023 and achieved steady-state operation in 2024. The operations were suspended from July 2024 to September 2024 to adjust the legal requirements for renewing the operating permit (Guia de Utilização) issued by the Brazilian National Mining Agency (ANM).

17.3 Process Description

The process plant project will be developed considering the following process units:

- Crushing circuits comprising primary, secondary and tertiary stages;
- Crushed surge pile, reclaimed by vibrating feeders, with provision for front-end loader for eventual necessity;
- Grinding circuit consisting of a ball mill operation in closed circuit with hydrocyclones;
- Gravity concentration circuit treating part of the circulating load (hydrocyclone underflow);
- Thickening of cyclone overflow, with underflow directed to the CIL circuit and overflow to process water tank;
- Cyanide leaching and gold adsorption using CIL circuit;
- Carbon elution by pressurized AARL process;
- Carbon handling and regeneration;
- Cyanide detoxification of tailings using SO_2/O_2 process;
- Utilities supply systems;
- Water systems including potable, raw, gland seal, and process water circuits.

- Reagents preparation plant;
- Dry stacking process.

Figure 17.1 illustrates the general processing flowsheet proposed to the Água Azul Project.

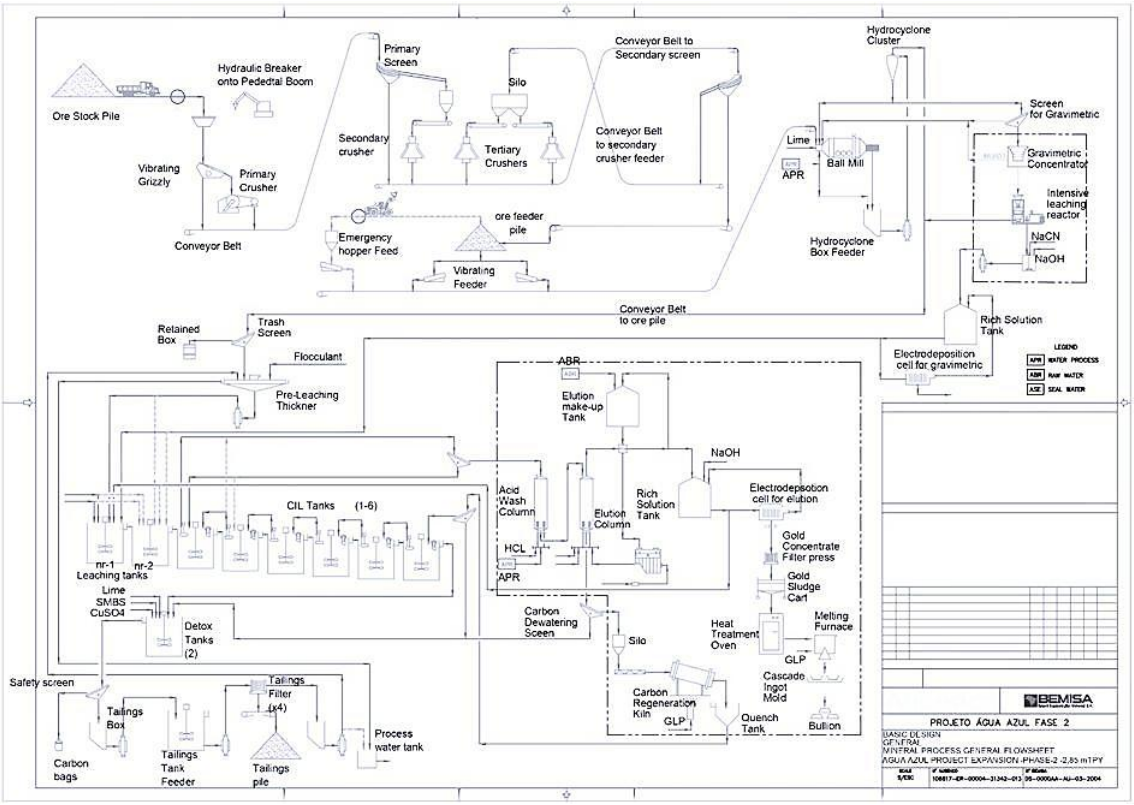


Figure 17.1 Simplified flowsheet of the Água Azul Project industrial plant

Source: EDEM, 2026.

17.3.1 Crushing

The ROM – run-of-mine is transported by trucks to feed a hopper equipped with a grizzly.

Material retained on the vibrating grizzly feeds the primary jaw crusher. The material passing through the grizzly (fines) and the product from the primary crusher are discharged onto a conveyor belt that also receives the products from the secondary and tertiary crushing stages.

The secondary and tertiary crushers operate in closed circuit with a double-deck screen, with apertures of 44 mm and 17 mm on decks 1 and 2 respectively, is fed by the conveyor belt that receives material crushed by all three crushers. The screen undersize, with a P_{80} of 11.3 mm, is the final product of the crushing circuit and is conveyed to a surge pile feed conveyor.

Material retained on the first screen deck is conveyed to the secondary crusher. Material retained on the second deck is conveyed to a tertiary crusher.

The crushed product is reclaimed from the surge pile by two vibrating feeders installed under the pile. Alternatively, plant feed can be provided by a front-end loader, which feeds an

emergency feed hopper with a vibrating feeder. This feeder directs the material to the mill feed conveyor, which is equipped with a belt scale to measure the ball mill feed rate.

17.3.2 Milling Plant

The grinding circuit consists of a Ø6.6 m x 9.75 m ball mill with 8134 kW power, operating in closed circuit with a battery of sixteen 15-inch hydrocyclones.

A cross-belt type sampler samples the fresh feed. The mill discharge is classified in the hydrocyclones where the underflow is the circulating load of the process and the overflow at P_{80} 75 µm, is transferred by gravity to CIL process.

Part of the hydrocyclone underflow, usually one third of the flow, is diverted to a gravity concentration circuit.

17.3.3 Gravity Concentration and Intensive Leaching

The circuit is composed of centrifuge concentrator, Knelson-type, in a discontinuous equipment. The concentrate is transferred to an intensive leaching circuit, and tailings are returned to the ball mill.

The pregnant solution from intensive leaching reactor is pumped to an electrowinning cell, where the gold is electrodeposited.

Before leaching, desliming of the concentrate may be required. In this case, the fine fraction is pumped directly to the CIL circuit, while the cyanidation tailings are pumped back to the grinding circuit.

The reagents used in this area are sodium cyanide, sodium hydroxide, and leachaid (a reagent that enhances the kinetics and extraction of the intensive leaching).

17.3.4 Thickening, Pre-Leaching, and Leaching/CIL

The cyclone overflow is fed and conditioned with flocculants in the thickener's box. The thickener overflow is pumped to the process water tank, while the underflow, with 50% solids w/w, is pumped to the leaching/CIL circuit, passing through trash screen before entering the tank. This flow is sampled by Vezin-type samplers.

In the CIL process, gold leaching and adsorption onto activated carbon occur simultaneously in agitated tanks. The circuit consists of two pre-leaching tanks with an agitator pulp system and six CIL tanks, carbon transfer pumps, and interstage screens. The slurry flows through the tanks by pumping-type interstage screens, while the activated carbon moves countercurrent from the last to the first CIL tank by pumping. Low-pressure air is used to supply oxygen for the leaching reaction. All tanks are equipped with a bypass system, allowing any individual tank to be isolated for operational or maintenance purposes.

Leaching Tank No. 1 is dosed with sodium cyanide, lime milk, barren solution from elution, barren solution from gravity concentration, and solution from the elution area.

The slurry flows into the first of a series of six CIL tanks. In each tank, the carbon progressively is loaded with gold, reaching its maximum loading in the first tank. O_2 is available in all the tanks supplied by low-pressure blowers to assist gold-cyanide reaction.

From the first adsorption tank, gold-loaded carbon is pumped to screen, where the undersize returns to CIL tank and oversize, the loaded carbon is sent by gravity to the elution circuit.

CIL tailings, which still contain residual cyanide, are transferred to the detox stage, composed of two tanks. Carbon fines particles from dewatering screens and regenerated carbon screens are sent to the carbon fines tank, where they are stored and packaged in bags.

Regenerated carbon is pumped to a screen, where undersize goes to carbon fines tank, while retained material feeds back into CIL Tank No. 6.

17.3.5 Acid Washing and Elution

The loaded carbon is pumped to an acid washing column. Diluted hydrochloric acid is pumped upwards through the carbon bed to eliminate adsorbed soluble compounds. Then the acid is drained and the bed washed with fresh, clean water. The solution used in the washing and rinsing stages is pumped as make-up water to detox unit. Washed carbon is then pumped to an elution column.

Elution is conducted using a hot elution solution having low concentrations of sodium cyanide and caustic soda in the soak solution. Subsequently, heated water will be passed through the column at a minimum rate of two bed volumes per hour. This solution will then be routed to the heater before being fed into the elution column. LPG (liquefied petroleum gas) will fuel the heater burner. The eluted carbon will be directed to the carbon dewatering screen in the carbon recovery area.

Elution is carried out by circulating a hot caustic solution in an upward pressurized flow through the elution column at approximately 130°C for a period of 8 to 12 hours. The eluate is then passed through a heat exchange system and circulated through an electrowinning cell, where the dissolved gold is electrodeposited onto steel wool cathodes. The barren solution is pumped through a heating and heat exchange system before being recirculated to the elution column.

Upon completion of the elution cycle, the spent carbon is transferred to the thermal reactivation kiln.

17.3.6 Carbon Regeneration

The spent carbon from the elution is screened and dewatered. The undersize is stored in a tank and disposed of in bags for future processing. The retained carbon feeds the regeneration kiln, where it is heated to a temperature of approximately 680 ^{o}C for 20 minutes.

The regenerated carbon is discharged in a quench tank for cooling and to avoid burning and pumped back to CIL circuit.

17.3.7 Electrowinning and Smelting

The electrowinning cells are composed of cathodes supported by a frame and stainless-steel anodes. Eluate from elution and intensive leaching of gravity concentrate, flows through the electrodes are reduced to Au^0 and electrodeposited in the cathodes. Metallic gold is then removed from the cathodes by high-pressure water sprays, filtered and dried.

The dried cake is mixed with fluxes and smelted in a gas-driven furnace. The gold is poured into ingots molds and, after cooling, weighed and stored in the vault.

17.3.8 Cyanide Neutralization

The tailings are transferred to the detox stage, which consists of two tanks.

The tailings are sampled and agitated in tanks where reagents as SO_2, and copper sulphate are added, in a controlled pH.

The slurry is then screened in a safety linear screen to recover some fines of carbon. The retained on this screen is stored in carbon bags, and the undersize flows to the tailings box and subsequently to the filtration area.

An online Weak-Acid Dissociable Cyanide (CN_{WAD}) analyzer takes samples from both, feed and neutralized samples to monitor the effectiveness of the cyanide neutralization before tailings are filtered and dry-stacked.

17.3.9 Tailings Filtration

The detoxified tailings are directed to the filtration feed tank. From there, the material is pumped to tailings filters. Each filter cake is conveyed to the tailing's storage facility via a dedicated conveyor, while the filtrate is sent to the filtrate box. From there, the solution is pumped either to the pre-leaching thickener feed box or to the process water tank for reuse.

17.3.10 Reagents

The main reagents and consumables used in the beneficiation process are described in Table 17.2

Table 17.2 Main Reagents and application

Reagent	Application
Hydrated Lime	Hydrated lime is received in bags, which are directed to the bag breaker. The lime is added to the preparation tank, equipped with an agitator, along with raw water. After preparation, the solution is transferred to the storage tank, also equipped with an agitator. From there, it is dosed into the plant via pumps and a lime distribution ring.

Reagent	Application
Sodium Cyanide	This reagent is received in briquettes packed in plastic-lined big bags inside wooden crates. The bags are stored in a special shed, over pallets. A forklift transports the boxes to the plant for application in the process and discharger in a tank equipped with abag breaker. The preparation tank is filled with alkalinized water, and cyanide is added to the tank, equipped with an agitator, along with raw water. After preparation, the solution is pumped to the storage tank. From there, it is dozed into the plant via pumps
Sodium Hydroxide	Sodium hydroxide is received as a 50% solution in IBC containers, from which it is dozed directly into the plant via pumps
Hydrochloric Acid	Hydrochloric acid is received as a 33% solution in IBC containers, from which it is dosed to the acid washing system via a pump
Copper Sulphate	Copper sulphate is received in solid form, in bags. The bags are directed to the bag breaker, which is equipped with a dust collector and exhaust system. The copper sulphate is added to the preparation tank, with an agitator, along with raw water. After preparation, the solution is transferred to the storage tank. From there, it is dozed into the plant via pumps
Sodium Metabisulphite (SMBS)	SMBS is received in solid form, in bags. The bags are directed to the bag breaker, which is equipped with a dust collector and exhaust system. SMBS is added to the preparation tank, with an agitator, along with raw water. After preparation, the solution is transferred to the storage tank. The reagent is dosed into the plant via pumps
Flocculant	The flocculant is received in solid form, in 25 kg bags. These bags are directed to the bag breaker. The flocculant is added to the preparation and storage tank, with an agitator, along with raw water. After preparation, the solution is transferred to the lower compartment of the tank, where it is stored and subsequently dosed into the plant by a pump
LPG (Liquefied Petroleum Gas)	Liquefied petroleum gas (LPG) is supplied to the plant by tanker trucks and stored in tanks. It is distributed to the furnaces and heaters in the plant and has dedicated supply lines for the cafeteria and laboratory

Source: EDEM, 2026.

18 PROJECT INFRASTRUCTURE

18.1 General Layout

The Água Azul Project benefits from established regional and site infrastructure. The approximately 20,000-hectare property is crossed by the paved PA-279 highway and a 230 kV power transmission line and includes an existing network of property and mine access roads. The Project is located near the town of Água Azul do Norte, providing access to local services and workforce. The location of the Project relative to this existing infrastructure is shown in Figure 18.1.

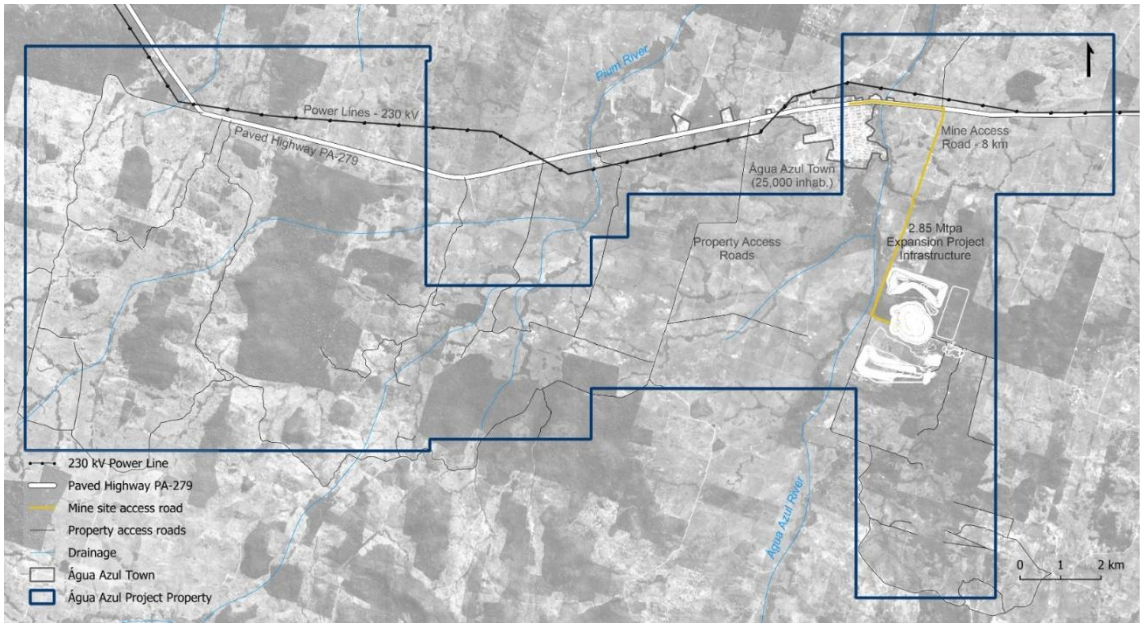


Figure 18.1 General Layout and Existing Infrastructure

Source: ValOre Metals Corp., 2026.

The general layout of the Água Azul Project, presented in Figure 18.2 and Figure 18.3, illustrates the main project components, including open pits, waste rock and tailings disposal facilities, processing plant infrastructure, mine support services, access roads, and water intake systems. The processing plant is located to the east of the Abelhas Deposit.

Site access is provided from the western boundary through an existing road network. The entire facility will be enclosed to restrict unauthorized entry.

The site configuration considered the following key criteria:

- Proximity between mining, administrative, and processing facilities to minimize walking distances between them.
- Strategic positioning of personnel access points near administrative offices and changing facilities.

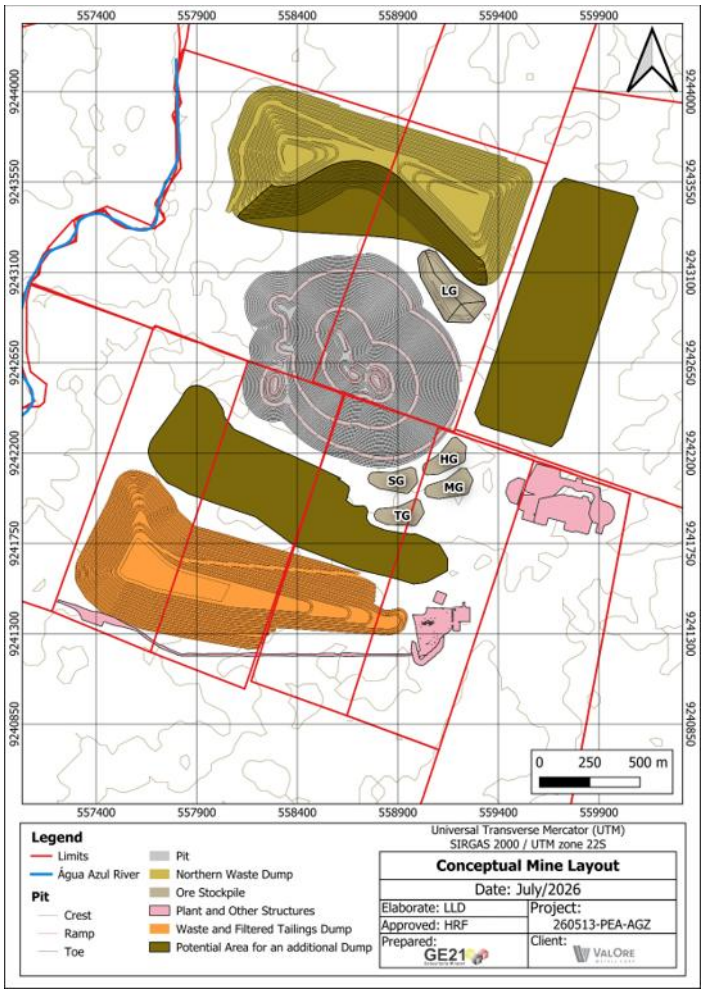


Figure 18.2 General layout

Source: GE21, 2026.

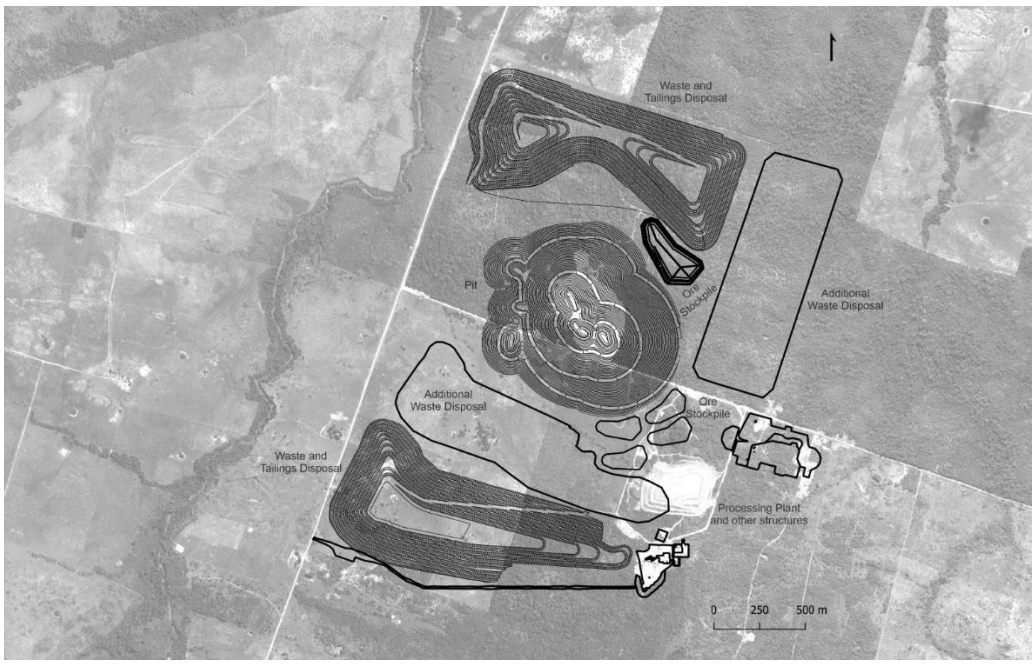


Figure 18.3 Planned PEA Mine Infrastructure Layout

Source: GE21, 2026.

18.2 Power Supply

Power for the Project will be supplied from the regional electrical grid through a dedicated high-voltage connection. Electrical power supply availability was confirmed through the connection study and budget assessment issued by Equatorial Energia Pará (2026), which identified sufficient capacity to supply the estimated Project demand of 16,426 kW at 138 kV. The study also established the scope of infrastructure required for the connection, including transmission line extensions, substation facilities, and modifications to the existing electrical network necessary to integrate the Project into the regional power system.

The requirements identified by the utility have been incorporated into the Project development plan and support the technical viability of the proposed power supply strategy. This approach is expected to reduce operational complexity while providing a reliable long-term source of electrical power to support the planned production rates throughout the life of mine.

18.3 Water Balance

The process plant requires a design water flow of approximately 130 m³/h, with a nominal make-up demand of 94.38 m³/h, based on conservative assumptions that consider lower ROM moisture, increased evaporation rates, and potential process losses. Water for Project activities is planned to be sourced from a combination of surface water and groundwater sources located within the Project area. A SEMAS-issued water use permit authorizes surface water abstraction from the Água Azul/Itacaiúnas River system for mining-related activities, while additional groundwater permits support auxiliary site requirements.

18.4 Waste and Tailings Deposits

Waste rock will be deposited in designated facilities designed to accommodate a substantial portion of the LOM volume, with planned waste dumps reaching heights of approximately 110 m, overall slope angles of 27°, bench heights of 10 m, and berm widths of 8 m. The south and north dumps have estimated capacities of 50.6 Mm³ and 36.1 Mm³, respectively, totalling 86.7 Mm³ (approximately 173.4 Mt at a density of 2.0 t/m³). Although these facilities do not encompass the entire projected waste volume, additional areas surrounding the pit are available for potential future expansion, while low grade material will be stockpiled in proximity to the processing plant to reduce haulage distances.

18.5 ROM Stockpile

The ROM stockpile will be located northeast of the pit and designed to store surplus production, with a projected maximum volume of approximately 389,162 m³ in 2028 and full depletion expected by 2035. Its location has been selected to optimize haulage efficiency and ensure operational continuity.

18.6 Support Buildings

The plant layout includes the main processing and support facilities. Except for the filtration area, which will be enclosed, most facilities are designed as open structures to facilitate maintenance and operational access, including:

- Crushing Area
- Grinding
- Leaching and Detox Areas
- Smelt Room
- Reagents Area
- Technical-Administrative Support
- administrative buildings
- locker rooms
- cafeteria
- laboratory
- warehouse
- Heavy Vehicle Maintenance,
- Mine Support Area/Truck Workshop
- Truck Washing Station

18.7 Storage and Handling of Explosives

Explosives storage facilities will be in a secure and isolated area, segregated from processing and mining operations, and will comprise independent structures including an emulsion plant, explosives magazine, and accessories storage. The facility will be fully enclosed and access-controlled through a guarded entry point, ensuring compliance with applicable regulatory requirements.

18.8 Fuel Station

Fuel supply will be provided by a contracted third-party supplier responsible for installing and operating the facility. A designated area of approximately 60 m² has been allocated for this purpose.

18.9 Site Geotechnics

Geotechnical investigations have confirmed adequate ground conditions for the installation of plant infrastructure, supporting the feasibility of foundations for all structures. However, particular attention is required for high-load equipment, such as the grinding mill and crushing systems, due to the significant static and dynamic loads involved.

18.10 Field Accommodations

Accommodation facilities are available for personnel, including housing and meal services. Additional capacity has been planned for the construction phase, with associated costs already incorporated into the project estimates. Existing facilities are considered adequate to support both operational and expansion plans.

19 MARKET STUDIES AND CONTRACTS

19.1 Long-Term Gold Price

Long-term gold price projections, prepared by CIBC (June, 2026), provide a range of leading global financial institutions that were evaluated as part of the market assessment. These forecasts indicate an average long-term gold price of US$3,609/oz, with estimates ranging between US$2,500/oz and US$5,537/oz as shown in Table 19.1. These projections reflect varying market assumptions regarding global economic conditions, monetary policy, geopolitical developments, and gold supply-demand fundamentals.

Table 19.1 Gold price projection – CIBC (June, 2026)

Date	Firm	2026	2027	2028	2029	LT
22-May-26	Morgan Stanley	4,916	-	-	-	2,500
21-May-26	UBS	5,000	4,800	4,250	3,900	3,250
21-May-26	Citi	4,775	5,000	-	-	3,600
20-May-26	Canaccord	4,758	4,902	5,070	5,271	5,537
19-May-26	Raymond James	4,791	4,500	4,000	-	3,700
19-May-26	Deutsche Bank	5,318	6,000	5,730	-	4,450
19-May-26	RBC	5,697	6,500	5,000	4,500	4,000
19-May-26	TD	4,781	4,600	-	3,500	3,600
19-May-26	Desjardins	4,812	5,103	5,284	-	-
19-May-26	JPMorgan	4,753	-	-	-	4,200
19-May-26	Ventum	5,031	4,725	4,500	3,600	3,600
18-May-26	Barclays	4,791	4,900	4,650	4,000	3,500
18-May-26	BMO	4,831	5,125	4,500	3,700	3,100
18-May-26	BofA	5,093	4,805	3,926	3,617	-
18-May-26	National Bank	4,968	5,200	4,500	4,000	3,200
16-May-26	Jefferies	5,079	5,200	4,750	4,500	3,500
14-May-26	H.C. Wainwright	3,750	3,750	3,750	3,750	3,750
14-May-26	Stifel	4,941	5,000	5,200	5,000	3,500
14-May-26	Macquarie	4,297	4,350	4,000	3,700	3,100
14-May-26	Paradigm	4,492	4,500	4,000	3,500	3,500
12-May-26	Scotia	4,600	4,600	4,400	4,200	3,400
11-May-26	CIBC	3,438	5,839	6,500	5,500	4,000
11-May-26	Cormark	4,593	4,500	4,500	4,500	4,500
08-May-26	Haywood	4,906	5,000	4,500	4,500	4,500
06-May-26	Cantor	5,000	5,000	4,000	-	4,000
04-May-26	HSBC	4,864	5,000	5,200	5,300	2,600
27-Apr-26	BNP Paribas	5,000	4,500	4,000	-	2,500
02-Apr-26	Berenberg	4,616	4,500	4,250	3,750	2,750
Average		4,782	4,919	4,603	4,214	3,609
Median		4,822	4,901	4,500	4,000	3,550
Max		5,697	6,500	6,500	5,500	5,537
Min		3,438	3,750	3,750	3,500	2,500

Source: CIBC, (June, 2026).

The Qualified Person (QP) has reviewed the long-term gold price projections compiled by CIBC (June, 2026), including the forecasts from a broad range of recognized international financial institutions and mining sector analysts. Based on this review, the QP considers that the market studies are comprehensive, current, and representative of prevailing industry expectations

regarding long-term gold price trends. The distribution of forecasts, the consistency of the long-term consensus values, and the underlying market fundamentals provide reasonable support for the commodity price assumptions adopted in this Technical Report.

Accordingly, the QP concludes that the selected long-term gold price assumption is appropriate for Mineral Resource estimation, economic evaluation, and mine planning purposes, and is within the range of prices supported by independent market participants.

19.2 Existing Commercial Arrangements and Future Contract Requirements

The Project's current operations are supported by commercial agreements with independent third-party service providers covering doré sales and refining, secure transportation, fuel supply, mining and blasting services, and load-and-haul activities. These agreements relate principally to the existing operations and are summarized in Table 19.2. The QP reviewed the principal agreements currently in place and considers the applicable commercial terms, rates, and charges to be generally consistent with industry norms.

Table 19.2 Summary of Existing Commercial Arrangements and Future Contract Requirements

Contract / Arrangement	Status	Relevance to the Project
Doré sales and refining	In place	Supports current operations
Secure doré transportation	In place	Supports current operations
Fuel supply	In place	Supports current operations
Mining and blasting services	In place	Supports current operations
Load-and-haul mining services	In place	Supports current operations
Contracts required for the proposed 2.85 Mtpa expansion	Not yet entered into	To be established as engineering, procurement, and development activities advance

Source: GE21, 2026.

The PEA contemplates a phased expansion of the Project to a nominal processing capacity of 2.85 Mtpa. Material contracts required to implement the expanded operation, including those associated with construction, expanded mining and processing activities, major equipment, and related services, have not yet been entered into and are not currently under negotiation. Such contracts are expected to be developed and negotiated as the Project advances through subsequent engineering, procurement, and development stages.

Accordingly, the capital and operating cost estimates presented in this PEA are based on existing Project operating data, supplemented by engineering estimates, budgetary quotations, and applicable market assumptions for the proposed expansion. The PEA does not rely on executed contracts for implementation of the 2.85 Mtpa expansion. The QP considers these assumptions reasonable and appropriate for the current level of study.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACTS

20.1 Environmental Studies

Environmental information reviewed for the Água Azul Project is derived primarily from the environmental studies prepared by CERN – Consultoria e Empreendimentos de Recursos Naturais Ltda. for Bemisa Água Azul Mineração S.A. in support of the environmental licensing process before SEMAS/PA. These studies comprise the Relatório de Controle Ambiental (RCA), Volumes I and II, and the Plano de Controle Ambiental (PCA), prepared for the proposed expansion of the Abelhas operation from the currently licensed 200 ktpa production rate to a nominal capacity of 2.85 Mtpa.

The RCA studies provide the environmental baseline information, project characterization, definition of areas of influence, assessment of environmental and social conditions, and evaluation of potential impacts associated with the expansion project. The PCA establishes the environmental management, mitigation, monitoring, rehabilitation, emergency response, social development, and mine closure measures proposed for the Project.

20.2 Results

The environmental studies completed for the Água Azul Project establish a comprehensive characterization of the physical, biological, and socio-economic environments within the Project area and its areas of influence. The studies define the Directly Affected Area (DAA), Direct Influence Area (DIA), and Indirect Influence Area (IIA), and evaluate the environmental implications of the proposed expansion to 2.85 Mtpa.

The RCA documentation includes detailed assessments of climate, geology, geomorphology, soils, hydrogeology, surface water resources, water quality, air quality, environmental noise, vibration, land use, vegetation, fauna, aquatic ecosystems, socio-economic conditions, land tenure, protected areas, and regional infrastructure. The studies also include a systematic identification and evaluation of environmental and social impacts associated with construction, operation, and eventual closure of the Project.

The PCA establishes a comprehensive environmental management framework for the Project, including programs for environmental management, water management, air quality monitoring, noise and vibration monitoring, waste management, erosion control, hydrogeological monitoring, geotechnical monitoring of waste and tailings storage facilities, rehabilitation of disturbed areas, flora and fauna management, environmental education, community relations, local hiring, social development, emergency response, cyanide management, and mine closure planning.

For Phase 2 (2.85 MTA), the project footprint expands substantially, reaching approximately 306.34 hectares. This expanded area includes all previously licensed areas as well

as the additional infrastructure and operational facilities required for the industrial-scale phase, as presented in Figure 20.1.

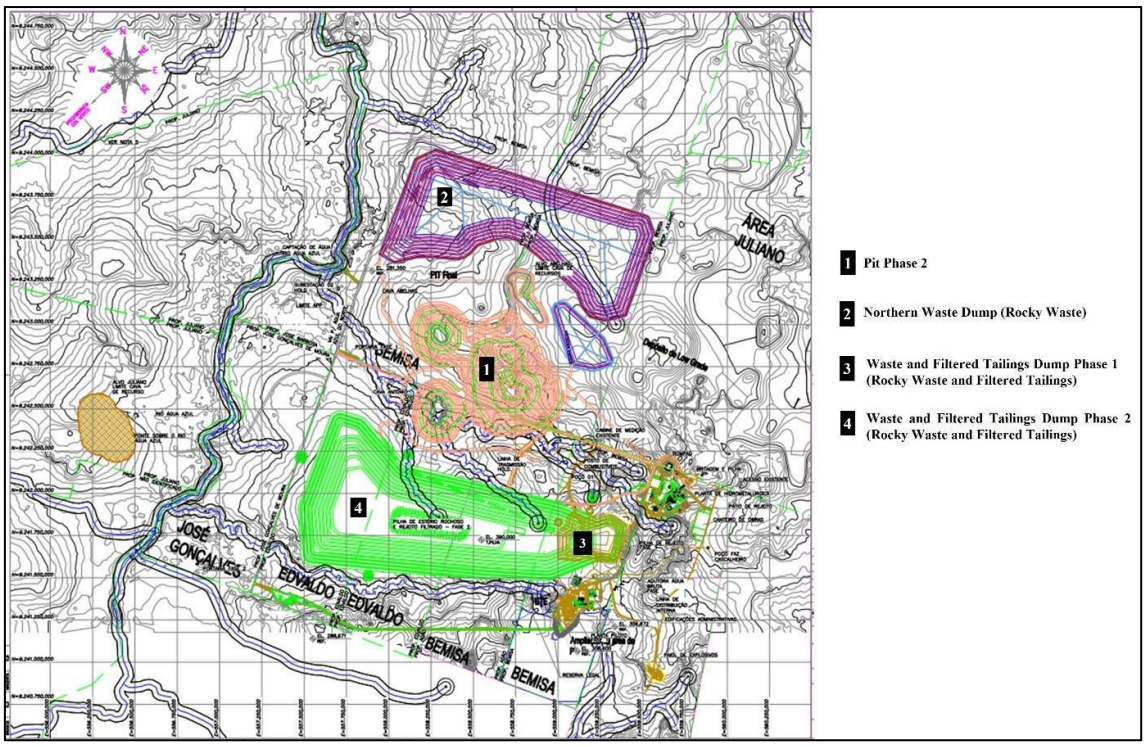


Figure 20.1 Directly Affected Area (DAA) – Phase 2 (2.85 Mtpa)

Source: EDEM, 2026.

20.3 Water Management

Water management studies and programs for the Project address surface water and groundwater monitoring and management, groundwater drawdown, and site-wide water balance requirements

20.4 Flora, Fauna, and Protected Areas

Biological baseline studies documented in the RCA included vegetation, flora, terrestrial fauna, aquatic biota, ichthyofauna, amphibians, reptiles, birds, mammals, and bat communities, based on multi-season field surveys completed between 2021 and 2025. The studies identified no conservation units within the Project area, although the Project is located within the Amazon biome and within an area classified by the Brazilian Ministry of Environment as a priority area for biodiversity conservation.

20.4.1 Flora

The project area is predominantly composed of secondary vegetation, largely resulting from past agricultural activities that replaced the original Dense Ombrophilous Forest. Over time, natural regeneration has led to the establishment of secondary forest formations, with trees reaching heights of up to 21 m.

Vegetation characteristics indicate transitional features between Amazonian and Cerrado ecosystems. The central portion of the Directly Affected Area is largely composed of pasturelands, degraded vegetation, and scattered tree cover, reflecting historical land use, including deforestation, livestock activity, and mining.

The floristic survey identified 2,460 individual trees representing 82 species from 36 families. No species classified as rare were recorded. However, protected species such as Swietenia macrophylla (mahogany) were identified, as well as several species classified as threatened, including Cedrela odorata and Apuleia leiocarpa.

20.4.2 Fauna

Faunal surveys were conducted during both wet and dry seasons, encompassing aquatic and terrestrial ecosystems.

Aquatic surveys did not identify any rare or threatened species and were considered representative of regional biodiversity. Ichthyofaunal surveys identified 98 fish species, including some with restricted distribution in the Tocantins River basin.

Herpetofauna surveys recorded 76 species, including endemic taxa and three species classified as threatened. Avifaunal studies identified 239 bird species, nine of which are under some level of conservation concern.

A total of 26 terrestrial mammal species were identified, including several listed as Vulnerable or Critically Endangered, underscoring the region's ecological importance despite historical anthropogenic disturbance.

20.4.3 Permanent Preservation Areas (PPAs)

The Project includes activities within legally protected Permanent Preservation Areas ("PPAs"), as defined under applicable Brazilian legislation. Such activities are subject to applicable permitting, mitigation, restoration, and environmental compensation requirements.

20.4.4 Conservation Units (UCs)

The Project is not located within or adjacent to any officially designated conservation units. The nearest protected areas are the Carajás National Forest and the Campos Ferruginosos National Park, located approximately 35 km and 40 km away, respectively.

20.4.5 Legal Reserve and Rural Environmental Registry (CAR) Analysis

Fazenda Abelhas is registered in the Rural Environmental Registry ("CAR"), with approximately 50% of the property designated as Legal Reserve. The Legal Reserve remains subject to the applicable regulatory review and approval process. Available information indicates that the designated area is predominantly covered by native vegetation, with no environmental embargoes identified.

20.5 Environmental Management Systems

Environmental management programs have been implemented since the Trial Mining phase and are administered by an on-site environmental team, supported by specialist consultants as required. The programs incorporate mitigation, monitoring, rehabilitation, and compensatory measures established through the applicable environmental licensing process and have been expanded as the Project has advanced.

20.6 Regulation and Permits

20.6.1 Mineral Tenure

The principal mining concession associated with the Água Azul Project is ANM Process No. 850.492/2007, which is, as of the effective date of this Technical Report, registered to Bemisa Água Azul Mineração S.A. (“Bemisa”). The concession covers 6,494.36 ha and authorizes mining of gold, as summarized in Table 20.1.

Table 20.1 Água Azul Mine Concession Details – ANM

ANM 850.492/2007	
Title holder	Bemisa Água Azul Mineração S.A.
Substance	Gold
Area (ha)	6,494.36
Municipality	Água Azul do Norte
Date of application	14/02/2023
Date of award	30/06/2025
Status	Mining Concession

Source: Agência Nacional de Mineração - ANM, 2026.

20.6.2 Surface Land Ownership

The Project area encompasses several rural properties. Based on information provided by Bemisa, certain properties required for existing Project infrastructure are owned by Bemisa, while additional land access or acquisition may be required to support future development.

Table 20.2 summarizes the principal properties associated with existing and proposed Project infrastructure.

Table 20.2 Rural properties involved in the Água Azul Project

ÁGUA AZUL PROJECT			
LAND OWNERSHIP AND INFRASTRUCTURE			
ITEM	OWNER	PROPERTY	PROJECT STRUCTURES
1	Bemisa	Fazenda Abelhas - MT – 3,882 - Gleba A	Transmission Line, Water Capture, and Substation
2	Bemisa	Fazenda Abelhas - MT – 3,882 - Gleba B	Abelhas target Pit and Phase 1 Gatehouse
3	Bemisa	Fazenda Abelhas - MT 19,614	Abelhas target Pit and Access
4	Bemisa	Fazenda Sossego - MT 3,883	Transmission Line, Water Capture, Pipeline, Explosives Magazine, Tailings Yard, well, Construction Camp, Fuel Station, Hydrometallurgical Plant, Crushing Plant (UTM), Access, and Part of ROM Pad
5	Bemisa	Fazenda Nova Água Azul - MT 10,435	Access, Part of Waste Rock Pile, Sumps, Crushing Plant (UTM) – Phase 1, and Administration

ÁGUA AZUL PROJECT			
6	Bemisa	Fazenda Água Grande - MT 3,855	Part of Abelhas target Pit, Transmission Line, Water Capture, Access, and Part of Waste Rock Pile
7	EDIVALDO	-	Waste Rock Pile
8	EDIVALDO	-	Abelhas target Pit

Source: EDEM, 2026.

20.6.3 Environmental Licences and Water Use Grants

20.6.3.1 Environmental Licences and Licensing Status

In May 2025, SEMAS issued Operating Licence ("LO") No. 15535/2025 to Bemisa for Phase 1, covering metallic mineral extraction and gold processing at a nominal rate of 200 ktpa of ROM, as summarized in Table 20.3.

Table 20.3 Permit for Phase 1

Licence Number	Type [1]	Description	Issue Date	Expiry Date
15535/2025	LO	Metallic mineral extraction and gold processing	May 9th, 2025	May 8th, 2030

Notes:
1. LO – Licença de Operação.

Source: Bemisa, 2026.

For the proposed Phase 2 expansion to 2.85 Mtpa, SEMAS issued Installation Licence ("LI") No. 3709/2026 to Bemisa on June 12, 2026, as summarized in Table 20.4.

Table 20.4 Permit for Phase 2

Licence Number	Type [1]	Description	Issue Date	Expiry Date
3709/2026	LI	Metallic mineral extraction and gold processing	Jun 12th, 2026	Sep 11th, 2029

Notes:
1. LI – Licença de Instalação.

Source: Bemisa, 2026.

20.6.3.2 Water Use Permits

Bemisa holds the water use permits issued by SEMAS for the existing Água Azul operations, as summarized in Table 20.5.

Table 20.5 Water use permits

TYPE OF ABSTRACTION	PERMIT No.	PROCESS No.	EXPIRY DATE	GRANTED FLOW RATE
Tubular Well (PÇ Bemisa 01)	OD-2026/001099-S	002342/2026	July 06, 2036	4.18 m³/h 20 h/day 83.6 m³/day
Tubular Well (PÇ Bemisa 02)	OD-2026/001116-S	002614/2026	July 11, 2036	4.6 m³/h 20 h/day 92 m³/day
Tubular Well (PÇ 03 AGZ)	OD-2026/001118-S	002859/2026	May 20, 2028	1.75 m³/h 20 h/day 35 m³/day
Surface Water Abstraction	OD-2026/001132-S	020983/2026	June 22, 2027	3,605.76 m³/day

Source: EDEM, 2026.

20.7 Mine Closure Plan

A conceptual Mine Closure Plan has been prepared as part of the PCA documentation and includes provisions for progressive rehabilitation, revegetation, drainage management, decommissioning of infrastructure, environmental monitoring, workforce demobilization, and post-closure land stabilization. The closure strategy is based on progressive reclamation throughout the operating life of the Project, with the objective of achieving long-term physical and environmental stability of disturbed areas

The estimated closure program is approximately R$51.8 million (US$9.41 million), consistent with the conceptual level of engineering undertaken for the PEA.

20.8 Qualified Person's Opinion

The Qualified Person reviewed the RCA Volumes I and II and the PCA prepared by CERN – Consultoria e Empreendimentos de Recursos Naturais Ltda., together with the environmental permits, water-use authorizations, and supporting technical documentation made available by Bemisa Água Azul Mineração S.A.. Based on this review, the QP considers that the environmental baseline information, impact assessment, environmental management measures, monitoring programs, permitting strategy, and closure planning are appropriate for the level of study associated with a Preliminary Economic Assessment and are generally consistent with industry practice for a project at this stage of development.

21 CAPITAL AND OPERATING COSTS

Água Azul forecasted capital and operating costs estimates are derived from annual budgets and historical actuals over the long life of the current operation. Most of the capital estimates was derived from engineering studies, supplier quotations, benchmarked operations, and first-principles calculations provided by Ausenco (2025).

21.1 Capital Costs

The estimated initial capital cost for the Água Azul Project is US$297.0 million, as summarized in Table 21.1. The largest component of the initial capital requirement is associated with the plant expansion program, estimated at US$179.4 million, which supports the planned increase in processing throughput to the nominal capacity of 2.85 Mtpa. Pre-stripping activities are estimated at US$73.8 million and will be conducted during the first three years of development. An additional US$5.0 million is allocated to the Phase 1 processing plant. A contingency allowance of US$38.7 million (15%) has been included to account for uncertainties associated with the level of engineering completed at this stage of the Project.

Table 21.1 Estimated Initial Capital Costs

Item	Value US$ M
Plant Phase 1 (Year 1)	5.0
Plant Expansion (Year 2 up to Year 4)	179.4(1)
Pre-Stripping (Year 1 up to Year 3)	73.8
Contingency (15%)	38.7
Total Initial Capital Costs (2)	297.0

Notes:
1. The Plant Expansion estimate includes a 5% inflation allowance to account for cost escalation during the Year 2 to Year 4 expansion period.
2. Totals may not sum exactly due to rounding
Source: GE21, 2026.

The estimated life-of-mine sustaining capital cost is US$15.85 million, as summarized in Table 21.2. Sustaining capital is associated with ongoing investments in the process plant, estimated at US$10.78 million, and the waste and tailings storage facilities expansion, estimated at US$3.00 million. A contingency allowance of US$2.1 million (15%) has been included to account for uncertainties associated with the estimate.

Table 21.2 Sustaining Capital Costs

Item	Value US$ M
Plant Maintenance	10.8
Waste and Tailings Storage Facilities	3.0
Contingency (15%)	2.1
Total Sustaining Costs (1)	15.8

Notes:
1. Totals may not sum exactly due to rounding
Source: GE21, 2026.

21.2 Operating Costs

Operating costs for the LOM are estimated considering Mining Operating Costs, Processing Operating Costs, General and Administrative (G&A) and rehandle costs. Currently, there are no identified items that are expected to significantly impact operating costs, either positively or negatively, during the evaluation period. Minor year-to-year variations are expected due to maintenance shutdowns and production schedules.

Mining costs considered drilling, blasting, loading, and hauling operations will be outsourced; therefore, mining costs include the allocation of operational service contracts, as well as costs associated with maintenance and operational support.

Processing costs will comprise comminution, gravity concentration, cyanide leaching via Carbon in Leach (CIL), elution, and gold recovery circuits. The CIL tailings will be treated in a cyanide destruction circuit and filtered for dry stacking.

Rehandling costs comprise all material rehandling activities, including the transfer of material from the ROM pad to the crushing circuit and the transportation of filtered tailings from the process plant to the co-disposal storage facilities.

G&A costs include management, accounting, human resources, environmental and safety compliance, laboratory, community relations, communications, insurance, legal, training, and other costs not directly associated with mining or processing.

A summary of operating costs is presented in Table 21.3

Table 21.3 Água Azul operating costs summary

Operation Cost	Unit Cost (US$/t Plant Feed)	LOM Total (US$ Million)
Mining	38.37	995.8
Processing	12.62	327.5
Rehandling (ROM &Tailings)	2.09	56.4
G&A	1.65	42.8
Total Operating Costs	54.72	1,422.5

Source: GE21, 2026.

22 ECONOMIC ANALYSIS

The Preliminary Economic Assessment is preliminary in nature and includes Inferred Mineral Resources that are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the results of the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The economic analysis for Água Azul Project is based on the Mineral Resource estimate, mine production schedule, and technical and economic assumptions presented in this Technical Report. The principal inputs and assumptions considered in the economic analysis include:

- Mineral Resource estimates;
- mine production and processing schedules;
- gold price and refining assumptions based on the long-term price projections from the June 2026 CIBC Consensus Report;
- projected mining and metallurgical recovery rates;
- projected processing plant capacity and associated development plan;
- capital and operating cost estimates;
- applicable tax, royalty, and commercial assumptions; and
- environmental, permitting, social, reclamation, and closure assumptions.

The economic results are subject to risks and uncertainties that could cause actual results to differ materially from those presented in the PEA. Factors that may affect the economic results include:

- changes in gold prices and exchange rates;
- variations in capital and operating costs from those assumed;
- variations in the quantity, grade, or characteristics of mineralized material;
- variations in metallurgical recovery and processing plant performance;
- geotechnical or hydrogeological conditions that differ from those assumed;
- environmental, permitting, social, reclamation, or closure requirements that differ from those assumed;
- mining methods, equipment, or processes performing differently from expectations;
- accidents, labour disputes, and other risks associated with mining operations;
- changes in applicable taxes, royalties, or other regulatory requirements; and
- other technical, economic, or operational factors that could affect Project performance.

22.1 Methodology

An economic model was developed to estimate annual after-tax cash flows and evaluate the economic performance of the Project using a 5% discount rate. The economic analysis incorporates the mine production schedule, processing assumptions, metallurgical recoveries, capital and operating cost estimates, and other assumptions presented in this Technical Report. The analysis is presented on a constant-dollar basis with no inflation or escalation.

The economic analysis was performed using the following principal assumptions:

- The economic model includes approximately 13 years of gold production, comprising an initial three-year Phase 1 period followed by approximately 10 years of Phase 2 operations.
- Phase 2 commences in Year 4 and incorporates the expansion to a nominal processing capacity of 2.85 Mtpa.
- Price inflation and escalation are excluded, and the analysis is presented on a constant-dollar basis.
- Results are reported on a 100% equity basis.
- Project revenue is derived from the sale of recovered gold.
- Gold production is assumed to be sold in the year in which it is produced.
- Gold production is assumed to be sold for export

22.2 Exchange Rate Forecast

The economic analysis assumes a constant exchange rate of BRL 5.50 per US dollar (BRL/USD).

22.3 Taxes

The economic model incorporates the principal taxes and fiscal assumptions applicable to the Project, as described in the following sections. These assumptions are applied for purposes of the PEA economic analysis.

22.3.1 Financial Compensation for the Exploitation of Mineral Resources (CFEM)

The Financial Compensation for the Exploitation of Mineral Resources (“CFEM”) is a federal mining royalty payable in connection with the economic exploitation of mineral resources in Brazil. The applicable rate varies according to the mineral commodity. For gold, the CFEM rate is 1.5% and is calculated based on gross revenue, in accordance with applicable Brazilian legislation.

22.3.2 Income Tax

The economic model incorporates Brazilian Corporate Income Tax (Imposto de Renda sobre Pessoa Jurídica – "IRPJ"), which is applied to the taxable income of companies and other legal entities based on the accounting results determined for the applicable reporting period, such as a quarter or fiscal year. In Brazil, companies taxed under the Actual Profit (Lucro Real) regime are subject to a corporate income tax rate of 15% of taxable income, with an additional 10% applicable to the portion of taxable income exceeding BRL 20,000 per month or BRL 240,000 per year.

22.3.3 SUDAM Benefits

The Project is located within the area administered by the Superintendência do Desenvolvimento da Amazônia ("SUDAM"). The economic model assumes the application of a regional tax incentive consisting of a 75% reduction in Corporate Income Tax (IRPJ) for a period of 10 years, commencing in Year 4 when Phase 2 operations begin.

The availability and timing of this incentive represent assumptions of the economic model and are subject to the applicable qualification, approval, and regulatory requirements.

22.3.4 Social Contribution

The economic model incorporates the Contribuição Social sobre o Lucro Líquido ("CSLL"), calculated at a rate of 9% on the applicable taxable earnings. CSLL is a federal social contribution intended to finance Brazil's social security system, including health, social security, and social assistance.

22.3.5 Tax for the Control, Monitoring, and Supervision of Research, Mining, Exploration, and Exploitation of Mineral Resources (TFRM)

The economic model incorporates the Pará State Taxa de Controle, Acompanhamento e Fiscalização das Atividades de Pesquisa, Lavra, Exploração e Aproveitamento de Recursos Minerários ("TFRM").

For gold, the model applies a rate equivalent to 1.2 Pará State Fiscal Standard Units (Unidade Padrão Fiscal do Estado do Pará – "UPF-PA") per gram of gold extracted. For purposes of the PEA, the UPF-PA value is assumed to remain constant at R$5.0155 over the economic model period, resulting in an assumed TFRM cost of approximately US$1.09 per gram of gold.

22.4 PIS, COFINS and ICMS

The Brazilian tax framework includes specific statutory levies on corporate revenues and the circulation of goods, including PIS (*Programa de Integração Social*), COFINS (*Contribuição para o Financiamento da Seguridade Social*), and ICMS (*Imposto sobre Circulação de Mercadorias e Serviços*).

PIS and COFINS are federal social contributions generally assessed on corporate revenues. The economic model does not apply PIS or COFINS to Project gold sales. This assumption considers the sale of domestic products to companies located in the Manaus Free Trade Zone (Zona Franca de Manaus – “ZFM”), which is treated as equivalent to an export for PIS and COFINS purposes under Article 4 of Decree-Law No. 288/1967. This tax treatment has been recognized by the Brazilian Superior Court of Justice.

ICMS is a state-administered tax applicable to the circulation and commercialization of goods. The economic model assumes that ICMS is not applicable to Project gold sales under the sales and export assumptions adopted for the PEA. Accordingly, no ICMS payments are included in the base-case economic analysis.

22.5 Royalty Right

A rate of 50% of the CFEM was applied to the project's royalty costs. The model also includes an upfront royalty payment of US$ 7.45 million, which is deducted during the first years of the project.

22.6 Working Capital

A high-level working capital estimate was incorporated into the economic model based on 30 days of accounts receivable, 30 days of inventory, and 30 days of accounts payable.

22.7 Closure Costs, Remediation Cost and Salvage Value

The economic model incorporates an estimated mine closure cost of US$9.41 million (R$51.8 million), based on the conceptual Preliminary Closure Plan. The closure estimate includes activities such as revegetation, drainage works, and infrastructure demobilization.

22.8 Freight and refining costs

Freight and refining costs associated with the transportation refining of doré to produce a saleable gold product are incorporated into the economic model.

22.9 Results

22.9.1 Discounted Cash Flow

A discounted cash flow analysis was completed to evaluate the Project using the technical and economic assumptions described in this Technical Report. The analysis incorporates Project revenues, operating costs, capital expenditures, sustaining capital, working capital, taxes, royalties, and other applicable economic assumptions.

The base case generates an after-tax NPV of US$927.6 million at a discount rate of 5%, an after-tax IRR of 48%, and a payback period of 5.3 years. The principal economic results are summarized in Table 22.1, and the annual discounted cash flow is presented in Table 22.2.

Table 22.1 Summary of Economic Results (after-tax)

Parameter	Unit	Value
Gold Price	US$/oz	3,609
After-Tax NPV (5% Discount Rate)	US$ Million	927.6
After-Tax IRR	%	48%
Payback Period	Years	5.3
Cash costs	US$/oz	1,515
All in Sustaining Cost	US$/oz	1,540
Mine Life (Total LOM)	Years	13
Phase 2 Operating Period at Nominal Throughput	Years	10
ROM Processed (LOM)	Mt	25.96
Average Feed Grade	g/t Au	1.29
Gold Contained in Feed	Moz Au	1.08
Metallurgical Recovery	%	94
Recovered Gold Production	Moz Au	1.02
Processing Plant Throughput	Mtpa	2.85
Total Moved	Mt	415.2
Strip Ratio	w:o	14.99

Note: The economic results summarized in this table are based on a Preliminary Economic Assessment (PEA) prepared for the Água Azul Project. The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The economic results presented herein should not be interpreted as demonstrating the economic viability of the Mineral Resources.
Source: GE21, 2026.

Table 22.2 Discounted Cash Flow – PEA Agua Azul Project

Cash Flow	Year	Total	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14
Gold	koz	1,015.46	5.06	7.70	11.83	56.01	91.85	111.84	118.78	89.56	88.08	124.54	107.42	122.87	79.92	-
Gross Revenue	US$ M	3,664.79	18.25	27.80	42.71	202.14	331.47	403.64	428.67	323.21	317.87	449.48	387.67	443.45	288.42	-
Freight & Refining	US$ M	- 6.59	- 0.03	- 0.05	-0.08	-0.36	-0.60	-0.73	-0.77	-0.58	-0.57	-0.81	-0.70	-0.80	-0.52	-
Net Smelter Return	US$ M	3,658.20	18.22	27.75	42.63	201.78	330.87	402.92	427.90	322.63	317.30	448.67	386.97	442.65	287.91	-
Royalties	US$ M	-74.85	-0.27	-0.42	-0.64	-3.03	-4.96	-6.27	- 9.63	-7.26	-7.14	-10.10	-8.71	-9.96	-6.48	-
Tax Sales	US$ M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Revenue	US$ M	3,583.35	17.95	27.33	42.00	198.75	325.91	396.64	418.28	315.37	310.16	438.58	378.27	432.69	281.43	-
OPEX Total	US$ M	-1,422.52	-2.24	-3.06	-4.84	-120.18	-154.27	-159.88	-159.87	-160.08	-160.03	-160.17	-160.52	-142.56	-34.84	-
Opex Mine	US$ M	-995.84	-0.52	-0.42	-1.57	-95.41	-113.38	-113.24	-113.26	-113.09	-112.80	-113.56	-113.91	-95.95	-8.72	-
Opex Plant	US$ M	-383.92	-1.54	-2.37	-2.94	-22.30	-36.77	-41.94	-41.91	-42.29	-42.53	-41.91	-41.91	-41.91	-23.58	-
SG&A	US$ M	-42.76	-0.17	-0.26	-0.33	-2.47	- 4.12	-4.69	-4.69	-4.69	-4.69	-4.69	-4.69	-4.69	-2.54	-
Cash Cost	US$ M	-1,538.53	-2.72	-3.79	-5.96	-125.48	-162.95	-170.68	-174.31	-170.97	-170.73	-175.31	-173.58	-157.50	-44.56	-
All in Sustaining Costs	US$ M	-1,563.79	-2.78	-3.88	-6.07	-126.34	-164.39	-172.32	-177.67	-172.61	-174.10	-176.95	-175.21	-157.50	-53.97	-
Gross Profit	US$ M	2,160.82	15.71	24.27	37.16	78.57	171.65	236.77	258.41	155.29	150.13	278.41	217.75	290.13	246.59	-
TFRM	US$ M	-34.56	-0.17	-0.26	-0.40	-1.91	-3.13	-3.81	-4.04	-3.05	-3.00	-4.24	-3.66	-4.18	-2.72	-
Depreciation	US$ M	-310.56	-	-2.17	-24.42	-54.31	-59.63	-59.92	-58.07	-36.50	-6.94	-2.29	-2.33	-2.33	-1.66	-
EBIT (US$)	US$ M	1,815.70	15.53	21.84	12.34	22.36	108.89	173.04	196.29	115.74	140.20	271.88	211.77	283.62	242.21	-
IRPJ & CSLL(US$)	US$ M	-617.34	-5.28	-7.42	-4.20	-7.60	-37.02	-58.83	-66.74	-39.35	-47.67	-92.44	-72.00	-96.43	-82.35	-
SUDAM Incentive	US$ M	331.14	-	-	-	4.19	20.42	32.45	36.81	21.70	26.29	50.98	39.71	53.18	45.42	-
Operational profit (US$)	US$ M	1,529.51	10.25	14.41	8.14	18.95	92.29	146.66	166.36	98.09	118.82	230.42	179.48	240.37	205.27	-
(=) EBIT	US$ M	1,815.70	15.53	21.84	12.34	22.36	108.89	173.04	196.29	115.74	140.20	271.88	211.77	283.62	242.21	-
Depreciation	US$ M	310.56	-	2.17	24.42	54.31	59.63	59.92	58.07	36.50	6.94	2.29	2.33	2.33	1.66	-
(=) EBITDA	US$ M	2,126.26	15.53	24.01	36.76	76.67	168.52	232.96	254.36	152.24	147.13	274.17	214.10	285.95	243.87	-
(-) Capex	US$ M	-297.02	-10.80	-111.13	- 149.34	-25.75	-	-	-	-	-	-	-	-	-	-
(-) Sustaining	US$ M	-15.85	-0.06	-0.09	-0.12	-0.86	-1.44	-1.64	-3.36	-1.64	-3.36	-1.64	-1.64	-	-	-
(-) Working Capital	US$ M	-	-1.76	-0.90	-0.81	-3.91	-10.34	-7.29	-2.46	10.88	-0.26	-14.42	6.76	-8.07	4.98	27.62
(-) ARO	US$ M	-9.41	-	-	-	-	-	-	-	-	-	-	-	-	-9.41	-
(-) Income Tax	US$ M	-286.20	-5.28	-7.42	-4.20	-3.41	-16.60	-26.39	-29.93	-17.65	-21.38	-41.46	-32.29	-43.25	-36.93	-
(=) Cash Flow	US$ M	1,517.79	-2.37	-95.54	- 117.70	42.73	140.13	197.64	218.61	143.83	122.13	216.65	186.92	234.63	202.50	27.62
After-Tax NPV (5%)	US$ M	927.57														
IRR	%	48%														
Payback Period	year	5.3														

Note: The economic results presented in this table are derived from a Preliminary Economic Assessment (PEA). The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

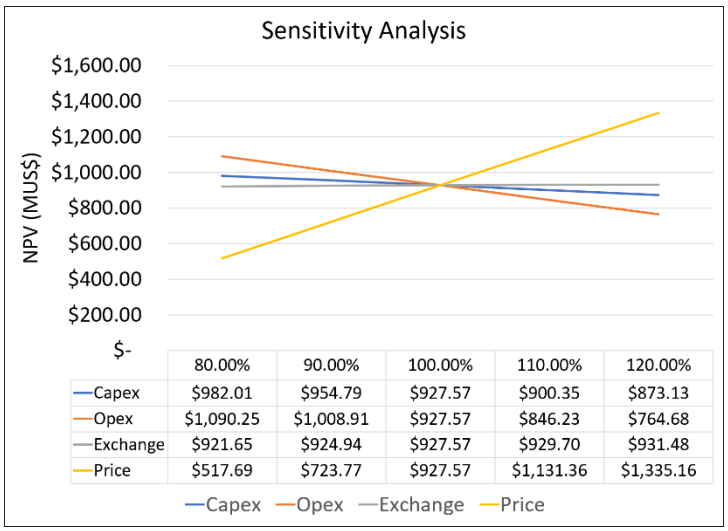
Source: GE21, 2026.

22.10 Sensitivity Analysis

Sensitivity analysis was performed to evaluate the effect of changes in gold price, CAPEX, OPEX, exchange rate, and discount rate on the Project's economic results. Gold price, CAPEX, OPEX, and exchange rate were evaluated over a range of 80% to 120% of their respective base-case assumptions, as presented in Figure 22.1. The effect of discount rate variations on the Project's after-tax NPV is presented separately in Figure 22.2

The sensitivity analysis indicates that the Project's economic results are most sensitive to changes in the gold price, followed by changes in operating costs.

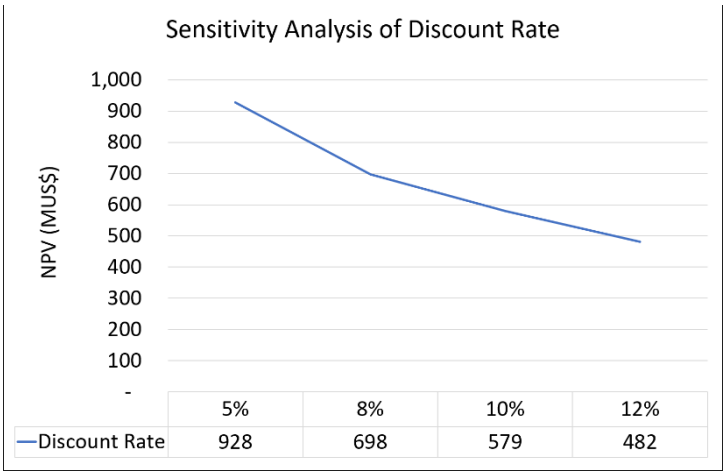
As expected, increasing discount rates reduce the present value of future cash flows and consequently decrease the Project after-tax NPV, whereas lower discount rates result in higher NPV values.



	80.00%	90.00%	100.00%	110.00%	120.00%
Capex	$982.01	$954.79	$927.57	$900.35	$873.13
Opex	$1,090.25	$1,008.91	$927.57	$846.23	$764.68
Exchange	$921.65	$924.94	$927.57	$929.70	$931.48
Price	$517.69	$723.77	$927.57	$1,131.36	$1,335.16

Figure 22.1 Sensitivity Analysis

Source: GE21, 2026.



	5%	8%	10%	12%
Discount Rate	928	698	579	482

Figure 22.2 Effect of Discount Rate on After-Tax NPV

Source: GE21, 2026.

23 ADJACENT PROPERTIES

23.1 Introduction

Information presented in this section has been obtained from publicly available sources and published technical disclosures. The Qualified Person (QP) has not independently verified the technical information related to adjacent properties discussed herein. Mineralization and other technical information reported for adjacent properties are not necessarily indicative of mineralization or conditions at the Água Azul Project.

23.2 Regional Mining District

The Água Azul Project is located within a region of southeastern Pará characterized by extensive mining and mineral exploration activity. Established mining centres in the broader region include Canaã dos Carajás, Parauapebas, Ourilândia do Norte, São Félix do Xingu, and Tucumã. These municipalities support a range of producing mines and mineral development projects and provide regional context for mining infrastructure, services, and mineral exploration activities.

23.3 Regional Mining Operations

Several producing mines and mineral development projects are located in the broader region surrounding the Água Azul Project. These operations are not considered directly indicative of the mineralization, grade, continuity, or economic potential of the Água Azul Project, but provide regional context regarding mining activity and infrastructure in southeastern Pará.

- Ero Copper – Tucumã Operation: copper, open-pit operation, approximately 70 km from the Project.
- BHP – Carajás copper-gold assets: copper-gold operations and projects, approximately 100 km from the Project.
- Vale – Sossego Mine: copper, open-pit operation, approximately 120 km from the Project.
- Furnas Copper Project: copper project, approximately 120 km from the Project.
- Vale – Salobo Mine: copper-gold operation, approximately 280 km from the Project.Oz Minerals / BHP Copper-Gold Assets – Underground Mine (approximately 100 km)

24 OTHER RELEVANT DATA AND INFORMATION

No additional information.

25 INTERPRETATION AND CONCLUSIONS

25.1 Mineral Resources Estimates

The database files used for modelling and estimating the Mineral Resources of the Abelhas Project (Abelhas, Abelhas Norte, Antonino and Juliano targets) and the Campos Altos Project (Pão de Guincho, Planta, Brejo and Buracão targets) were compiled in Microsoft Access format, totalling 453 drill holes, 74,364.55 m and more than 74,000 samples, and validated for Mineral Resource estimate purposes.

The composite length for the samples was defined based on the distribution of the lengths of the original sampled intervals as 1 m, based on the analysis of the length of the samples. Intervals smaller than 0.5 m were evenly distributed among the other intervals. The grade of 31.6 g/t gold for the Abelhas Project and 8.9 g/t gold for the Campos Altos Project were selected as the limit for the treatment of outliers in the Mineral Resource estimate.

The variographic study was conducted with 1.00-metre composite samples using the Isatis Neo software to evaluate changes in grade variability with distance, as well as to quantify the variographic structural parameters of the mineralization zones within the deployment space. The maximum variographic range was modelled at 70 m. This distance was used as a basis for defining the strategy of Ordinary Kriging (OK) of gold grades.

The grade estimate was validated by comparative methods. The Au grade samples were estimated by the Nearest Neighbour (NN) using anisotropic distances. The results of NN-Check and Swath Plots validations demonstrate that the effect of grade estimate smoothing, and global or local biases are within acceptance limits.

Mineral Resources were classified according to the CIM Standards and the CIM Guidelines using geostatistical and/or classical methods, in addition to economic and mining parameters appropriate to the type of deposit. The quality of the sampling process, the spacing of the sample grid, the survey and the quality of the chemical analyses were considered in the classification process.

To determine the quantities of material with Reasonable Prospects for Eventual Economic Extraction (RPEEE), the mathematical optimization methods of the open-pit mining were used.

As of the effective date of July 28, 2026, the Água Azul Project contains Indicated Mineral Resources of 22.78 Mt grading 1.27 g/t Au, containing approximately 931.9 koz Au, and Inferred Mineral Resources of 26.44 Mt grading 1.29 g/t Au, containing approximately 1,099.9 koz Au, reported above a cut-off grade of 0.20 g/t Au. The Abelhas deposit accounts for the majority of the Indicated Mineral Resources, while Juliano and Campos Altos contribute additional Mineral Resources and remain prospective for further resource expansion.

The mineralization zones modelled for the Mineral Resource estimation work have both lateral and mainly depth considered open extensions. A considerable number of the set of parallel

mineralization zones are not limited by drill holes with no mineralized grades. The Mineral Resource classification limits consider a maximum distance of 140 m from the nearest drill intersection for the inferred class, and an optimized resource pit with appropriate parameters compatible with the current economic scenario.

25.2 Metallurgical Testwork and Recovery Methods

The deposit has undergone a comprehensive technical characterization that is considered sufficient to support the Preliminary Economic Assessment (PEA) in accordance with CIM Best Practice Guidelines. The characterization provides an adequate technical basis for the selected process flowsheet and the metallurgical recovery assumptions incorporated into this report.

The process plant has been designed to treat 2.85 Mt of ROM per annum (7.89 kt/d). The average plant feed grade is estimated at 1.29 g/t Au, and an average metallurgical gold recovery of 94% has been assumed for the purposes of this PEA.

The gravity concentration circuit has been designed based on a gravity gold recovery of 35% at a primary grind size of P80 = 75 µm.

The selected method for cyanide neutralization—SO_2/air—resulted in adequate performance according to environmental regulatory specifications.

The proposed process circuit has been operated at a semi-industrial scale, confirming the metallurgical testwork results and demonstrating the suitability of the selected processing route. Pilot-scale testing was also conducted to validate and consolidate the design parameters.

The detoxification test work conducted showed results with cyanide below the limits.

25.3 Mining Methods

The proposed mining method for the Água Azul Project—Abelhas target consists of conventional drill-and-blast open-pit mining using hydraulic excavators, off-highway haul trucks, and supporting equipment appropriately sized to meet the planned production targets. The mine plan comprises an initial three-year Phase 1 period, during which mining and processing continue at the current operating scale while pre-stripping and mine development activities are undertaken, followed by Phase 2, which incorporates the expansion to a nominal processing capacity of 2.85 Mtpa and an estimated mine life of approximately 10 years.

Based on the mine design, production schedule, pit optimization results, geotechnical assessments, and equipment sizing completed by GE21, the proposed mining method is considered technically viable and appropriate for the Água Azul Project.

Pit optimization, based on a gold price of US$ 3,067.75/oz and a Revenue Factor (RF) of 0.85, resulted in an ultimate pit containing approximately 25.96 Mt of ROM grading 1.29 g/t Au,

10.69 Mt of low-grade material grading 0.28 g/t Au, and 378.52 Mt of waste rock, corresponding to a LOM strip ratio of 14.99, including low-grade material as waste.

The mine planning assumptions incorporated a mining recovery factor of 95% and a total mining dilution of approximately 31%, comprising 26% dilution associated with the Selective Mining Unit (SMU) regularization process and an additional 5% operational dilution.

Geotechnical and hydrogeological studies support the proposed pit geometry and slope design, and groundwater inflows are expected to be managed through conventional dewatering measures. Waste rock and filtered tailings will be co-disposed in designated storage facilities, with additional waste storage capacity expected to be developed as mining progresses.

25.4 Infrastructure

The Água Azul Project is a brownfield development incorporating existing and proposed infrastructure, including the open pits, processing facilities, waste and filtered-tailings storage areas, access roads, mine support infrastructure, and water supply systems. The proposed expansion is designed for a nominal processing capacity of 2.85 Mtpa, equivalent to approximately 7,800 tpd.

25.5 Environmental, Permitting and Social Considerations

The environmental and social studies reviewed by the QPs indicate that the Água Azul Project can be developed using established mitigation, monitoring, and management measures consistent with current Brazilian regulatory requirements and industry practice. The environmental evaluation is supported by the RCA Volumes I and II and the PCA prepared for the Project expansion, which include detailed characterization of the physical, biological, and socio-economic environments, assessment of potential environmental impacts, and definition of environmental management and monitoring programs.

The Project currently benefits from environmental permits associated with the existing operation and from the Installation Licence obtained for the Phase 2 expansion. However, additional engineering work, environmental studies, land access arrangements, and regulatory approvals will be required to support future waste rock and filtered tailings storage facilities needed for the full Life-of-Mine development plan.

25.6 Capital Costs and Operating Costs Estimates

The capital cost estimate developed for the Água Azul Project indicates an initial investment of approximately US$297 million, including expenditures related to plant construction and expansion, mine pre-stripping activities, and contingency provisions.

Sustaining capital requirements over the life of mine are estimated at US$15.8 million, primarily associated with plant maintenance and the development of waste and tailings storage facilities. The phased development approach, consisting of an initial operation followed by an

expansion to the nominal processing capacity of 2.85 Mtpa, was designed to optimize capital deployment while reducing implementation risks.

The estimated life-of-mine operating cost is US$1.42 billion, equivalent to US$54.72/t of plant feed. Mining represents the largest cost component, accounting for approximately 70% of total operating expenditures, followed by processing, rehandling, and general and administrative costs.

25.7 Economic Evaluation

Based on a gold price of US$3,609/oz, the project generates an after-tax NPV (5%) of US$927.6 million, an IRR of 48%, and a payback period of 5.3 years. Over the 13-year mine life, the operation is expected to process 25.96 Mt of ROM at an average grade of 1.29 g/t Au, producing approximately 1.02 Moz of recovered gold at an average metallurgical recovery of 94%.

The sensitivity analysis confirms that project economics are most influenced by variations in the gold price and operating costs, while changes in capital costs and exchange rates have a comparatively lower impact.

Despite the preliminary nature of the study and its inclusion of Inferred Mineral Resources, the economic analysis indicates potential economic viability based on the assumptions used in the PEA.

The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the results of the PEA will be realized.

25.8 Risks and Opportunities

25.8.1 Risks

25.8.1.1 Mining Methods

25.8.1.1.1 Risk 1 – Limited Geotechnical Basis for PEA Pit Slope Design

Geotechnical risk is considered moderate at the current stage of project development. While the slope stability analyses indicate acceptable Factors of Safety for the proposed pit configurations, the limited geotechnical and hydrogeological dataset reduces confidence in the long-term performance of the conceptual PEA pit slopes. Future investigations may identify adverse structural, hydrogeological, or rock mass conditions that could require flatter slope geometries than currently assumed. Such outcomes could result in increased stripping ratios, reduced economic pit limits, and a negative impact on project value.

25.8.1.1.2 Risk 2 – High Strip Ratio and Waste Movement Requirements

The Life-of-Mine plan requires the movement of approximately 378.5 Mt of waste rock for 26.0 Mt of ROM, resulting in a high strip ratio. The economic performance of the project is therefore sensitive to mining productivity, haulage efficiency, fleet utilization, and pit slope performance. Any deviation from the assumed mining recovery, dilution, equipment productivity, or haulage distances could materially affect operating costs and project cash flow.

25.8.1.2 Project Infrastructure

25.8.1.2.1 Risk 1 – Insufficient Waste Rock and Tailings Storage Capacity

The current waste storage facilities are reported to accommodate only a portion of the total Life-of-Mine waste volume, with additional facilities required during future project stages. Any delays in land acquisition, geotechnical validation, engineering design, permitting, or construction of the planned expansion areas could constrain mine production and interfere with the scheduled development sequence. Furthermore, modifications to storage facility geometry resulting from future geotechnical studies could increase capital requirements and closure liabilities.

25.8.1.3 Environmental and Permitting

25.8.1.3.1 Risk 1 – Delays in Permitting Future Waste Rock and Filtered Tailings Storage Facilities.

In addition to engineering and construction activities, further environmental permitting, regulatory approvals, and land access arrangements will be required for the development of future waste rock and filtered tailings storage facilities. Delays in obtaining the necessary permits, securing surface access rights, negotiating land-use agreements, or completing land acquisition processes may affect the implementation schedule for future Project expansion stages and could result in increased capital costs or operational constraints.

25.8.2 Opportunities

25.8.2.1 Mineral Resources

25.8.2.1.1 Opportunity 1 – Exploration and Mineral Resources Expansion

The Água Azul Project presents significant potential for Mineral Resource growth through both resource conversion and discovery of additional mineralization. Approximately 54% of the current Mineral Resource inventory is classified as Inferred, providing a substantial opportunity for conversion to higher-confidence categories through infill drilling, while several deposits, including Abelhas, Juliano, and the Campos Altos targets, remain open along strike and at depth.

In addition, the Project controls an approximately 15 km mineralized structural corridor containing multiple untested and partially tested geochemical, geophysical, and structural targets,

supporting the potential for the discovery of new mineralized zones and expansion of the current Mineral Resource base.

25.8.2.2 Environmental Studies, Permitting, and Closure

25.8.2.2.1 Opportunity 1 – Progressive Closure and Rehabilitation

The phased development and waste disposal strategy creates an opportunity to implement progressive reclamation throughout the mine life. Early rehabilitation of completed waste dump areas and inactive mine infrastructure may reduce closure liabilities, improve environmental performance metrics, and support future permitting and stakeholder engagement activities.

26 RECOMMENDATIONS

26.1 Introduction

The recommendations presented in this report are intended to support the advancement of the Água Azul Project from the PEA stage toward future PFS and FS.

26.2 Mineral Resource Estimates

The following work is recommended to improve confidence in the Mineral Resource estimate, test extensions of known mineralization, and support advancement of the Project toward a PFS:

- To perform a geostatistical study for the reference drilling grid size to mineral resource classification for measured and indicated classes;
- To perform approximately 25,000 m of infill drilling to support potential upgrading of portions of the Indicated Mineral Resources to the Measured category;
- To perform Approximately 15,000 m of infill drilling to support potential upgrading of portions of the Inferred Mineral Resources to the Indicated category;
- To perform approximately 10,000 m of step-out drilling to test the depth and lateral continuity of known mineralized zones and potentially define additional Mineral Resources.

A cost US$ 220/meter is estimated to the recommended new drilling campaign.

The recommended drilling program should be completed in two phases, comprising approximately 30,000 m in Phase 1 and 20,000 m in Phase 2, with the scope of Phase 2 refined based on the results of Phase 1.

Following completion of the recommended drilling and supporting technical studies, the Mineral Resource model should be updated and incorporated into subsequent mine planning and economic studies to support advancement toward a PFS and, where supported by the results, the estimation of Mineral Reserves. An allowance of approximately US$250,000 has been included for this work.

26.3 Mining Methods

A complementary geotechnical program should be completed prior to advancing the Project to Pre-Feasibility Study level. The objective of the program is to refine geotechnical domains, validate design slope angles, assess groundwater influences, and identify opportunities for slope optimization. The program may include dedicated geotechnical drilling, oriented core logging, laboratory rock strength testing, structural mapping, hydrogeological investigations, and slope stability analyses.

It is recommended that a detailed mining equipment trade-off study be undertaken during the next phase of project development to confirm the optimal fleet configuration and mining strategy.

26.4 Mineral Processing and Metallurgical Testing

Although the metallurgical test program was comprehensive, including variability testwork by lithological domain, it is recommended that a geometallurgical program be undertaken to confirm the metallurgical response across the defined geometallurgical domains. The program should be supported by a larger and more spatially representative sample set, systematically distributed throughout the domains to provide a robust assessment of metallurgical variability and improve confidence in the geometallurgical model.

26.5 Infrastructure

Current waste rock and filtered-tailings storage capacity is insufficient to accommodate the full LOM inventory contemplated in the PEA. Engineering and environmental studies should be completed to identify, evaluate, and design additional storage capacity sufficient for the LOM requirements. The work should include geotechnical investigations, land access requirements, hydrology, construction-material characterization, closure planning, environmental assessment, and permitting requirements.

The objective is to establish a technically and environmentally suitable LOM waste and tailings management strategy and define the associated land, permitting, capital, and development requirements for subsequent stages of the Project.

26.6 Environmental, Social and Permitting Studies

It is recommended that additional environmental and permitting studies be completed to support future expansions of the waste rock and filtered tailings storage facilities required for the Life-of-Mine plan. The work should include detailed environmental baseline confirmation, hydrological and hydrogeological assessments, geotechnical investigations, closure planning refinements, stakeholder engagement activities, and support for future permitting applications.

It is also recommended that the environmental monitoring programs currently established through the PCA continue throughout the Project development cycle and be progressively updated to reflect future operational and permitting requirements.

26.7 Summary of Recommendations and Estimated Costs

The estimated budget for the recommendations presented in this report is shown in Table 26-1.

Table 26-1 Summary of Recommendations and Estimated costs

Item	Estimated Cost (1,000 x US$)
Geostatistical study to assess drill spacing for Mineral Resource classification	70
Infill drilling to support potential upgrading of Indicated Mineral Resources	5,500
Infill drilling to support potential upgrading of Inferred Mineral Resources	3,300
Step-out drilling to test mineralized-zone extensions	2,200
Mineral Resource update and PFS/Mineral Reserve studies	250
Geotechnical studies for pit slope design	450
Geometallurgical program	250
Mining equipment trade-off study	30
Waste rock and filtered-tailings storage studies	750
Environmental and Permitting Support for Future Waste and Tailings Facilities	400
Total	**13,200**

Source: GE21, 2026.

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APPENDIX A – CERTIFICATE OF QUALIFIED PERSON

I, **Porfirio Cabaleiro Rodriguez**, FAusIMM (#3136091), FAIG (#3708), as author of the technical report entitled “NI 43-101 Preliminary Economic Assessment on the Água Azul Project, Pará, Brazil” (the Report), dated November 24, 2026, with an effective date of July 28, 2026, prepared for ValOre Metals Corp. (the Issuer), hereby certify that:

1. I am a mining engineer at GE21 Consultoria Mineral Ltda., located at 3130 Afonso Pena Ave., 9th Floor, Belo Horizonte, MG, 30130-910, Brazil.
2. I have the following academic qualifications:
   - B.Sc. in Mining Engineering from the Federal University of Minas Gerais, Belo Horizonte, Brazil.
3. I am a professional mining engineer with over 40 years of experience in the mining industry, with Mineral Resource and Mineral Reserves estimation, which includes numerous mineral properties in Brazil, including iron ore and manganese properties.
4. I am a registered professional fellow of the Australian Institute of Geoscientists (FAIG #3708) and fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM #3136091).
5. I have read the definition of “qualified person” set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101) and certify that, by reason of my education, my affiliation with a professional association as defined in NI 43-101, and my past relevant work experience, I fulfil the requirements to be a “qualified person” for the purposes of NI 43-101.
6. As of the date of the Report, I have not visited the Project site.
7. I am responsible for Sections 4–11 and 14, and co-responsible for Sections 1, 3, 12, 25 and 26 of the Report.
8. As of the effective date of the Report, to the best of my knowledge, information and belief, the sections of which I am the author and for which I am responsible contain all the scientific and technical information that must be disclosed so the Report is not misleading.
9. As of the date of this certificate, I have no knowledge of any material fact or material change that is not reflected in the Report.
10. I am independent of the Issuer and of the property, applying all the tests set out in Section 1.5 of NI 43-101. I hold no material interest in the property, in the Issuer or in any of their related entities, and my relationship with the Issuer is strictly professional, being that of a client and an independent consultant. My fees are based on rates set by commercial agreement and are in no way dependent on the findings of the Report.
11. I have had no prior involvement with the property that is the subject of the Report.
12. I have read NI 43-101 and Form 43-101F1 – Technical Report, and I believe the Report has been prepared in accordance with those documents.
13. I consent to the public filing of the Report by the Issuer with any stock exchange or other regulatory authority, and to its publication by them for regulatory purposes, including electronic publication in the public company files on their websites.

Belo Horizonte, Brazil, November 24, 2026.



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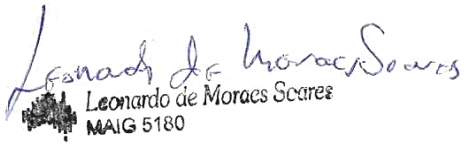
Porfirio Cabaleiro Rodriguez
FAusIMM #3136091, FAIG #3708

I, **Leonardo de Moraes Soares, MAIG** (#5180), as author of the technical report entitled "NI 43-101 Preliminary Economic Assessment on the Água Azul Project, Pará, Brazil" (the Report), dated November 24, 2026, with an effective date of July 28, 2026, prepared for ValOre Metals Corp. (the Issuer), hereby certify that:

1. I am a geologist at GE21 Consultoria Mineral Ltda., located at 3130 Afonso Pena Ave., 9th Floor, Belo Horizonte, MG, 30130-910, Brazil.
2. I have the following academic qualifications:
   - B.Sc. in Geology from the Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.
3. I am a professional geologist with over 24 years of experience in the mining industry. My experience relevant to the Report includes:
   - 9 years in exploration, grade control, Mineral Resource modelling and grade estimate, including AngloGold, Troy Resources and Jaguar Mining;
   - 16 years in Mineral Resources estimate and audit in consultancy in the mining industry, including gold, copper, iron ore, and others.
4. I am a registered professional member of the Australian Institute of Geoscientists (MAIG #5180).
5. I have read the definition of "qualified person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101) and certify that, by reason of my education, my affiliation with a professional association as defined in NI 43-101, and my past relevant work experience, I fulfil the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I visited the Project site on October 28–30, 2024, and on October 9–10, 2025.
7. I am co-responsible for Sections 1 and 12 of the Report.
8. As of the effective date of the Report, to the best of my knowledge, information and belief, the sections of which I am the author and for which I am responsible contain all the scientific and technical information that must be disclosed so the Report is not misleading.
9. As of the date of this certificate, I have no knowledge of any material fact or material change that is not reflected in the Report.
10. I am independent of the Issuer and of the property, applying all the tests set out in Section 1.5 of NI 43-101. I hold no material interest in the property, in the Issuer or in any of their related entities, and my relationship with the Issuer is strictly professional, being that of a client and an independent consultant. My fees are based on rates set by commercial agreement and are in no way dependent on the findings of the Report.
11. I have had prior involvement with the property that is the subject of the Report, as co-author of the technical report entitled "NI 43-101 – Independent Technical Report on Mineral Resource Estimate Bemisa – Água Azul Complex – Água Azul do Norte/Pará, Brazil", with an effective date of November 11, 2025, prepared by GE21 Consultoria Mineral Ltda. in 2025 on behalf of Bemisa Água Azul Mineração S.A.
12. I have read NI 43-101 and Form 43-101F1 – Technical Report, and I believe the Report has been prepared in accordance with those documents.
13. I consent to the public filing of the Report by the Issuer with any stock exchange or other regulatory authority, and to its publication by them for regulatory purposes, including electronic publication in the public company files on their websites.

Belo Horizonte, Brazil, November 24, 2026.



Leonardo de Moraes Soares
MAIG #5180

I, **Hugo Ribeiro de Andrade Filho**, FAusIMM (#323096), as author of the technical report entitled “NI 43-101 Preliminary Economic Assessment on the Água Azul Project, Pará, Brazil” (the Report), dated November 24, 2026, with an effective date of July 28, 2026, prepared for ValOre Metals Corp. (the Issuer), hereby certify that:

1. I am a mining engineer at GE21 Consultoria Mineral Ltda., located at 3130 Afonso Pena Ave., 9th Floor, Belo Horizonte, MG, 30130-910, Brazil.
2. I have the following academic qualifications:
   - B.Sc. in Mining Engineering from the Federal University of Bahia, Salvador, Brazil.
3. I have over 25 years of experience in mine design, planning, evaluation, mining regulatory review and reporting, Mineral Reserve estimation, and development of precious and base metal projects, including over 10 years working for gold companies, such as Yamana and Equinox Gold.
4. I am a registered professional fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM #323096).
5. I have read the definition of “qualified person” set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101) and certify that, by reason of my education, my affiliation with a professional association as defined in NI 43-101, and my past relevant work experience, I fulfil the requirements to be a “qualified person” for the purposes of NI 43-101.
6. As of the date of the Report, I have not visited the Project site.
7. I am responsible for Sections 2, 15, 16, and 18–24, and co-responsible for Sections 1, 3, 12, 25 and 26 of the Report.
8. As of the effective date of the Report, to the best of my knowledge, information and belief, the sections of which I am the author and for which I am responsible contain all the scientific and technical information that must be disclosed so the Report is not misleading.
9. As of the date of this certificate, I have no knowledge of any material fact or material change that is not reflected in the Report.
10. I am independent of the Issuer and of the property, applying all the tests set out in Section 1.5 of NI 43-101. I hold no material interest in the property, in the Issuer or in any of their related entities, and my relationship with the Issuer is strictly professional, being that of a client and an independent consultant. My fees are based on rates set by commercial agreement and are in no way dependent on the findings of the Report.
11. I have had no prior involvement with the property that is the subject of the Report.
12. I have read NI 43-101 and Form 43-101F1 – Technical Report, and I believe the Report has been prepared in accordance with those documents.
13. I consent to the public filing of the Report by the Issuer with any stock exchange or other regulatory authority, and to its publication by them for regulatory purposes, including electronic publication in the public company files on their websites.

Belo Horizonte, Brazil, November 24, 2026.



Hugo Ribeiro de Andrade Filho
FAusIMM #323096

I, **Paulo Roberto Bergmann Moreira**, FAusIMM (#333121), as author of the technical report entitled "NI 43-101 Preliminary Economic Assessment on the Água Azul Project, Pará, Brazil" (the Report), dated November 24, 2026, with an effective date of July 28, 2026, prepared for ValOre Metals Corp. (the Issuer), hereby certify that:

1. I am a mining engineer at GE21 Consultoria Mineral Ltda., located at 3130 Afonso Pena Ave., 9th Floor, Belo Horizonte, MG, 30130-910, Brazil.
2. I have the following academic qualifications:
   - B.Sc. in Mining Engineering from the Federal University of Minas Gerais, Belo Horizonte, Brazil.
3. I am a professional mining engineer with over 40 years of experience in the mining industry. My experience relevant to the Report includes:
   - 30 years in mining and plant operation management, including AngloGold, Yamana, Jaguar Mining and Buritirama Mineração;
   - 10 years as engineering development and consultancy in the mining industry, including gold, iron, manganese, rare earth elements and others.
4. I am a registered professional fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM #333121).
5. I have read the definition of "qualified person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101) and certify that, by reason of my education, my affiliation with a professional association as defined in NI 43-101, and my past relevant work experience, I fulfil the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I visited the Project site on July 28, 2026.
7. I am responsible for Sections 13 and 17, and co-responsible for Sections 1, 25 and 26 of the Report.
8. As of the effective date of the Report, to the best of my knowledge, information and belief, the sections of which I am the author and for which I am responsible contain all the scientific and technical information that must be disclosed so the Report is not misleading.
9. As of the date of this certificate, I have no knowledge of any material fact or material change that is not reflected in the Report.
10. I am independent of the Issuer and of the property, applying all the tests set out in Section 1.5 of NI 43-101. I hold no material interest in the property, in the Issuer or in any of their related entities, and my relationship with the Issuer is strictly professional, being that of a client and an independent consultant. My fees are based on rates set by commercial agreement and are in no way dependent on the findings of the Report.
11. I have had prior involvement with the property that is the subject of the Report, as co-author of the technical report entitled "NI 43-101 – Independent Technical Report on Mineral Resource Estimate Bemisa – Água Azul Complex – Água Azul do Norte/Pará, Brazil", with an effective date of November 11, 2025, prepared by GE21 Consultoria Mineral Ltda. in 2025 on behalf of Bemisa Água Azul Mineração S.A.
12. I have read NI 43-101 and Form 43-101F1 – Technical Report, and I believe the Report has been prepared in accordance with those documents.
13. I consent to the public filing of the Report by the Issuer with any stock exchange or other regulatory authority, and to its publication by them for regulatory purposes, including electronic publication in the public company files on their websites.

Belo Horizonte, Brazil, November 24, 2026.



Paulo Roberto Bergmann Moreira
FAusIMM #333121

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Paulo Roberto Bergmann Moreira

FAusIMM #333121