NI 43-101 TECHNICAL REPORT

Maria Bonita Prospect

Gold

Mato Grosso And Pará, Brazil

Prepared for:
Altamira Gold Corp.

Effective Date: April 16, 2025
Report Date: June 12, 2025

Endorsed by QP:
Volodymyr Myadzel
MAIG #3974, PhD

SIGNATURE PAGE – VMG Consultoria

NI 43-101 Technical Report, Mineral Resource for the Maria Bonita Prospect

Prepared for:
Altamira Gold Corp.
Suite 1500 – 409 Granville Street
Vancouver, BC, Canada
V6C 1T2

Prospect Location:
Mato Grosso, Brazil

(Original signed)
Volodymyr Myadzel, MAIG
MAIG #3974, PhD
VMG Consultoria
Belo Horizonte, Minas Gerais (Brazil)

Signed in Belo Horizonte on June 12, 2025

CERTIFICATE OF AUTHOR - Volodymyr Myadzel

I, Volodymyr Myadzel, MAIG, do hereby certify that:

1. I am the Principal Geologist of: VMG Consultoria e Soluções Ltda. Av. do Contorno, 2905, Sala 406, Santa Efigênia, Belo Horizonte – MG – Brasil. 30110-915
2. I graduated with a degree in Geology from Kryvyi Rih National University, Kryvyi Rih, Ukraine in 1999. In addition, I have obtained a PhD in Geology from Kryvyi Rih National University, Kryvyi Rih, Ukraine in 2004.
3. I am Member #3974 of the Australasian Institute of Geoscientists.
4. I have worked as a Geologist for a total of 26 years since my graduation from university. My relevant experience includes modeling and resource and reserve estimation of deposits, prospecting and surveying, geological mapping, mineralogy and petrology of metamorphic rocks and ore deposits.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for the preparation of Items 1, 2,3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 23, 24, 25, 26 and 27 of the Technical Report "NI 43-101 Technical Report Maria Bonita Gold Prospect" (the "Technical Report"), I visited the Maria Bonita Project between April 30th and May 1st, 2025.
7. I have not had prior involvement with the property that is the subject of the Technical Report.
8. I am independent of the issuer, applying all of the tests in section 1.5 of National Instrument 43-101.
9. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.
11. As of April 16, 2025, the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 12th Day of June 2025in Belo Horizonte, Minas Gerais, Brazil.

(Original signed)

Volodymyr Myadzel
MAIG #3974, PhD

Table of Contents

List of Tables

List of Illustrations

ITEM 1: SUMMARY

1.1 INTRODUCTION

VMG Consultoria ("VMG") has been retained by Altamira Gold Corp. ("Altamira" or the "Company") to prepare a technical report and gold resource estimate for the Maria Bonita Project ("Project"). This report has been prepared in accordance with Canadian Securities Administrators' National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101" or "43-101") and its related Form 43-101F1.

The Project is located near the town of Alta Floresta, spanning the border of the states of Mato Grosso and Para in central Brazil.

1.2 PROPERTY LOCATION

The Project area is located in the Juruena Gold Province in central Brazil, within the states of Para and Mato Grosso, near the town of Alta Floresta. The Teles Pires River runs through the project area. Access from Alta Floresta is via paved highway MT-208, 55 kilometers to the town of Paranaíta. From Paranaita another 10 kilometers of paved road and 30 kilometers of dirt road, crossing the Teles Pires River, provides access to the project.

1.3 MINING RIGHTS

The Maria Bonita Project is currently held under an exploration license. The process to convert the exploration license to a mining license is currently in progress. This involves two stages consisting of i) obtaining an environmental permit to operate bulk sampling of the identified mineralization and ii) conversion to a full mining permit following submission of a Plan for Economic Exploitation (PAE). An application has been lodged with the relevant environmental authorities in Para State.

1.4 GEOLOGICAL SETTING

The rocks located in the Project area are characterized by volcanism associated with the Colíder Group, including both effusive and explosive phases, plutonism of the Teles Pires Suite, and mafic dikes. The Maria Bonita host-rock is a multiphase rhyolitic porphyritic intrusion interpreted as being emplaced into volcanic rocks of the Colíder Group.

The Maria Bonita multiphase rhyolitic intrusion is an uncommon type of porphyry gold deposit (Sillitoe, 2024). Its lithological, mineralogical, and textural features — including a swarm of type-A veins forming "sheets" and/or "stockwork" — and the relative gold grades, support this interpretation. The contacts between the multiple phases of the intrusion are marked by the presence of UST-type veins at the top of each pulse or phase, and the presence of xenoliths from earlier pulses is evident in contact magmatic breccias between successive pulses.

The intrusive rocks hosting the mineralization, as well as the country rocks, are crosscut by post-mineralization felspar porphyry intrusions of bimodal, non-mineralized magmas, characterized by feldspar phenocrysts, delimited at their contacts by aphanitic mafic dikes. In some drill hole intersections of these mafic dikes, a “ghost” texture of the feldspar porphyry is observed, suggesting a bimodal magma origin. A set of later, large scale mafic dike intrusions, with strike extents of tens of kilometers form part of the mineralized corridor extending east and west through the Maria Bonita district. The genesis of the metric scale mafic dikes within the mineralization area may be related temporally to this younger intrusive event. The larger scale mafic dikes transect the sequence of mineralized and barren felsic intrusions and the country rock volcanics, Figure 7-1.

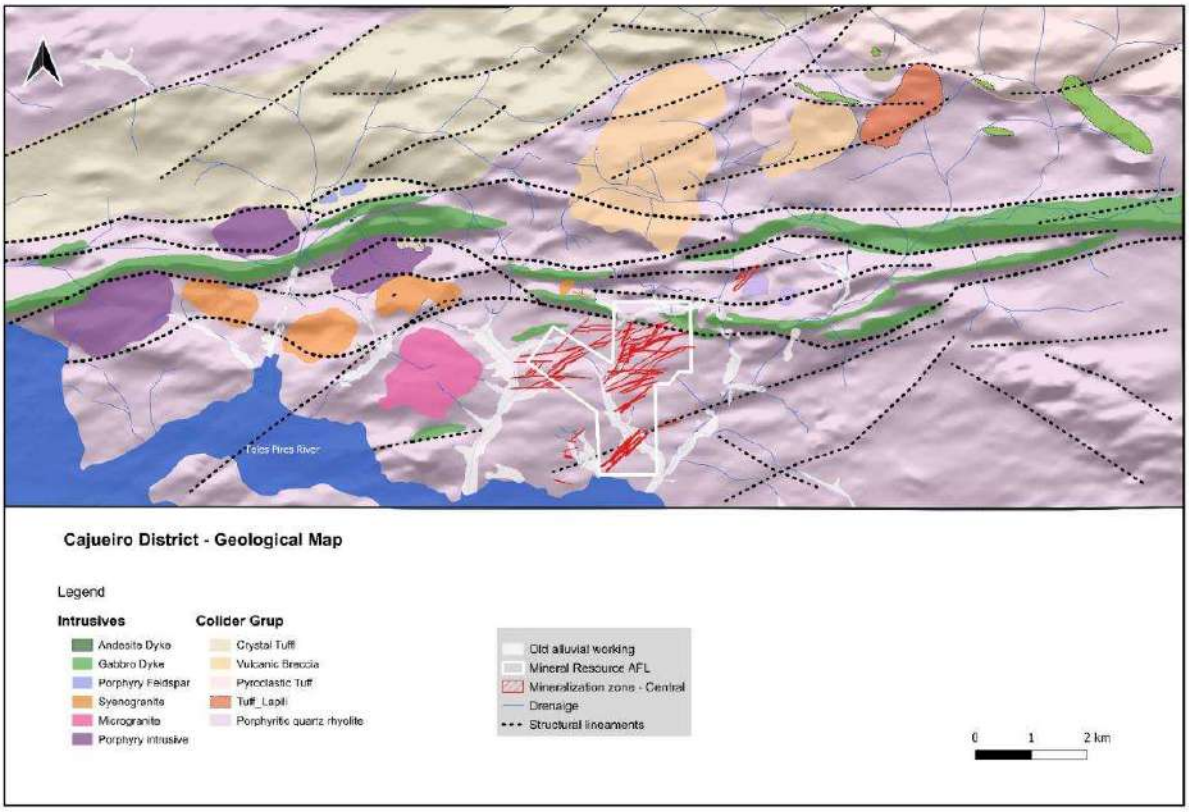


Figure 1-1 - Geological **Map of the Maria Bonita Project. (AFGM 2025).**

1.5 EXPLORATION

Exploration on the property consists of geologic mapping, airborne and ground geophysics, soil sampling, trenching, and diamond drilling. Table 1-1 summarizes the drilling programs conducted on the Project.

Table 1-1 - Maria Bonita Exploration Work Summary.

Year	Description
2022	09 HQ and NQ diamond drill holes totaling 1,134.78 meters
2023	76.2mm diameter mechanized auger holes totaling 544.70 meters
2024	22 HQ and NQ diamond drill holes totaling 3,575.70 meters

1.6 RESOURCE ESTIMATE

VMG have estimated Indicated and Inferred Mineral Resources for the Project in accordance with the CIM guidelines (CIM 2005) which have been adopted as part of NI 43-101.

The results of the evaluation of resources, based on the block model interpolated by the Ordinary Kriging (OK) method, of gold mineralization for the Project are presented in Table 1-2.

To determine the influence of the nugget effect on the geological resource estimation, the results of the calculation for interpolated grades, with and without capping, were compared. The highest one-metre sample interval in the drill database is 7.73 g/t gold. The high-grade samples were cut to 1.791 ppm Au.

The difference in relative percentage of contained gold ounces in the geological resource estimate is 5.3% (for the uncut sample population), which indicates the low influence of the high-grade samples in the geological resource estimation.

Table 1-2 - Gold Resources Calculated by Ordinary Kriging (OK) Method Assuming a 0.2 ppm Au cut-off grade.

CUT-OFF	CLASS	CATEGORY	VOLUME	TONNES	DENSITY	Au	Au
Au ppm			m3	t	(t / m3)	ppm	oz
0.2	Indicated	Saprolite	1,203,306	2,021,554	1.68	0.59	38,066
		Fresh Rock	8,398,756	22,172,716	2.64	0.45	319,741
	Inferred	Saprolite	405,718	681,607	1.68	0.40	8,733
		Fresh Rock	9,454,087	24,958,791	2.64	0.44	353,637

1.7 INTERPRETATIONS AND CONCLUSIONS

This report refers to the Maria Bonita Project located within exploration permit 850.224/2009.

The Maria Bonita Project is as an uncommon type of porphyry gold deposit. The Maria Bonita gold mineralization is intrinsically associated with A-type quartz veining, occurring as swarms of straight and irregular veins that intersect in "sheets" and/or "stockwork" patterns. Two types of veins are observed: the first is colorless, composed mostly of quartz; the second, associated with the first, consists of fine-grained dark green (largely chlorite) minerals. Bulk gold grades vary directly with the intensity of veining. Macroscopically, sulfides are rare to absent.

The author is of the opinion that Altamira has successfully highlighted the mineral resource potential at the Project and considers the Project to be sufficiently robust to warrant conducting additional definition drilling to increase the Mineral Resources, conduct metallurgical testing and to complete a Preliminary Economic Evaluation of the Maria Bonita Project for a potential open pit mining operation as a prelude to a future Feasibility Study.

VMG conducted the evaluation of Mineral Resources of Altamira's Maria Bonita Project in compliance with NI 43-101. The work took place from February 2025 to April 2025.

The main activities developed by VMG were:

- Site visit, discussions with the Altamira technical staff, understanding of the geology and mineralization of the deposit, and verification of the geological work performed by Altamira and contractors on site, and in off-site laboratories, as well as verification of the materiality of the achieved results.
- Validation of the drilling database and the topographic information.
- Verification of the QA/QC program established by Altamira for geological work and of its application to the work program.
- Selection of the drilling data used in the definition of Mineral Resources.
- Interpretation of the geological model.
- Conduction of statistical and geostatistical studies.
- Estimation of Mineral Resources, as well as their quantification and classification.
- Disclosure of the Mineral Resources for the Maria Bonita Project in accordance with NI-43-101.

VMG observed that the results obtained from QA/QC were acceptable. VMG did not visit the assay laboratories, but the SGS Geosol laboratory is a reputable international company which meets or exceeds the industry standards for sample preparation and analysis.

The materiality of the work developed by Altamira, as well as the materiality of the deposit and the developed studies, are sufficient to support the disclosure of Mineral Resources of the Maria Bonita Project in accordance with NI-43-101.

1.8 RECOMMENDATIONS

VMG, based on the studies and work carried out on the Mineral Resources of the Maria Bonita Project, owned by Altamira, makes the following recommendations:

- Organization and systematization of the core storage and storage for duplicates of samples.
- Database: validate the name of standards.
- Infill drilling will be necessary to upgrade the Indicated Resources to Measured Resources and Inferred to Indicated for the mineral deposit.
- QA/QC: crushing duplicates should be inserted into the assay batches.
- QA/QC: laboratory pulp duplicates, generated by the contractor laboratory should be inserted into the assay batches.
- Increase the quantity of saprolite density samples to obtain a dataset that is fully representative of the saprolitic rock density.
- Detailed mineralogical studies to accompany metallurgical tests.
- Detailed metallurgical tests.
- Environmental studies.
- Carry out an instrumental topographic survey of the drill area.

The estimated budget for this work program is shown in Table 26-1.

Table 1-3 - Estimated Budget.

Work Program	Units Type Work	Units	Unit Cost	Cost US$
Instrumental topographic survey	Km^2	30	5,454	163,620
Drilling	Meters	3,000	114	342,000
Assaying	Sample	1,800	21	37,800
Density test	Sample	250	3	750
Mineralogical studies	Study	50	272	13,600
Metallurgical tests	Sample	5	8,181	40,905
Environmental studies	Study	1	181,818	181.818
Work on the organization of geological data and materials	Und	1	1,363	1,363
Administrative expenses	Adm	1	45,454	45,454

ITEM 2: INTRODUCTION

VMG Consultoria (“VMG”) has been retained by Altamira Gold Corp. (“Altamira” or the “Company”) to prepare a technical report and resource estimate for gold in the Maria Bonita Project (“Project”). This report has been prepared in accordance with Canadian Securities Administrators’ National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (“NI 43-101” or “43-101”) and its related Form 43-101F1.

NI 43-101 is used to report results of exploration, mineral resources, and ore reserves, and was formulated by the Canadian Institute of Mining.

2.1 INDEPENDENCY AND QUALIFICATION OF CONSULTANTS

VMG has no interest in the Project and is therefore independent. This enables VMG to offer objective and unbiased recommendations on issues that are critical to the Project assessment. VMG has a proven track record in conducting independent evaluations of mineral resources.

This report was prepared by VMG. VMG are experts in the field of geology and mineral resource estimation. VMG nor any of its associates who participated in the preparation of this report have any financial or other interest or benefit in the assets of Altamira Gold. VMG will be paid for this work in accordance with standard professional consulting practice.

Data evaluation, geological modeling, geostatistical analysis, variography, selection of resource estimation parameters, grade interpolation were performed by consulting geologist Volodymyr Myadzel (PhD; MAIG – CP, QP).

2.2 PROJECT SITE VISIT

VMG, represented by geologist Volodymyr Myadzel, visited the Project area between April 30 and May 01, 2025. The visit was attended by Altamira officials led by Elvis Alves (Project Manager).

The purpose of the visit was to familiarize the author with the Project and verify the work done in the field, in terms of geological exploration, in accordance with the basic requirements governing the application and operation of the NI-43.101 form: transparency, materiality and competence, and also in accordance with the best practices of the mineral industry.

The technical visit covered the core storage shed, and field visits to the Project area, and the mineralized zone.

2.3 UNITS OF MEASURE

In this report the metric measurement system was adopted, except when the unit is expressly mentioned.

The datum used is SIRGAS 2000 DATUM, in UTM zone 21L, except when the unit is expressly mentioned.

ITEM 3: RELIANCE ON OTHER EXPERTS

3.1 INFORMATION SOURCE

VMG's opinions are based on information provided Altamirathat reflects the technical conditions at the time of preparation of the study. VMG is dependent on information and data provided by Altamira. However, whenever possible, VMG verified the provided data independently. VMG made a technical visit to the Project site in order to check the physical evidence available on the deposit in terms of field locations, drill core storage, sample preparation facilities and sample storage facilities.

3.2 RESPONSIBILITY

VMG has not carried out detailed checks of, and is not responsible for the legal status and environmental issues of the Project. VMG did not carry out check sampling on the stored Project materials as part of the preparation of this study.

The information presented herein on the status of the exploration and mining rights constituting the project is based on open-file information published by the government's Agência Nacional de Mineração (ANM).

It is not within the scope of this report to conduct a detailed assessment of legal issues regarding the Mining Law as it affects the Project.

Likewise, it is not within the scope of this report to conduct a detailed assessment of the environmental and legal issues relating to the Project.

VMG did not visit the geochemical analysis laboratories used by Altamira to provide independent chemical analysis of samples used in the mineral resource estimation work. The relevant analytical work had already been completed before the work commissioned to VMG was undertaken. However, it is noteworthy that VMG has visited the relevant commercial laboratories used by Altamira several times and is familiar with the routines and procedures used by them.

VMG is not aware of any other information that may have an impact on the results and conclusions of this report.

VMG is not an insider, associate nor an affiliate of Altamiranor any of its associates acted as a consultant to Altamiraor its affiliates involved in the Project. The results of the technical evaluation produced by VMG do not depend on any prior agreement on the purposes to be achieved, and there are no undisclosed understandings regarding potential future business between VMG and Altamira.

In presenting this report, and due to the absence of any outcropping geology within the area of the Mineral Resource, VMG has relied on geological data and the interpretation thereof, provided by the geological staff of Altamira.

The interpretation of the porphyry-style origin of the mineralization has been independently assessed by a leading expert in this style of mineralization (Sillitoe, 2024).

Altamira has published Maria Bonita technical data and their interpretation in the form of 16 press releases issued under the direction of Altamira Competent Person, Guillermo Hughes, FAIG and M AusIMM, a consultant to the Company, as well as a Qualified Person as defined by National Instrument 43-101. This information is summarised below, Table 3-1.

Table 3-1 - List of press releases of exploration.

Date	Press release
28/10/2020	Soil sample anomaly definition
18/08/2022	Comencement of drilling at Maria Bonita
07/09/2022	Drill results MBA 001 & 002
16/11/2022	Drill results MBA 003 & 004
18/01/2023	Drill results MBA 005-009
02/03/2023	Metallurgical characterization test results
12/04/2023	Agitated leach tests Clean Mining
12/09/2023	Auger drill results 001-059
29/11/2023	Ground magnetic survey results
05/12/2023	Re-commencement of diamond drilling
16/01/2024	Second diamond rig added
07/02/2024	Column leach test results
17/04/2024	Drill results MBA 010-015
22/05/2024	Drill results MBA 016-029
19/06/2024	3rd party Porphyry interpretation
07/08/2024	Drill results MBA 030-031

Volodymyr Myadzel, Qualified Person, has relied on the following experts in the writing of this report:

- Guillermo Hughes from Altamira Gold for the exploration information;
- Ian Gordon Hall Dun BSc (Eng), MSc from Altamira Gold for the metallurgical tests.

ITEM 4: PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Maria Bonita Project area is located in the Juruena Gold Province in central Brazil, within the states of Para and Mato Grosso. The Teles Pires River runs through the Project area, Figure 4-1.

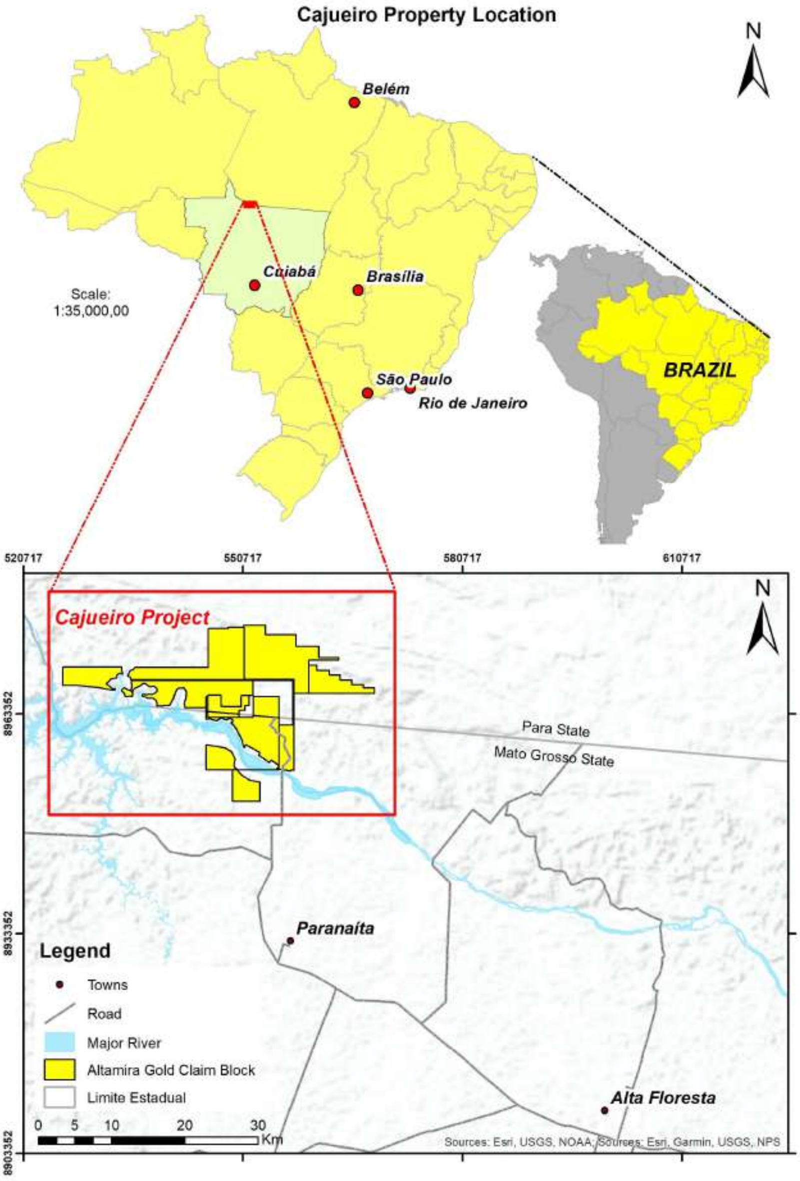


Figure 4-1 - Maria Bonita location.

4.2 TENURE

The Maria Bonita Project area Cajueiro is permitted for exploration by the Brazilian national mining agency, Agência Nacional de Mineração (ANM) under title No 850224/2009 (Figure 4-1 and Figure 4-2). This title is held by Alta Floresta Gold Mining, a wholly owned subsidiary of Altamira.

ANM or the National Mining Agency, was created on December 26, 2017, through Law No. 13.575 / 2017 and assumed the functions performed by the prior National Department of Mineral Production – DNPM. ANM is responsible for granting and inspecting mineral concessions in Brazil.

The exploration permit status for the Maria Bonita Project was provided to VMG by Altamira in May 2025. The exploration permits form part of the Altamira Cajueiro Project which consists of a total permitted area of 28,767.65 hectares, consisting of 12 permits.

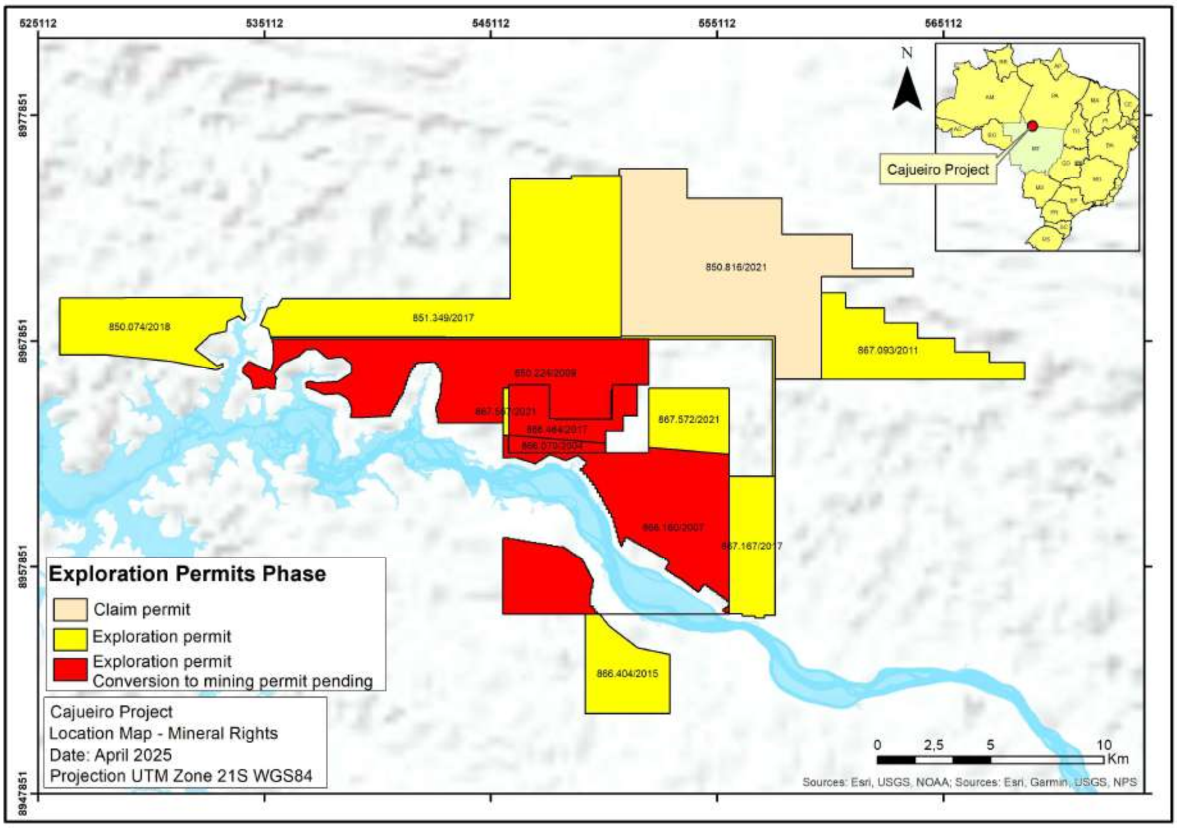


Figure 4-2 - Cajueiro project mineral claims.

Table 4-1 - Maria Bonita Project licenses.

Field	Value
Process	850.224/2009
Area (ha)	4,283.50
Permit	2558
Publication	24/03/2010
Lim. Renewal	23/01/2013
End Permit	24/03/2013
Pub. Renewal	12/08/2013
Final Report	12/08/2016
Phase	Application for mining

Based on the information provided by Altamira in May 2025, all claims are in good standing with ANM.

4.3 MARIA BONITA MINING RIGHTS

The Maria Bonita Project is currently held under an exploration license (see Section 4.1). The process to convert the exploration license to a mining license is currently in progress. This involves two stages consisting of i) obtaining an environmental permit to operate bulk sampling of the identified mineralization and ii) conversion to a full mining permit following submission of a Plan for Economic Exploitation (PAE). An application has been lodged with the relevant environmental authorities in Para State.

4.4 ROYALTY AND LIENS AGREEMENTS

Gold production from the Maria Bonita permit area is subject to a 1.5% net smelter royalty, known as a CFEM tax, payable to the government.

As an original owner of the mineral exploration title on which the Project is located, ECI Exploration and Mining Ltd. holds a 1.75% NSR royalty on all production from the Project lying within the permit areas originally acquired from ECI by Altamira or its predecessors.

4.5 PERMITS AND LICENSES

Altamira advised that the company will apply for bulk mining permits through the ANM mining office and environmental permits through the SEMA offices in the state of Para for trial mining activities. This is a process, whereby permitting for trial mining and/or bulk sampling can be achieved for an initial 50,000t/y of extraction.

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

5.1 TOPOGRAPHY, ELEVATION AND VEGETATION

The Maria Bonita Project is located in the catchment of the Teles Pires River, which flows to the northwest where it drains into the Tapajos River, and ultimately to the Amazon River. Topography is characterized by low hills with perennial and ephemeral streams that flow into the Teles Pires River. Vegetation is formerly dry forest, now largely cleared for arable agriculture.

5.2 CLIMATE AND LENGTH OF OPERATING SEASON

The climate at the Project is marked by a rainy season from December through May, and a dry season that extends from May through November. The average annual rainfall ranges between 1,500 to 2,000 millimeters per year. Annual average high temperature ranges from 30 to 34° Celsius, and annual average low temperature ranges from 18 to 22° Celsius (World Weather, 2013).

Exploration activities can be conducted on the Maria Bonita property year-round.

5.3 ACCESSIBILITY AND TRANSPORTATION TO THE PROPERTY

The nearest international airport to the Project is in the city of Cuiabá, in the state of Mato Grosso. Commercial daily flight services are available from Cuiabá to Alta Floresta, the nearest population center (95km south-east from the Project). Access from Alta Floresta is via paved highway MT-208, 55 kilometers to the town of Paranaíta. From Paranaíta, another 40 kilometers of dirt road, crossing the Teles Pires River, provides access to the project. River crossing requires a minimal toll fee and is managed by a local company operating a river barge and tugboat. The barge is of sufficient size to transport large tractor trailers and small-scale mining and processing equipment. The Maria Bonita property shown on Figure 5-1.

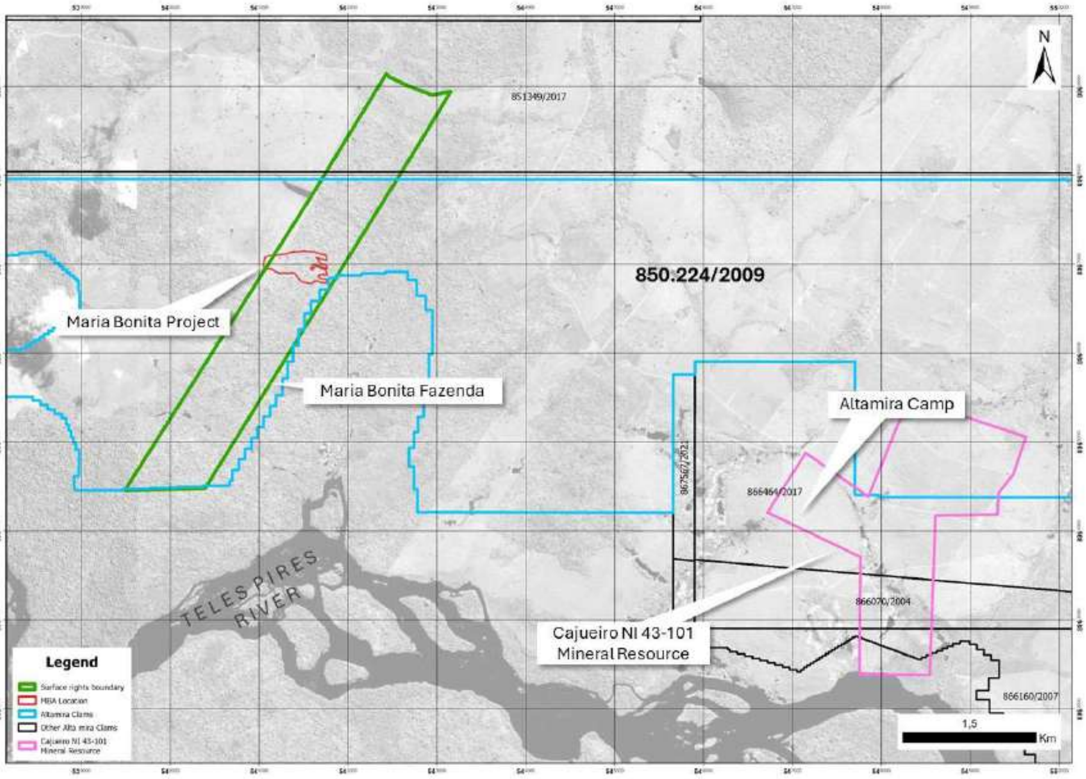


Figure 5-1- Maria Bonita Site Map.

5.4 INFRASTRUCTURE AVAILABILITY AND SOURCES

The Teles Pires and its tributaries were the site of artisanal alluvial mining (garimpos) from the 1970s to 1990s. Notably, there was no significant alluvial garimpeiro mining in the vicinity of the Project and very few of the alluvial sources in the district were traced to their hard-rock sources. Since 2007, modern exploration and drilling activities have been carried out. Altamira has established a camp and sample storage facility within the Project area to support exploration activities, and the camp is currently sufficient for up to 30 people.

5.4.1 POWER

The Project is provided with electrical power by CENTRAIS ELETRICAS DO PARA S/A CELPA. The current is sufficient for lighting and operation of appliances at the camp. For future construction of a mine and processing plant, Altamira is requesting the services of the company LÍDER CONSTRUÇÕES ELÉTRICAS LTDA.

At the Altamira camp, there is also a 33 kW diesel powered generator with a 10,000 liter fuel tank with sufficient capacity for approximately 3 months of use. Diesel is brought to the Project by truck and storage tanks are refilled year-round.

Existing power infrastructure is not adequate for mining activities as the power demand is likely to be greater than what can be reasonably supplied by one diesel generator. A potential future power source may be a major hydroelectric power plant on the Teles Pires River, such as the Teles Pires hydroelectric dam which is located approximately 22 kilometers west of the Project. Unit one of this plant was commissioned in November 2015 and a new power line serving the Project area is planned. The current design capacity is 1820 megawatts.

Existing power infrastructure is adequate for foreseeable exploration activities. Connection to the existing power grid or installation of a multiple unit diesel generating station will be required for a future the mineral process plant.

5.4.2 WATER

Process water, such as for drilling purposes, is pumped from shallow lakes or flooded pits to the site of utilization. In some instances, a water truck is used to transport water to the drill sites.

Drinking water is supplied in 20 liter bottles purchased in Paranaita or in Alta Floresta. Bathing water is pumped from the well on site to tanks in the different blocks of the camp accommodation. The well has provided all required water to date.

The existing water supply is adequate for foreseeable exploration activities; however, it is not expected to be adequate for mining activities. Water rights may be claimed with ANM for areas that are permitted for mining. The water source for the planned process plant is currently being investigated by Altamira.

5.4.3 MINING PERSONNEL

The population centers in the vicinity of the Project include Paranaíta, located approximately 40 kilometers south of the Project area, and Alta Floresta, located approximately 95 kilometers south-east of the Project area. The populations are approximately 10,000 in Paranaíta, and 50,000 in Alta Floresta. The capital city of the state of Mato Grosso is Cuiabá, located 900 kilometers south of the Project area, with a population of 650,000.

The availability of professional exploration and support staff has been good, with professionals based in Alta Floresta or commuting from Cuiaba. Contractor drilling crews, oversight and support personnel were mobilized from Belo Horizonte, Brazil. For the foreseeable activities, personnel availability is not foreseen as an issue.

For future mining activities, several producing gold mines are located in the state of Mato Grosso and mining personnel are expected to be available within the region. Altamira plans to source experienced personnel from existing operations and supplement them with the local workforce.

ITEM 6: HISTORY

During the late 1980s and 1990s, primary gold mineralization in the Juruena Belt was worked from alluvial and saprolitic material in drainages and less frequently from mineralized fracture zones using high power water hoses. Chapleau (2007) cites an "official government estimate of total placer gold production (to 1993) is between 7 million and 10 million ounces, but actual production is believed to be two to three times higher." Within the Cajueiro district, which includes the Project area, gold was historically extracted from both alluvial and saprolitic sources on the property of Alvaro Tavares, where Filao Alemao, Filao Alvaro, Filao Espiro, Grota Baldo, Grota Crente, Filao do Torinho, and Garimpo do Caretinha were worked. It is noteworthy that there is no evidence that the Maria Bonita mineralization was traced to its source as there are no outcrops nor surface workings at the project site.

Historical processing methods included gravity concentration and amalgamation of gold using mercury.

6.1 HISTORICAL EXPLORATION

In 2016, Altamira received the first soil sample results from the area now known as Maria Bonita. At the time, results were obtained from only a single soil line, with values ranging from 60 ppb to 370 ppb Au. In the context of soil sampling within the Cajueiro district, these results were highly anomalous.

In 2020, the company carried out an extensive follow-up soil sampling program, and the analytical results outlined a large anomalous area of approximately 1km^2, with an average gold grade of 260 ppb and a range from 30 ppb to 3,243 ppb**.**

Following definition of this large, coherent soil anomaly, supported by anomalous airborne and ground magnetic responses, indicating a magnetic low interpreted as evidence of potential hydrothermal alteration, experimental pitting was trialed. However, the soil and saprolite cover was too thick to reach bedrock. In the absence of any outcrop in the Project area, it was decided to drill test the center of the soil anomaly.

Altamira began drilling campaigns on the Project in 2022. The Table 6-1 presents a summary of the campaigns carried out.

Table 6-1 - Maria Bonita Exploration Work Summary.

Year	Description
2022	09 HQ and NQ diamond drill holes with 1,134.78 meters
2023	59 auger holes with 544.70 meters
2024	22 HQ and NQ diamond drill holes with 3,575.70 meters

Following successful completion of the first diamond drilling campaign and the identification of consistent gold mineralization over downhole widths of more than 50m, a second campaign of mechanized augur drilling was trialed to better understand the relationship between the soil anomaly and the underlying saprolite mineralization.

With the confirmation of a potential mineral deposit, a third program of diamond drilling was conducted to determine the limits of the known mineralization and commence infill data collection.

ITEM 7: GEOLOGICAL SETTING AND MINERALIZATION

7.1 LOCAL GEOLOGY

The rocks located in the Project area are, in order of age, inferred oldest to youngest, volcanics associated with the Colíder Group, including both effusive and explosive phases, plutonism of the Teles Pires Suite, and mafic dikes. The Maria Bonita intrusive body is a multiphase rhyolitic porphyritic intrusion emplaced into host rocks of the Colíder Group.

The Maria Bonita multiphase rhyolitic intrusion hosts an uncommon type of porphyry gold deposit. It is uncommon firstly due to its age. Porphyry deposits are infrequently preserved in the middle Proterozoic period due to their high crustal level of formation and the subsequent potential orogenic cycles that could have removed them via erosion. The Maria Bonita mineralization is also unusual in having a very low sulphur content for a porphyry-related system.

The lithological, mineralogical, and textural features at Maria Bonita — including a swarm of type-A veins, forming "sheets" and/or "stockworks" — and the relative gold grades support the interpretation of the mineralization as a porphyry gold deposit (Sillitoe, 2024). The contacts between the multiple phases of the intrusion are marked by the presence of UST-type veins at the top of each phase/pulse, and xenoliths of prior pulses occur between the phases as magmatic breccias.

The intrusive rocks hosting the mineralization, as well as the country rock, are crosscut by post-mineralization intrusions of bimodal, non-mineralized magma with feldspar phenocrysts, delimited at their contacts by aphanitic mafic dikes. In some drill hole intersections of these mafic dikes, a “ghost” texture of the feldspar porphyry is observed, suggesting a bimodal magma origin. The mafic dike intrusions are late features in the intrusive sequence, cutting the sequence of mineralized and barren felsic intrusions, Figure 7-1.

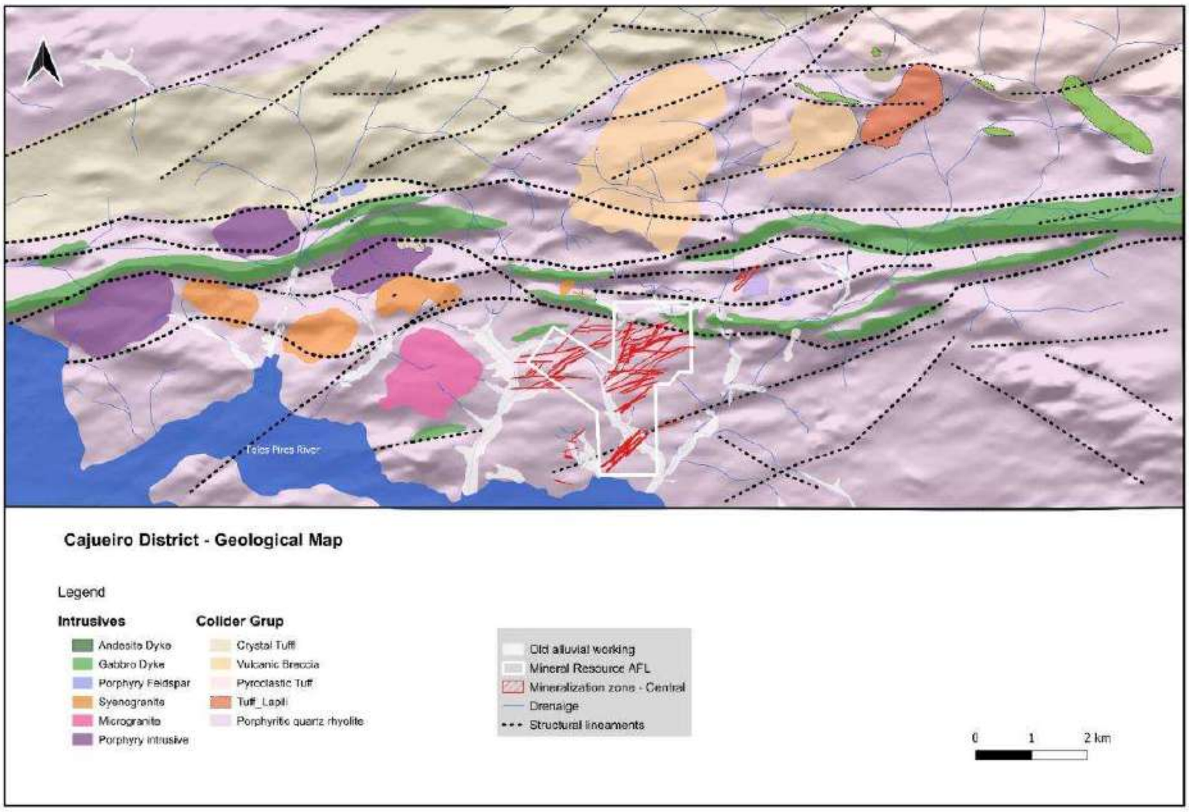


Figure 7-1 - Geological Map of the Maria Bonita Project. (AFGM 2025).

7.2 PROPERTY GEOLOGY

The Maria Bonita system is interpreted as being hosted in volcanic rocks of the Colíder Group, Figure 7-2. The geological map is interpreted from drillcore as there is no outcrop within the drilling area. The rocks that make up the Maria Bonita intrusive are multiphase and rhyolite in composition. Post-mineral barren aplite and mafic dikes of bimodal magma composition, include a felsic facies (feldspar porphyry) and a mafic facies (fine grained diorite).

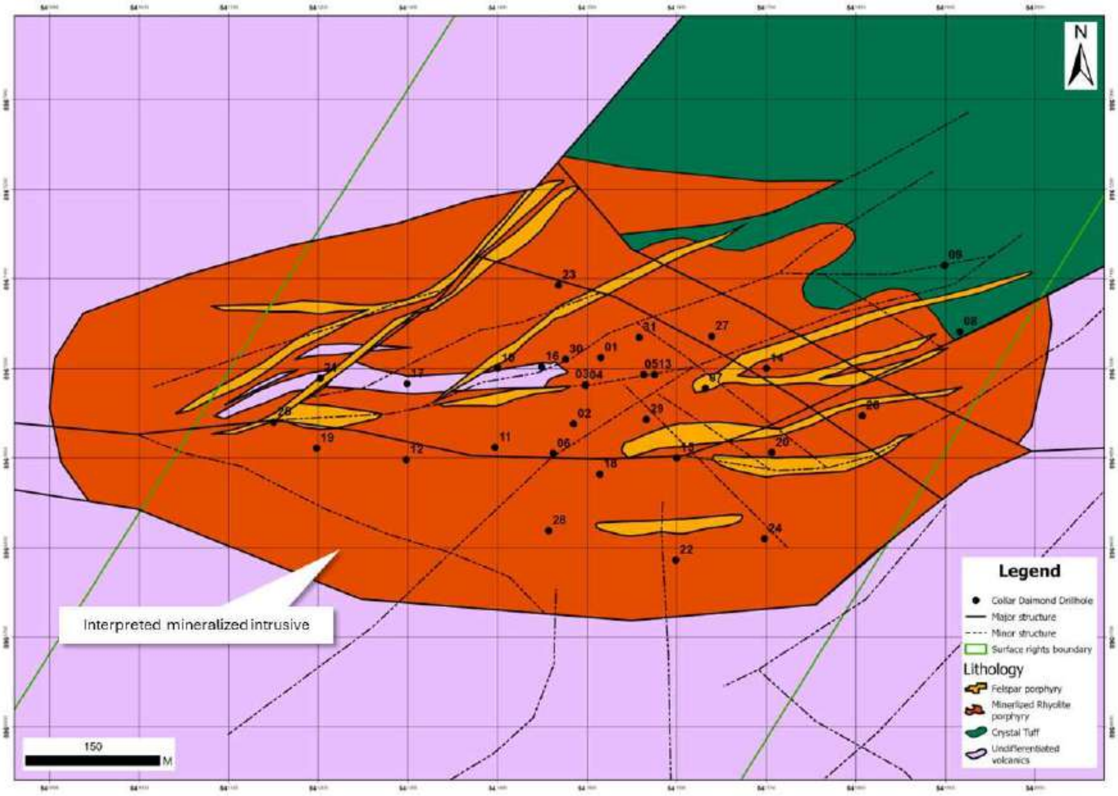


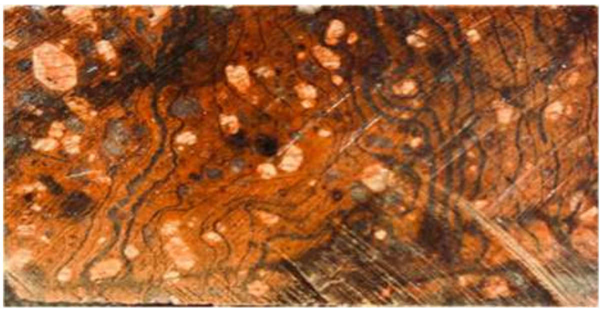
Figure 7-2 Geological Map of the Maria Bonita Project. (AFGM 2025).

The multiphase rhyolite that hosts the mineralized portion of the Maria Bonita intrusive is dark red and generally aphanitic, with a porphyritic texture and sub-rounded quartz and feldspar phenocrysts (5-10%). The rock is cut by swarms of straight and irregular quartz veins that intersect as "sheets" and/or "stockwork." Two types of veins occur: the first is colorless, composed mostly of quartz; the second, associated with the first, consists of straight black veins made up of fine-grained dark green minerals.

The black veins observed in hand samples are composed of quartz, biotite (altered to chlorite), chlorite, fluorite and iron oxides. These veins are irregular in thickness and host the Type-A quartz veins — colorless veins rich in quartz, which are of the crack-seal and/or syntaxial type. The Type-A veins are mainly composed of quartz and rare very fine sulfides such as pyrite or/and gold. Crack-seal quartz veins are straight and regular, while the syntaxial ones tend to be irregular.

Post-mineral rocks of the Maria Bonita intrusive include the bimodal aplites and mafic dikes both of which transect the multiphase rhyolite. At both the top and bottom contacts of the aplites, mafic rocks are generally present and are composed of chlorite, biotite, and epidote. In the center of the aplites, a more porphyritic variety composed of fine- to medium-grained phenocrysts of quartz, alkali feldspar, and plagioclase occurs. The groundmass displays a felsitic texture. Sericitization and saussuritization processes are also observed to affect both the porphyritic phenocrysts and the groundmass.

Completing the post-mineral sequence are mafic dikes, dark green in color, massive, and magnetic, now composed mainly of chlorite and with quartz/carbonate veinlets, Figure 7-3.

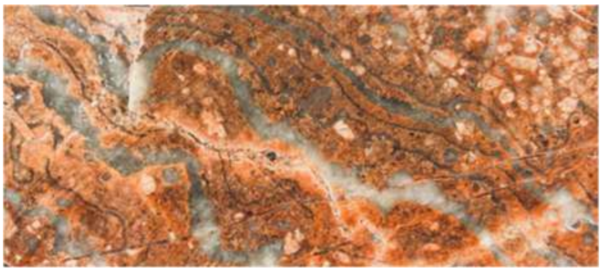


DDMBA-0003: From 28.30 m to 28.40m (1.0m@1.14 g/t_Au from 28m) UST's zones, interminerals - MBA01

DDMBA-0003: From 37.40 m to 37,57m (1.0m@1.31 g/t_Au from 37m) UST's zones, interminerals - MBA01

DDMBA-0029: From 50,50m to 50,65m (1.0m@1,6 g/t_Au from 50m) stockwork_sheets de Venulets A-type , interminerals - MBA01

DDMBA-0029: From 50,38m to 50,50m (1.0m@1,6 g/t_Au from 50m) stockwork Venulets A-type , interminerals - MBA01

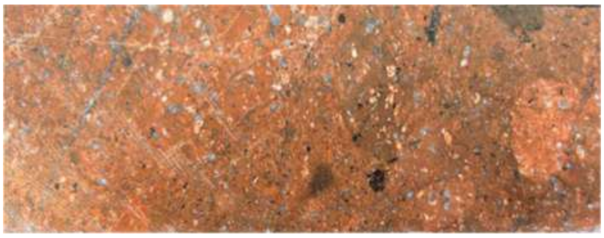


DDMBA-0029: From 85,30m to 85,45m (1.0m@0,16 g/t_Au from 85m) Venulets UST's zone, contact Interminareal MBA01 and MBA02

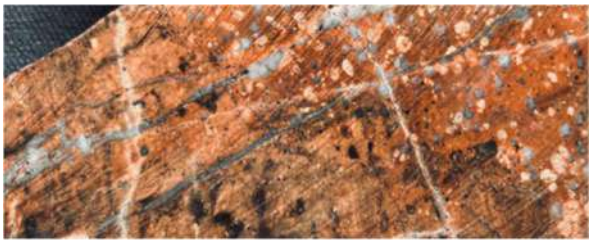
DDMBA-0029: From 62,50m to 62,65m (1.0m@ 2,0 g/t_Au from 62m) breccied A-type venules, Interminareal MBA01 – BRI-001

DDMBA-0029: From 60,90m to 61,00m (1.0m@ 2,4 g/t_Au from 60m) stockwork Venulets A-type, breccied , interminerals - MBA01 (BRI-001)

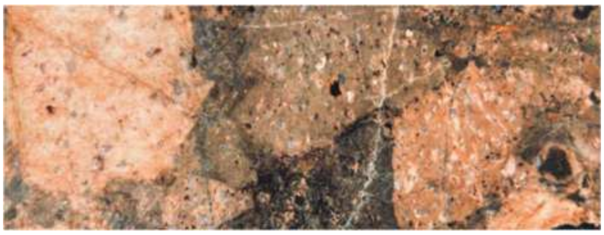
DDMBA-0029: From 38,60m to 38,70m (1.0m@0,94 g/t_Au from 38m) breccied Venulets A-type , interminerals - MBA01 (BRI-001)



DDMBA-0020: From 113,50m to 113,80m (1,00m@0,57g/t_Au from 113m) Intermineral –MBA02/BRI02

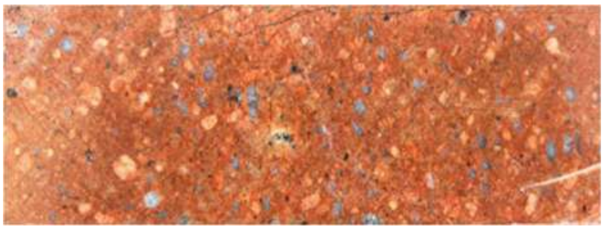


DDMBA-0029: From 212,00m to 212,20m (1.0m@0,48g/t_Au from 212m) breccia igneous zone BRI-03

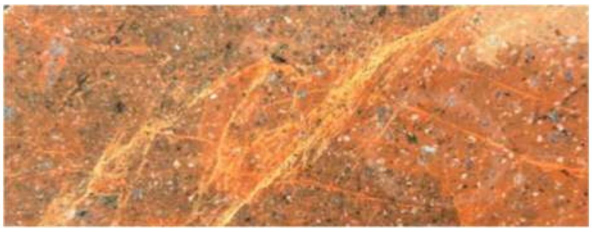


DDMBA-0029: From 151,80m to 151,95m (1.0m@0,33 g/t_Au from 151m) breccia igneous zone MBA03/BRI-03

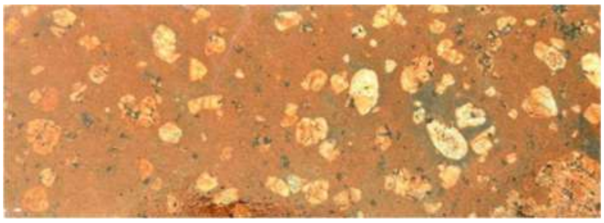
DDMBA-0024: From 191,10m to 161,30m (1,00m@0,4g/t_Au from 191m) Intermineral –MBA03 with chlorite sheerts



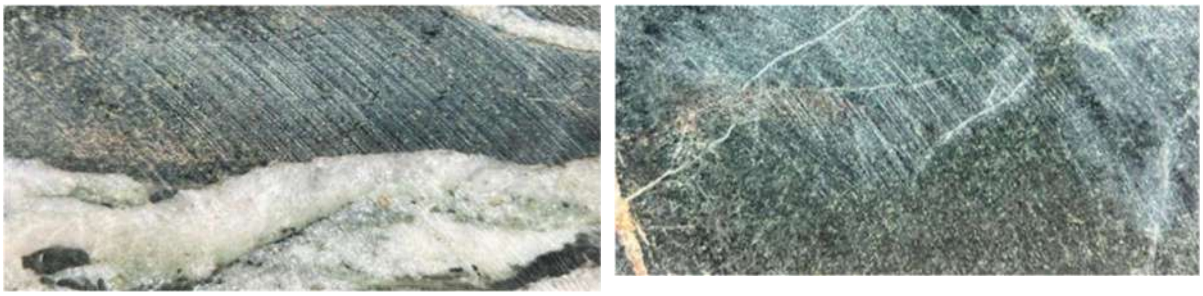
DDMBA-0024: From 51,70m to 51,90m (1,00m@0,13g/t_Au from 51m) Intermineral –MBA04



DDMBA-0014: From 49,40m to 49,50m (1,00m@0,1g/t_Au from 94m) Intermineral –MBA04/BRI04.



DDMBA-0014: From 19,10m to 19,24m (Barren) Intermineral – Late intrusion of Fedspar porphyry Dyke



DDMBA-0014: (A) From 139,500m to 139,70 (later Barren intrusive Mafic from 131,80m to 146,00) with carbonate-silica veins (DD/D = 274/36).

DDMBA-0014: B) 143,15m to 143,21m (later Barren intrusive Mafic from 131,80m to 146,00) with carbonate-silica veins (DD/D = 274/36).

Figure 7-3 Petrographic characteristics of rocks of Maria Bonita Target.

The rocks that host the mineralization are of felsic composition. They are pink to light red rhyolites with a medium grain size and porphyritic texture. The phenocrysts are composed of quartz, alkali feldspar, and plagioclase, in decreasing order of abundance. Disseminated sulfides, represented by euhedral pyrite, are rarely observed. In general, the rhyolite is affected by an E-W trending shear zone and exhibits fractures filled with quartz, carbonate, and chlorite, Figure 7-4.

Figure 7-4 Photo of the Maria Bonita system's host rhyolite.

Adjacent to and interpreted as overlying the intrusives are crystal tuffs, which represent the extrusive volcanic country rock of the Colider formation. These are grayish, magnetic, massive, poorly sorted rocks with porphyritic textures. They are rich in lithic fragments and crystal clasts of quartz, alkali feldspar, and plagioclase within a finer-grained matrix, Figure 7-5.

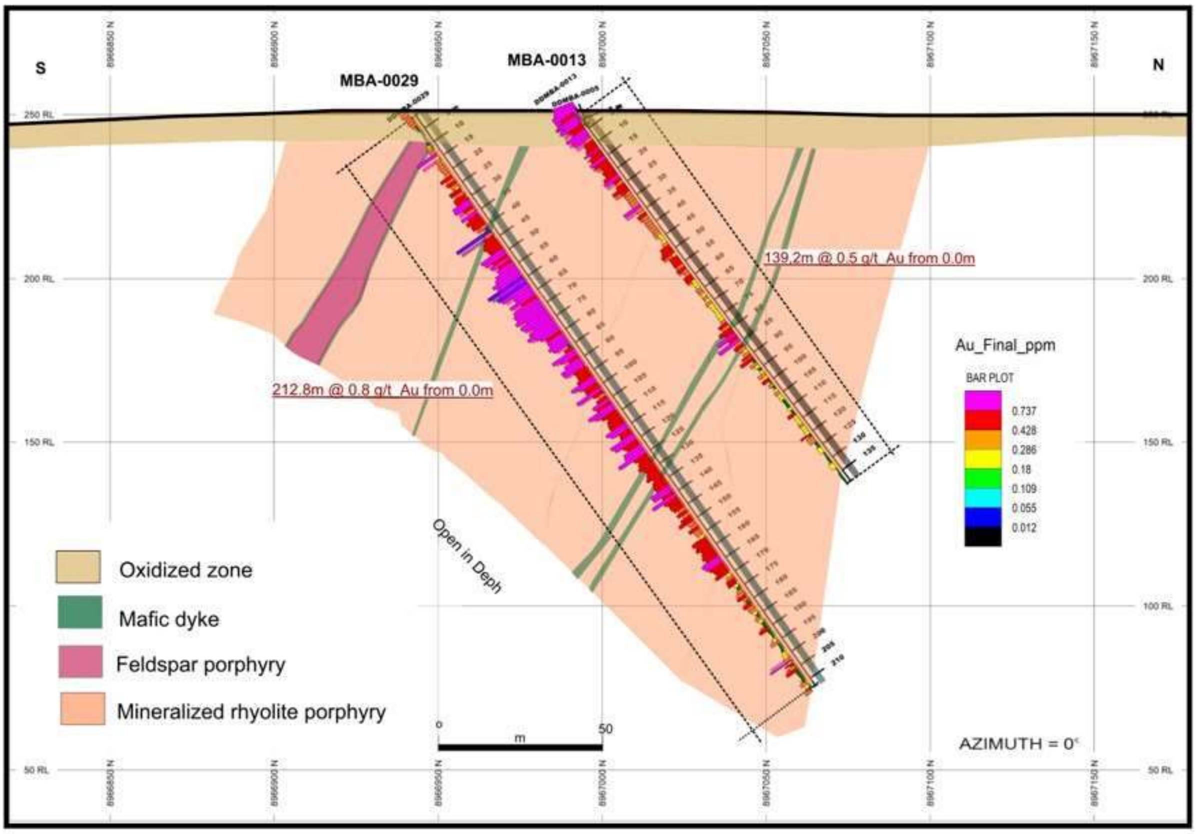


Figure 7-5 MBA-13 and MBA-29 drill holes. (AFGM 2025).

Figure 7-5 shows the typical geometry of the mineralized phases of the rhyolite porphyry. All of the section is hosted in rhyolite porphyry except for the felspar porphyry and mafic dykes. These later phases are inclined to the south at around 50-60°. The grade distribution within the rhyolite porphyry also suggests a south dipping arrangement with successive pulses of rhyolite porphyry containing differing degrees of veining and hydrothermal alteration.

A working hypothesis is that the rhyolites were originally emplaced as successive sills up to +/- 50m thick. UST textures developed in the volatiles at the upper contact of each sill. Following intrusion of all phases, the Project area was tilted from sub-horizontal to the current moderate inclination to the south.

The drill section in Figure 7.5 shows the consistency of the gold mineralization in hole MBA-029. Within the zone of gold mineralization, logging shows that there are several cycles of rhyolite porphyry intrusion, each up to ~50m thick. In general, the initial pulse is interpreted as having been the site of the most intense quartz veining and hydrothermal alteration and therefore carries the highest gold grade. Successive pulses contain less veining and carry less gold. There is no significant metal or other metal trends associated with the gold.

ITEM 8: DEPOSIT TYPE

8.1 MINERAL DEPOSIT

The Maria Bonita gold deposit is characterized as a porphyry gold deposit (Sillitoe, 2024) The gold mineralization is closely associated with A-Type quartz veining, occurring as swarms of straight and irregular quartz veins that intersect in "sheets" and/or "stockwork" patterns. Two types of veins are observed: the first is colorless, composed mostly of quartz; the second, spatially associated with the first, consists of straight black veins composed of fine-grained dark green minerals (now mostly chlorite). Bulk gold grades vary directly with the intensity of quartz veining. Macroscopically, sulfides are rare to absent.

The early porphyritic phases at Maria Bonita exhibit potassic alteration, with the intensity of alteration decreasing progressively in the younger phases. The alteration is dominated by potassium feldspar, but small amounts of biotite, fluorite, and magnetite are also present. Magnetite has undergone martitization to hematite, as the entire system was affected by alteration, turning the rock red — a phenomenon caused by the impregnation of fine-grained hematite into feldspars. Translucent, grayish quartz veins, without observable alteration halos, were introduced during the potassic event and are considered to belong to the Type-A family. Sulfide content — mainly pyrite and subordinate chalcopyrite — is extraordinarily low, as evidenced by the average sulfur content of only 200 ppm. Therefore, most of the gold likely occurs as submicroscopic particles within the quartz veins, although minor amounts may occur with rare chalcopyrite.

Sericitic alteration, poor in pyrite, overprints the potassically altered porphyries and their quartz veins but does not appear to have introduced additional gold. In fact, it may have resulted in partial gold depletion. Where sericitic zones have sharp contacts, they are perpendicular to the core axis, implying a dip of approximately 35°, potentially to the southeast — similar to the post-mineral porphyry described by Sillitoe (2024).

Four distinct intrusion phases are observed within the Maria Bonita porphyry gold deposit: one initial strongly mineralized phase and three successive pulses, each with generally lower gold contents. Their contacts are marked by the occurrence of UST-type veins and/or magmatic breccias, Figure 8-1 to Figure 8-3.

- **Initial phase (MBA01):** Composed of reddish quartz porphyry with intense potassic/hematitic alteration and abundant Type-A veining. This phase hosts the highest gold grades associated with the veining.

- **MBA02**: Veining occurs at moderate frequency, and gold grades are intermediate compared to MBA01. UST-type veins mark the contact and top of the MBA02 pulse. Xenoliths of MBA01 veins occur in magmatic breccia near the contact. Potassic/hematitic alteration is moderate, and phenocrysts are finer than in the first pulse.

- **MBA03**: Veining becomes sparse, and gold grades are low. Potassic alteration is moderate and overprinted by chloritic alteration, replacing biotite. MBA03 displays magmatic breccia textures with xenoliths from earlier pulses (MBA02).

- **MBA04**: The final magmatic pulse with low gold grades. Veining is rare, and potassic alteration is weak. It features fine phenocrysts of quartz and feldspar and contains xenoliths from MBA03.

Post-mineral intrusions consist of feldspar porphyry dikes with K-feldspar phenocrysts in a felsic matrix.

Figure 8-1 - MBA-003 with example of veining in the initial phase MBA01, (Altamira 2025).

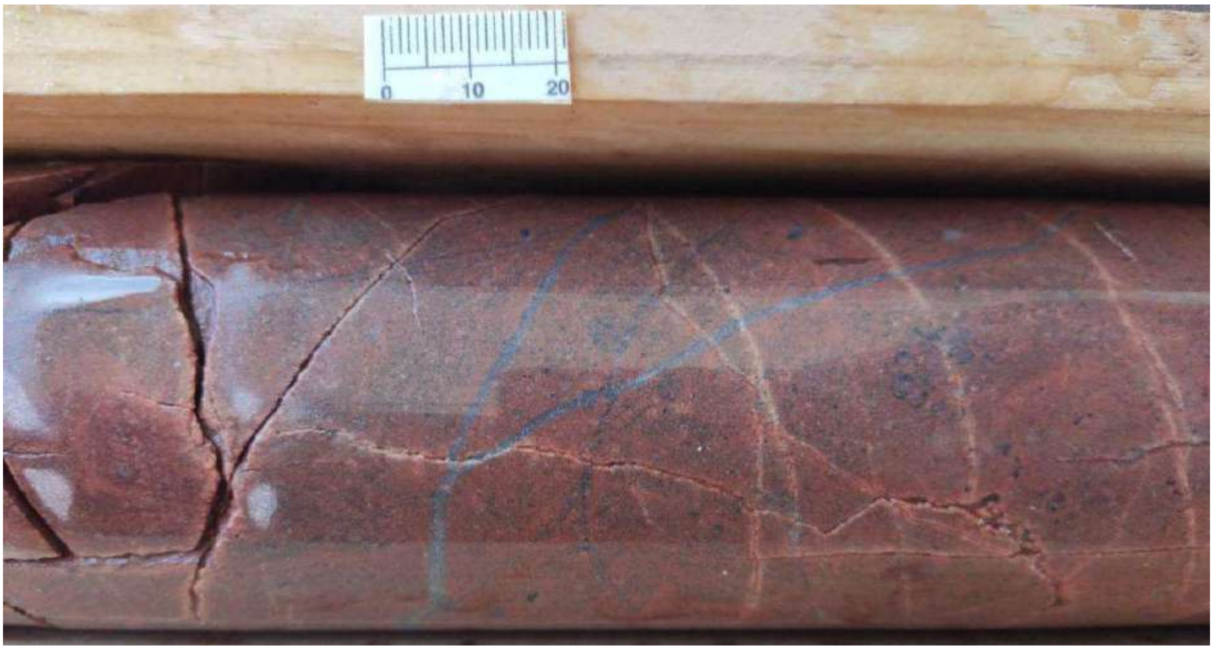


Figure 8-2 - MBA-016 with example of veining present in phase MBA02, (Altamira 2025).

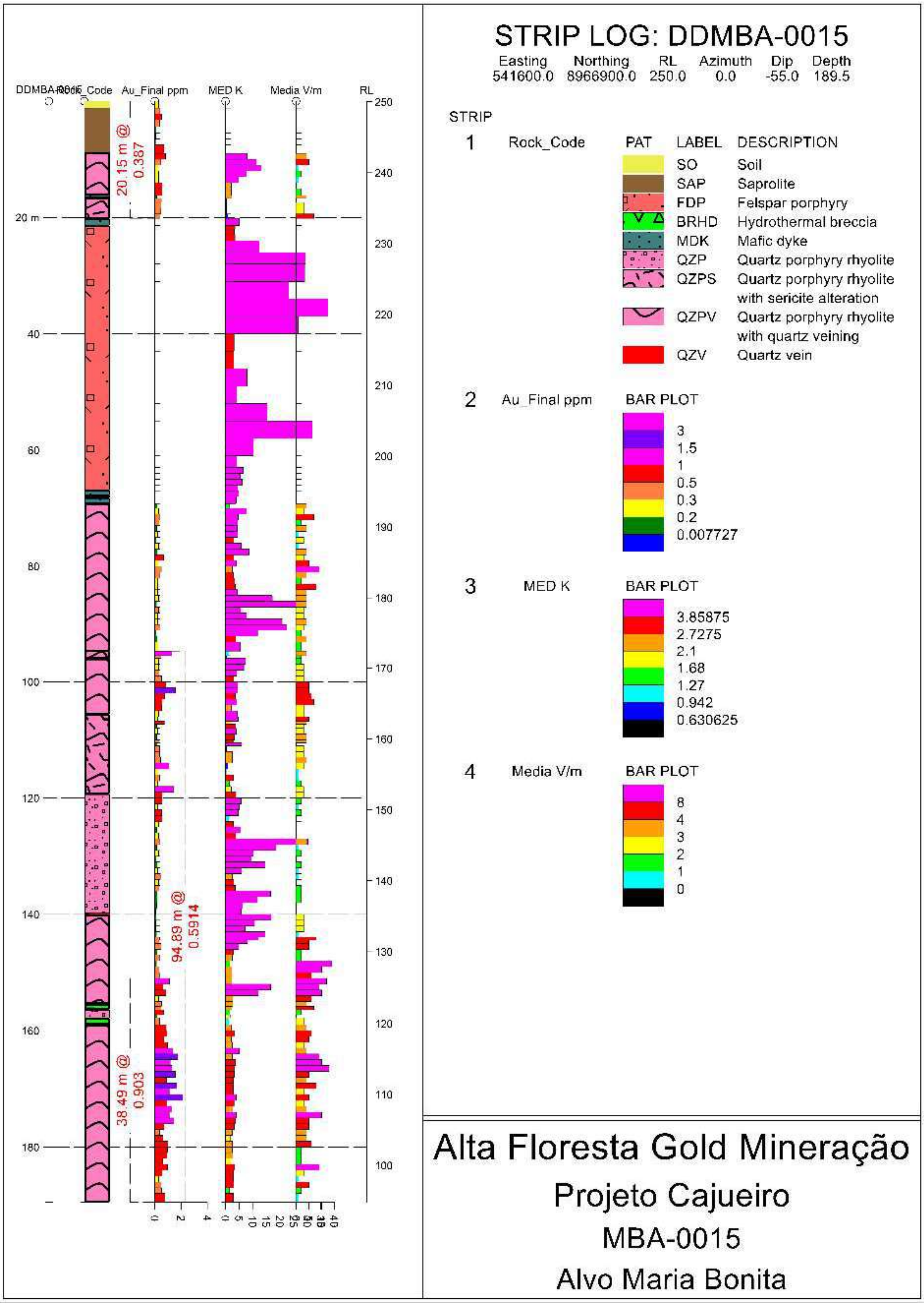


Figure 8-3 - Strip Log of MBA-015 hole showing gold distribution downhole (Altamira 2025).

8.2 GEOLOGICAL MODEL

With its successive rhyolite porphyry phases, the intensity of A-type quartz veining, and the correlation of gold grades with the respective porphyritic phases, the Maria Bonita Project is interpreted as an uncommon porphyry gold deposit. It has an inferred mid-Proterozoic age, which in itself is rare for a preserved porphyry deposit. It is not associated with dioritic porphyry intrusions located at shallow crustal levels (e.g., Marte-Lobo in the Maricunga Belt, Chile) or within reduced sedimentary packages (e.g., La Colosa, Colombia). Instead, the gold is part of a felsic (rhyolitic) system with a distinctly lithophile composition, as indicated by weakly anomalous tin (20 ppm) and tungsten (11 ppm) contents, as well as the presence of fluorite (Sillitoe, 2024).

The multiple porphyry phases together form a coherent body measuring approximately 600 by 400 meters, elongated in a general E-W direction, consistent with the regional geological fabric. The Project lies within a regional NW-SE trending sinistral fault corridor, which includes E-W extensional fault components developed in a brittle to brittle-ductile regime, where east-west gabbroic intrusive rocks were emplaced in zones of post-mineralization tectonic reactivation over distances of tens of kilometers.

The Maria Bonita deposit is located at the north-northwest edge of the district scale E-W fault zone and has been affected by this post-mineralization tectonic event. The mineralized body and post-mineral intrusions at Maria Bonita are interpreted as having been intruded as sills and subsequently rotated and tilted to the southeast, with current dips ranging from 45° to 70°. Additional evidence for the post-mineralization tilting of the Maria Bonita porphyry system comes from the average orientations of the vein sets, which show two main families of poles with attitudes of N48E/74SE and N34E/46SE.

The geological model and its relationship to resource modeling are discussed in Section 14.

ITEM 9: EXPLORATION

In 2016, Altamira Gold received the first soil sample results from the area now known as Maria Bonita. At the time, results were obtained from only a single soil line, with values ranging from 60 ppb to 370 ppb Au. These were considered to be significantly anomalous.

In 2020, the company carried out an extensive follow-up soil sampling program, and the analytical results outlined a large anomalous area of approximately 1km^2, with an average gold grade of 260 ppb and a range from 30 ppb to 3,243 ppb, Figure 9-1**.**

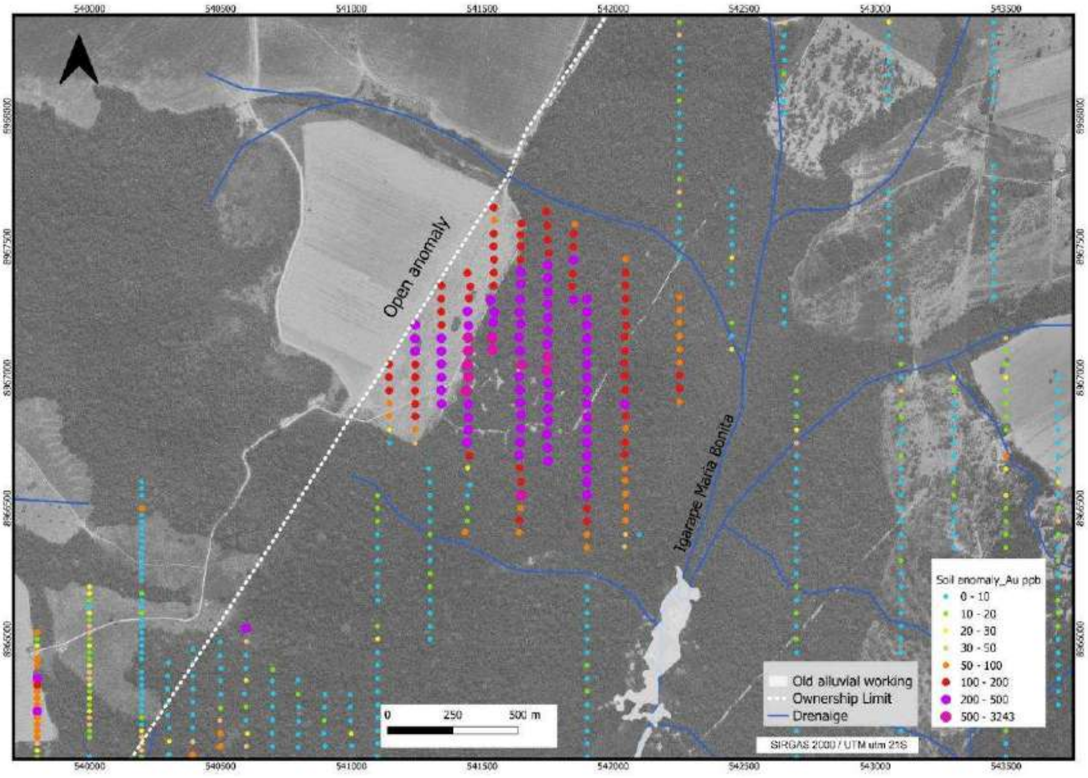


Figure 9-1 - Soil anomaly map for the Maria Bonita Project.

Grid mapping did not reveal any outcrops in the area of the soil anomaly. There is also no evidence of surface workings for gold within the soil anomaly.

Although there has been some previous alluvial garimpo gold extraction in the lower reaches of the stream draining south from the prospect, the closest former alluvial workings to the site of the soil anomaly are approximately 2km.

Attempts were made to open a bulldozer trench in the eastern section of the soil anomaly, along an existing farm track, however bedrock was not reached.

Proprietary regional aeromagnetics and radiometrics were reviewed as part of the exploration programme. There is no specific radiometric signal from the sub-cropping intrusive body. A broad magnetic low characterizes the area of the soil anomaly and may reflect hydrothermal alteration processes affecting the mineralized intrusives.

Ground magnetics on 100 m north-south lines was used to better define the extent of the magnetic low Figure 9-2.

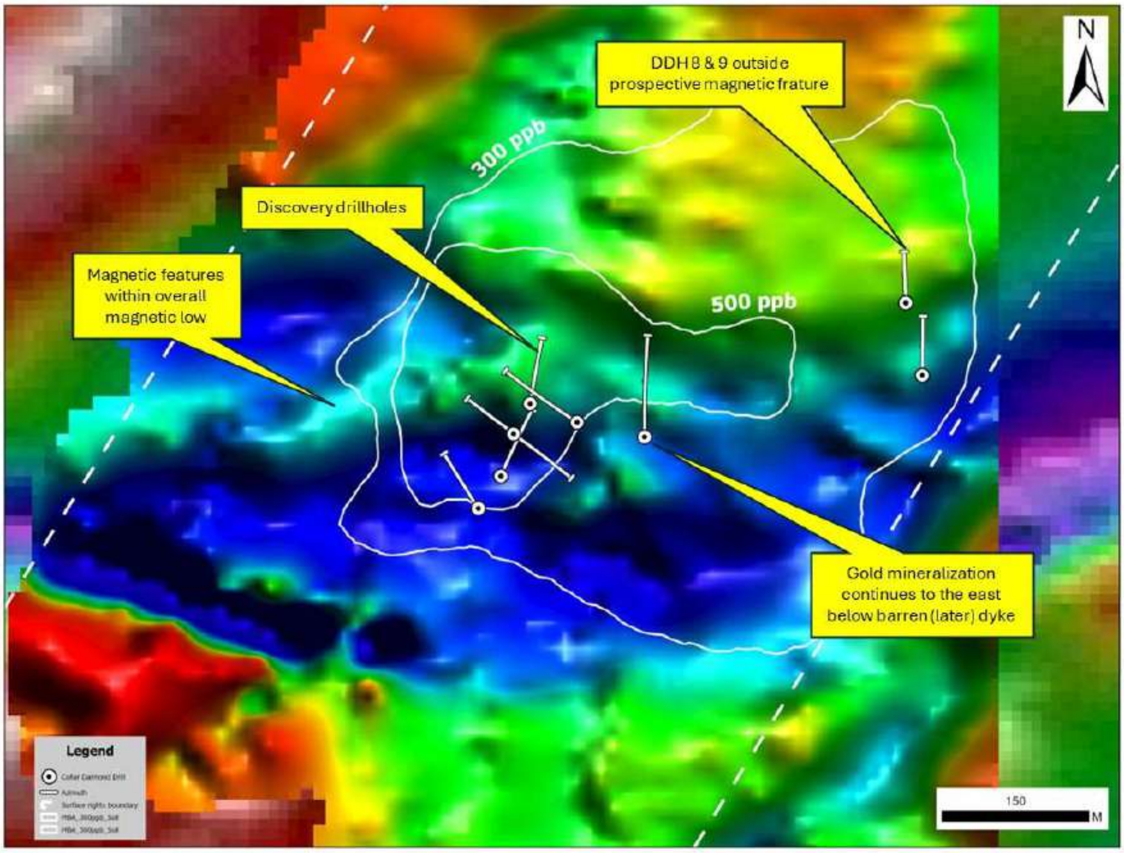


Figure 9-2 - Ground mag map – Something like this – update with DDH collars.

ITEM 10: DRILLING

The subsections below detail the exploration drilling completed at the Project.

Prior to the drilling carried out by Altamira, there is no evidence of any prior hard-rock exploration or drilling having been conducted at the Project.

The authors found no drilling, sampling, or recovery factors that might materially affect the accuracy of the assay results used as the basis for the current estimation. Drill core recovery is reported to average 95%.

10.1 FIRST DIAMOND DRILLING CAMPAIGN (2022)

A nine-hole drill program was focused on the shallow testing (<180m) of the center of the soil anomaly, with the last two holes located to test the eastern sector of the anomaly. Drill holes were mainly inclined at 60°.

The program commenced in June 2022 and terminated in August 2022. Average production from 02 shifts per day was 15 meters per shift

Drilling was carried out by GEOSOL – Geologia e Sondagens S/A, based in the city of Belo Horizonte, State of Minas Gerais, Brazil. GEOSOL used a MACH-1200 drill rig with an MWM Series 10 turbo diesel engine, model TCA, 6 cylinders, and 210 HP, mounted on metal tracks. The rig has a capacity of 600 meters in HQ and 800 meters in NQ. The holes were drilled to produce HQ core for the first 50 meters from surface and NQ core down to the end of the hole.

The weathering profile in the project area is such that fresh, unweathered bedrock was encountered between 20 and 50 meters depth downhole. The upper saprolite levels required casing of the holes to prevent caving.

All cores were cut in half at the field camp using a water-cooled diamond saw. Core cutting and sampling were supervised by the project geologist and Altamira technicians. Half of the core was sent for assay, while the other half was retained on site for reference and additional geological studies.

A total of nine HQ and NQ diamond drill holes tested the soil anomaly at the Maria Bonita Target, for a total of 1,134.78 meters of drilling, Table 10-1.

Table 10-1 - Drillhole Summary for 2022 Drilling Program.

HOLE ID	EASTING (meters)	NORTHING (meters)	ELEVATION (meters)	AZIMUTE (°)	DIP (°)	TOTAL LENGTH (meters)
DDMBA-0001	541515	8967012	244,8	10,14	-55,02	121,36
DDMBA-0002	541485	8966938	245,8	23,6	-55,72	134,98
DDMBA-0003	541495	8966983	245,7	305,4	-55,71	105,96
DDMBA-0004	541497	8966978	245,7	126,09	-54,54	129,5
DDMBA-0005	541563	8966993	243	304	-55,66	157,64
DDMBA-0006	541462	8966905	245,5	327,45	-54,93	113,77
DDMBA-0007	541632	8966978	240,7	0,66	-55,7	178,77
DDMBA-0008	541916	8967041	231,6	359,91	-53,46	101,56
DDMBA-0009	541899	8967115	232,5	358,2	-55,33	91,24

10.2 AUGER DRILLING (2023)

After the first diamond drilling campaign, Altamira completed a program of 59 mechanical auger drill holes with the objective of testing gold dispersion in the soil/saprolite. The drilling was conducted using Altamira's own equipment under the supervision of the company's geologists and execution by its mining technicians. All drillholes were vertical.

The drilling program commenced in March 2023 and was completed in May 2023.

The sampling methodology involved collecting samples at one-meter intervals, respecting geological contacts. Drilling continued until no further advance was possible.

All QA/QC controls to prevent sample contamination, as well as the respective sample control procedures, were applied during sampling under the supervision of the company's geologists and technicians.

The program was conducted during the dry season to minimize the effects of groundwater on sampling procedures June 2022.

The 59 auger holes totaled 544.70 meters, with an average depth of approximately 9 meters, Table 10-2.

1. Table 10-2 Auger Drilling Hole Summary 2023.

HOLE ID	EASTING (metros)	NORTHING (metros)	ELEVATION (metros)	AZIMUTE (°)	DIP (°)	TOTAL LENGTH (metros)
PAMBA-0001	541526	8966998	244,5	0	-90	11,4
PAMBA-0002	541526	8967026	244,3	0	-90	7,9
PAMBA-0002A	541521	8967029	244,4	0	-90	9
PAMBA-0003	541529	8967047	243,9	0	-90	7,6
PAMBA-0003A	541524	8967052	244	0	-90	9,6
PAMBA-0004	541524	8967070	243,8	0	-90	13,5
PAMBA-0004A	541538	8967069	243,2	0	-90	10
PAMBA-0005	541524	8967102	243,2	0	-90	11,5
PAMBA-0005A	541529	8967104	243	0	-90	9
PAMBA-0006	541524	8966974	245,2	0	-90	7,2
PAMBA-0006A	541532	8966972	245	0	-90	8,7
PAMBA-0007	541526	8966954	245	0	-90	9,3
PAMBA-0007A	541527	8966853	243,9	0	-90	10
PAMBA-0008	541602	8966988	241,9	0	-90	10
PAMBA-0008A	541628	8967024	240,6	0	-90	10
PAMBA-0009	541657	8966966	239,5	0	-90	9
PAMBA-0009A	541671	8966963	239	0	-90	8,5
PAMBA-0010	541549	8966987	243,9	0	-90	10
PAMBA-0010A	541549	8966993	243,9	0	-90	9,5
PAMBA-0011	541548	8967011	243,5	0	-90	10
PAMBA-0011A	541552	8967006	243,4	0	-90	10
PAMBA-0012	541549	8967060	243,3	0	-90	9
PAMBA-0012A	541545	8967069	243,1	0	-90	9
PAMBA-0013	541523	8967124	242,9	0	-90	10
PAMBA-0013A	541551	8967062	243,3	0	-90	10
PAMBA-0014	541528	8967154	242,5	0	-90	10
PAMBA-0015	541524	8967176	242,2	0	-90	10
PAMBA-0016	541550	8967156	241,8	0	-90	10

HOLE ID	EASTING (metros)	NORTHING (metros)	ELEVATION (metros)	AZIMUTE (°)	DIP (°)	TOTAL LENGTH (metros)
PAMBA-0017	541548	8967140	242	0	-90	10
PAMBA-0018	541548	8967115	242,4	0	-90	10
PAMBA-0019	541548	8967085	242,8	0	-90	10,5
PAMBA-0020	541547	8967041	243,5	0	-90	10
PAMBA-0021	541574	8967170	240,8	0	-90	10
PAMBA-0022	541474	8967003	246,2	0	-90	8
PAMBA-0023	541471	8966950	246,2	0	-90	9
PAMBA-0024	541479	8966905	245,5	0	-90	7,3
PAMBA-0025	541419	8966900	245,8	0	-90	3,4
PAMBA-0026	541509	8967036	245,8	0	-90	10
PAMBA-0027	541501	8967092	244,5	0	-90	10
PAMBA-0028	541458	8967093	245	0	-90	10
PAMBA-0029	541429	8966953	247,1	0	-90	5
PAMBA-0030	541519	8966898	245,3	0	-90	4,6
PAMBA-0031	541449	8966976	247	0	-90	6,7
PAMBA-0032	541526	8966990	245	0	-90	10
PAMBA-0033	541448	8967048	246,4	0	-90	9
PAMBA-0034	541588	8966968	242,7	0	-90	10
PAMBA-0035	541566	8966928	244,1	0	-90	9
PAMBA-0036	541570	8967009	243	0	-90	10
PAMBA-0037	541583	8967068	242,5	0	-90	9
PAMBA-0038	541574	8967125	241,8	0	-90	9,5
PAMBA-0039	541632	8967109	240	0	-90	10
PAMBA-0040	541633	8967069	240,3	0	-90	10
PAMBA-0041	541633	8967019	240,6	0	-90	10
PAMBA-0042	541651	8966955	239,8	0	-90	10
PAMBA-0043	541625	8966928	241	0	-90	8
PAMBA-0044	541672	8966927	239	0	-90	9
PAMBA-0045	541678	8967005	238,8	0	-90	10
PAMBA-0046	541663	8967069	239,3	0	-90	9

HOLE ID	EASTING (metros)	NORTHING (metros)	ELEVATION (metros)	AZIMUTE (°)	DIP (°)	TOTAL LENGTH (metros)
PAMBA-0047	541682	8967109	238,5	0	-90	8

10.3 SECOND DIAMOND DRILLING CAMPAIGN (2023/4)

This programme was designed to infill and extend the definition of bedrock mineralization outlined in the first drill programme (2022).

The programme commenced in November 2023 and terminated in March 2024. Average production from 02 shifts per day was 15 metres per shift

Drilling was conducted by GEOSOL – Geologia e Sondagens S/A as outlined in Section 10.1 using the same equipment. The (mainly) inclined holes were drilled to produce HQ core for the first 50 meters from the surface and NQ core to the end of the hole.

The weathering profile in the project area is such that fresh, unoxidized bedrock was encountered between 20 and 50 meters depth. The upper levels within saprolite required casing to avoid hole collapse.

All core was cut at the Altamira camp facilities using a water-cooled diamond saw. Core cutting and sampling were supervised by the project geologist and Altamira's technical staff. Half of the core was sent for assay, while the other half was kept on site for reference and further geological studies.

Two vertical HQ drillholes were completed as part of this programme for potential metallurgical testwork (MBA030 & 031)

A total of 22 HQ and NQ diamond drill holes were completed totalling 3,575.70 meters, Table 10-3.

Table 10-3 - Drill hole summary for the 2023/2024 drilling program.

HOLE ID	EASTING (metros)	NORTHING (metros)	ELEVATION (metros)	AZIMUTE (°)	DIP (°)	TOTAL LENGTH (metros)
DDMBA-0010	541393	8967003	247,7	358,81	-54,8	267,19
DDMBA-0011	541397	8966912	246	0,57	-53,74	148,28
DDMBA-0012	541298	8966898	246,3	352,25	-55,55	151,62
DDMBA-0013	541575	8966993	242,8	358,8	-55,1	139,16
DDMBA-0014	541696	8966994	238,3	358,08	-55,57	153,11
DDMBA-0015	541610	8966904	243	359,95	-53,52	189,49
DDMBA-0016	541446	8967004	246,8	13,03	-56,49	182,63
DDMBA-0017	541299	8966983	248,9	359,96	-54,84	163,49
DDMBA-0018	541514	8966882	245,1	0	-53,94	172,11
DDMBA-0019	541198	8966911	250	355,87	-54,44	171,18
DDMBA-0020	541706	8966906	237,5	0,07	-55,19	173,29
DDMBA-0021	541202	8966989	250,8	359,93	-55,18	183,58
DDMBA-0022	541599	8966786	237,6	359,89	-55,69	184,03
DDMBA-0023	541468	8967093	245	359,95	-54,93	153,43
DDMBA-0024	541698	8966810	236,4	359,9	-54,83	186,9
DDMBA-0025	541150	8966940	252,3	324,21	-56,99	203,13
DDMBA-0026	541807	8966947	234,8	0,13	-55,61	157,33
DDMBA-0027	541639	8967036	240,3	359,9	-54,6	112,79
DDMBA-0028	541457	8966819	241	359,76	-55,09	152,44
DDMBA-0029	541566	8966943	243,7	359,55	-54,58	212,75
DDMBA-0030	541500	8966987	246,2	356,61	-88,23	59,12
DDMBA-0031	541558	8967034	243,2	0	-88,19	58,65

Below is a summary of the core logging protocols applied:

- Core was examined and verified at the drill site by the company geologist
- Core extraction from the core boxes was carried out in a dedicated well-lit and secure facility at the camp.
- The drilling contractor provided the site core recovery data, which was reviewed and verified by the company's technician at the camp.

- Core photography was completed.

- The project geologist logged lithology, alteration, mineralogy, and structures, and marked the core samples for sampling.

- Core logging data was added to the drill hole database.

- The core was stored in secure and clearly labeled racks within the company camp site.

- The drill core logs contain the following information:

  - Drilling header information: drill hole number, collar coordinates and elevation, location, azimuth, dip, length, geologist, drilling dates, and core diameter.

  - Core recovery per core run interval.

  - Sample data: sample number with from-to intervals.

  - Letter codes for the digital database for lithology (rock type, composition, shape, and texture), alteration (type, style, intensity, and mineralogy), mineralization (type, style, mineralogy, and %), and structures (type and angle to the core axis).

  - Geotechnical data: RQD, weathering, and rock strength.

10.4 DRILLHOLE MAP

The locations of the thirty-one diamond drill hole collars and the horizontal hole projections are presented in Figure 10-1.

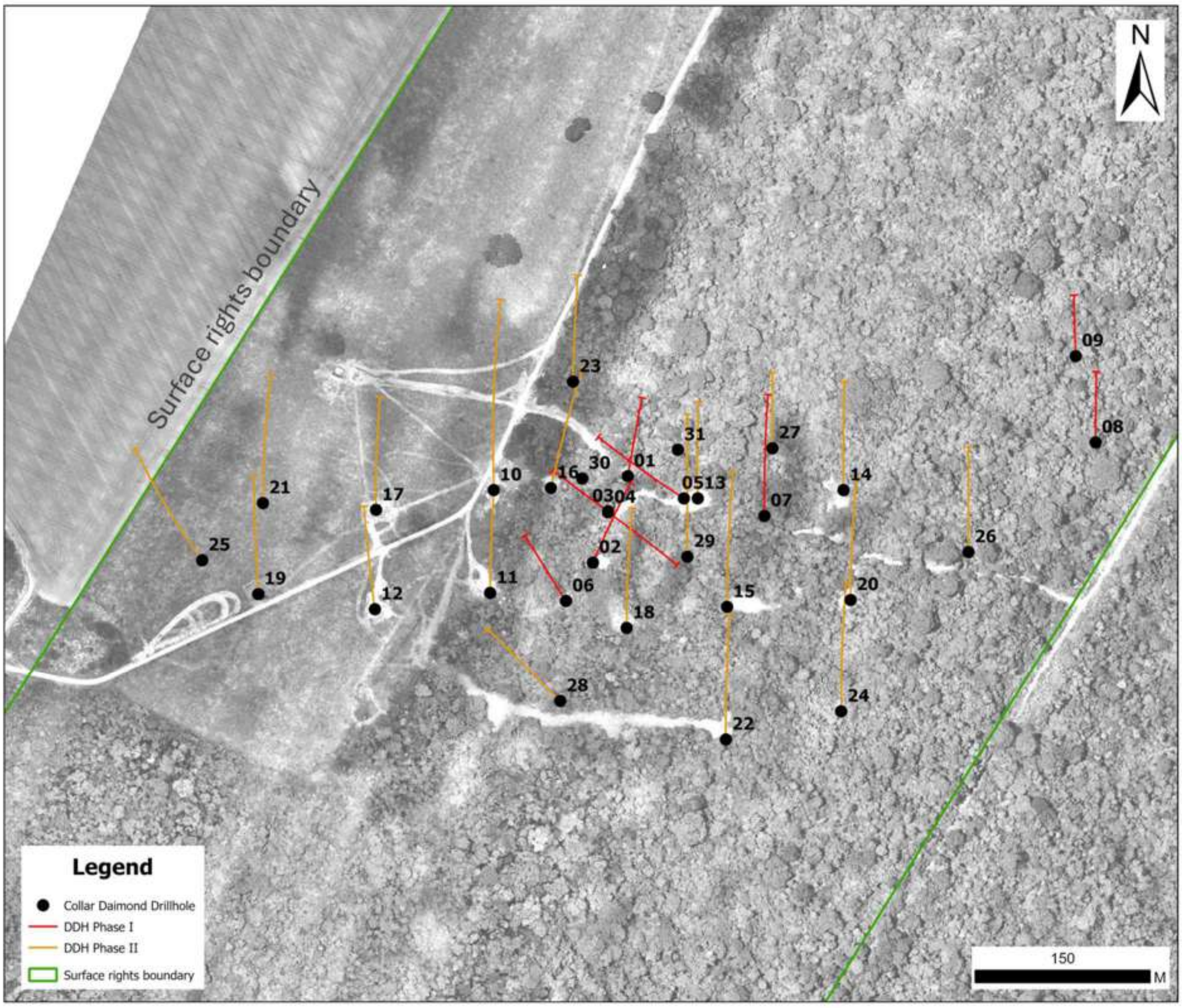


Figure 10-1 - Diamond drill drill hole location map, (AFGM 2025).

The collar positions of the 59 vertical mechanized auger drill holes are presented in Figure 10-2.

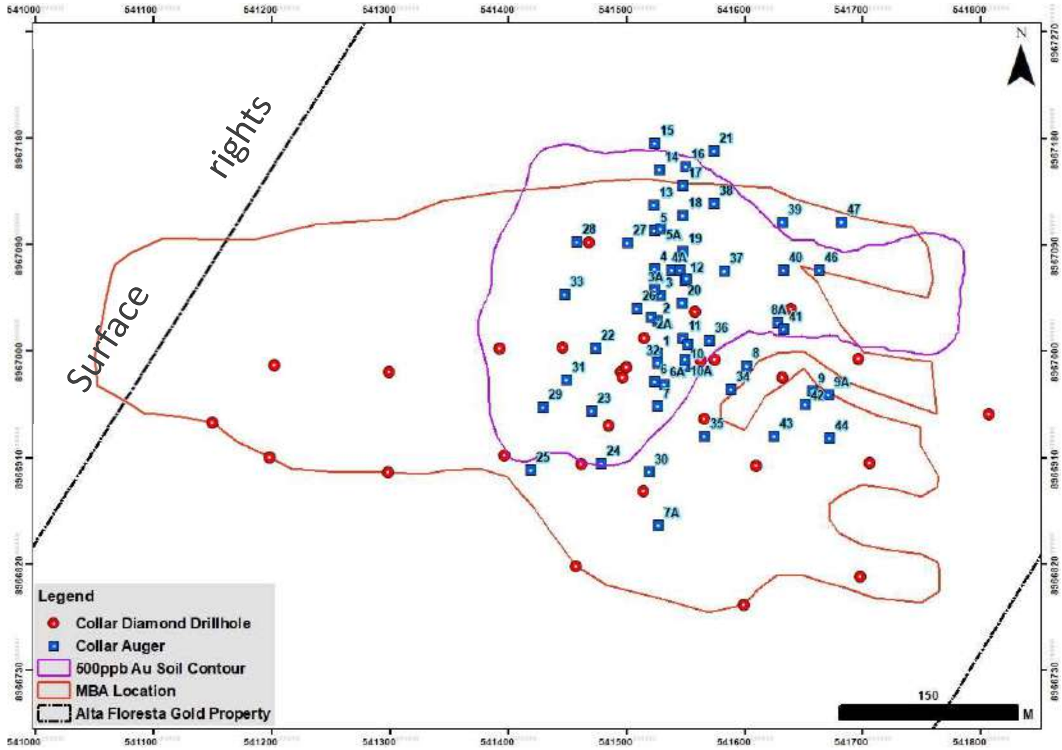


Figure 10-2 - Mechanized auger drill holes location map, (AFGM 2025).

ITEM 11: SAMPLE PREPARATION, ANALYSES AND SECURITY

This section describes the sample preparation, analysis, and sample security utilized during the exploration programme.

11.1 CORE HANDLING AND SPLITTING METHODS

Drill core is stored at the field camp core shack. Core boxes are marked sequentially with the hole number, box number and depth. In the core shack, each box was photographed to provide a visual record of the core.

The core was marked up by a geologist using a permanent marker and cut in half along the indicated line using a water-cooled diamond-bladed rock saw. The cut line was oriented to bisect any obvious mineralized structures. All core was sawn in half. After cutting, both halves of the core were placed back into the core-box and the core-box was transferred to a logging table (Figure 11-1).

Figure 11-1 - Core Logging Table.

The cut core was then logged by the project geologist. A specially prepared log sheet was used and the geologist made notes of the lithology, structural information, alteration, mineralization and other important features of the core. The geologist also marked the core boxes with the intervals to be sampled. The core was sampled at intervals ranging from 0.5 to 1.7 meter. The sampling technicians placed half of the core into new plastic sample bags and clearly marked the sample interval on the rib of the core box using permanent markers. Aluminum tags showing the sample number are attached to the core boxes to identify the sample intervals. The bagged sample was numbered and tagged; the bag being sealed with a special plastic fastener. Groups of bagged samples were placed in larger polyester sacks. These large sacks were marked as individual dispatch lots and sent to the laboratory. Chain of custody documentation is kept for each lot showing the shipper, receiver, lot number, and samples contained within each shipment.

Detailed core logs are stored in a computer database along with sample intervals and numbers.

11.2 SECURITY MEASURES

Prepared analytical samples and returned intermediary laboratory preparation samples are stored in an open-air covered building dedicated for storage. The core is well protected from rain. The building is located on private property with year-round oversight.

Figure 11.3 - Photo of Onsite Core Storage Building. Source – GRE (2019).

11.3 SAMPLE PREPARATION AND ANALYSIS

A summary of Maria Bonita sample preparation and assay procedures is provided in Table 11-1.

Table 11-1 - Summary of Sample Preparation and Assay Procedures.

Exploring Party	Sample Date	Medium	Sample Preparation		Sample Analysis	
			Laboratory	Sample Preparation	Laboratory	Analysis
ALTAMIRA	Jun/22 - Aug/22	Drill core	SGS Geosol Laboratories, Belo Horizonte, Brazil (SGS)	Dried, crushed to 2 mm, quartered, pulverization to 95% -150 mesh	SGS	Gold by fire assay and AA, metals by ICP40B
ALTAMIRA	Mar/23 May/23	Auger	SGS Geosol Laboratories, Belo Horizonte, Brazil (SGS)	Dried, crushed to 2 mm, quartered, pulverization to 95% -150 mesh	SGS	Gold by fire assay and AA, metals by ICP40B
ALTAMIRA	Nov/23 - Mar/24	Drill core	SGS Geosol Laboratories, Belo Horizonte, Brazil (SGS)	Dried, crushed to 2 mm, quartered, pulverization to 95% -150 mesh	SGS	Gold by fire assay and AA, metals by ICP40B

SGS Geosol hold current ISO certification. SGS Geosol is an independent, industry-leading analytical laboratory providing services to the mining and other sectors.

11.4 SAMPLING QA/QC PROGRAM

SGS Geosol was hired as the main laboratory by Altamira Gold Corp for physical preparation and chemical analysis of the drill samples from the Project.

The verifications work conducted on the quality of the analytical services carried out by Altamira is summarized below.

For each sample batch submitted to SGS Geosol, control samples in the form of field duplicates, blanks and third party-prepared standards were inserted amongst the drill core samples.

The following files ***MBA_DUP.xlsx***, ***MBA_STANDARD.xlsx*** and ***MBA_BLK.xlsx*** contain the quality control data collected for the submission of 152 batches of samples for chemical analysis. VMG selected a total of 596 quality control samples for review as part of the mineral resource estimation process. Of these 596 samples, 139 are duplicates, 266 are Standards and 191 are Blanks. All samples had been analyzed for gold and a suite of ICP elements. For the purpose of this quality control check, and in the absence of other potentially valuable metals in the suite of elements analyzed, only gold was considered here.

The following sections summarize the accuracy and precision of the quality control analysis. Sampling accuracy refers to the percentage difference between an analysis and its repeat value. For example, an accuracy of 10% would mean that the initial analysis and the repeat sample differ by 10%. Precision refers to the reported variance from a known control standard.

11.4.1 SAMPLING PRECISION

VMG assessed sampling accuracy using the repeat analysis method. Out of a total of 4,922 samples, 139 samples were reanalyzed, which represents 2.82% of the total number of assays.

The internal quality control data were presented as a single data batch, without separations of the samples by dates of sample collection. Two evaluation methods were used, Simple Linear Regression and QQ (Quantis Quantis) Plot.

The tests for Au content (in ppm) resulted in a precision of 45.3%. This value is influenced by some outlying samples that are probably due to nugget effect during the preparation (sub-sampling) or chemical analysis process. If such outlier values are excluded from consideration, then the accuracy of tests would be within the required confidence interval.

The correlation coefficient of the regular control sample values is above 0.93. Thus, one can conclude that the analyses of the gold content (in ppm) of the studied population of samples were conducted with satisfactory and acceptable precision. The results of the data processing are shown in Figure 11-2 and Figure 11-3.

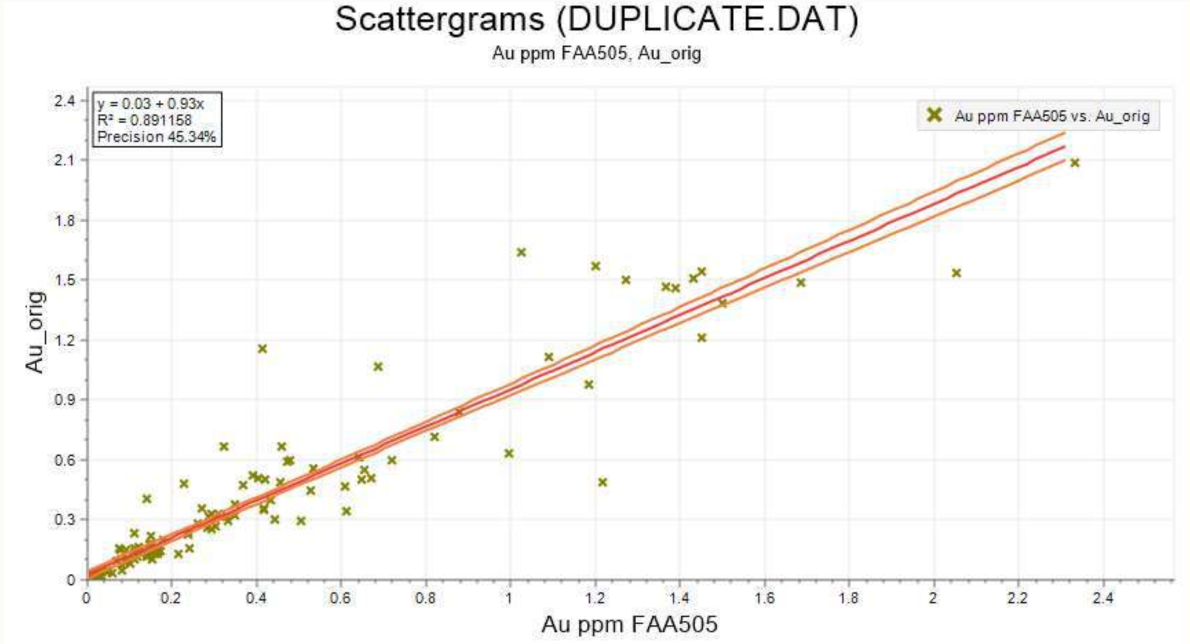


Chart:		b0	0.027953	Y Mean	0.34	X Std Dev	0.46
File Name	DUPLICATE	b1	0.927743	Y Variance	0.20	X Var / Y Var	1.04
Confidence level %	80.00	Corr Coeff (R)	0.944012	Y Standard Deviation	0.45	Covariance	0.192355
Sample N	139	R²	0.891158	**X:**	**Au ppm FAA505**	Precision %	45.341280
Model:	**Linear**	Rank Corr Coef (%)	0.96	X Mean	0.33	Rank Corr Coef (%)	0.964950
Model	$y = b_0 + b_1x$	**Y:**	**Au_orig**	X Variance	0.21		

Figure 11-2 - Linear Regression Diagram for Au ppm, field duplicate, class: all data, internal control results.

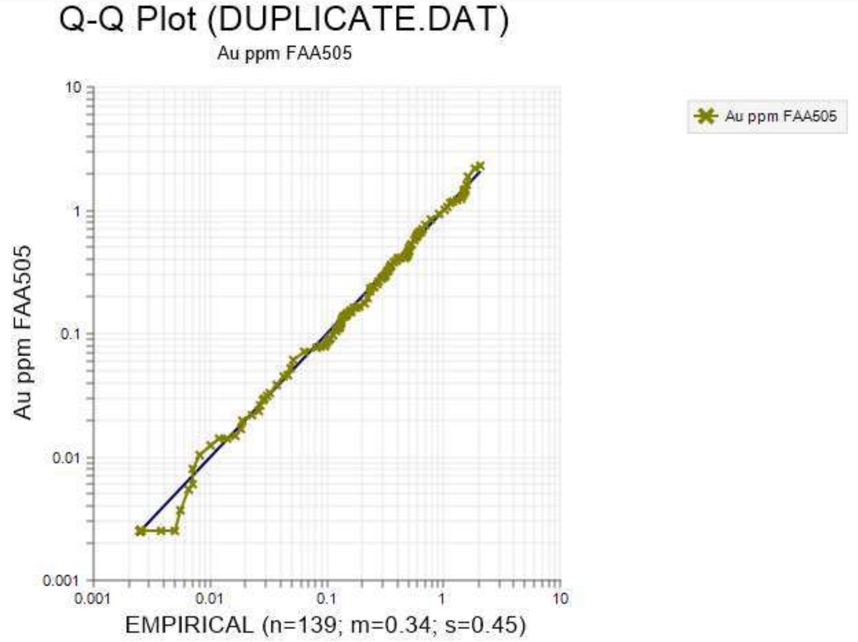


Chart Type	Quantile-Quantile	Mean	0.334	Experimental Chi^2	13.484	Sample Nx	139
Y Axis		Variance	0.207	Critical Chi^2 5%	9.488	Mean	0.337442
Input File	DUPLICATE	Std Dev	0.455	Critical Chi^2 10%	7.779	Variance	0.200252
Y Name	Au ppm FAA505	Corr Coeff	0.994	**X Axis**		Std Dev	0.447495
N Quantiles	141	X Var / Y Var	0.966	Input File	DUPLICATE		
Sample Ny	139	Chi^2 Degrees of Freedom	4	X Name	Au_orig		

Figure 11-3 - Quantis plotting for Au ppm, field duplicate, class: all data, internal control results.

11.4.2 STANDARDS

For the quality control, 266 Standards were used, representing 5.40% of the total number of analyzed samples. The certificates of the Standards are located in Appendix I.

Description of the standard reference samples:

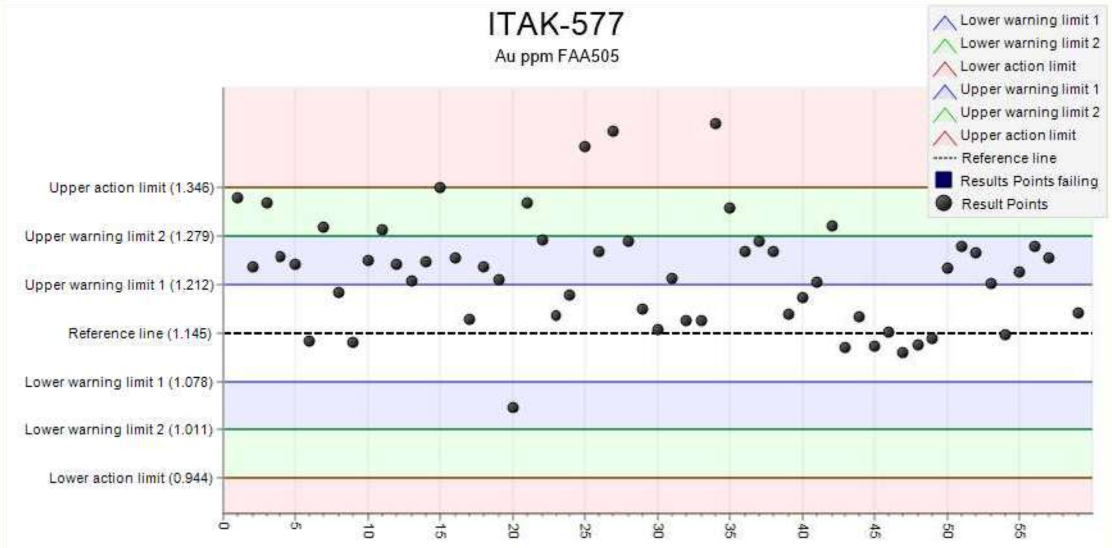
ITAK-577 – (1.145 ppm Au) certificate from ITAK – Instituto de Tecnologia August Kekulé Ltda. (59 analyses results).

ITAK-644 – (0.334 ppm Au) certificate from ITAK – Instituto de Tecnologia August Kekulé Ltda. (59 analyses results).

ITAK-659 – (0.314 ppm Au) certificate from ITAK – Instituto de Tecnologia August Kekulé Ltda. (89 analyses results).

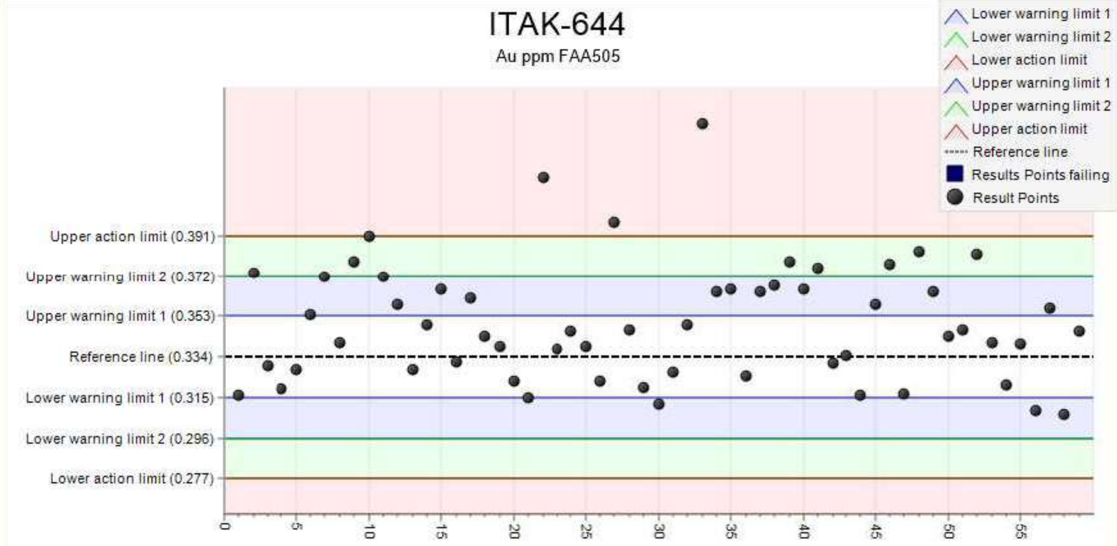
ITAK-663 – (1.614 ppm Au) certificate from ITAK – Instituto de Tecnologia August Kekulé Ltda. (59 analyses results).

A total of 10 samples in the population of 266 (3.8%) exceeded the upper alert limit. No samples exceeded the lower alert limit. In general, VMG considers that the analyzed results, do not present significant problems when compared with the known results. The analyzed data are shown as time series charts in **Figure 11-4** to **Figure 11-7**.



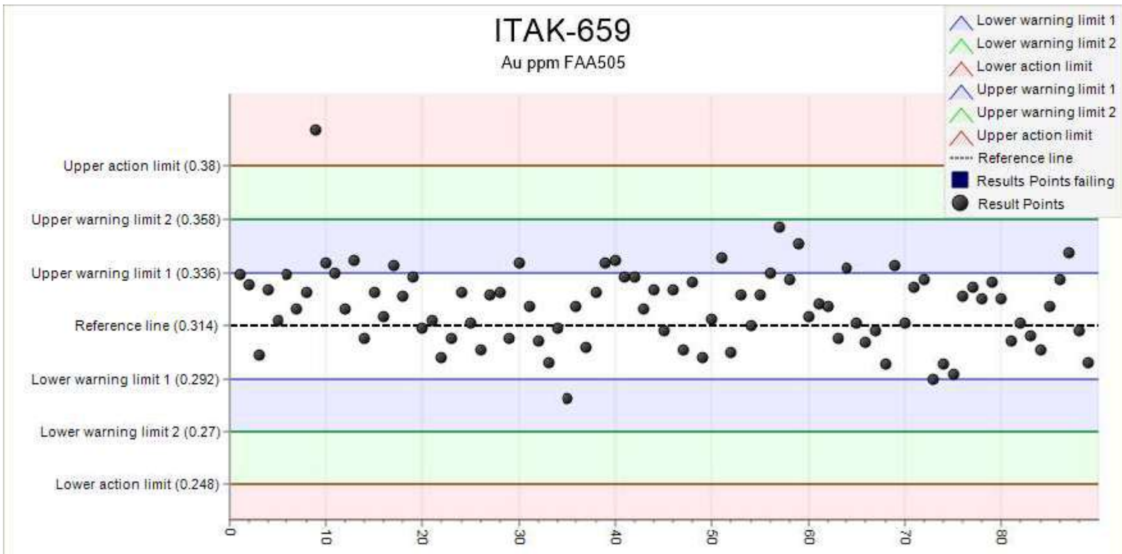
File Name	STANDARD	Median	1.2360	Range	0.3920	-1SD to -2SD	1 (1.69%)
Field Name	Au ppm FAA505	Mode	1.1696	Minimum	1.0420	1SD to 2SD	26 (44.07%)
Action Level	99.7300	Mean	1.2298	Maximum	1.4340	+2SD to +3SD	9 (15.25%)
Groups	59	Std Dev	0.0781	Expected to +1SD	13 (22.03%)	-2SD to -3SD	0 (0.00%)
Group Size	0	Variance	0.0061	Expected	0 (0.00%)	2SD to 3SD	9 (15.25%)
Ref Mean	1.15	Coeff. of Variation	0.0635	Expected to -1SD	8 (13.56%)	+3SD	3 (5.08%)
Ref Std Dev	0.07	Kurtosis	0.2777	Inside 1SD	21 (35.59%)	-3SD	0 (0.00%)
Count	59	Skewness	0.3912	+1SD to +2SD	25 (42.37%)	Outside 3SD	3 (5.08%)

Figure 11-4 - Standard ITAK-577, element Au ppm.



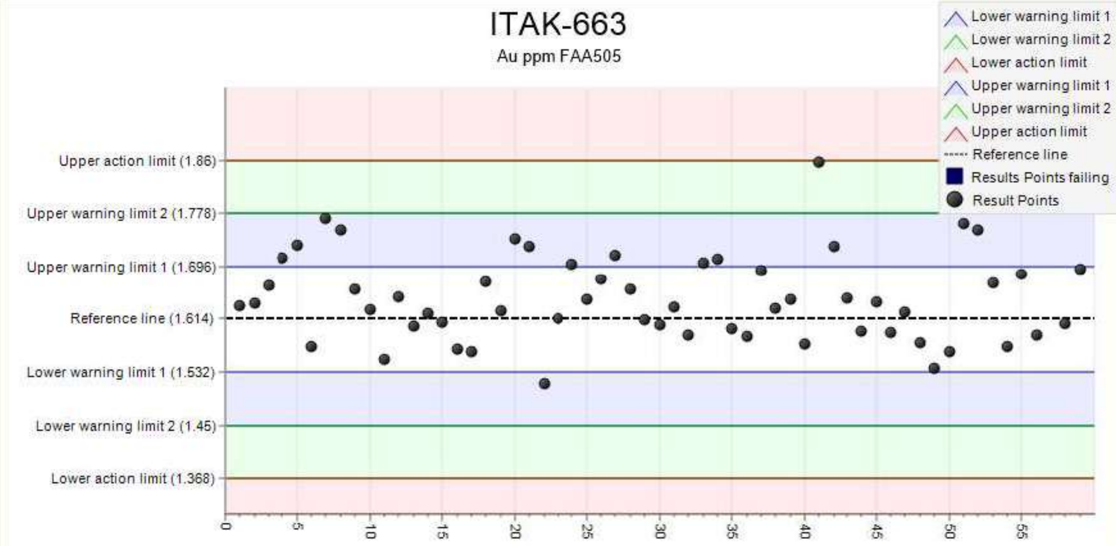
File Name	STANDARD	Median	0.3460	Range	0.1370	-1SD to -2SD	3 (5.08%)
Field Name	Au ppm FAA505	Mode	0.3466	Minimum	0.3070	1SD to 2SD	17 (28.81%)
Action Level	99.7300	Mean	0.3499	Maximum	0.4440	+2SD to +3SD	8 (13.56%)
Groups	59	Std Dev	0.0277	Expected to +1SD	15 (25.42%)	-2SD to -3SD	0 (0.00%)
Group Size	0	Variance	0.0008	Expected	0 (0.00%)	2SD to 3SD	8 (13.56%)
Ref Mean	0.33	Coeff. of Variation	0.0793	Expected to -1SD	16 (27.12%)	+3SD	3 (5.08%)
Ref Std Dev	0.02	Kurtosis	0.9830	Inside 1SD	31 (52.54%)	-3SD	0 (0.00%)
Count	59	Skewness	0.8302	+1SD to +2SD	14 (23.73%)	Outside 3SD	3 (5.08%)

Figure 11-5 - Standard ITAK-644, element Au ppm.



File Name	STANDARD	Median	0.3220	Range	0.1110	-1SD to -2SD	1 (1.12%)
Field Name	Au ppm FAA505	Mode	0.3277	Minimum	0.2840	1SD to 2SD	13 (14.61%)
Action Level	99.7300	Mean	0.3220	Maximum	0.3950	+2SD to +3SD	0 (0.00%)
Groups	89	Std Dev	0.0163	Expected to +1SD	47 (52.81%)	-2SD to -3SD	0 (0.00%)
Group Size	0	Variance	0.0003	Expected	1 (1.12%)	2SD to 3SD	0 (0.00%)
Ref Mean	0.31	Coeff. of Variation	0.0507	Expected to -1SD	27 (30.34%)	+3SD	1 (1.12%)
Ref Std Dev	0.02	Kurtosis	3.1006	Inside 1SD	75 (84.27%)	-3SD	0 (0.00%)
Count	89	Skewness	0.7647	+1SD to +2SD	12 (13.48%)	Outside 3SD	1 (1.12%)

Figure 11-6 - Standard ITAK-659, element Au ppm.



File Name	STANDARD	Median	1.6380	Range	0.4030	-1SD to -2SD	1 (1.69%)
Field Name	Au ppm FAA505	Mode	1.5883	Minimum	1.5140	1SD to 2SD	14 (23.73%)
Action Level	99.7300	Mean	1.6509	Maximum	1.9170	+2SD to +3SD	1 (1.69%)
Groups	59	Std Dev	0.0755	Expected to +1SD	22 (37.29%)	-2SD to -3SD	0 (0.00%)
Group Size	0	Variance	0.0057	Expected	1 (1.69%)	2SD to 3SD	1 (1.69%)
Ref Mean	1.61	Coeff. of Variation	0.0457	Expected to -1SD	20 (33.90%)	+3SD	1 (1.69%)
Ref Std Dev	0.08	Kurtosis	1.6609	Inside 1SD	43 (72.88%)	-3SD	0 (0.00%)
Count	59	Skewness	1.0306	+1SD to +2SD	13 (22.03%)	Outside 3SD	1 (1.69%)

Figure 11-7 - Standard ITAK-663, element Au ppm.

11.4.3 BLANK SAMPLES

For the control of potential contamination in the sample preparation process, 191 Blank Samples were used, which represents 3.88% of the total number of analyzed samples. The certificates of the Blank Samples are located in Appendix II.

The reference of the blank samples is the low gold material Certificates BLK-QF-15 and CTRS-0448. The blank samples contain less than 0.005 ppm gold.

The results of analysis performed for gold is shown in Table 11-2. The analysis of the Blanks. This is due to potential contamination from sample preparation procedures and/or due to wear and cleanliness of the sample preparation equipment. The analysis of data has demonstrated that all the results are within the range of the confidence level.

Table 11-2 - Descriptive statistics of the chemical analysis results of the blank samples.

Field Name	Minimum	Maximum	Number of points	Average	Median	Variance	Std. Dev
Au ppm	0.003	0.025	0.003	0.003	0.00000	0.00179	0.000

In Figure 11-8, we can see that only one sample out of 191 slightly exceeded the certified content values.

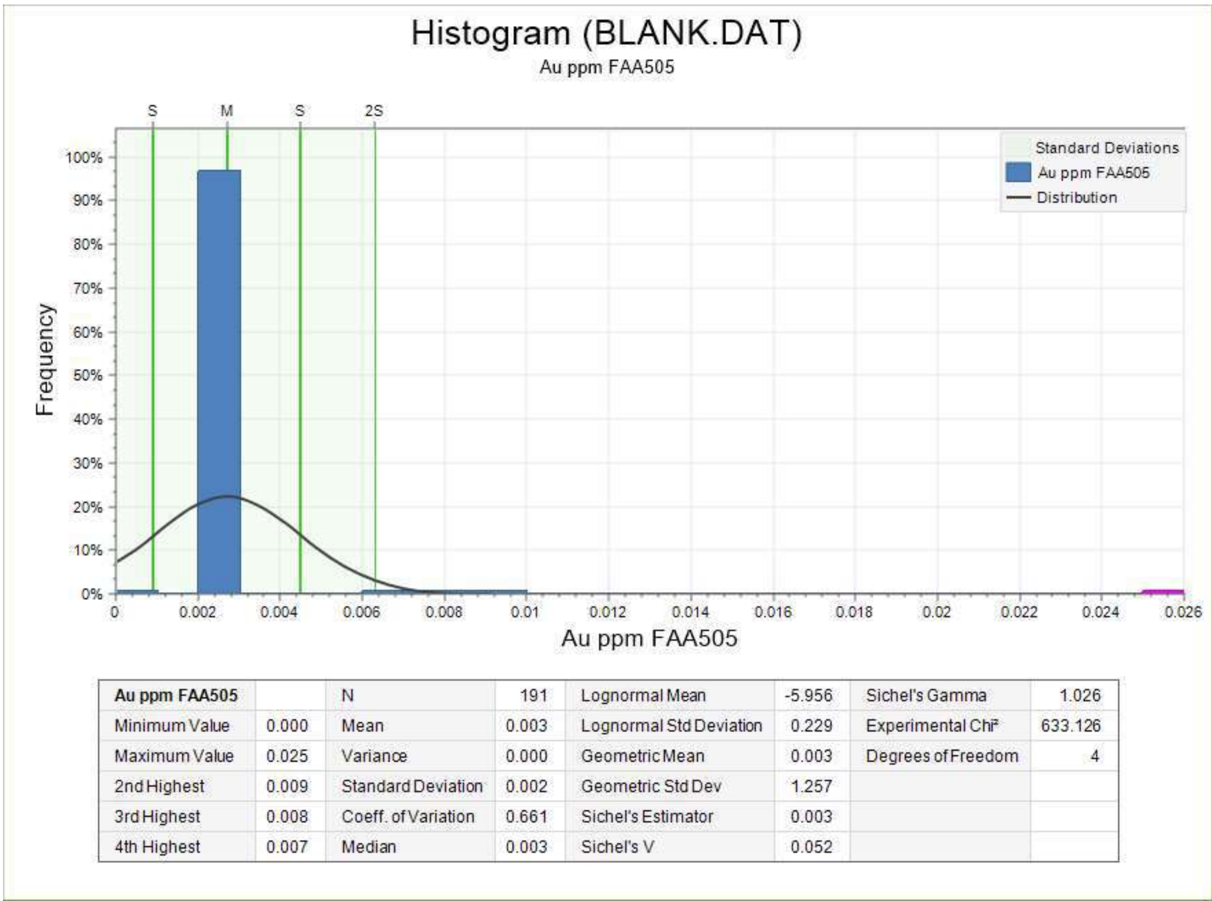


Figure 11-8 - Histogram of the distribution of blank sample analysis results.

11.5 DENSITY DETERMINATION

The purpose of this procedure is to present the methodologies used to obtain the density parameter for both rock and saprolite (oxidized material). The main items to be considered in the density analysis are:

- Characterization of dry and wet density for different geological materials.
- Calculation of moisture content.

- Sample collection by lithology.
- Statistical analysis of the data.
- Estimation of the global average density.

11.5.1 DENSITY CALCULATION FOR FRESH ROCK

The most common method for analyzing rock density is known as the Hydrostatic Balance or Archimedes' Principle. This method is simple and consists of the following steps:

1. A regular drill core sample with 5 cm thickness (average mass of 300 g) is collected and weighed on a precision digital analytical balance. This measurement is referred to as (W_Air), Figure 11-9;
2. The second step is weighing the sample while it is submerged in water. To do this, a wire is attached to the base of the precision balance (as a pendulum), with the sample tied to one end, and a support (net/perforated screen) tied to the other end and fully submerged in a container of water. The sample is then placed into the submerged support and its weight is recorded as (W_Water), Figure 11-10;
3. Using the wet mass of the sample and its submerged mass, the density of the material is calculated using the following equation:

Density = Mass of the sample in air (W_Air) / [Mass of the sample in air (W_Air) – Mass of the sample in water (W_Water)]

After all the information is obtained, it will be sent to the database, **Table 11-3**.

Figure 11-9 - Core lithology selection and sample size marking.

Figure 11-10 - Weighing the sample in air and water (Archimedes' Principle).

11.5.2 CALCULATION OF DENSITY TESTS FOR OXIDIZED MATERIALS (SAPROLITE) FROM THE MARIA BONITA PROJECT

The following procedure was used to measure the density of weathered and saprolitic rocks:

1. A compact piece of sample with 5–10 cm thickness (300–800 grams) is collected directly from the core box upon arrival at the camp and preserved in a plastic envelope (PVC film), Figure 11-11;
2. The sample selected for density testing is weighed to determine the wet mass, using a precision analytical scale, Figure 11-12;
3. A plastic container filled with water is used to submerge the sample and measure the weight of the displaced fluid. Once the water stops overflowing, the sample is carefully removed from the container. The water displaced by the sample mass is collected and weighed.
4. The sample is dried in a gas oven in two sessions of 2 hours each (average temperature of 250°C). Drying tests for stabilization should be performed for the identifiable different lithotypes, Figure 11-13;
5. The wet mass, the volume (given by the mass of displaced water), and the dry mass of the sample are recorded for the following calculations:

Wet Density = Mass of the wet sample (g) / Mass of water displaced by the sample (g)

% Moisture = (Mass of the wet sample (g) - Mass of the dry sample (g)) × 100 / Mass of the wet sample (g)

Dry Density = (Mass of the wet sample (g) × (100 - % moisture)) / (100 × Weight of water displaced by the sample)

After completing the analyses, the obtained data are recorded and compiled in the database, where the information is processed using statistical analysis

Figure 11-11 - Sample collection from the core box.

Figure 11-12 - Weighing of the wet sample and use of the container to determine the displaced volume.

Figure 11-13 - Mass of water obtained by displaced volume and drying of the sample for dry weighing.

Table 11-3 - Example of table used for samples in density test for fresh rock.

Hole number	From	To	Target	Rock_Cod	Sample_	Date	W_Air	W_Water	Sg
DDMBA-0025	116.65	118.00	Maria Bonita	QZPV	127372	12/04/2024	236.77	151.2	2.77
DDMBA-0025	120.00	121.00	Maria Bonita	QZPV	127375	12/04/2024	283.76	177.25	2.66
DDMBA-0025	123.00	124.00	Maria Bonita	QZPV	127378	12/04/2024	280.28	177.35	2.72
DDMBA-0025	126.00	127.00	Maria Bonita	QZPV	127382	12/04/2024	268.76	168.02	2.67
DDMBA-0025	128.00	129.00	Maria Bonita	QZPV	127384	12/04/2024	233.74	147.25	2.70
DDMBA-0025	132.00	133.00	Maria Bonita	QZPV	127388	12/04/2024	275.84	173.42	2.69
DDMBA-0025	137.00	138.00	Maria Bonita	QZPV	127394	12/04/2024	259.96	163.11	2.68
DDMBA-0025	143.00	144.00	Maria Bonita	QZPV	127401	13/04/2024	204.58	129.49	2.72
DDMBA-0025	146.00	147.00	Maria Bonita	QZPV	127404	13/04/2024	265.86	166.64	2.68
DDMBA-0025	148.00	149.00	Maria Bonita	QZPV	127406	13/04/2024	302.56	190.05	2.69
DDMBA-0025	150.00	151.00	Maria Bonita	QZPV	127408	13/04/2024	293.91	184.57	2.69
DDMBA-0025	151.00	152.00	Maria Bonita	QZPV	127409	13/04/2024	257.63	163.42	2.73
DDMBA-0025	152.90	154.20	Maria Bonita	QZPS	127412	13/04/2024	211.31	136.54	2.83
DDMBA-0025	152.90	154.20	Maria Bonita	QZPS	127412	13/04/2024	322.17	205.49	2.76
DDMBA-0025	152.90	154.20	Maria Bonita	QZPS	127412	13/04/2024	143.31	93.94	2.90
DDMBA-0025	152.90	154.20	Maria Bonita	QZPS	127412	13/04/2024	279.48	177.75	2.75
DDMBA-0025	154.20	155.00	Maria Bonita	QZPV	127413	13/04/2024	324.79	203.96	2.69
DDMBA-0025	155.00	156.00	Maria Bonita	QZPV	127414	13/04/2024	381.39	239.46	2.69
DDMBA-0025	156.00	156.50	Maria Bonita	QZPS	127415	13/04/2024	302.78	193.18	2.76
DDMBA-0025	156.00	156.50	Maria Bonita	QZPS	127415	13/04/2024	217.18	138.47	2.76
DDMBA-0025	156.50	157.00	Maria Bonita	QZPC	127416	13/04/2024	333.58	209.6	2.69
DDMBA-0025	157.00	157.70	Maria Bonita	QZPC	127417	13/04/2024	232.7	146.49	2.70

ITEM 12: DATA VERIFICATION

12.1 SITE VISIT

VMG, represented by geologist Volodymyr Myadzel, visited the Maria Bonita Project area between April 30 and May 01, 2025. The visit was attended by Altamira officials including Elvis Alves (Project Manager).

The purpose of the visit was to familiarize the author with the Project and to verify the work completed in the field, in terms of geological exploration and data collection, in accordance with the basic principles governing the application and operation of the NI-43.101 i.e. transparency, materiality and competence, and also in accordance with the best practices of the mineral industry.

The technical visit covered the core storage shack, the Project area, and the mineralized zone in the field.

The images below show photos taken during the site visit (Figure 12-1 and Figure 12-2).

Figure 12-1 - Core Box–Technical site visit.

Figure 12-2 - Shack visit.

All drillholes were clearly marked with concrete plugs (Figure 12-3). A metal tag was hammered into the concrete plugs showing the hole number, depth and azimuth. All drill hole collar locations were surveyed following the drilling campaign by a qualified independent surveyor using a total station instrument.

Figure 12-3 - Drill Hole Collar - Technical site visit.

During the visit, it was observed that the Altamira technical team has conducted its work following the best practices of the minerals exploration industry.

12.2 DATA IMPORT AND VALIDATION

12.2.1 DATABASE

The database used for Geological Modeling includes topographical data, information from the drillhole database and data for each sampling interval (test values for each controlled variable, lithological descriptions and deviation measures, when appropriate). This data was obtained by application of best industry practices and verified by a consistent QA / QC routine, which was applied not only to data but also to the methodology of the work as a whole.

The main database used in this work is Excel file ***MBA_Core_logging_Auger.xlsx***, which consists of tables:

- Headers – Collar.

- Survey - Survey.
- Lithology – Lithology.
- Alteration – Alteration.
- Samples – Assay.
- Density – Density.
- Vein – Vein.
- Magnetic susceptibility – Magnetometry.
- Geotech - Core Recovery.

The excel files ***MBA_BLK.xlsx, MBA_DUP.xlsx*** and ***MBA_STANDARD.xlsx*** QA/QC control data.

The Excel file ***MBA_densidade_oxidos_2024.xlsx,*** with density tests results for the zone of oxidation.

The file ***Proc_ANM_850224_2009_UTM.shp*** ANM mining rights polygon.

In relation to the topographic surface, the data was provided by Altamira in a file in *.shp format, named ***Curva de Nivel_MBA.shp***.

Altamira provided separate files for all assay certificates in Excel and Adobe pdf format.

Summary information on the contents of the database is presented in Table 12-1.

Table 12-1 - Presentation of initial data

Description	Quantity
Auger Drilling	59
Auger Drilling metreage	544.70
Diamond Drilling	31
Diamond Drilling metreage	4710.48
Drill hole sampling intervals	4922
Lithological descriptions	939
Density Analyses	733

The drill holes are distributed irregularly on a grid, with distances between holes that vary between 50 and 100 meters. Twelve vertical sections were created with a N-S orientation and a distance of 50 and 100 meters between sections. The drill holes and the vertical sections used in the interpretation are shown in Figure 12-4.

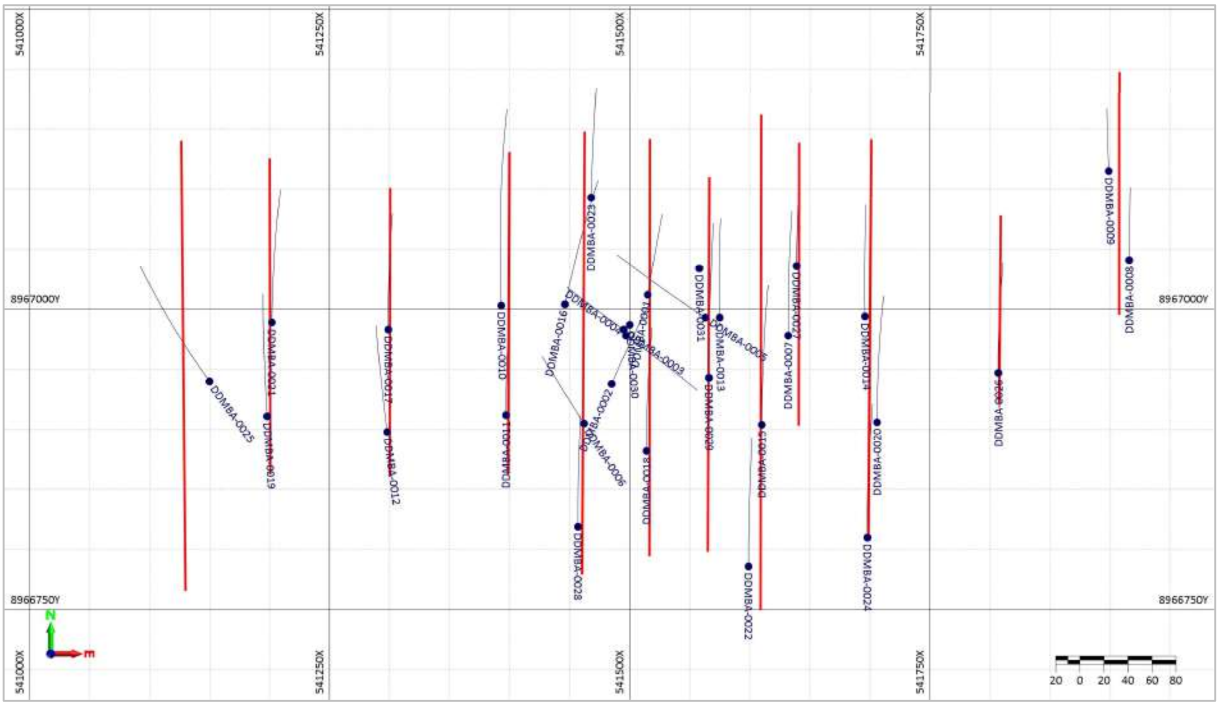


Figure 12-4 - Diamond drill holes and vertical sections used for the interpretation of the Maria Bonita Project.

The batch list of analyzed gold and descriptive statistics is presented in Table 12-3 and the other analyzed elements are presented in the Table 12-2

Table 12-2 – The other analyzed elements.

Ag ppm GE_ICP40Q
Ag ppm ICP40B, ICP40B_S
Al % GE_ICP40Q, ICP40B
As ppm GE_ICP40Q ICP40B
Au ppb FAA505
Ba ppm GE_ICP40Q, ICP40B
Be ppm GE_ICP40Q. ICP40B
Bi ppm GE_ICP40Q, ICP40B
Ca % GE_ICP40Q ICP40B
Cd ppm GE_ICP40Q, ICP40B
Co ppm GE_ICP40Q, ICP40B
Cr ppm GE_ICP40Q, ICP40B
Cu ppm GE_ICP40Q, ICP40B
Fe % GE_ICP40Q, ICP40B
K % GE_ICP40Q, ICP40B
La ppm GE_ICP40Q, ICP40B
Li ppm GE_ICP40Q, ICP40B
Mg % GE_ICP40Q, ICP40B
Mn % ICP40B, GE-ICP40Q
Mo ppm GE_ICP40Q, ICP40B
Na % GE_ICP40Q, ICP40B
Ni ppm GE_ICP40Q, ICP40B
P % GE_ICP40Q, ICP40B
Pb ppm GE_ICP40Q, ICP40B
Pd ppb ICP40B

S % GE_ICP40Q, ICP40B
Sb ppm GE_ICP40Q, ICP40B
Sc ppm GE_ICP40Q, ICP40B
Se ppm ICP40B
Sn ppm GE_ICP40Q, ICP40B
Sr ppm GE_ICP40Q, ICP40B
Th ppm ICP40B
Ti % GE_ICP40Q, ICP40B
Tl ppm ICP40B
U ppm ICP40B
V ppm GE_ICP40Q, ICP40B
W ppm GE_ICP40Q, ICP40B
Y ppm GE_ICP40Q, ICP40B
Zn % ICP40B_S, GE_ICP40Q, ICP40B
Zr ppm GE_ICP40Q, ICP40B

Table 12-3 - Gold Analysis for all samples in the database.

Chemical analyses	Quantity	Minimum	Maximum	Average
Au ppm	4,922	0.003	7.727	0.374

It is important to note that, for sampling intervals without samples, no numerical values were assigned.

12.2.2 DATABASE VERIFICATION USING THE MICROMINE SYSTEM

The database was tested using specific processes to verify the existence of potential error types listed below:

- The name of the drill hole is present in the collar file but is missing from the analytical database.
- The name of the drill hole is present in the analytical database but is absent in the collar file.
- The name of the drill hole appears repeated in the analytical database and in the collar file.
- The name of the drill hole does not appear in the collar file and in the analytical database.
- One or more coordinate notes are absent from the collar file.
- FROM or TO are not present in the analytical database.
- FROM>TO in the analytical database.
- Sampling intervals are not continuous in the analytical database (there are gaps between the sample intervals logged).
- Sampling intervals overlap in the analytical database.

- The first sample does not correspond to 0 m in the analytical database.
- The azimuth is not in the range of 0-360 degrees.
- The dip is not in the range of 0-90 degrees.
- Azimuth or dip of the hole is missing.
- The total depth of the hole is shallower than the depth of the last sample.

Some minor errors were identified, mainly due to incorrectly entered intervals. The errors were checked with the Altamira geologist and the database was updated.

12.3 AUTHOR'S CONSIDERATIONS

The author was able to confirm the accuracy of locations of drill holes by checking them in the field with his own handheld GPS unit. During the site visit to the property, the author confirmed that sampling was being conducted according to the protocols described in Section 11 above, and therefore the field data collected to date on drill samples is accurate.

Assay data used in the Mineral Resource model were spot checked and cross-checked against the original assay certificates after the data had been imported into the model.

There have been no limitations imposed on the author during his verification of any of the data presented in this report. The author’s opinion is that all the data presented in this report are adequate for the purposes of this report and that such data is presented in a manner that it is not misleading.

ITEM 13: MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 STAGE 1 METALLURGICAL TESTS:

Following the conclusion of the initial diamond drill program, Altamira decided to undertake a program of metallurgical characterization. This was based on the positive results showing long (+/-50m) intervals of coherent and regular gold mineralization from surface. The initial testwork program included characterization testwork for leaching, gravity, magnetic and froth flotation process routes.

Following completion of holes MBA001–MBA004, representative composite samples of saprolite and fresh rock were prepared from assay sample coarse rejects, returned from the SGS Geosol analytical laboratory. Each original half core assay sample generated a coarse crushed product which was split during the assay procedure. These samples were returned to the Altamira camp and re-composited by Altamira staff so as to represent selected mineralized intervals in saprolite and fresh rock. Each sample weighed 20kg and was comprised of +/- 15 subsamples of individual core intervals, each of which measured 0.77-1.5m.

The following summarizes the work completed.

- The tests were conducted at a specialist laboratory in Brazil ("Testwork") which is highly regarded for its evaluation of gold ores.
- Drill assay composite head grades for the saprolite (1.2g/t Au) and fresh rock (1.1g/t Au) correspond well with the laboratory head grades of 1.3g/t and 1.07g/t respectively
- The mineralization at Maria Bonita is remarkably "clean" with very little sulphide and therefore very low impurities of sulphophile elements such as arsenic and base metals
- Both the saprolite (oxide) and fresh rock (sulphide) composite samples returned cyanide leach recoveries of 90% in a 24-hour agitated leach test at a grind size of 80% passing a 75µm screen
- Average cyanide (0.11kg/t) consumptions were very low by industry standards (0.45-0.75kg/t) as a result of very low sulphide contents in the mineralized material.
- The tests were supervised by Altamira consulting metallurgist, Ian Gordon Hall Dun BSc (Eng), MSc

The samples were submitted to Testwork Desenvolvimento de Processo Ltda in Nova Lima, Minas Gerais, Brazil. The testwork was conducted under the observation of the Company's consulting metallurgist Ian Gordon Hall Dun BSc (Eng), MSc. who specializes in gold and tin processing and has wide experience in Latin American projects, having resided in the region for 45 years.

Table 13-1 - Estimated head grades (from drill assay composites) versus calculated head grades (from laboratory sizing analysis).

Au g/t	>35#	<35#	Calc head	Est head
Saprolite	1.39	1.24	**1.30**	**1.2**
Fresh Rock	0.91	1.15	**1.07**	**1.1**

The composite head grades for the metallurgical sample intervals as estimated from prior assay results were 1.2g/t Au for the saprolite and 1.1g/t Au for the fresh rock samples.

The laboratory calculated head grades for the samples were 1.30g/t Au and 1.07g/t Au respectively which correlate well with the estimated head grades from the individual drill core residue composites. Crushing and grinding did not indicate the presence of coarse particulate gold as there was no evidence for partition of gold into the coarse (>35# size fraction, Table 13-1). This result is in line with the observation from panning of higher-grade soil samples (>1g/t Au) over the sub-cropping mineralization, where only very fine gold was recovered in panning.

The mineralized material contains very low levels of base metals and other potential contaminants that might influence metallurgical processing options e.g. sulphur content is less than 0.01% S

An independently analyzed head sample returned the levels of impurities presented in Table 13-2.

Table 13-2 - ICP scan of minor elements in head sample (conducted via Testwork Ltda.).

Amostra Cabeça - AFR - MAG - AL					
Ag	ppm	<3	Ni	ppm	<3
Al	%	4,82	P	%	<0,01
As	ppm	<10	Pb	ppm	36
Ba	ppm	122	S	%	0,01
Be	ppm	<3	Sb	ppm	<10
Bi	ppm	<20	Sc	ppm	<5
Ca	%	0,34	Se	ppm	<20
Cd	ppm	<3	Sn	ppm	<20
Co	ppm	<8	Sr	ppm	33
Cr	ppm	3	Th	ppm	35
Cu	ppm	28	Ti	%	0,05
Fe	%	2,48	Tl	ppm	<20
K	%	3,47	U	ppm	<20
La	ppm	52	V	ppm	<8
Li	ppm	6	W	ppm	<20
Mg	%	0,06	Y	ppm	67
Mn	%	0,02	Zn	ppm	171
Mo	ppm	<3	Zr	ppm	189
Na	%	2,12			

The work program included leaching, gravity, magnetic and froth flotation characterization tests. The samples were submitted in a crushed state, nominally passing 3mm. A screening of a 3kg sub-sample of the head material at 35# (500µm), showed that 43% (saprolite) and 72% (fresh rock) of the contained gold is in the <35# fraction.

The sample material was reduced to 80% passing 75µm for successive tests.

Neither magnetic separation nor froth flotation were singularly successful in significant recovery of gold. A combination of gravity and flotation remains an avenue for further improvement on the 68-69% gold recovery range achieved in initial tests. There was no appreciable concentration of gold using magnetic separation.

Gravity separation tests using a Knelson concentrator recovered 12-15% of the gold to a rougher pre-concentrate. This result indicates that there is potential for further testing to optimize recovery using gravity techniques.

Direct agitated leaching tests were conducted on two sub-samples of each main sample (saprolite and fresh rock). The results showed very positive leach responses at low reagent consumption rates as outlined below.

Table 13-3 - Gold recovery from direct leach tests.

Au recovery %	Test 1	Test 2
Saprolite	91.3	92.8
Fresh Rock	89.9	90.5

Table 13-4 - Main reagent consumption for direct leach tests.

	Lime kg/t		Na CN g/t	
	Test 1	Test 2	Test 1	Test 2
Saprolite	4.5	4.2	284	220
Fresh Rock	0.8	0.75	88	92

Industry average cyanide (CN) consumption rates generally lie in the range 450-750g/t (grams per tonne of ore treated). Therefore, the initial tests are highly encouraging that a low cyanide consumption may be anticipated. Consumption of lime for pH modification in fresh rock is also well below an industry benchmark of ~2kg/t for the fresh rock.

A combination of gravity and flotation tests produced average gold recoveries of 68% (fresh) and 69% (saprolite), which suggest that further work is warranted via those routes to optimize a metallurgical plan, underpinned by the 90% recoveries obtained from direct leaching.

These initial metallurgical test results suggest that relatively high recoveries can be expected using leach techniques. Active reagent consumptions are notably low at this stage of testwork, which is also a positive indicator.

As a next-step, further work on crushing and grinding characteristics plus amenability of the leach dynamics to heap leaching via column leach testwork was planned.

13.2 STAGE 2 METALLURGICAL TESTS

Leach tests using cyanide-free, thiosulphate leachate

This testing complemented the initial agitated leach test results released on March 1, 2023, using the conventional cyanide leach technology. The current test was conducted at CSIRO laboratories in Western Australia using a proprietary thiosulphate leach technique developed by Clean Mining, a subsidiary of Clean Earth Technologies (CET), based in Singapore. CET is commercializing a non-cyanide approach to leaching of gold ores that was originally developed in Australia by CSIRO. CET has two patented technologies, a nontoxic leach reagent and a resin-based collector. Cyanide leaching is the traditional method to extract low grade gold at commercial scale. Thiosulphate leaching offers a more environmentally benign route to gold extraction which is particularly relevant to projects in eco-sensitive areas.

Highlights of the testwork:

- A 24-hour agitated leach test using the thiosulphate leach agent, at a grind size of 80% passing 75µm, recovered 92% of total gold content.

- The head grade of the sample treated compares well with the original assays of the diamond drill composites making up the sample (50g fire assays). The original assays from the drill samples gave 1.07g/t gold. The Clean Mining laboratory head grade (500g sample) gave 1.04g/t gold. The Clean Mining leach test resulted in a back-calculated head grade of the sample (after leaching) of 1.10g/t gold (1000g of leach test sample). These results underline the consistency of the mineralization.

- A conventional agitated cyanide leach test was also conducted in parallel using the same grind and leach time and yielded a gold recovery of 91%. These results correlate very well with the initial agitated cyanide leach tests carried out in the Testwork laboratory in Brazil, which also returned an average cyanide leach gold recovery of 91% for primary mineralized material from Maria Bonita.

The testwork program involved crushing and grinding the sample to 80% passing 75 microns. Standard bottle roll leach tests were conducted using 1000 g of sample repulped to 40% solids, with pH adjusted to 5-7 for Clean Mining's reagent and 10.8 for a comparable cyanide leach test.

For the Clean Mining leach test, 31.2 grams of clean leach reagent (CLR), equivalent to 20 grams of reagent per litre of liquor, and 5.6 grams of clean leach enhancer (CLE) equivalent to 3.7 grams of reagent per litre of liquor were added. The concentration of reagents and the pH were monitored for the duration of the test. After 48 hours of leaching, the pulp was filtered and washed with three displacements of water.

The results indicate a consumption of 3.59 kg/t of CLR and 0.36 kg/t of CLE and an average gold recovery of 92.1% within 24 hours. As concluded by Clean Mining, “The ore has shown low reagent consumption, high gold recovery and fast leaching kinetics”.

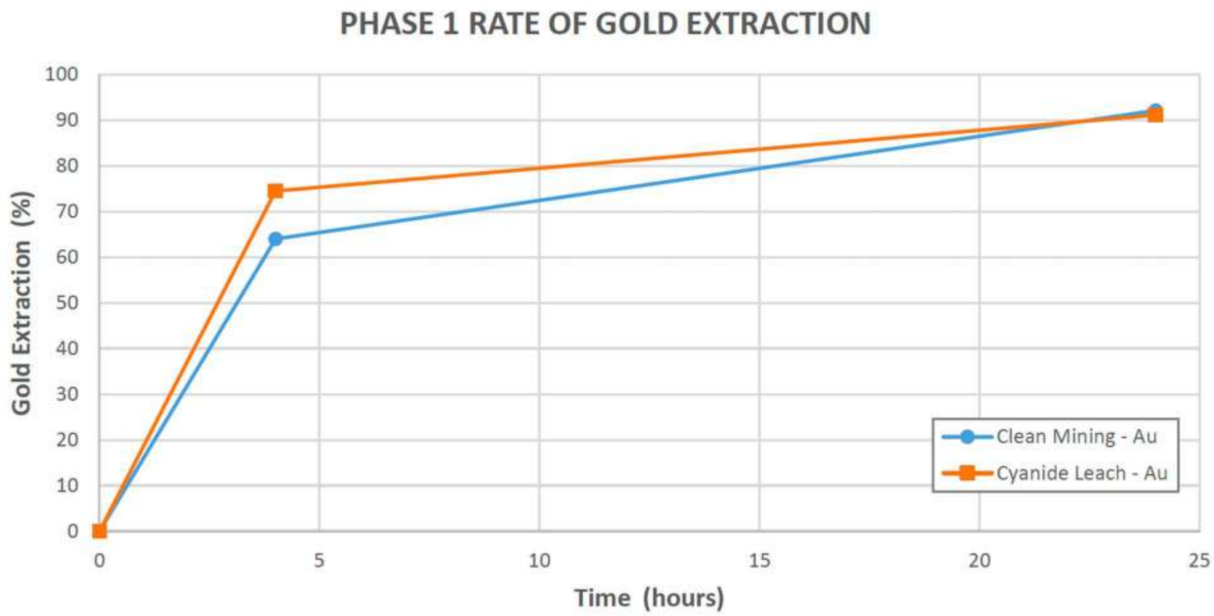


Figure 13-1 - Progressive leach recovery of gold using CET and conventional cyanide leach reagents.

For the comparable cyanide leach, gold recovery after 24 hours of leaching was 91% with a sodium cyanide (NaCN) consumption of 0.3 kg/t.

When compared with the prior results for metallurgical characterization for Maria Bonita mineralization, the thiosulphate leach gave marginally higher recoveries than those for conventional cyanide leaching.

Table 13-5 - Summary for leach test results for Maria Bonita project.

Au recovery %	Reported 01/03/23		This report	
	CN	CN	CET	CN
Saprolite	91.3	92.8		
Fresh Rock	89.9	90.5	92.3	91.1

CN = conventional cyanide leach

CET = Clean Earth Technologies thiosulphate leach

13.3 STAGE 3 METALLURGICAL TESTS

Following the successful initial tests using an agitated leach method and using both cyanide and thiosulphate leaching agents, resulting in >90% gold recoveries, a further set of tests was conducted to trial column leaching which simulates heap leaching at scale.

Highlights:

- Column leach metallurgical tests (simulating a heap leach) of a composite drill core sample of mineralized saprolite material from the Maria Bonita gold discovery at Maria Bonita, returned an excellent gold recovery of 88% for a feed size of 100% passing 9.5mm.

- There is potential to optimize the crush top size and conditioning of the feed to further improve the kinetics and potential economics.

For the initial column leach tests, samples of approximately 30kg were prepared from composited quarter core subsamples of the initial diamond drilling program (holes MBA001–MBA005). The samples were composited from up to forty-two individual core samples, each generally representing a one metre interval of diamond drill core.

The samples were submitted to Testwork Desenvolvimento de Processo Ltda in Nova Lima, Minas Gerais, Brazil. The test work was conducted under the observation of the Company’s consulting metallurgist, Ian Gordon Hall Dun BSc (Eng), MSc.

Table 13-6 - Estimated head grades (from weighted drill assay composites) versus average assayed head grades at the metallurgical laboratory.

	No of subsamples	Weighted avg grade g/t Au	Lab head grade g/t Au	Difference %
Saprolite	34	1.02	1.18	14%
Fresh rock	42	1.07	1.07	0%

Samples were first crushed to 80% passing 9.5mm. Head grades analyzed in the laboratory were broadly in line with the estimated grades from the calculated drill core composite assay grades (Table 13.6). The saprolite sample received by the laboratory contained 14% more gold than the estimated grade of the core composites making up the sample. This positive difference in the saprolite analysis might reflect the presence of physical gold within the saprolite. To date, visible gold has not been observed in the drill core however rare, fine physical gold has been observed from the panning of soils. This might represent upside for future bulk sampling of saprolite.

Each leach sample was agglomerated and conditioned using 2kg/t of cement and lime to facilitate both a pH of 10.5-11 and percolation through the column over the life of the leach test. Laboratory columns of 1m height and 6 inches diameter were used. The percolation rate was 10 litres per hour per square metre of surface area. Cyanide concentrations of 300-500ppm were used. The columns were irrigated for 30-45 days.

The results show a net gold recovery of 88.2% with a cyanide consumption of 750g/t for saprolite (Table 6). This is a very positive result for a coarse 9.5mm crush top-size, implying that the weathered saprolite is amenable to heap leaching and offering potential to further investigate crushing, agglomeration and reagent dosing to further optimize the results.

In parallel, rolling bottle (agitated leach) control tests were conducted on samples ground to 80 per cent passing 200 mesh (75 microns) for 24 hours (Table 6). The agitated leach test for the saprolite reported a gold recovery of 91.6% at a cyanide consumption of 330g/t, confirming the previous tests conducted using a similar agitated leach methodology. This bottle roll test indicated that leach kinetics after 16 hours are similar to those for 24 hours, suggesting that agitated leach times can be optimised.

Table 13-7 - Summary of results. CN is cyanide reagent.

	Column leach		Agitated leach	
	Au recovery %	CN consumption g/t	Au recovery %	CN consumption g/t
Saprolite	88.2	750	91.6	330
Fresh rock	51.8	1170	90.4	417

Column leach testing of the fresh rock material, gave an initial gold recovery of 51.8% (Table 13.7). Further work is warranted on finer crush and grind sizes to evaluate whether a suitable liberation and recovery combination for heap leaching versus the demonstrated agitated leach route (greater than 90% gold recovery) is likely to be economically attractive for the fresh rock material.

Further metallurgical testing to investigate crushing and grinding metrics, sample conditioning and reagent consumption is planned as follow-up.

Conclusions to date:

- Leaching is the preferred process route, given the high recoveries achieved for both oxide and primary zones. Agitated leach is highly applicable to both sulphide and oxide zones. Reagent consumptions are relatively low. Column leach tests indicate that recoveries in the sulphide zone may be only moderate due to encapsulation of fine gold. To improve these heap leach dynamics, finer comminution and agglomeration would be required and will be the subject of further tests.

- Approximately 15% of total gold may be recoverable by a gravity process ahead of leaching. This is likely to be more effective in the oxide zone than in the primary. At these relatively low recovery rates, a gravity circuit may not be cost-effective.

- A combination of gravity and flotation tests produced average gold recoveries of 68% (fresh) and 69% (saprolite). When compared to the leaching option, this overall recovery potential in relatively low-grade feed, suggests that this combination may not be the most cost effective.

13.4 NEXT STAGE TESTWORK

- For agitated leaching, the next steps are to seek optimizations of grind size, leaching residence time and reagent consumptions by conducting testing at different grind sizes.

- Most of this work will be directed at the primary zone where the liberation of gold via crushing and grinding is critical. For tests to date, the half core sample material was reduced to 80% passing 75µm and a residence time of 24 hours was used. The opportunity is to carry out further studies to both reduce residence time and/or improve recovery via incrementally finer grinding

- These tests should allow a better understanding of the trade-off in the capital and operating cost of fine grinding versus residence time (and therefore scaling) of the grinding circuit and leach tanks.

- Given the presence of +/-50koz of gold in the saprolite zone, further tests on gravity recovery may be considered as part of an evaluation of starter operation options.

- In the most recent diamond drill campaign, two vertical HQ diameter metallurgical drillholes (MBA030 & MBA031) were completed to provide sample material for further metallurgical tests.

Table 13-8 - Metallurgical drill sample available.

Drillhole	Depth metres	From metres	To Metres	Length metres	Grade Au g/t	Peak assay Au g/t
DDMBA-0030	59	0	9.3	9.3	**1.36**	2.01
		9.3	42	32.7	0.53	1.25
DDMBA-0031	59	0	12.5	12.5	0.50	0.90
		12.5	59	46.5*	0.50	1.42

**open at depth*

ITEM 14: MINERAL RESOURCE ESTIMATE

14.1 INTRODUCTION

This section describes the methodology used in the gold resource evaluation of the ANM Permit N° 850.224/2009 containing the Maria Bonita Project, located in the vicinity of Paranaita, Mato Grosso, Brazil.

While the economic factors listed in this report will be important considerations in relation to the possible viability of the deposit, the deposit has yet to undergo more comprehensive and rigorous testing before a mining decision can be made. Mineral Resources are not Mineral Reserves, and as such, have not demonstrated economic viability.

The Maria Bonita Project is located within exploration permits granted under administrative procedures and administered by the National Mining Agency (ANM). The permitting process for any mining operation in Brazil is well established and has been tested through the approval of many past projects. There are no known unusual legal, environmental, socio-economic, taxation or permitting problems associated with the subject claims that would adversely affect the development of the property.

Dr. Myadzel is responsible for the resource estimation methodology. Dr. Myadzel is independent of the issuer of this report and applied all the tests described in Section 1.5 of the NI 43-101 regulatory instrument.

The data for the Mineral Resource estimate were generated using the Micromine software program, produced by Micromine Pty Ltd.

The resource estimate was made in accordance with the standards accepted by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) for Measured, Indicated, and Inferred resources in accordance with the NI 43-101 Standards for Disclosure of Mineral Projects.

The effective date of this estimate is the receipt date of the latest data on the resource estimate, which is April 16, 2025.

14.2 GENERAL ECONOMIC FACTORS

For the development of this mineral resource estimate, consideration has been given to economic factors such as future mining and processing costs to determine whether the deposit has reasonable prospects for economic extraction. The primary factors in favour of the economic extraction determination are:

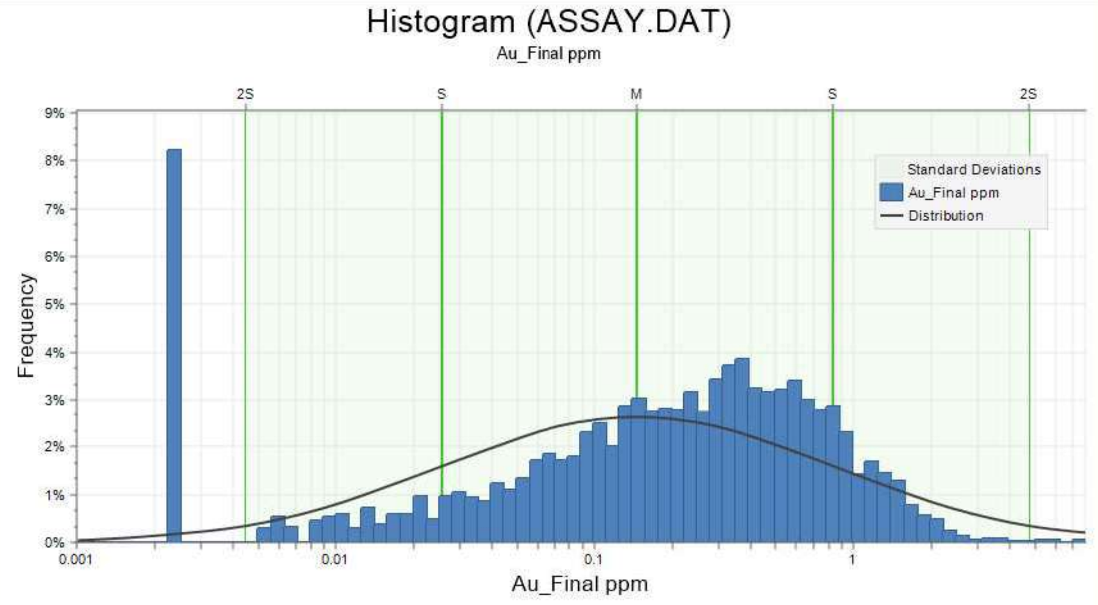
- A large portion of the deposit occurs at or near the surface, greatly reducing mining costs.
- The mining method would most likely be an open pit. The size and number of pieces of equipment required will be determined by mining engineers once the final size and configuration of the operation is determined. The location of the processing plant, overburden storage and spent material storage regarding the deposit have yet to be definitively determined.
- Preliminary testing for the extraction of the gold from the mined material (see Item 13) suggests a conventional processing circuit using standard industry methods and a well understood unit cost structure should apply.
- Infrastructure near the prospect is very good. Electric power, water availability, developed transportation routes and the potential for a local mining workforce are all positive factors.
- Assessment of and the selection of applicable economic parameters and factors are influenced strongly by the authors' experience and published information on other similar projects which are more advanced than Maria Bonita Project.

14.3 STATISTICAL ANALYSIS

This report used a classical statistical analysis to perform the following tasks:

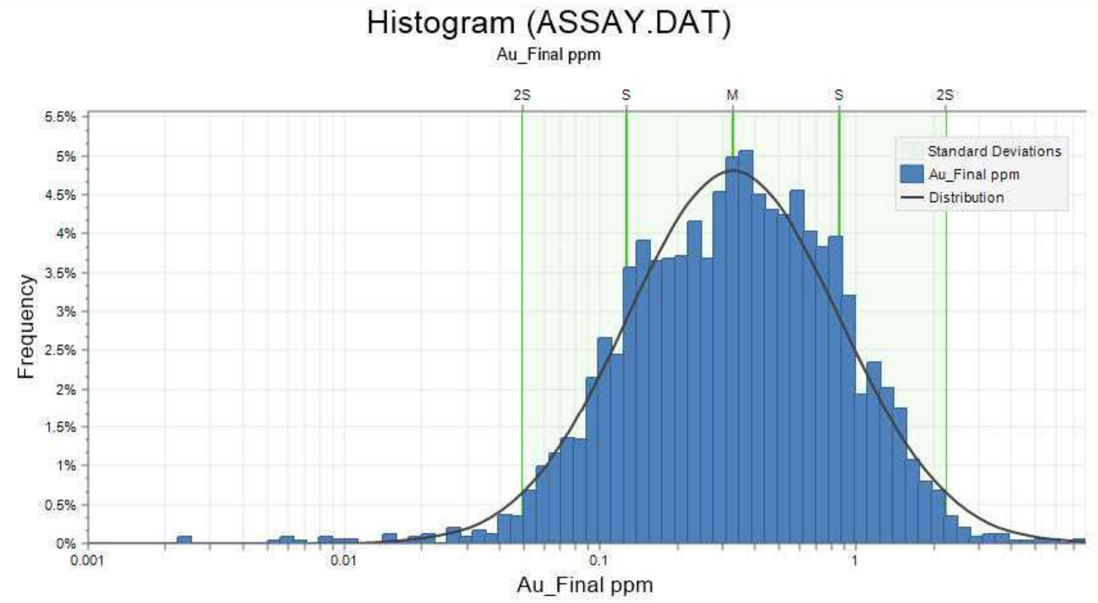
- Assess the need to separate sample populations, if there is more than one population.
- Evaluate the effect of population mixing.
- Determine the grade distribution.

Statistical analysis was performed for gold (ppm) samples grouped throughout the data matrix (Figure 14-1). Subsequently the same analysis was performed on the samples internal to the mineralized zone. See Figure 14-2.



Au_Final ppm		N	4922	Lognormal Mean	-1.925	Sichel's Gamma	4.559
Minimum Value	0.003	Mean	0.374	Lognormal Std Deviation	1.742	Experimental Chi²	21076.394
Maximum Value	7.727	Variance	0.240	Geometric Mean	0.146	Degrees of Freedom	73
2nd Highest	7.467	Standard Deviation	0.490	Geometric Std Dev	5.711		
3rd Highest	6.123	Coeff. of Variation	1.309	Sichel's Estimator	0.665		
4th Highest	5.676	Median	0.216	Sichel's V	3.035		

Figure 14-1 - Histogram of Au (ppm) grade distribution for all samples.



Au_Final ppm		N	3533	Lognormal Mean	-1.107	Sichel's Gamma	1.573
Minimum Value	0.003	Mean	0.500	Lognormal Std Deviation	0.952	Experimental Chi²	152.861
Maximum Value	7.727	Variance	0.274	Geometric Mean	0.330	Degrees of Freedom	46
2nd Highest	7.467	Standard Deviation	0.524	Geometric Std Dev	2.592		
3rd Highest	6.123	Coeff. of Variation	1.048	Sichel's Estimator	0.520		
4th Highest	5.676	Median	0.344	Sichel's V	0.907		

Figure 14-2 - Histogram of Au (ppm) grade distribution for samples inside the mineralization zone.

Table 14-1 summarizes the statistical analysis of gold from the database.

Table 14-1 - Summary of the statistical analysis of gold grades.

Substance	Sample Quantity	Minimum	Maximum	Mean	Median	Variance	Std. Deviation
All samples							
Au (ppm)	4,922	0.003	7.727	0.374	0.216	0.24040	0.49031
Samples inside the mineralization zone							
Au (ppm)	3,533	0.003	7.727	0.500	0.344	0.27434	0.52378

14.4 INTERPRETATION

The geological interpretation was generated by VMG using the Micromine 3D software package. Wireframe surfaces were generated by connecting cross-sectional interpretations to model the topographical, supergene alteration zones and lithological and mineralization zone limits.

Rotary diamond (DD) drilling and auger drilling data were used to generate models interpreting the mineralized bodies. The drill hole grid is currently irregular, therefore the interpretation lines were created in the string format (*.str) of the Micromine software.

Mineralized zones were defined by applying grade composite criteria. Intervals grading above 0.1 g/t were interpreted as mineralization. All strings of interpretation have a close connection with the sampling intervals, as shown in Figure 14-3.

-

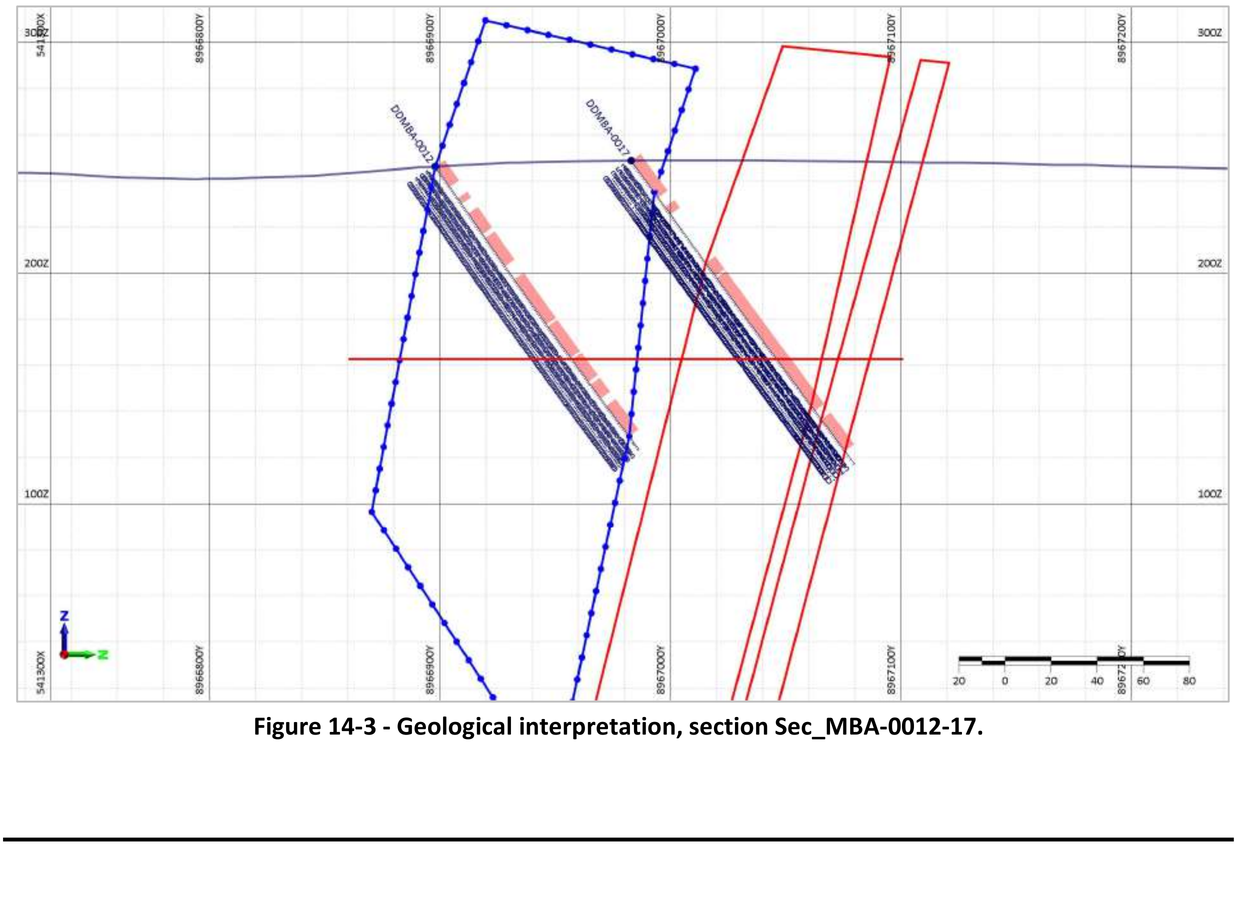


Figure 14-3 - Geological interpretation, section Sec_MBA-0012-17.

All strings interpreted were extrapolated above the topographic surface to ensure that there were no voids between the topographic surface and the top of the mineralized body. Scanned strings were used to assist in visualizing the overall geological structure of the deposit.

When interpreting geological boundaries of the mineralized zones, interpolation was performed at a half-distance to the next data points in each area, while maintaining the thickness of the mineralized zone.

The following criteria were used in the interpretation of the mineralized zones:

- The interpretation was based only on gold content and the logged lithological code.
- All strings were interpreted accurately and connected to the appropriate holes.
- The interpretation was assembled by extending half the distance to the next string of data between the first and last sections interpreted.

Within these vertical sections, the bodies of gold mineralization were interpreted according to the sampling data within the context of the geological model.

14.5 TRIANGULATION

Triangulation can be categorized into two main types: closed wireframes, which are used to model mineralized zones with clearly defined boundaries, and open surfaces, which are typically constructed to represent topographic features and weathering profiles. These different triangulation approaches serve distinct purposes in geological modeling, ensuring accurate spatial representation.

14.4.1. TOPOGRAPHY

String data files ***.STR** were used to Construct a Digital Surface Model (DSM), resulting in the topographic surface shown in Figure 14-4 and Figure 14-5.

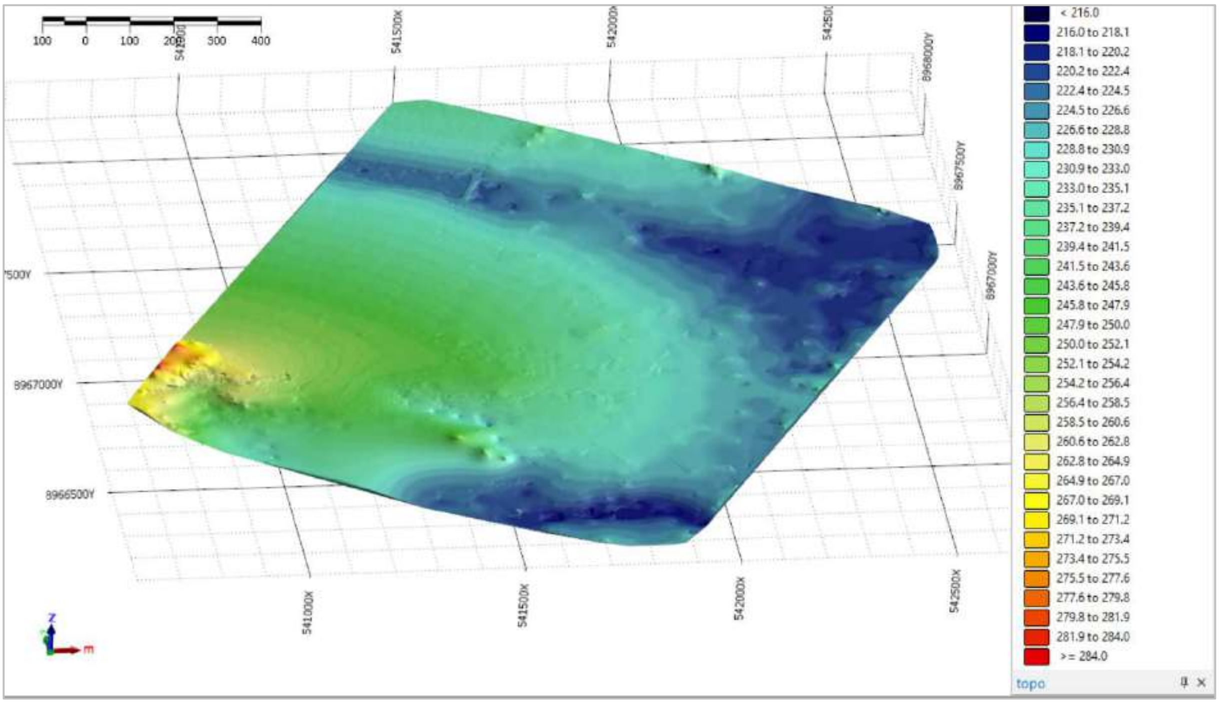


Figure 14-4 - Surface digital topographic base – 3D View.

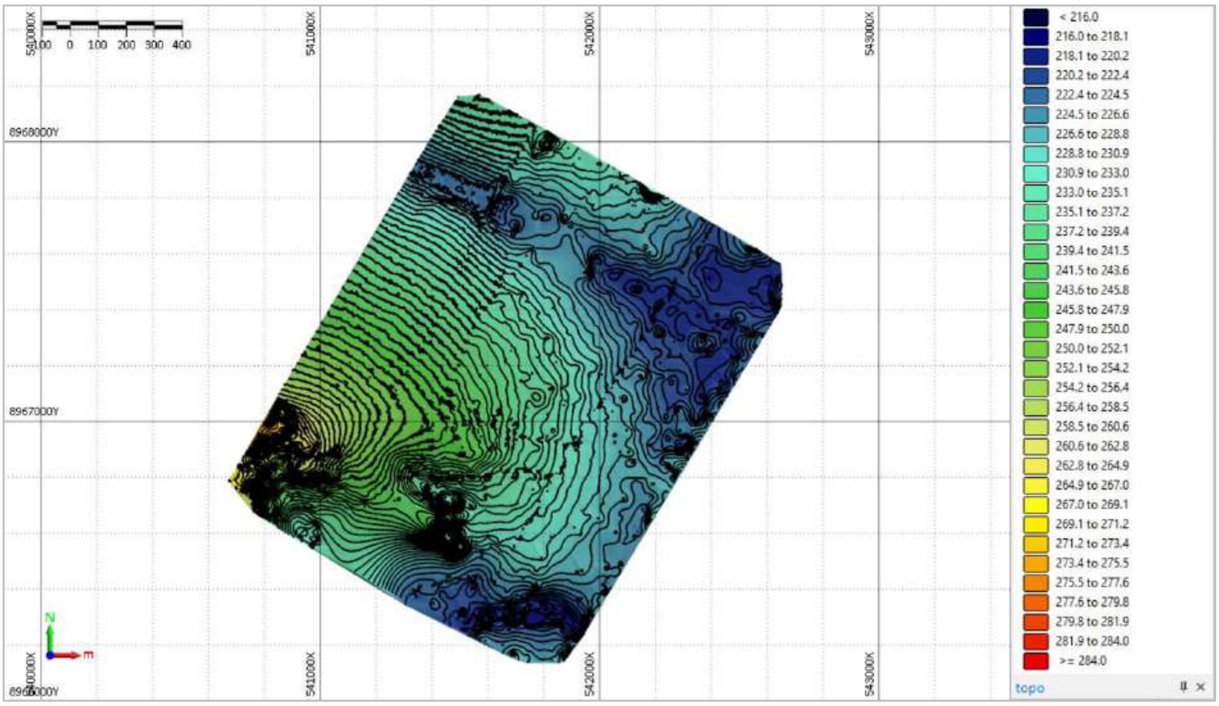


Figure 14-5 - Surface digital topographic base – Plan View.

14.4.2 WEATHERING ZONE

The weathering zone that determines the separation of friable and hard rock ore was based primarily on interpreting the hardness and friability data from the geological logs and reviewing drill core photos. The lower contact of the weathering zone was interpreted as the contact between friable and hard rock material.

The following files were generated from the LITHOLOGY.DAT: SEAM_SAP.DAT. These files contain the coordinates of each lithological interval, and a new code: ROOF for the Top and FLOOR for the Base of the saprolite zone.

From the SEAM_SAP_FLOOR.DAT file Base surfaces for the saprolite zone were created. The grid creation used the IDW2 interpolation method with a cell size of 2 × 2 meters. Grids were converted into a digital surface DTM (Digital Terrain Model), as shown in Figure 14-6.

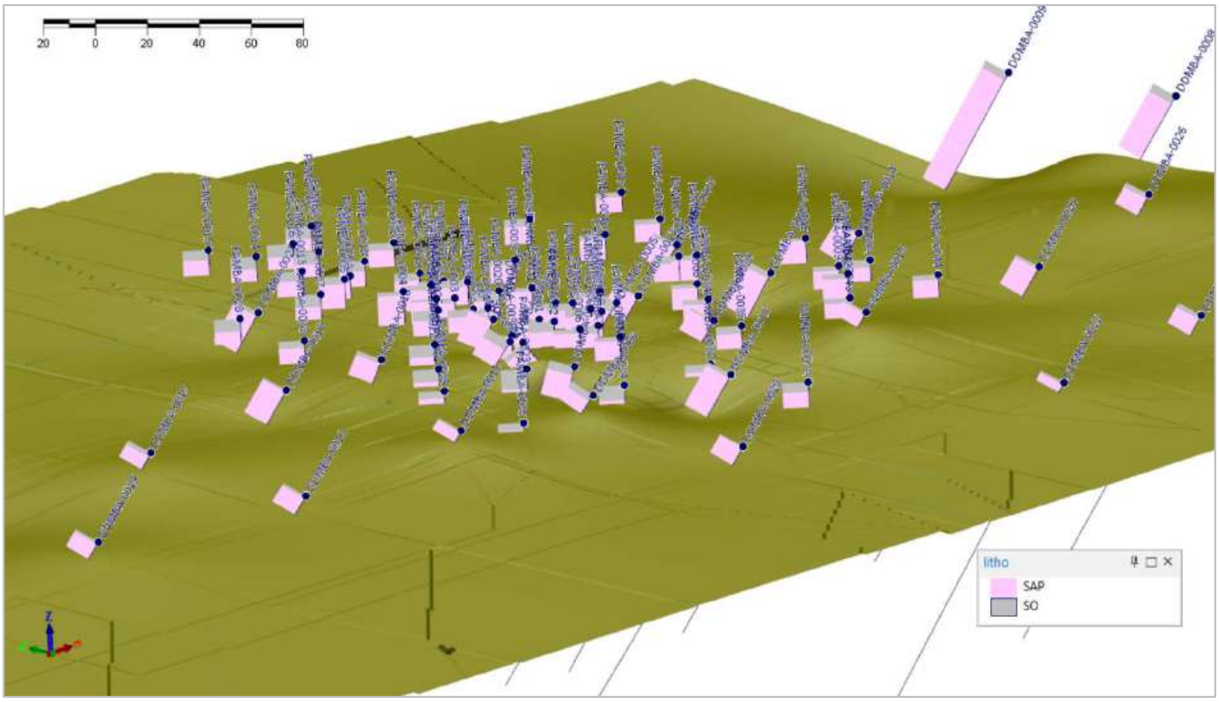


Figure 14-6 - Surface digital alteration zone.

14.4.3. WIREFRAME CLOSED

The strings were used in the interpretation model to generate a continuous three-dimensional triangulated mesh for each of the mineralized zones (Figure 14-7).

The interpretation of the mineralized zones was extrapolated above topography. Triangulation of the extrapolated mineralized zones was required where the solids were cut by the topographic surface. This procedure was used to ensure the continuity of the mineralized zones to the topography without loss of volume and mass. Figure 14-8 shows the results of triangulation of all mineralized zones cut by the topographic surface.

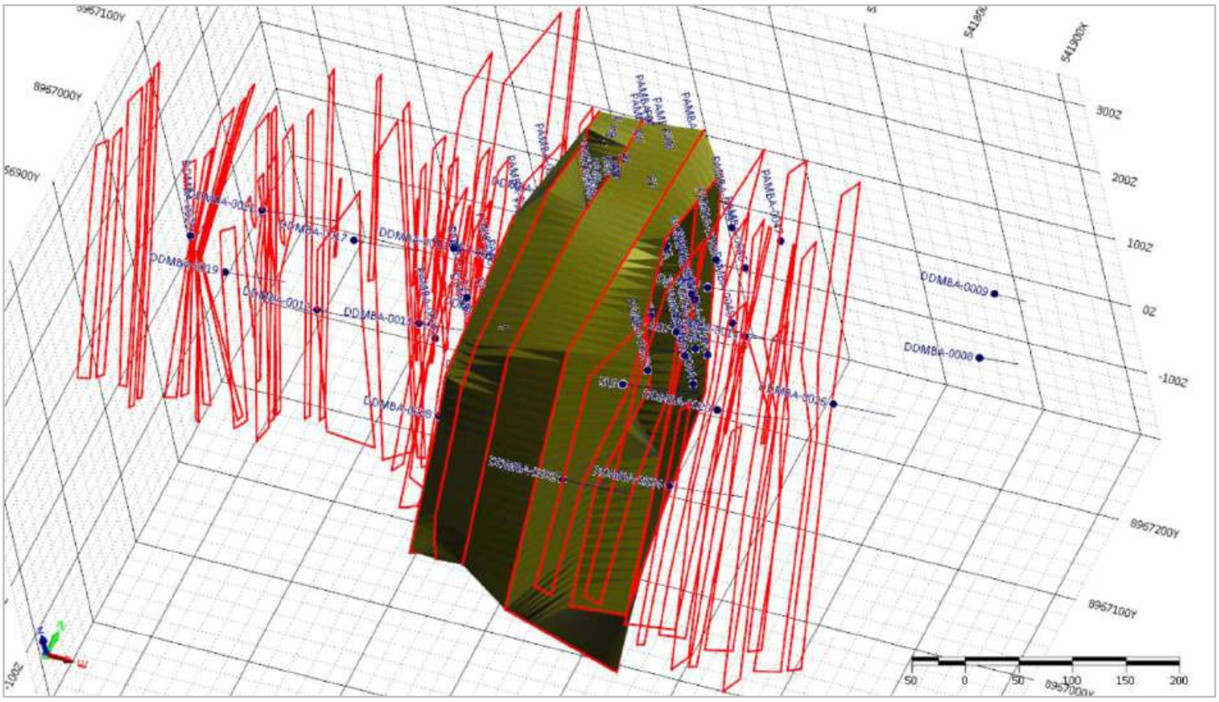


Figure 14-7 - Triangulation of mineralized zones.

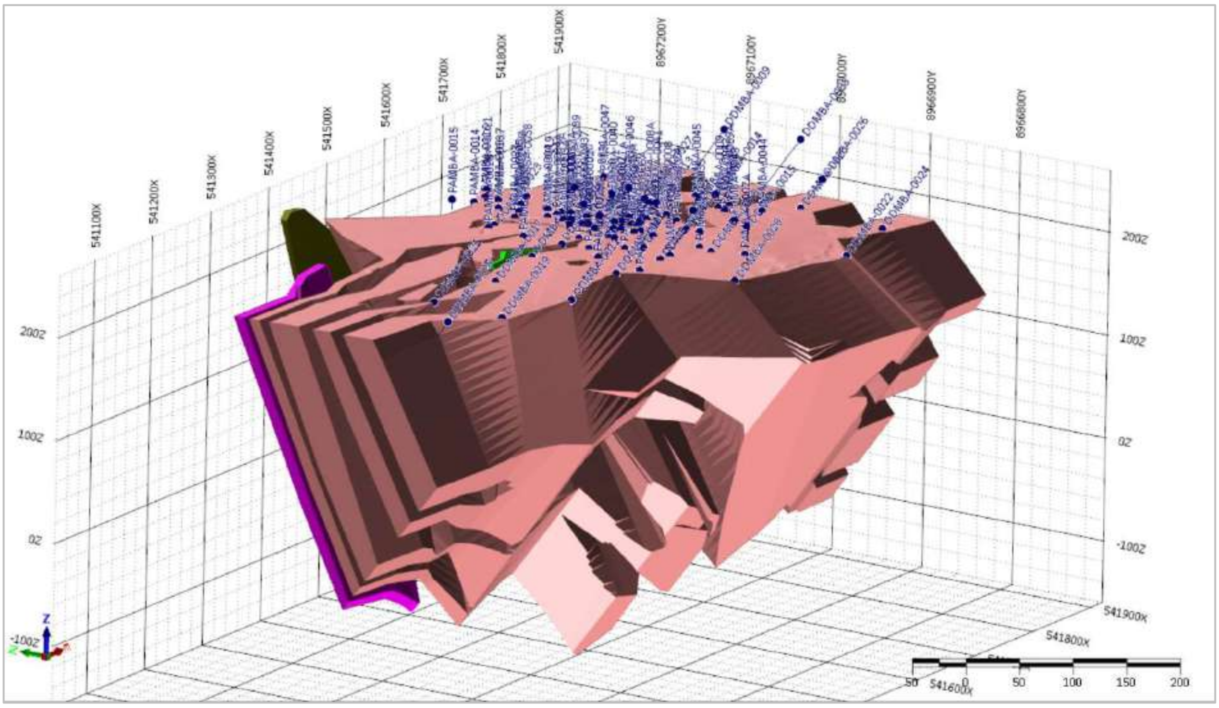


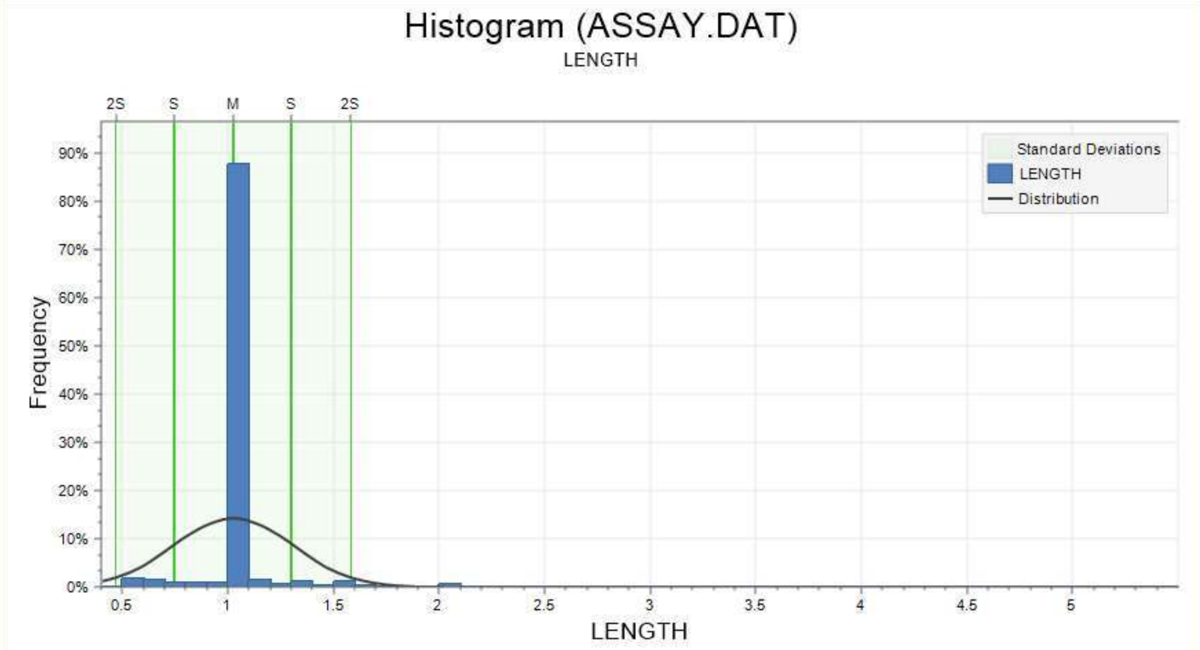
Figure 14-8 - Triangulation of the mineralized zones cut by the topographic surface. View shows all mineralized zones in the area.

14.6 DATA SELECTION

The selection of drillhole data is a standard certification procedure. It is essential that, in classical statistical analysis, geostatistics and the grade interpolation process, the correct samples are used. The interpreted solids defined by gold analyses were used for the drill hole sample selection.

In order that the samples used for the interpolation had the same weight by size, an analysis was completed to define the down-hole length of the composites. The results of the analysis of down-hole length indicate that values range from 0.40 to 5.45 meters with a mean of 1.02 meters.

An analysis of samples of the mineralized zones indicates that about 90% of the samples have a length of 1 m. Figure 14-9 shows a graph of sampling length distribution.



LENGTH		N	3533	Lognormal Mean	0.005	Sichel's Gamma	1.015
Minimum Value	0.400	Mean	1.024	Lognormal Std Deviation	0.174	Experimental Chi²	15890.862
Maximum Value	5.450	Variance	0.077	Geometric Mean	1.005	Degrees of Freedom	12
2nd Highest	5.200	Standard Deviation	0.278	Geometric Std Dev	1.190		
3rd Highest	5.100	Coeff. of Variation	0.271	Sichel's Estimator	1.021		
4th Highest	5.050	Median	1.000	Sichel's V	0.030		

Figure 14-9 - Histogram of size distribution of samples inside the mineralized zone.

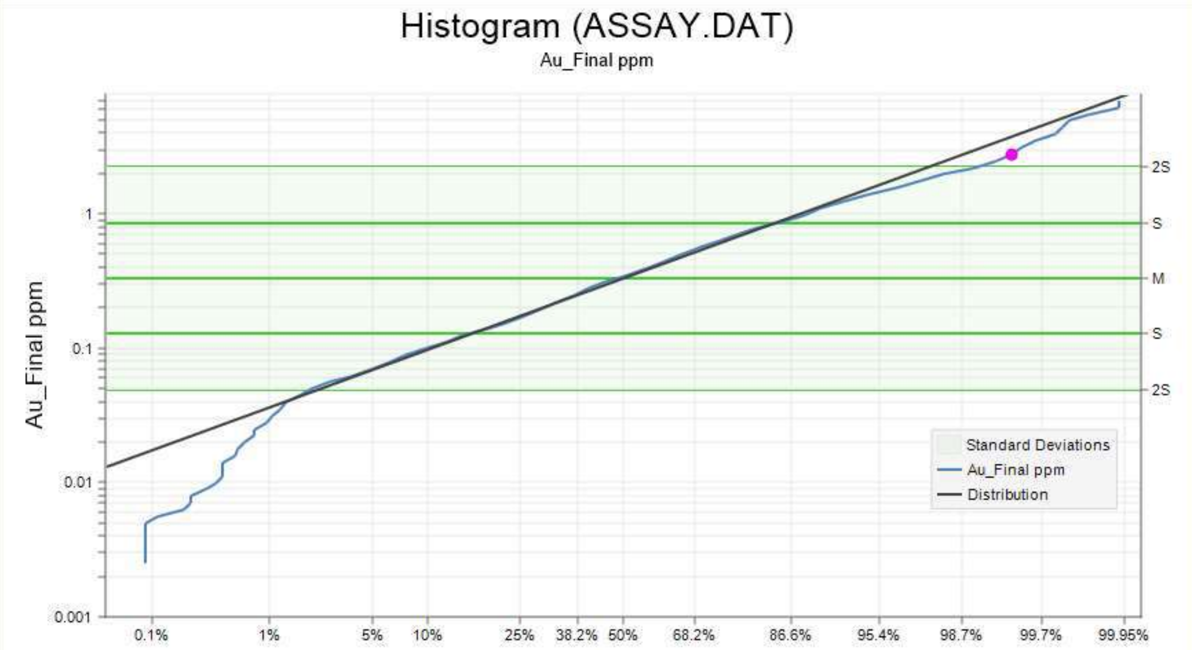
Accordingly, the length of 1 m was adopted for the composite samples, converting all the samples into 1 meter intervals. The process of creating the composite intervals started at the hole collar and proceeded in the direction of drilling (downwards). Intervals below 0.80 m were excluded. The results of statistical analyses of samples composited are shown in Table 14-2.

Table 14-2 - Results of statistical analysis performed.

Element	Number of samples	Minimum	Maximum	Mean	Median	Variance	Standard deviation
Samples composited							
Au	3,598	0.003	7.727	0.506	0.356	0.26385	0.51366

14.7 CAPPING

To determine the impact of high-grade gold values (ppm) on the geological resource estimate, a probability graph of gold grade was constructed as shown in Figure 14-10. The first step of the curve, which represents the end of the normal data distribution, occurs at 2.619 ppm Au. The descriptive statistics of all composite samples shows that a grade of 1.791 ppm Au represents the 97.7 percentile (+2 SD) statistic. Through a comparison of the data, it was defined to use capping for samples containing greater than 1.791 ppm, since their influence on the estimation process could be significant.



Au_Final ppm		N	3533	Lognormal Mean	-1.107	Sichel's Gamma	1.573
Minimum Value	0.003	Mean	0.500	Lognormal Std Deviation	0.952	Experimental Chi²	152.861
Maximum Value	7.727	Variance	0.274	Geometric Mean	0.330	Degrees of Freedom	46
2nd Highest	7.467	Standard Deviation	0.524	Geometric Std Dev	2.592		
3rd Highest	6.123	Coeff. of Variation	1.048	Sichel's Estimator	0.520		
4th Highest	5.676	Median	0.344	Sichel's V	0.907		

Figure 14-10 - Graph of the probability of distribution of Au (ppm).

14.8 MODELLING

The block model was generated from the discretization of the three-dimensional solids into blocks of defined dimensions. The parameters of the blocks are listed below, in Table 14-3.

The process of discretization of the solids included the sub-blocking process. Initially, the model was filled with blocks measuring 25 (X) by 25 (Y) by 10 (Z) meters, which were divided into subunits of smaller size, with a factor for size subdivision of 10 by 10 by 10 subunits in contact with the surrounding three-dimensional solids. As a result, at the limit within solids, the size of the blocks became 2.5 (X) by 2.5 (Y) by 1.0 (Z) meters.

The initial size of the blocks was selected based on the morphology of the mineralized bodies and the drill hole spacing, which averages approximately 50 meters. This block size aims to reflect the geological continuity while maintaining consistency with the available data resolution. The resultant model contains 111,161 blocks.

The solids were used to create a block model within the mineralized geological body. This solid was used to encode the respective blocks. The digital model of the topographic surface was used to limit the block models along the vertical axis. The blocks were generated with faces parallel to the North/South and East/West axes.

Table 14-3 - Block model parameters.

Directions	Minimum	Maximum	Block Size (m)	Minimum sub-block size (m)	Number of primary blocks
East	541042	541767	25	2.50	30
North	8966705	8967305	25	2.50	25
RL - Elevation	-158	262	10	1.00	43

14.9 GEOSTATISTICAL ANALYSIS

Geostatistical studies were carried out for the entire mineralized zone. The file of the 1-meter composite sample was used for the construction of semi variograms. Semi variograms were made on the analysis of the gold content (ppm). The following figures (Figure 14-11 to Figure 14-13) illustrate the semi variograms generated for gold (ppm).

In order to verify the variograms, the cross-validation process was used, which presented a low value for the statistical error of data interpolation. The cross-validation verification result for gold (ppm) is presented in Table 14-1. A linear dependence diagram between the data of the composite samples file and the estimate of the grade obtained by the cross-validation process was also constructed. The results for gold (ppm) are shown in Figure 14-14.

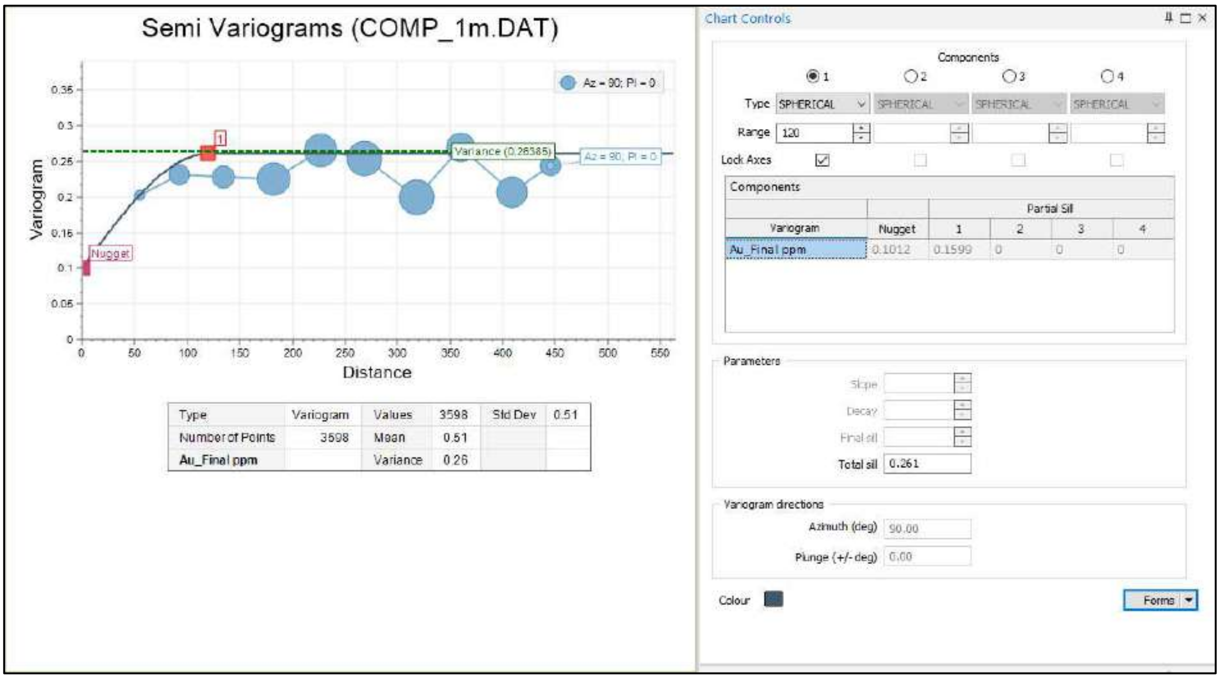


Figure 14-11 - First axis to Au (ppm).

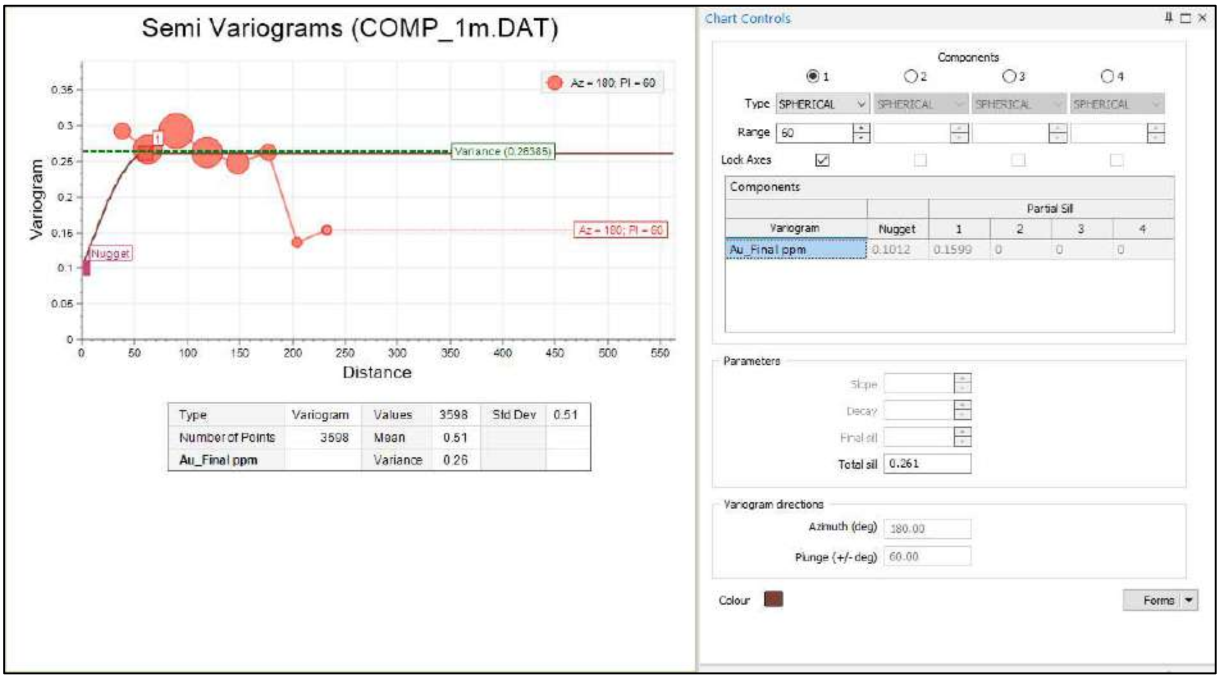


Figure 14-12 - Second axis to Au (ppm).

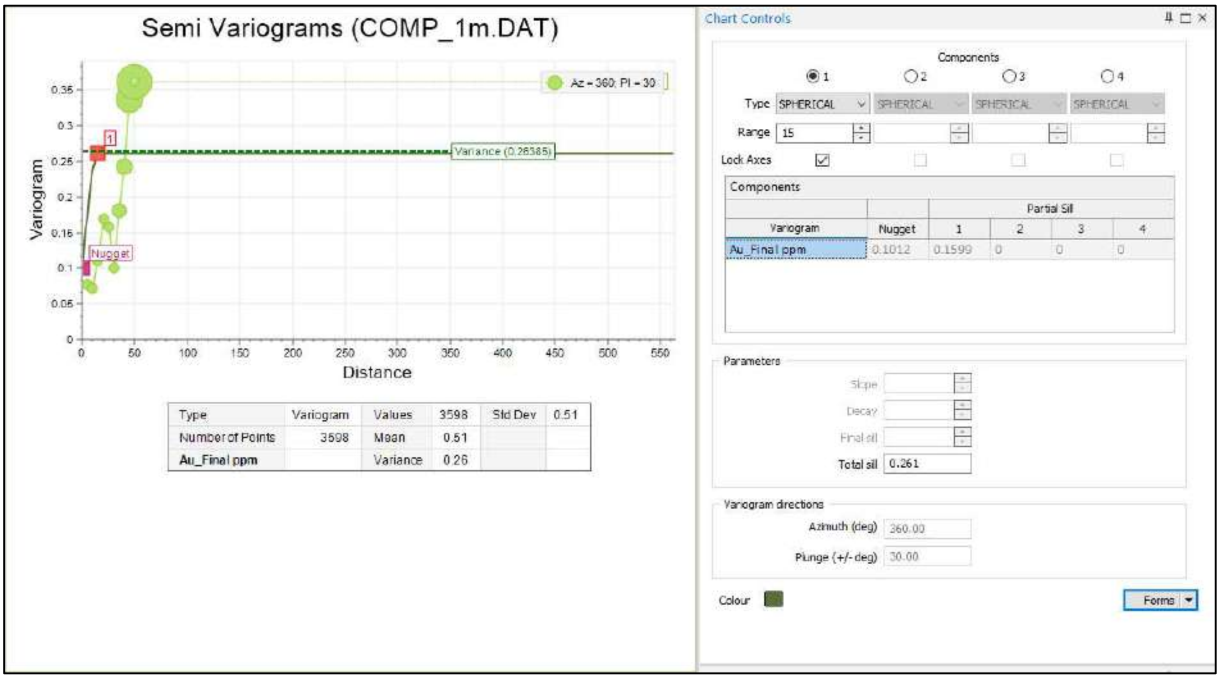


Figure 14-13 - Third axis to Au (ppm).

Table 14-4 - Cross-Validation verification results for Au (ppm).

Metadata Label	Metadata Value	Field Name	Mean	Std Dev
Output File	cv_au.DAT			
Input File	COMP_1m.DAT			
Analysis varb	Au_Final ppm			
Transformation	None			
Number of points	3598			
Raw Data		Au_Final ppm	0.505789368	0.513696325
Standard error		STD_ERROR	0.368443935	0.009979396
Estimate		ESTIMATE	0.507079036	0.372188845
Residual		RESIDUAL	-0.001289668	0.358714997
Error statistic		ERROR_STAT	-0.002721029	0.985534060
RMSE			0.358667449	

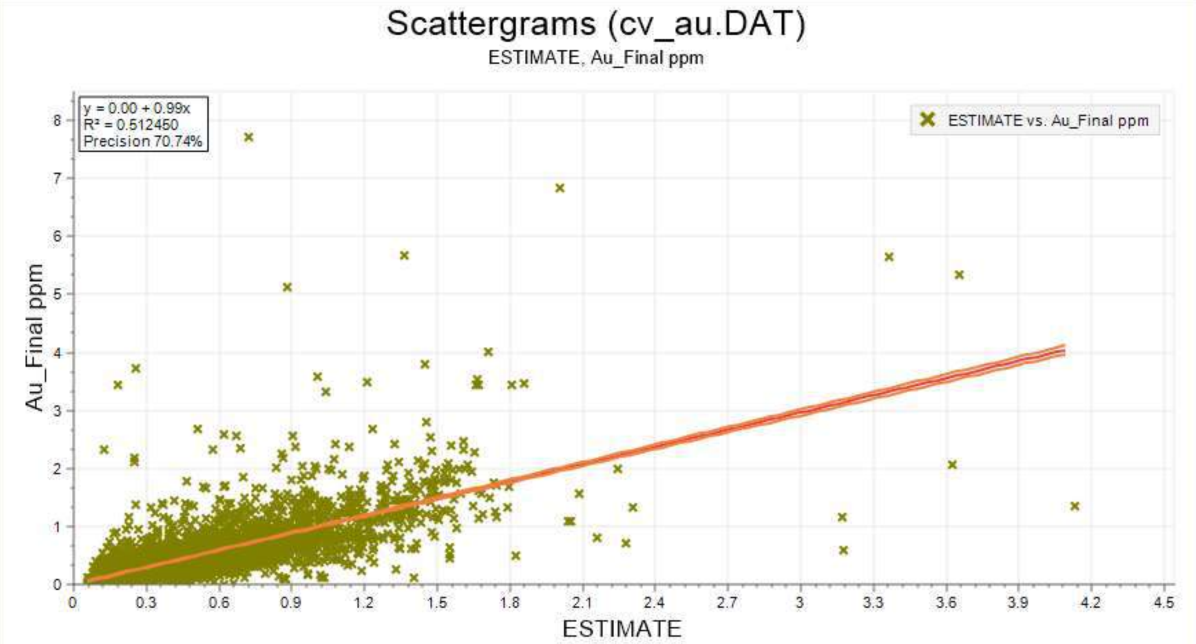


Chart:		b0	0.004782	Y Mean	0.51	X Std Dev	0.37
File Name	cv_au	b1	0.988027	Y Variance	0.26	X Var / Y Var	0.52
Confidence level %	80.00	Corr Coeff (R)	0.715856	Y Standard Deviation	0.51	Covariance	0.136866
Sample N	3597	R^2	0.512450	**X:**	**ESTIMATE**	Precision %	70.741437
Model:	**Linear**	Rank Corr Coef (%)	0.81	X Mean	0.51	Rank Corr Coef (%)	0.807358
Model	$y = b_0 + b_1x$	**Y:**	**Au_Final ppm**	X Variance	0.14		

Figure 14-14 - Linear diagram of dependence between composite samples data and Au grade (ppm) estimates.

14.10 GRADE INTERPOLATION AND MINERAL RESOURCE CLASSIFICATION

14.10.1. GRADE INTERPOLATION

Gold (ppm) was interpolated to the empty block model using Ordinary Kriging (OK), IDW2 (Inverse Distance Weighting with weight 2) and IDW3 (Inverse Distance Weighting with weight 3) methods. The parameters used for all three methods were the same and are described below.

The grade estimation was performed in five consecutive steps (rounds) using different sizes of search radii, criteria of number of composite samples and number of holes.

The definition of the search ellipse parameters was made through the geostatistical analysis. The search ellipsoid was divided into four sectors. The search radii were determined by the range of the variograms. The orientation of the search ellipsoid and the axes sizes for interpolated element are described in Table 14-5 and Table 14-6. The parameters of the search ellipse radii and interpolation parameters for each step (round) of the grade estimation is described in Table 14-5.

Table 14-5 - Direction of the search ellipsoid axes for Au (ppm).

Element	First axis azimuth	First axis dip	Second axis dip
Au (ppm)	90	0	60

Table 14-6 - Direction of the search ellipsoid axes and search ellipse parameters for Au (ppm).

Element	Axis	Length (meters)
Au (ppm)	1	120
	2	60
	3	30

Table 14-7 - Search radius and interpolation parameters for Au (ppm) and interpolation methods.

Round	Search ellipse size factor	Minimum composites	Maximum composites	Minimum hole number
1	0.667	4	12	3
2	1	2	12	2
3	2	2	12	1
4	100	1	12	1

The blocks for each zone of the mineralized body were interpolated using only composite samples belonging to the corresponding part of the mineralized body, i.e., the waste samples were not used. During the interpolation, the discretization process for each block, evaluated by the X, Y axes with a factor of 4 and Z with a factor of 2, was used. This makes it possible to evaluate each block in thirty-two (32) positions and assign to the center of the block an average of these evaluations. This increases the precision of the grade estimation in each block.

The limitations presented by each sector of a search ellipse were the maximum number of points in the sector and the minimum total number of points in the interpolation that varies depending on the size of the ellipse, from 4 to 1. Thus, the maximum total number of samples involved in the interpolation was 12 samples.

To evaluate the influence of the nugget effect on the estimation of geological resources, the element Au_cut was interpolated with application of cut-off grades (capping). A 97.7 Percentile (+2 SD) was chosen as capping grade definition criteria. Table 14-8 shows the capping values.

Table 14-8 - Cut-off grade values(capping).

Element	Cut-off Grade
Au (ppm)	1.791

14.10.2. MINERAL RESOURCE CLASSIFICATION

The classification of resources was carried out according to the guidelines under NI43-101. The resources were classified as Indicated and Inferred according to the degree of reliability of the different estimation runs and the data used for the interpolation of the block model. Solids were created and were used to label the included blocks to each of these zones of confidence level.

For the **Indicated Resource,** a wireframe that encompasses the area with a 50×50 and 50×100 meter regular drilling grid was created. For interpolation, an average of 3 holes and 8 composite samples were used.

All other blocks were classified as **Inferred Resource**.

The three-dimensional visualization of the block model with the spatial distribution of the resource classes is shown in Figure 14-15.

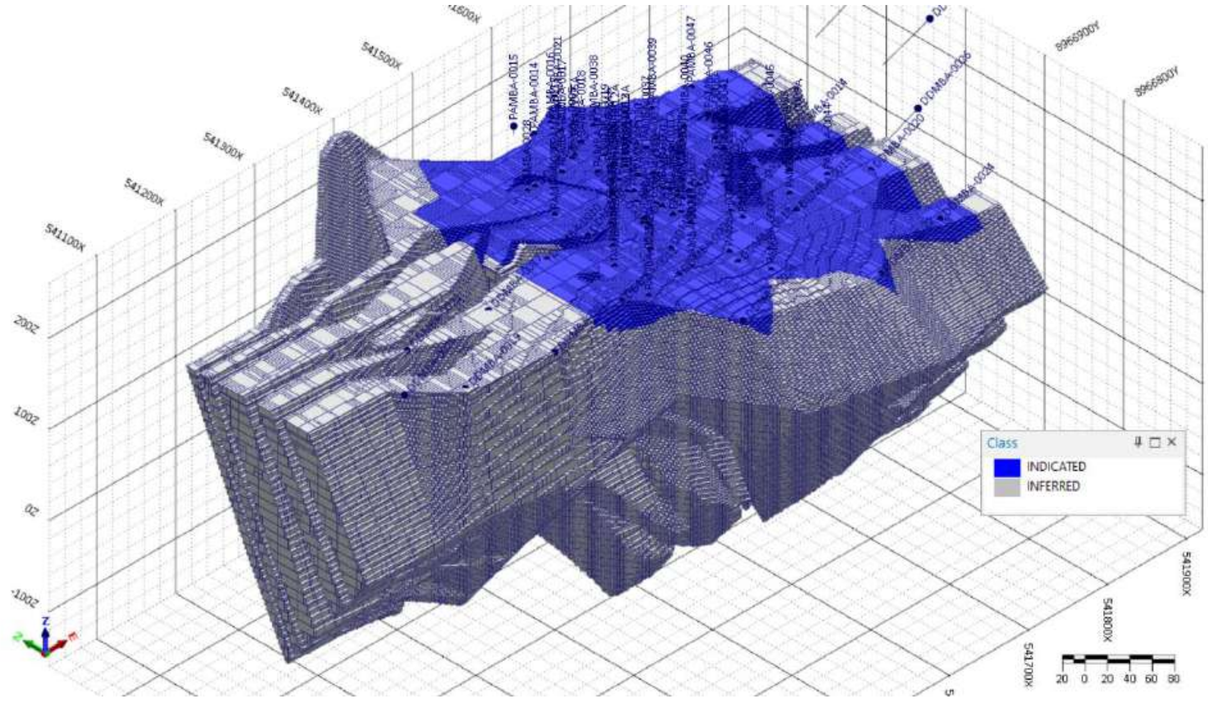


Figure 14-15 - Resources classified as Indicated and Inferred.

14.11 DENSITY VALUES FOR THE BLOCK MODEL

The density values applied to the block model were determined based on available specific gravity data and were assigned according to the lithological domain of each block. For the fresh rock domains, a fixed density value of 2.64 t/m³ was applied. This value represents the arithmetic mean of 547 specific gravity measurements collected by Altamira from diamond drill core samples using standard industry procedures. Given the robust dataset, this density value is considered reliable and representative of the fresh rock material.

For the saprolite domain, a density of 1.68 t/m³ was assigned, based on the average of 18 specific gravity measurements. This value is consistent with typical densities observed in deeply weathered tropical saprolite.

It is recommended that additional specific gravity tests be conducted in the saprolite zone. Increasing the number of measurements would improve the confidence in the assigned density and allow for a more accurate representation of spatial variability.

14.12 VERIFICATION OF THE BLOCK MODEL

The block model with interpolated grades was subjected to visual and statistical verification. Histograms and probability graphs of the interpolated grades were built. Subsequently, the interpolated grades of the block model were compared with the same histograms and probability graphs of the composite samples. The histograms and graphs of the interpolated grades and composite samples were similar, and the block model histograms were smoother than the composite histograms. The comparisons confirmed the validity and consistency of the constructed block model. The comparison histograms and probability plots are illustrated in Figure 14-16.

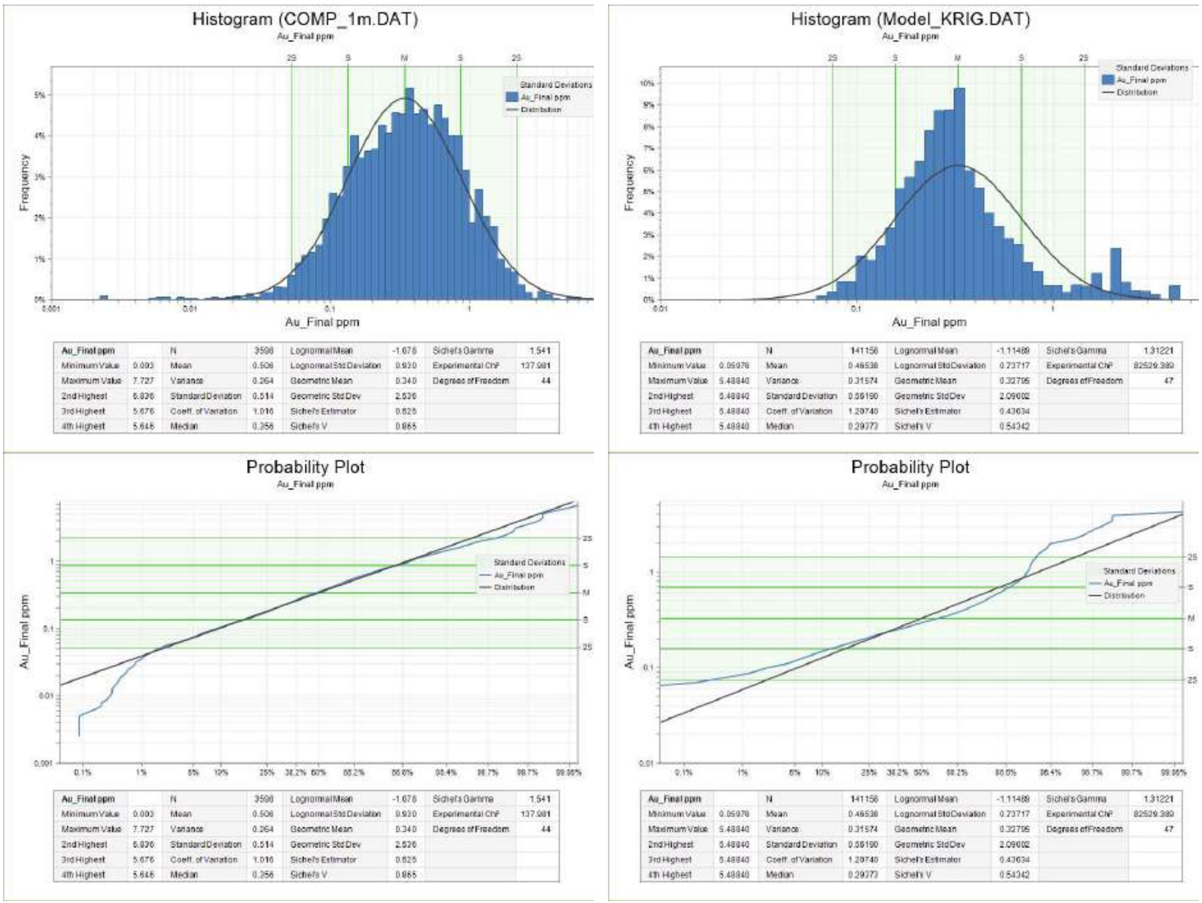


Figure 14-16 - Histogram and graph of the probability of distribution of Au (ppm) in composite samples (left) and block model interpolated by the Ordinary Kriging method (right).

In addition, the interpolated grades were compared visually with the actual sample grades. A comparison between the actual sample grades and interpolated grades shows an approximate relation, indicating the precision of the estimated grades of the block model. Several sections were constructed showing the grades of the block model and the grades along the drill holes. The visual comparison is illustrated in the following figures (Figure 14-17 to Figure 14-19). Appendix I collates all sections used in the analysis.

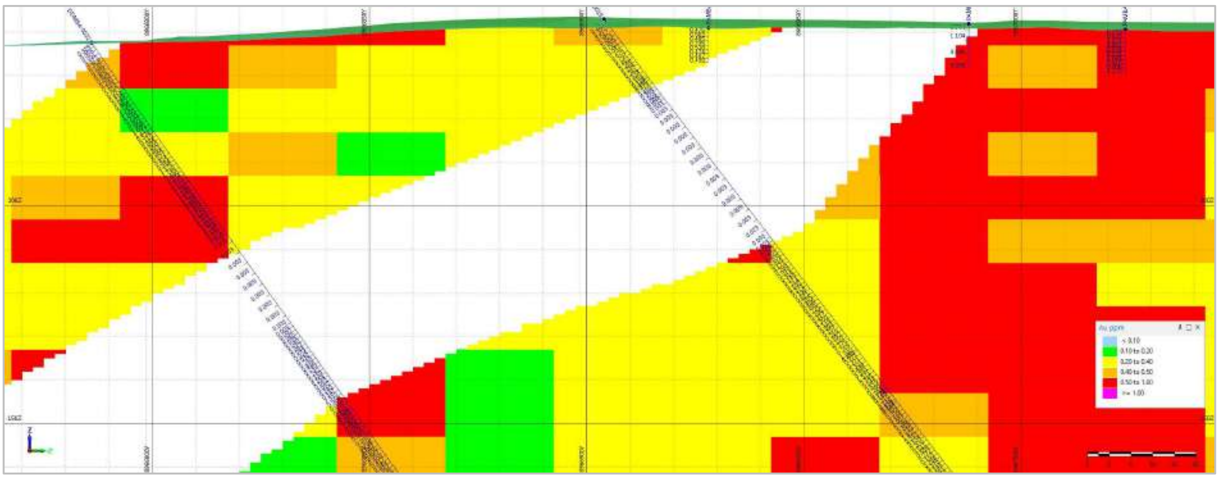


Figure 14-17 - Au (ppm) visualization with block model - Section Sec_MBA-0022-15.

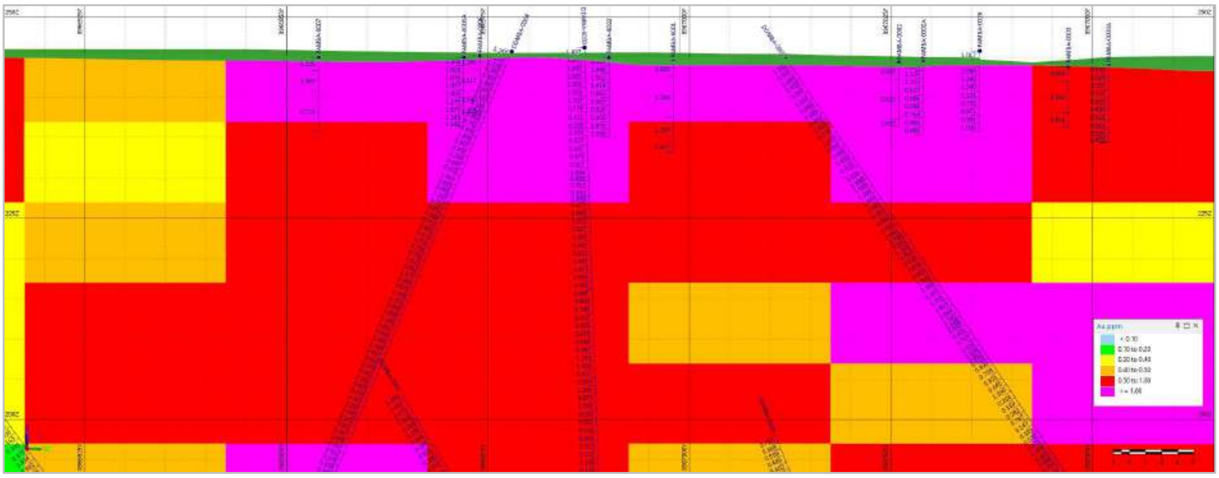


Figure 14-18 - Au (ppm) visualization with block model – Section Sec_MBA-0018-01.

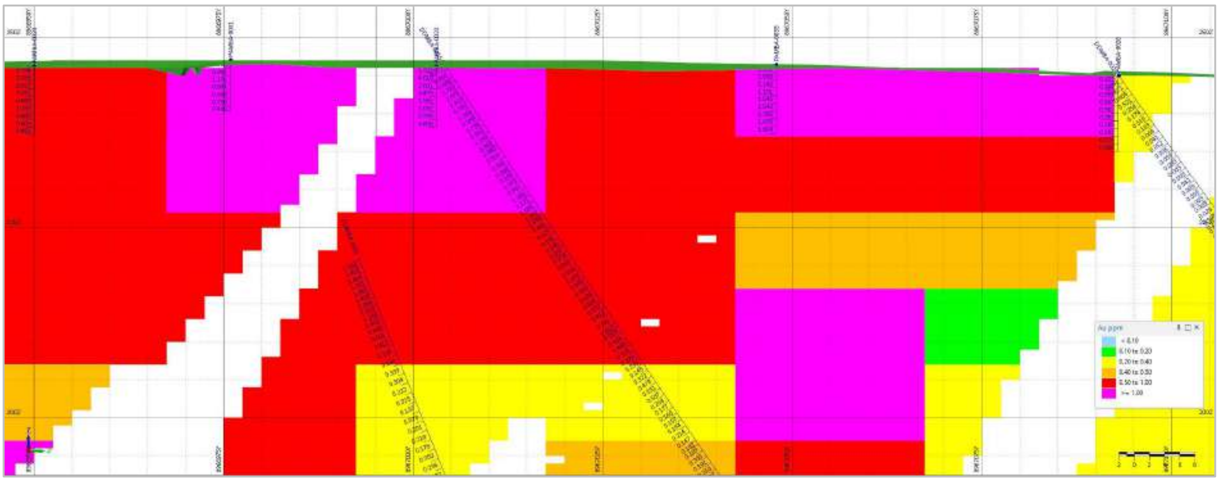


Figure 14-19 - Au (ppm) visualization with block model – Section Sec_MBA-0006-16-23-28.

The average grade of the chemical variable (gold) from the model was compared with the average grade of the chemical variable from the sampling interval file for gold interpolated by the three different methods. The comparison showed a very satisfactory result.

A comparison was made between a provisional polygonal estimation using the "interval" weighting method and the interpolation data by the Kriging and IDW3 methods for mineralized bodies. This comparison is presented in Table 14-9. The average difference between the average grades of gold (ppm) for all interpolation methods, in relative percentages, is lower than 2% and the difference between the volumes of the solid and of the block model is less than 0.045%. These results confirm the good convergence and high reliability of the estimated block model data. The analysis for gold (ppm) after application of capping (Au_cut) was also satisfactory. A difference in the average grades of gold (ppm) between wireframes and the block model estimated by Kriging of 46% (relative percent), is expected and satisfactory.

Table 14-9 - Data comparison between different estimation methods for Au (ppm).

ESTIMATION METHOD	VOLUME m³	Au ppm	Au_cut ppm
Block Model (Krig)	32,434,187.50	0.350	0,332
Block Model (IDW3)	32,434,187.50	0.346	0,326
Relative difference %	0.00	1.29	1.84
Block Model (Krig)	32,434,187.50	0.350	0,332
Wireframe	32,448,815.398	0.510	0.485
Relative difference %	-0.045	-45.69	-46.10

In order to verify the influence of the nugget effect on the geological resource estimation, the results of the calculation for interpolated grades with and without capping were compared. The results of this comparison are shown in Table 14-10. For gold, the difference in relative percentage is 5.3%, which indicates a relatively insignificant influence of the higher-grade samples in the geological resource estimation.

Table 14-10 - Resource calculation comparison with and without capping for gold.

Au ppm ppm	Au_cut Ppm	Relative Def. Au-Au_CUT %
0.350	0.331	5.312

14.13 RESULTS OF THE RESOURCE EVALUATION

VMG estimated the Indicated Mineral Resources and Inferred Mineral Resources for the Maria Bonita Project reported herein, in accordance with NI 43-101 and the current CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council on May 10, 2014. The Mineral Resources were estimated in conformity with the CIM Estimation of Mineral Resource and Mineral Reserves Best Practices guidelines.

The CIM Definition Standards on Mineral Resources and Mineral Reserves require that an estimated Mineral Resource must have reasonable prospects for eventual economic extraction. The Mineral Resource estimate discussed herein has been constrained by reasonable potential mining open pit design parameters, using economic and technical assumptions appropriate for an open pit mining scenario. The potential mining open pit shells described below are preliminary and conceptual in nature.

VMG has based the resource categories and cut-off grades of the deposit in the Mineral Resource estimate stated herein, on the requirement of “reasonable prospects for eventual economic extraction", assuming an open pit mining method production scenario. Dr. Myadzel believes this is warranted for the deposit given the following:

- Long-term gold price based on a 1-year rolling annual trailing average
- Exchange rate for US$ to R$ based on the 2025 average of 6.00
- Mineral process recovery of 90% for gold, based on the metallurgical testing described in section 13 of this report
- Operating costs (mining, processing, general and administrative) have been considered
- The scale of the deposit
- The near-surface disposition of the mineral resource with 99,5% of the reported resource tonnes within 300 metres of the surface
- The disseminated and continuous nature of gold mineralization, making the deposit amenable to low-cost bulk mining open pit methods
- The host rocks are granitoids suggesting the potential for exceptionally stable rock quality and geomechanics likely resulting in steep pit walls
- Good infrastructure including power, roads and water, resulting in relatively low unit capital and operating cost requirements

Pit shells were derived from first principles using Micromine pit optimization software to estimate material in the block model with reasonable prospects for eventual economic extraction. Pit shells were developed by considering blocks measuring 2.5 m x 2.5 m x 1 m on constraining boundaries. The overall pit slope angle was judged to be 70^{o}. The main input assumptions are summarized in Table 14.12. A plan view and section view of the assumed pit constraints are illustrated in Figure 14.25 and Figure 14.26 respectively.

Table 14-11 – Open Pit Constrained Resource Inputs and Assumptions

Parameter	Value	Unit
Density	in Block Model	t/m³
OPEX Mining Cost	5.00	US$/tonne
G&A Cost	2.50	US$/tonne
Processsing Cost	9.00	US$/Product
Mining Recovery	90	%
Dilution	10	%
CutOff	0.2	ppm
Product Selling Price	2,780.00	US$/oz
Au Recovery	90	%
Pit Slope Angle oxide	40	Degrees
Pit Slope Angle primary	70	Degrees
Production	0.35	Mt/year
Discount rate	8	% per year

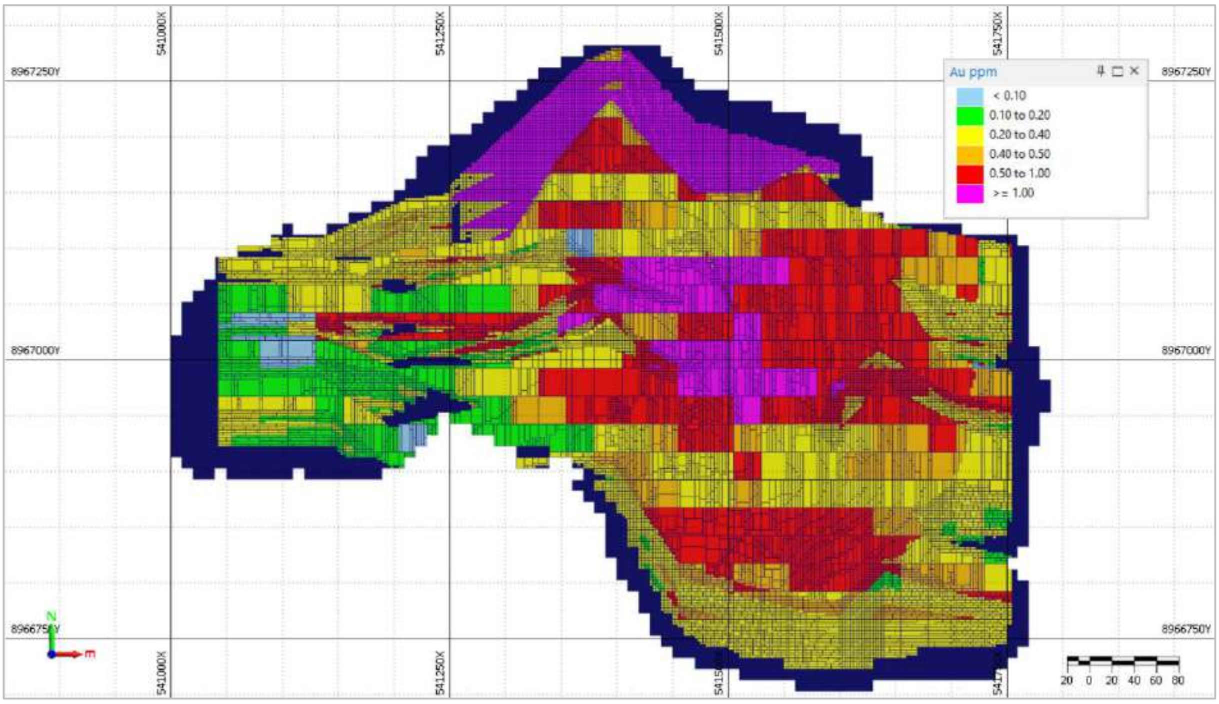


Figure 14-20 – Pit Constraining surface around estimated Block Model – Plan View.

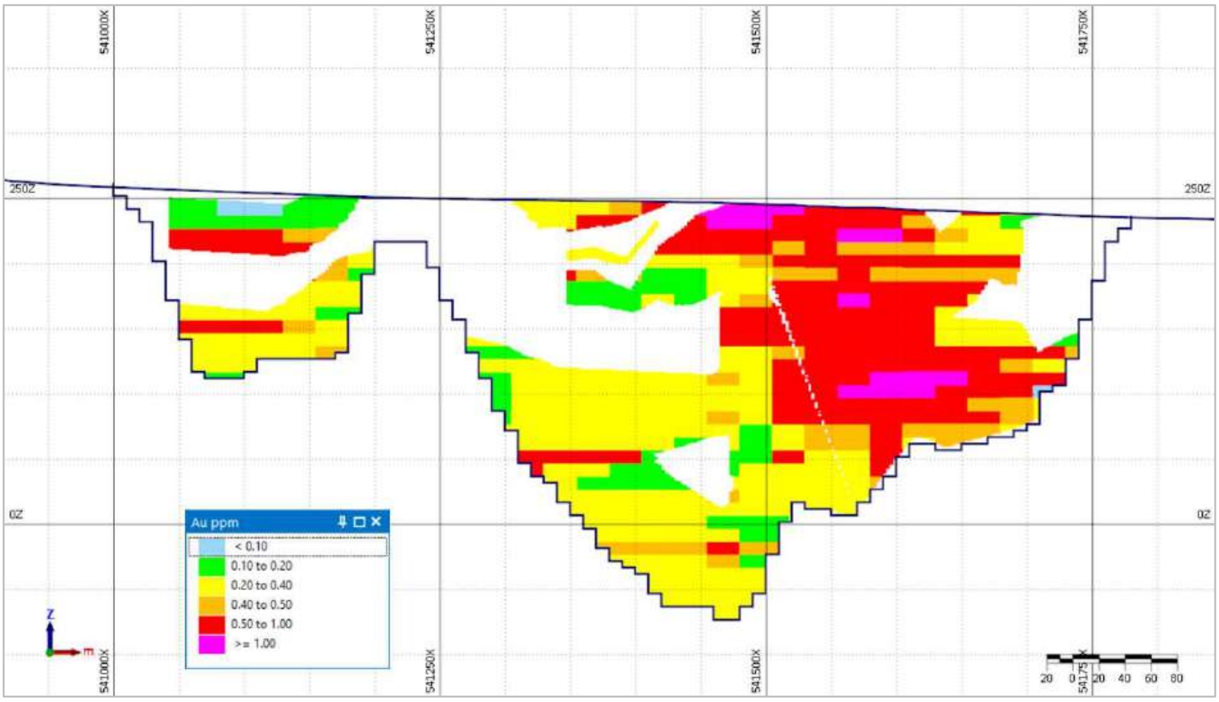


Figure 14-21 – Pit Constraining Surface around estimated Block Model – Section View Looking North.

The results of the evaluation of resources, based on the block model interpolated by the Ordinary Kriging (OK) method, of gold mineralization of the Project is presented in Table 14-12. The sensitivity of gold resource estimates to the application of several cut off grades are presented in Appendix II.

To determine the influence of the nugget effect on the geological resource estimation, the results of the calculation for interpolated grades with and without capping were compared. The higher-grade samples were cut to 1.791 ppm Au. For gold, the difference in relative percentage is 5.3%, which shows the low influence of the high-grade samples in the geological resource estimation. The resource estimation is shown in Table 14-12.

Table 14-12 - Gold Resources Calculated by Ordinary Kriging (OK) Method Assuming a 0.2 ppm Au cut-off grade.

CUT-OFF Au ppm	CLASS	CATEGORY	VOLUME m3	TONNES T	DENSITY (t / m3)	Au ppm	Au oz
0.2	Indicated	Saprolite	1,203,306	2,021,554	1.68	0.59	38,066
		Fresh Rock	8,398,756	22,172,716	2.64	0.45	319,741
	Inferred	Saprolite	405,718	681,607	1.68	0.40	8,733
		Fresh Rock	9,454,087	24,958,791	2.64	0.44	353,637

The resources estimated for gold with the application of several cut-off grades are presented in Appendix III.

ITEM 23: ADJACENT PROPERTIES

There are no other Adjacent Properties.

ITEM 24: OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information.

ITEM 25: INTERPRETATION AND CONCLUSIONS

This report refers to the Maria Bonita Project located within exploration permit 850.224/2009.

The Maria Bonita Project is as an uncommon type of porphyry gold deposit. The Maria Bonita gold mineralization is intrinsically associated with A-type quartz veining, occurring as swarms of straight and irregular veins that intersect in "sheets" and/or "stockwork" patterns. Two types of veins are observed: the first is colorless, composed mostly of quartz; the second, associated with the first, consists of fine-grained dark green (largely chlorite) minerals. Bulk gold grades vary directly with the intensity of veining. Macroscopically, sulfides are rare to absent.

The exploration work completed to date consists of surface geological mapping, soil sampling, topographic surveying, 31 diamond drill holes (4710.48 meters), 59 mechanized auger drillholes (544.70m) and 4,922 sample assays.

The chemical analyses were performed at SGS Geosol and used an internal Altamira-managed QA/QC program as well as industry standard contractor laboratory internal QA/QC measures.

The average density value of 2.64 t/m^3 was obtained from the average of 547 density measurements for fresh rock. For the saprolite domain, a density of 1.68 t/m^3 was assigned based on the average of 18 specific gravity measurements

The model generated for the Mineral Resource estimate was based on drilling information performed on an irregular grid, with distances between holes that vary between 50 and 100 meters. Twelve vertical north-south geological sections were created with an average distance of 50 and 100 meters between sections.

The model herein reports an Indicated Mineral Resource of 24.2 million tonnes at a grade of 0.46 ppm Au, and an Inferred Mineral Resource of 25.6 million tonnes at a grade of 0.44 ppm Au.

These estimates are both without use of a cut-off.

Preliminary economic indicators are that the deposit may be economically extractable at some point in the future. The level of confidence, i.e., the category, of a resource estimate may change with additional exploratory work, such as sampling, drilling and metallurgical testing, along with other modifying factors.

The author is of the opinion that Altamira has successfully highlighted the mineral resource potential at the Project and considers the Project to be sufficiently robust to warrant conducting additional definition drilling to increase the Mineral Resources, conduct metallurgical testing and to complete a Preliminary Economic Evaluation of the Maria Bonita Project for a potential open pit mining operation as a prelude to a future Feasibility Study.

VMG conducted the evaluation of Mineral Resources of Altamira's Maria Bonita Project in compliance with NI 43-101. The work took place from February 2025 to April 2025.

The main activities developed by VMG were:

- Site visit, discussions with the Altamira technical staff, understanding of the geology and mineralization of the deposit, and verification of the geological work performed by Altamira and contractors on site, and in off-site laboratories, as well as verification of the materiality of the achieved results.
- Validation of the drilling database and the topographic information.
- Verification of the QA/QC program established by Altamira for geological work and of its application to the work program.
- Selection of the drilling data used in the definition of Mineral Resources.
- Interpretation of the geological model.
- Conduction of statistical and geostatistical studies.
- Estimation of Mineral Resources, as well as their quantification and classification.
- Disclosure of the Mineral Resources for the Maria Bonita Project in accordance with NI-43-101.

VMG observed that the results obtained from QA/QC were acceptable. VMG did not visit the assay laboratories, but the SGS Geosol laboratory is a reputable international company which meets or exceeds the industry standards for sample preparation and analysis.

The materiality of the work developed by Altamira, as well as the materiality of the deposit and the developed studies, are sufficient to support the disclosure of Mineral Resources of the Maria Bonita Project in accordance with NI-43-101.

ITEM 26: RECOMMENDATIONS

26.1 WORK PROGRAM

VMG, based on the studies and work carried out on the Mineral Resources of the Maria Bonita Project, owned by Altamira, makes the following recommendations:

- Organization and systematization of the core storage and storage for duplicates of samples.
- Database: validate the name of standards.
- Infill drilling will be necessary to upgrade the Indicated Resources to Measured Resources and Inferred to Indicated for the mineral deposit.
- QA/QC: crushing duplicates should be inserted into the assay batches.
- QA/QC: laboratory pulp duplicates, generated by the contractor laboratory should be inserted into the assay batches.
- Increase the quantity of saprolite density samples to obtain a dataset that is fully representative of the saprolitic rock density.
- Detailed mineralogical studies to accompany metallurgical tests.
- Detailed metallurgical tests.
- Environmental studies.
- Carry out an instrumental topographic survey of the drill area.

26.2 BUDGET

The estimated budget for this work program is shown in Table 26-1.

Table 26-1 - Estimated Budget.

Work Program	Units Type Work	Units	Unit Cost	Cost US$
Instrumental topographic survey	Km^2	30	5,454	163,620
Drilling	Meters	3,000	114	342,000
Assaying	Sample	1,800	21	37,800
Density test	Sample	250	3	750
Mineralogical studies	Study	50	272	13,600
Metallurgical tests	Sample	5	8,181	40,905
Environmental studies	Study	1	181,818	181.818
Work on the organization of geological data and materials	Und	1	1,363	1,363
Administrative expenses	Adm	1	45,454	45,454

ITEM 27: REFERENCES

Alta Floresta Gold Mineração Ltd. Exploration Database. [Access Database] 2019.

Chapleau Resources Limited. Aug 2007. Maria Bonita Project, Mato Grosso and Para State, Brazil, Exploration Progress, August 2006 – July 2007. Aug 2007.

Duarte, Tiago. 2015. Geologia, geoquímica e geocronologia do Domínio Vulcânico do Arco Magmático Juruena, SW do Cráton Amazônico: Implicações geotectônicas. 2015.

Global Resource Engineering Ltd. Geologic and Block Model. [LeapFrog GEO] 2019

Gustavson Associates, LLC. Mar 24, 2016. NI 43-101 Technical Report on Resources Maria Bonita Project. Mar 24, 2016.

Global Resource Engineering Ltd, NI 43-101 Technical Report Maria Bonita Project - Mineral Resource Estimate, 2019

Sillitoe, Dr R. H. Maria Bonita Prospect, Review Highlights, Unpublished report to Altamira Gold. 2024

GLOSSARY

%	percent.
3D	Three-dimensional.
Au	Gold
Assay	Chemically or physically measured amount of material within a sample.
Anisotropy	Characteristic of a variable having different physical properties when measured in different ways.
Azimuth	Angle at which an exploration hole has been drilled (deviation from northward)
Correlation coefficient	A statistical measure of the degree of similarity between two parameters.
Coefficient of variation	In statistics, a normalized measure of the variation present in a sample from the population.
Collar	Geographic coordinates of a drill hole or starting point of a shaft.
Compositing	In sampling and resource estimation, process designed to assign all sample data into intervals of a given equal size.
Cut Off grade	The threshold above which the material is selectively mined or used.
DD	Rotary Diamond Core Drilling
Declustering	In geostatistics, the process that allows the restricted grouping of samples within the octant sectors.
Standard Deviation	A statistical measure of the dispersion of sample data around the mean value.
ANM	Agência Nacional de Mineração
Geostatistics	Science that studies and describes the spatial continuity of any type of natural phenomenon
Cumulative frequency plot	Graphical representation of the data sorted in ascending or descending order, which are shown in a non-decreasing function between 0% and 100%. The forms of percentage frequency and percentage cumulative frequency are interchangeable, since one can be obtained from the other.
Probability graph	Plot showing cumulative frequencies on different intervals in a probability plot on a logarithmic scale.
ha	Hectare
HG	High Grade
Histogram	A graphical representation of the data distribution by frequency of occurrence.
Inverse Distance Weighting	Geostatistical method for calculating Mineral Resources. Since this method causes the weight of each sample to be inversely proportional to its distance from the point that is being estimated, this gives more weight to the nearest samples and less to those that are more distant. The method works very efficiently with regularly scaled data. Extreme versions of the Inverse Distance Weighting are the global declustering methods such as the polygonal method and the local sample average method

IDW	Inverse Distance Weighting
Km	Kilometers
Ordinary Kriging	Kriging is a regression method used to approximate or interpolate data.
LG	Low Grade
lithology	File with the lithological description of the Samples
Lognormal	Refers to the distribution of a variable whose logarithm's distribution is normal.
LOI	Loss on ignition
m	Meter
M	Million or mega
Median	Value of the average sample in a data set arranged in class order.
Mt	Millions of tons.
NI 43 -101	National Instrument 43-101
º C	Celsius Degrees
OK	Ordinary Kriging
Percentile	One hundredths of the total data. The 50th percentile is the median.
GDP	Gross domestic product
Population	In geostatistics, population includes samples with properties that show the same (or close) geostatistical characteristics. Ideally, a population is characterized by linear distribution.
Ppm	Parts per million
Precision	The precision of quality control analyses refers to the percentage of difference between an analysis and its repetition, for example, a precision of 10% would mean that the initial analysis and the repetition differ by 10%. The closer to 0%, the better is the precision.
Range	Distance at which the variogram reaches its plateau.
RC	Rotary-percussive drilling
Resource	Geological mineral resources (may be mineable and not mineable).
RL	Reduced level, that is, elevation relative to a local datum.
SG	Specific Gravity (unit in grams per cubic centimeter).
t	Metric Tonnes.
t/m^3	Tonnes per cubic meter.
Triangular Mesh	Three-dimensional surface defined by triangles.
Solid triangular mesh	Closed triangular mesh.
Ton	Tonnes
Variance	In statistics, a measure of the dispersion over the average value of a data set.

APPENDIX I - STANDARDS CERTIFICATES

ITAK

Certificate of Analysis 0836

Date: 12-09-2019
Version: 02

CRM ITAK-577

Certified Reference Material – Gold Ore

Table 1 – ITAK-577 – Certified Values

Element/Unit	Certified Value [1]	s [2]	s_r [3]	s_L [4]	U [5]
Au (g/t) [a, b, c]	1.145	0.067	0.041	0.053	± 0.017

[1] The Certified Value was calculated according to ISO Guide 35 and ISO 5725-2.

[2] The standard deviation for proficiency assessment was calculated according to ISO 13528 and 5725-2. This standard deviation can be used for control charts for individual analysis (*n=1*).

[3] The within-laboratory standard deviation was calculated according to ISO 5725-2.

[4] The between-laboratory standard deviation was calculated according to ISO 5725-2.

[5] The extended standard uncertainty of the mean (α=5%) was calculated according to ISO Guide 35.

Note: The letters in front of the elements are codes for Analytical Methods used.

Table 2 – ITAK-577 – Informative Values

Element/Unit	Reference Value [6]
S (%) [d]	1.38

[6] This value is informative.

DESCRIPTION

ITAK-577 was prepared from a sample of Gold Ore donated by a Gold Mining Company from the Midwest of Brazil in 2013.

This Certified Reference Material (CRM) is presented as a fine powder.

INTENDED USE AND INSTRUCTIONS

ITAK-577 provides an important control in analytical data from exploration and can be used as a tool for grade control in routine mining and laboratory operations.

This Certified Reference Material can be used for calibration of analytical equipment, assess and develop new methods, validation of analytical methods, and arbitration – proficiency testing for example.

The bottles/sachets content should be thoroughly mixed before taking samples of ITAK-577.

The Certified Reference Material should be used without pre-treatment. ITAK is not responsible for any changes occurring after opening said bottles/sachets.

The Certified Reference Material should be stored in a dry place and without contact with excessive heat or moisture.

CERTIFICATION AND STATISTICAL EVALUATION OF ANALYTICAL DATA

ITAK-577 was analyzed by fourteen specialized laboratories. The statistical evaluation was carried out according to ISO GUIDE 35 and ISO 5725-2, using: identification and treatment of outliers, stragglers and technically invalid data, certified value calculation, standard deviation calculation, and extended standard uncertainty calculation.

The Technical Report: RT-090/19 STD contains full details of all phases of manufacturing, certifying results, participating laboratories, and the statistical evaluation.
Note: This report is available on the ITAK database for CRM users.

ANALYTICAL METHODS

The methods used on the certification of CRM ITAK-577 are mentioned as follows:

- **a**: Fire Assay Method and determination by Atomic Absorption Spectrometry.
- **b**: Fire Assay Method and determination by Gravimetric Method.
- **c:** Fire Assay Method and determination by Atomic Emission Spectrometry – ICP-OES.
- **d:** Infra Red Analyzer - Leco.

PERIOD OF VALIDITY

This CRM certification is valid until: **December 09, 2029**.

www.itak.com.br | +55 31 3851-3166 / +55 31 3851-6952 | 609, Sebastião Simão de Almeida Street, Sion
João Monlevade – MG – Brazil – 35931-209 | tecnologia@itak.com.br

CERTIFICATE REPRODUCTION

This certificate must not be modified and may only be reproduced in its entirety and without change.

Bráulio de Freitas Pessoa
Chemist – CRQ 02.202.008
Technical Director

www.itak.com.br | +55 31 3851-3166 / +55 31 3851-6952 | 609, Sebastião Simão de Almeida Street, Sion
João Monlevade – MG – Brazil – 35931-209 | tecnologia@itak.com.br

Certificate of Analysis 0853

Date: 03-20-2020

Version: 01

CRM ITAK-644

Certified Reference Material – Gold Ore

Table 1 – ITAK-644 – Certified Values

Element/Unit	Certified Value [1]	s [2]	s_r [3]	s_L [4]	U [5]
Au (g/t) [a, b]	0.334	0.019	0.012	0.015	± 0.0052

[1] The Certified Value was calculated according to ISO Guide 35 and ISO 5725-2.

[2] The standard deviation for proficiency assessment was calculated according to ISO 13528 and 5725-2. This standard deviation can be used for control charts for individual analysis *(n=1)*.

[3] The within-laboratory standard deviation was calculated according to ISO 5725-2.

[4] The between-laboratory standard deviation was calculated according to ISO 5725-2.

[5] The extended standard uncertainty of the mean (α=5%) was calculated according to ISO Guide 35.

Note: The letters in front of the elements are codes for Analytical Methods used.

Table 2 – ITAK-644 – Informative Values

Element/Unit	Reference Value [6]
S (%) [c]	0.06

[6] This value is informative.

DESCRIPTION

ITAK-644 was prepared from a sample of Gold Ore donated by a Gold Mining Company from the South of Brazil in 2019.

This Certified Reference Material (CRM) is presented as a fine powder.

INTENDED USE AND INSTRUCTIONS

ITAK-644 provides an important control in analytical data from exploration and can be used as a tool for grade control in routine mining and laboratory operations.

This Certified Reference Material can be used for calibration of analytical equipment, assess and develop new methods, validation of analytical methods, and arbitration – proficiency testing for example.

The bottles/sachets content should be thoroughly mixed before taking samples of ITAK-644.

The Certified Reference Material should be used without pre-treatment. ITAK is not responsible for any changes occurring after opening said bottles/sachets.

The Certified Reference Material should be stored in a dry place and without contact with excessive heat or moisture.

CERTIFICATION AND STATISTICAL EVALUATION OF ANALYTICAL DATA

ITAK-644 was analyzed by twelve specialized laboratories. The statistical evaluation was carried out according to ISO GUIDE 35 and ISO 5725-2, using: identification and treatment of outliers, stragglers and technically invalid data, certified value calculation, standard deviation calculation, and extended standard uncertainty calculation.

The Technical Report: RT-011/2020 STD contains full details of all phases of manufacturing, certifying results, participating laboratories, and the statistical evaluation.
Note: This report is available on the ITAK database for CRM users.

ANALYTICAL METHODS

The methods used on the certification of CRM ITAK-644 are mentioned as follows:

- **a**: Fire Assay Method and determination by Atomic Absorption Spectrometry.
- **b:** Acid Decomposition and organic extraction (DIBK) and determination by Atomic Absorption Spectrometry.
- **c:** Infra Red Analyzer - Leco.

PERIOD OF VALIDITY

This CRM certification is valid until: **March 20, 2030.**

CERTIFICATE REPRODUCTION

This certificate must not be modified and may only be reproduced in its entirety and without change.

Bráulio de Freitas Pessoa
Chemist – CRQ 02.202.008
Technical Director

Certificate of Analysis 0859

Date: 06-08-2020

Version: 01

CRM ITAK-659

Certified Reference Material – Gold Ore

Table 1 – ITAK-659 – Certified Values

Element/Unit	Certified Value [1]	s [2]	s_r [3]	s_L [4]	U [5]
Au (g/t) a, b, c, d	0.314	0.022	0.013	0.018	± 0.0051

[1] The Certified Value was calculated according to ISO Guide 35 and ISO 5725-2.

[2] The standard deviation for proficiency assessment was calculated according to ISO 13528 and 5725-2. This standard deviation can be used for control charts for individual analysis (*n=1*).

[3] The within-laboratory standard deviation was calculated according to ISO 5725-2.

[4] The between-laboratory standard deviation was calculated according to ISO 5725-2.

[5] The extended standard uncertainty of the mean (α=5%) was calculated according to ISO Guide 35.

Note: The letters in front of the elements are codes for Analytical Methods used.

Table 2 – ITAK-659 – Informative Values

Element/Unit	Reference Value [6]
S (%) e	0.43

[6] This value is informative.

DESCRIPTION

ITAK-659 was prepared from a sample of Gold Ore donated by a Gold Mining Company from the Northeast of Brazil in 2020.

This Certified Reference Material (CRM) is presented as a fine powder.

INTENDED USE AND INSTRUCTIONS

ITAK-659 provides an important control in analytical data from exploration and can be used as a tool for grade control in routine mining and laboratory operations.

This Certified Reference Material can be used for calibration of analytical equipment, assess and develop new methods, validation of analytical methods, and arbitration - proficiency testing for example.

The bottles/sachets content should be thoroughly mixed before taking samples of ITAK-659.

The Certified Reference Material should be used without pre-treatment. ITAK is not responsible for any changes occurring after opening said bottles/sachets.

The Certified Reference Material should be stored in a dry place and without contact with excessive heat or moisture.

CERTIFICATION AND STATISTICAL EVALUATION OF ANALYTICAL DATA

ITAK-659 was analyzed by sixteen specialized laboratories. The statistical evaluation was carried out according to ISO GUIDE 35 and ISO 5725-2, using: identification and treatment of outliers, stragglers and technically invalid data, certified value calculation, standard deviation calculation, and extended standard uncertainty calculation.

The Technical Report: RT-017/2020 STD contains full details of all phases of manufacturing, certifying results, participating laboratories, and the statistical evaluation.
Note: This report is available on the ITAK database for CRM users.

ANALYTICAL METHODS

The methods used on the certification of CRM ITAK-659 are mentioned as follows:

- **a**: Fire Assay Method and determination by Atomic Absorption Spectrometry.
- **b**: Fire Assay Method and determination by Atomic Emission Spectrometry (ICP).
- **c**: Fire Assay Method and determination by Gravimetric Method.
- **d**: Acid Decomposition and organic extraction (DIBK) and determination by Atomic Absorption Spectrometry.
- **e**: Infra Red Analyzer - Leco.

PERIOD OF VALIDITY

This CRM certification is valid until: **June 08, 2030**.

www.itak.com.br | +55 31 3851-3166 / +55 31 3851-6952 | 609, Sebastião Simão de Almeida Street, Sion
João Monlevade - MG - Brazil - 35931-209 | tecnologia@itak.com.br

CERTIFICATE REPRODUCTION

This certificate must not be modified and may only be reproduced in its entirety and without change.

Bráulio de Freitas Pessoa
Chemist – CRQ 02.202.008
Technical Director

Certificate of Analysis 0916

Date: 02-07-2022

Version: 01

CRM ITAK-663

Certified Reference Material – Gold Ore

Table 1 – ITAK-663 – Certified Values

Element/Unit	Certified Value [1]	s [2]	s_r [3]	s_L [4]	U [5]
Au (g/t) [a, b, c, d]	1.614	0.082	0.043	0.070	± 0.020

[1] The Certified Value was calculated according to ISO Guide 35 and ISO 5725-2.

[2] The standard deviation for proficiency assessment was calculated according to ISO 13528 and 5725-2. This standard deviation can be used for control charts for individual analysis (*n=1*).

[3] The within-laboratory standard deviation was calculated according to ISO 5725-2.

[4] The between-laboratory standard deviation was calculated according to ISO 5725-2.

[5] The extended standard uncertainty of the mean (α=5%) was calculated according to ISO Guide 35.

Note: The letters in front of the elements are codes for Analytical Methods used.

Table 2 – ITAK-663 – Informative Values

Element/Unit	Reference Value [6]
S (%) [e]	0.33

[6] This value is informative.

DESCRIPTION

ITAK-663 was prepared from a sample of Gold Ore donated by a Gold Mining Company from the South of Brazil in 2021.

This Certified Reference Material (CRM) is presented as a fine powder.

INTENDED USE AND INSTRUCTIONS

ITAK-663 provides an important control in analytical data from exploration and can be used as a tool for grade control in routine mining and laboratory operations.

This Certified Reference Material can be used for calibration of analytical equipment, assess and develop new methods, validation of analytical methods, and arbitration - proficiency testing for example.

The bottles/sachets content should be thoroughly mixed before taking samples of ITAK-663.

The Certified Reference Material should be used without pre-treatment. ITAK is not responsible for any changes occurring after opening said bottles/sachets.

The Certified Reference Material should be stored in a dry place and without contact with excessive heat or moisture.

CERTIFICATION AND STATISTICAL EVALUATION OF ANALYTICAL DATA

ITAK-663 was analyzed by sixteen specialized laboratories. The statistical evaluation was carried out according to ISO GUIDE 35 and ISO 5725-2, using: identification and treatment of outliers, stragglers and technically invalid data, certified value calculation, standard deviation calculation, and extended standard uncertainty calculation.

The Technical Report: RT-012/2022 STD contains full details of all phases of manufacturing, certifying results, participating laboratories, and the statistical evaluation.
Note: This report is available on the ITAK database for CRM users.

ANALYTICAL METHODS

The methods used on the certification of CRM ITAK-663 are mentioned as follows:

- **a**: Fire Assay Method and determination by Atomic Absorption Spectrometry.
- **b**: Fire Assay Method and determination by Gravimetric Method.
- **c**: Acid Decomposition and organic extraction (DIBK) and determination by Atomic Absorption Spectrometry.
- **d**: Fire Assay Method and determination by Atomic Emission Spectrometry - ICP-OES.
- **e**: Infra Red Analyzer - Leco.

PERIOD OF VALIDITY

This CRM certification is valid until: **February 07, 2032**.

CERTIFICATE REPRODUCTION

This certificate must not be modified and may only be reproduced in its entirety and without change.

Bráulio de Freitas Pessoa
Chemist – CRQ 02.202.008
Technical Director

APPENDIX II - BLANK CERTIFICATES

Certificate of Analysis 0924

Date: 03-01-2022
Version: 01

BLANK ITAK QF-15
QUARTZ

	Au (ppm)	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)
Reference Value[1]	< 0.005 [a]	< 0.02 [b]	0.099 [b, c]	< 1.0 [b]	52 [b]	0.38 [b]	< 2.0 [b]	0.015 [b, c]	< 0.02 [b]

	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	Ge (ppm)	Hf (ppm)
Reference Value[1]	0.73 [b]	< 3.0 [b]	2.3 [b]	< 5.0 [b]	7.0 [b]	0.039 [b, c]	0.43 [b]	0.52 [b]	0.034 [b]

	In (ppm)	K (%)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (%)	Mn (%)	Mo (ppm)	Na (%)
Reference Value[1]	< 0.02 [b]	0.042 [b, c]	0.65 [b]	18.7 [b]	< 0.01 [b]	< 0.01 [b, c]	< 0.01 [b, c]	< 1.0 [b]	0.017 [b]

	Nb (ppm)	Ni (ppm)	P (ppm)	Pb (ppm)	Rb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Se (ppm)
Reference Value[1]	0.53 [b]	5.0 [b]	< 50 [b, c]	7.0 [b]	3.6 [b]	< 0.01 [b]	< 0.05 [b]	< 0.5 [b]	< 2.0 [b]

	SiO_2 (%)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Ti (%)	Tl (ppm)
Reference Value[1]	> 99 [b, c]	< 0.3 [b]	2 [b]	0.068 [b]	< 0.05 [b]	< 0.05 [b]	< 0.2 [b]	< 0.01 [b, c]	< 0.02 [b]

	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
Reference Value[1]	< 0.1 [b]	< 1.0 [b]	< 0.1 [b]	0.18 [b]	< 0.1 [b]	< 1 [b]	< 1 [b]

[1] The Reference Value is informative about the chemical composition.

DESCRIPTION

This Blank was produced from a White Quartz - Brazil in 2022 and it is presented as a fine powder with particle size <200#.

This Blank can also be used in QA/QC programs for drilling and mineral prospecting.

Natural Quartz has been used in the preparation of this Blank. This Blank was dried at 105°C, crushed and pulverized.

INTENDED USE AND INSTRUCTIONS

The Blank ITAK-QF-15 provides an important control in analytical data from exploration and can be used as a tool for contamination control in routine mining and laboratory operations.

The Blank ITAK-QF-15 can be used for assessment and traceability of chemical analytical methods and instrumental analysis.

The bottles/sachets content should be thoroughly mixed before taking samples of Blank ITAK-QF-15.

The Blank ITAK-QF-15 should be used without pre-treatment. ITAK is not responsible for any changes occurring after opening said bottles/sachets.

The Blank ITAK-QF-15 should be stored in a dry place and without contact with excessive heat or moisture.

STATISTICAL EVALUATION OF ANALYTICAL DATA

The values on the table represent the average of up to six samples of Blank ITAK-QF-15 analyzed by one specialized laboratory.

The Technical Report: RT-020/2022 STD contains full details of all phases of manufacturing, results, participating laboratory, and the statistical evaluation.
Note: This report is available on the ITAK database for the users.

ANALYTICAL METHODS

The methods used on the analyses of Blank ITAK-QF-15 are mentioned as follows:

- **a**: Fire Assay Method and determination by Atomic Absorption Spectrometry.
- **b**: Acid Digestion method and determination by ICP-OES / ICP-MS.
- **c**: Fusion method and determination by X-Ray Fluorescence.

PERIOD OF VALIDITY

This CRM certification is valid until: **March 01, 2032**.

CERTIFICATE REPRODUCTION

This certificate must not be modified and may only be reproduced in its entirety and without change.

Bráulio de Freitas Pessoa
Chemist – CRQ 02.202.008
Technical Director

www.itak.com.br | +55 31 3851-3166 / +55 31 3851-6952 | 609, Sebastião Simão de Almeida Street, Sion
João Monlevade – MG – Brazil – 35931-209 | tecnologia@itak.com.br

Page 3/4

Certificado de Análise Nº 140448

Material de Referência Certificado

CTRS-0448

(Branco Mineral)

	Au	SiO_2	Al_2O_3	Fe	Na_2O	TiO_2
	g/t	%	%	%	%	%
Valor Certificado [1]	< 0,01	99,21	0,43	0,014	0,02	0,024
Desvio Padrão [2]	-	0,72	0,02	0,005	0,02	0,005
Incerteza Expandida [3]	-	1,44	0,04	0,011	0,04	0,011
Limite Superior [4]	-	100,65	0,46	0,025	0,06	0,035
Limite Inferior [4]	-	97,77	0,39	0,004	0,00	0,013

	Mn	K_2O	CaO	MgO	Cr_2O_3	PPC
	%	%	%	%	%	%
Valor Certificado [1]	0,009	0,134	0,018	0,04	0,003	0,29
Desvio Padrão [2]	0,009	0,005	0,004	0,02	0,002	0,17
Incerteza Expandida [3]	0,019	0,010	0,009	0,03	0,004	0,35
Limite Superior [4]	0,028	0,144	0,027	0,07	0,007	0,64
Limite Inferior [4]	0,000	0,125	0,009	0,00	0,000	0,00

[1] O Valor Certificado para o constituinte é a melhor estimativa do valor verdadeiro, baseado nos resultados dos 6 (seis) laboratórios comerciais especialistas nesta área, participantes do Programa Interlaboratorial para certificação, coordenado pelo **Centro Tecnológico de Referência SulAmericano**. Resultados expressos em massa-massa (m/m).
[2] Desvio-Padrão estimado.
[3] Incerteza Expandida, calculada com 95% de Intervalo de Confiança (*Confidence Interval*).
[4] Os Limites Superiores e os Limites Inferiores de cada parâmetro foram calculados com 95% de Intervalo de Confiança conforme *ISO Guide* 35: 2012– *Reference materials – General and statistical principles for certification.* Os Limites Superiores e Inferiores deste certificado foram estimados para utilização em controle estatístico para análises individuais (n = 1).

Métodos de análise utilizados

O parâmetro Au foi determinado por fire assay/espectrometria de emissão óptica. Os parâmetros SiO_2; Al_2O_3; Fe; Na_2O; TiO_2; Mn; K_2O; CaO; MgO e Cr_2O_3 foram determinados por fusão/espectrometria de fluorescência de raios-x. E o parâmetro PPC (Perda Por Calcinação ou Lost Of Ignition/LOI) foi determinado por gravimetria.

Laboratórios Participantes:

- ACME *Analytical Laboratories*, Canadá.
- ALS *Minerals*, Austrália.
- ALS *Minerals*, Peru.
- INTERTEK *Genalysis Laboratory Service*, Austrália.
- SGS *Minerals*, Canadá
- Super Laboratory Minerals, Africa do Sul.

Rodovia MG-877 km 14 – Caixa Postal 675 – Poços de Caldas – MG - 37.701-970 – Brasil
Tel: 31 – 3097-1930
e-mail: contato@ctrsulamericano.com - site: www.ctrsulamericano.com

CTRS
Centro Tecnológico de Referência SulAmericano

Origem do MRC

O material Branco Mineral teve origem a partir de uma amostra de minério de quartzo proveniente do Estado de Minas Gerais, Brasil.

Uso do MRC

O MRC CTRS-0448 é adequado ao uso no desenvolvimento, validação e controle de qualidade de métodos analíticos e na calibração de equipamentos. O MRC CTRS-0448 também é indicado para Controle de Qualidade e Qualidade Assegurada (QA/QC) em programas de pesquisa e exploração mineral.

Preparação Física e Embalagem

O material foi seco a 100ºC, pulverizado, com granulometria controlada abaixo de 75µm, homogeneizado e quarteado em alíquotas representativas de 50 gramas. As alíquotas são disponibilizadas em envelope de papel lacrado envolto em plástico selado.

Homogeneidade e Estabilidade

O MRC CTRS-0448 foi avaliado quanto à homogeneidade e estabilidade. Os ensaios de homogeneidade e estabilidade foram realizados em um laboratório comercial especializado acreditado na norma ISO/IEC 17025. Os testes de estabilidade possuem uma programação no **CTRS** para verificação periódica dos valores certificados e garantir a qualidade de seu uso.

Processo de Certificação

O Branco Mineral foi preparado com base nas orientações do ABNT NBR ISO GUIA 34: 2012. A certificação do MRC CTRS-0448 foi efetuada com base no ISO GUIDE 35:2012 e através do processo de comparação interlaboratorial desenvolvido pelo **Centro Tecnológico de Referência SulAmericano-CTRS**. O processo de certificação ocorreu em 2015. A certificação do MRC contou com a participação de 06 Laboratórios comerciais especialistas com acreditação com base na Norma ABNT ISO/IEC 17025:2005.

Rastreabilidade Metrológica Internacional

A rastreabilidade do MRC CTRS-0448 é garantida pelo uso de técnicas e métodos analíticos validados com base em Materiais de Referência primários. Os valores certificados são rastreados metrologicamente as unidades de massa e teores dos parâmetros ao SI (Sistema Internacional).

Condições de Armazenamento do MRC: Local seco a temperatura ambiente.

Validade do MRC: Abril de 2021.

Poços de Caldas / MG, 12 de Abril de 2015.

F. Magalhães, *M.Sc.*
Diretora Técnica e Qualidade
CRQ II 02.101.324

Eduardo Lyse, *M.Sc.*
Diretor Operacional
CRQ IV 04.125.181

Centro Tecnológico de Referência SulAmericano

APPENDIX III - THE RESOURCES ESTIMATED FOR GOLD WITH THE APPLICATION OF SEVERAL CUT-OFF GRADES

CUT-OFF Au ppm	CLASS	CATEGORY	VOLUME m3	TONNES t	DENSITY (t / m3)	Au ppm	Au ozt	Au_cut ppm	Au_cut ozt
0	Indicated	Saprolite	1,237,831.25	2,079,556.50	1.68	0.57	38,365.22	0.55	36,716.72
		Fresh Rock	9,301,800.00	24,556,752.00	2.64	0.42	332,536.84	0.41	324,847.66
	Inferred	Saprolite	613,218.75	1,030,207.50	1.68	0.31	10,314.66	0.30	9,825.88
		Fresh Rock	11,756,737.50	31,037,787.00	2.64	0.39	384,598.35	0.35	346,771.72
	TOTAL		**22,909,587.50**	**58,704,303.00**	**2.56**	**0.41**	**765,815.07**	**0.38**	**718,161.98**
0.1	Indicated	Saprolite	1,232,781.25	2,071,072.50	1.68	0.58	38,342.70	0.55	36,694.20
		Fresh Rock	9,279,162.50	24,496,989.00	2.64	0.42	332,356.34	0.41	324,667.16
	Inferred	Saprolite	586,531.25	985,372.50	1.68	0.32	10,186.11	0.31	9,697.32
		Fresh Rock	11,612,487.50	30,656,967.00	2.64	0.39	383,506.40	0.35	345,679.78
	TOTAL		**22,710,962.50**	**58,210,401.00**	**2.56**	**0.41**	**764,391.55**	**0.38**	**716,738.46**
0.2	Indicated	Saprolite	1,203,306.25	2,021,554.50	1.68	0.59	38,066.16	0.56	36,417.65
		Fresh Rock	8,398,756.25	22,172,716.50	2.64	0.45	319,741.21	0.44	312,052.02
	Inferred	Saprolite	405,718.75	681,607.50	1.68	0.40	8,733.49	0.38	8,244.70
		Fresh Rock	9,454,087.50	24,958,791.00	2.64	0.44	353,637.37	0.39	315,810.75
	TOTAL		**19,461,868.75**	**49,834,669.50**	**2.56**	**0.45**	**720,178.22**	**0.42**	**672,525.13**
0.25	Indicated	Saprolite	1,147,350.00	1,927,548.00	1.68	0.60	37,388.99	0.58	35,740.49
		Fresh Rock	7,453,700.00	19,677,768.00	2.64	0.48	301,481.13	0.46	293,791.95
	Inferred	Saprolite	320,600.00	538,608.00	1.68	0.44	7,705.70	0.42	7,216.92
		Fresh Rock	7,753,931.25	20,470,378.50	2.64	0.49	321,038.69	0.43	283,212.06
	TOTAL		**16,675,581.25**	**42,614,302.50**	**2.56**	**0.49**	**667,614.51**	**0.45**	**619,961.41**
0.3	Indicated	Saprolite	1,085,756.25	1,824,070.50	1.68	0.62	36,457.77	0.59	34,809.26
		Fresh Rock	6,219,993.75	16,420,783.50	2.64	0.52	272,622.01	0.50	264,932.83
	Inferred	Saprolite	243,425.00	408,954.00	1.68	0.50	6,544.91	0.46	6,056.12
		Fresh Rock	5,933,843.75	15,665,347.50	2.64	0.55	278,571.47	0.48	240,744.84
	TOTAL		**13,483,018.75**	**34,319,155.50**	**2.55**	**0.54**	**594,196.15**	**0.50**	**546,543.06**

0.4	Indicated	Saprolite	769,631.25	1,292,980.50	1.68	0.73	30,469.91	0.69	28,832.36
		Fresh Rock	3,931,256.25	10,378,516.50	2.64	0.61	205,162.34	0.59	197,584.90
	Inferred	Saprolite	155,643.75	261,481.50	1.68	0.58	4,849.74	0.52	4,367.27
		Fresh Rock	3,082,437.50	8,137,635.00	2.64	0.74	194,154.47	0.60	156,593.04
	TOTAL		**7,938,968.75**	**20,070,613.50**	**2.53**	**0.67**	**434,636.45**	**0.60**	**387,377.57**
0.5	Indicated	Saprolite	597,268.75	1,003,411.50	1.68	0.81	26,268.06	0.76	24,630.51
		Fresh Rock	2,484,387.50	6,558,783.00	2.64	0.71	149,982.94	0.68	142,798.95
	Inferred	Saprolite	110,643.75	185,881.50	1.68	0.63	3,770.45	0.55	3,294.26
		Fresh Rock	1,892,537.50	4,996,299.00	2.64	0.93	149,171.21	0.70	112,102.76
	TOTAL		**5,084,837.50**	**12,744,375.00**	**2.51**	**0.80**	**329,192.66**	**0.69**	**282,826.49**
0.6	Indicated	Saprolite	421,481.25	708,088.50	1.68	0.92	21,044.20	0.85	19,413.57
		Fresh Rock	1,578,925.00	4,168,362.00	2.64	0.80	107,755.93	0.75	101,168.87
	Inferred	Saprolite	45,881.25	77,080.50	1.68	0.77	1,899.21	0.62	1,541.74
		Fresh Rock	1,129,812.50	2,982,705.00	2.64	1.19	113,708.42	0.80	77,143.57
	TOTAL		**3,176,100.00**	**7,936,236.00**	**2.50**	**0.96**	**244,407.76**	**0.78**	**199,267.75**
0.7	Indicated	Saprolite	298,200.00	500,976.00	1.68	1.04	16,691.43	0.94	15,123.80
		Fresh Rock	993,675.00	2,623,302.00	2.64	0.89	75,398.41	0.82	69,547.33
	Inferred	Saprolite	17,712.50	29,757.00	1.68	0.98	939.34	0.69	659.81
		Fresh Rock	804,425.00	2,123,682.00	2.64	1.40	95,870.71	0.88	59,938.93
	TOTAL		**2,114,012.50**	**5,277,717.00**	**2.50**	**1.11**	**188,899.89**	**0.86**	**145,269.87**
0.8	Indicated	Saprolite	219,625.00	368,970.00	1.68	1.14	13,561.02	1.02	12,050.75
		Fresh Rock	591,387.50	1,561,263.00	2.64	0.99	49,891.94	0.90	45,002.11
	Inferred	Saprolite	8,025.00	13,482.00	1.68	1.24	538.95	0.81	351.89
		Fresh Rock	581,443.75	1,535,011.50	2.64	1.65	81,542.05	0.94	46,265.40
	TOTAL		**1,400,481.25**	**3,478,726.50**	**2.48**	**1.30**	**145,533.95**	**0.93**	**103,670.16**

0.9	Indicated	Saprolite	177,568.75	298,315.50	1.68	1.21	11,633.20	1.06	10,149.81
		Fresh Rock	357,637.50	944,163.00	2.64	1.09	33,149.68	0.96	29,089.96
	Inferred	Saprolite	4,043.75	6,793.50	1.68	1.65	359.63	0.79	172.57
		Fresh Rock	397,656.25	1,049,812.50	2.64	2.02	68,326.86	0.99	33,447.83
	TOTAL		**936,906.25**	**2,299,084.50**	**2.45**	**1.54**	**113,469.37**	**0.99**	**72,860.17**
1	Indicated	Saprolite	156,043.75	262,153.50	1.68	1.25	10,534.97	1.08	9,065.01
		Fresh Rock	236,087.50	623,271.00	2.64	1.17	23,417.65	1.00	19,948.27
	Inferred	Saprolite	3,293.75	5,533.50	1.68	1.81	321.44	0.76	134.89
		Fresh Rock	372,256.25	982,756.50	2.64	2.10	66,296.93	0.99	31,432.80
	TOTAL		**767,681.25**	**1,873,714.50**	**2.44**	**1.67**	**100,571.00**	**1.01**	**60,580.97**
1.1	Indicated	Saprolite	110,006.25	184,810.50	1.68	1.34	7,955.46	1.12	6,632.02
		Fresh Rock	149,500.00	394,680.00	2.64	1.24	15,778.92	1.02	12,909.98
	Inferred	Saprolite	3,293.75	5,533.50	1.68	1.81	321.44	0.76	134.89
		Fresh Rock	327,831.25	865,474.50	2.64	2.24	62,441.50	0.99	27,577.37
	TOTAL		**590,631.25**	**1,450,498.50**	**2.46**	**1.85**	**86,497.33**	**1.01**	**47,254.26**
1.2	Indicated	Saprolite	87,612.50	147,189.00	1.68	1.39	6,570.29	1.13	5,334.54
		Fresh Rock	88,300.00	233,112.00	2.64	1.31	9,849.11	1.05	7,850.30
	Inferred	Saprolite	3,293.75	5,533.50	1.68	1.81	321.44	0.76	134.89
		Fresh Rock	321,581.25	848,974.50	2.64	2.26	61,809.55	0.99	26,976.49
	TOTAL		**500,787.50**	**1,234,809.00**	**2.47**	**1.98**	**78,550.40**	**1.02**	**40,296.22**
1.3	Indicated	Saprolite	60,293.75	101,293.50	1.68	1.45	4,717.98	1.12	3,647.30
		Fresh Rock	35,425.00	93,522.00	2.64	1.42	4,269.47	1.05	3,158.93
	Inferred	Saprolite	3,093.75	5,197.50	1.68	1.84	308.19	0.74	123.43
		Fresh Rock	302,975.00	799,854.00	2.64	2.33	59,821.87	0.97	24,988.81
	TOTAL		**401,787.50**	**999,867.00**	**2.49**	**2.15**	**69,117.51**	**0.99**	**31,918.47**

1.4	Indicated	Saprolite	40,387.50	67,851.00	1.68	1.50	3,263.34	1.11	2,412.47
		Fresh Rock	13,181.25	34,798.50	2.64	1.53	1,706.77	1.04	1,160.21
	Inferred	Saprolite	2,350.00	3,948.00	1.68	2.01	255.47	0.78	98.44
		Fresh Rock	296,956.25	783,964.50	2.64	2.35	59,151.50	0.98	24,671.03
	TOTAL		**352,875.00**	**890,562.00**	**2.52**	**2.25**	**64,377.07**	**0.99**	**28,342.15**
1.5	Indicated	Saprolite	14,800.00	24,864.00	1.68	1.57	1,253.22	1.14	913.82
		Fresh Rock	6,037.50	15,939.00	2.64	1.66	851.73	1.04	532.14
	Inferred	Saprolite	2,350.00	3,948.00	1.68	2.01	255.47	0.78	98.44
		Fresh Rock	284,406.25	750,832.50	2.64	2.39	57,579.25	0.99	23,818.67
	TOTAL		**307,593.75**	**795,583.50**	**2.59**	**2.34**	**59,939.67**	**0.99**	**25,363.07**
2	Indicated	Saprolite	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fresh Rock	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Inferred	Saprolite	2,037.50	3,423.00	1.68	2.05	226.06	0.77	84.86
		Fresh Rock	216,550.00	571,692.00	2.64	2.60	47,753.94	1.04	19,056.07
	TOTAL		**218,587.50**	**575,115.00**	**2.63**	**2.59**	**47,979.99**	**1.04**	**19,140.93**
3	Indicated	Saprolite	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fresh Rock	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Inferred	Saprolite	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fresh Rock	50,262.50	132,693.00	2.64	3.73	15,908.42	1.47	6,259.65
	TOTAL		**50,262.50**	**132,693.00**	**2.64**	**3.73**	**15,908.42**	**1.47**	**6,259.65**