TECHNICAL PROGRAM FOR

BAITA PLAI MINE

PROJECT EXPLOITATION LICENCE

Purpose: Exploration Target
Drilling plan for resource upgrade

Project Location:
Latitude 46°29'37" North and Longitude 22°37'25" East
Baita Plai, Bihor County, Romania

Prepared for:

VAST RESOURCES PLC

Prepared by:

Negru Vlad Andrei
Eng. Geol., Chief Geologist

FORMIN S.A.

FORMIN Legal Entity:	**FORMIN S.A.**
FORMIN Address:	Caransebes, Mihai Viteazu nr. 1 Caras-Severin ROMANIA
Date:	February 24, 2023
Client Legal Entity:	**VAST RESOURCES PLC**
Client Address:	Nettlestead Place, Nettlestead, Maidstone, Kent, ME18 5HA

SIGNATURE PAGE

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Nettlestead Place, Nettlestead,
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Original signed and sealed ("Negru Vlad Andrei") Signed at Bucharest on February 24, 2023

Negru Vlad Andrei, Eng. Geol.,
Chief Geologist
Formin SA.

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Daniel Maguran, P Eng
Maguran Top Consulting

1 EXECUTIVE SUMMARY

1.1 Introduction

FORMIN S.A. has been requested by VAST RESOURCES PLC, hereinafter also referred to as the “Company” or the “Client”) to prepare a Technical program and drilling plan with the purpose to identify, validate and resource upgrade for the Baita Plai Mine located in the Romania, Bihor county, Pietroasa and Nucet administrative units.

1.2 Property Description, Location and History of Operation

The project is located on Crisului Baita valley at around 3 km North-East from Baita village. The nearest city is Stei at 13 km to West. The access to the project area is made on National Road 75(DN-75) Stei-Baita Plai.

The copper extraction began in 1541 in the west part of the Baita ore body. During the 18th century, the complex ore exploitation and processing began with the mining of copper ore comprising chalcopyrite and malachite. Post 1865, tin, silver and iron were exploited in ever increasing amounts from the Baita and Bascau areas. In 1880, Cosuri, Sturzu, Baia-Rosie, Pregna, Ferdinand and Valea Seaca are mentioned as the main mining areas from Baita, where copper, lead and zinc were mined together with gold and silver as by products. These areas are within the current association license.

Post 1900, there was an increasing demand for bismuth and the area now known as the ‘Moly Mine’ was established. This area is marked by the Blidar fault and represents an overthrust of Permian sandstones over Triassic Carbonate lithologies. Together with bismuth, molybdenum began to be exploited and contributed to a revival of mining in the immediate area. Due to the properties of these metals, the area was exploited during the two world wars with Germany extracting molybdenum during 1914 from level 1 to level 6 of the Moly Mine.

In the autumn of 1951, rare metals, understood to mean uranium, were discovered in the Bihor Mts. by the URSS Geological Expedition No. 3. In January 1952, the Romanian-Soviet” Kvartit” society was established and large-scale prospecting activities for rare metals commenced along the Baita and Ariesul valleys. As a result, the mine is reopened in 1952 after being temporarily closed in the same year with mining activities recommencing on levels 6, 7 and 10 in the Moly Mine and the Antonio skarn of Baita Plai.

In 1958, level 10 and Incline number 6 were reopened and deepened. Levels 12 through 15 were developed and it was only in 1964 that the vertical shaft number 1 was developed.

The mine has continued to operate at varying levels of production with intermittent stoppages until 2009 when the mine was closed.

An Australian group, ElDore Mining Corporation Ltd (“ElDore”), in 2011 negotiated to purchase the mine for €15m which was later negotiated down to €5m. The group withdrew due to difficulties with a third-party vendor requesting non-refundable deposits, despite being positive on the potential of the mine. ElDore planned to invest $7m to double production to 200,000 tonnes per annum, improve loading, hoisting, ventilation, water pumps and upgrade the concentration (flotation) plant.

In 2011 a Chinese investor acquired Mineral Mining, the owners of the mine at that time. Mineral Mining operated the mine from early 2012 until March 2013, producing a single polymetallic concentrate containing copper, lead, zinc gold and silver with additional elements such as bismuth and molybdenum. The Chinese operators however departed in May 2013 leaving about €700,000 debt.

By 2018, the insolvent Mineral Mining S.A. had been successfully acquired by African Consolidated Resources S.R.L, a local Romanian subsidiary of Vast Resource PLC. During 2019, the association license was received and Vast Baita Plai S.A., formerly African Consolidated Resources S.R.L. began refurbishment work with production intended to commence during the latter half of 2020.

Total surface of the license is 6.49 sqKm.

1.1 Data Quantity and Quality

FORMIN S.A. assessed the data from the historical and recent drilling campaigns and sampling from mined levels. Drilling was primarily reverse circulation, with samples collected every half metre and samples from mine levels at each meter.

1.2 Geology

The coexistence of multiple paragenesis (a high temperature prograde association diopside-garnet-molybdenite-bismuthinite with a lower temperature retrograde association quartz-calcite-zeolites-sphalerite-galena-chalcopyrite) demonstrates the pulsating character of the mineralizing solutions.

The Antonio orebody between levels XV-XVIII is represented by a slightly skarnified dolomite with garnet, vezuvianite, diopside with disseminated molybdenite-bismuthinite-bornite-chalcopyrite-chalcocite.

1.3 Regional geological model

In summary, in consideration of all the factors discussed above, FORMIN made the structural and geological model, which is supported by historical maps and sections, historical drillholes and 2020 drillholes and geological and structural logging of the mining levels.

1.4 Ore units model and potential zones

The orebodies have a pipe-like vertical distribution, with an elliptical shape, following the general direction of the dykes. The most widespread are the magnesian skarns that were locally transformed into calcic skarns. These metasomatic occurrences are present at the contact of the laramic pluton with the dolomitic marble as well as following the limit between hornfels and marble, generating tabular bodies in the footwall. Where the Carniene carbonate rocks are intersected by andesitic dykes and laramic basalts (concurrent with the fault systems generally oriented 60/70°E or 50/60°V), the skarn deposit extends on the entire intrusive columns into the dolomitic paleosome. The tabular metasomatic bodies are generally represented by magnesian skarns (diopside-bearing skarns), green or grey with a micro-granoblastic aspect. Near the hornfels, the skarns are replaced by calcic skarns with grossular and vezuvianite, macro-granoblastic aspect, brownish to a brown-green hue near the carbonatitic paleosome (e.g. magnesian skarns with humite and phlogopite).

The main two ore bodies that are modelled are Antonio(in extension from the actual mine level 18-45m) and Baia Rosie(below level 15)

1.7 Conclusions and Recommendations

- Total of 15870 drilling meters (59 locations) are planned
  - 10,890 diamond drilling meters are planned in Baia Rosie
    - from surface 18 holes - 9900 meters
    - from underground 14holes -990m
  - 4,980 diamond drilling meters are planned for Antonio
    - from underground 27 holes – 4980m
- The ore bodies proposed for investigation are constructed based on data from historical drillholes and level plans and have a total volume of 3,808,675 cubic meters – 12,187,760 tones
- Exploration Target as per JORC classification from the total of 12.1 million tones, 6.9 million tones have the potential to be upgraded as probable reserves and 1.9 million tones as proven reserves

Exploration Target intended to Prove:

Exploration Target Drill Spacing	Volume	Density	Mass	Zone
	m^3	g/cm^3	t	
(50x50m)	163,475	3.2	523,120	Baia Rosie
(100x100m)	1,615,200		5,168,640	
(Extension 100m)	1,056,150		3,379,680	
Total Baia Rose Ore	**2,834,825**		**9,071,440**	
(50x50m)	426,950	3.2	1,366,240	Antonio
(Extension 100m)	546,900		1,750,080	
Total Antonio Ore	**973,850**		**3,116,320**	
Total 50x50m+ 100x100m	**2,752,525**	**3.2**	**8,808,080**	Baia Rosie + Antonio
Total 50x50m+100x100m+ Extension 100m	**3,808,675**	**3.2**	**12,187,760**	Baia Rosie + Antonio

Drilling requirements

Measured Drill Spacing	50x50m
Indicated Drill Spacing	100x100m
Inferred Drill Spacing	Extension 100m

Contents

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1 INTRODUCTION

1.1 Background

Formin SA is a company with a complex potential in terms of consulting services, design, execution and documentation of projects, geological, geotechnical and water drillings, geophysics and other light mining works.

Founded in 1952 under the name of "Caransebes Exploration Enterprise", Formin SA operated until 1990 under various names, with predominant activity in geological investigation and mining.

The Baita Plai underground mine is in the Bihor County of Romania in the Apuseni Mountain Region. The closest major town is Stei, approximately 16km to the east with the major regional centre of Oradea approximately 80km to the east. The region is served by a small international airport at Oradea and the roads are in good condition with recent refurbishment of the bitumen road having been recently redone.

The mine is situated on the border of the Apuseni Natural Park and the license area extends in a north-easterly direction from the border. The principal mining license is held by a state-owned company, Baita S.A. which has the right to extract and process dolomite from underground. A second company, Baita Bihor S.A. has an association license to extract and process limestone by surface mining methods. A limestone quarry is located within the mining license perimeter.

1.2. History

The area has a long and complex mining history. Mining activities are first recorded in the area as far back as 1270 with the extraction of iron from bauxites. Over the years, mining progressed to extraction of gold and silver from alluvial sources, copper extraction being recorded in the 1540's before moving on to complex polymetallic ore processing during the 18th century.

Bismuth and molybdenum mining and processing appears to have begun in the early 1900's with the mine being an important source of both metals during both world wars. Post the 2nd world war, the mine was closed but reopened in 1952 and commenced activities on both the molybdenum section and the polymetallic sections of the mine.

Modernisation took place from the 1960's with the current shaft infrastructure being developed and utilised in place of the adits and internals inclines used prior to this. 5

The mine continued to operate at varying levels of production with intermittent stoppages until 2009 when the mine was closed.

An Australian group, ElDore Mining Corporation Ltd ("ElDore"), in 2011 negotiated to purchase the mine for €15m which was later negotiated down to €5m. The group withdrew due to difficulties with a third-party vendor requesting non-refundable deposits, despite being positive on the potential of the mine. ElDore planned to invest $7m to double production to 200,000 tonnes per annum, improve loading, hoisting, ventilation, water pumps and upgrade the concentration (flotation) plant.

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2 RELIANCE ON OTHER EXPERTS

2.1 Certified person

The Certified Person (Certificate No. 1823/31.01.2017 from Romanian National Agency for Mineral Resource) responsible for this report is Negru Vlad Andrei, Eng. Geol., Chief Geologist at Formin SA.

Negru Vlad Andrei is a geologist certified by the Romanian state with more than 12 years experience in resource estimation who worked for a large number of projects in Romania and also as an SRK CONSULTING (GLOBAL) LIMITED consultant for Ma'aden in Saudi Arabia.

2.2 Site Visit

Site was visited by Negru Vlad Andrei between the 2 and 3 February 2023. The mine is currently active at level 18-45m, however the site visit allowed Formin to review regional and deposit scale geology, verify the locations of drillholes, examine the geological logs and the sampling and drillholes and mine levels logging.

2.3 Sources of Information

Formin's study and interpretation is based upon information provided by the Company, along with access to key personnel from the Project technical team on site. The key sources of information for this report, including information relating to the data quality, data collection procedures and protocols, are as follows:

- Database files:
  - Drilling and sampling database (collar, survey, lithology and assays);
  - Mine plans, cross sections and sampling database
  - Quality assurance/quality control sample results.

- Observations:
  - The data provided by Vast Resources PLC is related to the main Antonio ore body.
  - Few directional sections are presenting the adjacent ore bodies.
  - The target of the modelling is to highlight potential areas for future drilling program and to provide a resource estimation for those zones.

2.4 Reliance on Information

Formin's opinion is based on information provided by the Company throughout the course of investigations, which in turn reflect various technical and economic conditions at the time of writing. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time.

3. PROPERTY DESCRIPTION, LOCATION AND HISTORY

3.1 Mineral Tenure, Permits and Permissions

Project location:

Latitude 46°29'37" North and Longitude 22°37'25" East

Baita Plai, Bihor County, Romania

The Project area is covering an area of 6.49 km^2.

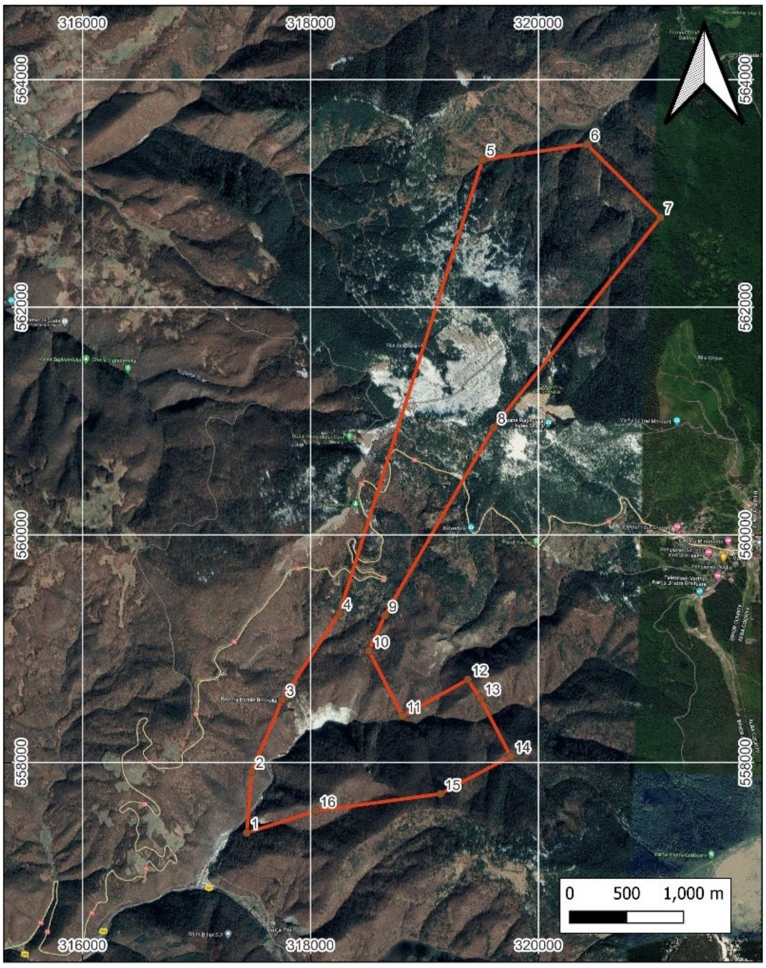


Figure 1. Location of the mining license

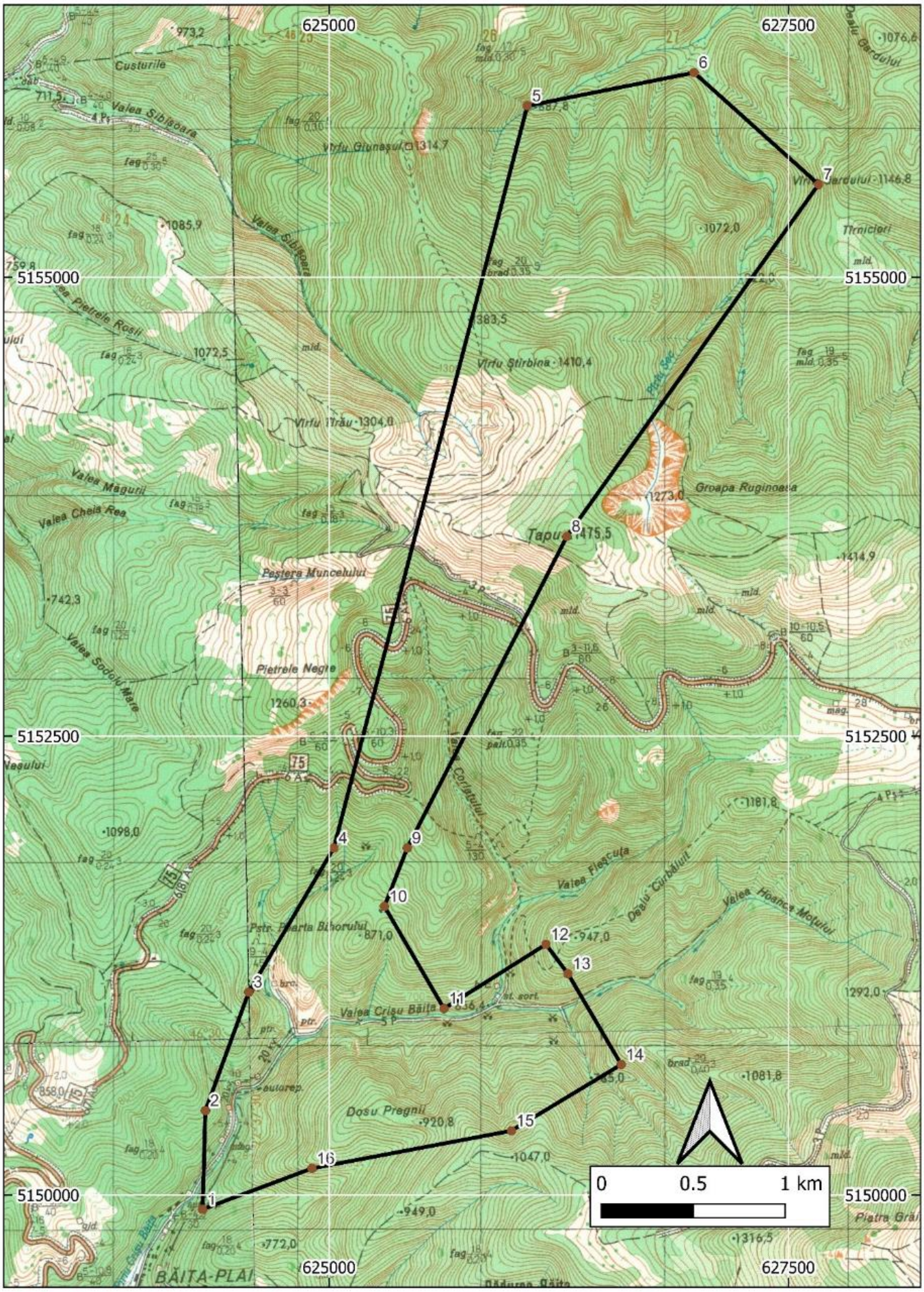


Figure 2. Topografic map with the location of the mining license

3.2. Surface layout

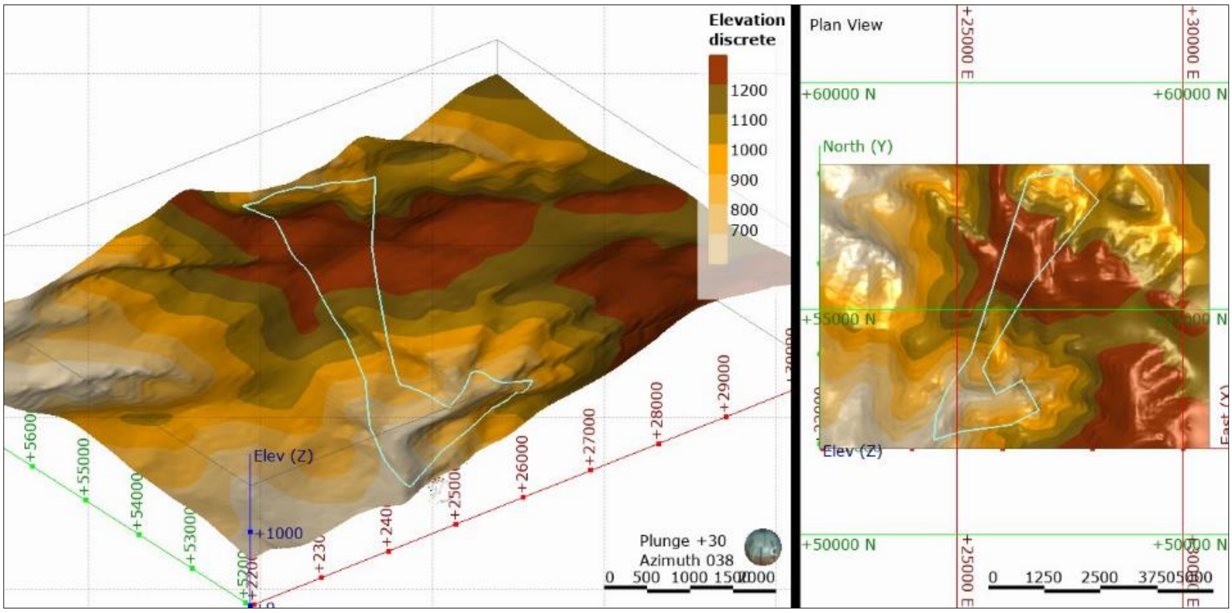


Figure 3. Surface map and location of the mining license

From the morphological point of view, the area is characterized by a very rugged relief, with differences in level between the bed of the Baita valley and the highest peaks up to 700m. The valleys are a very deep general with steep slopes that reach in some areas inclines of 60°-80°.

The elevation is increasing from south where the elevation is around 600m, to north and the highest pick is at 1475.5 meters.

3.3 Exploration History

Historical exploration records for the Baita Plai mine are held at various locations with some records classified as state secrets and therefore are unable to be reproduced. Basic records exist at the mine in paper format and require electronic capture and verification before being utilised.

Main level sampling records exist for the 16, 17 and 18 levels of the Antonio and Antonio North skarns. The Antonio skarn is the focus of Vast's production efforts in the initial 5 years of production planning.

Vast has completed a total of 20 underground diamond drill holes producing BQ size core. The holes were drilled underground from 18 level and orientated to intersect the Antonio skarn in the area between 18 level and the proposed 19 level.

The core was logged on site by the geological staff and the collar positions of the holes surveyed upon completion of the drilling program. The core was split on site at the mine and half core was retained for reference purposes with the second half core being sent to the ALS chemical laboratory located at Rosia Montana, Romania.

Two exploration drill holes to level 20, approximately 90m below the Level 18 reportedly shows the continuation of the Antonio skarn (El Dore 2011, ASX public report). Archive searches at the mine revealed 2 drill hole logs with lithological drill hole logs, L-14 and L-28 respectively showing intersections of mineralised skarn at approximate 20 level and 21 level depths.

Drill hole L-14, drilled from 15 level vertically downwards, has no assays results for the skarn intersection at a mine elevation of 157m – 135m which corresponds to approximately 20 level inside the mine.

4. GEOLOGY AND MINERALISATION

4.1 Regional Geology

Tectonically, carbonate rocks are limited by older formations - of Permian and Werfenian age - constituted from a petrographic point of view of clay shales, tuff-sandstones and conglomerates. In few areas the later host quartz porphyries emplaced during the Permian.

Both Paleozoic and Mesozoic formations are crossed by a series of eruptive bodies, representing the filonian traces of magmatism banatitic.

As a result of the thermal effect, exerted by the cretaceous magmatism the sedimentary deposits in the basin have undergone profound transformations. So, the Carnian dolomites that occupy the NE side of the basin were subjected to a weak recrystallization, a phenomenon that is becoming more and more accentuated, on as we approach the areas where a hydrothermal metamorphism took place with substance intake. The Noriene limestones, on the other hand, suffered a strong process of recrystallization, they being known today as “marmore de Băiţa Bihor". The thermal effect of metamorphism is also felt in the Jurassic and Cretaceous limestones (especially near the internal magmatic body) that have a wide development in the central part and north-west of the basin. Finally, the detrital formations in the contents the investigated perimeter, have undergone a pronounced cornification process and skarnification.

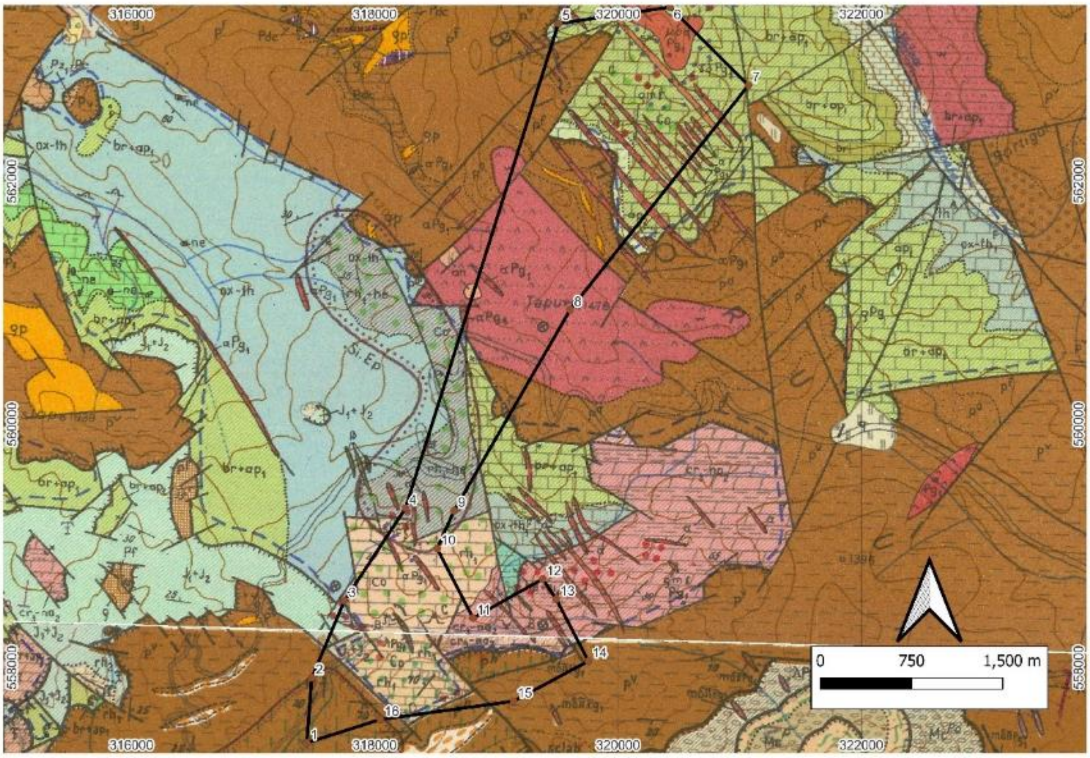


Figure 4.Regional geological map

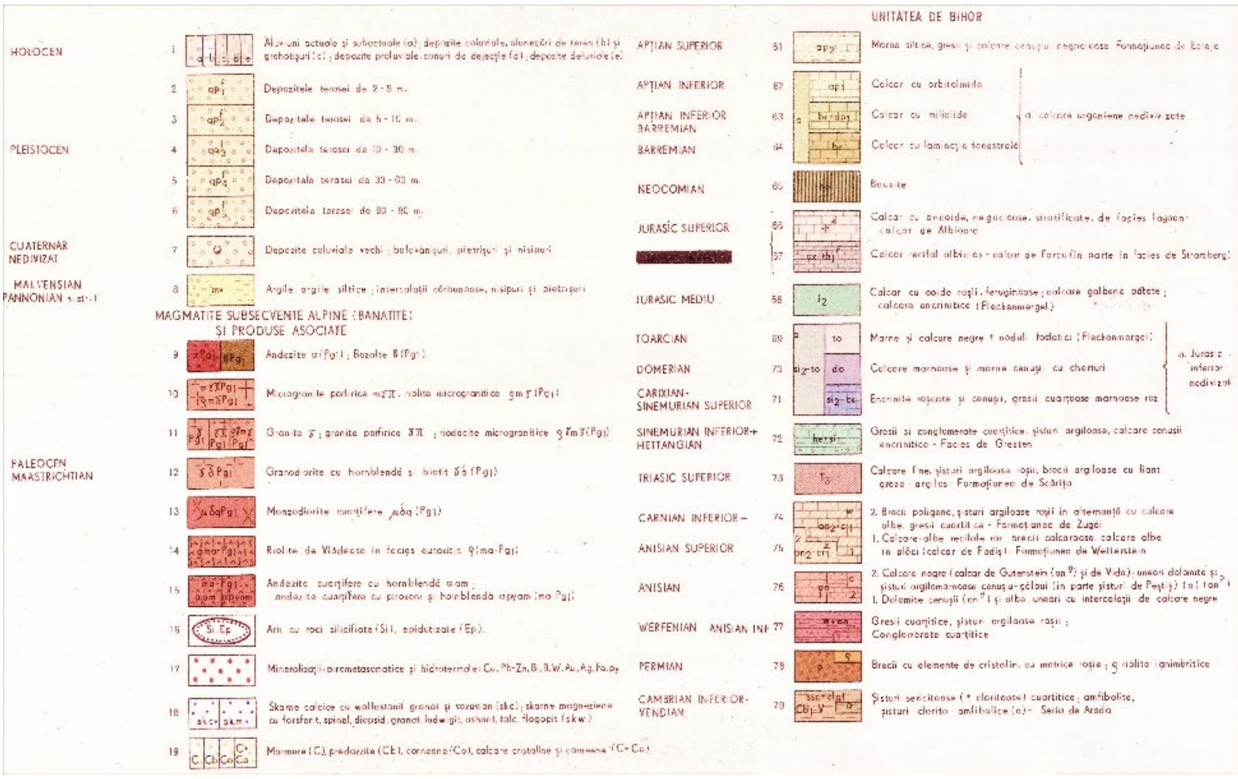


Figure 5.Legend for regional geological map

Figure 6. Regional geological map with focus on interest area

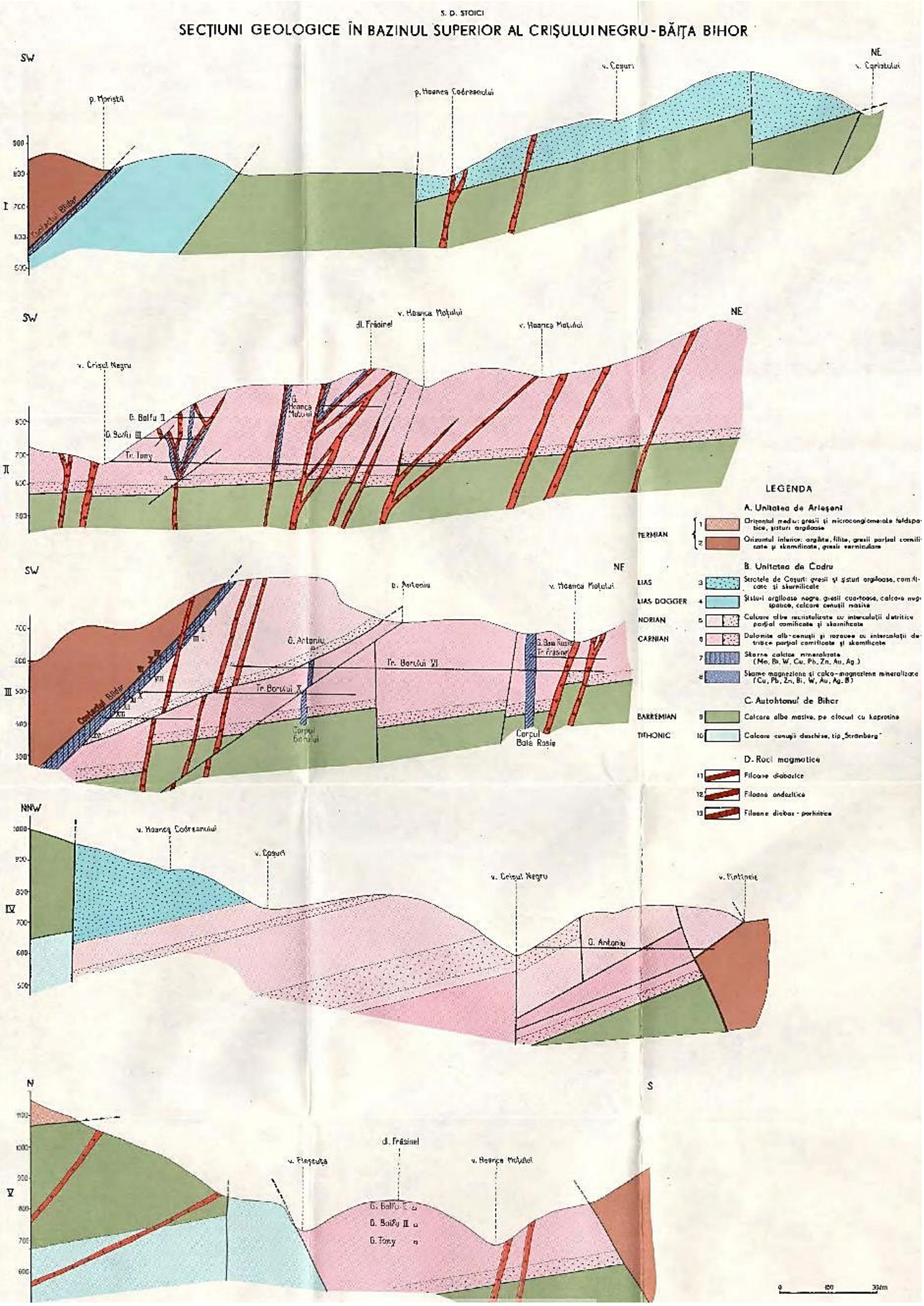


Figure 7. Regional Cross sections

The dolomite package includes several intercalations of detrital rocks, mostly hornified and skarnified, the most important one, 35 m thick, being located at their base.

Similar situations were encountered in the Tony gallery and in a shallow drilling executed in the Frasinel transversal. On the surface, the pack of metamorphosed detrital rocks emerges in the Fleșcuţa valley about 150 m upstream from the Crişului spring. The Carnian was also encountered in structural drilling. Thus, in borehole S-284, executed in the immediate vicinity of the confluence between the valley of Crişului Negru and the valley of Plaiului, the dolomites were traversed in the interval of 900-1008 m, being arranged directly over the intrusive massif of granitic composition. On the other hand, in borehole S-490, executed near the "Molybdenum" well, the Carnian appears in the interval 720-820 m and is arranged over the package of Werfenian sandstones. Without taking into account the disjunctive tectonics, which had a decisive role in the formation of the current geological structure in the basin, based on the data of surface as well as those from the mining works and drillings, we can admit that the Carnian deposits have a general NW-SE direction and an inclination of 30--40° to the SW.

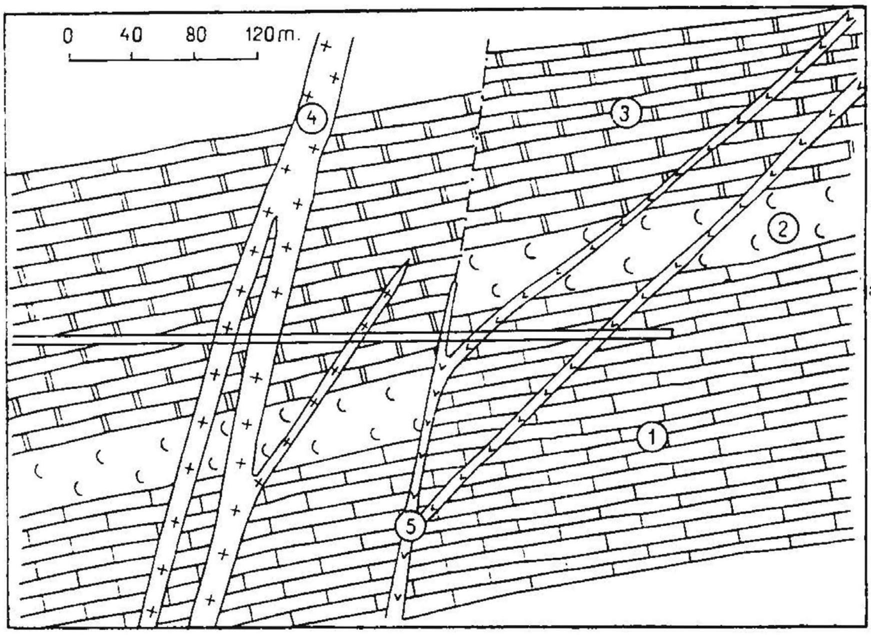


Fig. 4. — Secţiunea geologică prin galeria Tony.
1. calcare autohtone; 2. roci detritice cornificate şi skarnificate; 3. dolomite carniene; 4. dyke – uri.
Geological section in the Tony drift.
1. autochthonous limestones; 2. detrital rocks converted into hornfelses and skarns; 3. Carnian dolomites; 4. dikes.

Within the series of **banatites** from the upper basin of the Criş Black, two main varieties of rocks are distinguished: diorite-porphyrites and diabases, and a transitional variety: diabase-porphyrites. However, we do not exclude some lamprophyre separations, especially the basic ones.

The deposit form of magmatic intrusions is generally dykes and they cross the entire sedimentary rock complex in the basin, with a higher frequency in the Triassic deposits. The emplacement of the dykes took place during the Senonian period.

Regarding the expansion of the intrusive veins, they can be traced in the direction of tens and even hundreds of meters. In some cases, the same dyke presents interruptions or thinnings and branches, but in general keeping its mineralogical-chemical particularities.

The thickness of the dykes varies within very wide limits - from a few cm up to 10 and even 20 m. In this sense, the diorite porphyritic dykes stand out, which in all cases have thicknesses of the order of meters. The eruptive veins could be traced in the mining works on a level difference of 500 m which highlights a general orientation from NW-SE and less often N-S or NE-SW.

Interesting fact is the differentiated arrangement (spread) of the adykes, depending on their chemical and mineralogical composition. While in the west side of the basin, the diabasic dykes are located, in the central and northeastern extremity the diabase-porfiritic ones are present.

Depending on the chemistry and mineralogical composition, it is possible groups the dykes according to the rock they are hosted on. In general, an "affinity" of diabasic dykes for recrystallized limestones is found Norien, of the diabase-porfiritic ones for the Carnian dolomites and in end of the diorite-porfiritic ones for the Barremian limestones.

4.2. Mineralization

The skarn mineralisation is hosted in several subvertical pipe-like bodies, often with tree-like branched geometries.

Geological sketch-map of Băiţa Bihor area (simplified after Stoici 1974). 1) Permian (sandstones, siltites), 2) AnisianNorian (a: limestones, b: dolostones), 3) Lower Jurassic (shales, sandstones, black limestones), 4) Oxfordian-Tithonian (limestones, dolostones), 5) Barremian (a: limestones, b: detrital rocks), 6) Upper Cretaceous (banatites, dykes: basalts, andesites), 7) a: hornfels, b: skarns, 8) metasomatic mineralized body, 9) mining shaft, (10) cuproneyite occurrence.

Figure 8. Regional map with the main ore zones

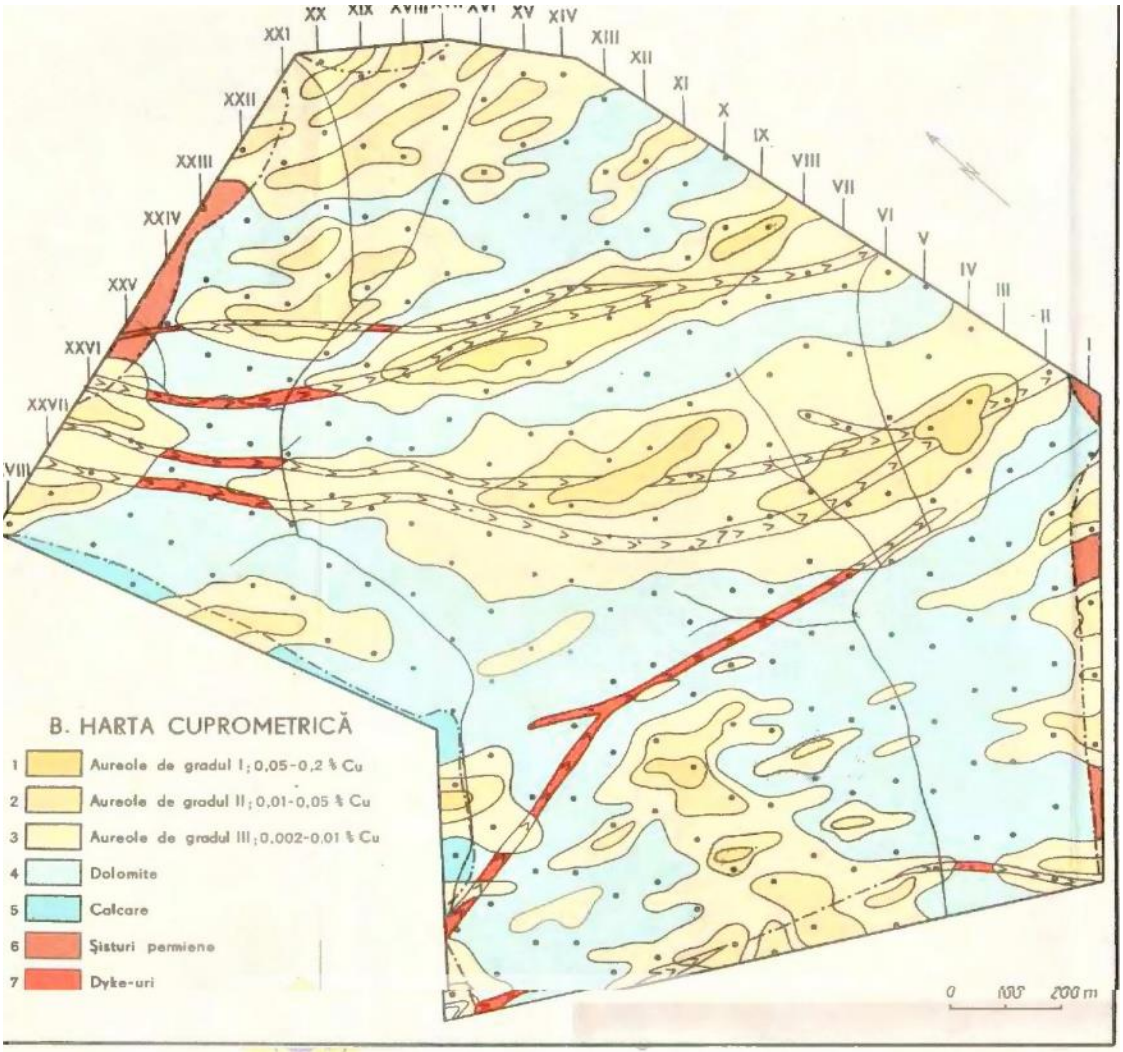


Figure 9. Copper contour levels overlapped with geological map.

Current mining is restricted to solely within the Antonio skarn. The Antonio North skarn is located approximately 300 meters to the northeast of the Antonio skarn and is accessible from the same underground development structure serving the Antonio skarn on 18 level. It is postulated that the Antonio 1 and 2 pipes may merge at depth a few hundred metres below Level 18, forming a substantially larger orebody.

In plan view, the Antonio skarn is an elliptical shape with dimensions of approximately 160-250 meters on strike and approximately 10-20 meters wide across strike. Within the skarn, the economic mineralisation forms lenses, veins, and pods 1.5 – 20 meters wide with widely varying orientations.

The margins of the mineralisation are sharp against the calcareous country rock and visual identification of the contacts ensures minimal mining dilution.

The Antonio skarn is shown to be vertically zoned with gold and silver caps and with lead and zinc being of higher grade in the upper levels. Copper grades show an increase with depth and the recent drilling has provided evidence of a high correlation between copper, gold, silver, and bismuth grades. A moderate correlation between lead and silver has been observed in the recent data. As copper gold and silver are major contributors to the mine economics, increasing grade at depth is an attractive target.

4.3. Geological and structural modelling

4.3.1. Database creation and management

Data extraction from historical logs, maps and sections

The provided maps and sections are georeferenced, vectorized and classified as geological data, structural data, assay, ore body, type of exploration work.

The obtained database contains:

- 1196 intervals from historical and new drillholes with assays and lithology
- 1939 mine samples with assay values
- 9429 structural points related to Antonio ore body
- 4887 structural points related to major faulting system

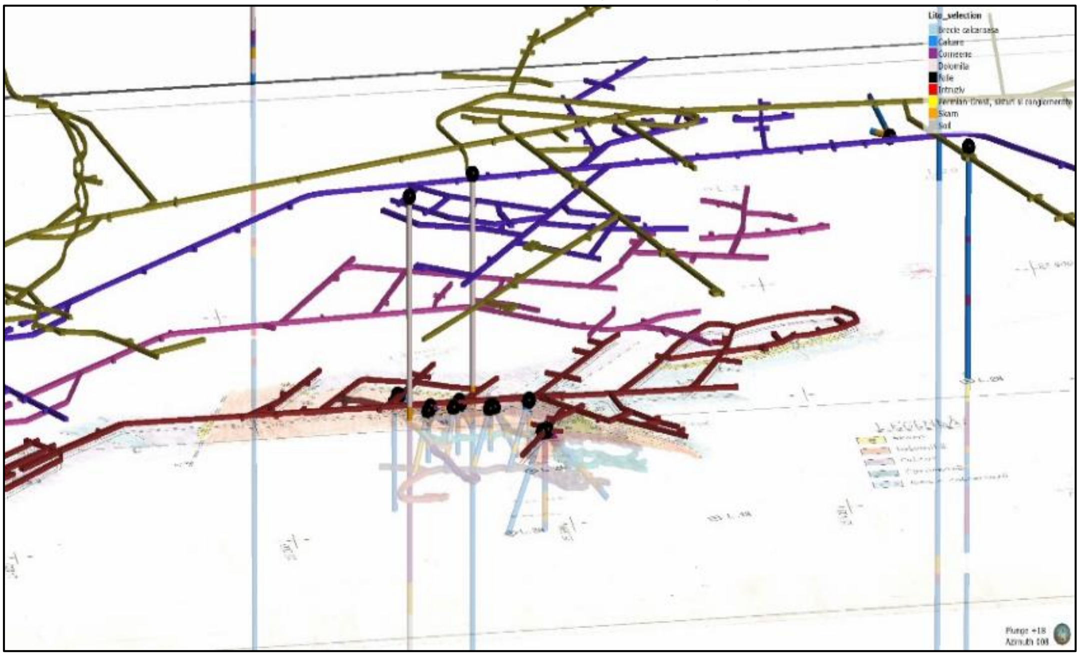


Figure 10. Georeferenced historical map and extracted data.

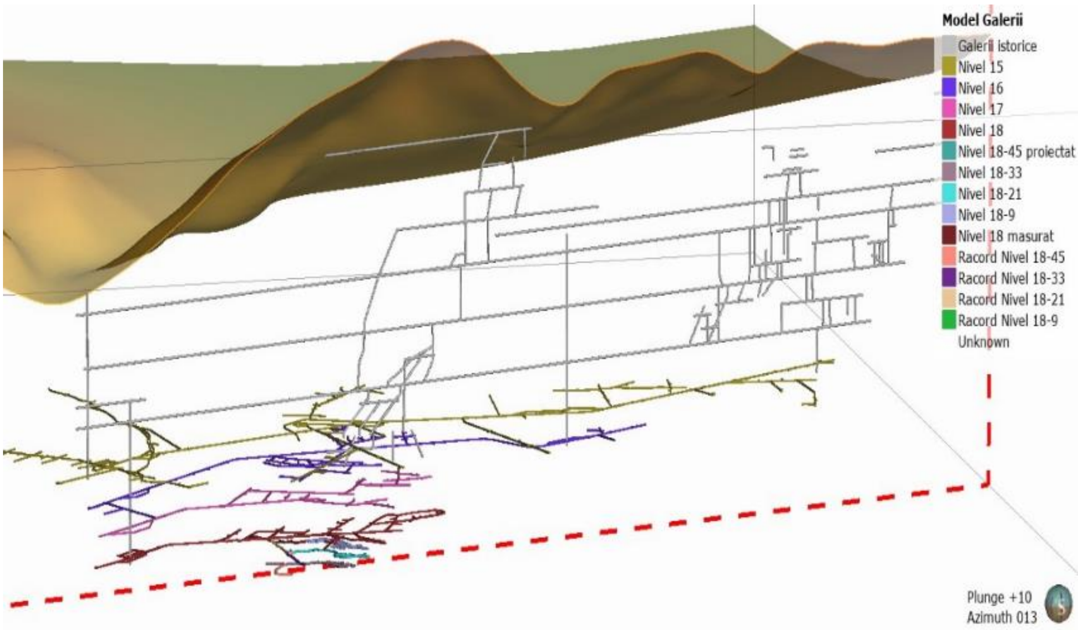


Figure 11. Underground works model.

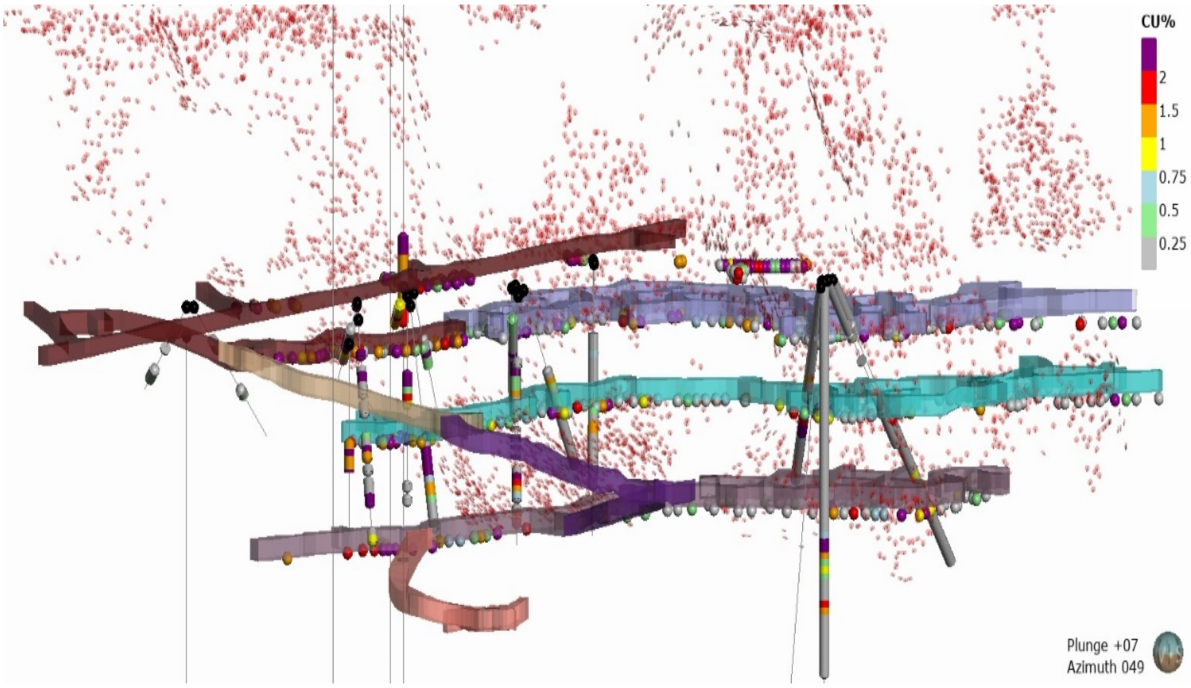


Figure 12. Model with active mine levels, sampling points drillholes, structural data

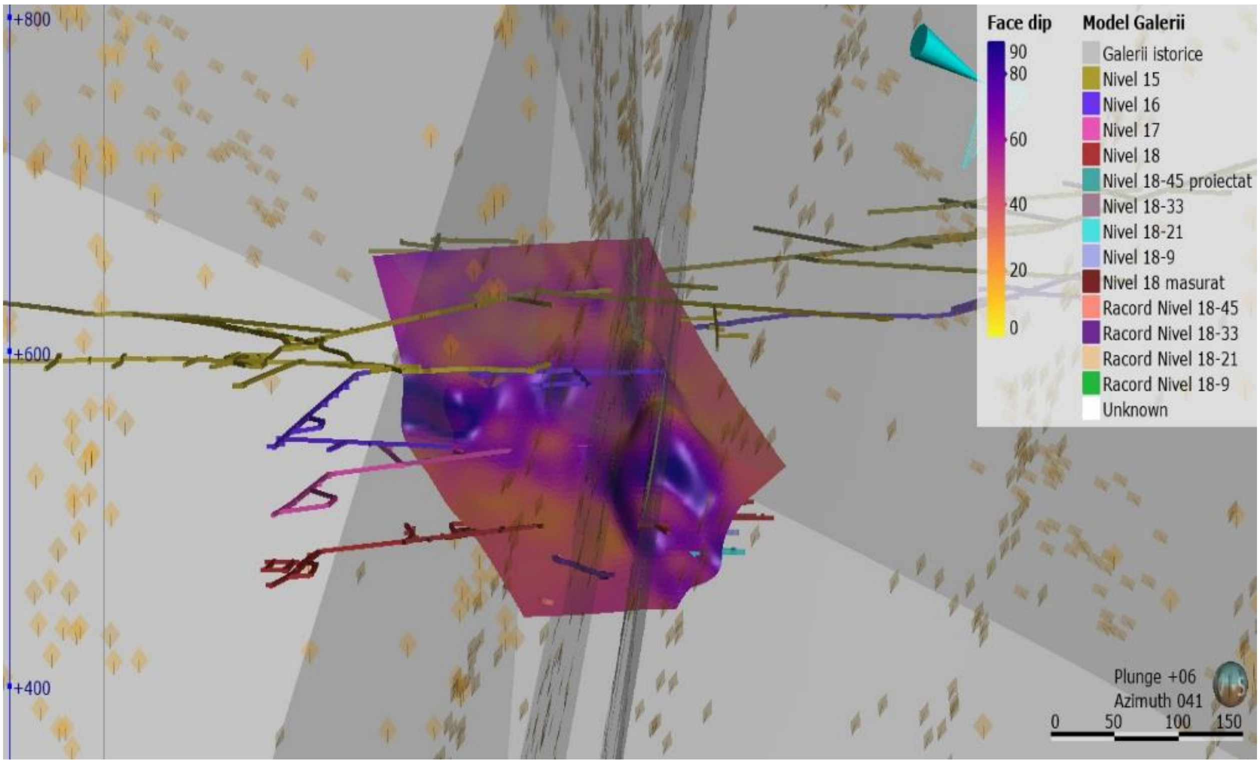


Figure 13.Major faulting system and the impact on the Antonio skarn trend

4.3.2. Drillhole database

A total of 38 drillholes are used for the geological modelling with a total of 10,246.4 meters.

SN	HoleID	Local coordinates system			TD	Dip	Az
		X	Y	Z			
1	BP18_001	25,105.1	52,631.4	223.6	65	90	0
2	BP18_002	25,108.6	52,632.5	227.4	46	30	70
3	BP18_003	25,107.9	52,633.8	227.4	29.5	30	30
4	BP18_004	25,200.1	52,608.8	228.1	35.1	90	0
5	BP18_005	25,144.5	52,607.8	226.3	37.5	65	210
6	BP18_006	25,148.3	52,611.9	227.1	30	90	0
7	BP18_007	25,150.3	52,612.0	227.4	20	60	75
8	BP18_008	25,149.9	52,614.1	228.1	18	30	40
9	BP18_009	25,171.3	52,604.0	227.2	26.5	90	0
10	BP18_010	25,172.9	52,606.2	226.6	30	45	50
11	BP18_011	25,170.1	52,602.2	226.0	39	60	230
12	BP18_012	25,173.8	52,604.0	226.4	34.5	60	90
13	BP18_013	25,202.9	52,551.6	228.9	60	90	0
14	BP18_014	25,203.6	52,552.8	228.9	45.8	45	40
15	BP18_015	25,203.7	52,551.3	229.1	37.2	45	80
16	BP18_016	25,199.1	52,607.7	227.8	42.7	60	230
17	BP18_017	25,127.8	52,607.1	228.2	27.8	30	40
18	BP18_018	25,126.6	52,608.0	222.3	27.6	90	0
19	BP18_019	25,125.7	52,604.9	226.2	36.4	60	220
20	BP18_020	25,204.7	52,550.9	229.1	64	45	80
21	BP18_021	25,200.9	52,550.8	228.5	63.6	60	240
22	L-16	25,697.0	52,728.0	362.7	520.5	90	0
23	L-8	25,161.0	52,624.0	360.0	327	90	0
24	L-17	25,993.0	52,778.0	354.6	569	90	0
25	L-19	25,857.0	52,762.0	427.0	540.9	90	0
26	L-20	25,559.0	52,973.0	424.2	565	90	0
27	L-21	26,180.0	52,791.0	429.0	457.8	90	0
28	L-22	26,190.0	53,763.0	724.0	641	90	0
29	L-23	26,147.0	52,665.0	428.9	540	90	0
30	L-27	26,211.0	52,932.0	430.0	547	90	0
31	L-28	25,521.0	52,614.0	362.0	505	90	0
32	L-30	26,306.6	52,861.4	429.2	565	90	0
33	L-31	25,111.5	52,599.1	357.0	650	90	0
34	L-32	24,758.0	53,074.4	584.7	495	90	0
35	1388 BSK	25,491.8	52,786.6	313.7	76	0	358
36	1389 BSK	25,491.8	52,786.6	313.7	17	0	316
37	5006	23,287.3	51,101.1	483.1	1150	90	0
38	5017	25,252.7	54,451.9	587.7	1264	90	0

Basic statistics

Name	Samples	Length	Mean	Variance	Minimum	Median	Maximum
Ag_g/t	430	266.47	58.32	15,536.33	0.50	14.90	1,340.00
Brecie calcaroasa	28	19.4	19.67	678.45	0.50	10.70	109.00
Calcare	113	57.72	48.31	9,155.89	0.50	8.00	560.00
Corneene	74	52.5	12.82	185.92	0.50	10.10	74.00
Skarn	215	136.85	85.48	24,545.18	0.50	33.80	1,340.00
Au_g/t	448	279.47	0.45	1.46	0.01	0.03	9.15
Brecie calcaroasa	33	23.9	0.08	0.01	0.01	0.02	0.55
Calcare	119	62.77	0.37	1.39	0.01	0.02	9.15
Corneene	76	53.9	0.01	0.00	0.01	0.01	0.05
Skarn	220	138.9	0.71	2.14	0.01	0.14	9.15
Cu%	604	460.87	0.66	2.98	0.00	0.05	16.25
Brecie calcaroasa	34	24.9	0.14	0.06	0.00	0.06	0.98
Calcare	182	120.02	0.43	1.79	0.00	0.02	16.25
Corneene	117	111.1	0.03	0.00	0.00	0.02	0.35
Dolomita	2	1.9	0.06	0.00	0.05	0.05	0.12
Skarn	259	179.35	1.30	5.65	0.00	0.30	16.25

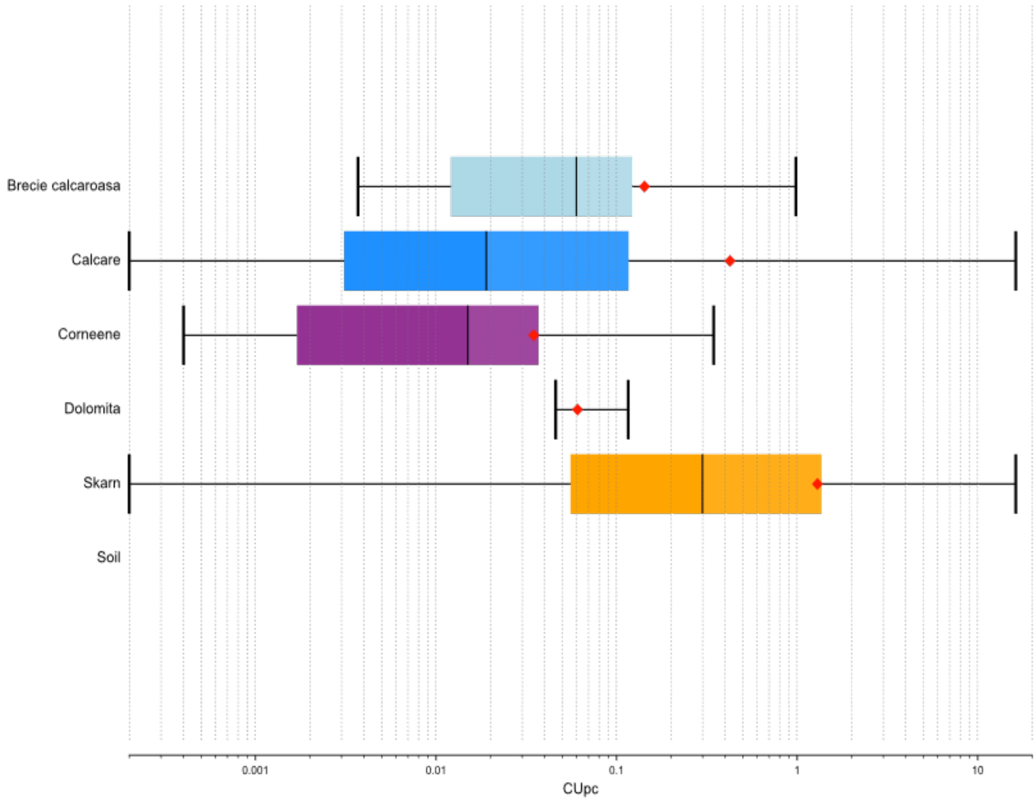


Figure 14. Box plot graph with Cu% content and lithology

4.3.3. Geological modelling

Prior to geological modelling, the database was separated into collar, survey, assay and lithology *.CSV files.

Wireframes are constructed as veins and intrusions in Leapfrog Geo using interval selections from drillhole data, along with reference surfaces and polylines which honour local structural mapping and interpretations. In total, three domains are modelled (Antonio, Antonio North and Baia Rosie)

Both lithological logging and Cu%, assays are utilized in order to produce a single set of wireframes reflecting the volumes of ore.

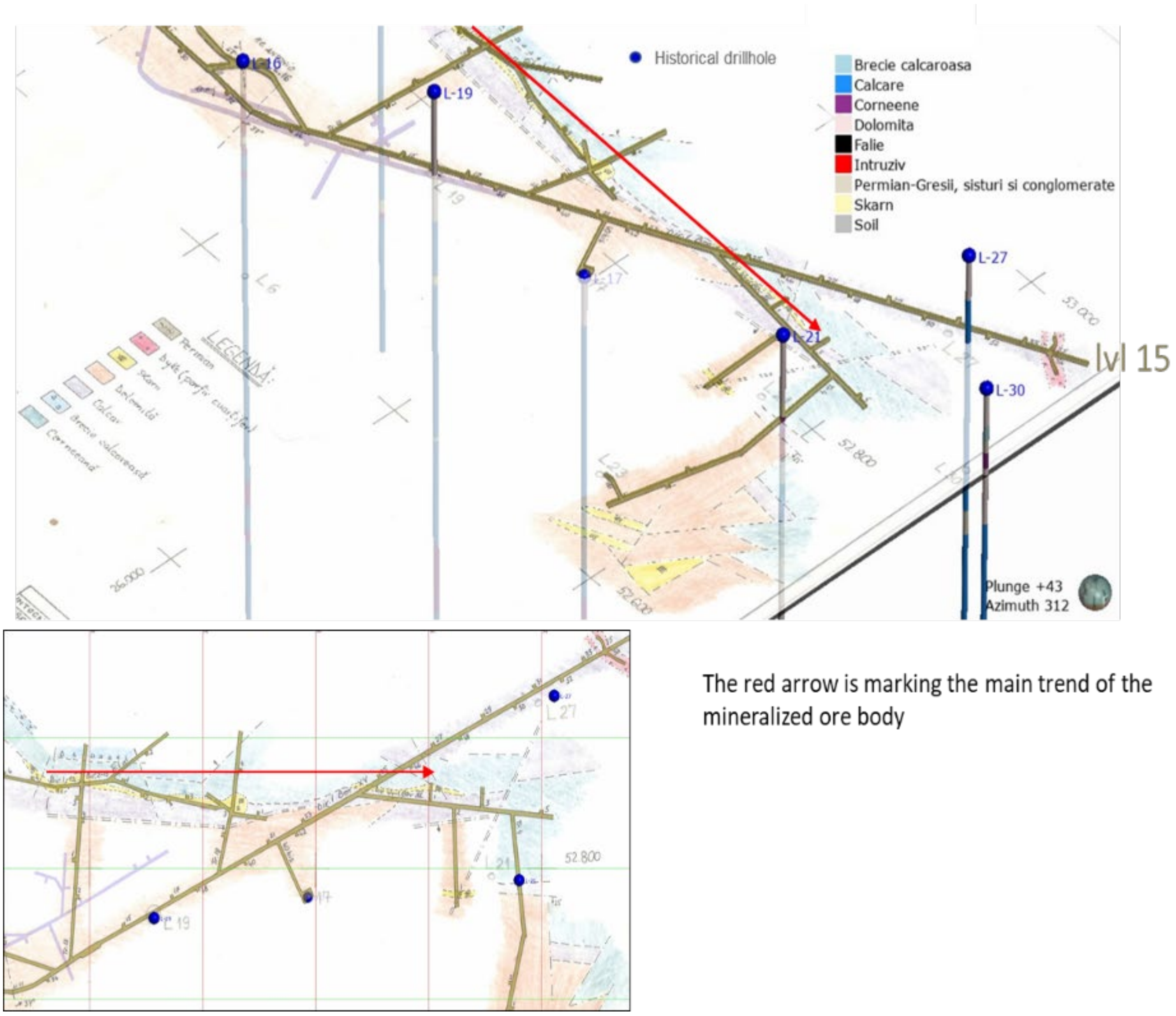


Figure 15. Historical undeground maps used in extraction of the data.

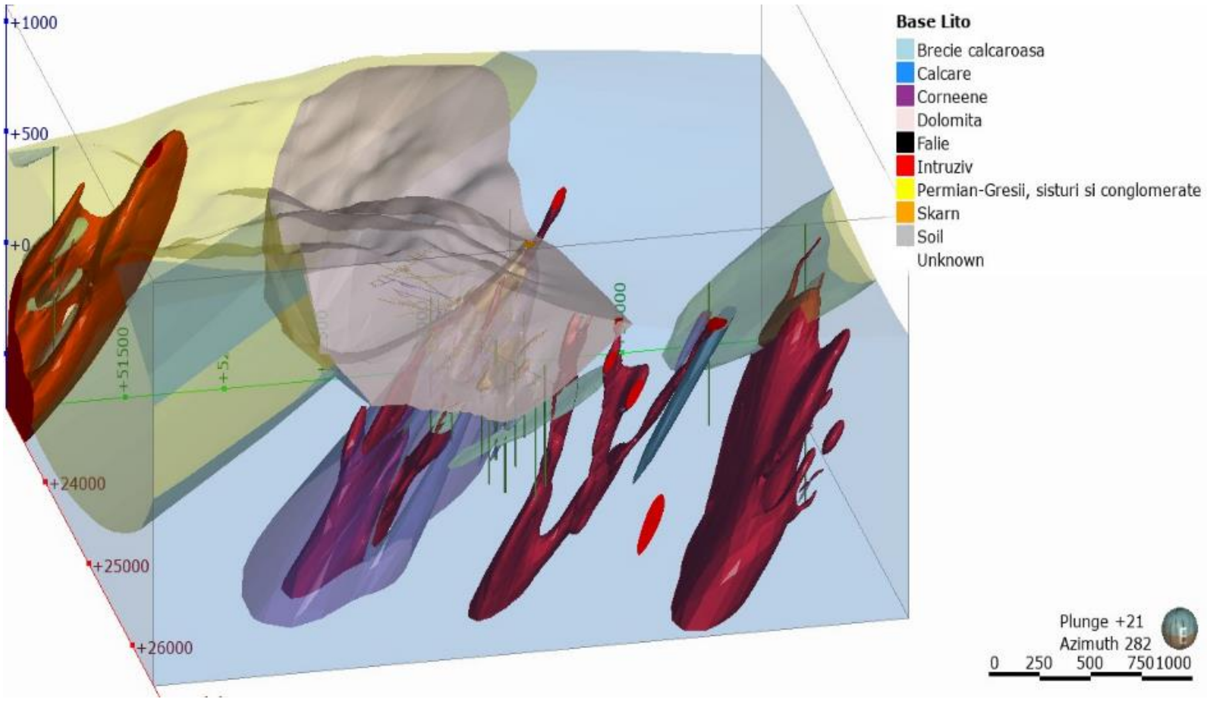


Figure 16.Geological model

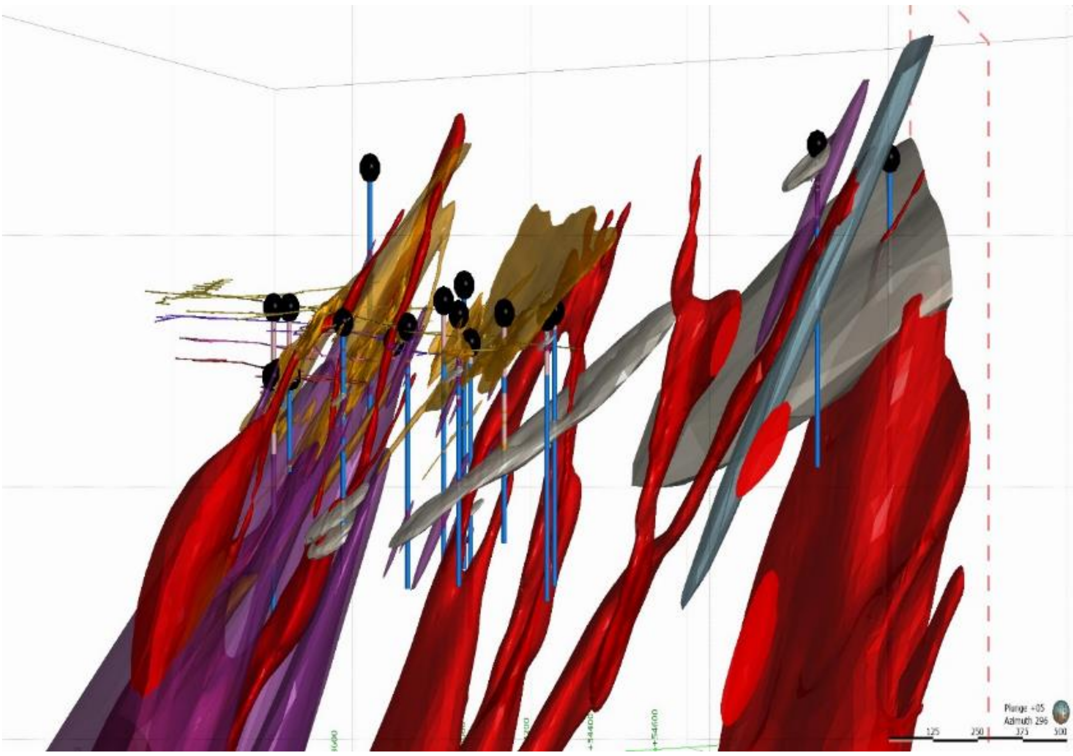


Figure 17.3D geological model

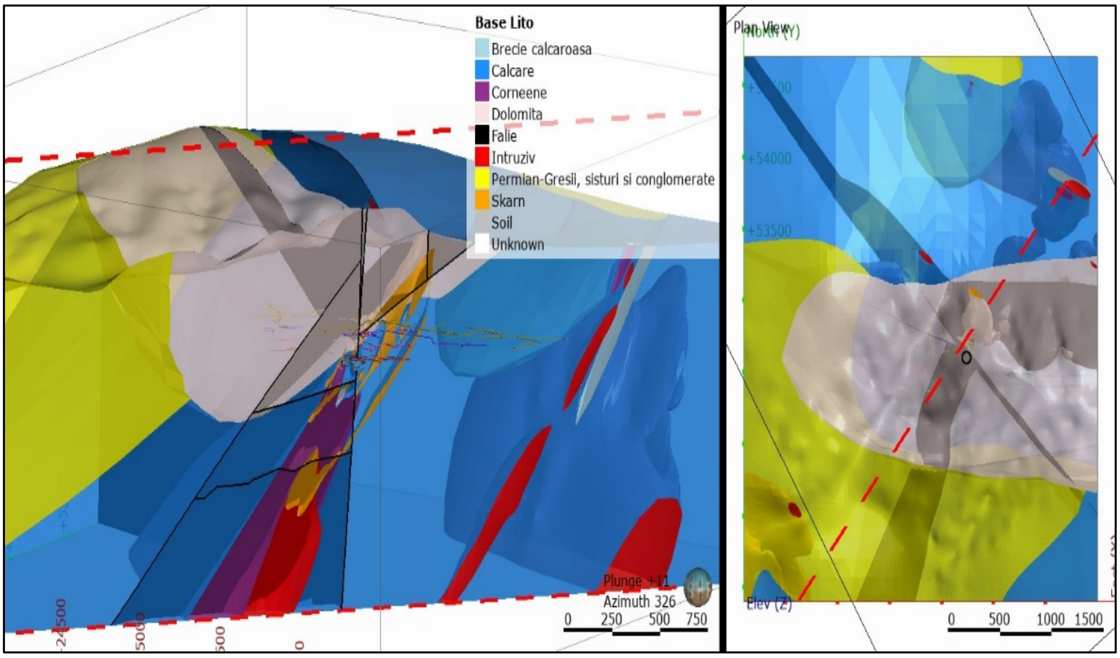


Figure 18.Geological section SW-NE

In the map is presented the amount of assays related to each domain and due to the fact that only 2 samples are related to the Antonio Nord ore body the estimation was restricted just for the main Antonio ore.

The estimation had 2 targets:

1. Determination of the direction of continuity of the skarn
2. Validate the resource estimation with the last level (18-45m)

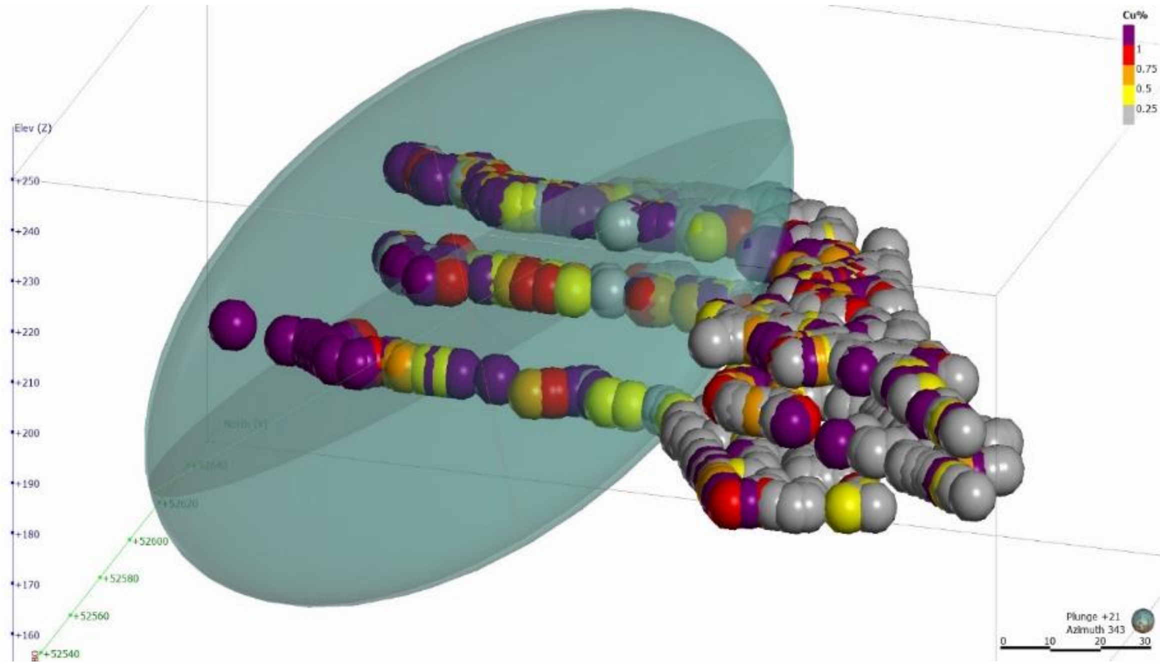


Figure 19.Visual inspection on Cu grade continuity

Direction
Dip- 47.29
Dip Azimuth – 208.08
Pitch – 43.19

Assay

Resource estimation

The used estimation method was Ordinary Krigging.

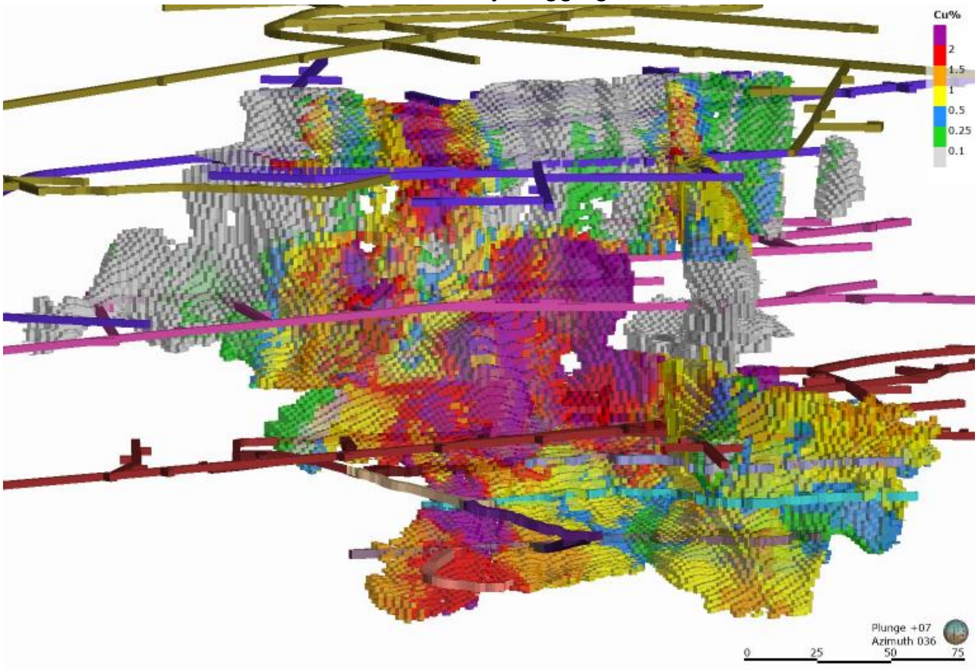


Figure 20. Block Model with interpolated Cu% grade

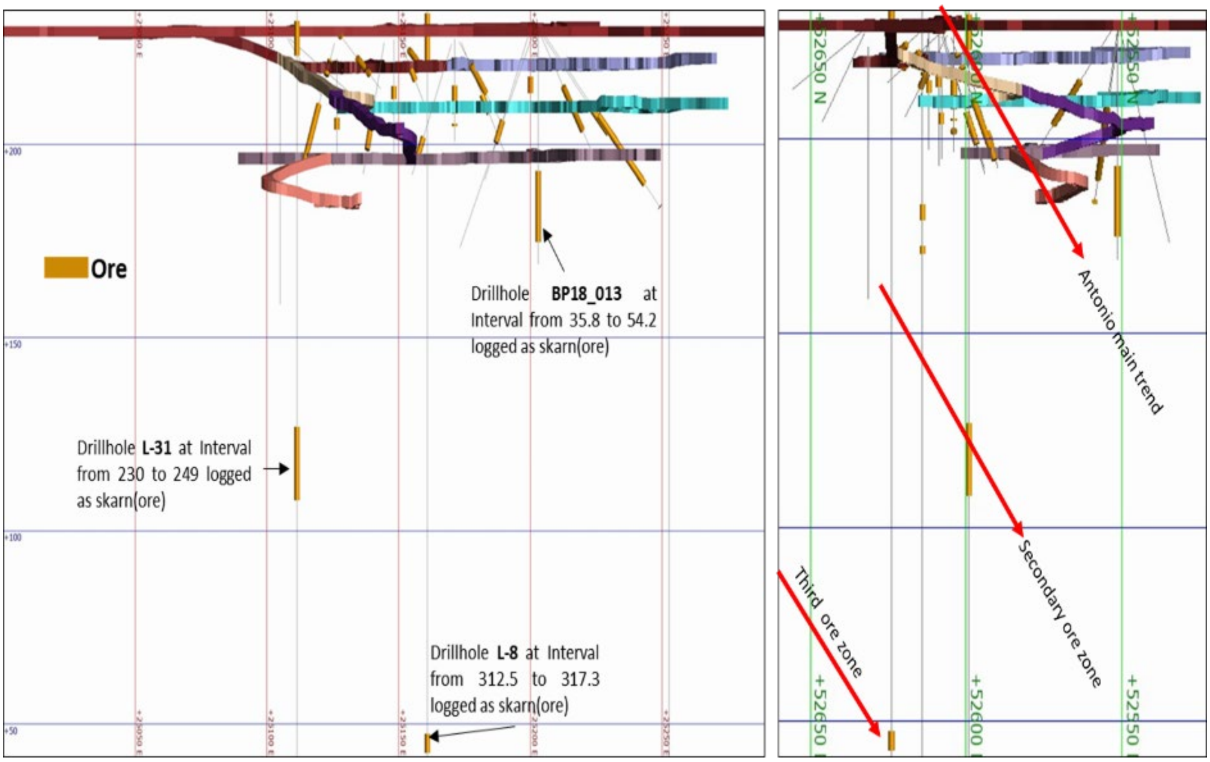


Figure 21. Ore interception on drillholes and continuity trends

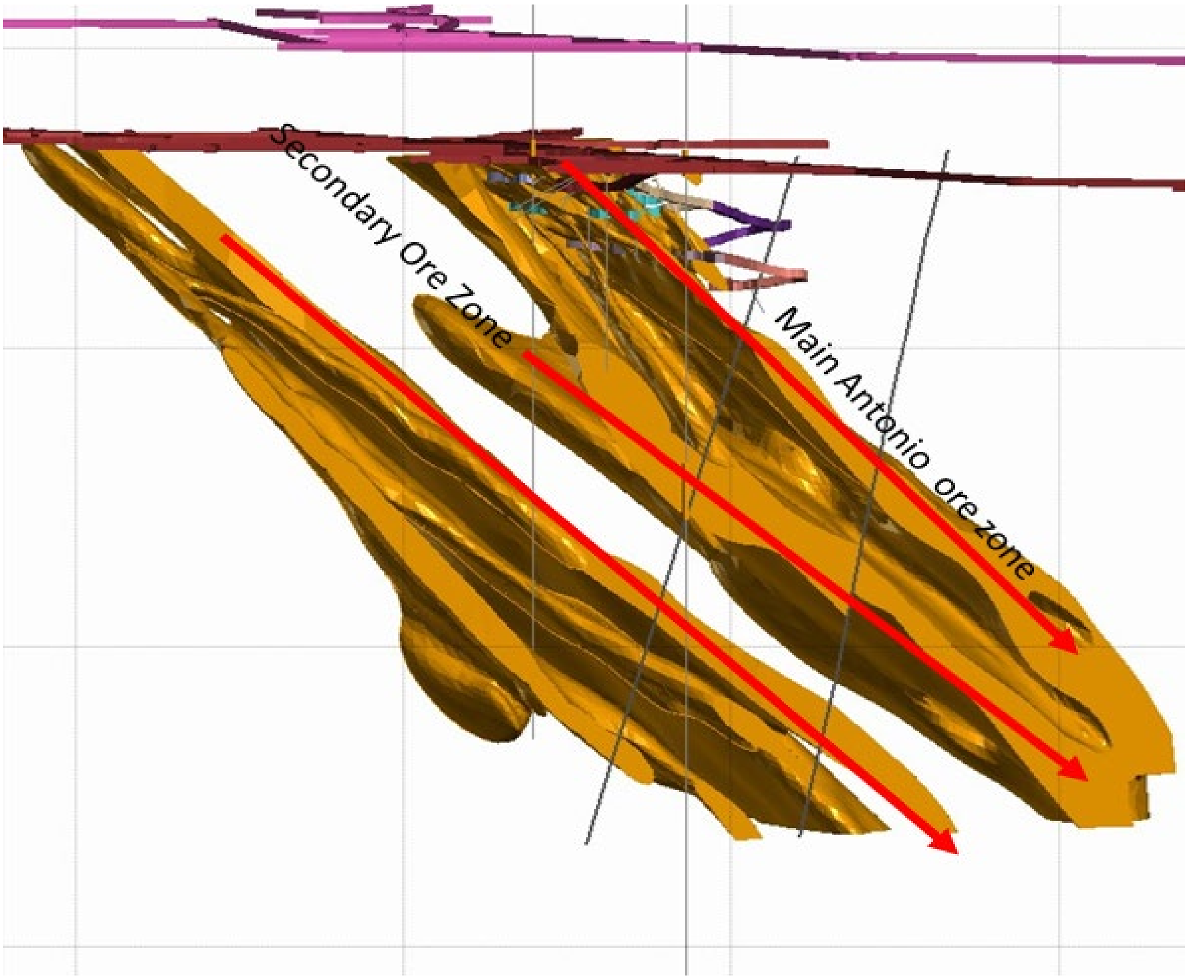


Figure 22.Antonio wireframe in extension

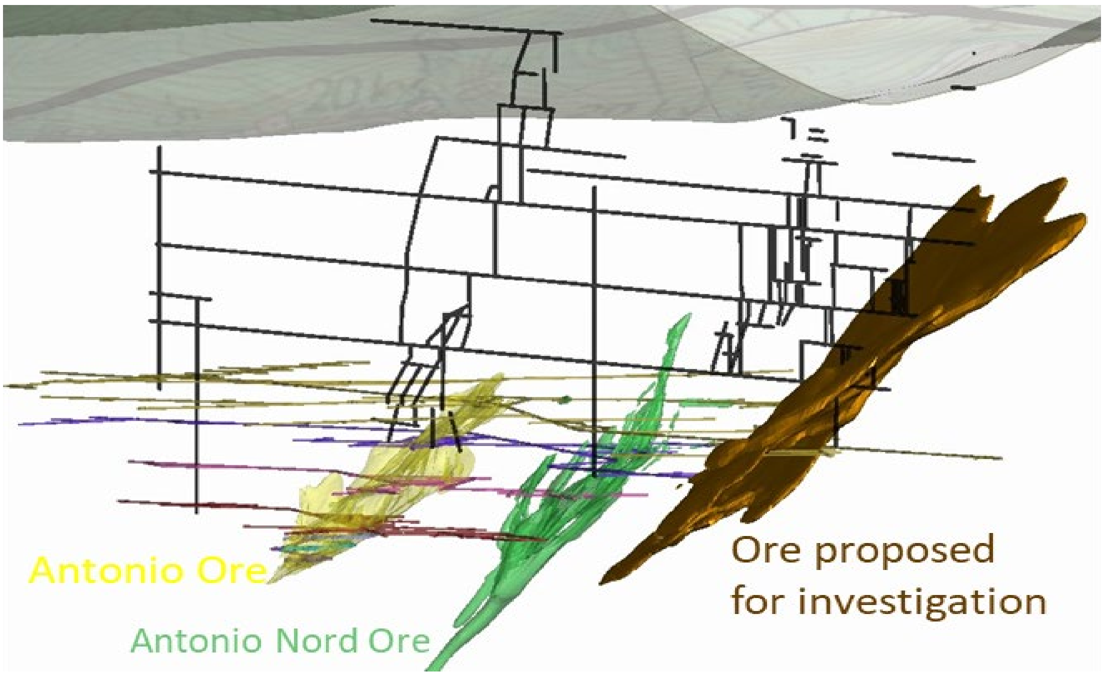


Figure 23.Main Ore zones

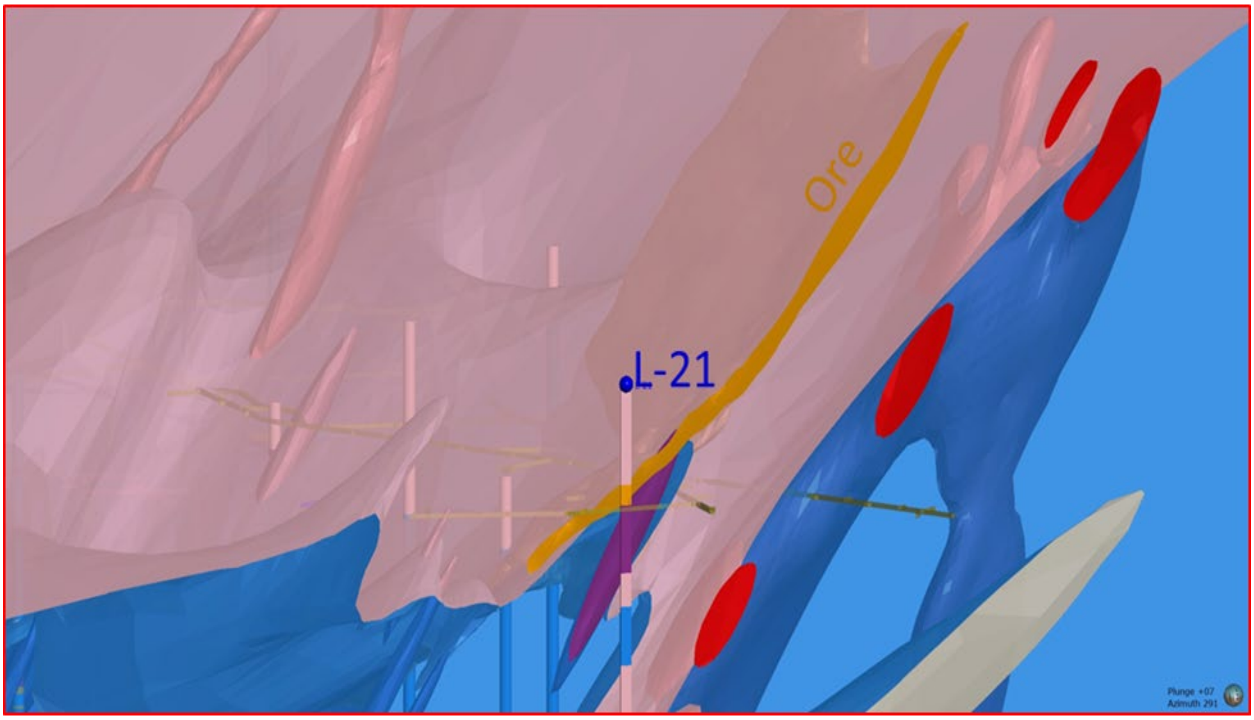


Figure 24. Cross Section on Baia Rosie Area

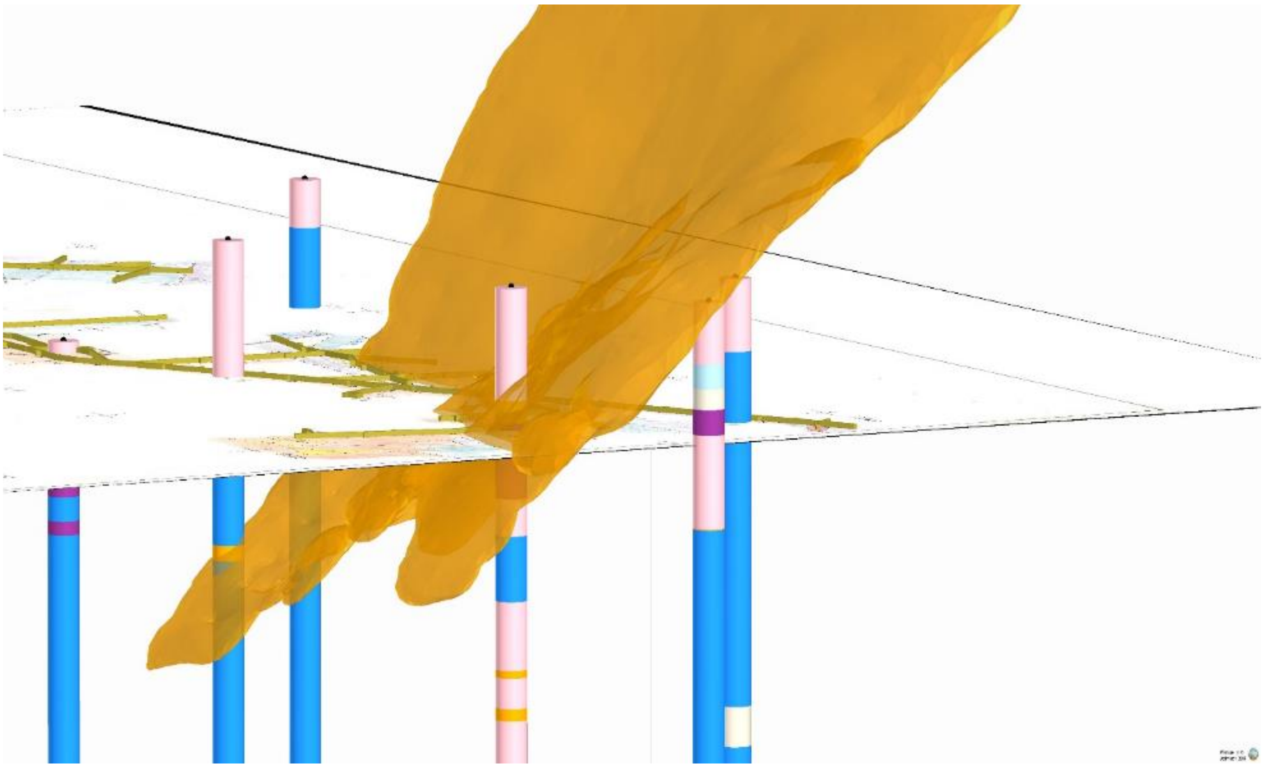


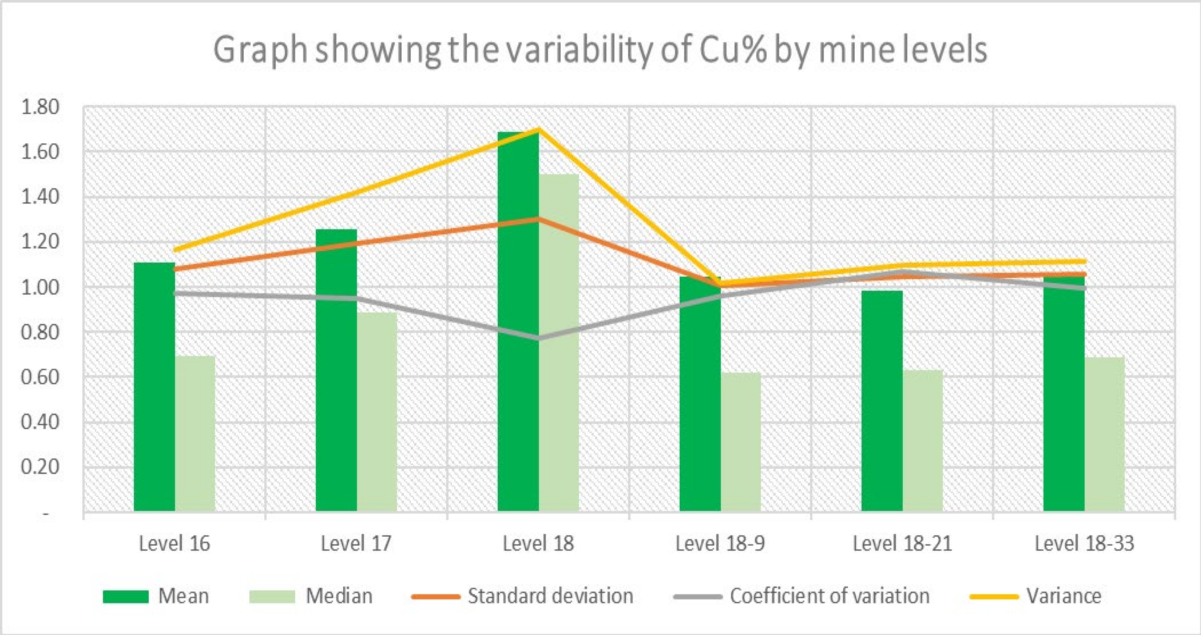
Figure 25. Baia Rosie Ore wireframe

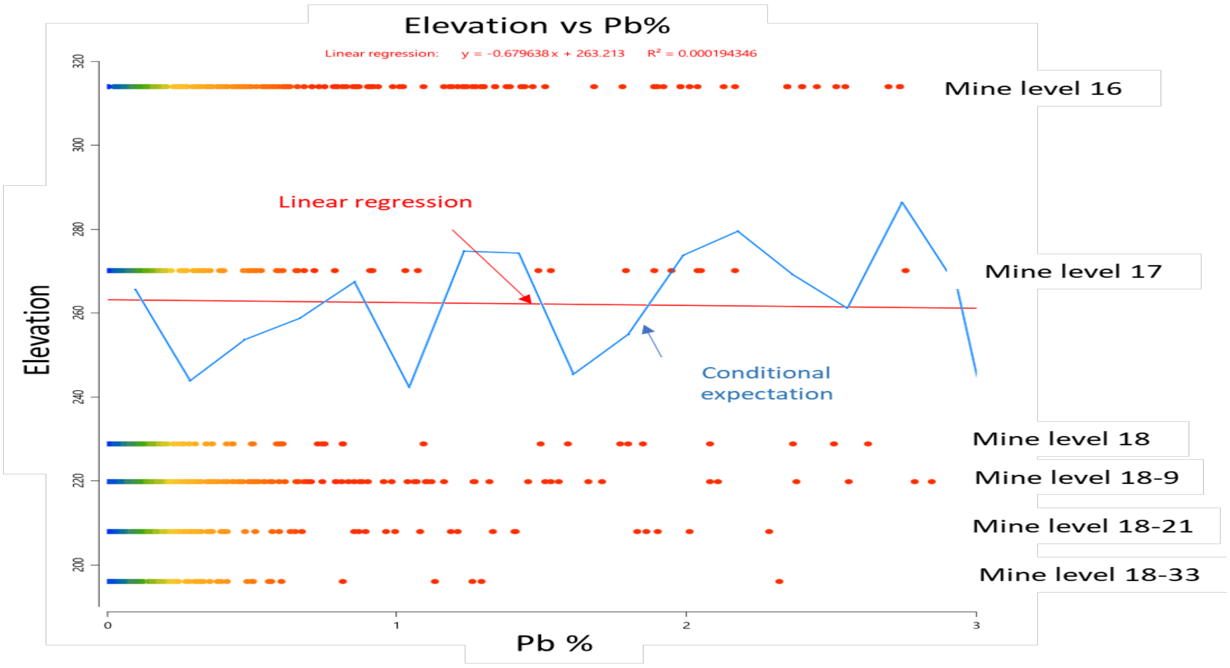
4.4. Content prognoses

The prognoses of the content were made for Cu%, Pb%, Zn%, Au g/t and Ag g/t, following the next steps:

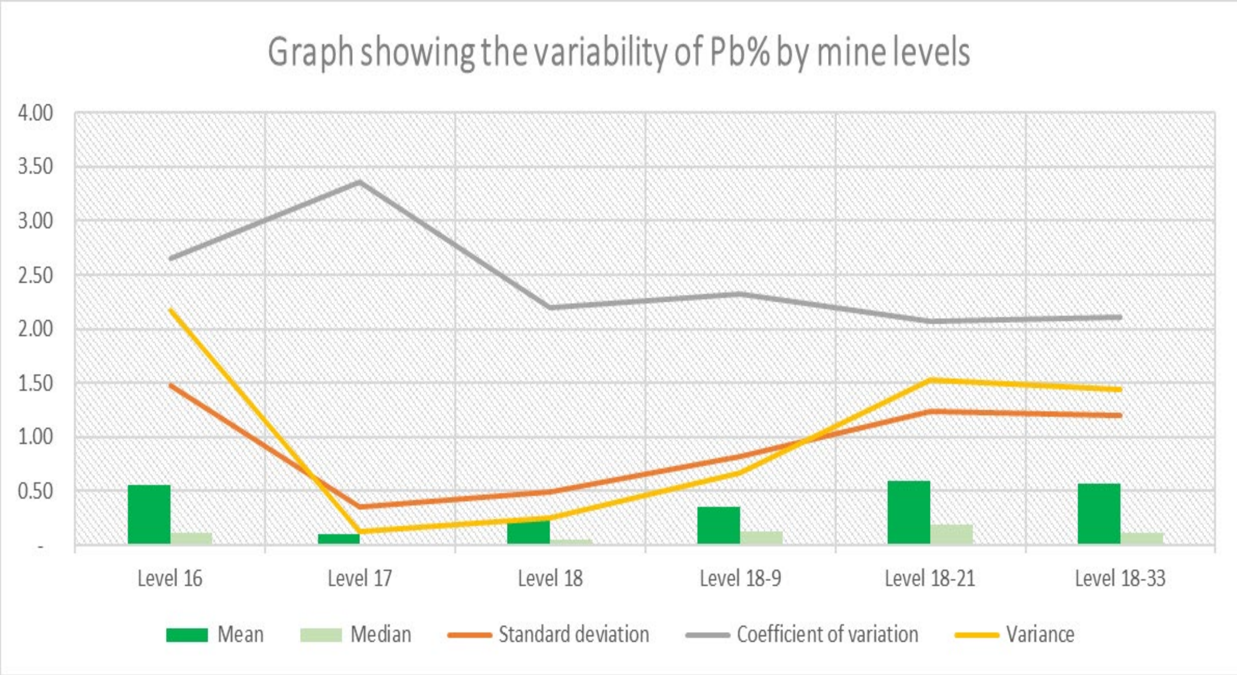
1. Statistical analyses of the grade variability with elevation
2. Identify the average content for each mine level
3. Correlation between grades

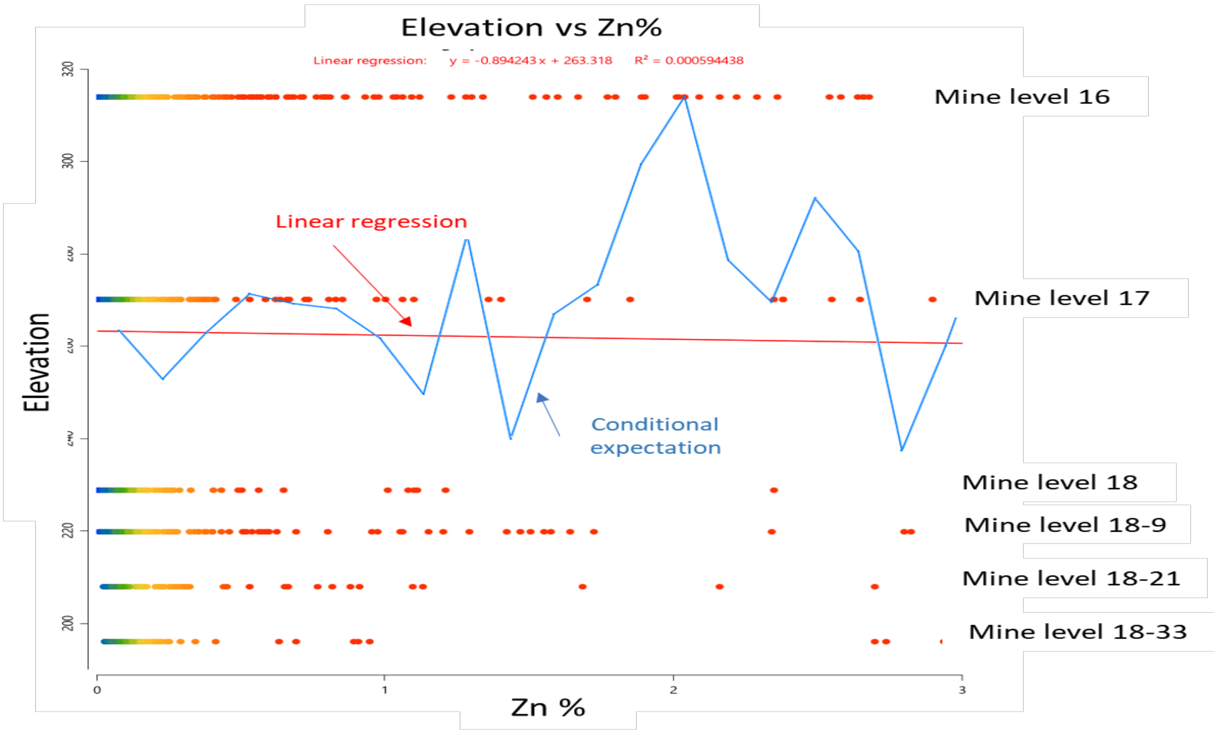
Mine Level	Mean	Standard deviation	Coefficient of variation	Variance	Median
Level 16	1.11	1.08	0.97	1.17	0.69
Level 17	1.26	1.19	0.95	1.42	0.89
Level 18	1.69	1.30	0.77	1.70	1.50
Level 18-9	1.05	1.01	0.96	1.01	0.62
Level 18-21	0.98	1.05	1.07	1.10	0.63
Level 18-33	1.06	1.06	0.99	1.11	0.69



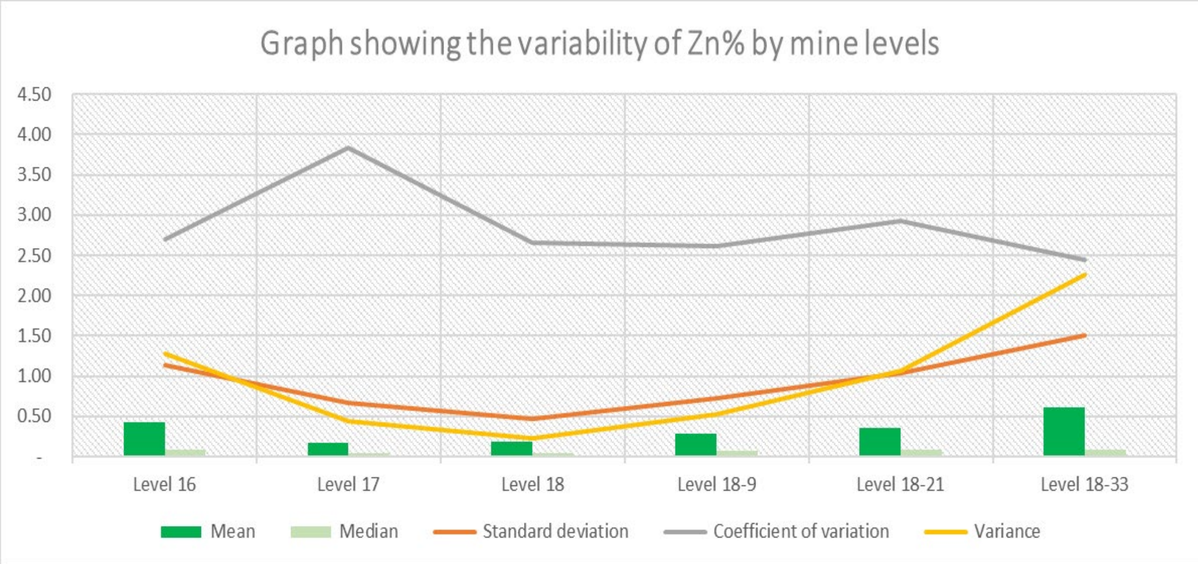


Mine Level	Mean	Standard deviation	Coefficient of variation	Variance	Median
Level 16	0.56	1.47	2.65	2.17	0.11
Level 17	0.10	0.35	3.36	0.12	-
Level 18	0.23	0.50	2.19	0.25	0.05
Level 18-9	0.35	0.82	2.32	0.67	0.12
Level 18-21	0.60	1.23	2.07	1.52	0.19
Level 18-33	0.57	1.20	2.11	1.44	0.11





Mine Level	Mean	Standard deviation	Coefficient of variation	Variance	Median
Level 16	0.42	1.13	2.70	1.28	0.08
Level 17	0.17	0.66	3.83	0.44	0.04
Level 18	0.18	0.47	2.65	0.22	0.05
Level 18-9	0.28	0.73	2.61	0.53	0.07
Level 18-21	0.35	1.03	2.92	1.06	0.08
Level 18-33	0.62	1.50	2.44	2.25	0.09



Conclusion:

Conclusions based on the statistical values extracted for each mined level:

- For copper it can easily be concluded that the mean value is pretty constant (in the ore zone) and indicates a high probability of continuity for the modelled ore body below level 18-33m. The content range in the ore body is from 0.98% to 1.69%

- For lead the content is increasing with depth from an average from and average of 0.23% at level 18 to an average of 0.57% at level 18-33m.

- For zinc the content is increasing also from an average of 0.17% at level 17 to an average of 0.62% at level 18-33m.

To evaluate the degree of correlation between Cu%, Zn% and Pb% a Pearson's correlation was conducted and the results are presented below:

Correlation

Pearson's r	Cu	Pb	Zn
Cu	-	-0.648	-0.581
Pb	-0.648	-	0.818
Zn	-0.581	0.818	-

Value of 1 means perfect correlation
Value close to 0 represents no correlation
Value of -1 absolute opposite

The prognoses for Cu%, Pb%, Zn%, Au_g/t and Ag_g/t is presented below:

Cu%	1.43
Pb%	0.48
Zn%	0.40
Au_g/t (based on drillholes samples)	0.48
Ag_g/t (based on drillholes samples)	63.60

5. DRILLING PROGRAM PROPOSAL AND POTENTIAL RESOURCE UPGRADE

The resulting ore wireframes which are constructed from historical maps, drillholes, assays and also confirmed by the 2020 drillholes(Antonio) constitutes a solid foundation for the planning of a new set of drillholes with the potential to highlight the extension of the current mine ore zone(Antonio) and will justify the opening of the new mine area from lvl 15 in Baia Rosie ore.

For planned drillholes have the potential to add another 8.8 million tones of ore in Measured and Indicated Resource.

5.1. Baia Rosie Ore the proposed plan includes:

- Underground drilling – 14 holes (990 m) at 50m x 50 m spacing
- Surface drilling – 18 holes(9900 m) at 100m x 100m spacing

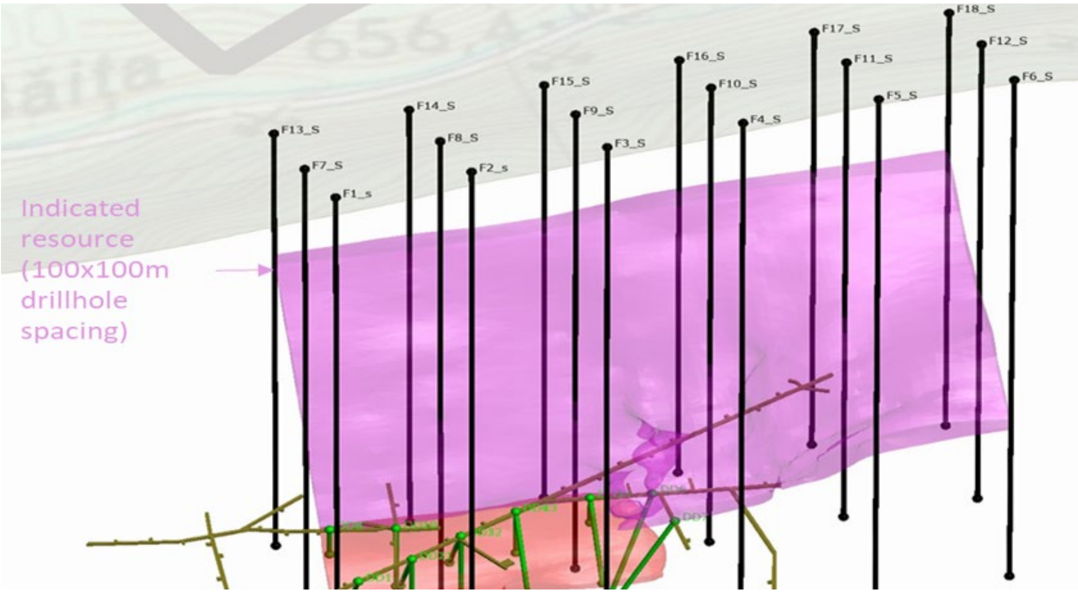


Figure 26. Proposed drilling plan from surface in Baia Rosie (potential ore in indicated resource-magenta)

Drillhole Name	Easting	Northing	Elevation	Az.	Dip	Target
F1_s	25872	52802	805.7	0	-90	600
F2_s	25972	52802	816.5	0	-90	600
F3_S	26072	52802	826.2	0	-90	600
F4_S	26172	52802	835.4	0	-90	600
F5_S	26272	52802	844.0	0	-90	600
F6_S	26372	52802	847.3	0	-90	600
F7_S	25872	52902	754.1	0	-90	550
F8_S	25972	52902	767.5	0	-90	550
F9_S	26072	52902	780.0	0	-90	550
F10_S	26172	52902	792.3	0	-90	550
F11_S	26272	52902	802.8	0	-90	550
F12_S	26372	52902	804.8	0	-90	550
F13_S	25872	53002	711.2	0	-90	500

F14_S	*25972*	*53002*	*719.9*	*0*	*-90*	*500*
F15_S	*26072*	*53002*	*729.7*	*0*	*-90*	*500*
F16_S	*26172*	*53002*	*740.1*	*0*	*-90*	*500*
F17_S	*26272*	*53002*	*753.9*	*0*	*-90*	*500*
F18_S	*26372*	*53002*	*757.3*	*0*	*-90*	*500*
Total meters (18 drillholes)						***9900***

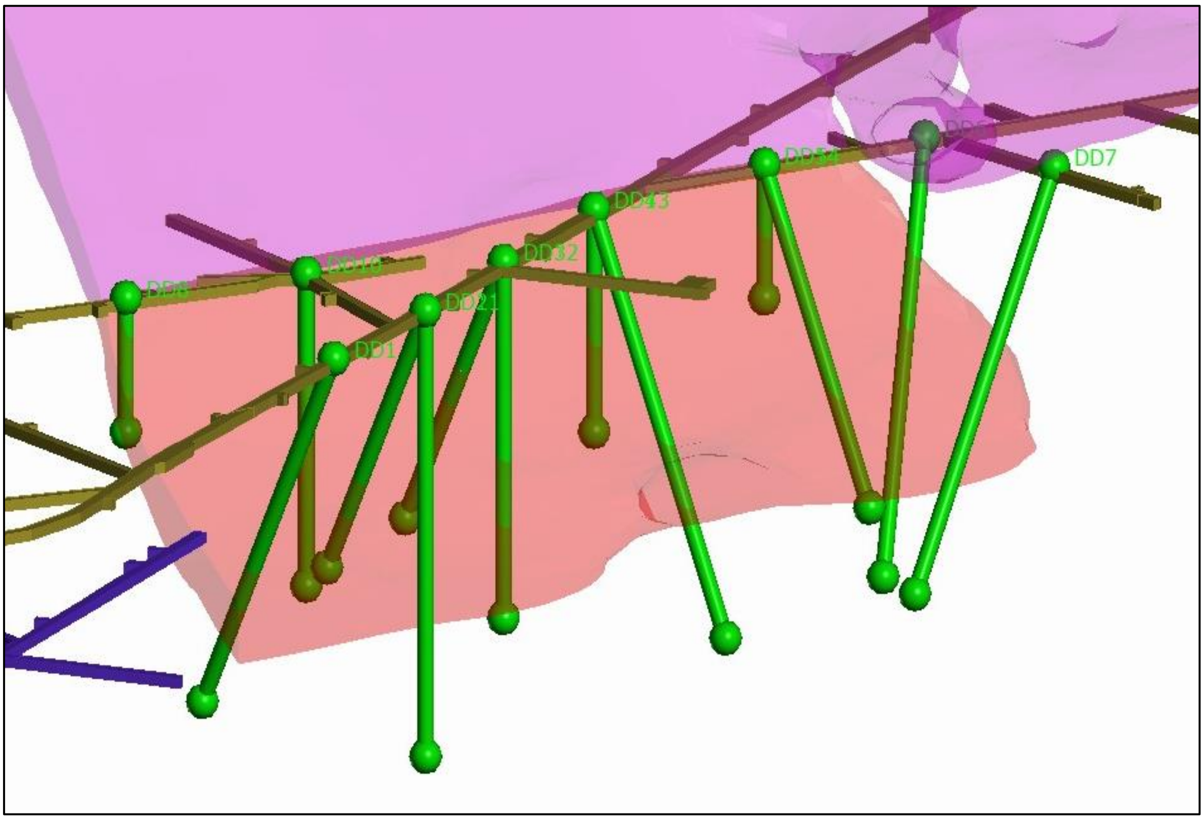


Figure 27. Proposed underground drilling plan from lvl 15.

Drillhole Name	**Easting**	**Northing**	**Z**	**Az.**	**Dip**	**Target Depth**
DD1	25883	52779	359.5	0	-60	100
DD2	25927	52800	359.3	0	-60	75
DD3	25969	52823	359.5	0	-60	75
DD4	26015	52846	359.5	0	-90	50
DD5	26071	52852	359.5	0	-90	30
DD6	26117	52848	359.5	230	-60	100
DD7	26124	52808	359.5	260	-60	100
DD8	25878	52853	359.5	9	-90	30
DD10	25925	52843	359.5	9	-90	70
DD11	25927	52800	359.3	9	-90	100
DD12	25969	52823	359.5	9	-90	80
DD13	26015	52846	359.5	180	-60	100

DD14	26071	52852	359.5	180	-60	80
Total meters (13 drillholes)						**990**

5.2. Antonio Ore the proposed plan includes:

- Underground drilling – 27 holes(4980m) at 50m x 50 m spacing

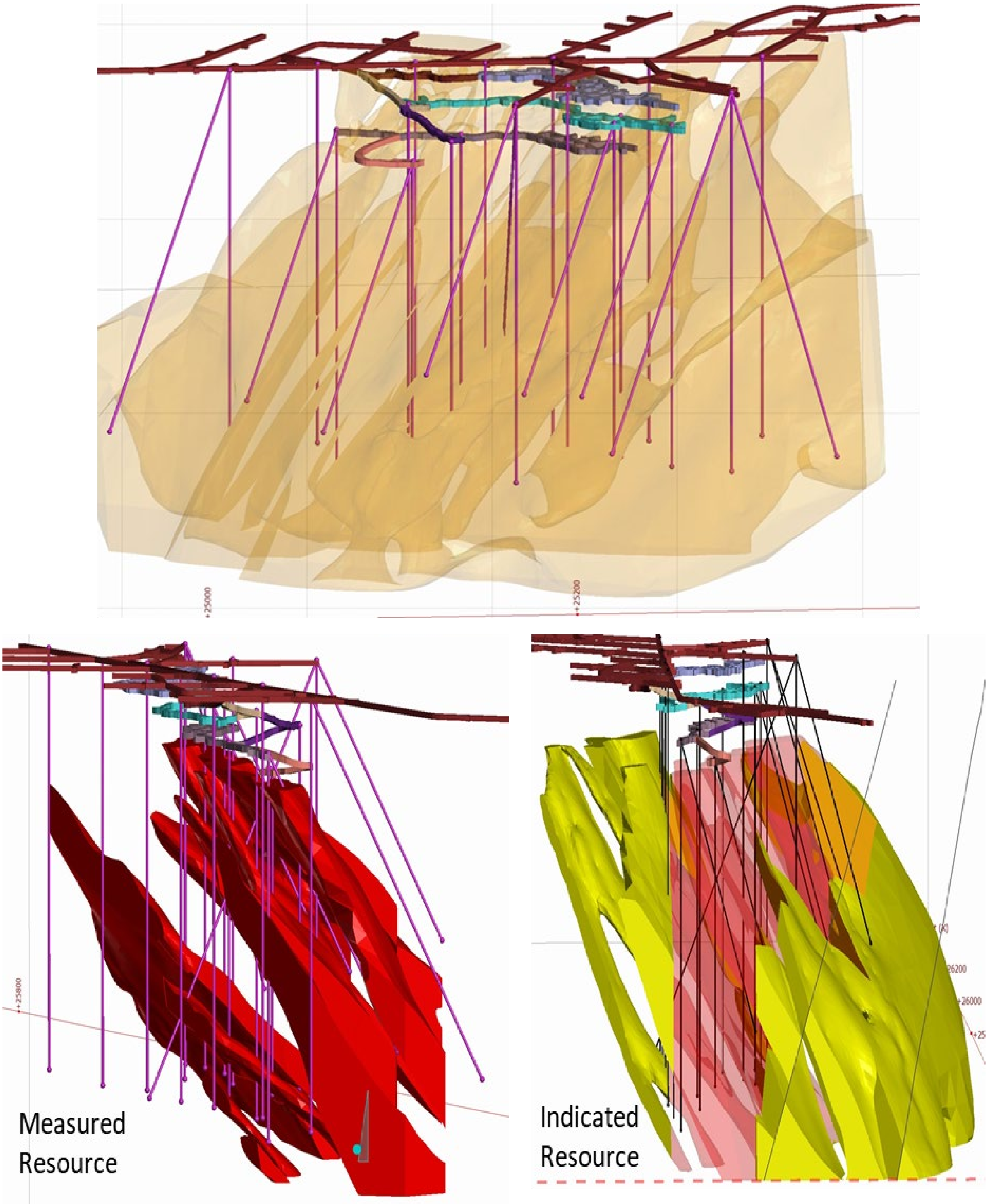


Figure 28.Drilling plan for Antonio Ore below lvl 18-45m

Drillhole Name	Easting	Northing	Z	Az.	Dip	Target Depth
F5-ug	25,148.4	52,540.9	203.9	0	-90	170
F6-ug	25,129.7	52,571.7	184.6	0	-90	150
F7-ug	25,211.7	52,547.3	230.5	0	-90	200
F8-ug	25,128.5	52,583.2	214.1	0	-90	190
F9-ug	25,157.0	52,584.1	197.7	0	-90	170
F10-ug	25,090.9	52,598.8	197.9	0	-90	180
F11-ug	25,266.9	52,531.7	212.1	0	-90	180
F12-ug	25,180.7	52,508.8	230.5	0	-90	200
F13-ug	25,236.1	52,537.5	212.6	0	-90	180
F14-ug	25,241.7	52,561.5	211.0	0	-90	180
F15-ug	25,180.7	52,508.8	230.5	0	-60	230
F16-ug	25,090.9	52,598.8	197.9	225	-60	150
F17-ug	25,266.9	52,531.7	212.1	225	-60	150
F18-ug	25,236.1	52,537.5	212.6	225	-60	150
F19-ug	25,180.7	52,508.8	230.5	225	-60	150
F20-ug	25,130.2	52,572.4	186.5	225	-60	150
F21-ug	25,298.9	52,525.5	230.5	0	-90	200
F22-ug	25,298.9	52,525.5	230.5	225	-60	200
F23-ug	25,033.4	52,606.3	228.6	225	-60	200
F24-ug	25,298.9	52,525.5	230.5	150	-60	200
F25-ug	25,321.9	52,606.0	230.5	150	-90	200
F26-ug	25,260.7	52,606.5	228.8	150	-90	200
F27-ug	25,208.8	52,607.8	231.5	150	-90	200
F28-ug	25,172.1	52,607.5	229.6	150	-90	200
F29-ug	25,134.3	52,608.6	230.5	150	-90	200
F30-ug	25,081.3	52,608.8	230.5	0	-90	200
F31-ug	25,033.4	52,606.3	228.6	0	-90	200
Total meters(27 drillholes)						4980

5.3. Potential Resource Upgrade

The proposed drilling plan described in previous chapter has the purpose to validate the extension and existence of the ore in Baia Rosie and Antonio zones and also to upgrade the resource.

Exploration Target as per JORC classification from the total of 12.1 million tones, 6.9 million tones have the potential to be upgraded as probable reserves and 1.9 million tones as proven reserves

Exploration Target intended to Prove:

Exploration Target Drill Spacing	Volume	Density	Mass	Zone
	m^3	g/cm^3	t	
(50x50m)	163,475	3.2	523,120	Baia Rosie
(100x100m)	1,615,200		5,168,640	
(Extension 100m)	1,056,150		3,379,680	
Total Baia Rose Ore	**2,834,825**		**9,071,440**	
(50x50m)	426,950	3.2	1,366,240	Antonio
(Extension 100m)	546,900		1,750,080	
Total Antonio Ore	**973,850**		**3,116,320**	
Total 50x50m+ 100x100m	**2,752,525**	**3.2**	**8,808,080**	Baia Rosie + Antonio
Total 50x50m+100x100m+ Extension 100m	**3,808,675**	**3.2**	**12,187,760**	Baia Rosie + Antonio

Drilling requirements

Measured Drill Spacing	50x50m
Indicated Drill Spacing	100x100m
Inferred Drill Spacing	Extension 100m