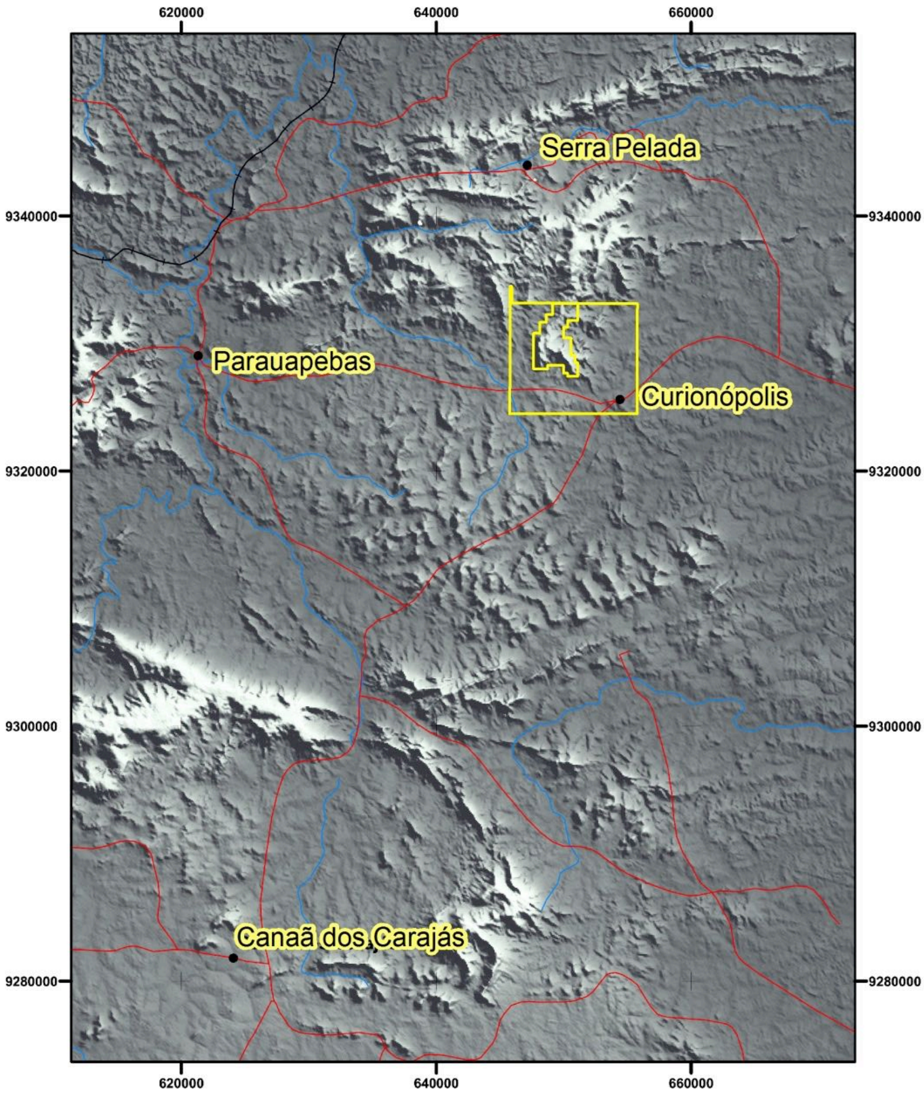
NI 43-101 TECHNICAL REPORT



MARAVAIA COPPER-GOLD DEPOSIT, CARAJÁS MINING DISTRICT, PARÁ, BRAZIL

Prepared for Tessarema Resources Inc. and Lara Exploration Ltd.

by:

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September 28, 2015

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1 SUMMARY

This prospect is located in a mineral concession granted by the Departamento Nacional de Produção Mineral - DNPM to Maravaia Mineração Ltda (MML), with a total area of 8,670.81 hectares and related to the process 850421/2009.

The Cu-Au mineralization belongs to the IOCG class, hosted in veins associated with hydrothermal breccias, contained in NS to NE/SW orientated tension gashes. These structures are associated with a NW/SE shear zone that cuts amphibolite, diorite and gabbro and, located between the regional Cinzento and Carajás shear belts.

The surface ore (up to ± 70 m deep) is composed of malachite, azurite, chrysocolla, cuprite and native copper, plus hydroxides of copper and iron. At depths greater than 70 m, chalcocite, chalcopyrite and native copper predominate, with subordinate bornite, pyrite and magnetite. Zones extremely rich in copper occur locally, with massive horizons of native copper associated with chalcocite and cuprite at depths greater than 120 m.

Exploration started in the area in 2009, with Magyr Mineração Ltda. searching for gold deposits. In 2012, Codelco Mining Ltd. developed a coherent exploration for copper and gold in the area, performing 8,223 m of diamond drilling, including 387.80 m (2 holes) at the Osmar Target and 446.20 m (1 hole) at the Galpão Target.

During 2014-2015, the team of geologists of MML examined the available information, enhancing the knowledge of local geology and interpreting these data based on knowledge gained from the geological information from additional diamond drilling of 2,177.9 m (14 holes) and 334.45 m (4 holes) at the Osmar and Galpão Targets, respectively.

Sampling of drill cores with one-meter interval was conducted on site. Sample preparation, followed by fire assay and AAS analyses, have been performed by Intertek Laboratory in Parauapebas (PA). Quality control procedures were implemented on site and also at the chemical laboratory, involving the regular insertion of blanks and standards, and repeated analyses of samples. There is no evidence of any tampering with the samples during collection and shipping. All sample preparation was conducted by the laboratory.

The preliminary resource estimate was prepared for the Osmar Target, after modeling the orebody with the software Gemcom Surpac, adopting a cut-off grade of 0.75% Cu. The indicated resources were estimated are 2,140,742 tonnes of ore @ 4.20% Cu and 0.66 ppm Au.

The mineral resources inferred at the Galpão Target are 380,479 tonnes of ore @ 3.16% Cu and 0.69 ppm Au.

2 INTRODUCTION

Dr. João Batista Guimarães Teixeira, P.Geo., a Consulting Geoscientist from Salvador, Bahia, Brazil (the “Author”) was retained by Tessarema Resources Inc. (the “Company”) to review the geology and geologic exploration of the Maravaia copper-gold deposit, located in the Curionópolis Municipalitiy, Pará State, Brazil, and to prepare a NI 43-101 Report.

This report and the recommendations included herein are based on the following data:

- Geological interpretation and information provided by the Company.
- Historical exploration data relating to the Property.
- Site visit by the Author on February 13-17, 2015, accompanied by geologist Darci Lindenmayer, the Company representative.

2.1 UNITS

The Metric System (SI) is the primary system of measure and length used in this report and is expressed in kilometers (km), meters (m) and centimeters (cm); volume is expressed as cubic meters (m^3); mass expressed as metric tonnes (t); area as hectares (ha).

Universal Transverse Mercator (“UTM”) coordinates are provided in the datum of South American 1969 (SAD69), Zone 22 South, unless specified otherwise.

3 DISCLAIMER

The present report is required to complete qualifying transaction requirements related to an option agreement between Lara Exploration Ltd. and Tessarema Resources Inc. for the right to acquire a 100% interest in the Maravaia Copper-Gold Property, located in Pará State, Brazil, consisting of three exploration concessions covering an area of 16,866.93 hectares. This report refers to one concession with an area of 8,670.81, where most of the exploration work has been done.

The Author does not assume any responsibility or liability for losses occasioned by any party as a result of the circulation, publication, reproduction, or misuse of this report.

3.1 QUALIFICATION

The Qualified Person for this report is João Batista Guimarães Teixeira, PhD, Independent Consulting Geoscientist and a geologist in good standing with the Association of Professional Geoscientists of Ontario (APGO #1540). Dr. Teixeira has more than forty years of experience in the mineral exploration industry, specializing in Precambrian metallogeny, with major experience in gold, iron and base-metal deposits.

3.2 SOURCES OF INFORMATION

The Author has relied extensively on information provided by the Company. Additional information was gathered by personal observations made by the author during a five day site visit.

4 RELIANCE ON OTHER EXPERTS

The Author did not conduct a full review of mineral title and ownership. The status of claims as outlined in this Report was obtained from the web disclosure site of DNPM, Departamento Nacional de Produção Mineral, at *www.dnpm.gov.br*.

All relevant information on the Property presented in this Report is based on data derived from reports written by geologists and mining engineers, whose professional status may or may not be known in relation to the National Instrument 43-101 definition of a Qualified Person.

The Author has assumed that the reports and other data listed in the "References" section of this Report are accurate and were written with the objective of presenting the results of the work performed without any promotional or misleading intent. In this sense, the information presented is considered reliable, and may be used without any prejudice by the Company.

5 PROPERTY DESCRIPTION AND LOCATION

5.1 LOCATION

The Property is located immediately west of the town of Curionópolis in Pará State, Brazil, within the Carajás Mineral District (Figure 1).

Figure 1 - Location map and regional access to the Maravaia Property.

5.2 PROPERTY SIZE

With an area of 8,670.81 ha, the Maravaia mineral concession is identified by the numeral 850421/2009 in the files of Departamento Nacional de Produção Mineral (DNPM). The area of the concession extends approximately 10 km in an east-west direction and 8.6 km in a north-south direction, within the region bounded by coordinates 645900E – 655800E and 9324500N –

9333100N, in UTM Zone SAD69 – 22 South. There are two enclaves within the 850421/2009 concession area, one corresponding to the Exploration Permit 850634/2010, which belongs to Vertical Mineração Ltda. and the other corresponding to a small area that is currently available for application (Figure 2).

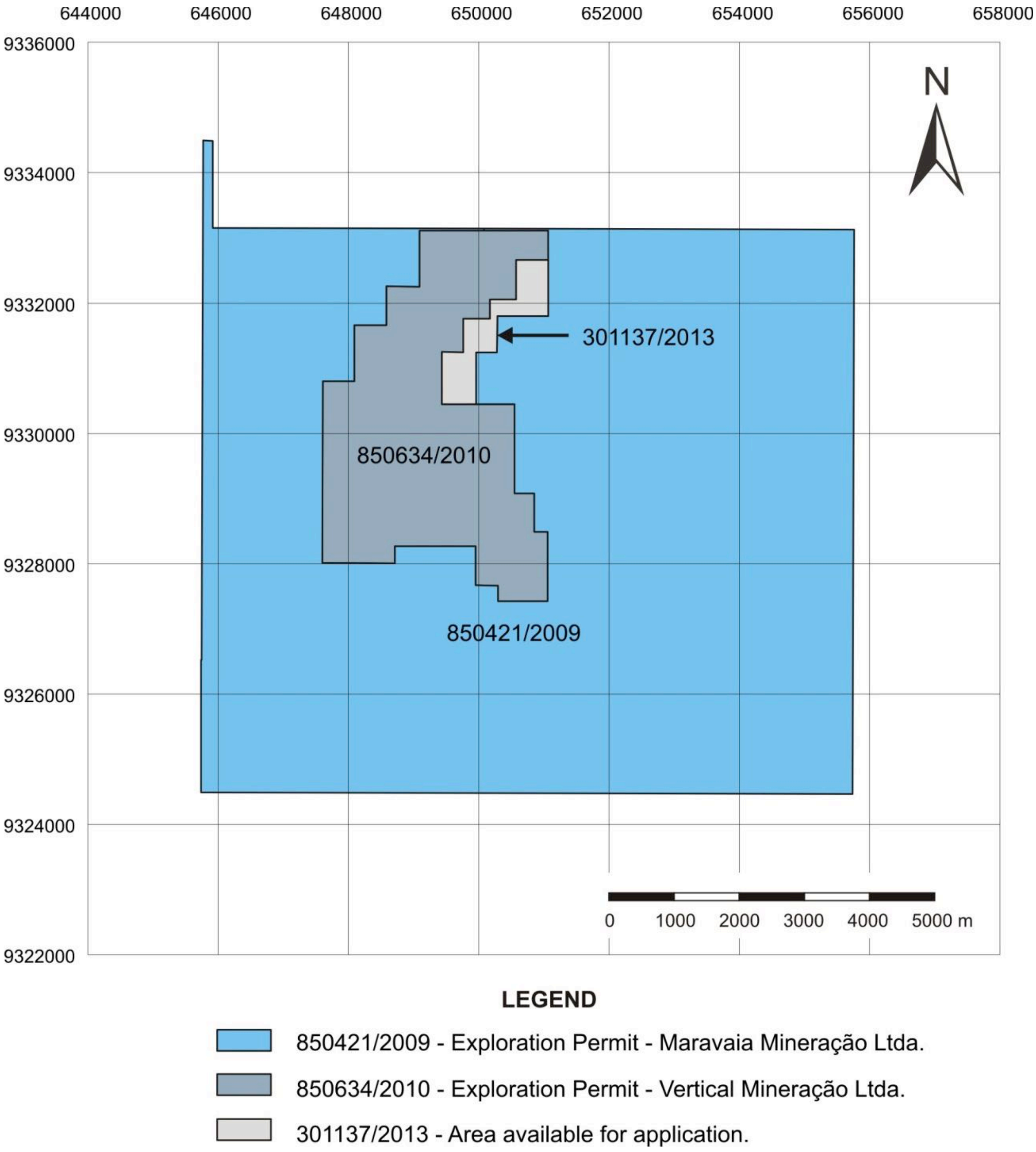


Figure 2 - Location of the Maravaia mineral concession in the vicinities of Curionópolis, Pará, Brazil. Source: *http://www.dnpm.gov.br* - Mining Rights Study, Feb/2015.

6 MINERAL TENURE

The current exploration license for concession 850421/2009 was granted to Mineração Maravaia Ltda. and expires on 12/13/2015. Before this deadline, a final exploration report will be filed, and a Mining Permit will be requested from the Ministry of Mines and Energy of Brazil. Furthermore, MML has applied for a pilot mining license and for a temporary environmental permit. Pilot license allows for initial mining operation capped at the total of 4 kt of ore.

6.1 GOVERNMENT AGENCY, PERMITS AND OBLIGATIONS

Under the Brazilian Constitution all mineral resources in the country belong to the Union. The Mining Code manages all aspects of the Brazilian mining industry. The Ministry of Mines and Energy through its National Department of Mineral Production (DNPM) is responsible for managing Brazil's mineral resources, for supervising the mineral activity and enforcing the law.

Exploration licenses are granted by DNPM and are valid for three years. Renewal of the license is done after analysis and approval of the Partial Exploration Report. Mining concessions are granted by the Ministry of Mines and Energy (MME), within one year of the date of approval of the Final Exploration Report. In order to receive an approval the foreign company needs to be registered in Brazil, to prove that it has enough funds to proceed to develop the mining project, and to have a specific environmental license approved. Mining concessions are granted for an indeterminate period of time lasting until the exhaustion of the mineral deposit.

6.2 AGREEMENT AND ENCUMBRANCES

On October 07, 2013, Lara Exploration Ltd and Tessarema Resources Inc. entered into an Option Agreement for the Maravaia Copper-Gold Project in Brazil. Lara Exploration Ltd agreed to grant to Tessarema Resources Inc. an exclusive option to acquire a 100% interest in the Property. Under the terms of the Contract, Tessarema Resources Inc. can earn a 100% interest by paying installments to Lara Exploration Ltd totaling US$1,950,000.00, funding all exploration costs, including 2000 m of drilling, defining copper equivalent resources of at least 100,000 t, placing the property into commercial production at a rate of not less than 500 tonnes per day, and paying specified royalties to Lara Exploration Ltd and Red Rock Exploration (BVI) Ltd.

6.3 PERMITS AND ENVIRONMENTAL LIABILITIES

There are no environmental liabilities associated with the exploration licenses. Permits for clearing of vegetation are required where gridlines are opened in forested areas. Drilling operations require appropriate approvals for road construction, and licenses for pumping and utilization of nearby surface or underground water.

7 ACCESSBILITY, CLIMATE, LOCAL RESOURCES, AND PHYSIOGRAPHY

7.1 ACCESS

The Maravaia deposit encloses four main copper-gold prospects, named respectively West, Osmar, Galpão and East targets, located about 5.6 km northwest of the town of Curionópolis. The access is made through the state highway PA-275 (Figure 3). From the highway a network of farm roads provides reasonable access throughout the Property, even in the rainy season with a four-wheel drive vehicle.

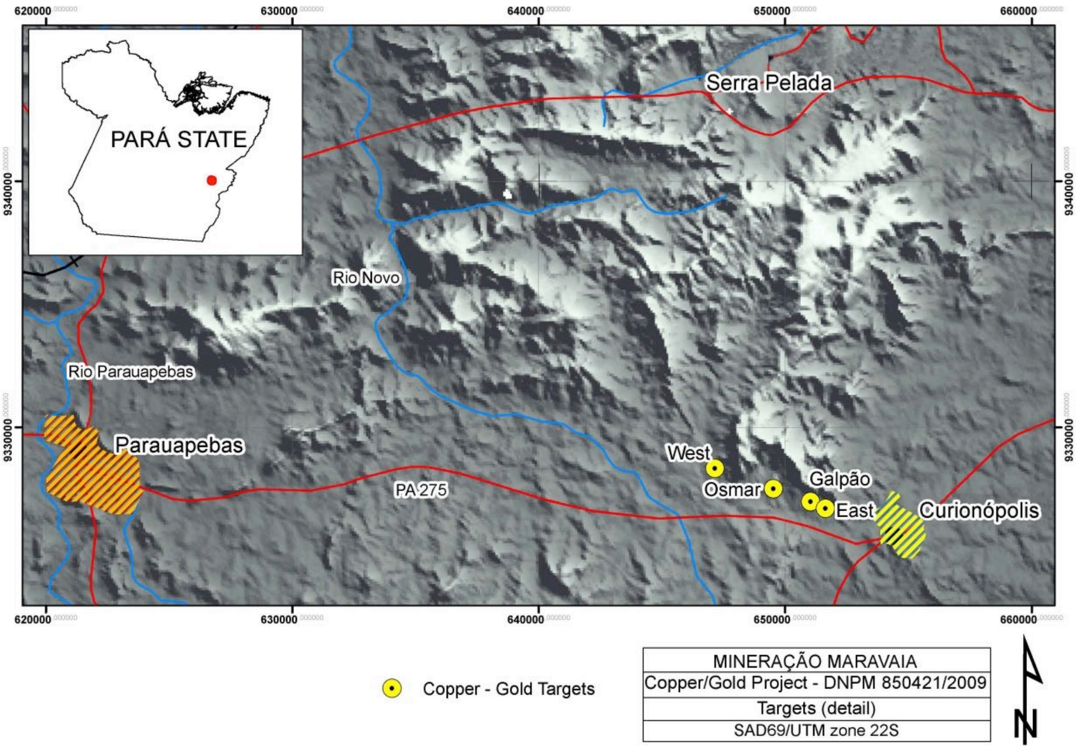


Figure 3 – Access map to the Maravaia Copper/Gold Deposit.

7.2 CLIMATE

The climate of the area is tropical, with little variation in average monthly temperatures all through the year. The average annual temperature of the Curionópolis region is 26.1°C, ranging from 26.9°C in August and September to 24.3°C in February. The region has high rainfall with an annual total of 2,090 mm. The rainy season occurs in the winter in the region, December to April, with 76% concentrated rains this time of year. The least rainy months occur in summer in the region, from May to September

Field work can be carried out year round. Diamond drilling, however, is usually reduced during the height of the rainy season, typically December to March, because some roads become locally blocked for heavy equipment.

7.3 LOCAL RESOURCES AND INFRASTRUCTURE

The center of the property lies about 25 km east of the town of Parauapebas, a regional center with a population of around 190,000 residents. About 40 km to the west lies the mining town of Carajás, a community built to house workers at Vale's iron mines. A small public airport at Carajás has daily flights. A rail line from Carajás extends 900 km to the Atlantic port city of São Luís, built to export Vale's iron ore. Parauapebas is one of the largest economies of Pará State, with major mining activities and extensive livestock, which attract a large immigrant number. The annual population growth is around 20%. Parauapebas is a mining center, very close to one of the biggest iron mines in the world, and therefore a good source of skilled labor and supplies. Water is available from a number of local sources, such as the Rio Novo and tributaries.

7.4 PHYSIOGRAPHY

The area mostly comprises rolling farmland with small forest remnants commonly found on the tops of the hills. Rugged terrain occurs to the north-northeast of the property, with elevations reaching more than 500 meters. Bedrock exposures are relatively abundant and provide a reasonable knowledge of the underlying geology, although deep tropical weathering usually hinders surface geological mapping.

8 HISTORY

The Exploration Permit 8443/2009 (DNPM Process 850421/2009) was published in the Official Gazette of Brazil (Diário Oficial da União - DOU) of 08/14/2009, which authorized Magyr Mineração Ltda. to search for gold in an area of 8,670.81 ha.

The Official Gazette of 11/25/2009 DNPM granted approval and authorized the registration of the total transfer of the mineral rights to the company Curionópolis Mineração Ltda. Also in 05/12/2012 DNPM granted approval and authorized the registration of the total transfer of the mineral rights to Codelco do Brasil Mineração Ltda.

On 12/13/2012 the Official Gazette published the extension of the Permit 8443/2009 for over three years, based on the approval of the partial exploration report, which confirmed the presence of copper ore in addition to gold. On 07/21/2014 the Gazette published the approval and registration of the total transfer of the mineral rights to MML

The exploration work carried out by companies Magyr Mineração Ltda., Curionópolis Mineração Ltda., Brazil's Codelco Mining Ltd and MML, led to the discovery of four orebodies, named West, Osmar, Galpão and East targets.

9 GEOLOGICAL SETTING

The Carajás Mineral District is located in the southeastern portion of the Amazon Craton, more precisely in the southeast corner of Central Amazon Block. Figure 4 shows the main lithological associations and geotectonic subdivision of the Serra de Carajás region. To the north appear the granitoids of the southeastern edge of the Guyana Shield, of Rhyacian age. The east side is occupied by metasedimentary rocks of the Araguaia Belt of Neoproterozoic age. In the southwest sector is the Paleoproterozoic Uatumã Supergroup, comprising the continental effusive rocks of the Sobreiro and Iriri formation, associated with granitic intrusions and clastic sedimentary rocks of the Paredão Group and of the Gorotire and Triunfo formations.

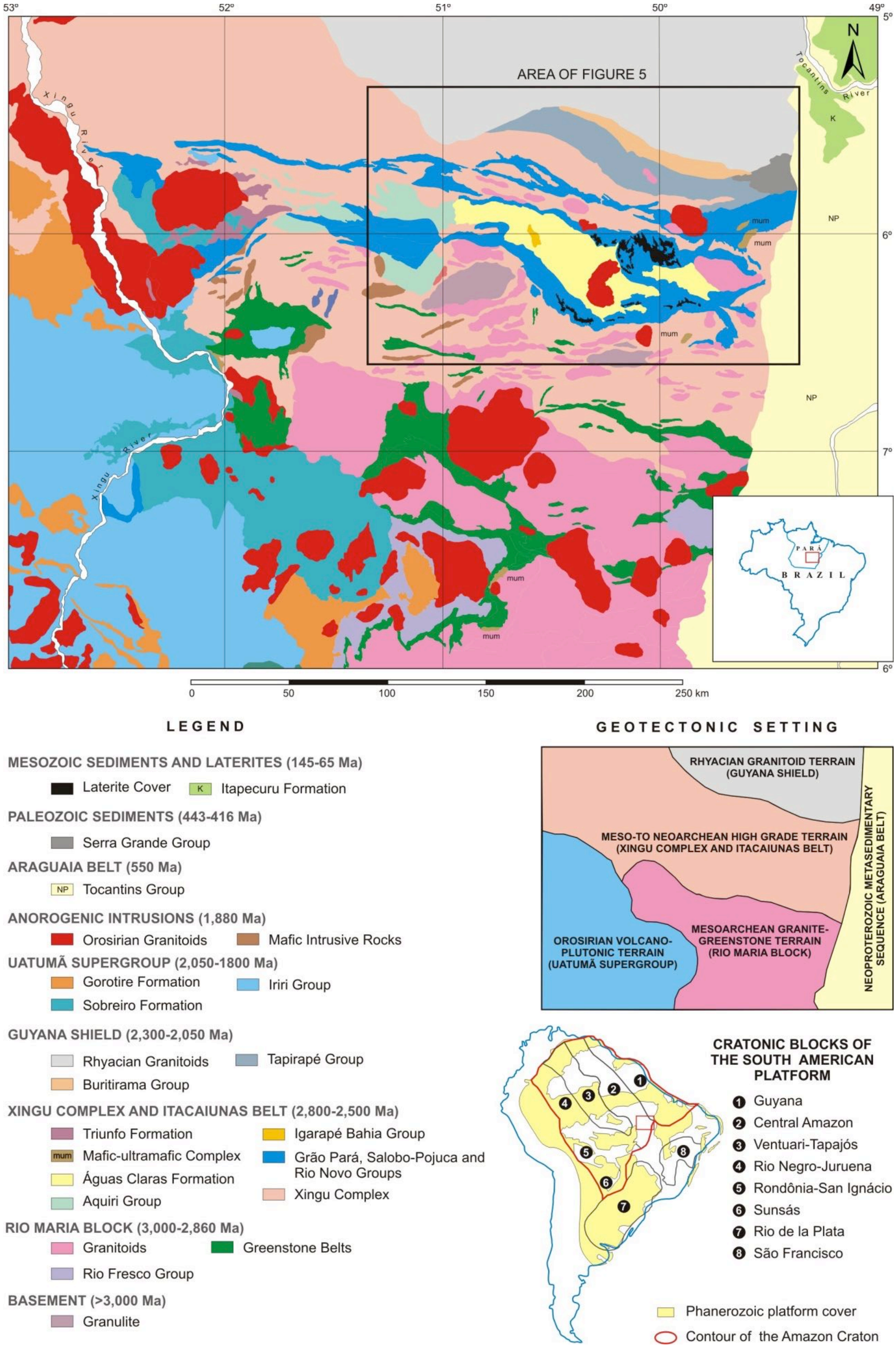


Figure 4 - Regional geological map of the Carajás Mineral District. Compiled and interpreted from GIS Brasil (CPRM, 2004).

The Carajás Mineral District includes two distinct tectonic domains (Figure 4). The southern domain, called Rio Maria Block is the oldest (3,000 -2,860 Ma) and comprises a typical Archean granite-greenstone terrain. The area to the north, called Itacaiunas Belt, evolved between 2,800 and 2,500 Ma, comprising volcanosedimentary rocks and granitoids that host large Fe, Cu, Au, Mn, Ni and Zn deposits. These two contiguous domains are interpreted as the product of an Archean continental collision, which were later affected by a mantle plume of intracontinental character (Teixeira, 1994).

The Itacaiunas Belt, which includes the Serra de Carajás, is composed of basaltic andesites and felsic volcanic rocks (2,700 Ma) belonging to the Itacaiunas Supergroup, interlayered with banded iron formations (jaspilite), volcaniclastic and clastic sedimentary rocks, which display metamorphic facies varying from anchimetamorphic to amphibolite. These units are covered unconformably by the fluvial to marine clastic deposits of the Águas Claras Formation.

The basement is dominated by gneisses of granitic, tonalitic, trondhjemitic and granodioritic composition (TTG terrain), besides amphibolites and quartzites of the Xingu Complex (2,800 Ma).

Older, EW-elongated granulitic nucleii of the Pium Complex, occurring to the south of the Serra de Carajás, occupy restricted areas and are composed by mafic and felsic granulite, enderbite and charnockite, with ages around 3,000 Ma. These granulites are interpreted as fragments of the lower crust placed along regional shear zones, testimonies of juxtaposition of the two crustal blocks.

The greenstone belt sequences of the Rio Maria Block consist of basaltic and komatiitic flows at the base, with interlayered iron formation and chert, which grades upward into metarhyodacite interlayered with metapelite and metapsammite. These sequences form narrow and deformed belts, distributed on the gneissic basement of the Xingu Complex and between the Archean and Paleoproterozoic granitoids that predominate in the region.

Mesoarchean granitoid intrusions (2,870-2,950 Ma) correspond to the Arco Verde, Parazônia and Caracol tonalites, to the Mogno and Água Fria trondhjemites, to the Guarantã, Xinguara and Mata Surrão granites and to the Rio Maria granodiorite (Macambira et al., 1990).

Several metaluminous and alkali granites of the Neoarchean (2,700 Ma) occur in the Serra de Carajás, as the Estrela Granite Complex, the Planalto Granite and the Serra do Rabo Granite. In the Rio Maria Block the alkali granites are represented by the Plaquê Suite (Macambira et al., 1990). These intrusions demarcate an important phase of regional deformation, concurrent with the outpouring of basaltic andesite lavas on the Serra de Carajás (Pinheiro and Holdsworth, 1997).

The Archean crust in the collisional domain was invaded, at about 1,880 Ma by rapakivi-type intrusions such as the Carajás, Cigano, Solobo and Pojuca granites in the Itacaiúnas Belt and by the Jamon and Musa granites in the Rio Maria Block (Dall'Agnol et al., 2005).

The differences between the two Archean domains are reflected in their metallogenic potential. The Itacaiunas Belt hosts the most important mineral deposits currently known the Amazon Craton (Fe, Cu-Au, Mn, Ni, Al). In the Rio Maria Block some Au and W deposits are known, in addition to small copper deposits.

9.1 GEOLOGY OF THE NORTHEASTERN SECTOR OF THE CARAJÁS DISTRICT

A map compiled for the northeastern region of the Carajás Mineral District is shown in Figure 5.

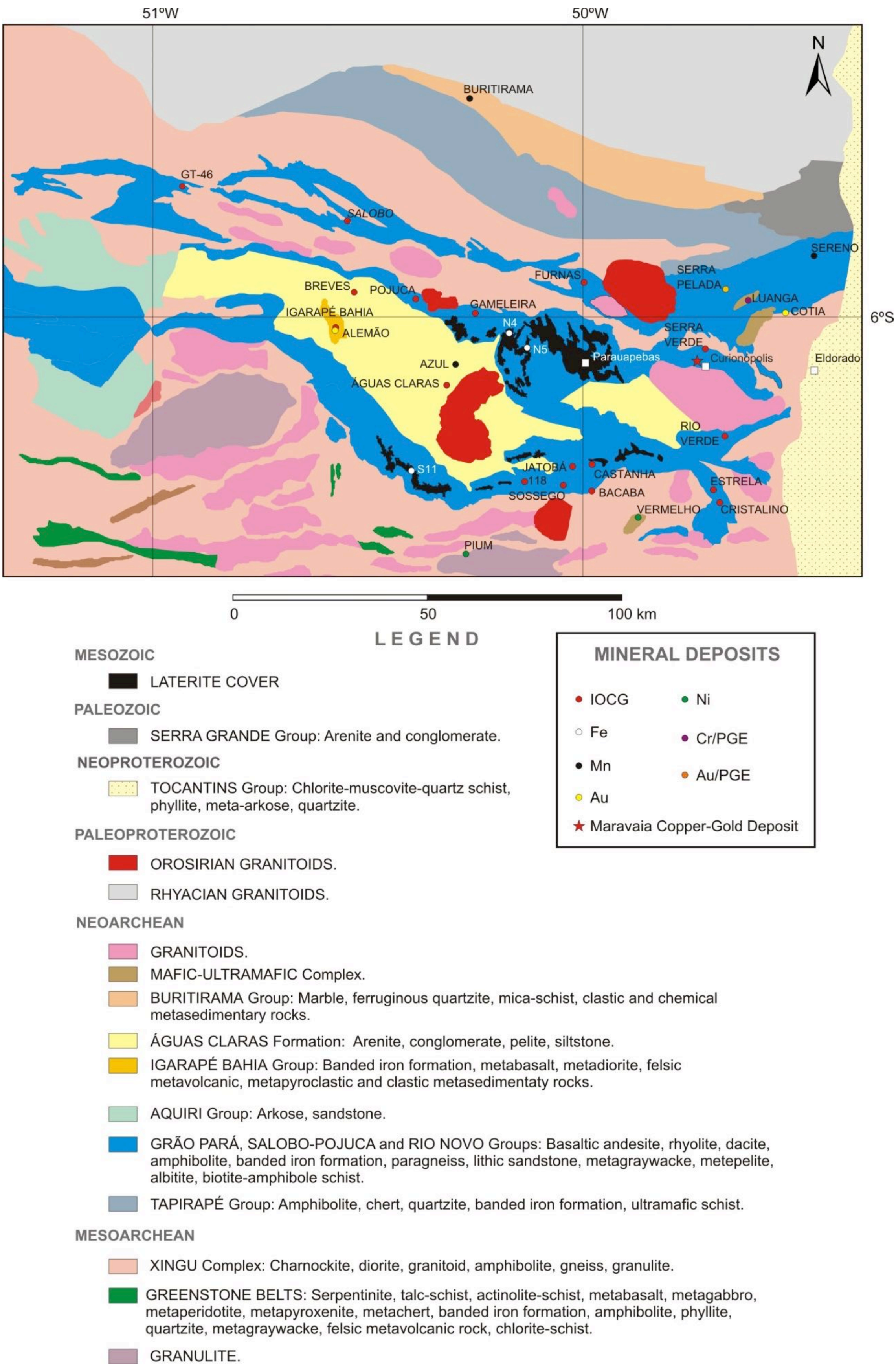


Figure 5 - Geological map of the northeastern sector of the Carajás Mineral District, showing location of the major mineral deposits. Source: GIS Brasil (CPRM, 2004).

9.1.1 Archean Basement

The basement of the Carajás District consists of tonalitic and trondhjemitic gneisses of the Xingu Complex, generated in the interval of 2,861 to 2,732 Ma (Machado et al., 1991), along with the mafic to felsic orthogranulites (enderbites and charnockites) of the Pium Complex (Pidgeon et al., 2000).

9.1.2 Archean Supracrustal Sequences

The basement is covered unconformably by the following volcanosedimentary sequences:

Itacaiunas Supergroup, sub-divided into the following units:

Solobo-Pojuca Group, which is a strongly deformed sequence, consisting of amphibolite, quartzite and banded iron formation, with U-Pb zircon ages in the interval of 2,761-2,732 Ma (Machado et al., 1991).

Grão Pará Group, which has been divided into three sub-units, from bottom to top: (1) *Parauapebas Formation*, composed of floods of intermediate composition, with a vesicular porphyritic texture interlayered with agglomeratic breccias, felsic volcanic rocks, arenite and conglomerate. The floods have andesite-basaltic composition and are weakly metamorphosed in the low greenschist facies (Teixeira and Eggler, 1994). The felsic rocks are brecciated rhyolitic floods that crystallized about 2,759 ± 2 Ma (Machado et al, 1991); (2) *Carajás Formation*, which consists of a thick sequence of chemical metasediments. The basal section is formed by dolomitic deposits (Teixeira and Eggler, 1994), which grades, laterally and vertically into a 200-300 meters thick jaspilitic iron formation (Lindenmayer et at., 2001). The iron formation is the protore for some of the largest hematite deposits in the world, comparable to the giant deposits of the Iron Quadrangle, Brazil, Hamersley District, Australia and the District of Krivoy Rog, Ukraine (Dalstra and Guedes, 2004). The minimum age of deposition of the Carajás Formation was 2,740±8 Ma, based on U-Pb age on zircon extracted from a quartz-diorite sill (Trendall et al., 1998). The basaltic andesites-the Grão Pará Group are deeply spilitized and composed of chlorite, actinolite, albite, quartz and calcite. This spilitized sequence has been submitted to metamorphism varying from greenschist to amphibolite facies, and later to hydrothermal alteration, with formation of mineral assemblages made of K-rich hastingsite, pargasite or actinolite, albite and scapolite.

Igarapé Bahia Group, which consists of mafic metavolcanic, metasedimentary and metapyroclastic rocks, including banded iron formations. Results of lead isotope analyses indicated ages of 2,745 ± 1 Ma for metavolcanic and 2747 ± 1 Ma for metapyroclastic rocks (Galarza et al, 2001; Tallarico et al, 2004).

Águas Claras Formation, which consists of pelites and marine sandstones deposited on continental shelf in the lower section, superimposed by coastal and fluvial sandstones (Nogueira and Truckenbrodt, 1994). A minimum age of 2,645 ± 12 Ma was assigned to this formation, based on isotopic analysis of zircon collected from a gabbroic intrusion (Dias et al, 1996; Trendall et al, 1998).

The rocks of the Itacaiunas Supergroup and of the Águas Claras Formation were intersected by large EW transcurrent faults between 2,580 and 2,520 Ma (Pinheiro and Holdsworth, 1997), which are representatives of the reactivation of old basement faults. Such faults are more or less contemporary with the intrusion of the Solobo and Itacaiunas granites, which crystallized respectively, at 2,573 ± 2 Ma (U-Pb zircon, Machado et al., 1991) and 2,560 ± 37 Ma (Pb-Pb zircon evaporation, Souza et al., 1996).

Intrusive, pyroxene-bearing mafic intrusive rocks, are rarely found, occurring mainly in sills that intruded banded iron formations (Teixeira and Eggler, 1994; Lindenmayer et al., 2002).

9.1.3 Archean Layered Igneous Complexes

The occurrence of mafic-ultramafic plutonic volcanism contemporary of the Neoarchean supracrustal sequences is demonstrated by the existence of the mafic-ultramafic Luanga Complex, with crystallization age around 2,763 ± 6 Ma obtained by U-Pb analysis of zircon extracted from a differentiated gabbroic intrusion (Machado et al. 1991).

9.1.4 Archean Syn-to Tardi-collisional Granites

Several granitic intrusions occurred in association with the Archean tectonic processes. Syn-collisional intrusions are composed mainly of calc alkaline monzogranites, which are elongated parallel to the regional EW foliation, like the Estrela Granite, dated at 2,763 ± 7 Ma (U-Pb zircon, Barros et al., 2001) and the Plaquê Granite, dated at 2,736 ± 24 Ma (U-Pb zircon, Avelar et al., 1999). Tardi-collisional granitoid intrusions are composed of pyroxene-hornblende monzogranite, peralkaline and metaluminous granite, like the Solobo Granite, dated at 2,573 ± 2 Ma (U-Pb zircon, Machado et al., 1991) and the Itacaiunas Granite, dated at 2,560 ± 37 Ma (Pb-Pb zircon, Souza et al., 1996).

9.1.5 Paleoproterozoic Granites

Three 1.88–1.86-Ga granite suites are present in the Carajás Mineral District, named Jamon, Velho Guilherme, and Serra dos Carajás. These are composed of batholiths and stocks intruded into different domains of the Archean rocks. These are rapakivi granites, because they are tipical A-type intrusion that have commonly, or in places, K-feldspar megacrysts rimmed by plagioclase (Dall'Agnol et al., 2005).

9.2 METALLOGENESIS IN THE CARAJÁS DISTRICT

The Carajás Mineral District is one of the best-endowed metallogenic regions of the world, containing significant reserves of iron, copper, gold, manganese, nickel, chromium, PGE and bauxite. The Itacaiunas Belt contains the largest variety of mineral deposits of the District, being globally recognized for its giant iron deposits. Lately, however, the Itacaiunas Belt has been recognized as a premier Cu–Au district, hosting a number of large (>200 Mt) IOCG deposits and a number of smaller (<50 Mt) Cu–Au (W–Sn–Bi) deposits that occur along the belt (e.g., Águas Claras, Breves, Estrela, Gameleira). The Serra Pelada deposit, a rare example of a world class epigenetic, sediment-hosted Au–Pd–Pt deposit, also lies within the Itacaiunas Belt. Additionally, Au–(Cu) mineralization associated with quartz breccias within small granite stocks has recently become known within the Itacaiunas Belt (Grainger et al., 2008).

Most of the IOCG deposits are related to granitoids that were placed in three episodes: the first, in the Neoarchean (2,700 Ma) the second between the Neoarchean and the Paleoproterozoic (± 2,500 Ma) and the third in the Paleoproterozoic (1,880 Ma). These also seem to be the isotopic ages for the ores, indicating a recurrence of mineralizing events (Teixeira et al., 2010).

In contrast, the Rio Maria granite–greenstone terrain is characterized by orogenic gold-only mineralization. The major gold deposits (<17 t Au) of this block include Sapucaia, Cumaru, Babaçu, Lagoa Seca, Tucumã and Inajá. These are characteristically base metal-poor gold deposits,which generally occur in structurally-controlled quartz veins within the greenstone belt sequence.

9.3 IOCG DEPOSITS OF THE CARAJÁS DISTRICT

The Carajás Mineral District hosts at least four world class IOCG deposits, named Solobo, Sossego, Cristalino and Igarapé Bahia, besides other smaller deposits, for example, the Gameleira, Estrela, Breves, Alvo GT-46, Águas Claras and Alvo 118. The overall resources of IOCG deposits in the district are estimated at 2,500 Mt @ 1% Cu and 0.5 gAu/t (Teixeira et al., 2010).

Many of the deposits of the Carajás IOCG are located in reactivated branches of regional faults, as for exemple in Solobo, Gameleira, Sossego, Cristalino and Alvo GT-46. Except for the Igarapé Bahia, the IOCG deposits are closely related with granite and most of them are hosted in reactive mafic rocks. The styles of mineralization are characterized mainly by veins, breccias, brecciated veins and disseminations (Teixeira et al., 2010).

The majority of the IOCG deposits of Carajás share the same succession of phases of hydrothermal alteration. However, the intensity and the areal extent of each stage are quite variable. Early and pervasive calcic-sodic alteration, often superimposed on metamorphism, is observed over the 100 km of the Carajás belt from Solobo-Pojuca to the NW sector, to the Estrela and Cristalino deposits, in the extreme SE sector. This alteration preceded the IOCG mineralization and its widespread occurrence suggests it is not directly related with the concentration of ore. Its main products are calcic amphiboles rich in K, hastingsite, Fe-pargasite, Fe-hornblende and actinolite associated with albite, quartz, Ti-magnetite and scapolite. This phase is very well represented in the gabbro-diorite of Gameleira and in the basaltic andesites of Solobo as like as in the Cristalino and Sossego deposits. Remnants of this alteration are also observed in the Estrela and Igarapé Bahia deposits.

Potassic alteration along with iron enrichment and sulfidation are common characteristics of IOCG ores in Carajás. The mineralogy of alteration consists of F-rich biotite, K-feldspar, magnetite, fayalite, grunerite, almandine, quartz, tourmaline, albite, allanite, uraninite, fluorite, pyrite, chalcopyrite, gold, bornite, chalcocite, pyrrhotite, Co-pentlandite and molybdenite.

The final stage of alteration is characterized by potassium leaching and formation of chlorite along fracture sealing and veins, together with carbonates (calcite to siderite) and epidote. This is the most important alteration type in the Igarapé Bahia deposit and is also present in a few spots of other deposits.

Some deposits show a quite different style of late hydrothermal alteration, represented by an incipient greisenization phase, identified by the destruction of plagioclase and generation of "bleached zones" in Estrela (Lindenmayer et al., 2004), and " dark zones" in Breves (Botelho et al., 2004), comprised of quartz, topaz, white mica and siderophyllite, besides chlorite, fluorite, wolframite, beryl, bertrandite and cassiterite.

10 LOCAL GEOLOGY

The local geology is represented by gneisses of the Xingu Complex, metavolcanic rocks of the Parauapebas Formation (Grão Pará Group) and Rio Novo Group, which host the iron mineralization of Serra Leste; intrusive granites and associated diorite. Other local lithologies are anorthosite, basic-ultrabasic complexes, amphibole-sericite schist, albite-amphibole schist, iron formations, gabbroic dikes, quartz-hematite-chlorite veins, and a variety of breccias, composed mainly of magnetite, quartz-hematite-magnetite, hematite-sericite and quartz-potassium feldspar. Remains of a former lateritic iron crust that has been dismantled are found all throughout (Figure 6).

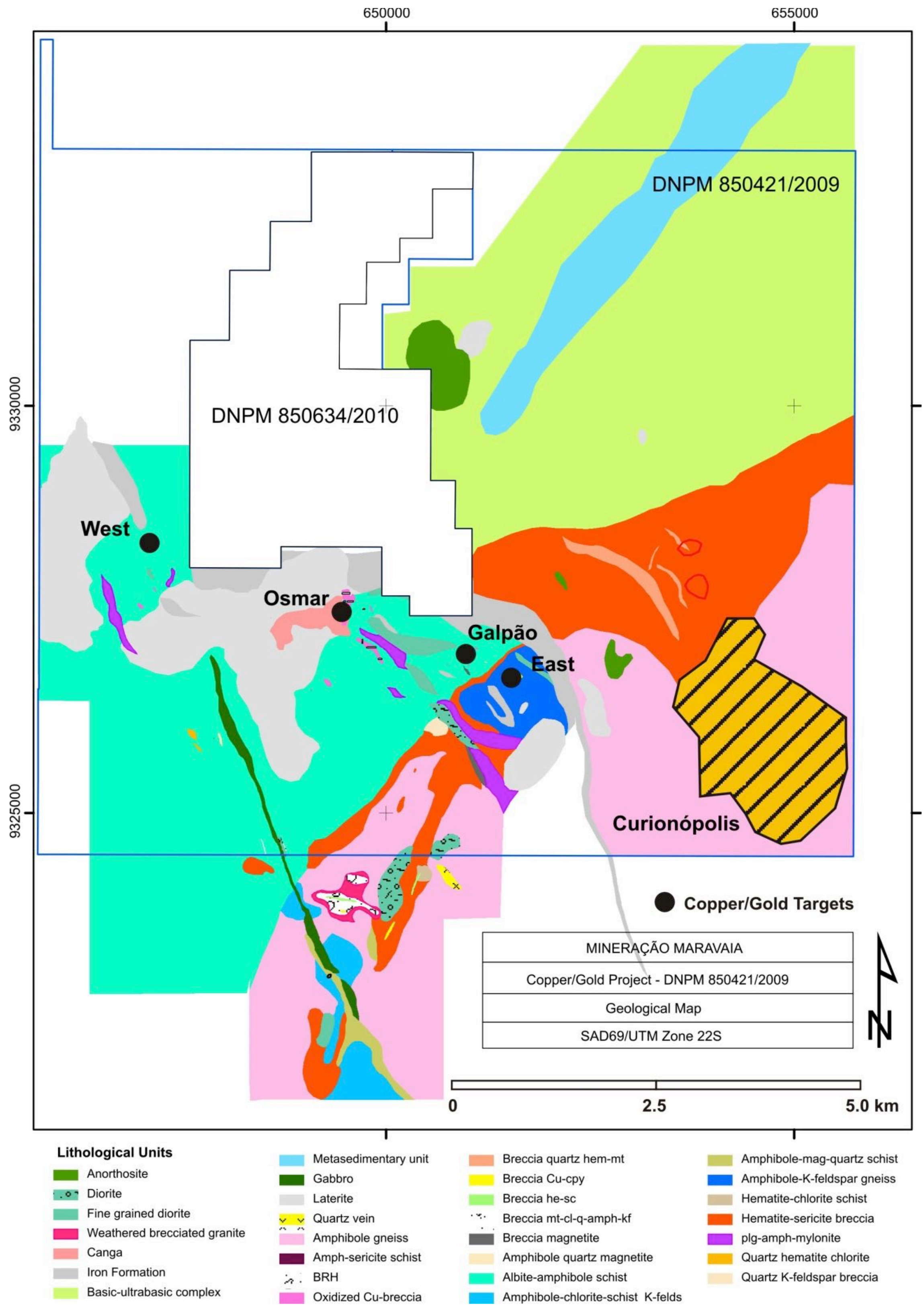


Figure 6 – Geological map of the Maravaia mineral concession (DNPM 850421/2009).

10.1 WEST TARGET

The geology of this target is dominated by metamafic rocks showing strong hydrothermal alteration, usually without remnants of the original rock. When identified, these primary rocks were described as gabbro, diorite and mafic metavolcanic rocks. The main structure is marked by a N20ºW-oriented foliation and emphasized by aligned hills with zones of silica-albite associated with quartz-magnetite. In metamafic rocks the hydrothermal alteration may be pervasive, with amphibole + scapolite or dominated by veins of coarse amphibole-scapolite-albite-quartz with sulfides py-cpy and rarely bornite, which occur disseminated or in the form of aggregates.

10.2 OSMAR TARGET

In the recent past, the Osmar Target was subject to a surface exploration for gold that consisted of several excavations, which expose many of the geological features of the terrain (Photo 1).

Photo 1 - The picture shows evidence of former exploration for gold at the Osmar Target. Perspective view looking at NW. Note the hills in the background, which host the iron deposits of Vertical Mineração Ltda.

The Osmar Target is characterized by the presence of metamafic rocks, metadiorite, iron formation with strong hydrothermal alteration, amphibole-rich breccia zones and quartz breccias, altered amphibole-gneiss, intrusive magnetic gabbro-diorite, intrusive rocks of anorthositic composition, consolidated lateritic cover, lateritic covers, ferruginous colluvium (residual and transported), alluvial cover and old mining dump.

Two main associations of hydrothermal alteration were identified: a distal, pervasive alteration, characterized by the presence of scapolite and amphibole (in part chloritized), affected by deformation and shear (NNW and NW); the second association, superimposed on the first, is marked by breccia zones (NNW-SSE trending) with amphibole-albite-magnetite and that includes the copper occurrences on surface. Brecciation increases eastwards, with more frequent presence of veins of hydrothermal magnetite. It is noteworthy the correlation of these magnetite veins with second order magnetic anomalies. The two associations are limited to the east by a N20ºE oriented structure. The north-northeast limit is marked by thick iron formation unit, with enrichment in iron (iron deposit of Mineração Vertical Ltda.).

Diamond drillholes intercepted mineralized hydrothermal breccias containing amphibole-magnetite-carbonate-chalcopyrite-pyrite and quartz-chlorite-clay-amphibole-chalcopyrite-pyrite, with higher content of sulfides. The frequent presence of kaolinite in the drill cores was reported, associated with the mineralized intercepts. A thick profile of supergene enrichment developed in the area, with the presence of malachite, cuprite, native copper, chalcocite and jasperoid (Photo 2).

Photo 2 – Copper-rich siliceous block from near the top of the weathering profile at the Osmar Target.

10.3 GALPÃO AND EAST TARGETS

Highlighted features in the Galpão and East targets are NNE-NNW-EW oriented topographic lineaments defined by the presence of strongly silicified breccias containing quartz-hematite-potassium feldspar-sericite-chlorite and discordant quartz veins, oriented in the N60ºE, N60ºW and N25ºE directions. The country rock is an altered amphibole-gneiss containing magnetite and amphibole and intersected by veins of potassium feldspar.

Brecciated zones, oriented in the N25ºW direction, with hydrothermal association quartz-scapolite-magnetite-potassium feldspar-chlorite-amphibole-chalcopyrite, are overlaid by soil anomalies (>500 ppm Cu). Multiple associations of hydrothermal alteration suggest polyphase mineralization system. Intersections of the structures are areas favorable for Cu-Au occurrences.

11 MINERALIZATION

The copper-gold Maravaia mineralization is hosted in veins associated with hydrothermal breccias, contained in NS to NE/SW orientated tension gashes. These structures are associated with a NW/SE shear zone that cuts amphibolite, diorite and gabbro and, located between the regional Cinzento and Carajás shear belts.

The surface ore (up to ± 70 m deep) is composed of malachite, azurite, chrysocolla, cuprite and native copper, plus hydroxides of copper and iron (Photo 3).

Photo 3 - Oxidized copper mineralization in drill cores, mainly composed of malachite. Cores from DDH FD-03 (0 to 30 m deep). Scale in centimeters.

At depths greater than 70 m, chalcocite, chalcopyrite and native copper predominate, with subordinate bornite, pyrite and magnetite (Photo 4).

Photo 4 - High-grade copper mineralization in drill cores from DDH FD-03 (110 to 130 m deep), which includes chalcocite, chalcopyrite and native copper. Scale in centimeters.

Zones extremely rich in copper occur locally, as evidenced in DDH MOFD03, with massive horizons of native copper associated with chalcocite and cuprite at depths greater than 120 m (Photo 5).

Photo 5 - Detail of high-grade copper mineralization, showing a massive and thick horizon of native copper associated with chalcocite and cuprite in DDH FD-03 (125 m deep).

12 DEPOSIT TYPE

The Maravaia deposit is characterized by the presence of brecciated veins of copper sulfides and copper oxide, containing gold mineralization. There is evidence of successive phases of hydrothermal alteration. However, the intensity and extent of area each stage is very variable. The effect of hydrothermal alteration is recognized by the presence of scapolite, albite, quartz, amphibole (actinolite predominantly), chlorite, biotite, K-feldspar, epidote, sericite and secondary magnetite.These features allow one to include this deposit in the class of deposits of Fe-Cu-Au (IOCG deposits), which are very common in the Carajás Mining District.

13 EXPLORATION

This section describes the exploration activities that were performed in order to prepare a calculation of the mineral resources for the Osmar and Galpão copper/gold deposits. The work comprised geological mapping, surveying, planning and completion of two diamond drilling programs.

13.1 SURVEYING

The topographical survey was based on satellite images and surface data raised with GPS and interaction with SRTM, with data collected in UTM Datum SAD69. At this stage, the main objective was to obtain a preliminary planialtimetric base map for conducting geological mapping, ground geophysical survey and soil geochemistry.

With the definition of sites for detailed soil sampling, a topographic survey was conducted aimed at the delineation of the baseline, from which soil sampling lines were derived. To support the field work a grid was made with 150 km of lines, using measuring tape and compass, tying the points with UTM coordinates established using GPS model GARMIN GPSMap 76CSx.

In the post-processing stage, topographic maps have been prepared with contour lines at the appropriate scale and density by type of service and whose process validation, methods and equipment was performed with treatment with specific software.

13.2 GEOLOGICAL MAPPING

The detailed geological mapping on the 1:5,000 scale, was performed with the purpose of delimitating the contacts of the local lithologic units. For preparation of the geological map, a total of 50 points on the terrain have been described, including host rock outcrops, exposed mineralization lateritic topped hills and deposits of colluvial soils.

13.3 OPENING OF ROADS AND DRILLING SITES

A bulldozer was utilized to open access roads, drill sites and for dislocation of the drill rigs (Photo 6).

Photo 6 - Bulldozer preparing a drill site at the Osmar Target.

14 DRILLING

Two diamond drilling programs have been used for the assessment of resources in the Osmar Target, the first between 07/12/2011 and 08/17/2011, performed under contract with Rede Sondagens Ltda., and the second between 12/17/2013 and 04/17/2014, under contract with Layne do Brasil Sondagens Ltda

The grid was comprised of north-south lines, intersected by orthogonal east-west lines, with a distance of 50 meters in both directions between the drilling sites.The program was completed with 16 drillholes, totaling 2,565.70 meters of drilling. Drillholes were located on East-West orientated sections at 25 and 50 m seperation along the north south strike of the mineralized structure (Table 1 and Figure 7).

Table 1 – List of diamond-drill holes of the Osmar Target.

DDH	Depth (m)	Start	End	Number of Samples
MO-FD03	224.60	11/26/13	12/17/13	238
MO-FD11	273.35	01/08/14	01/18/14	289
MO-FD09	124.55	01/20/14	01/25/14	133
MO-FD10	201.25	01/27/14	02/04/14	215
MO-FD16	120.30	02/04/14	02/06/14	128
MO-FD06	120.00	02/06/14	02/07/14	128
MO-FD17	52.70	02/10/14	02/10/14	57
MO-FD14	157.40	02/11/14	02/18/14	173
MO-FD18	177.70	02/18/14	02/21/14	189
MO-FD19	111.50	02/24/14	02/26/14	119
MO-FD20	166.70	02/27/14	03/06/14	178
MO-FD15	272.75	03/07/14	03/22/14	123
MO-FD05	57.60	03/24/14	03/26/14	41
MO-FD13	117.50	03/26/14	03/28/14	126
CRCD-06	143.80	04/07/11	07/12/11	80
CRCD-09	244.00	08/08/11	08/17/11	138

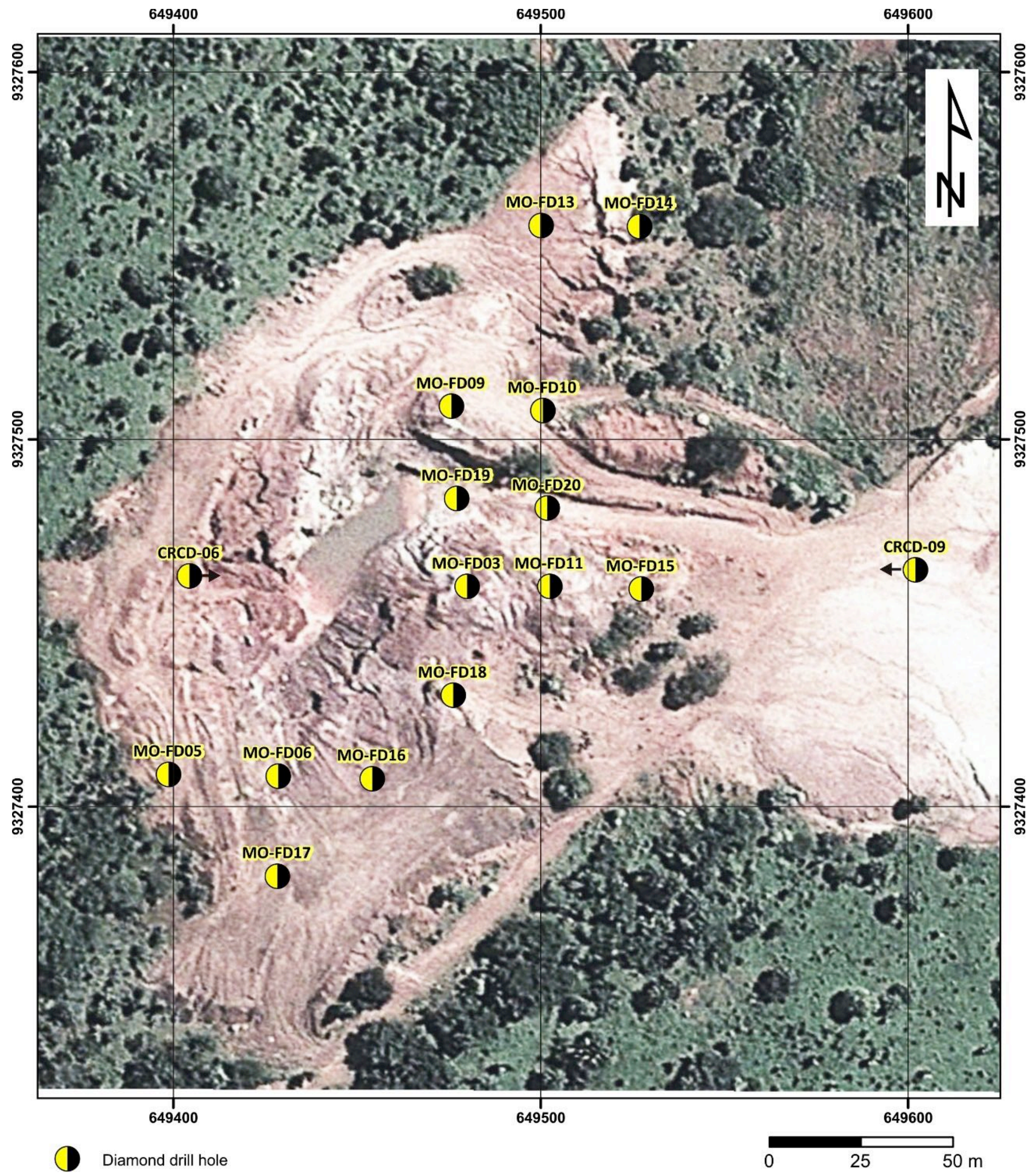


Figure 7 - Location of diamond-drill holes in the Osmar Target. Datum SIRGAS 2000, UTM Zone 22S.

The second phase of the drilling program has been performed with recovery of drill cores by wireline system (Photo 7).

Photo 7 – Drill rig operating on the site of drillhole MO-FD10.

Drill positioning in the field was based on the establishment of two coordinate stations of the topographic grid polygon, as close as possible to the coordinate programmed for this hole, from stakes firmly placed on the ground.

The drilling operations were monitored by a representative of MML, who was also responsible for checking the core recovery after each drill run, placement of the drill core in the core boxes in standard fashion in the core boxes, and for the placement of indicator blocks with the drilling interval and core recovery data for each drill run.

Hole collars were closed with a PVC pipe, cemented into a landmark, provided with a metallic plate containing the name of the performing and contracting companies, drillhole code, topographic data (UTM coordinates), inclination, hole elevation, depth and conclusion date (Photo 8).

Photo 8 - Side view of the landmark of drillhole CRCD-09.

The drill cores were taken from the drill site to a core shack in the town of Curinópolis. Upon arrival of the core boxes, the following protocol was used:

(i) The boxes were organized on the description bench, and later checked against the drilling reports.

(ii) The markings of intervals on core sample boxes, meter by meter, were checked. Information regarding depth, advance and recovery were recorded on aluminum plates fixed to wood blocks placed between the drill runs.

(iii) Metal plates containing information regarding the hole, such as the drilling company exploration project name, hole number, box number and drilling interval were fixed to the core sample boxes

The core boxes were photographed with two boxes at a time, as shown in Photo 9.

Photo 9 – Example of photographic recording of diamond drill cores of the Osmar Target.

14.1 DRILL CORE CUTTING

Core samples were cut in halves with a diamond saw (Photo 10). One half was bagged for conventional chemical analysis and gold fire assay.The other half was left in the core box and the box stored in the core sample storage area in Curionópolis.

Photo 10 – Drill core cutting equipment.

14.2 DRILL CORE DESCRIPTION

The drill core description followed a standard procedure with each hole log displaying the hole number/code and dip direction, hole coordinates and elevation, drilling execution date and the identification of the person responsible for description. The geological description contains the down-hole depths of the different rock types.

The criteria for geological description considered ore types and basic geology of the area, following the guidelines below.

- Fill in the following fields in the drilling profile form (log): geologist, description date, hole, coordinates, executor, page, direction, inclination and final depth.
- Define and appoint contacts of the ore zones.
- Define and appoint lithological contacts.
- Describe the intervals appointed, using the codes corresponding to each type of material found in the area.
- Describe: color, grain size, mineral composition, texture aspects, structures, contacts and facies variations.
- Define and appoint potentially mineralized intervals.
- Identify the intervals to be sampled.
- Arrange data importation from the log to the data bank;

- File the log in the drillhole folder.
- After description, basic data were listed in vertical sections, still in conventional fashion (strip logs), to provide data for geological interpretation.

All drill core logging information is recorded in the computer data bank, suitable for the applications selected for the final modeling of the deposit.

14.3 ORE DENSITY

Tests were performed on 40 drill core samples.The density test performed aimed at determining the specific weight of the various ore types, for use in deposit evaluation calculations. The approach of such tests is described below.

Equipment used: digital scale, oven, graduated cylinder, tray, paraffin, brush, adhesive tape and computer.

Steps involved:

- Cleaning of tray and decontamination.
- Weighing of sample with natural moisture.
- Drying the sample for 8 hours in oven heated at 150ºC.
- Weighing the dried sample.
- Heating of paraffin (1-2 kg) into a suitable container.
- Coating of sample with paraffin and weighing.
- Calculating the volume of paraffin which enveloped the sample.
- Measuring the volume of water displaced by the sample when placed in the graduated cylinder.
- Transfer the data values to a digital spreadsheet (wet weight, dry weight, weight submerged, i.e. volume of water displaced).
- Calculation of density.

Mathematical parameters adopted:

- Calculation of moisture:
  The moisture content is calculated by the formula
  $M = ((WW – DW)/WW) \times 100$.
  Where
  WW = Wet weight.
  DW = Dry weight.
  M = moisture.

- Calculation of the volume of paraffin:

  The volume of paraffin is calculated by the formula:

  VPAR = WPAR/DPAR.

  Where:

  WPAR = Weight of paraffin in sample.

  DPAR = Density of paraffin.

Calculation of wet density:

The wet density is calculated by the formula:

WD =WW/(VDIS-VPAR)

Where:

WW = Wet weight.

VDIS = Displaced volume.

VPAR = Volume of paraffin.

WD = Wet density.

Calculation of dry density:

The dry density is calculated by the formula:

DD = PS/VDS

Where

PS = Dry weight.

VDIS = Displaced volume.

DD = Dry density.

Density measurement statistics grouped by corresponding ore depth are given in Table 2. Naturally, the densest ores are those found below the depth of 120 m, which contain main concentrations of chalcocite, chalcopyrite together with some lenses of native copper. The weighted arithmetic mean (WAM) of the densities measured, equal to 2.74 g/cm^3 was used in the calculation of the copper and gold resources of the Osmar Target.

Table 2 – Density determination of the Cu-Au ore and wall rocks from the Osmar Target.

DDH	From (m)	To (m)	Cu (%)	Dry density (g/cm^3)	Wet density (g/cm^3)	WAM of dry density (g/cm^3)
MO-FD20	29.78	29.88	2.98	2.53	2.53	2.773
MO-FD20	33.34	33.55	2.50	2.29	2.44	
MO-FD20	43.6	43.70	13.50	2.66	2.66	
MO-FD20	44.4	44.56	16.00	3.15	3.15	
MO-FD15	44.8	44.96	5.80	1.90	2.26	
MO-FD15	45.65	45.75	6.30	2.55	2.69	
MO-FD13	52.53	52.67	3.20	2.78	2.83	
MO-FD13	57.18	57.31	7.30	2.69	2.72	
MO-FD03	61.10	61.24	4.10	2.61	2.63	
MO-FD03	61.14	61.30	75.00	4.70	4.69	
MO-FD03	68.10	68.30	9.60	2.64	2.65	
MO-FD03	78.78	78.97	1.49	2.38	2.43	2.632
MO-FD03	80.49	80.54	0.27	2.24	2.30	
MO-FD03	81.31	81.45	-	2.83	2.84	
MO-FD03	81.56	81.70	-	2.81	2.81	
MO-FD09	87.13	87.29	11.95	1.99	2.05	
MO-FD09	91,00	91.10	22.95	3.15	3.21	
MO-FD10	92.05	92.20	22.5	2.94	2.95	
MO-FD10	96.70	96.85	0.51	2.70	2.72	
MO-FD10	100.4	100.53	1.18	2.61	2.63	
MO-FD10	100.52	100.66	26.41	2.69	2.70	
MO-FD11	100.59	100.73	1.14	2.71	2.71	
MO-FD11	109.73	109.85	7.30	2.31	2.34	
MO-FD11	118.10	118.25	-	2.85	2.86	
MO-FD11	124.46	124.50	-	2.98	2.97	2.798
MO-FD11	130.37	130.51	-	2.71	2.72	
MO-FD11	134.27	134.39	-	2.66	2.68	
MO-FD11	135,00	135.12	-	2.94	2.94	
MO-FD14	138.26	138.38	19.70	3.46	3.46	
MO-FD14	140.59	140.76	9.80	2.71	2.73	
MO-FD14	141.30	141.47	7.70	2.87	2.88	
MO-FD16	154.24	154.39	4.90	2.71	2.72	
MO-FD18	157.20	157.38	0.72	2.84	2.84	
MO-FD18	162.50	162.60	17.5	2.70	2.71	
MO-FD19	170.75	170.90	31.8	3.63	3.61	
MO-FD19	191.04	191.21	13.5	2.78	2.81	
MO-FD19	194.95	195.09	3.20	2.12	2.17	
MO-FD19	195.38	195.53	4.40	2.66	2.65	
MO-FD19	196.68	196.78	-	2.63	2.66	
MO-FD06	225.27	225.37	4.5	2.36	2.39	

Five photographs for illustration of the procedure are found in Photos 11 to 15.

Photo 11 – Selected samples for density investigation.

Photo 12 – Weighing of dry sample.

Photo 13 – Drying oven.

Photo 14 - Samples coated with paraffin.

Photo 15 - Measuring the volume of displaced water.

14.4 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Rock samples were collected by qualified Maravaia geologists and technicians with data, including UTM coordinates, lithology and mineralization recorded in field books. Core samples were placed in standard plastic rock sample bags, tagged and the locations recorded in a master database. The plastic bags were sealed using plastic pull ties. The samples were prepared and analysed at the Intertek lab in Parauapebas. The laboratory has ISO 9001 certification and is entirely independent from MML.

All samples (ores and rocks) were dried in furnaces at 105°C for 8 hours. Then, they were submitted to gold fire assay procedures, which involve crushing, grinding, mixing with fluxes and finally fusion at temperatures between 1000 and 1200°C followed by cupellation separation. The inspected metals remain in the base of the cupel as a 'prill' which is sent for final analysis for Cu, and Ag, by atomic absorption spectroscopy (AAS). The detection limits were 5 ppm for Cu, 5 ppb for Au and 0.5 ppm for Ag.

14.5 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

With the purpose of meeting the National Instrument 43-101 requirements, the best practice in mineral exploration to all stages of exploration has been applied. In order to do so, the staff of MML held a strict monitoring of all activities to ensure the attendance during all phases of gathering samples, handling and data analysis. The minimum rate of drill core recovery that has been accepted during the drilling program was 85%, as an assurance of obtaining a representative rock section.

As well, there was a continuous monitoring of the daily drilling bulletin completed by the drilling team.The phase of drill core description was developed with the arrangement of core boxes on stands, with one drillhole open each time, paying attention to unnecessary movements of drill cores and covers, avoiding possible contamination.

Likewise,,sampling was done by keeping only one box open where the drill core was being sampled.The material used for sample collection had been constantly cleaned with water to avoid possible traces of previous samples that could cause contamination.

Duplicate pulp analyses were conducted to measure the level of sample bias that may occur during sample preparation. Duplicate samples are also useful to estimate the laboratory precision. The analyses of 134 duplicate samples were performed using determinations of Cu and Au. The diagrams in Figures 8 and 9 show the correlation between the contents of each original sample and their duplicates. For each graph, the coefficient of determination (R^2) was determined.

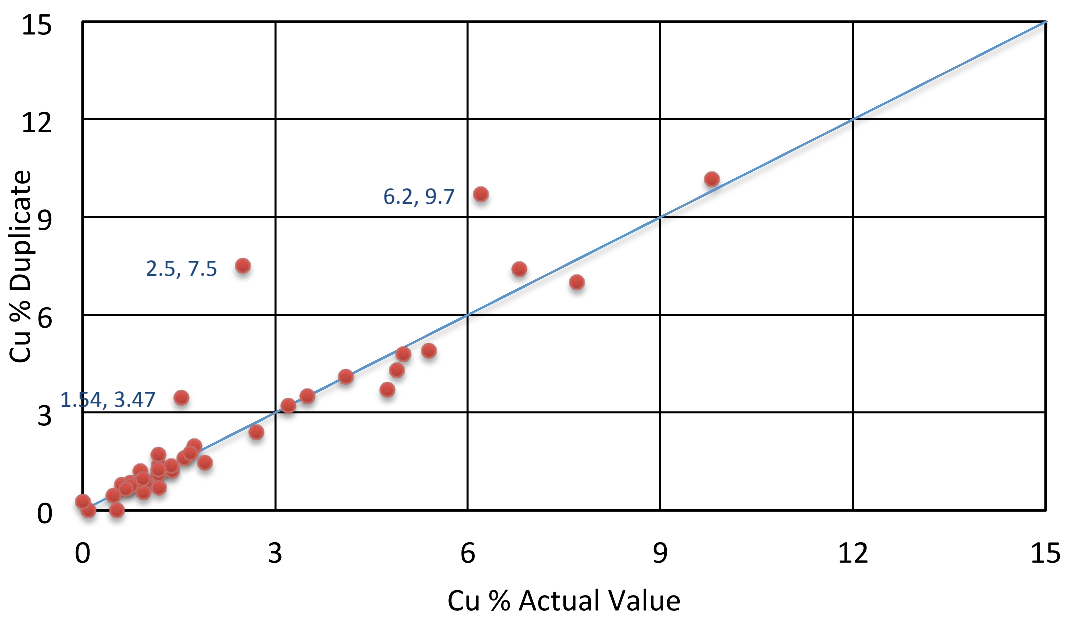


Figure 8 – Correlation for copper analyses of 134 samples of the Osmar Target. R^2 = 0.9681.

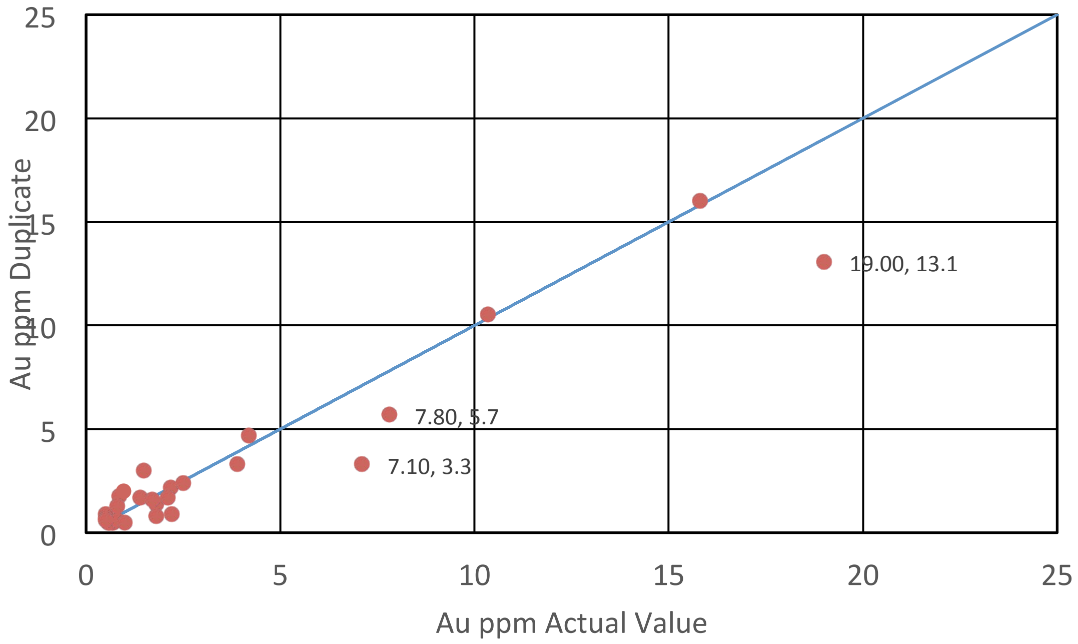


Figure 9 - Correlation for gold analyses of 134 samples of the Osmar Target. R^2 = 0.7800.

Quality control procedures were implemented at the Intertek Laboratory, involving the regular insertion of blanks and standards, and repeat analyses of samples. There is no evidence of any tampering with the samples during collection and shipping. All sample preparation was conducted by the laboratory.

14.6 DATA VERIFICATION

The geochemical data for the Maravaia exploration program can be checked by inspection of the original analytical certificates. Sampling procedures by MML were managed by experienced professionals and appear to have been handled in a fully acceptable manner.

Even though a standard QA/QC protocol has not been applied, the samples were processed and analysed at Intertek, a reliable laboratory, and in the Author's opinion there is no indication from the sampling and analytical determinations that any counterfeit results were produced from sampling and analytical procedures.

15 RESOURCE ESTIMATE AT THE OSMAR TARGET

15.1 INTRODUCTION

A single domain is considered in this model for the Osmar Target, since the occurrences of copper and gold concentrate in veins associated with a clearly defined and limited zone of hydrothermal alteration. The sequence of the main activities is related below, briefly, indicating the work methodology.

- Data acquisition.
- Statistical data analysis.
- Drawing of geological model.
- Block model definition.
- Analysis of obtained results.

The mineral resources for the Osmar Target represent an estimate only considering the average grades contained in the modeled orebody.

15.2 DATABASE

15.2.1 Data Acquisition

The database consisted of the following files:

- COLLARS.xls.
- SURVEY.xls.
- RESULTS.xls.
- LITHOLOGY.xls.
- Chemical analysis channel samples.xlsx.
- Density_Moisture_Osmar_&_Galpao_Full.xlsx.
- Drill core descriptions.

The data used in this evaluation were stored in the project database, which was worked using Surpac software.

15.2.2 Integrity of the Database

15.2.2.1 Surveying

The topographic base was provided by the contractor in Surpac String Files and Surpac DTM files formats. This detail topography covers an area of approximately 10 hectares, with minimum elevation of 266 meters and a maximum of 304 meters, the outline of this surface was carried out with the main lines spaced 5 meters and the secondary spaced by one meter. The topographic surface was generated via Surpac (Figure 10).

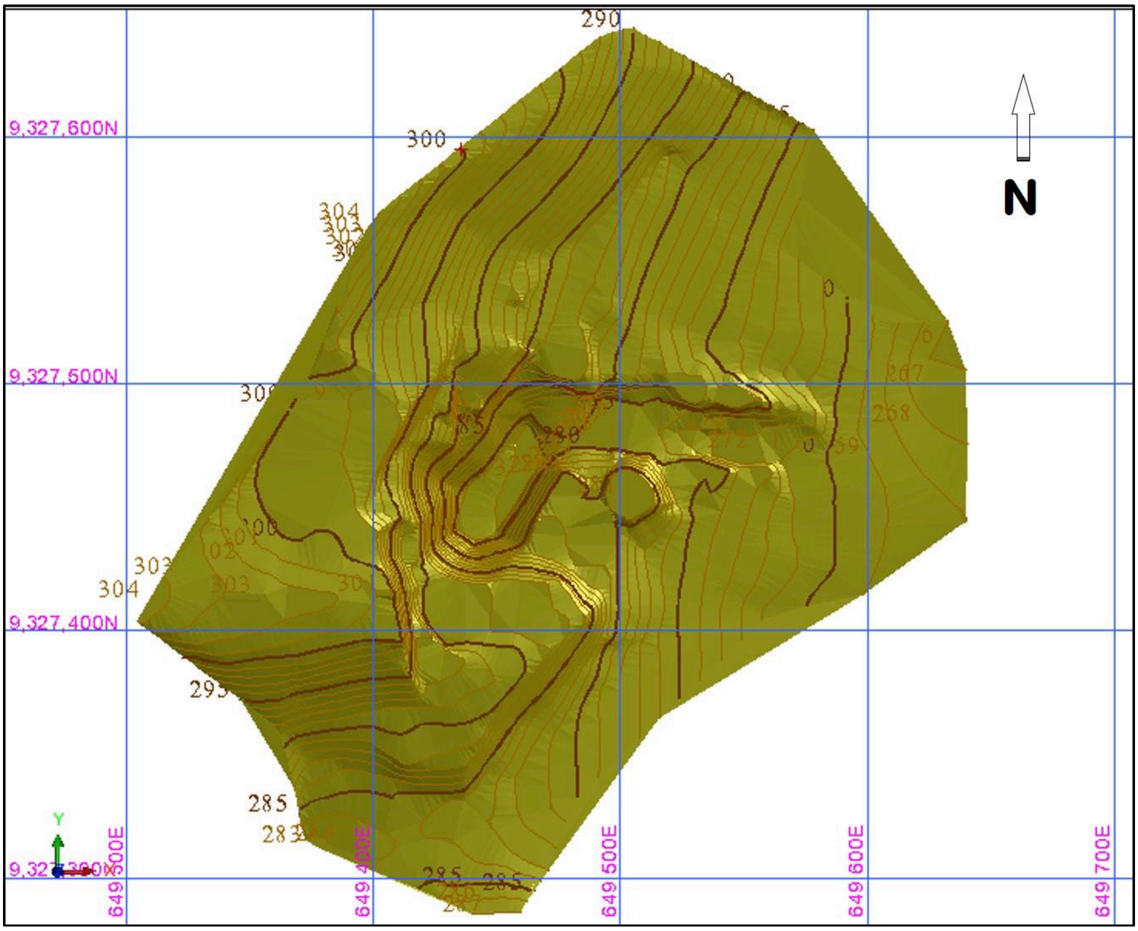


Figure 10 – Topographic map of the area of the Osmar Target.

15.2.2.2 Density

Forty runs of density studies have been performed for this project, which amounts to near 2% of the chemically analyzed samples. Therefore, the weighted arithmetic mean equal to 2.74 t/m^3, was used for the estimation of copper and gold resources. Figure 11 shows the drill core intervals at which the density tests were performed.

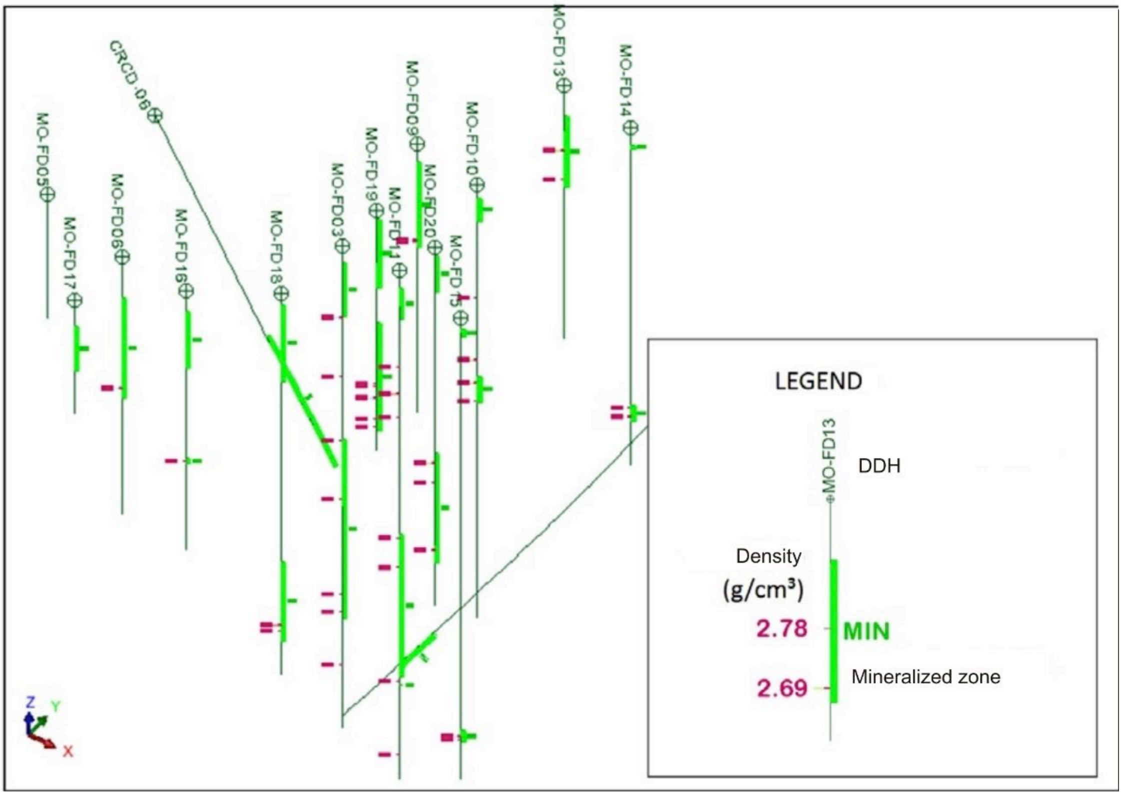


Figure 11 - Intervals in drill cores where density tests were performed.

15.2.2.3 Drilling

Two drilling programs were carried out. In the first program conducted by Codelco, 8,200 meters were drilled. The second drilling campaign was conducted by MML. This campaign totaled 2,177.90 meters. Only two of the Codelco drill holes are located in the area of the Osmar Target (CRCD-06 to CRCD-09), and total 387.80 meters. MML drilled 14 holes at the Osmar Target (Holes MO-FD).

The drillholes were distributed in a grid with lines spaced at approximately 25 meters, as shown in Figure 12. The two holes conducted by Codelco (the first program) were inclined, both with dips of 60° and oriented in opposite directions, with azimuth of approximately 90° (CRCD-06) and 270° (CRCD-09). Of the fourteen remaining vertical holes drilled by MML, twelve have depth greater than 100 meters. Drillhole deviation measurements were not carried out.

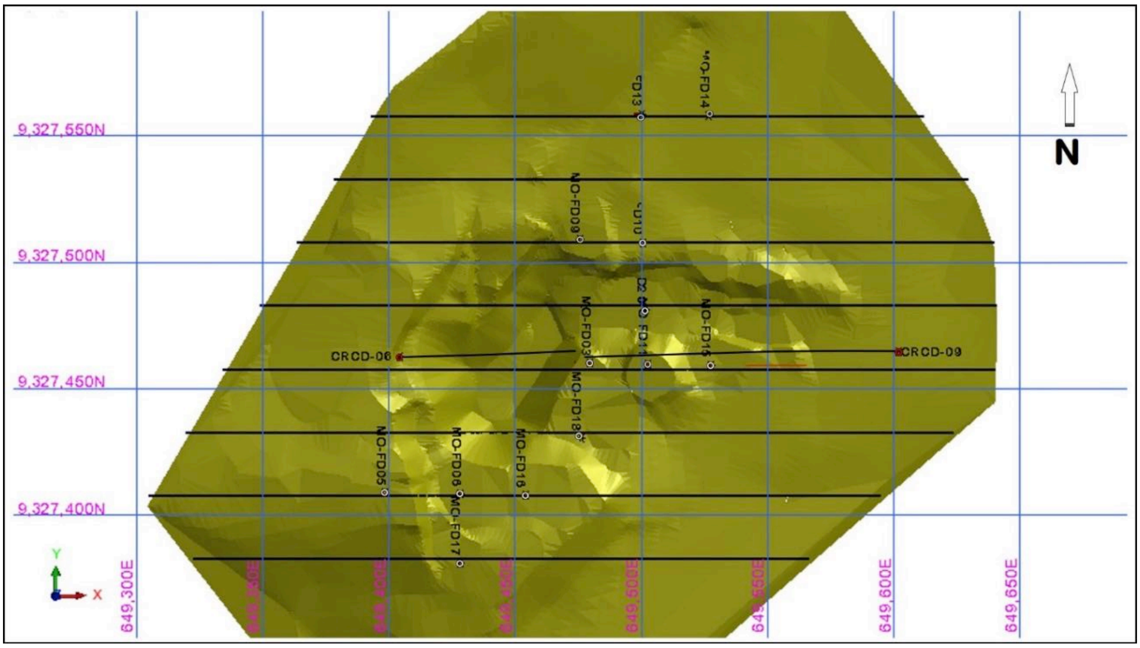


Figure 12 – Drilling grid at the Osmar Target.

As a routine procedure, elevations of drillhole collars were evaluated by calculating the difference in elevation between the land surface and the point of the collar, as projected on this surface. The mean difference (collar elevation minus topography) was positive of 0.25 meters in elevation. Only two holes had differences greater than 1.00 meter lower than the topography, MO-FD11 (1.093 m) and MO-FD14 (1.306 m). Results are shown in Table 3.

Table 3 - Relationship between drillhole collars and topography. Where: CRCD - holes of the first drilling program. MO-FD - holes of the second drilling program.

DDH	Collar (m)	Altitude (m)	Difference (m)
CRCD-06	295.444	295.494	-0.050
CRCD-09	269.103	269.257	-0.154
MO-FD03	280.000	280.640	-0.640
MO-FD05	300.946	300.842	0.104
MO-FD06	289.635	289.424	0.211
MO-FD09	283.229	283.944	-0.715
MO-FD10	279.747	280.239	-0.492
MO-FD11	281.000	282.093	-1.093
MO-FD13	282.475	283.334	-0.859
MO-FD14	278.359	279.665	-1.306
MO-FD15	275.417	275.241	0.176
MO-FD16	288.796	288.779	0.017
MO-FD17	292.000	292.125	-0.125
MO-FD18	281.469	281.282	0.187
MO-FD19	275.520	275.008	0.512
MO-FD20	275.000	274.700	0.300

15.2.2.4 Lithology

The lithology data correspond to the values of the "LITHO" table of the database. The records are displayed at intervals FROM and TO and the fields were filled by text codes in LITHOLOGY. There were no gaps or overlaps in the spreadsheet lithological descriptions. No geological model has been designed for this deposit. The mineralized zone was defined only in terms of copper content, as agreed with the contractor. The codes present in LITHOLOGY are described below and may be viewed at the following chart, as the occurrence percentage of these rock types (Figure 13).

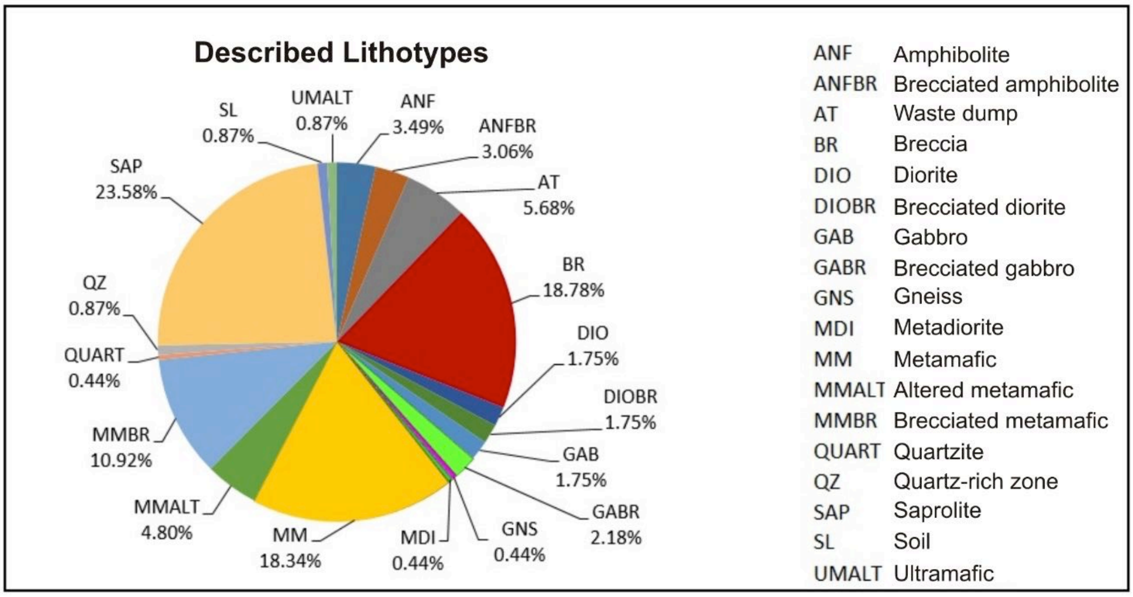


Figure 13 - Described rock types and their respective percentages.

15.2.2.5 Chemical Analyses

A total of 2,535 samples in 16 diamond drillholes, contained or not in the mineralized intervals, were analyzed. During the first drilling program 195 samples of CRCD-06 to CRCD-09 holes were analyzed. In the second program, several elements, including Cu and Au, were analyzed in 2,340 samples.The distribution of copper contents to be estimated is shown in the following chart, where it is observed that 90.9% of the samples have copper content below 10% (Figure 14).

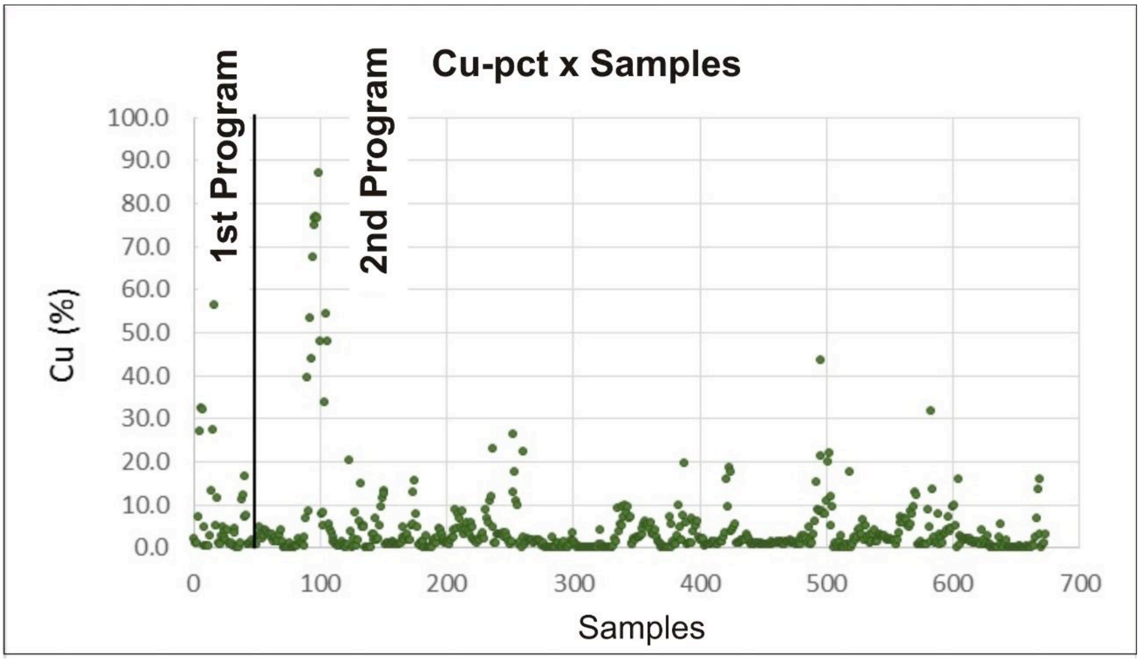


Figure 14 - Distribution of copper content (%).

In relation to gold, 63.4% of the samples have contents below 0.1 ppm (Figure 15).

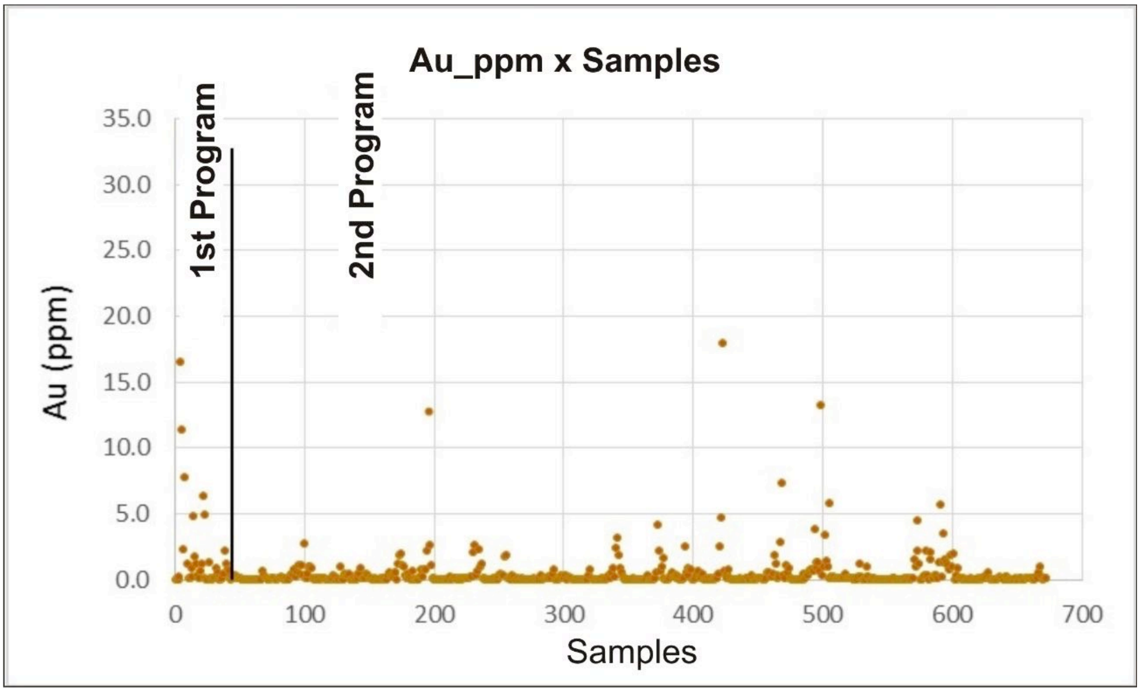


Figure 15 - Distribution of gold content (ppm).

15.3 DATA ANALYSIS

The Osmar Target, as described above, was drilled in two diamond drilling programs, which were comprised of holes labeled CRCD in the first phase and MOFD in the second phase. The database used for this work consisted of information from 16 drillholes.The drillholes were distributed on a regular basis, according to survey lines spaced at approximately 25.00 meters.The total number of records in the database are summarized in Table 4.

Table 4 - Summary of drilling data for the evaluation stage.

FIELD	DATA
HOLE-ID	16
SURVEY	149
SAMPLES	2535
RESULTS Cu_pct (Phases 1 e 2)	2535
RESULTS Au_ppm (Phases 1 e 2)	2535
RESULTS Ag_ppm (Phases 1 e 2)	2535
DENSITY	40
LITHO	239

Two independent different laboratories for chemical analyses throughout its implementation period. The SGS GEOSOL laboratory was used during the first drilling program. The analyses of the second program were performed by INTERTEK laboratories. Note that distribution of copper content related to the two drilling programs is relatively constant, and there is no discrepancy in results between the two programs.

15.3.1 Statistics of Samples

This statistic encompassed all analytical results contained in the table of samples provided and integrated to the database. Data were analyzed validated and basic statistical analyzes of Cu and Au are shown in Table 5, for all the samples.

Table 5 - Basic statistical variables estimated for all samples.

Variable	Cu_pct	Au_ppm
Mean	1.344	0.204
Std. Error	0.110	0.027
Median	0.000	0.010
Mode	0.000	0.005
Std. Deviation	5.532	1.367
Sample variance	30.606	1.868
Kurtosis	108.444	410.385
Asymmetry	9.409	18.096
Interval	87.000	38.135
Mínimum	0.000	0.005
Maximum	87.000	38.140
Sum	3406.027	516.743
Counting	2535	2535

Table 6 considers only the samples contained in the modeled mineralized zone, which consist of about 27% of the total samples.

Table 6 - Basic statistical variables estimated for samples contained in the mineralized zone.

Variable	Cu_pct	Au_ppm
Mean	4.596	0.515
Std. Error	0.382	0.075
Median	1.730	0.050
Mode	0.000	0.005
Std. Deviation	9.918	1.947
Sample variance	98.376	3.791
Kurtosis	30.446	137.404
Asymmetry	5.125	10.221
Interval	87.000	33.006
Mínimum	0.000	0.005
Maximum	87.000	33.011
Sum	3093.370	346.767
Counting	673	673

For those samples whose analyzes showed results below the lower limit of detection, it was assumed that the NEGATIVE signal (or "less than") would be removed, considering a value half the lower limit.

Since the samples of the first drilling program had the detection limit for gold of 0.005 ppm, which is less than the detection limit for the second program (equal to 0.01 ppm), this higher detection limit was applied in regard to all samples.

15.3.2 Composites

The generation of composites consists in to normalize all samples to the same volume. The goal is to achieve a uniform sampling, reducing the impact of random variability and minimizing the effect of sample average. Each sample from now will be called composite. The sample holder adopted for mineralized areas of the deposit was 1.00 meter, being controlled by the sampled interval.

When analyzing the distribution in mineralized intervals, it is noted that almost 94% of the samples had a length of 1.00 meter, with the exception of the samples of the first drilling program (Figure 16). The average of these intervals was 1.05 meter.

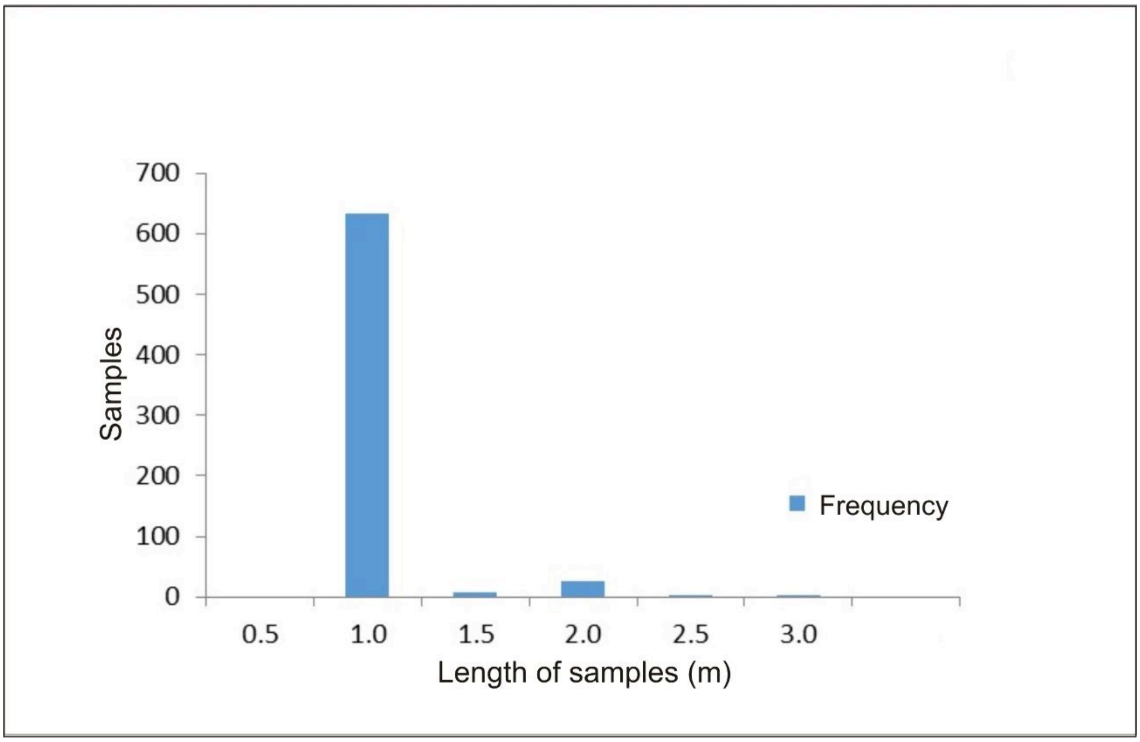


Figure 16 - Frequency distribution for length of samples.

15.3.3 Data Analysis

The samples were studied under the classical statistical approach, considering the generated composites. In regard of estimation, only drill core samples were used, which have their statistical treatment demonstrated in this section.

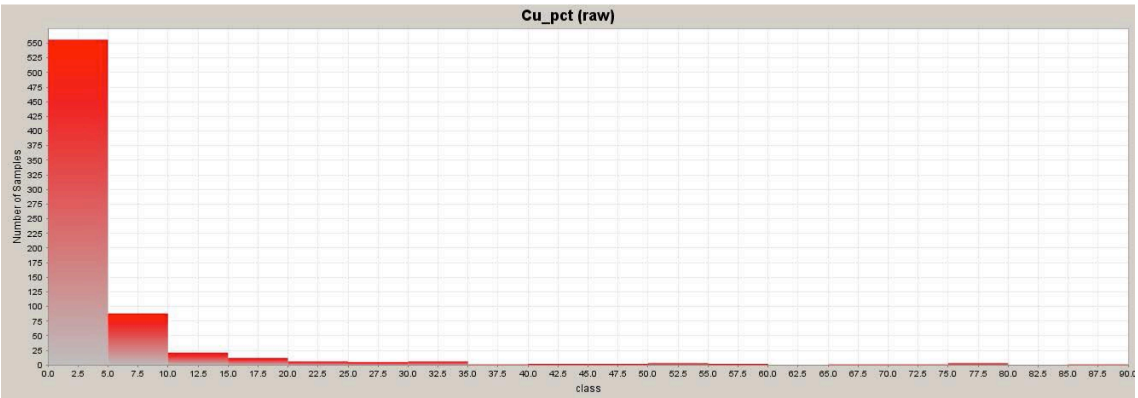
Statistical analysis allows inferences about distributions, trends and anomalous values of the variables in focus in order to assist in structural analysis (anisotropy of the deposit). It is noted that only 0.28% of the composite showed smaller intervals than 1.00 meter in length and the normalized average was obtained at 0.997 meter.

For grade estimation, the two normalized intervals smaller than 1.00 meter were considered (Table 7). These two intervals coincide with the interval not sampled between 96.05 m and 97.65 m of the diamond drillhole CRCD-06.

Table 7 - Less than one meter normalized intervals.

hole_id	depth_from	depth_to	length	Cu_com	Au_comp
CRCD-06	96.00	97.00	0.05	1.050	0.000
CRCD-06	97.00	98.00	0.35	7.170	0.082

The histograms presented in Figure 17 show the distribution frequency for Cu variables, contained within the mineralized zone. In the upper graph all samples are being considered and in the lower, only samples with a copper content up to 20%.



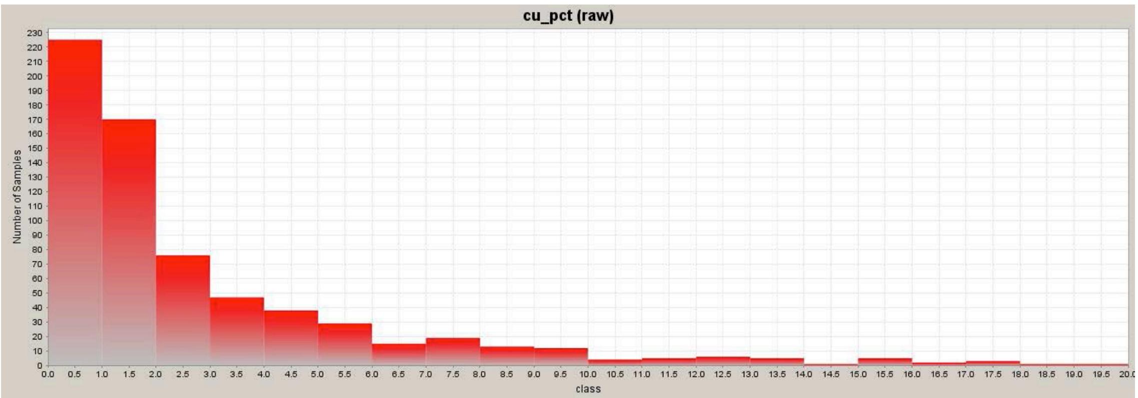


Figure 17 - Frequency distribution for copper composites.

In Figure 18, the histograms show the distribution of frequencies for the Au variables, contained within the mineralized zone. In the upper graph all samples are considered and in the lower, only samples with a content of gold up to 3.0 ppm.

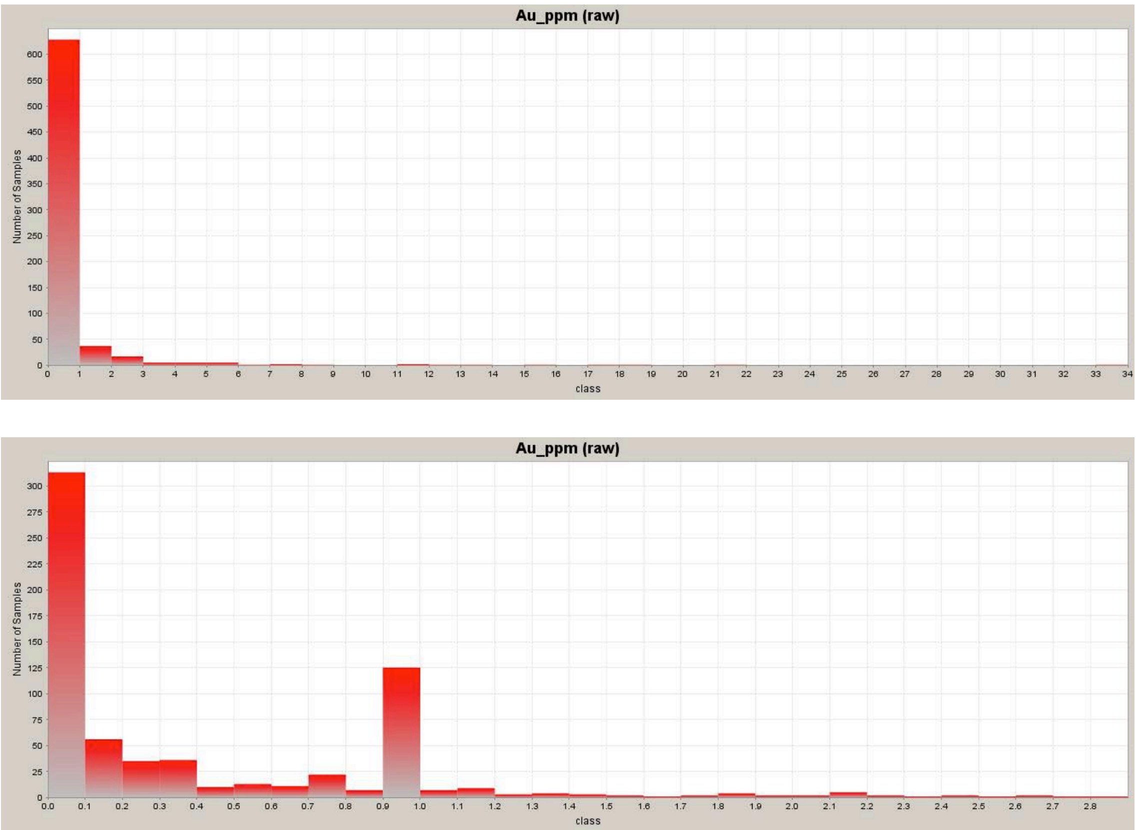


Figure 18 - Frequency distribution for gold composites.

15.4 GEOLOGICAL MODEL

The geological model was organized taking into account topographical features, weathering zones, lithology and copper contents that make up the deposit. However, for this study, no modeling for different rock types was performed.

For model interpretation, eight vertical sections distanced 25 meters were defined, oriented in the WE direction, inside the limits for the project, in accordance with the drilling grid.

The sections were created perpendicular to the mineralized zone, which has the general direction between NS and NE/SW.

Figure 19 shows the distribution of the vertical sections in 3D view.

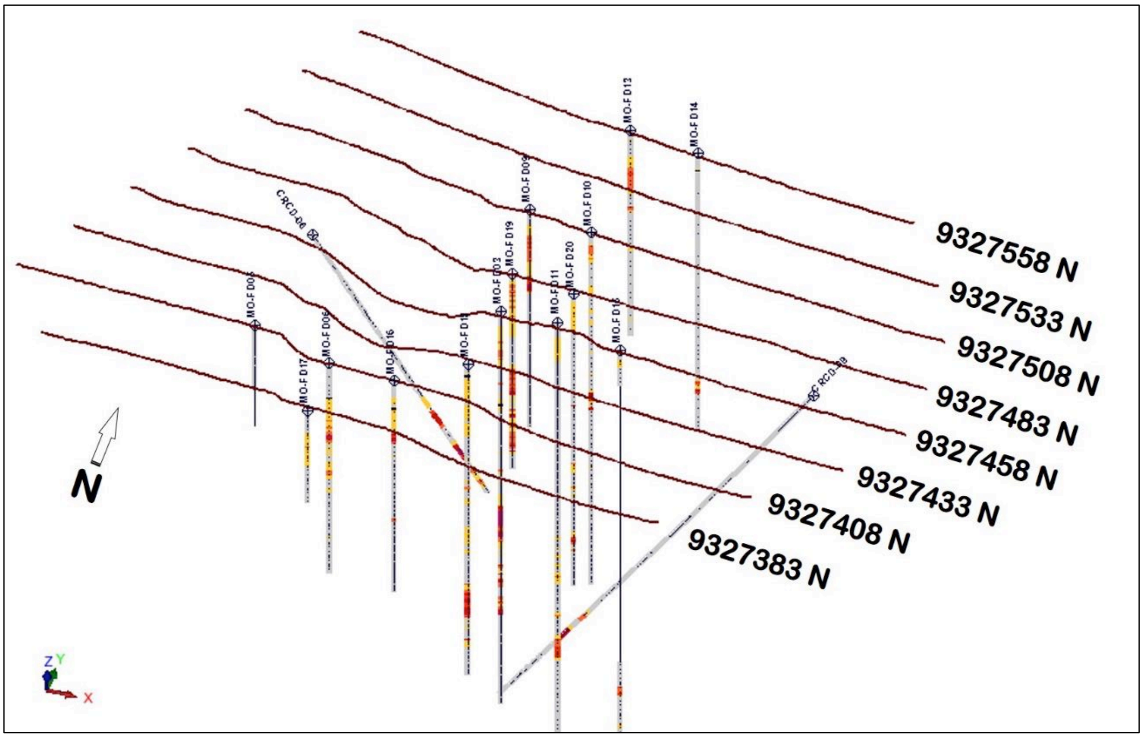


Figure 19 – Three-D view of vertical sections.

15.4.1 Topographic Surface

A topographic surface, as described in Section 2.2.1, was obtained from the contour lines in the file CURVES CAVA MARAVAIA 02_06_2015.dwg, which produced a detailed digital terrain model.

15.4.2 Weathering surface

The weathering surface was modeled only to set the boundary between saprolite and fresh rock. A surface was generated from the intervals described in the database as saprolite (SAP). The average thickness of the saprolite layer was 6.80 meters.

Figure 20 shows the surface which limits the base of the saprolite, according to the drill core description.

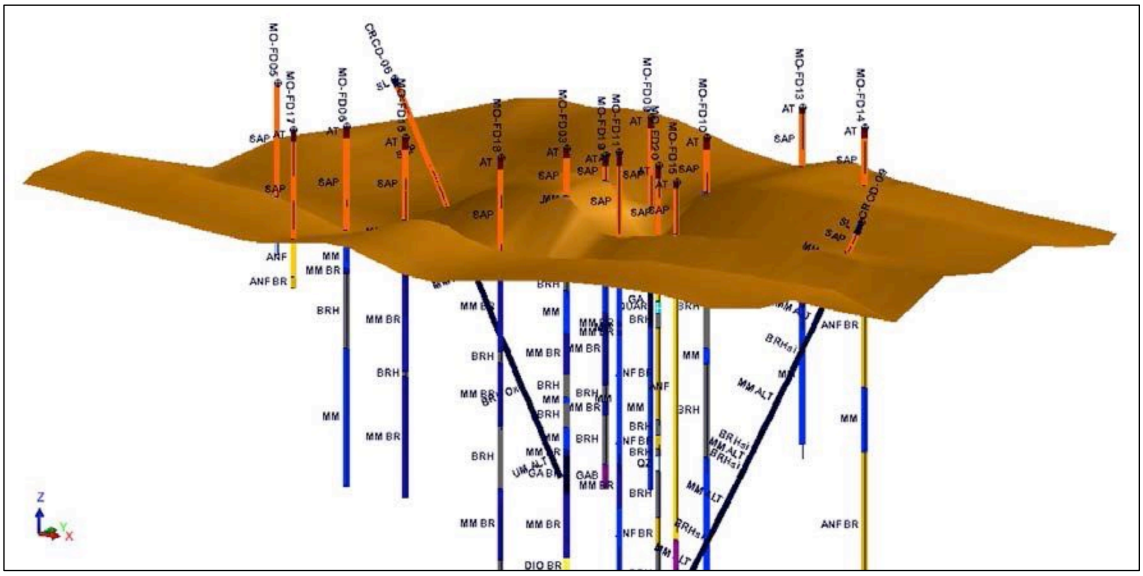


Figure 20 – Three-D view showing surface limiting the base of saprolite.

15.4.3 Orebody Modeling

The mineralization model for the Osmar Target was built as a function of copper content, allowing the creation of a unified model based on results of the chemical analyzes. The modeling included the data stored in the RESULTS table, Cu_pct field. In the descriptions and content defined in the database, for interpreting the mineralized area in sections, two channel samples were considered performed on the surface as "Análise_CBB_9430170_15_FINAL.xlsx Report" file, which confirmed the occurrence of the orebody at such site (Figure 21).

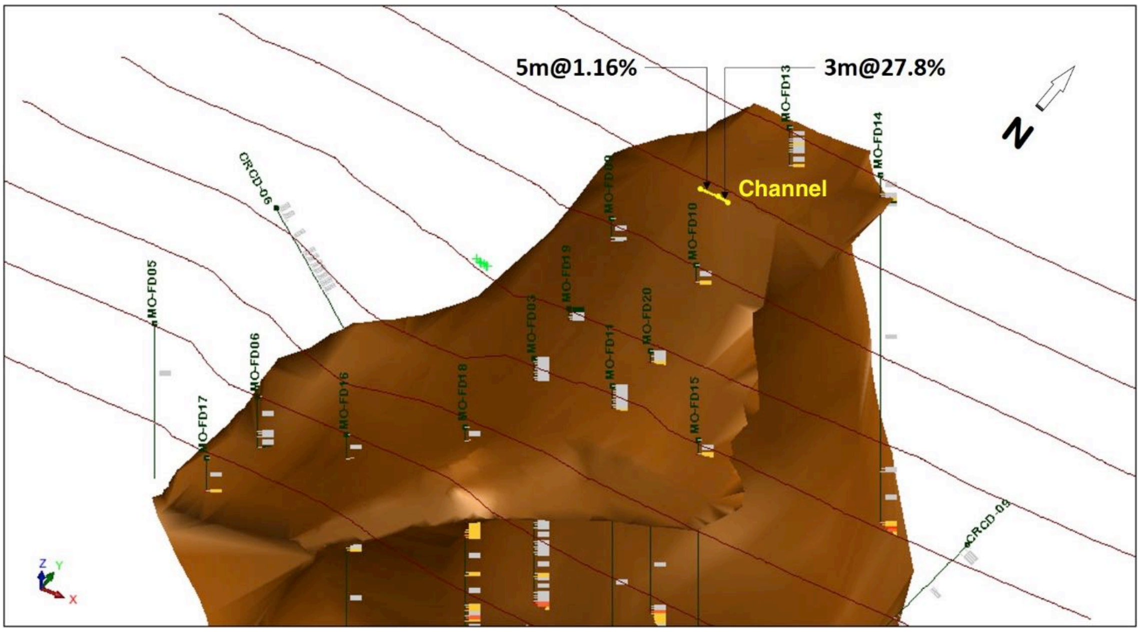
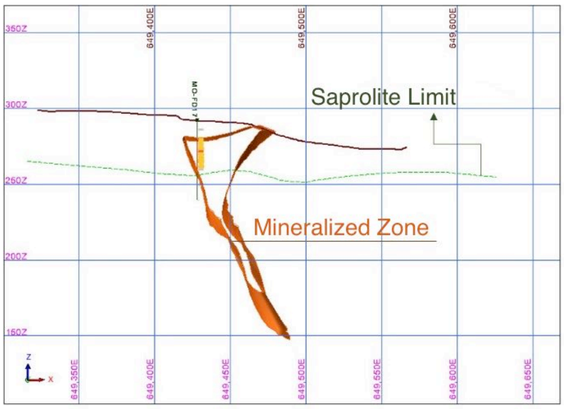
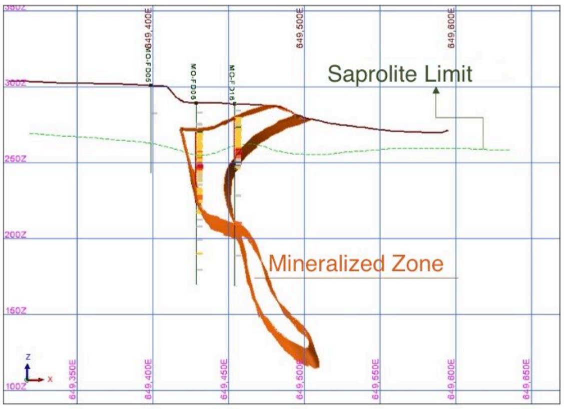


Figure 21 - Surface channel sample showing copper grades.

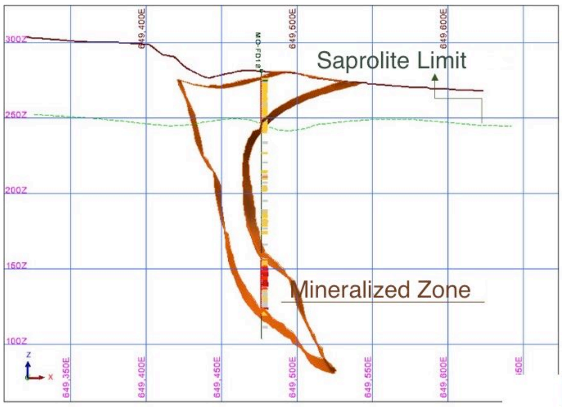
The 25 meters apart vertical sections have been interpreted, as shown in Figure 22.



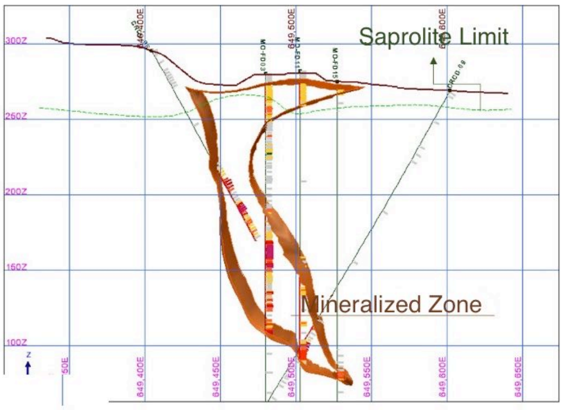
SV1: 9327383N



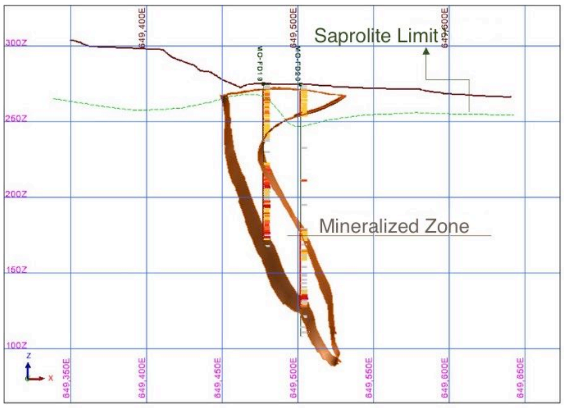
SV2: 9327408N



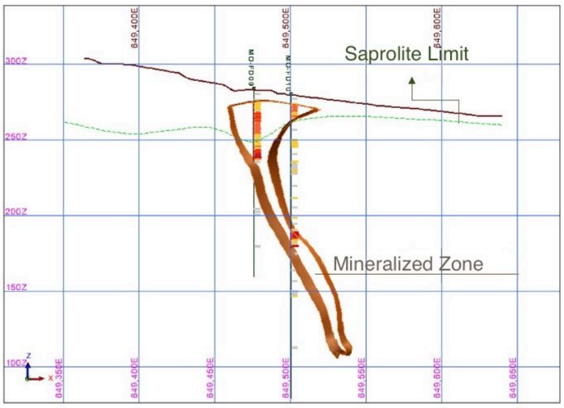
SV3: 9327433N



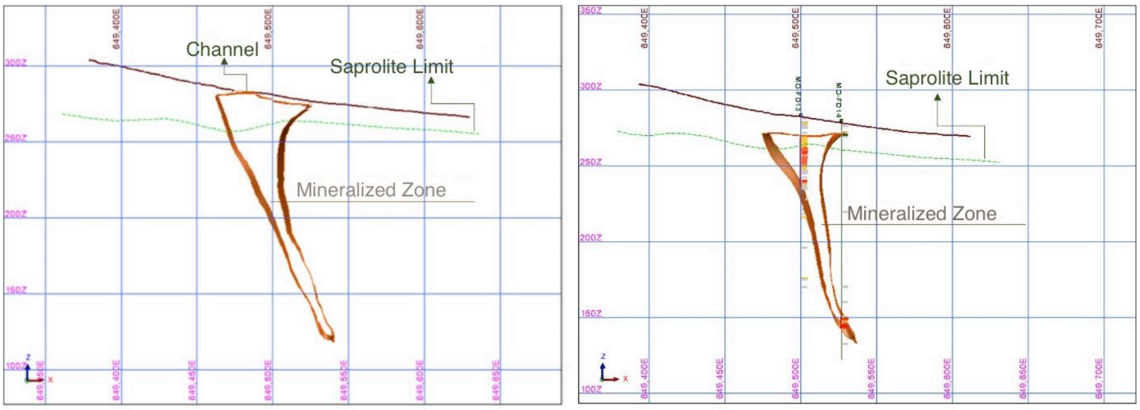
SV4: 9327458N



SV5: 9327483N



SV6: 9327508N



SV7: 9327533N

SV8: 9327558N

Figure 22 - View of the vertical sections showing the interpretation of the mineralized zones.

The interpretation was done as conservative as possible, avoiding exaggerations that could yield overestimated results.

15.4.4 Construction of the Solid

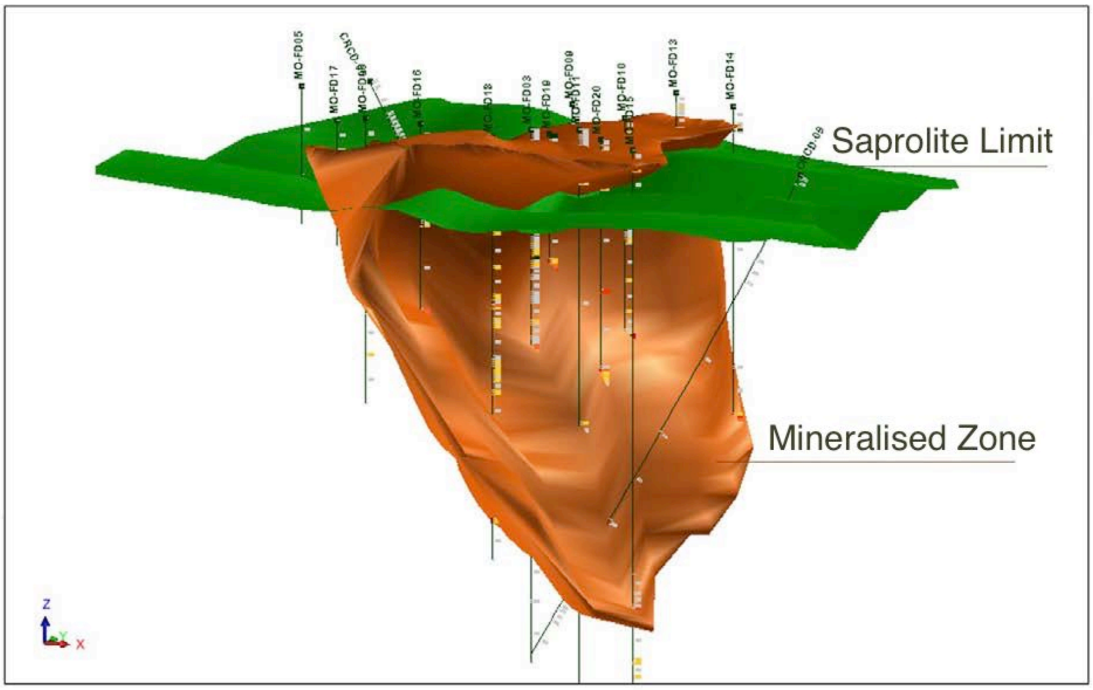
Polygons interpreted in vertical sections were used for generation of the solid orebody. In addition to these polygons two more, one in the north and other in the south ends were created at a 12.50 meters distance from each adjacent section, in order to achieve the solid closure.

After generation of the solid, validation process persisted until triangulation errors were avoided and the volume was subsequently calculated in regard of the data presented in Table 8.

Table 8 – Volume of the solid orebody for the interpreted model.

Mineralized Zone - Solid	
X Minimum: 649417.956	X Maximum: 649547.621
Y Minimum: 9327370.500	Y Maximum: 9327570.500
Z Minimum: 73.514	Z Maximum: 288.955
Surface area: 105,793.42 m²	
Volume: 781,931.35 m³	

The mineralized body along with the weathering surface are shown in Figure 23.



Object	Trisolation	Valid	Open/closed	Connected	Duplicate (removed)	Invalid Edges	Intersecting	Reversed
1	1	Valid	Closed	Connected	0	0	0	0
				Totals	0	0	0	0

Figure 23 – Three-D view of the validated solid.

15.4.5 Block Model

A regular block model was defined, with dimensions of 12.5 m x 12.5 m x 4.5 m, with sub-blocks of 3.125 m x 3.125 m x 1.125 m to conform to the narrow dimensions at the edges of the orebody. This sub-blocking procedure aimed at minimizing the dilution of waste volume, and increase the correlation of geometry between the solid and the geological block model.

The block size was defined according to the distances between drillholes, which is about 25.00 meters. Therefore, the block size was chosen, equal to half of the sample spacing. As for the height of the block, the value was established in function of the height of the future mine front bench, planned at 4.50 meters. The summary of adopted parameters is illustrated in Figure 24 and the block model is shown in Figure 25.

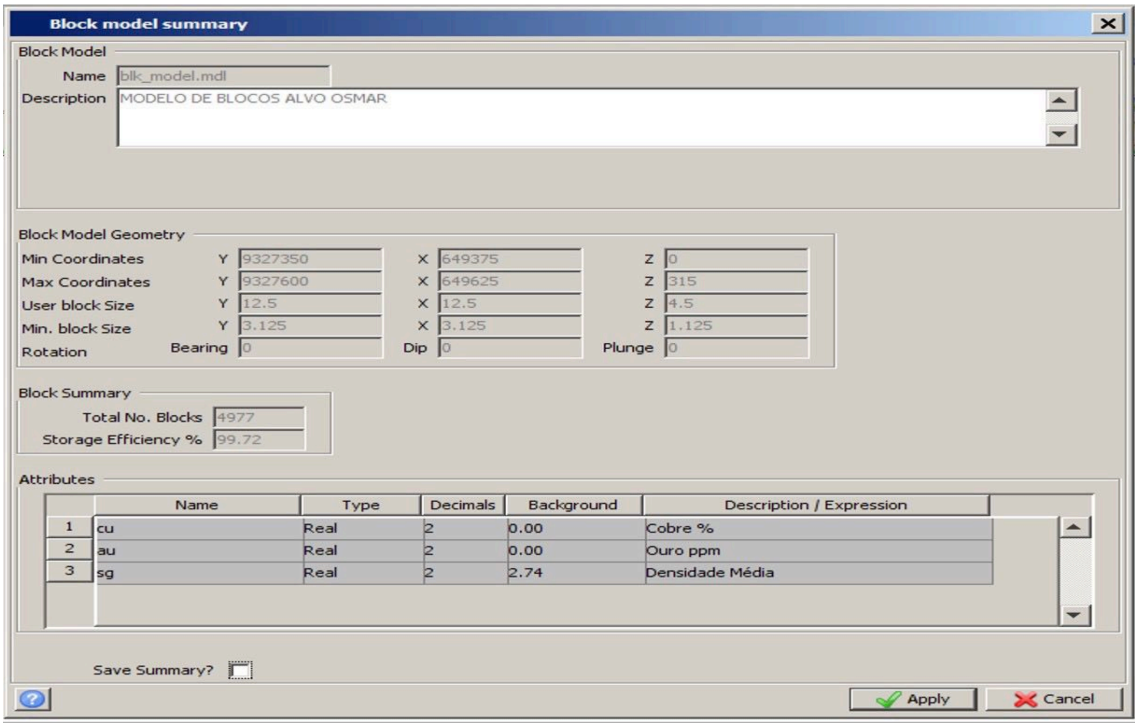


Figure 24 - Parameters and attributes of the block model.

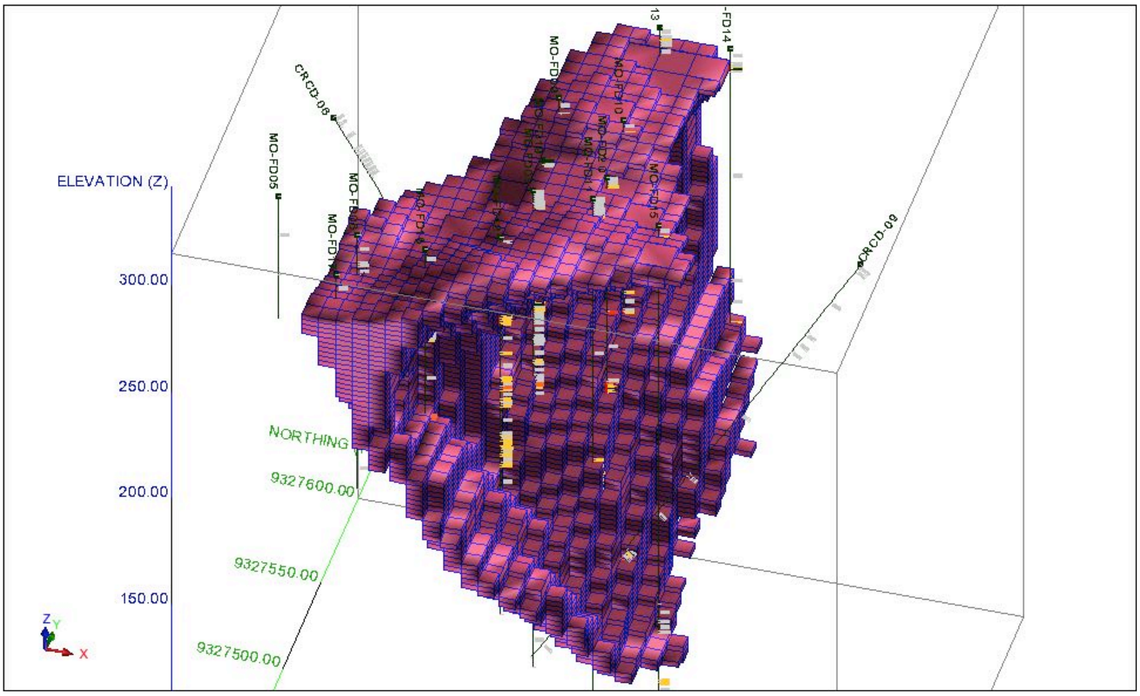


Figure 25 - Block model constrained by the mineralized body.

The volume was calculated for the solid orebody and compared with the volume obtained through the block model. The difference of volume is less than 2%, which is very small, thus demonstrating that the size of blocks can be considered efficient and occurred a great correlation between the solid and the block model (Table 9).

Table 9 - Difference between calculated volumes (solid x block model).

Calculated Volumes (m^3)	
Modeled solid	781,931.350
Block model	781,292.730
Difference (<0.1%)	638.625

15.5 GRADE INTERPOLATION

The Inverse Distance Weighting (IDW) is a type of deterministic method for multivariate interpolation with a known scattered set of points. The assigned values to unknown points are calculated with a weighted average of the values available at the known points.

The name given to this type of methods was motivated by the weighted average applied, since it resorts to the inverse of the distance to each known point ("amount of proximity") when assigning weights. Thus, the variables Cu (%) and Au (ppm) were analyzed for the modeled and potentially valuable orebody of the Osmar Target.

The spatial continuity of the material denotes relative uniformity due to the type of geological occurrence, and thus a low variability is expected. The search parameters adopted are shown in Figure 26, but a variogram study is recommended for confirmation, so as to have greater adherence to the requirements of international evaluation standards.

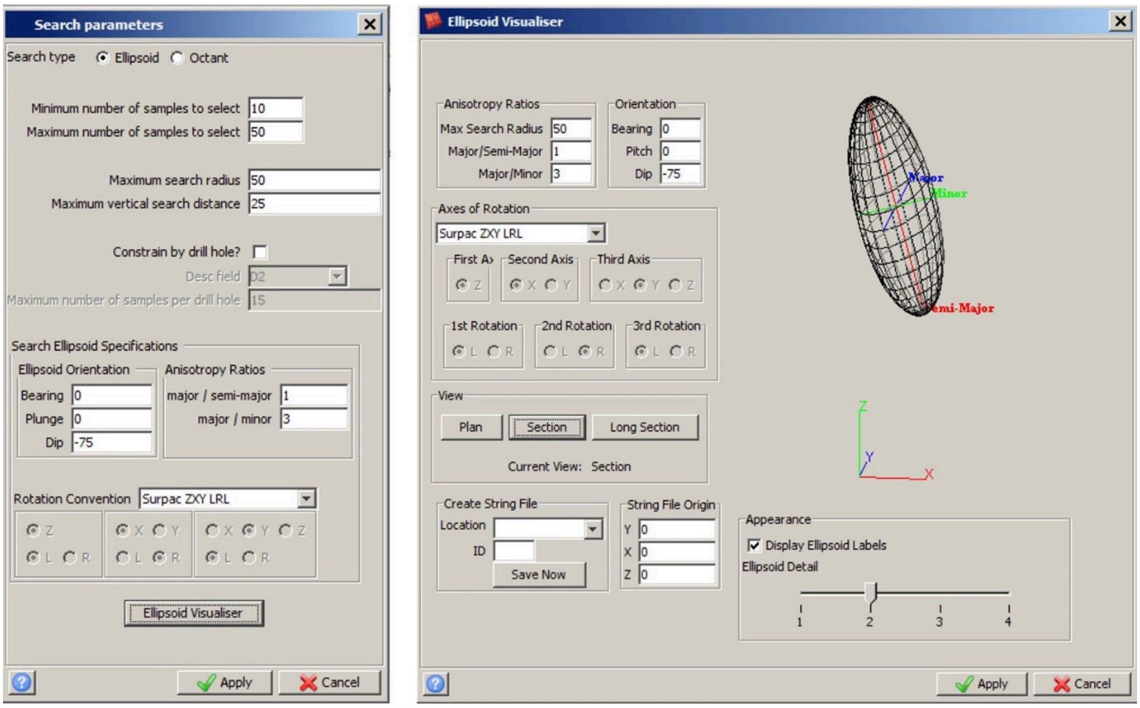


Figure 26 - Search parameters.

Figure 27 and Figure 28 show graphs of results of interpolation variables within the mineralized body.

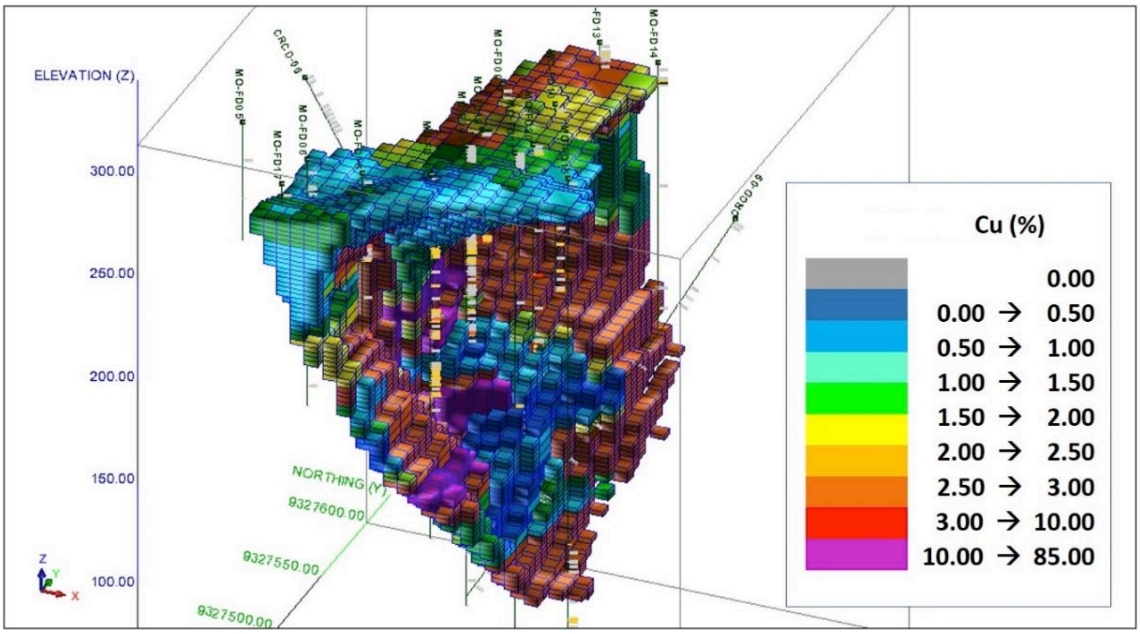


Figure 27 - Model blocks for variable Cu (%).

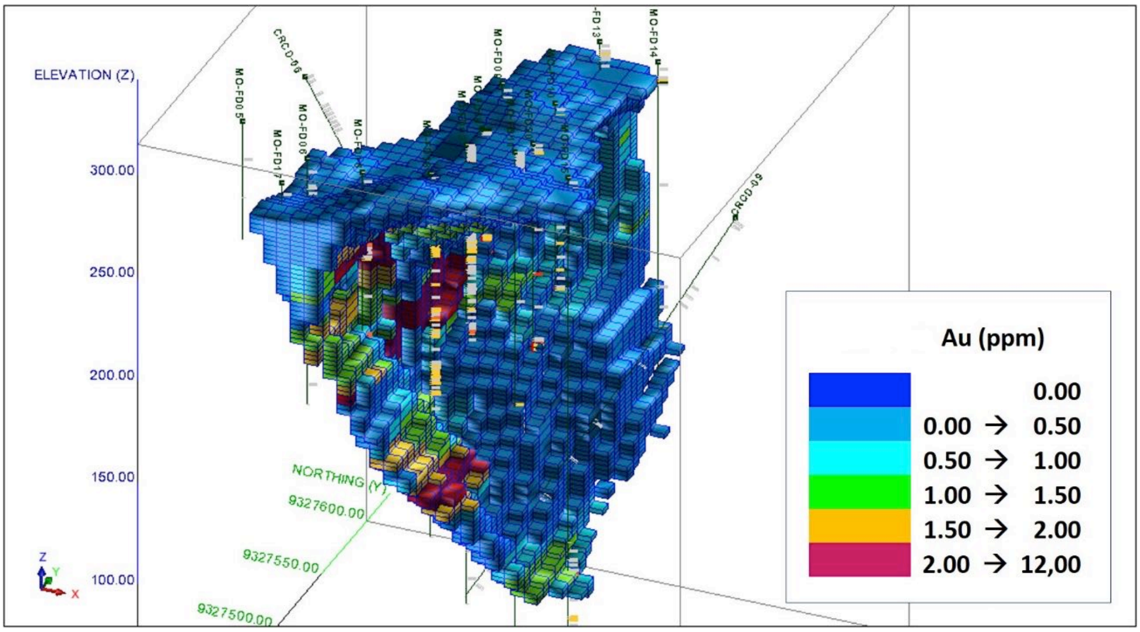


Figure 28 - Model blocks for variable Au (ppm).

As a result of this work, a total of 2,140,742 tonnes of ore were estimated, classified as indicated resources, with an average grade of 4.20% copper and 0.66 ppm of gold, as shown in Table 10.

Table 10 – Summary of indicated resources of the Osmar Target.

Indicated Resources – Osmar Target					
Volume (m^3)	**Tonnes (t)**	**Cu (%)**	**Au (g/t)**	**Cu (t)**	**Au (kg)**
781,292.73	**2,140,742**	**4.20**	**0.66**	**89,911**	**1,413**

The cut-off grade in regard of copper content was 0.75% and was delimited during the drawing of the 3D model. No cut-off grade was applied for gold.

16 RESOURCE CALCULATION AT THE GALPÃO TARGET

16.1 DRILLING

The diamond drilling program to assess the resources in the Galpão Target was developed intermittently in the period 07/18/2011 to 04/22/2015. Four holes spaced by 30, 45 and 48 meters were drilled in a north-south line and one drillhole was placed 139 meters west of this section. All holes are inclined at 60° west. The program totaled 780.65 drilled meters (Table 11 and Figure 29).

Table 11 - List of diamond drill-holes in the Galpão Target. Datum SIRGAS 2000 - Zone 22 S.

DDH	Depth (m)	UTM E (m)	UTM N (m)	Height (m)	Inclin.	Azimuth	Number of Samples
MGFE-01	90.00	651032	9326880	270	60°	270°	97
MGFE-02	89.50	651032	9326973	267	60°	270°	96
MGFE-03	80.40	651032	9326925	270	60°	270°	87
MGFE-04	74.55	651032	9327003	269	60°	270°	80
CRCD-08	446.20	651171	9326901	263	60°	270°	240

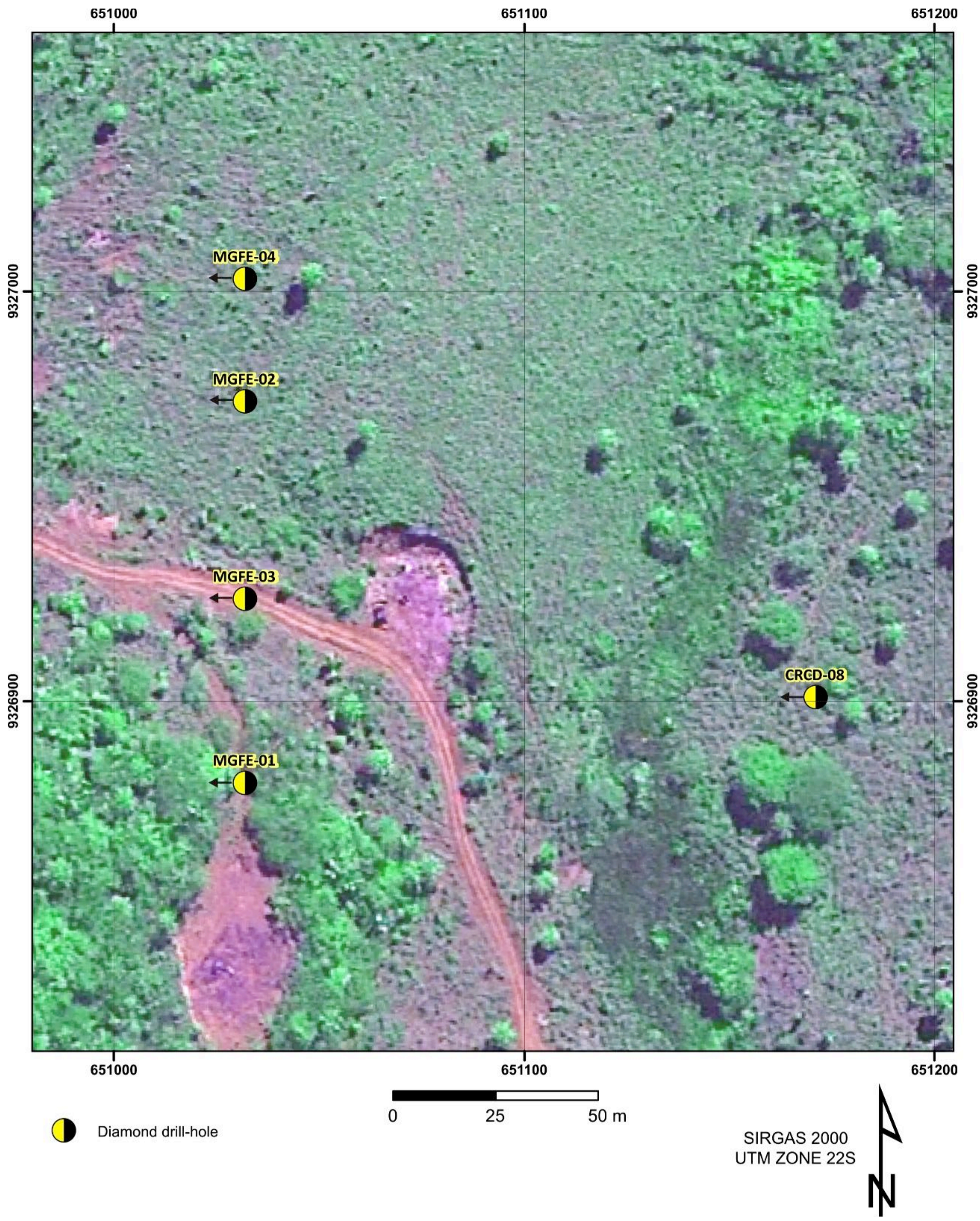


Figure 29 – Location of diamond drill-holes in the Galpão Target.

16.2 MINERALIZATION AND HYDROTHERMAL ALTERATION

Highlighted features in this target are topographic lineaments oriented in the NNW-EW-NNE directions, conditioned by the presence of strongly silicified breccias containing quartz-hematite-potassium feldspar-sericite-chlorite and discordant quartz veins, oriented in the N60°E, N60°W and N25°E directions. The host rock is an altered amphibole-magnetite gneiss, containing magnetite, intersected by veins of potassium feldspar. Brecciated zones, oriented toward N25°W with hydrothermal association of quartz, scapolite, magnetite, potassium feldspar, chlorite, amphibole, chalcopyrite, are superimposed by anomalies in soil (>500 ppm Cu). Multiple association of hydrothermal alteration suggests a polyphase system of mineralization. Intersections of the structures are favorable areas for important mineralization of Cu-Au.

16.3 DENSITY DETERMINATIONS

The density tests were performed on 11 samples of drill cores of the Galpão Target, following the same procedures described in Section 14.3 for the target Osmar. The data obtained are compiled in Table 12.

Table 12 - Results of density tests on 11 samples of the Galpão Target.

DDH	From (m)	To (m)	Cu (%)	Density (g/cm^3)
MGFE-01	34.30	34.38	9.00	3.53
MGFE-01	81.35	81.44	6.90	3.56
MGFE-02	45.58	45.74	4.60	2.95
MGFE-02	48.50	48.37	3.40	3.08
MGFE-02	52.93	53.00	4.10	2.75
MGFE-02	59.35	59.45	24.75	3.95
MGFE-03	46.65	46.83	3.90	3.22
MGFE-03	51.60	51.72	1.85	3.41
MGFE-03	63.70	63.80	6.96	3.38
MGFE-04	47.70	47.85	2.00	3.31
MGFE-04	51.12	51.21	-	3.12

The weighted average density, equal to 3.29 g/cm^3, was used in the calculation of the resources of copper and gold of the Galpão Target.

16.4 RESOURCE CALCULATION

The resources in the Galpão Target were calculated based on four holes containing 336 samples. The geological interpretation is based on four EW cross-sections spaced 30 to 40 meters, covering a mineralized body of 160 meters, oriented in the NS direction and dipping 75^{o} to the east.

The calculation of mineral resources in the Galpão Target was carried out using the method of linear sections, wherein the determination of block volume is centered on the sampling section. The average content of each block is the same as the corresponding sampling section (Figure 30).

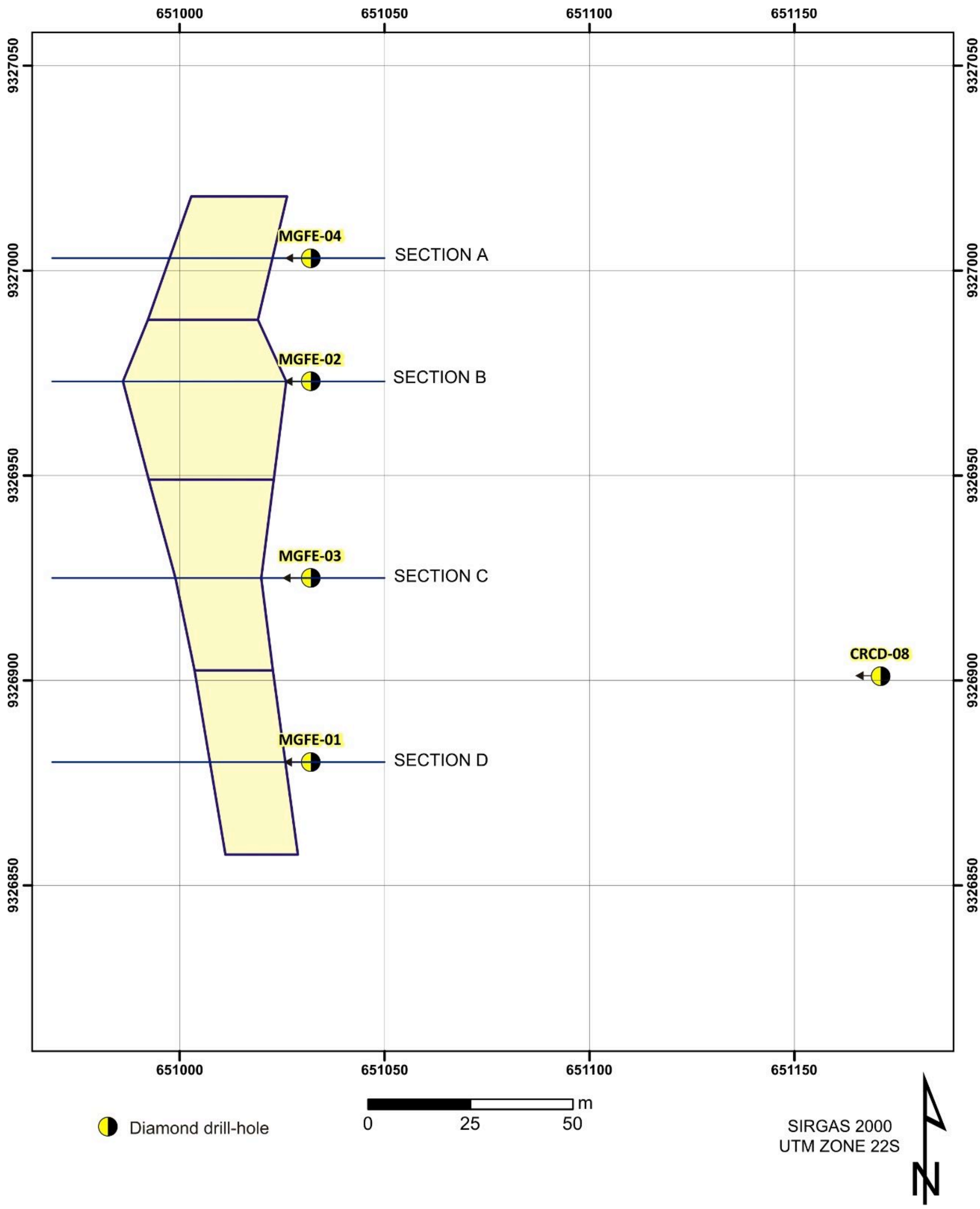


Figure 30 – Contour of the mineralized body of the Galpão Target at surface, with location of cross-sections used in ore resource calculations.

The contents of Cu and Au in each section were calculated from the weighted average of the grades of each element related to the respective intervals in each drillhole. Cross sections "A", "B", "C", "D" with their respective drillholes, mineralized intervals and ore zones contours are shown in Figures 31 to 34.

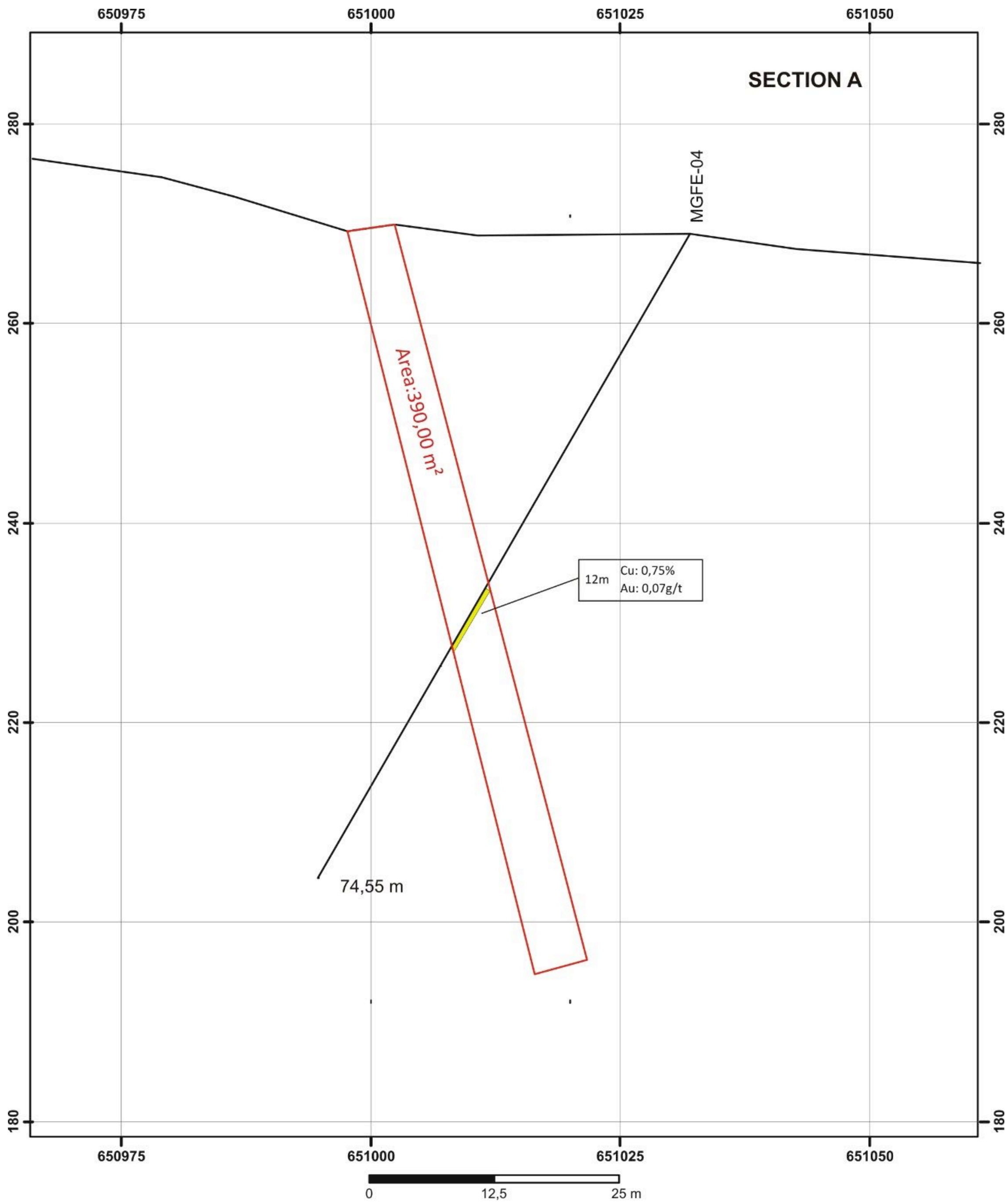


Figure 31 – Cross-section "A" of the Galpão Target. See Fig. 30 to find its location. The area considered for resource calculation is limited by the red line.

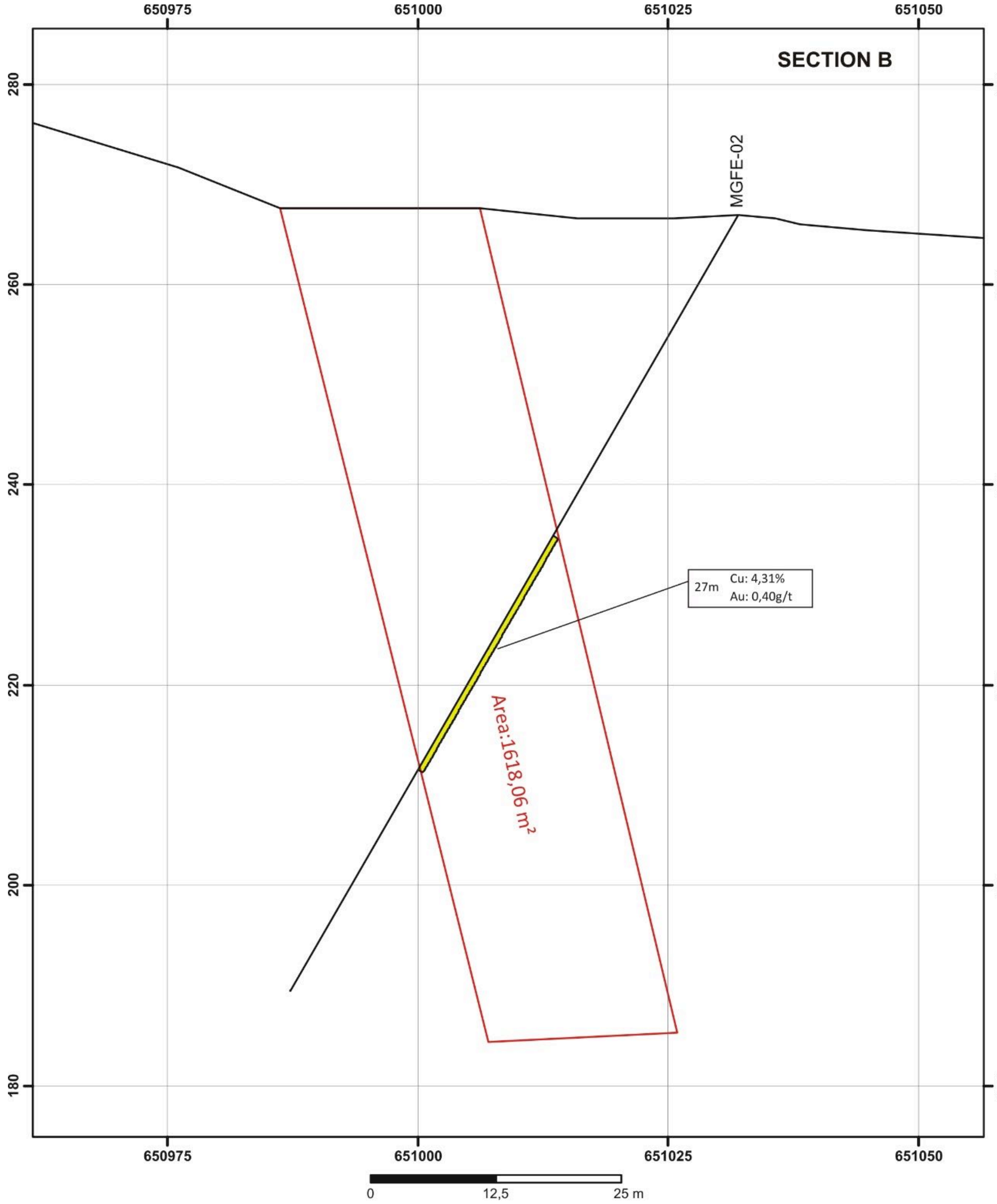


Figure 32 - Cross-section "B" of the Galpão Target. See Fig. 30 to find its location. The area considered for resource calculation is limited by the red line.

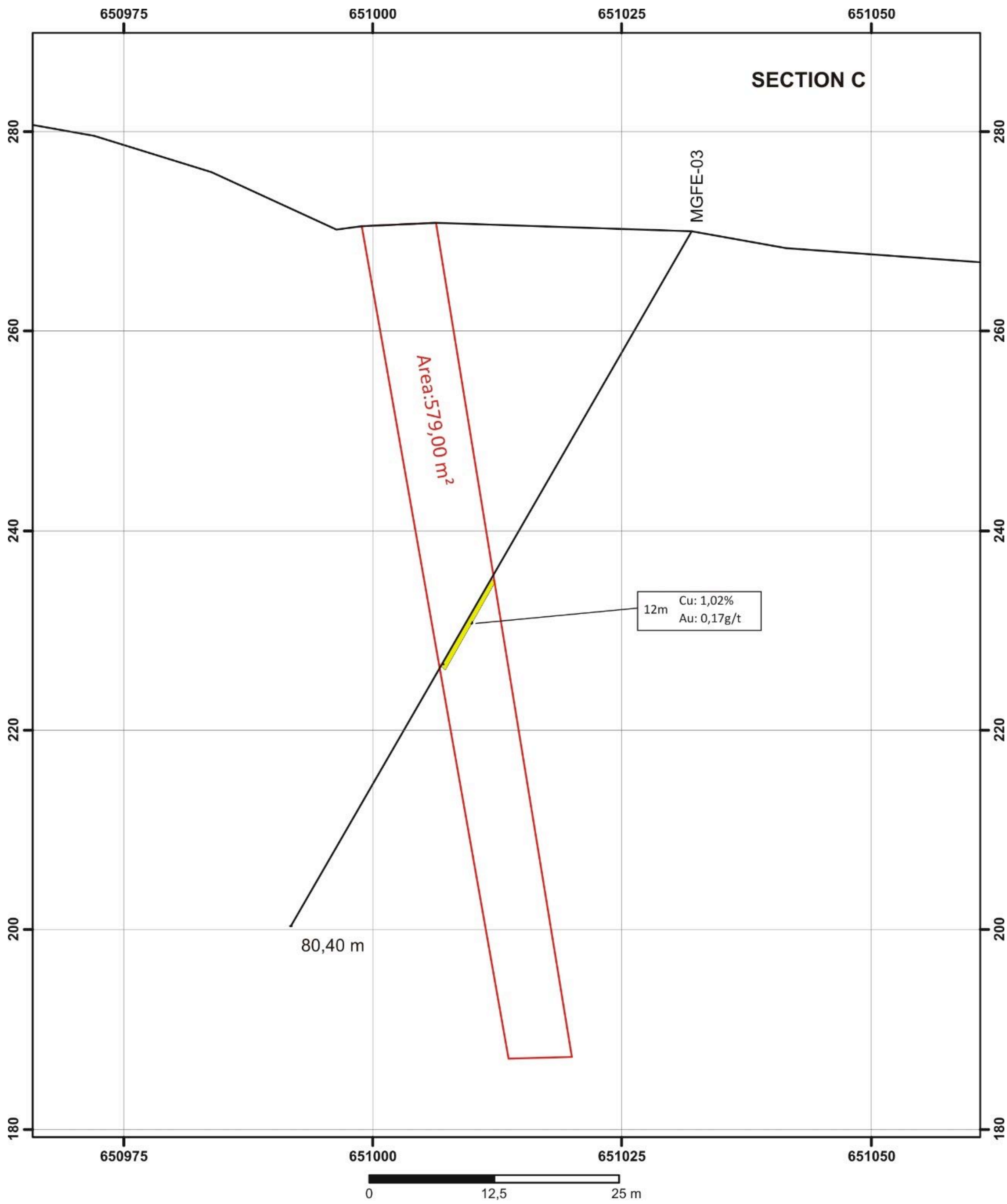


Figure 33 - Cross-section "C" of the Galpão Target. See Fig. 30 to find its location. The area considered for resource calculation is limited by the red line.

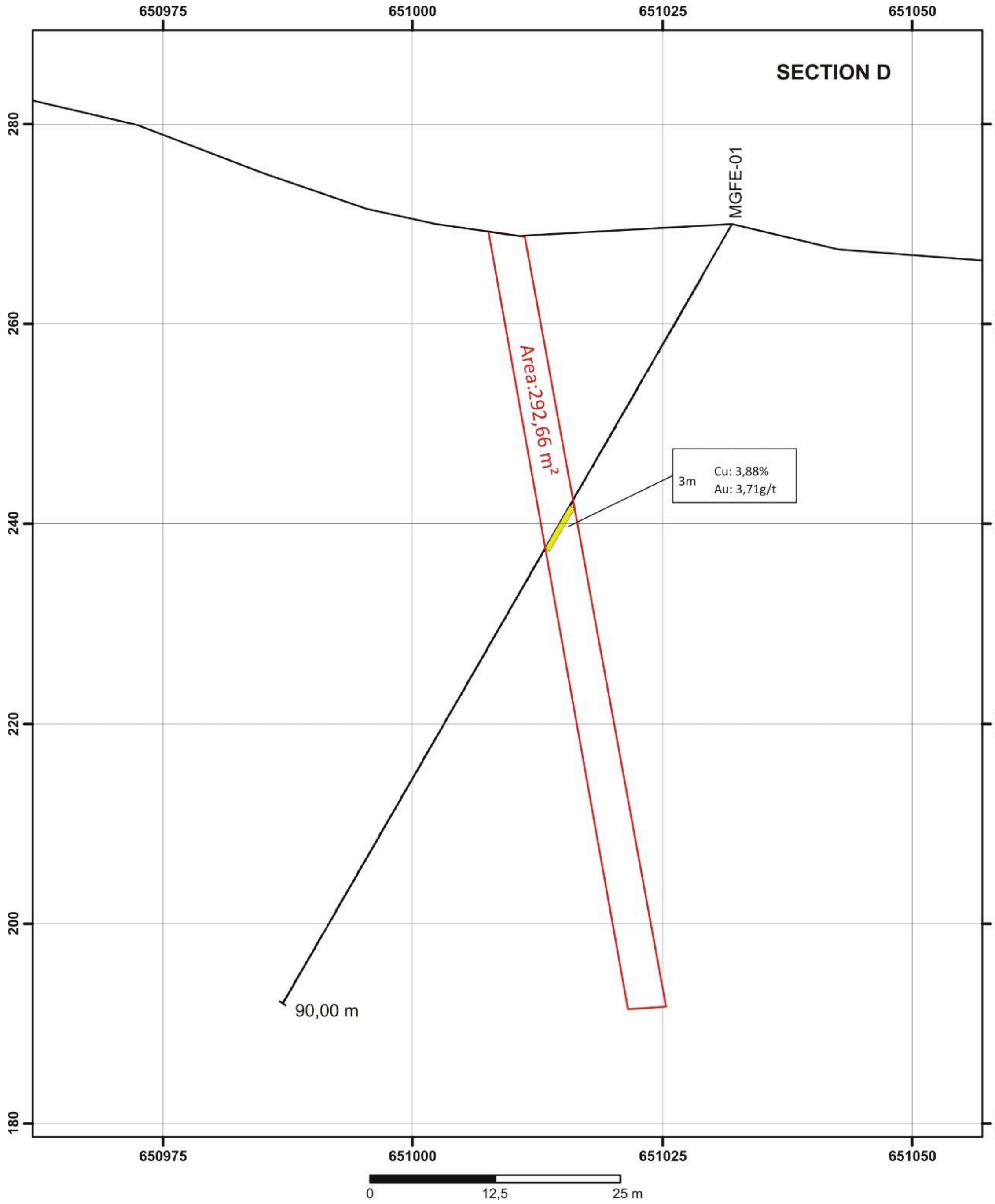


Figure 34 - Cross-section "D" of the Galpão Target. See Fig. 30 to find its location. The area considered for resource calculation is limited by the red line.

The estimated Cu and Au resources in the Galpão Target are shown in Tables 13 and 14.

Table 13 - Summary of inferred resource calculation for the Galpão Target.

DDH	From (m)	To (m)	Interval (m)	SECTION	Cu (%)	Au (g/t)	Area (m^2)	Zone of influence (m)	Volume (m^3)	Tonnes (t)	Cu (t)	Au (kg)
MGFE-04	41	48	7	A	0.75	0.07	390.00	30.00	11,700.00	38,493.00	288.70	2.69
MGFE-02	37	64	27	B	4.31	0.40	1,618.06	40.00	64,722.44	212,936.83	9,177.58	85.17
MGFE-03	40	52	12	C	1.03	0.17	579.00	45.00	26,055.00	85,720.95	882.93	14.57
MGFE-01	33	36	3	D	3.88	3.71	292.66	45.00	13,169.70	43,328.31	1,681.14	160.74
Ore Density = 3.29 t/m^3								**TOTAL**	**115,647**	**380,479**	**12,030**	**263.17**

Table 14 – Summary of Cu and Au inferred resources for the Galpão Target.

Tonnes (t)	Cu (%)	Au (g/t)
380,479	3.16	0,69

16.4.1 Resource Classification of the Galpão Target

As seen in the map of Fig 30 above, the ore blocks corresponding to sections "A", "B", "C" and "D" were considered as inferred resources based on the following assumptions: (i) although metal contents have been clearly defined through detailed sampling (meter in meters) and chemical analyzes of drill cores (ii) the geometry of the mineralized body has not yet been well established, due to the reduced volume of drillhole data.

17 MINING METHODS

This section is not relevant to this Technical Report.

18 RECOVERY METHODS

This section is not relevant to this Technical Report.

19 PROJECT INFRASTRUCTURE

This section is not relevant to this Technical Report.

20 MARKET STUDIES AND CONTRACTS

This section is not relevant to this Technical Report.

21 ENVIRONMENTAL STUDIES AND SOCIAL COMMUNITY IMPACT

This section is not relevant to this Technical Report.

22 CAPITAL AND OPERATING COSTS

This section is not relevant to this Technical Report.

23 ECONOMIC ANALYSIS

This section is not relevant to this Technical Report.

24 ADJACENT PROPERTIES

The Maravaia Property is totally surrounded by third-party concessions (Figure 15).

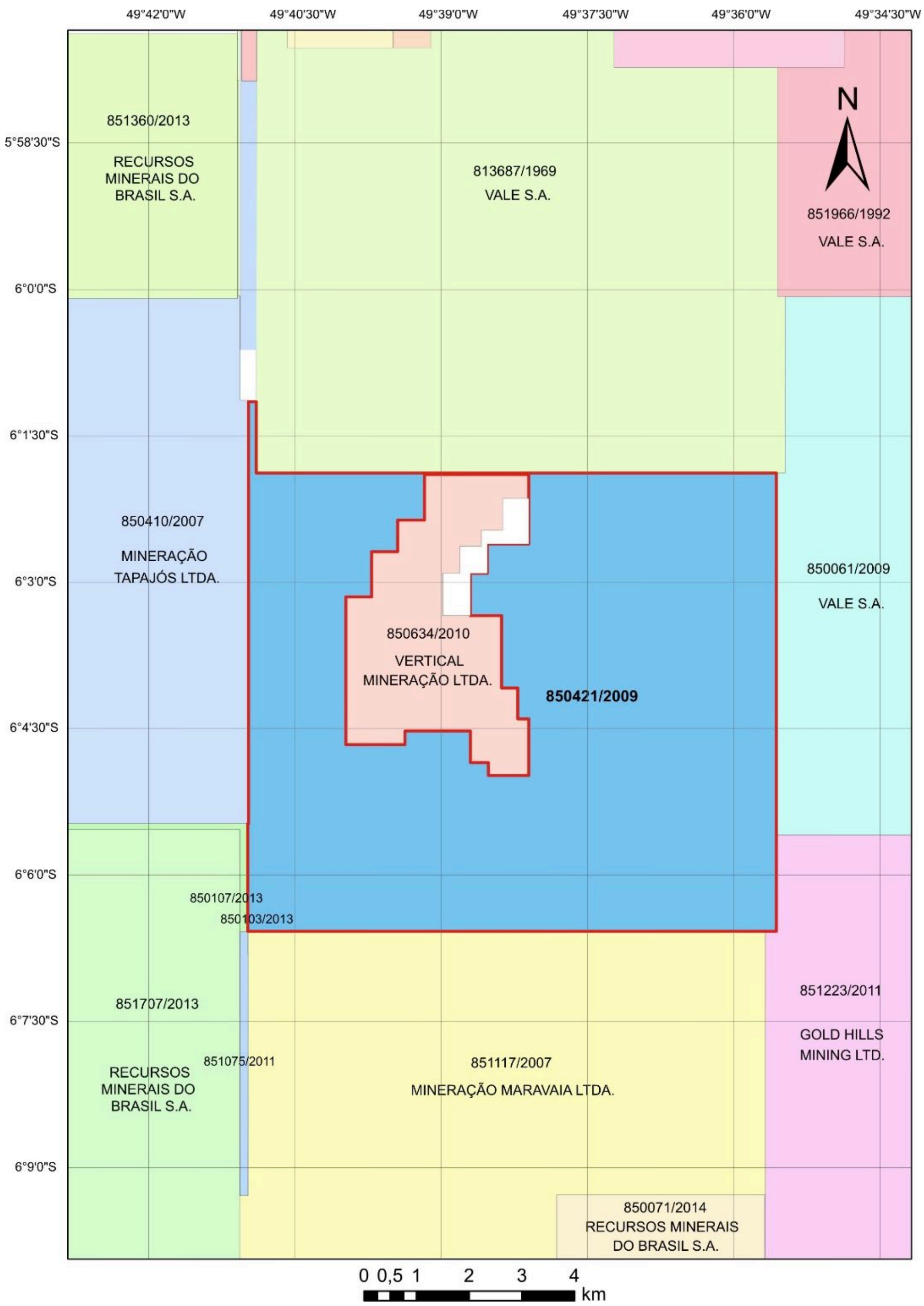


Figure 35 - The Maravaia Mineral concession (840421/2009), surrounded by third-party concessions. Source: http://www.dnpm.gov.br - Mining Rights Study, Feb/2015.

25 OTHER RELEVANT DATA AND INFORMATION

The regional exploration program completed by MML confirmed the existence of two additional prospects with significant potential to host Cu-Au mineralization. They are the West, and East targets, and contain the same lithotypes, structures and mineralization object of the current resource estimated in the Osmar Target.

The West Target is located about 2.3 km northwest of the Osmar Target. The East Target is located about 500 m and 800 m southeast of the Osmar Target (see Fig. 6).

MML plans to immediately proceed with the exploration drilling program, aiming at the completion of resource assessment followed by metallurgical testwork and advance to the feasibility study phase. Environmental studies have been initiated and the project registration process leading to MML obtaining all required permits for construction at all sites as well as for operating the facilities has been defined and is being implemented.

To the Author's knowledge, there is no additional information or explanation necessary to make this technical report understandable or misleading.

26 INTERPRETATION AND CONCLUSIONS

- The Osmar Target contains a high-grade IOCG-type copper deposit (average 4.20% Cu), containing gold as a valuable byproduct (0.66 ppm Au).
- MML has established an excellent geological databank in regard of the local Cu-Au mineralization.
- About 15 to 20% of the deposit is dominated by oxide (cuprite) and carbonate (malachite), with minor amounts of native copper and chalcocite.
- The project geology and mineralization is sufficiently well established to support preliminary mineral resource estimation in the indicated category.
- The preliminary mineral resource estimate is based on 16 drillholes (2,565.70 m). Cu and Au grades were estimated using inverse distance inside a constrained block model.
- The mineral resources estimated at the Osmar Target are 2,140,742 tonnes of ore @ 4.20% Cu and 0.66 ppm Au. This yields a total copper equivalent (Cu + Au) of 100,259 tonnes of copper*.
- There is potential for additional mineable resources in the Galpão Target, which is located about 1,500 meters to the SE of the Osmar Target.
- The preliminary mineral resource estimate at the Galpão Target is based on 4 drillholes 780.65 m). Cu and Au grades were estimated using the method of linear sections.
- The mineral resources inferred at the Galpão Target are 380,479 tonnes of ore @ 3.16% Cu and 0.69 ppm Au. This yields a total copper equivalent (Cu + Au) of 13,946 tonnes of copper*.

*Formula for calculation of copper equivalent (LME):

OSMAR

Indicated – Osmar Target						
Volume (m^3)	Tonnes (t)	Cu (%)	Au (g/t)	Cu (t)	Au (Kg)	Au (Oz)
781,293	2,140,742	4.20	0.66	89,911	1,413	45,425.46

Calculation for the Copper Equivalent:

a) Copper tonnes:		89,911
b) Gold Conversion:		
Date of Report:	09-28-15	
Gold (Oz):	45,425.46	
Price per US$/Oz (LME):	1,131.05	
Total Price (US$):	51,378,466	
Copper Price (US$/t):	4,965.00	
Copper Eq (t):	10,348	10,348
Total Contained Copper (a) + (b):		100,259 tonnes

GALPAO

Inferred - Galpao Target						
Volume (m^3)	Tonnes (t)	Cu (%)	Au (g/t)	Cu (t)	Au (Kg)	Gold (Oz)
115,647	380,479	3.16%	0.69	12,023.14	262.53	8,440.55

Calculation for the Copper Equivalent:

a) Copper tonnes:		12,023
b) Gold Conversion to Copper Equivalent:		
Date of Report:	09-28-15	
Gold (Oz):	8,440.55	
Price per US$/Oz (LME):	1,131.05	
Total Price (US$):	9,546,686	
Copper Price (US$/t):	4,965.00	
Copper Eq (T)	1,923	1,923
Total Contained Copper (a) + (b):		13,946 tonnes

27 RECOMMENDATIONS

Considering the success in characterizing the Cu-Au minimum economic resources of the OsmarTarget, the following procedures are recommended:

- Conduct a metallurgical testing program, in order to establish the mining parameters and economic recovery methods for copper and gold in the Osmar Target.

- Start an open pit trial mining operation, paired with a pilot plant, which will require a field laboratory for sample preparation and chemical analyses.

- Promote an extensive drilling program on a regular drilling grid, accompanied by more detailed geological interpretation.

  These will be required to better understand the extent of the Osmar Cu-Au deposit both in depth and on the surroundings, which includes the West and Galpão targets.

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29 CERTIFICATE AND CONSENT

To accompany NI 43-101 Technical Report `Maravaia Copper-Gold Deposit, Carajás Mining District, Pará, Brazil`, September, 2015.

I, João Batista Guimarães Teixeira, with a business address at 13 Rua Camuripeba, Piatan, Salvador, Bahia, Brazil, 41650-035, hereby state that:

1. I am an Independent Consulting Geoscientist.
2. I am a graduate of the University of São Paulo, Brazil, with a BSc degree in Geology in 1968.
3. I am a graduate of the Federal University of Bahia, Salvador, Brazil, with an MSc degree in Economic Geology in 1984.
4. I am a graduate of the Pennsylvania State University, University Park, PA, USA, with a PhD degree in Geosciences in 1994.
5. I have practiced my profession for more than 40 years since graduating, have variously managed authored and co-authored mining feasibility studies for a variety of mineral deposits in Brazil.
6. I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO), of Ontario, Canada.
7. I am the author of the Independent Technical Report "Maravaia Copper-Gold Deposit, Carajás Mining District, Pará, Brazil", dated September 28, 2015, which is based on a study of available technical information provided by Tessarema Resources Inc., and on a site visit to the deposit in February 13 to 17, 2015.
8. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
9. I do not own or expect to receive any interest (direct, indirect or contingent) in the Property described herein.
10. I hereby consent the use of this report for Technical Report to any regulatory authority.
11. I am a Qualified Person and I have taken general responsibility for ensuring that all the sections of this report have been prepared to the required standards, in compliance with NI 43-101.

September 28, 2015

João Batista Teixeira

João Batista Guimarães Teixeira, P.Geo.