

# NI 43-101 TECHNICAL REPORT ON THE CAPIM GROSSO GRAPHITE PROJECT, BRAZIL

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## CAPIM GROSSO GRAPHITE PROJECT, BRAZIL

# NI-43-101 TECHNICAL REPORT

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**Gratomic Inc.**

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h. c. 1871

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Brazil

## Certificate of Qualified Person

**Nico Scholtz (M.Sc., Pri. Sci. Nat.)**

I, Nico Scholtz, SACNASP, do hereby certify that:

1. I am an independent consultant with an address at P.O. Box 1316, Swakopmund, Namibia.
2. I am an M.Sc. graduate of Dept. Geology, University of the Free State, South Africa.
3. I am a Professional Geological Consultant and a member of the *South African Council for Natural and Scientific Professions (SACNASP)*, and have been a professional practicing geologist since 2004.
4. I been actively involved in exploring for a similar style of mineralization that is the subject of the Report, for the past 15 years, incorporating greenfields and brownfields gold exploration in Africa, South America, North America and Asia. Work involved exploration program construction and management, planning and implementation of mineral exploration programs in the field, and report writing.
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I am responsible for the preparation of all sections (except Section 7) in the report titled, “NI 43-101 Technical Report on the Capim Grosso Graphite Project, Brazil” (the “Technical Report”) with a Report Effective Date of Oct. 29, 2022.
7. I visited the project area on numerous occasions between 2021 and 2022 with the last visit taking place between Oct. 27 and Oct. 29, 2022.
8. I am an independent geological consultant who has been providing the Issuer with geological consulting services.
9. I am independent of the issuer applying all of the tests in Section 1.5 of NI43-101 Form F1 and companion policy 43-101CP.
10. I have read NI 43-101, Form 43-101F1 and confirm the Technical Report has been prepared in compliance with that instrument and form.
11. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed on this 14<sup>th</sup> day of November, 2022

*“signed”*

.....  
Nico Scholtz (*Pr. Sci. Nat.*)

M.Sc. Geology

## Certificate of Qualified Person

### Carlos Bastos (M.Sc)

I, Carlos Bastos, do hereby certify that:

1. I am an independent consultant and have an address of Ministro ACM street, 556 Lauro de Freitas city, Bahia state, Brazil.
2. I am a geologist who graduated from the State University of Rio de Janeiro, Brazil, in 1986 and an M.Sc. graduate from the State University of Pará, Brazil, in 1992.
3. I am a professional member of the Society for Mining, Metallurgy & Exploration - SME (Reg. No. 04137417), and Qualify Person (QP) registered by Brazilian Commission for Resources and Reserves (CBRR Reg No. 019041).
4. I have practised my profession continuously since 1986. I have over 35 years' experience in the exploration and mining industry. I have been involved in mineral resource estimation and compilation of technical reports since 2010.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for the preparation of section 7 in the report titled, "NI 43-101 Technical Report on the Capim Grosso Graphite Project, Brazil" (the "Technical Report") with a Report Effective Date of Oct. 29, 2022.
7. I visited the Project on numerous occasions in 2022. The most recent visit was on 27 October 2022.
8. I am an independent geological consultant who has been providing the Issuer with geological consulting services.
9. I am independent of the issuer applying all of the tests in Section 1.5 of NI43-101 Form F1 and companion policy 43-101CP.
10. I have read NI 43-101, Form 43-101F1 and confirm the Technical Report has been prepared in compliance with that instrument and form.
11. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the Sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed at Salvador, Brazil this 14<sup>th</sup> day of November, 2022

"signed"

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Carlos Bastos  
M.Sc. Geology

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## Glossary of Technical Terms

<i>Archaean</i>	The oldest rocks of the Precambrian era, older than about 2,500 million years.
<i>As</i>	Arsenic
<i>Au</i>	Gold
<i>Auriferous</i>	Gold rich
<i>basement</i>	The igneous and metamorphic crust of the earth, underlying sedimentary deposits.
<i>C\$</i>	Canadian dollar
<i>carbonate</i>	A rock, usually of sedimentary origin, composed primarily of calcium, magnesium or iron and CO <sub>3</sub> . Essential component of limestones and marbles.
<i>CIM</i>	Canadian Institute of Mining, Metallurgy and Petroleum
<i>conglomerate</i>	A rock type composed predominantly of rounded pebbles, cobbles or boulders deposited by the action of water.
<i>craton</i>	Large, and usually ancient, stable mass of the earth's crust comprised of various crustal blocks amalgamated by tectonic processes. A cratonic nucleus is an older, core region embedded within a larger craton.
<i>diamond drilling</i>	Method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit.
<i>dolomite</i>	A mineral composed of calcium and magnesium carbonate; a rock predominantly comprised of this mineral is also referred to as dolomite or dolostone.
<i>ET</i>	Exploration target
<i>fault</i>	A fracture or fracture zone, along which displacement of opposing sides has occurred.
<i>fold</i>	A planar sequence of rocks or a feature bent about an axis.
<i>Formation</i>	A laterally continuous rock unit with a distinctive set of characteristics that make it possible to recognize and map from one outcrop or well to another.
<i>gangue</i>	Gangue is the commercially worthless material that surrounds, or is closely mixed with, a wanted mineral in an ore deposit.
<i>gossan</i>	An iron rich secondary rock usually the result of weathering of a sulphide rich ore zone
<i>granite</i>	A generic term for coarse grained felsic igneous rocks, including granite.
<i>greenfields</i>	Early stage exploration
<i>greenstone</i>	A low-grade metamorphic rock that frequently contains green minerals such as chlorite, epidote, and talc, often derived from the metamorphism of basalt, gabbro, or diabase.
<i>ha</i>	hectares
<i>ICP</i>	Inductively Coupled Plasma analytical technique
<i>induced polarisation</i>	Induced polarization (IP) is a geophysical imaging technique used to identify the electrical chargeability of subsurface materials
<i>joints</i>	Regular planar fractures or fracture sets in massive rocks, usually created by unloading, along which no relative displacement has occurred.
<i>Ma</i>	Million years.
<i>mafic</i>	Descriptive of rocks composed dominantly of magnesium and iron rock-forming silicates.
<i>magnetic survey</i>	Magnetic surveys record spatial variation in the Earth's magnetic field.
<i>Mesoproterozoic</i>	Middle Proterozoic era of geological time, 1,600 to 1,000 million years ago.
<i>metamorphism</i>	Alteration of rock and changes in mineral composition, most generally due to increase in pressure and/or temperature.

<i>oxidation</i>	A chemical reaction in which substances combine with oxygen. For example, the combination of iron with oxygen to form an iron oxide.
<i>pegmatite</i>	A coarse crystalline igneous rock usually formed in the late stages of granite crystallisation
<i>Precambrian</i>	Pertaining to all rocks formed before Cambrian time (older than 545 million years).
<i>Proterozoic</i>	An era of geological time spanning the period from 2,500 to 545 million years before present.
<i>QAQC</i>	Quality assurance and quality control
<i>QP</i>	Qualified Person
<i>RC drilling</i>	(Reverse Circulation) A percussion drilling method in which the fragmented sample is brought to the surface inside the drill rods, thereby reducing contamination.
<i>satellite positioning system (global positioning system GPS)</i>	An instrument used to locate or navigate, which relies on three or more satellites of known position to identify the operator's location.
<i>schist</i>	A crystalline metamorphic rock having a foliated or parallel structure due to the recrystallisation of the constituent minerals.
<i>sedimentary</i>	Sedimentary rocks are types of rock that are formed by the accumulation or deposition of small particles and subsequent cementation of mineral or organic particles on the floor of oceans or other bodies of water at the Earth's surface.
<i>stratigraphy</i>	A branch of geology concerned with the study of rock layers and layering. It is primarily used in the study of sedimentary and layered volcanic rocks.
<i>stream sediment sampling</i>	The collection of samples of stream sediment with the intention of analysing them for trace elements.
<i>strike</i>	Horizontal direction or trend of a geological structure.
<i>supergene</i>	Supergene processes or enrichment are those that occur relatively near the surface as opposed to deep hypogene processes. Supergene processes include the predominance of meteoric water circulation with concomitant oxidation and chemical weathering.
<i>Supergroup</i>	The supergroup consists of a sequence of geological units
<i>tectonic</i>	Pertaining to the forces involved in, or the resulting structures of, movement in the earth's crust.
<i>TGC</i>	Total graphitic carbon
<i>TSX-V</i>	TSX Venture Exchange
<i>ultramafic</i>	Igneous rocks consisting essentially of ferromagnesian minerals with trace quartz and feldspar.
<i>US\$</i>	United States Dollar
<i>XRF</i>	X-ray fluorescence

### **IMPORTANT NOTICE**

This Report was prepared exclusively for Gratomic Inc. by Qualified Persons (QPs) Mr. Nico Scholtz and Mr Carlos Bastos. The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in the QPs services and is based on: i) information available at the time of preparation, ii) data supplied by public sources, and iii) the assumptions, conditions and qualifications set forth in the Report. The Report is intended to be used by Gratomic Inc. only, subject to the terms and conditions of its contract with the QPs. Any other use of, or reliance on the Report by any third party is at that party's sole risk.

## 1. SUMMARY

### 1.1 Introduction

Nico Scholtz (Principal author) and Carlos Bastos (co-author) have been requested by Gratomic Inc. to prepare a National Instrument 43-101 Technical Report (the “Report”) on the Capim Grosso project (the “Property” or the “Project”), located within Brazil. The Report has been compiled by Nico Scholtz and Carlos Bastos, Qualified Persons as defined by *National Instrument 43-101* (“NI 43-101”). Gratomic Inc. is a publically traded, mineral exploration company focused on the acquisition, exploration and development of projects in Brazil, Namibia and Canada. This 43-101 is completed in order to provide technical information on the Capim Grosso Graphite Project in Brazil.

The Report has been prepared in accordance with NI 43-101 Standards for Disclosure for Mineral Projects and incorporated the following:

- Literature and historical data review.
- Review of work completed to date by license holder.
- Field investigations by the QPs
- Recommendations for future exploration programs and budget.

### 1.2 Property Description

The 37.27 km<sup>2</sup> in size Capim Grosso project is located within the Bahia State of Brazil. A centre point of the property in WGS84 (UTM 24S) is 391214 mE and 8748311 mS.

#### 1.2.1 Tenure

The QPs have not independently verified, nor are they qualified to verify, the legal status of the licence. The present status of tenements listed in the Report is based on information as well as copies of documents provided by the licence holder. The Report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation.

Table 1.1 Tenure of the six Capim Grosso Project licenses (source: Gratomic, 2022).

Capim Grosso project Licences				
Process Number	Area (ha)	Material	Phase	Vendor
870180/2012	426,03	Graphite	Mining requirement	Zumbi Mineração
871799/2017	663,14	Phosphate	Research authorization	Zumbi Mineração
872180/2016	599,61	Iron ore	Research authorization	Zumbi Mineração
872160/2016	363,29	Quartzite	Research authorization	Zumbi Mineração

871802/2017	778,13	Phosphate	Research authorization	Zumbi Mineração
872181/2017	896,96	Phosphate	Research authorization	Zumbi Mineração

### **1.2.2 Agreements**

Gratomic has acquired 100% of the rights and interests in and to the “Capim Grosso Property” comprising 6 mineral right (refer Table 1.1) located in Capim Grosso, Brazil pursuant to the Agreement with Zumbi Mineração Brazil (“Zumbi”) and the shareholders of Zumbi (collectively the “Vendors”). In consideration for a 100% interest in the Capim Grosso Property, Gratomic paid CAD \$ 200,000 to the Vendors and issued to the Vendors an aggregate of 3,840,580 common shares, at a deemed price of \$1.38 per share, subject to a resale restriction expiring on April 9, 2022. In addition, 2,845,671 of the common shares issued are subject to a twelve (12) month resale restriction expiring on December 8, 2022. The Vendors retained a 3% gross smelter return royalty in respect of all minerals processed from the Capim Grosso Property, other than graphite, on the terms and conditions set forth in a gross smelter royalty agreement dated December 8, 2021.

### **1.2.3 Surface Rights**

According to the Brazilian Mining Code, it is not necessary for the license holder to have agreements with land owners. While such access agreements are not required, Gratomic has attained good relations with land owners whom have given their support for exploration efforts on the Capim Grosso Project.

## **1.3 Accessibility, Climate, Local Resources and Infrastructure**

The predominant climate is tropical, hot, and semi-humid, with two well-defined seasons: a rainy one (between October and March) and a dry one (from April to September). The average annual rainfall (rainfall) is 700 mm. The average annual temperature varies between the maximum temperatures reaching up to 35 °C and the minimum 21 °C. The project is located within a low to medium rainfall area with no surface water except in the creeks.

The vegetation in the area is represented by fields, savannas, and gallery forests. The “cerrado” is the corresponding biome of the mapped area, characterized by the occurrence of grasses, shrubs, and spaced trees, such trees have thick bark, crooked trunks, and roots deep. Currently, the vegetation is replaced by pastures planted in extensive areas. An anthropogenic area with intense livestock activity, razed relief with some elevations highlighted in the relief. The secondary roads leading to the Property are well maintained and accessible year round. It is only on the Property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle.

Access to the Capim Grosso Project, departing from Salvador, the capital of the state of Bahia, is via the federal highway BR-324 to the city of Feira de Santana, in a route of about 100 km on a paved

highway. From the latter city, paved highway BR-116 is followed to the north to the city of Tanquinho, for 20 km. The BR-324 paved highway is hereafter followed to Capim Grosso for 160 km. From the town of Capim Grosso, the project is reached via paved highway BR-404, towards Juazeiro for about 7 km. At this point of the highway, an all weather gravel road is followed to the east, for approx. 5 km to the project boundary. The total route is 291 km paved highway and about 5 km of gravel road.

#### **1.4 History**

The Vendors of the project have completed the following exploration work prior to Gratomic's involvement:

- Airborne geophysical data interpretation
- Grab sampling
- Geological mapping
- 10 x Trenches completed with associated assays
- 3 x Diamond drillholes completed with associated assays
- Stream and soil sediment surveys
- Geophysical: Resistivity and Induced Polarization (IP)

The three preliminary drillholes and 10 shallow trenches was completed over a 1 km section of the graphite mineralisation on Capim Grosso. Assay results show total graphitic carbon (TGC) of between 6.79 % TGC over 2.5 m to 20.95 % TGC over 2.4 m in surface trenching. Drilling results of 26.47 % TGC over 1 m have been obtained (these are not true widths of mineralisation). The QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

#### **1.5 Geological Setting and Mineralisation**

The Capim Grosso graphite project is located within the São Francisco Craton (SFC). The SFC is a tectonic domain surrounded by Neoproterozoic orogens. Its southern sector is composed by Archean crust, with age between 3.5 and 2.6 Ga, that is formed mostly by granite-gneisses and greenstone belts constituted by mafic-ultramafic, intermediate-felsic volcanic and volcanoclastic rocks with terrigenous sediments. Graphite at Capim Grosso is set within NW-SE striking ultramafic units.

#### **1.6 Deposit Types**

The Capim Grosso project is classed as natural flake graphite occurrence.

#### **1.7 Recent Exploration**

Gratomic completed the following exploration work between 2021 and 2022:

1. Geological mapping

2. Trenching (56 trenches for 3,351.95 m)
3. Diamond drilling which is ongoing (28 drillholes for 4,051.15 m to date)
4. Metallurgical test work
5. Bulk density determinations
6. Exploration target

### 1.8 Interpretation and Conclusions

Nico Scholtz and Carlos Bastos have been requested by Gratomic Inc. to prepare a National Instrument 43-101 Technical Report (the “Report”) on the Capim Grosso project (the “Property” or the “Project”), located within Brazil. This report included a review of work conducted by Gratomic Inc. on the Capim Grosso Project.

The exploration work completed by Gratomic to date warrants additional expenditure and confirms the good exploration potential of the Capim Grosso project which includes:

- The good graphite grade and widths from the ongoing drilling and trenching program, which includes assay results of:
  - 7.90 m @ 9.46 TGC % in hole CGD015 from 70.5 m
  - 11.16 m @ 13.13 TGC % in hole CGD001 from 20.74 m
- Positive initial metallurgical test work, which proved that a combined concentrate grade of 96 to 97% C(t) with a closed-circuit graphite recovery of 85 to 90% seems achievable for the Capim Grosso mineralization
- Exploration target of 5 Mt (lower range) to 30 Mt (upper range) at an avg. grade of 5.85 % TGC. This exploration target is conceptual in nature and there was insufficient exploration to define a mineral resource. The QP is uncertain if further exploration will result in the target being delineated as a mineral resource.
- Additional mineralisation target areas on the project

### 1.9 Recommendations

The Author has proposed an initial exploration budget over 24 months of US\$ 1,325,000 (spent over two stages within 24 months) to include the following (the budget is a recommendation and excludes overheads such as director salaries, flights/transport and other corporate expenses):

1. Stage 1: Trenching followed by Diamond drilling on defined targets
2. Stage 2: Mineral Resource Estimation and metallurgical testing



## 2. INTRODUCTION

### 2.1 Scope and Purpose of the Report

Nico Scholtz and Carlos Bastos have been requested by Gratomic Inc. to prepare a National Instrument 43-101 Technical Report (the “Report”) on the Capim Grosso project (the “Property” or the “Project”), located within Brazil. The Report has been compiled by Nico Scholtz and Carlos Bastos, Qualified Persons as defined by *National Instrument 43-101* (“NI 43-101”). Gratomic Inc. is a publically traded, mineral exploration company focused on the acquisition, exploration and development of projects in Brazil, Namibia and Canada. This 43-101 is completed in order to provide technical information on the Capim Grosso Graphite Project in Brazil. Recommendations for future work programs and a budget are also provided.

The completion of the Report incorporated the following:

- Literature and historical data review.
- Review of work completed to date by the license holder as well as Gratomic.
- Field investigations by QPs
- Recommendations for future exploration program and budget.

The QPs field investigations included the following:

1. General reconnaissance
2. Trench and diamond drilling overview

The following is important with regards to data used in the Report:

- All data was captured in WGS84 UTM zone 24S using a *Garmin* handheld GPS.
- All maps are set in True North (TN).

### 2.2 Qualifications of the Consultants

Nico Scholtz and Carlos Bastos works as independent geological consultants and QPs. The Report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is not dependent on the results of the Report.

### 2.3 Effective Dates

The effective date of the Technical Report is October 29, 2022.

### 2.4 Previous Technical Reports

There are no previous Technical Reports on the Project.

## 2.5 Sources of Information

Nico Scholtz and Carlos Bastos prepared the Report for Gratomic. The information, conclusions, opinions, and estimates contained herein are based on information available to the author at the time of preparation of the Report. For the purpose of the Report, agreement details and title ownership, the author has relied on the legal opinion provide by Gratomic. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are neither false nor misleading at the date of the Report.

The Authors received the following documentation from the license Holder:

1. Data files including reports and maps

The present status of tenements listed in the Report is based on information as well as copies of documents provided by the licence holder. Additional information also can be taken directly from the ANM (governmental agency) website:

- <https://sistemas.anm.gov.br/SCM/Extra/site/admin/dadosProcesso.aspx>

The Report has been prepared regards the tenements prove lawfully accessible for evaluation. The Capim Grosso licenses are noted in the table below.

Table 2.1 Tenure of the Capim Grosso project (source: Gratomic, 2022).

Capim Grosso project Licences				
Process Number	Area (ha)	Material	Phase	Vendor
870180/2012	426,03	Graphite	Mining requirement	Zumbi Mineração
871799/2017	663,14	Phosphate	Research authorization	Zumbi Mineração
872180/2016	599,61	Iron ore	Research authorization	Zumbi Mineração
872160/2016	363,29	Quartzite	Research authorization	Zumbi Mineração
871802/2017	778,13	Phosphate	Research authorization	Zumbi Mineração
872181/2017	896,96	Phosphate	Research authorization	Zumbi Mineração

## 2.6 Personal Inspection of the Property

Nico Scholtz completed field visits to the project as follows:

- 10 to 15 July 2021
- 15 to 21 August 2021
- 8 to 13 March 2022
- 26 to 29 November 2022

Carlos Bastos completed field visits to the project as follows:

- 27 November 2022

This QP site visits included reconnaissance of project and assisting with trench and drill planning. The following exploration work is ongoing on the project:

- Diamond drilling as part of a 5,000 m diamond drill program
- Geological mapping and grab sampling

### **3. RELIANCE ON OTHER EXPERTS**

The Report has been prepared by Nico Scholtz and Carlos Bastos for Gratomic Inc. The authors relied on the following documents:

- Tenure and agreement documents provided by the vendor

The Authors have not relied on any report, opinion or statement of another expert who is not a qualified person or on information provided by the Issuer concerning legal, political, environmental or tax matters relevant to the Report.

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1 Background Information on Brazil

The Federal Republic of Brazil is situated in the South America continent and bordered on the east by the Atlantic Ocean. In the west side shares borders with Colombia, Peru, Bolivia, Paraguay, and Argentina. Also, Brazil shares borders with Uruguay to the south, and Venezuela, Guiana Suriname and French Guiana to the north (Figure 4.1).



Figure 4.1 Location of Capim Grosso project in Central Brazil (source: *ARCGIS*® online resources).

### 4.2 Property Location

The 37.27 km<sup>2</sup> in size Capim Grosso project is located within the Capim Grosso Municipality within the Bahia State of Brazil. A centre point of the property in WGS84 (UTM 24S) is 391214 mE and 8748311 mS.

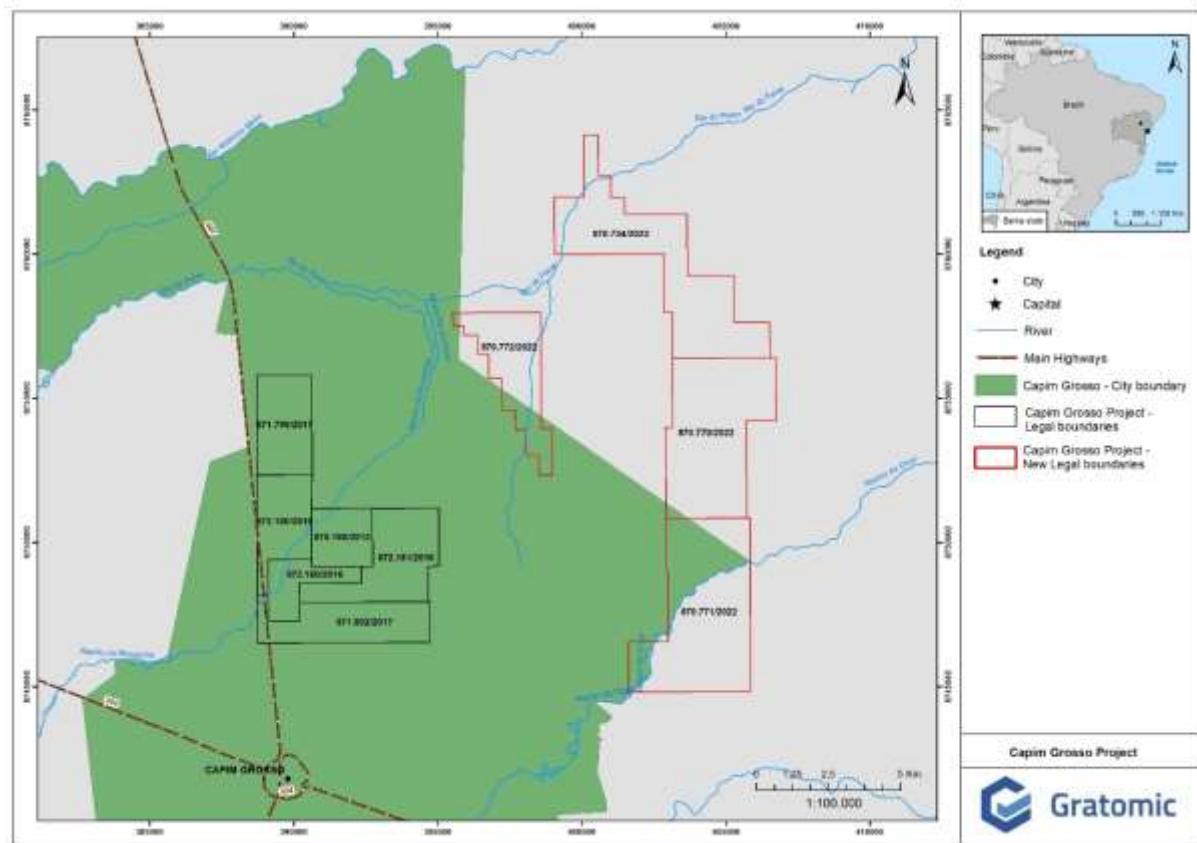


Figure 4.2 Location of Capim Grosso project in Bahia State of Brazil (source: Gratomic).

#### 4.3 Mineral Tenure

The present status of the tenements listed in the Report is based on information as well as copies of documents provided by the licence holder. Additional information also can be take directly from the ANM (governmental agency) website:

- <https://sistemas.anm.gov.br/SCM/Extra/site/admin/dadosProcesso.aspx>

The Report has been prepared regards the tenements prove lawfully accessible for evaluation.

Table 4.1 Tenure of the Capim Grosso project (source: Gratomic, 2022).

Capim Grosso project Licences				
Process Number	Area (ha)	Material	Phase	Vendor
870180/2012	426,03	Graphite	Mining requirement	Zumbi Mineração
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871802/2017	778,13	Phosphate	Research authorization	Zumbi Mineração
872181/2017	896,96	Phosphate	Research authorization	Zumbi Mineração

#### 4.4 Surface Rights

According to the Brazilian Mining Code, it is not necessary for the license holder to have agreements with land owners. While such access agreements are not required, Gratomic has attained good relations with land owners whom have given their support for exploration efforts on the Capim Grosso Project.

#### 4.5 Property Boundary Demarcation

Boundary coordinates for the Project were obtained from the license Holder. Boundary positions are “paper marked”.

#### 4.6 Agreements, Licence Numbers and Rights on the Property

Gratomic has acquired 100% of the rights and interests in and to the “Capim Grosso Property” comprising 6 mineral right (refer Table 4.1) located in Capim Grosso, Brazil pursuant to the Agreement with Zumbi Mineração Brazil (“Zumbi”) and the shareholders of Zumbi (collectively the “Vendors”). In consideration for a 100% interest in the Capim Grosso Property, Gratomic paid CAD \$ 200,000 to the Vendors and issued to the Vendors an aggregate of 3,840,580 common shares, at a deemed price of \$1.38 per share, subject to a resale restriction expiring on April 9, 2022. In addition, 2,845,671 of the common shares issued are subject to a twelve (12) month resale restriction expiring on December 8, 2022. The Vendors retained a 3% gross smelter return royalty in respect of all minerals processed from the Capim Grosso Property, other than graphite, on the terms and conditions set forth in a gross smelter royalty agreement dated December 8, 2021.

#### 4.7 Environmental Liabilities and Permits

The QP is unaware of any environmental liabilities on the project area. In order to continue with exploration, the Capim Grosso Project have been issued with a *Mineral Research Authorization* by the city hall, Municipal Ordinance number 899/2021, published in December-01-2021 with validity of 3 (three) years. No other permits are required in order to conduct exploration on the Capim Grosso Project.

#### 4.8 Social Aspects

The Capim Grosso project is located in the rural community of Lajedo in the city of Capim Grosso, Bahia. The project has always been developed in communication and proximity to the community, where

Gratomic received approval from the residents to carry out the geological survey and project development.

#### **4.9 Project Obligations**

The Municipal Ordinance, number 899/2021, provides the below obligations to be followed by the license holder:

1. Submit an updated Mineral Research authorization according to the DNPM protocol dated 10-24-2017 (according to DNPM);
2. Operate the enterprise according to the Enterprise Characterization report and documentation submitted to the Secretary of Works, Urban Planning, Environment and Tourism;
3. Require the Secretary of Urbanism and Environment Works for an Environmental License, in case of modification of the facilities – Project or process for mining operation;
4. Carry out Environmental Education actions, periodically, with employees aiming at sustainable practices and respect for legal norms;
5. Provide semi-annual reports to SOUAMA on environmental education activities, risk monitoring and activities carried out in the field;
6. Comply with the schedule established in the PGRS and CER; Present a certificate of procedural regularity – 180 days;

After the studies and analysis of the purpose of this authorization and before the mining procedures, the company must submit and/or comply with the PRAD/RAD (activities report) to SOUMA. It's necessary for renewal of the license, to request in the city hall on time of 180 days before expiration date of the license.

#### **4.10 Significant Risk Factors**

To the extent known of the QPs, there are no significant factors and risks that may affect access, title, or the right or ability to perform work on the property. The only risk is the non-compliance with the conditions of the licenses or deadlines for sending reports to the national mining agency and payment of mining titles.



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

### 5.1 Accessibility

The 37,27 km<sup>2</sup> in size Capim Grosso project is located at the center east portion of the Bahia province, 280 km from the port of Salvador, at the province capital, and 166 km from Feira de Santana, the province's second largest city. The secondary roads leading to the property are well maintained and accessible year-round. It is only on the property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle.

### 5.2 Climate

The predominant climate is tropical, hot, and semi-humid, with two well-defined seasons: a rainy one (between October and March) and a dry one (from April to September). The average annual rainfall (rainfall) is 700 mm. The average annual temperature varies between the maximum temperatures reaching up to 35 °C and the minimum 21 °C. The project is located within a low to medium rainfall area with no surface water except in the creeks.

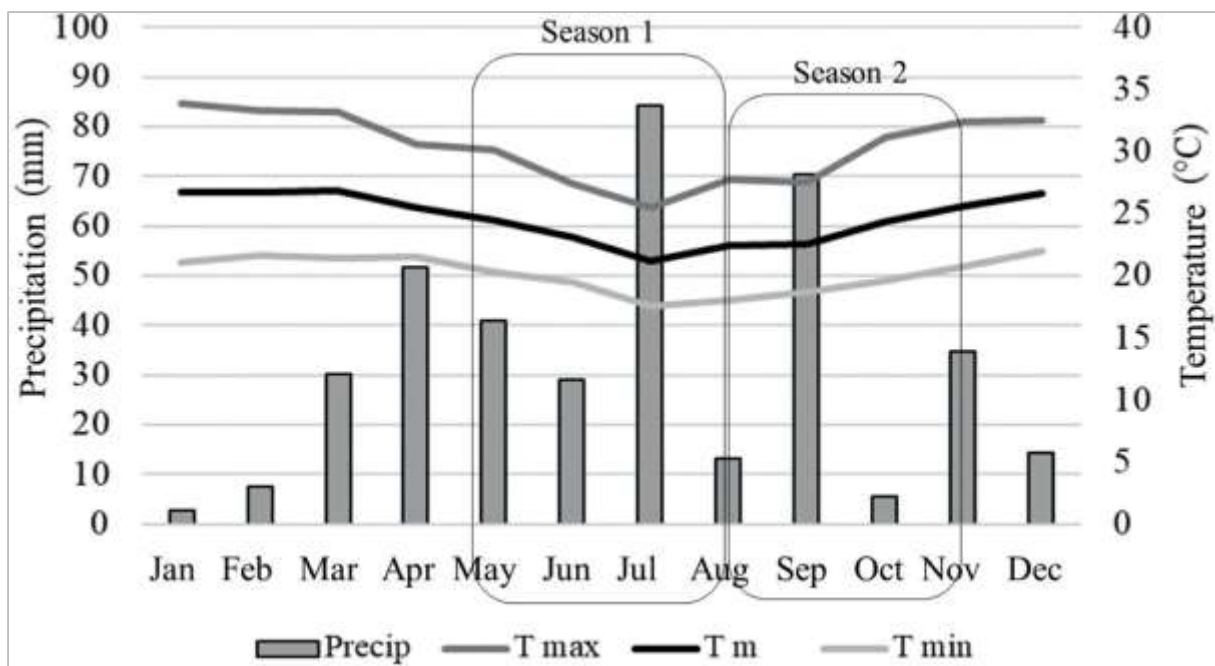


Figure 5.1 Temperature and precipitation monthly variation in the Feira de Santana area. (Source: Dos Santos Barsso et al., 2018).

The vegetation in the area is represented by fields, savannas, and gallery forests. The “cerrado” is the corresponding biome of the mapped area, characterized by the occurrence of grasses, shrubs, and spaced trees, such trees have thick bark, crooked trunks, and roots deep. Currently, the vegetation is replaced by pastures planted in extensive areas. An anthropogenic area with intense livestock activity, razed relief with some elevations highlighted in the relief. The secondary roads leading to the Property

are well maintained and accessible year round. It is only on the Property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle.



Figure 5.2 Panoramic view of the Capim Grosso area (source: Principal Author).

### **5.3 Operating Season**

The QP knows of no operating limitations within the Project.

### **5.4 Brazil Resources**

Officially known as the Federative Republic of Brazil, Brazil is a nation that is located in both South and Latin America. The country has an approximate area of 8.2 million square kilometers, which makes it the fifth-largest nation in the world by size. The country is home to many natural resources including mining, hydropower, and petroleum.

### **5.5 Infrastructure and Availability of Exploration Requirements**

The Capim Grosso project is located 280 km from the port of Salvador, at the province capital, and 166 km from Feira de Santana, the province's second largest city. The secondary roads leading to the Property are well maintained and accessible year-round. It is only on the Property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle. The Project is located within a low to medium rainfall area with no surface water.

The nearest railway siding is located at Salvador, 280 km to the east of the project. Labour is available from nearby regional towns and settlements. Potential tailings storage areas, waste disposal areas, heap leach pads, and potential processing plant sites can only be supplied after an Environmental

Impact Assessment has been completed. Salvador should be able to supply most exploration requirements and comply with all sustenance supplies.

The town of Capim Grosso is situated 10 km from the Project, with an estimated population of 26,000 inhabitants (2010 Census). Electricity is provided by the concessionaire “Companhia de Eletricidade do Estado da Bahia”, in addition to the city offering other infrastructures, such as:

- Hospital
- Fire department
- Civil Policing
- Hotels and Restaurants.

## **5.6 Topography**

The topography of the area is flat lying with minor rolling hills varying between 380 m in the north to 420 m in the south above mean sea level.

## 6. HISTORY

### 6.1 Prior Ownership

The Capim Grosso Project was acquired by Zumbi Mineração in 2012.

### 6.2 Prior Work

The vendor of the project have completed the following exploration work prior to Gratomic Inc's involvement (Zumbi, 2020):

- Airborne geophysical data interpretation and grab sampling
- Geological mapping
- 10 x Trenches completed with associated assays
- 3 x Diamond drillholes completed with associated assays
- Stream and soil sediment surveys
- Geophysical: Resistivity and Induced Polarization (IP)

Table 6.1 Summary of exploration work completed by Zumbi (Zumbi, 2020).

Works	Quantity	Unit
Geological mapping	24,5	km
Surveying	24,5	km
Geological point	161	unit
Rock (grab) samples	86	unit
Petrographic descriptions	15	unit
Stream Sediments samples	71	unit
Soil samples	261	unit
Chemical analysis (ICP + FA)	418	unit
Magnetometry surveying	24,5	km
IP - Resistivity surveying	24	km
Exploratory drilling (holes)	3	unit
Exploratory drilling (total length)	600	m
Trenching	10	unit

#### 6.2.1 Airborne geophysical data interpretation

The airborne geophysical data are part in the Caldeirão Grande SC.24-Y-D-I and Gavião SC.24-Y-D-II sheets, subject to high resolution aerogeophysical studies (LASA/PROSPECTORS, 2006), inserted within the limits of the Andorinha - Ipirá - Piritiba Aerogeophysical Survey project, Companhia Baiana de Pesquisa Mineral (CBPM), 2003. The information was extracted from the Magnetometric and Gamma-spectrometric data (Zumbi, 2020). The Aerogeophysical Survey of the Andorinha-Ipirá and Piritiba area covered an area of 14,670.00 km<sup>2</sup>, making a total of 66,574.00 linear kilometers of survey, using a fixed-wing aircraft as an aerogeophysical platform, containing an aerogeophysical multisystem configured by magnetic methods (cesium vapor sensor, with a resolution of 0.001 nT) and gamma spectrometric (256 spectral channels/2048 cubic inch crystal). The parameters used to carry out the aerial survey are the following:

- Spacing between production lines of 250 meters; spacing between control lines of 2,500 meters;
- Flight direction of E-W production lines and direction of N-S control lines;
- Interval between consecutive geophysical measurements with an interval of 0.1 second (magnetometer) and 1.0 second (gamma spectrometer);
- Flight height of 100 meters; and Astech CA-12 channel GPS navigation system.

This Aerogeophysical Survey was carried out through subcontracting by LASA Engenharia e Prospecções S.A. to Companhia Baiana de Pesquisa Mineral - CBPM. The Geosoft software Oasis Montaj Version 5.1.8 was used to process the data from the aerogeophysical survey.

### 6.2.2 Grab sampling

The QP received information for eleven (11) grab samples which varied in graphitic carbon content from 2.89 % TGC to 20.6 % TGC (Zumbi, 2020). The QPs do not have information pertaining to grab sampling QAQC protocols and historical exploration data should therefore not be relied upon.

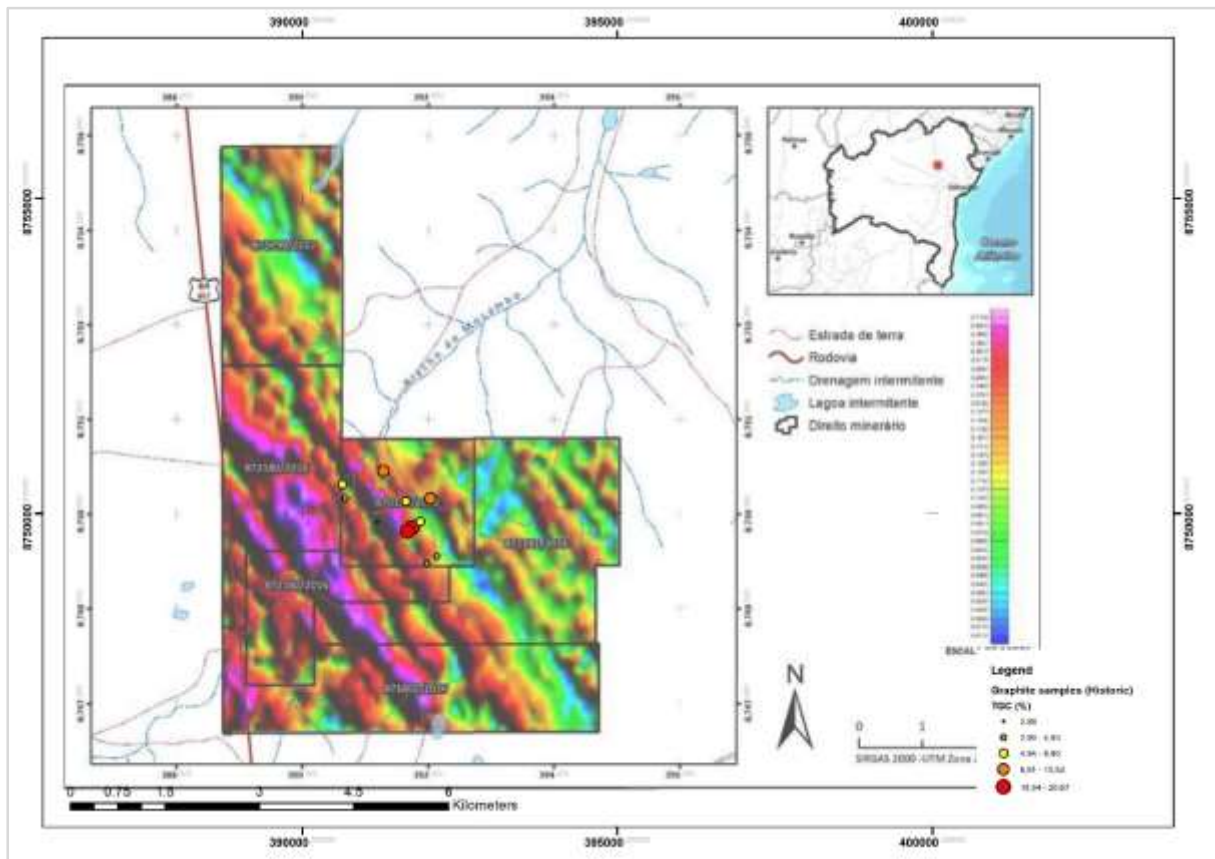


Figure 6.1 Historical grab samples (TGC % assays) on Analytical signal magnetic data. The QPs do not have information pertaining to grab sampling QAQC protocols and historical exploration data should therefore not be relied upon (source: Principal Author).

### 6.2.3 Geological mapping, trenching and drilling

Geological mapping was completed in order to refine trench and drill targeting on the Capim Grosso Project. The three diamond drillholes and 10 trenches was completed over a 1 km part of the known mineralisation on the Capim Grosso project. Assay results show total graphitic carbon (TGC) of between 6.79 % TGC over 2.5 m to 20.95 % TGC over 2.4 m in surface trenching. Drilling results of 26.47 % TGC over 1 m have been obtained (not true widths of mineralisation). The QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

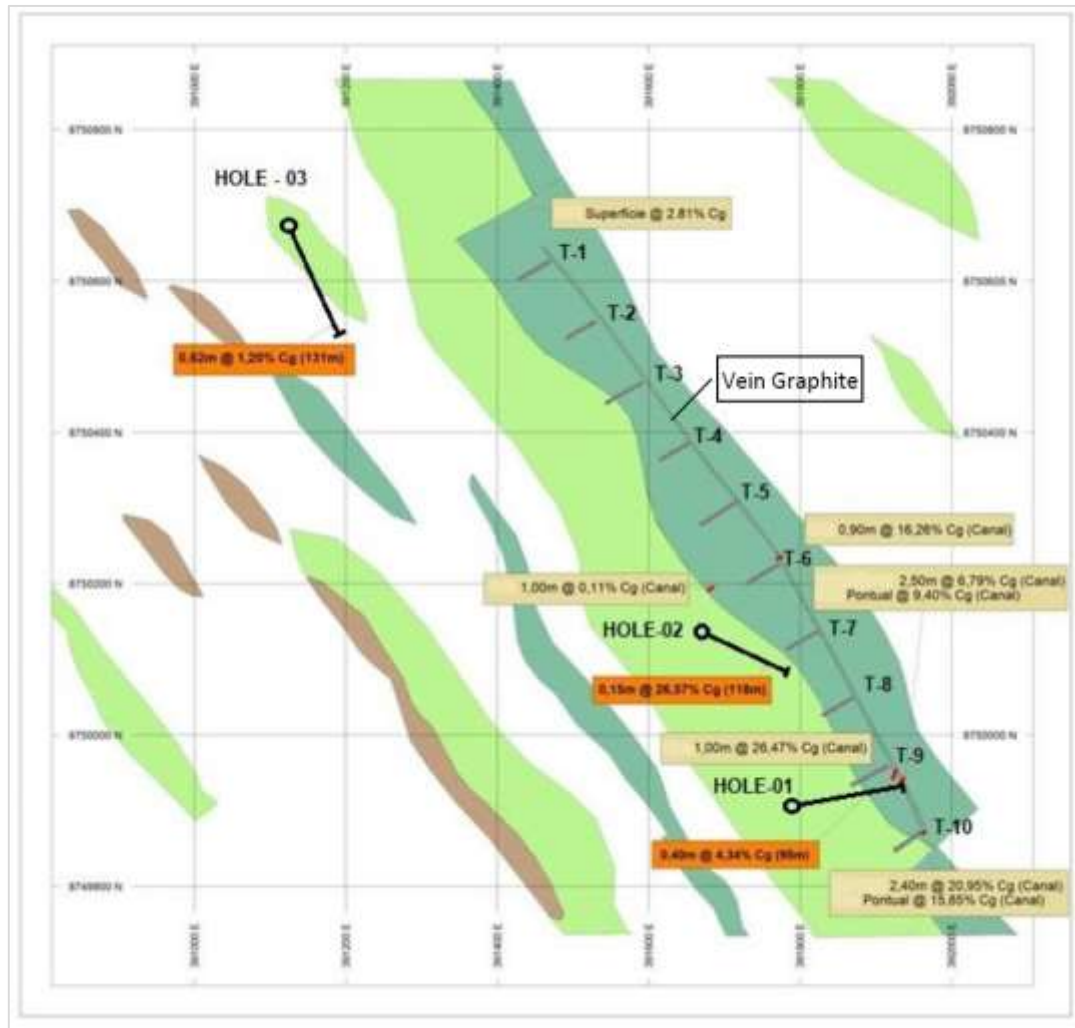


Figure 6.2 Historical trenching and drilling data portrayed on local geological mapping. The QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon (Zumbi, 2020).

### 6.2.4 Stream sediment and soil sampling

The work of this campaign started in October 2017. The geochemical survey through the collection of 67 sediment samples of the current and the results indeed anomalous values Co, Cr, Ni, Cu, V and Au



(Zumbi, 2020). However, the QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

### 6.2.5 Ground geophysical surveys (Resistivity and Induced Polarization)

Ground geophysical surveys over the Capim Grosso Project was completed in two campaigns:

1. Ground magnetic survey carried out by the vendor (Zumbi)
2. Induced Polarization and RES – Resistivity survey carried out by the company Libaneo & Libaneo, and the processing, interpretation and control of the data collected were the responsibility of the company Reconsult Geophysics.

While the report by Zumbi (2020) outlines some of the work completed, the maps are difficult to reproduce due to a lack in coordinates. However, the IP 3D survey (the QP is not certain if this is a pole dipole survey) was completed over the known graphite mineralization and some conductive zones were delineated. However, the QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

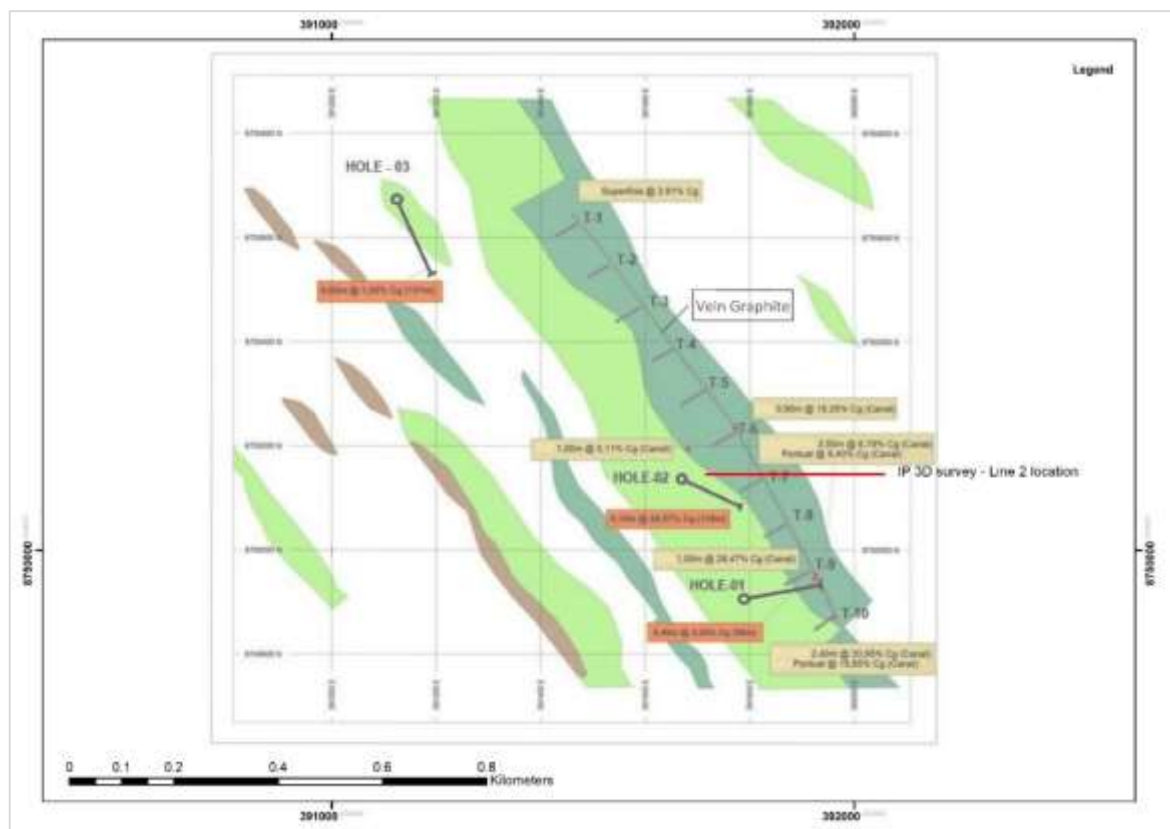


Figure 6.3 Location of 3d IP survey Line 2 over the known graphite mineralization on the Capim Grosso Project. The QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon (source: Zumbi).

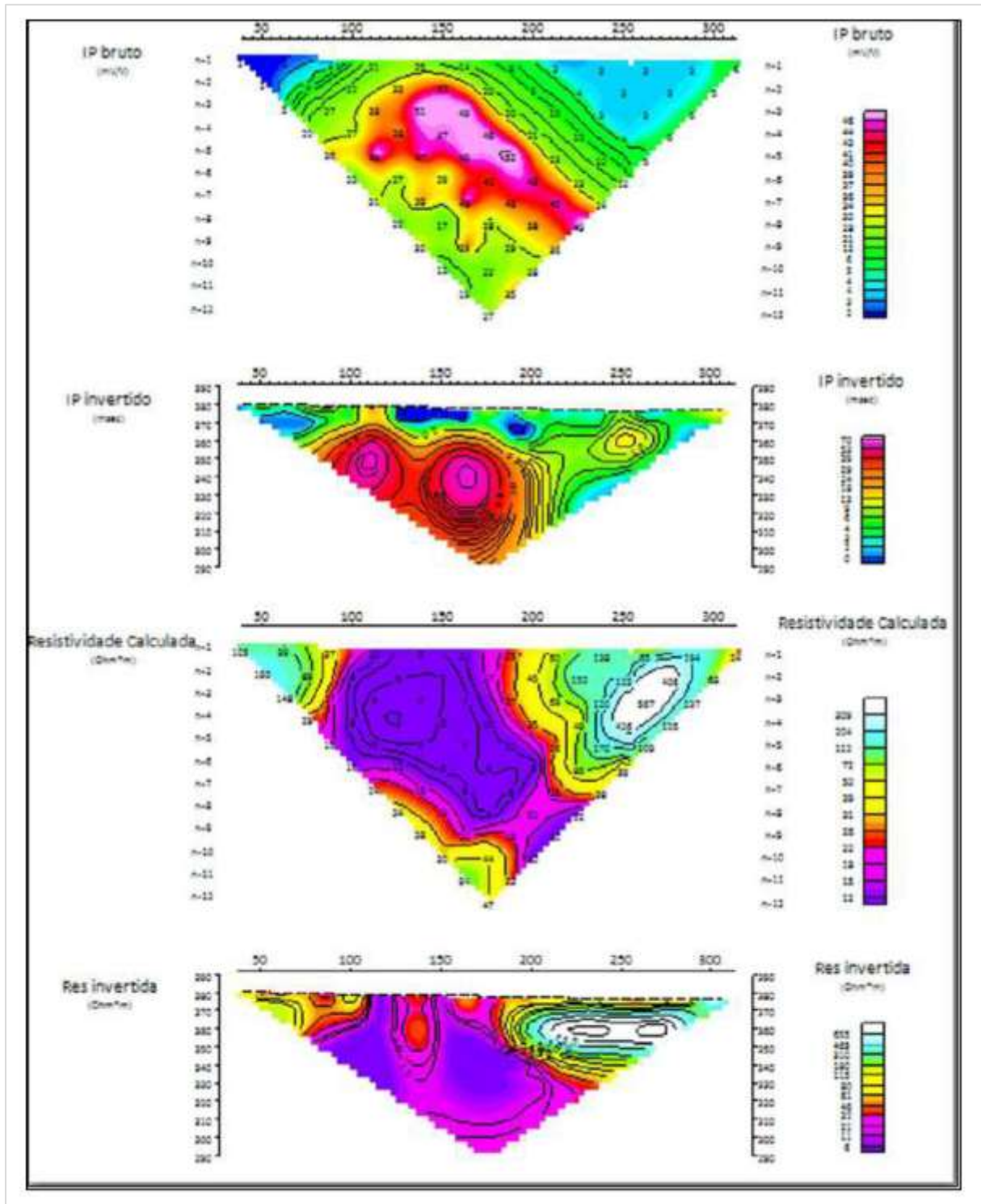


Figure 6.4 IP survey Line 2 data on the Capim Grosso Project showing a conductor picked up at approx. 130 m from the survey start in the west. From top to bottom: (i) gross induced output data; (ii) inverted induced polarization data, (iii) gross electrical resistivity data (iv) inverted electrical resistivity data. The QPs do not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon (source: Zumbi).



### **6.3 Historical Mineral Resources and Reserves**

There are no historical mineral resources or reserves.

### **6.4 Production**

No production has been disclosed.

## 7. GEOLOGICAL SETTING AND MINERALIZATION

The geology of Brazil includes cratonic basement rock from the Precambrian overlain by sedimentary rocks and intruded by igneous activity, as well as impacted by the rifting of the Atlantic Ocean.

Much of the Brazil's underlying lithologies were formed during the Precambrian, including the São Francisco Craton which outcrops in Minas Gerais and Bahia. In the Mesoproterozoic, the Rio de la Plata Craton (beneath southern Brazil), the vast Amazonia Craton, and the small São Luis Craton and sections of the Congo Craton which form the basement rock of much of Brazil were joined with Africa.

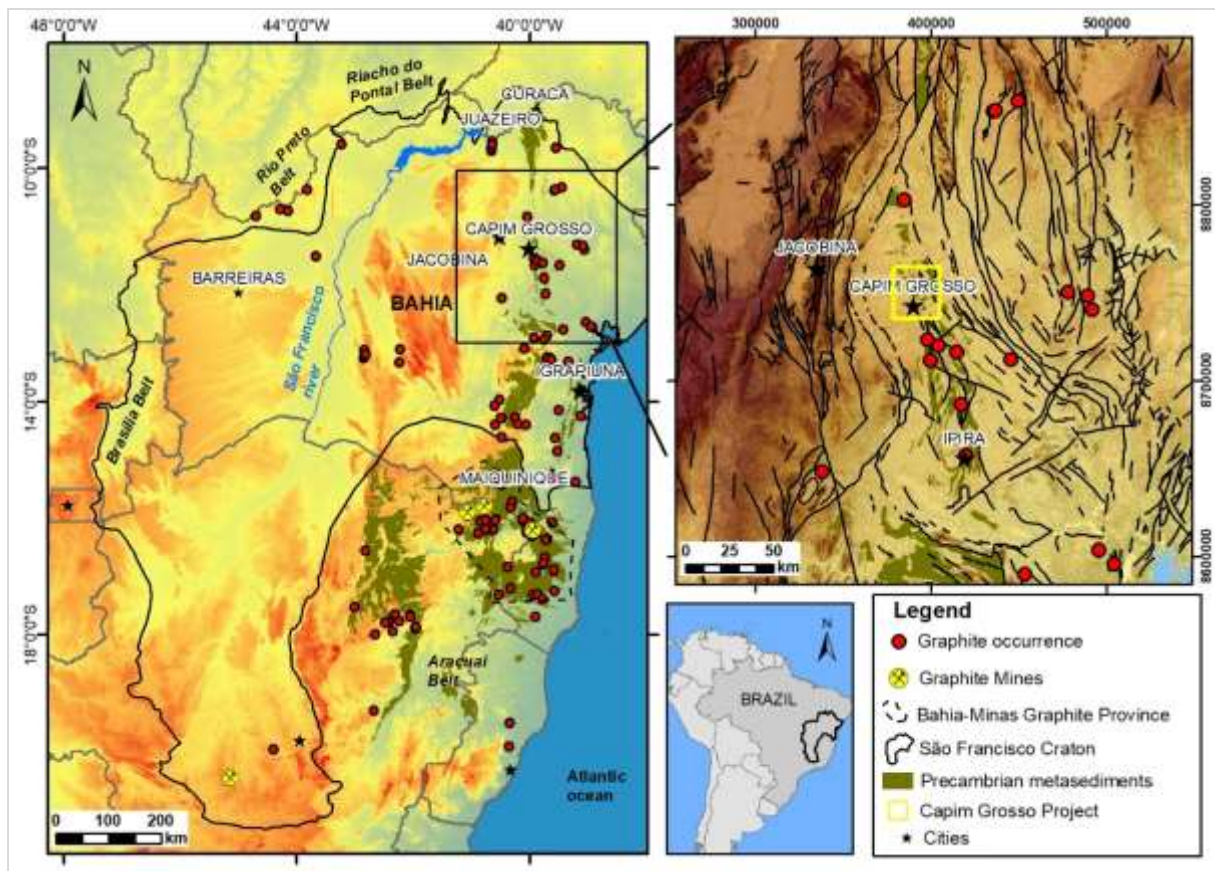


Figure 7.1: Graphite occurrences in Bahia State and Capim Grosso asset (source: GEOSGB, 2022).

### 7.1 Regional Geological Setting

The Capim Grosso graphite project is located within the São Francisco Craton (SFC). The SFC is a tectonic domain surrounded by Neoproterozoic orogens. Its southern sector is composed by Archean crust, with age between 3.5 and 2.6 Ga, that is formed mostly by granite-gneisses and greenstone belts constituted by mafic-ultramafic, intermediate-felsic volcanic and volcanoclastic rocks with terrigenous sediments. Graphite at Capim Grosso is set within NW-SE striking ultramafic units.

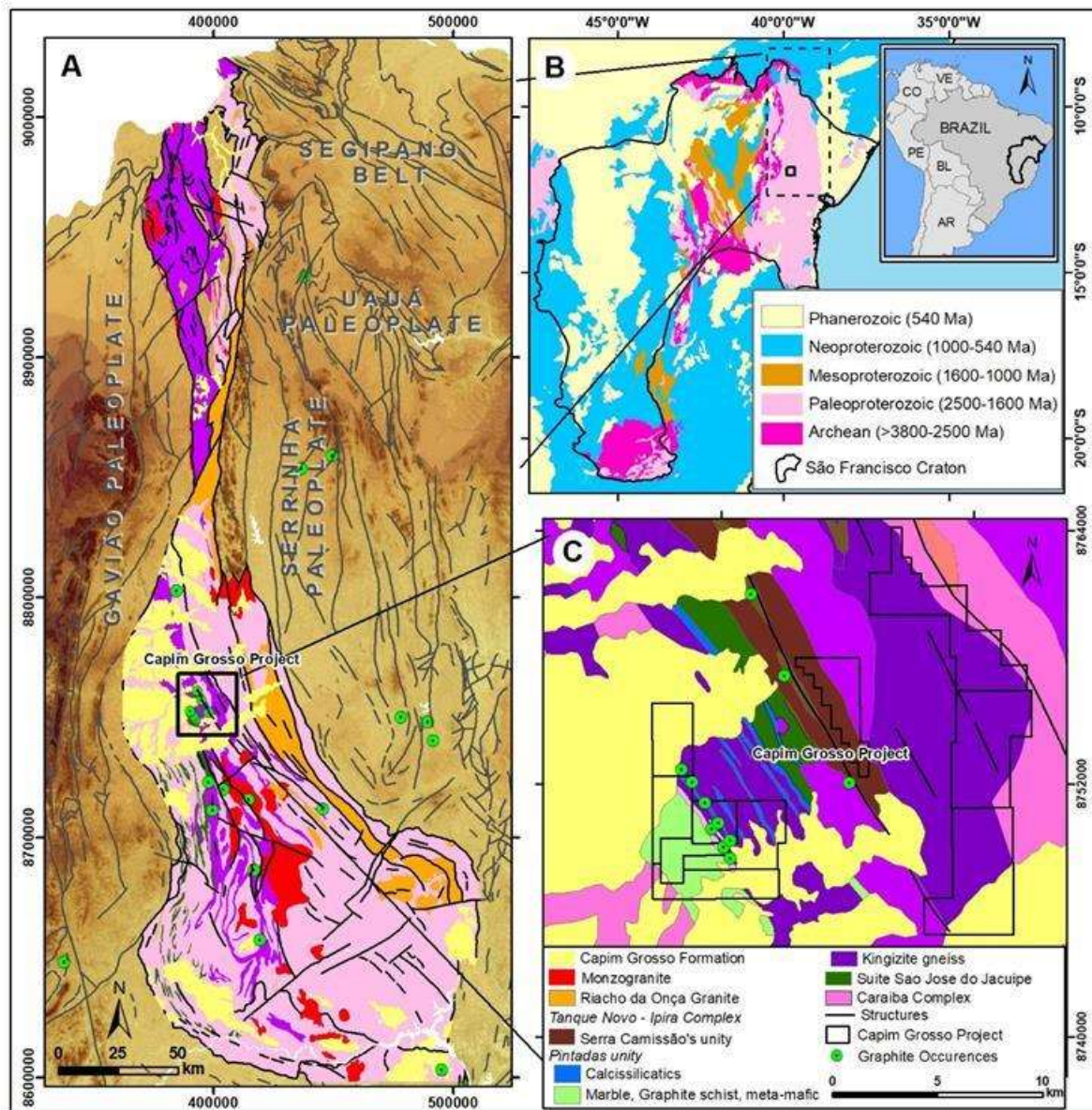


Figure 7.2 The tectonic and geochronological framework of Bahia with the location of the Capim Grosso Project (source: Gratomic).

## 7.2 Local Geological Setting

The local geological setting of the Capim Grosso Project comprises Archean-Paleoproterozoic basement rocks (covered by recent Cenozoic sediments) which includes (Delgado and Pedreira, 2010):

1. The Tanque Novo-Ipirá Complex which is composed of by high-grade gneiss, calcssilicates, graphite gneisses and pegmatites; and
2. São José do Jacuípe Suite is represented by mafic-ultramafic sequence, ranging from metagabro to serpentinite (Dunite).



### 7.3 Mineralization on the Capim Grosso project

Graphite mineralisation on the Capim Grosso Project is confined to interlayers of graphitic gneiss associated with alteration zones comprising kaolinite and epidote minerals. Mineralisation varies from a few cm up to 10 m in width. Some parts of the mineralisation appear to be vein-like graphite mineralisation, but overall the style of mineralisation is regarded as a flake type gneissic graphite. The graphite mineralisation over the aforementioned widths vary from high grade continuous blocks of graphite mineralisation to interlayers of graphite and country rock. The highest grade of mineralisation, to date, are from surface observations and trenching within the southern part of the project area. While the area has potential for base or even precious metal mineralisation, no evidence for these styles of mineralisation has been found.



Figure 7.3 High grade graphite mineralisation exposed by Gratomic Inc. trenching from the southern part of the Capim Grosso Project (source: Principal Author).



Figure 7.4 High grade graphite mineralisation (41.79 % TGC) exposed by Gratomic Inc. trenching from the southern part of the Capim Grosso Project (source: Principal Author).



Figure 7.5 While near surface graphite mineralisation tends to be the highest grade, some mineralisation from Gratomic Inc. drilling yielded high grades (23.61 % TGC from hole CGD001) (source: Principal Author).





Figure 7.6 Recent graphite mineralisation from the Gratomic drilling on the Capim Grosso Project (assays not yet available) (source: Principal Author).



Figure 7.7 Recent graphite mineralisation from the Gratomic drilling on the Capim Grosso Project (assays not yet available) (source: Principal Author).

## 8. DEPOSIT TYPES

Graphite is an opaque, gray-black, and soft (1-2 on Mohs hardness scale) mineral with a metallic luster. It is characterized by a greasy feel, low density (2.09-2.23 g/cm<sup>3</sup>), high resistance to thermal shock, and high electrical conductivity. Inertness, compressibility, elasticity, and lubricity are other important physical properties (Simandi et al., 2015).

While most graphite is formed through the metamorphism of organic material in rocks, it also occurs in igneous rocks and is found as nodules inside of iron meteorites. There are three principal types of natural graphite), each occurring in different types of mineralisation (Simandi et al., 2015):

1. Crystalline flake graphite (or flake graphite for short) occurs as isolated, flat, plate-like particles with hexagonal edges if unbroken and when broken the edges can be irregular or angular;
2. Amorphous graphite occurs as fine particles and is the result of thermal metamorphism of coal, the last stage of coalification, and is sometimes called meta-anthracite. Very fine flake graphite is sometimes called amorphous in the trade;
3. Lump graphite (also called vein graphite) occurs in fissure veins or fractures and appears as massive platy intergrowths of fibrous or acicular crystalline aggregates, and is probably hydrothermal in origin.

Graphite mineralisation at the Capim Grosso Project comprises the crystalline flake graphite type.

Disseminated graphite flakes are in a variety of rocks including marble, paragneiss, iron formation, quartzite, pegmatite, syenite and, in extremely rare cases, serpentinized ultramafic rocks. By far the most common hosts for economically significant crystalline flake deposits are paragneiss and marble that have been subjected to upper amphibolite to granulite facies metamorphism (Simandi et al., 2015).

## 9. EXPLORATION

Gratomic Inc. completed the following work on the Capim Grosso Project to date:

1. Geological mapping
2. Trenching (56 trenches for 3,351.95 m)
3. Diamond drilling which is ongoing (28 drillholes for 4,051.15 m to date)
4. Bulk density determinations
5. Metallurgical test work
6. Exploration target

### 9.1 Geological mapping

Geological mapping is ongoing on the Capim Grosso Project and is completed in order to determine surface lithological exposure with the main aim of locating graphite rich lithologies.

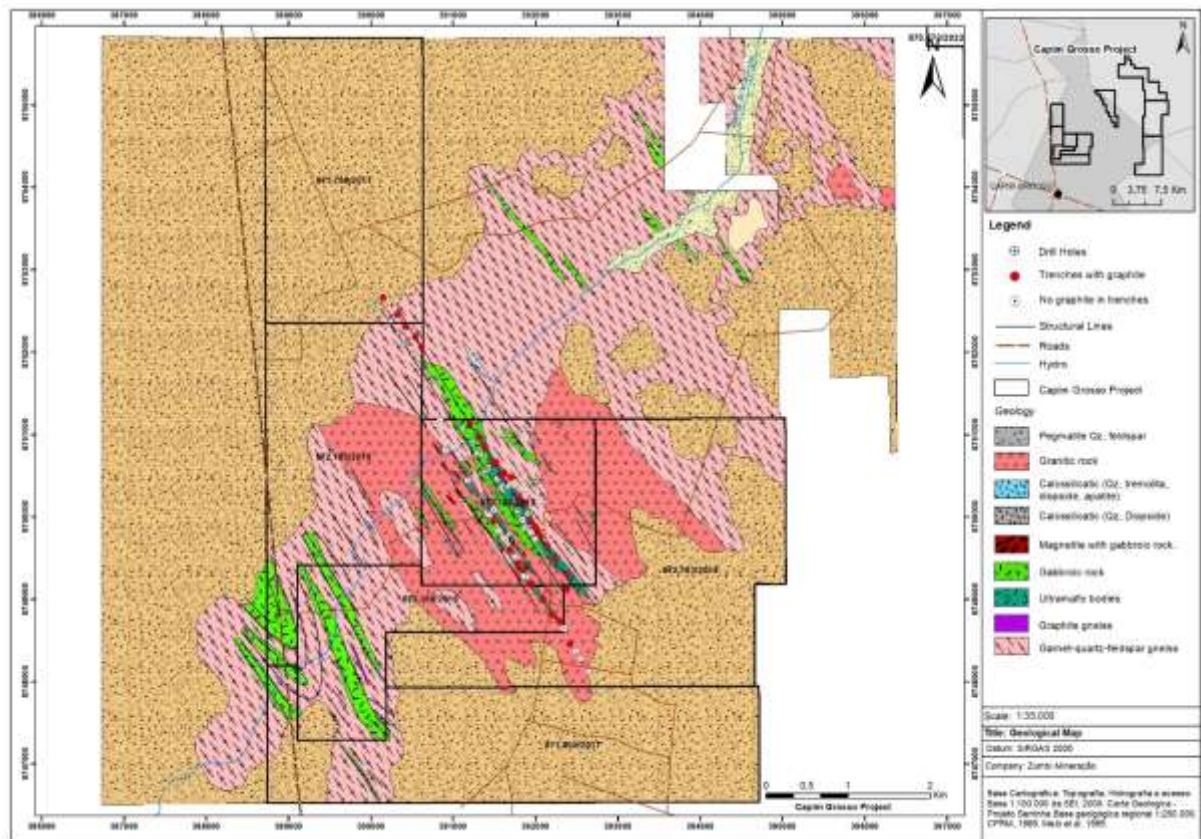


Figure 9.1 Geological Map of Capim Grosso Project (Source: Gratomic).



## 9.2 Trenching

The Gratomic trenching campaign aimed to investigate and confirm the graphite intercepted with historical trenching as well as surface expressions of graphite mineralization. In addition, the trenching campaign served as drill target generation. Most significant trenching and drilling assay results are discussed together in sections within Section 9.3.



Figure 9.2 Trenches were planned based upon historical data and surface trends observed (Source: Principal Author).



Figure 9.3 Most of the trenches excavated were able to penetrate up to 2 or 3 m in depth and most intersected graphite mineralization (Source: Principal Author).

Table 9.1 Fifty-six trenches have been excavated to date on the on the Capim Grosso project (Source: Principal Author).

NAME	X	Y	Z (meters)	AZ (TN degrees)	DIP (degrees)	EOH (m)
CGT001	391989	8749887	390	245	0	44
CGT002	391936	8749946	390	251	0	62
CGT003	391493	8750089	390	253	0	67
CGT004	391786	8750217	390	237	0	50
CGT005	391627	8750522	373	242	0	60
CGT006	391589	8750497	373	240	0	45
CGT007	391487	8750642	373	253	0	26
CGT008	391523	8750659	373	253	0	39
CGT009	391408	8750795	373	265	0	32
CGT010	391386	8750843	373	284	0	48
CGT011	391677	8750376	373	235	0	73
CGT012	391905	8750041	373	210	0	98
CGT013	391880	8749862	373	265	0	41
CGT014	391686	8749789	373	256	0	25
CGT015	392026	8749814	373	246	0	66
CGT016	392140	8749653	373	210	0	50
CGT017	392381	8749125	373	70	0	111
CGT018	391951	8749178	373	195	0	27
CGT019	391952	8749192	373	215	0	40
CGT020	391864	8749286	373	336	0	36
CGT021	392387	8749309	393	220	0	41.7
CGT022	392238	8749485	390	235	0	49.40
CGT023	392061	8749764	383	230	0	54.20
CGT024	391990	8749730	385	230	0	95.80
CGT025	391947	8749809	384	230	0	73.80
CGT026	391840	8749959	382	250	0	72.50
CGT027	391868	8750158	376	225	0	103.40
CGT028	391860	8750341	375	225	0	73.50
CGT029	391699	8750475	375	225	0	145.95
CGT030	391323	8750966	368	225	0	76.40
CGT031	391205	8751142	369	240	0	47
CGT032	390619	8752059	383	225	0	92.60
CGT033	390422	8752310	385	220	0	83.75
CGT034	390146	8752660	389	230	0	27.95
CGT035	390318	8752454	385	230	0	64.90
CGT036	390537	8752184	383	230	0	94.30
CGT037	390841	8751172	375	230	0	65.00
CGT038	390910	8750809	373	240	0	41.90
CGT039	391174	8750440	377	240	0	97.10
CGT040	392094	8749000	389	235	0	60.30
CGT041	391879	8749274	386	235	0	52.00
CGT042	392199	8748811	392	235	0	45.30
CGT043	392287	8748736	395	230	0	75.70

CGT044	392349	8748649	395	230	0	65.00
CGT045	392417	8748457	394	240	0	43.50
CGT046	392490	8748367	394	240	0	52.5
CGT047	392554	8748276	393	240	0	50.00
CGT048	392649	8748122	393	240	0	57.00
CGT049	391791	8749422	385	245	0	42.00
CGT050	391854	8749360	387	215	0	40.00
CGT051	391749	8749510	384	235	0	41.00
CGT052	391688	8749602	384	240	0	43.00
CGT053	391636	8749727	384	250	0	53.00
CGT054	391554	8749840	384	235	0	72.00
CGT055	391497	8749947	385	230	0	60.50
CGT056	391432	8750028	381	225	0	58.00

Table 9.2 Best trenching intersections (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m) to date on the Capim Grosso project for drilling completed by Gratomic. While the trenches were excavated as close to perpendicular on strike of local lithologies, the dip of each trench cannot be perpendicular on a lithological dip and the below are therefore not true widths (source: Principal Author).

Hole_ID	DH_From (m)	DH_To (m)	Length (m)	TGC (%)	TGC_Labels (%)	DH_East (WS84_UTM24S)	DH_North (WS84_UTM24S)
CGT001	20.00	22.00	2.00	21.65	2.00m @ 21.65 TGC	391969.97	8749878.13
CGT001	26.00	28.00	2.00	19.14	2.00m @ 19.14 TGC	391964.53	8749875.59
CGT002	8.00	10.00	2.00	27.30	2.00m @ 27.30 TGC	391927.49	8749943.07
CGT002	16.00	18.00	2.00	20.37	2.00m @ 20.37 TGC	391919.93	8749940.47
CGT002	23.00	24.00	1.00	41.79	1.00m @ 41.79 TGC	391913.78	8749938.35
CGT002	27.00	28.00	1.00	7.94	1.00m @ 7.94 TGC	391910.00	8749937.05
CGT004	14.00	15.00	1.00	16.20	1.00m @ 16.20 TGC	391773.84	8750209.10
CGT004	30.00	31.00	1.00	3.89	1.00m @ 3.89 TGC	391760.42	8750200.39
CGT005	35.00	36.00	1.00	11.39	1.00m @ 11.39 TGC	391595.66	8750505.33
CGT006	16.00	22.00	6.00	8.72	6.00m @ 8.72 TGC	391572.55	8750487.50
CGT006	32.00	36.00	4.00	8.47	4.00m @ 8.46 TGC	391559.56	8750480.00
CGT007	0.00	6.00	6.00	15.01	6.00m @ 15.01 TGC	391484.13	8750641.12
CGT007	14.00	22.00	8.00	8.97	8.00m @ 8.97 TGC	391469.79	8750636.74
CGT008	23.00	24.00	1.00	15.45	1.00m @ 15.45 TGC	391500.53	8750652.13
CGT009	3.00	5.00	2.00	14.29	2.00m @ 14.29 TGC	391404.02	8750794.65
CGT009	18.00	20.00	2.00	9.13	2.00m @ 9.13 TGC	391389.07	8750793.34
CGT010	20.00	24.00	4.00	6.34	4.00m @ 6.34 TGC	391364.65	8750848.32
CGT011	4.00	6.00	2.00	17.15	2.00m @ 17.15 TGC	391672.90	8750373.13
CGT011	33.00	34.00	1.00	18.57	1.00m @ 18.57 TGC	391649.56	8750356.79
CGT011	47.00	49.00	2.00	14.27	2.00m @ 14.27 TGC	391637.68	8750348.47
CGT012	38.00	42.00	4.00	14.96	4.00m @ 14.96 TGC	391885.00	8750006.36

CGT012	49.00	50.00	1.00	25.08	1.00m @ 25.08 TGC	391880.25	8749998.13
CGT012	57.00	59.00	2.00	19.91	2.00m @ 19.91 TGC	391876.00	8749990.77
CGT015	10.00	14.00	4.00	32.26	4.00m @ 32.26 TGC	392015.04	8749809.12
CGT015	18.00	19.00	1.00	12.39	1.00m @ 12.39 TGC	392009.10	8749806.48
CGT018	12.00	18.00	6.00	16.07	6.00m @ 16.07 TGC	391947.12	8749163.51
CGT019	19.00	21.00	2.00	29.95	2.00m @ 29.95 TGC	391940.53	8749175.62
CGT021	15.37	16.57	1.20	7.02	1.20m @ 7.02 TGC	392376.73	8749296.77
CGT022	17.20	18.40	1.20	11.38	1.20m @ 11.38 TGC	392223.42	8749474.79
CGT027	49.00	51.20	2.20	7.45	2.20m @ 7.45 TGC	391832.57	8750122.57
CGT027	79.40	82.90	3.50	10.32	3.50m @ 10.32 TGC	391810.62	8750100.62
CGT027	85.90	88.90	3.00	6.93	3.00m @ 6.93 TGC	391806.20	8750096.20
CGT029	91.70	95.00	3.30	28.46	3.30m @ 28.46 TGC	391632.99	8750408.99
CGT029	97.55	98.55	1.00	6.03	1.00m @ 6.03 TGC	391629.67	8750405.67
CGT029	114.55	118.95	4.40	17.01	4.40m @ 17.01 TGC	391616.45	8750392.45
CGT030	25.20	31.90	6.70	5.68	6.70m @ 5.68 TGC	391302.81	8750945.81
CGT031	26.50	28.50	2.00	18.57	2.00m @ 18.57 TGC	391181.18	8751128.25
CGT032	40.05	48.05	8.00	3.12	8.00m @ 3.12 TGC	390587.85	8752027.85
CGT032	82.50	85.60	3.10	4.64	3.10m @ 4.64 TGC	390559.57	8751999.57
CGT033	26.00	26.80	0.80	4.01	0.80m @ 4.01 TGC	390405.03	8752289.78
CGT033	28.75	36.45	7.70	4.67	7.70m @ 4.67 TGC	390401.05	8752285.03
CGT033	74.60	75.90	1.30	4.77	1.30m @ 4.77 TGC	390373.63	8752252.36
CGT034	16.55	17.95	1.40	10.32	1.40m @ 10.32 TGC	390132.79	8752648.91
CGT035	30.30	30.80	0.50	3.25	0.50m @ 3.25 TGC	390294.60	8752434.36
CGT035	34.20	36.20	2.00	7.41	2.00m @ 7.41 TGC	390291.04	8752431.37
CGT035	37.85	49.05	11.20	8.72	11.20m @ 8.72 TGC	390284.72	8752426.07
CGT035	56.80	57.40	0.60	6.80	0.60m @ 6.80 TGC	390274.26	8752417.30
CGT036	46.40	47.00	0.60	6.95	0.60m @ 6.95 TGC	390501.23	8752153.98
CGT036	52.80	54.80	2.00	6.72	2.00m @ 6.72 TGC	390495.79	8752149.42
CGT036	67.80	71.60	3.80	7.22	3.80m @ 7.22 TGC	390483.61	8752139.20
CGT036	73.10	79.50	6.40	3.93	6.40m @ 3.93 TGC	390478.55	8752134.96
CGT036	87.90	89.20	1.30	9.78	1.30m @ 9.78 TGC	390469.17	8752127.08
CGT040	41.30	44.60	3.30	12.40	3.30m @ 12.40 TGC	392058.82	8748975.36
CGT042	22.60	27.00	4.40	15.15	4.40m @ 15.15 TGC	392178.69	8748796.78
CGT043	54.00	58.00	4.00	9.35	4.00m @ 9.35 TGC	392244.10	8748700.00
CGT045	15.50	16.50	1.00	4.04	1.00m @ 4.04 TGC	392403.14	8748449.00
CGT049	6.50	9.00	2.50	9.52	2.50m @ 9.52 TGC	391783.98	8749418.72
CGT050	31.00	33.00	2.00	8.31	2.00m @ 8.30 TGC	391835.65	8749333.79
CGT052	14.00	16.00	2.00	7.64	2.00m @ 7.64 TGC	391675.01	8749594.50
CGT052	16.00	17.00	1.00	5.01	1.00m @ 5.01 TGC	391673.71	8749593.75
CGT055	52.00	53.20	1.20	9.75	1.20m @ 9.75 TGC	391456.71	8749913.19



### 9.3 Diamond drilling

The diamond drilling campaign aimed to investigate the occurrence of graphite below the oxidation profile as intersected with the trenching.



Figure 9.4 Diamond drilling on the Capim Grosso Project (Source: Principal Author).



Figure 9.5 All Diamond drilling enclosures are fenced off with appropriate PPE signage on the Capim Grosso Project (Source: Principal Author).

Table 9.3 Twenty-eight drillholes have been completed by Gratomic on the Capim Grosso project to date (Source: Principal Author).

HOLE_ID	X (meters)	Y (meters)	Z (meters amsl)	AZ (TN degrees)	DIP (degrees)	EOH (m)
CGD001	391942	8749876	381	45	-58	100.10
CGD002	391867	8749905	382	50	-60	141.20
CGD003	391926	8749863	381	50	-60	120.55
CGD004	391842	8749975	381	50	-60	93.15
CGD005	391775	8750076	378	50	-60	111.00
CGD006	391722	8750171	378	50	-60	120.65
CGD007	391626	8750343	375	50	-60	120.20
CGD008	391755	8750196	376	50	-60	100.05
CGD009	391603	8750328	376	50	-60	120.00
CGD010	391597	8750372	375	50	-60	141.00
CGD011	391574	8750352	376	50	-60	140.05
CGD012	391533	8750454	373	50	-60	134.65
CGD013	391431	8750595	373	50	-60	140.70
CGD014	391392	8750562	376	50	-60	206.90
CGD015	391336	8750756	371	50	-60	151.00
CGD016	391317	8750785	371	50	-60	151.15
CGD017	391294	8750765	372	50	-60	162.05
CGD018	391233	8750891	369	50	-60	130.20
CGD019	391115	8751066	371	50	-60	190.15
CGD020	390523	8751978	384	50	-60	190.75
CGD021	390438	8752101	385	50	-60	195.10
CGD022	390336	8752238	385	50	-60	202.20
CGD023	390239	8752388	385	50	-60	168.65
CGD024	390092	8752614	390	50	-60	150.00
CGD025	390422	8752088	385	50	-60	166.45
CGD026	390061	8752589	390	50	-60	150.05
CGD027	391118	8751097	341	50	-60	133.20
CGD028	391189	8750998	376	50	-60	120.00

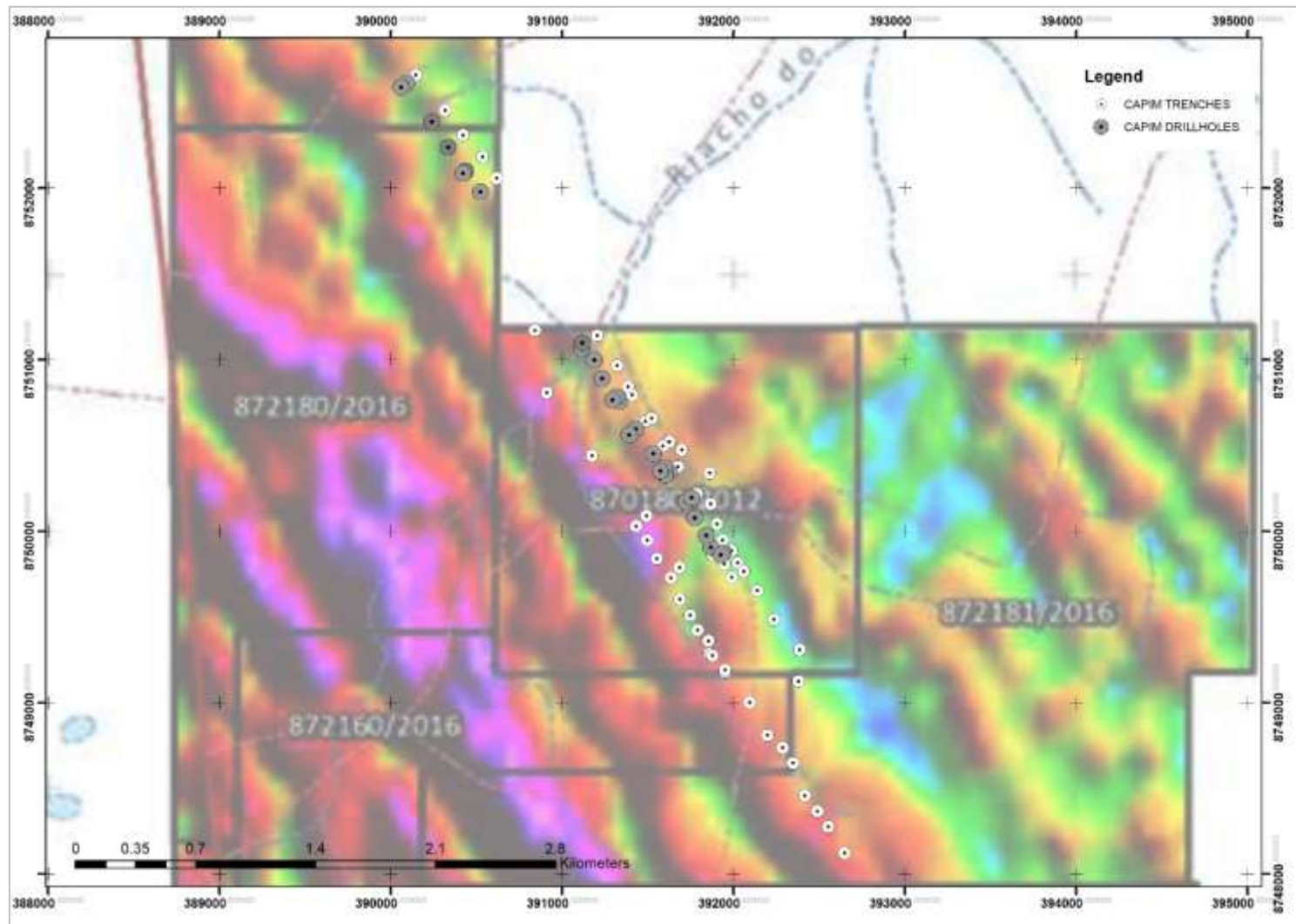


Figure 9.6 Drillholes and trenches completed to date on the Capim Grosso Project. Background analytical signal magnetic data (Source: Principal Author).

Table 9.4 Best drilling intersections (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m) to date on the Capim Grosso project for drilling completed by Gratomic. The intervals are regarded as true width (or as close as possible to) due to the dip of drillholes being perpendicular on measured dip of geology (source: Principal Author).

Hole_ID	DH_From (m)	DH_To (m)	Length (m)	TGC (%)	TGC_Labels (%)	DH_East (WS84_UTM24S)	DH_North (WS84_UTM24S)
CGD001	20.74	31.90	11.16	13.13	11.16m @ 13.13 TGC	391951.86	8749885.86
CGD001	37.37	38.55	1.18	10.11	1.18m @ 10.11 TGC	391956.22	8749890.22
CGD001	39.60	40.47	0.87	3.33	0.87m @ 3.33 TGC	391957.00	8749891.00
CGD001	40.84	41.32	0.48	3.08	0.48m @ 3.08 TGC	391957.39	8749891.39
CGD002	130.25	130.69	0.44	8.42	0.44m @ 8.42 TGC	391916.97	8749946.93
CGD003	71.93	73.53	1.60	6.72	1.60m @ 6.72 TGC	391953.86	8749886.37
CGD003	74.80	75.40	0.60	8.24	0.60m @ 8.24 TGC	391954.76	8749887.14
CGD003	79.85	81.83	1.98	3.21	1.98m @ 3.21 TGC	391956.96	8749888.98
CGD004	26.26	27.45	1.19	3.11	1.19m @ 3.11 TGC	391852.29	8749983.63
CGD004	63.95	65.01	1.06	3.76	1.06m @ 3.76 TGC	391866.70	8749995.72
CGD005	38.07	38.64	0.57	13.54	0.57m @ 13.54 TGC	391789.69	8750088.33
CGD005	40.00	41.58	1.58	11.13	1.58m @ 11.13 TGC	391790.62	8750089.11
CGD005	47.23	48.65	1.42	8.56	1.42m @ 8.56 TGC	391793.36	8750091.41
CGD005	79.24	79.56	0.32	9.13	0.32m @ 9.13 TGC	391805.41	8750101.52
CGD006	67.60	69.35	1.75	3.47	1.75m @ 3.47 TGC	391748.23	8750193.01
CGD006	72.55	73.38	0.83	3.91	0.83m @ 3.91 TGC	391749.95	8750194.45
CGD006	77.23	81.11	3.88	7.41	3.88m @ 7.41 TGC	391752.32	8750196.44
CGD007	16.40	17.76	1.36	3.84	1.36m @ 3.84 TGC	391632.54	8750348.49
CGD007	23.25	24.70	1.45	10.89	1.45m @ 10.89 TGC	391635.18	8750350.71
CGD007	50.25	56.25	6.00	3.95	6.00m @ 3.95 TGC	391646.40	8750360.11
CGD007	56.80	58.68	1.88	5.41	1.88m @ 5.41 TGC	391648.12	8750361.56
CGD007	64.98	65.91	0.93	6.13	0.93m @ 6.13 TGC	391651.07	8750364.03
CGD007	91.40	92.70	1.30	3.54	1.30m @ 3.54 TGC	391661.26	8750372.58
CGD008	6.20	16.05	9.85	5.00	9.85m @ 5.00 TGC	391759.26	8750199.58
CGD008	16.55	18.55	2.00	3.50	2.00m @ 3.50 TGC	391761.72	8750201.64
CGD009	66.67	71.75	5.08	5.61	5.08m @ 5.61 TGC	391630.01	8750350.08
CGD009	105.71	106.44	0.73	4.66	0.73m @ 4.66 TGC	391644.13	8750361.93
CGD009	107.55	108.17	0.62	3.60	0.62m @ 3.60 TGC	391644.81	8750362.51
CGD009	108.85	111.08	2.23	7.03	2.23m @ 7.03 TGC	391645.62	8750363.18
CGD010	3.45	4.05	0.60	3.88	0.60m @ 3.88 TGC	391598.44	8750373.21
CGD010	47.29	49.14	1.85	5.78	1.85m @ 5.78 TGC	391615.47	8750387.50
CGD010	91.65	99.85	8.20	5.38	8.20m @ 5.38 TGC	391633.67	8750402.77
CGD011	85.16	89.16	4.00	13.58	4.00m @ 13.58 TGC	391607.38	8750380.01
CGD011	90.16	92.05	1.89	8.83	1.89m @ 8.83 TGC	391608.90	8750381.28
CGD011	135.75	138.65	2.90	6.39	2.90m @ 6.39 TGC	391626.55	8750396.10
CGD012	55.15	60.06	4.91	8.27	4.91m @ 8.27 TGC	391555.06	8750472.51



CGD012	93.25	93.90	0.65	3.16	0.65m @ 3.16 TGC	391568.84	8750484.07
CGD012	99.60	101.50	1.90	3.99	1.90m @ 3.99 TGC	391571.51	8750486.32
CGD012	102.31	103.18	0.87	8.07	0.87m @ 8.07 TGC	391572.35	8750487.02
CGD012	105.63	106.86	1.23	6.37	1.23m @ 6.37 TGC	391573.69	8750488.15
CGD013	64.16	65.73	1.57	3.31	1.57m @ 3.31 TGC	391455.88	8750615.87
CGD013	72.41	77.41	5.00	9.25	5.00m @ 9.25 TGC	391459.69	8750619.08
CGD013	78.41	81.20	2.79	3.11	2.79m @ 3.11 TGC	391461.57	8750620.65
CGD014	121.30	121.88	0.58	10.55	0.58m @ 10.55 TGC	391438.57	8750601.08
CGD014	171.11	172.40	1.29	6.56	1.29m @ 6.56 TGC	391457.79	8750617.20
CGD014	173.58	174.32	0.74	7.09	0.74m @ 7.09 TGC	391458.63	8750617.91
CGD015	70.50	78.40	7.90	9.46	7.90m @ 9.46 TGC	391364.52	8750779.93
CGD015	116.90	118.96	2.06	3.17	2.06m @ 3.17 TGC	391381.17	8750793.90
CGD016	63.40	68.70	5.30	4.62	5.30m @ 4.62 TGC	391342.30	8750806.23
CGD016	103.60	104.78	1.18	7.20	1.18m @ 7.20 TGC	391356.91	8750818.49
CGD016	107.46	108.88	1.42	6.62	1.42m @ 6.62 TGC	391358.43	8750819.77
CGD017	113.02	115.03	2.01	4.34	2.01m @ 4.34 TGC	391337.67	8750801.65
CGD018	120.65	122.48	1.83	4.98	1.83m @ 4.98 TGC	391279.56	8750930.07
CGD020	35.24	36.08	0.84	3.43	0.84m @ 3.43 TGC	390536.66	8751989.46
CGD020	73.91	74.91	1.00	4.13	1.00m @ 4.13 TGC	390551.50	8752001.91
CGD020	138.85	139.85	1.00	3.26	1.00m @ 3.26 TGC	390576.37	8752022.79
CGD020	150.45	151.25	0.80	3.80	0.80m @ 3.80 TGC	390580.78	8752026.48
CGD021	10.20	11.10	0.90	5.82	0.90m @ 5.82 TGC	390442.08	8752104.42
CGD021	43.25	44.20	0.95	3.03	0.95m @ 3.03 TGC	390454.75	8752115.05
CGD021	64.55	66.60	2.05	5.23	2.05m @ 5.23 TGC	390463.12	8752122.08
CGD021	112.25	113.07	0.82	7.24	0.82m @ 7.24 TGC	390481.15	8752137.21
CGD022	77.55	79.21	1.66	7.15	1.66m @ 7.15 TGC	390366.02	8752263.19
CGD022	79.75	80.75	1.00	5.57	1.00m @ 5.57 TGC	390366.74	8752263.79
CGD022	81.75	83.70	1.95	8.21	1.95m @ 8.21 TGC	390367.69	8752264.59
CGD022	88.30	91.30	3.00	3.89	3.00m @ 3.89 TGC	390370.40	8752266.86
CGD023	8.15	9.15	1.00	3.09	1.00m @ 3.09 TGC	390242.31	8752390.78
CGD023	79.95	80.81	0.86	4.74	0.86m @ 4.74 TGC	390269.79	8752413.83
CGD024	86.70	87.50	0.80	3.31	0.80m @ 3.31 TGC	390125.36	8752641.99
CGD024	92.48	93.28	0.80	3.76	0.80m @ 3.76 TGC	390127.58	8752643.85
CGD025	44.90	47.10	2.20	3.35	2.20m @ 3.35 TGC	390439.62	8752102.78
CGD025	70.10	71.17	1.07	4.95	1.07m @ 4.95 TGC	390449.05	8752110.70
CGD025	112.60	113.80	1.20	4.10	1.20m @ 4.10 TGC	390465.36	8752124.38
CGD025	115.24	118.24	3.00	3.47	3.00m @ 3.47 TGC	390466.71	8752125.52
CGD026	29.00	31.00	2.00	3.99	2.00m @ 3.98 TGC	390072.49	8752598.64
CGD026	57.46	59.06	1.60	8.44	1.60m @ 8.44 TGC	390083.31	8752607.72
CGD026	59.96	60.94	0.98	14.51	0.98m @ 14.51 TGC	390084.15	8752608.43
CGD026	69.75	71.35	1.60	6.25	1.60m @ 6.25 TGC	390088.02	8752611.67

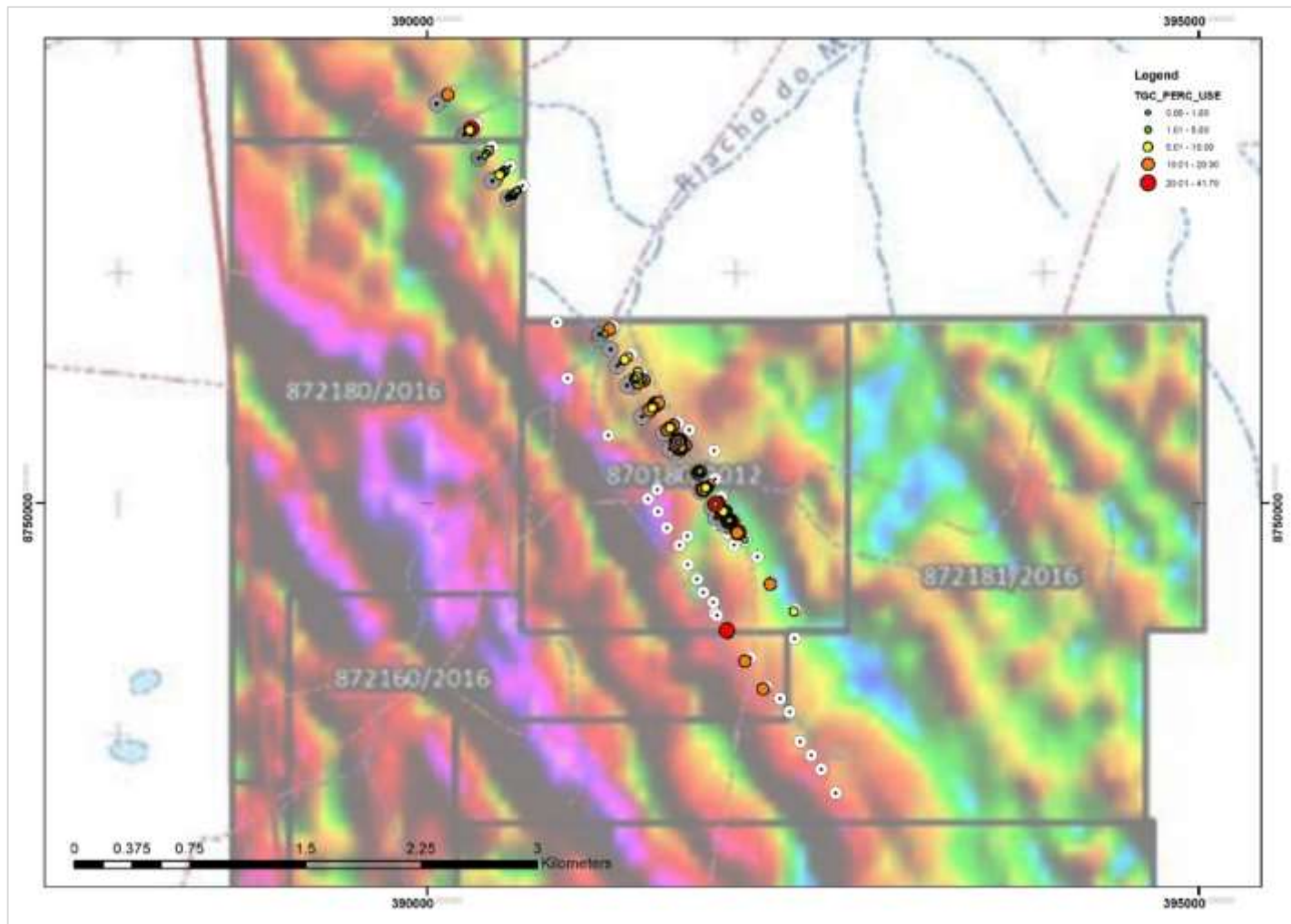


Figure 9.7 Drillholes and trenches completed to date on the Gratomic Capim Grosso Project showing TGC % as obtained from SGS Laboratories. Note that only the main Capm Grosso trend has received drilling to date. Background analytical signal magnetic data (Source: Principal Author).

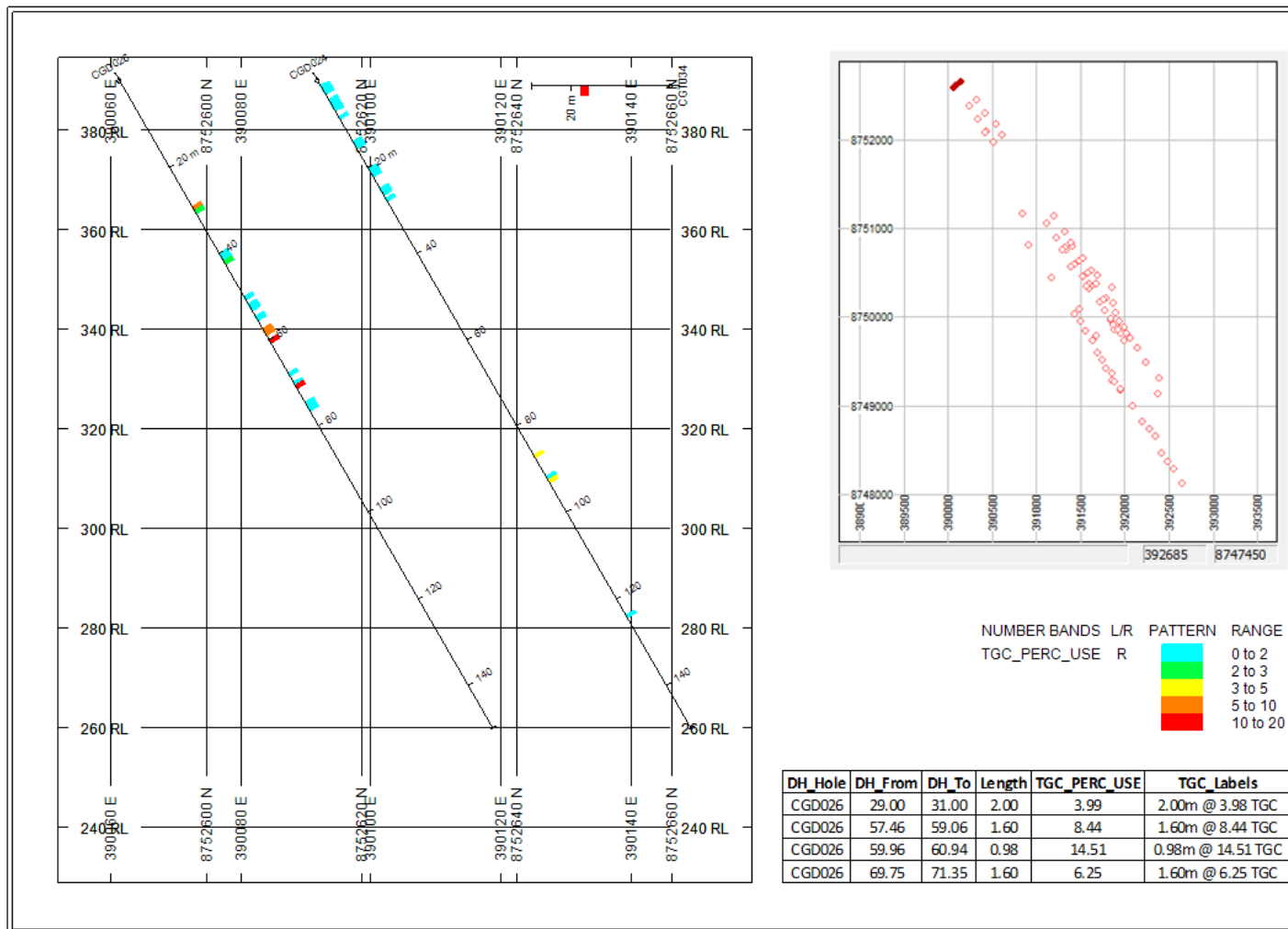


Figure 9.8 Drillhole section for hole CGD026 showing TGC % intersection as well as insert map showing location of section (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m). Note various grade intervals as per grade intersection inset (Source: Principal Author).

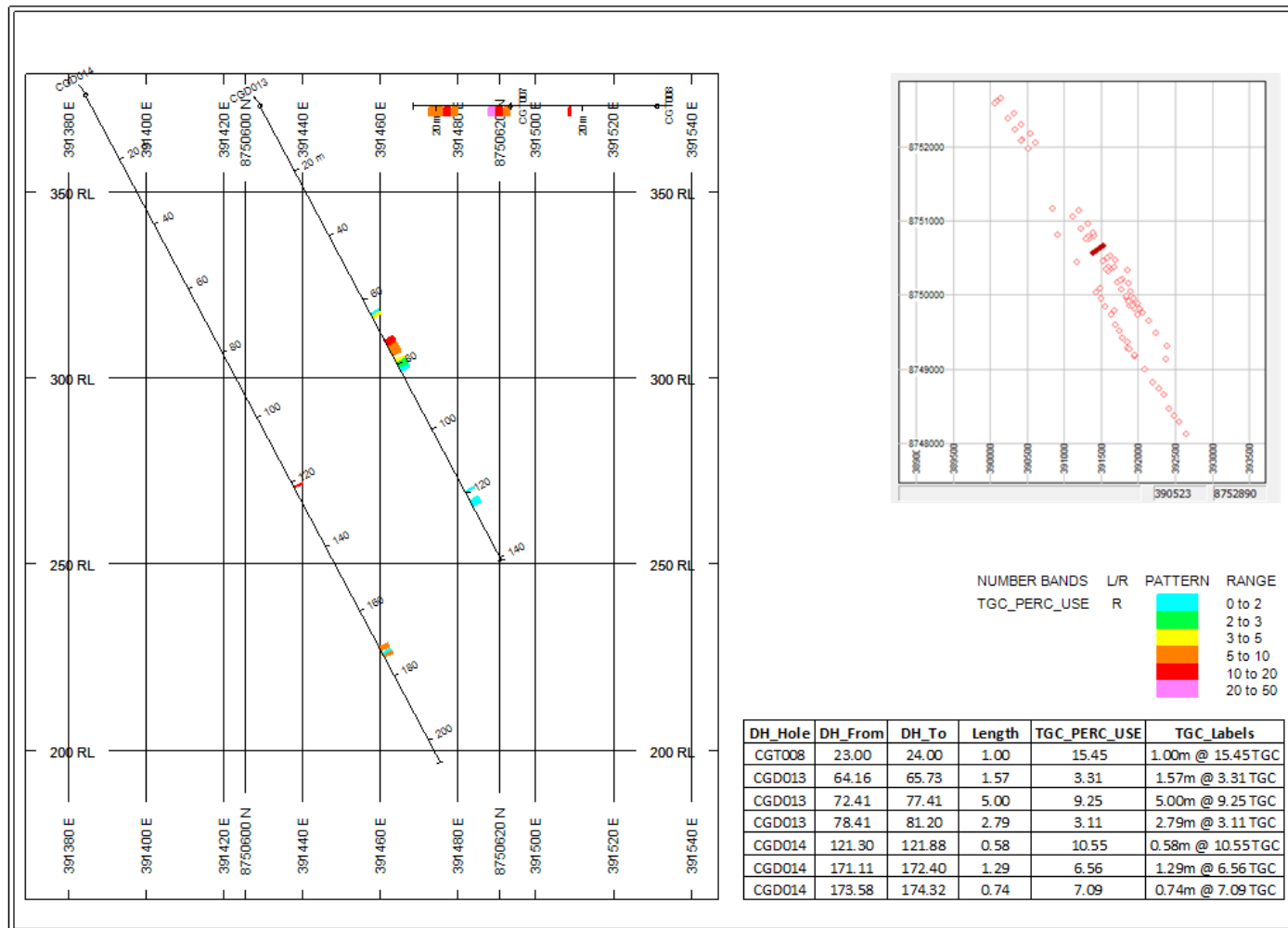


Figure 9.9 Drillhole section for hole CGD013 and 014 showing TGC % intersection as well as insert map showing location of section (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m). Note various grade intervals as per grade intersection inset (Source: Principal Author).

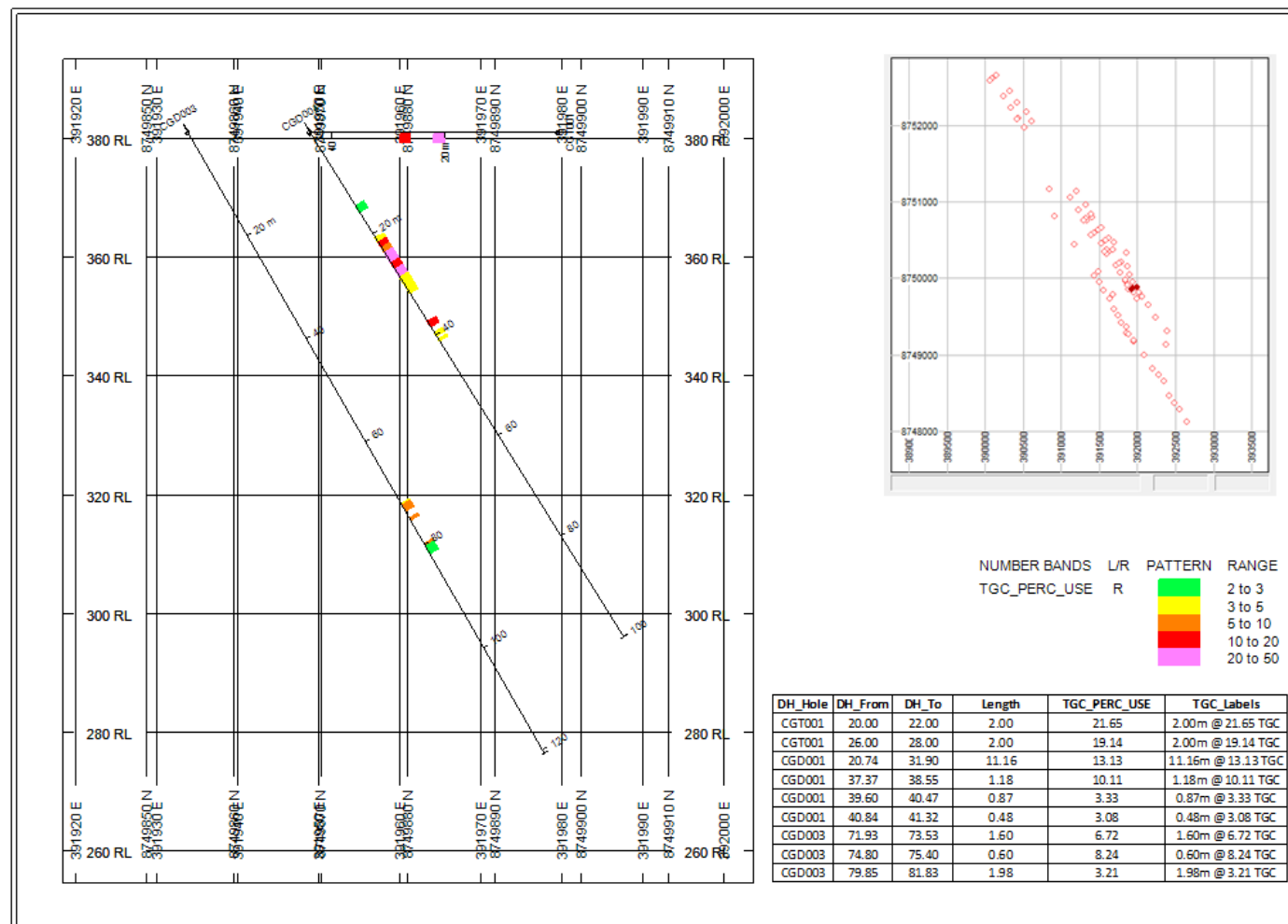


Figure 9.10 Drillhole section for hole CGD001 and 003 showing TGC % intersection as well as insert map showing location of section (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m). Note various grade intervals as per grade intersection inset (Source: Principal Author).



### 9.3.1 Diamond drillhole sighting

Drillholes are being sighted using handheld GPS as well as tape measure and compass where applicable. Azimuth and dip of holes are determined using geological compass.



Figure 9.11 Drillhole azimuth line up by Gratomic Geologists (Source: Principal Author).



Figure 9.12 Drillhole dip line up by Gratomic Geologists (Source: Principal Author).

### 9.3.2 Diamond drillhole core boxes

Core boxes for diamond drilling are being manufactured on site by Gratomic personnel.



Figure 9.13 Drillhole dip line up by Gratomic Geologists (Source: Principal Author).

### 9.3.3 Diamond drillhole core storage

Core boxes for diamond drilling are being stored on site in lockable sea containers in the Gratomic core yard, located on site.



Figure 9.14 Core yard and storage on the Capim Grosso Project (Source: Principal Author).

#### **9.3.4 Drillhole and trenching database**

A comprehensive drillhole and trenching database is being maintained and updated regularly by Gratomic geologists. The QP reviews the database on a daily basis and is satisfied that the data is sufficient for its use in this Technical report.

#### **9.4 Bulk density determinations**

Gratomic has used the Archimedes method of bulk density determinations on fresh drillcore. To date, a total of 543 density measurements have been completed that provides an average value of 2.86.

#### **9.5 Metallurgical test work**

After obtaining chemical analysis results from SGS Geosol Brazil, SGS Lakefield (ON, Canada) has been commissioned to perform metallurgical tests on the first samples obtained from the trenching programs performed at the property (Gratomic press release Febr.7, 2022). SGS Lakefield has completed two scoping level flotation tests using two different flotation circuit configurations. A combined concentrate grade of 97.5% C(t) was achieved in one test with total carbon grades reaching as high as 98.6% in several particle-size fractions. The open circuit graphite recovery was 70.1%, approximately 20% of the graphite losses were associated with intermediated streams and most of these graphite units will report to the final concentrate during closed circuit operation. Optimization of rougher, and primary cleaning conditions are expected to reduce graphite losses to those tailings' streams. Based on the flotation results obtained to-date and experience with comparable graphite projects, a combined concentrate grade of 97% C(t) with a closed-circuit graphite recovery of 85-90% is projected. Further testing on additional samples and process optimization will be conducted to confirm these projections. It is the QPs opinion that while these tests are encouraging, further work on un-weathered material is required to compliment the metallurgical test work completed to date.

#### **9.6 Exploration Target**

An exploration target (comprising a lower and upper range) was completed in October 2022 by Nico Scholtz using the parameters as set out in *NI43-101 Section 2.3(2) (b)*. The lower range of the exploration target was calculated as follows:

- Verification of the trenching and drilling database
- Consideration for compositing and capping of grade
- Construction of topographic surfaces and solids (wireframes)
- Block model construction for drilled out areas only
- Cut-off grade selection to determine "reasonable prospects for economic extraction"
- Consideration for appropriate bulk density (fresh zone) based upon Archimedes method



The upper range of the exploration target was calculated as follows:

- Mineralisation host surface extent (on strike and parallel with drilled out areas) measured as per geophysical signatures outside drilled out areas
- Similar Cut-off grade and bulk density used as for lower range

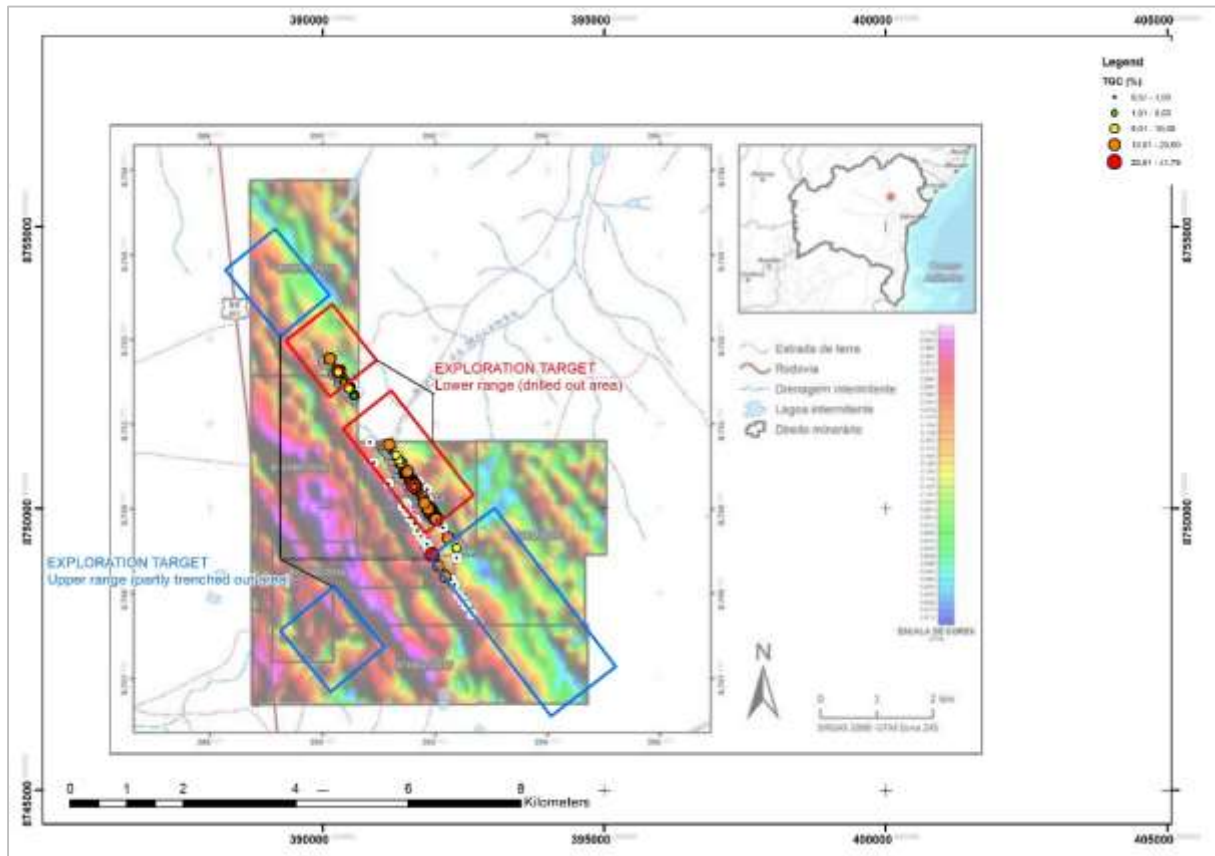


Figure 9.15 Exploration Target location (lower range exploration target in red is 2,200 m in extent along the NNW strike direction and upper range is approx. 10,000 m + 2,200 m total strike extent in blue) at the Capim Grosso Project (source: Principal Author).

### 9.6.1 Lower range

The lower range of the Capim Grosso exploration target has been calculated from drilling using parameters set out below.

#### 9.6.1.1 Resource database

The Capim Grosso historical drilling database has been verified for mismatched samples and assay data. The QP is satisfied for its use in this exploration target.

#### 9.6.1.2 Compositing and grade capping

Samples were not composited and no grade capping was applied for this exploration target.

### 9.6.1.3 Wireframe construction

The wireframe was constructed based purely on handheld GPS topography and geological logging of historical drillholes and trenches. The QP was able to build a 3D wireframe model using handheld GPS drillhole and trench collar data as well as mineralisation intersections.

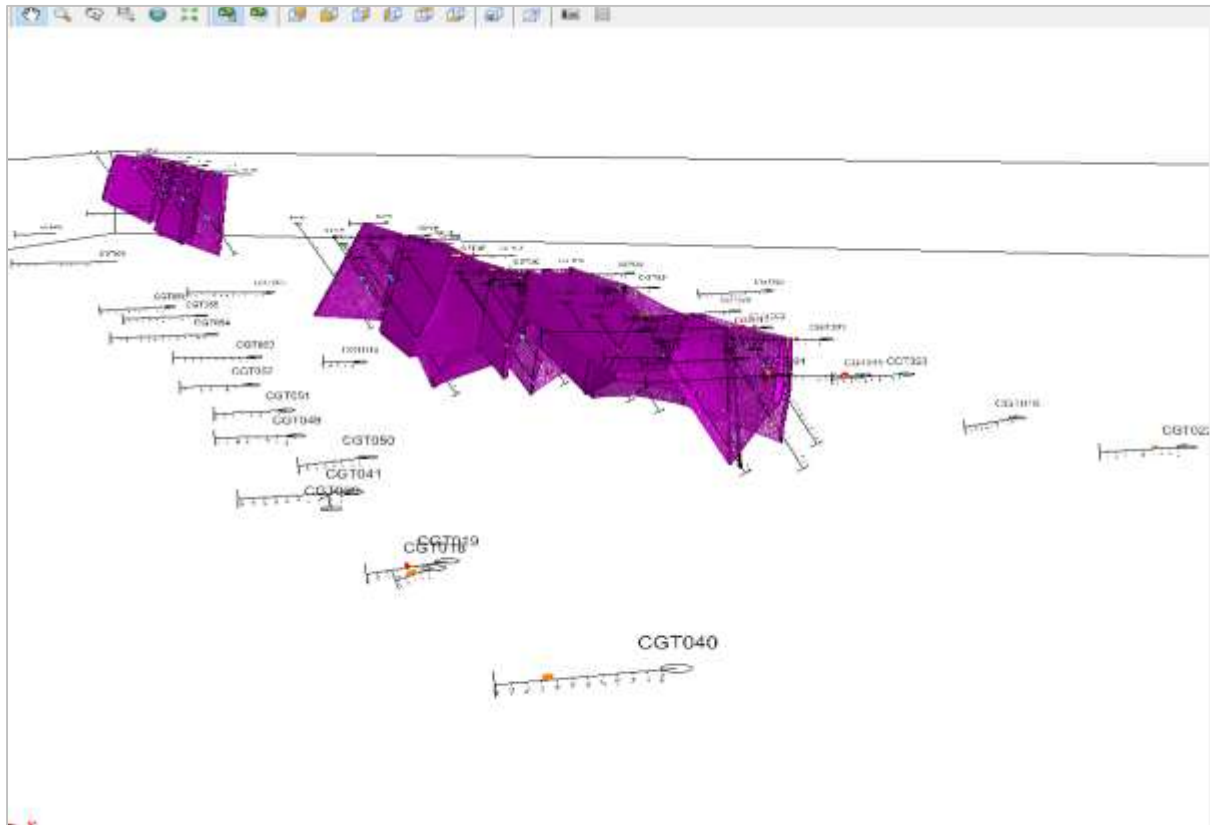


Figure 9.16 Capim Grosso wireframe built from handheld GPS drilling and trenching collar as well as mineralization intercept data looking NNW for Exploration Target lower range calculation (source: Principal Author).

#### 9.6.1.4 Voxels (volume calculations)

Voxels (volume calculations) for TGC % were generated for the Capim Grosso lower range exploration target using *Geosoft Target*.

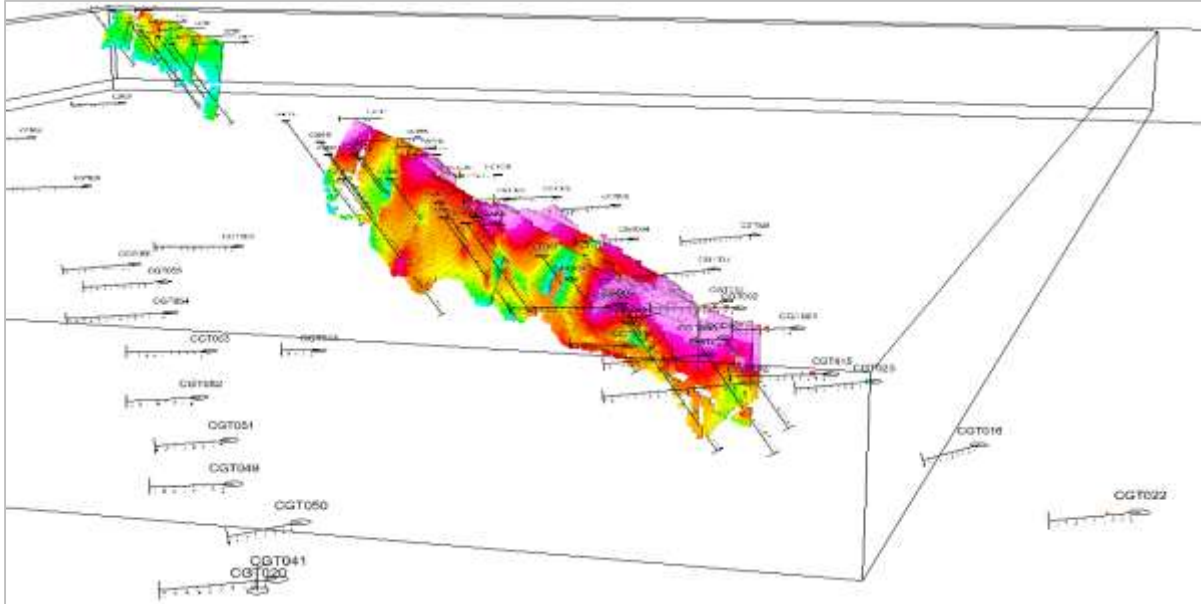
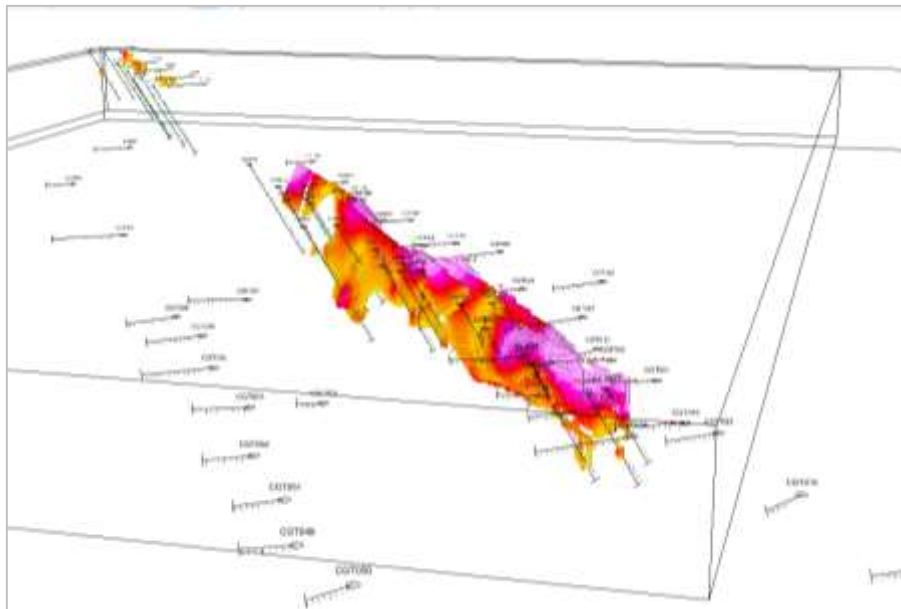


Figure 9.17 TGC % voxel model (2 % TGC cut off) completed with *Geosoft Target* for the Capim Grosso Lower Range exploration target looking NNW (source: Principal Author).



#### *9.6.1.5 Cut-off grade*

Cut off grades were not generated from economic investigations, but rather from other known Graphite projects which use 2 % TGC as cut off. Future economic assessment or feasibility studies for Capim Grosso may lead to changes in these cut off grades.

#### *9.6.1.6 Bulk density*

Bulk density determinations are ongoing at the Capim Grosso project. To date, bulk density has only been generated for drillcore in the fresh horizon using the Archimedes method. No bulk density determination has as yet been completed for the weathered zone (saprolite).

### **9.6.2 Upper range**

The upper range of the Capim Grosso exploration target was calculated based upon:

1. Extrapolation of the drilling and trenching to the north and south of the current drilled out areas based upon magnetic data along strike.
2. Extrapolation of parallel bodies of graphite mineralisation either trenched or determined by visual identification

#### *9.6.2.1 Resource database*

No resource database was used for the upper range calculation.

#### *9.6.2.2 Compositing and grade capping*

No compositing and grade capping was used for the upper range calculation.

#### *9.6.2.3 Wireframe construction*

No wireframe was constructed for the upper range calculation.

#### *9.6.2.4 Voxel models*

No voxel models were constructed for the upper range calculation.

#### *9.6.2.5 Cut-off grade*

Cut off grades were not generated from economic investigations, but rather from other known Graphite projects which use 2 % TGC as cut off. Future economic assessment or feasibility studies for Capim Grosso may lead to changes in these cut off grades.

#### *9.6.2.6 Bulk density*

Bulk density determinations are ongoing at the Capim Grosso project. To date, bulk density has only been generated for drillcore in the fresh horizon using the Archimedes method. No bulk density determination has as yet been completed for the weathered zone (saprolite).

### 9.6.3 Exploration target

This exploration target is conceptual in nature and there was insufficient exploration to define a mineral resource. The QP is uncertain if further exploration will result in the target being delineated as a mineral resource.

Table 9.5 The Capim Grosso exploration target (weathered and fresh zones combined) with different densities (values are rounded) (2 % TGC cut off) (source: Principal Author).

	CAPIM GROSSO EXPLORATION TARGET	
	LOWER	UPPER
<b>ORE TONS (tons)</b> (rounded to nearest million)	5,000,000	30,000,000
<b>DENSITY</b>	2.86	
<b>AVG. ORE GRADE (TGC %)</b>	5.85	
<b>GRAPHITE TONS</b> (rounded to nearest 100k)	300,000	1,750,000

### 9.6.4 Exploration target upgrade to NI43-101 mineral resource estimate

In order to update the exploration target to a mineral resource estimate prepared in accordance with the requirements of NI43-101, the following is needed:

- Determination of weathered and fresh zones from drilling data
- QAQC during drilling to continue, but add certified blank - and CRM every 20 samples
- The core quality in the weathered zone is in many case poor and duplicate sampling can therefore result in erroneous results. Duplicate QAQC is therefore only recommended on good quality intact core.
- Additional trenching and drilling in upper range exploration target areas to confirm mineralisation
- Wireframe and block model changes as per new drilling
- Differential GPS drone survey of the project area
- Differential DGPS trench and drillhole collar pick up
- Downhole surveys of drillholes, if all holes cannot be surveyed due to collapse, then as many holes as possible to verify drillhole trace deviation
- Umpire assays of at least 5 % of mineralised interval at an external laboratory
- Bulk density calculation of the weathered (saprolite) zone in additional to ongoing bulk density of the fresh zone

## **10. DRILLING**

Drilling on the project by the issuer has been described in Section 9.3.

## **11. SAMPLE PREPARATION, ANALYSIS, AND SECURITY**

The following is a description of sampling and sample preparation techniques followed by the vendor.

### **11.1 Sampling and analytical techniques**

The sampling techniques used by Gratomic in the exploration completed to date include:

- Trenching
- Diamond drilling

#### **11.1.1 Trenching**

A total of 56 trenches have been excavated to date using a track mounted excavator.

##### *11.1.1.1 Sampling procedures*

Each trench was logged using a tape measure, handheld GPS and compass on a logging sheet. Samples were identified using visual observation by Gratomic Geologists and composite sampled over two meter intervals. Where mineralization was observed to be less than 1.0 m in width, samples were taken accordingly up to 0.3 m minimum intervals. Where geological and grade similarities were observed over longer intervals, samples were retrieved up to a max. of 2 m. One hundred and twenty-one (121) samples were retrieved from the trenching program and subsequently sent to the laboratory for analyses.

##### *11.1.1.2 Geochemical analysis and sample preparation*

Sample preparation and analyses were completed at SGS Geosol Laboratory in Minas Gerais.

##### *11.1.1.3 Sample Preparation Techniques*

Sample was dried at 105°C, crushed to 75% passing 3 mm, homogenized and quartered whereafter pulverized in a steel mill at 95% passing at 150 microns.

##### *11.1.1.4 Sample Analytical Techniques*

Sample analyses involved SGS Geosol's graphitic carbon assay methods and equipment include the LECO carbon-sulphur analyzer and high temperature combustion infrared detection. During this procedure, the carbon in the sample is converted to carbon dioxide CO<sub>2</sub>, which is then measured by infrared (IR) detectors. In addition, multi-element composition is determined by multi-acid digestion by ICP-OES (GC\_ICP40BGR) and gold by fire assay – AAS 50g (FAA505).

#### **11.1.2 Diamond drill hole sampling**

A total of 28 drillholes have been completed to date using two skid mounted diamond drill rigs.

#### *11.1.2.1 Sampling procedures*

Each drillhole was logged using a tape measure on a logging sheet. Samples were identified using visual observation by Gratomic Geologists and composite sampled over two meter intervals. Where mineralization was observed to be less than 1.0 m in width, samples were taken accordingly up to 0.3 m minimum intervals. Where geological and grade similarities were observed over longer intervals, samples were retrieved up to a max. of 2 m. Three hundred and ninety-three (393) samples have been retrieved to date from the drilling program and subsequently sent to the laboratory for analyses.

#### *11.1.2.2 Geochemical analysis and sample preparation*

Sample preparation and analyses were done at SGS Geosol Laboratory in Minas Gerais.

#### *11.1.2.3 Sample Preparation Techniques*

Sample was dried at 105°C, crushed to 75% passing 3 mm, homogenized and quartered whereafter pulverized in a steel mill at 95% passing at 150 microns.

#### *11.1.2.4 Sample Analytical Techniques*

Sample analyses involved SGS Geosol's graphitic carbon assay methods and equipment include the LECO carbon-sulphur analyzer and high temperature combustion infrared detection. During this procedure, the carbon in the sample is converted to carbon dioxide CO<sub>2</sub>, which is then measured by infrared (IR) detectors. In addition, multi-element composition is determined by multi-acid digestion by ICP-OES (GC\_ICP40BGR) and gold by fire assay – AAS 50g (FAA505).

### **11.2 Quality assurance and quality control**

QAQC protocols were followed during the drilling and trenching programs as described below.

#### **11.2.1 Trenching QAQC**

While no internal QA/QC was performed by the QP, SGS Geosol included a Certified Reference Material (CRM) (OREAS 724) which assayed within 97.5 % of the expected graphitic carbon value of the CRM. The QP therefore accepts the values of the laboratory assays.

#### **11.2.2 Drilling QAQC**

Gratomic QAQC during the drilling involved the following (the laboratory QAQC is not added to this report):

- Insertion of a CRM every 20 samples (tests the laboratory assay technique)
- Insertion of a blank every 20 samples (tests the laboratory cleaning of equipment after every sample)
- Duplicate samples (tests the laboratory preparation techniques)

#### 11.2.2.1 Blank QAQC

Blank material was only inserted during the latter half of the current drill program and therefore only constitutes 9 blank samples. The most obvious reason for the below poor correlation is likely due to the use of uncertified blank material. The QP suggests that any future addition of blank material should be certified.

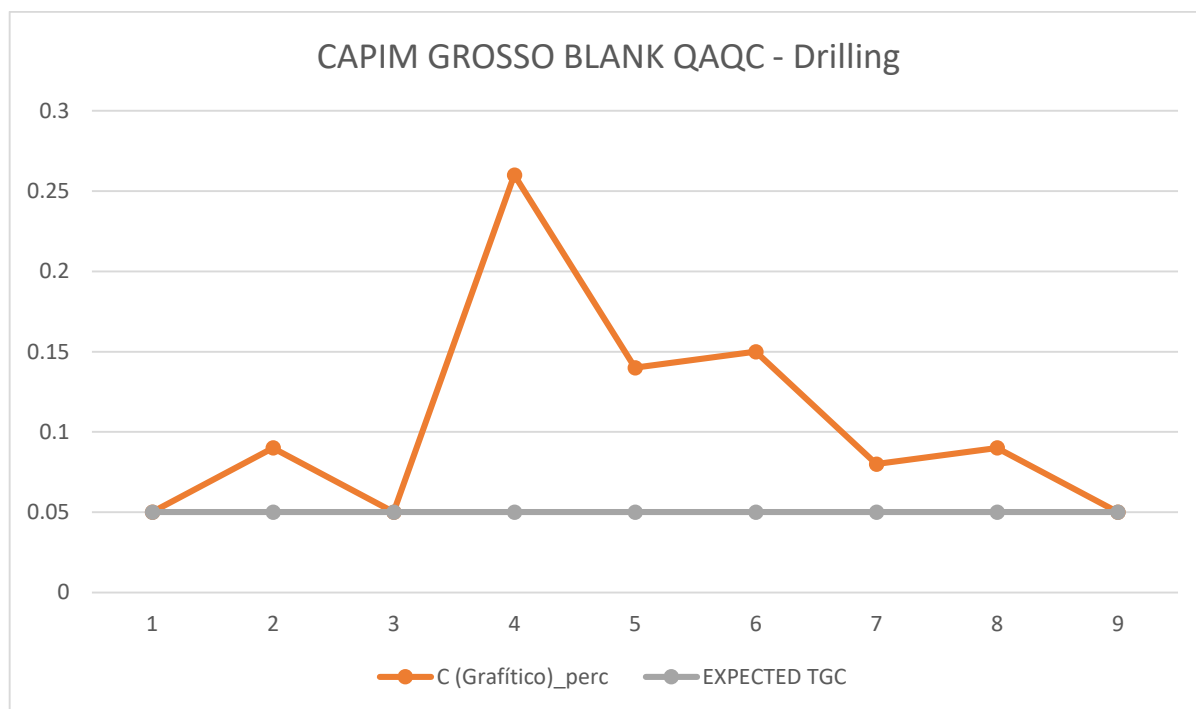


Figure 11.1 Blank QAQC (TGC %) during Gratomic drilling on Capim Grosso (source: Principal Author).

#### 11.2.2.2 Duplicate QAQC

Duplicates of core sample material was only inserted during the latter half of the current drill program and therefore only constitutes 13 duplicate samples. The most obvious reason for the below poor correlation is likely due to the use of material that is from poor core quality and therefore exact core matches could not be obtained. The QP suggests that any future addition of duplicate material should be used only if good quality core is obtained.



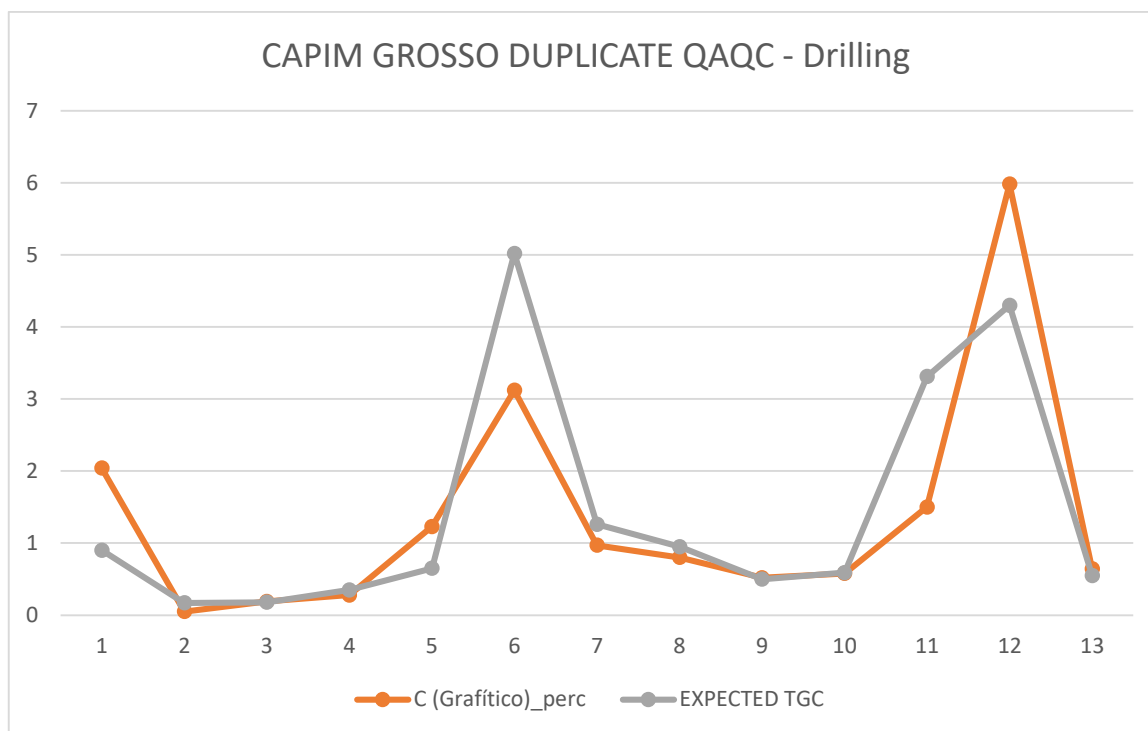


Figure 11.2 Duplicate QAQC (TGC %) during Gratomic drilling on Capim Grosso (source: Principal Author).

#### 11.2.2.3 CRM QAQC

Certified Reference Materials were inserted from the start of the current drill program and therefore constitutes 26 CRM samples. The CRM data correlates well (between 0.97 and 1.02).

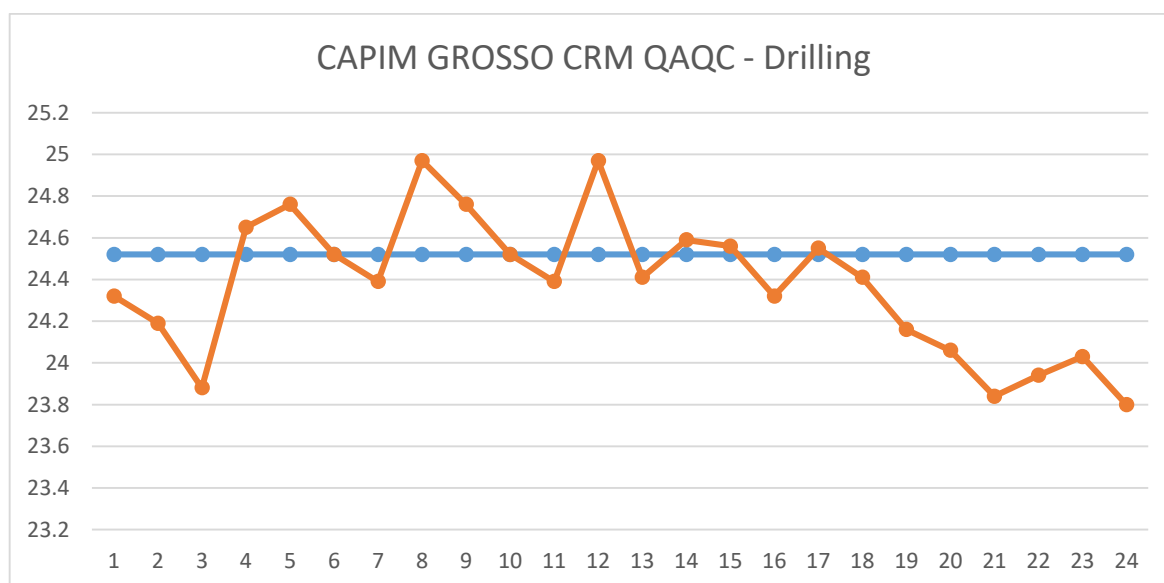


Figure 11.3 CRM (TGC %) QAQC during Gratomic drilling on Capim Grosso (source: QP).

## 12. DATA VERIFICATION

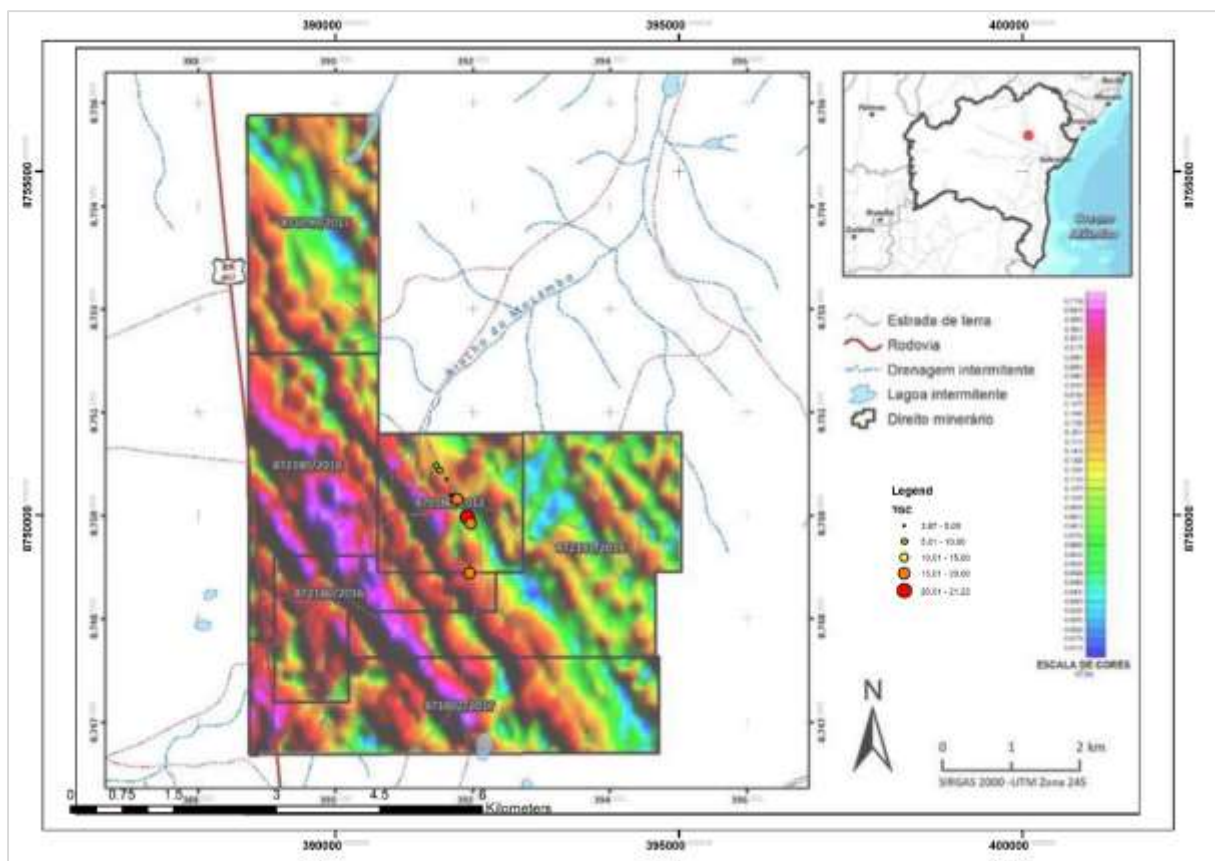
The QPs are responsible for the entire Report and has relied upon the data supplied by Gratomic.

Nico Scholtz was able to independently verify the following:

- License boundaries
- Historical exploration work completed on the ground
- Graphite mineralisation on the project through visual inspection and grab sampling
- Trenching and drilling operational procedures
- Drilling and trenching sample retrieval and laboratory assay Quality assurance and quality control (QAQC)

### 12.1 Grab sampling data verification

Data verification was completed by Nico Scholtz at the onset of the project which comprised a grab sampling and visual graphite mineralisation determination. The grab sampling program was completed between 10 and 15 July 2021 and a total of 15 grab samples were retrieved.



Grab sample preparation and analyses was completed at SGS Geosol Laboratórios in Minas Gerais. Assay procedures at SGS involved SGS Geosol's graphitic carbon assay methods and equipment include the LECO carbon-sulphur analyzer and high temperature combustion infrared detection. During this procedure, the carbon in the sample is converted to carbon dioxide CO<sub>2</sub>, which is then measured by infrared (IR) detectors.

Table 12.1 Grab sample results as retrieved by Nico Scholtz from the Capim Grosso Project in July 2021 (source: Principal Author).

SAMPLE ID	X	Y	LABEL	S	TGC
U4803	391966	8749876	Zumbi (Capim Grosso)	0.02	19.02
U4804	391935	8749927	Zumbi (Capim Grosso)	0.02	5.74
U4805	391916	8749968	Zumbi (Capim Grosso)	<0,01	21.22
U4806	391771	8750231	Zumbi (Capim Grosso)	0.05	15.85
U4807	391677	8750289	Zumbi (Capim Grosso)	<0,01	3.93
U4808	391617	8750520	Zumbi (Capim Grosso)	0.02	3.87
U4809	391515	8750652	Zumbi (Capim Grosso)	<0,01	7.51
U4810	391466	8750716	Zumbi (Capim Grosso)	<0,01	7.73
U4811	391967	8749873	Zumbi (Capim Grosso)	0.01	17.82
U4812	391948	8749163	Zumbi (Capim Grosso)	0.05	14.94
U4813	391949	8749155	Zumbi (Capim Grosso)	<0,01	18.34
U4814	342108	8767628	Zumbi (Capim Grosso)	0.1	5.79
U4815	342110	8767623	Zumbi (Capim Grosso)	0.01	5.03
U4816	343663	8760509	Zumbi (Capim Grosso)	0.08	8.12

Note that the QP did not insert a CRM and opted to use the laboratories internal QAQC methods, which assayed within acceptable levels.

## 12.2 Gratomic trenching and drilling set-up procedures

Nico Scholtz ensured that trenches are laid out according to GPS start and end positions and that drillhole azimuth and dip is measured by geological compass with the necessary magnetic declination observed. These trench and drillhole set-up procedures were verified during the Principal Author's follow up site visits (refer to Section 2.6).

## 12.3 Sample retrieval and laboratory assay QAQC (Quality assurance and quality control)

Sample retrieval from trenching and drilling as well as laboratory procedures are discussed in Section 11.

## 12.4 QP opinion on data adequacy

The QP is of the opinion that the data used in this Technical Report is adequate for its use.

### **13. MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing testing has been completed by the Issuer. Metallurgical testing on the project by the issuer has been described in Section 9.5.

### **14. MINERAL RESOURCE ESTIMATES**

No mineral resource estimates have been completed by the Issuer.

### **15. ADJACENT PROPERTIES**

There are no adjacent properties that directly affect the interpretation and evaluation of the mineralization or other features found on the Property and which would make the Report more understandable and not misleading.

### **16. OTHER RELEVANT DATA AND INFORMATION**

There is no other relevant data or information to disclose which would make the Report more understandable and not misleading.

## 17. INTERPRETATION AND CONCLUSIONS

### 17.1 Interpretation and Conclusions

Nico Scholtz and Carlos Bastos have been requested by Gratomic Inc. to prepare a National Instrument 43-101 Technical Report (the “Report”) on the Capim Grosso project (the “Property” or the “Project”), located within Brazil. This report included a review of work conducted by Gratomic Inc. on the Capim Grosso Project.

The exploration work completed to date by Gratomic, warrants additional expenditure and confirms the good exploration potential of the Capim Grosso project, which includes:

- The good graphite grade and widths from the ongoing drilling and trenching program, which includes assay results of:
  - 7.90 m @ 9.46 TGC % in hole CGD015 from 70.5 m
  - 11.16 m @ 13.13 TGC % in hole CGD001 from 20.74 m
- Positive initial metallurgical test work, which proved that a combined concentrate grade of 96 to 97% C(t) with a closed-circuit graphite recovery of 85 to 90% seems achievable for the Capim Grosso mineralization
- Exploration target of 5 to 30Mt at an avg. grade of 5.85 % TGC
- Additional mineralisation target areas on the project

### 17.2 Risks and Uncertainties

Risks and uncertainties which may reasonably affect reliability or confidence in future work on the Project relate mainly to the reproducibility of exploration results (*i.e.*, exploration risk) in a future production environment. The QPs believe the exploration risk to be minimal based upon the amount of exploration work completed to date, which has resulted in good graphite grade and width of mineralisation. To the extent known of the QPs there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

## 18. RECOMMENDATIONS

The following exploration work is recommended for the Capim Grosso project.

1. Stage 1: Trenching and Diamond drilling
2. Stage 2: Mineral Resources Estimation and metallurgical testing

### 18.1 Year One (Stage 1)

#### 18.1.1 Stage 1: Trenching and diamond drilling

- Trenching on target areas
- Diamond drilling where trenching indicates mineralization

### 18.2 Year Two (Stage 2)

#### 18.2.1 Stage 2: Resource Estimation on the successful intersection of mineralization and metallurgical testing

- Resource estimation only if mineralization has been intersected by drilling in stage 1
- Metallurgical and flake size testing on drill core and possible bulk sample

### 18.3 Exploration Program Budget

Table 18.1 Two stage proposed exploration budget (US\$) (source: Principal Author).

1 <sup>st</sup> Year – All costs in US\$ (Stage 1)	INFORMATION	US\$
Additional trenching (includes geologist and assay costs)	Assist in target generation for drilling	25,000
DD drilling at various targets (5,000 m at US\$150 per meter including all geologist, assay, and other costs on site)	Drill targets as defined by Year 1 exploration	750,000
Additional planning, reporting, and data collation		50,000
<b>SUBTOTAL IN US\$ (First Year)</b>		<b>825,000</b>



<b>2<sup>nd</sup> Year – All costs in US\$ (Stage 2)</b>	<b>INFORMATION</b>	<b>US\$</b>
Data modeling	Model all data	50,000
Mineral Resource Estimate	Resource estimate	150,000
Metallurgical and flake size testing	Ore extraction techniques	250,000
Additional target generation	Derived from year 2 drilling	50,000
<b>SUBTOTAL IN N\$ (Second Year)</b>		<b>500,000</b>
<b>TOTAL IN US\$ (Years one and two)</b>		<b>1,325,000</b>

\*NOTE: the budget is a recommendation and excludes overheads such as director salaries, flights/transport of such to and from the site, and other corporate expenses.

## 19. REFERENCES

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