NI 43-101 Technical Report
Project Status Report
Mangueiros Ni-Cu-Co Project
Bahia, Brazil

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Report Prepared for

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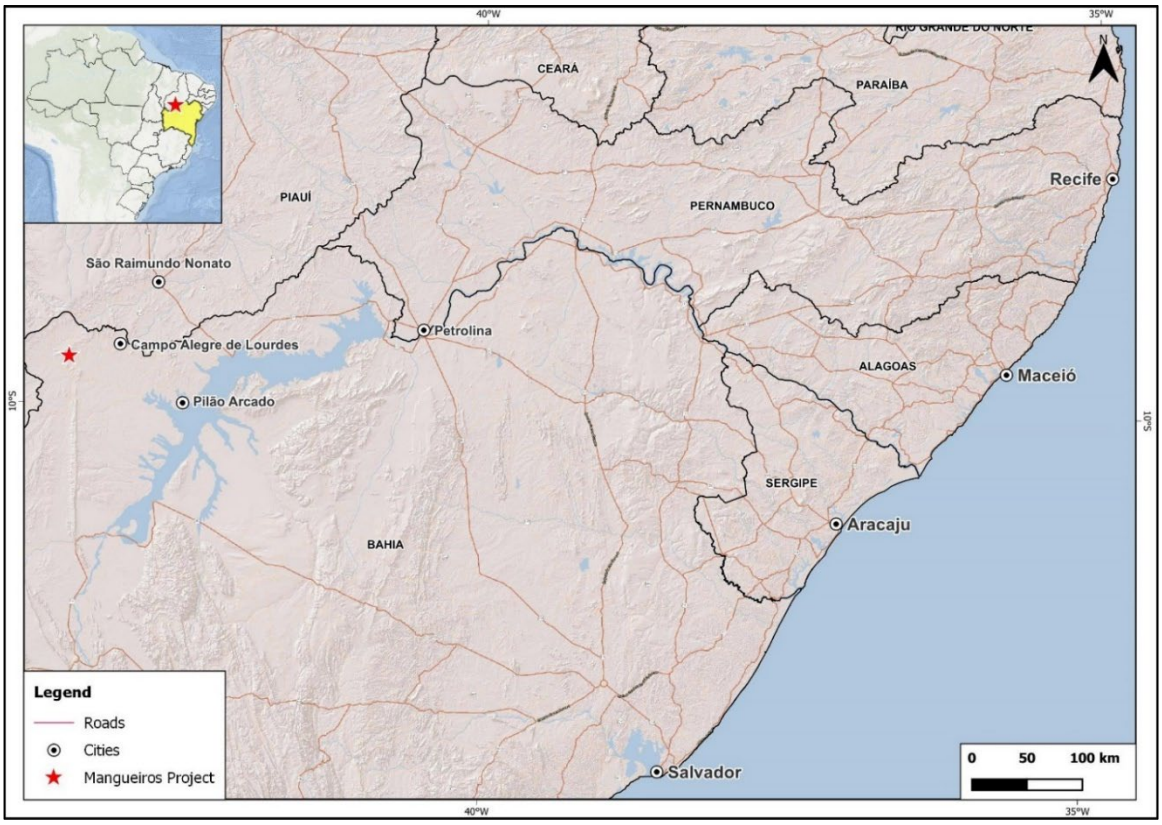
1 Summary

This report was prepared as an early-stage exploration property National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) for Bahia Nickel Mineração (Bahia Nickel) by SRK Consulting (U.S.), Inc. (SRK) on the Mangueiros Sulfide Ni-Cu-Co Project (Project). Upon completion of the initial public offering (IPO), Bahia Metals Corp. (Bahia Metals) will become owner of Bahia Nickel. As the IPO has not been completed, all references in the report are to Bahia Nickel.

1.1 Property Description and Ownership

The Mangueiros project location (Figure 1-1) is centered at the coordinates 42º 26’ 31” west and 09º 37’ 03” south in the municipality of Pilão Arcado, state of Bahia, northeast region of Brazil.



Source: Bahia Nickel Mineração, 2024

Figure 1-1: Location Map

The Mangueiros project encompasses 19 mineral rights for a total of 32,093.82 hectares (ha) as summarized in Table 1-1 and shown in Figure 1-2.

Table 1-1: Summary of Mineral Titles Information at Mangueiros Project

Tenure ID	Company	Hectares	Phase	Expiry Date	Status
872.759/2012	CBPM	1,846.24	Mining Request	NA	File Economic Plan
871.311/2014	CBPM	1,280.17	Exploration	NA	Final Report Filed
871.312/2014	CBPM	1,998.97	Exploration	NA	Final Report Filed
872.525/2016	CBPM	1,075.99	Exploration	NA	Extension Request Filed
872.526/2016	CBPM	1,574.63	Exploration	NA	Extension Request Filed
872.527/2016	CBPM	2,000.00	Exploration	NA	Extension Request Filed
872.194/2021	BNM	1,779.76	Exploration	16-12-24	File Exploration Report
872.196/2021	BNM	1,744.99	Exploration	16-12-24	File Exploration Report
872.197/2021	BNM	1,351.72	Exploration	16-12-24	File Exploration Report
872.199/2021	BNM	1,901.95	Exploration	16-12-24	File Exploration Report
872.200/2021	BNM	1,747.77	Exploration	24-12-24	File Exploration Report
872.201/2021	BNM	1,753.94	Exploration	24-12-24	File Exploration Report
872.202.2021	BNM	1,841.17	Exploration	24-12-24	File Exploration Report
872.203/2021	BNM	1,715.38	Exploration	24-12-24	File Exploration Report
872.204/2021	BNM	1,416.76	Exploration	24-12-24	File Exploration Report
872.205/2021	BNM	1,863.41	Exploration	24-12-24	File Exploration Report
872.206/2021	BNM	1,929.90	Exploration	24-12-24	File Exploration Report
872.207/2021	BNM	1,755.06	Exploration	24-12-24	File Exploration Report
872.208/2021	BNM	1,516.01	Exploration	24-12-24	File Exploration Report

Source: Bahia Nickel Mineração, 2024

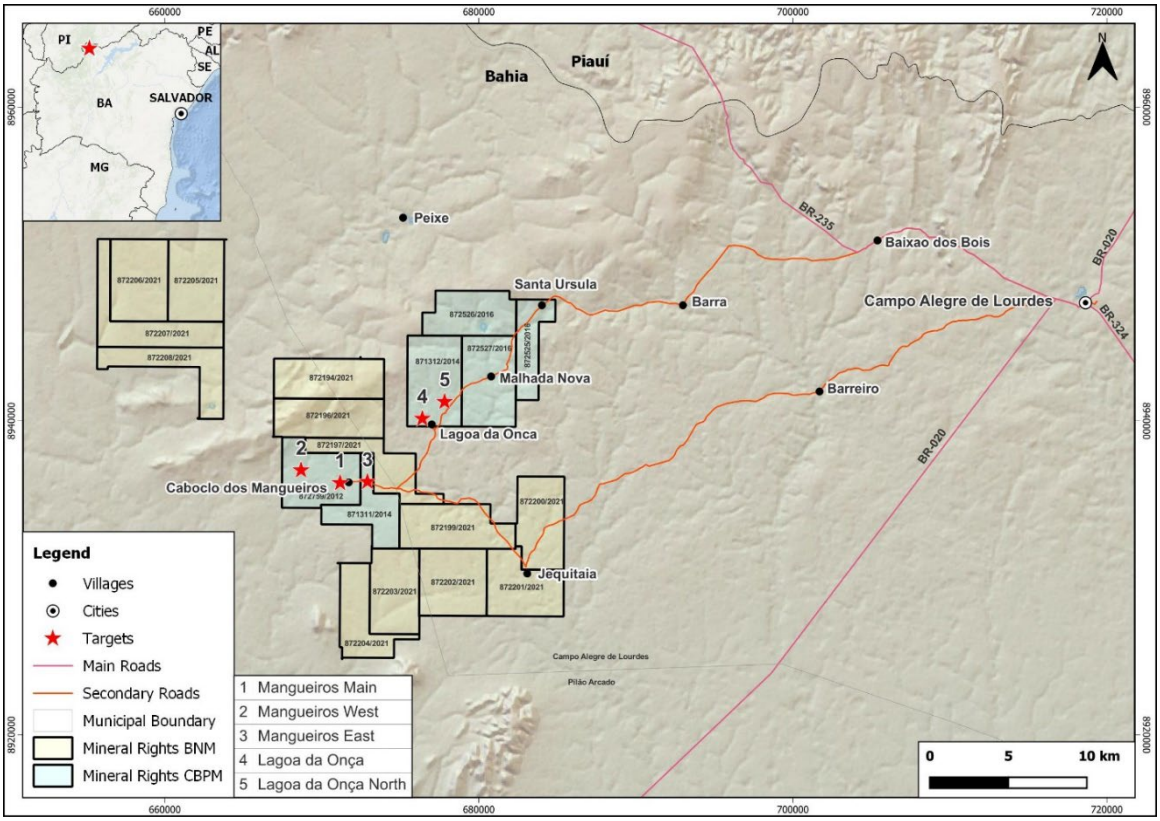
The six tenures held by Companhia Baiana de Pesquisa Mineral (CBPM) are part of an exploration and leasing contract between CBPM and Bahia Nickel agreed to on December 13, 2021. The other thirteen tenures are held by Bahia Nickel Mineração Ltda. (BNM).

Final positive reports were filed for tenements 871.311/2014 and 871.312/2014. Until the mining agency provides a response, there is no expiry date on these two tenements.

Extensions have been requested for three tenements (872.525/2016, 872.526/2016, and 872.527/2016), there is currently no expiry date until the mining agency responds.

For all the remaining tenements, initial exploration reports have been filed. If the mining agency approves these reports, a three-year exploration extension is permitted.

Exploration on these permits is allowed to continue until a response is received. There is some risk that additional work to advance this project may not be approved by the agency. However, none of the deposits currently of interest lie in these permits. Mangueiros Main and West lie within tenure 872.759/2012 while Lagoa da Onca and Lagoa da Onca North lie within tenure 871.312/2014.



Source: Bahia Nickel Mineração, 2024

Figure 1-2: Land Tenure Map and Access Routes to the Project

The surface rights are distributed amongst several owners over the three main exploration targets, Mangueiros Main, Mangueiros West, Lagoa da Onça and Lagoa da Onca North. Written formal agreements have been signed between BNM and all the surface owners providing formal consent for the company to develop its exploration program, including drilling.

The Mangueiros project and its main exploration targets, Mangueiros Main, Mangueiros West and Lagoa da Onça are totally covered by mineral rights that are owned by CBPM as described in Table 1-1 and shown in Figure 1-2. As CBPM is a public company owned by the state of Bahia, the mineral rights must be offered to the market through a public tender process. Bahia Nickel was the winner of the tender process in September 2021 and the definitive exploration agreement was signed by both companies on December 13, 2021. In summary, the agreement states the following:

- Payment to CBPM of an amount of BR$2 million upon agreement's signing.
- To execute an exploration program over a three-year period spending at least BR$8 million over this period.
- In case one or more economic mineral deposits are identified and a mining concession is issued by the Brazilian Mining Agency (ANM), another payment of BR$2 million is due and Bahia Nickel is also entitled to sign with CBPM, a mining lease agreement lasting 20 years that can be extended for more 10 years (a total of thirty years).
- During the mining operation and production, a Net Smelter Return royalty of 2.75% must be paid to CBPM.

As per the Brazilian Mining Code, a federal royalty of 2% will also apply during the operation and production of the mine.

BNM will need to apply for environmental permits to cover the proposed drill programs which are expected to occur in 2025.

SRK is not aware of any other factors or risks that affect access, title or right or ability to perform work on the property other than those stated in the above sections which SRK would expect to have a material impact on the Project.

1.2 Geology and Mineralization

The geological mapping data and description of drill cores from the Mangueiros and Lagoa da Onça ultramafic systems identified four geological domains: Santo Onofre Group, Caboclo dos Mangueiros Suite, Quartz Veins, and Cenozoic Deposits. Due to the sedimentary cover, the first two units have little exposure in outcrops and were defined based on the extensive description of drill cores and petrographic slides.

The oldest rocks in the local framework are supracrustal rocks described as muscovite-schist, chlorite-schist, graphite-phyllite, and graphite-rich rocks belonging to the Santo Onofre Group. These rocks are intruded by pyroxenites, olivine-websterites, and websterites from the Caboclo dos Mangueiros Suite. These mafic-ultramafic rocks have undergone greenschist metamorphism modifying the protoliths to foliated serpentinites and tremolitites, and developing actinolite-tremolite, serpentine, and quartz-pyrite-carbonate pervasive and infill hydrothermal alteration. The supracrustal and mafic-ultramafic rocks are cut by quartz veins. Finally, the entire package is overlain by unconsolidated clastic sediments, laterite, and residual soils.

The Neoproterozoic Caboclo dos Mangueiros hosts the Mangueiros and Lagoa da Onça Ni-Cu-Co systems and is prospective for sulfide deposits (Pereira et al., 2023). These mafic-ultramafic rocks are poorly exposed at surface, usually found beneath unconsolidated sediments and lateritic covers. This sediment cover makes airborne magnetic and gravimetric geophysics surveys the main tool for discovering new metal deposits. The mafic-ultramafic rocks outcrops are associated with garnierite-rich laterites and can be described as semi-weathered float near stream watercourses.

Pereira et al, 2023, defined the ultramafic rocks as mainly orthopyroxene and clinopyroxene with minor olivine cumulates and interstitial sulfides affected by variable actinolite-tremolite and serpentine alterations metamorphized under the greenschist facies. The bulk of mineralization is formed by pyrrhotite, pentlandite, chalcopyrite, pyrite, and minor violarite. These sulfides occur as disseminated blebs and interstitial grains, or metric narrow layers of semi-massive sulfides dispersed vertically and horizontally along the intrusion.

The geology of Mangueiros and Lagoa da Onça deposits can be subdivided into three main geological domains:

- Basement domain, formed by the supracrustal rocks from the Santo Onofre Group, which are described as muscovite-schist, chlorite schist, ferruginous phyllite, graphite-phyllite, and graphite-rich rocks. They show linear to diffuse contact with the ultramafic rocks.
- Caboclo dos Mangueiros domain, made of ultramafic intrusions that host the Ni-Cu-Co sulfide mineralization.
- Overburden cover, made of unconsolidated debris, residual soils, garnierite-rich laterites, and weathered ultramafic rocks.

1.3 Status of Exploration, Development and Operations

In early 2022, Bahia Nickel commissioned Globalgeo company to provide high resolution satellite and DTM images covering an area of 129.95 square kilometers (km²).

Bahia Nickel executed geological mapping program in 2022, covering the Mangueiros and Lagoa da Onça targets. The field program logged 3,658 geology points resulting in a semi-detailed geological map on a 1:20,000 scale. The geological map of the Mangueiros-Lagoa da Onça region was prepared based on field data observations, drilling information, geochemistry of nickel and copper from soil sampling, and lineaments from the airborne and drone-borne geophysical surveys.

Bahia Nickel undertook a soil geochemistry program over the Mangueiros Main, Mangueiros East, and Mangueiros West to confirm the previous geochemistry soil anomaly identified by CBPM. the soil geochemistry program also identified the Lagoa da Onça soil anomaly. 1,133 soil samples were collected within the Mangueiros area, and 584 samples within the Lagoa da Onça target.

The soil program successfully confirmed and extended the historical Ni-Cu soil anomalies and identified a new anomaly associated with the Lagoa da Onça deposit.

During Q1/2022, LASA S.A. was contracted by CBPM to execute a Time-Domain Electromagnetic and Magnetic airborne surveys on what this company called the Campo Alegre de Lourdes-Cabeça no Tempo Project, located in northern Bahia and southeast portion of Piaui states, an area that also includes the Mangueiros and Lagoa da Onça targets. The entire aerial survey covered an area of 1,178 km² (6,304.60 linear kilometers (km)).

This airborne geophysical survey confirmed the strong magnetic anomaly at Mangueiros Main and Mangueiros West targets, and revealed a new significant magnetic anomaly located approximately 7 km northeast of Mangueiros in an area called Lagoa da Onça.

In Q3/2022, Bahia Nickel contracted Geoscan Geologia e Geofísica Ltda. to develop a drone-mag survey over Lagoa da Onça target aiming to enhance the magnetic response initially obtained by CBPM's regional airborne survey. The survey totaled 200.90 linear km covering an area of 0.091 km² (9 ha) with N45W direction flight lines spaced 100 meters (m) apart, with a N45E striking control line.

In mid-2023, Bahia Nickel commissioned CBPM to conduct a ground gravimetric survey covering the Mangueiros and Lagoa da Onça targets. The equipment employed was a CG-6 AUTORAV TM micro gravimeter manufactured by Scintrex Geophysics.

The gravimetric surveys have generated positive results at both Mangueiros (Main and West) and Lagoa da Onça targets. The confirmation of a gravimetric anomaly over Mangueiros Main was already expected given ultramafic rocks are outcropping or near-surface, and the ultramafic intrusion had been previously delineated by drilling.

The gravity survey also identified another anomaly at the western extension of the Mangueiros Main. This anomaly supports the wide wavelength magnetic anomaly (total magnetic intensity) found at Mangueiros West. The existence of an ultramafic intrusion was later confirmed by the drilling of hole MGDH-069. MGDH-069 will be resumed to cut across all the intrusion and additional step out drilling will be executed to define the areal and depth extents of the Mangueiros West mineralized system.

Another gravimetric anomaly was identified coincident with a previously known magnetic dipole at the northern portion of Lagoa da Onça target. In fact, this gravimetric anomaly is even more relevant than that of the southern magnetic dipole, where a Ni-Cu-Co mineralized ultramafic

system was confirmed by a set of diamond drillholes. This now combined gravimetric-magnetic northern anomaly was tested with one diamond drillhole (LODH-017) that confirmed the existence of another ultramafic system that is also mineralized with sulfide Ni-Cu-Co having similar signatures to the other exploration targets.

Between 2013 and 2023, Bahia Nickel Mineração and CBPM drilled 86 diamond drillholes totaling 12,785.79 m at the Mangueiros project. Drilling completed to date is tabulated in Table 1-2.

Table 1-2: Diamond Drilling Distribution at Mangueiros Project

Company	Period	Target	Objective	DH Amount	Sum of Length (m)
CBPM	2013-2016	Mangueiros Main	Exploration	14	2,559.25
CBPM	2013-2016	Mangueiros East	Exploration	8	492.00
Total					**3,051.25**
Bahia Nickel Mineração	2022-2023	Mangueiros Main	Infill/Step Out	29	6,186.76
Bahia Nickel Mineração	2022-2023	Mangueiros East	Infill	17	616.47
Bahia Nickel Mineração	2022-2023	Lagoa da Onça	Exploration	16	2,547.56
Bahia Nickel Mineração	2023	Lagoa da Onça North	Exploration	1	232.51
Bahia Nickel Mineração	2023	Mangueiros West	Exploration	1	151.24
Total					**9,734.54**

Source: SRK, 2024

Historical drilling executed by CBPM totals 22 holes with 3,051.25 m drilled between 2013 and 2016. Out of these 22 holes, nickel, copper, and cobalt mineralization was identified in at least eight holes at Mangueiros Main target. Additional mineralization was also identified at Mangueiros East, although with minor significance and importance given the small size of this target.

The drilling program executed by Bahia Nickel started in May 2022 with Phase-1 campaign, initially aiming to infill and step out from the existing CBPM drilling at Mangueiros Main target. Phase-1 also included drilling at Lagoa da Onça and Mangueiros East targets. Phase-1 was completed in April 2023 for a total of 54 holes and 8,056.85 m.

Phase-2 drilling was executed in October and November 2023. Two additional holes were drilled at Mangueiros Main target, one drillhole at Mangueiros West (discovery hole), and one hole at Lagoa da Onça North (discovery hole). Phase-2 ended with 10 holes and 1,677.69 m.

The diamond drilling executed by Bahia Nickel successfully confirmed and expanded the sulfide Ni-Cu-Co mineralization previously identified by CBPM at Mangueiros Main target and identified three new mineralized systems, Mangueiros West, Lagoa da Onça and Lagoa da Onça North. These new targets may represent significant potential resources for the project.

1.4 Mineral Processing and Metallurgical Testing

Bahia Nickel has conducted preliminary metallurgical test work.

Nickel and copper float readily. The optimum P80 for flotation with better recovery of elements associated with sulfides was 125 µm. In the samples analyzed, the distribution of NiS, total Ni, Cu, Co and S increases with the reduction of particle size. Conversely, the deleterious contents in a nickel concentrate, SiO_2 and MgO, decrease in the finest particles. This suggests that the liberation of sulfides occurs in the particle size ranges smaller than 38 µm.

The best rougher and scavenger test condition of the master composite obtained a combined result with recovery of NiS of 87.2%, 82.4% of Cu, 50.2% of Co and 87.8% of S.

Following the same comparison for the concentrate contents, the NiS content was lower, however the Fe/MgO ratio in the rougher and scavenger concentrate was three times higher, at 1.72.

For the flotation tests of the cleaner and recleaner stages, a final concentrate with a content of 6.3% Ni, 2.2% Cu and 0.23% Co was obtained. This is not a too high value, although it is within the range obtained by other plants worldwide (Figure 13-3).

The Fe/MgO ratio of the final concentrate from the standard test was high, at 21.4 which suggests a good quality final concentrate may be obtained from Mangueiros material. The final concentrate showed high magnetic susceptibility, related to pyrrhotite (a sulfide mineral associated with iron), which demonstrates the possibility of improving the Ni content in the concentrate by using magnetic separation to remove the pyrrhotite. No talc interference was observed in any of the flotation tests, what certainly is a due the quite low MgO content in the mineralized system.

Currently the NiS recovery was 81.2% and 91.5% for the blebs samples and 81.9% and 79.7% for the disseminated samples. In the standard cleaner stage test, the disseminated samples obtained the best NiS results in the final concentrate, 6.3% for the DIS_0.2 sample and 5.7% for the DIS_0.3 sample.

No deleterious elements have been identified that could have a significant effect on potential economic extraction.

During the next phase of study, test work should be conducted on the bulk cleaner concentrate to evaluate nickel and copper separation and production of separate nickel and copper flotation concentrates. The reported copper analyses may be questionable since the master composite, which was formulated from an equal blend of the four variability samples, assayed 0.167% Cu and the grade of the four variability composites ranged from 0.13% to 0.14% Cu.fExploration Target

To date, only preliminary interpretation and analysis has been completed for this project. The main goal of the work was to explore target sizing, development strategy and drillhole targeting assistance. Of the three main areas in the project the current drilling has focused on Mangueiros Main. Mineralization at Mangueiros Main currently extends 1,800 m northwest to southeast, 600 m southwest to northeast and is about 250 m thick (at a 0.10 NiS cut-off).

Mangueiros West and Lagoa da Onca exploration targets are also shown with their discovery holes.

1.5 Exploration Potential

1.5.1 Mangueiros Main

Mangueiros Main has the most significant drilling and is drilled to an average nominal spacing of approximately 200 m with locally some tighter spacing. The majority of holes have been vertical to near vertical. The main mafic ultra-mafic unit (MUM) has been logged and used to guide the estimation of grade and tonnes.

A model was generated for target evaluation and not for resource estimation purposes. Preliminary estimates have been restricted to within the MUM interpreted domain. An ordinary kriging estimator was used with a multi-pass (four) search strategy. A basic variogram with ranges of 100 m in the horizontal was applied. No grade capping was employed for the estimation at this stage of the analysis. Due to the well-behaved grade distributions, it is expected the amount of metal that might be capped out of the estimation will be very minor.

The following scenarios have been assessed:

- General lithological model created by grouping all ultramafic lithotypes into a single domain
- Incremental grade shells based on cut-offs at 0.10% Ni, 0.15% Ni, 0.20% Ni, and 0.25% Ni

It is the QP's opinion that the current information is sufficient to define the potential range of tonnage and grades that are expected at the Project. Due to some uncertainty in the underlying information and differences in the statistical distributions of the different drilling phases, SRK has not currently defined a Mineral Resource for the Project, until sufficient verification and infill drilling can be completed.

To evaluate the exploration target sizing, Whittle software was used to optimize various pit shells with the preliminary block model. A Net Smelter Revenue (NSR) was calculated for use in the process. The main assumptions were as follows:

- Pricing: Ni – 8.13 US$/lb, Cu – 3.5 US$/lb, Co – 25 US$/lb
- Recoveries: NiS – 83%, Cu – 75%, Co – 38%
- Costs:
  - Mining - 2.51/t
  - Processing - US$5.67/t
  - Site general and administrative (G&A) - US$2/t

Sensitivity studies within the yellow pit shell were used to determine the range of tonnes and grade of the exploration target. The potential quantity and grade ranges noted below are conceptual in nature and insufficient exploration has been conducted to define this material as a Mineral Resource. It is uncertain if further exploration will result in these exploration target estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources

The target remains open in several directions. The exploration target at Mangueiros Main is expected to be a tonnage range of 75 to 200 million tonnes (Mt) with a grade range of 0.20 to 0.25% NiS.

1.5.2 Mangueiros West

A comparative analysis of the magnitude of the gravimetric and magnetic anomalies of the Mangueiros Main and the nearby Mangueiros West targets suggests that the latter may hold a mineralized system as large as that of Mangueiros Main target. The similarities make Mangueiros West an equally prospective target for further exploration and resource delineation.

The first exploratory drillhole at Mangueiros West target, hole MGDH-069, was terminated prior to intersecting the complete ultramafic intrusion and mineralized system, intercepted 25.40 m at 0.24% NiS, 0.20% Cu and 0.020% Co at the upper levels of the ultramafic intrusion. This is similar to what has been observed at the Mangueiros Main target.

Given the similarities in the size and intensity of the geophysical anomalies, it is possible Mangueiros West may have an exploration potential comparable to Mangueiros Main, but due to the lack of drilling at Mangueiros West, the QP cannot state an exploration target for Mangueiros West.

It is uncertain if further exploration will result in these areas estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of

exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources.

1.5.3 Lagoa da Onça

A preliminary model was generated for target evaluation and not for resource estimation purposes. The numbers presented should not be considered a Mineral Resource and the reader is cautioned the model and numbers do not have sufficient support to meet the requirements for declaration of a mineral resource.

Seequent Leapfrog® Geo/Edge was used to model geology and grade shell wireframes. A model consisting of 5 m x 5 m x 5 m blocks was constructed. Grade shells were used to constrain the samples used to evaluate the exploration potential.

An Inverse Distance Weighting (IDW) estimator was used was used to estimate NiS grades. Based on field measurements from 16 holes drilled at Lagoa da Onca, a density of 2.97 grams per cubic centimeter (g/cm^3) was applied to determine tonnages. A cut-off grade of 0.10% NiS, suggests the estimated material within the modelled pit shell amounted to approximately 56 Mt of ore with an average grade of 0.13% NiS. The QP applied a range of ±20% to these tonnes and grade to determine the exploration target.

The potential quantity and grade ranges noted below are conceptual in nature and insufficient exploration has been conducted to define this material as a Mineral Resource. It is uncertain if further exploration will result in these exploration target estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources.

The target remains open in several directions. The exploration target at Lagoa da Onca is expected to be a tonnage range of 45 to 67 Mt with a grade range of 0.10% to 0.16% NiS.

1.5.4 Lagoa da Onca North

Significant gravimetric and magnetic anomalies have been identified at both the Lagoa da Onça and Lagoa da Onça North targets with Lagoa da Onca North anomaly being similar in size to Mangueiros Main. Drillhole LODH-017 (53 m at 0.20% NiS, 0.16% Cu, and 0.015% Co, starting from 28 m) confirmed the presence of a mineralized system is present at Lagoa da Onça North.

Geophysics and the limited amount of drilling at Lagoa da Onca North suggest an exploration target geologically similar to Mangueiros Main meriting additional exploration but due to lack of drilling no range of tonnes and grades can be estimated at this time.

It is uncertain if further exploration will result in these areas estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources.

1.6 Conclusions and Recommendations

It is the QP's opinion that the current information is sufficient to define the potential range of tonnage and grades that are expected at Manqueiros Main.

The QP considers that additional exploration and supporting studies need to be completed on the Project to advance to a Mineral Resource (note, it is uncertain if exploration will result in the delineation of new Mineral Resources).

Assuming these two areas of focus, the QP is recommending the following work programs (note, it is uncertain if exploration will result in the delineation of new Mineral Resources). If the proposed drill programs demonstrate sufficient geologic and grade continuity, the next stage of the project would be to define an initial Mineral Resource Estimate. These can be broken down into two key areas as discussed in this report:

- Mangueiros (Main and West):
  - Exploration to date at Mangueiros Main has demonstrated shallow/outcropping sulfide mineralization covered by a thin (20 m) layer of overburden and oxidized mineralization. Sulfide mineralization is relatively continuous vertically and both along strike and across strike of the MUM unit.
  - Mangueiros West is a Ni-Cu-Co sulfide system that has been confirmed by one drillhole that intersected Ni-Cu-Co sulfide mineralization at a depth of 97.70 m. The size and strength of its coincident magnetic and gravimetric anomalies suggest a target of similar size to Mangueiros Main may exist at Mangueiros West.
- Lagoa da Onca and Lagoa da Onca North:
  - Lagoa da Onca (second best defined target) has less drilling than Mangueiros Main, but results to date suggest similar characteristics to Mangueiros Main.
  - Lagoa da Onça North, one drillhole intersected sulfide Ni-Cu-Co mineralization, at a vertical depth of 28 m. This area also has potential due to the size and strength of its coincident magnetic and gravimetric anomalies.

Assuming these two areas of focus, the QP is recommending the following work programs (budget is shown in Table 1-3). The minimum exploration program proposed for Bahia Nickel in 2026 includes:

- Mangueiros Main:
  - Diamond drilling of 1,250 m aiming to confirm the westward continuation of the known mineralization

The minimum exploration program proposed for Bahia Nickel in 2027 includes:

- Mangueiros Main:
  - Diamond drilling of 4,000 m to support a maiden Mineral Resource Estimate (NI 43-101)
  - Borehole EM geophysical survey to identify zones with possible occurrence of massive sulfidation, feeder conduits and high Ni grade zones.
  - Complete metallurgical tests on larger, raw core samples conducted by an external certified laboratory..
- Lagoa da Onça North:
  - Step out diamond drilling of 500 m to define mineralization continuity and to provide a minimum size for this mineralized system.
- Mangueiros West:
  - Step out diamond drilling of 500 m to define mineralization continuity and to provide a minimum size for this mineralized system.

Table 1-3: Proposed Exploration Budget

Phase 1 (12 months): Proposed Budget	
Activity	**Cost (US$)**
Drilling (1,250 m)	200,000
Laboratory assaying	66,500
Vehicles/rent/facilities/information technology (IT)	45,000
G&A	175,000
Continency (10%)	48,500
Subtotal	**535,000**
Phase 2 (12 months): Proposed Budget	
Activity	**Cost (US$)**
Drilling (5,000 m)	601,500
Laboratory assaying	250,000
Borehole EM	35,000
Resource statement report	100,000
Vehicles/rent/facilities/IT	65,000
Metallurgical test	50,000
G&A	250,000
Continency (10%)	133,500
Subtotal	**1,485,000**

Source: SRK, 2025

SRK expects that US$535,000 will be spent in Year 1 and US$1,485,000 will be spent in Year 2.

2 Introduction

2.1 Terms of Reference and Purpose of the Report

This report was prepared as a NI 43-101 Technical Report for Bahia Nickel Mineração (Bahia Nickel or Company) by SRK Consulting (U.S.), Inc. (SRK) on the Mangueiros Project (the Project).

Upon completion of the IPO, Bahia Metals will become owner of Bahia Nickel. As the IPO has not been completed, all references in the report are to Bahia Nickel.

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in SRK's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Bahia Nickel subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits Bahi Nickel to file this report as a Technical Report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other uses of this report by any third party is at that party's sole risk. The responsibility for this disclosure remains with Bahia Nickel. The user of this document should ensure that this is the most recent Technical Report for the property as it is not valid if a new Technical Report has been issued.

This report provides information related to potential exploration target, and a classification of resources and reserves prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014 (CIM, 2014).

2.2 Qualifications of Consultants (SRK)

The Consultants preparing this technical report are specialists in the fields of geology, exploration, Mineral Resource and Mineral Reserve estimation and classification, underground mining, geotechnical, environmental, permitting, metallurgical testing, mineral processing, processing design, capital and operating cost estimation, and mineral economics.

None of the Consultants or any associates employed in the preparation of this report has any beneficial interest in Bahia Nickel. The Consultants are not insiders, associates, or affiliates of Bahia Nickel. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Bahia Nickel and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience and professional association, are considered Qualified Persons (QP) as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions. QP certificates of authors are provided in Appendix A. The QP's are responsible for specific sections as follows:

- Doug Reid, Principal Consultant (Resource Geology) (referred to in this document as "QP" or "SRK") is the QP responsible for all sections of this Technical Report.

2.3 Details of Inspection

Table 2-1: Site Visit Participants

Personnel	Company	Expertise	Date(s) of Visit	Details of Inspection
Doug Reid	SRK	Geology/Mineral Resources	22-26 July 2024	Site visit to inspect site logistics, view outcrop and drill collars, historical drill core review, collect witness samples.

2.4 Sources of Information

The sources of information include data and reports supplied by Bahia Nickel personnel as well as documents cited throughout the report and referenced in Section 27.

2.5 Effective Date

The effective date of this report is November 15, 2024.

2.6 Units of Measure

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

3 Reliance on Other Experts

The Consultant's opinion contained herein is based on information provided to the Consultants by Bahia Nickel throughout the course of the investigations. SRK has relied upon the work of other consultants in the project areas in support of this Technical Report.

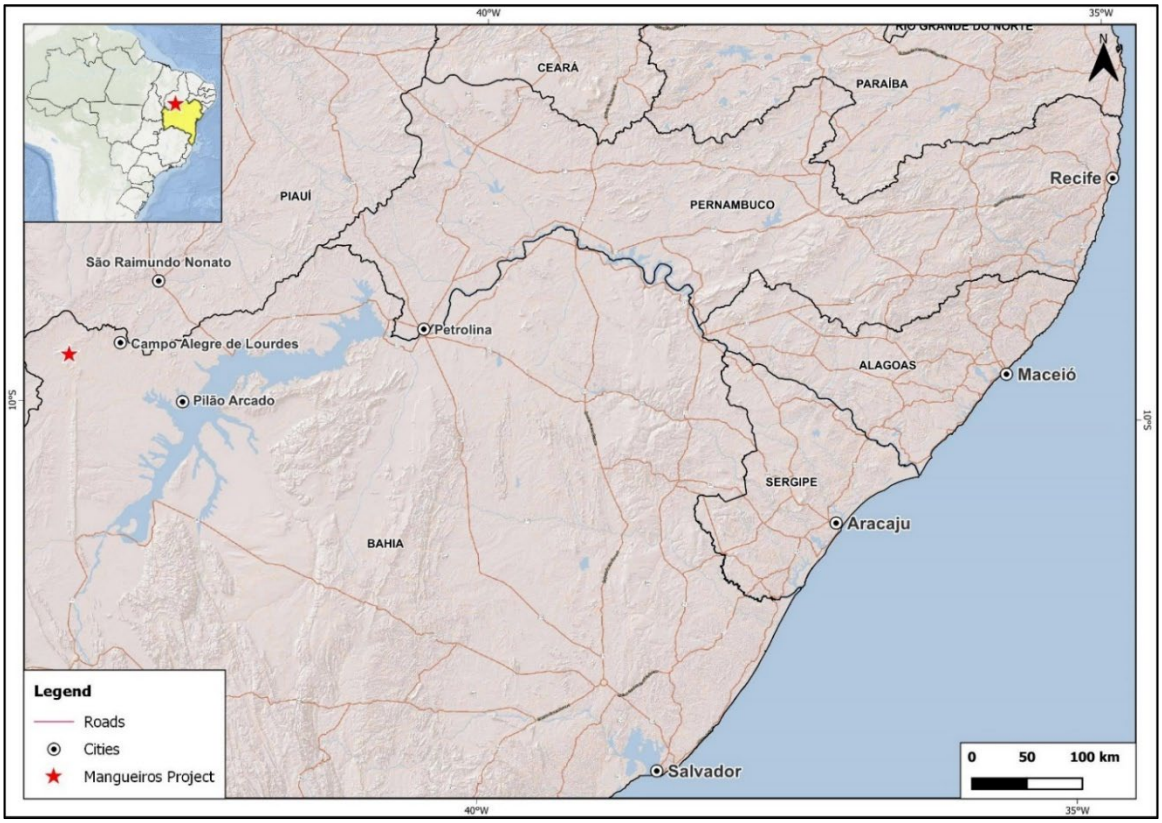
The QPs have not performed an independent verification of land title and tenure information as summarized in Section 3 of this report. The QP did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s).

These items have not been independently reviewed by SRK and SRK did not seek an independent legal opinion of these items. The Consultants used their experience to determine if the information from previous reports was suitable for inclusion in this technical report and adjusted information that required amending. This report includes technical information, which required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the Consultants do not consider them to be material

4 Property Description and Location

4.1 Property Location

The Mangueiros project location (Figure 4-1) is centered at the coordinates 42º 26’ 31” west and 09º 37’ 03” south in the municipalities of Pilão Arcado and Campo Alegre de Lourdes, state of Bahia, northeast region of Brazil.



Source: Bahia Nickel Mineração, 2024

Figure 4-1: Location Map

4.2 Mineral Titles

The Mangueiros project encompasses nineteen (19) mineral rights for a total of 32,093.82 ha as summarized in Table 4-1 and shown in Figure 4-2.

Table 4-1: Summary of Mineral Titles Information at Mangueiros Project

Tenure ID	Company	Hectares	Phase	Expiry Date	Status
872.759/2012	CBPM	1,846.24	Mining Request	NA	File Economic Plan
871.311/2014	CBPM	1,280.17	Exploration	NA	Final Report Filed
871.312/2014	CBPM	1,998.97	Exploration	NA	Final Report Filed
872.525/2016	CBPM	1,075.99	Exploration	NA	Extension Request Filed
872.526/2016	CBPM	1,574.63	Exploration	NA	Extension Request Filed
872.527/2016	CBPM	2,000.00	Exploration	NA	Extension Request Filed
872.194/2021	BNM	1,779.76	Exploration	16-12-24	File Exploration Report
872.196/2021	BNM	1,744.99	Exploration	16-12-24	File Exploration Report
872.197/2021	BNM	1,351.72	Exploration	16-12-24	File Exploration Report
872.199/2021	BNM	1,901.95	Exploration	16-12-24	File Exploration Report
872.200/2021	BNM	1,747.77	Exploration	24-12-24	File Exploration Report
872.201/2021	BNM	1,753.94	Exploration	24-12-24	File Exploration Report
872.202.2021	BNM	1,841.17	Exploration	24-12-24	File Exploration Report
872.203/2021	BNM	1,715.38	Exploration	24-12-24	File Exploration Report
872.204/2021	BNM	1,416.76	Exploration	24-12-24	File Exploration Report
872.205/2021	BNM	1,863.41	Exploration	24-12-24	File Exploration Report
872.206/2021	BNM	1,929.90	Exploration	24-12-24	File Exploration Report
872.207/2021	BNM	1,755.06	Exploration	24-12-24	File Exploration Report
872.208/2021	BNM	1,516.01	Exploration	24-12-24	File Exploration Report

Source: Bahia Nickel Mineração, 2024

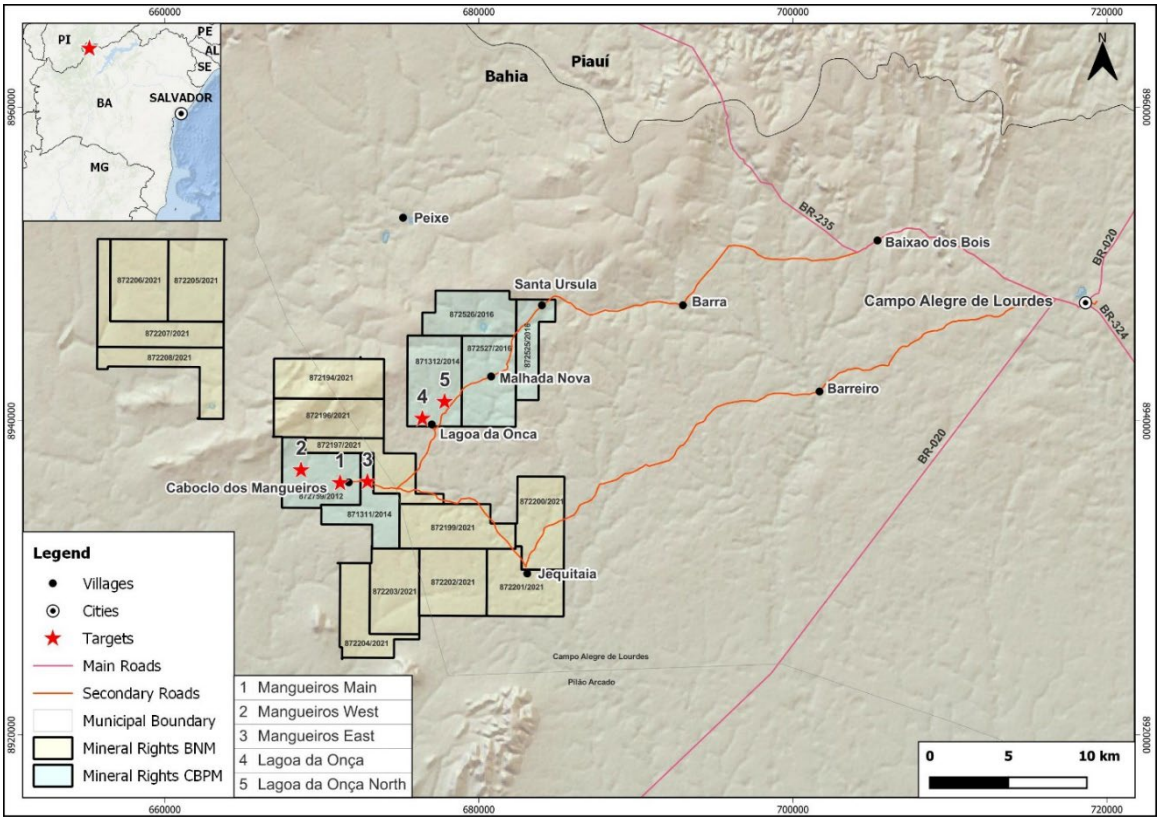
The six tenures held by CBPM (Companhia Baiana de Pesquisa Mineral) are part of an exploration and leasing contract between CBPM and Bahia Nickel agreed to on December 13, 2021. The other thirteen tenures are held by Bahia Nickel Mineração Ltda. (BNM).

Final positive reports were filed for tenements 871.311/2014 and 871.312/2014. Until the mining agency provides a response, there is no expiry date on these two tenements.

Extensions have been requested for three tenements (872.525/2016, 872.526/2016, and 872.527/2016), there is currently no expiry date until the mining agency responds.

For all the remaining tenements, initial exploration reports have been filed. If the mining agency approves these reports, a three-year exploration extension is permitted.

Exploration on these permits is allowed to continue until a response is received. There is some risk that additional work to advance this project may not be approved by the agency. However, none of the deposits currently of interest lie in these permits. Mangueiros Main and West lie within tenure 872.759/2012 while Lagoa da Onca and Lagoa da Onca North lie within tenure 871.312/2014.



Source: Bahia Nickel Mineração, 2024

Figure 4-2: Land Tenure Map and Access Routes to the Project

4.2.1 Nature and Extent of Issuer's Interest

The surface rights are distributed amongst several owners over the three main exploration targets, Mangueiros Main, Mangueiros West, Lagoa da Onça and Lagoa da Onca North. Formal written agreements have been signed between BNM and all the surface owners providing formal consent for the company to develop its exploration program, including drilling.

4.3 Royalties, Agreements and Encumbrances

The Mangueiros project and its main exploration targets, Mangueiros Main, Mangueiros West and Lagoa da Onça are totally covered by mineral rights that are owned by CBPM as described in Table 4-1 and shown in Figure 4-2. As CBPM is a public company owned by the state of Bahia, the mineral rights must be offered to the market through a public tender process. Bahia Nickel was the winner of the tender process in September 2021 and the definitive exploration agreement was signed by both companies on December 13, 2021. In summary, the agreement states the following:

- Payment to CBPM of an amount of BR$2 million upon agreement's signing.
- To execute an exploration program over a three-year period spending at least BR$8 million over this period.
- In case one or more economic mineral deposits are identified and a mining concession is issued by the Brazilian Mining Agency (ANM), another payment of BR$2 million is due and Bahia Nickel is also entitled to sign with CBPM, a mining lease agreement lasting 20 years that can be extended for more 10 years (a total of thirty years).
- During the mining operation and production, a Net Smelter Return royalty of 2.75% must be paid to CBPM.

As per the Brazilian Mining Code, a federal royalty of 2% will also apply during the operation and production of the mine.

4.4 Environmental Liabilities and Permitting

Environmental permits are not required to conduct exploration activities in Brazil, unless significant impact to native vegetation is anticipated. In this case, a permit from the municipality or from the state is required. The nature of the permit will depend on specific conditions such as location and existing permitting agreements between the state and the local municipalities even for activities with low environmental impact.

In the case of the Mangueiros project, the municipalities of Pilão Arcado and Campo Alegre de Lourdes have agreements with Bahia state for requiring environmental permits for expected low impact activities, which included drilling. Bahia Nickel has secured all permits at those municipalities as the permits can be issued in a timely manner.

Environmental liabilities include the proper containment and disposal of drilling materials (muds, oils, greases, tools, etc.) and also, regarding the rehabilitation and cleaning of all drill pads after the drilling is completed. These items are part of a list of conditioning points contained in the environmental permit document.

4.4.1 Required Permits and Status

To date, sulfide nickel mineralization targets have been identified on two mineral rights.

The Mangueiros Main and Mangueiros West targets lie on the tenure 872.259/2012 whose Final Positive Exploration Report was approved by the Brazilian Mining Agency (ANM) on February 6, 2023. Next requirement is to file at ANM, a Plano de Aproveitamento Econômico-PAE, (similar to a Preliminary Economic Assessment) as per the Brazilian Mining Code. The filing of the PAE is equivalent to the Mining Concession Request. On February 1, 2024, Bahia Nickel filed with the mining agency a request to postpone the filing of the PAE. Thus, the current status (Mining Request Phase) of the tenure 872.259/2012 is on hold.

The Lagoa da Onça target lies on the tenure 871.312/2014 that had its Final Positive Exploration Report filed at the mining agency on May 25, 2023. The current status of this tenure still is in the Exploration Phase, though now waiting for the approval of the final exploration report.

There is a lower priority target, Mangueiros East, that lies on another tenure, 871.311/2014, for which a Final Positive Exploration Report has been also filed on May 25, 2023, but for laterite nickel mineralization. The current status of this tenure still is the Exploration Phase, also waiting for the approval of the final exploration report.

BNM will need to apply for environmental permits to cover the proposed drill programs which are expected to occur in 2025.

4.5 Other Significant Factors and Risks

SRK is not aware of any other factors or risks that affect access, title or right or ability to perform work on the property other than those stated in the above sections which SRK would expect to have a material impact on the Project.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Topography, Elevation and Vegetation

The Mangueiros Project is located in the São Francisco River Basin, with a length of 2,863 km, while its drainage area corresponds to 636,920 km² (8% of the national territory), encompassing 503 municipalities and seven Federation Units (Bahia, Minas Gerais, Pernambuco, Alagoas, Sergipe, Goiás and the Federal District). The region has a typically dendritic drainage pattern, controlled by faults and fractures, flat to gently undulating relief with average altitudes ranging from 500 to 600 m above sea level (asl).

The main biome of the Brazilian northeast region is the Caatinga, (white bush, in the indigenous language) which covers approximately 80% of the Brazilian semi-arid region. It is an exclusively Brazilian biome, characterized by a marked water deficit, high rates of sunlight and evapotranspiration. The Caatinga is dominated by steppe savannah-type vegetation, vegetation with a predominance of low trees and shrubs that generally lose their leaves in the dry season (deciduous species) and many species of cacti (MAPA, 2019).

The Caatinga is quite heterogeneous, with different types of unique landscapes, among which the following stand out: permanent rivers (such as the São Francisco); lagoons or temporary wetlands; and dissected stretches in the middle of the regional pediplain, forming residual reliefs of the inselberg type. The best known in the region is Morro do Tuiuiú (that hosts a Fe-Ti-Va deposit) which can be seen from the municipality of Campo Alegre de Lourdes (Figure 5-1).

Source: Bahia Nickel Mineração, 2024

Figure 5-1: Landscape with Morro do Tuiuiú

5.2 Accessibility and Transportation to the Property

The nearest city is Campo Alegre de Lourdes (30,671 inhabitants/IBGE, 2022), used as the base for the project, located 55 km to the east of Mangueiros property. The city of Petrolina (386,791 inhabitants/IBGE, 2022), located in Pernambuco state, is 350 km to the east of Campo Alegre de Lourdes, and is a regional hub that is served with several daily commercial flights to the main cities in Brazil. Land access to Petrolina and Campo Alegre de Lourdes is made through the federal paved road BR-235. From Campo Alegre de Lourdes to the project area, access is made via unpaved roads which are accessible all year round (Figure 4-1).

5.3 Climate and Length of Operating Season

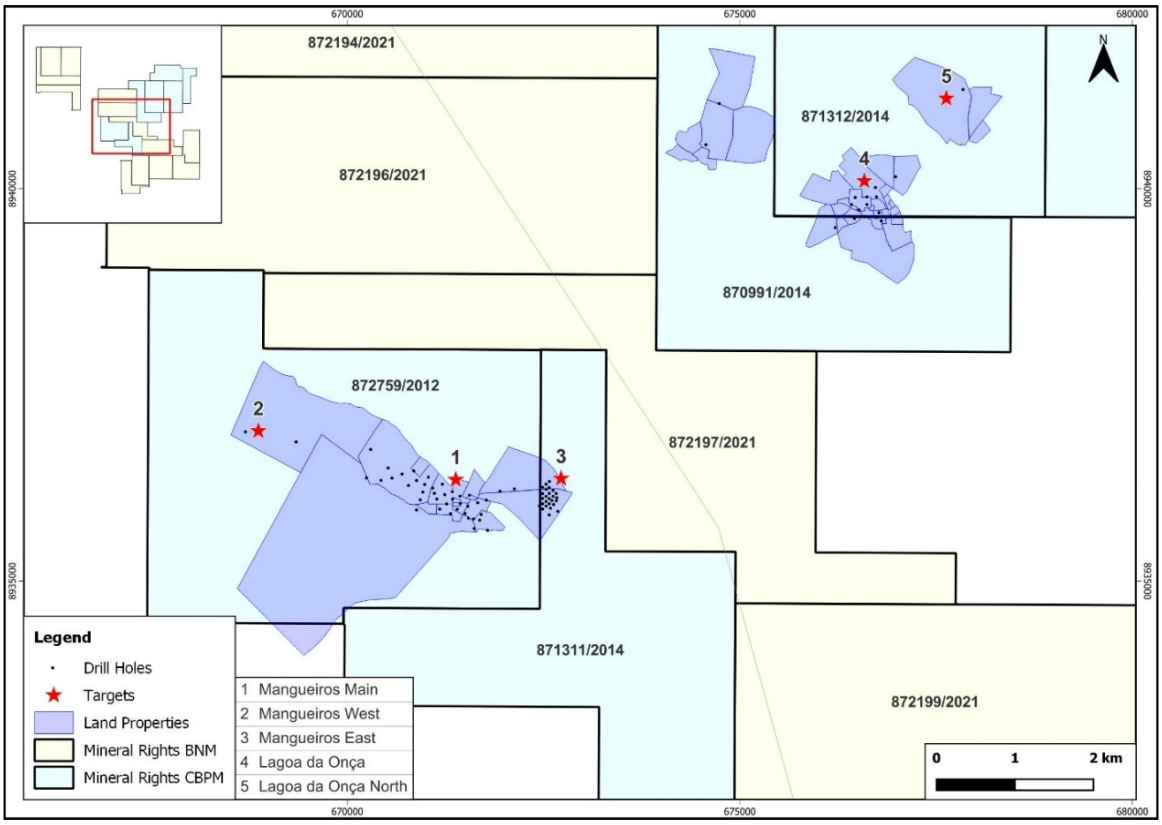
The exploration area is located in the Northeast Drought Polygon, recognized as a region with long periods of drought. The dry periods occur between the months of April and November and the rainy periods from December to March. According to the Köppen classification, the climate in the region can be classified as BSh, semi-arid hot. Annual rainfall varies from 400 to 700 mm. The climate is semi-arid with an average annual temperature of around 25.5 °C (SEI, 1999). A mining operation should not be affected by weather.

5.4 Sufficiency of Surface Rights

To date, at the stage the Mangueiros project is in, i.e., the exploration phase, there is no need to acquire any surface right for Bahia Nickel to maintain its exploration programs. The Brazilian Constitution and the Brazilian Mining Code do grant ground access for exploration and mining activities, which are considered of public interest, although, providing guarantees rights to the surface owners regarding compensation in the event of ground damage during the exploration activities. Additionally, during mining operations the surface owner can choose between selling the estate or receiving 50% of the royalty due to the federal government, currently 2% for base metals.

There are legal guarantees to land access during construction of all required mining facilities, regardless of the ownership of mineral rights where these facilities are necessary. This legal guarantee, part of the Brazilian mining code, is called servidão.

Figure 5-2 shows the distribution of the farmlands (in purple color) to which BNM has entered to written agreements with its respective owners to conduct its exploration program, including drilling.



Source: Bahia Nickel Mineração, 2024

Figure 5-2: Surface Situation Map

5.5 Infrastructure Availability and Sources

5.5.1 Power

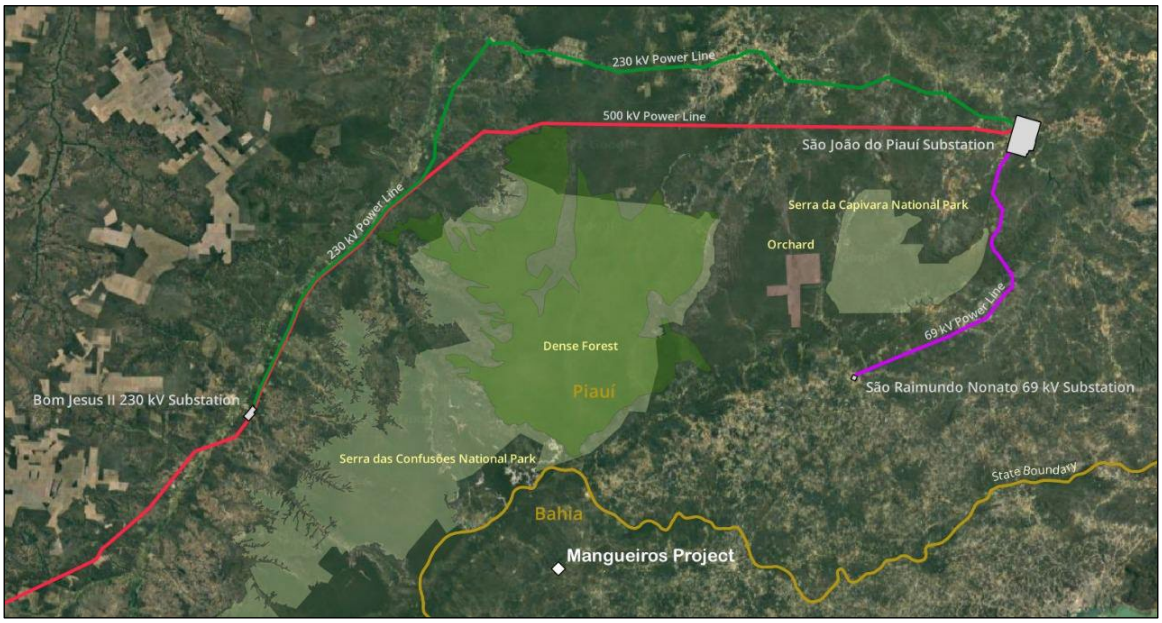
In the areas where Mangueiros and Lagoa da Onça targets are located, the supply of energy is currently sufficient for the consumption of the local villagers and for small businesses. In 2022, Bahia Nickel contracted the firm Secta Energy Brazil Power Experts, specialists in the Brazilian energy market, to give the company advice and information on options to obtain additional power required for an operating mine.

The study has identified three points from where power could be taken and transported to the project:

- São Raimundo Nonato, Piauí state: 108 km distance, 69 kW substation
- Bom Jesus, Piauí state: 109 km, 230 kW substation
- São João, Piauí state: 208 km, 230 kW

It was recommended that the 230 kW power shall be the most suitable, secure and reliable supply of energy for the operation so, the São Raimundo Nonato substation was discarded as an option.

From the two available 230 kW substations in the local region, Secta Energy Brazil Power Experts recommended the Bom Jesus substation as it is the closest to the project (Figure 5-3).



Source: Bahia Nickel Mineração, 2024
Bom Jesus (230 kV) to the west, São Raimundo Nonato (69 kV) and São João do Piauí (230 kV) to the northeast

Figure 5-3: Energy Substations around Mangueiros Project

It is important to point out that 80.25% of the electricity produced in Brazil comes from sources that do not emit CO_2 (hydro, solar, wind, nuclear) and solar and wind sources account for 32.70% of the anticipated power needs. It is also important to notice that Mangueiros surrounding region is considered one of the best locations in Brazil for the production of energy from solar and wind sources giving the region is close to the equator and with a semi-arid climate. The São Francisco River, that flows in the region, has three hydroelectric plants that in combination, have an installed capacity of 8,492 MW power.

Thus, when the Mangueiros project transitions into a mining operation, it will benefit from a clean energy supply, an immense advantage. The project will produce essential commodities such as nickel, copper, and cobalt, all critical for the energy transition, while utilizing energy with low CO_2 emissions.

In addition to the advantages mentioned, the Brazilian energy market allows industries to purchase energy from any location in the country, as all sources are connected to the national power grid. With a well-established and competitive market, it is possible to secure energy at the lowest possible cost, depending on the volume purchased and the terms of the contract.

5.5.2 Water

A preliminary study was contracted for the supply of water. The firm AMEC Engenharia e Consultoria, with large expertise and knowledge in the subject, was engaged in such work that considered the following aspects:

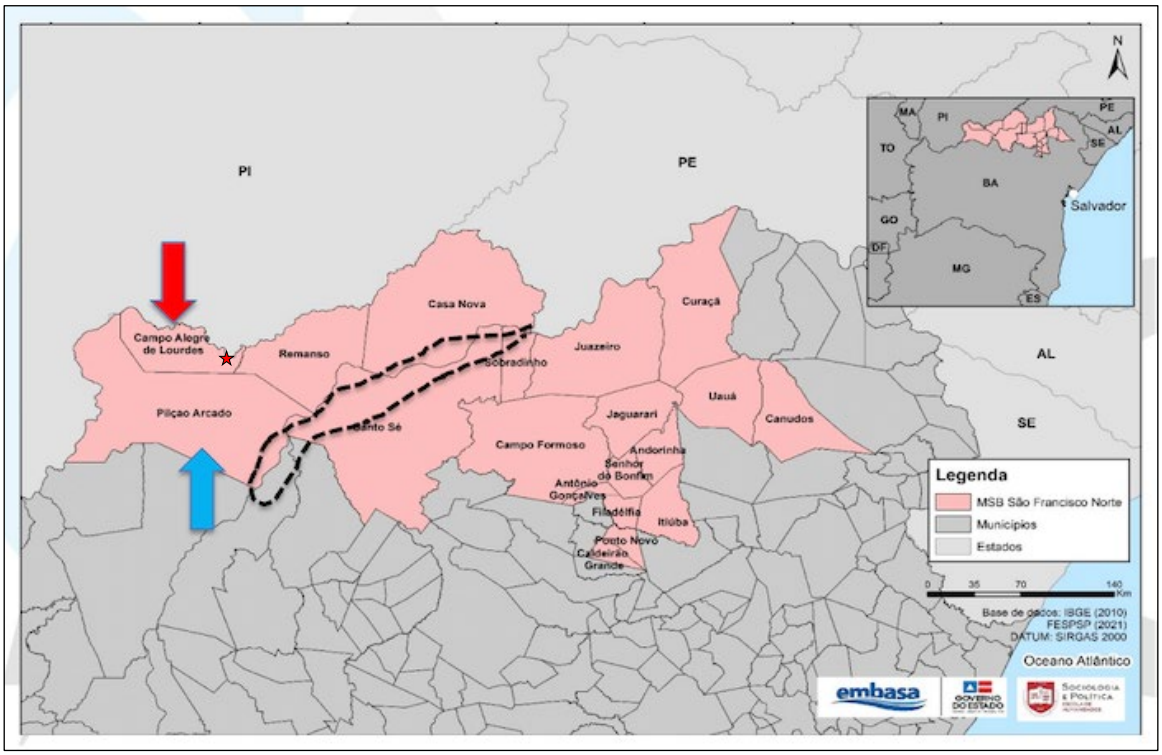
- Diagnosis about the technical, operational, legal, and institutional situation in the region with regards water supply
- Hydrology and water management in the region of the municipalities of Campo Alegre de Lourdes and Pilao Arcado, where the project is located (Figure 5-4)
- Referential engineering solution and basic analysis about the feasible alternatives for water supply to an eventual mining operation

The study has indicated that the Sobradinho's dam lake, 150 km to the east, is the reliable source of water for an eventual mining operation at Mangueiros project along with other conclusions and recommendations:

- As the existing pipeline is capable to only provide (with limitations) water to the city of Campo Alegre de Lourdes and villages nearby Mangueiros, an improvement of the existent pipeline or the construction of a new, would be required.
- As there is already a pipeline with a fully permitted area of use, its improvement or the construction of a parallel one would be done inside this same area and this would expedite the work as no surface expropriation would be necessary (also saving costs) and the environmental permit would be easier to obtain as well.
- In any case, the improvement of the existent pipeline or the construction of another one could be done through a private-public-partnership (PPP) between Bahia Nickel, the state water company and the municipalities that would benefit from the new pipeline.
- In a PPP, there are three alternatives with regards costs: 1) Being the company responsible for the Capex and the Opex although, not being required to pay for the water supply for at least 30 years; 2) The state water company being responsible for the Capex and Opex and the company paying for the water supply to the mine operation or; 3) The company paying part of the Capex and part of the consumption.

In the case of Mangueiros project, a PPP to improve the existent water pipeline or to build a new one, may be encouraged by the following facts:

- The state water company would have a captive industrial client for a long period of time, e.g., thirty or more years.
- The improvement of water supply would provide long-term benefit\ to the inhabitants of the local communities.
- A sewage treatment could be added to benefit the local communities, and this would represent a tremendous positive social impact in the region.



Source: Bahia Nickel Mineração, 2024
Sobradinho's dam lake (black dashed line) and Mangueiros project (red star)

Figure 5-4: São Francisco River North Sanitation Microregion with Municipalities

6 History

6.1 Prior Ownership and Ownership Changes

All previous exploration activities in the Mangueiros project area have been made by the Companhia Baiana de Pesquisa Mineral (CBPM), as this company controlled, through staking between 2012 and 2016 the mineral rights.

6.2 Exploration and Development Results of Previous Owners

The Brazilian Geological Survey (SGB) conducted systematic geological studies between 1991 and 1997 in the northwest region of the state of Bahia, focused around on the municipality of Campo Alegre de Lourdes. This included work related to the Basic Geological Survey Program (PLGB) on a scale of 1:100,000 within the extent of the Campo Alegre de Lourdes-Peixe Project which identified significant chromium anomalies (from in pan concentrates) in the vicinity of what would later be defined as the Caboclo dos Mangueiros ultramafic body. Between 2005 and 2006, CBPM and SGB, in partnership, hired the LASA Engenharia e Prospecções S.A./Prospectors Aerolevantamentos e Sistemas Ltda. consortium to conduct aeromagnetometric and gamma-spectrometric surveys within the Campo Alegre de Lourdes-Mortugaba Project, over an area of covering71,519 km², consisting of 161,010 km of flight lines with an E-W orientation spaced 500 m apart and with control lines spaced 5 km apart in a N-S direction (LASA, 2006) and with an average flight height of 100 m above surface topography.

Based on the interpretation of the aero geophysical survey data, magnetic anomalies were selected for subsequent field follow-up. In 2009, CBPM carried out geological reconnaissance work and sampling for geochemistry of stream sediments and pan concentrates, which resulted in the identification of rock samples with significantly anomalous nickel contents of up to 0.53% and up to 0.30% for copper. Between 2012 and 2013, CBPM validated these targets by performing detailed geological mapping, soil geochemistry, and induced polarization terrestrial magnetometry confirming the nickel, copper, and cobalt geochemical anomalies, as well as magnetic and IP anomalies, suggesting a potentially mineralized ultramafic body. At the end of 2013, CBPM, encouraged by these results initiated diamond drilling on the anomalies related to the Mangueiros target. Three holes were drilled (totaling 768.15 m). Holes DH-002 and DH-003 finally identified significant mineralized intersections of 139.75 m at 0.20% Ni; 0.12% Cu; 0.021% Co and 217.40 m at 0.20% Ni; 0.13% Cu; 0.014% Co.

In 2016, CBPM resumed diamond drilling at the Mangueiros target. Two programs totaling nineteen holes (2,283.10 m), confirmed the existence of a large-scale nickel-copper-cobalt sulfide deposit. A positive final exploration report was filed with the ANM in October 2016 and approved by the ANM in February 2023.

In December 2021, CBPM and Bahia Nickel Mineração signed a partnership agreement to carry out complementary exploration in the block of seven areas herein under reporting. In January 2022, Bahia Nickel Mineração began an intensive exploration program in this block of areas, which yielded positive results as to be shown in this report.

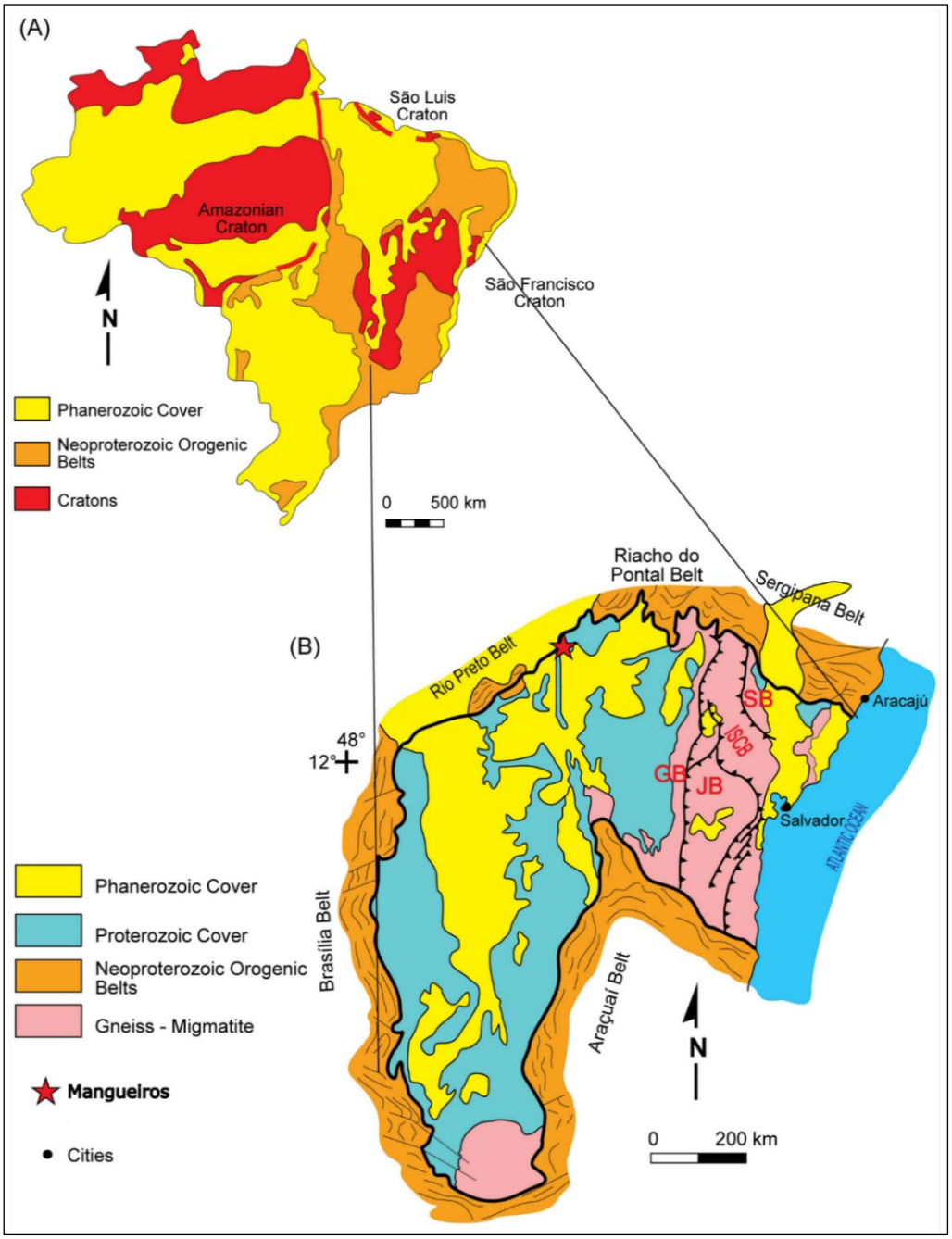
6.3 Historic Mineral Resource and Reserve Estimates

No certified mineral resource or reserve, JORC or NI 43-101, has been estimated to date at Mangueiros project.

7 Geological Setting and Mineralization

7.1 Regional Geology

The Mangueiros deposit is within the Neoproterozoic mobile belt Rio Preto at São Francisco Craton's northwest border. The São Francisco Craton is considered one of the main geological features of the South American Shield, with a maximum length and width of ca. 1,100 km and 900 km, respectively (Figure 7-1). This belt hosts diverse mineral provinces, mineral deposits and mines in Brazil, including several nickel and copper sulfide deposits associated with mafic-ultramafic complexes.



Source: Modified from Matos and Filho (2018)

Figure 7-1: São Francisco Craton Geology Map

The tectonic evolution of the Mangueiros deposit region has a complex history starting with the Archean-Paleoproterozoic crust accretion followed by basin depositions overprinted by several deformation phases. These supracrustal rocks are found beneath a thin and extensive Phanerozoic sedimentary cover making mineral exploration quite challenging.

The Geological Survey of Brazil reports the Mangueiros deposit regional geology setting on the 1:250 k map sheet: São Raimundo Nonato Region Geological Map (Do Vale et al., 2020) (Figure 7-2). The regional setting contemplates several low-grade metamorphic units, intrusive magmatic bodies, meta-volcano-sedimentary sequences, and sedimentary units that are shown in a chronological order below (Do Vale et al., 2020):

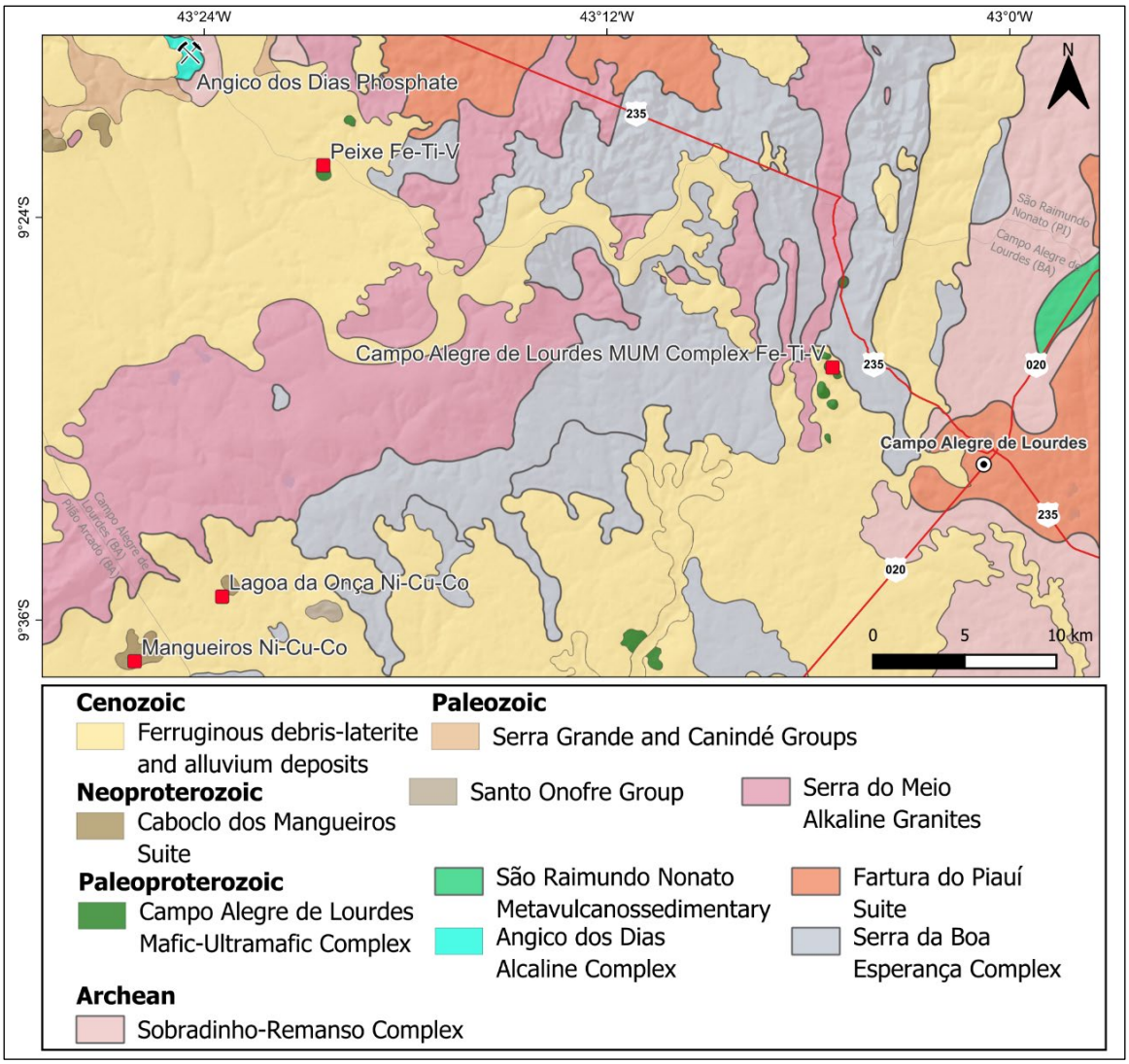
- The Archean basement is formed by the Sobradinho-Remanso Complex (2,950 to 2,984 Ma). It comprises orthogneisses, migmatite-gneisses, and leucocratic mylonite-gneisses with geochemical signatures like TTG's (tonalite-trondhjemite-granodiorite) (Leite, 1987, 1992).
- The Serra da Boa Esperança Complex comprises psamitic-pelitic, pelitic-carbonatic, schists, and quartzites with Sideriean ages.
- The Fartura do Piauí Suite (ca. 2,126 to 1,961 Ma) includes metagranitoids with sienogranitic to monzogranitic composition.
- The Angico dos Dias Complex (ca. 1,942 Ma) encompasses meta-acid rocks, metacarbonatites, metapiroxenites, metakomatiite, metadiorites and phosphate-rich rocks.
- The São Raimundo Nonato Meta-volcano-sedimentary unit (ca. 1,920 Ma) is comprised by a sequence of schist-gneiss-quartzites, talc-schists, and banded iron formations.
- The Campo Alegre de Lourdes Complex is formed by Orosirian metamorphized mafic-ultramafic rocks.
- The Serra do Meio unit (ca. 930 Ma) comprises granitic to sienitic granitoids and minor gneiss.
- The Santo Onofre Group is made of quartzites, phyllites, metasandstones, and schists considered to be of Tonian-Cryogenian age.
- The Caboclo dos Mangueiros Suite (ca. 573 Ma; Matos et al., 2019) represents weakly to moderately metamorphized pyroxenites, olivine-websterites, and websterites with tholeiitic-alkaline composition (Leite, 1997).
- The Serra Grande and Canindé Groups comprise sandstones, conglomerates with Silurian-Devonian ages.
- The Neogene-Quaternary sedimentary cover comprehends residual soils, ferruginous laterites, and alluvium deposits.

7.1.1 Regional Mineralization

Several mineral occurrences are known to occur in the Campo Alegre de Lourdes region which includes deposit styles as follows:

- Igneous phosphate deposits: Alkaline-carbonatite apatite-rich ore bodies hosted by Angico dos Dias Complex
- Fe-Mn deposits: Banded iron formations Algoma-type in a greenstone belt hosted by the São Raimundo meta-volcano-sedimentary sequence
- Fe-Ti-V deposits: ilmenite and magnetite-rich ore bodies in metamorphized mafic-ultramafic intrusions hosted by the Campo Alegre de Lourdes Complex

- Ni-Cu-Co deposits: disseminated sulfides in metamorphized mafic-ultramafic intrusions hosted by the Caboclo dos Mangueiros Suite



Source: Bahia Nickel Mineração (Modified from Do Vale et al., 2020).

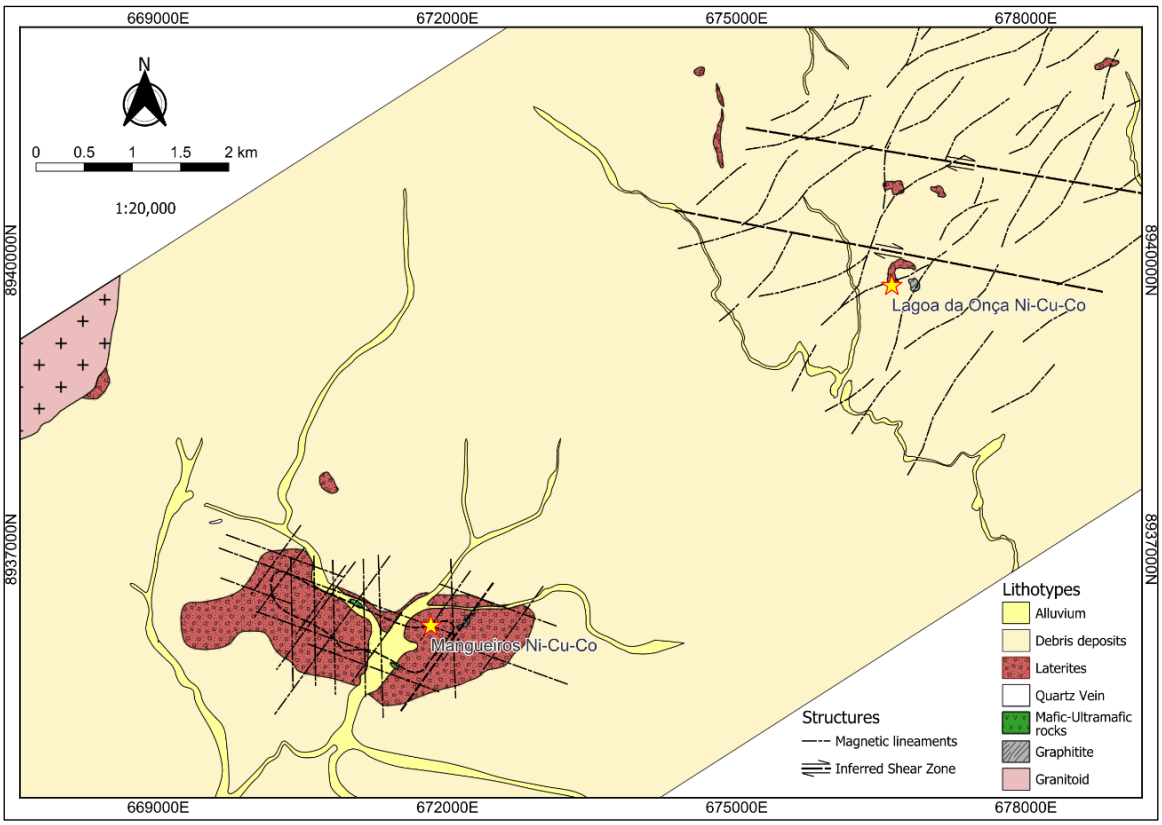
Figure 7-2: Regional Geology Map

7.2 Local Geology

The geological mapping data and logging of drill cores from the Mangueiros and Lagoa da Onça ultramafic systems identified four geological domains: Santo Onofre Group, Caboclo dos Mangueiros Suite, Quartz Veins, and Cenozoic Deposits (Figure 7-3). Due to the sedimentary cover, the first two units have little exposure in outcrops and were defined based on the extensive description of drill cores and petrographic slides.

The oldest rocks in the local framework are supracrustal rocks described as muscovite-schist, chlorite-schist, graphite-phyllite, and graphite-rich rocks belonging to the Santo Onofre Group. These rocks are intruded by pyroxenites, olivine-websterites, and websterites from the Caboclo dos Mangueiros Suite. These mafic-ultramafic rocks have undergone greenschist metamorphism modifying the protoliths to foliated serpentinites and tremolitites, and developing actinolite-tremolite, serpentine, and quartz-pyrite-carbonate pervasive and infill hydrothermal alteration. The

supracrustal and mafic-ultramafic rocks are cut by quartz veins. Finally, the entire package is overlain by unconsolidated clastic sediments, laterite, and residual soils.



Source: Bahia Nickel Mineração, 2024

Figure 7-3: Local Geology Map

7.2.1 Caboclo dos Mangueiros Suite

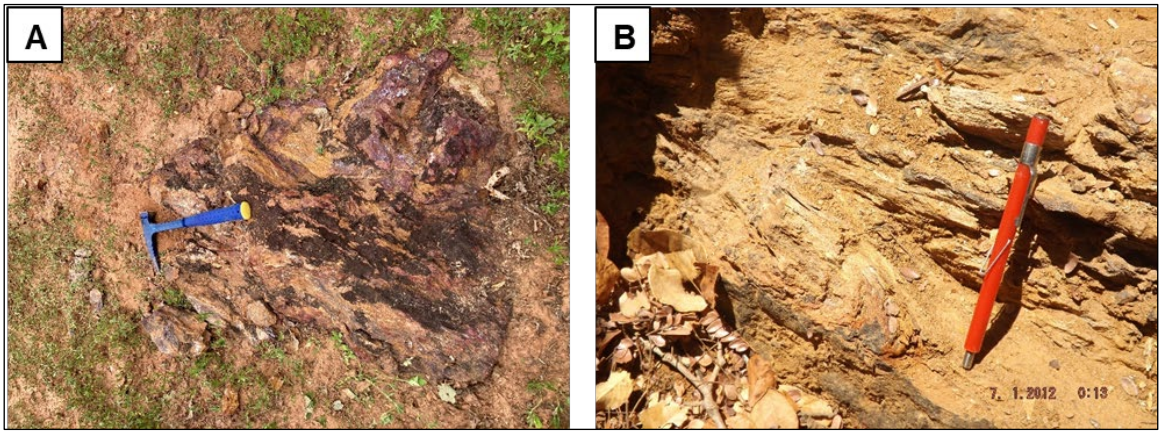
The Neoproterozoic Caboclo dos Mangueiros hosts the Mangueiros and Lagoa da Onça Ni-Cu-Co systems and is prospective for sulfide deposits (Pereira et al., 2023). These mafic-ultramafic rocks are poorly exposed at surface, usually found beneath unconsolidated sediments and lateritic covers. This sediment cover makes airborne magnetic and gravimetric geophysics surveys the main tool for discovering new metal deposits. The mafic-ultramafic rocks outcrops are associated with garnierite-rich laterites and can be described as semi-weathered float near stream watercourses.

Pereira et al. (2023) defined the ultramafic rocks as mainly orthopyroxene and clinopyroxene with minor olivine cumulates and interstitial sulfides affected by variable actinolite-tremolite and serpentine alterations metamorphized under the greenschist facies. The bulk of mineralization is formed by pyrrhotite, pentlandite, chalcopyrite, pyrite, and minor violarite. These sulfides occur as disseminated blebs and interstitial grains, or metric narrow layers of semi-massive sulfides dispersed vertically and horizontally along the intrusion.

7.3 Property Geology

The geology of Mangueiros and Lagoa da Onça deposits can be subdivided into three main geological domains:

- Basement domain, formed by the supracrustal rocks from the Santo Onofre Group, which are described as muscovite-schist, chlorite schist, ferruginous phyllite, graphite-phyllite, and graphite-rich rocks. They show linear to diffuse contact with the ultramafic rocks (Figure 7-4).
- Caboclo dos Mangueiros domain, made of ultramafic intrusions that host the Ni-Cu-Co sulfide mineralization.
- Overburden cover, made of unconsolidated debris, residual soils, garnierite-rich laterites, and weathered ultramafic rocks (Figure 7-5).



Source: Bahia Nickel Mineração, 2024
A = Ferruginous phyllite, and B = Muscovite-quartz-schist

Figure 7-4: Supracrustal Rocks

Source: Bahia Nickel Mineração, 2024

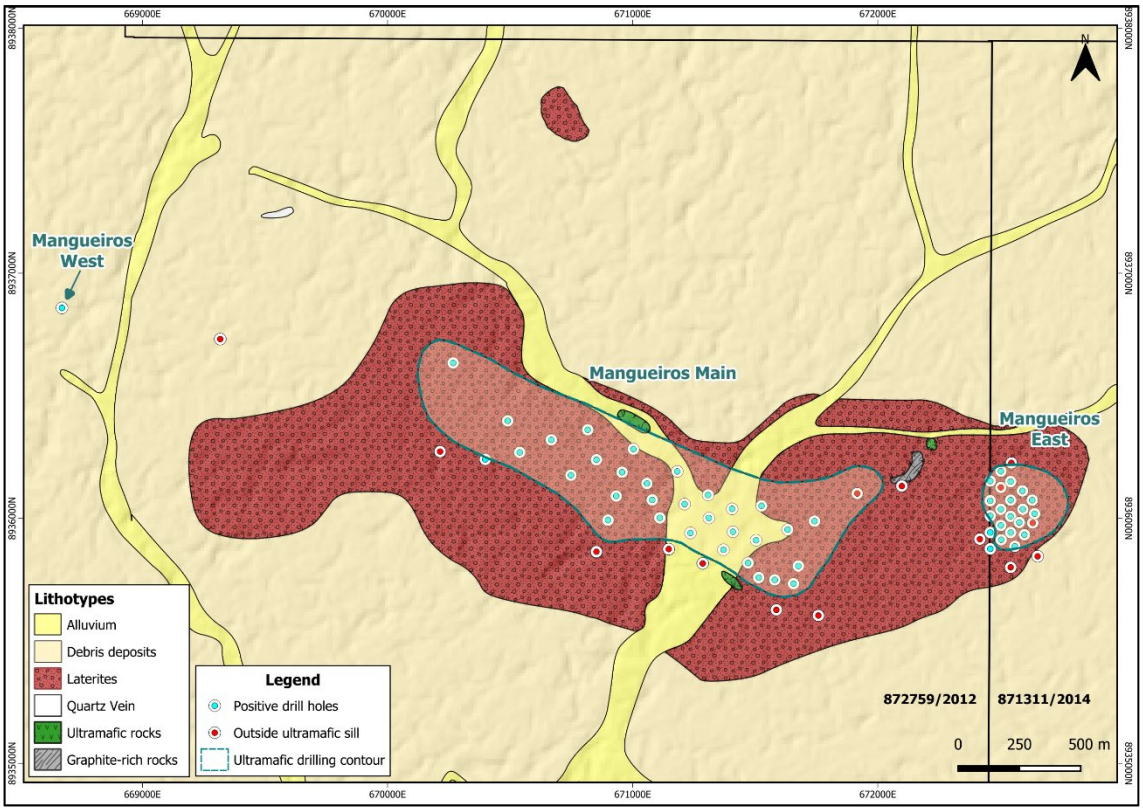
Figure 7-5: Garnierite-Rich and Residual Soil on Top of the Mangueiros Deposit

7.3.1 Mangueiros Target

The Mangueiros mineralized system includes three main bodies, the principal is the Mangueiros Main, and two satellite bodies, Mangueiros East and Mangueiros West, that are orientated WNW-ESE (Figure 7-6).

The Mangueiros Main is a large-scale, near-surface ultramafic intrusion with a boat-shaped geometry that was defined by drilling data. It exhibits a minimum dimensions of 2,000 m long x 500 m wide x 300 m thick. The Mangueiros East ore body is a smaller lenticular ultramafic intrusion that possesses dimensions of 400 m x 300 m x 50 to 80 m thick. The Mangueiros East is considered a low-priority target in the exploration program, mostly based on its small dimensions and thinner layer of fresh sulfide mineralized ultramafic.

The Mangueiros West ultramafic body has recently been intersected by a single drillhole (from 97.70 to 151.25 m in drillhole MGDH-069) thus, it's dimensions and shape cannot be quantified. The combined size and strength of the gravimetric and magnetic anomalies suggest the existence of a large ultramafic intrusion covered by around 100 m of chlorite-graphite schists. Due to technical problems this hole was stopped at 151.24 m depth, terminating in Ni-Cu-Co mineralization and did not determine the full thickness of the system.



Source: Bahia Nickel Mineração, 2024

Figure 7-6: Mangueiros Geologic Map

The ultramafic intrusions consist of minor dunites, wehrlite, and mostly, clino-pyroxenites with ortho-cumulate, meso-cumulate, and ad-cumulate textures (Figure 7-7). These textures present the cumulus phase formed by clinopyroxene, olivine, and minor orthopyroxene while the inter-cumulus phase is formed by the sulfide ore paragenesis. The cumulus phase is altered to hydrous minerals, the olivine is replaced by serpentine and magnetite, and clinopyroxene is replaced by actinolite-tremolite (Matos and Filho, 2018) (Figure 7-8). The additional metamorphic paragenesis is composed of chlorite and talc.

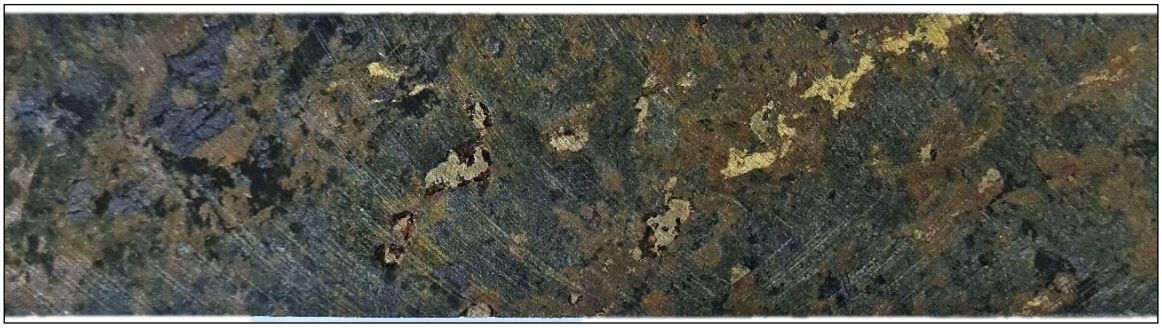
Source: Bahia Nickel Mineração, 2024
MGDH-068 at 152.30 m (HQ drillhole, diameter 63 millimeters (mm))

Figure 7-7: Olivine-Clinopyroxenite with Interstitial Pyrrhotite, Pentlandite and Chalcopyrite

Source: Bahia Nickel Mineração, 2024
MGDH-023 at 291.85 m

Figure 7-8: Actinolite-Tremolite-Rich Pyroxenite with Blebby Pyrrhotite and Interstitial Pyrrhotite, Pentlandite, and Chalcopyrite

The main ore assemblage is pyrrhotite, pentlandite, chalcopyrite, pyrite, and minor violarite (Figure 7-9). The sulfide mineralization is found as disseminated sulfide blebs and interstitial grains, or metric narrow layers of semi-massive sulfides (Figure 7-10 through Figure 7-12).

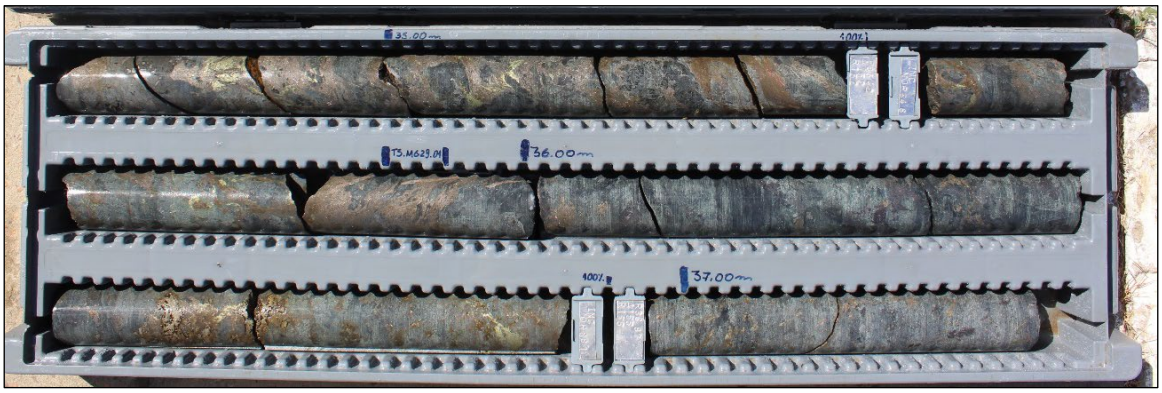


Source: Bahia Nickel Mineração, 2024
MGDH-029 at 36.80 m (HQ drillhole, diameter 63 mm)

Figure 7-9: Pyrrhotite, Pentlandite, and Chalcopyrite with Blebby Texture

Source: Bahia Nickel Mineração, 2024
MGDH-026 at 95.65 m (HQ drillhole, diameter 63 mm)

Figure 7-10: Fine-Grained Disseminated Sulfide with Dominant Pentlandite



Source: Bahia Nickel Mineração, 2024
MGDH-029 from 34.67 m to 37.35 m

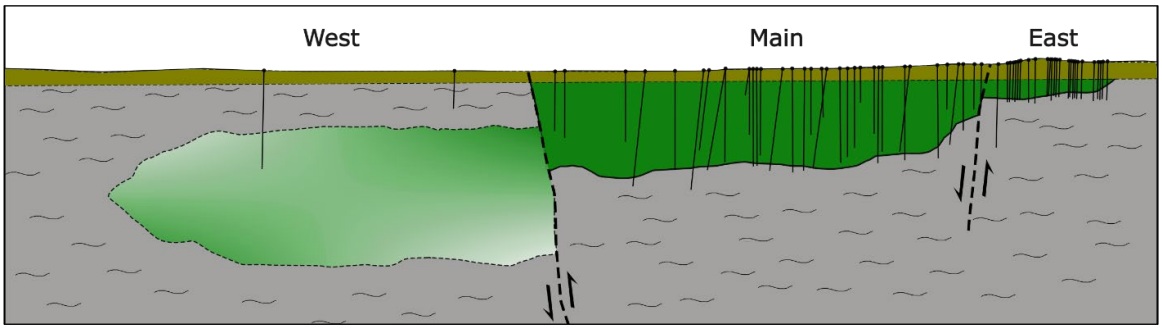
Figure 7-11: Semi-Massive Sulfidation

Source: Bahia Nickel Mineração, 2024

Figure 7-12: Examples of Sulfide Textures from Mangueiros Main and Lagoa da Onça Targets

The ultramafic rocks are affected by multiple normal faults and exhibit sheared domains. In this case, an incipient foliation partially obliterates the igneous textures. It is anticipated that these faults with vertical movement may have caused the existent offset between the three ultramafic bodies at Mangueiros target, i.e., Mangueiros East, that is a shallower/minor body, Mangueiros Main and Mangueiros West, which is deeper-seated than Main and East bodies and totally enclosed by the country schists (Figure 7-13).

Laying over these ultramafic ore bodies there is an oxidized cover that ranges in thickness from 6 to 30 m which consists of a surficial laterite rich in garnierite and oxidized sulfides and a thicker layer of oxidized ultramafic rocks.

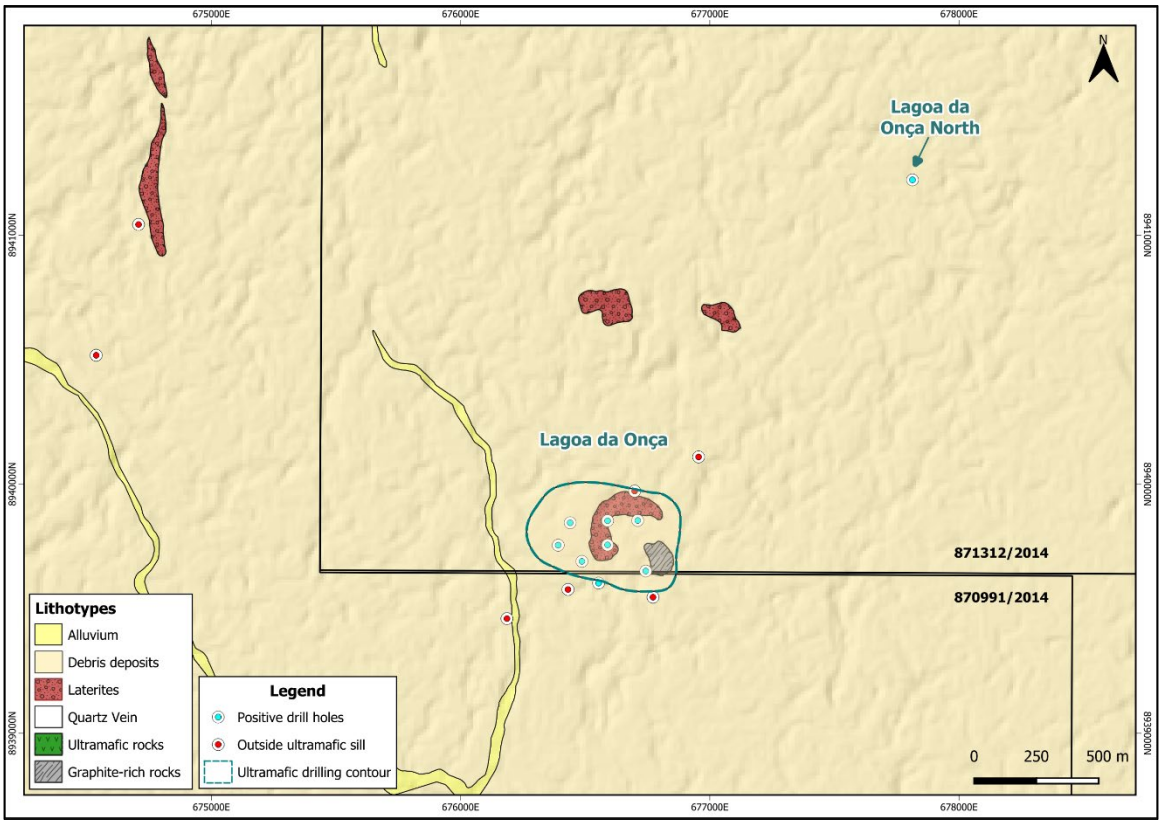


Source: Bahia Nickel Mineração, 2024
Out of scale

Figure 7-13: Mangueiros Deposit Conceptual Structure Model (showing the traces of drillholes)

7.3.2 Lagoa da Onça Target

The Lagoa da Onça deposit includes two ore bodies, the main is the Lagoa da Onça and the second is the Lagoa da Onça North. These ore bodies are oriented NE-SW (Figure 7-14).



Source: Bahia Nickel Mineração, 2024

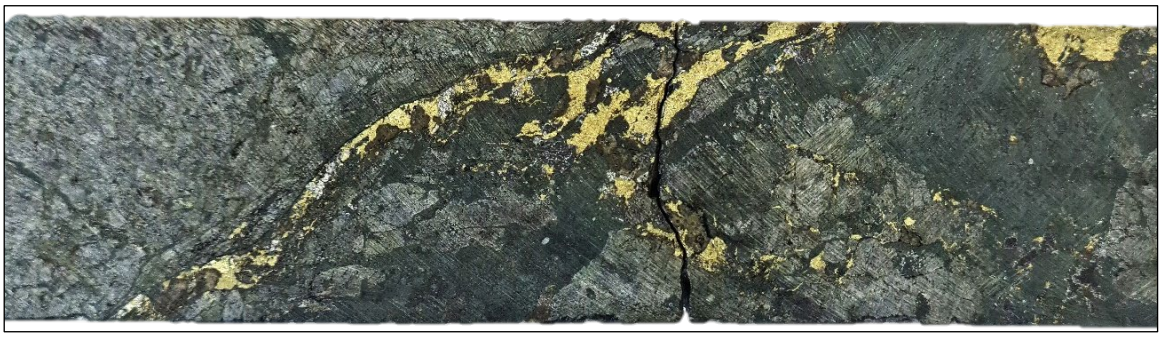
Figure 7-14: Lagoa da Onça Geologic Map

The Lagoa da Onça is an ultramafic intrusion with lenticular geometry having a minimum dimension of 500 m long x 300 m wide x 200 m depth. The Lagoa da Onça North is an ultramafic intrusion associated with a strong combined gravimetric and magnetic geophysical anomaly that was confirmed by just one drillhole (LODH-017) so, not being possible to estimate its geometry and overall dimension. Both ultramafic bodies are covered by a 20 to 30-meter-thick overburden layer and show a very similar ultramafic lithotype composition to that of Mangueiros target (Figure 7-15).

The bulk of the mineralization at Lagoa da Onça is like the Mangueiros deposit including the presence of disseminated sulfides and semi-massive sulfide layers. Also, the main ore paragenesis is represented by pyrrhotite, pentlandite, chalcopyrite, and pyrite (Figure 7-16, and Figure 7-17).

Source: Bahia Nickel Mineração, 2024
LODH-005 at 56.00 m (HQ drillhole, diameter 63 mm)

Figure 7-15: Clino-Pyroxenite with Ortho-Cumulate Texture with Pyrrhotite, Pentlandite, and Chalcopyrite in the Cumulus Phase at Lagoa da Onça



Source: Bahia Nickel Mineração, 2024
LODH-017 at 79.80 m (HQ drillhole, diameter 63 mm)

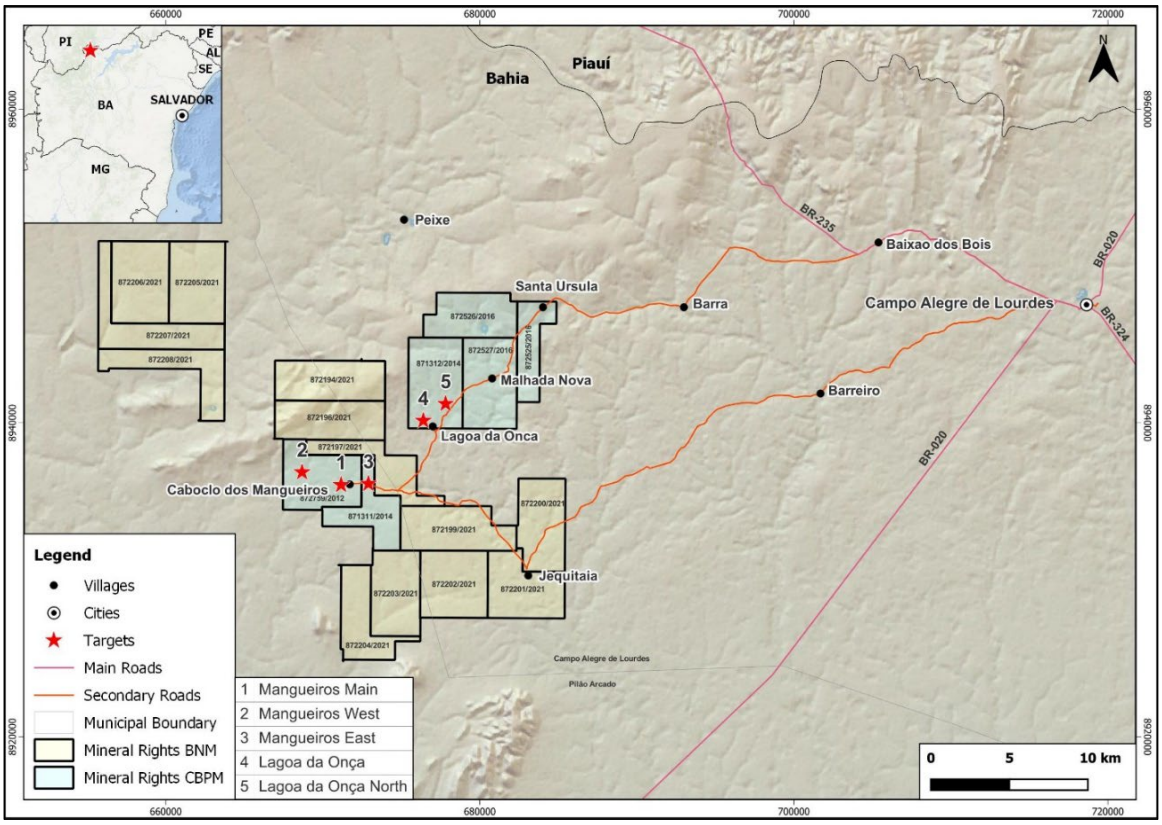
Figure 7-16: Chalcopyrite, Pyrrhotite, and Pentlandite with Interstitial Texture at Lagoa da Onça North

Source: Bahia Nickel Mineração, 2024
LODH-017 at 75.50 m (HQ drillhole, diameter 63 mm)

Figure 7-17: Fine-Grained Disseminated Sulfide with Pentlandite Dominant at Lagoa da Onça North

7.4 Significant Mineralized Zones

Nickel, copper, and cobalt mineralization hosted in dunites, wehrlites, and clinopyroxenites has been intersected by drilling in the Mangueiros and Lagoa da Onça deposits (Figure 7-18). Based on the exploration completed to date drilling, sulfide deposits with disseminated and semi-massive styles were identified.



Source: Bahia Nickel Mineração, 2024

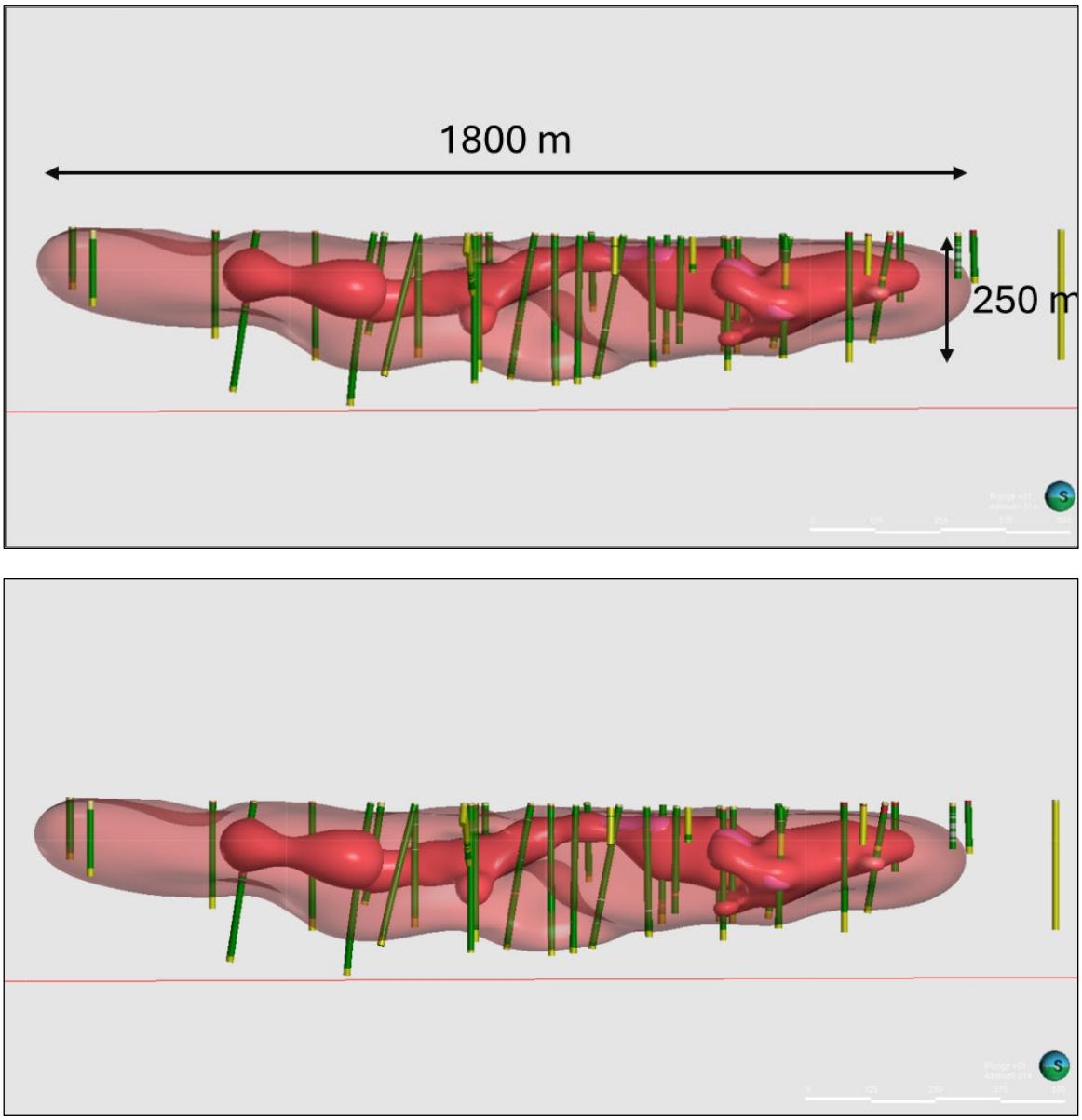
Figure 7-18: Location of Significant Mineralized Zone (Exploration Targets)

It is very important to point out that all nickel assays on drill core samples/intervals herein reported and mentioned refer to the sulfide nickel and not total nickel. Nickel sulfide assays typically reports lower nickel results than other methods reporting total nickel assays which include nickel contained in silicate minerals (such as olivines), The silicate nickel is not recoverable in a flotation plant. See section 11.3 for further detail on analytical methods.

7.4.1 Mangueiros Target

At Mangueiros Main, the drill-delineated sulfide mineralization identified mineralization modeled as grade shells (Figure 7-19). There are two higher-grade zones (>0.20% Ni and >0.25% Ni) within a larger core medium-grade zone (>0.15% Ni), which in turn are within a lower-grade zone (>0.10% Ni). The wider low-grade zone (>0.10% Ni) has a minimum modeled strike length of about 2 km, being around 200 m wide at the SE and NW extremities and 400 to 500 m wide in its central portion, ranging from 150 m to 350 m thickness. The system remains open to the northwest with internal higher-grade nickel zones in the N-S direction.

The mineralization styles vary between finely disseminated sulfides to semi-massive sulfide layers distributed vertically and horizontally inside the system. The disseminated sulfides occur as blebs and interstitial grains with three grains populations differing in size: the blebby sulfide grains can be up to 10 cm in size (pyrrhotite dominant); the fine-grained grains up to 1 cm, and the very fine-grained with mm sized sulfides being the pentlandite dominant is this last case. Overall sulfide content ranges from 3 to 8% of the total volume of the ultramafic intrusion. The semi-massive layers are metric intervals up to 30% of sulfides with dominant pyrrhotite. The general main ore paragenesis in order of occurrence is made of pyrrhotite, pentlandite, chalcopyrite, and minor pyrite and violarite.

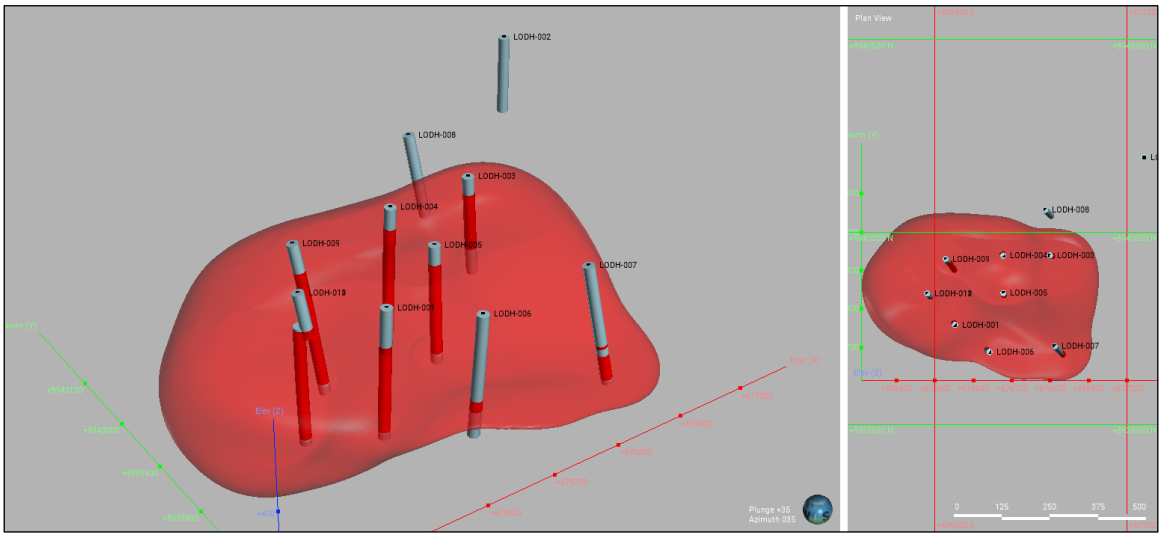


Source: Bahia Nickel Mineração, 2024
Drill roles legend, Green = Ultramafic rocks, Red = Laterites, and Yellow = Mineralization basement

Figure 7-19: Mangueiros Main >0.10% Ni shell (pale pink) enveloping the >0.20% Ni/0.25% Ni (dark pink)

7.4.2 Lagoa da Onça Target

In the Lagoa da Onça system, the mineralized envelope is contained inside a low-grade zone (>0.10% Ni) with dimensions fitting the ultramafic intrusion (500 m long, 400 m wide, with maximum 300 m depth). The mineralized envelope and the ultramafic system are open along strike to the west, east, and north (Figure 7-20). The bulk of the mineralization is like the Mangueiros deposit. The main ore paragenesis regarding sulfide occurrence, with the order of abundance, is represented by pyrrhotite, pentlandite, chalcopyrite, and minor pyrite.



Source: Bahia Nickel Mineração, 2024

Drill roles legend, Red = Composites with >0.10% Ni, and Grey= Waste

Figure 7-20: Lagoa da Onça Low-Grade Shell (>0.10% Ni)

8 Deposit Type

8.1 Mineral Deposit

The mineralization present in the Mangueiros Project can be characterized as an intrusion-hosted magmatic sulfide Ni-Cu-Co deposit type (Barnes, 2023). Deposit-focused studies have classified the Mangueiros deposit as a channelized sill (Matos and Filho, 2018), which presents the following characteristics:

- Unusual layering and abrupt texture changes are interpreted as a result of magma flow dynamics, related to a channelized sulfide-bearing sill.
- The channelized sill is composed of a sequence of dunite, wehrlite, and clinopyroxenite, associated with a moderate primitive parental magma.
- Sulfide nickel-copper-cobalt mineralization consists of disseminated sulfides with predominant cumulate textures indicating an origin from immiscible sulfide liquids segregated from mafic-ultramafic magmas.
- Well-preserved primary magmatic structures despite underwent low-grade metamorphism which resulted in narrow-sheared domains, and the formation of serpentine-magnetite and actinolite-tremolite replacing olivine and clinopyroxene, respectively.
- Nickel and copper are associated with sulfide ore as indicated by positive S/Ni (0.81) and S/Cu (0.87) correlations.

The Mangueiros and Lagoa da Onça systems are slightly differentiated, poorly layered ultramafic intrusions, with geometry resembling an elongated sill or chonolith (Barnes et al., 2015). They are associated with olivine-clinopyroxene cumulates with minor orthopyroxene, remaining as an unusual example of mafic-ultramafic intrusions like Kevitsa and Pechenga Belt deposits (Barnes, 2023). They present disseminated or semi-massive cumulus mineralization styles, composed of pyrrhotite, pentlandite, chalcopyrite, pyrite, and minor violarite.

The intrusion-hosted magmatic Ni-Cu-Co deposits are well-known for their difficult targeting because of the absence of alteration haloes or distal footprints (Barnes, 2023). However, they present unique features at a regional scale like association with pre-cratonic architecture, access to crustal S sources, and favorable intrusion geometry for sulfide deposition (Barnes et al., 2015). Those characteristics are shared with the Mangueiros and Lagoa da Onça deposits, showing that despite the evinced Ni-Cu-Co sulfide mineralization, they are similar to the classic intrusion-hosted sulfide systems and in a broader view highlight the potential of the mineral district.

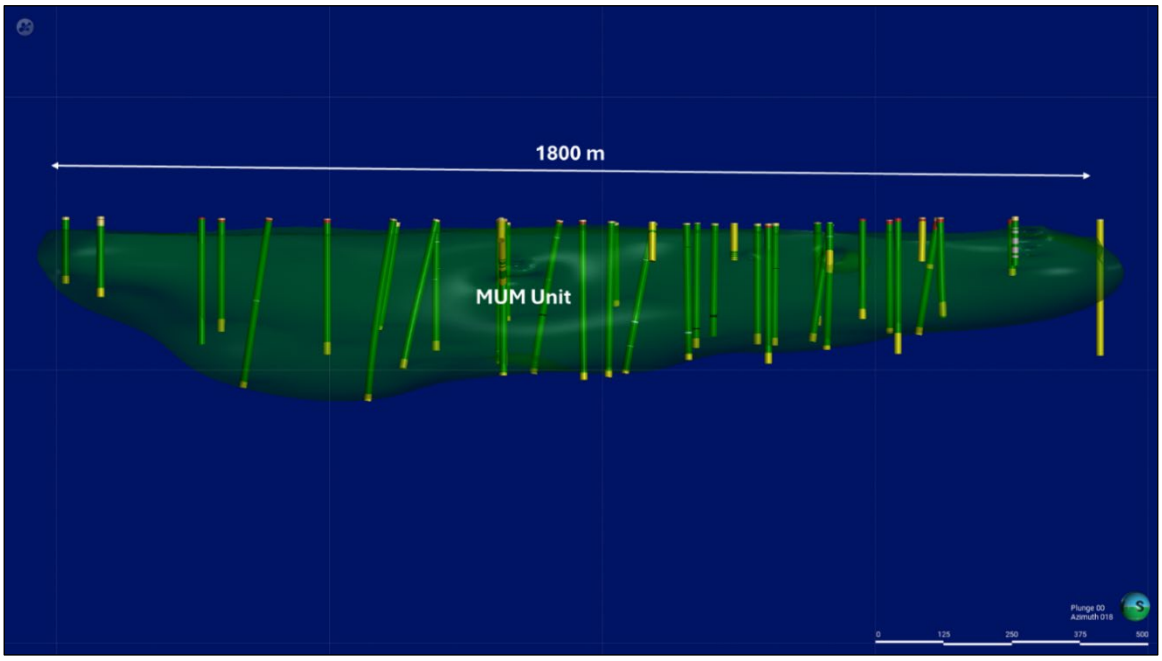
8.2 Geological Model

Given the wide spacing of drilling at Mangueiros Main, the current geological model should be considered preliminary. Only three geological units have been considered:

- Soil/saprolite (of MUM), as a thin horizontal layer that covers the top of the MUM
- MUM, that hosts the Ni/Cu/Co mineralization
- Chlorite-graphite schist, that encloses the MUM intrusion

Most of the MUM is composed by orthopyroxenites and clinopyroxenites with lesser amounts of olivine-websterite. In the current data, Mangueiros does not have high levels of magma fractionation (layering) as typically observed in ultramafic intrusions.

Figure 8-1 shows an orthogonal view (looking to the northeast) of the current Leapfrog® model of the MUM unit.



Source: Bahia Nickel Mineração, 2024

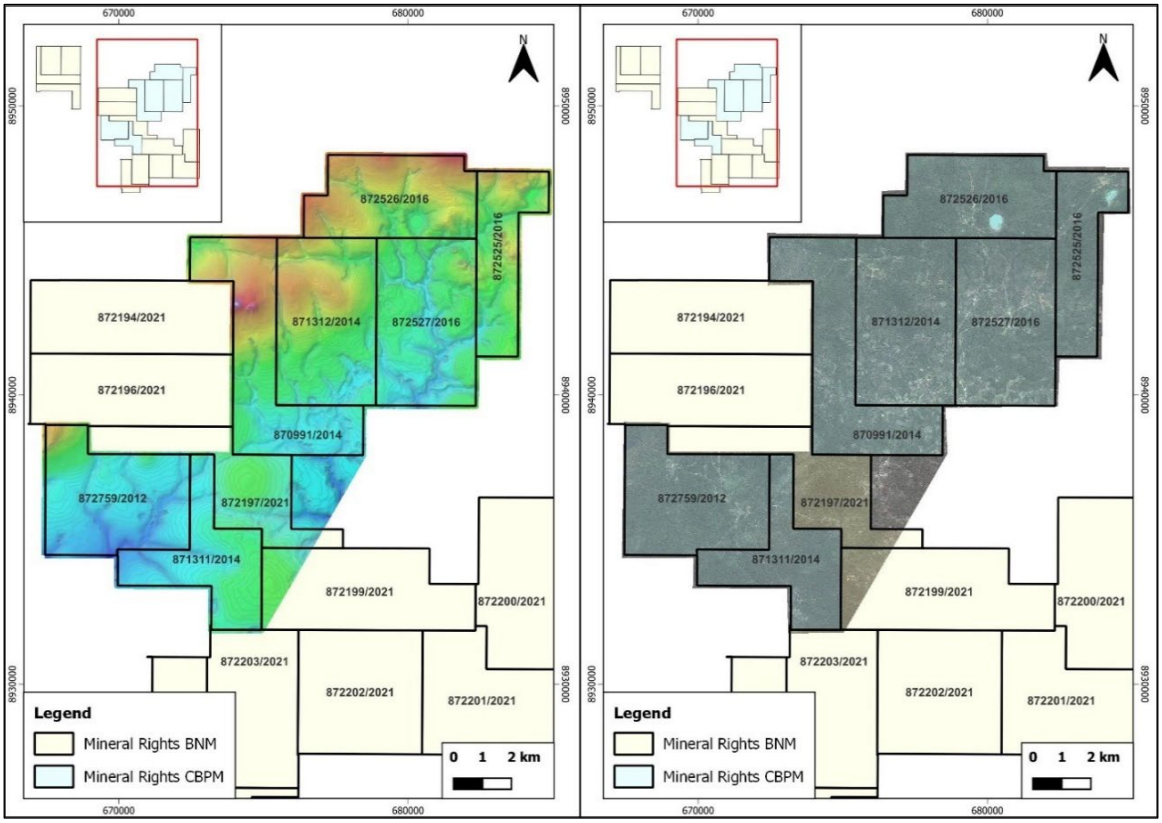
Figure 8-1: Orthogonal View of the MUM unit

9 Exploration

9.1 Remote Sensing

In early 2022, Bahia Nickel commissioned *Globalgeo* company to provide high resolution satellite and DTM images covering an area of 129.95 km² entirely encompassing the two blocks of areas of the project area (Figure 9-1). This also involved the acquisition of 14 topographic points on the ground with total station to allow accurate georeferencing of the survey area. The specifications of the satellite and other images are listed below.

- Colored orthoimages in R, G, and B composition with a spatial resolution of 50 centimeters (cm). Images delivered processed (orthorectified, mosaicked, and enhanced) in GeoTIFF-8-bit format, UTM projection, and SIRGAS 2000 Datum.
- Contour lines with vertical equidistance of 2 m in ESRI Shapefile format, with the elevation attribute, UTM projection, and SIRGAS 2000 Datum.
- Digital terrain model with a spatial resolution of 2 m in GeoTIFF-8-bit format, UTM projection, and SIRGAS 2000 Datum.

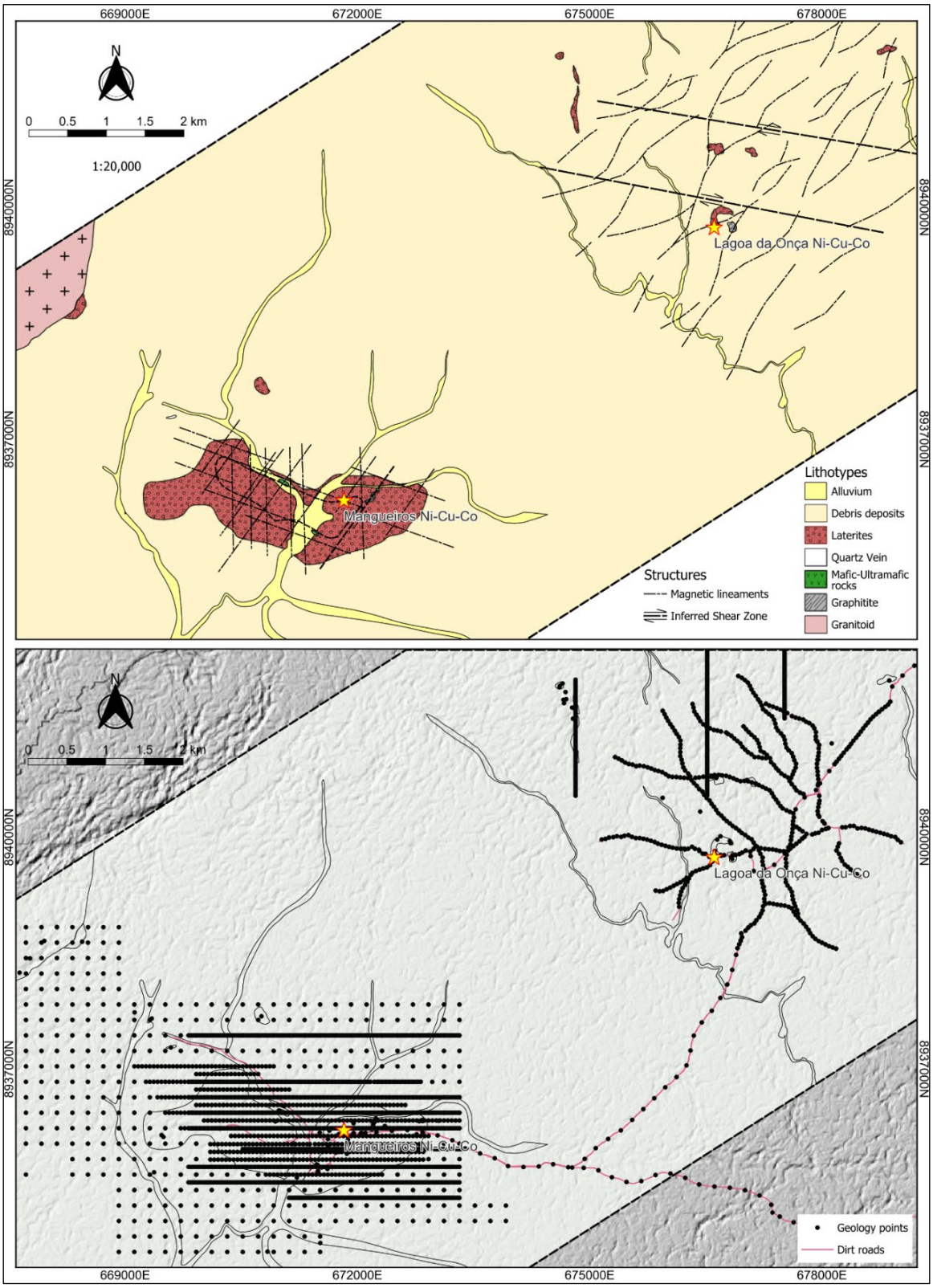


Source: Bahia Nickel Mineração, 2024
Left map = Digital Terrain Model; Right map = Colored Orthoimage.

Figure 9-1: Remote Sensing Topography

9.2 Geological Mapping

A comprehensive geological mapping program was executed during 2022, covering the Mangueiros and Lagoa da Onça targets. The field program logged 3,658 geology points resulting in a semi-detailed geological map on the scale 1:20,000 (Figure 9-2).



Source: Bahia Nickel Mineração, 2024

First = Geological map, and Second = Accessed geology points

Figure 9-2: Geological Map and Geology Points Maps

The geological map of the Mangueiros-Lagoa da Onça region was prepared based on field data observations, drilling information, geochemistry of nickel and copper from soil sampling, and lineaments from the airborne and drone-borne geophysical surveys.

9.3 Soil Geochemistry Program

Bahia Nickel Mineração undertook a soil geochemistry program over the Mangueiros Main, Mangueiros East, and Mangueiros West to confirm the previous geochemistry soil anomaly identified by CBPM. Additionally, the soil geochemistry program revealed the Lagoa da Onça soil anomaly.

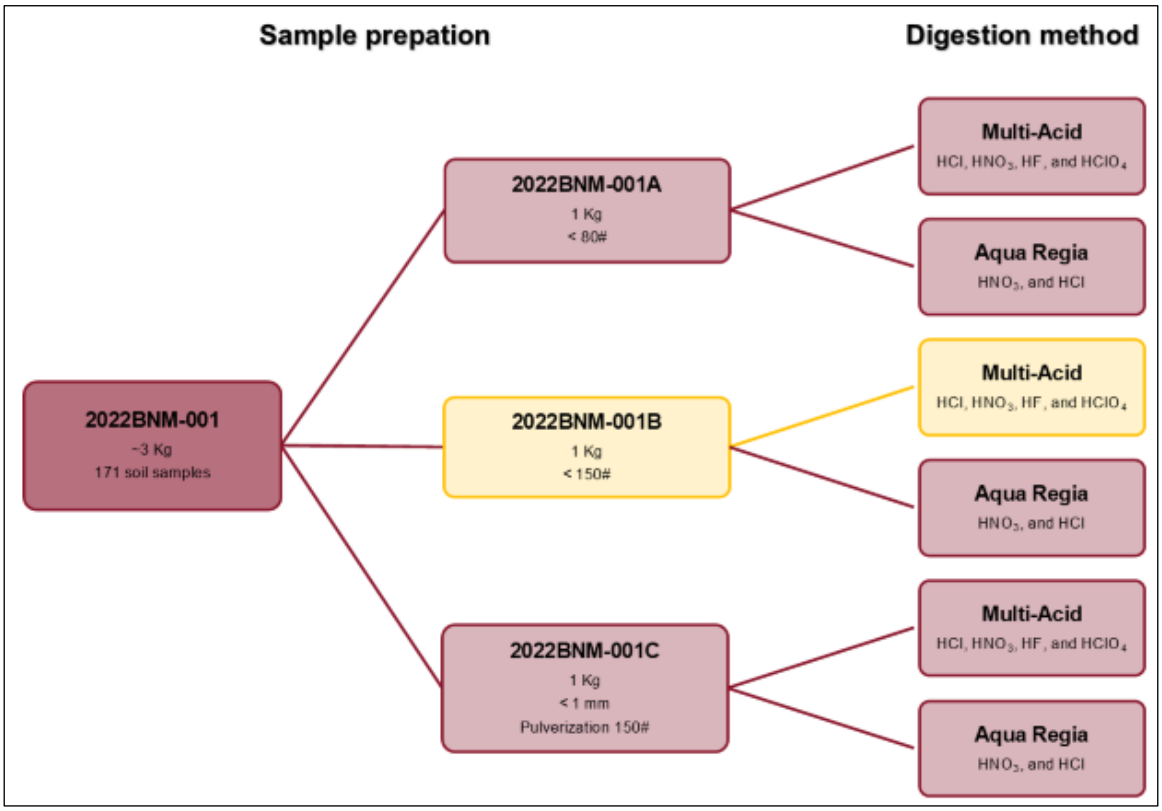
Sample logs were captured using Microsoft® Excel® installed in tablets with a predefined logging template developed to incorporate all the key aspects of the soil samples including site conditions, surrounding geology, sample composition description, collection depth, sample weight, and humidity.

Prior to the start-up of the soil geochemistry sampling an orientation survey was designed to define the best methods of preparation and geochemical analysis, including the definition of granulometric fraction and the digestion process of the soil samples. This phase was implemented over the Mangueiros Main and Mangueiros East targets with detail grids (100 m x 50 m), over zones previously known as carrying nickel-copper mineralization.

In the orientation survey, a total of 171 samples were collected every 50 m along two E-W sections spaced 100 m apart. The selected sections were previously sampled by CBPM and had a record of strong Ni-Cu soil anomaly. The average sampling depth was around 30 cm, within the soil B horizon having the samples, an average weight of 3 kg.

The samples were sent to the ALS Brazil laboratory (which is independent of the issuer) under the name of batch 2022BNM-001. In the laboratory, the samples were split into 3 aliquots of approximately 1 kg each, receiving their respective suffixes (A, B, and C) and prepared via three different routes with each aliquot being digested using two different methods. The preparation stage consisted of sieving each split at 1 mm, 80# and 150#. The 1mm split underwent a subsequent pulverization at 95% passing 150#. The other two splits were sieved at 80# and 150#. Figure 9-3 illustrates the orientation survey process.

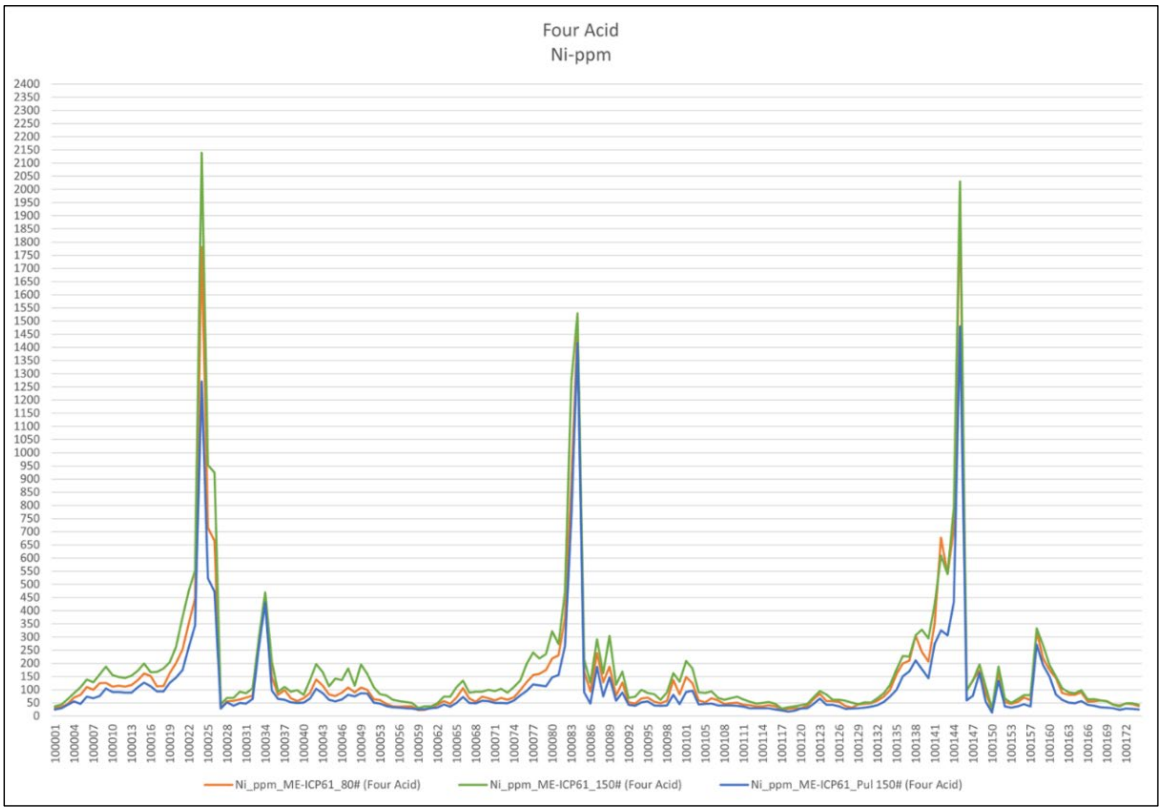
In the assaying stage, the three splits were digested using two methods, aqua regia HCl + HNO_3) and multi-acid/four-acid digestion (HCl + HNO_3 + HF + $HClO_4$) digestion. Multi-element (33 elements) analysis was conducted using ICP-AES. Pt, Pd and Au results were obtained from Fire Assay method with ICP-AES finish.



Source: Bahia Nickel Mineração, 2024

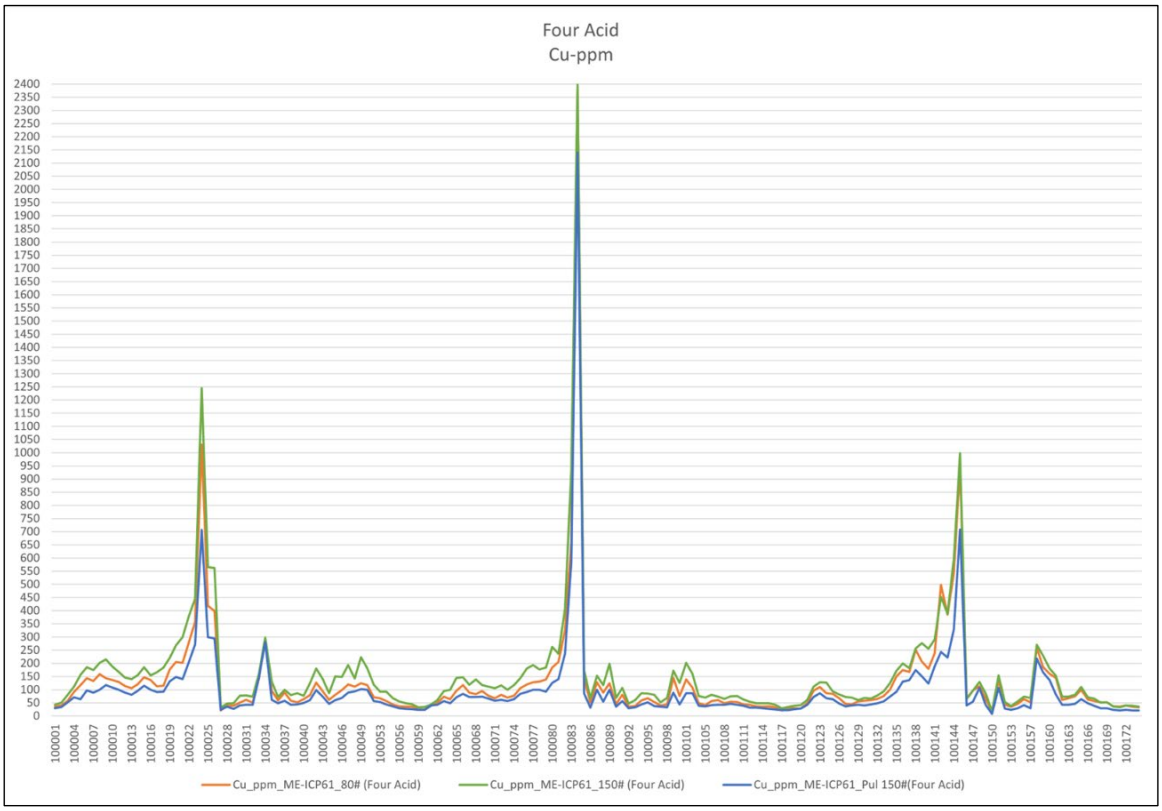
Figure 9-3: Flowsheet of the Orientation Survey

The samples obtained from the #150 fraction combined with multi-acid digestion was considered to give the best contrasts and response, so this method was selected for the soil geochemistry program (Figure 9-4, and Figure 9-5).



Source: Bahia Nickel Mineração, 2024

Figure 9-4: Nickel Results for the Multi-Acid (Four Acid) Analysis



Source: Bahia Nickel Mineração, 2024

Figure 9-5: Copper Results for the Multi-Acid (Four Acid) Analysis

Upon completion of the orientation survey, the second phase of the soil sampling program took place with the collection of 1,133 soil samples within the Mangueiros area, along with the collection of 584 samples within the location of the Lagoa da Onça target (Table 9-1). The samples collected within Mangueiros followed E-W traverses, while in the Lagoa da Onça target, samples were taken every 50 m, 3 to 5 m aside the roads, tracks, and trails covering all the target. The soil sampling program included the collection of one field duplicate at every 50 ordinary samples. Certified reference materials were not included in the soil program.

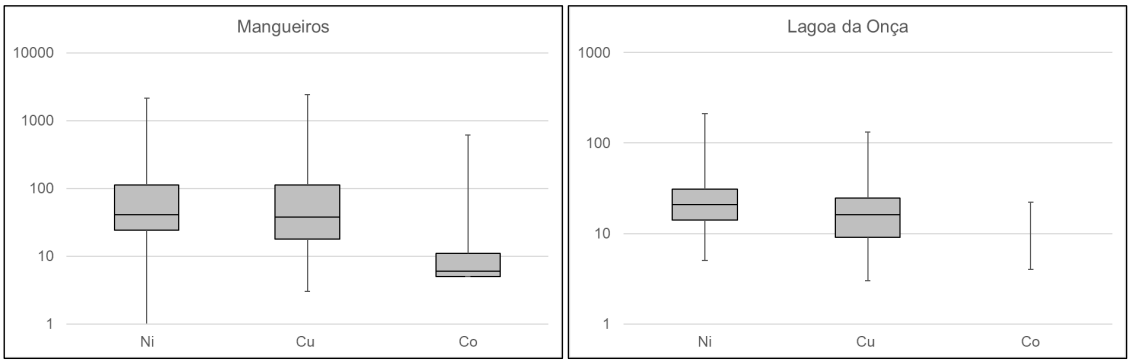
Table 9-1: Summary of Collected Soil Samples including Duplicates at Mangueiros Project

Property	Survey	Grid	Samples
Mangueiros	Orientation survey	100 x 50	171
Mangueiros	Detail	100 x 50	275
Mangueiros	Semi-detail	200 x 50	129
Mangueiros	Semi-Regional	200 x 200	396
Mangueiros	Resample historical surveys	200 x 50	162
Subtotal			**1,133**
Lagoa da Onça	Detail	Every 50 m following roads, tracks and trails	584
Total			**1,717**

Source: Bahia Nickel Mineração, 2024

The soil program confirmed and extended the historical Ni-Cu soil anomalies and identified a new anomaly associated with the Lagoa da Onça deposit. However, these anomalies differ in their absolute concentration values, thresholds, and background values.

To highlight the distinction between background and anomalous values for nickel, copper, and cobalt, a statistical analysis utilizing the natural breaks (Jenks) classification was conducted. In addition, a quantile classification revealed that background values for anomalies are lower than the upper quartile, as illustrated by the accompanying boxplot graphs (Figure 9-6).

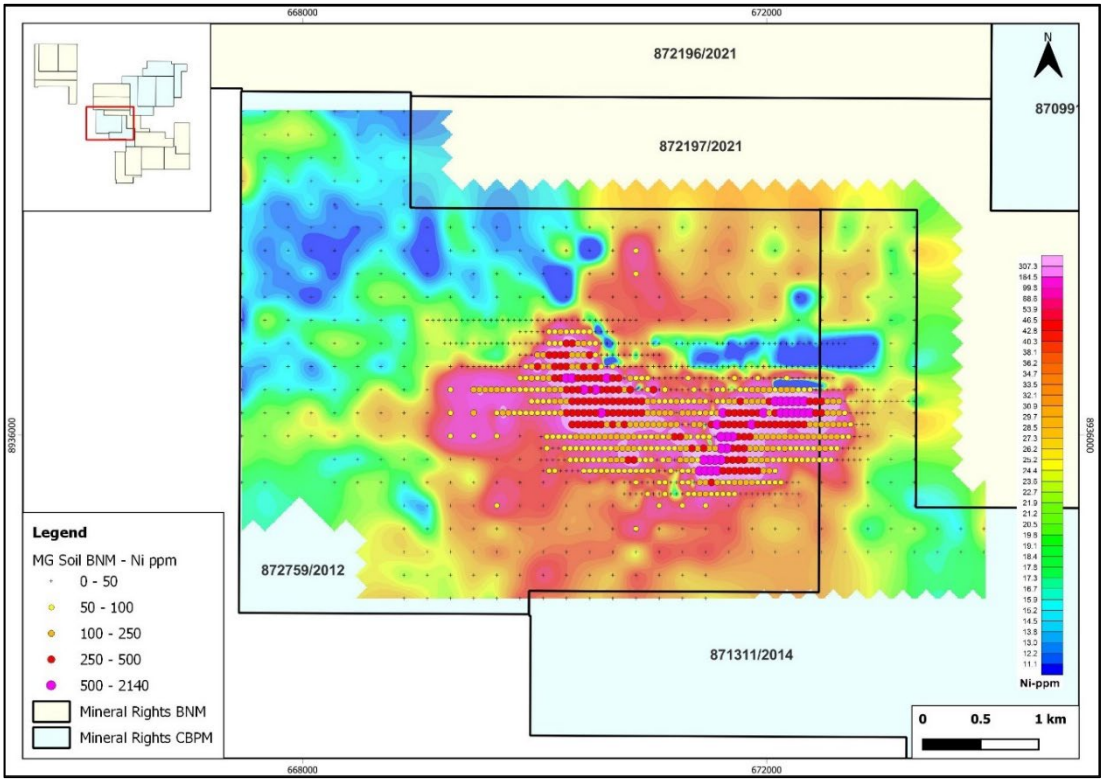


Source: Bahia Nickel Mineração, 2024

Figure 9-6: Concentration Distributions of Ni, Cu, and Co (in ppm)

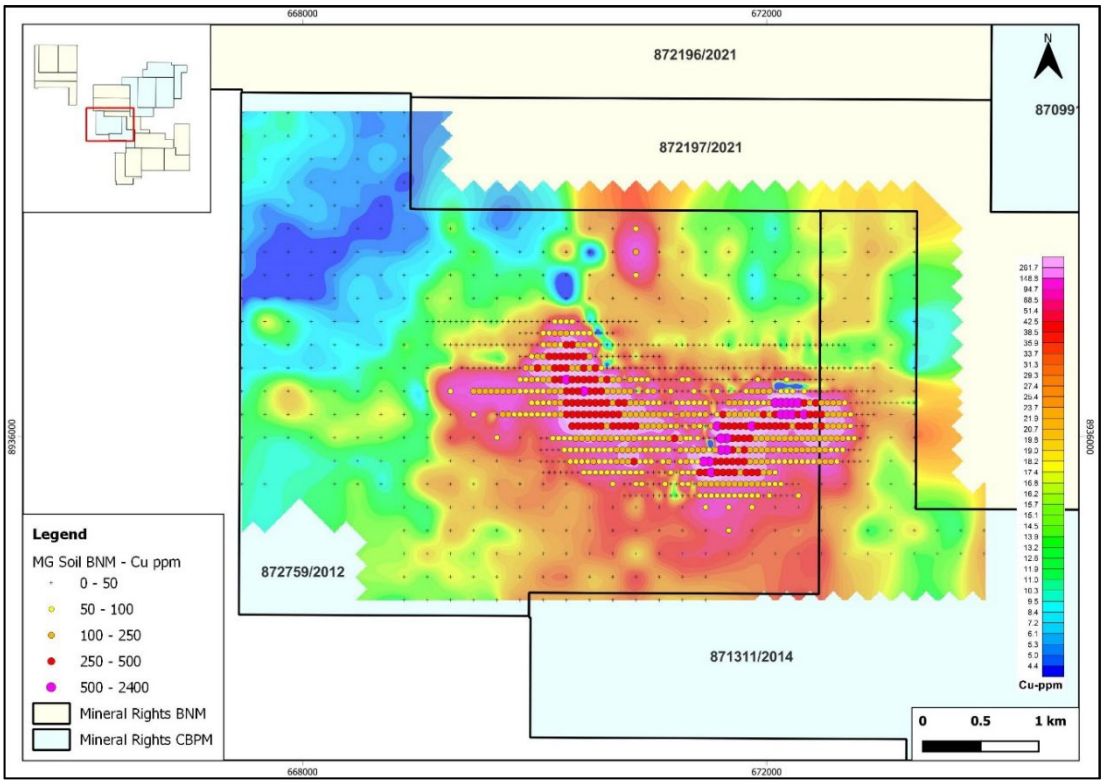
In the Mangueiros region, anomalous Ni and Cu concentrations range from 50 ppm to 2,140 ppm, with background values up to 41 ppm. At Lagoa da Onça, anomalous Ni and Cu concentrations vary between 25 ppm and 212 ppm, with a background of up to 21 ppm. Generally, Co concentrations are about ten times lower than Ni and Cu. In the Mangueiros region, anomalous Co concentrations exceed 30 ppm, with background levels up to 11 ppm, whereas Co concentrations in Lagoa da Onça range between 1 and 10 ppm, basically not existing a cobalt anomaly.

The grid contour maps, highlighting the Ni-Cu-Co anomalies, were generated and interpolated using the minimum curvature method in the *Geosoft Target* (v. 2022.2) with the support of *Discover* (v. 2022 22.0.224). The cell size was set at 12.5 m, which corresponds to 25% of the average distance between the samples considering the regular nature of the sampling grid. The thematic maps were generated with *MapInfo Pro* (v. 2021.1) (Figure 9-7 through Figure 9-12).



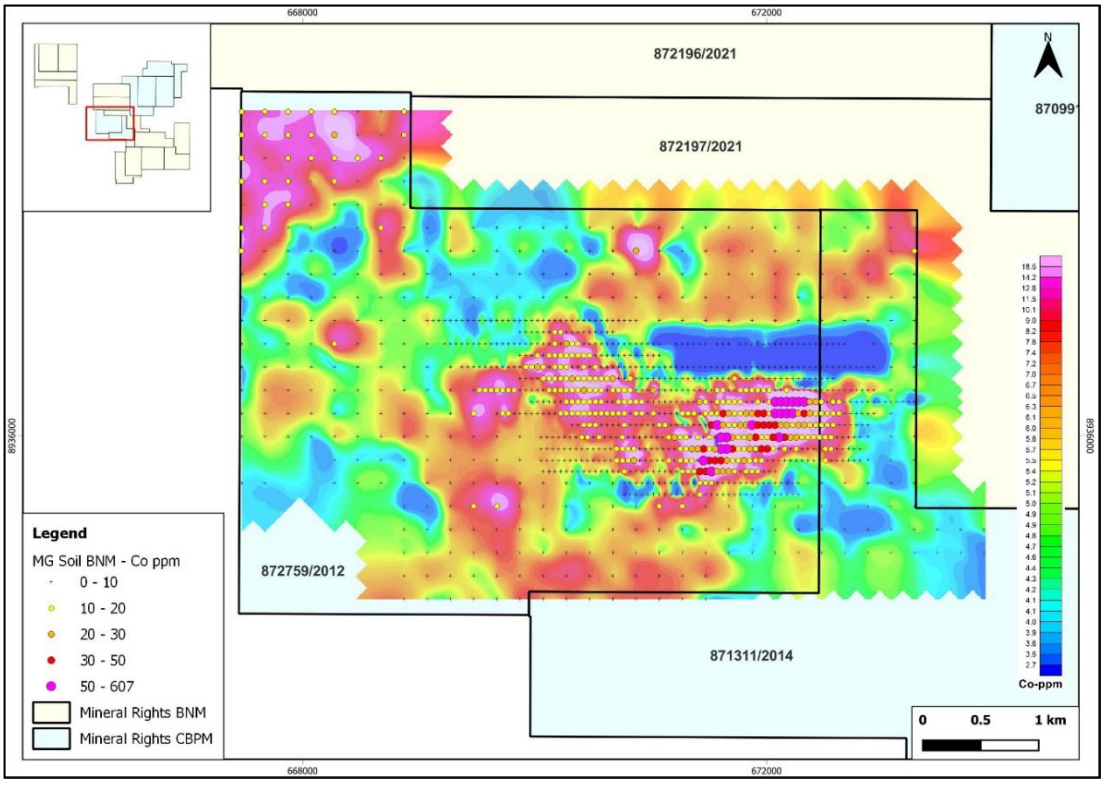
Source: Bahia Nickel Mineração, 2024

Figure 9-7: Mangueiros Region Nickel Soil Geochemistry Map, Gridding plus Sample Posts



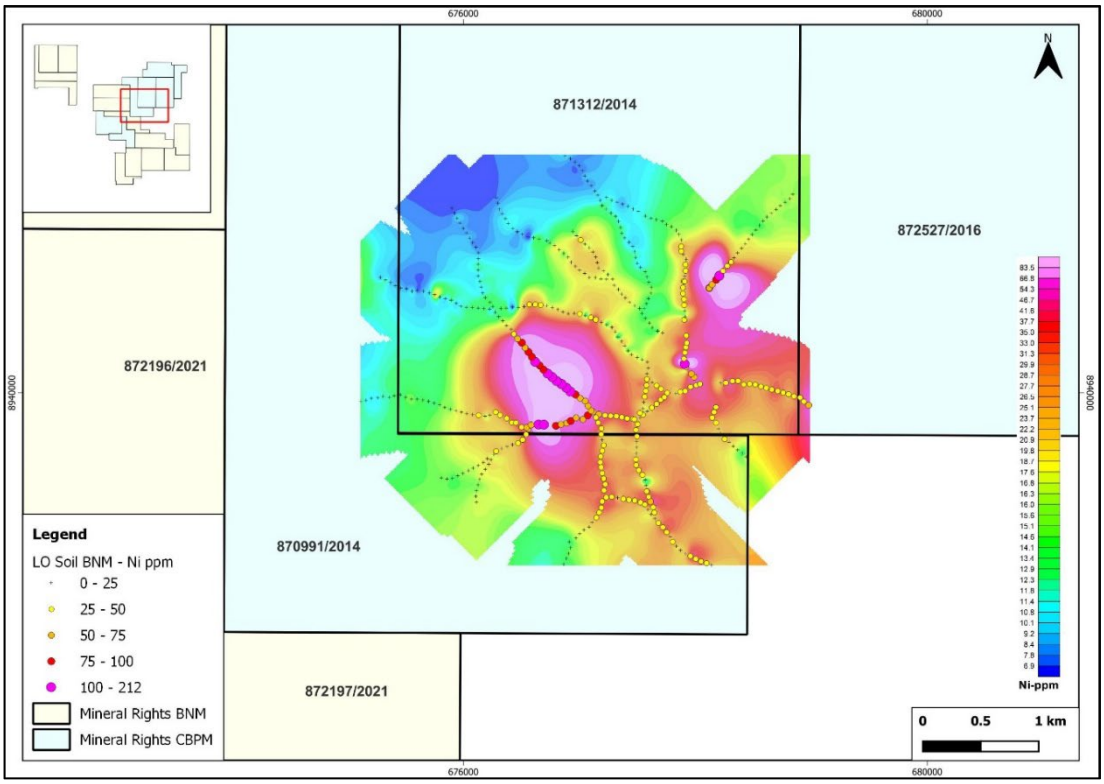
Source: Bahia Nickel Mineração, 2024

Figure 9-8: Mangueiros Region Copper Soil Geochemistry Map, Gridding plus Sample Posts



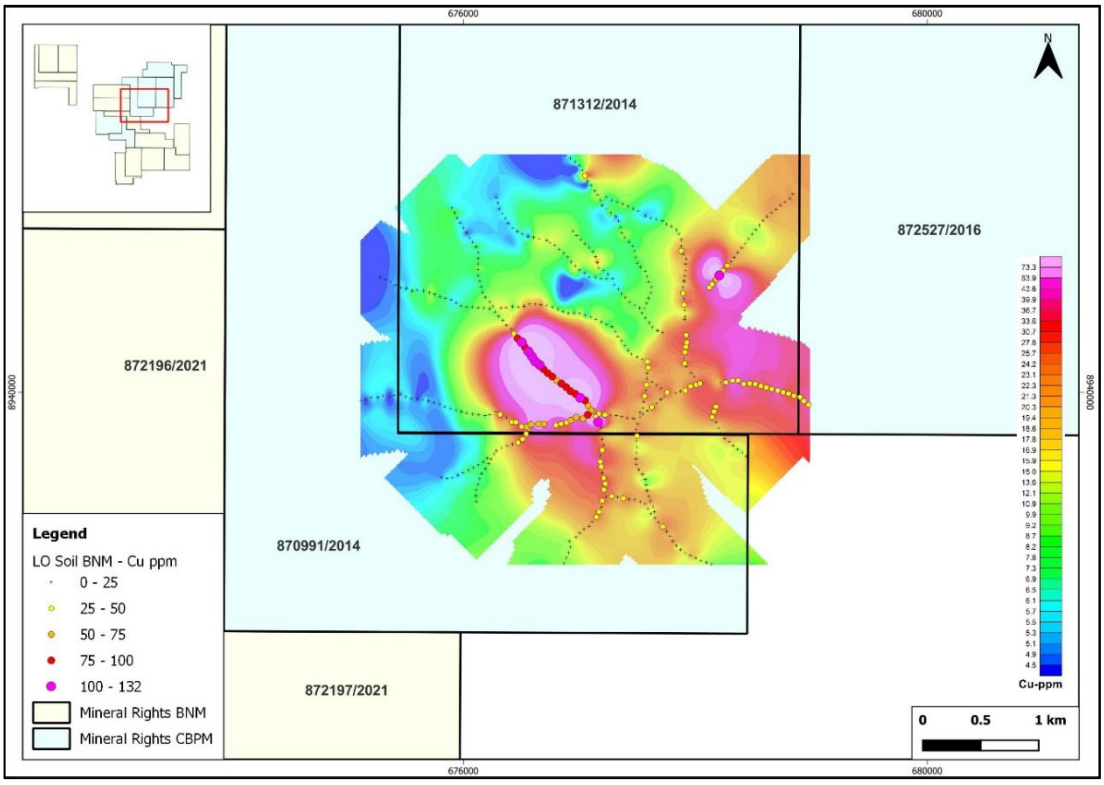
Source: Bahia Nickel Mineração, 2024

Figure 9-9: Mangueiros Region Cobalt Soil Geochemistry Map, Gridding plus Sample Posts



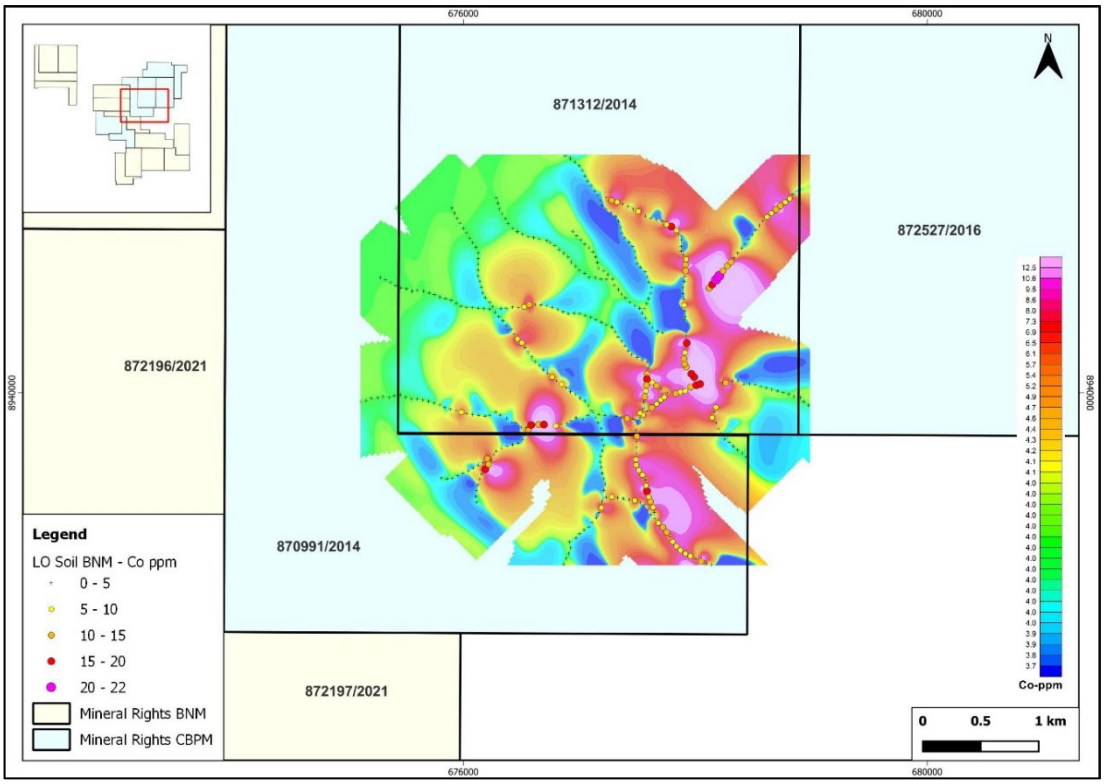
Source: Bahia Nickel Mineração, 2024

Figure 9-10: Lagoa da Onça Region Nickel Soil Geochemistry Map



Source: Bahia Nickel Mineração, 2024

Figure 9-11: Lagoa da Onça Region Copper Soil Geochemistry Map



Source: Bahia Nickel Mineração, 2024

Figure 9-12: Lagoa da Onça Region Cobalt Soil Geochemistry Map

The results indicate that Ni and Cu concentrations are significantly higher in the Mangueiros samples than in Lagoa da Onça. Co concentrations are consistently lower than Ni and Cu in both locations, with Mangueiros showing higher Co concentrations than Lagoa da Onça.

These patterns may indicate different degrees of alteration at the two locations, with Mangueiros potentially hosting richer Ni-Cu-Co mineralization. The observed variations are also interpreted as resulting from differences in ore body emplacement: Mangueiros Main and Mangueiros East feature shallow, semi-outcropping ore bodies, while Lagoa da Onça and Mangueiros West are located beneath overburden layers composed of country schist rocks and unconsolidated sediments - 20 to 50 m thick in Lagoa da Onça and nearly 100 m thick in the Mangueiros West region. A more precise definition of the soil geochemical anomalies has aided in better positioning drill sites at the Mangueiros Main and Mangueiros East and Lagoa da Onça targets.

9.4 Geophysical Surveys

9.4.1 Electromagnetic and Magnetic Airborne Surveys

During Q1/2022, LASA S.A. was contracted by CBPM to execute a Time-Domain Electromagnetic and Magnetic airborne surveys on what this company called the Campo Alegre de Lourdes-Cabeça no Tempo Project, located in northern Bahia and southeast portion of Piaui states, an area that also includes the Mangueiros and Lagoa da Onça targets.

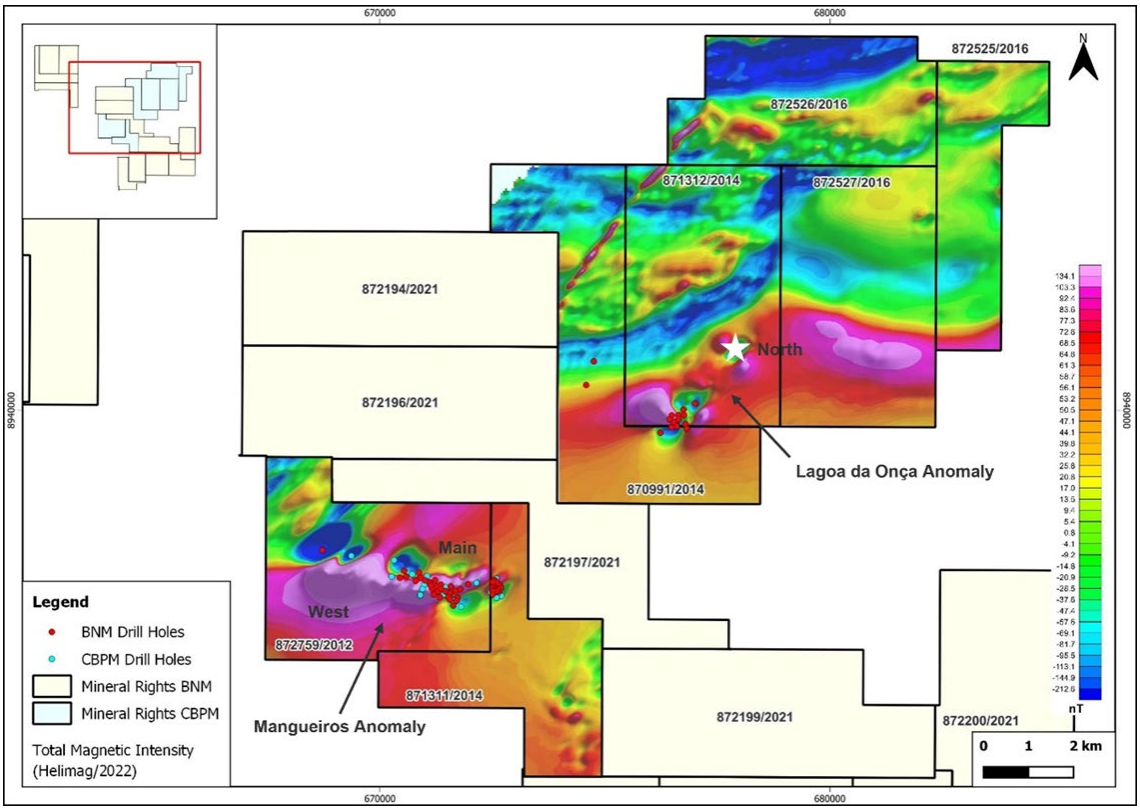
The entire aerial survey covered an area of 1,178 km² (6,304.60 linear km) using an Astar AS350-B3 helicopter with the EM sensor placed at a height of 60 m above ground. The flight lines were oriented N40W and spaced 200 m apart. The control lines were oriented orthogonally to the N50E direction and spaced 2,000 m.

This airborne geophysical survey confirmed, the strong magnetic anomaly at Mangueiros Main and Mangueiros West targets, and revealed a new significant magnetic anomaly located approximately 7 km northeast of Mangueiros in an area called Lagoa da Onça (Figure 9-13, and Figure 9-14).

At Mangueiros Main, one can see that the total magnetic intensity anomaly has a shorter wavelength when compared to the anomaly at the western zone where the total magnetic intensity anomaly presents a wider wavelength or, a wider dipole (compared to the dipoles to the east Mangueiros Main). The wider wavelength at Mangueiros West could indicate the magnetic source was deeper compared to the shallower and outcropping Mangueiros Main deposit. This was confirmed by hole MGDH-069 that passed through a package of graphite-chlorite schist and intersected a mineralized (Ni-Cu-Co) pyroxenite body at 97.70 m depth.

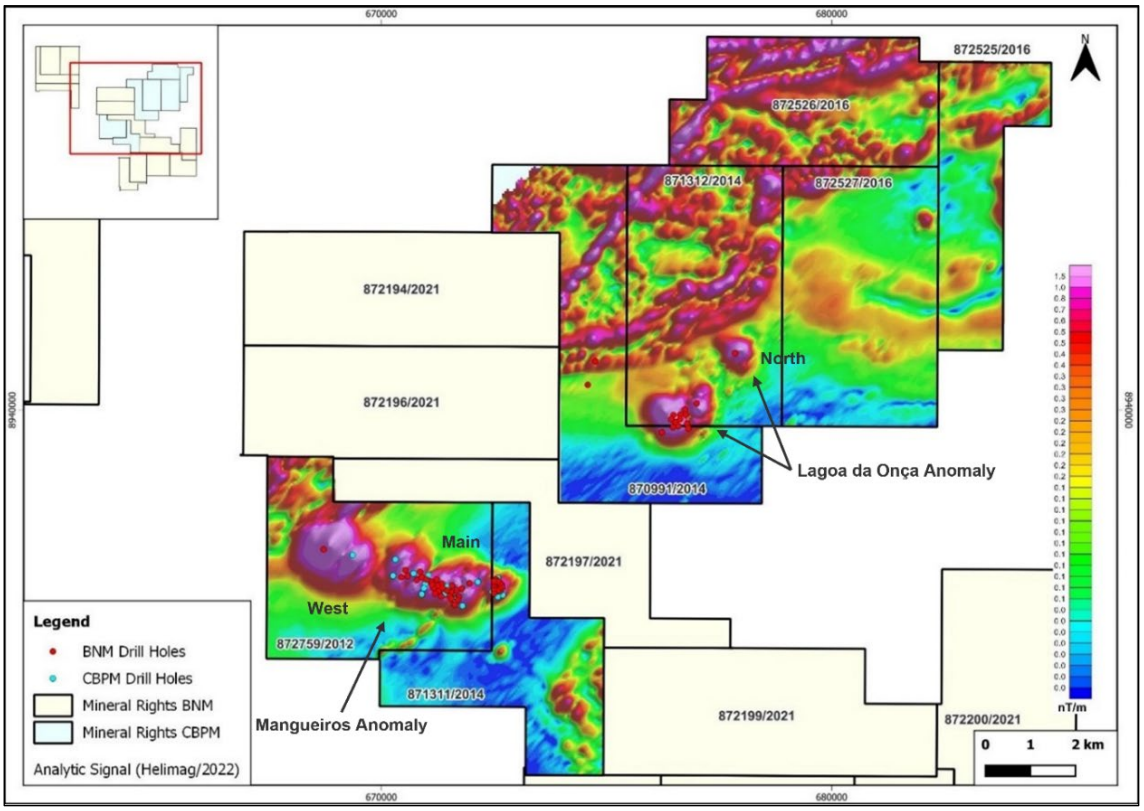
The new magnetic anomaly named Lagoa da Onça, has confirmed the existence of another ultramafic body that also contains sulfide Ni-Cu-Co mineralization similar to the Mangueiros target. The last two holes drilled in December 2022, and the first one, LODH-01 intercepted 55.00 m at 0.20 Ni, 0.11% Cu, 0.018% Co from 64.00 m to 119.00 m. Subsequent drilling executed in Q1/2023 confirmed the presence of a mineralized system. To date, Lagoa da Onça magnetic anomaly includes eleven drillholes with nine holes intersecting Ni-Cu-Co mineralization. Lagoa da Onça is open in all directions.

The Lagoa da Onça's northernmost magnetic dipole combines with a significant ground gravimetric anomaly (Figure 9-13) that was tested with one exploration hole, LODH-017 (shown as white star in Figure 9-13). This hole confirmed the existence of a mineralized ultramafic body with an intercept of 53.00 m at 0.20% Ni, 0.16% Cu, 0.015% Co, starting at 28 m depth. The hole ended in mineralization. Extending this hole is recommended to fully define the thickness of the system.



Source: Bahia Nickel Mineração, 2024

Figure 9-13: Total Magnetic Intensity Anomalies over Mangueiros and Lagoa da Onça Targets

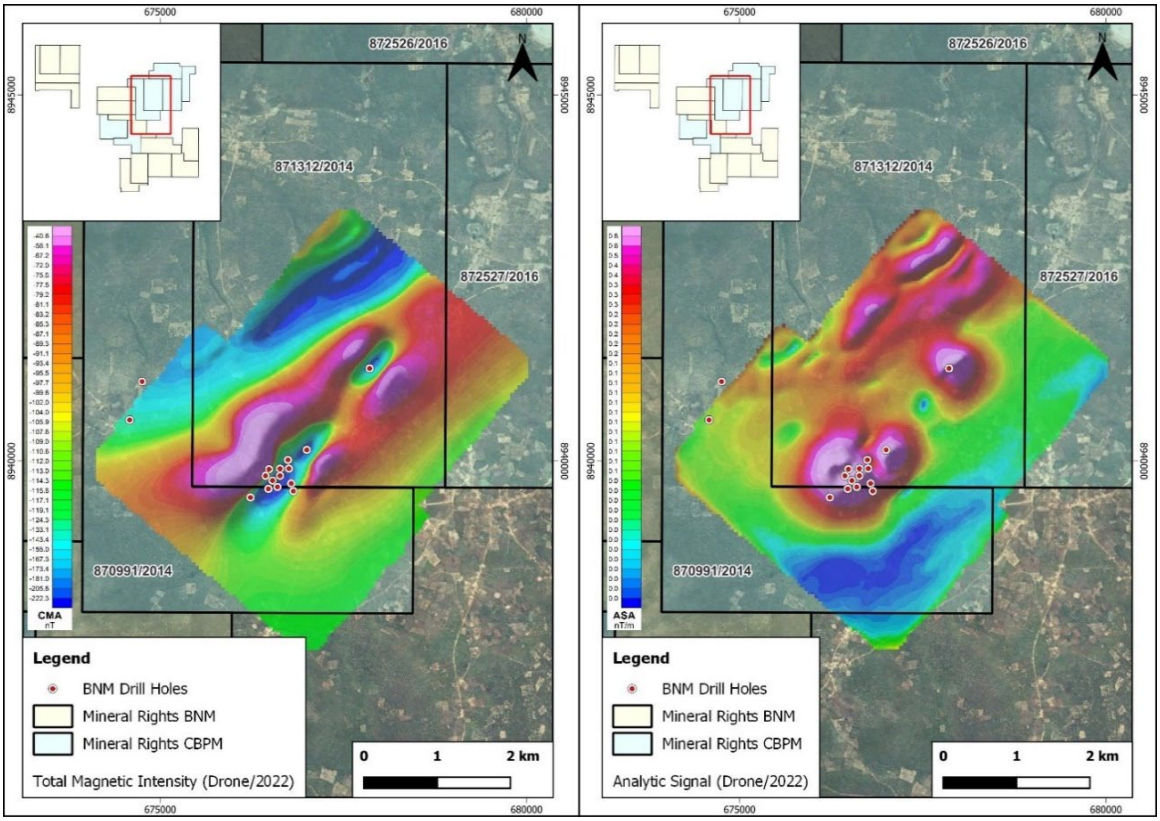


Source: Bahia Nickel Mineração, 2024

Figure 9-14: Analytic Signal Anomalies over Mangueiros and Lagoa da Onça Targets

9.4.2 Droneborne Magnetometry Survey

In Q3/2022, Bahia Nickel contracted *Geoscan Geologia e Geofísica Ltda.* to develop a drone-mag survey over Lagoa da Onça target aiming to enhance the magnetic response initially obtained by CBPM's regional airborne survey (Figure 9-15). The equipment employed was the DJI-MATRICE 600 PRO drone. The height of the flight lines was on average 60 m above ground. The sensors used were the airborne GEM GSMP-25U, with a resolution of ±0.0001 nT, and the terrestrial sensor GSM-19W with a resolution of ±0.01 nT installed in a location free from anthropogenic influences to carry out diurnal corrections (Geoscan, 2022). The survey totaled 200.90 linear km covering an area of 0.091 km² (9 ha) with N45W direction flight lines spaced 100 m apart, with a N45E striking control line.



Source: Bahia Nickel Mineração, 2024

Figure 9-15: Drone-Mag Survey over Lagoa da Onça Target

9.4.3 Ground Gravimetric Survey

As Mangueiros and Lagoa da Onça sulfide mineralized systems are associated with ultramafic rocks, gravimetric surveys, aerial or ground, are useful tools to help in identifying these types of rocks that may be underlying other rock types. Given that ultramafic rocks have a density that is higher than other sialic crustal rocks, the presence of ultramafic rocks causes anomalies in the Earth's gravitational field. These gravitational anomalies may be used to indirectly identify areas underlain by ultramafic intrusions.

In mid-2023, Bahia Nickel commissioned CBPM to conduct a ground gravimetric survey covering the Mangueiros and Lagoa da Onça targets. The equipment employed was a CG-6 AUTORAV TM micro gravimeter manufactured by Scintrex Geophysics.

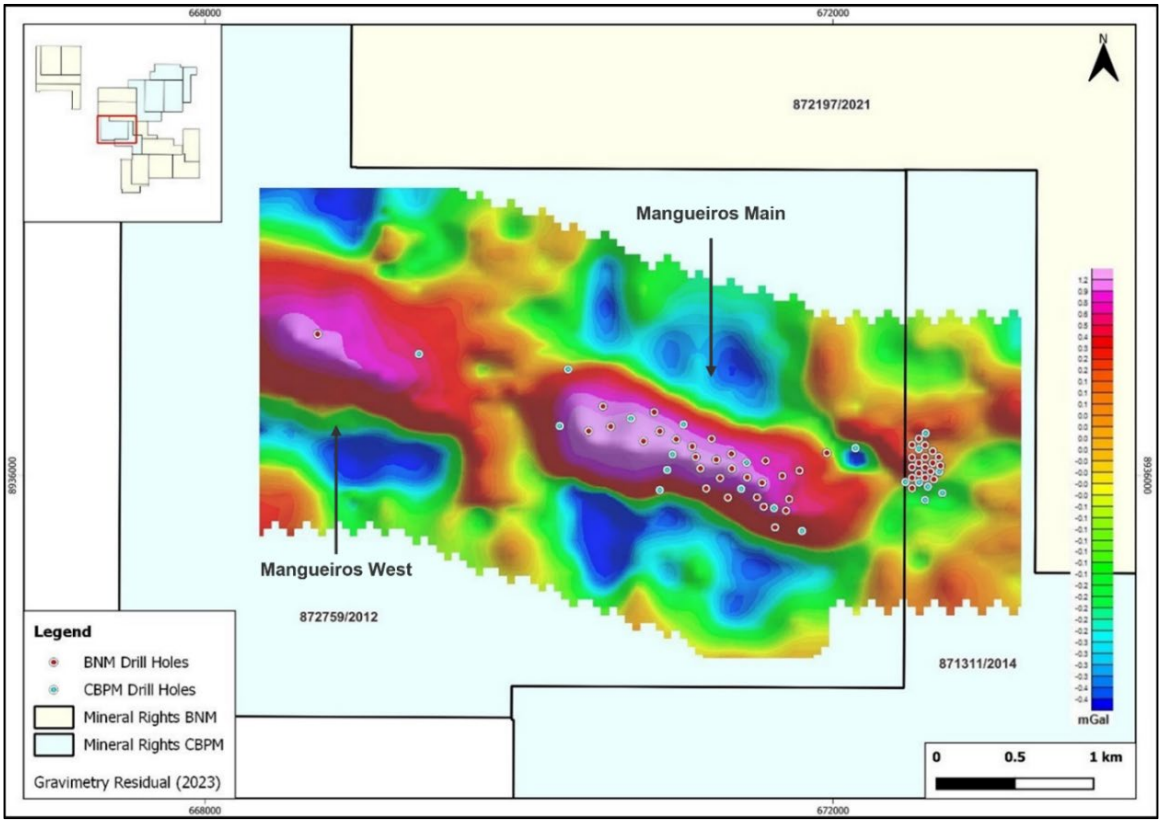
At the Mangueiros targets, the survey was executed on north-south traverses spaced 200 m apart, crosscutting the Mangueiros Main and West targets. A total of 1,856 reading points distributed over 47 linear km were surveyed. At the Lagoa da Onça target, the survey was carried out along the roads, tracks and trails covering in excess the entire target. A total of 1,523 reading points along 37 linear km were surveyed.

As expected, the gravimetric surveys have generated positive results at both Mangueiros (Main and West) and Lagoa da Onça targets. The confirmation of a gravimetric anomaly over Mangueiros Main was already known given ultramafic rocks are outcropping or near-surface, and the ultramafic intrusion had been previously delineated by drilling (Figure 9-16).

The gravity survey also produced another anomaly at the western extension of the Mangueiros Main. This anomaly supports the wide wavelength magnetic anomaly (total magnetic intensity)

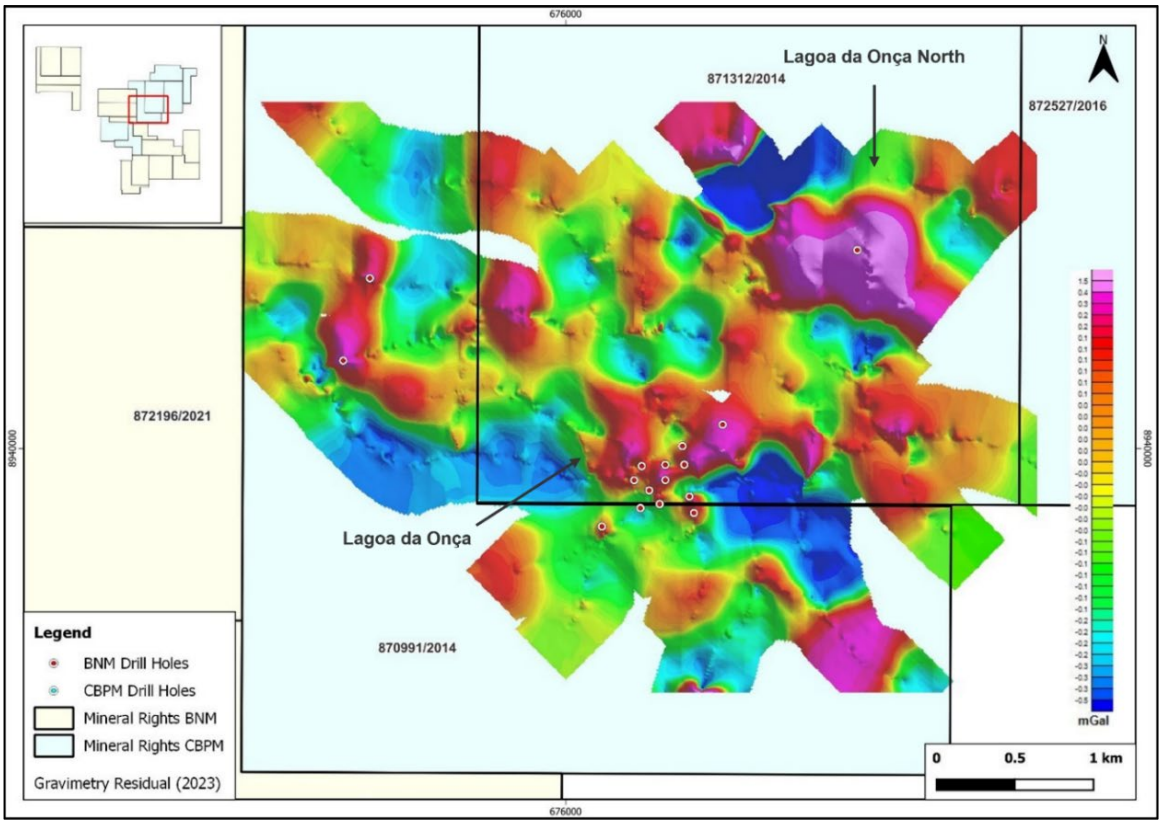
found at Mangueiros West. The existence of an ultramafic intrusion was later confirmed by the drilling of hole MGDH-069 that at the depth of 97.70 m, after crossing a package of graphite-chlorite schist, entered a pyroxenite body that also carries sulfide Ni-Cu-Co mineralization. To date, MGDH-069 is the sole drillhole at Mangueiros West. Unfortunately, due to technical problems hole MGDH-069 was stopped at 151.34 m depth, terminating in mineralization. Given the size of its magnetic and gravimetric anomalies, Mangueiros West has the potential to be as large as Mangueiros Main (Figure 9-16). MGDH-069 will be resumed to cut across all the intrusion and additional step out drilling will be executed to define the areal and depth extents of the Mangueiros West mineralized system.

Another gravimetric anomaly was identified being also coincident with a previously known magnetic dipole at the northern portion of Lagoa da Onça target (Figure 9-17). In fact, this gravimetric anomaly is even more relevant than that of the southern magnetic dipole, where a Ni-Cu-Co mineralized ultramafic system was confirmed by a set of diamond drillholes. This now combined gravimetric-magnetic northern anomaly was tested with one diamond drillhole (LODH-017) that confirmed the existence of another ultramafic system that is also mineralized with sulfide Ni-Cu-Co having the same features of the other previously known mineralized systems like Mangueiros Main, West and Lagoa da Onça.



Source: Bahia Nickel Mineração, 2024

Figure 9-16: Ground Gravimetry Map Mangueiros Targets



Source: Bahia Nickel Mineração, 2024

Figure 9-17: Ground gravimetry Map Lagoa da Onça Targets

10 Drilling

10.1 Type and Extent

Between 2013 and 2023, Bahia Nickel Mineração and CBPM drilled 86 diamond drillholes totaling 12,785.79 **m** at the Mangueiros project. Drilling completed to date is tabulated in Table 10-1.

Table 10-1: Diamond Drilling Distribution at Mangueiros Project

Company	Period	Target	Objective	DH Amount	Sum of Length (m)
CBPM	2013-2016	Mangueiros Main	Exploration	14	2,559.25
CBPM	2013-2016	Mangueiros East	Exploration	8	492.00
Total					**3,051.25**
Bahia Nickel Mineração	2022-2023	Mangueiros Main	Infill/Step Out	29	6,186.76
Bahia Nickel Mineração	2022-2023	Mangueiros East	Infill	17	616.47
Bahia Nickel Mineração	2022-2023	Lagoa da Onça	Exploration	16	2,547.56
Bahia Nickel Mineração	2023	Lagoa da Onça North	Exploration	1	232.51
Bahia Nickel Mineração	2023	Mangueiros West	Exploration	1	151.24
Total					**9,734.54**

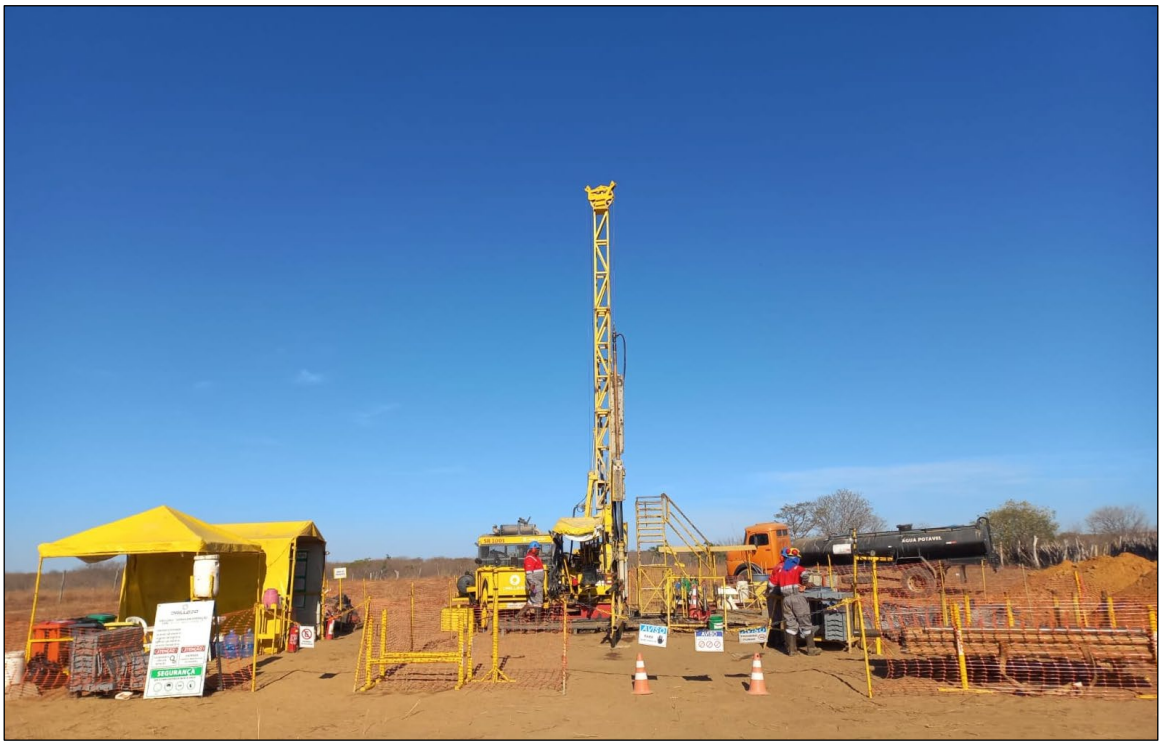
Source: SRK, 2024

Historical drilling executed by CBPM totals 22 holes with a total of 3,051.25 m drilled between 2013 and 2016. Out of these 22 holes, nickel, copper, and cobalt mineralization was identified in at least eight holes at the Mangueiros Main target. Additional mineralization was also identified at Mangueiros East, although with minor significance and importance given the small size of this target.

The drilling program executed by Bahia Nickel started in May 2022 with Phase-1 campaign, initially aiming to infill and expand the existing CBPM drilling at Mangueiros Main target ending with an irregular grid pattern with a spacing of approximately 150 x 200 m (Figure 10-1, and Figure 10-2). Phase-1 also included drilling at Lagoa da Onça and Mangueiros East targets, that was necessary for filing exploration reports at the Brazilian Mining Agency in May 2023 (Figure 10-3 and Figure 10-4). Phase-1 was extended until April 2023 for a total of 54 holes and 8,056.85 m.

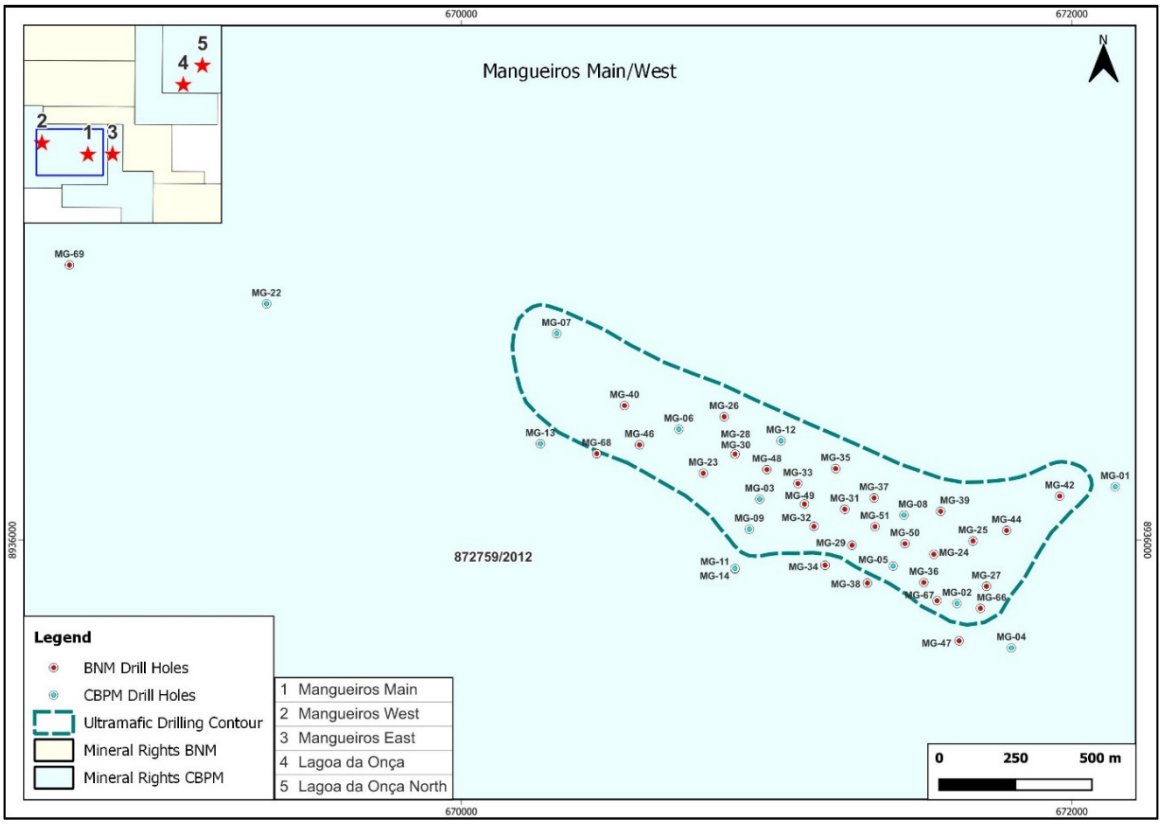
Phase-2 drilling was executed in October and November 2023 in the mineral right 870.991/2014 with the purpose of obtaining information for an exploration report for the Brazilian Mining Agency due in December 2023. Two additional holes were drilled at Mangueiros Main target, one drillhole at Mangueiros West (discovery hole), and one hole at Lagoa da Onça North (discovery hole). Phase-2 ended with 10 holes and 1,677.69 m.

The diamond drilling executed by Bahia Nickel successfully confirmed and expanded the sulfide Ni-Cu-Co mineralization previously identified by CBPM at Mangueiros Main target (Figure 10-2). It also identified three new mineralized systems, Mangueiros West, Lagoa da Onça and Lagoa da Onça North. These new targets may represent significant potential resources for the project. Drilling information and intercepts highlights are presented in Table 10-2 and Table 10-3.



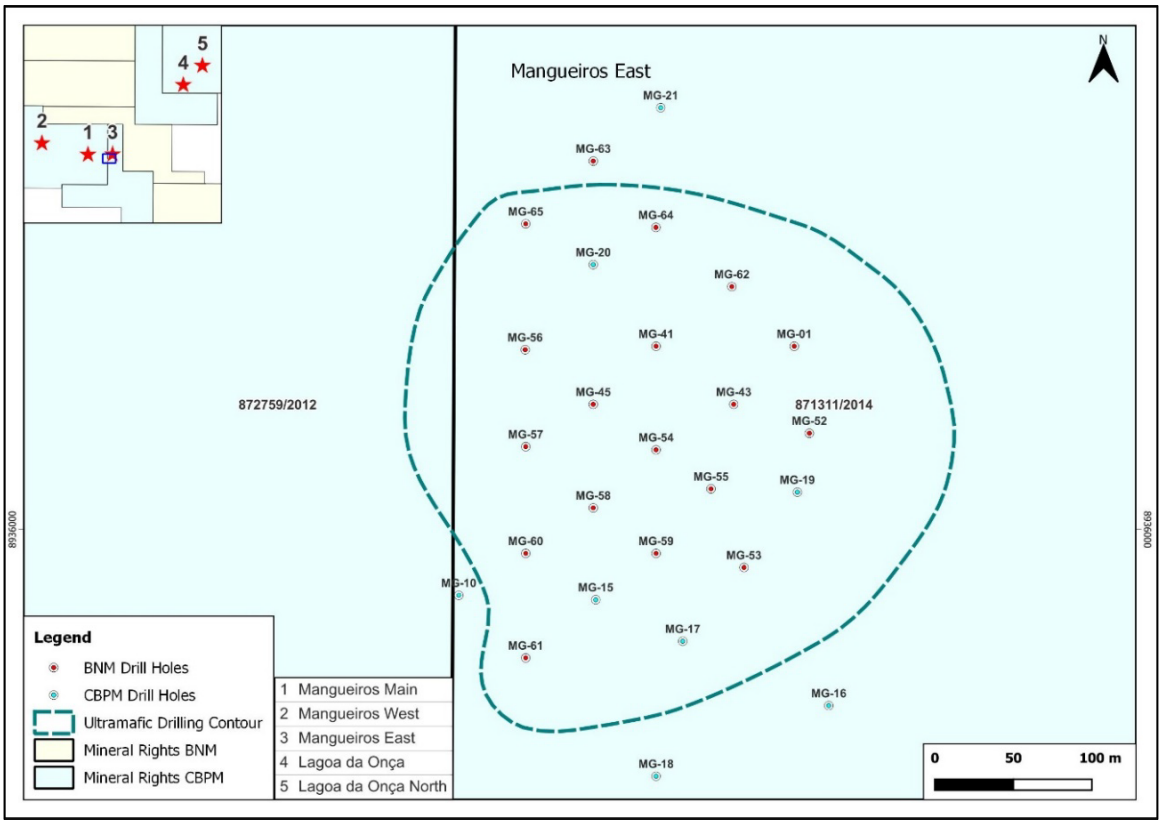
Source: Bahia Nickel Mineração, 2024

Figure 10-1: Diamond Drilling Rig at Mangueiros Site



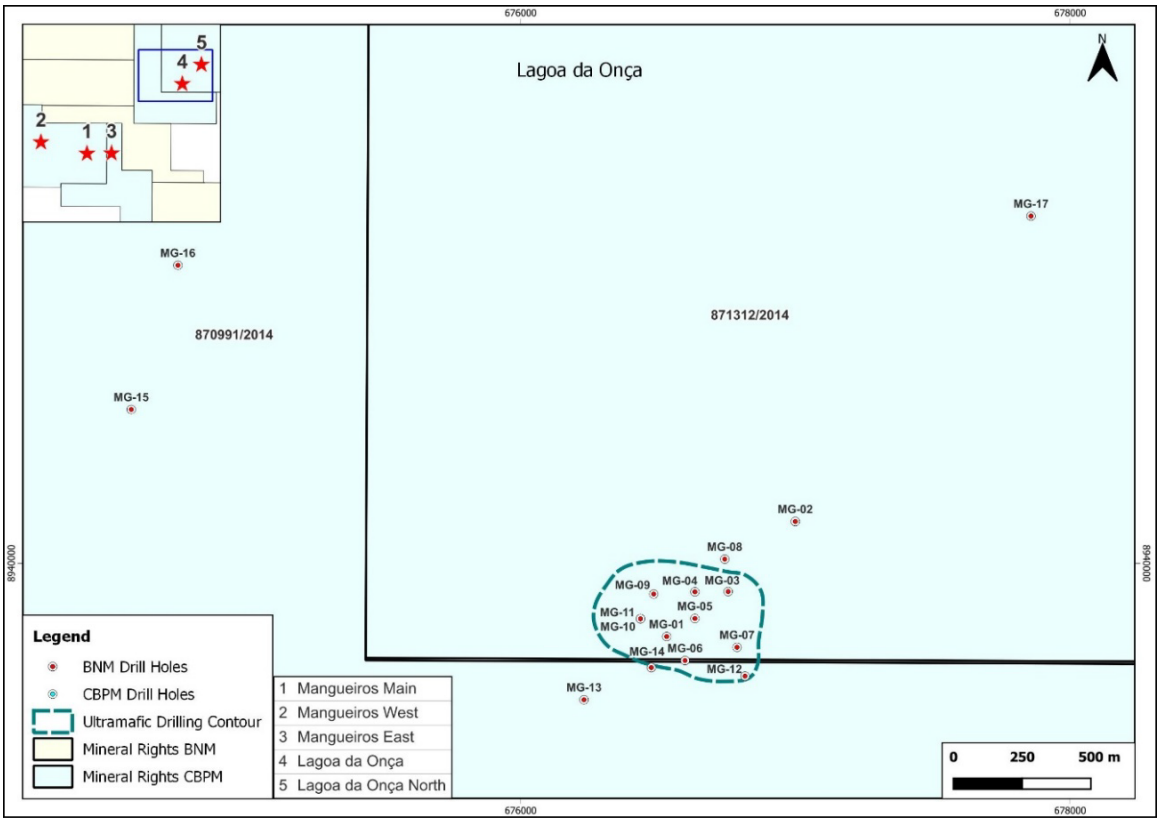
Source: Bahia Nickel Mineração, 2024

Figure 10-2: Map Showing Drillhole Collars at Mangueiros Main and Mangueiros West Target



Source: Bahia Nickel Mineração, 2024

Figure 10-3: Map Showing Drillhole Collars at Mangueiros East



Source: Bahia Nickel Mineração, 2024

Figure 10-4: Map Showing Drillhole Collars at Lagoa da Onça Targets

10.2 Procedures

Bahia Nickel commissioned external service drilling companies to execute its drilling program. The contractor used skid-mounted wireline rigs. CBPM's previous drilling had indicated the mineralization was not deeper than 350 m, all the program was executed using HQ (63.5 mm) diameter providing a representative sample. All core samples were stored in core boxes with lids, made by *Core Case* with 100% recycled plastic.

The drilling was executed with two rigs, working two 10-hour shifts per day from Monday to Friday and with one shift on Saturdays. Sunday was a day off.

Every day in the morning, after ending the night shift, the core boxes with lids were transported on 4WD vehicles from the drill sites to the Bahia Nickel's shed facility in the city of Campo Alegre de Lourdes. Upon review of the core boxes and drilling sheets, the geologist or technician would sign off on receipt of the core. This facility is a secure fenced, gated and locked facility.

The drill log routine in the core shed involved the following steps:

- Reception of the core boxes and laying the boxes, in depth order, over the logging benches
- All cores were then organized in their grooves eliminating spaces between the core pieces
- Drill footage records are compared to recovered core to obtain the recovery percentage of each run
- Each core box is then photographed, dry and wet, and the photos are stored by individual hole in the database (Figure 10-5)

Source: Bahia Nickel Mineração, 2024

Figure 10-5: Core Boxes Photographed, Dry and Wet

Drill logs were captured using Microsoft® Excel® on tablets with a predefined logging template developed to incorporate all the key aspects of the lithologies present including:

- Reading magnetic susceptibility with a KT-20 hand susceptibility meter
- Lithology: Rock type, color, hydrothermal alteration, texture, and grain size
- Structural: structure type and orientation
- Geotechnical: material classification (i.e., rock, sediments, saprolites, etc.), structures (i.e., faults, foliation, bedding, etc.), weathering intensity, strength, discontinuity infilling, aperture, alteration, shape, and angle, RQD
- Mineralization: sulfides mineralogy, sulfides content estimation by volume, grain size, textures (blebs, interstitial, disseminated, semi-massive, etc.)

The data assembled in Microsoft® Excel® sheets underwent a review checking entry data errors before transferring to a Microsoft® Access® document. The Access document is structured with individual objects composed of thematic data related to holes collar survey, downhole survey data, density, magnetic susceptibility data, lithology, structural geo, geotechnics, sulfide estimation, sample intervals, and assay data. Then, Leapfrog® (v. 2022.1.02) is updated by the Access Database via ODBC source.

The drill cores are orientated taking into account the orientation of structures, before being marked along its longitudinal axis for cutting with a diamond saw. Before cutting, magnetic susceptibility readings are made with three readings every meter using a portable KT-20 (Figure 10-6). The value imported to the database is an arithmetic mean of the three readings.

As the cores are cut, they are put back into the core trays always with the left side underneath the right side of the core with both pieces with its flat sides facing up. In this way, always the same (right) side of the cut core is sampled thus avoiding problems with sampling bias. Also, with the flat sides always facing up, the logging by the geologists is facilitated.

Sample intervals are initially controlled by geologic features and by sulfide concentration, and inside the mineralized zones most of the samples are 1-meter long. However, some samples can be less than one meter in case special features are observed. In zones with no visible mineralization, adjacent to the mineralized intervals, or in barren country basement rocks, the samples are typically 2-meter long.

Density measures are taken at every three samples by taking a subsample with a minimum 10-centimeter length that is covered with a thin layer of hot wax before the measurement. The density is then calculated using the Archimedes' principle.

After the holes are logged, the geologists mark the geologic contacts and the sample intervals/numbers aside the core trays being then, the samples collected and put inside individual and numbered plastic bags along with a Sample-ID card that is taken from a pre-printed/numbered sample book (Figure 10-6).

Source: Bahia Nickel Mineração, 2024
Left = drill core sampling, and Right = magnetic susceptibility reading with a KT-20 handheld magnetic susceptibility meter

Figure 10-6: Drilling Procedures

Bahia Nickel Mineração implemented a Quality Assurance/Quality Control (QA/QC) program consisting of blanks, certified reference materials, and laboratory duplicates randomly inserted within each batch. The certified reference materials contemplate nickel grades varying from low,

to mid and high, being inserted according to the visually estimated sulfide content in the sampled intervals aiming to match each kind of CRM inside its proper mineralized zones.

Each batch contains all samples from a single drillhole, in other words, a batch never mixes samples from different drillholes. The samples are packed 5 by 5 inside PVC bags that are sealed and identified to be dispatched to the laboratory.

Both ALS and SGS Geosol preparation and assay laboratories are independent of Bahia Nickel and CBPM. ALS assay laboratories are ISO 17025 accredited. All ALS South American sample preparation facilities are included in the scope of the ISO audit for the Lima assay laboratory, and thus are also ISO 17025 accredited. SGS Geosol is ISO 17025 accredited.

Shipment is made every two weeks by a recognized national courier on a dedicated freight shipment, with a chain of custody maintained to the receiving laboratory (Figure 10-7). All the samples were prepared at ALS preparation facility located in Vespasiano, MG, Brazil and shipped to ALS laboratory in Callao, Peru for analysis. However, 1,087 core samples from holes LODH-003, LODH-004, LODH-005, LODH-007, LODH-009, LODH-010, and LODH-011 were assayed at SGS-Geosol (Vespasiano, MG, Brazil) due to shorter turn-around time.

CBPM reports state drillhole locations were surveyed by survey contractors. Diamond core was used to obtain assay samples and all intervals that were logged for lithological, structural, and other attributes. The protocols used for sampling as well as the QA/QC procedures are unknown due to the lack of supporting documentation.

Source: Bahia Nickel Mineração, 2024

Figure 10-7: Sample Shipment

10.3 Re-Logging and Re-Assaying of CBPM's Historical Drilling

Bahia Nickel geo team re-logged several CBPM's historical drillholes to validate the information. The holes that underwent review according to Bahia Nickel's standards were: MGDH-002, MGDH-003, MGDH-005, MGDH-006, MGDH-007, MGDH-008, MGDH-009, MGDH-012, MGDH-014, MGDH-015, and MGDH-017, all of them mineralized.

As part of the due diligence initially done by Bahia Nickel on CBPM's data, three mineralized historical holes, MGDH-002, MGDH-005, and MGDH-012 were re-sampled to verify the results previously obtained by CBPM. Quarter core samples (half of a half core) of each of these holes were collected with the same original lengths in order not to cause any bias in the results.

Even though CBPM's core samples had been digested with aqua regia (HNO_3 + HCL), also a partial leach targeting sulfides and avoiding dissolution of silicates) it was decided to assay these samples using ammonium/citrate/hydrogen peroxide digestion and ICP-AES analysis. Although this would provide a nickel sulfide (NiS) results rather than a total nickel (NiT) results, it would allow a comparison of NiS to NiT and to see if the intervals were of economic interest. Although differences on a sample by sample basis were observed, on average assays and mineralized intervals via NiS digestion were similar to NiT results and mineralized intervals based on aqua regia digestion.

Composite intervals were chosen to start where the sulfur assays marked the beginning of the sulfide zones in each of the three holes so, all pairs of intercepts (CBPM's and BNM's) started end ended at the same depth in each hole. For holes MGDH-005 and MGDH-012, both intercepts have the same length and have the same average grades, for NiS and NiT. MGDH-002 had a NiT composite grade higher than the NiS composite grade (Table 10-2).

As could be expected, given aqua regia digestion extracts less nickel from silicates than four-acid digestion, this should have been the case for CBPM's drill core assays, as its aqua regia Ni results are equivalent to the NiS results obtained by BNM and this, was a kind of concern during the due diligence process. Therefore, the nickel assays obtained by CBPM by using aqua regia digestion are considered comparable to the NiS results obtained from BNM analyses. (Table 10-2). Further analysis is required to confirm this point.

Table 10-2: Comparison between the Nickel Intercepts Regarding the Digestion Method. Aqua Regia (CBPM) and NiS (Bahia Nickel Re-Sampling)

Hole	Digestion	Length (m)	Ni (%)	From (m)	To (m)
MGDH-002	Aqua Regia	139.75	0.22	26.00	165.75
	NiS	139.75	0.20	26.00	165.75
MGDH-005	Agua Regia	195.72	0.23	20.73	216.45
	NiS	195.72	0.23	20.73	216.45
MGDH-012	Aqua Regia	139.73	0.21	21.31	161.04
	NiS	139.73	0.21	21.31	161.04

Source: Bahia Nickel Mineração, 2024

10.4 Interpretation and Relevant Results

Drilling at the Mangueiros Project has identified several ultramafic intrusions hosting Ni-Cu-Co sulfide mineralization. Further exploration is required to advance the project.

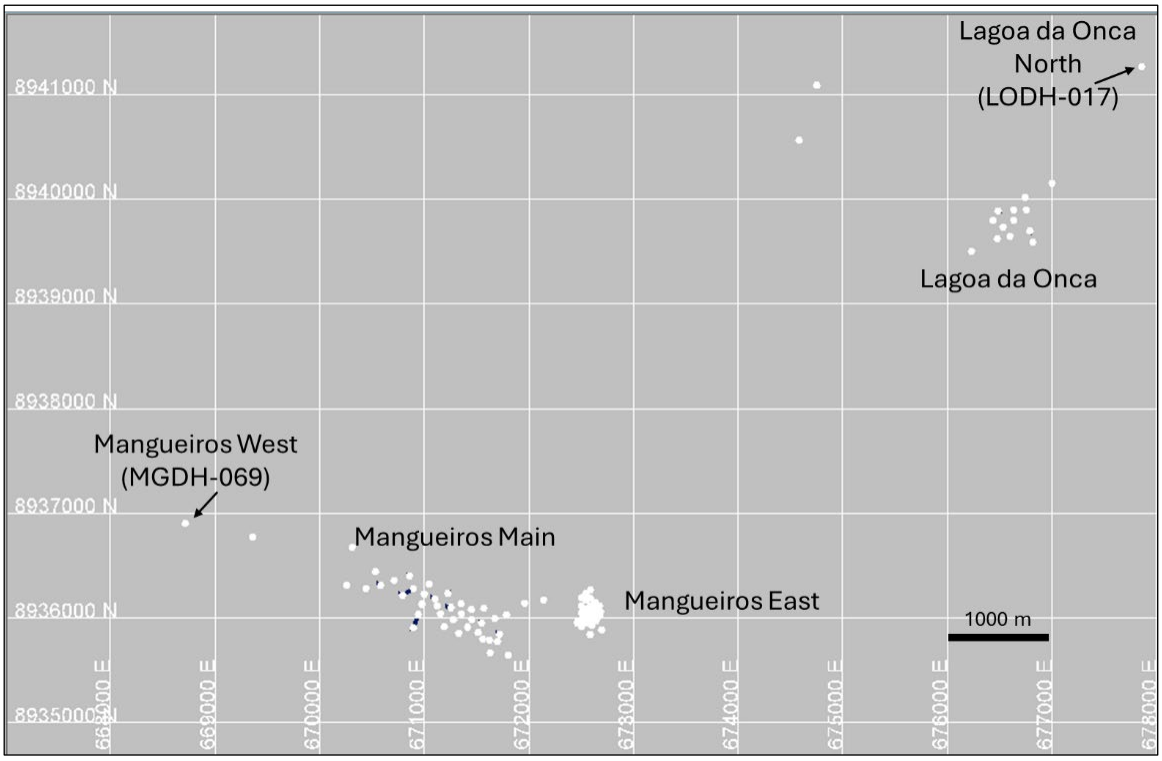
A plan map showing the location of drilling and exploration targets at the project is shown Figure 10-8. Mangueiros East is shown in the figure, but there is no exploration target defined for this area. Discovery holes for Mangueiros West and Lagoa Da Onca are shown. An oblique section

through Mangueiros Main is shown in Figure 10-9. An oblique section through Lagoa da Onca is shown in Figure 10-10.

Mangueiros Main has the most significant drilling and is drilled to an average nominal spacing of approximately 200 m with locally some tighter spacing. The majority of holes have been vertical to near vertical. The main mafic ultra-mafic unit (MUM) has been logged and used to define the Mangueiros Main exploration target. Lagoa da Onca contains 14 drillholes. The majority of holes have been vertical to near vertical. The main mafic ultra-mafic unit (MUM) has been logged and used to define the Lagoa da Onca exploration target.

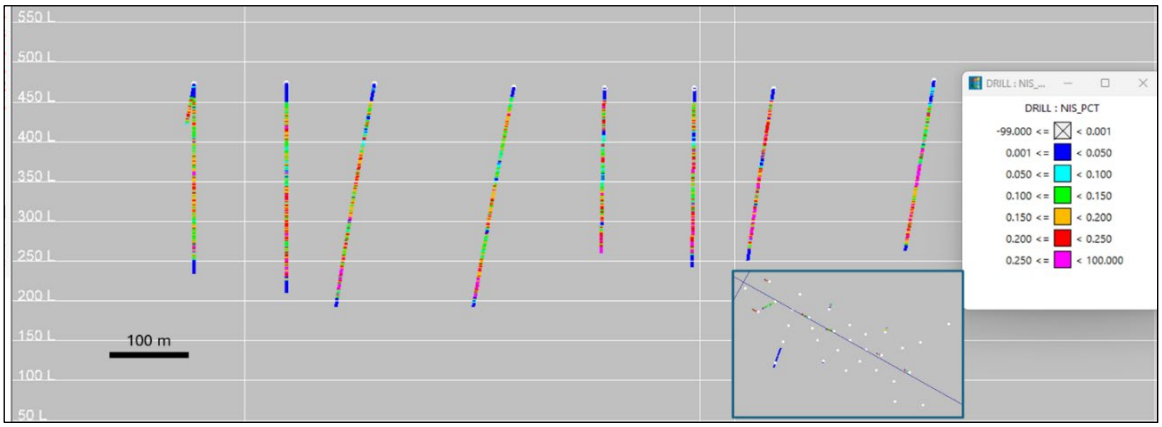
As the majority of drilling at Mangueiros and Lagoa da Onça targets are vertical or nearly vertical and the ultramafic intrusions are horizontal, the sample lengths and mineralized intercepts represent the true thickness of the mineralization.

The project drilling (location, orientation, dates, depth etc.) is summarized in Table 10-3 and significant mineralized intercepts are shown in Table 10-4.



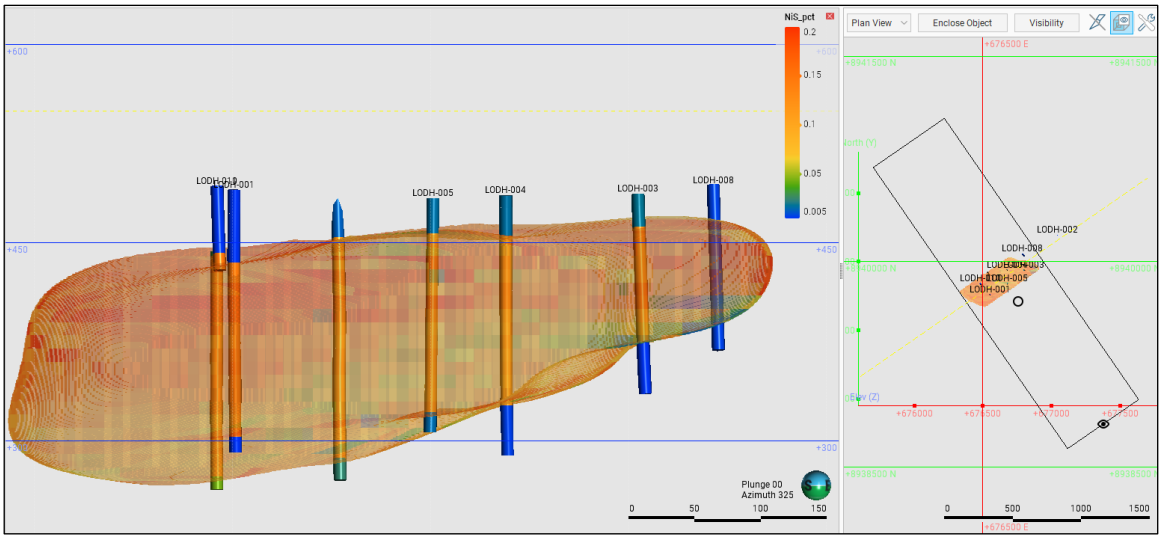
Source: SRK, 2024

Figure 10-8: Mangueiros Project Drilling and Exploration Targets



Source: SRK, 2024

Figure 10-9: Mangueiros Main – Oblique Section



Source: SRK, 2024

Figure 10-10: Lagoa da Onca – Oblique Section

Table 10-3: Mangueiros Project Drilling Information

Hole ID	Target	East	North	RL	Depth	Dip	Azimuth	Survey Method XY	Survey Method RL	Start Date	End Date	DD Type	DH Comp	Drill Comp
LODH-001	LO	676531	8939733	490.86	199.00	-90	0	HGPS	TMAP	11/22/2022	12/2/2022	DD	BNM	MATA NATIVA
LODH-002	LO	676999	8940152	494.54	119.81	-90	0	HGPS	TMAP	12/6/2022	12/9/2022	DD	BNM	MATA NATIVA
LODH-003	LO	676755	8939897	487.03	151.60	-90	0	HGPS	TMAP	1/19/2023	1/26/2023	DD	BNM	MATA NATIVA
LODH-004	LO	676634	8939896	485.89	196.80	-90	0	HGPS	TMAP	1/16/2023	1/30/2023	DD	BNM	MATA NATIVA
LODH-005	LO	676634	8939799	483.69	177.15	-90	0	HGPS	TMAP	1/31/2023	2/7/2023	DD	BNM	MATA NATIVA
LODH-006	LO	676598	8939646	486.14	184.51	-90	0	HGPS	TMAP	2/2/2023	2/17/2023	DD	BNM	MATA NATIVA
LODH-007	LO	676787	8939694	483.76	178.11	-80	135	HGPS	TMAP	2/10/2023	2/21/2023	DD	BNM	MATA NATIVA
LODH-008	LO	676742	8940015	493.72	126.76	-80	135	HGPS	TMAP	2/20/2023	2/27/2023	DD	BNM	MATA NATIVA
LODH-009	LO	676484	8939888	493.82	226.51	-80	135	HGPS	TMAP	2/23/2023	3/9/2023	DD	BNM	MATA NATIVA
LODH-010	LO	676436	8939798	492.88	64.61	-80	135	HGPS	TMAP	3/6/2023	3/11/2023	DD	BNM	MATA NATIVA
LODH-011	LO	676436	8939798	492.88	229.64	-90	0	HGPS	TMAP	3/16/2023	3/25/2023	DD	BNM	MATA NATIVA
LODH-012	LO	676816	8939589	477.48	228.97	-90	0	HGPS	TMAP	10/5/2023	10/10/2023	DD	BNM	DRILLGEO
LODH-013	LO	676230	8939503	486.09	112.66	-90	0	HGPS	TMAP	10/11/2023	10/13/2023	DD	BNM	DRILLGEO
LODH-014	LO	676475	8939620	490.29	141.80	-90	0	HGPS	TMAP	10/14/2023	10/18/2023	DD	BNM	DRILLGEO
LODH-015	LO	674582	8940560	500.58	124.50	-90	0	HGPS	TMAP	10/18/2023	10/20/2023	DD	BNM	DRILLGEO
LODH-016	LO	674752	8941085	503.80	85.13	-90	0	HGPS	TMAP	10/23/2023	10/24/2023	DD	BNM	DRILLGEO
LODH-017	LO North	677857	8941264	490.84	232.51	-90	0	HGPS	TMAP	10/25/2023	10/27/2023	DD	BNM	DRILLGEO
MGAH-001	MG East	672674	8936117	481.71	17.00	-90	0	HGPS	TMAP	1/21/2022	1/30/2023	AH	BNM	PRONORTE
MGDH-001	MG Main	672142	8936174	476.57	250.50	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-002	MG Main	671623	8935792	475.62	249.00	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-003	MG Main	670977	8936134	474.24	268.65	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-004	MG Main	671801	8935646	477.99	89.65	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-005	MG Main	671414	8935915	466.02	256.35	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-006	MG Main	670712	8936363	475.69	248.75	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL

Hole ID	Target	East	North	RL	Depth	Dip	Azimuth	Survey Method XY	Survey Method RL	Start Date	End Date	DD Type	DH Comp	Drill Comp
MGDH-007	MG Main	670312	8936676	479.66	121.30	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-008	MG Main	671450	8936081	467.04	221.85	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-009	MG Main	670943	8936035	474.27	286.95	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-010	MG East	672460	8935958	481.50	67.20	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-011	MG Main	670896	8935905	471.46	49.10	-50	200	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-012	MG Main	671047	8936325	469.53	179.95	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-013	MG Main	670259	8936315	478.69	147.20	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-014	MG Main	670896	8935907	471.58	150.05	-50	20	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-015	MG East	672547	8935955	482.28	83.60	-90	0	PSUR	TMAP			DD	CBPM	GEOSOL
MGDH-016	MG East	672696	8935888	485.36	56.10	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-017	MG East	672603	8935929	483.19	89.65	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-018	MG East	672586	8935843	484.43	40.70	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-019	MG East	672676	8936024	482.97	80.70	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-020	MG East	672546	8936169	479.82	52.65	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-021	MG East	672589	8936269	476.75	21.40	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-022	MG Main	669362	8936774	482.94	39.95	-90	0	HGPS	TMAP			DD	CBPM	GEOSOL
MGDH-023	MG Main	670792	8936219	475.11	337.12	-80	290	HGPS	TMAP	5/11/2022	6/6/2022	DD	BNM	MATA NATIVA
MGDH-024	MG Main	671547	8935953	466.46	218.69	-80	290	HGPS	TMAP	5/14/2022	5/28/2022	DD	BNM	MATA NATIVA
MGDH-025	MG Main	671676	8935997	473.36	207.28	-90	0	HGPS	TMAP	6/2/2022	6/16/2022	DD	BNM	MATA NATIVA
MGDH-026	MG Main	670861	8936404	470.42	199.57	-80	290	HGPS	TMAP	6/10/2022	6/21/2022	DD	BNM	MATA NATIVA
MGDH-027	MG Main	671720	8935848	476.61	217.00	-80	290	HGPS	TMAP	6/18/2022	6/30/2022	DD	BNM	MATA NATIVA
MGDH-028	MG Main	670896	8936282	473.06	287.06	-70	240	HGPS	TMAP	6/23/2022	7/13/2022	DD	BNM	MATA NATIVA
MGDH-029	MG Main	671280	8935983	466.99	250.95	-90	0	HGPS	TMAP	7/6/2022	7/18/2022	DD	BNM	MATA NATIVA
MGDH-030	MG Main	670896	8936282	473.06	238.95	-90	0	HGPS	TMAP	7/14/2022	7/23/2022	DD	BNM	MATA NATIVA
MGDH-031	MG Main	671256	8936101	468.75	281.63	-80	290	HGPS	TMAP	7/20/2022	7/30/2022	DD	BNM	MATA NATIVA

Hole ID	Target	East	North	RL	Depth	Dip	Azimuth	Survey Method XY	Survey Method RL	Start Date	End Date	DD Type	DH Comp	Drill Comp
MGDH-032	MG Main	671155	8936045	470.26	285.33	-90	0	HGPS	TMAP	8/3/2022	8/20/2022	DD	BNM	MATA NATIVA
MGDH-033	MG Main	671102	8936185	473.09	285.36	-80	290	HGPS	TMAP	8/4/2022	8/22/2022	DD	BNM	MATA NATIVA
MGDH-034	MG Main	671191	8935917	467.79	72.39	-80	200	HGPS	TMAP	8/23/2022	8/25/2022	DD	BNM	MATA NATIVA
MGDH-035	MG Main	671226	8936234	469.03	155.31	-80	20	HGPS	TMAP	8/26/2022	9/6/2022	DD	BNM	MATA NATIVA
MGDH-036	MG Main	671515	8935861	467.30	232.46	-90	0	HGPS	TMAP	8/29/2022	9/13/2022	DD	BNM	MATA NATIVA
MGDH-037	MG Main	671352	8936138	468.95	229.30	-90	0	HGPS	TMAP	9/8/2022	9/16/2022	DD	BNM	MATA NATIVA
MGDH-038	MG Main	671330	8935859	466.73	67.90	-90	0	HGPS	TMAP	9/15/2022	9/18/2022	DD	BNM	MATA NATIVA
MGDH-039	MG Main	671570	8936094	468.91	189.70	-80	20	HGPS	TMAP	9/19/2022	9/26/2022	DD	BNM	MATA NATIVA
MGDH-040	MG Main	670534	8936440	476.97	208.14	-90	0	HGPS	TMAP	9/20/2022	9/27/2022	DD	BNM	MATA NATIVA
MGDH-041	MG East	672586	8936117	480.93	30.05	-90	0	HGPS	TMAP	9/28/2022	6/30/2022	DD	BNM	MATA NATIVA
MGDH-042	MG Main	671960	8936144	475.43	102.51	-90	0	HGPS	TMAP	9/30/2022	10/5/2022	DD	BNM	MATA NATIVA
MGDH-043	MG East	672635	8936080	481.72	26.74	-90	0	HGPS	TMAP	10/4/2022	10/5/2022	DD	BNM	MATA NATIVA
MGDH-044	MG Main	671786	8936031	475.22	135.71	-90	0	HGPS	TMAP	10/7/2022	10/13/2022	DD	BNM	MATA NATIVA
MGDH-045	MG East	672546	8936080	480.85	41.98	-90	0	HGPS	TMAP	10/10/2022	10/11/2022	DD	BNM	MATA NATIVA
MGDH-046	MG Main	670583	8936312	476.90	314.68	-80	290	HGPS	TMAP	10/13/2022	10/27/2022	DD	BNM	MATA NATIVA
MGDH-047	MG Main	671630	8935669	475.54	80.27	-90	0	HGPS	TMAP	10/17/2022	10/20/2022	DD	BNM	MATA NATIVA
MGDH-048	MG Main	671001	8936231	473.57	263.42	-90	0	HGPS	TMAP	10/25/2022	11/3/2022	DD	BNM	MATA NATIVA
MGDH-049	MG Main	671124	8936118	472.73	293.26	-90	0	HGPS	TMAP	11/2/2022	11/14/2022	DD	BNM	MATA NATIVA
MGDH-050	MG Main	671453	8935988	467.16	224.64	-90	0	HGPS	TMAP	11/8/2022	11/18/2022	DD	BNM	MATA NATIVA
MGDH-051	MG Main	671355	8936044	467.22	207.25	-90	0	HGPS	TMAP	11/17/2022	11/24/2022	DD	BNM	MATA NATIVA
MGDH-052	MG East	672683	8936061	482.38	43.10	-90	0	HGPS	TMAP	3/12/2023	3/14/2023	DD	BNM	ENERGOLD
MGDH-053	MG East	672642	8935976	483.16	35.80	-90	0	HGPS	TMAP	3/14/2023	3/14/2023	DD	BNM	ENERGOLD
MGDH-054	MG East	672586	8936051	481.47	43.80	-90	0	HGPS	TMAP	3/16/2023	3/17/2023	DD	BNM	ENERGOLD
MGDH-055	MG East	672621	8936026	482.12	34.60	-90	0	HGPS	TMAP	3/17/2023	3/17/2023	DD	BNM	ENERGOLD
MGDH-056	MG East	672502	8936115	479.99	35.00	-90	0	HGPS	TMAP	3/19/2023	3/21/2023	DD	BNM	ENERGOLD

Hole ID	Target	East	North	RL	Depth	Dip	Azimuth	Survey Method XY	Survey Method RL	Start Date	End Date	DD Type	DH Comp	Drill Comp
MGDH-057	MG East	672503	8936053	480.78	45.30	-90	0	HGPS	TMAP	3/22/2023	3/23/2023	DD	BNM	ENERGOLD
MGDH-058	MG East	672546	8936014	481.53	35.00	-90	0	HGPS	TMAP	3/24/2023	3/25/2023	DD	BNM	ENERGOLD
MGDH-059	MG East	672586	8935985	482.31	35.00	-90	0	HGPS	TMAP	3/25/2023	3/27/2023	DD	BNM	ENERGOLD
MGDH-060	MG East	672503	8935985	481.51	35.00	-90	0	HGPS	TMAP	3/27/2023	3/27/2023	DD	BNM	ENERGOLD
MGDH-061	MG East	672503	8935918	482.58	35.00	-90	0	HGPS	TMAP	3/28/2023	3/28/2023	DD	BNM	ENERGOLD
MGDH-062	MG East	672634	8936155	480.87	35.00	-90	0	HGPS	TMAP	3/29/2023	3/30/2023	DD	BNM	ENERGOLD
MGDH-063	MG East	672546	8936235	478.12	35.00	-90	0	HGPS	TMAP	3/31/2023	3/31/2023	DD	BNM	ENERGOLD
MGDH-064	MG East	672586	8936193	479.49	35.10	-90	0	HGPS	TMAP	4/1/2023	4/1/2023	DD	BNM	ENERGOLD
MGDH-065	MG East	672503	8936195	478.87	35.00	-90	0	HGPS	TMAP	4/2/2023	4/2/2023	DD	BNM	ENERGOLD
MGDH-066	MG Main	671700	8935776	476.74	184.61	-90	0	HGPS	TMAP	10/30/2023	11/2/2023	DD	BNM	DRILLGEO
MGDH-067	MG Main	671558	8935801	474.30	183.98	-90	0	HGPS	TMAP	11/2/2023	11/6/2023	DD	BNM	DRILLGEO
MGDH-068	MG Main	670443	8936283	477.17	232.29	-90	0	HGPS	TMAP	11/6/2023	11/9/2023	DD	BNM	DRILLGEO
MGDH-069	MG West	668716	8936901	483.42	151.24	-90	0	HGPS	TMAP	11/10/2023	11/13/2023	DD	BNM	DRILLGEO

Source: Bahia Nickel Mineração, 2024

Table 10-4: Main Mineralized Drill Composites

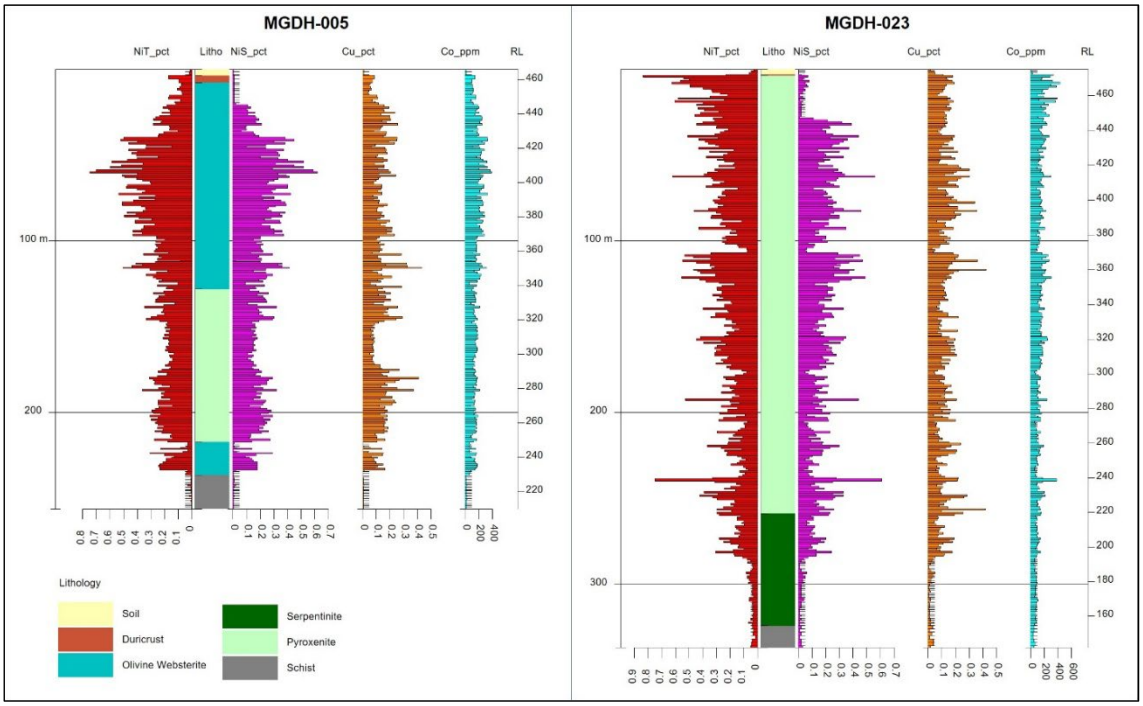
Hole ID	Target	From (m)	To (m)	Thickness (m)	NiS (pct)	Cu (pct)	Co (pct)
MGDH-002	Mangueiros Main	26.00	165.75	139.75	0.20	0.12	0.021
MGDH-003	Mangueiros Main	26.85	244.25	217.40	0.20	0.13	0.014
MGDH-005	Mangueiros Main	20.73	216.45	195.72	0.23	0.15	0.018
MGDH-006	Mangueiros Main	9.50	218.04	208.54	0.15	0.11	0.012
MGDH-007	Mangueiros Main	22.70	105.84	83.14	0.15	0.10	0.010
MGDH-008	Mangueiros Main	4.87	179.90	175.03	0.22	0.14	0.014
MGDH-009	Mangueiros Main	24.60	59.99	35.39	0.17	0.20	0.012
MGDH-012	Mangueiros Main	21.31	161.04	139.73	0.21	0.16	0.017
MGDH-023	Mangueiros Main	28.50	260.00	231.50	0.21	0.14	0.014
MGDH-024	Mangueiros Main	14.75	199.00	184.25	0.21	0.16	0.014
MGDH-025	Mangueiros Main	23.00	173.00	150.00	0.20	0.13	0.016
MGDH-026	Mangueiros Main	20.00	191.75	171.75	0.21	0.17	0.013
MGDH-027	Mangueiros Main	32.00	209.00	177.00	0.20	0.15	0.018
MGDH-028	Mangueiros Main	17.70	263.00	245.30	0.14	0.11	0.014
MGDH-029	Mangueiros Main	17.85	198.00	180.15	0.20	0.13	0.018
MGDH-030	Mangueiros Main	19.00	218.00	199.00	0.17	0.12	0.014
MGDH-031	Mangueiros Main	26.00	269.00	243.00	0.16	0.11	0.013
MGDH-032	Mangueiros Main	18.70	195.00	176.30	0.20	0.13	0.019
MGDH-033	Mangueiros Main	88.00	271.00	183.00	0.19	0.13	0.014
MGDH-035	Mangueiros Main	15.40	144.15	128.75	0.21	0.15	0.017
MGDH-036	Mangueiros Main	26.39	220.00	193.61	0.21	0.16	0.020
MGDH-037	Mangueiros Main	18.00	190.00	172.00	0.22	0.16	0.015
MGDH-039	Mangueiros Main	18.00	78.00	60.00	0.19	0.13	0.015
incl.		102.00	126.00	24.00	0.19	0.11	0.017
incl.		144.00	152.00	8.00	0.19	0.11	0.019
MGDH-040	Mangueiros Main	31.00	185.00	154.00	0.19	0.14	0.014
MGDH-044	Mangueiros Main	30.00	132.00	102.00	0.20	0.15	0.016
MGDH-046	Mangueiros Main	27.50	152.85	125.35	0.24	0.15	0.017
MGDH-048	Mangueiros Main	38.00	72.00	34.00	0.19	0.12	0.017
incl.		130.00	247.00	117.00	0.20	0.13	0.014
MGDH-049	Mangueiros Main	24.00	88.00	64.00	0.17	0.14	0.016
incl.		216.00	283.00	67.00	0.20	0.13	0.016
MGDH-050	Mangueiros Main	17.00	54.00	37.00	0.16	0.13	0.013
incl.		73.00	208.00	135.00	0.20	0.14	0.014
MGDH-051	Mangueiros Main	15.00	54.00	39.00	0.20	0.15	0.014
incl.		128.00	207.25	79.25	0.20	0.15	0.013
MGDH-069	Mangueiros West	97.70	123.10	25.40	0.24	0.20	0.020
incl.		132.80	151.24	18.44	0.14	0.12	0.014
MGDH-015	Mangueiros East	42.30	72.25	29.95	0.16	0.12	0.011
MGDH-017	Mangueiros East	17.58	33.75	16.17	0.23	0.16	0.016
LODH-001	Lagoa da Onça	64.00	119.00	55.00	0.20	0.11	0.018
incl.		119.00	145.00	26.00	0.14	0.10	0.017
LODH-003	Lagoa da Onça	26.00	79.00	53.00	0.17	0.14	0.015
LODH-004	Lagoa da Onça	33.00	70.00	37.00	0.18	0.12	0.018
LODH-005	Lagoa da Onça	38.00	84.00	46.00	0.16	0.11	0.015
LODH-006	Lagoa da Onça	129.00	144.00	15.00	0.17	0.13	0.014
LODH-007	Lagoa da Onça	156.00	171.20	15.20	0.15	0.10	0.015
LODH-009	Lagoa da Onça	41.00	89.00	48.00	0.18	0.14	0.018
LODH-010	Lagoa da Onça	57.00	64.61	7.61	0.17	0.13	0.015
LODH-011	Lagoa da Onça	52.64	67.00	14.36	0.16	0.13	0.014
incl.		88.68	147.00	58.32	0.16	0.12	0.015
LODH-017	Lagoa da Onça North	28.00	81.00	53.00	0.20	0.16	0.015
incl.		114.00	121.00	7.00	0.20	0.12	0.020
incl.		131.00	155.00	24.00	0.17	0.09	0.017
incl.		175.00	184.00	9.00	0.18	0.12	0.020
incl.		190.00	204.00	14.00	0.20	0.12	0.019
incl.		211.00	226.00	15.00	0.15	0.09	0.015

Source: Bahia Nickel Mineração, 2024

10.4.1 Mineralization Relevant Features

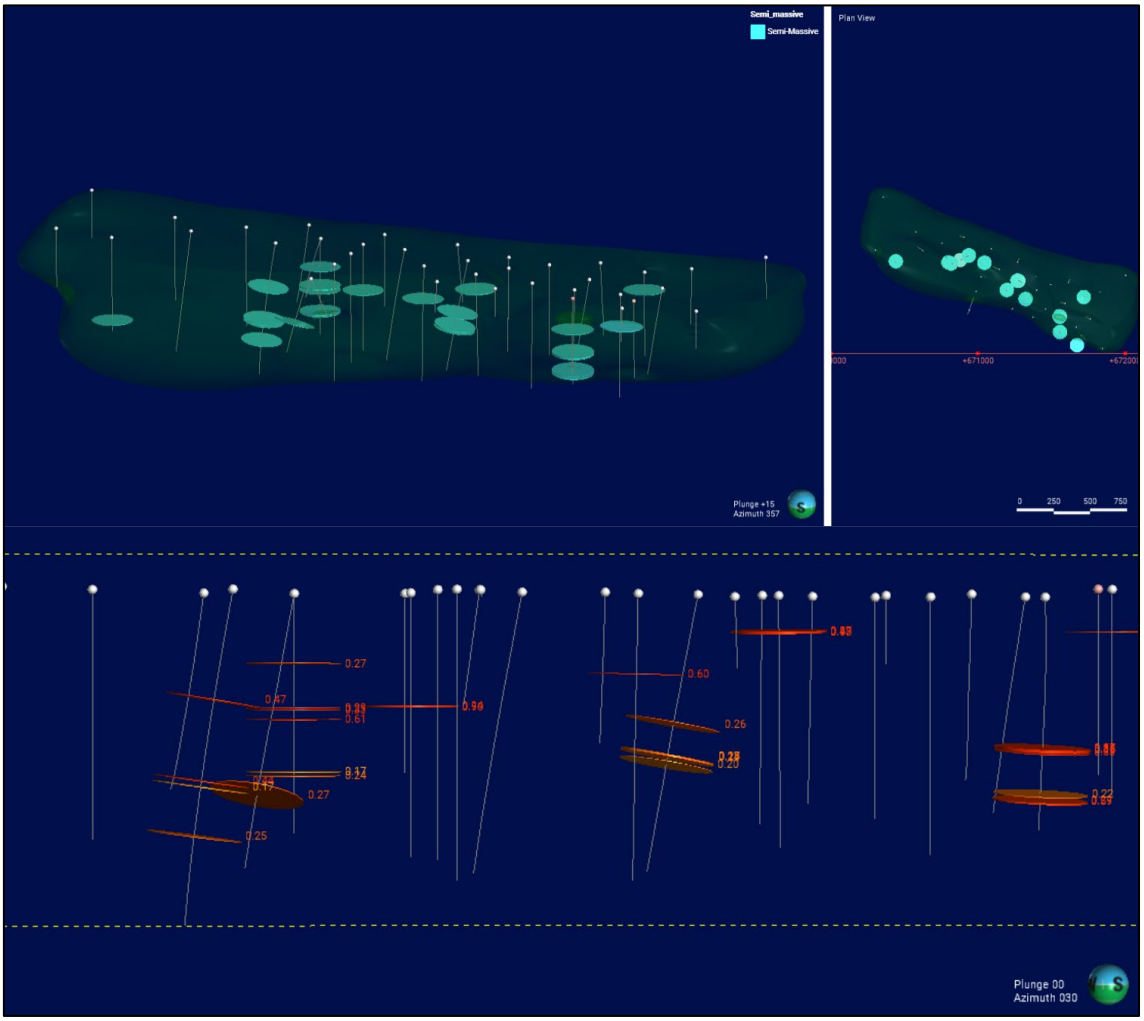
Mineralization demonstrates both vertical and lateral continuity within the Mangueiros Main ultramafic sill. The mineralization remains open in the north and northwest directions and step-out drilling is recommended to define the extents. The same is true for the Lagoa da Onça target, where further drilling should be done in the north and east directions. As Lagoa da Onça North and Mangueiros West targets have only one drillhole each, the mineralization is completely open in all directions at both targets.

Despite the relatively wide drill grid spacing at Mangueiros Main, semi-massive sulfide reefs have been identified in the logged samples (Figure 10-11 and Figure 10-12). These reefs are formed by 34 samples, each sample approximately 1.04 m long, with a nickel sulfide (NiS) content up to 0.94%. The sulfidation occurs as semi-massive layers at similar depths, following a WNW-ESE trend. To further investigate these semi-massive reefs, a downhole electromagnetic survey should be planned to help define their continuity and may reveal the presence of a feeder zone in the ultramafic system.



Source: Bahia Nickel Mineração, 2024

Figure 10-11: Drilling Strip Logs of Representative Geology and Mineralization at Mangueiros Main target



Source: Bahia Nickel Mineração, 2024
Top left = perspective view, Top right = plan view, and Down = long view

Figure 10-12: Semi-Massive Sulfide Reefs at Mangueiros Main (perspective, plan, and long views)

10.4.2 MgO Content

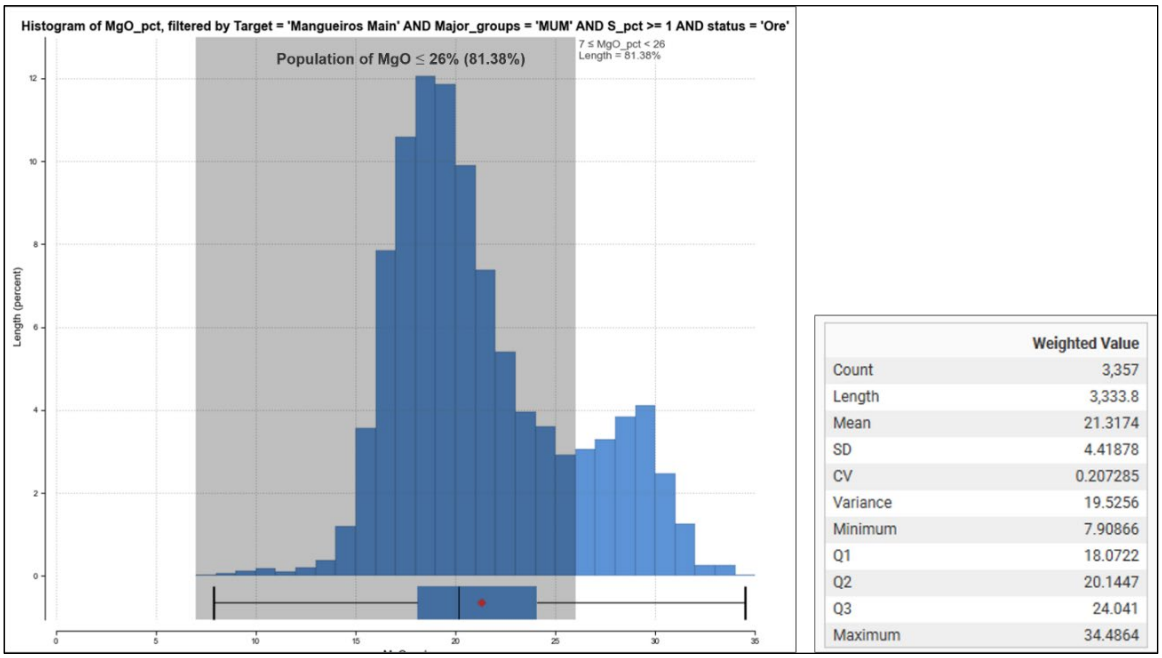
The MgO content in these systems may impact the metallurgical recovery. High MgO content is usually associated with the higher content of olivine (in dunites and peridotites) in the nickel-hosting rocks. Also, MgO content may be increased when the olivine is transformed by hydrothermal or metamorphic events into serpentine.

In similar deposits mineralization may be associated with dunites and peridotites, both types of rocks rich in olivine, that eventually may also have produced serpentine. Due to this, it is important to ensure the plant feed is less than 26.6% MgO. At higher levels, the nickel recovery is negatively impacted.

Drilling to date, suggests a lower MgO content at Mangueiros Main. More than 81% of the samples inside the 0.10% NiS grade shell have a MgO lower than 26% and median value of MgO is 20.14%.

Figure 10-13 shows the histogram and boxplot of MgO inside the Mangueiros Main system. The data shown in these plots are limited by:

- Ultramafic rocks
- Samples with sulfur > 1% and NiS > 0.10% and Ni (aqua regia) > 0.10%



	Weighted Value
Count	3,357
Length	3,333.8
Mean	21.3174
SD	4.41878
CV	0.207285
Variance	19.5256
Minimum	7.90866
Q1	18.0722
Q2	20.1447
Q3	24.041
Maximum	34.4864

Source: Bahia Nickel Mineração, 2024

Figure 10-13: Graphic Analysis of the MgO Content Inside Mangueiros Main Mineralized System

Mangueiros magmatic system does not show significant fractionation or layering that is common in most of the ultramafic intrusions. This may explain that most of the rocks containing sulfide mineralization are orthopyroxenites and clinopyroxenites with minor olivine-websterites. Hence, the lesser the fractionation in the system, the lower the overall MgO content.

11 Sample Preparation, Analysis and Security

11.1 Security Measures

The drilling company transports the core boxes from the drill site directly to Bahia Nickel's secured facility in Campo Alegre de Lourdes (Bahia state). All core boxes are closed with appropriate lids, loaded and securely tied down in 4WD trucks and transported each morning after the end of the night shift.

Upon arrival at Bahia Nickel's core shed, the core boxes are unloaded and placed in order based on footage labels on logging benches where they are immediately checked by a technician or a geologist. Daily drilling reports accompany the core boxes, these are reviewed and compared to the core boxes by a technician or a geologist. If there are no discrepancies, the geologist or technician signs off on receipt of the core.

Once the drill cores are logged and marked for sampling, the samples are placed in low-density polyethylene bags. The bag is printed with a white stripe on which the sample id is recorded.

Each sample is identified with two printed and laminated labels containing the sample ID and the company's name, which are placed inside the packaging. The same sample ID is written with a permanent marker on the white stripe of the bag. After collecting, the sample is immediately sealed with a high-strength plastic tie.

The individual sample bags are then packed in larger plastic bags (60 cm x 90 cm), containing five samples (approximately 20 kg), to facilitate transportation and ensure the integrity of the sample. Each bag is sealed with a high-strength plastic tie and has a label containing its batch number and the list of the samples inside the pack.

The samples, once collected, placed and tied on their larger bags, are immediately placed in a dedicated room where they are locked until the moment of loading them onto the trucks to be transported to the lab.

The samples are transported via box trucks in dedicated shipments by accredited and reputable shipping companies.

Upon receiving the samples in the sample preparation laboratory, all samples and shipping notices are reviewed, and Bahia Nickel is notified via email of any irregularities.

11.2 Sample Preparation for Analysis

For the CBPM programs, there is limited detail on the sample preparation.

For the BNM programs, the sample preparation for rock and core samples followed industry best practices in sample preparation involving oven drying, coarse crushing of the 70% core sample down to 2 mm followed by pulverization of the entire sample to a grind size of 85% passing 75 microns.

11.3 Sample Analysis

For the CBPM exploration programs, samples were prepared and assayed at the SGS-Geosol laboratory. CBPM selected aqua regia digestion followed by a 37-multi-element analysis with ICP-OES finish for the base metals (SGS Geosol code: ICP14B). It is worth noting that the aqua regia leach is also targeting dissolution of sulfides and minimizing silicate dissolution.

SGS procedure ICP14B is not listed, but a similar package is shown in Figure 11-1.

GE_ICP21B20 AQUA REGIA DIGESTION / ICP-OES PACKAGE		
ELEMENTS AND LIMIT(S)		
Ag 2 - 100 ppm	Hg 1 - 10,000 ppm	Sb 5 - 10,000 ppm
Al 0.005 - 15%	K 0.005 - 15%	Sc 0.5 - 10,000 ppm
As 3 - 10,000 ppm	La 0.5 - 10,000 ppm	Sn 10 - 10,000 ppm
Ba 2 - 10,000 ppm	Li 1 - 10,000 ppm	Sr 0.5 - 10,000 ppm
Be 0.5 - 2,500 ppm	Mg 0.001 - 15%	Ti 0.001 - 15%
Bi 5 - 10,000 ppm	Mn 2 - 10,000 ppm	V 1 - 10,000 ppm
Ca 0.002 - 15%	Mo 1 - 10,000 ppm	W 10 - 10,000 ppm
Cd 1 - 10,000 ppm	Na 0.005 - 15%	Y 0.5 - 10,000 ppm
Co 1 - 10,000 ppm	Ni 1 - 10,000 ppm	Zn 1 - 10,000 ppm
Cr 1 - 10,000 ppm	P 0.003 - 15%	Zr 0.5 - 10,000 ppm
Cu 0.5 - 10,000 ppm	Pb 2 - 10,000 ppm	
Fe 0.01 - 15%	S 0.01 - 5%	
Note: Additional element can be added upon request.		

Source: SGS, 2024

Figure 11-1: SGS ICP21B20 Elements

The analysis of nickel via the sulfide leaching digestion is important to note. This method reports the sulfide nickel portion that will be recovered by flotation. If total nickel is reported (multi-acid digestion) the sulfide nickel value must be calculated.

BNM used two digestion methods for nickel assays, multi-acid and sulfide selective leaching, and another assaying method for the PGE's and gold. Except for a small number of holes that were assayed at SGS-Geosol, all core samples were assayed at ALS Peru. The nickel sulfide leach (NiS) intends to break down selectively nickel sulfides while leaving nickel oxides and nickel silicates undigested (ALS code: Ni-ICP05 Table 11-2). The assay method uses a solution mixture of 10% ammonium citrate and 35% hydrogen peroxide to leach the samples and is completed with ICP-AES finish. The other method uses multi-acid digestion for the assay of 34-element (ALS code ME-ICP61 Table 11-1) with ICP-AES finish, providing results for total nickel content (NiT). Pt, Pd, and Au are analyzed by fire assay with ICP-AES finish (ALS code: PGM-ICP23 Table 11-3).

Table 11-1: ALS Method ME-ICP61

Code	Analytes & Ranges (ppm)							
ME-ICP61	Ag	0 .5-100	Cr	1-10000	Mo	1-10000	Th	20-10000
	Al	0 .01-50%	Cu	1-10000	Na	0 .01-10%	Ti	0 .01-10%
	As	5-10000	Fe	0 .01-50%	Ni	1-10000	Tl	10-10000
	Ba	10-10000	Ga	10-10000	P	10-10000	U	10-10000
	Be	0 .5-1000	K	0 .01-10%	Pb	2-10000	V	1-10000
	Bi	2-10000	La	10-10000	S	0 .01-10%	W	10-10000
	Ca	0 .01-50%	Li	10-10000	Sb	5-10000	Zn	2-10000
	Cd	0 .5-1000	Mg	0 .01-50%	Sc	1-10000		
	Co	1-10000	Mn	5-100000	Sr	1-10000		

Source: ALS 2024

Table 11-2: ALS Method NI-ICP05

Method	Element	Symbol	Units	Lower Limit	Upper Limit
Ni-ICP05	Nickel	Ni	%	0.01	25.0

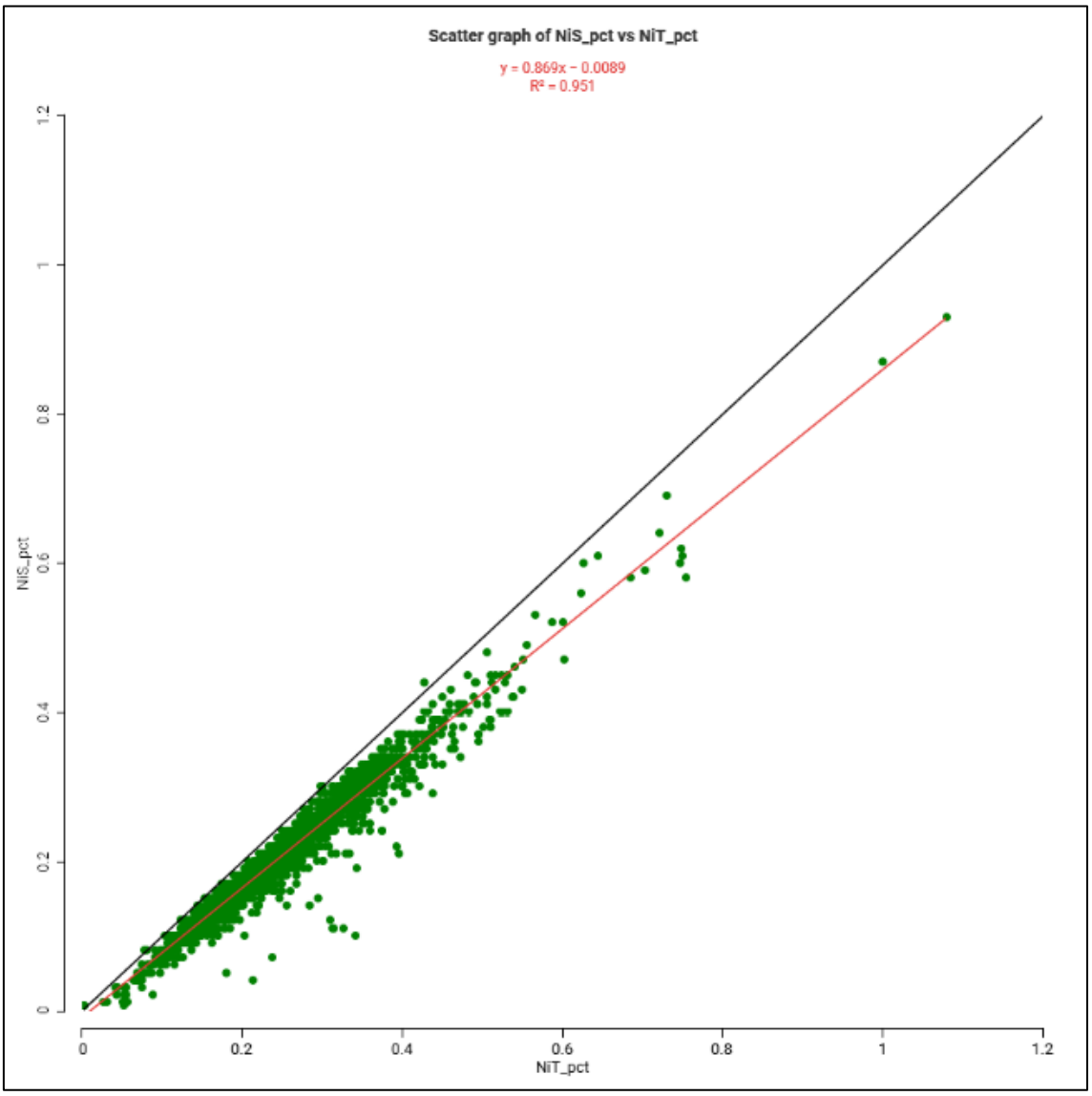
Source: ALS 2024

Table 11-3: ALS Method PGM-ICP23

Code	Analyte	Range (ppm)	Description
PGM-ICP23	Pt	0.005-10	Pt, Pd and Au by fire assay and ICP-AES finish
	Pd	0.001-10	
	Au	0.001-10	

Source: ALS 2024

The scatter plot below illustrates the relationship between NiS and NiT analysis (Figure 11-2). The green dots represent unweathered ultramafic samples with S above 1%. The samples were analyzed by both methods, showing a strong positive linear correlation (slope of 0.869) with R^2=0.951. This shows the difference between reporting NiS compared to NiT.



Source: Bahia Nickel Mineração, 2024

Figure 11-2: Relationship between Nickel Sulfide (NiS, Ni-ICP05) and Multi-Acid (NiT, ME-ICP61) Digestions

11.4 Quality Assurance/Quality Control Procedures

11.4.1 Certified Reference Material (CRM)

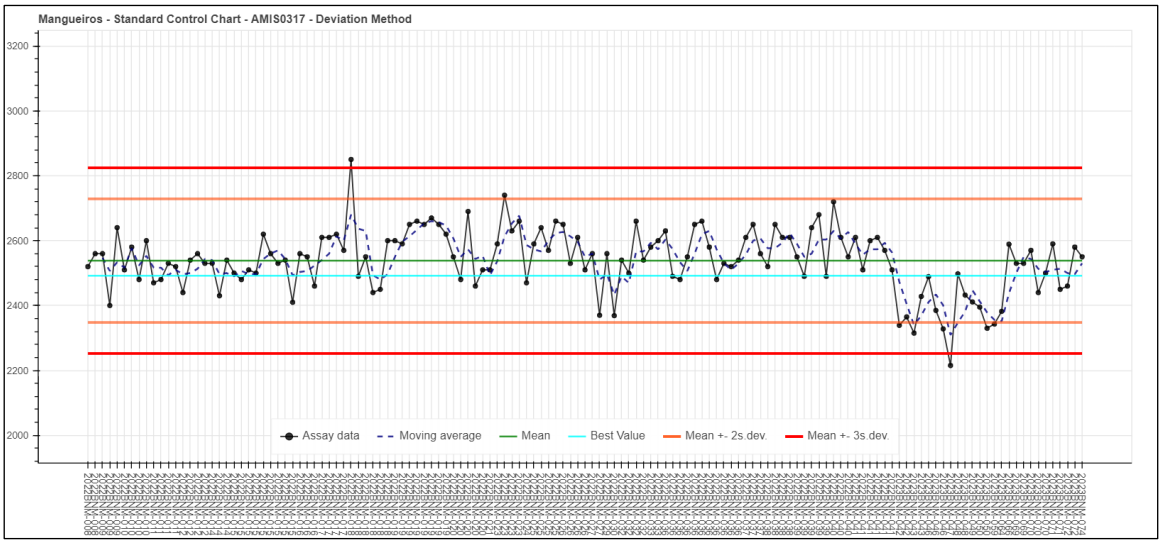
CBPM did not provide any QAQC data nor results, so the QP is unable to comment on the performance of the assay laboratory for the CBPM results.

Bahia Nickel used certified reference materials (CRMs) to monitor the accuracy of the analyses performed by ALS-Brazil and SGS-Geosol. Three CRMs were inserted into the sample submission as part of the QAQC protocols. The selected CRMs were made from sulfide ore with nickel concentration ranges close to the low, mid and high grades that typical from the Mangueiros project. The CRMs are purchased from AMIS (African Mineral Standards) in South Africa and are summarized below:

- Low-grade AMIS0317 (Ni: 2,492 ppm | Cu: 1,571 ppm | Co: 126 ppm)
- Mid-grade AMIS0320 (Ni: 4,896 ppm | Cu: 1,684 ppm | Co: 219 ppm)
- High-grade AMIS0385 (Ni: 17,600 ppm | Cu: 9,629 ppm | Co: 934 ppm)

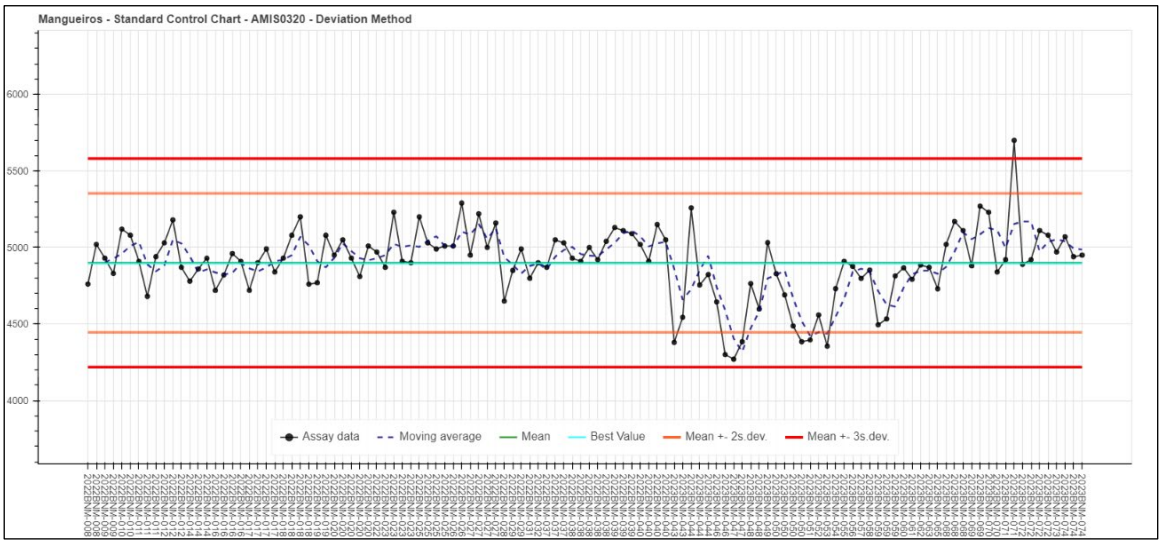
The standard control charts (Figure 11-3, Figure 11-4, and Figure 11-5) demonstrate SGS assays are of acceptable accuracy for the two drill programs. If a result was outside of ± 2 standard deviations an explanation/report was requested from SGS and the sample batch was re-assayed.

The analysis gap in the chart control (Figure 11-5) for high-grade CRM is due to the drillholes not intersecting high-grade nickel mineralization, thus the high-grade CRM was not inserted.



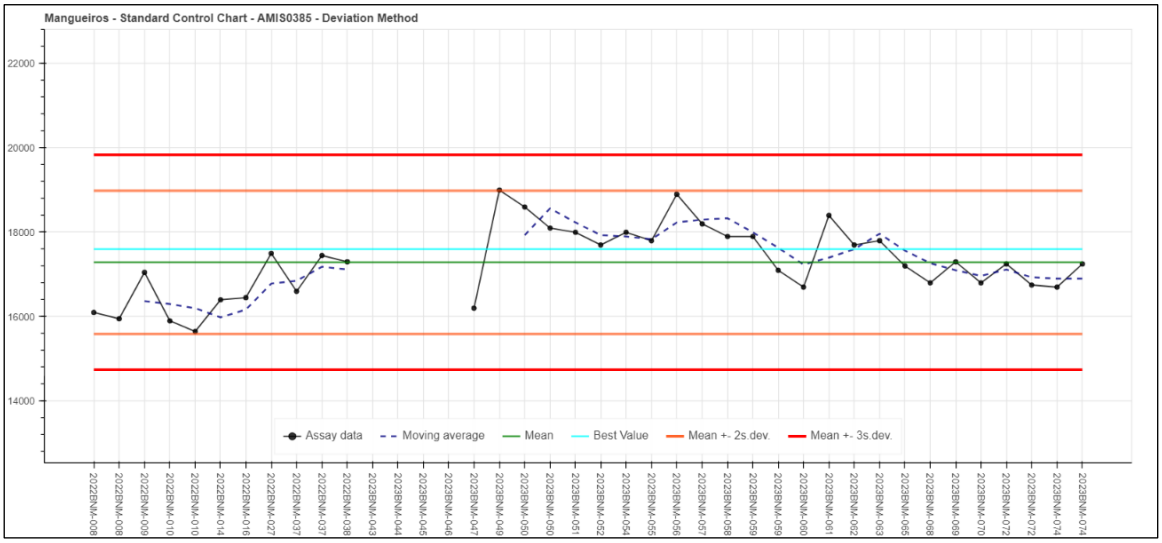
Source: Bahia Nickel Mineração, 2024

Figure 11-3: Standard Control Chart - AMIS0317 (low-Ni grade)



Source: Bahia Nickel Mineração, 2024

Figure 11-4: Standard Control Chart - AMIS0320 (mid-Ni grade)

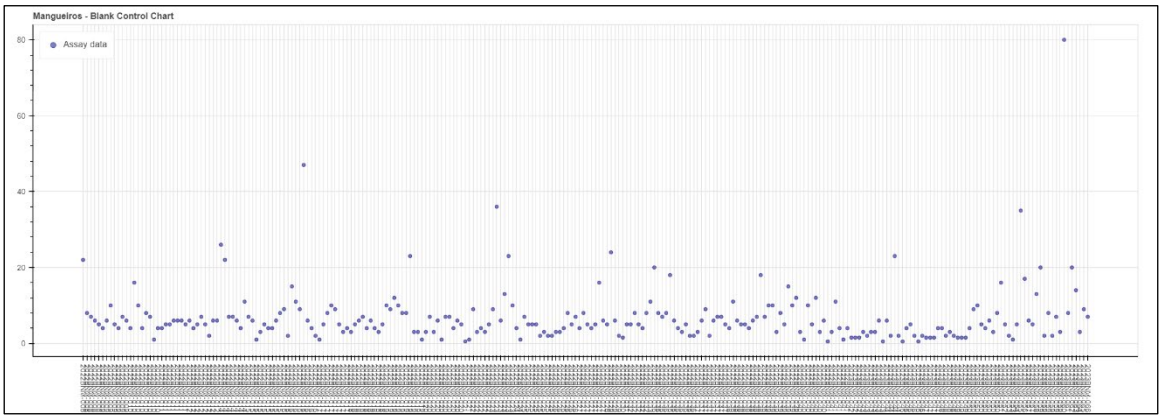


Source: Bahia Nickel Mineração, 2024

Figure 11-5: Standard Control Chart - AMIS0385 (high Ni grade)

11.4.2 Blanks

The blank samples analytical results are acceptable, as the results were observed to report low or negligible contamination for each element examined (Figure 11-6). The most extreme example concerning the Ni total analyses is equal to 80 ppm which is well below the expected cut-off grade.

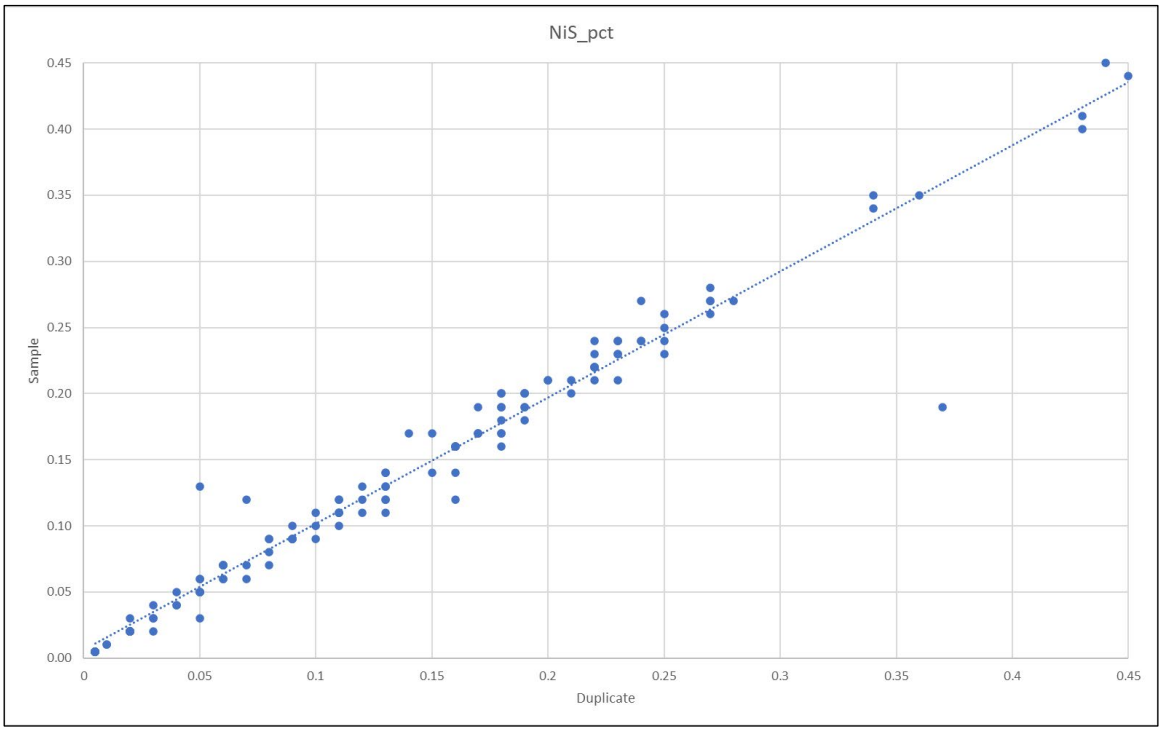


Source: Bahia Nickel Mineração, 2024

Figure 11-6: Distribution of Nickel Total (NiT) Analyses in Blank Samples

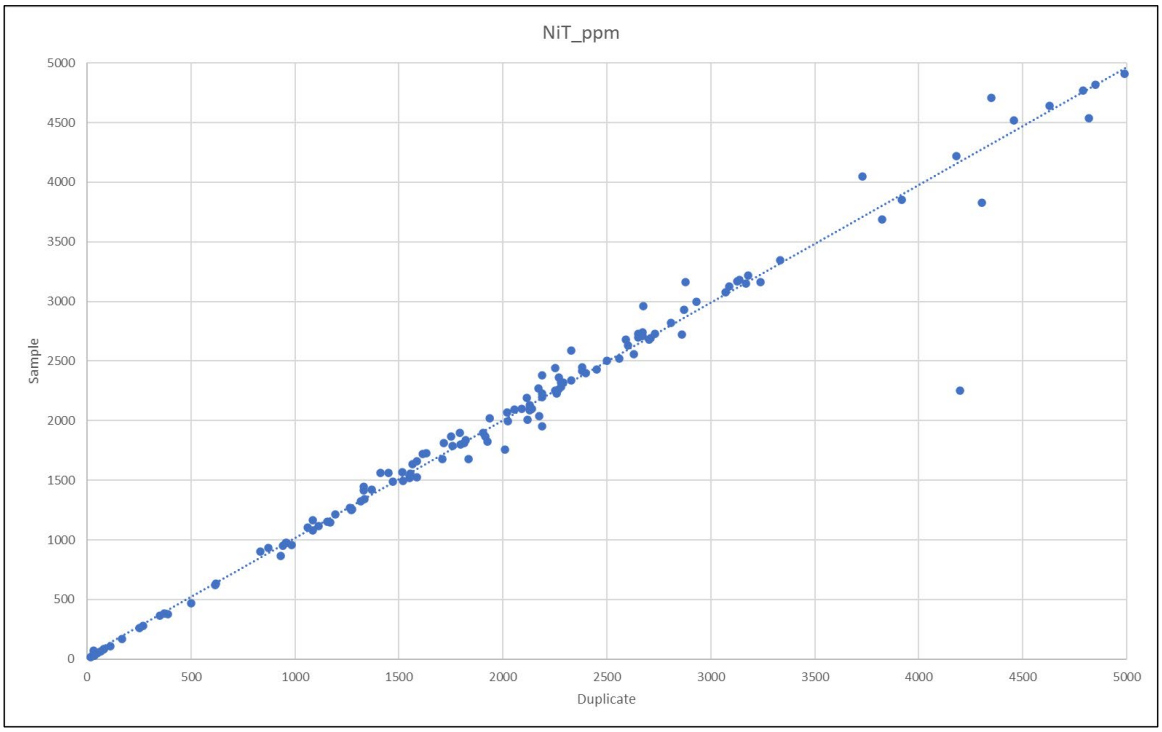
11.4.3 Duplicates

Regularly, Bahia Nickel requested that the laboratories re-analyze prepared sample pulps. The results from these replicate materials have shown strong reproducibility of the assays, as illustrated by the project examples in the next figures (Figure 11-7, Figure 11-8, Figure 11-9, and Figure 11-10).



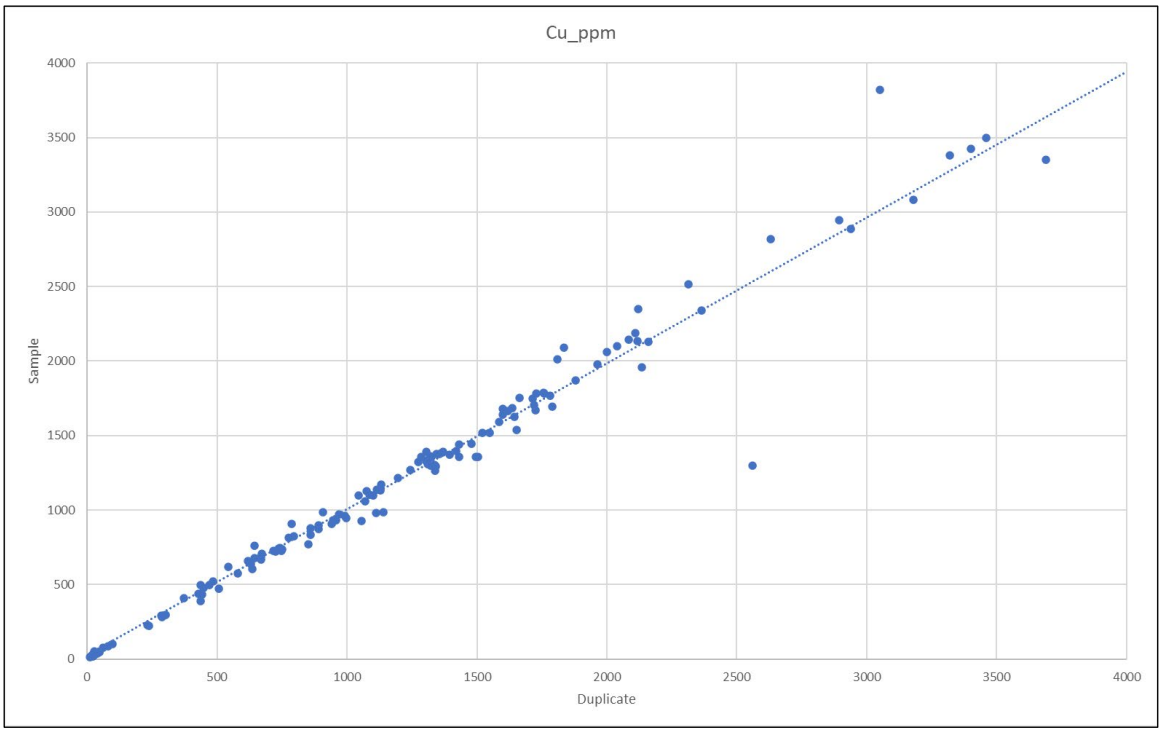
Source: Bahia Nickel Mineração, 2024

Figure 11-7: Plot of Absolute Concentrations of Pairs of Duplicate Samples Analyzed for Sulfide Nickel



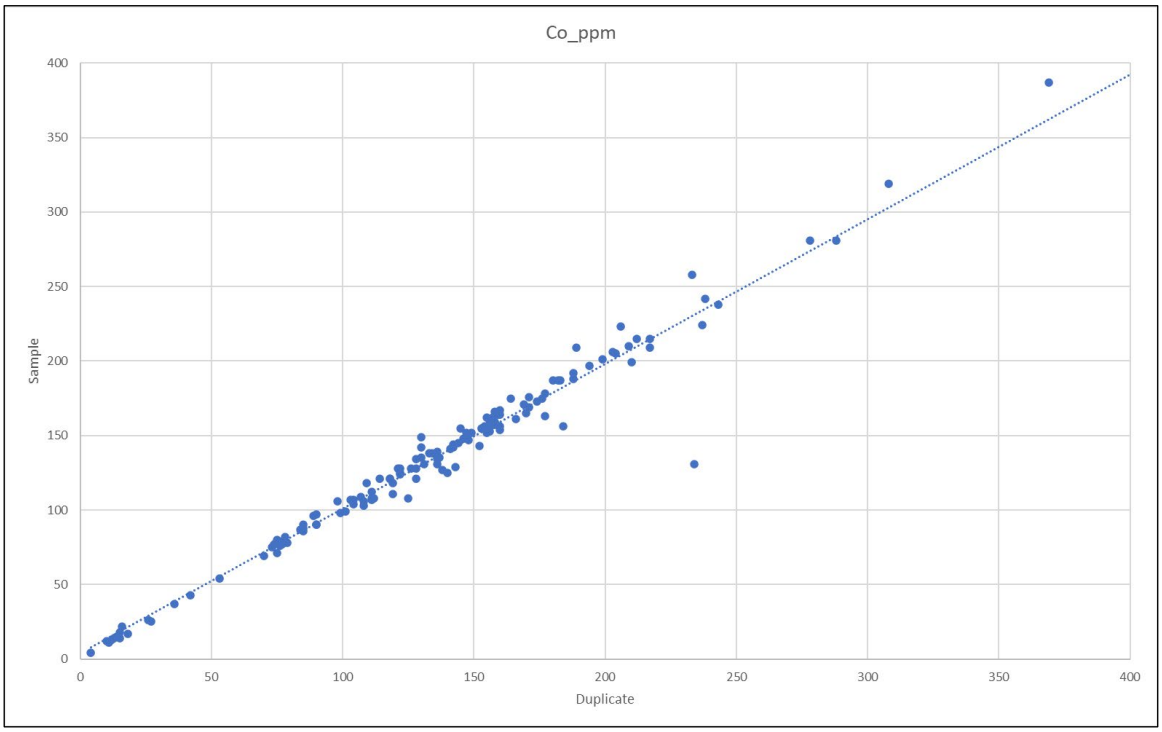
Source: Bahia Nickel Mineração, 2024

Figure 11-8: Plot of Absolute Concentrations of Pairs of Duplicate Samples Analyzed for Total Nickel



Source: Bahia Nickel Mineração, 2024

Figure 11-9: Plot of Absolute Concentrations of Pairs of Duplicate Samples Analyzed for Copper



Source: Bahia Nickel Mineração, 2024

Figure 11-10: Plot of Absolute Concentrations of Pairs of Duplicate Samples Analyzed for Cobalt

11.5 Density Determinations

Apparent density or bulk density measurements are taken every third samples downhole by selecting a sub-sample 10 to 20 cm long. These sub-samples are chosen based on lithological and mineralogical criteria and are assigned identification numbers before being packed inside labeled containers and sent to the density lab in the core shed. Each sub-sample identification is also marked on the left side of the core box for easy reference.

If the sub-sample shows visual porosity (fractures, weathering features, etc.), it is coated with a thin layer of hot wax before measures are taken to prevent weight changes due to loss absorption (Figure 11-11). The density is then determined using Archimedes' principle.

Source: Bahia Nickel Mineração, 2024

Figure 11-11. Sub-Samples Coated with Wax and Identified with Numbers and Labeled Container for Transportation

The weighing process involves using a precision balance, a water-filled container, and a support system to weigh the sub-samples while submerged (Figure 11-12. Historically, the balance was not calibrated on a prescribed basis, but in the future, it will be calibrated at the start of each day and between drillholes.

The steps for calculating apparent density are as follows:

1. Weighing in the air: the sub-samples are weighted in the air to obtain the W_{dry}
2. Weighing submerged: the sub-samples is then fully submerged, and its submerged weight it is recorded ($W_{Submerged}$)
3. Calculation: the apparent density is calculated using the appropriate formula.
4. If the sub-sample is coated with wax, a separate measurement is taken in the air to determine the mass of the wax before calculating the apparent density. The water in the container is replaced after each measurement to avoid contamination.

Source: Bahia Nickel Mineração, 2024

Figure 11-12. Setup Showing the Balance, Container, and Support for Weighing Sub-Samples

For uncoated samples, the apparent density (ρ_{app}) can be calculated using the following formula:

$$\rho_{app} = \frac{W_{dry}}{W_{dry} - W_{Submerged}} \, x \, \rho_{Fluid}$$

Where:

- W_{dry} = Weight of the dry sample in air
- $W_{Submerged}$ = Weight of the sample when submerged in fluid (demineralized water)
- ρ_{Fluid} = Density of the fluid (for water at 4°C, ≈ 1 g/cm³)

For paraffin coated samples the bulk density should be calculated using the following formula:

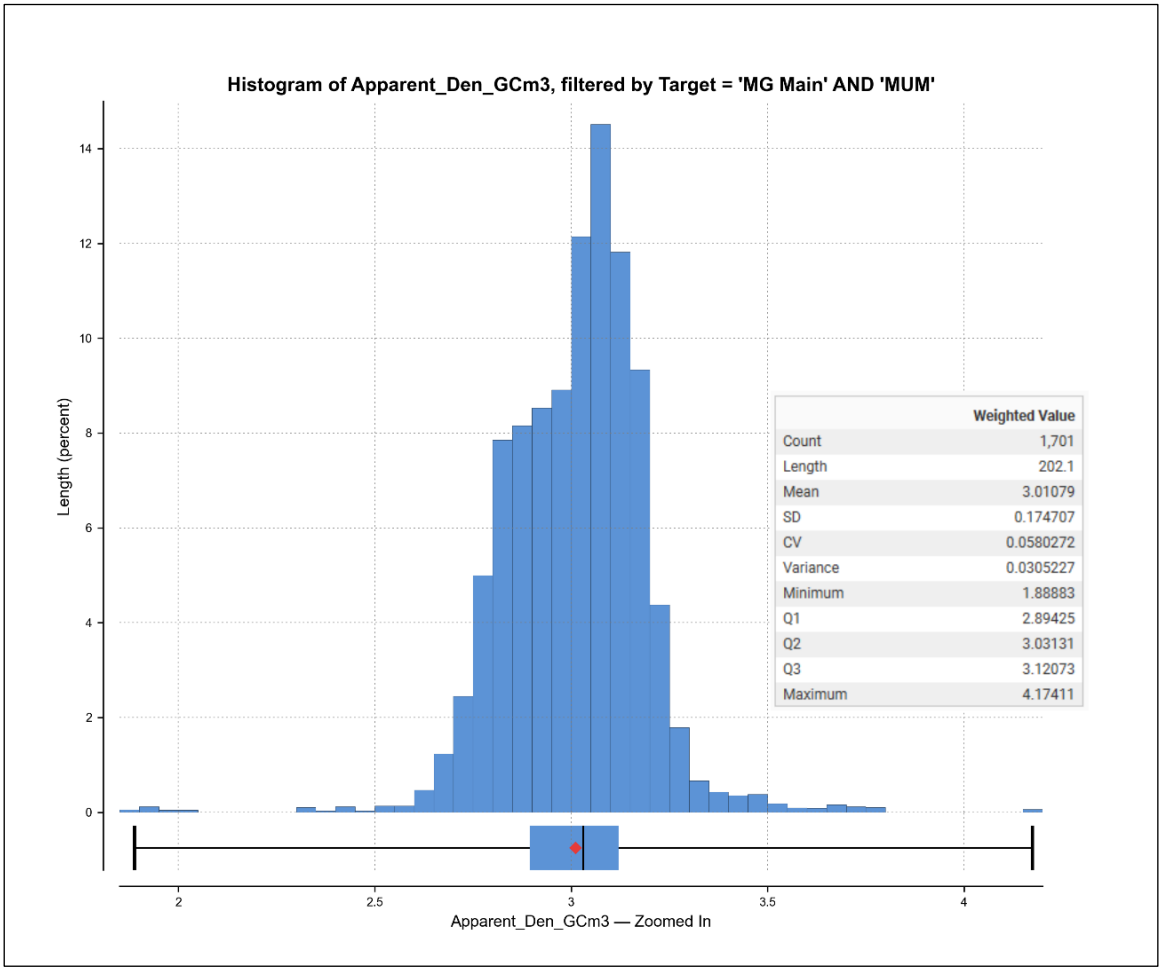
$$\rho_{app} = \frac{W_{uncoated\ dry}}{W_{coated\ dry} - W_{coated\ wet} - \left[\frac{\left[W_{coated\ (dry)} - W_{uncoated\ dry}\right]}{\rho_{paraffin}}\right]}$$

Where:

- $W_{uncoated\ dry}$ = Weight of the uncoated dry sample in air
- $W_{coated\ dry}$ = Weight of the coated dry sample in air
- $W_{coated\ wet}$ = Weight of the coated sample when submerged in fluid (demineralized water)
- $\rho_{paraffin}$ = Density of the paraffin wax (for water at 20°C, ≈ 0.9 g/cm³)

The knowledge of bulk density values is crucial in all stages of exploration, as these values are used in the resource estimates to determine tonnages. To ensure the accuracy of these estimates, it is important to have a representative database of density measurements.

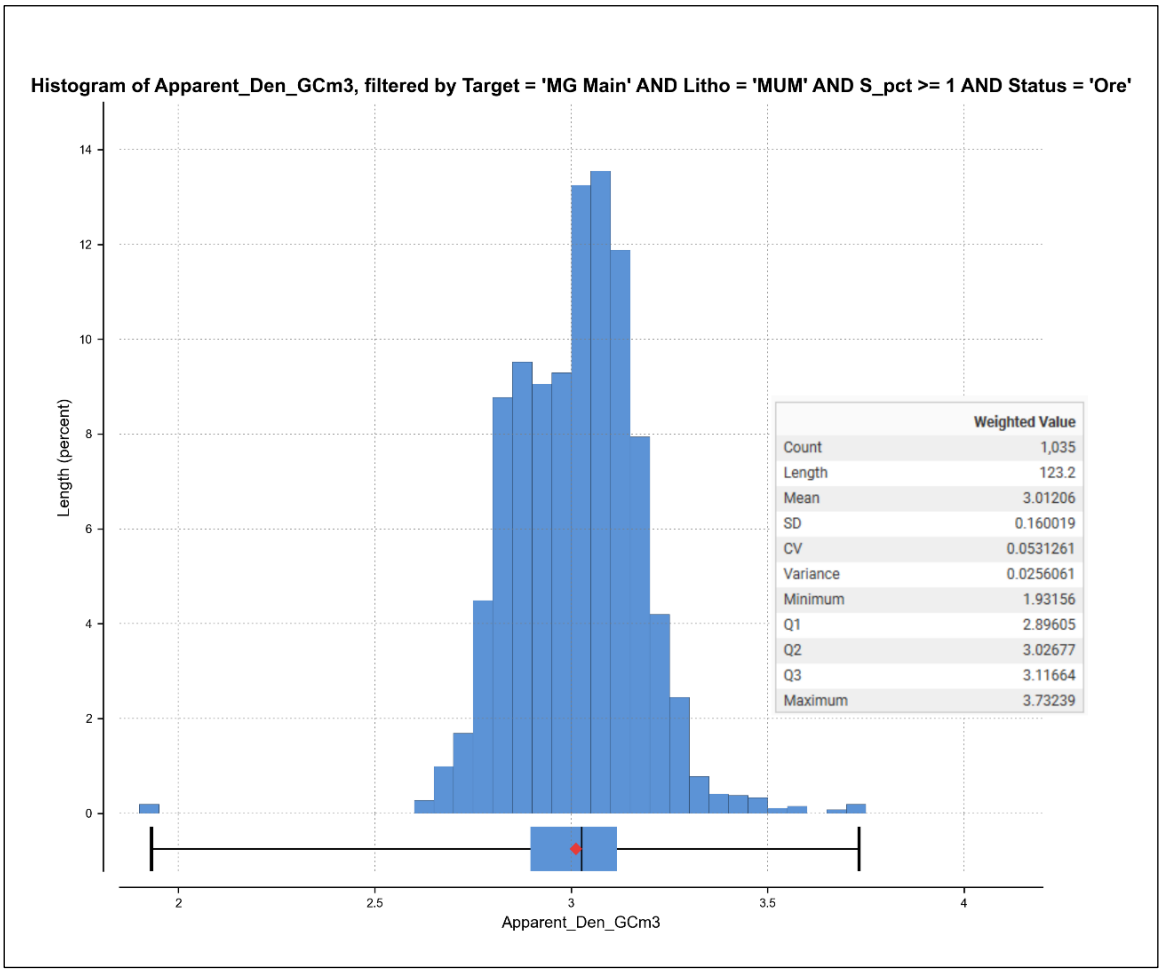
During the exploration program implemented by Bahia Nickel, a total of 1,825 sub-samples were submitted to the bulk density measurement process from the Mangueiros Main target. Out of these, 1,701 sub-samples represent ultramafic rocks, with their apparent density frequency distribution shown in Figure 11-13. The summary statistics indicate a mean apparent density of 3.011 g/cm³, and median (Q2) apparent density of 3.031 g/cm³.



Source: Bahia Nickel Mineração, 2024

Figure 11-13. Histogram of Bulk Density Values of Ultramafic Rocks from Mangueiros Main

When filtering this dataset to include only fresh, un-weathered ultramafic rocks with sulfur ≥ 1.0% and nickel sulfide ≥ 0.1%, the number of sub-samples reduces to 1,035 (Figure 11-14). In this second data set, that is representative of the mineralized system, the apparent density mean is 3.012 g/cm³ and the median (Q2) apparent density is 3.027 g/cm³.



Source: Bahia Nickel Mineração, 2024

Figure 11-14: Histogram of Bulk Density Values of Fresh (S ≥ 1.0%) Ultramafic Rocks with NiS ≥ 0.1% from Mangueiros Main

In conclusion, the density distribution of mineralized samples is concentrated around 3.0 g/cm³, what is quite typical of disseminated sulfide-bearing ultramafic rocks. The presence of few outliers, both at lower densities and higher densities, likely result from geological factors: lower-density outliers may indicate altered or porous samples, while higher-density outliers may reflect more massive sulfide-rich zones and/or samples richer in magnetite.

11.6 Opinion on Adequacy

It is the QP's opinion that the drilling and sampling is sufficient to confirm the presence of mineralized ultramafic material, however the limits or extents of this mineralization has not yet been determined. SRK has not reviewed the raw QA/QC information from the BNM database as it is not located in the data room in sufficient detail to independently verify the information. Review of the charts for the study indicated no accuracy bias and showed acceptable precision. No material sample contamination was observed. It is the QP's opinion that the current information is sufficient to only define the potential range of tonnage and grades that are expected at the Project. Due to the early stage of this Project, SRK has not currently defined a Mineral Resource for the Project. Further verification drilling is required to confirm the potential grade distribution with sufficient confidence to define a Mineral Resource. It is uncertain if further exploration will result in the target being delineated as a mineral resource.

12 Data Verification

12.1 Procedures

BNM has conducted interval verification of the CBPM data. SRK has not conducted verification of the database provided by BNM. This verification would occur as the project advances to support a Mineral Resource Estimate (MRE).

While on site, SRK verified selected drillhole collars, collected witness samples from drill core selected by SRK during the site visit and reviewed logging of six drillholes.

12.1.1 Drillhole Collar Verification

SRK verified 12 collar locations using a handheld Garmin eTrex 10 GPS unit. The differences between BNM database locations are within the accuracy limits of the handheld GPS unit.

An example is shown in Figure 12-1 and the findings are summarized in Table 12-1.

Source: SRK, 2024/

Figure 12-1: Collar Verification: MGDH-005

Table 12-1: SRK Collar Verification

GPS				Database						Difference (m)		
Waypoint	East	North	RL	HoleID	Project	Target	East	North	RL	East	North	RL
WP155	672551	8936163	484	MGDH-020	Mangueiros	Mangueiros Leste	672545.69	8936168.76	479.82	-5.31	5.76	-4.18
WP156	672142	8936174	483	MGDH-001	Mangueiros	Mangueiros	672141.81	8936174.37	476.57	-0.19	0.37	-6.43
WP159	671454	8935989	474	MGDH-050	Mangueiros	Mangueiros	671452.68	8935987.76	467.16	-1.32	-1.24	-6.84
WP160	671415	8935914	475	MGDH-005	Mangueiros	Mangueiros	671414.29	8935914.53	466.02	-0.71	0.53	-8.98
WP161	671518	8935860	477	MGDH-036	Mangueiros	Mangueiros	671514.68	8935860.76	467.30	-3.32	0.76	-9.70
WP162	671554	8935949	475	MGDH-024	Mangueiros	Mangueiros	671547.44	8935953.11	466.46	-6.56	4.11	-8.54
WP163	670864	8936400	474	MGDH-026	Mangueiros	Mangueiros	670860.52	8936403.80	470.42	-3.48	3.80	-3.58
WP164	670796	8936218	481	MGDH-023	Mangueiros	Mangueiros	670792.25	8936218.58	475.11	-3.75	0.58	-5.89
WP165	668718	8936897	488	MGDH-069	Mangueiros	Mangueiros	668716.00	8936901.00	483.42	-2.00	4.00	-4.58
WP166	671158	8936044	473	MGDH-032	Mangueiros	Mangueiros	671154.66	8936044.52	470.26	-3.34	0.52	-2.74
WP167	671130	8936113	476	MGDH-049	Mangueiros	Mangueiros	671123.68	8936117.76	472.73	-6.32	4.76	-3.27
WP168	677864	8941261	493	LODH-017	Mangueiros	Lagoa da Onça	677857.00	8941264.00	490.84	-7.00	3.00	-2.16

Source: SRK, 2024

12.1.2 Witness Samples

SRK collected five samples (quarter core) from four drillholes representing various NiS grade ranges (Table 12-2). These samples confirmed the presence of NiS mineralization in the drill core, although the agreement with the original half core was about 10% lower for NiS. The number of samples taken is not sufficient to be statistically significant, but SRK recommends submitting samples to an independent laboratory as check samples to be part of the ongoing QA/QC program.

In the QP's opinion, these samples demonstrate that NiS mineralization exists on the property.

Table 12-2: SRK Witness Samples

DHID	SampleID_Reassay	SampleID_Assay	From_m	To_m	Length_m	LabJobNO_Reassay	LabJobNO_Assay	NiT_pct_Reassay	NiT_pct_Assay	NiS_pct_Reassay	NiS_pct_Assay	Cu_pct_Reassay	Cu_pct_Assay	Co_ppm_Reassay	Co_ppm_Assay	MgO_pct_Reassay	MgO_pct_Assay	S_pct_Reassay	S_pct_Assay
MGDH-023	110894	101681	164.00	165.00	1.00	BH24217174	BH22182629	0.23	0.30	0.19	0.24	0.13	0.16	144	179	17.74	18.74	1.78	2.60
Coarse Blank						BH24217175		<1		0.01		0.00		<1		0.05		<0.01	
CRM - AMIS 0317						BH24217176		0.26		0.22		0.16		137		12.12		1.68	
MGDH-023	110897	101762	238.00	238.76	0.76	BH24217174	BH22182625	0.12	0.33	0.09	0.28	0.07	0.22	80	178	16.83	17.08	0.86	2.65
MGDH-025	110898	102215	108.00	109.00	1.00	BH24217174	BH22182612	0.25	0.28	0.23	0.26	0.12	0.14	166	183	32.99	32.83	0.98	1.18
MGDH-029	110899	103109	31.00	32.00	1.00	BH24217174	BH22220044	0.53	0.38	0.48	0.33	0.15	0.12	352	265	15.00	17.08	4.15	3.79
MGDH-050	110900	107582	103.00	104.00	1.00	BH24217174	BH22343461	0.38	0.40	0.30	0.35	0.18	0.31	181	184	20.89	20.73	1.96	2.47
Average								0.30	0.34	0.26	0.29	0.13	0.19	184.60	197.80	20.69	21.29	1.95	2.54
% Difference								-11%		-12%		-32%		-7%		-3%		-23%	

Source: SRK, 2024

12.1.3 Core Logging

SRK reviewed logging of drillholes MGDH-023, MGDH-026, MGDH-025, MGDH-029, MGDH-032, and MGDH-050. In all holes, the logging captured the primary lithology, alteration and mineralization observed in the core. Mineralization observed in the drill core reasonably matched the corresponding assay data.

12.2 Limitations

The drill core from the CBPM campaign was not examined and a review of the digital database suggests the logging from the CBPM needs to be aligned with BNM logging codes. The CBPM core is stored at CBPM's core shed in Salvador, Bahia. SRK recommends the core be transported to BNM core facility and relogged by BNM geologists.

12.3 Opinion on Data Adequacy

It is the QP's opinion that the current information is sufficient to only define the potential range of tonnage and grades that are expected at the Project. Due to some uncertainty in the underlying information and differences in the statistical distributions of the different drilling phases, SRK has not currently defined a Mineral Resource for the Project. Further verification drilling is required to confirm the potential grade distribution with sufficient confidence to define a Mineral Resource. It is uncertain if further exploration will result in the target being delineated as a mineral resource.

13 Mineral Processing and Metallurgical Testing

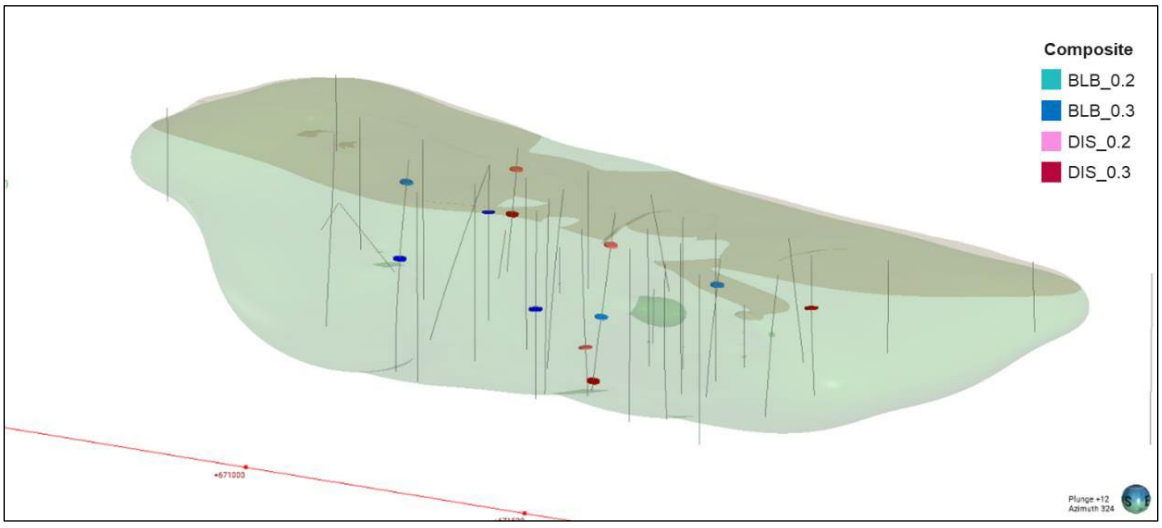
A metallurgical flotation test aiming to provide initial insights into the characteristics of Mangueiros' sulfide Ni-Cu-Co mineralization was carried out in Q1/2023 at the pilot plant of an operating mine in Bahia state. This laboratory was chosen because access to metallurgists would make it easier to discuss the tests routes and its outcomes as it was being executed. In fact, this proved to be very effective for the understanding of the results and for the knowledge of the characteristics of mineralization and this will be highly valuable when a next and more detailed metallurgical test is performed on an external laboratory.

13.1 Sample Representativeness

Four individual samples, around 33 kg each, made of diamond drill core crushed rejects (3 mm), were collected from eight drillholes. The four samples were separated into two sets representing two types of sulfidation (coarse and fine). These two sets were in turn separated into two sub-sets representing lower and higher-grade mineralization.

- Set 1: coarse sulfidation →1a: lower grade (~0.20% *Ni*),
- 1b: higher grade (~0.30% Ni)
- Set 2: fine sulfidation → 2a: lower grade (~0.20% Ni),
- → 2b: higher grade (~0.30% Ni)

Each of the four samples were of the same size, i.e. made of eight core samples with one meter each although, not necessarily continuous in each drillhole. In other words, they were composite samples with ± 33 Kg each. The eight holes distribution along with the distribution of its selected core intervals to compound the four met samples were chosen in a way to best represent the spatial distribution of mineralization inside the mineralized system (Figure 13-1).



Source: Bahia Nickel Mineração, 2024

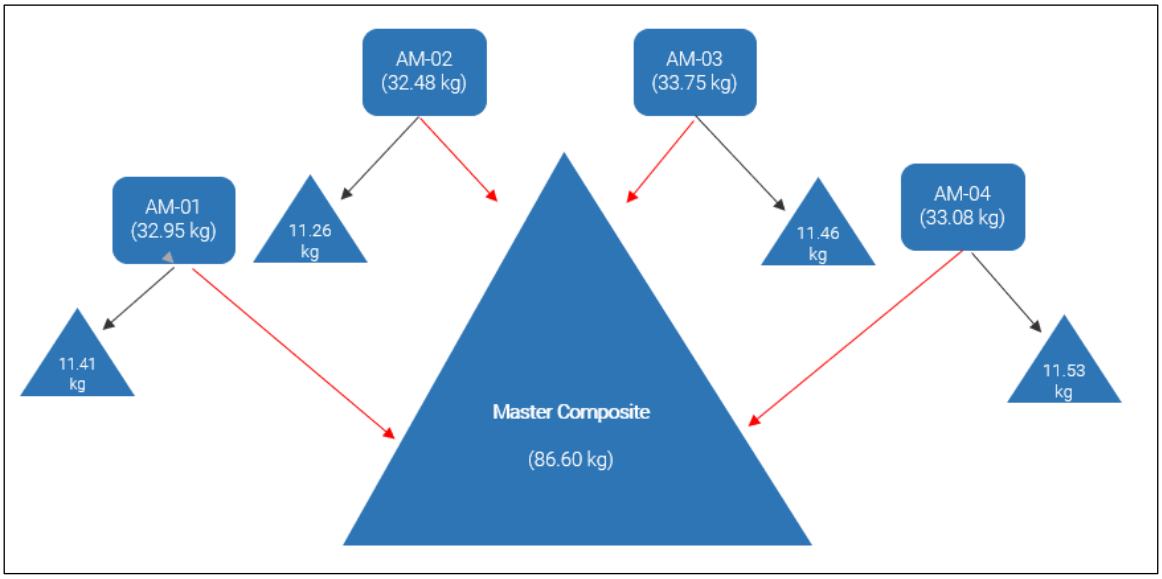
Figure 13-1: Spatial Distribution of the Holes and Intervals from Where Samples Were Collected to Compound the Met Test Samples

13.2 Procedures

Out of each of the four samples, four splits with ~11.5 Kg each were taken and tested for individual confirmation/difference performances of each split in sequential rougher/cleaner/recleaner flotation (Serie 2). The remaining material of the initial four samples were assembled into a single master

sample with 86.6 kg for the purpose of performing flotation under different conditions of P80, pH, and reagents to point optimum conditions to be tested on the 11 kg four splits (Serie 1) (Figure 13-2).

Table 13-1 show grades for initial samples, splits, and master composite.



Source: Bahia Nickel Mineração, 2024

Figure 13-2: Initial Samples, Splits, and Master Composite

Table 13-1: Grades of the Initial Samples and Master Composite. Assayed at Atlantic Nickel Lab

Amostra	AAS (%) – ATN Lab			XRF (%) – ATN Lab				
	NiS	Ni	Cu	Co	Fe	S	SiO_2	MgO
BLB 0.2	0.233	0.259	0.130	0.013	8.285	1,603	39,493	17,958
BLB_0.3	0.344	0.388	0.132	0.016	10.170	3,477	41,448	16,461
DIS 0.2	0.148	0.216	0.140	0.011	8.036	1,350	43,218	17,728
DIS_0.3	0.277	0.331	0.133	0.014	8,476	2,155	42,010	20,784
Composite	0.263	0.313	0.167	0.013	8,569	2,389	40,911	18,171

Source: Bahia Nickel Mineração, 2024

NiS: sample digestion with citrate of ammonia and peroxide of hydrogen. Ni: multi-acid digestion.

The metallurgical test was executed under the following analysis:

- Head grade of samples and master composite
- Curve to determine grinding time
- Determination of the best P80 for flotation
- Granulometry/chemistry of the grinding product for determined P80
- Flotation varying reagents - collector, activator, dispersant, depressant, pH
- Regrinding before feeding the cleaning circuit
- Test with sodium metabisulfite to depress pyrrhotite
- Magnetic separation of the final concentrate to depress pyrrhotite
- Closed circuit test LCT - Locked Cycle Test
- Flotation synergy test for best reagent scheme and conditions
- Flotation kinetics test for best reagent scheme and conditions

Given the samples were crushed (3 mm) material, comminution tests were not performed.

13.3 Relevant Results

The optimum P80 for flotation with better recovery of elements associated with sulfides was 125 µm.

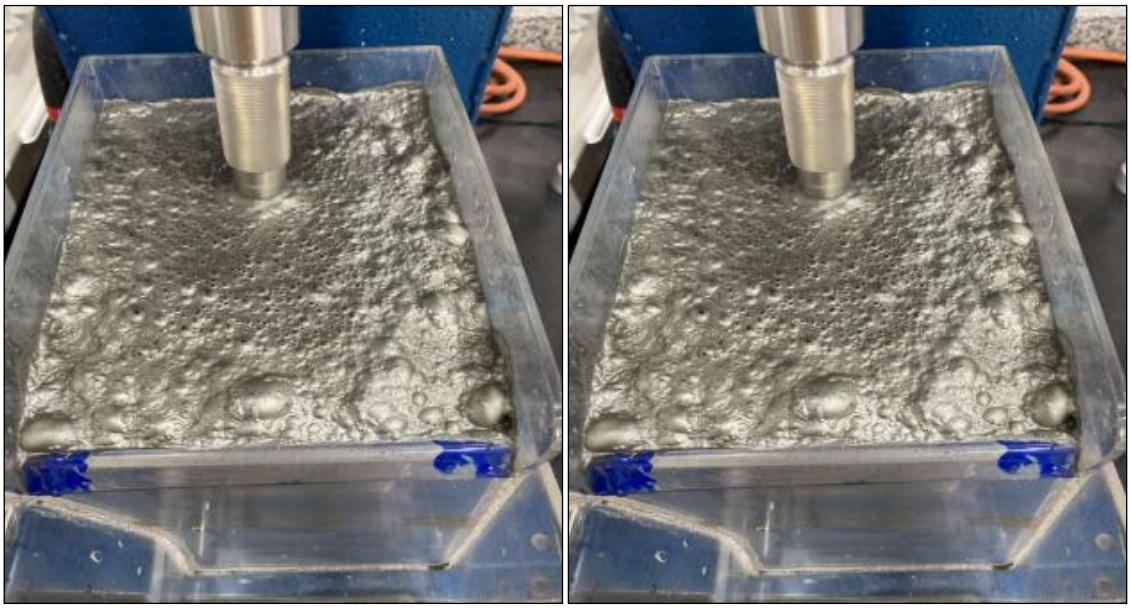
Nickel and copper float readily.

In the samples analyzed, the distribution of NiS, total Ni, Cu, Co and S increases with the reduction of particle size. Conversely, the deleterious contents in a nickel concentrate, SiO_2 and MgO, decrease in the finest particles. This suggests that the liberation of sulfides occurs in particle size ranges smaller than 38 µm.

The best rougher and scavenger test condition of the master composite obtained a combined result with recovery of NiS of 87.2%, 82.4% of Cu, 50.2% of Co and 87.8% of S (Figure 13-3).

Following the same comparison for the concentrate contents, the NiS content was lower, however the Fe/MgO ratio in the rougher and scavenger concentrate was three times higher, at 1.72.

For the flotation tests of the cleaner and recleaner stages, a final concentrate with a content of 6.3% Ni, 2.2% Cu and 0.23% Co was obtained. This is not a too high value, although it is within the range obtained by other plants worldwide (Figure 13-3).



Source: Bahia Nickel Mineração, 2024
Rougher (left) and Re-cleaner (right)

Figure 13-3: Rougher (left) and Re-Cleaner (right) Flotations

The Fe/MgO ratio of the final concentrate from the standard test was high, at 21.4. This parameter is important for the smelters, thus indicating good quality of the final concentrate from Mangueiros for this indicator. The final concentrate showed high magnetic susceptibility, related to pyrrhotite (a sulfide mineral associated with iron), which demonstrates the possibility of improving the Ni content in the concentrate by using magnetic separation.

No talc interference was observed in any of the flotation tests, what certainly is due to the quite low MgO content in the mineralized system.

For the tests with the different samples from the Mangueiros target, it was possible to observe that the blebs feature obtained better metallurgical recovery performance of the elements associated

with the sulfides in relation to the disseminated feature. The NiS recovery was 81.2% and 91.5% for the blebs samples and 81.9% and 79.7% for the disseminated samples.

In the standard cleaner stage test, the disseminated samples obtained the best NiS results in the final concentrate, 6.3% for the DIS_0.2 sample and 5.7% for the DIS_0.3 sample.

13.4 Recovery Estimate Assumptions

No deleterious elements have been identified that could have a significant effect on potential economic extraction.

13.5 Conclusions

During the next phase of study, test work should be conducted on the bulk cleaner concentrate to evaluate nickel and copper separation and production of separate nickel and copper flotation concentrates. The reported copper analyses may be questionable since the master composite, which was formulated from an equal blend of the four variability samples, assayed 0.167% Cu and the grade of the four variability composites ranged from 0.13% to 0.14% Cu.

14 Mineral Resource Estimate

This section is not applicable to the current exploration property, and further work is required to define a Mineral Resource due to the uncertainties noted in Section 12 of this report, and the wide variation on tonnage and grades from previous estimates. It is the QP's opinion that further drilling should be completed to verify the grade distribution via twin drilling selected holes prior to estimation.

15 Mineral Reserve

This section is not applicable to the current exploration property, and further work is required to define a Mineral Reserve.

16 Mining Methods

This section is not applicable to the current exploration property, and further work is required to define a Mining Method.

17 Recovery Methods

This section is not applicable to the current exploration target, and further work is required to detail the proposed Recovery Methods and requirements.

18 Project Infrastructure

This section is not applicable to the current exploration target, and further work is required to detail the proposed project infrastructure requirements.

19 Market Studies and Contracts

This section is not applicable to the current Exploration Target, and no work has been completed regarding market studies. No contracts relevant to project development are in place.

20 Environmental Studies, Permitting, and Social or Community Impact

This section is not applicable to the current Exploration Property, and no work has been completed regarding market studies. No contracts relevant to project development are in place.

21 Capital and Operating Costs

This section is not applicable to the current Exploration Property, and no work has been completed regarding market studies. No contracts relevant to project development are in place.

22 Economic Analysis

This section is not applicable to the current Exploration Property, and no work has been completed regarding economic analysis.

23 Adjacent Properties

There are no publicly disclosed Mineral Resources on adjacent properties.

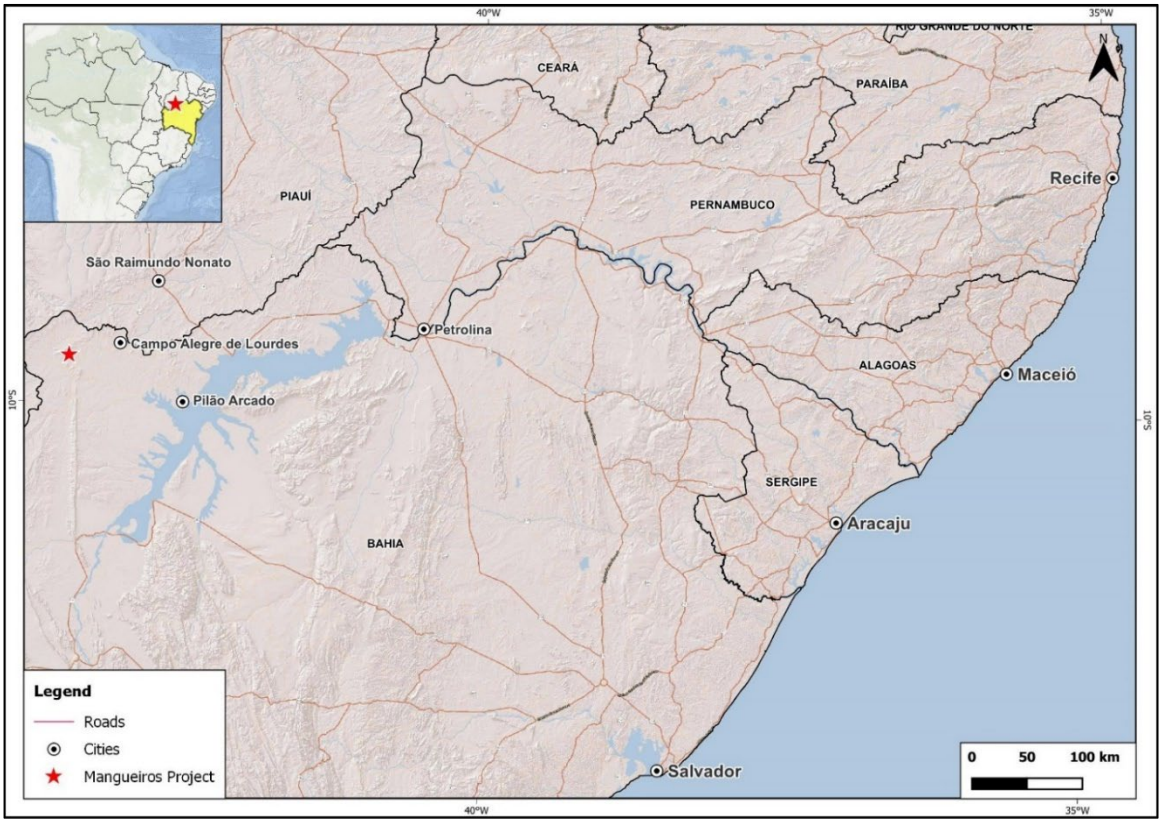
24 Other Relevant Data and Information

All relevant data and information regarding the Project are included in other sections of this report.

25 Interpretation and Conclusions

25.1 Property Description and Ownership

The Mangueiros project location (Figure 25-1) is centered at the coordinates 42º 26’ 31” west and 09º 37’ 03” south in the municipality of Pilão Arcado, state of Bahia, northeast region of Brazil.



Source: Bahia Nickel Mineração, 2024

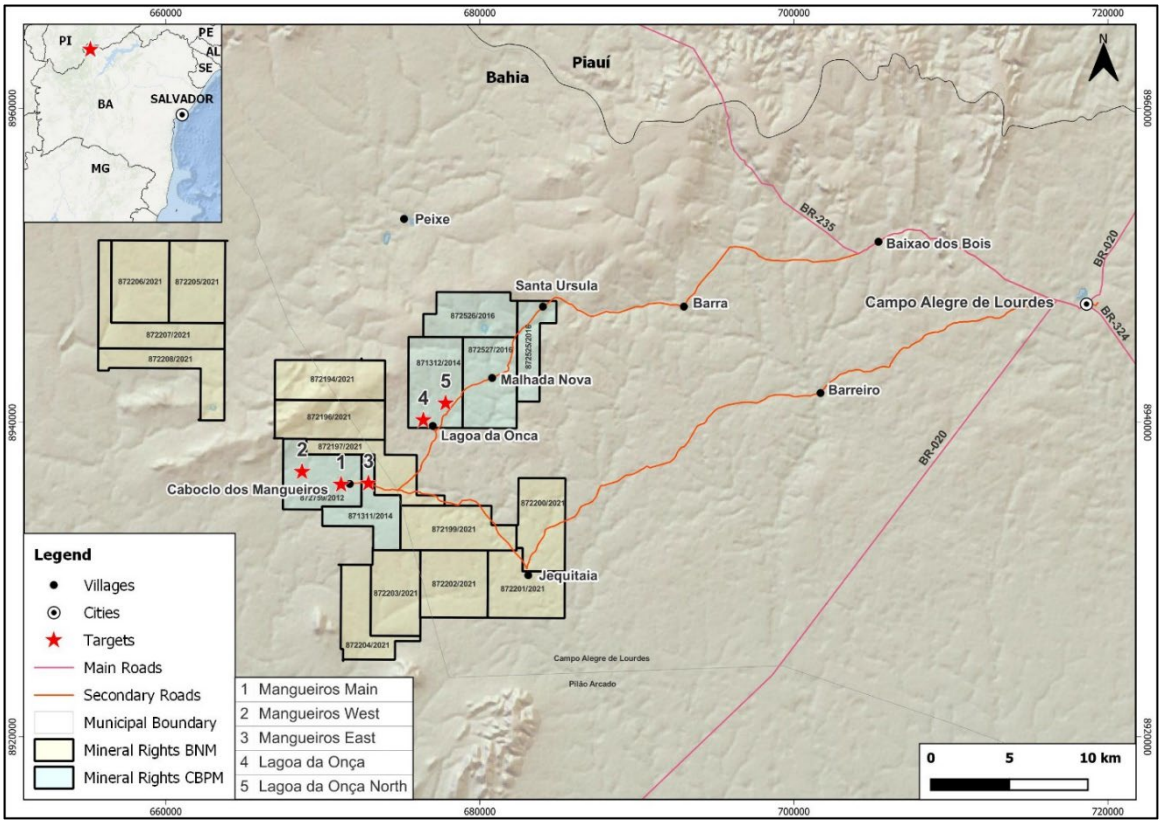
Figure 25-1: Location Map

The Mangueiros project encompasses nineteen (19) mineral rights for a total of 32,093.82 ha as summarized in Table 25-1 and shown in Figure 25-2.

Table 25-1: Summary of Mineral Titles Information at Mangueiros Project

Tenure ID	Company	Hectares	Phase	Expiry Date	Status
872.759/2012	CBPM	1,846.24	Mining Request	NA	File Economic Plan
871.311/2014	CBPM	1,280.17	Exploration	NA	Final Report Filed
871.312/2014	CBPM	1,998.97	Exploration	NA	Final Report Filed
872.525/2016	CBPM	1,075.99	Exploration	NA	Extension Request Filed
872.526/2016	CBPM	1,574.63	Exploration	NA	Extension Request Filed
872.527/2016	CBPM	2,000.00	Exploration	NA	Extension Request Filed
872.194/2021	BNM	1,779.76	Exploration	16-12-24	File Exploration Report
872.196/2021	BNM	1,744.99	Exploration	16-12-24	File Exploration Report
872.197/2021	BNM	1,351.72	Exploration	16-12-24	File Exploration Report
872.199/2021	BNM	1,901.95	Exploration	16-12-24	File Exploration Report
872.200/2021	BNM	1,747.77	Exploration	24-12-24	File Exploration Report
872.201/2021	BNM	1,753.94	Exploration	24-12-24	File Exploration Report
872.202.2021	BNM	1,841.17	Exploration	24-12-24	File Exploration Report
872.203/2021	BNM	1,715.38	Exploration	24-12-24	File Exploration Report
872.204/2021	BNM	1,416.76	Exploration	24-12-24	File Exploration Report
872.205/2021	BNM	1,863.41	Exploration	24-12-24	File Exploration Report
872.206/2021	BNM	1,929.90	Exploration	24-12-24	File Exploration Report
872.207/2021	BNM	1,755.06	Exploration	24-12-24	File Exploration Report
872.208/2021	BNM	1,516.01	Exploration	24-12-24	File Exploration Report

Source: Bahia Nickel Mineração, 2024



Source: Bahia Nickel Mineração, 2024

Figure 25-2: Land Tenure Map and Access Routes to the Project

The six tenures held by CBPM (Companhia Baiana de Pesquisa Mineral) are part of an exploration and leasing contract between CBPM and Bahia Nickel agreed to on December 13, 2021. The other thirteen tenures are held by Bahia Nickel Mineração Ltda. (BNM).

Final positive reports were filed for tenements 871.311/2014 and 871.312/2014. Until the mining agency provides a response, there is no expiry date on these two tenements.

Extensions have been requested for three tenements (872.525/2016, 872.526/2016, and 872.527/2016), there is currently no expiry date until the mining agency responds.

For all the remaining tenements, initial exploration reports have been filed. If the mining agency approves these reports, a three-year exploration extension is permitted.

Exploration on these permits is allowed to continue until a response is received. There is some risk that additional work to advance this project may not be approved by the agency. However, none of the deposits currently of interest lie in these permits. Mangueiros Main and West lie within tenure 872.759/2012 while Lagoa da Onca and Lagoa da Onca North lie within tenure 871.312/2014.

The surface rights are distributed amongst several owners over the three main exploration targets, Mangueiros Main, Mangueiros West, Lagoa da Onça and Lagoa da Onca North. Written formal agreements have been signed between BNM and all the surface owners providing formal consent for the company to develop its exploration program, including drilling.

As CBPM is a public company owned by the state of Bahia, the mineral rights must be offered to the market through a public tender process. Bahia Nickel was the winner of the tender process in September 2021 and the definitive exploration agreement was signed by both companies on December 1q3w3, 2021. In summary, the agreement states the following:

- Payment to CBPM of an amount of BR$2 million upon agreement's signing.
- To execute an exploration program over a three-year period spending at least BR$8 million over this period.
- In case one or more economic mineral deposits are identified and a mining concession is issued by the Brazilian Mining Agency (ANM), another payment of BR$2 million is due and Bahia Nickel is also entitled to sign with CBPM, a mining lease agreement lasting 20 years that can be extended for more 10 years (a total of thirty years).
- During the mining operation and production, a Net Smelter Return royalty of 2.75% must be paid to CBPM.

As per the Brazilian Mining Code, a federal royalty of 2% will also apply during the operation and production of the mine.

BNM will need to apply for environmental permits to cover the proposed drill programs which are expected to occur in 2025.

SRK is not aware of any other factors or risks that affect access, title or right or ability to perform work on the property other than those stated in the above sections which SRK would expect to have a material impact on the Project.

25.2 Geology and Mineralization

The geological mapping data and description of drill cores from the Mangueiros and Lagoa da Onça ultramafic systems identified four geological domains: Santo Onofre Group, Caboclo dos Mangueiros Suite, Quartz Veins, and Cenozoic Deposits. Due to the sedimentary cover, the first two units have little exposure in outcrops and were defined based on the extensive description of drill cores and petrographic slides.

The oldest rocks in the local framework are supracrustal rocks described as muscovite-schist, chlorite-schist, graphite-phyllite, and graphite-rich rocks belonging to the Santo Onofre Group. These rocks are intruded by pyroxenites, olivine-websterites, and websterites from the Caboclo dos Mangueiros Suite. These mafic-ultramafic rocks have undergone greenschist metamorphism

modifying the protoliths to foliated serpentinites and tremolitites, and developing actinolite-tremolite, serpentine, and quartz-pyrite-carbonate pervasive and infill hydrothermal alteration. The supracrustal and mafic-ultramafic rocks are cut by quartz veins. Finally, the entire package is overlain by unconsolidated clastic sediments, laterite, and residual soils.

The Neoproterozoic Caboclo dos Mangueiros hosts the Mangueiros and Lagoa da Onça Ni-Cu-Co systems and is prospective for sulfide deposits (Pereira et al., 2023). These mafic-ultramafic rocks are poorly exposed at surface, usually found beneath unconsolidated sediments and lateritic covers. This sediment cover makes airborne magnetic and gravimetric geophysics surveys the main tool for discovering new metal deposits. The mafic-ultramafic rocks outcrops are associated with garnierite-rich laterites and can be described as semi-weathered float near stream watercourses.

Pereira et al., 2023, defined the ultramafic rocks as mainly orthopyroxene and clinopyroxene with minor olivine cumulates and interstitial sulfides affected by variable actinolite-tremolite and serpentine alterations metamorphized under the greenschist facies. The bulk of mineralization is formed by pyrrhotite, pentlandite, chalcopyrite, pyrite, and minor violarite. These sulfides occur as disseminated blebs and interstitial grains, or metric narrow layers of semi-massive sulfides dispersed vertically and horizontally along the intrusion.

The geology of Mangueiros and Lagoa da Onça deposits can be subdivided into three main geological domains:

- Basement domain, formed by the supracrustal rocks from the Santo Onofre Group, which are described as muscovite-schist, chlorite schist, ferruginous phyllite, graphite-phyllite, and graphite-rich rocks. They show linear to diffuse contact with the ultramafic rocks.
- Caboclo dos Mangueiros domain, made of ultramafic intrusions that host the Ni-Cu-Co sulfide mineralization.
- Overburden cover, made of unconsolidated debris, residual soils, garnierite-rich laterites, and weathered ultramafic rocks.

25.3 Status of Exploration, Development and Operations

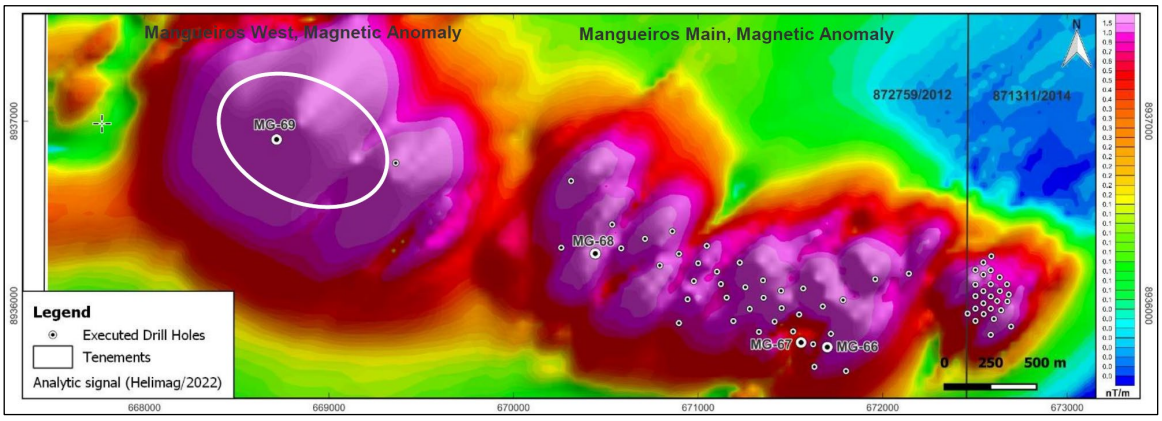
Drilling and test work carried out by CBPM and BNM has confirmed the potential for economic mineralized sulfide deposits and establishing the approximate grade and distribution of the associated NiS mineralization.

Additional exploration drilling is proposed to confirm potential tonnes and grade distribution before completing an initial MRE.

25.4 Exploration Target Definition

To date, only preliminary interpretation and analysis has been completed for this project. The main goal of the work was to explore target sizing, development strategy and drillhole targeting assistance. Of the three main areas in the project (, the current drilling has focused on Mangueiros Main (Figure 25-3). Mineralization at Mangueiros Main currently extends 1800 m northwest to southeast, 600 m southwest to northeast and is about 250 m thick (at a 0.10% NiS cut-off).

Mangueiros West and Lagoa da Onca exploration targets are also shown with their discovery holes. The most recent work was carried out in 2023 using Seequent Leapfrog® and Maptek Vulcan™ software.



Source: Bahia Nickel Mineração, 2024

Figure 25-3: Mangueiros West in Relation to Mangueiros Main

25.4.1 Mangueiros Main

Mangueiros Main has the most significant drilling and is drilled to an average nominal spacing of approximately 200 m with locally some tighter spacing. The majority of holes have been vertical to near vertical. The main mafic ultra-mafic unit (MUM) has been logged and used to guide the estimation of grade and tonnes. Sections 10 discusses the details on the drill programs.

A model was generated for target evaluation and not for resource estimation purposes. Preliminary estimates have been restricted to within the MUM interpreted domain. An ordinary kriging estimator was used with a multi-pass (four) search strategy. A basic variogram with ranges of 100m in the horizontal was applied. No grade capping was employed for the estimation at this stage of the analysis. Due to the well-behaved grade distributions, it is expected the amount of metal that might be capped out of the estimation will be very minor.

The following scenarios have been assessed:

- General lithological model created by grouping all ultramafic lithotypes into a single domain.
- Incremental grade shells based on cut-offs at 0.10% Ni, 0.15% Ni, 0.20% Ni, and 0.25% Ni.

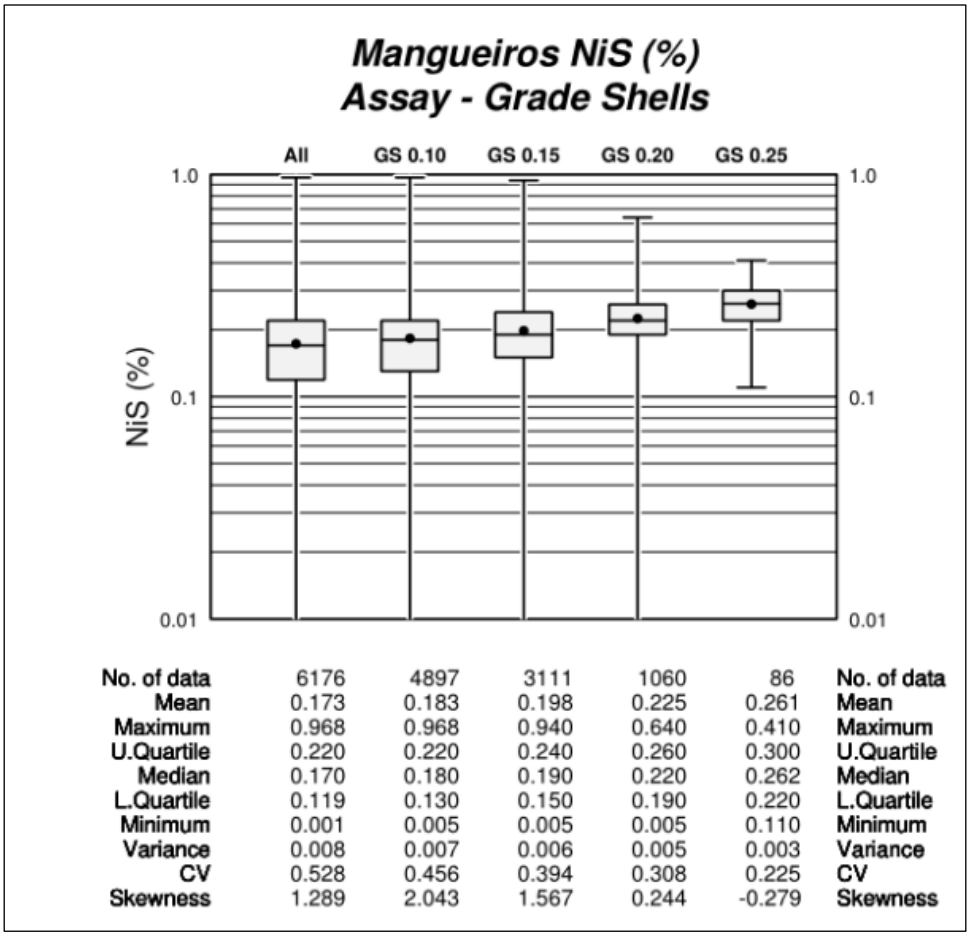
It is the QP's opinion that the current information is sufficient to define the potential range of tonnage and grades that are expected at the Project. Due to some uncertainty in the underlying information and differences in the statistical distributions of the different drilling phases, SRK has not currently defined a Mineral Resource for the Project, until sufficient verification and infill drilling can be completed.

To create independent models to evaluate exploration potential and focus the next phase of exploration, SRK has worked with Bahia Nickel who generated a planning model with the following methodology:

- Database compilation and verification
- Construction of geologic and grade shell wireframe models
- Definition of the lithographic sequence
- Definition of low to higher-grade domains
- Estimation of tonnage and grade ranges in each grade domain

All nickel assays reported are nickel sulfide as all core samples are digested with a sulfide selective solution consisting of ammonia citrate and hydrogen peroxide which does not digest silicate nickel.

Figure 25-4 shows the histograms of NiS samples constrained within the MUM unit within progressively higher threshold grade shells. The plot shows the well-behaved univariate distribution for NiS and also demonstrates the low CV's[1] even in the higher value grade shells. Figure 25-5 shows the histograms of 2.5 m composites within the MUM unit which were used to estimate the block model. The distribution is again well-behaved with a low CV.

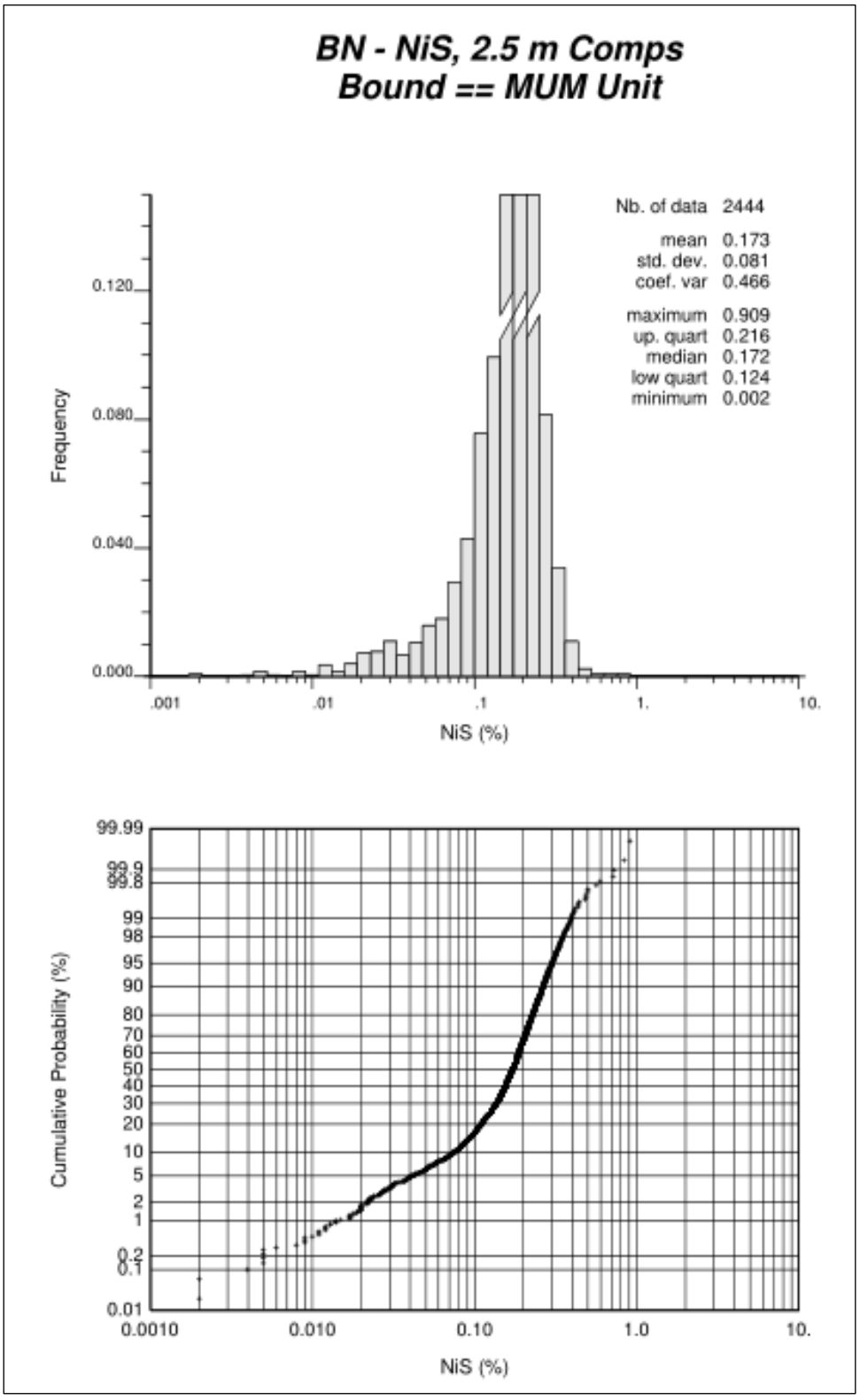


	All	GS 0.10	GS 0.15	GS 0.20	GS 0.25	
No. of data	6176	4897	3111	1060	86	No. of data
Mean	0.173	0.183	0.198	0.225	0.261	Mean
Maximum	0.968	0.968	0.940	0.640	0.410	Maximum
U.Quartile	0.220	0.220	0.240	0.260	0.300	U.Quartile
Median	0.170	0.180	0.190	0.220	0.262	Median
L.Quartile	0.119	0.130	0.150	0.190	0.220	L.Quartile
Minimum	0.001	0.005	0.005	0.005	0.110	Minimum
Variance	0.008	0.007	0.006	0.005	0.003	Variance
CV	0.528	0.456	0.394	0.308	0.225	CV
Skewness	1.289	2.043	1.567	0.244	-0.279	Skewness

Source: SRK, 2024

Figure 25-4: Boxplot of NiS Assays by Different Grades Shells

[1] The coefficient of variation is the standard deviation divided by the mean. This is a useful tool to measure the relative dispersion of a distribution. A coefficient of variation which is less than 1 generally depicts syngenetic deposits. Coefficients of variation of 1 to 2 are typical of hydrothermal processes. Presence of "bonanza" high-grade shoots, veins, etc. may cause the coefficient of variation to reach 3. Where the coefficient of variation is greater than 3, the mixture of two or more distinct ore-forming processes (or mineralization events) can often be identified.



Source: Bahia Nickel Mineração, 2024

Figure 25-5: Histogram and Probability Plot of NiS Assays within the MUM Interpreted Domain

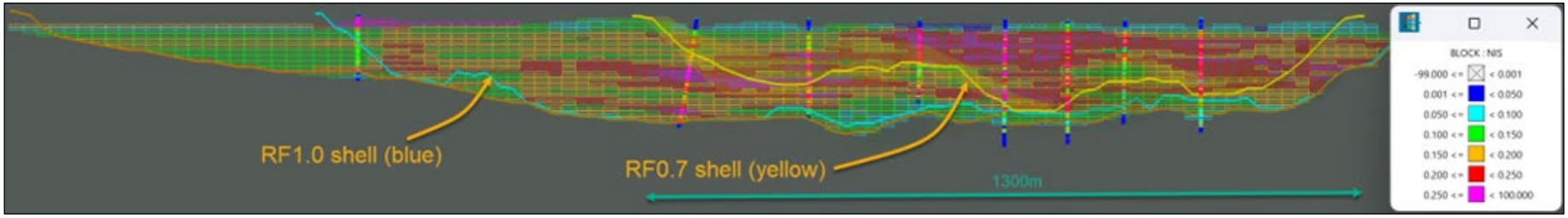
To evaluate the exploration target sizing, Whittle software was used to optimize various pit shells with the preliminary block model. A Net Smelter Revenue (NSR) was calculated for use in the process. The main assumptions were as follows:

- Pricing: Ni – 8.13 US$/lb, Cu – 3.5 US$/lb, Co – 25 US$/lb
- Recoveries: NiS – 83%, Cu – 75%, Co – 38%
- Costs:
  - Mining - 2.51/t
  - Processing - $5.67/t
  - Site G&A - $2/t

Figure 25-6 shows a long section with pit shells generated based on a 6.50 NSR and $8.13 nickel price at multiple revenue factors (RF1.0 (blue) and RF 0.7 (yellow)). The yellow shell shown provides a reasonably defensive pit shell (i.e. RF 0.7) and delineates a higher grade more compact footprint. This pit shell is used as part of the basis for the exploration target range in tonnes and grade.

Sensitivity studies within the yellow pit shell were used to determine the range of tonnes and grade of the exploration target. The potential quantity and grade ranges noted below are conceptual in nature and insufficient exploration has been conducted to define this material as a Mineral Resource. It is uncertain if further exploration will result in these exploration target estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources

The target remains open in several directions. The exploration target at Mangueiros Main is expected to be a tonnage range of 75 to 200 Mt with a grade range of 0.20 to 0.25% NiS.



Source: Bahia Nickel Mineração, 2024

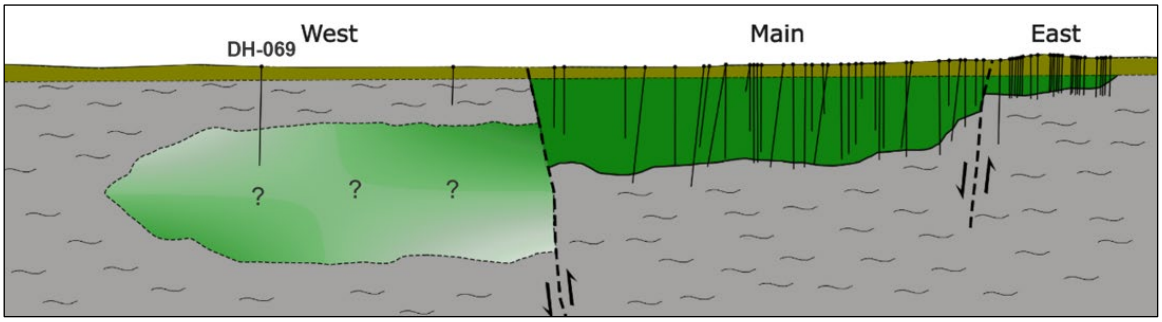
Figure 25-6: Long Section Looking Northeast, Showing Optimized Pit Shells

25.4.2 Mangueiros West

A comparative analysis of the magnitude of the gravimetric and magnetic anomalies of the Mangueiros Main and the nearby Mangueiros West targets suggests that the latter may hold a mineralized system as large as that of Mangueiros Main target. (Figure 25-3). The similarities make Mangueiros West an equally prospective target for further exploration and resource delineation.

The first exploratory drillhole at Mangueiros West target, hole MGDH-069, was terminated prior to intersecting the complete ultramafic intrusion and mineralized system, intercepted 25.40 m at 0.24% NiS, 0.20% Cu and 0.020% Co at the upper levels of the ultramafic intrusion. This is similar to observations at the Mangueiros Main target.

The conceptual model Figure 25-7) suggests the two bodies may be connected at depth, but this has not been proven. Mangueiros West exhibits a broader and more intense anomaly compared to Mangueiros Main, which may indicate a larger ore body with a deeper emplacement as reflected in the conceptual model and supported by MGDH-069 which intercepted the mineralized ultramafic rock at a depth of 97.70 m from the surface.



Source: Bahia Nickel Mineração, 2024

Figure 25-7: Mangueiros Main and West Conceptual Structure Model (showing the Traces of Drillholes)

Given the similarities in the size and intensity of the geophysical anomalies, it is possible Mangueiros West may have an exploration potential to comparable to Mangueiros Main, but due to the lack of drilling at Mangueiros West, the QP cannot state an exploration target for Mangueiros West.

It is uncertain if further exploration will result in these areas estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources.

25.4.3 Lagoa da Onça

In May 2023, a final exploration report was submitted to the National Mining Agency of Brazil summarizing the discovery of the Lagoa da Onça mineralized system. Figure 25-8 shows the magnetic anomaly and drillholes associated with Lagoa da Onca. Figure 25-9 shows an oblique section of the preliminary model used to define the exploration target at Lagoa da Onca.

Guidelines of the Comissão Brasileira de Recursos e Reservas-CBRR (Brazilian Committee of Resources and Reserves) were applied in the defining the exploration potential of at Lagoa da Onça.

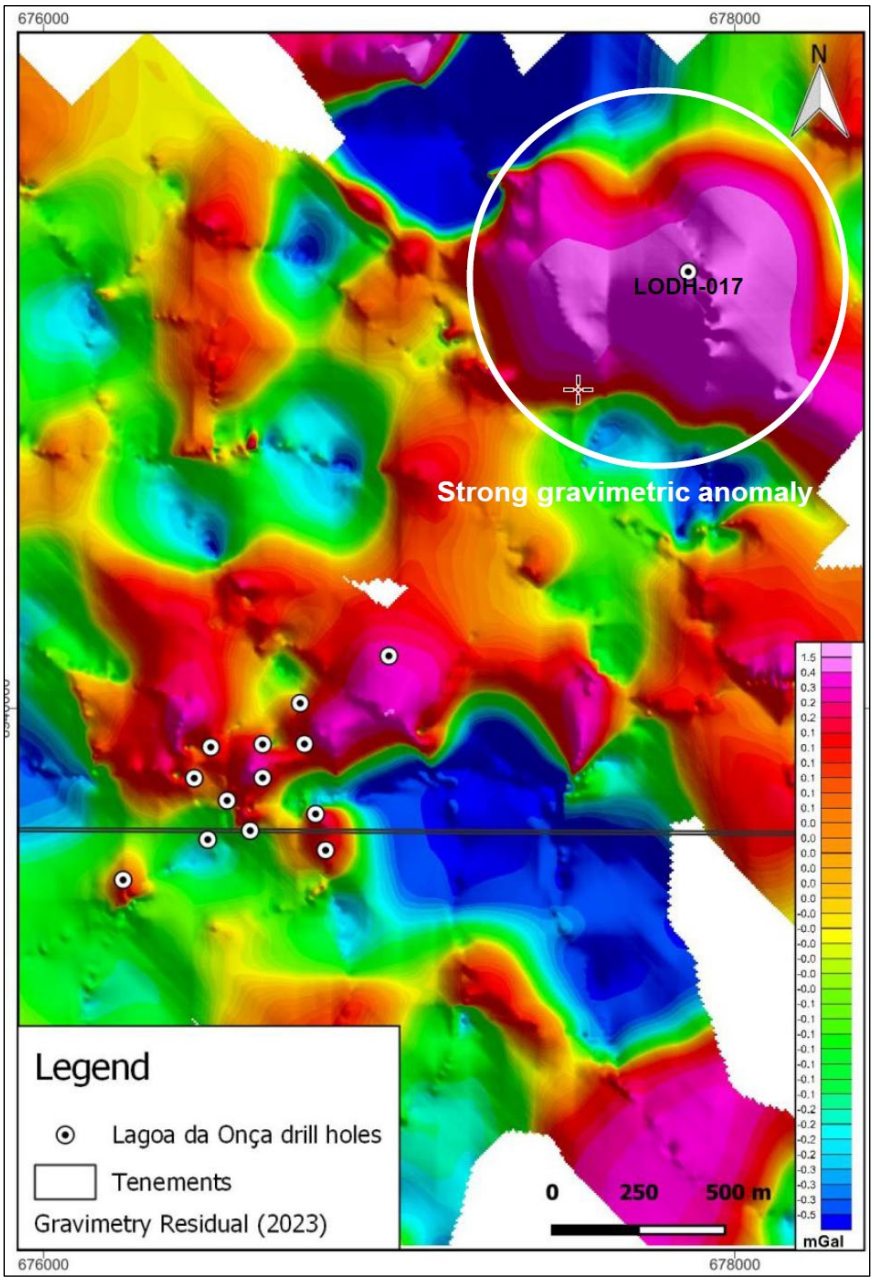
A preliminary model was generated for target evaluation and not for resource estimation purposes. The numbers presented should not be considered a Mineral Resource and the reader is cautioned the model and numbers do not have sufficient support to meet the requirements for declaration of a mineral resource.

Seequent Leapfrog® Geo/Edge was used to model geology and grade shell wireframes. A model consisting of 5x5x5m blocks was constructed. Grade shells were used to constrain the samples used to evaluate the exploration potential.

An Inverse Distance Weighting (IDW) estimator was used was used to estimate NiS grades. Based on field measurements from 16 holes drilled at Lagoa da Onca, a density of 2.97 g/cm^3 was applied to determine tonnages. A cut-off grade of 0.10% NiS, suggests the estimated material within the modelled pit shell amounted to approximately 56 Mt of ore with an average grade of 0.13% NiS. The QP applied a range of ±20% to these tonnes and grade to determine the exploration target.

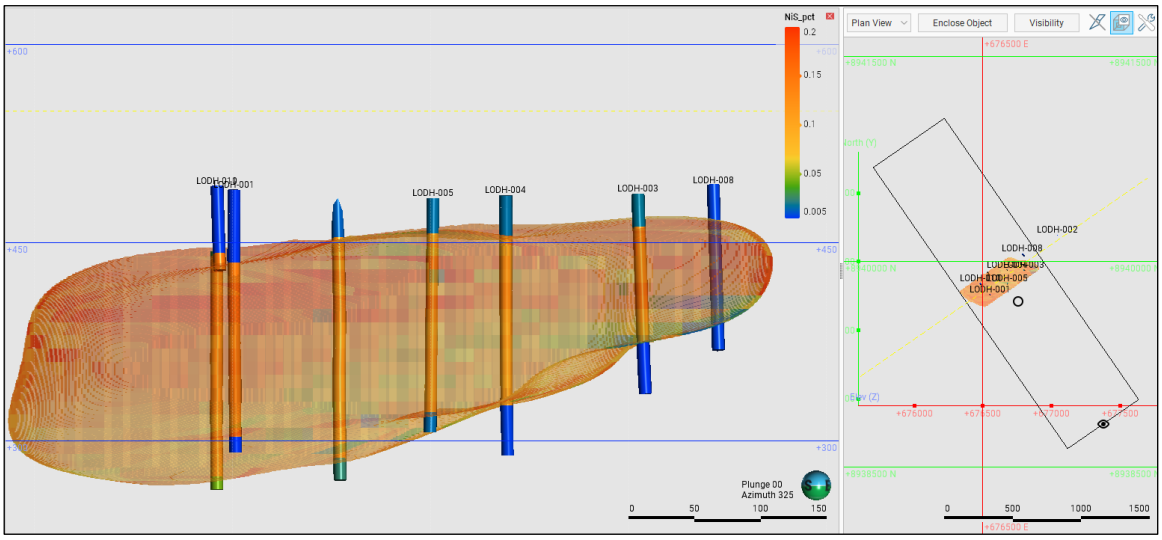
The potential quantity and grade ranges noted below are conceptual in nature and insufficient exploration has been conducted to define this material as a Mineral Resource. It is uncertain if further exploration will result in these exploration target estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources.

The target remains open in several directions. The exploration target at Lagoa da Onca is expected to be a tonnage range of 45 to 67 Mt with a grade range of 0.10% to 0.16% NiS.



Source: Bahia Nickel Mineração, 2024

Figure 25-8: Lagoa da Onca Discovery Area – Upper Corner, White Circle represents Lagoa da Onca North



Source: SRK, 2024

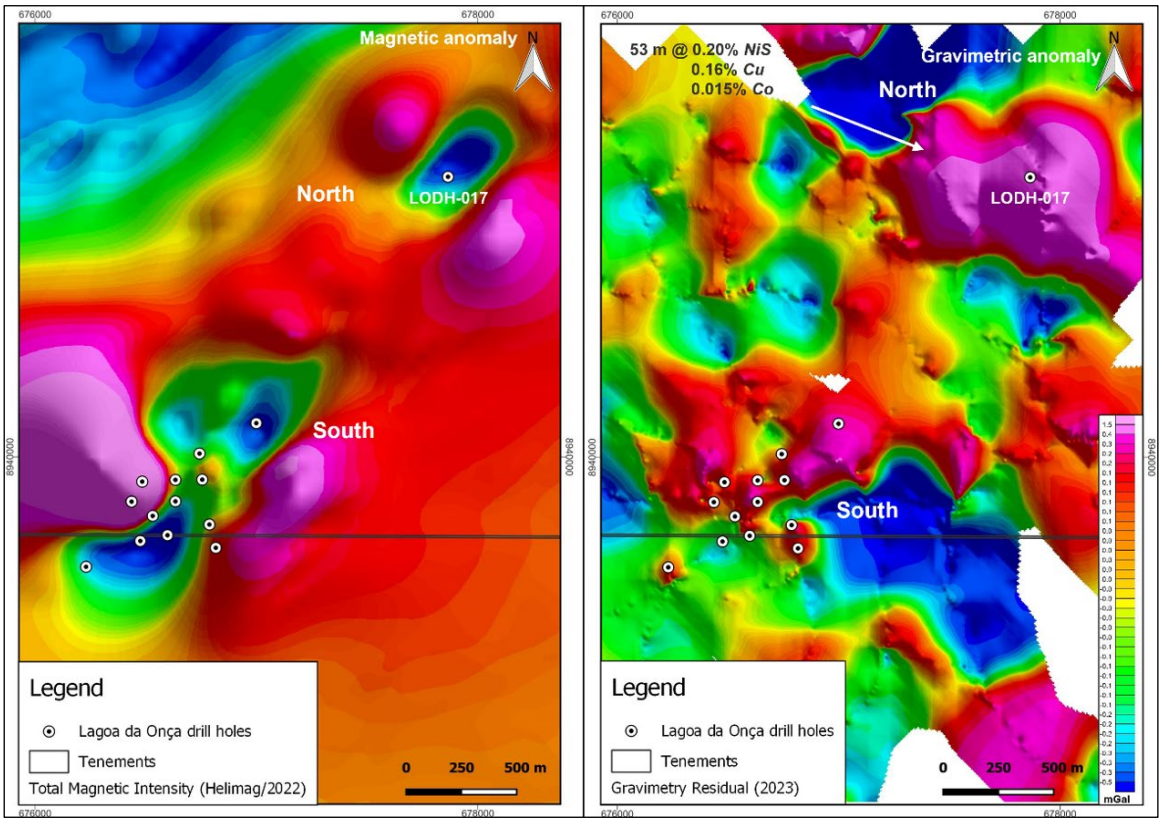
Figure 25-9: Lagoa da Onca – Oblique Section

25.4.4 Lagoa da Onça North

Significant gravimetric and magnetic anomalies have been identified at both the Lagoa da Onça and Lagoa da Onça North targets (Figure 25-10) with Lagoa da Onca North anomaly being similar in size to Mangueiros Main. Drillhole LODH-017 (53 m at 0.20% NiS, 0.16% Cu, and 0.015% Co, starting from 28 m) confirmed a mineralized system is present at Lagoa da Onça North.

Geophysics and the limited amount of drilling at Lagoa da Onca North suggest an exploration target geologically similar to Mangueiros Main meriting additional exploration. No range of tonnes and grades can be estimated at this time.

It is uncertain if further exploration will result in these areas estimates being delineated as Mineral Resources or converted to Mineral Reserves in the future. SRK cautions that estimates of exploration targets are not a CIM-defined category, are not Mineral Resources, and are too speculative to fulfill the definition of Mineral Resources.



Source: Bahia Nickel Mineração, 2024

Figure 25-10: Lagoa da Onça and Lagoa da Onça North Magnetic and Gravimetric Anomalies

26 Recommendations

26.1 Recommended Work Programs and Costs

It is the QP's opinion that the current information is sufficient to define the potential range of tonnage and grades that are expected at Manqueiros Main.

The QP considers that additional exploration and supporting studies need to be completed on the Project to advance to a mineral resource (note that it is uncertain if exploration will result in the delineation of new mineral resources).

Assuming these two areas of focus, the QP recommends the following work programs (note that it is uncertain if exploration will result in the delineation of new mineral resources). If the proposed drill programs demonstrate sufficient geological and grade continuity, the next stage of the project will be to define an initial MRE; these can be broken down into two key areas, as discussed in this report:

- Mangueiros (Main and West):
  - Exploration to date at Mangueiros Main has demonstrated shallow/outcropping sulfide mineralization covered by a thin (20 m) layer of overburden and oxidized mineralization. Sulfide mineralization is relatively continuous vertically and both along strike and across strike of the MUM unit.
  - Mangueiros West is a Ni-Cu-Co sulfide system that has been confirmed by one drillhole that intersected Ni-Cu-Co sulfide mineralization at a depth of 97.70 m. The size and strength of its coincident magnetic and gravimetric anomalies suggest a target of similar size to Mangueiros Main may exist at Mangueiros West.
- Lagoa da Onca and Lagoa da Onca North:
  - Lagoa da Onca (second best defined target) has less drilling than Mangueiros Main, but results to date suggest similar characteristics to Mangueiros Main.
  - Lagoa da Onça North, one drillhole intersected sulfide Ni-Cu-Co mineralization, at a vertical depth of 28 m. This area also has potential due to the size and strength of its coincident magnetic and gravimetric anomalies.

Assuming these two areas of focus, the QP is recommending the following work programs (Table 26-1 shows the budget). The minimum exploration program proposed for Bahia Nickel in 2026 includes:

- Mangueiros Main:
  - Diamond drilling of 1,250 m aiming to confirm the westward continuation of the known mineralization

The minimum exploration program proposed for Bahia Nickel in 2027 includes:

- Mangueiros Main:
  - Diamond drilling of 4,000 m to support a maiden MRE (NI 43-101)
  - Borehole EM geophysical survey to identify zones with possible occurrence of massive sulfidation, feeder conduits, and high Ni grade zones
  - Complete metallurgical tests on larger, raw core samples conducted by an external certified laboratory.
- Lagoa da Onça North:
  - Step out diamond drilling of 500 m to define mineralization continuity and to provide a minimum size for this mineralized system

- Mangueiros West:
  - Step out diamond drilling of 500 m to define mineralization continuity and to provide a minimum size for this mineralized system.

Table 26-1: Proposed Exploration Budget

Phase 1 (12 months): Proposed Budget	
Activity	**Cost (US$)**
Drilling (1,250 m)	200,000
Laboratory assaying	66,500
Vehicles/rent/facilities/IT	45,000
G&A	175,000
Continency (10%)	48,500
Subtotal	**535,000**
Phase 2 (12 months): Proposed Budget	
Activity	**Cost (US$)**
Drilling (5,000 m)	601,500
Laboratory assaying	250,000
Borehole EM	35,000
Resource statement report	100,000
Vehicles/rent/facilities/IT	65,000
Metallurgical test	50,000
G&A	250,000
Continency (10%)	133,500
Subtotal	**1,485,000**

Source: SRK, 2025

SRK expects that US$535,000 will be spent in Year 1 and US$1,485,000 will be spent in Year 2.

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28 Glossary

The Mineral Resources and Mineral Reserves have been classified according to CIM (CIM, 2014). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

28.1 Mineral Resources

A **Mineral Resource** is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

An **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

28.2 Mineral Reserves

A **Mineral Reserve** is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to

ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

A **Probable Mineral Reserve** is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

A **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

28.3 Definition of Terms

The following general mining terms may be used in this report.

Table 28-1: Definition of Terms

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with ore.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an orebody or stope.
Gangue	Non-valuable components of the ore.
Grade	The measure of concentration of gold within mineralized rock.
Hangingwall	The overlying side of an orebody or slope.
Haulage	A horizontal underground excavation which is used to transport mined ore.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological	Geological description pertaining to different rock types.
LoM Plans	Life-of-Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve.
Pillar	Rock left behind to help support the excavations in an underground mine.
RoM	Run-of-Mine.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.

Term	Definition
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulphide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).

28.4 Abbreviations

The following abbreviations may be used in this report.

Table 28-2: Abbreviations

Abbreviation	Unit or Term
A/m^2	amperes per square meter
Ag	silver
ANM	Brazilian Mining Agency
Au	gold
AuEq	gold equivalent grade
Bahia Metals	Bahia Metals Corp.
Bahia Nickel	Bahia Nickel Mineração
BNM	Bahia Nickel Mineração Ltda.
°C	degrees Centigrade
CCD	counter-current decantation
CIL	carbon-in-leach
CoG	cut-off grade
cm	centimeter
cm^2	square centimeter
cm^3	cubic centimeter
cfm	cubic feet per minute
CPBM	Companhia Baiana de Pesquisa Mineral
CRM	Certified Reference Material
°	degree (degrees)
dia.	diameter
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
FA	fire assay
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
g	gram
G&A	general and administrative
gal	gallon
g/L	gram per liter
gpm	gallons per minute
g/t	grams per tonne
ha	hectares
HDPE	Height Density Polyethylene
hp	horsepower
HTW	horizontal true width
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
IFC	International Finance Corporation

Abbreviation	Unit or Term
ILS	Intermediate Leach Solution
IPO	initial public offering
IT	information technology
kA	kiloamperes
kg	kilograms
km	kilometer
km^2	square kilometer
koz	thousand troy ounce
kt	thousand tonnes
kt/d	thousand tonnes per day
kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
kWh/t	kilowatt-hour per metric tonne
L	liter
L/sec	liters per second
L/sec/m	liters per second per meter
lb	pound
LHD	Long-Haul Dump truck
LoM	Life-of-Mine
m	meter
m^2	square meter
m^3	cubic meter
masl	meters above sea level
MARN	Ministry of the Environment and Natural Resources
MDA	Mine Development Associates
mg/L	milligrams/liter
mm	millimeter
mm^2	square millimeter
mm^3	cubic millimeter
MUM	mafic ultra-mafic unit
NI 43-101	Canadian National Instrument 43-101
NiT	Nickel Total
NSR	Net Smelter Revenue
oz	troy ounce
%	percent
PLGB	Basic Geological Survey Program
PMF	probable maximum flood
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	second
SG	specific gravity
SGB	Brazilian Geological Survey
st	short ton (2,000 pounds)
t	tonne (metric ton) (2,204.6 pounds)
t/h	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
TSF	tailings storage facility
µm	micron or microns
V	volts
VFD	variable frequency drive
W	watt
y	year

Appendices

Appendix A: Certificates of Qualified Persons

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CERTIFICATE OF QUALIFIED PERSON

I, Douglas Reid, P. Eng., do hereby certify that:

1. I am Principal Consultant (Resource Geology) of SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled “NI 43-101 Technical Report Project Status Report Mangueiros Ni-Cu-Co Project Bahia, Brazil” with an effective date of November 15, 2024, prepared for Bahia Metals Corp. (the “Technical Report”).
3. I graduated with a degree in a Bachelor of Science in Geological (Geophysics) Engineering from the University of Saskatchewan in 1986. I am a P. Eng. (23347) of the Engineers and Geoscientists British Columbia. I have worked as a Geological Engineer for a total of 35 years since my graduation from university. My relevant experience includes developing and reviewing resource models and mineral resource estimation for mineral projects in North and South America and Africa since 1994.
4. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
5. I visited the Bahia property from July 22 to 26, 2024
6. I am responsible for all sections of the Technical Report.
7. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information, and belief, the sections of the Technical Report I am responsible for contain all scientific and technical information that are required to be disclosed to make the Technical Report not misleading.

Dated this 25th day of September, 2025.

(Signed & Sealed) *Douglas Reid*

Douglas Reid, P.Eng.