Updated and Expanded Resource Estimate for the Marimaca Copper Project, Antofagasta Province, Region II, Chile

Report Prepared for:

Coro Mining Corporation

Report Prepared by: NCL Ingeniería y Construcción SpA

January 15th, 2020

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CERTIFICATE OF QUALIFIED PERSON

I, Luis Oviedo, P.Geo, I am a consultant and QP with NCL and I have an employment address at 230, General del Canto, Providencia, Santiago de Chile. This certificate applies to the technical report titled “Updated and Expanded Resource Estimate for the Marimaca Copper Project, Antofagasta Province, Region II, Chile” that has an effective date of January 15th, 2020 (the “technical report).

I am a registered Professional Geologist (P.Geo.) in Chile. I am registered member of the Comisión Calificadora de Competencias en Recursos y Reservas Mineras (Chilean Mining Commission: RM, CMC) with the number 013. I graduated with a Geologist degree from the University of Chile in 1977. Postgraduate “Evaluation and Certification of Mining Assets”. Universidad Católica de Valparaíso, 2008, Chile.

I have practiced my profession for over 40 years since graduation. I have been directly involved in resource estimates for all types of mines, audits, half-lives and technical reports of resources for stock exchanges and financial institutions in Canada, Chile, Peru, Ecuador and Colombia. I am a “qualified person” as that term is defined in NI 43-101 - Standards of Disclosure for Mineral Projects (“NI 43-101”), JORC and other stock exchanges in the world.

I visited twice the Marimaca Project (the “Project”) 3 days in December 2016 and 2 days in August 2019. I am responsible for the complete report.

I am independent of Coro Mining Corp. as independence is described by Section 1.5 of NI 43-101.

I have been involved with the Project since November 2016 for the preparation of the first Resources Estimation study in 2017 and the preparation of the 43 -101 Technical Report “Updated Resurce Estimate for the Marimaca Copper Project, Antofagasta Province Region II, Chile” May 2018.

I have read NI 43-101 and the sections of the technical report for which I am responsible have been prepared in compliance with NI 43-101.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all the scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: January 15th, 2020
Signed and sealed
Luis Oviedo H. PGeo, QP

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0 SUMMARY

This report provides an updated and expanded mineral resource estimate for the Marimaca Copper Project. The mineral resource estimate from Marimaca project, whose mineral resources and a DFS study provided by Coro Mining Corporation (Coro) in three NI-43101 reports dated February, 2017 (NCL, 2017); May, 2018 (NCL, 2018) and June, 2018 (Propipe, 2018), are superceded by the information contained in the present report. On the other hand, further successive exploration and delineation work undertaken towards the west and north from Marimaca 1-23 area in 2018 and 2019, confirms the extension of the oxide mineralization and permits the expansion of the mineral resource estimate to the whole deposit footprint which receives, for the purposes of this report, the name of Marimaca Project.

Coro Mining's extended Marimaca Project hosts an open pit-mineable copper deposit, 45 Km to the north of Antofagasta, Region II of Chile. In anticipation of the report Coro mandated NCL to visit the properties, estimate the Mineral Resources and compile an independent technical report pursuant to Canadian Securities Administrators' National Instrument 43-101. From 2016 to 2019, a team of independent qualified persons, as the term is defined by National Instrument 43-101, visited operations at Marimaca.

In February 2017, Coro published a NI 43-101 report with the results of the maiden resource estimation for the Marimaca 1-23 claim. With a subsequent infill drilling program Coro updated the Marimaca 1-23 mineral resource estimate in May, 2018. In August 2017 Coro announced the start of a Definitive Feasibility Study (DFS) based on an infill, geotechnical and metallurgical Drilling Program (new release, August 22) and the corresponding updated resources. The resulting NI 43-101 DFS report was filed in June, 2018.

Furthermore, the acquisition of the 10,000 tonnes per year ("tpy") copper cathode capacity Ivan SX-EW Plant was announced in a press release on June 9, 2017. All these actions, plus environmental, metallurgic studies and consolidation of the surrounding mining property, define the staged development of Marimaca.

This report provides an update of the estimation of the mineral resource, because of the new geological model and new data from the infill drilling campaign executed, from August 2018- to September 2019. This operation increased the information from the original Marimaca 1-23 50 x 50 m drilling grid, extending it towards the west (La Atómica 1-10 concession) and towards the north and north-east (Atahualpa group of concessions) at 100 x100m drill spacing. Thus totaling 91,210 meters of drilling, comprising Reverse Circulation (RC, 82,234 m) and Diamond Drilling (DDH, 8,976 m). In addition, detailed geological mapping and rock sampling at 1:1,000 metric scale of outcrops and underground workings, was incorporated. The underground workings provided 3D knowledge of lithology, structures, geometry and geotechnical data

This report summarizes the technical information that is relevant to support the estimation of Mineral Resource Estimation (MRE) of the Extended and Updated Marimaca Copper Project and the results obtained, pursuant to Canadian Securities Administrators' National Instrument 43-101.

0.1 Property Description and Ownership

The Marimaca Project is located in Chile's Antofagasta Province, Region II, approximately 45 km north of the city of Antofagasta, 25 km to the east of the port of Mejillones and approximately 1,250 km north of Santiago (Figure 0.1). The Cerro Moreno International Airport is located about 44 km south of the Project. The center of the deposit's WGS84 UTM coordinates correspond roughly to 374,800 E and 7,434,900 N.

Antofagasta and Mejillones are relevant shipping ports, especially Mejillones, which is a port for larger cargo. In addition, there are five thermoelectric plants and the most important sulfuric acid terminal in the north of the country. The International Airport port of Antofagasta is 40 km and approximately 50 minutes from the project.

Coro Mining Corp. is an exploration, development & mining company and its 100% owned Chilean subsidiary Minera Cielo Azul Ltda (MCAL) acquired and has the right to acquire 100% of several claims protecting the whole footprint and surrounding areas of de Marimaca Copper Project, covering more than 30,000 hectares, as detailed in Chapter 3 of this report.

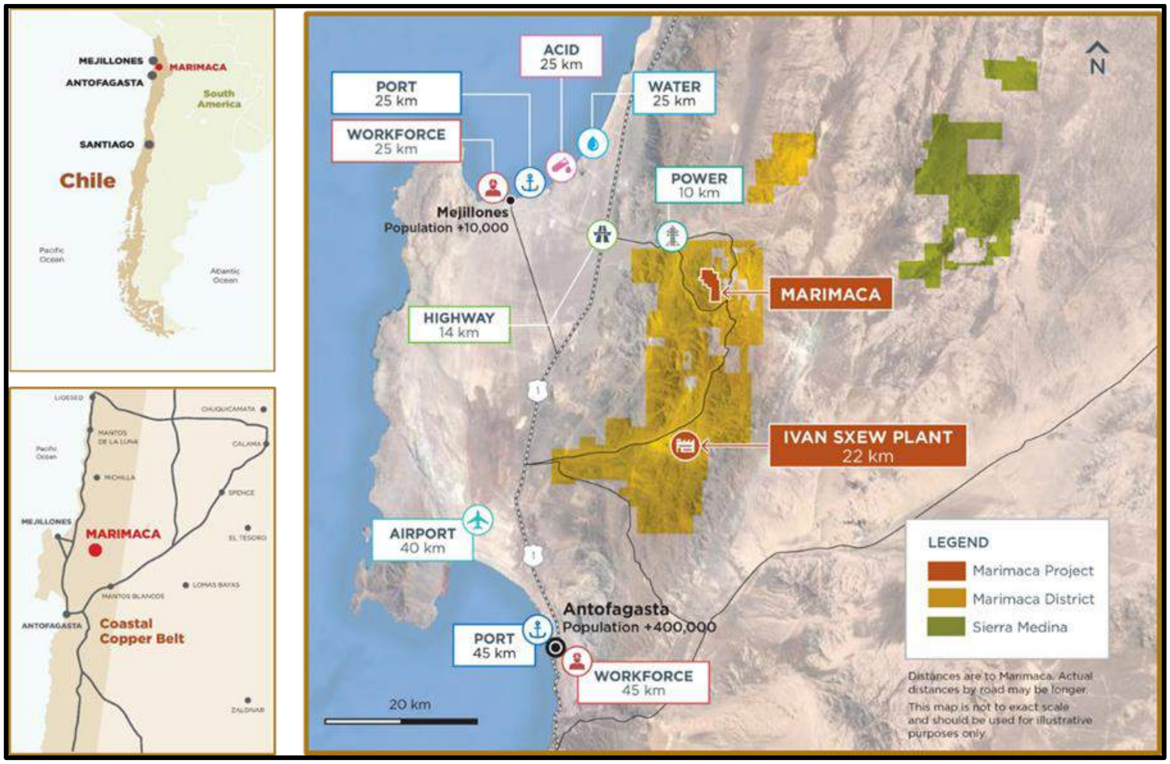

Figure 0.1 Marimaca Project Location

From August 2018 to September 2019, and subsequent to the acquisition of mining property packages, MCAL has undertaken an exploration and delineation drilling campaign oriented to the discovery and delineation of the extensions of the Marimaca 1-23 copper mineralization towards the west and north. A total of 52,516 meters of RC and 4,918 m of diamond drilling (DDH) were completed. Also, more than 800 m of accessible underground workings were sampled and mapped. A geologic database including detailed outcrop mapping and sampling was also added.

To date the total drilling database, consists of 91,210 m of total drilling, 82,234 m of RC and 8,976 m of DDH. Previous data drilling was detailed technical reports submitted in February 2017 (NCL, 2017), and May 2018 (NCL, 2018).

During 2018 - 2019, a substantial amount of detailed geological information, both surface and existing underground workings data, metallurgical, environmental and geotechnical studies were added to the project's database.

The Marimaca Project mining property comprises 60 individual claims totaling approximately 5,840 hectares in area. The claims are free of mortgages, encumbrances, prohibitions, injunctions, and litigation. However, Net Smelter Return royalties (see chapter 3-1) affect the claims containing the active and future mining activities

0.2 History

The area was known since the end of the 19th century as "Mineral de Naguayán" that actually corresponds to the La Atómica 1-10 and Atahualpa Mining Concessions Group area. Project site and district exploration programs have been active since the Marimaca deposit discovery in 2016. There is no verifiable history of mining prior to Marimaca 1 to 23, La Atómica 1-10, and the Atahualpa and Olimpo group properties.

The period of main small-scale mining activity was between the 1990s and mid 2000s with underground workings and small pits that could have produced approximately 200,000 t with 2-3% Cu grade. Whereas most of the artisanal exploitation was made by means underground workings at the Atahualpa and La Atómica sectors, just very shallow underground and small pits were mined at Marimaca 1-23.

In 1962, the first report was of granodiorite-hosted mineralization cut by "dark dikes" oriented north-south and inclined to the east, with copper mineralization occurring within a system of mili-decimetric parallel fractures. Reportedly, 5 t per week grading between 17% and 50% Cu were being mined. Several of the deeper underground adits reached sulfides described as chalcopyrite, bornite and chalcocite.

Between the 1970s and 1990s there are only reports by geologists of the government institutions such as the Institute of Geological Investigations and Empresa Nacional de Minería. The descriptions mention copper oxide mineralization in north-south oriented fractures and a potential of 200,000 t with an average grade of 1.2% Cu was estimated.

In 2003 the claim owners commissioned a geological study that described and sampled a 10° striking narrow veined system and estimated potential of 566,000 t of average grade 2.8% Cu. This study recognized an intense fracturing and the key directions of faults and veins.

In May 2008, geologists from Minera Rayrock SA described the control of the mineralization by a "pseudo-stratification" or a "pseudo-stratified intrusive". The potential for copper oxide mineralization was estimated at 21 Mt of average grade 0.8% Cu. After this, there are no other available reports regarding mining activities in the area.

In the meantime, artisans' miners exploited the properties by developing small open pits and underground workings often with some degree of mechanization. The small open pits had dimensions that did not exceed 20 by 15 m and depths of up to 20 m. Underground workings At La Atómica and Atahualpa reached extensions of no more than 800 m. Most of these copper oxide ores were sold to Michilla, ENAMI and Rayrock.

The discovery was made by Coro at Marimaca 1-23 claim in April of 2016 when the first 15 RC drill holes intercepted significant intervals of copper oxides. A complementary program was started in August, demonstrating the continuity and increase of the mineralization. In addition, some DDH holes were also drilled for metallurgical sampling. With these results, resource estimations were performed and published in January of 2017 (NCL, 2017).

During 2017, the Definitive Feasibility Study was commenced and included additional RC drilling in a regular 50 x 50 m grid and DDH drilling for geotechnical and geometallurgical studies. DFS report was completed in June 2018 (Propipe, 2018) Detailed geological surface mapping was completed, including rock sampling.

On January 2018, MCAL presented an environmental impact declaration for the development of an open pit mining exploitation at Marimaca. An environmental baseline was also evaluated for the future mine and leaching plant, (http://seia.sea.gob.cl/expediente/ficha/fichaPrincipal.php?modo=ficha&id_expediente=2137946846).

In the period of 2018 to 2019 Coro's main objective was to consolidate the mining property position surrounding the Marimaca 1-23 concession.

On August 2018 Coro announced the commencement of a drilling program oriented to explore and delineate the extensions of the copper mineralization form Marimaca 1-23 towards the west (La Atómica 1-10) and north (Atahualpa concessions package).

During 2019 Coro completed the drilling program including geological work. Mining property has been consolidated with the final agreement for the acquisition of 100% of Marimaca 1-23 announced on September 10, 2019. A new metallurgical test work is ongoing and a PEA for the extended resource is currently being planned to be completed on 1st quarter 2020.

0.3 Geology, Mineralization and Deposit Types

The Marimaca deposit is located within a belt of Mesozoic age copper deposits, known as the Coastal Copper Belt, which range in (pre-mining) size from Mantos Blancos, ~500 Mt to Ivan with ~50 Mt. These deposits, recognized as "manto-type" or IOCG types, occur in a variety of host rocks and alteration associations and have different morphologies and structure. This deposit's type is not totally clear yet (see chapter 3.1).

The deposits in the district are located NW of the main branches of the Atacama Fault Zone, a subduction-related fault system stretching over 1,000 km along the Chilean coast and active at least since the Jurassic. They have a common Cu-Ag primary mineralogy zoned from bornite outwards to chalcopyrite and pyrite; relatively deep oxidation and sometimes, secondary enrichment.

The wall rocks in Marimaca are intrusives from the "Naguayán Stock", an equigranular monzodiorite that grades to diorite in part cut by monzodiorite porphyries and by various systems of dacitic and dioritic dikes (NE, NS, NW and WNW orientation).

A system sub-parallel, planar, pervasive and persistent fractures occurring along a NS elongated structural belt is the most important structural feature of Marimaca. This feature can be followed at district scale and is informally named as Naguayán Banded Fracture Zone (NBFZ) giving to the rock an appearance of "pseudo-stratification", composed of cent-decametric sub-parallel "sheeted-like" fractures that show different types of penetration, filling, spacing and persistence. The other relevant structural system is the EW to NW oriented late faults and dikes that probably divides the deposit into discrete structural domains controlling the development of the supergene mineralization.

The Marimaca alteration consists of a metasomatism with very little evidence of destructive hydrothermal alteration. The calc-sodic (Na-Ca) metasomatism is the replacement of mafics by actinolite, magnetite and the plagioclase by albite. Sometimes the occurrence of tourmaline and chlorite is quite common replacing mafics in the interstices. Epidote in spots and veinlets is observed on the margins, outside the best mineralized zone. The Ca-Na metasomatism extends to a considerable distance from the mineralized body.

Marimaca is an oxide mineralized body with a minor proportion of secondary copper sulfides, generating a supergene blanket hosted by the NBFZ cut by a number of sets of dacitic and diorite dikes (NS, NW and WNW orientation). The mineralization of brochantite, atacamite, chrysocolla, and wad occurs as disseminations and impregnation of fractures in the parallel band system with a NS orientation, but also in diagonal faults systems with NE and NW orientation. The supergene blanket geometry, hosted by a pervasively fractures intrusive (the NBFZ) make this deposit very different to all those described to date in the Coastal Range region.

The blanket of Marimaca has a NNW orientation and an inclination to the NE due to the control of previous banding NS trending like fracturing and NW oriented late to post mineralization fault systems. Its average vertical thickness is 220 m and within the body, the oxides are zoned with brochantite-atacamite at the nucleus and chrysocolla at the borders. There is also a wad zone inside the blanket that was divided in high grade and low grade zones. (0.1% CuT limit value) The secondary sulfides are chalcocite and lesser covellite. The primary mineral intersections not completely well understood due to the lack of enough deep drill holes is represented by chalcopyrite and hypogene covellite, sometimes accompanied by magnetite and lesser hematite. The rock alteration in the mineralized zones is chlorite on a Na-Ca alteration background (albite, actinolite, and magnetite). The feeders have different alterations and concentrate the majority of the high grade and outliers.

The supergene phenomena have a main vertical component, allowed the oxides to be controlled by the fracturing and the distribution of the different types and orientations of dikes. There is a reasonable continuity in the distribution of the copper oxide and its copper grade distribution within the blanket. Some remnants of secondary small sulfides or mixed oxide-sulfide layers, and small volumes of leached rock that might generate internal waste, interrupt the continuity of the oxide zone.

The Marimaca supergene blanket is the result of overlapping processes of accumulative secondary leaching, enrichment and oxidation, in a column of rock affected by various structure systems and long geomorphological and paleo-climatic processes.

The primary sulfide associations have low pyrite content but it is estimated that its abundance in the hanging wall or red cap, permitted the generation of enough acid to have produced the supergene system.

Marimaca is located in an IOCG district of vein deposits combined with Fe bearing structures (e.g. Caprica) and the typical “manto-type” deposits in volcanic rocks (e.g. El Desesperado, Ivan). The common factors are the regional metamorphism/metasomatism environment, the Ca-Na alteration, the presence of magnetite and hematite, the dominant chalcopyrite sulfide and a low overall content of sulfides. The Au contents are low to nil and the proportion of magnetite is not so high. The occurrence of hypogene chalcocite and covellite is not common in IOCG deposits and, traditionally in the Coastal Range, “manto” and IOCG vein, type deposits without exception are hosted and shape controlled by volcanic piles.

The mineralization discovered at Marimaca does not fit well in any type. Even its stratiform shape following the remarkable fracturing system and its monzodiorite host rock has not yet been recognized elsewhere in the Belt and no other copper occurrences of this type have been identified in the literature.

An important factor at Marimaca is the presence of supergene enrichment and oxidation that contributed to an increased grade for the deposit. The existence of moderate amounts of pyrite available in the hanging wall made possible the generation of acid and the condition of low reactivity of the country rock, were ideal to generate a good supergene environment. The occurrence of all these events generated several stages of cumulative secondary enrichment and oxidation.

Finally, the Marimaca system appears to be a new type of copper deposit that opens new exploration possibilities in the area and elsewhere in the northern Chile.

0.4 Exploration Status

Coro has executed the following exploration tasks to date:

2015: geological surface reconnaissance as well as a UAV flight for orthorectification image and a detailed topographic map.

2016: RCH and DDH drilling campaigns were performed. In light of the good results, a 100 x 100 m grid for drilling was completed, using two orientations controlled to cut the primary and secondary structural directions of the mineralization. With these results, the first resource estimation exercise was done, published in January 2017.
2017: drilling was performed following the two orientations in a 50 x 50 m Infill Program. A total of 11,928 m RC in 59 holes was drilled. Another 820 m in 4 PQ drill holes for metallurgical purposes was added and a further 1,230 m in 6 holes with HQ3 methodology for geotechnical purposes was completed.
The area of interest was covered by 1:1,000 detailed geological mapping and rock sampling.

At the end of 2017 another 11 RC holes totaling 2,950 m were drilled to explore the NE extension of the Marimaca style mineralization always inside the mining concession; and because at this time the La Atómica 1-10 concession was optioned a first set of 14 RC holes totaling 3,220 m discovery holes were completed.

2018-2019 following the mining property consolidation, towards north with the acquisition of the Atahualpa and Olimpo mining concessions group, the so called Phase II of drilling oriented to the discovery confirmed the extension of the oxide body and its delineation was successfully completed, by means of the drilling of 70 RC, 16,150 m and 9 DDH, 2,203 m at La Atómica 1-10 and 138 RC holes, 36,366 m and 14 DDH´s, 2,715 m at Atahualpa and Tarso sectors.

Starting in 2017 an intensive program of 1:5,000 to 1:1,1000 metric scale detailed and systematic geologic mapping program has been carried out on most of the project area. At the same time underground workings and road cuts have been mapped and sampled.

The information from all the 2016-2017 and 2018-2019 drilling campaigns was used to define the current base of updated and extended, measured, indicated and inferred copper resources.

The tonnage and grades from the recent exploration results are included in this report.

The exploration discovery to date and the continued potential of the Coro properties is considered good. NCL is of the opinion that the exploration programs should continue to expand and improve the resources.

Coro acquired properties surrounding the project configuring the Marimaca district and Sierra Medina area that are open to expand Coro's potential in the area.

0.5 Drilling, Sample Preparation, Analyses, Specific Gravity, Qa/Qc and Security

The NI 43-101 2019 MRE was updated with the results of the infill program executed in 2017 at Marimaca 1-23, and expanded with the 2018-2019 program totaling 385 drill holes, 346 RC (82,234 m) and 39 DDH (8,976 m).

Coro's RC and DDH holes were sampled on a 2m continuous basis. RC cutting dry sample splitted by riffle and DDH samples by drill core splitter on site Analytical samples for the Marimaca Mineral Resources were prepared and assayed in Andes Analytical Assay Laboratories at Calama (sample preparation) and Santiago (assaying) for the Phase II drilling, and at Geolaquim Laboratory in Copiapó for the Phase I, both internationally certified for copper analyses. Conventional preparation and assaying procedures are used. All samples were assayed for CuT (total copper), CuS (acid soluble copper), CuCN (cyanide soluble copper) by AAS and for acid consumption. Specific gravity was systematically measured on 562 core samples from the DDH campaigns

Coro implemented analytical quality control measures, consistent with generally accepted industry best practices. The analytical quality control program includes the use of control samples inserted in batches along with all samples submitted. The analytical quality control data was routinely monitored with protocols in place for handling analytical results on controls that exceed acceptable limits, which ultimately can trigger re-assays of entire or portions of sample batches.

A review of the QA/QC progams by NCL reveals:

- Check sample analysis, the sole quality control measure for the pilot drilling campaign, shows sufficiently good accuracy, despite a lack of other control measures, due to the considerable number of control samples and a decisively strong assay correlation between laboratories.

- Standard Reference Material (SRM) analysis shows very good accuracy and precision, despite observations made to earlier campaigns regarding uncertainty in some of their results due to the numerous types of SRMs used and the low number of samples inserted for some SRMs. These methodological shortcomings, however, were properly rectified in the development of later campaigns.

- Duplicate sample analysis shows very good precision with some concerns regarding the lack of field duplicates in all campaigns and the lack of any duplicate in the pilot drilling campaign, the latter being moderately mitigated thanks to the strong correlation between check samples.

- Blank sample analysis of recent campaigns shows no evidence of contamination. In earlier campaigns missing blanks, it seems reasonable to infer that there's low probability for contamination after reviewing the laboratories' control measures and given that their SRM and duplicate sample analyses performed very well. Some concerns regarding the lack of coarse blanks and the use of very low grade SRMs as fine blanks, the latter being acceptable but not ideal.

The security as was observed in the field and in the files and the results appears to be well done and follows standard industry best practices.

In the opinion of NCL, the analytical results are free of bias. The sampling preparation, security, and analytical procedures used are consistent with generally accepted industry best practices and are therefore adequate to support Mineral Resource estimation.

0.6 Mineral Processing and Metallurgical Testing

Two campaigns of column test work had been carried out on four types of material of leachable copper oxide mineralization from Marimaca. Phase 1 exploratory campaign considered all the works for determining the characterization of material including granulometry, sulphation and Iso-pH test, and a duplicated 7x1m columns test, and the spent material characterization. Phase 2 was aimed at confirming previous results in taller columns test of 2.5 meters height and to determine impurity leaching solutions as Mg, Mn, Al and Fe levels.

The above Preliminary results shows that for oxides (subzones Brochantite, Chrysocolla and Wad) material, it is possible to obtain recoveries ranging from 68 to 83% depending on the copper grade and solubility and a net acid consumption is about 35kg/t treated material.

0.7 Mineral Resource Estimates

The Mineral Resources discussed herein are based on information from more than 90,000 m of core and RC drill holes, stored in a secured central database, and was evaluated using a geostatistical block modelling technique.

Rock-Structure and Mineral Zone distribution was interpreted by hand on paper in vertical cross sections oriented NE, NW and EW, at 1:1,000 metric scale (see examples in Figures 0.2 and 0.3). Most of the deposit area was covered by a set of 50 m spaced sections excepting the NE and NW margins.

The order of interpretation was litho-structure first and then the mineral zone into transparent overlays. The mineral zone interpretations were later used as MRE domains. The mineral zones interpretation was based primarily on the drillhole logging.

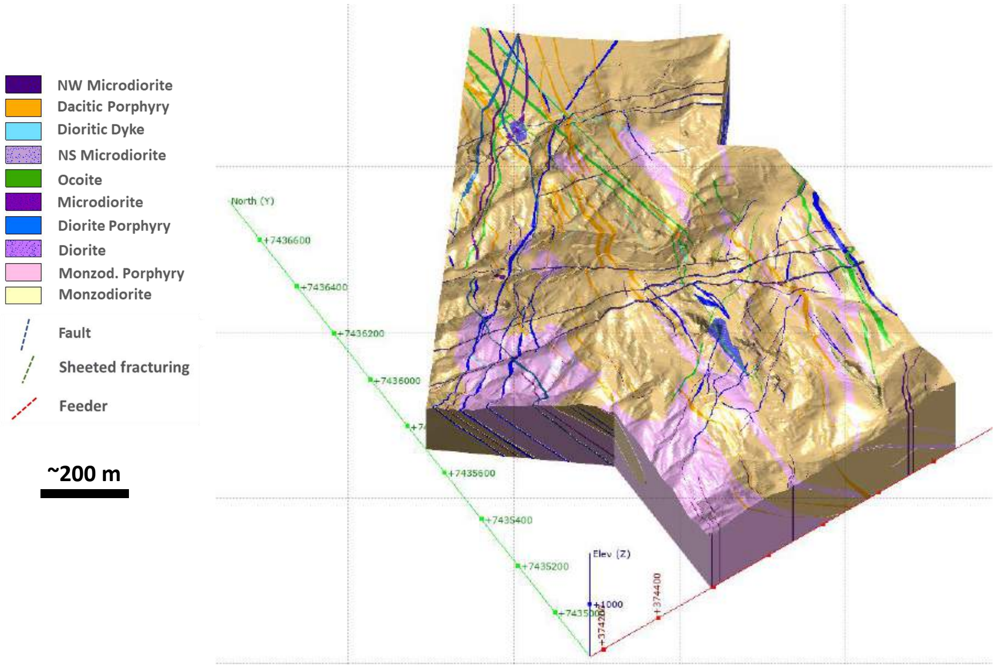

Figure 0.2: Marimaca Project. Updated 3D Lithological Model built in Leapfrog Geo

The 3D models for litho-structure (Figure 0.2) and mineral zone were then assembled in Leapfrog TM using sections and drill hole data by consultants, Atticus Geo.

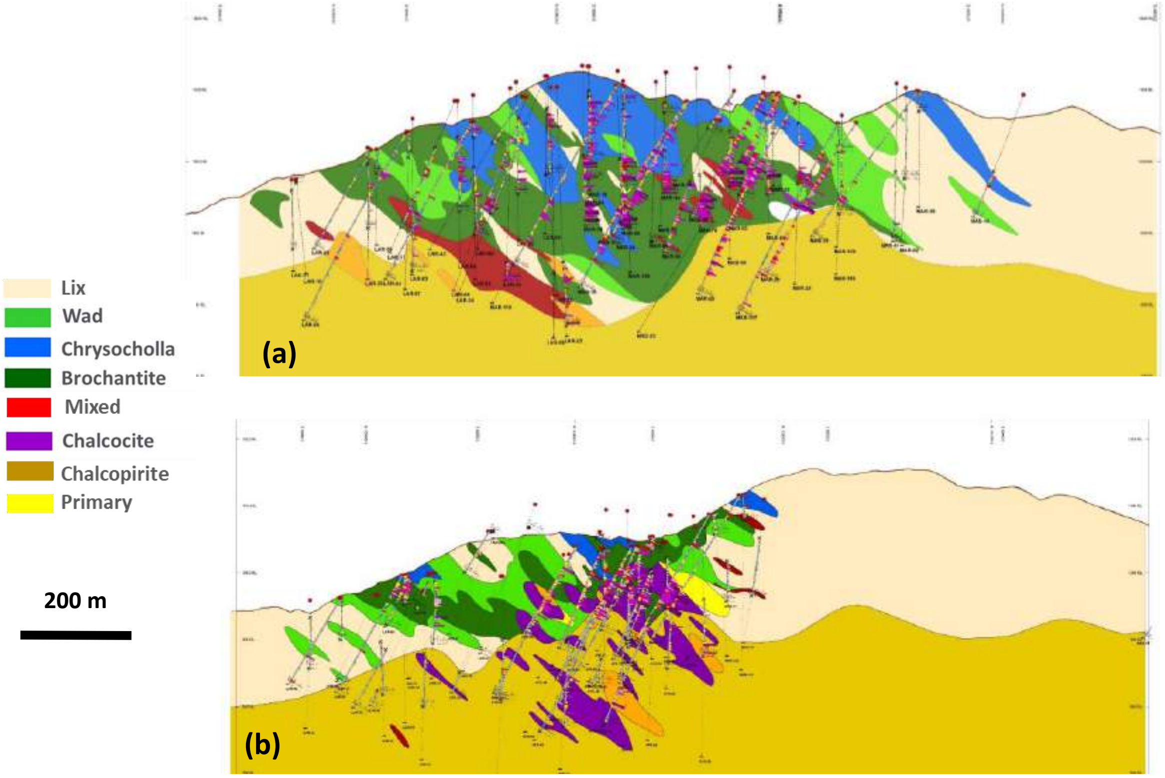

Figure 0.3: Marimaca Project. Updated Mineral Zones Interpretation, Sections NW 400 (a) and NW 650 (b)

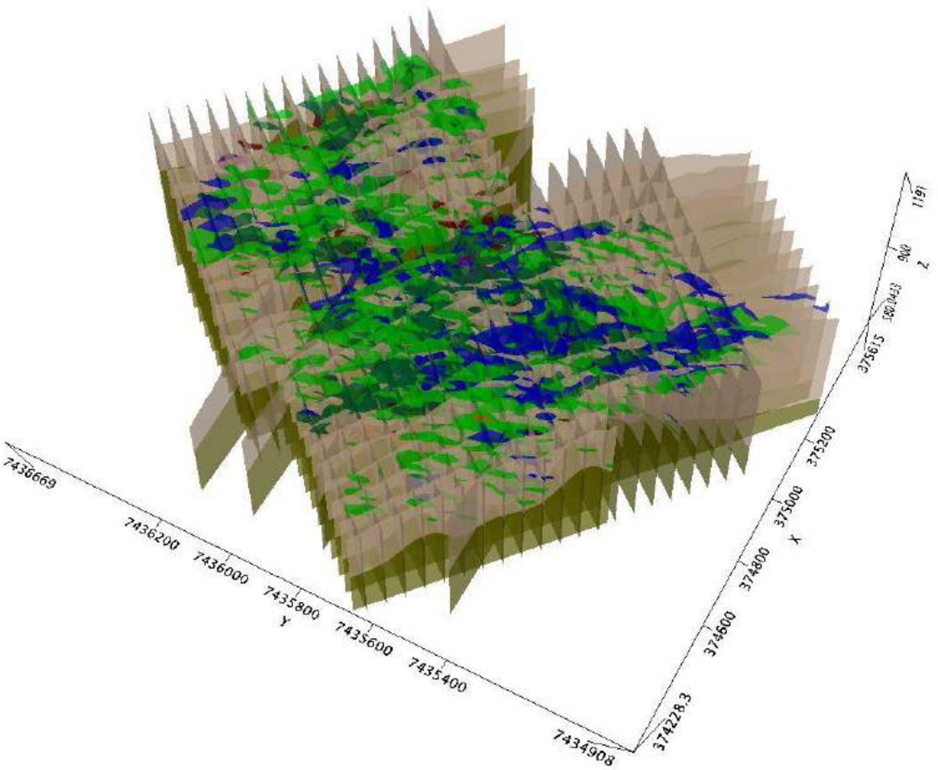

Figure 0.4 Mineral Zones Section Integration

After comparing the Marimaca Mineral Resource model against the informing samples and the statistics of the model, NCL concludes that the modeling approach produced a reasonable and reliable model.

In order to build the resources model of the Marimaca deposit and generate the resource estimate, the following stages were developed:

- Analysis of exploration data and definition of the estimation populations.
- Validation of three-dimensional solids to the defined populations.
- Statistical analyses of the samples of the different variables in each population.
- Variography and anisotropy analyses. Definition of preferential directions, calculation and adjustment of variograms per population and elements to be estimated (CuT and CuS).
- Detection and treatment of outliers.
- Definition of the Block Model.
- Definition of the estimation strategy and Kriging plans per element and population.
- Estimation of grades for each element of each population.
- Categorization of resources.
- Validation of the Model through:
  - Comparative statistics between composites and estimated blocks.
  - Analyses of smoothing of grades.
  - Moving window analyses of composites and blocks estimated in different directions and Nearest Neighbor comparison
  - On screen validation.
- Final Report of the geological resources by category.

The drilling database contains Diamond Drill (DDH) as well as Reverse Circulation (RC) holes. Table 0.1 presents the information contained in the database.

	Total	RC	DDH
# Drill	385	346	39
Drilled m	91,210	82,234	8,976
Total Sample	46,283	41,784	4,499

	Total		DDH		RC	
	#Samples	Meters	# Samples	Meters	#Samples	Meters
Samples with CuT>0	22,449	44,894	4,497	8,984	41,461	82,922
Samples with CuS>0	22,447	44,890	4,497	8,984	41,459	82,918

Table 0-1: Database General Information

The information from all of the 2016-2017 and 2018-2019 drilling campaigns was used to define the current base of measured, indicated and inferred copper resources.

The drilling, logging, sampling, analysis and recording information procedures are consistent with generally recognized industry best practices. NCL concludes that the samples are representative of the source materials and there is no evidence that the sampling process introduced any bias

Specific gravity was systematically measured on 562 core samples from the DDH campaigns. The average specific gravity of each estimation unit was calculated using a set of 562 measures, divided according to each mineral zone. Outliers were eliminated, the following table shows the specific gravity for each of the mineralized zones. (Table 0.2).

SZMIN	Mean (t/m3)
Brochantite	2.639
Chalcopyrite	2.719
Chrysocolla	2.670
Enriched	2.649
Waste	2.645
Lix	2.663
Mixed	2.688
Pyrite	2.711
Wad	2.642

Table 0-2: Mineral Zones Specific gravity

Coro implemented analytical quality control measures, consistent with generally accepted industry best practices. The analytical quality control program includes the use of control samples inserted with all samples submitted. The analytical quality control data was routinely monitored.

To validate the use of data from the DDH and RC exploration campaigns, twin holes samples (RC vs. DDH) close to 10m maximum, from both exploration campaigns were compared. The GS Libgetpairs routine was used for this work.

An analysis of the samples' length was done in order to check if regularization was required (compositing). Practically all the samples are 2 meters long, so it was concluded that no further action in this regard was needed.

Therefore, the samples to be used in the grade modeling process are the raw samples from the drillhole database, coded according to the solid that contain their centroids.

The contact characteristics between the units to estimate have been reviewed according to the mean grade of the samples, in relation to their distance to the contact defined in the solids model.

An analysis of the existence of outliers in the estimation populations was done using the log-probability curves for each samples' population, looking for some singularities in the curves that may signal the presence of an outlier limit. Identified values were used to cap the different populations.

Correlograms were calculated. The correlograms were performed for the 5 areas of the structural model (Marimaca, Atahualpa, Tarso, Manolo and Atahualpa-Atomica). The variography of CuT and CuS has been developed in two ways, one using the samples of the populations derived from the Contact Analysis independently and another using the total samples inside the estimation solids. Although they show similar behaviors to the correlogram using the total samples, the former was better modeled. Correlograms in distinct directions were calculated, according to visual tendencies, using the structural zones defined in the structural chapter and discussions with Coro's technical team. The determination of the nugget for each population was done using the down-the-hole correlograms.

The grade interpolation method selected was Ordinary Kriging, attending to the nature of the deposit and the data availability. Four kriging plans were defined, to be executed in sequential order. The general concept is to "fill" the grades model, starting with a restrictive estimation plan which considers only interpolation between drill holes, separated distances below the equivalent of 85% of the variogram sill. Then, the following plans increase the search distance and release other restriction gradually, until the estimation is complete.

Resource Classification has been done according to the conditions defined by the number and location of samples in the neighborhood of each block. This criterion attends the requirements established by the CIM code. The 1st pass generates block estimates with a minimum of two drill intercepts, both within distances shorter than the D85 (distance corresponding to the point where the correlogram reaches 85% of the sill); The 2nd pass maintains the restriction of the number of drill intercepts, but enlarges the search range by twice the D85. These two passes generate Mesured and Indicated Resources respectively. The 3rd pass increment the search radius to 4 times the D85 and reduces the number of drillholes within this range to one, generating Inferred Resource. A fourth pass was added using a very large search radio, in order to ensure that all the blocks inside the geological model are estimated. This fourth pass generates Potential mineralized rock.

Visual Validation, Statistic Validation, Moving Window Analysis and Nearest Neighbor were done in order to ensure the quality of the generated block model.

For trend analyses of the block model, the mean and the declustered mean of the samples has been compared with the block results.

From moving window and tendencies of presented grades, it is concluded that the model of estimated grades, preserves the characteristic of the mean grade, global variability and tendencies of the original samples.

Once the block model was finished and validated, a Whittle pit was run using the following technical parameters:

PARAMETERS	2019
Mining cost	$2.00/t
HL Process Cost (including G&A and SX/EW cost)	$9/t
ROM Process Cost including G&A	$2.50/t
Selling Cost	$0.07/lb
Heap Leach Recovery	76%
ROM Recovery	40%
Pit Slope angle [1]	44° - 46°
Cu Price	3.0 USD/lb

Table 0-3: **Technical and Economical Parameters for Whittle Run**

[1] *The pit slope is estimated at a range of 44° - 46° based on the geotechnical information currently available, but this is anticipated to improve as more data is generated*

For slope angles, figures from the 2018 exercise were used, as no new geotechnical information was available at the moment of the Whittle run. Slope angles zones defined in 2018 were projected lineally to cover the complete area of the new block model.

The consolidated Total Mineral Resource Statement for the Marimaca deposit is presented in Table 0.4, which shows the tonnage – grade curve for all the Resources contained in the block model and Table 0.5 summarizes the In Pit Resources per category, including all the Mineral Zones estimated, highlighting 0.22 % CuT. Figures in this table include a small tonnage of non-leachable sulphide ore (chalcopyrite):

All Estimated Material inside the Block Model												
Cut Off (%CuT)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	2,112	1.56	0.94	2,705	1.48	0.8	4,816	1.52	0.86	1,807	1.52	0.66
1.10	2,710	1.47	0.9	3,778	1.39	0.76	6,488	1.42	0.82	2,469	1.42	0.63
1.00	3,471	1.38	0.85	5,251	1.29	0.73	8,722	1.33	0.78	3,450	1.32	0.59
0.90	4,433	1.28	0.81	7,225	1.2	0.7	11,658	1.23	0.74	4,836	1.21	0.56
0.80	5,684	1.19	0.76	9,944	1.1	0.65	15,628	1.13	0.69	6,937	1.1	0.51
0.70	7,284	1.09	0.71	13,604	1.01	0.61	20,888	1.04	0.64	10,184	0.99	0.47
0.60	9,272	1	0.65	18,375	0.91	0.56	27,647	0.94	0.59	15,132	0.88	0.42
0.50	11,736	0.9	0.59	24,511	0.82	0.51	36,246	0.85	0.54	22,300	0.77	0.37
0.40	14,927	0.8	0.53	32,600	0.73	0.46	47,527	0.75	0.48	32,943	0.67	0.33
0.30	18,681	0.71	0.47	43,953	0.63	0.4	62,634	0.66	0.42	50,269	0.56	0.28
0.25	20,591	0.67	0.44	50,915	0.58	0.36	71,507	0.61	0.39	63,827	0.5	0.25
0.22	**21,820**	**0.65**	**0.43**	**55,348**	**0.55**	**0.35**	**77,168**	**0.58**	**0.37**	**72,715**	**0.46**	**0.23**
0.20	22,643	0.63	0.41	58,252	0.54	0.33	80,895	0.56	0.36	78,514	0.44	0.22
0.18	23,350	0.62	0.4	60,930	0.52	0.32	84,279	0.55	0.35	83,874	0.43	0.22
0.10	24,651	0.59	0.39	66,003	0.49	0.3	90,654	0.52	0.33	96,630	0.39	0.19

Table 0-4: All Estimated Material Inside the Block Model, Marimaca, NCL Consulting (L. Oviedo, 15th January 2020).

In Pit Consolidated Mineral Resource Statement

Cut Off (%CuT)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	2,106	1.56	0.94	2,689	1.48	0.80	4,795	1.52	0.86	1,692	1.52	0.69
1.10	2,701	1.47	0.90	3,742	1.39	0.77	6,444	1.42	0.82	2,285	1.42	0.66
1.00	3,458	1.38	0.86	5,189	1.29	0.74	8,647	1.33	0.79	3,172	1.32	0.63
0.90	4,410	1.28	0.81	7,100	1.20	0.71	11,510	1.23	0.75	4,381	1.22	0.59
0.80	5,642	1.19	0.76	9,722	1.11	0.67	15,364	1.14	0.70	6,166	1.11	0.55
0.70	7,216	1.09	0.71	13,233	1.01	0.62	20,449	1.04	0.65	8,801	1.00	0.51
0.60	9,155	1.00	0.66	17,727	0.92	0.58	26,882	0.95	0.60	12,347	0.90	0.47
0.50	11,510	0.91	0.60	23,375	0.83	0.53	34,885	0.85	0.55	17,168	0.80	0.44
0.40	14,536	0.81	0.54	30,715	0.74	0.48	45,251	0.76	0.50	23,938	0.70	0.40
0.30	18,011	0.72	0.48	40,414	0.64	0.42	58,425	0.67	0.44	33,821	0.60	0.35
0.25	19,760	0.68	0.46	46,165	0.60	0.39	65,925	0.62	0.41	39,917	0.55	0.32
0.22	**20,880**	**0.66**	**0.44**	**49,842**	**0.57**	**0.37**	**70,722**	**0.60**	**0.39**	**43,468**	**0.52**	**0.30**
0.20	21,632	0.64	0.43	52,198	0.56	0.36	73,830	0.58	0.38	45,658	0.51	0.29
0.18	**22,246**	**0.63**	**0.42**	**54,291**	**0.54**	**0.35**	**76,536**	**0.57**	**0.37**	**47,640**	**0.49**	**0.29**
0.10	23,280	0.61	0.40	57,807	0.52	0.33	81,087	0.54	0.35	51,129	0.47	0.27

Table 0-5 : In Pit Consolidated Mineral Resource Statement, Marimaca, NCL Consulting (L. Oviedo, 15th January 2020).

From these values, a stripping ratio of 1.11/1 is calculated for the pit, using a COG of 0.22% CuT and considering non leachable sulphides and Potential material as waste.

Detail per Mineral Zone is provided in tables 0.6 and 0.7:

				Contained Metal	
	Quantity	**Grade**		**CuT**	**CuS**
	Tonnes	**CuT**	**CuS**	**Tonnes**	**Tonnes**
Classification	**(000s)**	**(%)**	**(%)**	**(t)**	**(t)**
Measured					
Brochantite	10.890	0,76	0,55	82.418	59.835
Chrysocolla	4.918	0,59	0,45	29.016	22.191
Enriched	1.176	0,75	0,17	8.874	1.974
Mixed	475	1,02	0,26	4.865	1.217
Wad	3	0,27	0,17	7	4
Wad GT 0.1	3.260	0,34	0,20	11.103	6.550
Total Indicated	**20.721**	**0,66**	**0,44**	**136.283**	**91.772**
Indicated					
Brochantite	24.719	0,68	0,49	167.463	121.418
Chrysocolla	9.581	0,50	0,37	48.298	35.668
Enriched	3.468	0,69	0,14	23.769	4.899
Mixed	1.177	0,86	0,21	10.076	2.457
Wad	36	0,26	0,14	93	50
Wad GT 0.1	10.686	0,32	0,18	33.955	19.249
Total Measured	**49.666**	**0,57**	**0,37**	**283.654**	**183.741**
Measured and Indicated					
Brochantite	35.609	0,70	0,51	249.881	181.253
Chrysocolla	14.499	0,53	0,40	77.314	57.859
Enriched	4.644	0,70	0,15	32.644	6.873
Mixed	1.652	0,90	0,22	14.941	3.675
Wad	38	0,26	0,14	100	54
Wad GT 0.1	13.945	0,32	0,19	45.058	25.799
Total Measured and Indicated	**70.387**	**0,60**	**0,39**	**419.937**	**275.513**
Inferred					
Brochantite	17.618	0,63	0,42	110.712	74.266
Chrysocolla	9.978	0,47	0,33	47.077	32.680
Enriched	2.193	0,63	0,13	13.786	2.777
Mixed	3.661	0,63	0,15	23.197	5.525
Wad	43	0,27	0,09	115	38
Wad GT 0.1	9.521	0,31	0,17	29.584	16.459
Total Inferred	**43.015**	**0,52**	**0,31**	**224.471**	**131.746**

Table 0-6: Resources per Mineral Zone Inside the Pit (Chalcopirite not included)

Table 0.7 shows the sensitivity of the Marimaca Mineral Resource Estimate to variations in the CuT cutoff grade, highlighting in bold text the base case COG.

				Contained Metal	
	Quantity	Grade		CuT	CuS
	Tonnes	CuT	CuS	Tonnes	Tonnes
Classification	(000s)	(%)	(%)	(t)	(t)
Measured					
0,70	7.155	1,09	0,72	78.135	51.286
0,50	11.397	0,91	0,61	103.293	69.134
0,30	17.865	0,72	0,49	128.881	87.138
0,25	19.607	0,68	0,46	133.668	90.217
0,22	**20.721**	**0,66**	**0,44**	**136.283**	**91.772**
0,20	21.467	0,64	0,43	137.851	92.661
0,18	22.072	0,63	0,42	139.003	93.289
Indicated					
0,70	13.180	1,01	0,62	133.118	82.346
0,50	23.285	0,83	0,53	192.951	123.999
0,30	40.253	0,64	0,42	259.242	169.048
0,25	45.995	0,60	0,39	275.026	178.796
0,22	**49.666**	**0,57**	**0,37**	**283.654**	**183.741**
0,20	52.020	0,55	0,36	288.604	186.461
0,18	54.109	0,54	0,35	292.576	188.601
Measured and Indicated					
0,70	20.335	1,04	0,66	211.253	133.632
0,50	34.682	0,85	0,56	296.244	193.133
0,30	58.118	0,67	0,44	388.123	256.186
0,25	65.602	0,62	0,41	408.693	269.013
0,22	**70.387**	**0,60**	**0,39**	**419.937**	**275.513**
0,20	73.487	0,58	0,38	426.455	279.122

Table 0-7: Sensitivity of Tons, Grades and contained Metal

0.8 Project Infrastructure

Antofagasta and Mejillones are modern cities with all regular services, serving a combined population of approximately 570,000. Numerous mining-related businesses are located in the cities. Personnel employed by Coro mainly come from the Antofagasta region. Power lines and water desalination plants are located near the property. Moreover, both are relevant shipping ports, especially Mejillones, which is a mega-port for larger cargo. In addition, there are five thermoelectric plants and the most important sulfuric acid terminal in the north of the country. The installed capacity of electric production currently available at Mejillones is close to 900 MW, while the sulphuric acid storage facilities are more than 6 million tons per year.

While Mejillones is an industrial port and most of the labour force is specialized in this type of jobs, Antofagasta has the largest labour force dedicated to mining in northern Chile. Their level of knowledge in the matter is high and they participate both in the work of large and medium scale mining. The city is a “mining cluster”, where research, education, technical training centers and the largest suppliers of equipment and services for mining in the country operate.

0.9 Conclusion and Recommendations

A team of independent consultants, under the leadership of NCL, was retained by Coro to visit Marimaca twice, one on the second week of December 2016 and other in August 2019, inspect the project, review and audit the data and estimate the Mineral Resource. NCL examined the different sources of input information: raw data (QA/QC), exploration, geology and mineral modelling estimation units.

The purpose of the investigation was to estimate the Mineral Resource, in compliance with generally recognized industry best practices and report them according to Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

NCL carried out a Resource Estimation of the Marimaca Project, resulting in the estimation of Measured, Indicated and Inferred Resources. For a Cutoff grade of 0.22% CuT, the Resources inside an optimized pit envelope are 20.880 kt of 0.66% CuT and 0.44 CuS of Measured Resources, 49.842 kt of 0.57 % CuT and 0.37 % CuS of Indicated Resources and 70.722 kt of 0.60 % CuT and 0.39% CuS of Inferred Resources. These figures include a small amount of chalcopyrite.

Since 2016, aggressive exploration in Marimaca has defined copper mineralization zones amenable to open pit mining and presents very good opportunities to expand the Mineral Resources and extend the life of the project. In this context, NCL recommends to continue the implementation of the exploration programs. The regional exploration potential of the exploration of the properties is good. Regional exploration targeting should be reviewed, including the use of high technology to processing data to enhance exploration targeting.

The technical information on Marimaca attests to the high overall quality of the exploration and design work completed by site personnel. NCL examined the data, the exploration, and the geology modelling and produced the Mineral Resource estimates of Marimaca. On the basis of this work, NCL concluded that the models, Mineral Resources and Statements for Marimaca January, 2020 are appropriately categorized and free of material errors.

Other than disclosed in this technical report, NCL is not aware of any other significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the Marimaca Project.

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1 INTRODUCTION AND TERMS OF REFERENCE

The Marimaca Project is located near Antofagasta in the Antofagasta Province, Region II of Chile. Coro Mining Corp. (Coro) is a British Columbia company incorporated under the Business Corporations Act of B.C., on September 22, 2004, with a registered office at 25th Floor, 666 Burrard Street, Vancouver, BC V6C 2X8.

Marimaca is a copper oxide open pit project. Coro's major shareholder is Greenstone Resources (57.5% of Coro) a private equity group investing in companies with small to medium size projects. Coro is a Canadian public company listed on the Toronto Stock Exchange (symbol COP) which as a result, generates the requirement for Coro to file a technical report to support the disclosure of Mineral Resource memorandum.

In 2016, Coro retained the services of NCL Ingenieria y Construccion SpA (NCL) to visit the Coro project and compile a technical report pursuant to National Instrument 43-101 Standards of Disclosure for Mineral Projects and Form 43-101 published in January 2017. During 2017 Coro executed a new drilling campaign, new geological mapping and sampling and the data produced is used by NCL in this updated report. A new visit to the site was made in August 2019, for a total of three days, where QP had the possibility to visit the surface and the underground workings present in the newly drilled areas.

This technical report updates and summarizes the relevant technical information to support the new Mineral Resources Estimation for the Project. This technical report is based on an inspection of the property by a team of qualified persons, as this term is defined in National Instrument 43-101, conducted for 2 days on December 2016 and August 2019. A new set of technical information was made available by Coro in electronic format in the second half of the 2019 for review and discussions with technical personnel. The qualified persons have reviewed such technical information and determined it to be adequate for the purposes of this report. The authors do not disclaim any responsibility for this information.

1.1 Terms of Reference

The scope of work is defined in an engagement letter executed between Coro and NCL involves mobilizing a qualified person to visit the subject mineral assets to review the technical information relevant to support Mineral Resources estimate. The objective is to provide estimation about the Mineral Resource for Marimaca as of December 2019, and to compile a technical report pursuant to National Instrument 43-101 to support the disclosure of Mineral Resource by NCL. Table 1-1 summaryzes the sources of information for each chapter.

1	SUMMARY	NCL

2	INTRODUCTION AND TERMS OF REFERENCE	NCL
3	RELIANCE ON OTHER EXPERTS	NCL
4	PROPERTY DESCRIPTION AND LOCATION / LAND TENURE	Coro
5	ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	Coro
6	HISTORY	Coro
7	GEOLOGICAL SETTING	Coro
8	DEPOSIT TYPES	Coro
9	DEPOSIT GEOLOGY AND MINERALIZATION	Coro
10	EXPLORATION	Coro
11	DRILLING	Coro
12	SAMPLING METHODS AND APPROACHES	Coro/NCL
13	SAMPLE PREPARATION, ANALYSIS AND SECURITY	Coro/NCL
14	DATA VERIFICATION	NCL
15	ADJACENT PROPERTIES	Coro
16	MINERAL PROCESSING AND METALLURGICAL TESTING	Coro
17	MINERAL RESOURCE AND MINERAL RESERVE ESTIMATION	NCL
18	OTHER RELEVANT DATA AND INFORMATION	-
19	REQUIREMENTS FOR TECHNICAL REPORTS ON PRODUCTION AND DEVELOPMENT PROPERTIES	-
20	INTERPRETATION AND CONCLUSIONS	NCL
21	RECOMMENDATIONS	NCL
22	REFERENCES	Coro/NCL

Table 1-1: Sources of information for each report chapters

1.2 Qualification of NCL

NCL includes more than 40 professionals, offering expertise in a wide range of resource estimation and engineering disciplines. The independence of NCL is ensured by the fact that it holds no equity in any project it investigates and that its ownership rests solely with its staff. These facts allow NCL to provide its clients with conflict-free and objective recommendations. NCL has proven assessments of Mineral Resources, project evaluations and audits, technical reports and autonomous feasibility evaluations to bankable standards on behalf of exploration and mining companies, and financial institutions worldwide. Through its work with many of major international mining companies, NCL has established a reputation for providing valuable consultancy services to the global mining industry.

The technical report was compiled by a group of professionals from the NCL Santiago offices. In accordance with National Instrument 43-101 guidelines, qualified persons visited the Marimaca project during December 2016 and August 2019 as shown in Table 1-2.

Company	Qualified Person	P. Engineer	Site Visit	Responsibility

NCL	Luis Oviedo		December 2016 August 2019	Overall responsibility on behalf of NCL
NCL		Ricardo Palma	December 2016	
NCL		Francisco Alcalde		

Table 1-2: Qualified Person and professionals involvement

1.3 Basis of Technical Report

This technical report is based on information made available to NCL by Coro in electronic files and information collected during the site and office visits. The authors have no reason to doubt the reliability of the information provided by Coro. Other information was obtained from the public domain. This report is based on the following sources of information:

- Discussions with Coro, Marimaca, personnel;
- Site visit to Marimaca conducted in December 2016 and August 2019
- Information posted by Coro in an Intralinks; and
- Additional information from public domain sources.
- New intralinks and digital information from 2019 campaign
- NCL's NI 43-101 Technical Report dated February 2018

The qualified persons have reviewed such technical information and do not disclaim any responsibility for the information provided and reviewed.

1.4 Declaration

NCL's opinion contained herein and effective January 2020 is based on information collected by NCL throughout the course of NCL's investigation. The information in turn reflects various technical and economic conditions at the time of writing the report. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favorable.

This report may include technical information that requires 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, NCL does not consider them to be material.

NCL is not an insider, associate or an affiliate of Coro. The results of the report by NCL are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

1.5 Units and Currency Definitions

All units in this report are metric, unless specified explicitly in the text. Currency used is dollars of the United States of America.

2 RELIANCE ON OTHER EXPERTS

NCL has not performed an independent verification of the land titles and tenures of this report. NCL did not verify the legality of any underlying agreements that may exist concerning the permits or other agreements between third parties, but has relied on the information provided by the legal advisors of Coro, Bofill Mir and Alvarez Jana Abogados, (Av. Andrés Bello 2711, piso 8, Las Condes, Santiago, Chile), in an opinion letter sent to Coro a letter in December 2019. This letter is attached as Appendix 1. On the part of Coro, the lawyer Patricio Pinto was the legal adviser and controller.

3 PROPERTY DESCRIPTION AND LOCATION

The Marimaca Claims and surrounding Coro owned concessions are located in Chile's Antofagasta Province, Region II, approximately 45 km north of the city of Antofagasta and approximately 1,250 km north of Santiago. The project is connected to the well-maintained Chilean road system (Figure 3-1). The properties are located at approximately 374,820 E and 7,435,132 S in WGS84 UTM coordinates and easily accessed using the public road system.

Antofagasta and Mejillones are modern cities with all regular services and a combined population of approximately 570,000. Personnel employed by Coro come primarily from the Antofagasta Region.

Antofagasta and Mejillones are relevant shipping ports, especially Mejillones, which is a mega-port for larger cargo. In addition, there are five thermoelectric plants and the most important sulfuric acid terminal in the north of the country. Moreover, the Antofagasta International Airport is a 40 Km and 45 minutes to the SSW of the project.

Antofagasta has a coastal arid climate with mild temperatures year-round. Winters essentially don't exist. Annual precipitation averages approximately 2-4 millimetres, the majority of which falls in the winter. The climate allows for year-round mining and exploration activities.

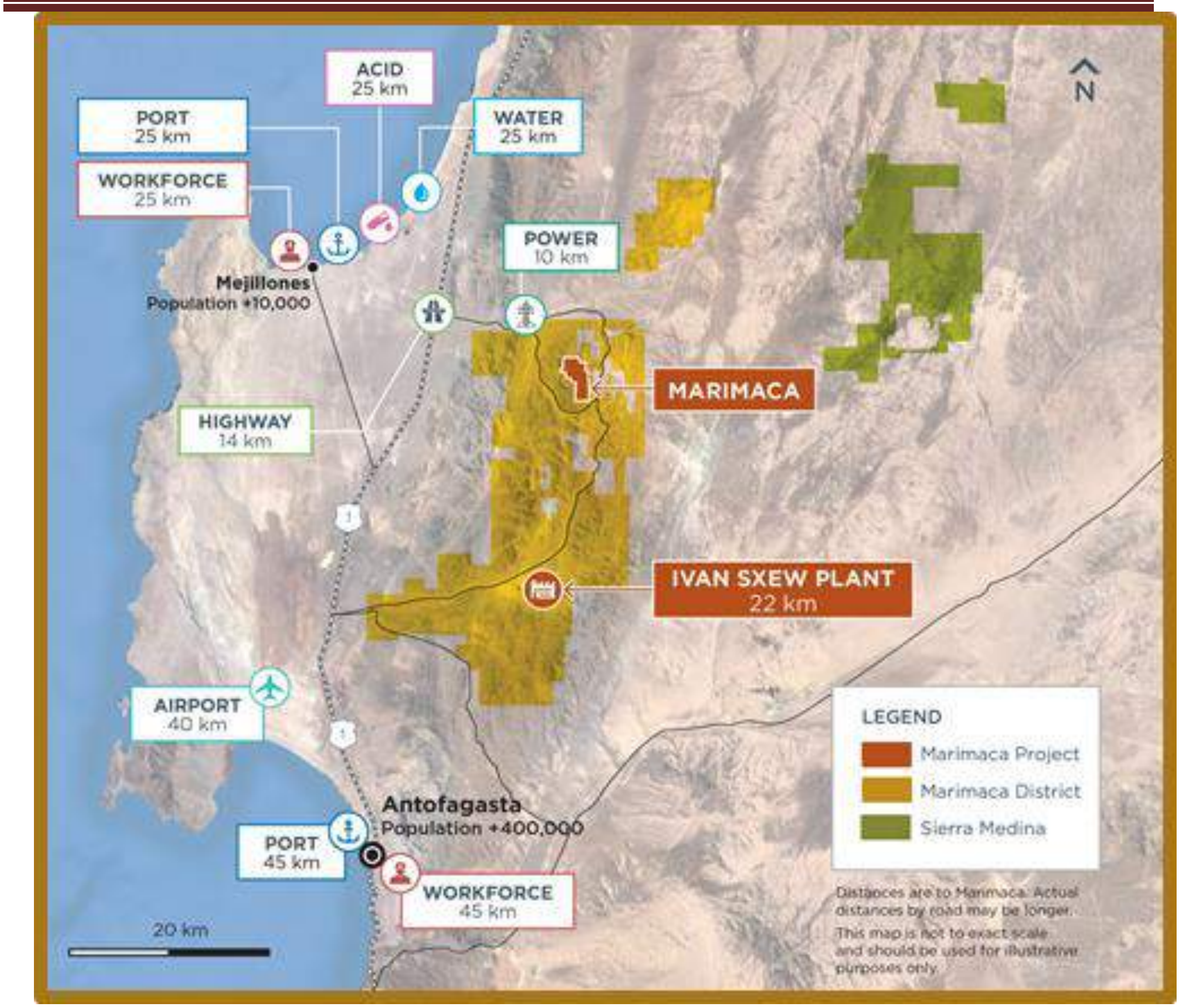


Figure 3-1: Marimaca Project Location

To date MCAL has completed 91,210 m of drilling in the Marimaca Project, 82,234 m of RC and 8,976 m of DDH. The first 13,628 m were completed in 2016 and the results were reported in 2017 (NCL, 2017) and another 13,978 m. were added in 2017 including both reverse circulation (RC) and diamond (DDH) drilling (NCL, 2018; Figure 3-2). Subsequently, between 2018 and 2019 another 57,434 m were added.

During 2018 and 2019, a substantial amount of detailed geological surface data, metallurgical, environmental and geotechnical studies were added.

The Marimaca Project is located in an area of approximately 2,000 m, north south; by 1,500 m, east-west direction.

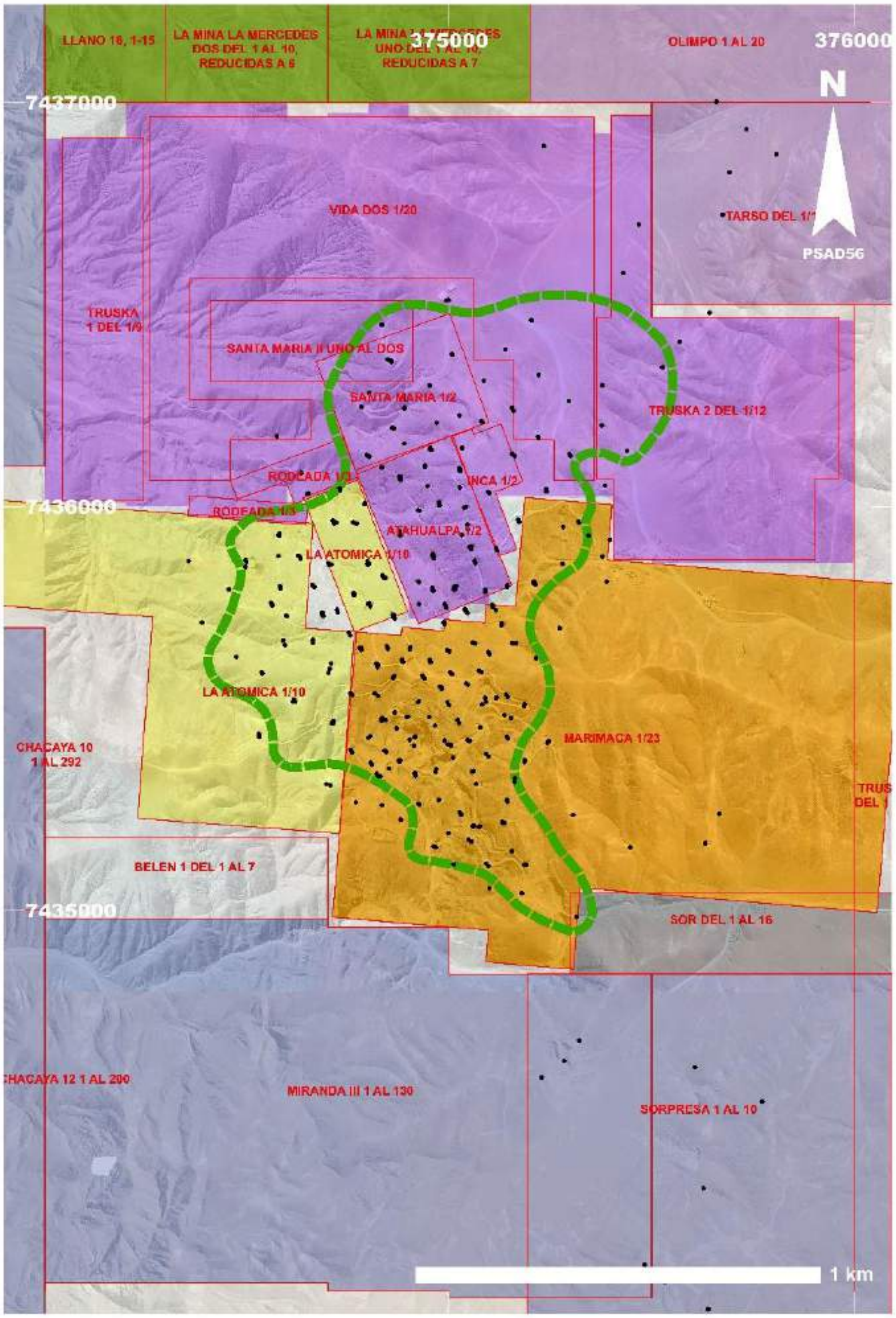


Figure 3-2: Marimaca Project Mining Property (Colours same as Figure 3-3)
Green dotted line represents de >0.1 % Cu observed from Surface mapping and black dotts the drill collars

3.1 Mineral Tenure and Earn in Agreement

The Marimaca mining area comprises 53 mining concessions, which together cover 4.140 hectares. Said mining concession are listed in the national mining claims register, and they are located in the area of Sierra Naguayán, Commune of Mejillones, Province and Region of Antofagasta (the “Marimaca Area”).

3.1.1 Coro Properties in the Marimaca Area

The Marimaca Area (Figure 3-3) currently considers the mining concessions listed in Table 21-1, annex 1, which are located in zones that are called La Atómica, Naguayán, Marimaca 1-23, Atahualpa, Llanos/Mercedes and other areas that Compañía Minera Cielo Azul (“MCAL”) has established directly. Each of these areas are made up of several mining concessions.

Each of the mining concessions of the Marimaca Area are in good standing, with the payment of its annual claim fees made up to and including 2019, without interruption. Coro has rights over the claims that comprise the Marimaca Area through its subsidiary MCAL and by means of option contracts duly registered under Chilean law (“Option Contracts”).

In each Option Contract MCAL is obligated to maintain the property in good standing and to pay the annual claim fees on March of each year, the next of which is due March 2020.
More specifically, the Marimaca mining project is composed of an area explored and identified below in Figure 3-3 (“the “Marimaca Project”).

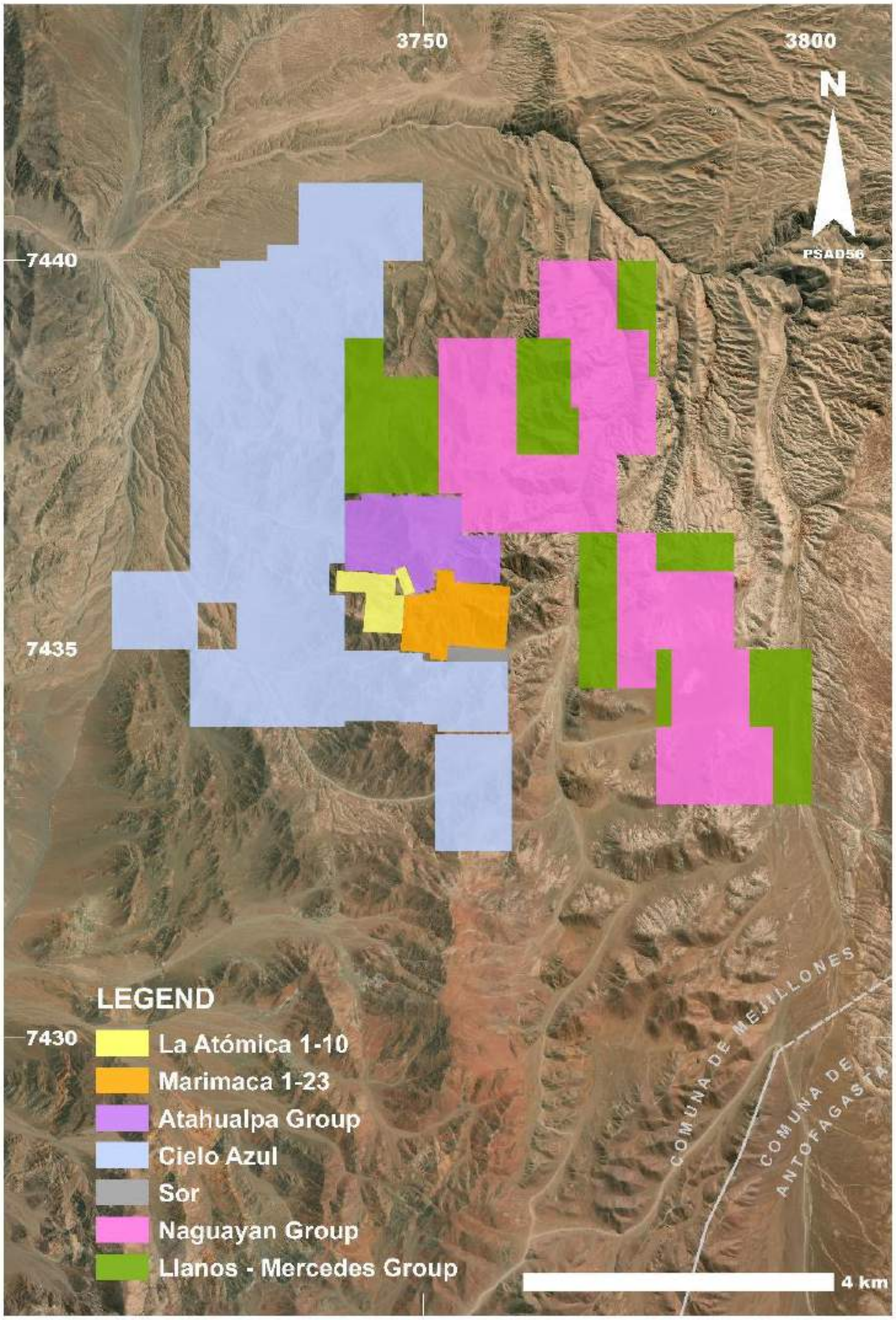


Figure 3-3: Marimaca Project Area Mining Property

In the Annex 1 the Table 21-1 show the list of Concessions in the Marimaca Area.

3.1.2 Coro Properties surrounding the Marimaca Deposit

Figure 3-4 shows the distribution of Coro's rights over mining concessions surrounding the Marimaca Area, compromised of exploitation and exploration mining concessions, granted and in process of being granted, owned by Minera Rayrock Limitada ("Rayrock") and MCAL (the "Surrounding Properties"). Therefore, said figure displays, from center to exterior: /a/ the Marimaca Project; /b/ the Marimaca Area; and /c/ the Surrounding Properties. This considerable group of mining concessions gives Coro an important position in the district and perfectly protects the area of the future Marimaca mine, as well as other areas of potential economic interest of the mineralization or areas of interest for the installation of the infrastructure necessary for the future development

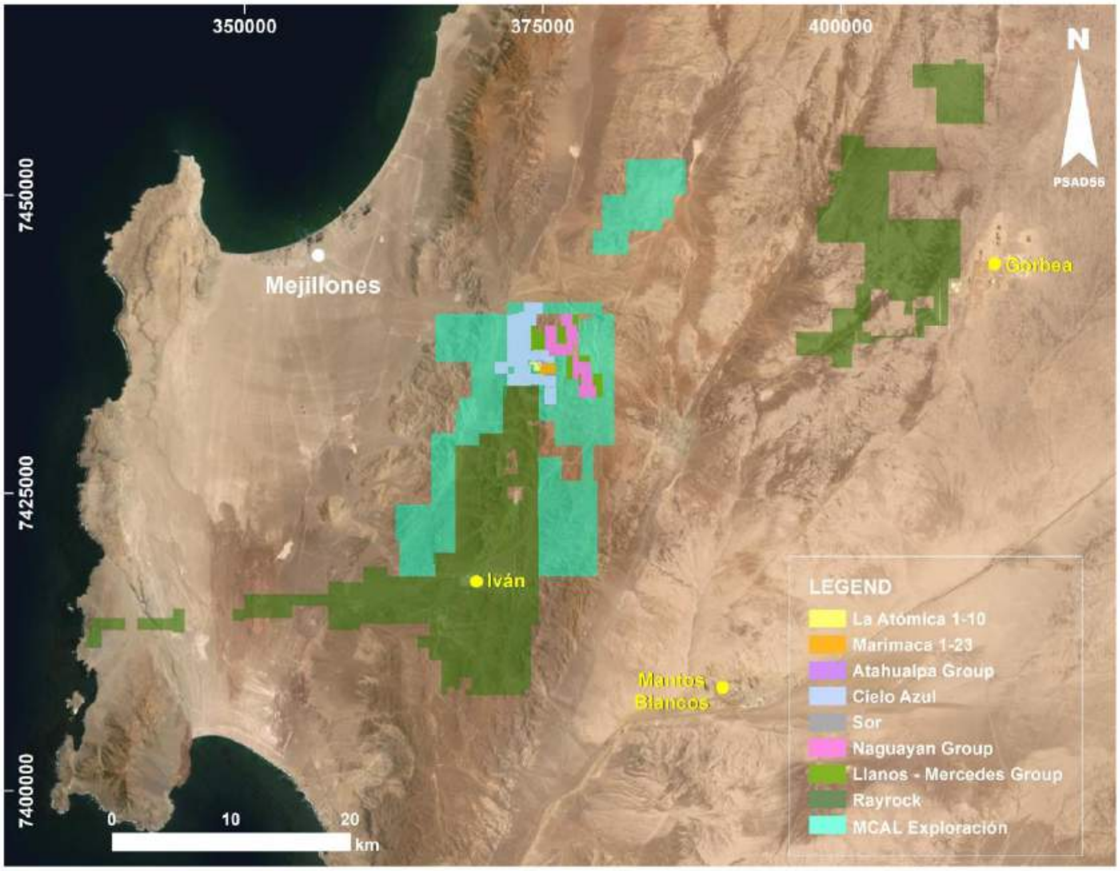


Figure 3-4 Coro mining concessions at the Marimaca Project - Ivan area.

The Annex 1 show the Table with the list of Concessions in the Surroundings Rayrock Area

3.1.3 Agreement Terms

Currently, the Marimaca Area contains mining concessions constituted by Coro subsidiaries, mining concessions that Coro Chilean subsidiaries have acquired and mining concessions subject to Option Contracts in favor of Coro subsidiaries. Coro (through its subsidiary MCAL) currently owns the Atahualpa area and shall promptly acquire Marimaca 1-23. Additionally, Coro (through its subsidiary MCAL) has constituted exploitation and exploration concessions in said area in order to ensure ownership. Moreover, Coro maintains Option Contracts to acquire La Atómica, Naguayán, Rodeada and Llanos - Mercedes areas. These Option Contracts give and supply MCAL the possibility to acquire such claims in a near future. By doing so, MCAL is going to increase the mining property of Coro, and with this, the possibility to expand the development area. At the same time, the Coro through its subsidiary MCAL) is actually constituting new legal mining claims in the courts of Antofagasta and Mejillones.

3.1.3.1 Marimaca 1-23

MCAL owns 51% interest of Sociedad Contractual Minera Compañía Minera NewCo Marimaca ("NewCo Marimaca") –owner in turn of the Marimaca 1-23 claim among other mining concessions- and will acquire the remaining 49% interest (the "Transaction") from a local family (the "Seller"). The Marimaca 1-23 claim is the central area of the concession package that together comprises the Marimaca Project. Upon the completion of the Transaction, Coro (through its subsidiaries) will have 100% control over, among others, Marimaca 1-23 claim.

The Transaction to acquire the remaining 49% interest in NewCo Marimaca ("Remaining Interest") has been agreed with the Seller by means of a Chilean public deed, dates as of August 27, 2019, which constitutes the framework for a subsequent definitive purchase agreement that will be executed after a corporate reorganization of the Sellers (the "Definitive Agreement"). This is in compliance with Chilean Mining Code and the rules applicable to mining companies.

The price to acquire the Remaining Interest has been agreed for the total amount of US$ 12,000,000, to be paid:

- US$ 6,000,000 on the date of signing of the Definitive Agreement.
- US$ 3,000,000 within 12 months as from the Definitive Agreement.
- US$ 3,000,000 within 24 months as from the date of the Definitive Agreement.

Title to the Remaining Interest will be transferred to MCAL upon closing of the Definitive Agreement and payment of the initial US$6,000,000 amount. The Definitive Agreement will provide means for title to the Remaining Interest to revert to the Seller in the event that MCAL defaults on payment of either of the subsequent US$ 3,000,000 payments.

In addition, the Seller will have a 1.5% Net Smelter Return Royalty (NSR) over the Marimaca 1-23 claims. MCAL retain a right to repurchase a 1% NSR for US$ 4,000,000, payable in cash within 24 months from commencement of commercial production from the Marimaca 1-23. The NSR covers only claims Marimaca 1-23 and SOR 1-16 and no other Marimaca Project claims.

Consideration for the Transaction also includes certain mining claims owned by Compañía Minera Rayrock Limitada, a subsidiary of the Coro, which will be transferred to the Sellers, namely:

- "Pampa 81, 16", "Pampa 81, 17", "Pampa 81, 18", "Pampa 81, 19" and "Pampa 81, 20", which are part of the exploitation mining concession "Pampa 47, 1 to 20".
- "Pampa 47, 1", "Pampa 47, 2", "Pampa 47, 3", "Pampa 47, 4", "Pampa 47, 5", which are part of the exploitation mining concession "Pampa 47, 1 to 20".
- mining properties of five hectares each, product of division of exploitation mining concession "Pampa 81, 21 to 40".
- mining properties of five hectares each, product of division of exploitation mining concession "Pampa 47, 21 to 40".
- "Tiso 1, 1-20".

These claims are part of the Sierra Medina land package. The Pampas claims are approximately 32 kilometers to NE of Marimaca and the Tiso claims are 26 kilometers to the south of the project.

3.1.3.2 Atahualpa

On August 3, 2018, Coro (through its subsidiary MCAL) purchased the concessions that make up the Atahualpa area from Capax S.A. for the price of US$ 6,000,000, plus a royalty of 2% net smelter return (NSR).

On March 18, 2019, Coro (through its subsidiary MCAL) purchased 50% interest in Sociedad Legal Minera Rodeada Uno del Mineral de Naguayán from Capax S.A. for the price US$200,000, plus a royalty of 2% net smelter return (NSR).
Sociedad Legal Minera Rodeada Uno del Mineral de Naguayán owns the exploitation mining concession "Rodeada 1/3", which is part of Atahualpa area.

Additionally, on February 1, 2018 MCAL reached an agreement to acquire both 2% net smelter return (NSR) described above. The agreement is an irrevocable purchase agreement between MCAL and Capax S.A. The total cost is US$ 2,200,000, divided over in 4 tranches over 36 months:

- US$ 200,000 on February 1, 2018.
- US$ 200,000 on 12 month anniversary.
- US$ 200,000 on 24 month anniversary.

- US$ 1,600,000 on 36 month anniversary for exercising the Option Contact.

3.1.3.3 La Atómica

On October 31, 2017, MCAL entered into an option agreement to acquire the La Atómica property from Compañía Inversiones Creciente Limitada, a local Chilean company. MCAL will acquire 100% of the La Atómica claims for a total of US$6,000,000 via a 36-month option contract with the following payment schedule:

- US$ 20,000 before signing the agreement.
- US$ 80,000 at signature of option agreement.
- US$ 500,000 on November 14, 2018.
- US$ 500,000 on November 14, 2019.
- US$ 500,000 on March 14, 2020.
- US$ 4,400,000 on November 14, 2020.

Additionally, the company that sold this area, maintains an NSR of 1.5%.

3.1.3.4 Naguayán

On January 3, 2018, MCAL entered into an option agreement to acquire the Naguayán property from Compañía Minera Naguayán SCM, a local Chilean company. The property comprises a large block of exploitation claims totaling 1,075 hectares. Coro will acquire 100% of the Naguayán claims for a total of US$ 6,500,000 via a 48-month option contact with the following payment schedule:

- US$ 200,000 at signature of option agreement.
- US$ 300,000 on 12-month anniversary date.
- US$ 700,000 on 24-month anniversary date.
- US$ 1,750,000 on 36-month anniversary date.
- US$ 3,550,000 on 48-month anniversary date.

Additionally, a 1.5% NSR is payable on the claims. Alternatively, Coro may acquire 0.5% out of this 1.5% royalty for US$ 2,000,000 at any time up to one year (12 months) following the start of commercial production on the property.

3.1.3.5 Llano y Mercedes

On May 6, 2019, MCAL entered into an option agreement to acquire the Llano and Mercedes properties. The option agreement covers 100% of the Llanos and Mercedes claims. Coro will acquire 100% of Llano and Mercedes properties for a total consideration of US$ 2,000,000 with the following payment schedule:

- US$ 50,000 on signing the option agreement (paid on May 6, 2019).
- US$ 50,000 on the 12-month anniversary.

- US$ 100,000 on the 24-month anniversary.
- US$ 125,000 on the 30-month anniversary.
- US$ 125,000 on the 36-month anniversary.
- US$ 150,000 on the 42-month anniversary.
- US$ 1,400,000 on the 48-month anniversary.

Additionally, a 1% net smelter royalty over the property, with a buyback option for US$ 500,000 exercisable for up to 24 months from the start of commercial production have also been agreed.

3.2 Mineral Rights in Chile

There are two types of mining concessions in Chile: exploration concessions and exploitation concessions. The main characteristics of each are the following:

Exploration Concessions: the titleholder of an exploration concession has the right to carry out all types of mining exploration activities within the area of the concession. Exploration concessions can overlap or be granted over the same area of land; however, the rights granted by an exploration concession can only be exercised by the titleholder with the earliest dated exploration concession over a particular area.

For each exploration concession the titleholder must pay an annual fee of approximately US$1.5 per hectare to the Chilean Treasury and exploration concessions have duration of two years. At the end of this period, the exploration concession may be (a) renewed as an exploration concession, for a new term of up to two further years and in which case the titleholder must waive at least 50% of the surface area of the existing exploration concession, or (b) be converted, totally or partially, into exploitation concessions by exercising the pre-emptive right described in the next paragraph.

A titleholder with the earliest dated exploration concession has a preferential right to an exploitation concession in the area covered by the exploration concession. This preference pre-empts the rights of third parties with a later dated exploration concession for the same area, or of third parties without an exploration concession at all, and must be enforced in exploitation mining granting proceedings. Similarly, a pre-existing exploration concession with an earlier dated claim for a Mining Exploration Concession (pedimento) can void subsequent overlapping mining exploration concessions.

Nonetheless, for an exploration concession's pre-emptive rights to remain valid, the titleholder of an exploration concession must oppose any exploitation concessions applications from third parties within the same area. This opposition must be filed within 30 days from the date upon which the survey request for any overlapping exploitation concession in process of being granted is published in the Mining Gazette. The opposition will suspend the exploitation mining concession granting process until the decision on the opposition –either rejecting the opposition, or determining where the survey cannot take place given the exploration concession's existence and preferred rights– is final.

If the opposition is not filed in a timely manner, then: (a) the exploration mining concession will lose its rights to the overlapped area where the subsequent exploitation mining concession is granted; or (b) the subsequent exploration concession cannot be voided on the basis of the overlap.

Exploitation Concessions: The titleholder of an exploitation concession is granted the right to explore and exploit the minerals, located within the area of the concession and to take ownership of the minerals that are extracted. Exploitation concessions cannot overlap or be granted over the same area of land.

Exploitation Concessions are of indefinite duration and an annual fee is payable to the Chilean Treasury in relation to each exploitation concession of approximately US$7.5 per hectare.

Where a titleholder of an exploration concession has applied to convert the exploration concession into an exploitation concession, the application for the exploitation concession and the exploitation concession itself relate back to the date of the exploration concession.

A titleholder to an exploitation concession must apply to annul or cancel any subsequent exploitation concessions which overlap the area covered by its exploitation concession within the 4-year term from the date upon which the decision creating the subsequent exploitation concession is published in the Mining Gazette. If the holder of the earliest exploitation concession fails to annul the later exploitation concession, then the judicial decision that declares the statute of limitations to have elapsed will also extinguish the earliest mining concession in the overlapped surface.

According to Chilean Mining Legislation, the following minerals and substances are not subject to a mining concession: (i) liquid or gaseous hydrocarbons; and (ii) lithium. Consequently, the mining concessioner has the right to exploit and benefit from all the minerals within the boundaries of the relevant concessions, except from liquid or gaseous hydrocarbons and lithium. The liquid or gaseous hydrocarbons and lithium exploitation is reserved exclusively to the State. Nevertheless, Article 8 of the Chilean Mining Code permits the State to allow the exploitation of liquid or gaseous hydrocarbons and lithium reserves by granting an administrative concession or by entering into a special operation agreement.

In Chile, the mining concession is a real right on real property, different and independent from the ownership of surface lands, even if they have the same owner. There is an absolute separation of the dominion over the mining concession (that gives the right to explore and/or exploit mineral substances) and the ownership of the surface land therein. Consequently, there is no requirement for a mining concession to have surface land nor a specific water right associated.

Moreover, in order to perform works over its mining concessions the titleholder requires sufficient title to access the surface land where such mining concession is located, whether the land is private or State owned. This title may be the ownership of surface land, an authorization granted by the land owner, a lease or an easement.

In accordance with the Chilean Mining Code, every registered titleholder of a mining concession, whether exploitation or exploration, has the right to establish an occupation easement over the surface properties required for the comfortable exploration or exploitation of its concession. In the event that the surface property owner does not voluntarily agree to the granting of the easement, the titleholder of the mining concession may request such easement before the Courts of Justice, who shall grant the same upon determination of due compensation for losses.

Mining concession can be acquired by means a purchase agreement, option agreement and public auctions. The option agreement, which is widely used in the Chilean mining industry, allows mining concessions to be acquired in a term payment structure, where generally the first few years are paid lower fees and to the extent that the end is near the end of the period, the amounts are greater. This allows that during the period agreed between the buyer and the seller, the buyer can freely develop exploration campaigns that give more certainty about the mining resources of the area. Finally, mining concessions can be acquired in public auctions, when the claim has not paid the annual mining rights patent.

3.3 Surface Rights

MCAL currently has a provisional mining legal easement, and it is expected that in the coming months it will be definitively constituted. The area covered by this easement covers the entire Marimaca Project in a total area of 4,465 hectares (Figure 3-5). This provisional legal mining easement is already registered in favor to MCAL, before the corresponding Real Estate Registrar. On these days, the legal process is entering on a final stage to obtain the definitive legal mining easement in the Marimaca Area.

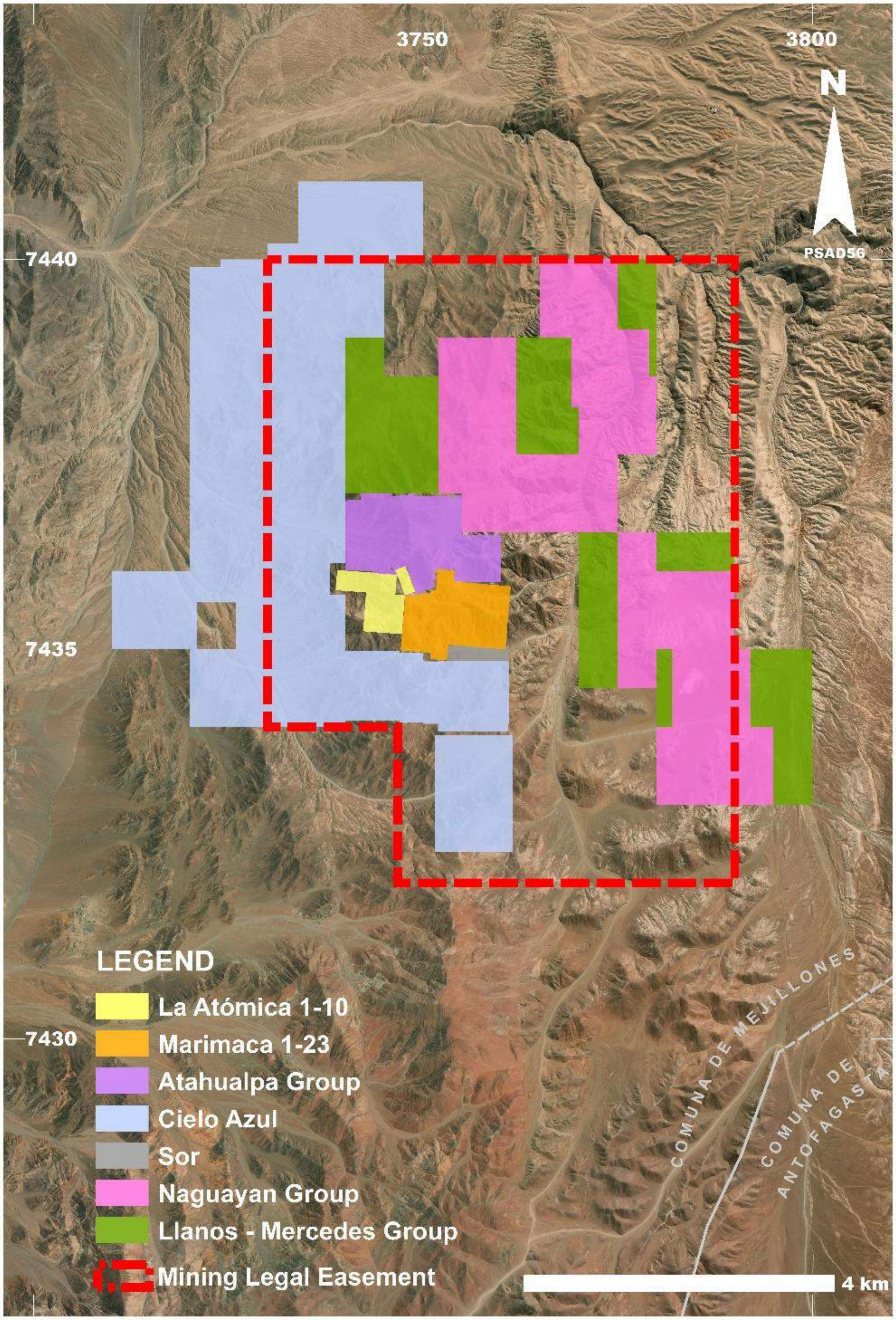


Figure 3-5: Marimaca Project Easement

3.4 Water Rights

The area lacks of water resources in the form of surface flows and no exploration for underground resources has been carried out on or near the property. The deeper mining workings, of about 100 m and the drill holes of MCAL that reached up to 350 m of depth did not encounter water. Consequently, there are no water rights that could affect mining development in the area

3.5 Environmental Liabilities and Permits

Marimaca 1-23 obtained an Environmental Qualification Resolution (RCA) in July 2018 to be able to produce 10,000 tons of cathodes annually. Nevertheless, due to the magnitude and extent that the project has taken positively after exploration campaigns that have been carried out in the sectors adjacent, everything indicates that it must environmentally evaluate a larger-scale project in the future.

Currently, the collection of information on environmental baselines has begun to identify the possible impacts that the project could have once it enters the Environmental Assessment System. As a result of the previous information, on the different environmental components, which include among others: flora, fauna, archeology and paleontology, it is estimated that there would be no major risks.

The location of Marimaca Project does not indicate conditions of risk that have affected or may affect future exploration and mining developments.

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Accessibility

Marimaca is accessible by maintained dirt roads, one coming from the Cerro Moreno Airport and the other branching off of Route Antofagasta-Tocopilla. Antofagasta regional airport is serviced by regional and international flights from Santiago and other destinations on a daily basis. The regional Cerro Moreno airport is located 45 km to the Project. Antofagasta and Mejillones are strategically located on the coast through a well-maintained multi- lane highway. High voltage lines that transport energy from the power stations located in Mejillones also close to the road (figure 4-1)

Figure 4-1: Accessibility

4.2 Local Resources and Infrastructure

Antofagasta and Mejillones are modern cities with all regular services, serving a combined population of approximately 570,000. Numerous mining-related businesses are located in the cities. Personnel employed by Coro mainly come from the Antofagasta region. Power lines and water desalination plants are at near distance of the property. See Figure 4-2 with the image of resources and infrastructure around the project.

Antofagasta and Mejillones are relevant shipping ports, especially Mejillones, which is a mega-port for larger cargo. In addition, there are five thermoelectric plants and the most important sulfuric acid terminal in the north of the country. The installed capacity of electric production currently available at Mejillones is closed to 900 MGW, while the sulfuric acid storage facilities reach approximately more than 6 million tons per year.

While Mejillones is an industrial port and most of the labour force is specialized in this type of jobs, Antofagasta has the largest labour force dedicated to mining in northern Chile. Their level of knowledge in the matter is high and participate both in the work of large and medium mining. The city is a “mining cluster”, where research, education, technical training centers and the largest suppliers of equipment and services for mining in the country operate.

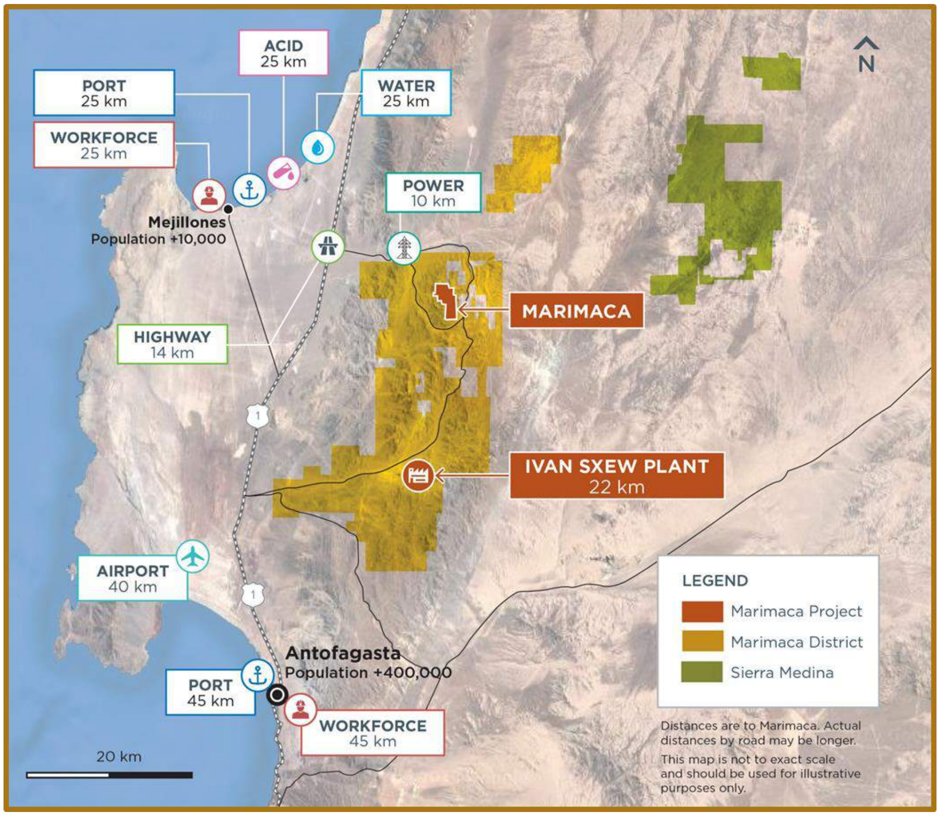


Figure 4-2: Key Infrastructure

4.3 Climate

The Project is located about 39 km north of the Tropic of Capricorn. The minimum temperatures vary between 10 and 15 ° C and the maximum temperatures between 20 and 29 ° C, while the average relative humidity oscillates between 67 and 70%. The climate is dry and the average annual rainfall is 2-3 mm as an annual average of 24 hours.

In the region, rainfall is very rare and decade's events of rains, which can reach up to 12 to 30 mm in a few hours, can occur. In the Resource area, however, they have no major impact because they do not have high slope drainage from the coastal cliff, a feature that develops both to the south and north of the Mejillones Peninsula (see figure 4-3).

To the east extends the central depression zone, characterized by vast areas of low slope, the "pampas", where the weather conditions are extremely arid and with notable variations in temperature between day and night. These, in general, vary between 28º C (day) and 2° C (night) or less depending on from altitude.

4.4 Physiography

The Marimaca Project is located in the Cordillera de la Costa, a relevant physiographic unit in the Northern Territory of Chile. The project area is mountainous with a relief varying between 400 and 1,000 m. Vegetation is minimal outside of inhabited valleys where irrigation and the "Camanchaca" sea mist that comes from the nearby ocean, supports vegetation that is capable of withstanding the desert environment.

The Project is located in an active seismic zone. The sector is not limited to the west by the characteristic steep coastal cliff that can reach differences of average height of 700 m; whereas in the Mejillones Peninsula, the cliff is moved about 37 km to the west, permitting the intermediate space to be occupied by a vast "pampa" (flat land) about 20 km wide (Figure 4-3).

Controlled by faults of north-south to north-northeast orientation the relief of the area consists of mountain ranges that reach up to 1,500 m above sea level (Cerro Naguayán) rising to the E on pampas of an average altitude of 700 m above sea level. The main one is the pampa that is aligned in the northeast direction bordering the Mititus Fault. It extends for more than 30 km and its width varies from 1 to 2 km along the course of the Quebrada Naguayán.

The drainage system of the Mejillones and Naguayán drains the area from east to west and south to north, respectively. They contribute the main gulch almost east-west in the northern part of the area, and tributaries from the Marimaca area in the northwest and the Quebrada Naguayán almost north-south.

The watershed divides two physiographic domains: to the west the topographic differences and steep drainage to the basin of Quebrada Mejillones, below 1,000 m above sea level, and to the east a morphology of gentle hills that descend to the east and form the eastern limit of the intermediate depression where the relief ascends over 1,000 m above sea level. Figure 4-3 shows these aspects with vertical exaggeration (3x in Google Earth):

Figure 4-3: Project location, showing relevant physiographic elements (vertical 3x). View toward NE. (CCF coastal cliff; MP: Mejillones Peninsula)

5 HISTORY

Project site and district exploration programs have been active since the Marimaca deposit discovery in 2016. There is no verifiable history of mining prior to Marimaca 1 to 23 properties. The area was known since the end of the 19th century as "Mineral de Naguayán".

The period of main small-scale mining scale activity was between the 90s and mid 2000s with underground labors and small pits that could have produced around 100,000 t of 1-2% CuOx as a whole.

In 1962, a report on the project informed of granodiorite-hosted mineralization cut by "dark dikes" oriented north-south, inclined to the east, with copper mineralization occurring within a system of decametric parallel fractures. Reportedly, 5 tonnes per week grading 17%-50% Cu were being mined. The deeper underground adits reached sulfides described as chalcopyrite, bornite and chalcocite.

Between the 1970s and 1990's reports by geologists of the government institutions such as the Institute of Geological Investigations and ENAMI (Empresa Nacional de Minería) mention copper oxide mineralization in north-south oriented fractures and a potential of 200,000 t with an average grade of 1.2% Cu was estimated.

In 2003 the owners commissioned a geological study that described and sampled a 10° striking narrow veined system and estimated a potential for 566,000t of average grade 2.8% Cu. This study recognized an intense fracturing and the key directions for faults and veins.

At least a couple of companies reviewed the property in the early 2000s, mostly juniors, but none of them reported the possibility of a substantial mining potential.

In May 2008, geologists from Minera Rayrock described the control of the mineralization by a "pseudo-stratification" or a "pseudo-stratified intrusive". The potential for copper oxide mineralization was estimated at 21 Mt of average grade 0.8% Cu. After this, there are no other reports regarding mining activities in the area.

Meanwhile, artisanal miners exploited the area by developing small open pits and underground workings with some degree of mechanization. The pits had dimensions that do not exceed 20 by 15 m and depths of up to 20 m. Underground workings reached extensions of no more than 100 m. Most of the production was sold to Michilla, ENAMI and Rayrock.

The discovery of Marimaca was made in April of 2016 when the first 15 RC drills intercepted significant intervals of copper oxides. The complementary program was started in August, demonstrating the continuity and increases the mineralization. In addition, some DDH holes were also drilled for metallurgical sampling. With these results, a maiden resource estimation was made and published in January of 2017 (NCL, 2017) and updated in May of 2018 (NCL, 2018).

During 2017, the Definitive Feasibility Study was commenced and additional RC drilling in a regular 50x50 m grid, DDH drilling for geotechnical and geometallurgical studies and a detailed geological surface mapping and rock sampling were completed.

The DFS study was filed in June 2018 (Propipe, 2018) and the Environmental Study (DIA, Environmental Declaration Study) with the respective RCA (Environmental Qualification Resolution) for the Marimaca 1-23 mine project was approved July 5th, (http://seia.sea.gob.cl/expediente/ficha/fichaPrincipal.php?modo=ficha&id_expediente=2137946846).

6 GEOLOGICAL SETTING AND MINERALIZATION

6.1 Introduction

The region is composed of Jurassic volcanic and intrusive rocks, with minor older Triassic acid volcanic occurrences, intermediate intrusives, sediments and Paleozoic metamorphic rocks. The main regional structure is the Atacama Faults System (AFZS), a arrangement of faults active since the Jurassic age. These faults are the eastern border of the Coastal Cordillera in the region.

Figure 6-1, (Ramirez, 2007) shows the main geological units for the coastal region located between the mouth of the Loa River and Paposo. The Atacama Faults System shows shape and strike variation from north to south: the northern, central (Mejillones-Antofagasta sector) and the southern segment, with a general NS trace and secondary subdivisions to the NW and NE.

The metallogeny in the region is dominated by the occurrence of Cu-Ag “manto-type” deposits of IOGC type. The classic “manto- type” deposits (Buena Esperanza, Michilla, Mantos de la Luna, Ivan and Mantos Blancos) are hosted in volcanic rocks with similar morphologic and mineralization-alteration characteristics with a particular litho-structural mineralization control for each deposit. A few deposits (Minitas, Tocopilla, Gatico, Naguayán, Montecristo), are veins hosted in intrusives with a certain IOCG affinity (Espinoza et al, 1996; Kojima et al, 2009).

The IOCG and Manto Type relationship has been a matter of debate in recent years, but for Sillitoe (2003) and Sillitoe and Perello (2005), Naguayán and also other occurrences along the coast such as Gatico or Montecristo correspond to the Middle-Late Jurassic IOCG Belt. Previously Espinoza et al, (1996) and Vivallo and Henriquez (1997) considered that iron oxide-copper and volcanic hosted manto type are related and linked by a common origin along the Chilean Coastal Belt.

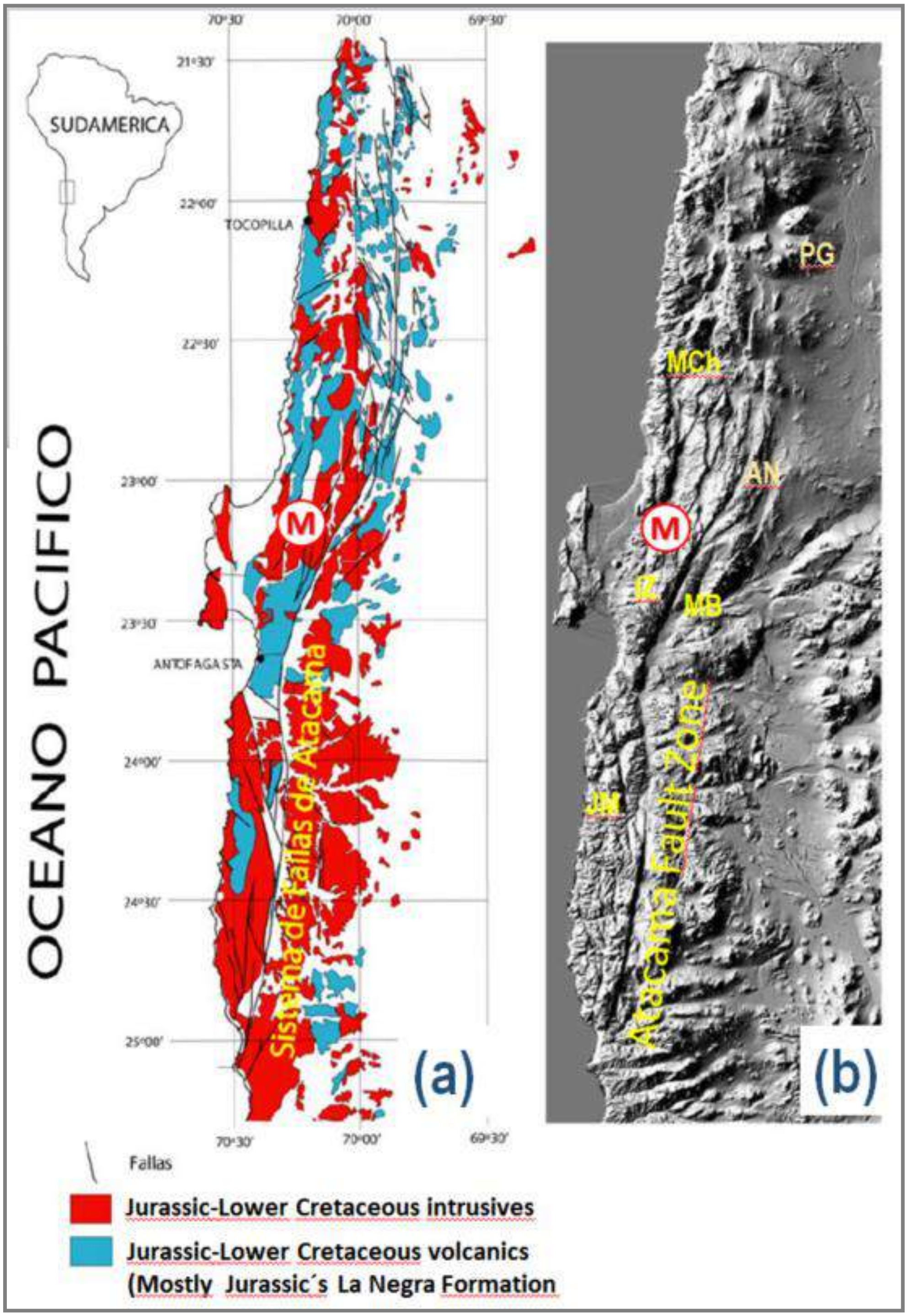


Figura 6-1: Regional Coastal Cordillera Geology (taken from Ramirez, 2007)

a) **Corresponds to a summary of Jurassic intrusives and volcanics. b) corresponds to a DEM that highlights the Atacama Fault System and the main copper deposits (PG: Puntillas-Galenosa; MCh: Michilla; AN: Antucoya; IZ: Ivan-Zar; MB: Mantos Blancos; JM: Julia-Montecristo). Letter M shows the location of Marimaca Project.**

6.2 Regional Geology

Geological setting is largely based on the published Mejillones and Peninsula of Mejillones 1: 100,000 geology maps by SERNAGEOMIN (Cortes, et al, 2007, Figure 6-2). This is complemented by structural and petroleum geology studies carried out in the Mejillones Peninsula (Lucassen et al., 2000, Herve et al., 2007, Casquet et al., 2014) and the Naguayán and Fortuna areas mapped by Cortes et al., 2007. Economic geology studies have been carried out by geology graduates of the Universidad Catolica del Norte (Vergara, 1985; Veliz, 1994; Gonzales, 2002).

There is recent new information regarding the nature of La Negra formation and Jurassic intrusive events, especially age determinations and new interpretations about the tectonic and metallogenic evolution have been provided by Mpodozis et al, (2015) and by Mpodozis and Cornejo (2019).

The oldest exposed rocks are late Paleozoic and Triassic age consisting of metasedimentary and intermediate intrusions. Intrusive bodies from early Jurassic to lower Cretaceous characterize the area. The intrusive units correspond to diorites, monzonites and monzodiorites, with variations to gabbro and, to a lesser extent, to quartz monzonites and metadiorites. These were dated at 155-154 Ma by Cortes et al (2007), but recently adjusted to the interval 174-169 Ma by new U-Pb zircon ages dated by Mpodozis et al (2015) and Mpodozis and Cornejo (2019), similar to equivalent intrusive episodes dated by Lopez et al (2018). This last unit hosts the mineralization at Marimaca. The mines of the Naguayán District are located along the western contact (see Figure 6-2). The volcaniclastics of La Negra Formation, a LIPS like volcanic bimodal event dated in the interval 180-170 Ma (Mpodozis et al., 2015, Lopez et al, 2017; Mpodozis and Cornejo, 2019) extends to the north, south and east of the area.

A notable system of dyke assembly intrudes both the plutons and the volcanics. They are bimodal in composition, from gabbro to rhyodacite and extend for tens of kilometers (Cortes et al, 2007). As per previous (Scheuber and Gonzales, 1999; Cortes et al. 2007) and recent dating data from Mpodozis et al (2015) and Mpodozis and Cornejo (2019), age range for this dyke swarm is in the 148-145 Ma. As pointed out by Scheuber and Gonzales (1999) and confirmed by MCAL mapping at Marimaca and surrounding areas, there are three main orientation of the dyke systems: the oldest are NE, the NS and the late are NW, determining an anti-clockwise rotation of stress axis with time. This dyke system shows a relationship with manto and IOCG mineralization styles, it must occur during a major stage of the structural regime.

A better understanding of the tectonic-metallogenetic environment for the Coastal Cordillera has been presented by Mpodozis and Cornejo (2019), including the development for a LIP category for La Negra and equivalent volcanic units which extends from Peru to northern Chile, Nemeth, et al, 2004; Lucassen et al, 2006), subsequently subjected to a major “core complex mode” collapse extensional episode.

Close in age intrusive episodes are then connected with crust thinning, high heat flux and the IOCG plus manto type mineralization episode (Mpodozis and Cornejo, 2019). See Figure 6-2.

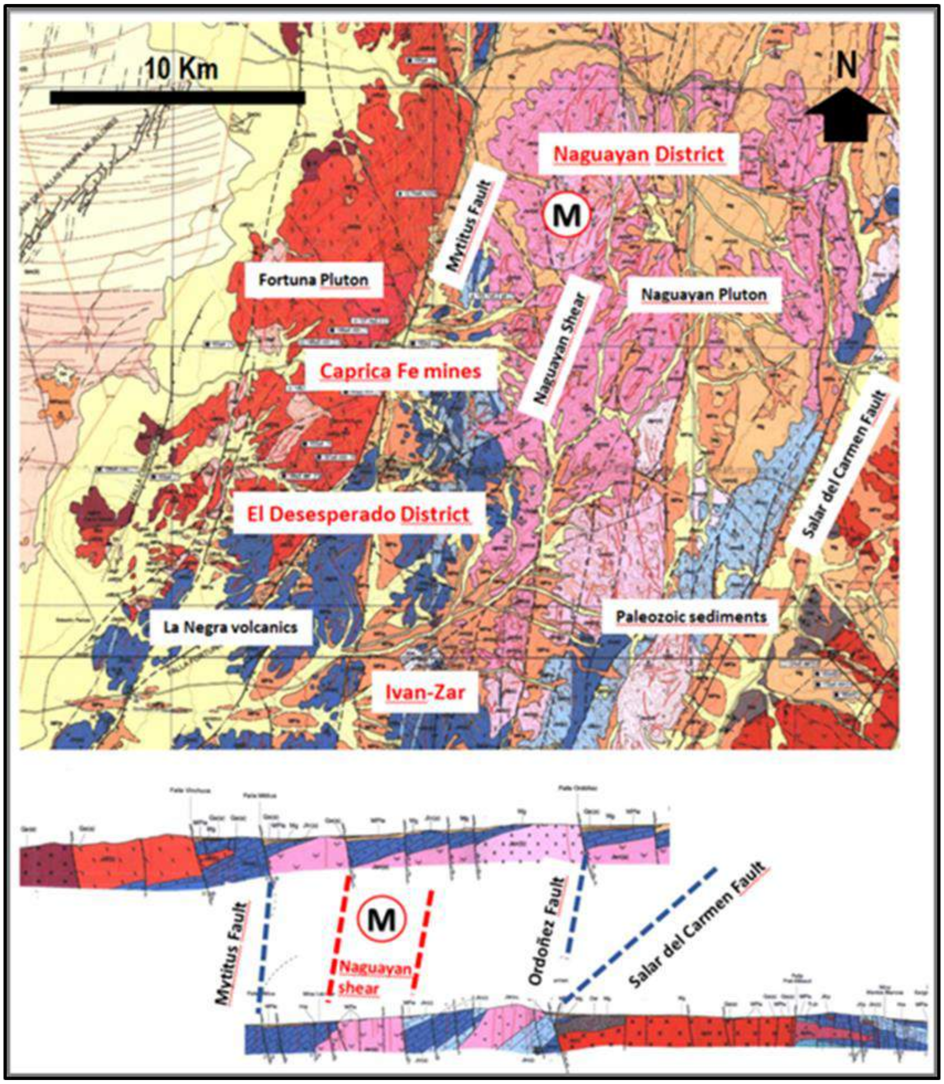


Figure 6-2: Marimaca Project Regional Geologic Setting (taken from Cortes, et al. 2007)

The Tertiary units correspond to marine sediments, which mark the paleo-coastal lines in the Mejillones Peninsula and also to the south.

The project is located to the west of the AFS, which is a surface representation of a subduction-related arc Fault System active at least since the Jurassic. (Figure 6-1). Parallel to it, other fault systems of regional importance adjacent to the project area control the morphology of the Mejillones peninsula. The movements are essentially strike parallel, originated by Jurassic-Cretaceous trans-tensional events (Scheuber and Andriessen, 1992; Gonzales, et al., 2006; Cortes, et al., 2007).

A penetrative sub-parallel system of fractures zone,at least 3 km wide and extending for more than 15 km, oriented north-south to north- northeast inclined between 40 and 60° to the east and southeast is a very important feature in the geological setting and in the mineralization control in the Marimaca area. This zone, denominated Naguayán Banded Fracture Belt (NBFZ), was not described in previous geological studies. The rock affected by the “shear” zone of the NBFZ is the Naguayán intrusive and its extension, and it is observable in the field. The andesitic or more acidic Jurassic dike association follows this fracture belt, generating systems of parallel dikes and sills, most of them concordant with the fracture planes and some dike sets display different orientations.

With reference to the Metallogenic Setting the area contains “manto-type” copper deposits hosted in volcanites of the La Negra Formation, as well as some IOCG-affiliated vein districts, hosted by Jurassic intrusives (Espinoza et al., 1997; Maksaev and Zentilli, 2002, Sillitoe and Perello, 2005). Towards the eastern border there are some porphyry-type copper systems of late Jurassic to lower Cretaceous age (Figure 6-3).

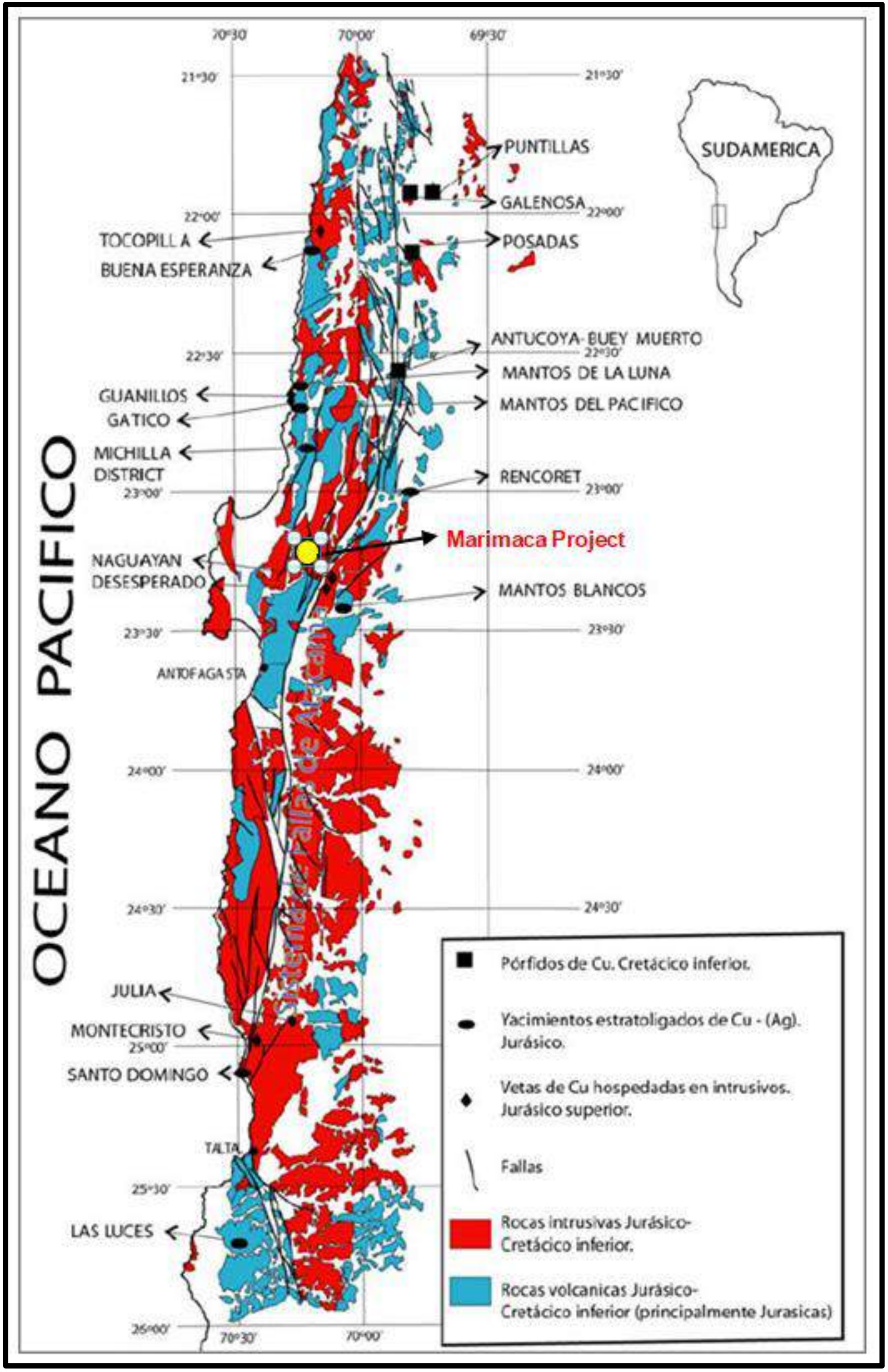


Figure 6-3: Coastal Cordillera main Copper Deposits Location (taken from Ramirez, 2007)

The “manto-type” copper deposits typically correspond to sulfides and copper oxides hosted and controlled by volcaniclastic rocks, especially in the brecciated and vesicular upper portions of lava flows. The variations are due to the effect of structural control by local fault systems (Espinoza et al., 1997; Kojima et al., 2009). Alteration is weak and difficult to distinguish from diagenetic alteration (Sato, 1984).

The size of the individual manto deposits varies between 15 and 40 Mt of grade approximating 1% CuT. Exceptionally, Mantos Blancos has resources for more than 200 Mt of grading near 1% CuT. The principal by-product is Ag, which can reach grades of 10 to 20 g/t. Their location and good metallurgical and mining conditions have made these types of deposits and their districts attractive for mining since the 1980s (Michilla, Mantos de la Luna, Buena Esperanza, Ivan). They are related to the late Jurassic intrusive and have calco-sodic alteration halos.

A key aspect of regional metallogenesis is the post-Cretaceous geomorphological and climatic evolution that permitted the generation of deep columns of supergene enrichment and oxidation. In Michilla the oxidized and mixed minerals extend up to 200 m depth, in Mantos Blancos the thickness of the oxides is of 100 to 150 m and in Marimaca it is more than 200 m. Despite the deficiency of pyrite in the systems, chalcopyrite and scarce pyrite (equal to or less than 1% by volume) have been sufficient to give the required acid to leach the sulfides and form the secondary enrichment zones. The leaching produces oxides and sulfides, generating in-situ chalcocite/covellite. These phenomena have been extent since the rise and contraction of the Jurassic-Cretaceous and especially since the Tertiary.

6.3 Local Geology

The Marimaca Project, located in the Naguayán Mining District (Figure 6-3), occurs within the Jurassic Coastal Copper Belt (Vivallo and Henriquez, 1998; Sillitoe, 2003; Figure 6-1), The belt consists of Manto Type and IOCG Cu deposits hosted by volcanics and intrusive rocks. The former has differing morphologies, perhaps stratiform is the most common shape; they present a Cu-Ag primary mineralogy zoned from bornite - chalcocite outwards to chalcopyrite and pyrite, related to a weak non-destructive alteration, all displaying supergene oxidation (Sato, 1984; Kojima et al., 2009). Mantos Blancos ~400 Mt and Ivan ~50 Mt, illustrate the range of size, style and morphologies of the typical Volcanic Hosted Stratiform or “Manto Type” copper deposits that occur in this area.

As noted, even though the volcanic hosted mantos are the most common deposits along the belt, there are some IOCG type veins mostly hosted by intrusions. The Naguayan District was considered of this type because the old description of veins and wall rock (Vergara, 1985; Vivallo and Henriquez, 1998; Sillitoe, 2003; Sillitoe and Perello, 2005). This was the main reason why the Naguayan District and Marimaca property in particular were not considered of exploration interest for larger copper deposits.

The wall rocks in the Naguayán District are intrusives from the "Naguayán Plutonic Complex" defined by Cortes et al. (2015) (previously referred by Vergara, 1985, as "Unidad Oriental Cerro Naguayan, UCENA"). In Marimaca, the intrusive is an equigranular to porphyritic monzodiorite displaying variations to monzonite, diorite and monzodiorite porphyries, cross cutting by Dyke Swarm System consisting of various bimodal dyke episodes ranging in composition from gabbro to rhyodacite and in orientation from NE, to NS NW and WNW.

The Naguayán parallel structure system, which consists of NS to NNE oriented sheeted like fractures zone that can be observed for kilometers beyond the project area limits, affects these intrusives. This belts form part of the regional NBFZ structure described in chapter 6-2 of this report. A general view of the project area geologic setting is shown in the photograph of Figure 6-4 where the "stratified" appearance of the parallel fractured intrusive and the ensemble of dike swarm can be noted.

Figure 6-4: Marimaca Project Geologic Setting. Panoramic view from Marimaca area towards south, showing Monzodiorite Stock and Dyke (darker bands) Swarms outcrops (looking ESE). Note also, the north-south trending dipping east "stratified" fabric, as well as the clearer coloured bands characteristics of the "Hanging Wall Alteration" front. The Highest hill is Cerro Naguayán (1,578 m elevation)

Background rock alteration consist of Na-Ca metasomatism. The mineralization is related to albite-actinolite-chlorite-iron oxide alteration. Primary mineralization is largely controlled by the banded zone and by NE to NS oriented "feeders" or vein like structures and consists chiefly of massive occurrences, replacement and/or fracture filling, of chalcopyrite, moderate to minor pyrite, minor bornite, covellite and primary chalcocite.

Intense, extensive and pervasive events of supergene oxidation have produced the actual copper oxide blanket that forms the mineral deposit at Marimaca. The surface data show that the copper oxides are controlled by a very strongly fractured host rock creating a high permeability background, generated by the superposition of several events of fracturing and diking. The oxidation resulted from the alteration of a previous secondary sulfide enriched blanket that produces an expected acid-oxidation chemical zonation from brochantite-atacamite at cores immediately surrounding the secondary sulfides remnant patches and successive external haloes of predominant chrysocholla and further external wad.

As compared with other deposits of the belt, Marimaca is fully hosted by intrusives and this wall rock, becomes extremely permeable thanks to intense fracturing. Thus, the mineralization style is very different from the neighboring typical volcanic hosted manto type copper deposits.

The information sustaining the actual knowledge of the deposit geology is provided by more than 20 km2 of detailed and systematic surface geological mapping, and underground workings and road cut mapping and sampling. The accurate logging of the 91,210 m of RC cuttings and DDH core samples, plus BHTV structure drill hole surveying, is a significant contribution to the actual geologic knowledge and modelling of the Marimaca Project.

6.4 Property Geology

The following photos (Figures 6-5 and 6-6) illustrate, the key elements of the project area, chiefly the surface extension of the Cu oxide blanket, as expressed by the > 0,1% Cu limit as mapped from surface, and the eastern limit of alteration which corresponds to the so called Hanging Wall Alteration or “Red Cap. In these views it is possible to appreciate the physiography and the roads and drill platforms from the project, as well as the evidences from old artisanal mine workings inside the yellow dashed zone:

Figure 6-5 Marimaca Project Area. Panoramic view toward north-east showing main sectors and Key elements of copper oxide mineralization (the >0.1% Cu boundary) and alteration (Hanging Wall Front). Scale bar is for reference only. The highest peaks are 1,100 m elevation, lowest are close to 900 m elevation.

Figure 6-6 Marimaca Project Area. Panoramic view toward south showing main sectors and key elements of copper oxide mineralization (the >0.1% Cu boundary) and alteration (Hanging Wall Front). The northern limit of mineralization corresponds to a NW fault that can be easily observed at the hill above Hanging Wall Alteration. Scale bar is for reference only. Altitude references are same as Figure 6.5.

6.4.1 Lithology

The surface geology is shown in figure 6-7 and is complemented, for observing the lithologic-structural controls of the mineralization and the mineral zone distributions, by the long section NE-100, Figure 6-8. The summary description of main rock types units is provided in Table 6-1, and a set of illustrative pictures, including both hand samples and micro-photos of the different rock types, are shown in figures 6-9 and 6-10.

Main lithologic units mapped in the project area consist in two igneous intrusives units: an older Monzodiorite Stock, the main country rock, and a younger series of dikes (see map of Figure 6-7). The former corresponds to a part of the Naguayán Plutonic

Complex (NPC) and the later to the various dike (DSS) sets both described by Cortes et al. (2007).

Pre dike units from NPC were mapped as Monzodiorite (MZD), Monzodiorite Porphyry (PMD) and Diorite (DIO). Between them contact relationships remains unclear, except certain evidences of gradational texture change between PMD and MZD, whereas intriguing fragments of DIO are hosted by MZD in certain outcrops.

The MZD is the most common country rock (Figures 6-7; 6-8 and 6-9; Table 6-1). Is recognized as a course to medium-grained equigranular pyroxene and hornblende rich, quartz monzodiorite due to the interstitial feldspar-quartz. The Monzodiorite Porphyry (PMD) is similar in composition to the MZD but displays a clear porphyritic texture and all mafic seems to be replaced by actinolite (Figure 6-9).

The Diorite (DIO) is medium to coarse-grained quartz diorite, bearing amphibole and pyroxenes (Figure 6-9). It is characterized by pervasive secondary biotite alteration and fine copper sulfide disseminations. These observations allow the interpretation that, at least an early event of copper sulfide mineralization is related to the DIO unit, before the main dyke emplacement stage.

Rock Unit	ROCK TYPE	CODE	PHOTO	MINERALOGY/TEXTURE/CLASIFICATION	CONTACT/AGE RELATIONSHIP	SURFACE DISTRIBUTION	Age Relationships/Regional Equivalent Unit
Naguayan Monzodiorite	MONZODIORITE	MZD		Equigranular, medium to coarse grained pyroxene and hornblende bearing Quartz Monzodiorite. Interstitial K-Sp and quartz.	Corresponds to the oldest rock unit, commonly younger dioritic units contains MZD xenoliths. This unit is cross cut by all the dyke swarm system.	Most common country rock in the project area.	U-Pb dating in the 169-170 Ma range. Defined as "Unidad Oriental Cerro Naguayan (UCENA)" by Vergara (1985) and as "Naguayan Plutonic Complex" by Cortes et. Al. (2015). Also recognized as "Naguayan Stock" by Mpodozis et. al (2015) and Mpodozis and Cornejo (2019)
	MONZODIORITE PORPHYRY	PMD		Porphyryitc monzogranite to quartz monzodiorite, containing lesser pyroxene, hornblende and a quartz-orthoclase rich matrix. Commonly pyroxenes are altered to amphibole.	Shows gradational contacts with MZD. It is intruded by all the younger set of dykes and similar intrusions.	It is fairly un common at the main mineralized area. The PMD unit occurs mostly towards north.	Recognized by Vergara (1985) as part of his UCENA unit and by Cortes et. Al. (2015) as part of the "Naguayan Plutonic Complex"
Marimaca Diorite	DIORITE	DIO		Equigranular,medium to coarse grained quartz diorite, bearing pyroxenes partially replaced by amphibole. Weak to moderate biotite alteration. Showing chalcopyrite and pyrite dissemination.	Observed in isolated outcrops and mostly in drill holes, intruding MZD and intruded by de main NS to NW dyke system.	Occurs at small stocks partially aligned NS at the central part of Marimaca. Mapped mostly in drill holes	Same as previous
NE Early Dyke System	DIORITE PORPHYRY	PDI		Porphyritic fine grained ground mass bearing diorite. Mineralogy includes chiefly plagioclase and pyroxene phenocryst; same at the groundmass that also contains olivine relicts.	Intrudes MZD and its clearly intruded by the main dyke systems	The main NE trending PDI dyke system has been observed towards the NW and a minor trend exist at the SE corner of the area.	Dyke units of different composition described by Vergara (1985) and by Cortes, et. al. (2015). Described as "Dyke Swarms" and linked to mineralization by Mpodozis, et. al. (2015)
	MICRODIORITE	MDI		Microgranular to weakly porphyritic diorite, scarce plagioclase and pyroxene phenocryst and a fine amphibole, chlorite, magnetite matrix.	Intrudes MZD and it is cross cut by main NS to NW dykes	Roughly parallel to PDI NE trending dyke system, also mapped at the NW and SW parts of the area	Same as previous
Main NS Dyke System	OCOITE	OCO		Coarse porphyritic diorite. "Ocoite" is the common name given in Chile to this type of rock, characterized by + 5mm fresh plagioclase phenocryst in a pyroxene and magnetite ground mass.	Post PDI and MDI dykes, intruded by MDI NS, PDA and MDI NW dyke systems.	NE to NNW oriented dykes, sub-parallel to MDI and PDI dyke systems.	Same as previous
	NS MICRODIORITE	MDI NS		Fine grained diorite, composed by plagioclase and pyroxene.	NS trending dkyes intruded DIO, PDI, MDI and OCO units. Intruded by NW trending dykes.	NS trending dykes. Structural orientation is NS dipping 45-50 towards east.	Same as previous
	DACITIC PORPHYRY	PDA		Fine grained porphyritic dacite, containing plagioclase and scarce pyroxene phenocryst. Ground mass contains K-Spar. Common amigdules filled by quartz, chlorite and sericite.	NS trending eastward dipping dykes, intruding all previous units. Intruded by NW late dykes systems.	A series of NS trending eastward dipping dykes, showing an spatial relationship with mineralization. Can traced by kms along strike	Same as previous
Late NW Dykes	NW MICRODIORITE	MDI NW		Fine grained microdiorite bearing plagioclase and amphibole.	Late dyke event intruding all previous units.	Distributed along main WNW to EW oriented dyke system corridors. Controls copper oxide distribution and separates main structural domains.	Same as previous

Table 6-1: Marimaca Project: summary characteristics of the main rock type units

The dike units are part of the major Dike Swarm System (DSS) that characterizes the area. Individual dikes have an average width of 1 to 2 m. As an exception, some PDI and PDA bodies reach widths of 10 to 20 m. Along strike, dikes often extend for many hundreds of meters or even kilometers. The dikes vary in composition from rhyodacite to gabbro, and occur as sets or families-oriented NE, NS and a set NW to WE. Most are dipping east similar to the rock fracturing (NS to NE dipping 45-60 east), but the NW to WE ones are vertical. The earliest dike event comprises NE oriented, 50-60° SE dipping, Diorite Porphyry (PDI) and Microdiorite (MDI) dikes (see map of Figure 6-7). PDI is a fine-grained porphyritic diorite with pyroxene and plagioclase phenocryst in an olivine relict bearing matrix (Table 6-1; Figure 6-9). MDI is a fine grained to weakly porphyritic diorite with pyroxene and plagioclase phenocryst in an amphibole-chlorite-magnetite matrix (Table 6-1). This series of earlier dikes are intruded by the main NS system of OCO, MDINS and PDA dikes.

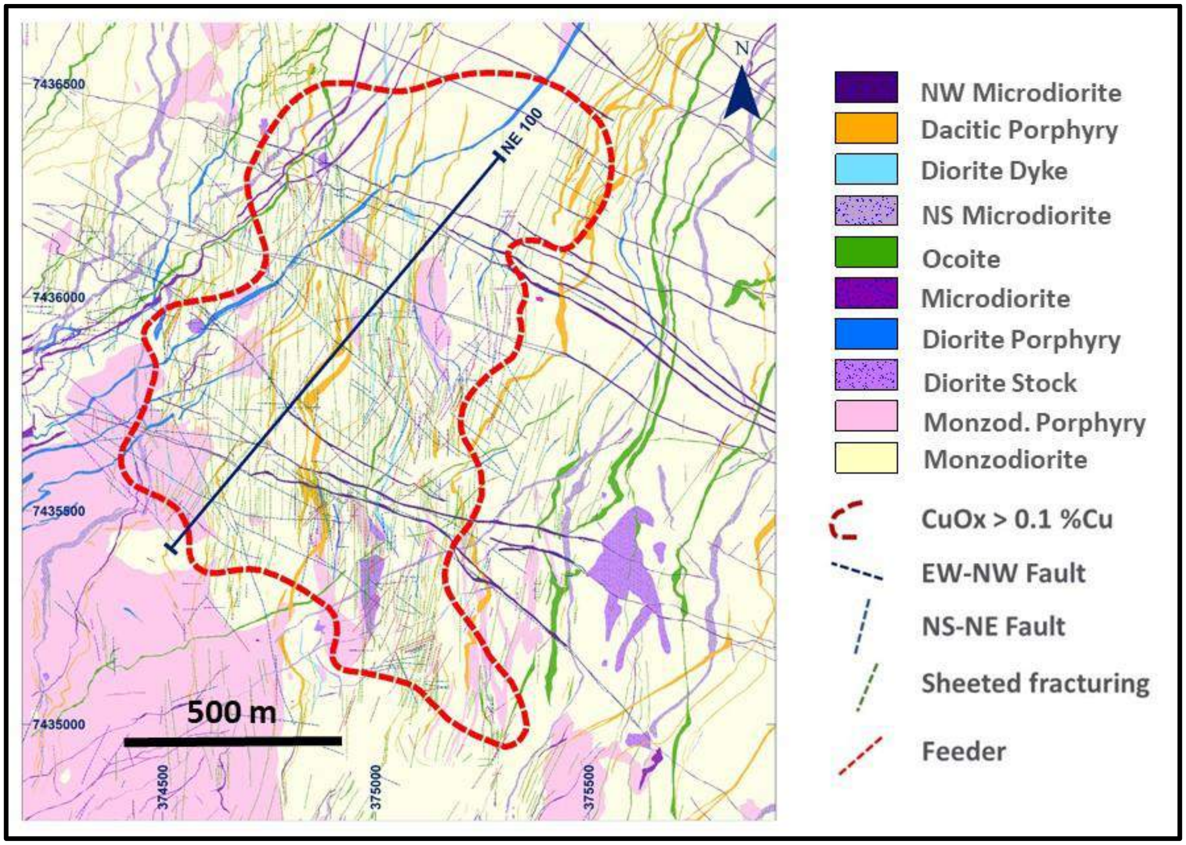


Figure 6-7: Marimaca Project Detailed Sub-Surface Interpreted Geology (Kovacic, 2017; IMG, 2019)

The main dike event is north south oriented, eastward dipping (Figures 6-4 and 6-7) and consists of earlier "ocoite" like coarse-grained porphyritic diorites. These OCO dikes are characterized by large plagioclase phenocryst in a pyroxene-magnetite ground mass (Table 6-1, Figure 6-10). These textures receive the local name of Ocoite, coming from a type locality in central Chile. Other units of dikes from this main event are the NS Microdiorites similar to the NE set of MDI, but later in age and oriented NS dipping east (Figure 6-7, Table 6-1).

The Dacitic Porphyry dikes (PDA) are the most relevant from the Main NS Dike System. Rocks (Table 6-1) are fine-grained porphyritic in texture containing plagioclase as main phenocryst and some pyroxene. Matrix is K-Feldspar and quartz rich. Amygdales are common, filled with crystalline quartz, chlorite and sericite. Most of the mineralized oxide blanket is related to, comprised of or grossly limited by these sets of PDA dikes (Figures 6-7 and 6-8).

The later event of diking is related to WNW to NW trending, vertical, faults. Dikes are described as Microdiorite (NWMDI). Those are fine grain rocks containing plagioclase and amphibole. This unit is clearly post mineral in age, but controls together with the NW faults, the distribution of the copper oxide blanket, separating structural panels or domains as shown in Figures 6-7 and 6-8.

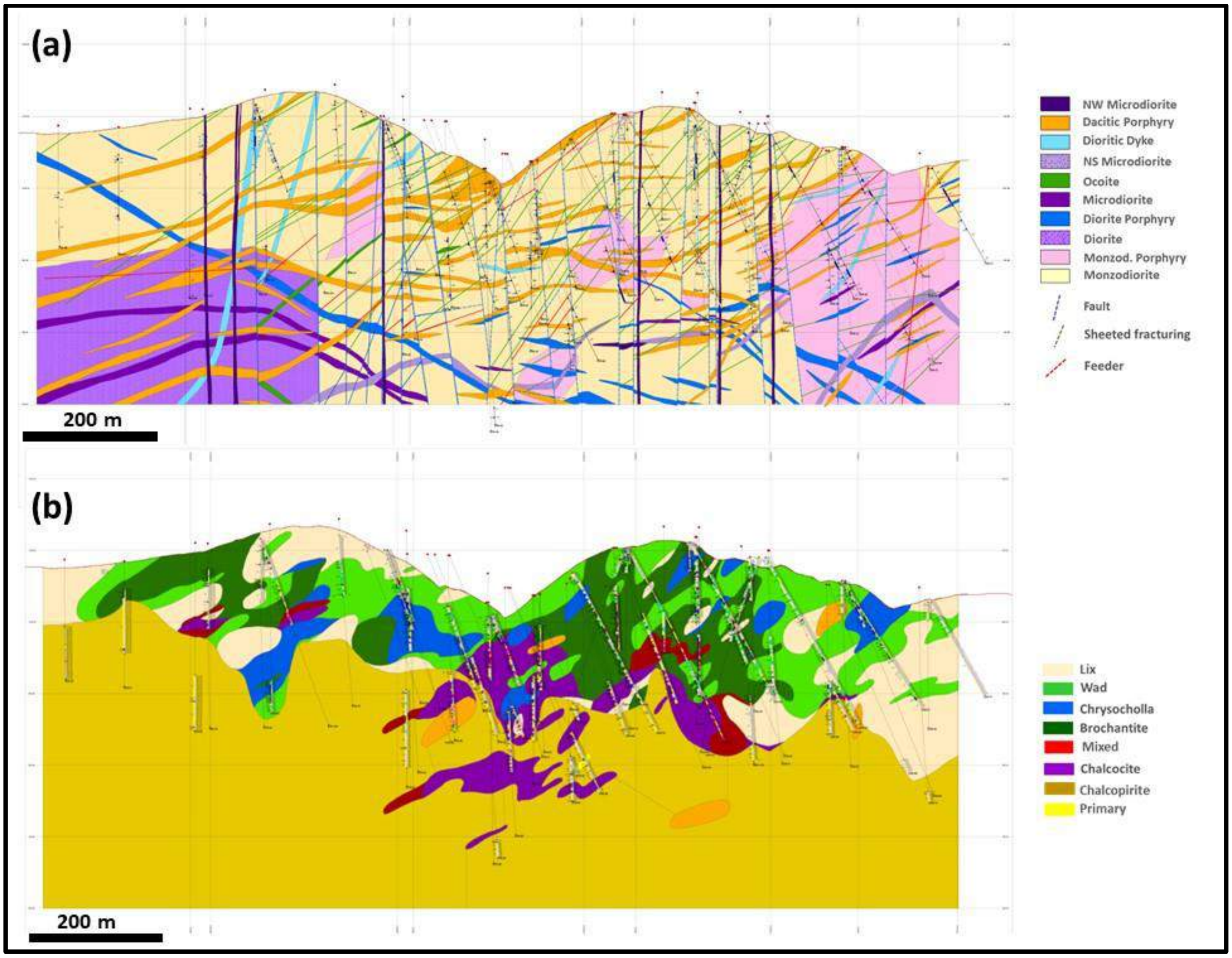


Figure 6-8: Marimaca project. Marimaca Project, Illustrative Litho-Structure (a) and Mineralization Section NE100 (b). Sections are 220°south-east

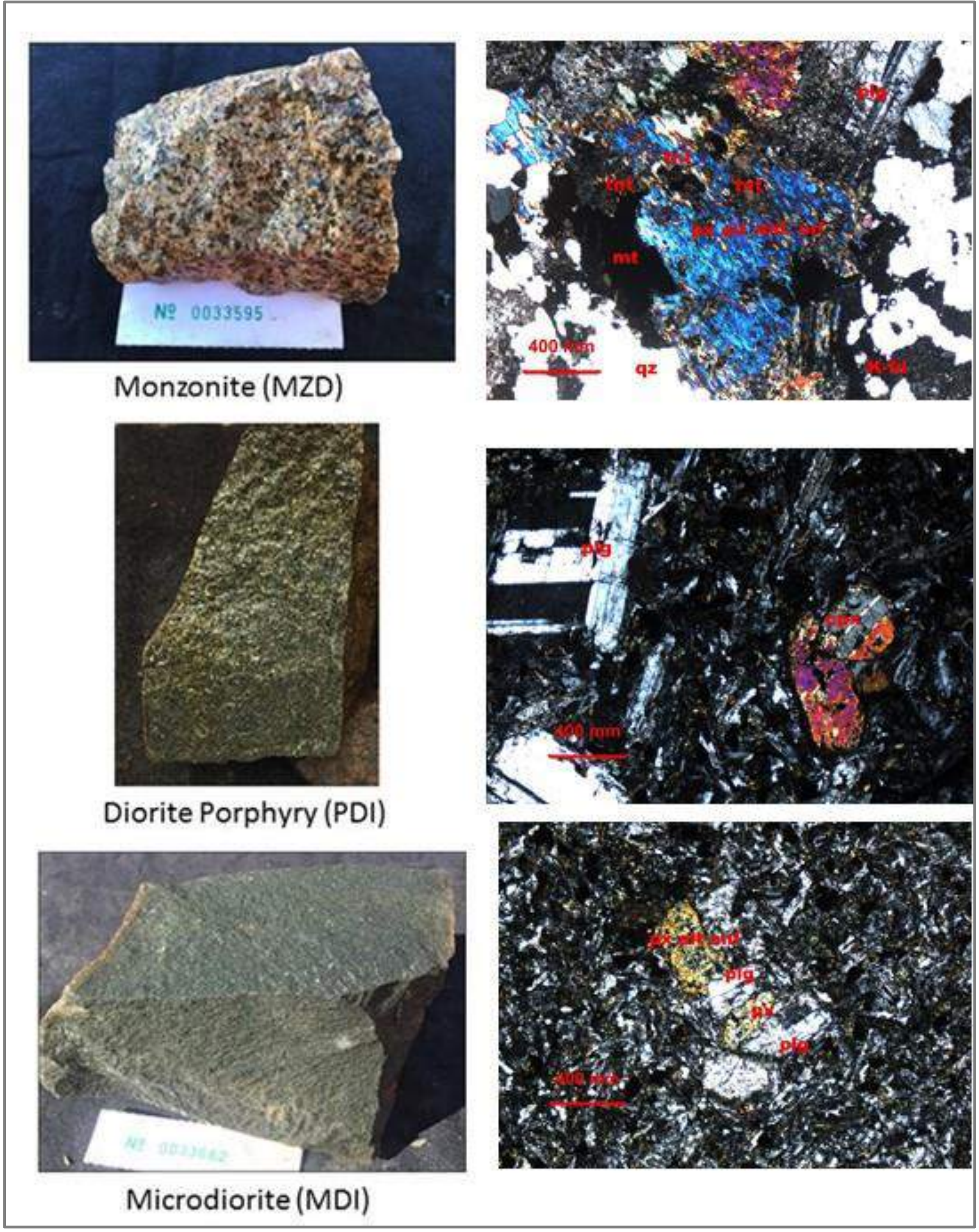
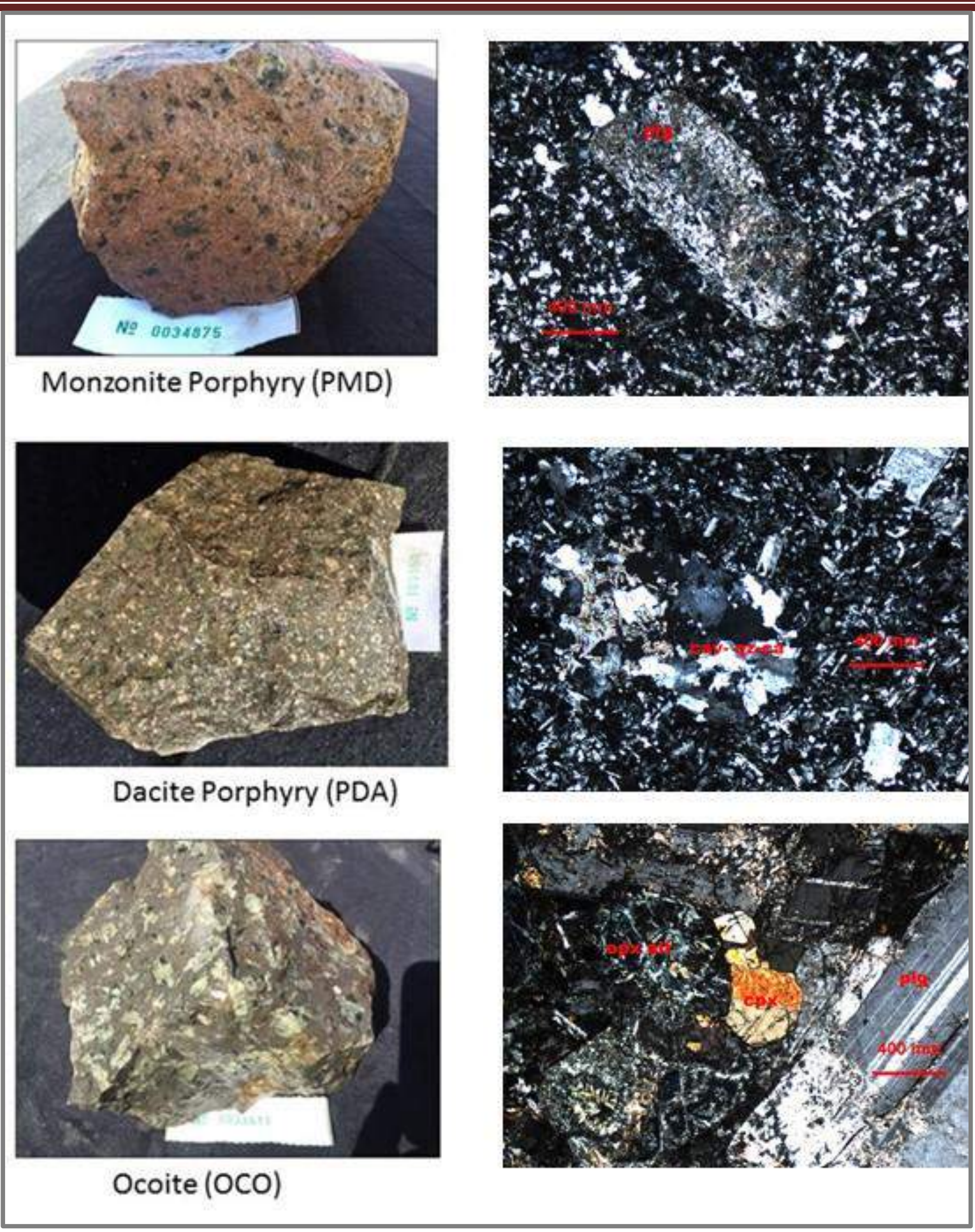


Figure 6-9: Marimaca project. Main rock types hand sample and thin section photographs



Monzonite Porphyry (PMD)

Dacite Porphyry (PDA)

Ocoite (OCO)

Figure 6-10 (Continuation): Marimaca project. Main rock types hand sample and thin section photographs

The lithological arrangement of Marimaca is complex and reveals the emplacement of highly differentiated mesozonal intrusive stocks. The monzodiorite shows textural variations related to contact-cooling zones. The late porphyritic facies of the PMD indicated the uplifting and cooling under the deformation, probably generated by the parallel fractures zone. Although part of the diorites seem to be older rocks, most of the DIO bodies are likely intruding the MZD and not exposed at surface (see interpretation in Figure 6-8) but are better exposed in outcrops at the Olimpo Sector located close to 2 km north from the project area. As described, the most important aspect of DIO unit is that it contains secondary biotite with some magnetite and disseminated pyrite and chalcopyrite.

The post plutonic emplacement of the Dike Swarm System, sealed most of the banded fracture zone, for this reason the dikes of the main NS episode are aligned with the parallel fracturing, and thus, control the mineralization producing a general pattern of “stratified” like sequence, striking northwards and dipping eastwards, limited on top by the Hanging Wall Alteration front (Figure 6-4).

Part of the alteration affecting the wall rock units is earlier Na-Ca metasomatism, involving replacement of pyroxenes by amphibole and the development of albite and epidote as replacement or veinlets and haloes or growing borders of plagioclase or K Feldspar, and actinolite veinlets. Textures reveal a late magmatic age for this extensive alteration that affects MZD and PMD wall rocks and/or the interaction with Na-Ca rich saline fluids at later cooling stages.

Although radiometric ages from Cortes et al. (2007) for the NPC are in the range of 140-150 Ma, recent more precise dating by Mpodozis et al. (2015), Mpodozis, and Cornejo (2019) are in the range of 174-169 Ma According to Lopez et al (2019), part of these ages are coincident with the older ages from the base of La Negra Formation. Age of diking in the region is still accepted as 148 to 145 Ma, which is compared with the age of mineralization at the main copper deposits in the region such as Mantos Blancos and Michilla (Mpodozis and Cornejo, 2019).

Using the detailed geological mapping of figure 6-7 and a set of regular NW and NE sections, such as those showed in Figure 6-8, Atticus Geo built using Leapfrog Geo™ a litho-structural model. In it, all lithological units along with the main and some secondary structures were modeled. Some views of this model are shown in figure 6-11.

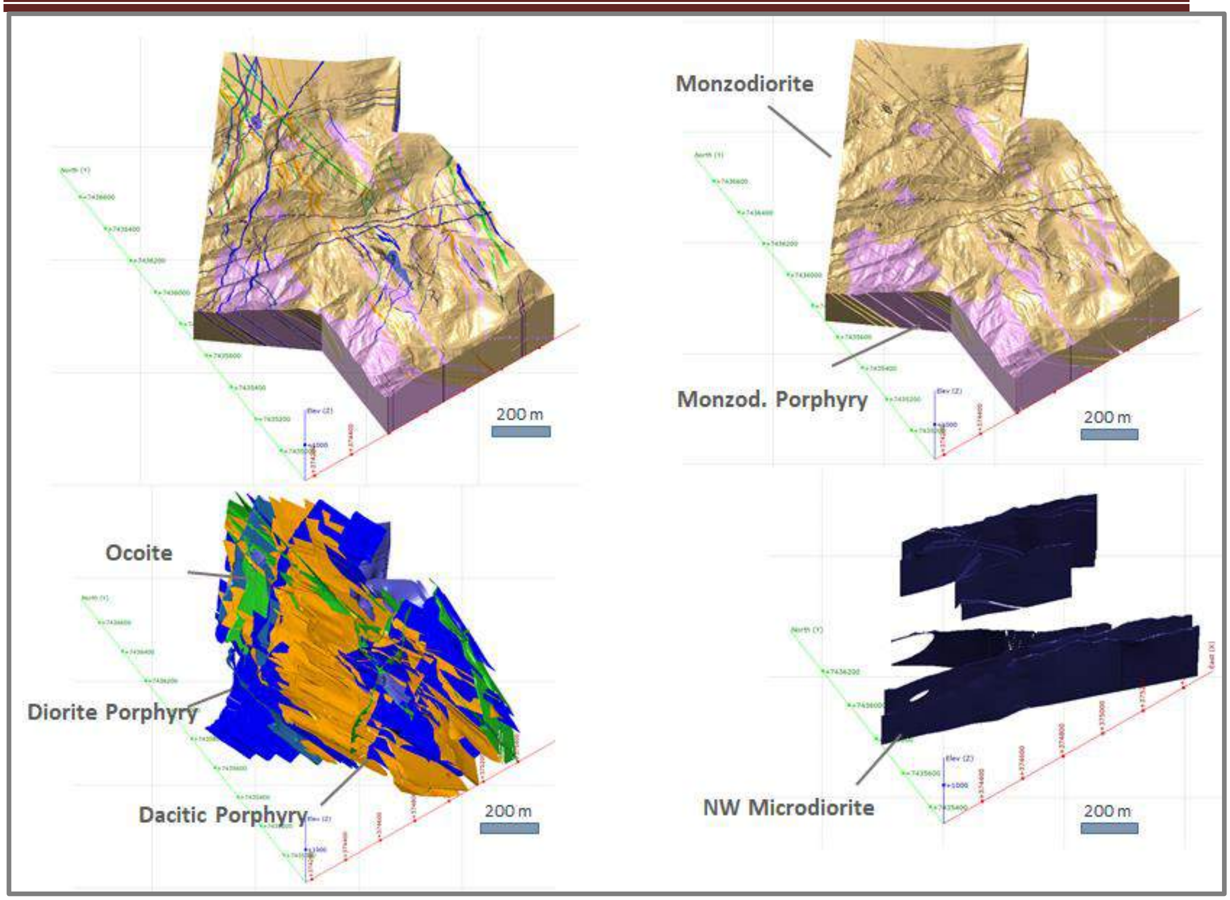


Figure 6-11: Marimaca Project: 3D. Lithologic model (from Leapfrog TM 3D Model produced by Atticus Geo)

6.4.2 Structure

Due to its close relationship with mineralization, structure has been the subject of detailed mapping and studies. Most orientation data come from surface detailed 1:1,000 metric scale mapping (Figure 6-7) as summarized in rosettes and pole concentration stereonet of Figure 6-15, but also from systematic down-the hole BHTV survey (Figure 6-14). A review of main structure types, their distribution and relationships with the mineralization is described here.

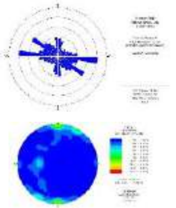
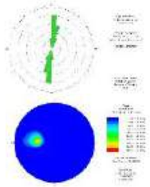
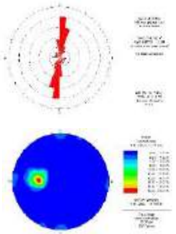
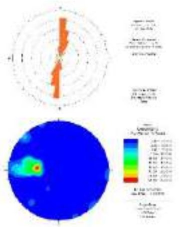
STRUCTURE TYPE	CODE	DESCRIPTION	MAPPING CRITERIA	DISTRIBUTION	STRUCTURAL ORIENTATION
FAULT	**FAL**	Fault planes controlling contacts between rock types or alteration-mineralization zones. Evident from outcrops but also from geomorphological expressions such as ridges or creeks.	Shear zones and damage fractures. Gouge and slickensides as main kinematic markers. Normally displaced dykes and are sealed by copper mineralization	There are some NS main faults but mineralized and are describes as "Feeders". The most prominent faults are vertical and strikes EW to NW-SEE. This structural system controls the supergene alteration and mineralization and divides the mineralized zone into five discrete structural domains. Late diorite dykes are controlled by the late faulting. Also controls the geomorphology at some main creeks.	
BANDING	**BAN**	The most pervasive and characteristics structural system of the area. Observed as sheeted like fracturing, extends for kilometers and controls the distribution of primary as well as oxide mineralization.	Characterized by a pervasive and persistent sub-parallel sheeted-like fracturing. Fracture spacing is close to 3 to 7 fractures per meter. Oriented NS to NNE and dipping 45-50° east. Observed like a "pseudo stratification" of the intrusive host. Main NS trending dykes are roughly parallel to the banding.	Extensively distributed in the project area. Apparently more pervasive at the central mineralized area.	
FEEDER	**FEE**	Copper mineralized faults. Widths of centimeters to meters. Clearly post banding development. Some shows vein aspect filled by iron oxides and partially brecciates.	1 to 5 meters wide mineralized fault-veins. Mineralization extends to the damage borders. Part of the filling material looks brecciated, related to Fe-Cu mineralization.	Most of the old mining workings follows the high copper grades feeders. Oriented NS to NNE and dips 45 to 70° east. Are more common towards de Marimaca 1-23 sector.	
VEINS	**VTS**	1 to 3 meters wide, magnetite-hematite with or without copper mineralization structures. Tourmaline is common as well as gypsum, quartz and actinolite.	Easily recognized because their massive aspect, with "gossan" like, goethite-hematite rich, expressions at surface. Some also consisted in sets of centimetric of parallel veinlets.	Commonly related to feeder like structures. Some magnetite rich veins are controlled by dyke contacts. Strikes NS top NNE and dips vertical to 60° east. Mapped for hundred of meters, observable in most of the old mining workings, specially underground at Atahualpa	

Table 6-2: Marimaca Project: summary of main structure characteristics

The main structures at the Marimaca Project are the dike sets, which seal different episodes of faulting, and record the abrupt changes in stress conditions and orientations that affected the area once the NPC was cooled and uplifted. Nevertheless, other fracture sets are also relevant and recognized as main controls of the mineralization both in hypogene and in supergene episodes. Rock banding or parallel fractures system (NBFZ) is undoubtedly the most relevant structural feature, also related to the main NS system of dikes. Feeder and veins are also relevant structures directly related to mineralization. Feeders in particular are NE to NS structures that displaces the parallel fracture system and concentrate oxide mineralization in the supergene zones, some of them can be recognized within the deeper primary sulfide elevation. Most of the veins are controlled by the parallel fractures and by the dike contacts, while a few occupy open fractures oriented in other directions.

Structures are shown in Figure 6-7, and also illustrated in section in Figure 6-8. A set of 3D Leapfrog TM views is shown in Figure 6.11 Illustrative photographs of different structure sets are displayed in Figure 6-13. Finally, main structural orientations of thousands of both drilling (obtained by means BTHV survey) and surface measurements are summarized in stereonets and rosettes from Figures 6-14 and 6-15.

The sub-parallel, planar, penetrative and persistent structural belt is the most important structural feature of Marimaca (Table 6-2). As was described, this condition can be followed at district scale and is informally named Naguayán Banded Fracture Zone (Figure 6-4). In the project, the NBFZ gives the rock an appearance of “pseudo-stratification” (see pictures in Figure 6-4 and photos in Figure 6-13), composed by decametric sub-parallel fractures that show different types of penetration, filling, spacing and persistence (Figure 6-13 a, b and d).

The fractures that determine the NBFZ have an azimuth 360° to 010-020°, dipping between 45 to 50° east. There is a variation in the strikes in the south with azimuth predominance of 020-030°, to the north the direction changes from 360° to 010-020°, always with east inclinations (Figures 6-7 and 6-8). Sometimes these fractures are filled with gouge of clay and limonite. Some are faults, with gouge fillings of centimeters of thickness (Table 6-2). These fractures are persistent along the strike for several hundred meters. The 3D aspect of banding is shown in Figure 6-12.

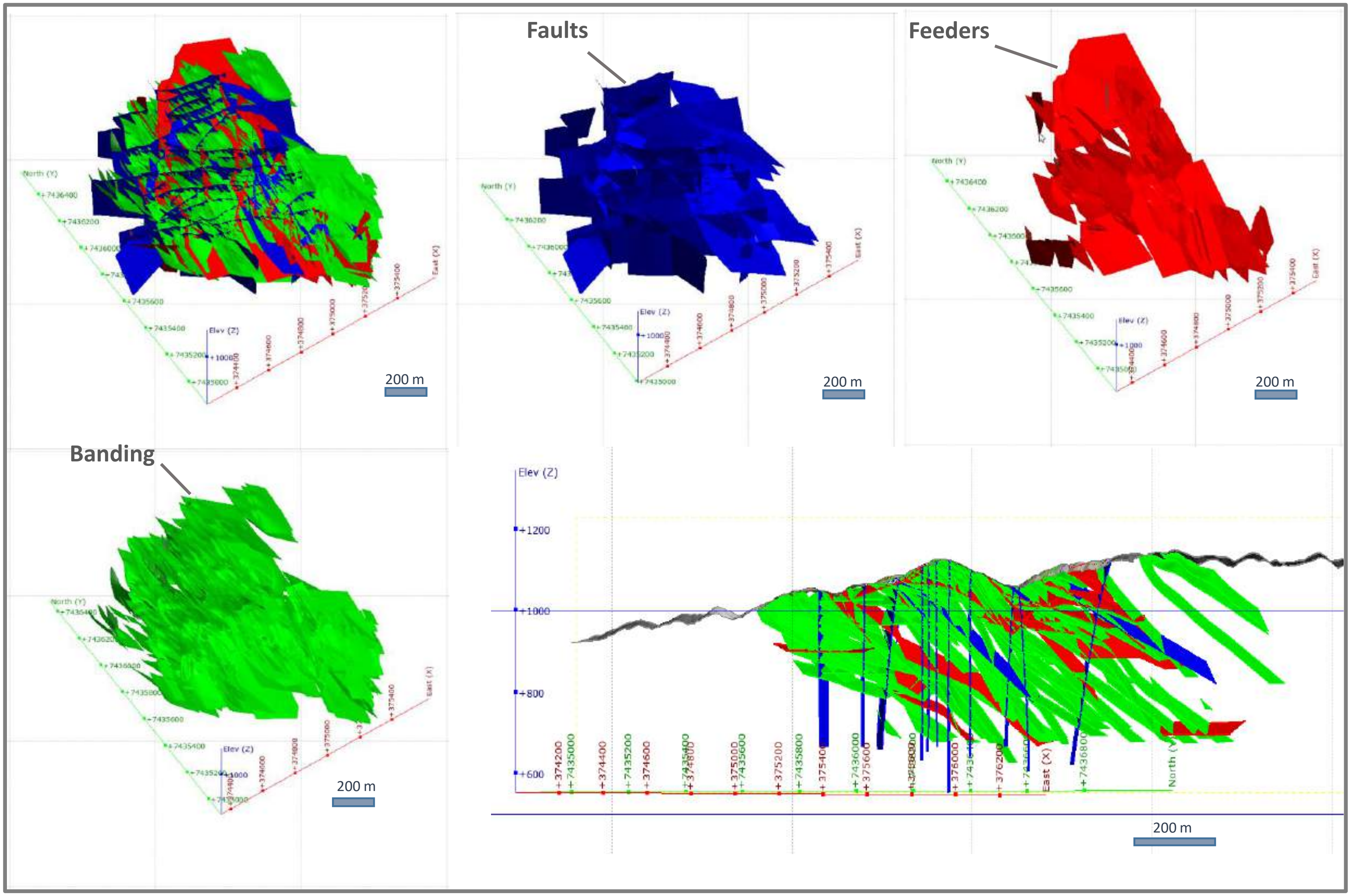


Figure 6-12: Marimaca Project: 3D in Figure 6. 12, starting from the 3D ensemble to the desegregation into Faults, Feeders and Banding. An EW section summarizes the view of the structural ensemble (Images from Leapfrog TM 3D Model produced by Atticus Geo)

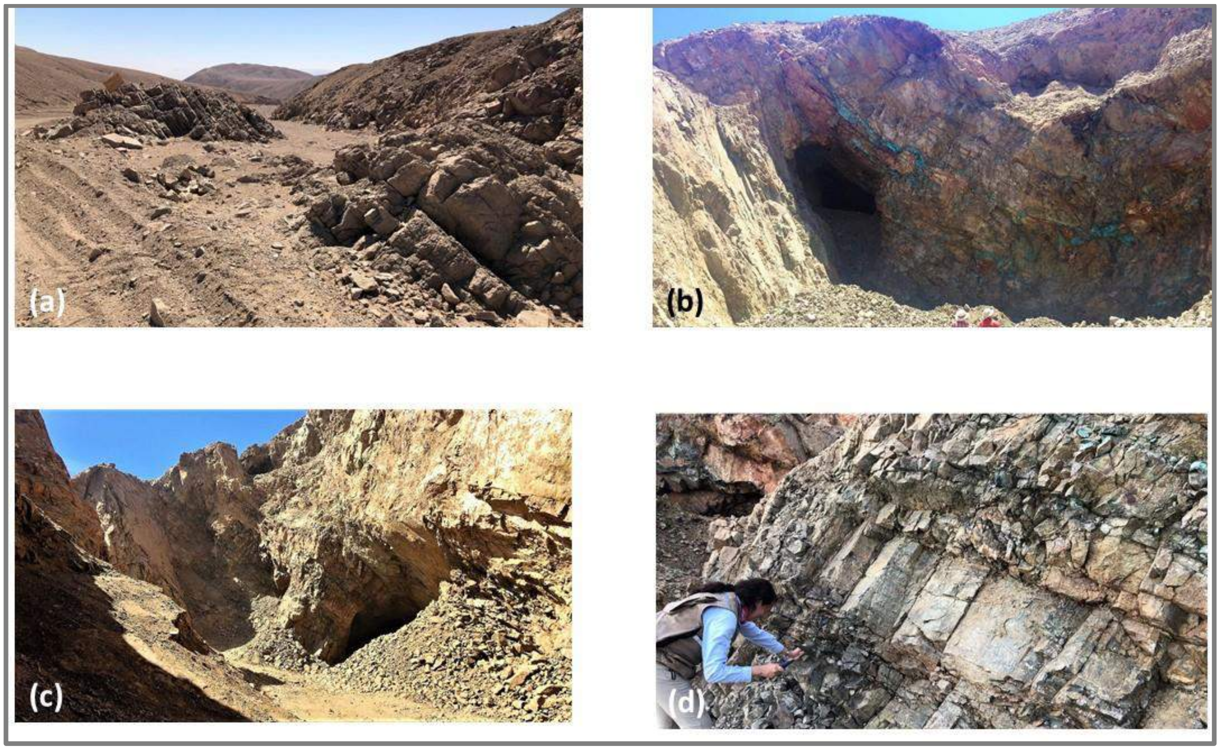


Figure 6-13: Marimaca Project: Photos Showing Examples of Main Structures

(a)Sheeting fracturing in outcrops; (b) Sheeting fracturing with Cu Oxide mineralization note the"Folded" aspect due to the effect of feeder type fault along the old mining working; (c) The Manolo Fault displacing parallel fractured MZD; (d) Dacitic dike intruding along fractures and sheeted fracture system bearing Cu Oxide mineralization

Feeders structure details are summarized in Table 6.2, and illustrated in Figure 6-13 b. This photo in particular helps to illustrate how the small miners followed the high copper grade oxide mineralization controlled by these structures, and also explains why the close relationships between these structures and mineralized bands lead to the thinking that a feeder-trap association is possible, at least from purely geometric evidence.

Feeders are mineralized faults, bearing gouge and damage zones. Fault zone widths are in the range of few centimeters to 10 m. Slickenside evidences vertical and lateral movements, such kinematics evidences also include the bands deformation close to the fault zones (Figure 6-13 b). Strong supergene alteration, limonite staining and fracture filling as well as copper oxide mineralization is a characteristic of this feeder-fault zone (Table 6.2; Figure 6-13 b). The most prominent feeders close to the Hanging Wall Alteration Front, towards the east, displays a white clay (albite-sericite) halo and in the central part, some hematite rich fringes and chlorite-hematite halos are common. At Marimaca 1-23 sector many Feeders are evidenced from old mining workings, at this sector Feeder attitude is 040° azimuth dipping 45 to 65° east. At Atahualpa there are very important feeders that were exploited along several hundred meters by means underground workings. Those structures are several meters wide, NS oriented and 60-70° dipping east.

Veins (Table 6-2) are 1-3 m wide iron oxide rich. Most of the time, theyare affected by strong supergene alteration but chlorite haloes are preserved. Gangue minerals such as tourmaline, quartz, actinolite and gypsum are common. At surface, they can be easily recognized because the structurally aligned gossan outcrops. Some veins are dike contact controlled, especially PDA type and could reach centimeters to 1-2 meters wide. In this case, actinolite haloes are common and would contain some related copper mineralization. Coarse apatite can be observed in these veins. Such magnetite rich veins are more common towards the east, even above the base of the Hanging Wall Alteration front.

NS to NNE trending veins dip east in the 45 to 80°range (Table 6-2). Veins carrying tourmaline and quartz are common at Atahualpa, related to then main central zone of NS mineralized Feeders. There is a close relationship between these two sets of structures. The main difference, as mentioned, is the content of iron oxides, the halos and that many veins are not clearly related to faults zones, their gouges or damage zones.

Main Faults system are the late NW trend, as described in the Table 6.2 and illustrated in the map of Figure 6-7, on Figure 6-11, and especially the long section of Figure 6.8. All these faults are post mineral and post oxidation, and display evidences of metric lateral and vertical movements. They are EW to NW oriented and vertical. Most of them has been used for late MDINW emplacement, resulting in prominent 1 to 10 meters wide fault-dike zones that extends 1-2 kilometers along strike (Figure 6-7). However, not all show an evident relationship with MDINW dikes like the so-called Marimaca Fault that runs just in the limit between Marimaca and Atahualpa and controls the location of one of the main high Cu grade zones just in the central part of the oxide blanket (Figures 6-7 and 6-8).

From outcrop and drilling information there is strong evidence that NW to EW faults are post mineral and even a later movement, are post oxidation stage. It is unknown if these later movements are recent reactivations. On the other hand, prominent faults such as the Manolo Fault display later events of pyrite-sericite alteration, meaning that the mineralization-alteration system remains active even up to the later events of faulting, and/or that part of the supergene alteration was already synchronous with heated late fluids circulation through the active NW faults.

Five main NW fault-dike zones have been established, all of them control the supergene alteration and mineralization and largely influenced the orientation of the oxide blanket. The faults also divide the mineralized body into discrete panels with different structural orientations, which was used to separate structural domains for the resource estimation, as shown in Figure 6.16, and will be explained in detail in the corresponding chapters. From these faults the most relevant are those that control the SW and NE limit of the oxide blanket and called Manolo (See Photo on Figure 6-13 c) and Atahualpa Norte (See Photo at Figure 6-6).

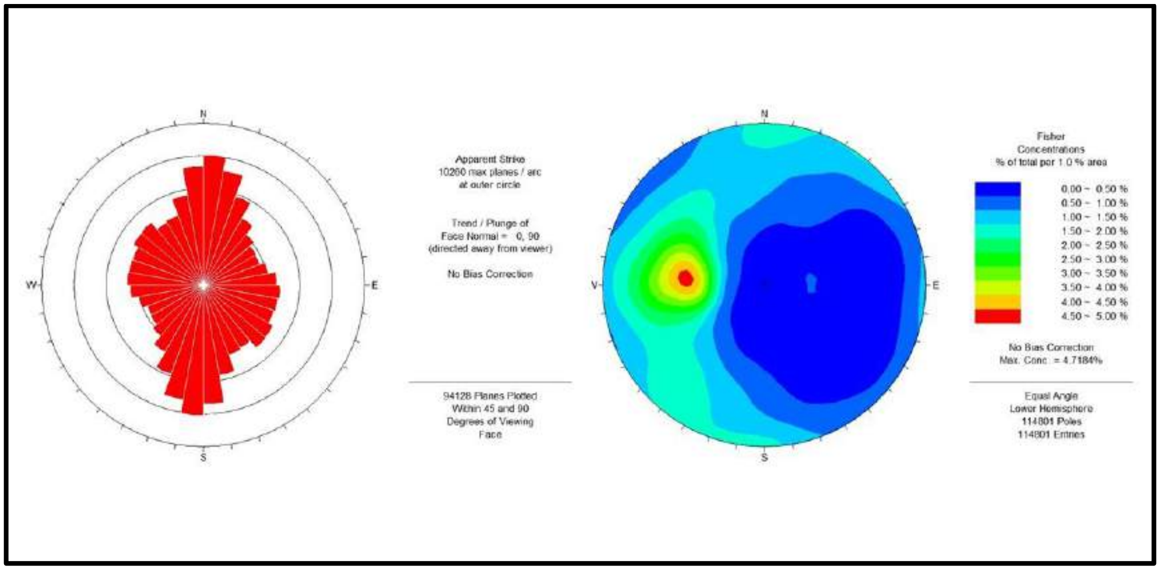


Figure 6-14: Marimaca Project. Structure Trends from BHTV Drill Hole Data. (Graphics by Simon, 2019)

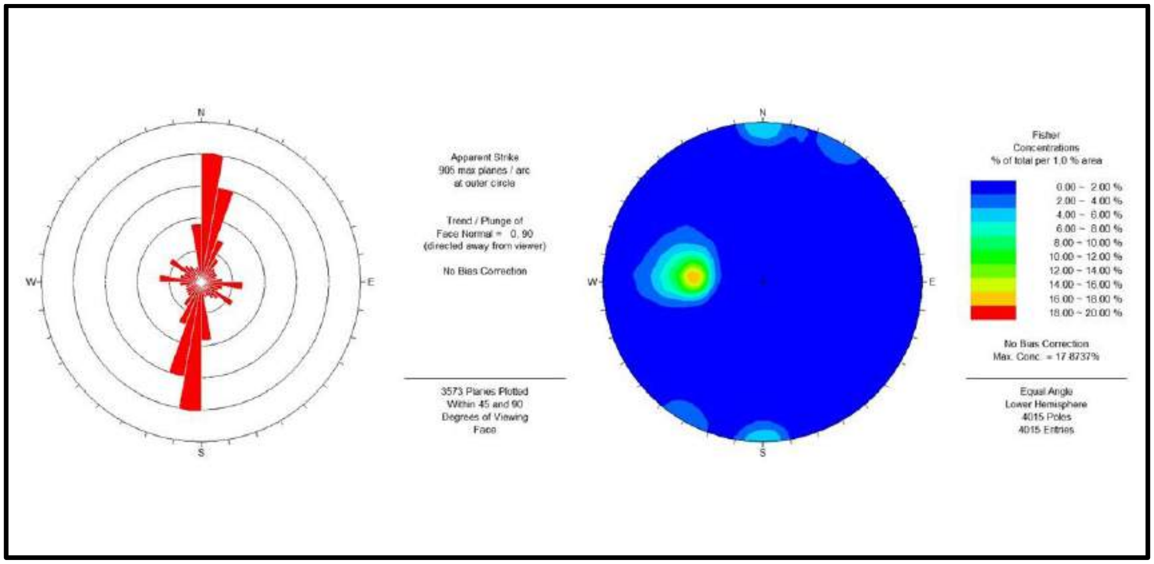


Figure 6-15: Marimaca Project. Structure Trends from Surface Measurement Data (Graphics by Simon, 2019)

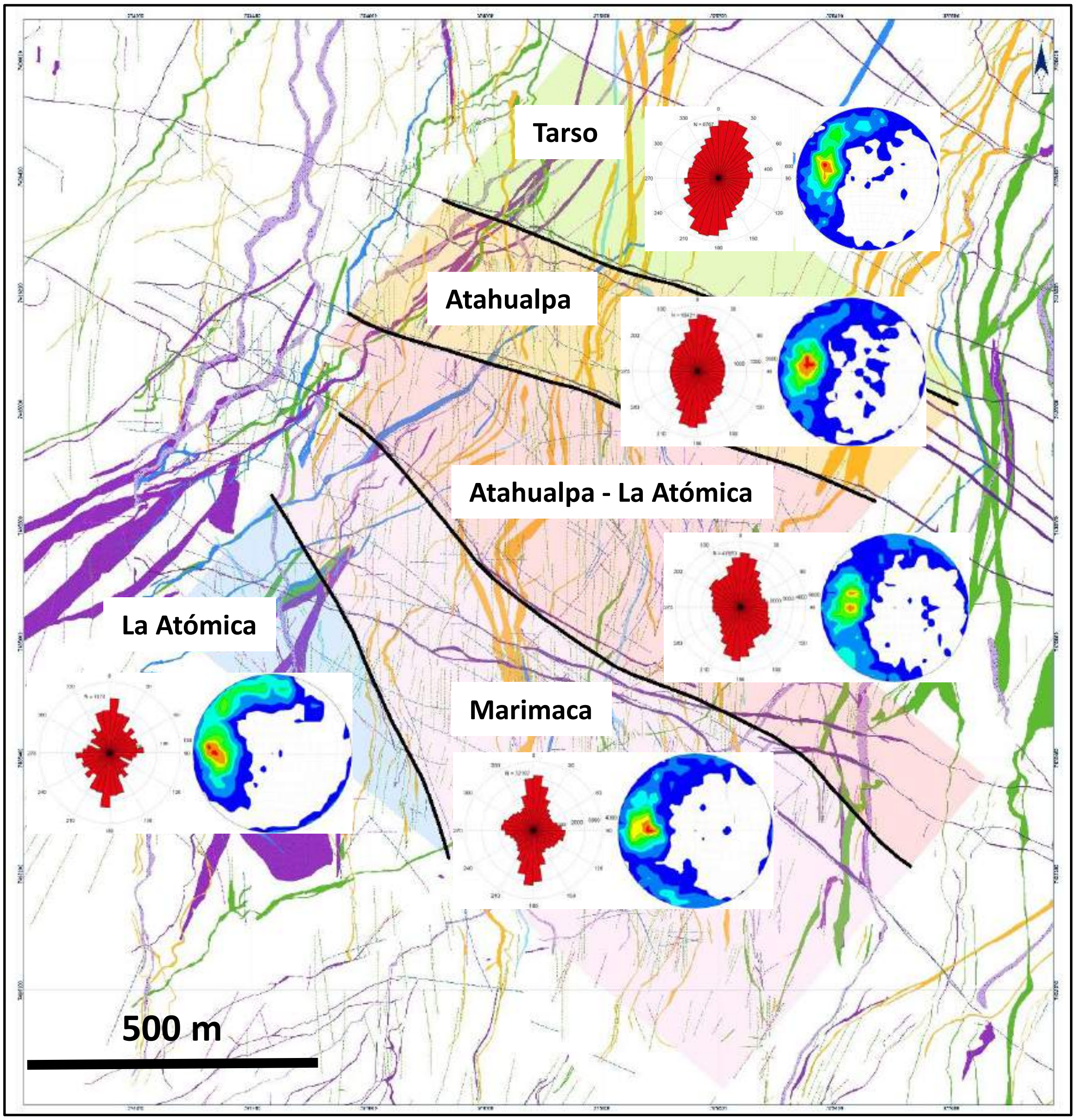


Figure 6-16: Marimaca Project: Main Structural Domains. Legend same as Fig. 6.6. Database For structural analysis corresponds to 94,128 measurements from BHTV Drill Hole Survey. Right is Strike rosette plot and left the pole weighted contour plot.

The structures in combination with lithology are key factors controlling the mineralization in the Marimaca deposit. The structural ensemble composed by the NBFZ, feeders and Veins, linked to the main NS dyke system emplacement, controlled earlier primary mineralization-alteration. There is evidence that this first stage of hypogene mineralization-alteration occurs when the NBZ-dike system was tilted to east, from a probable vertical original position. It is assumed that the first degree of tilting was so severe that a near horizontal position was attained and allowed the creation of redox fronts such as the Hanging Wall Alteration rich in hematite-pyrite-sericite. New diking sealed a major structural adjustment from NE to NS a jump to NW and EW. This later structural event culminated with the uplifting process and related supergene alteration and hypogene sulfides oxidation. At this stage, the supergene process was favored by a pervasive permeability created by the combination of the NS diking-banded fracturing, plus the various NE to NS faulting and the late NW to EW renewed diking and faulting. This step gives to the mineralization the actual geometry of a manto type body, but that higher grades cores are largely controlled by the NE, NS and late NW faults.

Finally, Marimaca's mineralization extension, quality, shape, continuity and persistence of the copper oxides is derived from the notable ground preparation made by the intensities of fracturing and the discontinuities generated by the dynamic interaction of the structure, lithology and mineralization.

6.4.3 Alteration

The most relevant alteration related to the oxide mineralization is supergene, consisting of limonites, clays mixed with the copper oxides (Figure 6-17 a). Goethite and hematite are common limonites staining fractures or filling open fractures and mainly mixed with clay, gypsum and rock flour at fault zone gouge like material. Jarosite is less common except as halos of some NW faults zones such as Manolo in the southern part of the area.

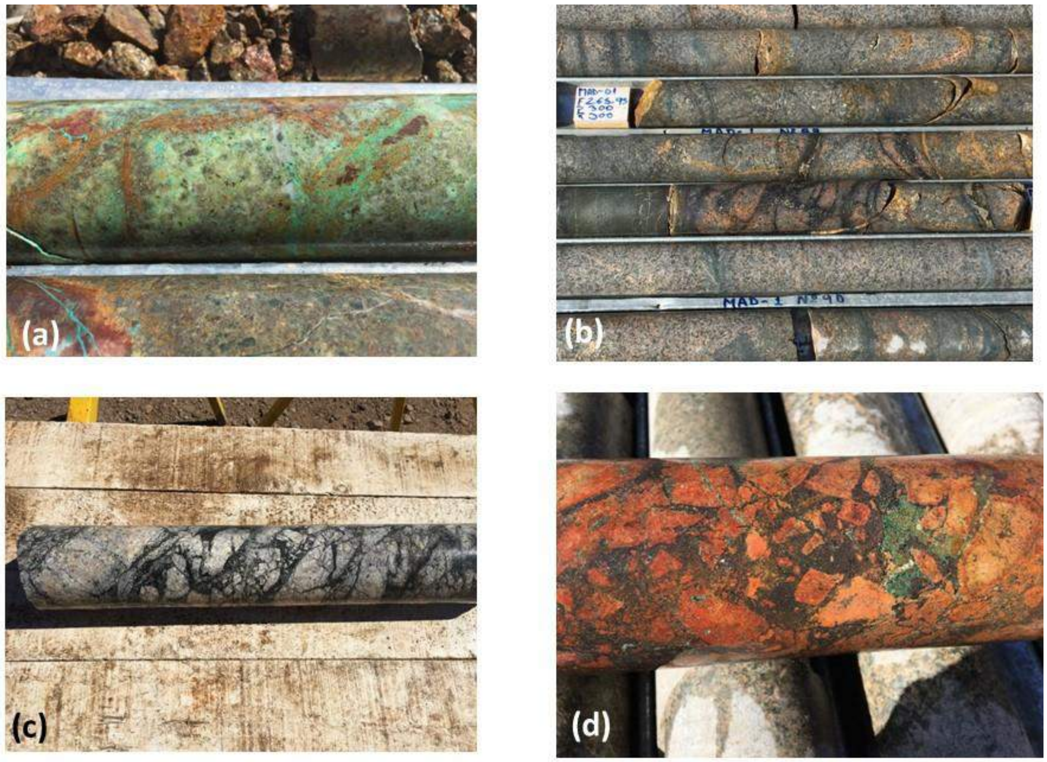


Figure 6-17: Marimaca Project Rock Alteration. (a) Supergene alteration consisting of clay and Limonite; (b) Bands with actinolite-magnetite and moderate to strong albite-chlorite; (c) sericite -K Spar and albite replaced fragments in breccia with chlorite matrix (d) albite-hematite altered Breccia

The Marimaca hypogene background alteration consists of calci-sodic metasomatism (Carten, 1986; Putnis and John, 2010). This is characterized by the replacement of mafics by actinolite and magnetite and of the plagioclase and K Feldspar by albite. The most common alteration sequence is the replacement and veining by epidote-albite where pinkish albite occurs as veinlet halos or as feldspar or plagioclase rims (Figure 6-18 a); then epidote-actinolite veinlets where the halos are actinolite and commonly rock mafics such as pyroxenes becomes replaced by also actinolite (Figure 6-18 b and d). The DIO unit displays biotite-magnetite replacement (Figure 6-18 f) that, as was previously mentioned, is related to fine sulfide dissemination.

Mineralization related alteration consist of earlier actinolite-magnetite (Figure 6-17 b), which is characteristic of veins, feeders and rock banding, such type of alteration is fairly common at district scale and it is related to white albite-chlorite replacement and vein halo development. Strong albite is also related to the brecciation textures observed as related to veins and feeders, in some cases is associated with sericite and chlorite (Figure 6-17 c) and in others, with hematite (6-17 d). Tourmaline has been observed related to the main feeder-veins at the Atahualpa and La Atómica zones.

The Hanging Wall Alteration (HWA) limit or front is one the most relevant features of the alteration zoning, because it is clearly controlling the extension of the mineralization towards the actual geometric “top” of the parallel fractured MZD-PMD and diking “sequence” of host rocks. It is recognized by the abundance of hematite related to sericite and pyrite that occurs as band replacement and veins. The feeders that crosscut the alteration limit displays a well-developed “argillic” halo.

At district scale towards the footwall alteration, below the most favorable mineralization zone, which is located close to the HWA, consists chiefly of epidote-actinolite-pink albite replacement. This “vertical” alteration zoning as related to a more general “stratiform” shape is common in the Manto Type deposits (Sato, 1984; Chavez, 1983), but not so common in IOCG type systems.

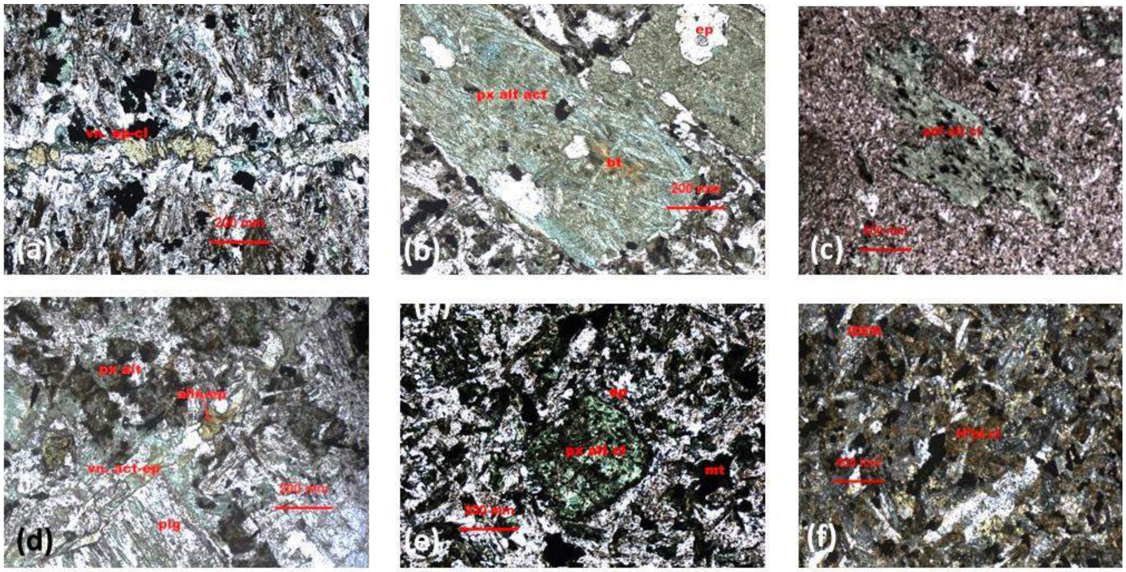


Figure 6-18 Marimaca Project: Rock Alteration Mineralogy. (a) epidote-chlorite veinlet with albitic halo; (b) piroxene replaced by actinolite; (c) amphibole replaced by chlorite; (d) actinolite-epidote veinlet; (e) piroxene replaced by chlorite; (f) biotite-chlorite Alteration (Microscope photos by Cornejo; 2019)

6.4.4 Mineralization

The Marimaca deposit consist of a copper oxide blanket, exposed at surface (Figures 6-5, 6-6) and extends for 1,400 m along the NNW direction, 400-600 m wide and 150 to 350 m thick (Figure 6-19). Remnants of mixed, enriched and primary sulfides exist beneath the oxide blanket, not-fully evaluated and known about because lack of drilling.

MINERALIZATION ZONE	CODIGO	PHOTO	MINERALOGY/Cu GRADE	TEXTURE AND OCURRENCE	ZONING
BROCHANTITE	BROC		Mineral zone composed by more than 60% of green copper minerals such as brochantite and atacamite. A 30 to 35% corresponds to chrysocholla and wad. The BROC unit represents a 14% of the Cu oxide zones. Minor amounts of cuprite, gerhardite, tenorite and Cu-limonites has been mapped representing less than 1% of total Cu minerals in the unit. Average Cu grade is 0.7%, analytical sulphuric acid solubilities are more than 70%, and the CN analytical solubilities are less than 5%.	Main occurrence is as veinlets, veins and fracture filling and staining where crystals are easily observable by eye. Disseminations are less common. Common replacement relationships are chrysocholla by atacamite and remnants of chalcocite replaced by brochantite.	Brochantite derives from oxidation of chalcocite and covellite, whereas atacamite seems to be a late occurrence, so it is related mostly to chrysocholla. The high grade cores composed mostly by green oxides are in the central part of the oxide blanket and looks surrounded by chrysocholla and outer halos of wad. This unit is more deep in the Marimaca sector but, because erosion, is already exposed at surface towards north to the Atahualpa sector.
CRYSOCHOLLA	CRIS		This mineral sub-zone represents a 11% of the Cu Oxide zone. Composed by more than 60% of chrysocholla, whereas a 30-35% is consist of green oxides such as brochantite-atacamite. Other minerals and species such of cuprite, gerhardite, tenorite, chenevixite and malachite has been observed totaling less than 2%. Average Cu grade is 0.6%, the analytical acid solubilities more than 70% and CN solubility of less than 5%.	Most common occurrence as fracture filling and staining. Less late veinlets. Common textures as brochantite replacement, but looks replaced by atacamite and wad.	This unit is a product of alteration of the brochantite central zones and occurs as borders. Well preserved by topography at the Marimaca and northern most sector. Mostly eroded at the central Atahualpa and La Atómica. Grades outwards to more wad rich zones.
WAD	WAD		Corresponds to the Black Oxide zone, composed mostly by a mineral substance identified at hand lense as Cu Wad and lesser Cu-limonites, which amounts more than 90% of the Cu mineralogy in the unit. Green oxides and chrysocholla amounts close to 10%, whereas other species such as tenorite represents less than 1%. Cu grades are in the 0.1 to 0.5%, analytical acid solubilities 30-50%, and CN solubility les than 5%.	Main occurrence is as fracture staining. Commonly observed in fractures cross-cutting green oxides.	Is the most common unit towards the borders of the Cu oxide blanket. Part of it has been defined close to the high grade cores at Atahualpa but this results from the abundance of tenorite like minerals rather than pure wad type species. This held to definition of two Wad zones in relation to the Cu grades.
MIXED	MIX		Corresponds to the mineral zone composed by Cu oxides and secondary sulphides. Commonly contains green Cu Oxides such as brochantite and atacamite plus chalcocite. Other minerals included in this zone are "almagrados" (local name for a mix of cuprite-Cu limonites-chalcocite), chalcopyrite, covellite and tenorite. Chrysocholla and wad are very scarce. Average Cu grade is 0.8% and analytical acid solubility 20-60%, the CN solubility is less than 15%.	Most common occurrence is as fracture filling and staining. Textures reveals replacing of chalcocite by brochantite and late fractures and cavities are filled by chrysocholla and atacamite.	Mixed zones are common in the transition between enriched sulphides and green oxides, very close to the oxide/sulphide interface. Patches of mixed zones has been defined occasionally in the green oxide zones. Are more common towards the central part of the Cu oxide blanket at Atahualpa, but less common at Marimaca or La Atómica.
ENRICHED (SULPHIDES)	ENR		The enriched zone is defined by the content of secondary Cu sulphides, chiefly chalcocite and lesser covellite in a percentage of more than 80%. Green oxide minerals such as brochantite and atacamite are fairly common. Remnants of chalcopyrite and lesser bornite are also mapped in this unit. Average Cu grade is 0.7 %, and analytical solubilities of less than 10%, but Cn solubilities are in the 15-40% range.	Massive to earthy occurrences of chalcocite defines this unit. Replacement textures bordering/staining pyrite and chalcopyrite has been observed.	Controlled by main feeders and other faults. Actual drill data is not enough to define clear controls, but its relationship with oxide suggest that a previous enriched blanket was developed an then oxidized in several stages up to reach the actual product. Most common at Atahualpa and La Atómica, lesser remnants at Marimaca.
CHALCOPYRITE	CP		This unit is composes by more than 50% of chalcopyrite and pyrite, whereas a minor percentage is occupied by secondary copper sulphides and traces of Cu oxides plus limonites. Average Cu grade is in the 0.7-0-9% range, solubilities les than 10% for acid and 15% for CN.	Chalcopyrite occurs as massive filling of veins and bands, gange is scarce. Disseminations around veinlets or veins occurrences are common and more related to pyrite. Replacement textures by chalcocite has been observed.	Perhaps a global zone of primary sulphides has been delineated beneath oxides, little drilling information exist for a more detailed definition. Up to now the most frequent chalcopyrite intercepts has been obtained at the Atahualpa sector.

Table 6-3 Marimaca Project. Mineral Zone summary.

Figure 6-19 shows the distribution of the main copper oxide mineralized zones at surface in relation with the geology and structure. A typical cross section is also shown on Figure 6-8 as compared with lithology-structure. This section shows also the sulfide and mixed mineralization as remnants at depth.

The table 6.3 summarizes the characteristics of the main mineralization zones. Green oxides characterize the upper copper oxide zone, which includes brochantite, atacamite, chrysocolla and wad. As compared with previous descriptions of the mineralogy (NCL, 2017; 2018), it was realized that part of the green minerals identified as brochantite are clino-atacamite whose habits and color resembles brochantite in hand lens, and even in thin section studies. The detailed identification was supported by XRay and QEMSCAN analysis. Occurrence seems to be different: as brochantite bluish green crystals are related to the deeper and higher grade part of the blanket, atacamite is related to the interface with chrysocolla, and is common in late fracture filling. Wad determination is also not an easy task, and up to now, the hand lens and field “nail test,” allows to identify the black to brownish earthy species as wad.

Chalcocite and covellite are the secondary sulfides identified at Marimaca. Depending on the occurrence and textures, someof both minerals can be hypogene in origin. The most probable secondary chalcocite and covellite are sooty and commonly display chalcopyrite or pyrite relicts, but also can occur as fracture staining (Figure 6-22). Hypogene textures are massive bluish chalcocite, commonly in red breccias or veins (Figure 6-23 c; 6-24 a); also, covellite brecciated by specular hematite (Figure 6-23 d).

Gangue minerals are mostly limonites, chiefly goethite and hematite, iron oxides, clays and minor gypsum. Carbonates are minor in occurrence. Alteration minerals related to mineralization are amphiboles such as actinolite, chlorite and magnetite.

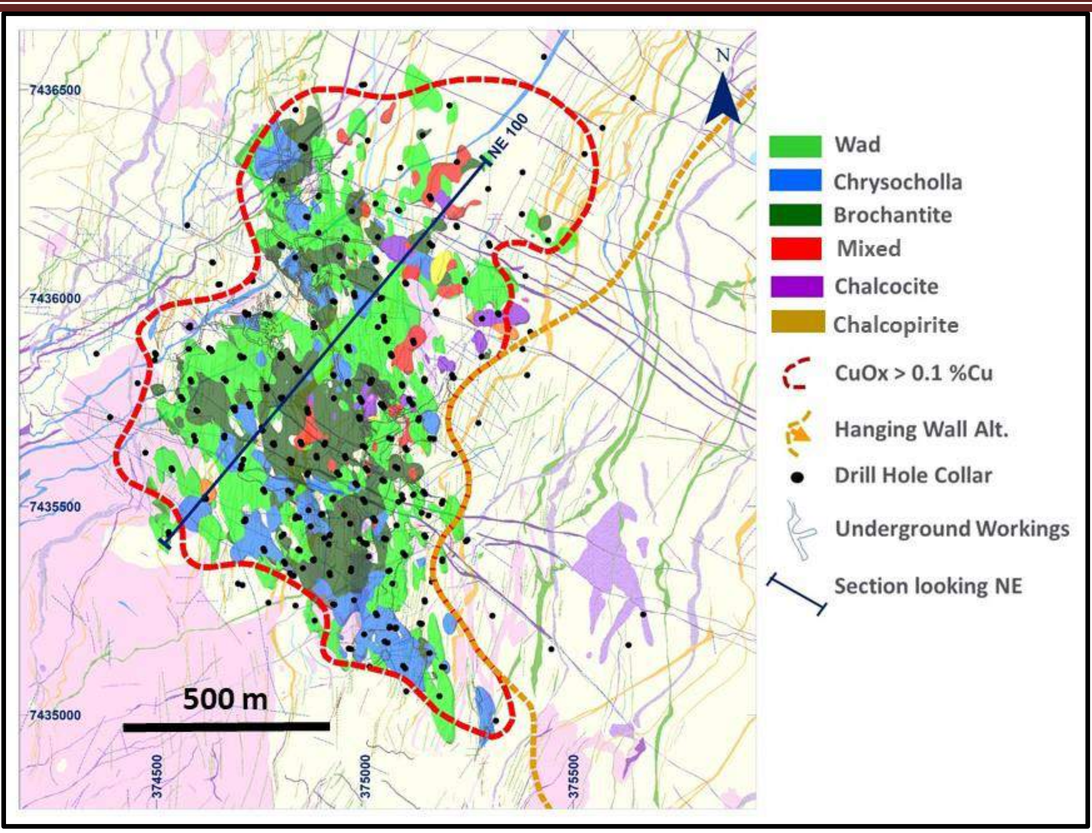


Figure 6-19: Marimaca Project. Sub-Surface Mineralization Map

In the blanket, most of the copper oxides occur as fracture staining and fracture-vein-veinlets filling. A key factor that controls the copper oxide distribution is the filling and staining of the parallel fractures as illustrated by the photos of Figures 6-21 and 6-22. This occurrence helps to enhance the mineralization continuity in between the differences sets of feeders, veins and dike contacts.

The oxide blanket is controlled by structures and lithology. Whereas the general shape of the body is controlled by the parallel fracture system and dikes, that strike NS dipping east, in detail, the NE to NS feeders and veins control the distribution of high-grade cores. Some dacitic dikes also play a role in the control of such high-grade zones in combination with feeders and veins. The NW to EW faults and dikes, which modified the perfect NS dipping east ground control, and that divides the blanket into panels or domains, has exercised a very relevant role in the control of the oxide blanket. The deepening of the top of sulfide interface due to the effect of the NW faults is notable, and verified by the more than 350 m thickness registered at the western part of Marimaca (Figure 6-8).

Inside the blanket the green oxide zone is more common toward the central parts (Figure 6-20; Figure 6-8), with the zonation from inner brochantite to outer atacamite, chrysocolla and more wad rich zones. The interface between oxides and sulfides is a very irregular surface as shown in Figure 6-20 d, due to the complex structural control and the variable nature and abundance of oxides or sulfides close to the limit, and because the deepening of the oxidation as resulting from various superposed events, leaving remnants or perched zones of mixed or sulfides.

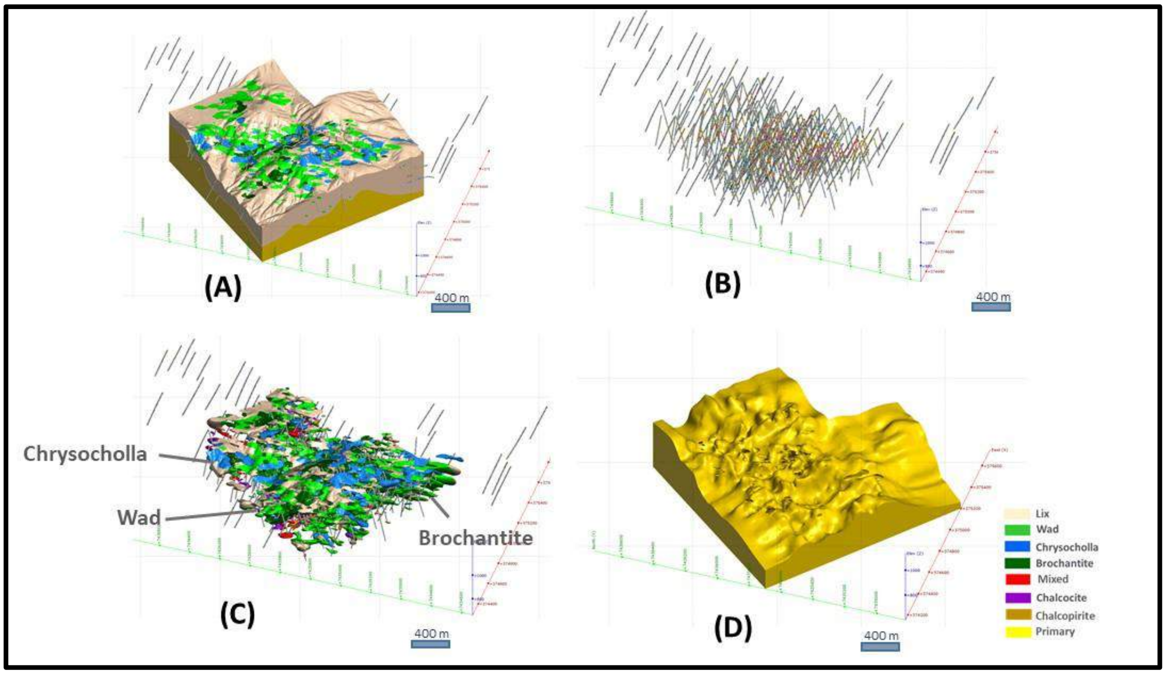


Figure 6-20: Marimaca Project: mineral zones views from 3D model. (a) View towards north-east of mineralization zones solid model; (b) drill hole data projection; (c) Mineral zone 3D Model; (d) top of sulfide 3D view. Views from Leapfrog TM model produced by Atticus Geo.

Limonite, clay rich supergene alteration as previously described is related to the oxide mineralization. Albite-chlorite-actinolite and minor sericite alteration are related to the hypogene mineralization. Perhaps not perfectly understood due to the lack of deep holes, most of the primary chalcopyrite is massive and occurs with magnetite, apatite and actinolite.

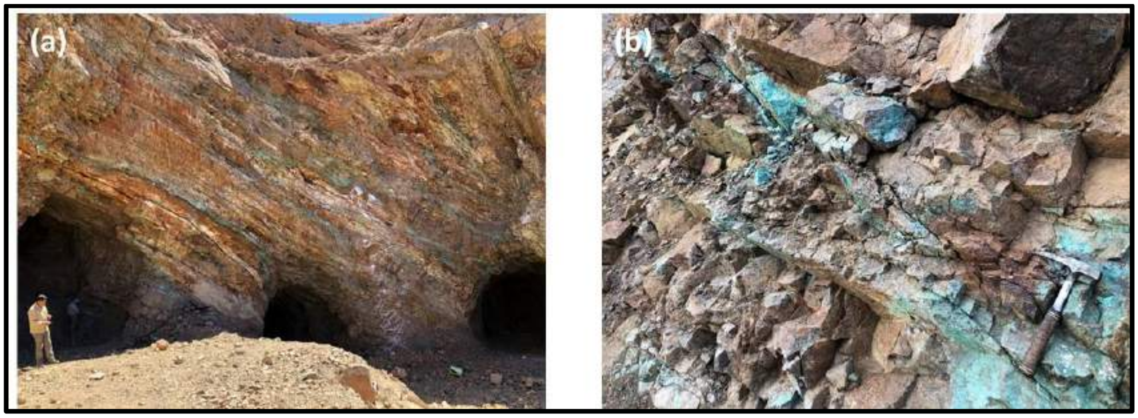


Figure 6-21: Copper Oxide Mineralization Outcrops. (a) intense sheeted fractured monzonite hosting bands of green copper oxides and some “almagrado” rich bands with clay halo at Marimaca 1-23 sector; (b) detail of green copper mineralization atSheeted fractures exposed in a new road cut at Atahualpa sector (hammer for scale reference)

For the purposes of mineralization interpretation and modelling six main zones of mineralization have been defined, interpreted in sections and solids created in a 3D model. Main characteristics of these zones are described in Table 6-3, illustrated by photos of Figure is 6-23 and 6-24 and its 3D distribution displayed in Figure 6-25.

Figure 6-22: Outcrop of a sooty chalcocite bearing "manto" controlled by the sheeted fracturing close to the contact of "hanging-wall alteration" front as noted by the abundance of limonite staining (photo looking east located at the northern limit of Marimaca 1-23)

The brochantite zone contains more than 60% of brochantite and or atacamite, and 30 to 35% of chrysocolla. Occurring mostly as fracture staining or filling. In terms of 3D zonation (Figure 6-25), this zone is located at the high-grade cores immediately surrounding the enriched zones. The chrysocolla zone is bordering the brochantite, and it is characterized by more than 60% of chrysocolla, most frequently occurring as fracture staining and late fracture filling. The Wad zone (Table 6-3; Figure 6-19) is the outer and lowist grade, containing more than 90% of non-green copper oxides. It is a blackish-brownish mineral which in the case of better copper grades, is tenorite or even Cu rich limonite. Because of the nature of this copper oxide species, acid solubilities are typically low.

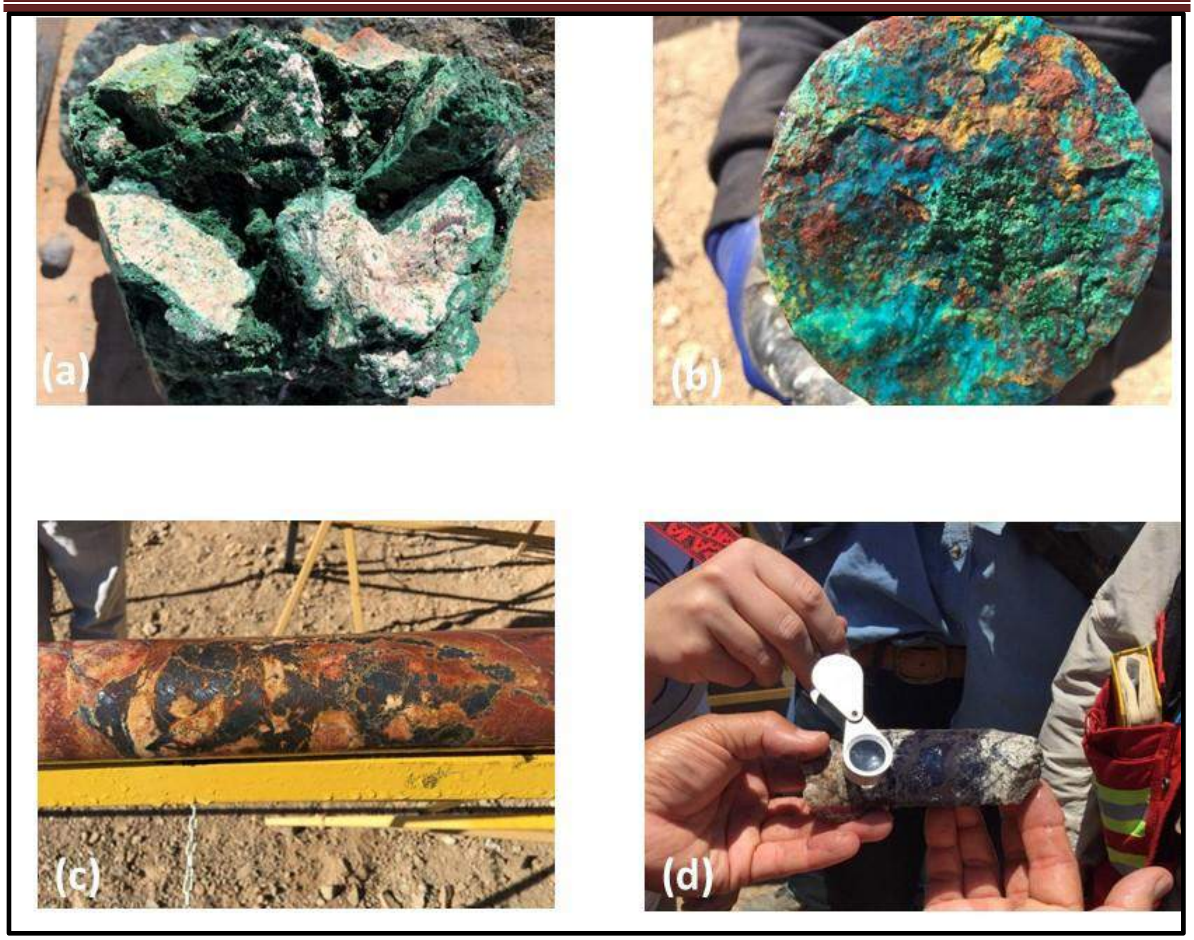


Figure 6-23: Examples of copper oxide and sulfide occurrences. (a) Supergene breccia cemented by brochantite; (b) fracture filled by atacamite and chrysocholla; (c) chalcocite and covellite as breccia matrix; (d) covellite brecciated by specular hematite

The mixed zone is a mix of oxides, either green or blackish, and sulfides (enriched or primary, or even just pyrite). In the typical mixed zone, partially oxidized secondary sulfides are partially replaced by brochantite (Table 6-3). Thus, the nature of mixed zone changes from cores to border zones by mixing supergene sulfides or pyrite with brochantite, lesser chrysocolla-atacamite and outer wad.

The enriched sulfide zone consists of chalcocite and lesser covellite that occurs as fracture staining, sulfide coating or massive replacement in breccias or veins (bands). More remnants zones of enriched sulfides are encountered beneath the central part of the blanket, and also within mixed zones.

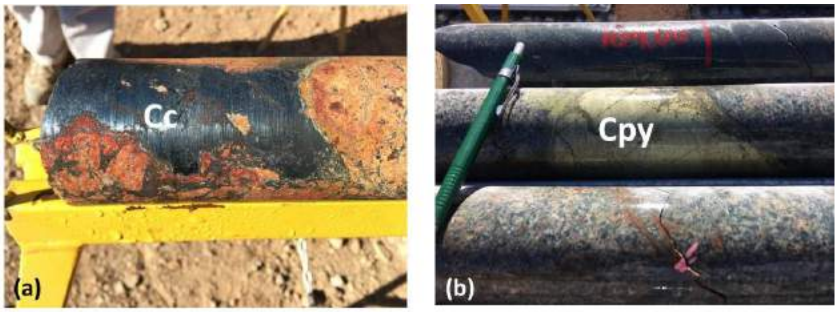


Figure 6-24: Examples of primary sulfide occurrences. (a) Primary chalcocite as cement of hematite rich breccia; (b) massive chalcopyrite band with magnetite-chlorite halo

The chalcopyrite zones are not well defined due to lack of enough drilling information. In some deep drill holes, massive occurrences of chalcopyrite are the most frequent as observed in Figure 6-24 b. Some pyrite can be found in this sulfide zones. Most of the time, actinolite and magnetite are related to the chalcopyrite occurrences.

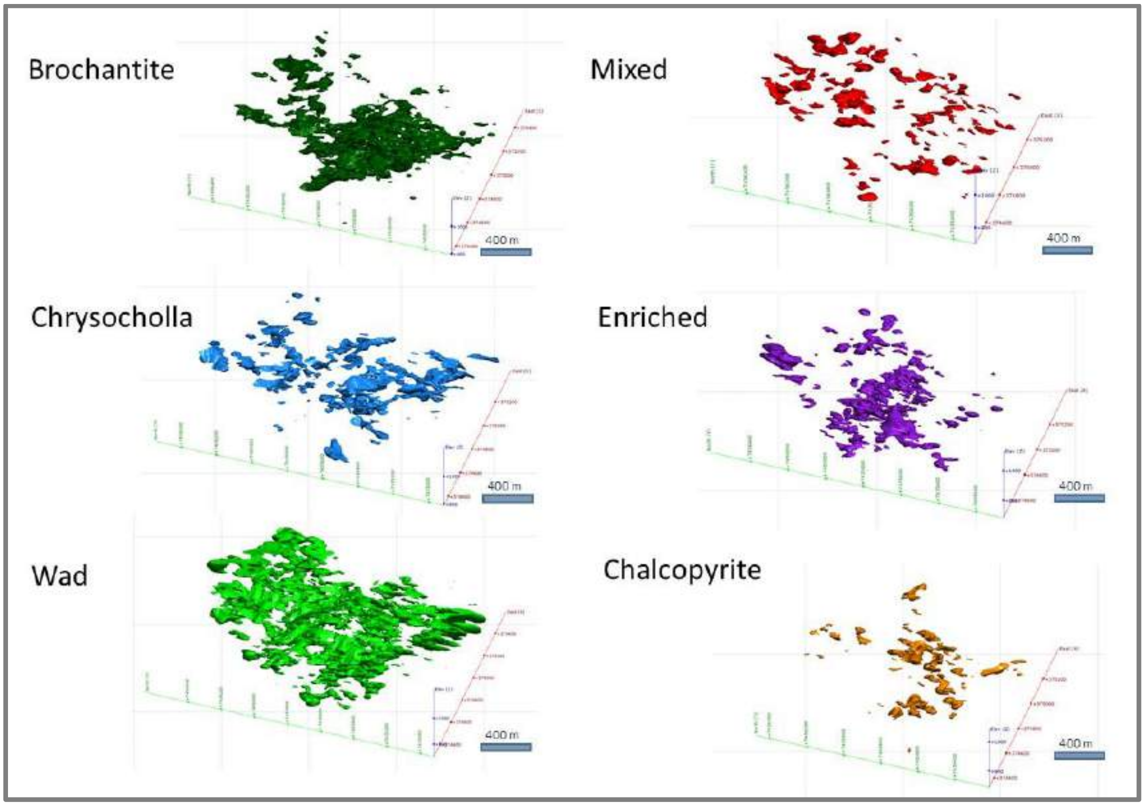


Figure 6-25: Copper oxide blanket mineral zones views from 3D model. Views from Leapfrog TM model produced by Atticus Geo.

As observed from the 3D Model of Mineral Zone Solids (Figure 6-25), the oxide blanket is better preserved at the southern part of the area, close to Marimaca, the eastern part of La Atómica and southern part of Atahualpa. Towards the north and east it has been partially eroded by the incision of most recent drainage, resulting in most of the wad and chrysocolla capping being removed and brochantite altered to atacamite is outcropping and with a more irregular distribution related to the main feeders and veins (see brochantite view at Figure 6-25). Chrysocolla is better preserved closest to the surface at Marimaca and some ridges to the north, whereas wad is more consistent towards eastern and northern borders, and even partially projected down dip below the HWA.

Mixed zones are irregularly preserved in all the blanket area, and as mentioned with different nature (either green or black oxides and copper sulfides or pyrite). The enriched zone is well preserved in the central part of the blanket (see Figure 6-25 and the section Figure 6-8 b). The chalcopyrite zone does not show a regular distribution mainly because there are remnants and lack of drill information.

7 DEPOSIT TYPES

The Marimaca copper deposit is located in an IOCG district of vein deposits (Venegas and Vergara, 1985; Vivallo and Henriquez, 1998; Sillitoe, 2003). In the district context, however, clear IOCG or even IOA mineralization styles exist at Olimpo (2 km north) and Caprice (7 km south), and typical volcanic hosted “manto-type” are at the Ivan District (20 km south). The IOCG type brings together a very broad spectrum of occurrences with genetic associations not yet resolved. Mineral occurrences in the Naguayán area can be considered as part of the variety. Common factors are the regional metamorphism / metasomatism environment, the Ca-Na alteration, the presence of magnetite and hematite, the dominant chalcopyrite sulfide and a low overall content of sulfides (Sillitoe, 2003; Richards and Mumin, 2013). Although in Marimaca the Au contents are low, the presence of Co, U, REE and Ag is unknown and the proportion of magnetite is rather low, without a significant content of Fe in the mineralization.

Perhaps the host rocks the Marimaca deposit display many characteristics similar to the IOCG but also to the “manto-type” mineralization styles. The key aspects are summarized at the cartoon section of Figure 7-1. If the host rock issue is not taken into consideration, this section is analogous to some manto-type copper deposits such as Mantos Blancos (Chavez, 1983) or even El Soldado (Boric, et al., 2002). Critical role of structures, diking events, alteration zoning is most common. The deep and extensive development of supergene alteration and oxidation is a common factor with Mantos Blancos. More comparison regarding hypogene alteration, sulfide nature and zoning can be contrasted because the lack of enough information at Marimaca.

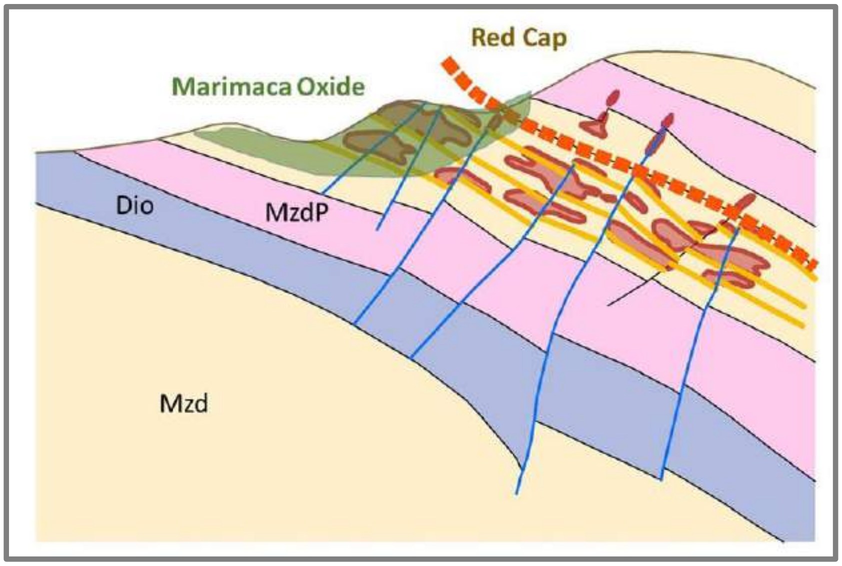


Figure 7-1: Marimaca Project Deposit Model Hypothesis. Idealized EW section not to scale. MZD: monzodiorite; DIO: early diorite; MzdP: Monzodiorite Porphyry; PDA: dacitic dyke. Sulfide mineralized bodies in red. Oxide blanket in green.

As mentioned, the variation from the FW-to-HW alteration has been reported in some manto deposits of the size of Mantos Blancos and El Soldado (Maksaev and Zentilli, 2002; Ramírez, 2007), but no cases are documented in the more typical IOCG (eg Manto Verde or Candelaria). In summary, the occurrence in a peculiar fracturing system in intrusive rocks highlights Marimaca as a type of deposit for which no analogues are known in Chile from recent literature.

In the coastal range, where manto (Cu-Ag, K-feldspar-chlorite-albite) and IOCG (Cu-Fe-Au, actinolite-albite-magnetite) vein type deposits have traditionally been found together, the mineralization discovered in Marimaca does not fit well in either type. Although its shape in purely geometrical sense is stratiform, its mineralized rock is an intrusive monzodiorite and so far, no other copper mineral occurrences of this type have been identified. Without exception, all Manto Type have forms and genesis associated with volcanic piles (Espinoza, et al., 1997).

The mineralogy of the sulfides and alteration resemble IOCG systems; however, the lack of Fe oxides and Au and the occurrence of hypogene chalcocite and covellite are not common in IOCG deposits (Richards and Mumin, 2013). These features appear to be more frequent in the “manto-type” deposits. Considering the alteration-mineralization zoning of Manto Type (Sato; 1984; Espinoza et al., 1996, and Kojima et al., 2009), and of IOCG (Sillitoe, 2003; Kreiner and Barton, 2009), Marimaca displays a superposition or coincidence of both deposits types, something like a “hybrid system” that shows a unique case where the two extreme styles of deposits are concurrent.

Finally, a factor that also makes the occurrence of Marimaca different is the phenomena of enrichment and oxidation, which extended for a long period, and contributed to concentrate the copper grades. The existence of moderate amounts of pyrite in the HW and in the hypogene mineralization, available to generate free acid and the condition of low reactivity country rock, are ideal to generate a good supergene profile (Blanchard, 1968; Chavez, 2000). This set of events generated several stages of cumulative secondary enrichment and oxidation.

8 EXPLORATION

Exploration work, specially drilling, surface and underground sampling and detailed geologic mapping has been substantially increased in the project area since last NI 43101 report (NCL, 2018). At same time and considering the area expansion towards west and north, the UAV image and topographic survey has been actualized and increased. Structural and petrographic studies have also been completed improving the geological understanding of the mineralization controls.

The information from all of the 2016-2017 and 2018-2019 drilling campaigns was used to define the current base of updated and extended, measured, indicated and inferred copper resources.

The tonnage and grades from the previous and most recent exploration and delineation drilling and surface-subsurface geologic work has been integrated and these results are included in this report.

The exploration, discoveries, infill, continuities and delineation to date and the continued potential of the Coro properties is considered good, especially with Coro's control of a great number of new properties around the project. NCL is of the opinion that the exploration programs will continue to expand the resources.

8.1 Surveying, Image and Topographic Base

The topographic base consists in a photographic and photogrammetric survey, using UAV technology and digital camera. The flight resolution was 8-13 cm per pixel, and a digital elevation model (DEM) was generated with interpolated curves at 1 m for use at the 1:1,000 scale (Figure 8.1). The topographical support was made by conventional topography, which, from official bases, generated a sufficient network of points to balance and orthorectify the image and DEM (Figure 8.1). Base PSAD 56 UTM coordinates.

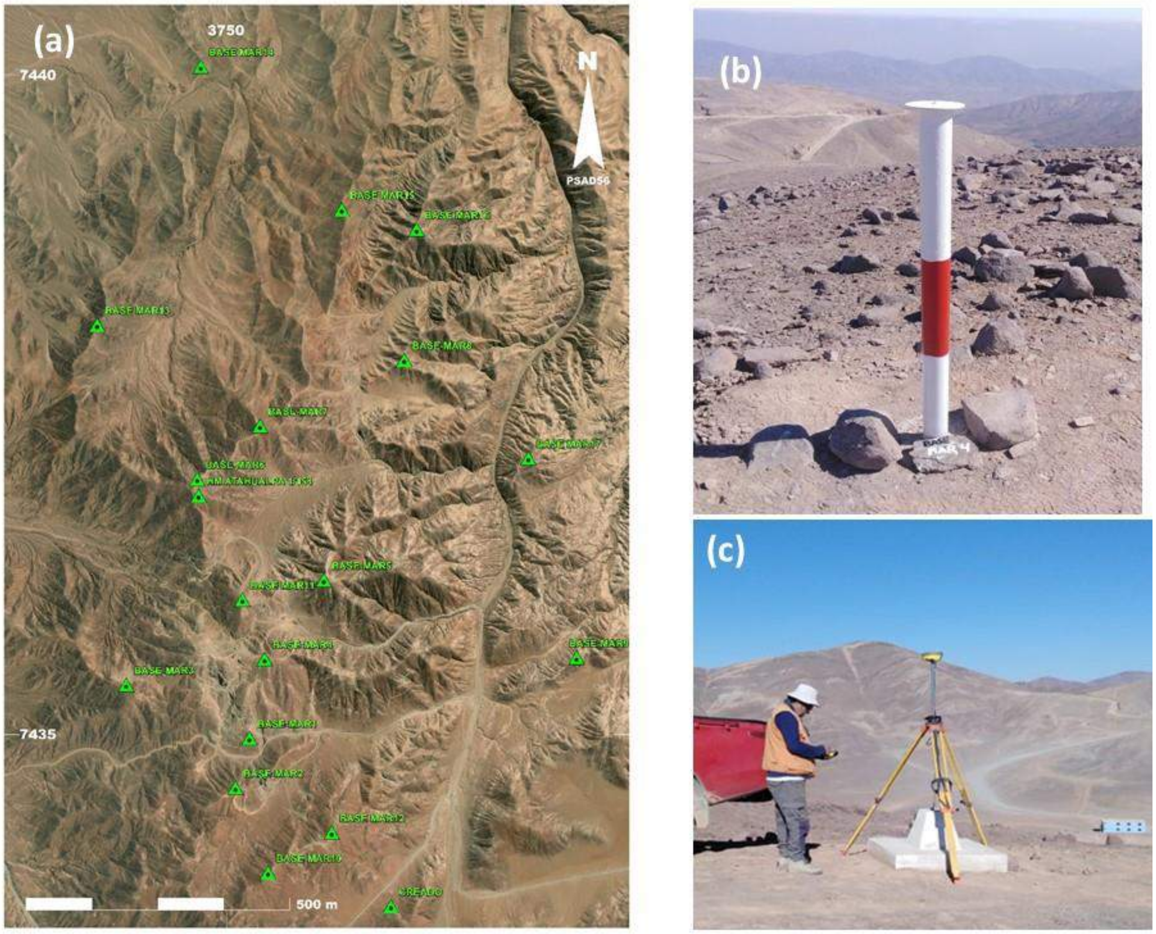


Figure 8-1: Topographic Reference Point Grid. (A) example of registered control point; (c) HM ATAHUALPA I 1/154 coordinate base point

The topographic base was updated with updated flights carried out during 2019 these were merged with the previous base and generated the topography surface used in this updated resource report (see figure 8-2).

Taking into account the existence, extension and relevance of a series of high quality, safely accesible and well-preserved underground workings, extending through the La Atómica and Atahualpa areas, all of them were surveyed, sampled and mapped. The distribution of these mining workings is shown on Figure 8-3. The underground survey methods for topography were conventional, as used by the industry. Surveyed lines were used to generate tunnel- solids and later discount this tonnage from the model. In any case this is an insignificant figure to discount.

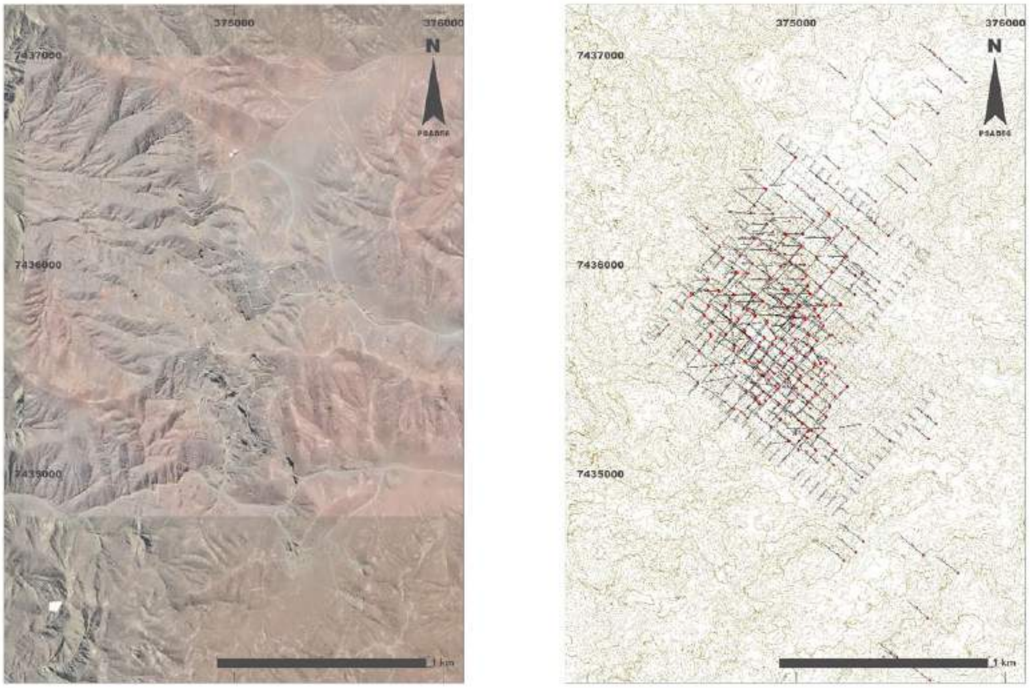


Figure 8-2: Image (a) and topographic contour map (b). UAV special flight covering and contours from topographic restitution controlled by base points from Fig 8-1 and other key points such as drill collars obtained image

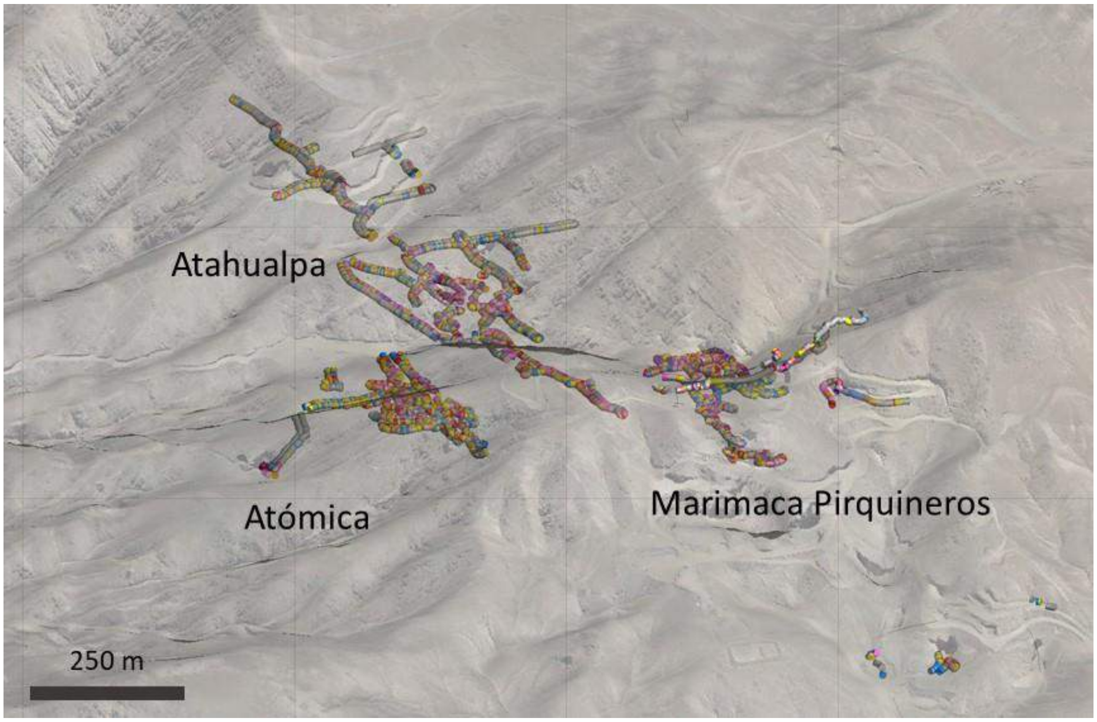


Figure 8-3: Underground Workings Topography and Distribution. View looking northeast. Views from Leapfrog TM model produced by Atticus Geo.

8.2 Detailed Geological Mapping

The original detailed geologic map at scale 1:1,000 by IMG done in 2017 (Kovacic, 2017) was updated and extended. This was done by geologists from IMG (http://www.imgltda.com/sitio/) using as a field basis the UAV images. For geologic data collection, the software GVMapperTM was used (http://www.gvmapper.com/gsite/). The detailed survey method of direct outcrop observation was complemented by the collection of rock samples, carrying out structural measurements and magnetic susceptibility measurements. The products were a series of maps with rock types, structures, mineralization and alteration. The base map was and outcrop classic representation the interpreted at bedrock (Figure 8-4).

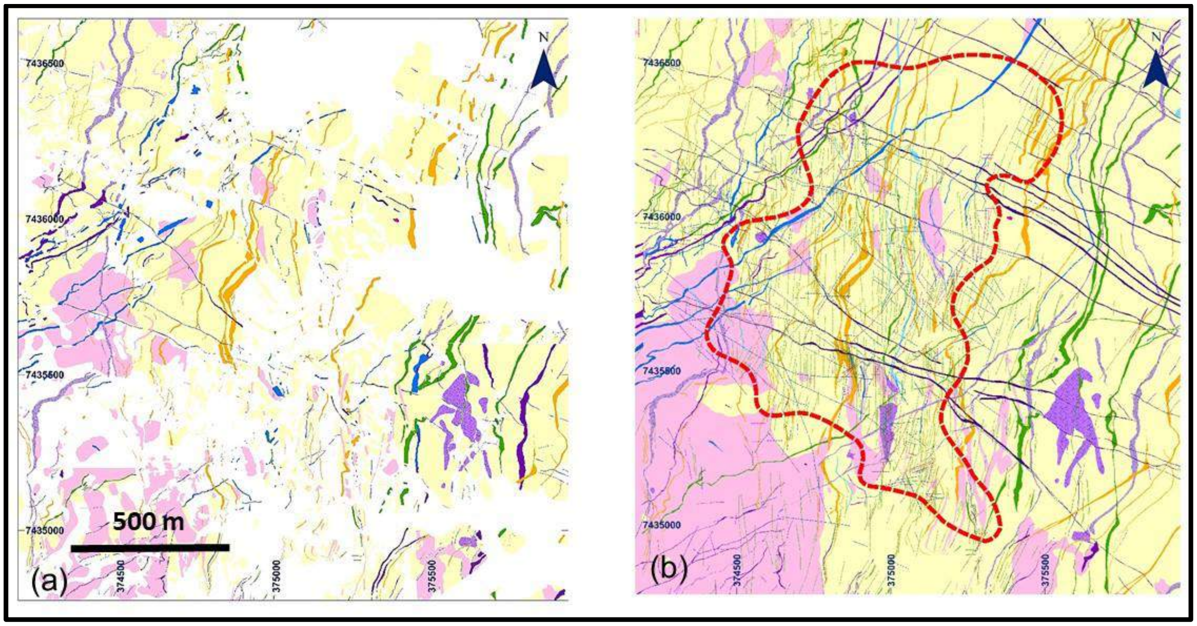


Figure 8-4: Outcrop detailed geology (a) and Interpreted sub-surface original at 1k scale Geology Map (b). Map by Kovacic (2017) actualized by IMG (2019).

The underground mine workings were mapped in detail, by means classical registration of geological attributes through lines following the walls. A further work consist into a review of detailed mapping and sampling and a complement by means graphic mapping (Figures 8-5 and 8-6). All this information was used in the section's interpretation. However, assay samples were not used due to its bias as will be discussed in the MRE chapter.

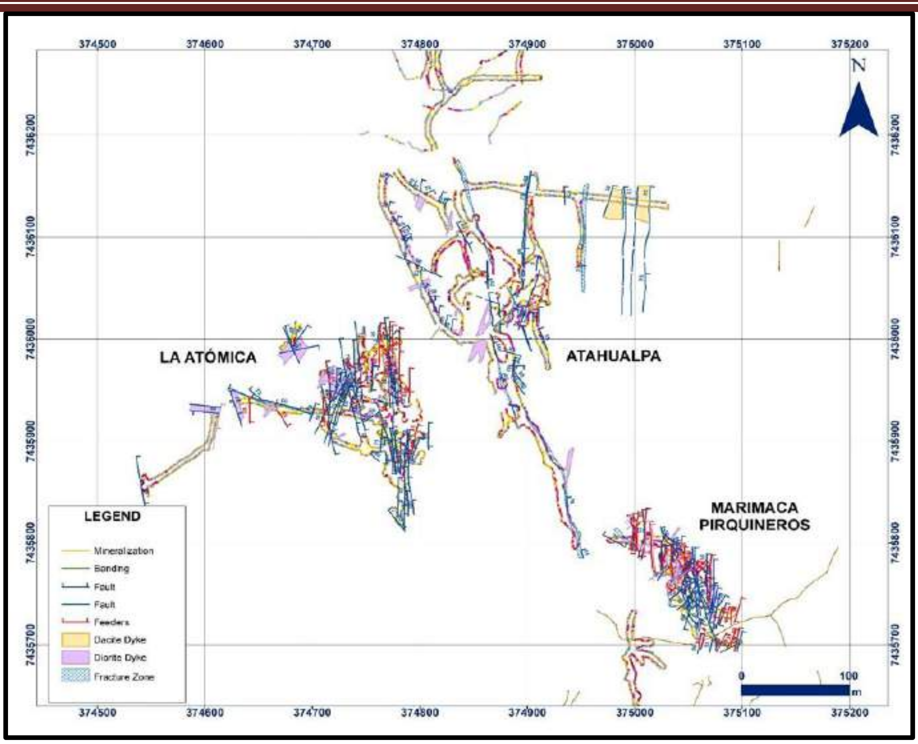


Figure 8-5: Underground Geologic Mapping. For location reference, see view from Figure 8-3

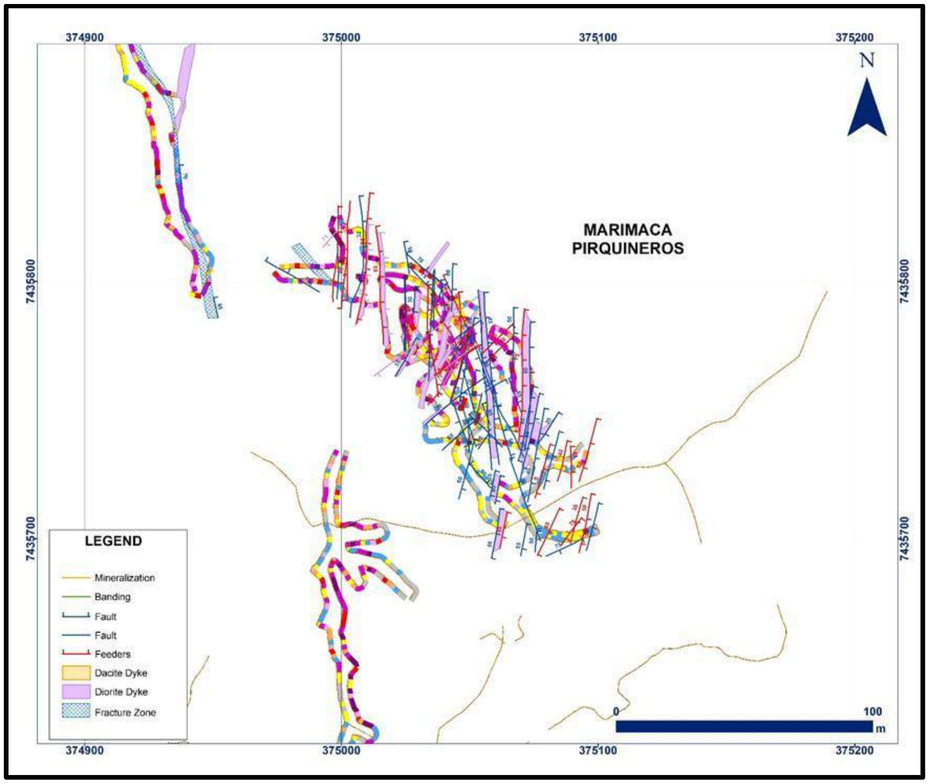


Figure 8-6: Underground Geologic Mapping. Detail of Marimaca Pirquineros, showing chip channel Cu assay main rock units and structures. For location reference, use Figs. 8-3 and 8-4.

8.3 Surface and Underground Mine Workings Sampling

Continuous rock sampling along the roads cuts was completed during the 2018-2019 period. This work includes the old roads as well as the new ones built by Coro. The method used was to take continuous chip-channel samples at 2 m intervals. The samples were collected by MCAL personnel, prepared, and tested (only with laboratory quality controls based on the indicative nature of the samples) in the laboratories of Andes Analytical Assay (AAA) in Santiago, Chile. Sample preparation and assaying protocols were same as used for drill samples. Total meters sampled attained 5,120m. The summary of sampled roads is shown in Figure 8-7.

Detailed and systematic rock sampling was extended to the underground mine workings, using same criteria and methods from the surface samples. Total meters sampled from mine workings are 8,028 m. Figure 8.8 displays a view of the mine working sampling from Atahualpa, La Atómica and the northern part of Marimaca 1-23.

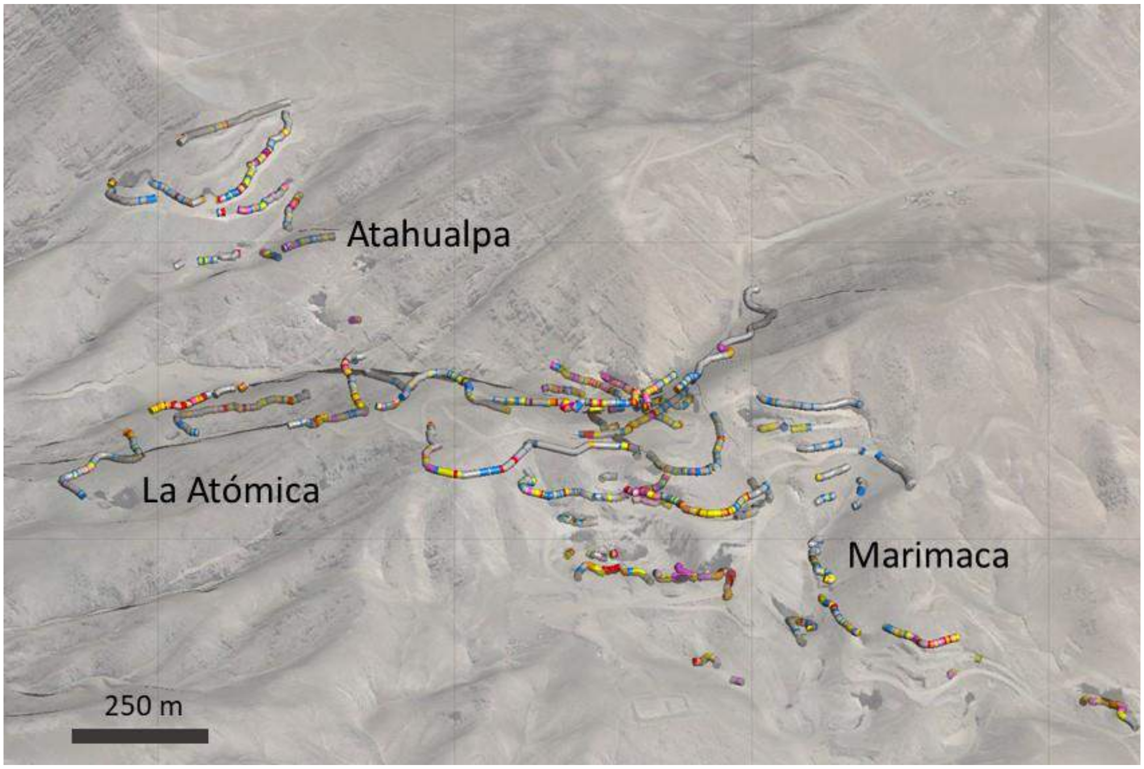


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Figure 8-7: Surface Sampling. View looking northeast. Views from Leapfrog TM model produced by Atticus Geo.

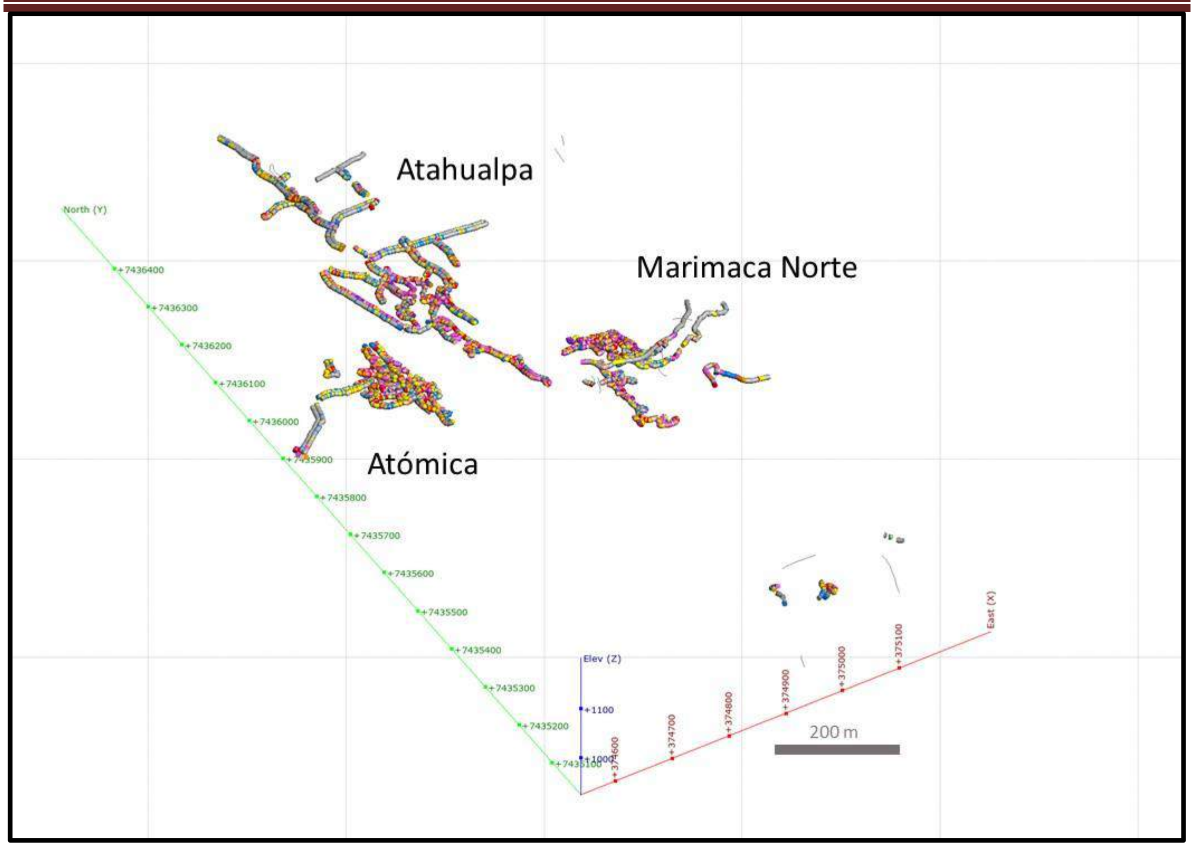


Figure 8-8: Underground Workings Sampling.

8.4 Geochemistry

No additional rock geochemical sampling has been added to the project area since previous results reported in by NCL (2017, 2018). The previous sampling consists of a 100 x100 m grid and the material collected was rock chips in outcrops around the sampling point. The locations were obtained with GPS adjusted to PSAD56 UTM coordinates.

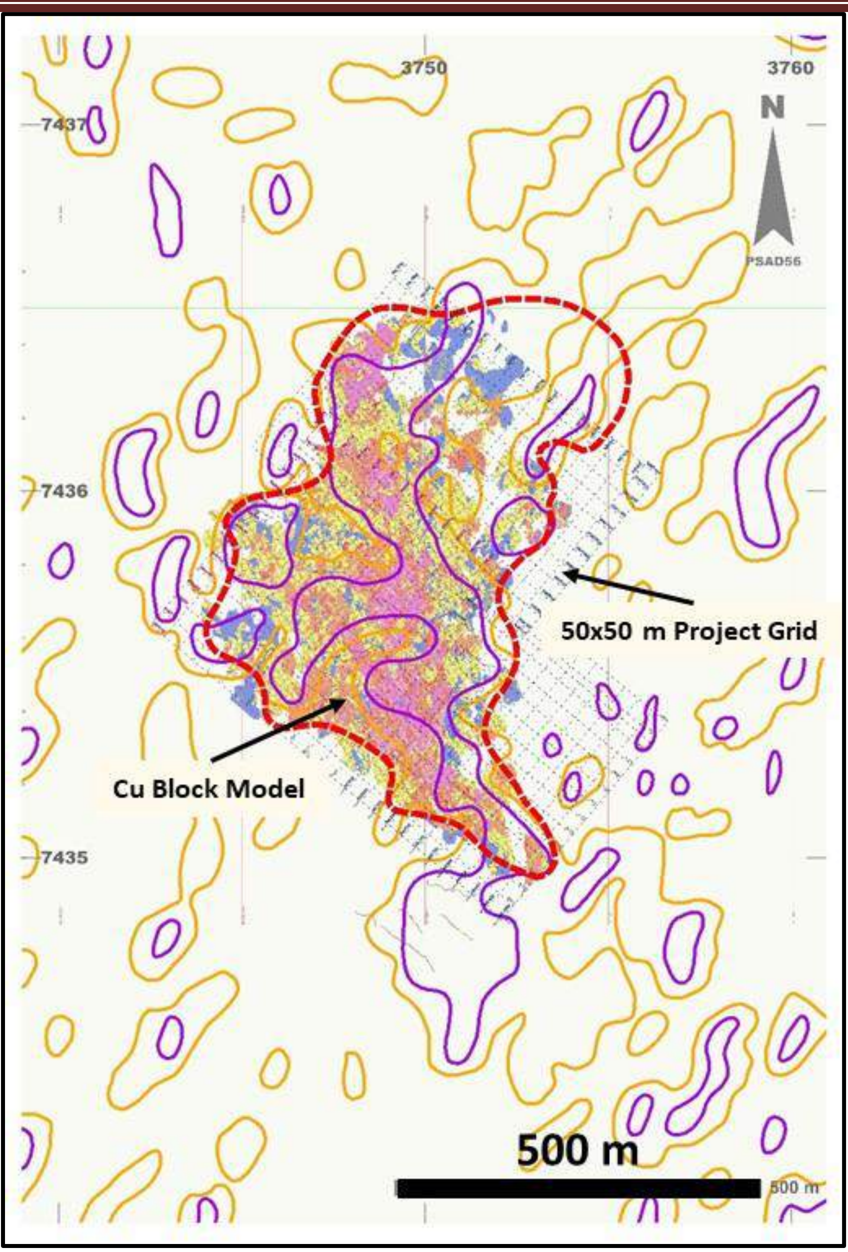


Figure 8-9: Geochemistry and surface mineralization. Geochemical contours are > 200 ppm in orange line and > 500 ppm in purple line.

Samples were collected by MCAL staff, prepared, and analyzed by Cu in AAA. The quality controls were the laboratories own, considering the indicative character of the sampling and that, the value of the data is only complementary for the decision-making and subsequent evaluation of the property.

The geochemical footprint of Cu values above 200 ppm and 500 ppm is fairly well coincident with the blanket extension at surface (Figure 8.9). Other Cu anomalies both on top and below the HWA are veins or feeders.

8.5 Geophysics

Geophysics was not used as a tool for exploration during the initial discovery of Marimaca. However, to verify the relationship of the mineralization in depth with high magnetite contents, a high-resolution aeromagnetic survey was carried out using GeoMagDrone™ technology (http://www.geomagdrone.cl). The survey was conducted in 2016.

Figure 8-10 shows the Pole Reduced ground magnetics as related to the >0.1% Cu outline, from drilling data (Figure 8-10 a) and the projection of the Cu block model (Figure 8-10 b). No clear coincidence between mag anomalies with deposit footprint is obvious. Perhaps a mag high is lying at the eastern part of the deposit. This corresponds to the interpreted down dip extensions of the mineralization below the HWA, and the eastern most holes in this part intercepts the DIO unit affected by strong magnetite-biotite alteration and carrying disseminated sulfides, chiefly pyrite.

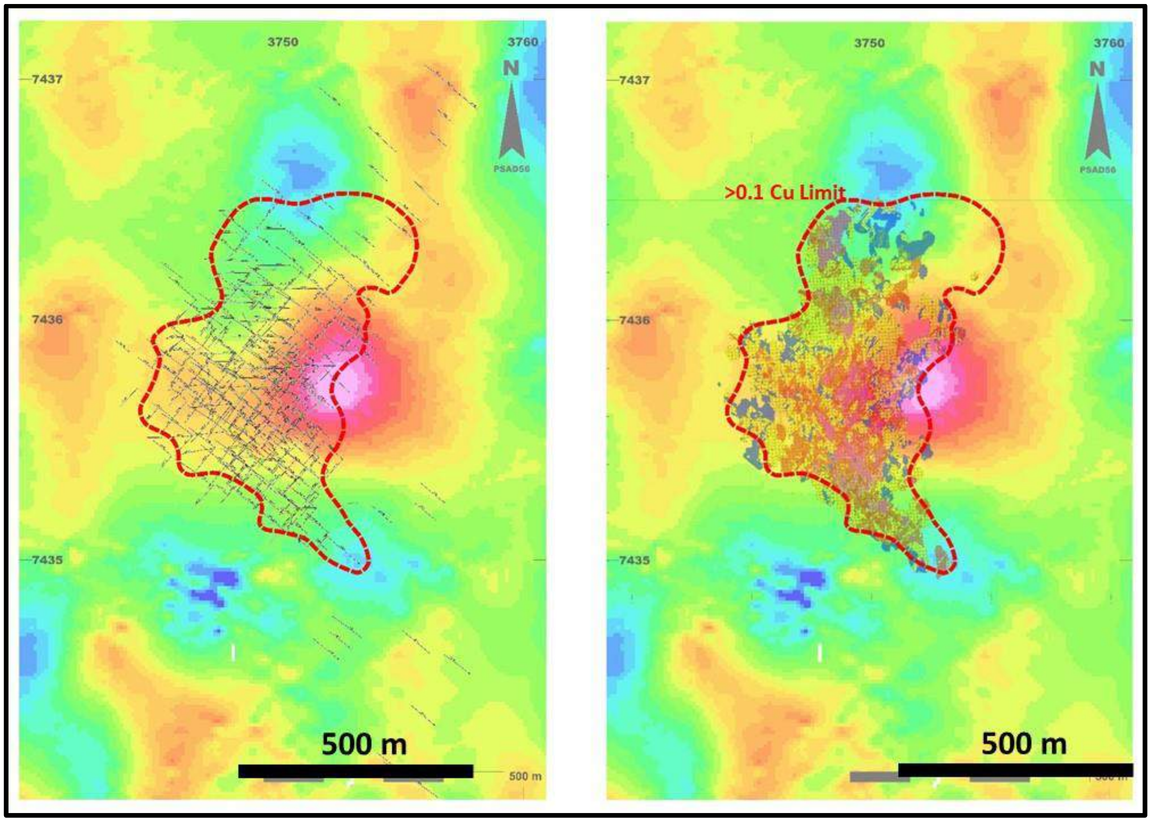


Figure 8-10: Pole Reduced Drone Magnetics compared with oxide deposit foot print (a) drill hole grid (b) Cu block model project to surface.

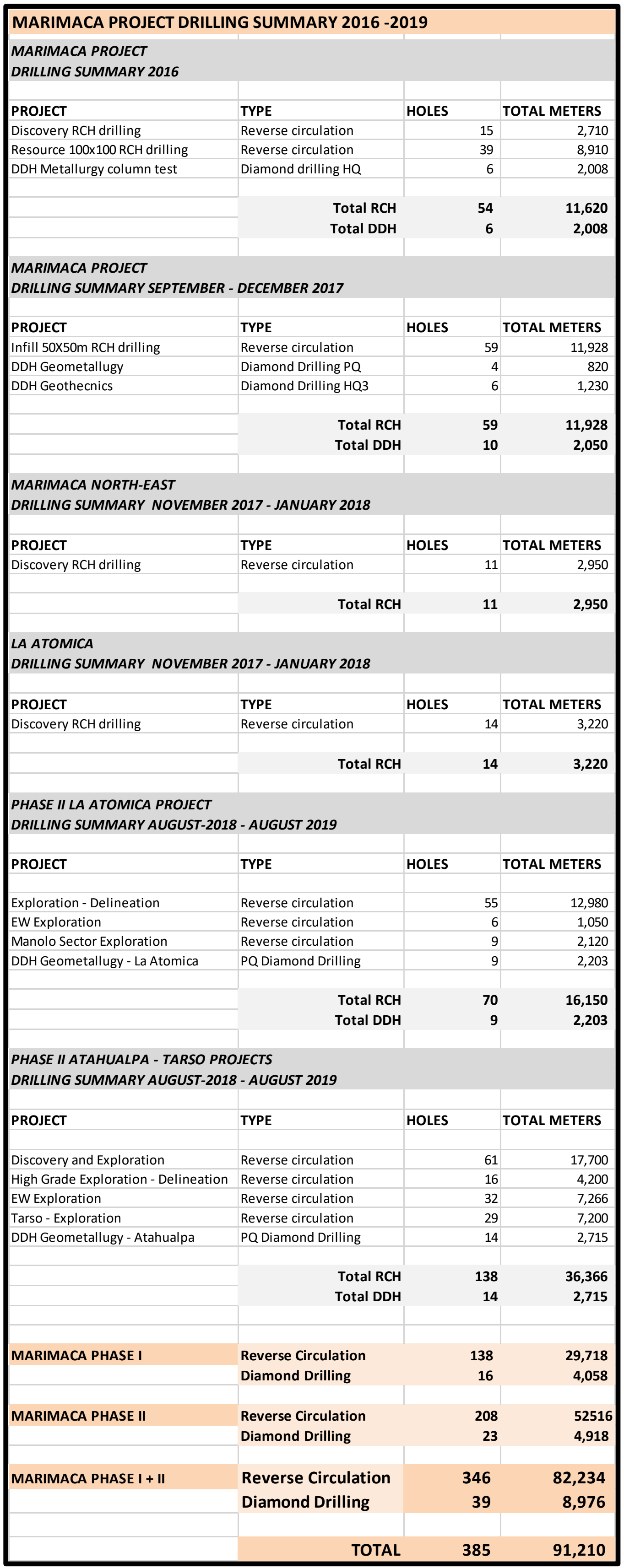
The possibility of using this tool in the district exploration is under review through the feedback of the interpretation with measurements of surface magnetic susceptibility.

8.6 NCL Comments

Exploration drilling completed by MCAL demonstrates potential for extending the oxide north and sulfide mineralization and for new discoveries amenable for mining. The infill program shows respectable results and the new land control described in chapter 3, strengthens the exploration potential of MCAL properties. NCL is of the opinion that the continuity of aggressive exploration programs, both infill and continuities, as envisioned by the company will continue to expand and improve the category of the mineral resources.

9 DRILLING

Table 9-1 contains the summary of Marimaca project drilling up to date. The actual database consists of 91,210 m, divided into 82,234 m of RC and 8,976 m of DDH. The Phase II drilling realized in the 2018-2019 years, focused in the discovery and delineation of the mineralization towards west and north, added 52,516 m of RC and 4,918 m of DDH.



MARIMACA PROJECT DRILLING SUMMARY 2016 -2019			
MARIMACA PROJECT DRILLING SUMMARY 2016			
PROJECT	**TYPE**	**HOLES**	**TOTAL METERS**
Discovery RCH drilling	Reverse circulation	15	2,710
Resource 100x100 RCH drilling	Reverse circulation	39	8,910
DDH Metallurgy column test	Diamond drilling HQ	6	2,008
	Total RCH	**54**	**11,620**
	Total DDH	**6**	**2,008**
MARIMACA PROJECT DRILLING SUMMARY SEPTEMBER - DECEMBER 2017			
PROJECT	**TYPE**	**HOLES**	**TOTAL METERS**
Infill 50X50m RCH drilling	Reverse circulation	59	11,928
DDH Geometallugy	Diamond Drilling PQ	4	820
DDH Geothecnics	Diamond Drilling HQ3	6	1,230
	Total RCH	**59**	**11,928**
	Total DDH	**10**	**2,050**
MARIMACA NORTH-EAST DRILLING SUMMARY NOVEMBER 2017 - JANUARY 2018			
PROJECT	**TYPE**	**HOLES**	**TOTAL METERS**
Discovery RCH drilling	Reverse circulation	11	2,950
	Total RCH	**11**	**2,950**
LA ATOMICA DRILLING SUMMARY NOVEMBER 2017 - JANUARY 2018			
PROJECT	**TYPE**	**HOLES**	**TOTAL METERS**
Discovery RCH drilling	Reverse circulation	14	3,220
	Total RCH	**14**	**3,220**
PHASE II LA ATOMICA PROJECT DRILLING SUMMARY AUGUST-2018 - AUGUST 2019			
PROJECT	**TYPE**	**HOLES**	**TOTAL METERS**
Exploration - Delineation	Reverse circulation	55	12,980
EW Exploration	Reverse circulation	6	1,050
Manolo Sector Exploration	Reverse circulation	9	2,120
DDH Geometallugy - La Atomica	PQ Diamond Drilling	9	2,203
	Total RCH	**70**	**16,150**
	Total DDH	**9**	**2,203**
PHASE II ATAHUALPA - TARSO PROJECTS DRILLING SUMMARY AUGUST-2018 - AUGUST 2019			
PROJECT	**TYPE**	**HOLES**	**TOTAL METERS**
Discovery and Exploration	Reverse circulation	61	17,700
High Grade Exploration - Delineation	Reverse circulation	16	4,200
EW Exploration	Reverse circulation	32	7,266
Tarso - Exploration	Reverse circulation	29	7,200
DDH Geometallugy - Atahualpa	PQ Diamond Drilling	14	2,715
	Total RCH	**138**	**36,366**
	Total DDH	**14**	**2,715**
MARIMACA PHASE I	**Reverse Circulation**	**138**	**29,718**
	Diamond Drilling	**16**	**4,058**
MARIMACA PHASE II	**Reverse Circulation**	**208**	**52516**
	Diamond Drilling	**23**	**4,918**
MARIMACA PHASE I + II	**Reverse Circulation**	**346**	**82,234**
	Diamond Drilling	**39**	**8,976**
	TOTAL	**385**	**91,210**

Table 9-1: Marimaca Project. Drilling Summary 2016 – 2019.

The RCH drilling was completed by the drilling company PerfoChile Ltda. (http://www.perfochile.cl/) using diameters 5‘¾ to 5‘5/8. The geological-metallurgical diamond drill was in PQ and work done by Superex a Chilean drilling contractor (Figure 9-2).

The drill holes where positioned at 100 m spacing and at 50 m in selected places and as terrain allows the roads and platforms construction. In most of places holes were drilled in two directions; 220° and 310°, but in places some 270° oriented holes, also -60° dipping were drilled to test high-grade zones controlled by NS trending feeders and veins. The justification for the grid orientation and the drill holes was to cut perpendicular to the trend of primary mineralization (310°) and supergene controls (220°).

A general view of the drilling grid and hole location for the whole updated Marimaca Project is shown in Figure 9-1.

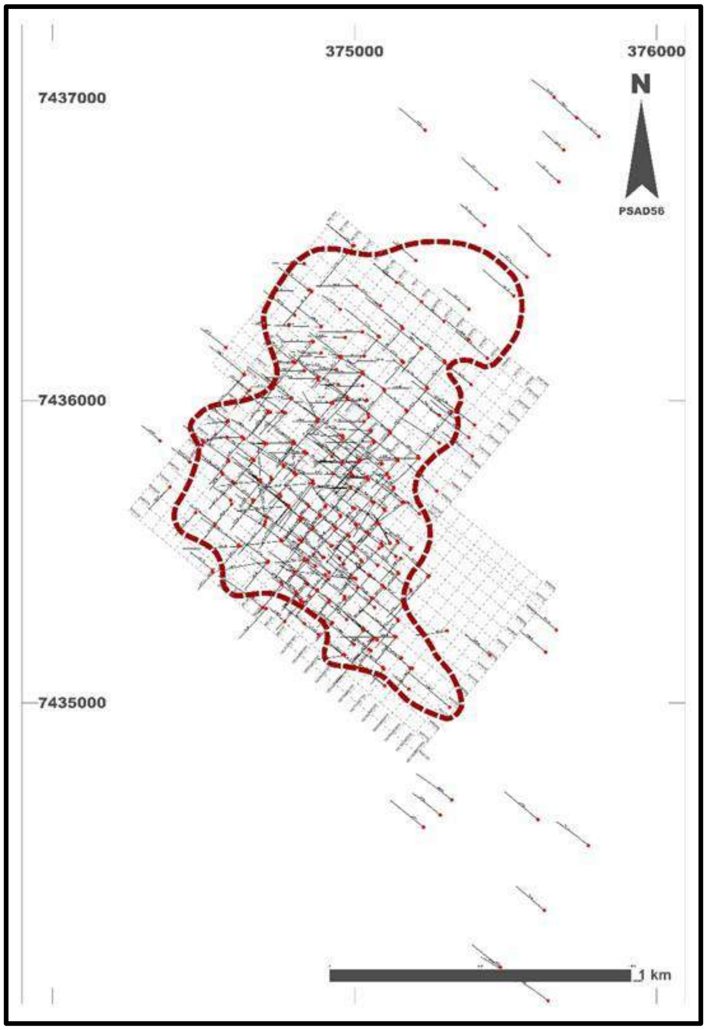


Figure 9-1: Drill hole and Project Grid location

Figure 9-2: Photos from Drilling equipments (a) Reverse Air: (b) Diamond Drill

Figure 9-3: Photos from Drilling control (a); and core logging area (b)

Local contractors (Figure 9-3) carried out the supervision of the drilling operation. An experienced topographer surveyed the collars. Data Well Services (and some holes by Comprobe), carried out the downhole surveys.

The coordinates are in the PSAD56 UTM system, coordinate base used in Chile for territorial control of mining property. The location of the drill collars is shown in Figure 9-1.

Coro staff supervised all the drilling and sampling. The recoveries were measured in weight percentage for RCH and longitude percentage for DDH; Coro technical staff checked all data. Measured recoveries are over 95% for both types of drilling, without significant variations and unrelated to copper grades.

All holes were geologically logged on a digital data capture (Figure 9-3). The data are rock, structure, alteration and mineralization based on drilling intervals, recoveries and analytical results. After validation, the mineral and alteration zones were defined. The results were entered in the database as a table with all mapped data and a consolidated log of the drill was prepared.

Drill cuttings from RCH were collected in 2 m intervals and cleaned for geological description of samples. A first logging collected rock, structure (as cutting allows) and alteration. Oxide mineralogy was re-logged as chemical results were received. Chip trails are stored for reference.

For DDH core, the natural contact intervals were added to the controls, leaving 2 m regularization for sampling. A first log was also made with the complete core and the consistency of grades with mineralization was reviewed, adjusting the logs when necessary. A special log for rock quality was done for geotechnical objectives, according to methods controlled by consultants, Ingeroc. Data stored in tables were integrated into databases and their consistency revised in the form of summaries of columns.

In addition to measuring deviations, most of the holes were surveyed using an optical televiewer (OPTV or BHTV), with structures and orientation measurements, which continuously and thoroughly recorded holes’ walls and measured structures. The structures were measured in ranks according to their width and the results reported and plotted on stereographic networks and rose diagrams (Figure 9-4).

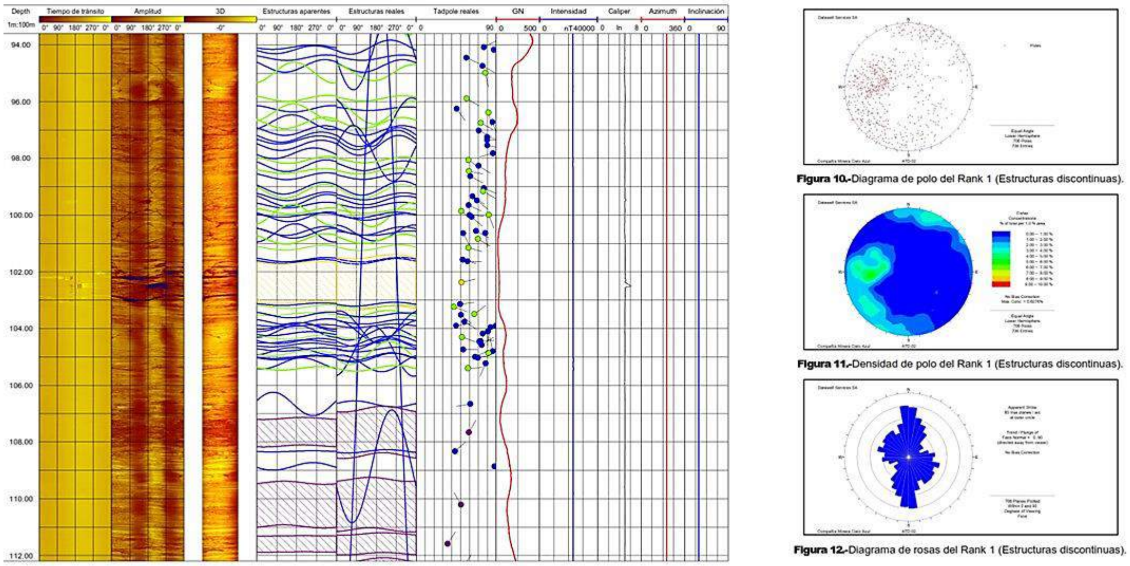


Figura 10.-Diagrama de polo del Rank 1 (Estructuras discontinuas).

Figura 11.-Densidad de polo del Rank 1 (Estructuras discontinuas).

Figura 12.-Diagrama de rosas del Rank 1 (Estructuras discontinuas).

Figure 9-4: Drill Hole Surveying and BHTV Data

10 SAMPLE PREPARATION, ANALYSES AND SECURITY

10.1 Drillhole Sampling

Analytical samples informing the Marimaca Mineral Resources were prepared at the project site and assayed at the Geolaquim Ltda. laboratory in Copiapó, certified in 2004 to ISO 9001:2000 by the DNV, and then updated to its 2005 and 2008 versions, for commercialization, mechanical preparation and chemical analysis of mineral samples. Compliance to the ISO standard is verified yearly. The samples of the 2017 infill drilling campaign were prepared in Calama laboratories and assayed in Santiago by Andes Analytical Assay (3A, http://www.3aaa.cl/). The samples were prepared according to the description of the previous report (NCL, 2017).

The umpire laboratory was Andes Analytical Assay Ltda. in Santiago, certified in 2015 to ISO 9001:2008 by the IQNET. MCAL only worked with AAA during the first RC drilling campaign, and didn't employ an umpire laboratory for the rest of campaigns.

The samples were transferred by the laboratory personnel from the project to Copiapó or Calama, and then the preparation pulps were returned to generate the analysis batches with inserts for the QA/QC program.

Upon reception, sample details are logged and insertion points for quality control samples in the sample flow are determined. MCAL RC holes were sampled on a 2 m continuous basis, with dry samples riffle split on site and one quarter sent to the laboratory by Coro personnel, for preparation and assaying. A second quarter was stored on site for reference. DDH samples were prepared using the following standard protocol: drying, crushing to better than 80% passing -10#, homogenizing, splitting and pulverizing a 400 g subsample to 95% passing -150#. All holes were assayed for CuT (total copper) and CuS (acid soluble copper) by AAS. A QA/QC program, involving insertion of appropriate standards and duplicates was employed with acceptable results (see chapter 10.4).

Assay data were loaded directly from digital assay result files into the final database in order to minimize sources of error.

10.2 Sample Rejects and Pulps Storage

- RCH chips are stored at appropriate places in the field (old adits), as are coarse rejects of about 8-9 kg weight, obtained from the third riffle pass.
- The laboratory was requested to store in appropriate places of the project all the crushed rejects of DDH samples (-1/4 "), trays with half of DDH control, cutting boxes and backing bags of 1 kg of RC samples.

- From the cores extracted for metallurgical tests, a representative 10 cm core is left and put in core boxes in an orderly fashion.
- All pulps of the total samples collected in the project: sampling of cuts, geochemistry and drilling are ordered and stored in paper envelopes and cardboard boxes.

10.3 Specific Gravity Data Sampling

Specific gravity was measured systematically on core fragments taken from the deposit for density and geotechnical issues. Specific gravity is determined using a water displacement method with paraffin coating. The fragments sampled are 7 to 26 cm long. Measurements were done by Mecanica de Rocas (Rock Mechanics) lab at Calama (http://www.mrl.cl/paginas/index.htm).

In order to obtain density measurements characterizing the Marimaca mineralized rocks, test-samples were taken from core samples. The sample selection criteria and laboratory tests are as follows: Each selected piece was logged in detail and photographed. They were then sent to Calama’s Rock Tests certified laboratories, for the corresponding unit weights. The method was the weight-volume ratio, with previously kerosene waterproofed and weighted in air and then, weighed submerged in water.

Density samples were collected at approximate intervals of 20 m. From the 2016 program, a total of 58 samples were tested and from the 2017 program another 98 and 427 samples in 2018 were tested, which makes it a total of 562 samples. Measurements were performed using standard protocols following the paraffin coated Archimedes Laboratory. All the relevant Mineral Zones as well as surrounding waste unites are adequately represented.

10.4 Quality Assurance and Quality Control Programs (Qa/Qc)

The analytical quality control programs implemented at Marimaca involve the use of preparation (PRD) and pulp (PUD) duplicates for precision analyses, standard reference materials (SRM) and check samples (CHD) for accuracy analyses and, only since 2018, fine blanks (FBL) for contamination analyses. These are systematically inserted among regular samples submitted for assaying. The laboratories involved are Andes Analytical Assay (AAA) and Geolaquim (GLQ). Table 10-1 sums up the evolution of QA/QC programs in the project.

Campaign	Drillholes	Type	Year	Laboratory	CHD	PRD	PUD	SRM	FBL
MAR 01-16	16	RC	2016	GLQ / AAA	X	-	-	-	-
MAR 17-54	38	RC	2016	GLQ	-	X	X	X	-
MAD 01-06	6	DDH	2016	GLQ	-	-	X	X	-
MAR 55-111	59	RC	2017	AAA	-	X	X	X	-
LAR 01-14	14	RC	2017	AAA	-	X	X	X	X*
MAD 07-16	10	DDH	2017	AAA	-	-	X	X	X*
MAR 112-124	11	RC	2018	AAA	-	X	X	X	X*
LAR 15-84	70	RC	2018	AAA	-	X	X	X	X
AER 01-03 ATR 01-104 TAR 01-13	120	RC	2019	AAA	-	X	X	X	X
ATD 01-13 LAD 01-09	22	DDH	2019	AAA	-	-	X	X	X

Table 10-1: Control programs for each drilling campaign (* not blanks but low grade SRMs)

It is evident from table 10-1 that MCAL have improved and refined their QA/QC programs over time, following recommendations made by NCL in previous reports.

10.4.1 Check Sample Analysis

Check samples, consisting of 240 pulp duplicate pairs, were the sole quality control measure for 2016's MAR 01-16 pilot drilling campaign (Table 10-1), and were taken at an approximate rate of 1 every 6 samples. The main laboratory was GLQ and the umpire laboratory was AAA.

NCL's check sample review is done through reduced major axis (RMA) regression plots and their main parameters: Coefficient of determination (R2), which should approximate 1 to be acceptable, and slope (RMAS), allowing for the bias percentage calculation (1-RMAS), which should approximate 0 to be acceptable. Table 10-2 and Figure 10-1 present results for check samples.

Check Samples	Duplicate Pairs	AV %TCu		Bias	R^2
		Orig.	Dup.		
MAR 01-16	240	0.816	0.819	**0.01%**	**0.99**

Table 10-2: Check sample analysis for 2016's MAR 01-16 campaign

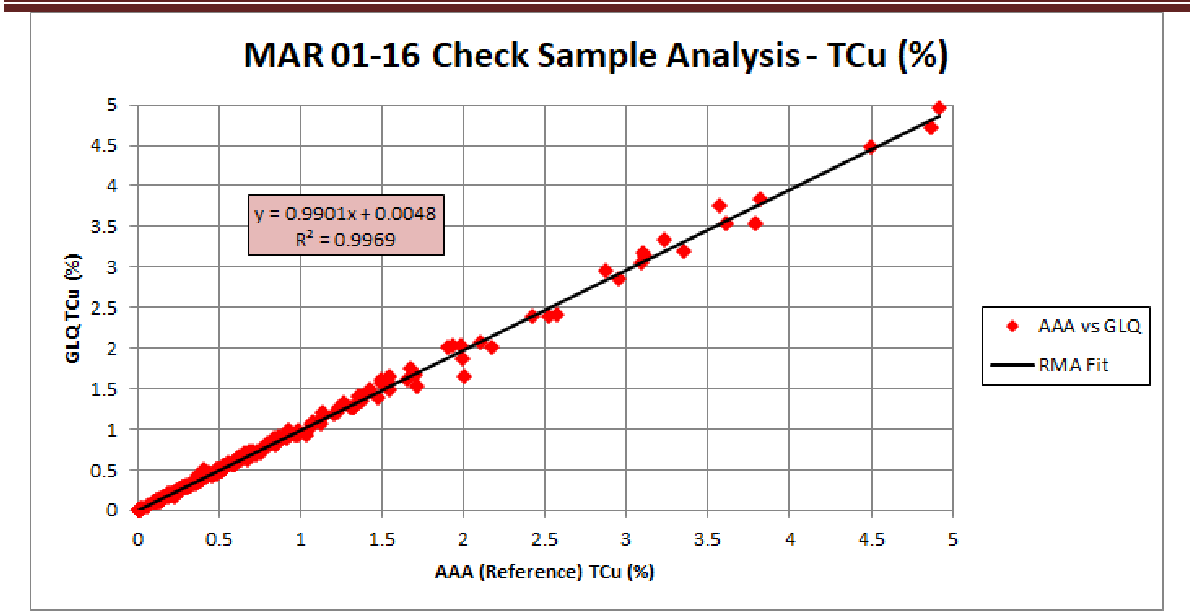


Figure 10-1: Check sample regression for 2016's MAR 01-16 campaign

This campaign shows very good accuracy in principle, though with moderate uncertainty, due to a lack of appropriate control programs accompanying check samples to the main and especially the umpire laboratory. However, given that the amount of check samples exceeds industry requirements by a considerable margin, and that the RMA regression shows a decisively strong assay correlation between laboratories, the probability of quality control issues in the dataset is mitigated to some extent.

In conclusion, the check sample analysis shows sufficiently good accuracy, despite a lack of other control measures. NCL recommends testing this pilot campaign for accuracy, precision and contamination through a short re-assay program of at least some of the drillholes, sent preferably to a new umpire laboratory with proper control samples, in order to validate it effectively.

10.4.2 Standard Reference Material Analysis

SRMs were provided by two companies: Geostats Pty Ltd (Australia) during 2016-2018, with 966 samples of 17 materials, inserted at an approximate rate of 1 every 16 samples; and Intem Ltd. (Chile) during 2018-2019, with 1154 samples of 6 materials, inserted at an approximate rate of 1 every 25 samples for RC drill holes and 1 very 15 samples for DDH. Geostats' SRMs come from difference sources, depending on the required grade, while Intem SRMs are prepared from pulp samples of the project's RC drillholes, homogenized and analyzed in a round robin program, in order to obtain its best value (BV). Table 10-3 summarizes relevant information on SRMs inserted during each campaign.

Campaign	Company	SRM	Min TCu	Max TCu	Assays
MAR 17-54	Geostats	9	0.103	2.185	304
MAD 01-06	Geostats	8	0.103	2.185	58
MAR 55-111	Geostats	17	0.103	2.185	372
MAD 07-16	Geostats	11	0.028	2.185	76
LAR 01-14	Geostats	13	0.028	2.185	85
MAR 112-124	Geostats	8	0.028	0.620	71
LAR 15-84	Intem	6	0.201	1.208	302
AER 01-03 ATR 01-104 TAR 01-13	Intem	6	0.201	1.208	679
ATD 01-13 LAD 01-09	Intem	6	0.201	1.208	173

Table 10-3: SRM information summary for all drilling campaigns

NCL's SRM review begins with a mistake analysis, which consists in removing samples with values that exceed a window of ±3 standard deviations (SD) of each SRM dataset. Mistakes should remain below 5% of all samples. Next is a direct comparison of the average (AV) of the filtered dataset against the best value (BV) of the SRM by calculating the bias (AV/BV-1), which shouldn't exceed ±5% (with an extreme tolerance of ±10%). Finally, Shewart control charts are constructed, plotting a time series of the SRM values against acceptability (precision) windows of BV±2*SD / BV±3*SD (round robin SD) in the case of Geostats SRMs, or BV±5% / BV±10% in the case of Intem SRMs, given that Intem doesn't provide a suitable SD for quality control purposes. Assay values surpassing these windows are considered outliers and should remain below 5% of all samples (with an extreme tolerance of 10%), especially in the case of the outermost windows.

Tables 10-4, 10-5, 10-6, 10-7, 10-8 and 10-9 sum up Geostats' SRM analysis. Shewart charts are only provided for materials GBM 913-6 and GBM 910-7, due to their relevance, and in order to limit this chapter's extension.

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
GBM 311-2	50	0	**0.0%**	0.227	0.222	**-2.3%**	0	**0.0%**	0	**0.0%**
GBM 995-4	51	1	**2.0%**	0.350	0.351	**0.4%**	0	**0.0%**	0	**0.0%**
GBM 910-7	22	0	**0.0%**	0.534	0.540	**1.2%**	3	**13.6%**	2	**9.1%**
GBM 311-4	42	1	**2.4%**	0.620	0.610	**-1.6%**	0	**0.0%**	0	**0.0%**
GBM 905-12	33	1	**3.0%**	2.185	2.121	**-2.9%**	1	**3.1%**	0	**0.0%**
GBMS 911-2	46	1	**2.2%**	0.142	0.147	**3.9%**	0	**0.0%**	0	**0.0%**
GBM 999-4	20	0	**0.0%**	0.103	0.108	**4.8%**	0	**0.0%**	0	**0.0%**
GBMS 304-5	27	0	**0.0%**	0.229	0.226	**-1.6%**	0	**0.0%**	0	**0.0%**
GBMS 911-3	13	0	**0.0%**	0.765	0.758	**-0.9%**	0	**0.0%**	0	**0.0%**

Table 10-4: SRM analysis for 2016's MAR 17-54 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
GBM 995-4	15	0	0.0%	0.350	0.350	0.1%	0	0.0%	0	0.0%
GBM 910-7	11	0	0.0%	0.534	0.539	1.0%	1	9.1%	1	9.1%
GBM 311-4	8	0	0.0%	0.620	0.600	-3.2%	2	25.0%	0	0.0%
GBM 905-12	5	0	0.0%	2.185	2.090	-4.4%	1	20.0%	0	0.0%
GBMS 911-2	1	0	0.0%	0.142	0.148	4.4%	0	0.0%	0	0.0%
GBM 999-4	7	0	0.0%	0.103	0.104	1.1%	0	0.0%	0	0.0%
GBMS 304-5	2	0	0.0%	0.229	0.217	-5.4%	0	0.0%	0	0.0%
GBMS 911-3	9	0	0.0%	0.765	0.766	0.1%	0	0.0%	0	0.0%

Table 10-5: SRM analysis for 2016's MAD 01-06 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
GBM 311-2	62	0	0.0%	0.227	0.227	-0.1%	0	0.0%	0	0.0%
GBM 995-4	39	0	0.0%	0.350	0.350	0.1%	0	0.0%	0	0.0%
GBM 910-7	11	0	0.0%	0.534	0.532	-0.3%	0	0.0%	0	0.0%
GBM 311-4	11	0	0.0%	0.620	0.612	-1.3%	0	0.0%	0	0.0%
GBM 905-12	10	0	0.0%	2.185	2.161	-1.1%	0	0.0%	0	0.0%
GBMS 911-2	26	0	0.0%	0.142	0.144	1.6%	1	3.8%	0	0.0%
GBM 999-4	14	0	0.0%	0.103	0.102	-0.9%	0	0.0%	0	0.0%
GBMS 304-5 / GBM 304-5	17	0	0.0%	0.229	0.230	0.3%	0	0.0%	0	0.0%
GBMS 911-3	17	0	0.0%	0.765	0.771	0.8%	0	0.0%	0	0.0%
GBM 301-7	12	0	0.0%	0.558	0.554	-0.7%	0	0.0%	0	0.0%
GBM 309-2	15	0	0.0%	0.529	0.519	-1.8%	0	0.0%	0	0.0%
GBM 309-6	49	1	2.0%	0.028	0.028	1.1%	0	0.0%	0	0.0%
GBM 311-6	24	0	0.0%	0.104	0.102	-1.6%	0	0.0%	0	0.0%
GBM 907-14	14	0	0.0%	0.817	0.808	-1.1%	0	0.0%	0	0.0%
GBM 908-10	20	0	0.0%	0.360	0.361	0.2%	0	0.0%	0	0.0%
GBM 913-6	17	0	0.0%	0.321	0.306	-4.8%	0	0.0%	0	0.0%
GBMS 304-3	14	0	0.0%	0.364	0.364	0.1%	0	0.0%	0	0.0%

Table 10-6: SRM analysis for 2017's MAR 55-111 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
GBM 311-2	13	0	0.0%	0.227	0.228	0.4%	0	0.0%	0	0.0%
GBM 910-7	6	0	0.0%	0.534	0.537	0.7%	0	0.0%	0	0.0%
GBM 905-12	3	0	0.0%	2.185	2.185	0.0%	0	0.0%	0	0.0%
GBMS 911-3	10	0	0.0%	0.765	0.768	0.4%	0	0.0%	0	0.0%
GBM 301-7	1	0	0.0%	0.558	0.583	4.5%	0	0.0%	0	0.0%
GBM 309-2	1	0	0.0%	0.529	0.533	0.8%	0	0.0%	0	0.0%
GBM 309-6	10	0	0.0%	0.028	0.029	4.7%	0	0.0%	0	0.0%
GBM 311-6	6	0	0.0%	0.104	0.104	0.3%	0	0.0%	0	0.0%
GBM 907-14	2	0	0.0%	0.817	0.813	-0.5%	0	0.0%	0	0.0%
GBM 913-6	19	0	0.0%	0.321	0.312	-2.9%	0	0.0%	0	0.0%
GBMS 304-3	5	0	0.0%	0.364	0.367	0.9%	0	0.0%	0	0.0%

Table 10-7: SRM analysis for 2016's MAD 07-16 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
GBM 301-7	5	0	0.0%	0.558	0.571	2.4%	0	0.0%	0	0.0%
GBM 309-2	4	0	0.0%	0.529	0.543	2.7%	0	0.0%	0	0.0%
GBM 309-6	18	1	5.6%	0.028	0.029	4.7%	0	0.0%	0	0.0%
GBM 311-2	7	0	0.0%	0.227	0.232	2.1%	0	0.0%	0	0.0%
GBM 311-4	1	0	0.0%	0.620	0.612	-1.3%	0	0.0%	0	0.0%
GBM 311-6	9	0	0.0%	0.104	0.106	2.2%	0	0.0%	0	0.0%
GBM 905-12	5	0	0.0%	2.185	2.158	-1.2%	0	0.0%	0	0.0%
GBM 907-14	2	0	0.0%	0.817	0.835	2.2%	0	0.0%	0	0.0%
GBM 910-7	3	0	0.0%	0.534	0.530	-0.7%	0	0.0%	0	0.0%
GBM 913-6	13	0	0.0%	0.321	0.311	-3.2%	0	0.0%	0	0.0%
GBM 995-4	3	0	0.0%	0.350	0.361	3.2%	0	0.0%	0	0.0%
GBMS 304-3	12	0	0.0%	0.364	0.370	1.7%	0	0.0%	0	0.0%
GBMS 911-3	3	0	0.0%	0.765	0.786	2.7%	0	0.0%	0	0.0%

Table 10-8: SRM analysis for 2017's LAR 01-14 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
GBM 301-7	2	0	**0.0%**	0.558	0.550	**-1.4%**	0	**0.0%**	0	**0.0%**
GBM 309-6	23	0	**0.0%**	0.028	0.028	**1.1%**	0	**0.0%**	0	**0.0%**
GBM 311-2	3	0	**0.0%**	0.227	0.234	**3.0%**	0	**0.0%**	0	**0.0%**
GBM 311-4	3	0	**0.0%**	0.620	0.592	**-4.5%**	0	**0.0%**	0	**0.0%**
GBM 311-6	11	0	**0.0%**	0.104	0.101	**-2.6%**	0	**0.0%**	0	**0.0%**
GBM 910-7	5	0	**0.0%**	0.534	0.521	**-2.3%**	0	**0.0%**	0	**0.0%**
GBM 913-6	17	1	**5.9%**	0.321	0.305	**-5.1%**	1	**6.3%**	0	**0.0%**
GBMS 304-3	7	0	**0.0%**	0.364	0.373	**2.6%**	0	**0.0%**	0	**0.0%**

Table 10-9: SRM analysis for 2018's MAR 112-124 campaign

These campaigns show very good accuracy (bias %) and precision (outliers %) in principle, though with moderate to high uncertainty in many cases, due to the varied amount of SRMs used (some with very similar copper grades) and the number of samples inserted for each SRM, in every campaign.

Usually 3 to 5 SRMs of different grade values, inserted at an approximate rate of 1 every 15, are enough for a project with only one economically important element. Here, even though the insertion rate is appropriate, there are 8 SRMs in the less varied campaign and 17 SRMs in the more varied campaign, the latter of which containing the complete set of materials acquired from Geostats. It's because of this that there are usually only a few assays for each SRM, which leads to uncertainty when facing unacceptable percentages, given that a single anomalous sample can take the small dataset past the acceptability windows.

The last observation is probably the reason for all cases of unacceptable instances in these campaigns, which, in any case, are very rare. The only SRM that is suspect of presenting accuracy problems is GBM 913-6 (Figures 10-2, 10-3 and 10-4), due to its consistent and noticeable negative bias through 3 different campaigns, though of questionable significance given previously stated reasons. GBM 910-7 is also presented (Figures 10-5, 10-6, 10-7 and 10-8) to show that, despite apparent precision problems in the first campaign, it tested correctly in later campaigns.

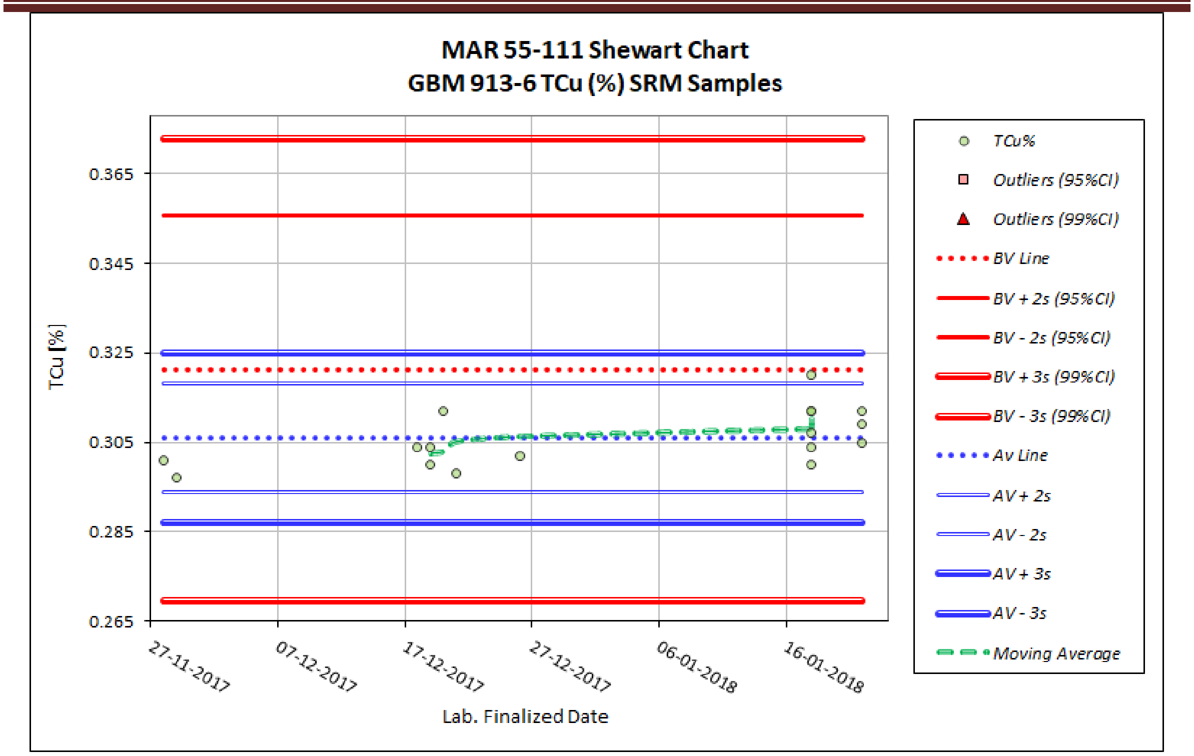


Figure 10-2: Shewart chart for material GBM 913-6 in 2017's MAR 55-111 campaign

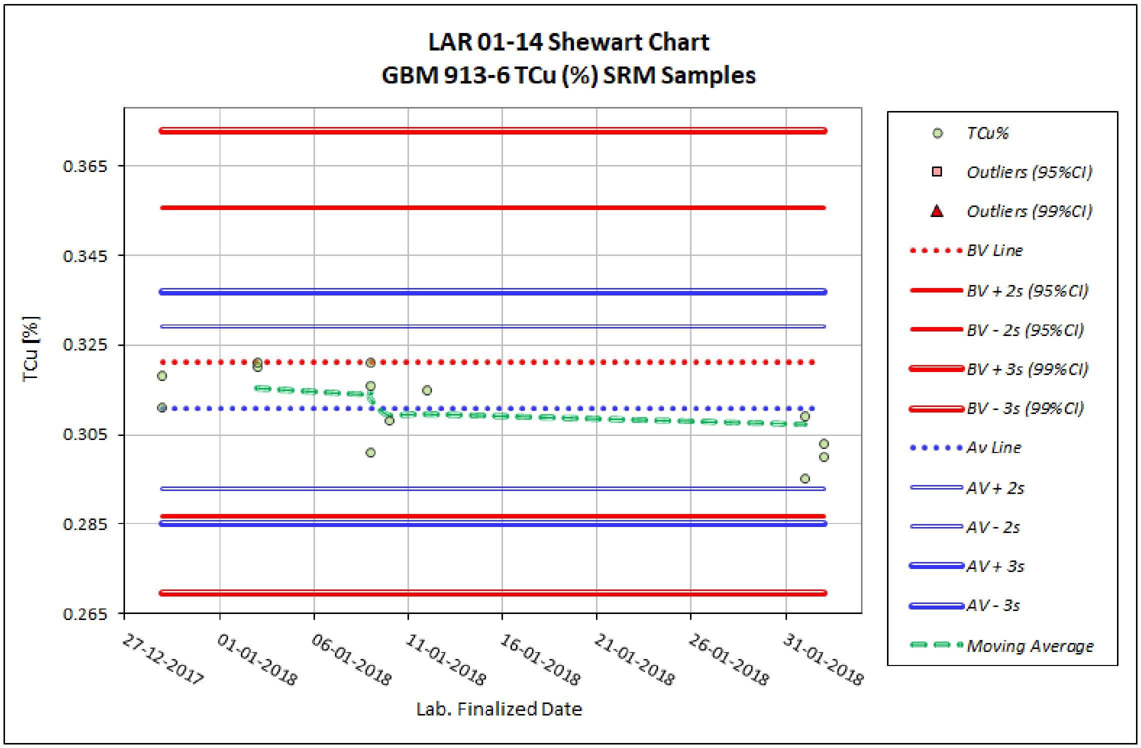


Figure 10-3: Shewart chart for material GBM 913-6 in 2017's LAR 01-14 campaign

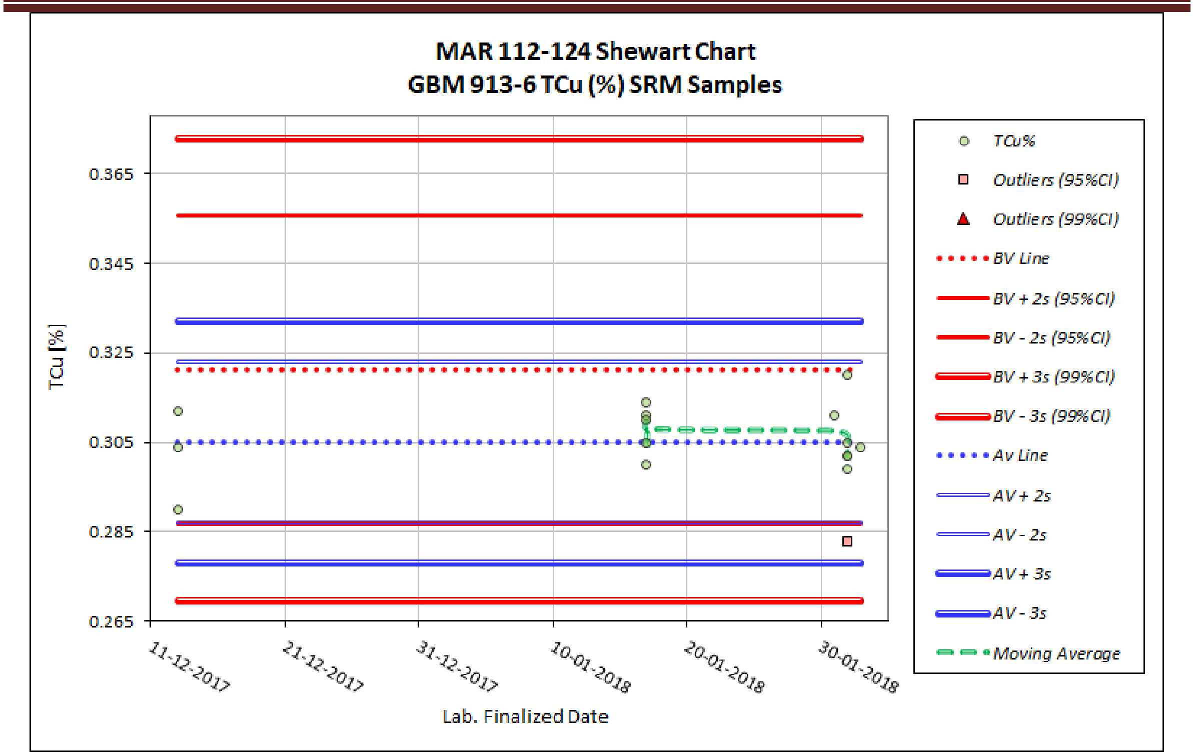


Figure 10-4: Shewart chart for material GBM 913-6 in 2018's MAR 112-124 campaign

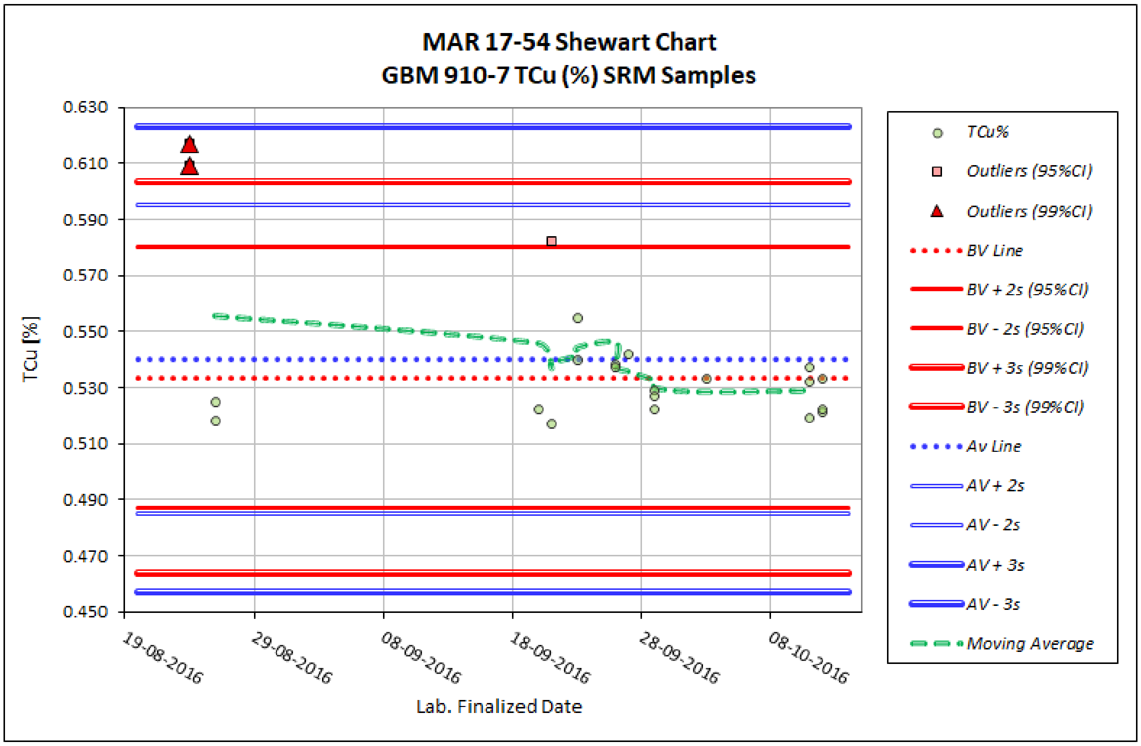


Figure 10-5: Shewart chart for material GBM 910-7 in 2016's MAR 17-54 campaign

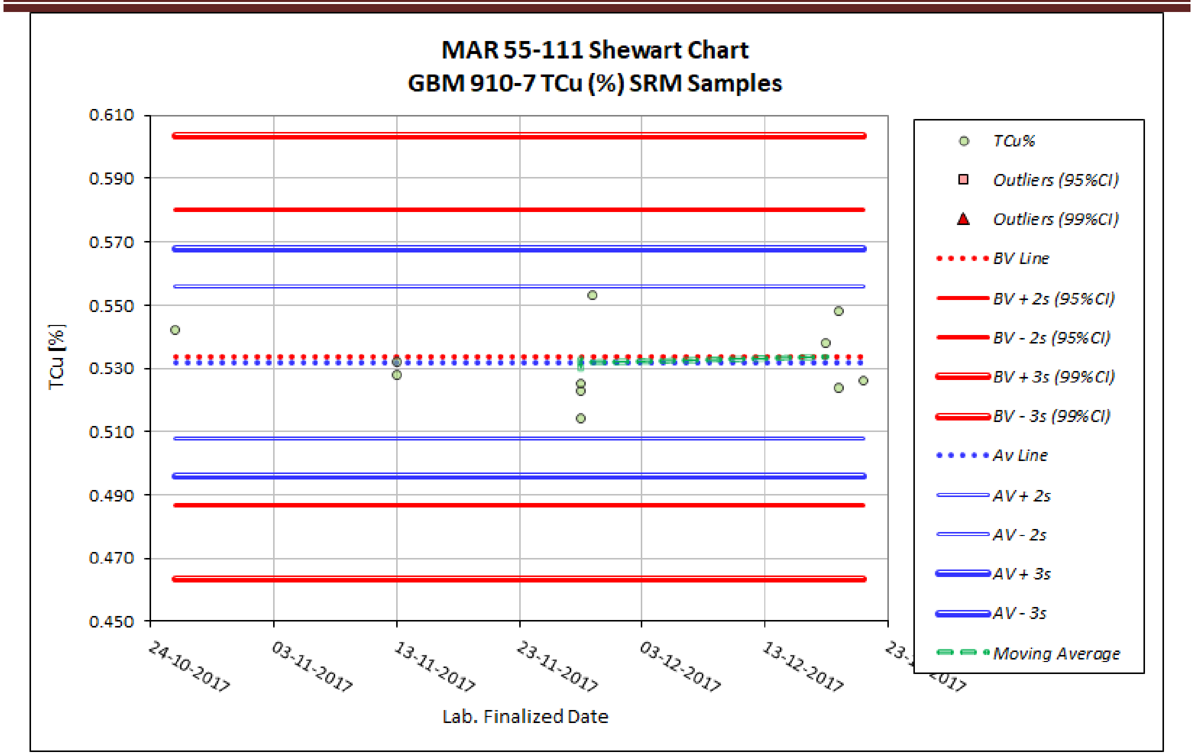


Figure 10-6: Shewart chart for material GBM 910-7 in 2017's MAR 55-111 campaign

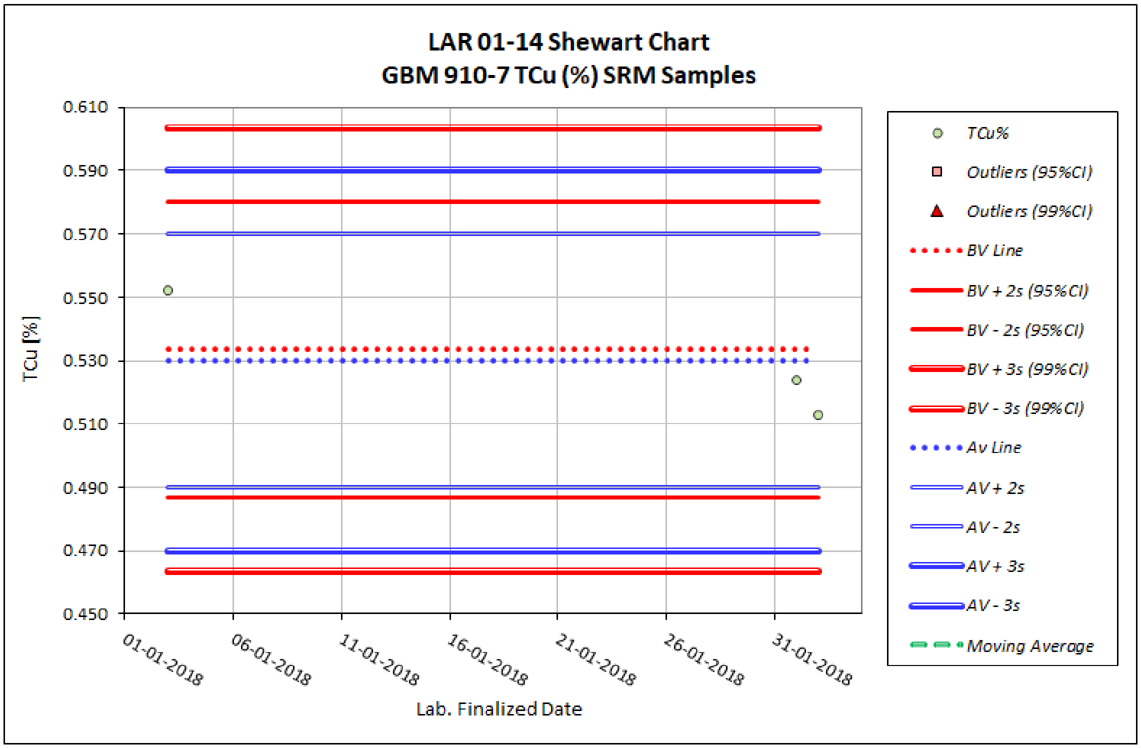


Figure 10-7: Shewart chart for material GBM 910-7 in 2017's LAR 01-14 campaign

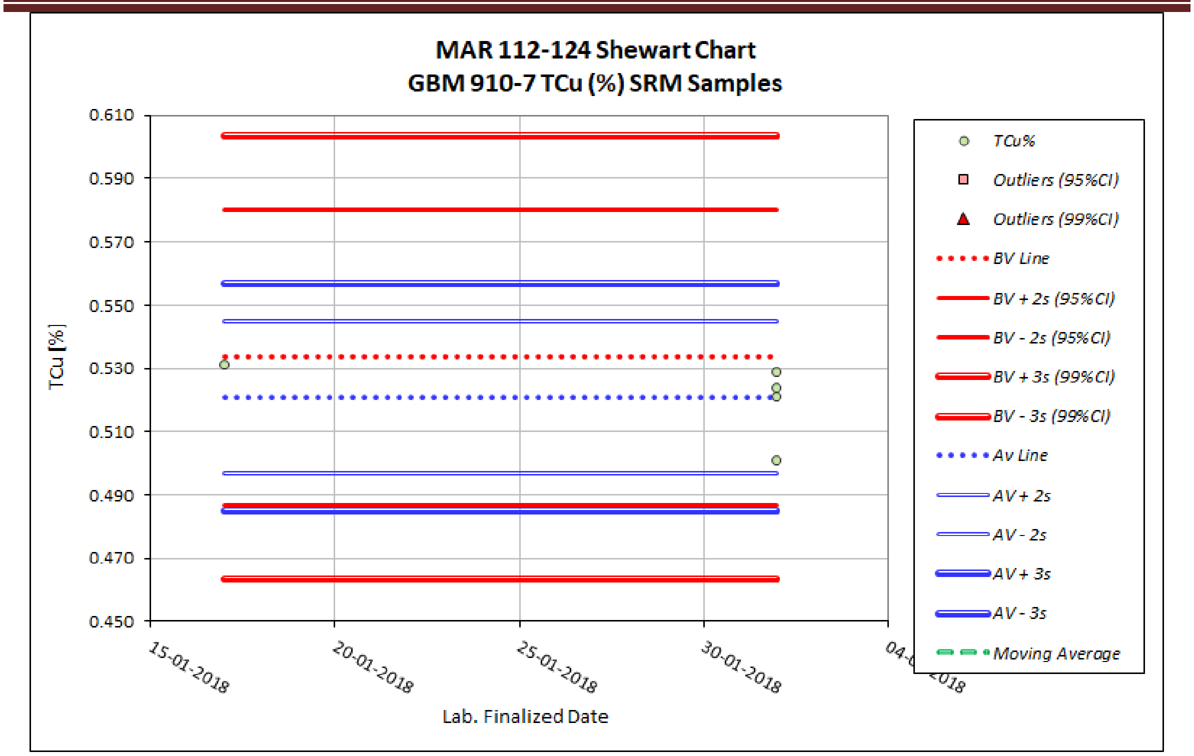


Figure 10-8: Shewart chart for material GBM 910-7 in 2018's MAR 112-124 campaign

Tables 10-10, 10-11 and 10-12 sum up Intem's SRM analysis. Shewart charts are only provided for material MRC-2 due to its relevance, and in order to limit this chapter's extension.

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
MRC-2	153	0	0.0%	0.201	0.201	0.0%	4	2.6%	0	0.0%
MRC-3	48	0	0.0%	0.301	0.301	0.0%	1	2.1%	0	0.0%
MRC-4	31	0	0.0%	0.409	0.409	0.0%	0	0.0%	0	0.0%
MRC-5	37	1	2.7%	0.594	0.592	-0.3%	0	0.0%	0	0.0%
MRC-6	15	0	0.0%	0.827	0.831	0.5%	1	6.7%	0	0.0%
MRC-7	18	0	0.0%	1.208	1.210	0.2%	0	0.0%	0	0.0%

Table 10-10: SRM analysis for 2018's LAR 15-84 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
MRC-2	333	1	0.3%	0.201	0.202	0.5%	7	2.1%	0	0.0%
MRC-3	91	0	0.0%	0.301	0.303	0.7%	1	1.1%	0	0.0%
MRC-4	78	0	0.0%	0.409	0.409	0.0%	0	0.0%	0	0.0%
MRC-5	81	0	0.0%	0.594	0.593	-0.2%	0	0.0%	0	0.0%
MRC-6	40	0	0.0%	0.827	0.830	0.4%	0	0.0%	0	0.0%
MRC-7	56	0	0.0%	1.208	1.211	0.2%	0	0.0%	0	0.0%

Table 10-11: SRM analysis for 2019's AER 01-03 / ATR 01-104 / TAR 01-13 campaign

SRM Type	SRM Assays	Mistakes Acceptable <5%		BV %TCu	AV %TCu	Bias Acceptable <5%	Outliers Acceptable <5%			
							BV±2SD		BV±3SD	
		#	%				#	%	#	%
MRC-2	71	0	0.0%	0.201	0.201	0.0%	1	1.4%	0	0.0%
MRC-3	22	2	9.1%	0.301	0.307	2.0%	2	10.0%	0	0.0%
MRC-4	21	0	0.0%	0.409	0.411	0.5%	0	0.0%	0	0.0%
MRC-5	19	0	0.0%	0.594	0.596	0.3%	0	0.0%	0	0.0%
MRC-6	10	0	0.0%	0.827	0.833	0.7%	0	0.0%	0	0.0%
MRC-7	30	0	0.0%	1.208	1.189	-1.6%	3	10.0%	0	0.0%

Table 10-12: SRM analysis for 2019's ATD 01-13 / LAD 01-09 campaign

The change of SRM provider and its preparation methodology allowed for better accuracy control in recent campaigns, reducing to 6 the amount of SRMs used, and increasing as a result the number of samples inserted in each campaign. This, in turn, has led to more reliable SRM analyses, although there are still instances (outliers of MRC-6 in table10-8) where assays are not enough to point out a problem with certainty.

A couple of additional things to note are the increased insertion rate to 1 every 25 samples for RC drill holes, which isn't much of a problem with large datasets, but could lead to uncertainty in shorter campaigns, as well as the number of MRC-2 samples, which is unusually high compared to other materials, probably due to availability.

In any case, these recent campaigns show, without much doubt, very good accuracy (bias %) and precision (outliers %). Figures 10-9, 10-10 and 10-11 present Shewart charts for MRC-2.

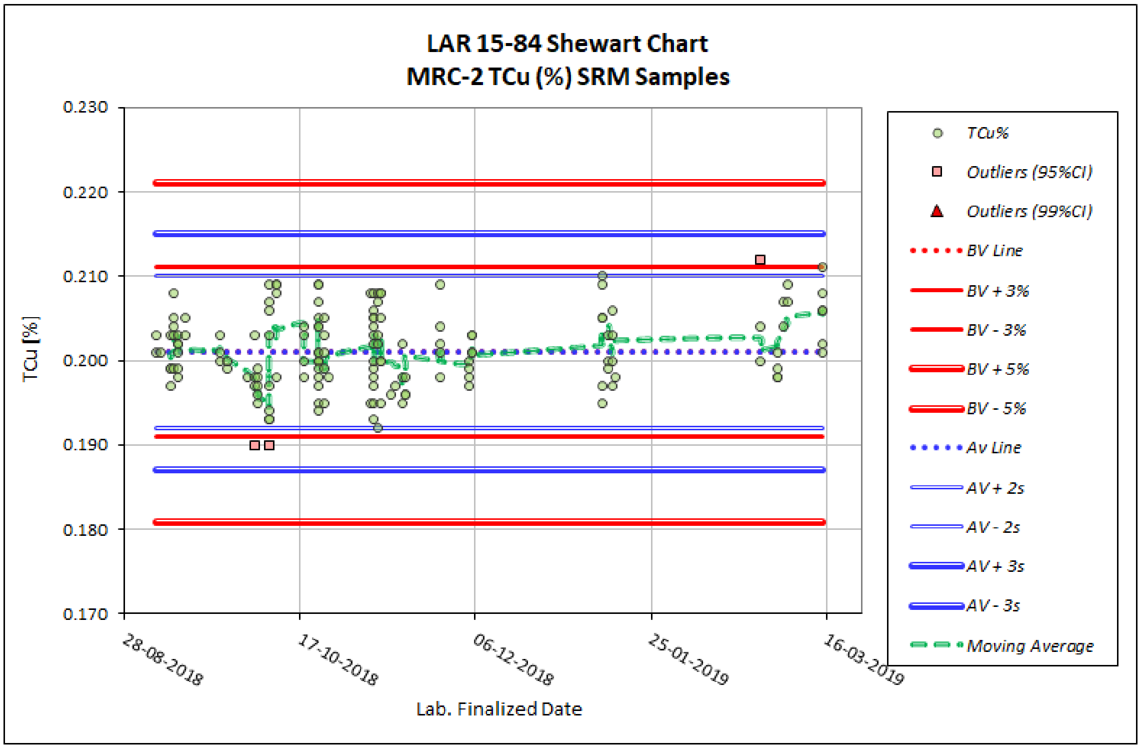


Figure 10-9: Shewart chart for material MRC-2 in 2018's LAR 15-84 campaign

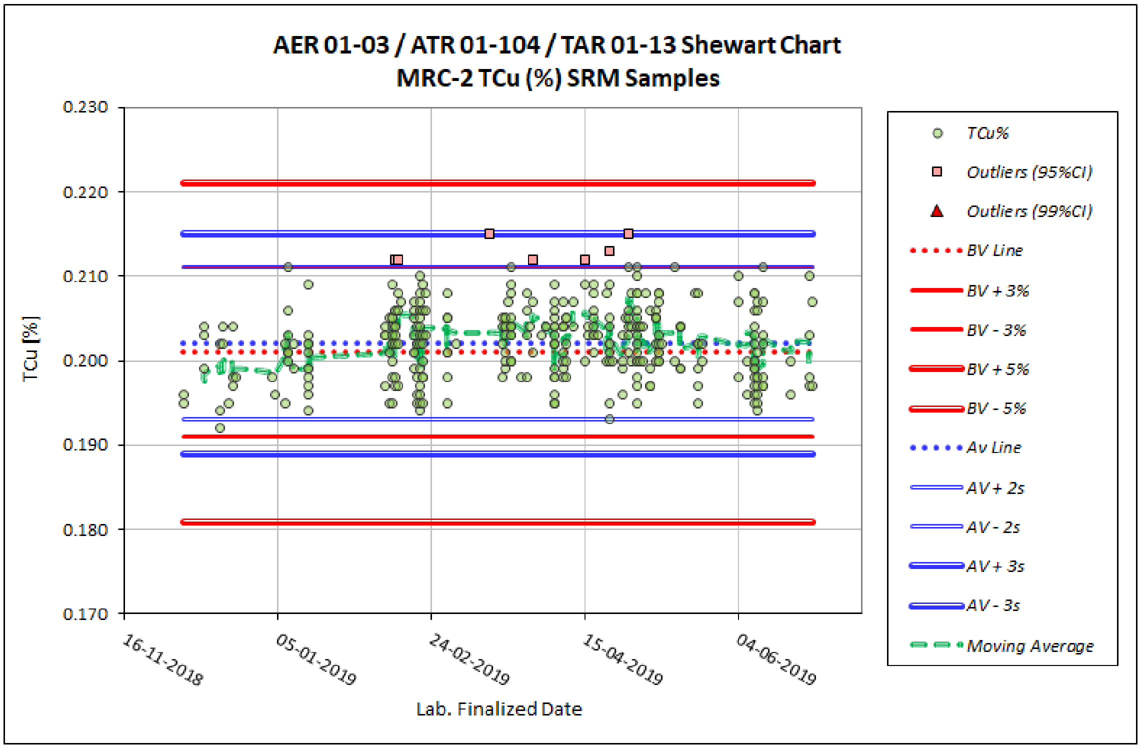


Figure 10-10: Shewart chart for material MRC-2 in 2019's AER 01-03 / ATR 01-104 / TAR 01-13 campaign

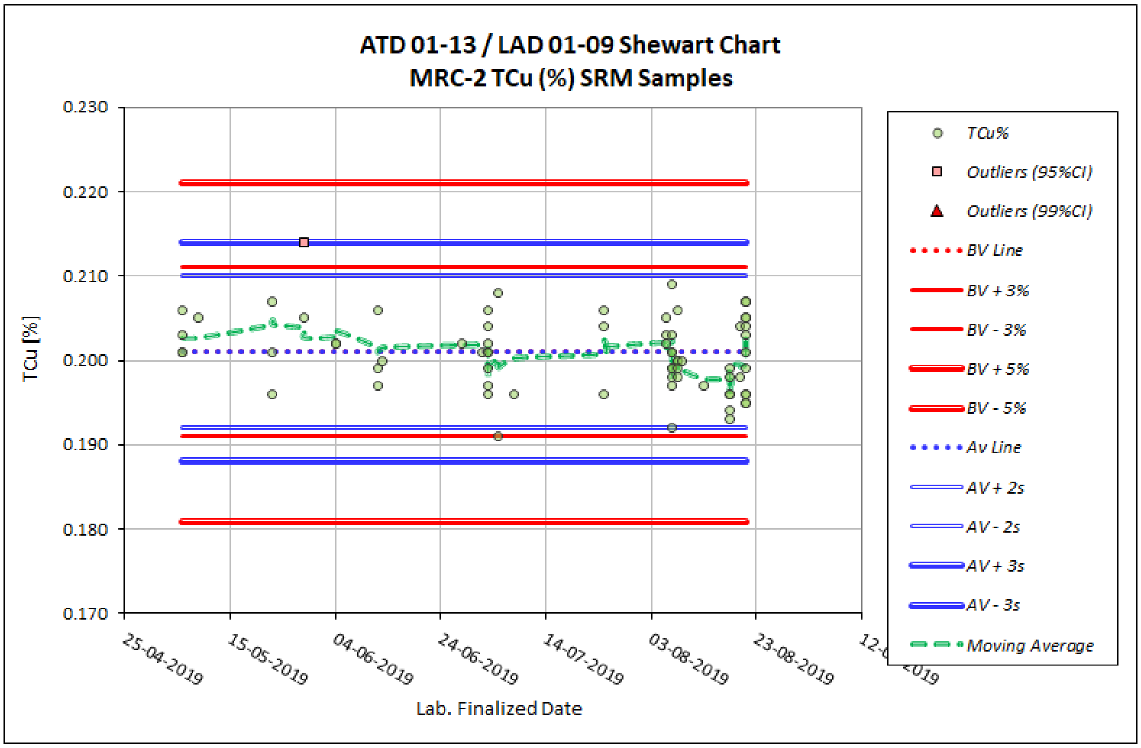


Figure 10-11: Shewart chart for material MRC-2 in 2019's ATD 01-13 / LAD 01-09 campaign

In conclusion, the SRM analysis shows very good accuracy and precision, despite observations made to earlier campaigns regarding uncertainty in some of their results, methodological shortcomings which have been properly rectified in the development of later campaigns. In addition, it's important to note that MCAL have protocols in place for handling analytical results on standards that exceed acceptable limits, which ultimately can trigger re-assays of entire or portions of sample batches

NCL recommends continuing use of a limited number of SRMs prepared from local samples, inserted at appropriate rates and in statistically significant quantities for each material, in order to maintain or improve reliability in their quality control results.

10.4.3 Duplicate Sample Analysis

Preparation (PRD) and pulp duplicate (PUD) samples were inserted consistently in every campaign, with the exception of the pilot (see check samples), at an approximate rate of 1 every 15 samples, adding up to 2750 PRD samples and 2822 PUD samples, and of 1 every 10 samples for DDH, adding up to 477 PUD samples.

NCL's duplicate sample review begins with a relative error (RE) analysis, calculating the absolute percentage value of 2*(OA-DA)/(OA+DA), where OA refers to the original assay and DA to the duplicate assay values. Relative errors should generally remain below 20% for PRD pairs and below 10% for PUD pairs. Next is the practical detection limit (PDL), obtained by plotting OA values against their corresponding RE and identifying the approximate value where low-grade assays curve upward approaching a vertical limit near the reported detection limit (RDL). This value is the PDL, it's generally slightly higher than the RDL and represents a more realistic detection limit, given the reduced precision of the analytical test at lower grades. Finally, duplicate pairs are validated following the hyperbolic method, plotting them against a hyperbolic function dependent on constants calculated from the PDL and the maximum tolerable RE for each duplicate type. This function acts as an acceptability boundary which compensates for higher RE at lower grades. Failed pairs should remain below 10% of all duplicate samples.

Table 10-13 summarizes results for duplicate samples in all campaigns. Validation plots are only provided for campaigns MAR 17-54 and LAR 15-84 to due to its relevance, and in order to limit this chapter's extension.

Campaign	**Duplicate Type**	**Duplicate Pairs**	**AV %TCu**		**% Variance Acceptable <5%**	**Mean Relative Error**	**Failed Pairs Acceptable <10%**	
			Orig.	**Dup.**			**#**	**%**
MAR 17-54	PRD	270	0.304	0.296	**-2.8%**	**12.1%**	16	**5.9%**
	PUD	275	0.298	0.298	**0.2%**	**5.4%**	5	**1.8%**
MAD 01-06	PUD	96	0.545	0.545	**0.0%**	**3.9%**	2	**2.1%**
MAR 55-111	PRD	381	0.407	0.404	**-0.7%**	**7.9%**	7	**1.8%**
	PUD	416	0.394	0.394	**-0.2%**	**3.9%**	5	**1.2%**
MAD 07-16	PUD	105	0.711	0.713	**0.2%**	**2.6%**	1	**1.0%**
LAR 01-14	PRD	105	0.246	0.254	**3.3%**	**4.9%**	2	**1.9%**
	PUD	126	0.243	0.243	**-0.1%**	**2.7%**	2	**1.6%**
MAR 112-124	PRD	102	0.124	0.122	**-1.7%**	**5.3%**	2	**2.0%**
	PUD	132	0.121	0.122	**0.7%**	**4.6%**	1	**0.8%**
LAR 15-84	PRD	574	0.166	0.166	**-0.3%**	**5.9%**	8	**1.4%**
	PUD	539	0.169	0.169	**0.1%**	**3.4%**	6	**1.1%**
AER 01-03 ATR 01-104 TAR 01-13	PRD	1318	0.212	0.211	**-0.9%**	**5.7%**	21	**1.6%**
	PUD	1334	0.204	0.205	**0.8%**	**3.5%**	25	**1.9%**
ATD 01-13 LAD 01-09	PUD	276	0.365	0.367	**0.4%**	**3.0%**	4	**1.4%**

Table 10-13: Duplicate sample analysis for all drilling campaigns

All campaigns show very good precision and insertion rates that far exceed industry requirements. Even though drilling campaign MAR 17-54 is not as good as the rest in terms of percentage of failed pairs and RE (Table 10-10), it's still well within acceptability boundaries. As mentioned in the check sample analysis, the pilot drilling campaign (MAR 01-16) lacks the necessary control program along the check samples, so it can't be analyzed for precision. Despite this, and just like in that case, the strong assay correlation between laboratories hints at a good reproducibility, though it would be ideal to test this appropriately.

In addition, it's important to note that field duplicates (FID) weren't considered for any campaign, which means that the first split right after drilling isn't being properly controlled. It would be preferable to reduce current PRD and PUD insertion rates to 1 every 25 samples each and to introduce FID at the same rate, so as to maintain the total amount of duplicates inserted without affecting the amount of PRD and PUD considerably.

Figures 10-12, 10-13, 10-14 and 10-15 present validation plots for PRD and PUD of campaigns MAR 17-54 and LAR 15-84.

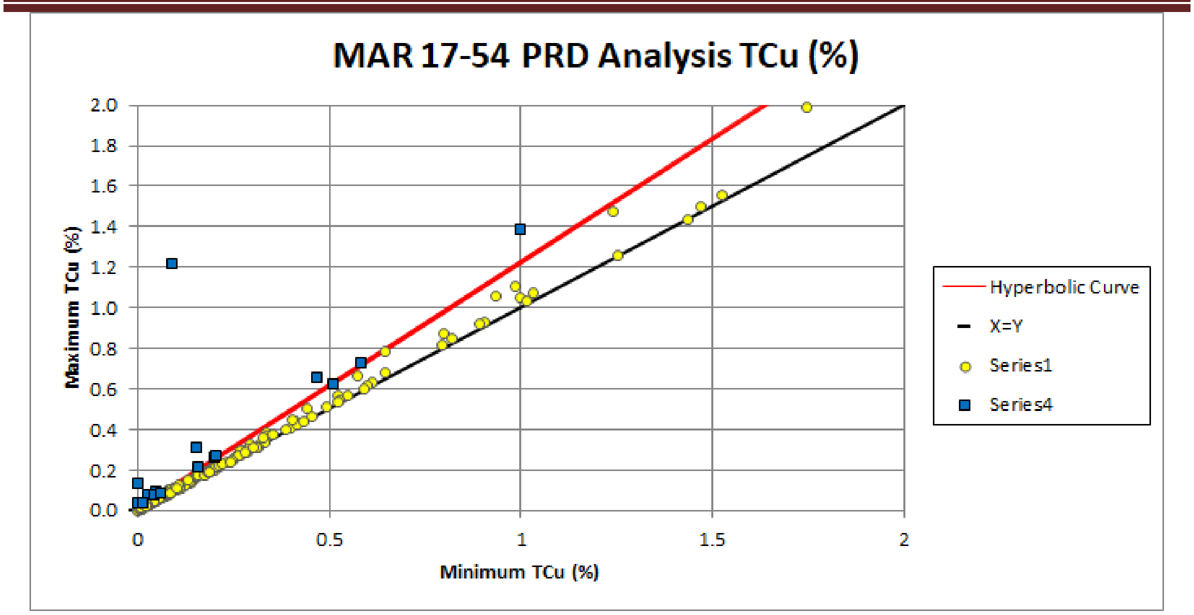


Figure 10-12: Validation plot for PRD samples in 2016's MAR 17-54 campaign

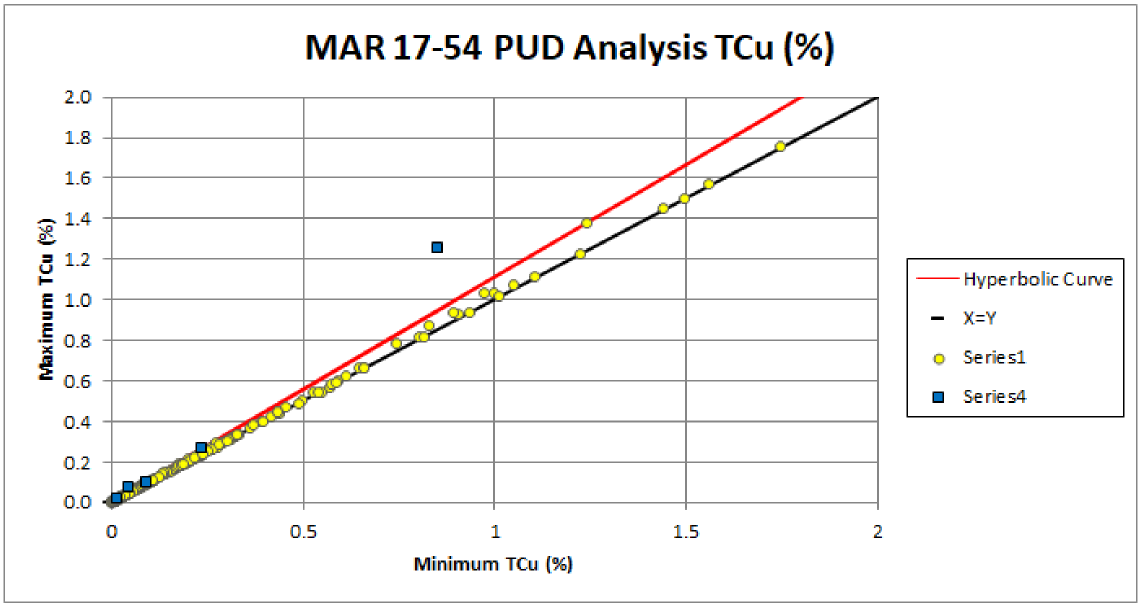


Figure 10-13: Validation plot for PUD samples in 2016's MAR 17-54 campaign

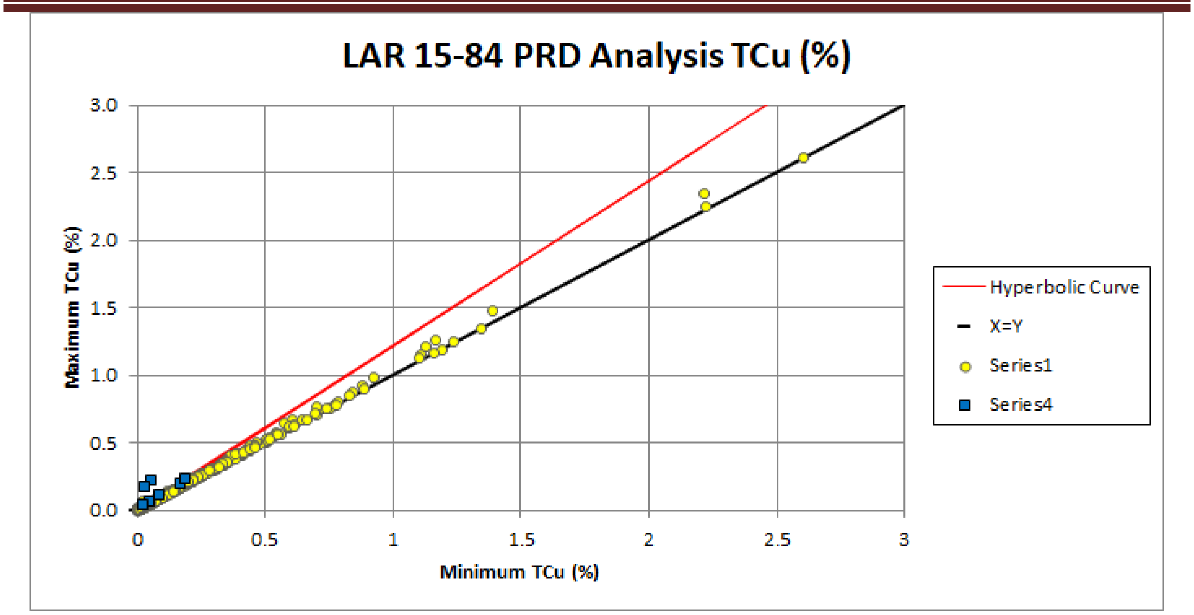


Figure 10-14: Validation plot for PRD samples in 2018's LAR 15-84 campaign

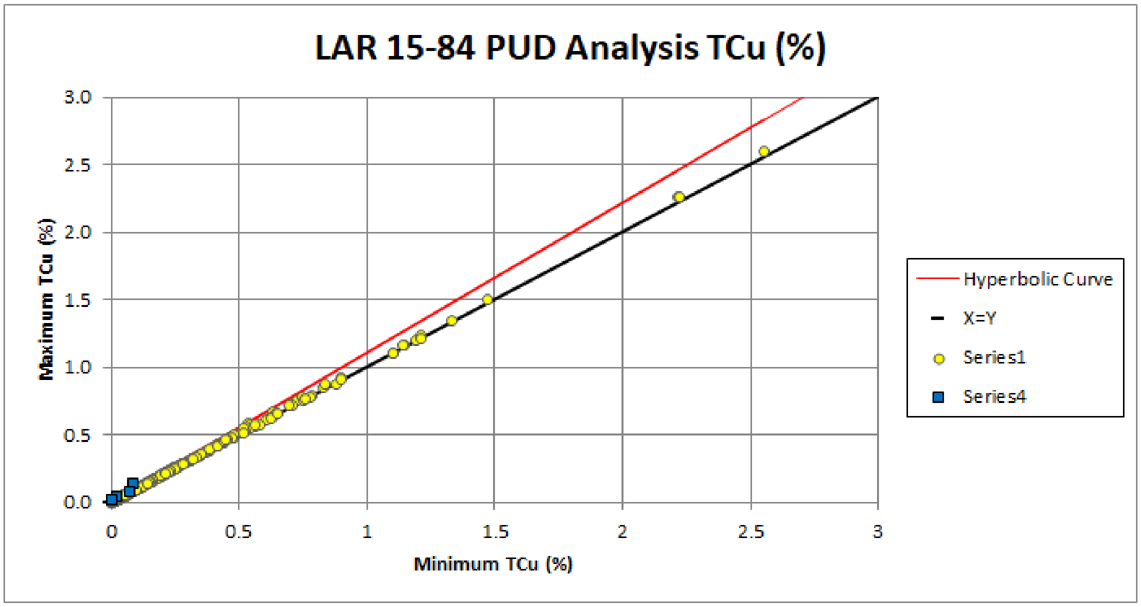


Figure 10-15: Validation plot for PUD samples in 2018's LAR 15-84 campaign

In conclusion, the duplicate sample analysis shows very good precision with virtually no concerns, save for the lack of duplicates in the pilot drilling campaign, an issue moderately mitigated thanks to the strong correlation between check samples. NCL recommends considering the insertion of FID samples in future campaigns.

10.4.4 Blank Sample Analysis

Information received by NCL did not include a database of blank samples for the 2016-2017 campaigns, and upon questioning, MCAL confirmed that they did not use this type of control. Since 2018, 912 fine blanks (FBL) have been inserted in the form of a very low grade SRM (MRC-1, with 0.006% TCu), at an approximate rate of 1 every 30 samples for RC drill holes and of 1 every 45 samples for DDH. This is technically not a blank because it doesn't have a copper grade below the reported detection limit (RDL), which is usually 0.001% TCu in standard AAS tests, but it's sufficiently close to the RDL to treat it as such.

NCL's blank sample review is done by plotting a time series of blank assay values against an acceptability limit of 3-5 times the RDL. As with SRMs, outliers should remain below 5% of all samples. Since MRC-1 is a slightly higher value "blank", it seems reasonable to use the lower factor (3*RDL) and the acceptability limit as a window of ±3*RDL (±0.003% TCu) from the best value (BV) of the SRM. If there's an unacceptable outlier percentage, blank assay values are plotted against their corresponding previous sample values in an RMA regression, to look for a correlation (high R2 value) that would imply systematic error and thus contamination during sample preparation (CBL) or assaying (FBL).

Table 10-14 and Figures 10-16, 10-17 and 10-18 summarize results for blank samples in the two most recent campaigns.

Campaign	**Blank Type**	**Blank Assays**	**Outliers Acceptable <5%**	
			BV±3DL	
			#	**%**
LAR 15-84	FBL (MRC-1)	277	0	**0.0%**
AER 01-03 ATR 01-104 TAR 01-13	FBL (MRC-1)	582	3	**0.5%**
ATD 01-13 LAD 01-09	FBL (MRC-1)	53	2	**3.8%**

Table 10-14: Blank sample analysis for 2018-2019 campaigns

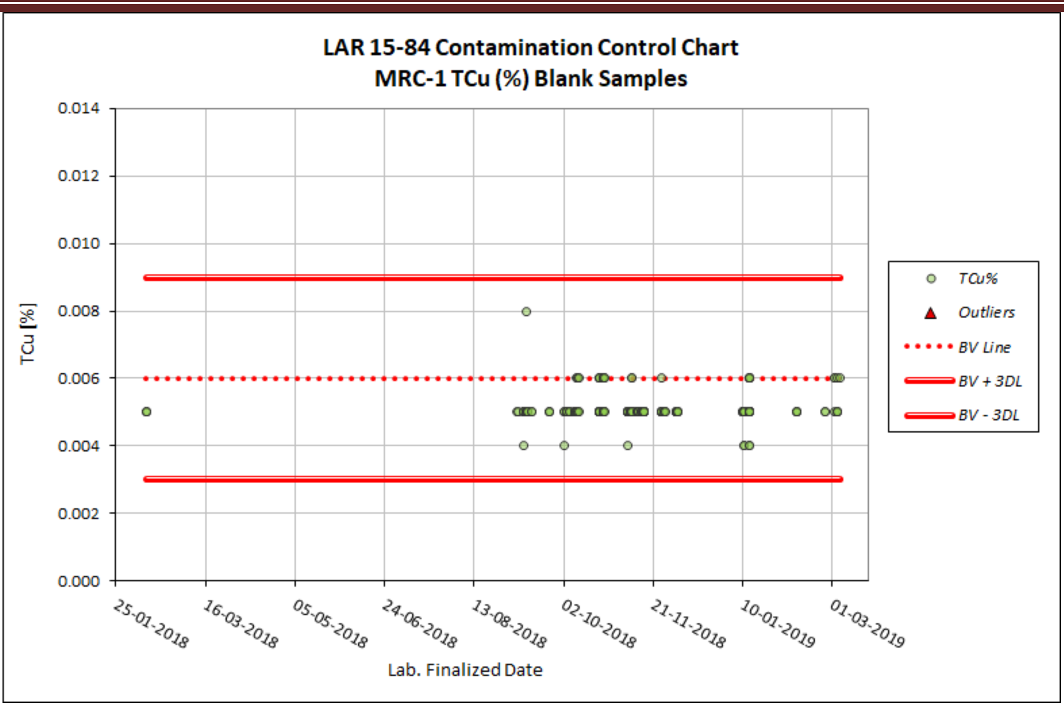


Figure 10-16: Contamination chart for material MRC-1 in 2018's LAR 15-84 campaign

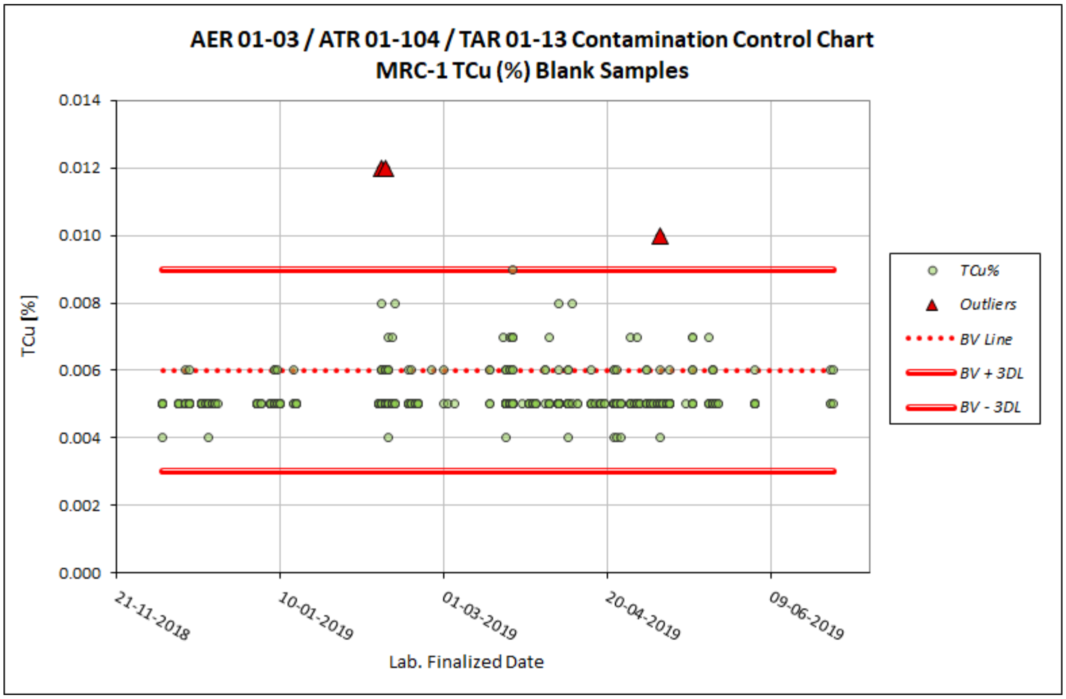


Figure 10-17: Contamination chart for material MRC-1 in 2019's AER 01-03 / ATR 01-104 / TAR 01-13 campaign

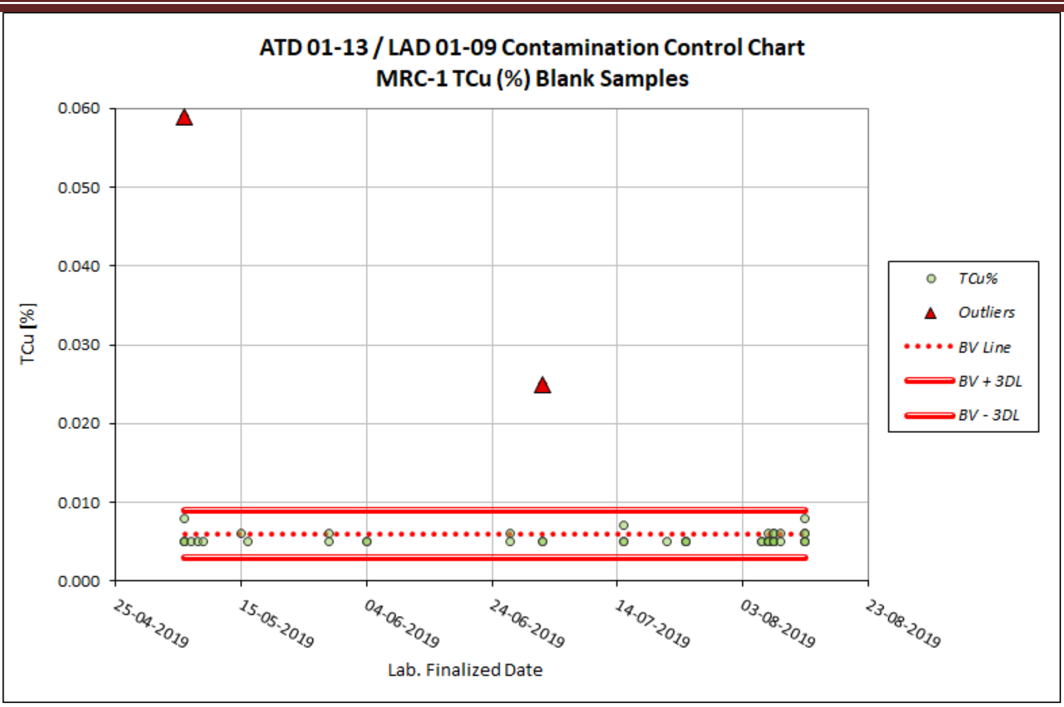


Figure 10-18: Contamination chart for material MRC-1 in 2019's ATD 01-13 / LAD 01-09 campaign

These campaigns show very good results, with no apparent signs of contamination, and more than reasonable insertion rates. The lack of blanks in previous campaigns can be relatively mitigated by reviewing the quality controls performed and reported by the laboratory. NCL had access to the QA/QC protocols of GLQ and to the reports of AAA and both laboratories seem to have well-structured quality control measures in place, including the insertion of blank samples.

In addition, it's important to note that coarse blanks (CBL) weren't considered for any campaign, which means that potential contamination during sample preparation isn't being properly controlled. It would be preferable to reduce current FBL insertion rates to 1 every 50 samples and to introduce CBL at the same rate, so as to maintain the total amount of blanks inserted without affecting the amount of FBL considerably.

In conclusion, the blank sample analysis shows no evidence of contamination. The lack of blank samples in previous campaigns, while not irrelevant, is of moderate to low concern, especially after reviewing the quality controls performed and reported by both laboratories. Adding this to the fact that the SRM and duplicate sample analyses performed very well, it seems reasonable to infer that there's low probability for contamination in campaigns missing blanks.

Having stated this, NCL recommends testing previous campaigns for contamination through short re-assay programs of at least some of the drillholes, sent to an umpire laboratory with proper control samples. Insertion of CBL samples, as well as the use of proper blanks, in future campaigns is also recommended.

10.5 Sample Security

All drilling assay samples are collected by company personnel or under the direct supervision of company personnel. Samples from Marimaca were processed at the project site and shipped directly from the property to the laboratory.

Assay samples are collected by appropriately qualified staff at the laboratories. Sample security involved two aspects: maintaining the chain of custody of samples to prevent unnoticed contamination or mixing of samples and rendering active tampering as difficult as possible.

During the site visit, NCL found no evidence of active tampering or contamination of assay samples collected in the Marimaca properties.

10.6 NCL Comments

Luis Oviedo on behalf of NCL reviewed the field procedures and performed their own extensive analytical quality control with data provided by MCAL. In the opinion of NCL, company personnel used care in the collection and management of the field and assaying exploration data. Based on reports and data available, NCL has no reason to doubt the reliability of exploration and production information provided by MCAL. The reports and analytical results projected by NCL suggest that, apart from minor to moderate concerns noted in the 2016-2017 campaigns, analytical results delivered by the laboratories used by MCAL are free of apparent bias.

11 DATA VERIFICATION

11.1 Verifications by Coro

The exploration and production work completed by Coro is conducted using documented procedures and involved verification and validation of exploration and production data, prior to consideration for geological modelling and Mineral Resource estimation. During drilling, experienced geologists implemented industry standard measures designed to ensure the consistency and reliability of the exploration data.

Quality control failures are investigated and appropriate actions are taken when necessary, including requesting re-assaying of certain batches of samples.

11.2 Verifications by NCL

In accordance with National Instrument 43-101, professionals under the supervision of NCL visited the Marimaca properties on December 6 -7, 2016, accompanied by Sergio Rivera, Exploration Vice president of Coro. The team included Ricardo Palma, P. Eng. and Luis Oviedo P. Geo. qualified to National Instrument 43-101. NCL carried out a new site visit in August 2019, to verify the changes produced by the new drill program. The biggest changes were the quality of the resource because of the densification of the drilling, with a substantial increment in Measured and Indicated resources and the total volume of the resource.

During the visits, all aspects that could impact materially the integrity of the drillhole and sampling databases (core logging, sampling, and database management) were reviewed with Coro staff. NCL was able to interview staff to ascertain exploration procedures and protocols.

NCL toured the Marimaca area and observed diamond and RC drill sites, collars and field status of the demarcations, and examined core from a number of drillholes, finding that the logging information accurately reflects actual core. The lithology and grade contacts checked by NCL match the information reported in the core logs.

Luis Oviedo on behalf of NCL reviewed the drill hole databases for the preparation of this technical report and concluded that it is adequate to produce the block models, tonnage and grade evaluations to a satisfactory degree.

NCL also completed statistical comparisons of the block models' global grade against the informing drilling data and visually compared on plans and sections the block models against the informing samples to confirm that the estimations are generally an adequate representation of the distribution of the copper mineralization.

12 MINERAL PROCESSING AND METALLURGICAL TESTING

Two campaigns of column test work had been carried out on four types of material of leachable copper oxide mineralization from Marimaca1-23. The first exploratory campaign considered all the works for determining the characterization of material including granulometry, sulphidation and Iso-pH test, and a duplicated 7x1m columns test, and the spent mineral characterization. The second campaign was aimed at confirming previous results in taller columns test of 2,5 meters height and to determine impurity leaching solutions as Mg, Mn, Al and Fe levels.

The above preliminary results shows that for oxides (subzones Brochantite, Chrysocolla and Wad) material, it is possible to obtain recoveries ranging from 68 to 83% depending on the copper grade and solubility and a net acid consumption is about 35kg/t mineral.

A new program of metallurgical test, oriented the characterize oxide mineralization zones from the extended resource area towards Atahualpa and La Atómica areas is actually ongoing. This program includes chemical characterization, Iso-pH test and mini-columns, using sea water and under conventional acid and chloride medium especially for the secondary sulphides and mixed mineralization. The program will continuous testing 1.5 m high columns for the main mineralization types and also 1 m high containers for tests for low grade, ROM size material. All this results will improve the economic parameters from the subsequent PEA study.

13 MINERAL RESOURCE ESTIMATES

13.1 Introduction

This section outlines the Mineral Resource estimation methodology utilized and summarizes the key assumptions adopted for the generation of the Mineral Resource models.

Mineral Resources were estimated for the deposit located on the Marimaca property, which will be mined by open pit methods.

The Marimaca open pit Mineral Resource model was generated by NCL Total Copper (CuT) and Soluble Copper (CuS) grades were estimated for the portion of the deposit covered by the Mineral Zones solid model described in Chapter 6 of this report, which most likely will be mined by open pit methods. The Marimaca open pit Mineral Resource model was generated by NCL.

In the opinion of NCL, the resource evaluation reported herein is a reasonable representation of the Mineral Resources found on the Marimaca project at the current level of sampling. The Mineral Resources have been estimated in conformity with generally accepted CIM Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines and are reported in accordance with Canadian Securities Administrators' National Instrument 43-101.

Mineral Resources are not Mineral Reserves and have not demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserve.

13.2 Geological Interpretation and Modeling

Rock-Structure and Mineral Zone distribution was interpreted by MCAL geologist using hand-paper traditional method on vertical cross sections oriented NE, NW and EW, at 1:1,000 metric scale (see examples in Figures 13-1 and 13-4). Most of the deposit area was covered by a set of 50 m spaced sections excepting the NE margin and the EW sections set (Figs 13-2 and 13-5).

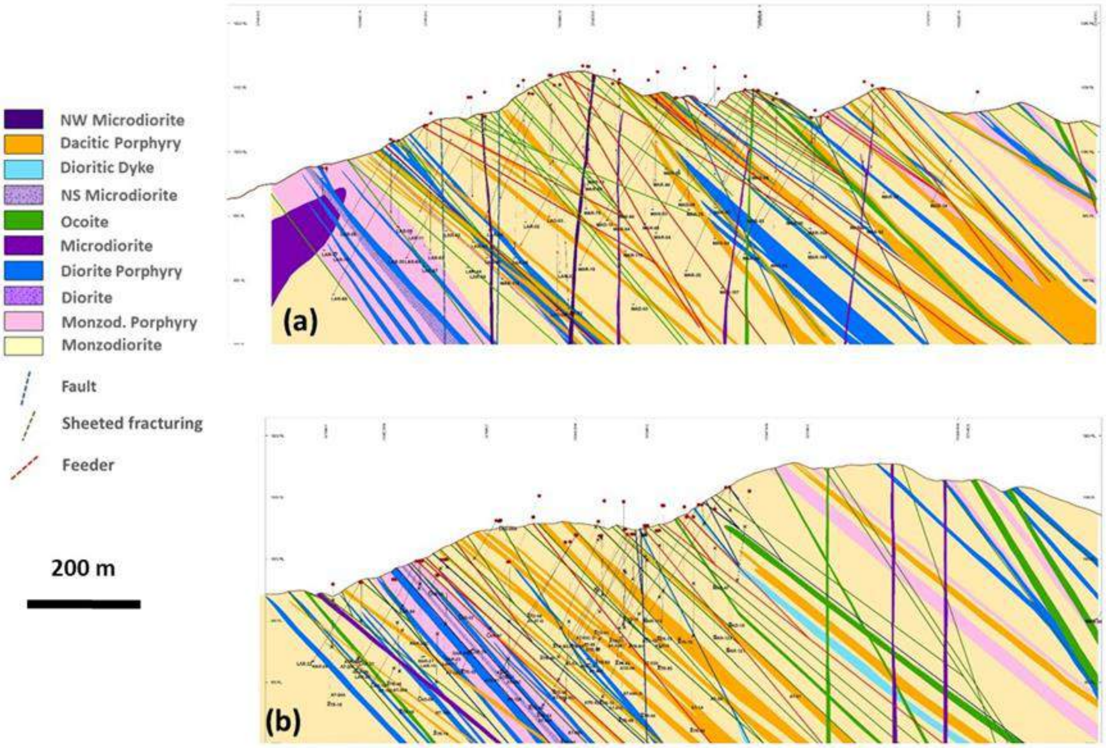


Figure 13-1: Lithological and Structural Interpretation. Sections NW 400 (a) and NW 650 (b) (Legend same as Fig 6.7)

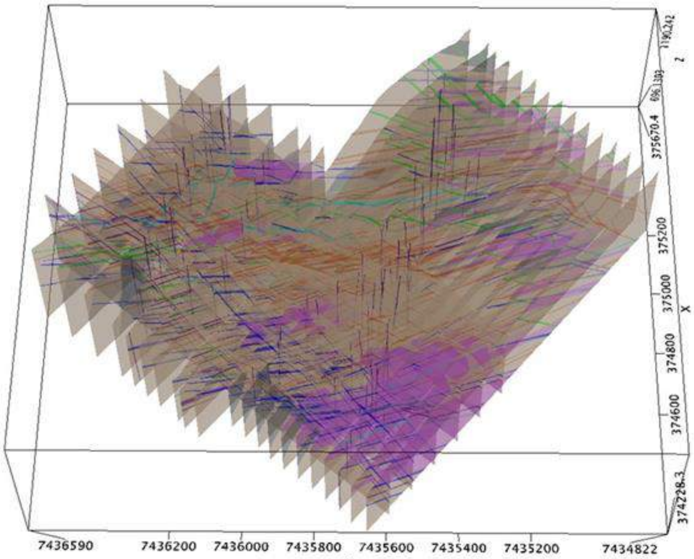


Figure 13-2: Lithology & Structure Section Integration

The order of interpretation was litho-structure first and then the mineral zone into transparent overlays. The mineral zone interpretations were later used as MRE domains. The lithological units and structural interpretations were based primarily on the detailed surface geology map, as well as underground mine workings maps (Figure

6-7) with drillhole logging as support, as well as anisotropies identified in structural analyses. The mineral zones interpretation was based primarily on the drillhole logging.

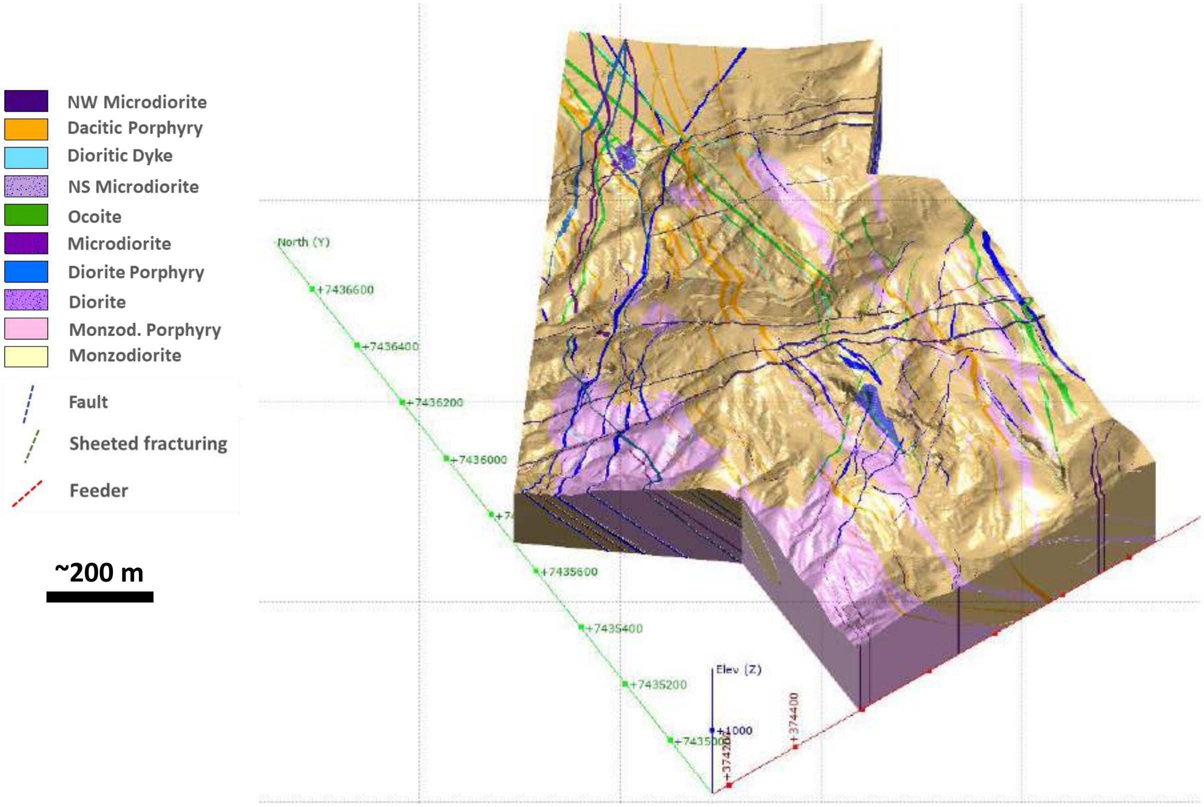


Figure 13-3: 3D Lithological Model built in Leapfrog Geo. (Legend same as Figure 6-7) The 3D models for litho-structure (Figure 13-3) and mineral zone were ensemble in Leapfrog ™ using sections and drill hole data by Atticus Geo.

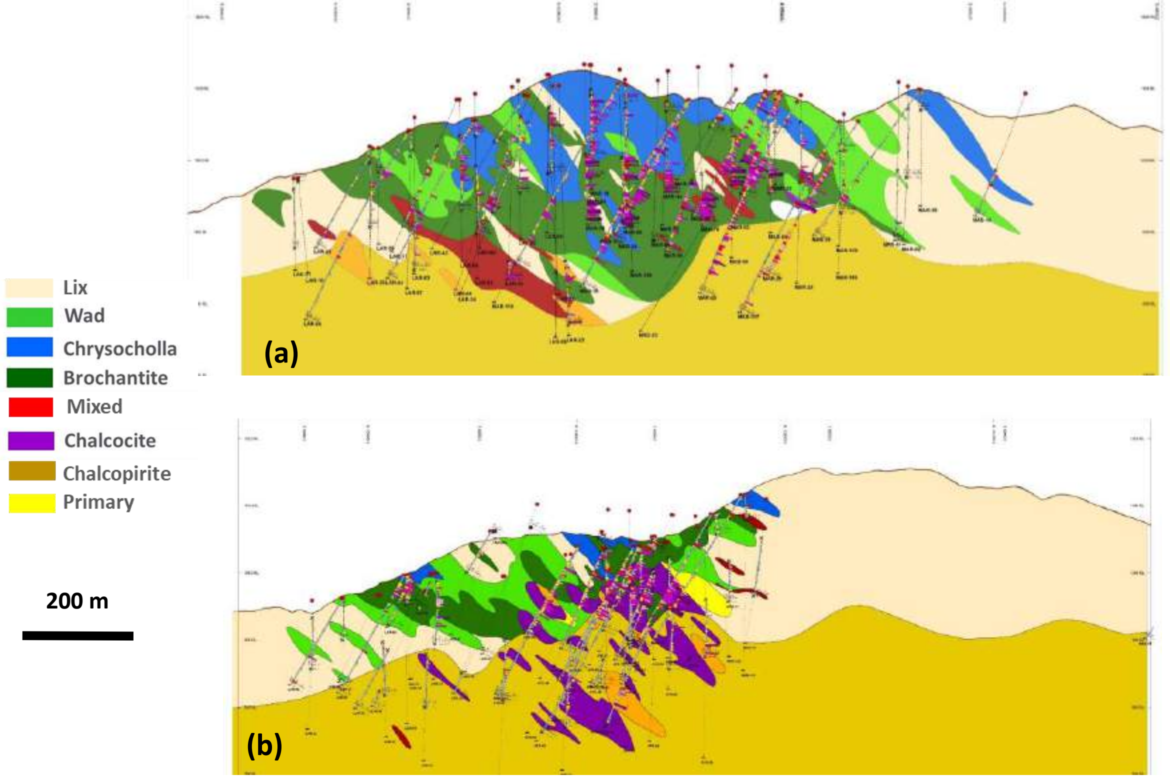


Figure 13-4: Mineral Zones Interpretation, Sections NW 400 (a) and NW 650 (b) (Legend same as Fig 6-8)

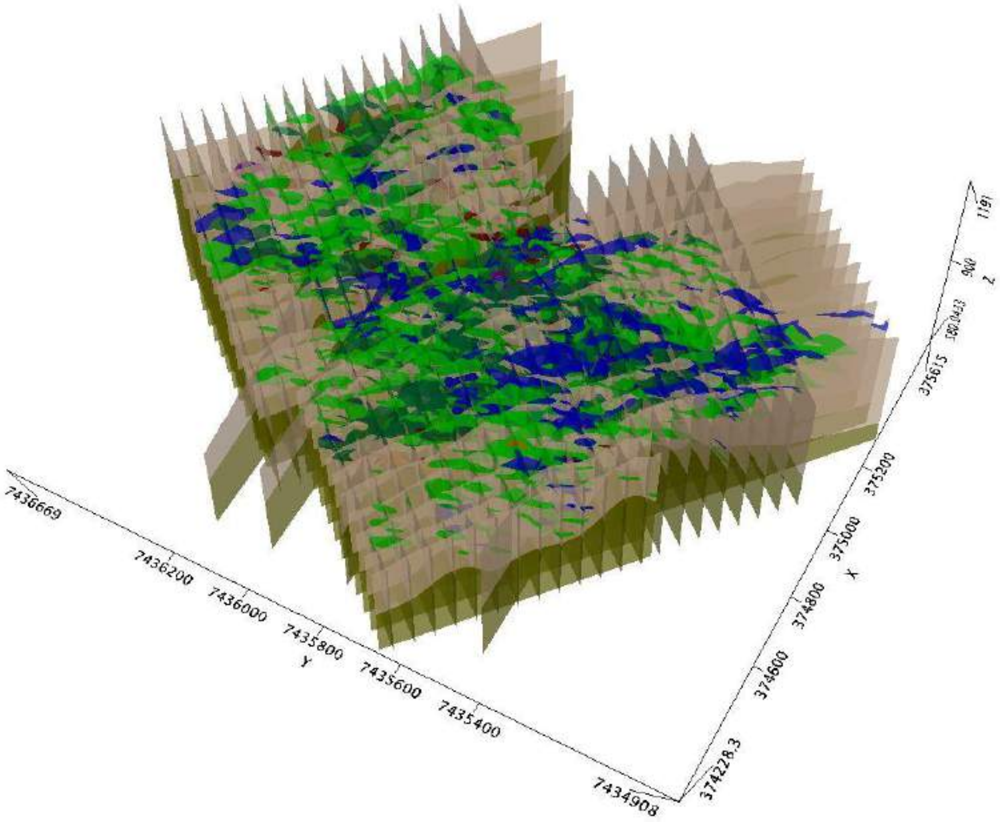


Figure 13-5: Mineral Zones Section Integration

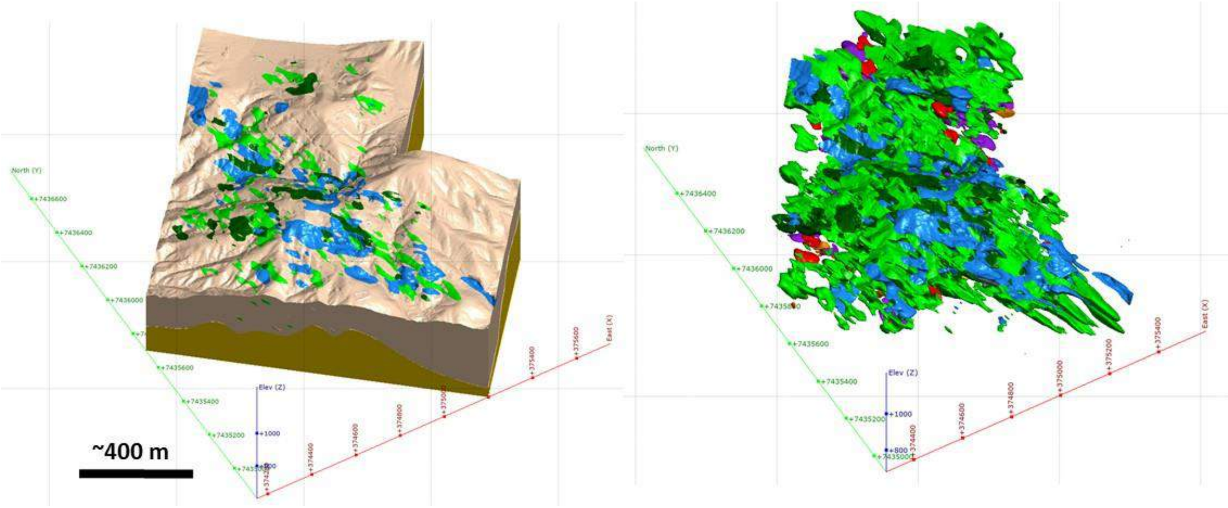


Figure 13-6: 3D Mineral Zones Model built in Leapfrog Geo (Legend same as Fig 6-8)

After comparing the Marimaca Mineral Resource model against the informing composites and the statistics of the model, NCL concludes that the modeling approach produced a reasonable and reliable model.

13.3 Resource Estimation Procedures

In order to build the resources model of the Marimaca deposit and generate the resource estimate, the following stages were developed:

- Analysis of exploration data and definition of the estimation populations.
- Validation of three-dimensional solids to the defined populations.
- Statistical analyses of the composites of the different variables in each population.
- Variography and anisotropy analyses. Definition of preferential directions, calculation and adjustment of variograms per population and elements to be estimated.
- Detection and treatment of outliers.
- Definition of the Block Model.
- Definition of the estimation strategy and Kriging plans per element and population.
- Estimation of grades for each element of each population.
- Categorization of resources.
- Validation of the Model through:
    - Comparative statistics between composites and estimated blocks.
    - Analyses of smoothing of grades.
    - Moving window analyses of composites and blocks estimated in different directions and Nearest Neighbor comparison
    - On screen validation.
- Final Report of the geological resources by category.

13.4 Database

Coro has executed three main drilling campaigns in the area to date; the first two correspond to the exploration, delineating and further infill drilling of the Marimaca 1-23 southern part of the deposit, and the most recent exploration and delineation campaign of the western and northern extension of the copper oxide mineralized blanket. The following are summarized exploration tasks to date:

- 2015: geological surface reconnaissance as well as an UAV flight for orthorectification image and a detailed topographic map. Image processing was performed to emphasize lithology, structures, distribution of iron oxides and alteration. A geochemical rock grid spaced at 100 x 100 m was completed and assayed for Cu. A magnetic survey was done using Mag-Drone™ technology.

- 2016: RCH and DDH drilling campaigns were performed, the first one was discovery drilling totaling 15 RC holes; 2,710 m. In light of the good results, a 100 x 100 m grid for drilling was completed, using two orientations controlled to cut the primary and secondary structural directions of the mineralization. A total of 8,910 m of RC drilling in 39 holes and another 2,008 m of DDH in 6 holes was completed. With these results, the first resource estimation exercise was done, published in January of 2017 (NCL, 2017).

- 2017: drilling has been performed following the two orientations in a 50 x 50 m Infill Program. A total of 11,928 m RC in 59 holes was drilled. Another 820 m in 4 PQ drill holes for metallurgical purposes was added and a further 1,230 m in 6 holes with HQ3 methodology for geotechnical purposes was completed.

- At the end of 2017 another 11 RC holes totaling 2,950 m were drilled to explore the NE extension of the Marimaca style mineralization always inside the mining concession; and because at this time the La Atómica 1-10 concesion was optioned a first set of 14 RC holes totaling 3,220 m discovery holes were completed

- 2018-2019 following the mining property consolidation, towards north with the acquisition of the Atahualpa and Olimpo mining concesions group, the so called Phase II of drilling oriented to the discovery confirms the extension of the oxide body and his delineation was successfully completed, by means the drilling of 70 RC, 16,150 m and 9 DDH, 2,203 m at La Atómica 1-10 and 138 RC holes, 36,366 m and 14 DDH´s, 2,715 m at Atahualpa and Tarso sectors.

- Starting in 2017 an intensive program of 1:5,000 to 1:1,1000 metric scale detailed and systematic geologic mapping program has been carried out on most of the interest area.

- At the same time underground workings and road cuts has been mapped and sampled.

The tonnage and grades from the previous and most recent exploration and delineation drilling and surface-subsurface geologic work has been integrated and these results are included in this report.

The NI 43-101 2019 MRE was updated with the results of the infill program executed in the 2017 at Marimaca 1-23, and expanded with the 2018-2019 totaling 385 drill holes, 346 RC (82,234) and 39 DDH (8,976 m).

	Total	RC	DDH
# Drill	385	346	39
Drilled m	91,210	82,234	8,976
Total Sample	46,283	41,784	4,499

	Total		DDH		RC	
	# Samples	Meters	# Samples	Meters	# Samples	Meters
Samples with CuT>0	22,449	44,894	4,497	8,984	41,461	82,922
Samples with CuS>0	22,447	44,890	4,497	8,984	41,459	82,918

Table 13-1: Database General Information.

All samples without grade value in the database were eliminated prior to the resource modeling, also values labeled <0.001% were changed to 0.001% for both CuT and CuS.

The drilling, logging, sampling, analysis and recording information procedures are consistent with generally recognized industry best practices. NCL concludes that the samples are representative of the source materials and there is no evidence that the sampling process introduced any bias

Analytical samples for the Marimaca Mineral Resources were prepared and assayed in Andes Analytical Assay Laboratories at Calama (sample preparation) and Santiago (assaying) for the Phase II drilling, and at Geolaquim Laboratory in Copiapó for the Phase I, both internationally certified for copper analyses. Conventional preparation and assaying procedures are used. Copper was analyzed by multi acid digestion and atomic absorption spectroscopy (AAS).

The security as was observed in the field and in the files appears to be well done and follows standard industry best practices.

Specific gravity was systematically measured on 562 core samples from the DDH campaigns. Coro implemented analytical quality control measures, consistent with generally accepted industry best practices. The analytical quality control program includes the use of control samples inserted with all samples submitted. The analytical quality control data was routinely monitored.

In the opinion of NCL, the analytical results are free of apparent bias. The sampling preparation, security, and analytical procedures used are consistent with generally accepted industry best practices and are therefore adequate to support Mineral Resource estimation.

13.5 Analysis of DDH vs RC Twin Holes

To validate the use of data from the DDH and RC exploration campaigns, samples close to 10m maximum, from both exploration campaigns 11 twin holes were compared. The GSLib getpairs routine was used for this work.

When comparing the averages of CuT and CuS grade of DDH and RC drilling it is observed that these averages are very similar and there is no global error. The table13-2 shows the average CuT and CuS, for DDH and RC drilling.

Range	Average (%)		Pairs
	CUT_RC	CUT_DDH	
0 - 10m	0.45	0.43	20228

Range	Average (%)		Pairs
	CUS_RC	CUS_DDH	
0- 10m	0.24	0.23	16210

Table 13-2: Shows average CuT vs Cus

When comparing the scatterplot of CuT and CuS from DDH and RC drilling, it is observed that the pairs of nearby samples have a high dispersion. However, this dispersion is typical of the deposit, since when cross-validating with the nearest neighbor, the same behavior is observed therefore it was concluded that the use of DDH and RC samples together does not introduce a bias in the data. Figure 13-7 shows the DDH and RC Scatter Plot, for CuT and CuS.

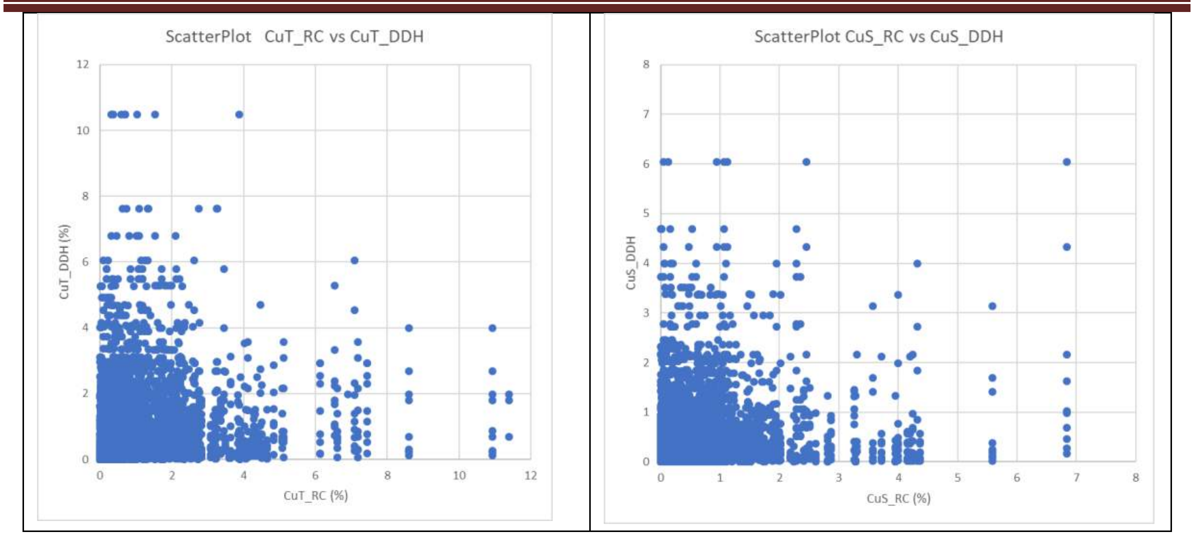


Figure 13-7: Scatter Plot CuT vs Cus.

Apart from this geostatistics comparisons a work done by Faundez (2019), found that the best correlation corresponds to the 220-azimuth group of drills. This direction corresponds with the most perpendicular to the NW trending fracture system controlling supergene mineralization trend. So, the direction that penetrate the mineralization trend in obliques way may not have so good correlations.

13.6 Sample Statistics

Samples from the database has been coded based on the 3D solids codes, according to the solid that contains the sample centroid. Tables 13-2 and 13-3 show the basic statistic per population, according to the original database codes and the new codes obtained from the 3D solids.

Statistic	Original Raw Data CUT						
	Brochantite	Chrysocolla	Enriched	Mixed	Wad Cu => 0.1	Wad Cu < 0.1	Chalcopyrite
N° Sample	4308	2894	1495	1220	4928	270	770
Mean %	0.683	0.515	0.614	0.691	0.233	0.072	0.682
Std. Dev.	0.781	0.476	0.946	1.220	0.186	0.025	1.244
Coef. of Var.	1.144	0.925	1.540	1.766	0.799	0.349	1.825
Maximum %	14.443	5.006	14.083	19.253	7.188	0.099	13.975
Upper Quartile %	0.827	0.618	0.613	0.674	0.265	0.095	0.642
Median %	0.450	0.375	0.296	0.315	0.178	0.076	0.256
Lower Quartile %	0.248	0.218	0.175	0.182	0.132	0.053	0.141
Minimum %	0.015	0.014	0.029	0.019	0.100	0.012	0.011

Statistic	Solid Coded Data CUT						
	Brochantite	Chrysocolla	Enriched	Mixed	Wad Cu => 0.1	Wad Cu < 0.1	Chalcopyrite
N° Sample	5706	3207	2596	1286	4789	3891	974
Mean %	0.637	0.472	0.430	0.469	0.298	0.065	0.480
Std. Dev.	0.910	0.545	0.760	0.882	0.438	0.077	1.016
Coef. of Var.	1.429	1.154	1.770	1.879	1.471	1.179	2.117
Maximum %	19.253	8.087	12.194	12.558	8.623	1.801	13.975
Upper Quartile %	0.751	0.576	0.454	0.437	0.311	0.080	0.448
Median %	0.383	0.303	0.197	0.196	0.195	0.048	0.172
Lower Quartile %	0.184	0.155	0.083	0.091	0.137	0.027	0.091
Minimum %	0.006	0.004	0.003	0.003	0.010	0.002	0.003

Table 13-3: Sample Statistic for CuT.

Statistic	Original Raw Data CUS						
	Brochantite	Chrysocolla	Enriched	Mixed	Wad Cu => 0.1	Wad Cu < 0.1	Chalcopyrite
N° Sample	4308	2893	1495	1220	4927	270	770
Mean %	0.544	0.401	0.079	0.255	0.117	0.025	0.035
Std. Dev.	0.722	0.426	0.111	0.531	0.149	0.017	0.057
Coef. of Var.	1.326	1.063	1.406	2.077	1.279	0.666	1.627
Maximum %	13.853	4.661	2.900	6.095	5.584	0.075	0.592
Upper Quartile %	0.652	0.484	0.091	0.237	0.135	0.034	0.038
Median %	0.321	0.270	0.048	0.118	0.076	0.021	0.018
Lower Quartile %	0.155	0.139	0.027	0.068	0.043	0.012	0.008
Minimum %	0.003	0.004	0.002	0.008	0.006	0.002	0.002
Statistic	Solid Coded Data CUS						
	Brochantite	Chrysocolla	Enriched	Mixed	Wad Cu => 0.1	Wad Cu < 0.1	Chalcopyrite
N° Sample	5705	3207	2596	1286	4788	3891	974
Mean %	0.467	0.356	0.090	0.128	0.162	0.026	0.031
Std. Dev.	0.704	0.459	0.211	0.264	0.294	0.053	0.061
Coef. of Var.	1.506	1.290	2.350	2.058	1.819	2.033	1.929
Maximum %	13.853	6.316	4.246	3.189	6.095	1.542	0.718
Upper Quartile %	0.564	0.437	0.085	0.124	0.172	0.027	0.031
Median %	0.251	0.214	0.036	0.052	0.088	0.013	0.014
Lower Quartile %	0.095	0.088	0.014	0.017	0.045	0.006	0.006
Minimum %	0.001	0.002	0.001	0.001	0.002	0.001	0.001

Table 13-4: Sample Statistic, CuS.

The differences in the figures of raw data and re-coded, are a function of the deposit's mineralization and the smoothing of the solid model. The following table shows the number of original raw data samples within the modeled solids.

		N° of Sample in Solid Coded Data						
		Brochantite	Chrysocolla	Enriched	Mixed	Wad Cu => 0.1	Wad Cu < 0.1	Chalcopyrite
Original Raw Data	Brochantite	3449	246	63	64	447	33	6
	Chrysocolla	406	2074	35	19	323	34	3
	Enriched	72	13	988	294	57	12	59
	Mixed	135	28	406	497	129	12	13
	Wad Cu => 0.1	647	418	65	63	3445	282	8
	Wad Cu < 0.1	39	26	3	2	38	162	
	Chalcopyrite	21	3	112	31	6	1	596
	Waste	55	39	68	18	35	607	18
	Lix	206	186	131	126	104	2355	6
	Pyrite	74	7	383	113	6	162	156
	No data	602	167	342	59	199	231	109
	Total	5706	3207	2596	1286	4789	3891	974

Table 13-5: Number of Samples in Solid Coded

13.7 Composite Statistics

An analysis of the samples' length was done in order to check if regularization was required (compositing). Practically all the samples are 2 meters long, only 3 sample inside the modeled solids has length less 1 meter long and the rest are 2 meters long, so it was concluded that no further action in this regard was needed.

Tables 13-6 and 13-7 show the statistics of the final populations used in the grade modeling process.

Total Copper (CuT)									
Domain	N° Sample	Mean %	Std. Dev.	Coef. Of Var.	Max %	Upper Quartile %	Median %	Lower Quartile %	Min %
Brochantite	5706	0.637	0.910	1.429	19.253	0.751	0.383	0.184	0.006
Chrysocolla	3207	0.472	0.545	1.154	8.087	0.576	0.303	0.155	0.004
Enriched	2596	0.430	0.760	1.770	12.194	0.454	0.197	0.083	0.003
Mixed	1286	0.469	0.882	1.879	12.558	0.437	0.196	0.091	0.003
Wad CuT => 0.1	4789	0.298	0.438	1.471	8.623	0.311	0.195	0.137	0.010
Wad CuT < 0.1	3891	0.065	0.077	1.179	1.801	0.080	0.048	0.027	0.002
Chalcopyrite	974	0.480	1.016	2.117	13.975	0.448	0.172	0.091	0.003

Table 13-6: Sample Statistic for CuT, per Rock Type.

Soluble Copper (CuS)									
Domain	N° Sample	Mean %	Std. Dev.	Coef. Of Var.	Max %	Upper Quartile %	Median %	Lower Quartile %	Min %
Brochantite	5705	0.467	0.704	1.506	13.853	0.564	0.251	0.095	0.001
Chrysocolla	3207	0.356	0.459	1.290	6.316	0.437	0.214	0.088	0.002
Enriched	2596	0.090	0.211	2.350	4.246	0.085	0.036	0.014	0.001
Mixed	1286	0.128	0.264	2.058	3.189	0.124	0.052	0.017	0.001
Wad CuT => 0.1	4788	0.162	0.294	1.819	6.095	0.172	0.088	0.045	0.002
Wad CuT < 0.1	3891	0.026	0.053	2.033	1.542	0.027	0.013	0.006	0.001
Chalcopyrite	974	0.031	0.061	1.929	0.718	0.031	0.014	0.006	0.001

Table 13-7: Sample Statistic for CuS, per Rock Type.

It can be noted from the above given tables, that all the samples with CuT grade has a CuS value. A check for eventual CuS values greater than CuT grades was done and no contradictions were found. Therefore, the samples to be used in the grade modeling process are the raw samples from the drillhole database, coded according to the solid that contain their centroids.

13.8 Contact Analyses

The contact characteristics between the units to estimate have been reviewed according to the mean grade of the samples, in relation to their distance to the contact defined in the solids model. As an example of the analyses carried out, figures 13-8, to 13-15 show the behavior of the CuT grades along the border of the contact between the most relevant units.

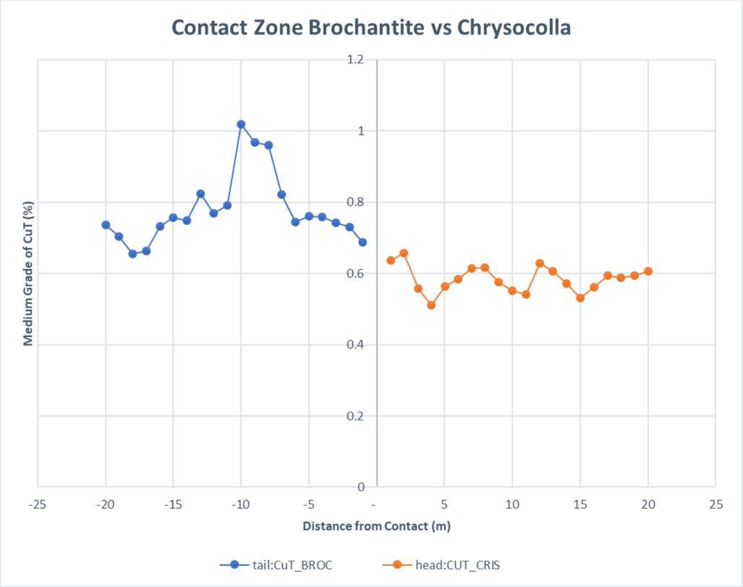


Figure 13-8: Brochantite - Chrysocolla Contact, CuT

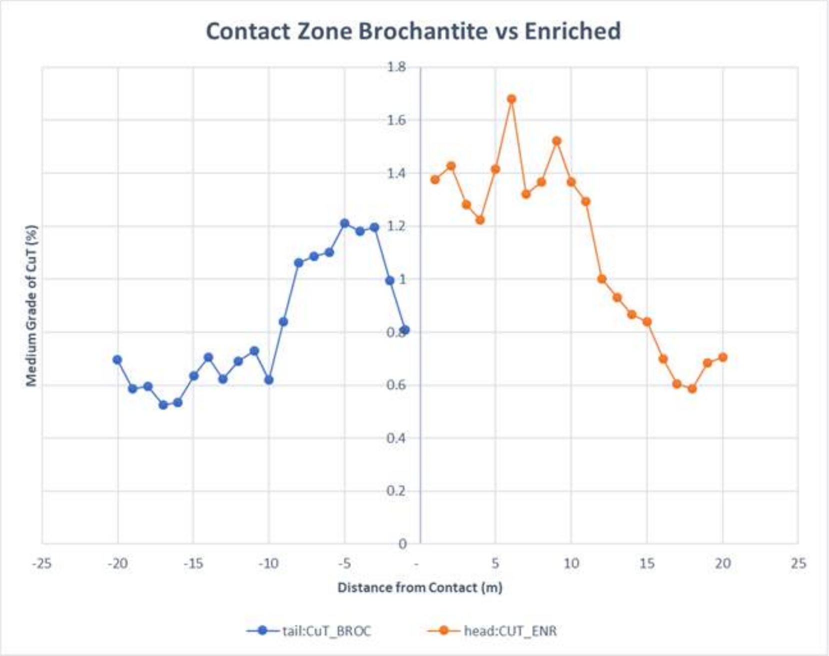


Figure 13-9: Brochantite – Enriched Contact, CuT

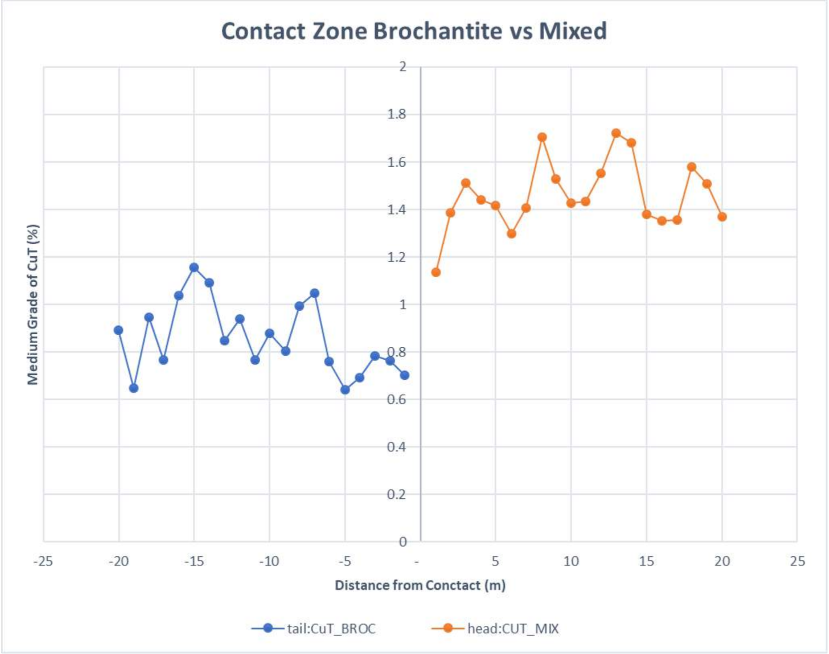


Figure 13-10: Brochantite – Mixed Contact, CuT

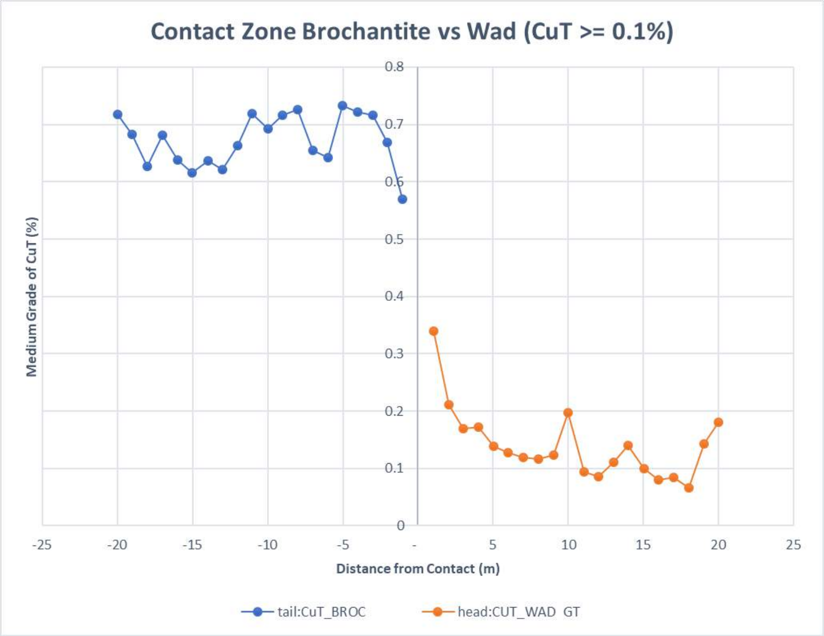


Figure 13-11: Brochantite – Wad (CuT >= 0.1%) Contact, CuT

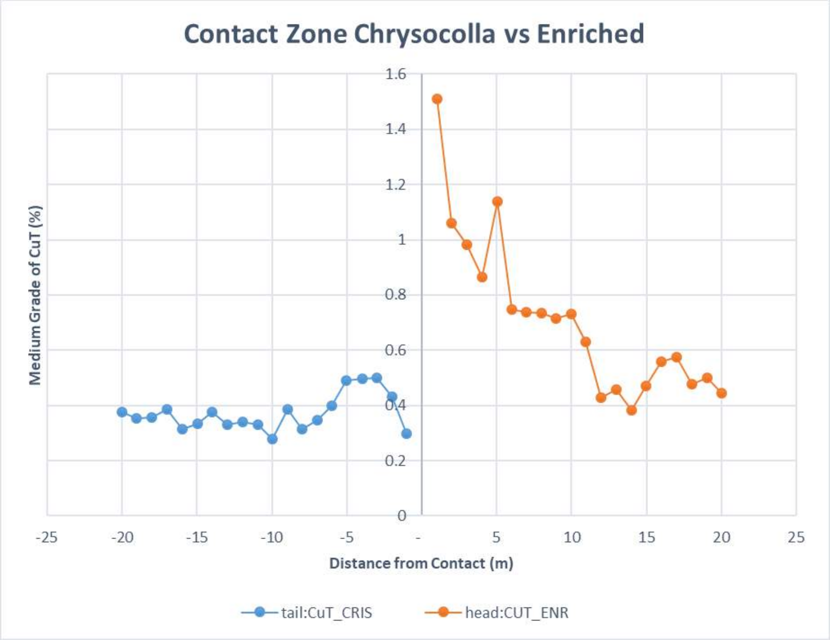


Figure 13-12: Chrysocolla - Enriched Contact, CuT

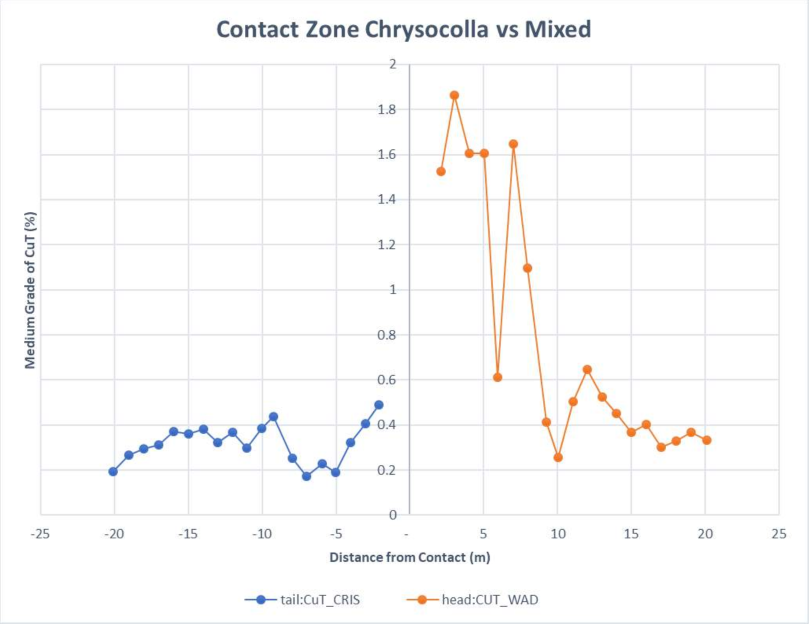


Figure 13-13: Chrysocolla - Mixed Contact, CuT

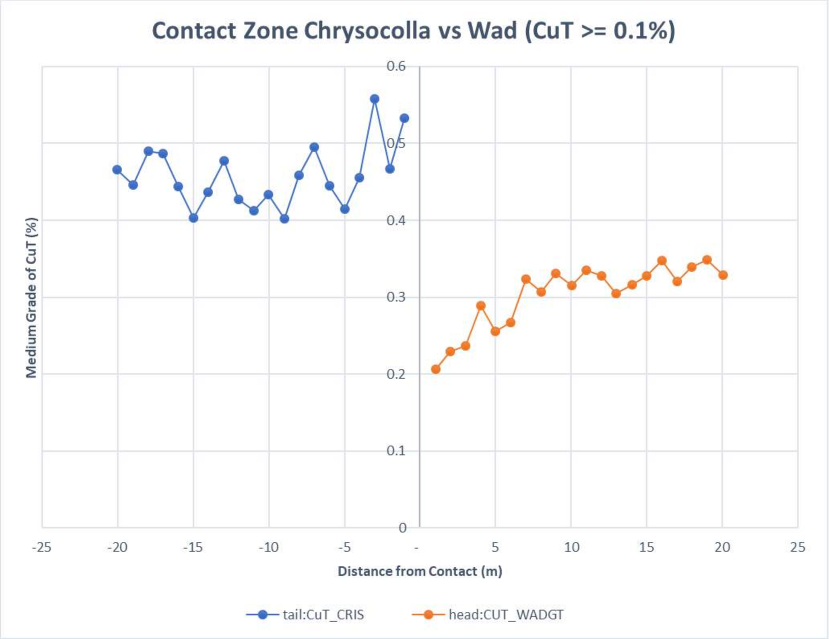


Figure 13-14: Chrysocolla – Wad (CuT >= 0,1%) Contact, CuT

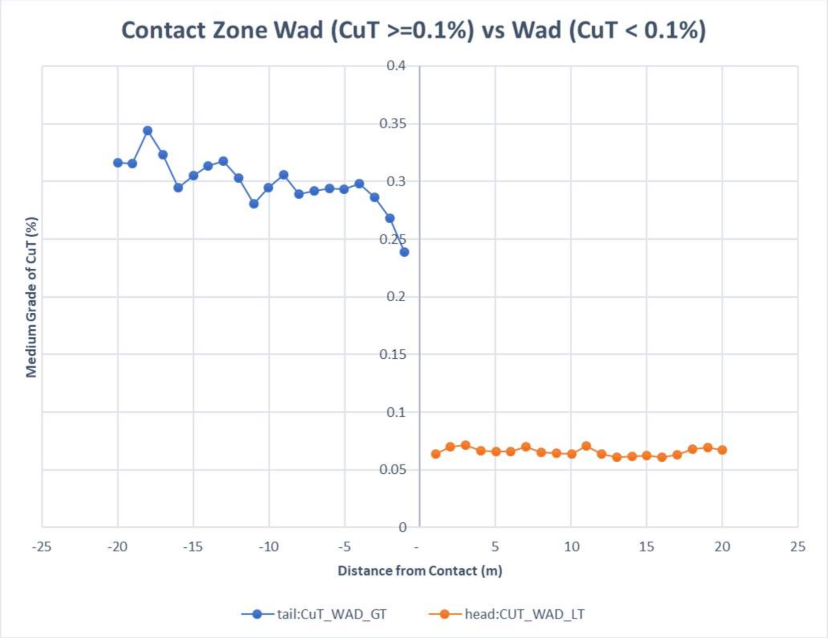


Figure 13-15: Wad (CuT >= 0.1%) – Wad (CuT < 0.1%) Contact, CuT

As can be noted in the above figures, all the contacts seem hard, it has been decided to estimate the units independently. Table 13-8 summarizes the conclusions of the contact analysis:

Domain	Brochantite	Chrysocolla	Enriched	Mixed	Wad CuT >= 0.1%	Wad CuT < 0.1%	Chalcopyrite
Brochantite	-	Sharp	Sharp	Sharp	Sharp	Sharp	Sharp
Chrysocolla	Sharp	-	Sharp	Sharp	Sharp	Sharp	Sharp
Enriched	Sharp	Sharp	-	Sharp	Sharp	Sharp	Sharp
Mixed	Sharp	Sharp	Sharp	-	Sharp	Sharp	Sharp
Wad CuT >= 0.1%	Sharp	Sharp	Sharp	Sharp	-	Sharp	Sharp
Wad CuT < 0.1%	Sharp	Sharp	Sharp	Sharp	Sharp	-	Sharp
Chalcopyrite	Sharp	Sharp	Sharp	Sharp	Sharp	Sharp	-

Table 13-8: Types of Contact CuT

In the case of CuS, each unit was estimated independently.

13.9 Outliers

An analysis of the existence of outliers in the estimation populations was done using the log-probability curves for each samples' population, looking for some singularities in the curves that may signal the presence of an outlier limit.

Figure 13-16 shows, an example, the log-probability plot of brochantite:

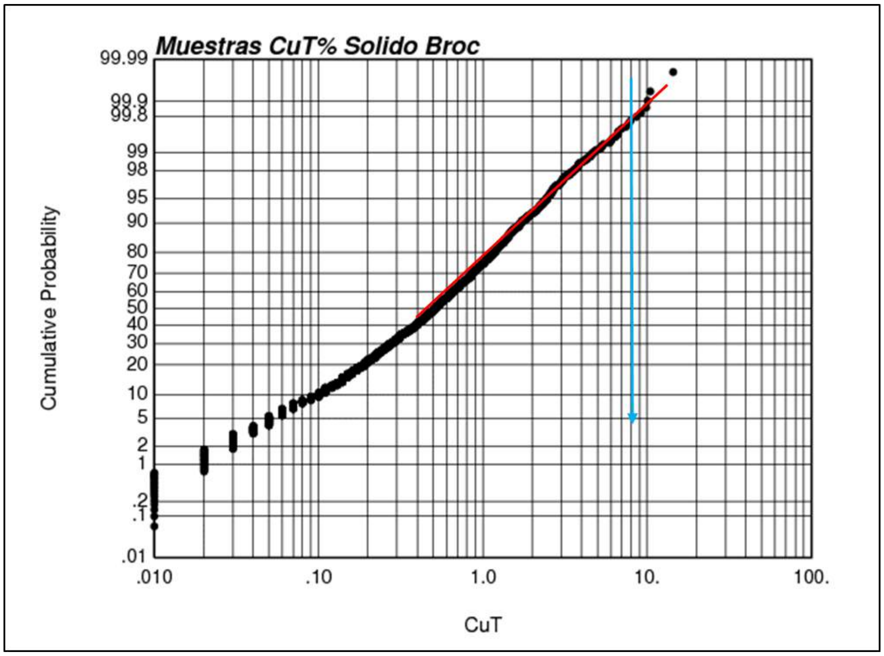


Figure 13-16: Log-Probability Plot CuT – Brochantite

Based on the shape of the curves, the outliers' limits were defined for each population, as shown in Table 13-9.

	CuT (%)	CuS (%)
	Capping	Capping
Brochantite	8.0	6.0
Chrysocolla	3.0	2.5
Enriched	4.2	2.4
Mixed	6.6	1.7
Wad	1.8	1.5
Chalcopyrite	3.9	0.3

Table 13-9: Outliers Limits.

For values above the above-defined limits, at the estimation stage the search ellipsoid will have a radius of 5 meters, encapsulating the outliers to the block that contains them.

13.10 Calculation and Variogram Adjustment

Correlograms were calculated, instead of conventional variograms, as they are more stable. The correlograms were performed for the 5 areas of the structural model (see Figure 6-16, page 78). The variography of CuT and CuS has been developed in two ways, one using the samples of the populations derived from the Contact Analysis independently and another using the total samples inside the estimation solids. This approach was decided once the correlograms of the different units were developed. Although they show similar behaviors to the correlogram using the total samples, the former was better modeled.

Correlograms in distinct directions were calculated, according to visual tendencies, using the structural zones defined in the structural chapter and discussions with Coro's technical team. The determination of the nugget for each population was done using the down-the-hole correlograms.

The Table 13-10 and Table show the parameters of the adjusted Correlograms.

Area	Domain	Principal Azimut	Principal Dip	Intermediate Azimut	Nugget	1st Structure				2nd Structure				3rd Structure			
						Sill 1	Range (m)			Sill 2	Range (m)			Sill 3	Range (m)		
							X'	Y'	Z'		X'	Y'	Z'		X'	Y'	Z'
Manolo	All	-	-	-	0.35	0.4	7	7	7	0.2	20	20	20	0.1	90	90	90
Marimaca	All	90	-60	0	0.35	0.4	11	12	4	0.2	115	105	90	0.1	100	150	120
Atahualpa Atomica	All	35	-37	13	0.35	0.4	25	11	6	0.2	30	110	35	0.1	80	130	250
Atahualpa	All	90	-20	0	0.35	0.3	13	7	9	0.3	30	62	20	0.1	100	100	40
Tarso	All	-	-	-	0.35	0.4	9	9	9	0.2	20	20	20	0.1	90	90	90

Table 13-10: Correlograms, Adjusted Models CuT

Area	Domain	Principal Azimut	Principal Dip	Intermediate Azimut	Nugget	1st Structure				2nd Structure				3rd Structure			
						Sill 1	Range (m)			Sill 2	Range (m)			Sill 3	Range (m)		
							X'	Y'	Z'		X'	Y'	Z'		X'	Y'	Z'
Manolo	All	-	-	-	0.35	0.4	7	7	7	0.2	60	60	60	0.1	100	100	100
Marimaca	All	50	-80	0	0.35	0.3	5	18	11	0.2	15	45	30	0.2	130	160	60
Atahualpa Atomica	All	60	-20	0	0.35	0.4	8	9	7	0.2	55	100	40	0.1	55	110	160
Atahualpa	All	90	-80	0	0.35	0.4	30	9	8	0.2	70	90	60	0.1	120	120	80
Tarso	All	-	-	-	0.35	0.4	7	7	7	0.2	35	35	35	0.1	120	120	120

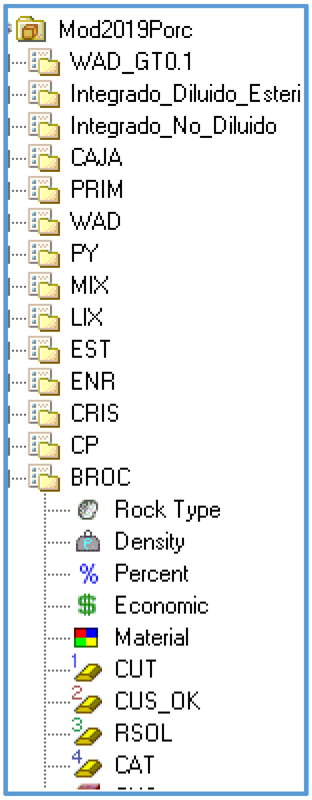
Table 13-11: Correlograms, Adjusted Models CuS

13.11 Definition and Generation of the Block Model

Attending to the characteristics of the deposit and the geological model constructed, it was decided to use a percentage model, as featured in the modelling software GEMS.

A percentage block model is a model that stores in separate folders the information associated with each SZMin, i.e. density, percentage within the solid, grade and attributes. In this way, it allows us to quantify volumes, tonnages and grades more accurately, since it quantifies supports smaller than the block volume.

Figure 13-17 shows a percentage model structure, where the folders of each SZMin and some attributes that each folder has are shown.



- Mod2019Porc
  - WAD_GT0.1
  - Integrado_Diluido_Esteri
  - Integrado_No_Diluido
  - CAJA
  - PRIM
  - WAD
  - PY
  - MIX
  - LIX
  - EST
  - ENR
  - CRIS
  - CP
  - BROC
    - Rock Type
    - Density
    - % Percent
    - $ Economic
    - Material
    - 1 CUT
    - 2 CUS_OK
    - 3 RSOL
    - 4 CAT

Figure 13-17: File Structure for the Percentage Model

Based on the above-described logic, the percentage of each block inside each one of the Mineral Zones solids were calculated.

During the grade estimation process, the grade for each Mineral Zone was estimated for each block.

As in previous estimations developed, for the final estimation of the grades, it has been decided to utilize a block model of 5m*5m*5m, rotated N 40º E, in order to match with the geological sections. Table 13-12 presents the geometric parameters of the model

Axis	**Origin**	**N° of Blocks**	**Block Size**	**Extension (m)**
X	375,211.433	332	5	1,660
Y	7,434,554.037	353	5	1,765
Z	1,225	109	5	545
Rotation	N40°E			

Table 13-12: Definition of the Block Model.

Using the interpretation of the Oxides, Enriched and Primary mineral zones, the respective models were generated, assigning the codes defined per each block of the model, using the intersection of the blocks and the respective solids. According to the blocks and the definition of the populations, a final model has been generated with a unique code per each block of the model. Table 13-13 and Figure 13-18 present a summary of the codification used.

Domain	**N°Blocks**	**Volume m^3**
Brochantite	251,757	23,128,286
Chrysocolla	136,736	11,601,879
Enriched	116,974	9,580,317
Mixed	63,541	4,971,130
Wad CuT >= 0.1%	319,847	24,416,720
Wad CuT < 0.1%	272,618	21,199,457
Chalcopyrite	47,235	3,924,284
Total	**1,208,708**	**98,822,073**

Table 13-13: Total Coded Blocks

13.11.1 Geological Model Coding

The remaining blocks below surface topography were coded as waste. A validation of the correctness of the rock coding was done, checking some sections and plans on screen. Figure 13-18 shows Section NW 300, with the solid’s contour, the coded boreholes and the block model.

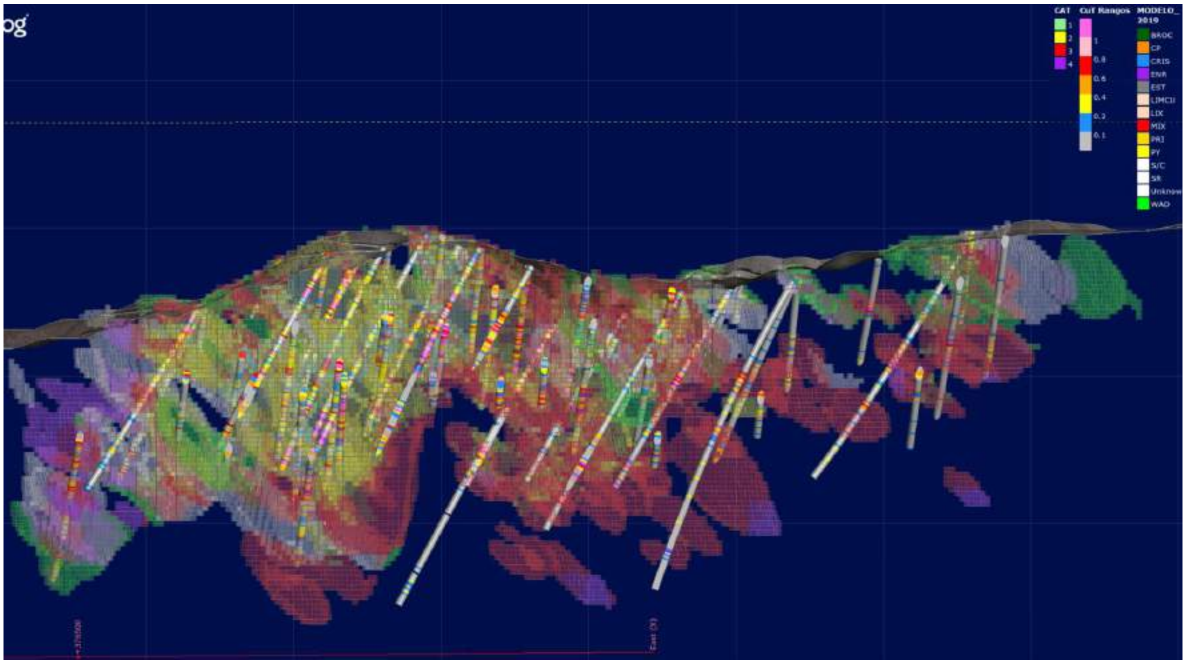


Figure 13-18: Solids, Blocks and Samples - Section NW 300 view to SW

13.11.2 Specific Gravity Model

The average specific gravity of each estimation unit was calculated using a set of 562 measures, divided according to each mineral zone. Outliers were eliminated, the following table shows the specific gravity for each of the mineralized zones.

SZMIN	Mean (t/m3)
Brochantite	2.639
Chalcopyrite	2.719
Chrysocolla	2.670
Enriched	2.649
Waste	2.645
Lix	2.663
Mixed	2.688
Pyrite	2.711
Wad	2.642

Table 13-14: Specific Gravity per Unit

13.12 Kriging Plans and Resource Classification Criteria

Once the correlograms were calculated and adjusted for each population, grade values for CuT and CuS were estimated. The grade interpolation method selected was Ordinary Kriging, attending to the nature of the deposit and the data availability. The kriging was done using the software Gems.

Four kriging plans were defined, to be executed in sequential order. The general concept is to “fill” the grades model, starting with a restrictive estimation plan which considers only interpolation between drill holes, separated distances below the equivalent of 85% of the variogram sill. Then, the following plans increase the search distance and release other restriction gradually, until the estimation is complete.

The distance, where the correlogram reaches the value equivalent to 85% of the sill, is called D85, and is used as a referential value to the different kriging plans.

The geometric parameters of the estimation of each kriging plan are shown in Table 13-15.

Estimation Plan	Run 1	Run 2	Run 3	Run 4
Max N° Composite per Octant	4	4	4	4
Min N° of Octants with inf.	3	3	1	1
Min N° of Composites	8	6	4	4
Max N° of Composites	12	12	12	12
Search Range	D_{85}	2 x D_{85}	4 xD_{85}	1,000
Min N° of Drillhole	2	2	1	1

Table 13-15: Kriging Plan Parameters

Each population of blocks is estimated with samples of the same population.

The utilized D85 for each population are shown in Table 13-16. It can be noted that anisotropic search was used for all estimation units:

Area	Domain	D85 - X	D85 - Y	D85 - Z
Manolo	All	6.65	6.65	6.65
Marimaca	All	30.50	30.50	26.00
Atahualpa Atomica	All	18.80	30.00	14.20
Atahualpa	All	15.50	28.20	9.50
Tarso	All	7.56	7.56	7.56

Table 13-16: D_{85} per Direction and Population (m)

13.13 Grades Estimation Results

Upon completion of grades estimation, Table 13-17 summarizes the number of blocks estimated in each kriging pass per kriging domain.

Domain	Total N° Blocks	Total N°Blocks Estimated	Total N° Blocks Estimated in 1st Pass		Total N° Blocks Estimated in 2nd Pass		Total N° Blocks Estimated in 3rd Pass		Total N° Blocks Estimated in 4th Pass	
			Number of Blocks	% of Total Estimated	Number of Blocks	% of Total Estimated	Number of Blocks	% of Total Estimated	Number of Blocks	% of Total Estimated
Brochantite	251,757	251,757	43,056	17%	106,633	42%	89,869	36%	12,199	5%
Chrysocolla	136,736	136,736	19,153	14%	44,102	32%	61,881	45%	11,600	8%
Enriched	116,974	116,974	7,021	6%	27,240	23%	69,583	59%	13,130	11%
Mixed	63,541	63,541	2,737	4%	8,594	14%	41,810	66%	10,400	16%
Wad (CuT>=0.1)	272,618	272,618	18,194	7%	75,266	28%	126,607	46%	52,551	19%
Wad (CuT<0.1)	319,847	319,847	24,986	8%	103,345	32%	151,081	47%	40,435	13%
Chalcopyrite	47,235	47,235	2,033	4%	7,349	16%	35,876	76%	1,977	4%
Total	**1,208,708**	**1,208,708**	**117,180**	**27%**	**372,529**	**36%**	**576,707**	**32%**	**142,292**	**5%**

Table 13-17: Estimation Results; Cut and CuS

13.14 Classification of Resources

Resource Classification has been done according to the conditions defined by the number and location of samples in the neighborhood of each block. This criterion attends the requirements established at the CIM code.

The 1st pass generates block estimates with a minimum of two drill intercepts, both within distances shorter than the D_{85} (distance corresponding to the point where the correlogram reaches 85% of the sill); The 2nd pass maintains the restriction of the number of drill intercepts, but enlarges the search range by twice the D_{85}.

Pass 1 generates Measured resources, Pass 2 generates Indicated and Pass 3 increments the search radius to 4 times the D_{85} and reduces the number of drillholes within this range to one, generating Inferred Resource. A fourth pass was added using a very large search radio, in order to ensure that all the blocks inside the geological model are estimated. This fourth pass generates Potential mineralized rock.

Taking these criteria into account, the categorization of resources has been done according to Table 13-18.

N° Kriging	Search Range	N° Intercepts	Classification
1	D_{85}	2	Measured
2	2 x D_{85}	2	Indicated
3	4 xD_{85}	1	Inferred
4	1,000 m	1	Potentially mineralized rock

Table 13-18: Kriging Passes and Resource Classification

A classification code was added to the block model. The codes utilized to this model are: 1, Measured; 2 Indicated; 3 Inferred and 4 Potentially mineralized rock.

13.15 Resource Model Validation

Three validation exercises were done in order to ensure the quality of the generated block model, as discussed in this chapter.

- Visual Validation
- Statistic Validation
- Moving window Analysis and Nearest Neighbor.

The results of these validations are presented below.

13.15.1 Visual Validation

A visual inspection on screen of several plan views and vertical sections of the block model was done and the grades of the blocks and the drill holes have been compared. Also the resource classification was analyzed comparing the existing information. As an example, the results of this validation are presented in Figures 13-19 and 13-20.

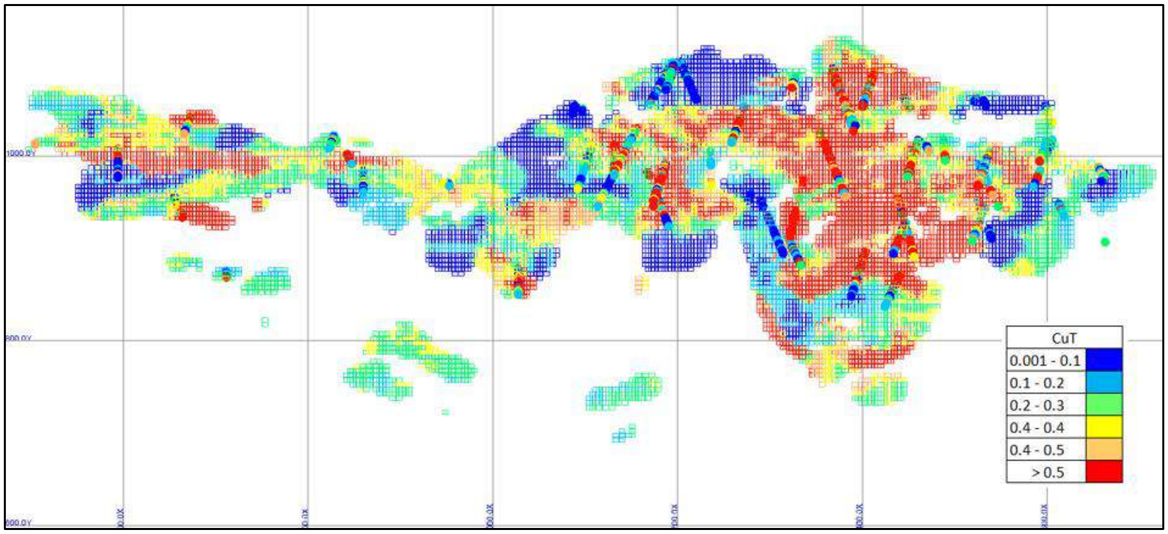


Figure 13-19: Visual Revision of the Model of CuT – Section N 7.435.450

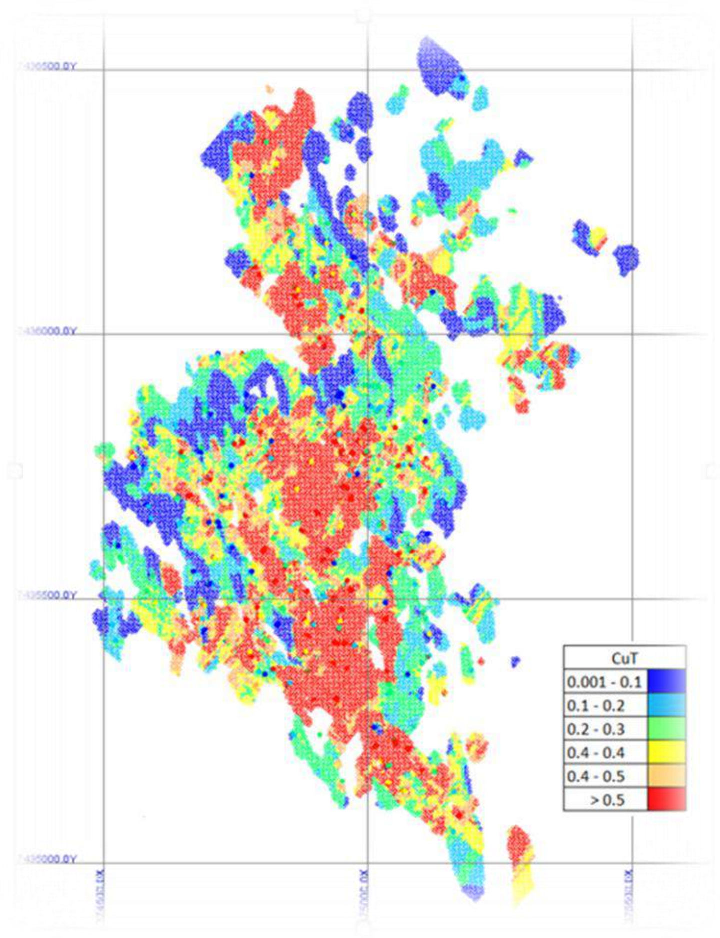


Figure 13-20: Visual Revision of the Model of CuT – Plan view 1000

13.15.2 Statistic Validation

The grades of composites and blocks have been compared statistically. Tables 13-19 and 13-20 present a comparison of the basic statistic of composites and blocks per population. Also included in the comparative table are the declustered grades, obtained through the technique of nearest neighbors.

		N° Samples	Minimun (%)	Maximun (%)	Average (%)	STD	C.V.
Brochantite	Kriged Blocks	213943	0.049	6.497	0.617	0.363	0.589
	NN Blocks	213943	0.006	19.253	0.601	0.773	1.286
	Samples	5706	0.006	19.253	0.629	0.815	1.296
Chrysocolla	Kriged Blocks	115240	0.037	3.675	0.460	0.217	0.471
	NN Blocks	115240	0.004	8.087	0.451	0.463	1.026
	Samples	3207	0.004	8.087	0.466	0.503	1.079
Enriched	Kriged Blocks	106379	0.016	3.9	0.366	0.271	0.741
	NN Blocks	106379	0.003	8.71	0.384	0.578	1.506
	Samples	2596	0.003	12.194	0.413	0.641	1.552
Mixed	Kriged Blocks	53091	0.011	4.886	0.412	0.345	0.838
	NN Blocks	53091	0.003	12.558	0.381	0.605	1.590
	Samples	1286	0.003	12.558	0.460	0.790	1.717
Wad (CuT >= 0.1)	Kriged Blocks	213903	0.006	1.307	0.075	0.047	0.623
	NN Blocks	213903	0.002	1.801	0.057	0.054	0.945
	Samples	4789	0.01	8.623	0.065	0.077	1.185
Wad (CuT < 0.1)	Kriged Blocks	253049	0.081	4.852	0.264	0.097	0.368
	NN Blocks	253049	0.01	8.623	0.255	0.214	0.841
	Samples	3891	0.002	1.801	0.282	0.258	0.915
Chalcopyrite	Kriged Blocks	43726	0.034	4.263	0.405	0.250	0.616
	NN Blocks	43726	0.003	13.975	0.496	0.730	1.472
	Samples	974	0.003	13.975	0.434	0.702	1.618

Table 13-19: Statistic Comparison, Blocks vs Composites – CuT

		N° Samples	Minimun (%)	Maximun (%)	Average (%)	STD	C.V.
Brochantite	Kriged Blocks	213943	0.006	5.263	0.431	0.271	0.629
	NN Blocks	213943	0.001	13.853	0.437	0.578	1.325
	Samples	5705	0.001	13.853	0.463	0.655	1.415
Chrysocolla	Kriged Blocks	115240	0.013	2.222	0.331	0.176	0.533
	NN Blocks	115240	0.002	4.182	0.335	0.392	1.167
	Samples	3207	0.002	6.316	0.351	0.428	1.219
Enriched	Kriged Blocks	106379	0.004	1.856	0.078	0.078	0.993
	NN Blocks	106379	0.001	4.246	0.075	0.145	1.932
	Samples	2596	0.001	4.246	0.089	0.194	2.180
Mixed	Kriged Blocks	53091	0.002	1.253	0.118	0.101	0.854
	NN Blocks	53091	0.001	3.189	0.111	0.185	1.658
	Samples	1286	0.001	3.189	0.124	0.229	1.847
Wad (CuT >= 0.1)	Kriged Blocks	213903	0.002	0.8	0.032	0.030	0.954
	NN Blocks	213903	0.001	1.542	0.022	0.035	1.606
	Samples	4788	0.002	6.095	0.026	0.053	2.038
Wad (CuT < 0.1)	Kriged Blocks	253049	0.014	2.891	0.145	0.079	0.549
	NN Blocks	253049	0.002	1.5	0.143	0.187	1.304
	Samples	3891	0.001	1.542	0.154	0.198	1.286
Chalcopyrite	Kriged Blocks	43726	0.002	0.454	0.030	0.025	0.829
	NN Blocks	43726	0.001	0.718	0.031	0.048	1.570
	Samples	974	0.001	0.718	0.030	0.050	1.667

Table 13-20: Statistic Comparison, Blocks vs Composites – CuS

From the tables it is concluded that the estimation generates robust results, from a statistical point of view, showing no global bias.

13.15.3 Trend Analyses

For trend analyses of the block model, the mean and the declustered mean of the samples has been compared with the block results. In order to declustered the composites, the method of nearest neighbor has been used, introducing a third figure in the analysis. The comparison of mean grades of blocks versus direct mean and declustered mean of composites for each estimation domain, are presented in the following pages. Graphs include the number of composites per slice as a graph bar. As an example, the results of this validation for Brochantite are presented in the next figures (13-21, 13-22 and 13-23).

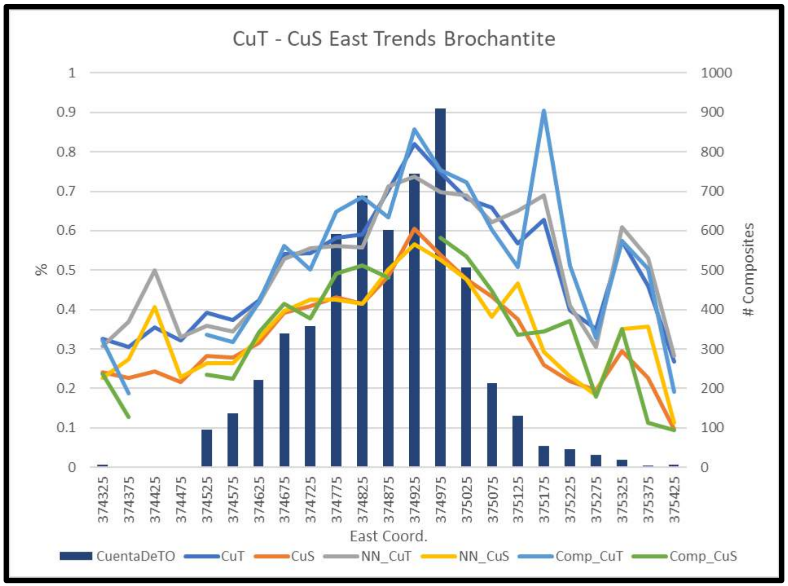


Figure 13-21: Trend Analysis – Brochantite – E Direction

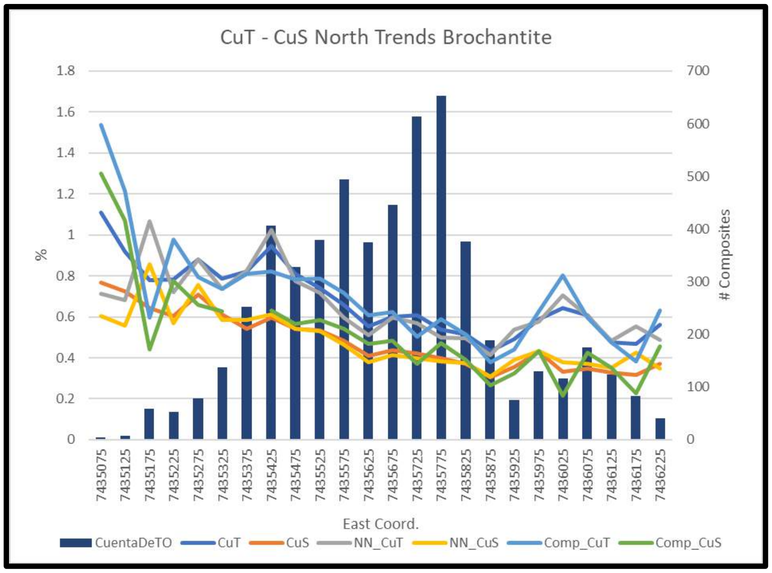


Figure 13-22: Trend Analysis – Brochantite – N Direction

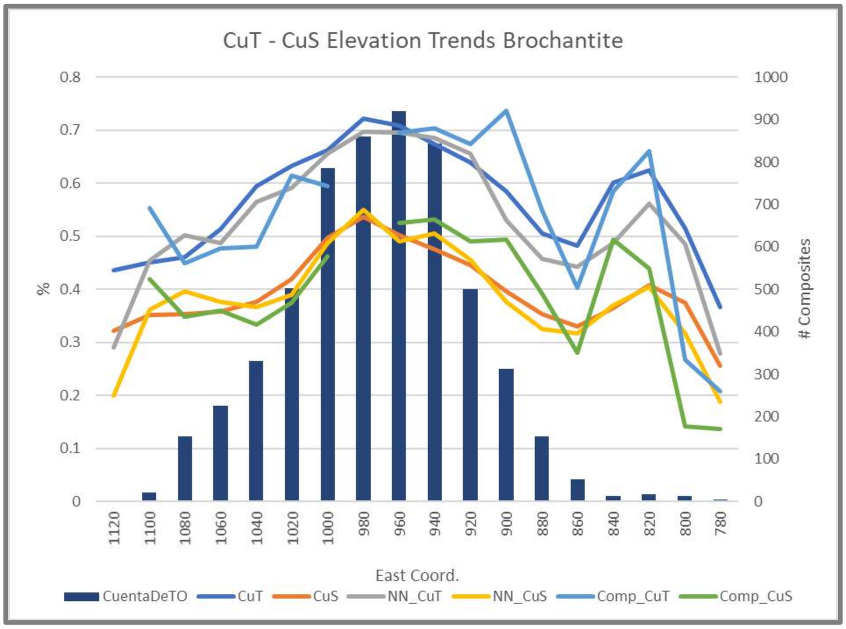


Figure 13-23: Trend Analysis – Brochantite – Elevation

Same analysis was made for the rest of the Mineral Zones and, in general, the estimated mean behaves in a satisfactory way, similarly with the declustered mean. An excessive smoothing is not observed. Generally, the declustered grades are lower than the mean samples, when the differences between them are higher. Moreover, declustered grades are normally situated between them and closer to the declustered mean. From moving window and tendencies of presented grades, it is concluded that the model of estimated grades, preserves the characteristic of the mean grade, global variability and tendencies of the original samples.

13.16 Reasonable Prospects for Eventual Economic Extraction

The CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) establish a Mineral Resource as:

“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.”

The above definition normally implies that there exists some quantity of material that meets a defined economic threshold and that the Mineral Resources are reported at an adequate Cutoff Grade (COG) that considers the defined technical-economic scenario assumed for the project. It must be clarified that Mineral resources are not Mineral Reserves, as they haven’t demonstrated their economic viability yet.

Once the block model was finished and validated, a Whittle pit was run using the following technical parameters:

PARAMETERS	2019
Mining cost	$2.00/t
HL Process Cost (including G&A and SX/EW cost)	$9/t
ROM Process Cost including G&A	$2.50/t
Selling Cost	$0.07/lb
Heap Leach Recovery	76%
ROM Recovery	40%
Pit Slope angle [1]	44° - 46°
Cu Price	3.0 USD/lb

Table 13-21: Technical and Economical Parameters for Whittle Run

[1] *The pit slope is estimated at a range of 44° - 46° based on the geotechnical information currently available, but this is anticipated to improve as more data is generated*

These parameters were provided by Coro and consider, among others, the following observations, compared with 2018's NCL resource estimation:

- Higher scale operation at the mine with the corresponding unit cost per ton reduction.
- Higher crushing rate and lower leaching rate (less industrial water & acid consumption.
- Lower G&A due to higher scale
- ROM considers the use of sea water

For slope angles, figures from the 2018 exercise were used, as no new geotechnical information was available at the moment of the Whittle run. Slope angles zones defined in 2018 were projected lineally to cover the complete area of the new block model. The following figure shows the 2018 information projected to cover the complete 2019 block model and the 2019's Resource Pit. Pit slope angles were defined based in a DIA pit study carried out by Ingeroc S.A. (Preliminary Slope Stability Report for DIA Pit, September 2019) a geotechnical specialized consultant firm from Chile., which use for the preliminary stability analysis, the limit equilibrium, the deterministic structural and Ritchie's safety criteria.

Figure 13-24 shows the slope angle zones defined by Ingeroc and table 13-21 shows the values used in the Whittle optimization run.

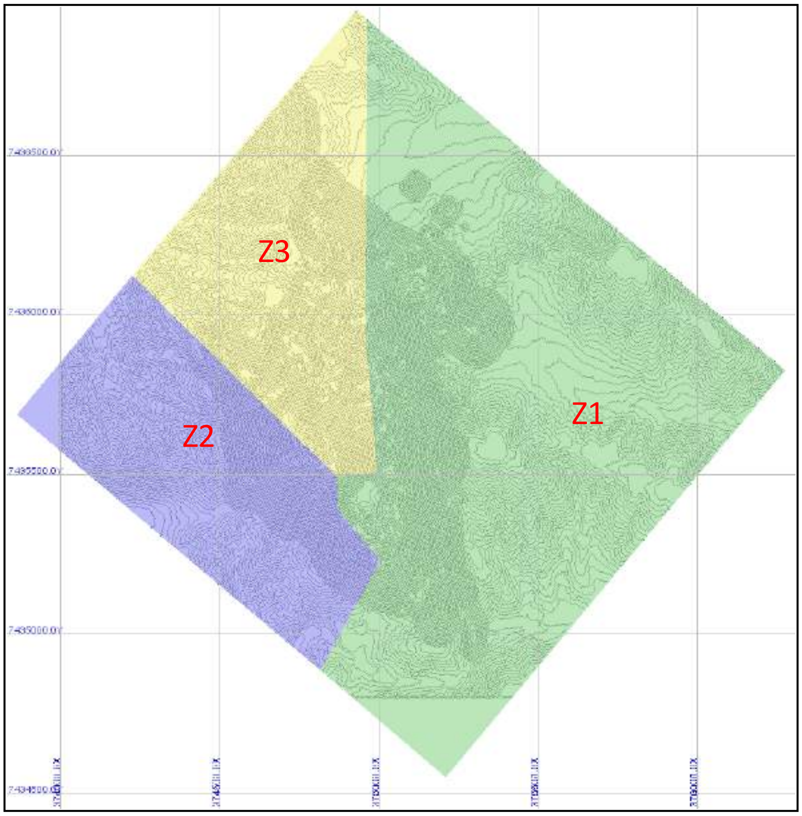


Figure 13-24: Geotechnical Zones – Slope Angles

ZONE	Interramp Slope					Overall Slope		
	IRA β (º)	Face Angle γ (º)	Height H (m)	Backbreak a (m)	Berm b (m)	Catch Berm c (m)	Slope Height L (m)	Slope Angle α (º)
Z1	47.4	75.0	10.0	2.7	6.5	12.0	150	46
Z2	44.6	70.0	10.0	3.6	6.5	12.0	150	44
Z3	47.4	75.0	10.0	2.7	6.5	12.0	150	46

Table 13-22: Inter Ramp and Overall Slope Angles

- Using the above-mentioned technical and economical parameters, the Cut Off Grade for Heap Leach was calculated using the following expression:
- COG = (Mc + HLc)/((Cu Price – SC) * HL Rec * 2204.62 The following value was obtained:
- Cut Off Grade Heap Leach: 0.22% CuT
- Additionally, marginal COG values for Heap and ROM processes were calculated using the above expression without considering the Mine Cost:
- Marginal Cut Off Grade Heap: 0.18% CuT
- Marginal Cut Off Grade ROM: 0.10% CuT

Five meters benches that are doubled to 10 meters. with inter-ramp height of 150 m and ramp widths of 25 m were considered.

The results of this report have been defined as preliminary. For the definite study, an oriented geotechnical drill hole exploration must be executed and the laboratory tests must be completed.

13.17 Other considerations and criteria used for the optimization process

- All material outside the Mineral Zone solids is considered as waste, at zero grade.
- The pit walls are not constrained by the property boundaries, as allowed by the Chilean regulations, in case the material within the property justifies the mining. However the resultant pit falls within the Coro claims.
- Measured, Indicated and Inferred categories were considered as valuable.
- Due to some characteristics of the pit optimization software, it was necessary to modify the "percentage model" generated in the grade estimation process to an integrated model, with only one value per block and variable. To do this, the following processes were done per variable:
    - CuT and CuS grades: the integrated values were calculated using the weighted grades and percentages of each of the parcels in the block.
    - Mineral Zone: The final value assigned to the block was the one corresponding to the greater percentage of Mineral Zone in the block.
- Attending to the integration process done to the block model, no further dilution was considered for the optimization process.

13.18 Mineral Resource Estimate

The consolidated Total Mineral Resource Statement for the Marimaca deposit is presented in Table 13-23, which shows the tonnage – grade curve for all the Resources contained in the block model and Table 13-23 summarizes the In Pit Resource per category, including all the Mineral Zones estimated, highlighting 0.22 % CuT. Figures in this table include a small tonnage of non-leachable sulphide ore (chalcopyrite):

All Estimated Material inside the Block Model												
Cut Off (%CuT)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	2,112	1.56	0.94	2,705	1.48	0.8	4,816	1.52	0.86	1,807	1.52	0.66
1.10	2,710	1.47	0.9	3,778	1.39	0.76	6,488	1.42	0.82	2,469	1.42	0.63
1.00	3,471	1.38	0.85	5,251	1.29	0.73	8,722	1.33	0.78	3,450	1.32	0.59
0.90	4,433	1.28	0.81	7,225	1.2	0.7	11,658	1.23	0.74	4,836	1.21	0.56
0.80	5,684	1.19	0.76	9,944	1.1	0.65	15,628	1.13	0.69	6,937	1.1	0.51
0.70	7,284	1.09	0.71	13,604	1.01	0.61	20,888	1.04	0.64	10,184	0.99	0.47
0.60	9,272	1	0.65	18,375	0.91	0.56	27,647	0.94	0.59	15,132	0.88	0.42
0.50	11,736	0.9	0.59	24,511	0.82	0.51	36,246	0.85	0.54	22,300	0.77	0.37
0.40	14,927	0.8	0.53	32,600	0.73	0.46	47,527	0.75	0.48	32,943	0.67	0.33
0.30	18,681	0.71	0.47	43,953	0.63	0.4	62,634	0.66	0.42	50,269	0.56	0.28
0.25	20,591	0.67	0.44	50,915	0.58	0.36	71,507	0.61	0.39	63,827	0.5	0.25
0.22	**21,820**	**0.65**	**0.43**	**55,348**	**0.55**	**0.35**	**77,168**	**0.58**	**0.37**	**72,715**	**0.46**	**0.23**
0.20	22,643	0.63	0.41	58,252	0.54	0.33	80,895	0.56	0.36	78,514	0.44	0.22
0.18	23,350	0.62	0.4	60,930	0.52	0.32	84,279	0.55	0.35	83,874	0.43	0.22
0.10	24,651	0.59	0.39	66,003	0.49	0.3	90,654	0.52	0.33	96,630	0.39	0.19

Table 13-23: All Estimated Material Inside the Block Model, Marimaca, NCL Consulting (L. Oviedo, 15th January 2020).

Metal contained within the boundaries of the Marimaca deposit. All figures are rounded to reflect the relative accuracy of the estimates.

In pit Consolidated Mineral Resource Statement

Cut Off (%CuT)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	2,106	1.56	0.94	2,689	1.48	0.80	4,795	1.52	0.86	1,692	1.52	0.69
1.10	2,701	1.47	0.90	3,742	1.39	0.77	6,444	1.42	0.82	2,285	1.42	0.66
1.00	3,458	1.38	0.86	5,189	1.29	0.74	8,647	1.33	0.79	3,172	1.32	0.63
0.90	4,410	1.28	0.81	7,100	1.20	0.71	11,510	1.23	0.75	4,381	1.22	0.59
0.80	5,642	1.19	0.76	9,722	1.11	0.67	15,364	1.14	0.70	6,166	1.11	0.55
0.70	7,216	1.09	0.71	13,233	1.01	0.62	20,449	1.04	0.65	8,801	1.00	0.51
0.60	9,155	1.00	0.66	17,727	0.92	0.58	26,882	0.95	0.60	12,347	0.90	0.47
0.50	11,510	0.91	0.60	23,375	0.83	0.53	34,885	0.85	0.55	17,168	0.80	0.44
0.40	14,536	0.81	0.54	30,715	0.74	0.48	45,251	0.76	0.50	23,938	0.70	0.40
0.30	18,011	0.72	0.48	40,414	0.64	0.42	58,425	0.67	0.44	33,821	0.60	0.35
0.25	19,760	0.68	0.46	46,165	0.60	0.39	65,925	0.62	0.41	39,917	0.55	0.32
0.22	**20,880**	**0.66**	**0.44**	**49,842**	**0.57**	**0.37**	**70,722**	**0.60**	**0.39**	**43,468**	**0.52**	**0.30**
0.20	21,632	0.64	0.43	52,198	0.56	0.36	73,830	0.58	0.38	45,658	0.51	0.29
0.18	**22,246**	**0.63**	**0.42**	**54,291**	**0.54**	**0.35**	**76,536**	**0.57**	**0.37**	**47,640**	**0.49**	**0.29**
0.10	23,280	0.61	0.40	57,807	0.52	0.33	81,087	0.54	0.35	51,129	0.47	0.27

Table 13-24: In Pit Consolidated Mineral Resource Statement, Marimaca, NCL Consulting (L. Oviedo, 15th January 2020).

The following tables show the detail per Mineral Zone Tonnage Grade Curves

BROCHANTITE												
Cut Off (%CuT)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	1,592	1.56	1.06	2,017	1.49	0.94	3,609	1.52	0.99	1,347	1.55	0.78
1.10	2,032	1.47	1.01	2,790	1.39	0.91	4,822	1.43	0.95	1,745	1.46	0.77
1.00	2,565	1.38	0.96	3,871	1.30	0.87	6,437	1.33	0.91	2,252	1.36	0.75
0.90	3,208	1.29	0.91	5,311	1.20	0.82	8,518	1.24	0.86	2,908	1.27	0.72
0.80	3,994	1.21	0.86	7,199	1.11	0.77	11,192	1.14	0.80	3,878	1.16	0.69
0.70	4,930	1.12	0.80	9,604	1.02	0.72	14,534	1.05	0.74	5,296	1.05	0.64
0.60	6,025	1.03	0.74	12,464	0.93	0.66	18,489	0.97	0.69	7,081	0.95	0.60
0.50	7,266	0.95	0.69	15,760	0.85	0.61	23,027	0.88	0.64	9,621	0.84	0.55
0.40	8,642	0.87	0.63	19,165	0.78	0.56	27,807	0.81	0.59	12,756	0.75	0.49
0.30	10,001	0.80	0.58	22,605	0.72	0.52	32,606	0.74	0.54	15,670	0.67	0.45
0.25	10,600	0.77	0.56	24,098	0.69	0.50	34,698	0.71	0.52	17,093	0.64	0.43
0.22	**10,890**	**0.76**	**0.55**	**24,719**	**0.68**	**0.49**	**35,609**	**0.70**	**0.51**	**17,618**	**0.63**	**0.42**
0.20	11,065	0.75	0.54	25,031	0.67	0.49	36,096	0.70	0.50	17,854	0.62	0.42
0.18	11,182	0.74	0.54	25,259	0.67	0.48	36,441	0.69	0.50	18,093	0.62	0.41
0.10	11,325	0.73	0.53	25,638	0.66	0.48	36,962	0.68	0.50	18,428	0.61	0.41
0.00	11,330	0.73	0.53	25,648	0.66	0.48	36,978	0.68	0.50	18,518	0.61	0.41

Table 13-25: Tonnage Grade Curve, Brochantite

CHRYSOCOLLA												
Cut Off (%Cu T)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	167	1.42	1.06	78	1.37	1.03	245	1.40	1.05	61	1.32	0.72
1.10	244	1.33	0.99	134	1.27	0.96	378	1.31	0.98	124	1.23	0.65
1.00	368	1.24	0.92	227	1.18	0.88	595	1.21	0.90	252	1.14	0.64
0.90	569	1.13	0.84	404	1.08	0.81	973	1.11	0.82	415	1.06	0.62
0.80	880	1.03	0.76	757	0.97	0.71	1,636	1.00	0.74	673	0.98	0.60
0.70	1,349	0.93	0.69	1,409	0.86	0.63	2,758	0.90	0.66	1,169	0.88	0.55
0.60	1,976	0.84	0.63	2,482	0.77	0.56	4,458	0.80	0.59	2,174	0.77	0.50
0.50	2,723	0.76	0.58	4,031	0.68	0.50	6,754	0.72	0.53	3,490	0.69	0.45
0.40	3,637	0.68	0.52	6,191	0.60	0.44	9,828	0.63	0.47	5,474	0.60	0.40
0.30	4,520	0.62	0.47	8,538	0.53	0.39	13,058	0.56	0.42	8,286	0.51	0.35
0.25	4,798	0.60	0.46	9,281	0.51	0.38	14,079	0.54	0.41	9,449	0.49	0.34
0.22	**4,918**	**0.59**	**0.45**	**9,581**	**0.50**	**0.37**	**14,499**	**0.53**	**0.40**	**9,978**	**0.47**	**0.33**
0.20	4,975	0.59	0.45	9,738	0.50	0.37	14,713	0.53	0.40	10,247	0.46	0.32
0.18	5,019	0.58	0.45	9,836	0.50	0.37	14,855	0.53	0.39	10,424	0.46	0.32
0.10	5,101	0.58	0.44	9,977	0.49	0.36	15,078	0.52	0.39	10,792	0.45	0.31
0.00	5,102	0.58	0.44	9,982	0.49	0.36	15,084	0.52	0.39	10,894	0.45	0.31

Table 13-26: Tonnage Grade Curve, Chrysocolla

WAD GT 0.1

Cut Off (%Cu T)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	1	1.35	0.92	1	1.59	0.81	2	1.48	0.86	0	2.66	1.95
1.10	1	1.35	0.92	1	1.47	0.62	2	1.42	0.74	1	2.23	1.45
1.00	2	1.17	0.82	3	1.21	0.47	4	1.19	0.61	1	2.23	1.45
0.90	4	1.04	0.72	4	1.11	0.50	8	1.08	0.60	1	2.07	1.30
0.80	7	0.94	0.65	11	0.95	0.46	18	0.94	0.54	1	1.65	1.05
0.70	18	0.82	0.57	32	0.81	0.45	50	0.81	0.49	9	0.85	0.39
0.60	59	0.69	0.44	105	0.69	0.42	164	0.69	0.43	49	0.67	0.36
0.50	247	0.58	0.35	444	0.57	0.35	691	0.57	0.35	299	0.56	0.34
0.40	802	0.48	0.29	1,715	0.47	0.28	2,517	0.48	0.28	1,142	0.47	0.28
0.30	1,852	0.40	0.25	4,994	0.39	0.23	6,846	0.39	0.23	4,321	0.38	0.22
0.25	2,622	0.37	0.22	8,167	0.34	0.20	10,788	0.35	0.20	7,257	0.33	0.19
0.22	**3,260**	**0.34**	**0.20**	**10,686**	**0.32**	**0.18**	**13,945**	**0.32**	**0.19**	**9,521**	**0.31**	**0.17**
0.20	3,731	0.32	0.19	12,424	0.30	0.17	16,155	0.31	0.17	11,046	0.30	0.16
0.18	4,123	0.31	0.18	14,059	0.29	0.16	18,182	0.29	0.17	12,421	0.29	0.16
0.10	4,610	0.30	0.17	16,275	0.27	0.15	20,885	0.28	0.15	14,060	0.27	0.15
0.00	4,610	0.30	0.17	16,275	0.27	0.15	20,885	0.28	0.15	14,060	0.27	0.15

Table 13-27 Tonnage Grade Curve, Wad GT 0.1

ENRICHMENT												
Cut Off (%Cu T)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	176	1.54	0.32	323	1.43	0.28	499	1.47	0.29	65	1.39	0.27
1.10	225	1.45	0.31	484	1.33	0.25	709	1.37	0.27	113	1.28	0.25
1.00	294	1.36	0.29	683	1.25	0.23	976	1.28	0.25	221	1.17	0.23
0.90	363	1.28	0.27	899	1.18	0.22	1,262	1.21	0.24	388	1.07	0.21
0.80	446	1.20	0.25	1,168	1.10	0.21	1,614	1.13	0.22	617	0.99	0.18
0.70	550	1.11	0.23	1,466	1.03	0.20	2,016	1.05	0.21	853	0.92	0.17
0.60	659	1.04	0.22	1,811	0.96	0.18	2,470	0.98	0.19	1,095	0.87	0.16
0.50	773	0.96	0.20	2,153	0.89	0.17	2,926	0.91	0.18	1,336	0.81	0.15
0.40	899	0.89	0.19	2,522	0.83	0.16	3,421	0.85	0.17	1,601	0.75	0.14
0.30	1,040	0.82	0.18	3,019	0.75	0.15	4,059	0.77	0.16	1,888	0.69	0.13
0.25	1,124	0.78	0.17	3,286	0.71	0.15	4,410	0.73	0.15	2,102	0.65	0.13
0.22	**1,176**	**0.75**	**0.17**	**3,468**	**0.69**	**0.14**	**4,644**	**0.70**	**0.15**	**2,193**	**0.63**	**0.13**
0.20	1,212	0.74	0.17	3,580	0.67	0.14	4,792	0.69	0.15	2,254	0.62	0.13
0.18	1,251	0.72	0.16	3,669	0.66	0.14	4,920	0.67	0.14	2,341	0.60	0.12
0.10	1,364	0.67	0.15	3,913	0.63	0.13	5,277	0.64	0.14	2,497	0.57	0.12
0.00	1,418	0.65	0.15	4,025	0.61	0.13	5,443	0.62	0.13	2,534	0.57	0.12

Table 13-28: Tonnage Grade Curve, Enrichment

MIXED												
Cut Off (%CuT)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	157	1.70	0.37	250	1.55	0.31	407	1.61	0.33	204	1.45	0.25
1.10	183	1.62	0.37	309	1.47	0.30	492	1.53	0.32	277	1.37	0.24
1.00	208	1.55	0.36	376	1.40	0.28	584	1.45	0.31	412	1.27	0.23
0.90	235	1.48	0.35	448	1.32	0.27	683	1.38	0.30	617	1.16	0.22
0.80	270	1.40	0.34	545	1.24	0.26	815	1.29	0.29	921	1.06	0.21
0.70	308	1.32	0.32	669	1.15	0.25	977	1.20	0.28	1,353	0.96	0.19
0.60	351	1.24	0.31	795	1.07	0.24	1,147	1.12	0.26	1,784	0.88	0.18
0.50	388	1.17	0.29	897	1.01	0.23	1,285	1.06	0.25	2,180	0.82	0.18
0.40	423	1.11	0.27	1,006	0.95	0.22	1,430	1.00	0.24	2,634	0.76	0.17
0.30	452	1.06	0.26	1,093	0.90	0.22	1,545	0.95	0.23	3,239	0.68	0.16
0.25	463	1.05	0.26	1,141	0.88	0.21	1,604	0.92	0.23	3,548	0.65	0.15
0.22	**475**	**1.02**	**0.26**	**1,177**	**0.86**	**0.21**	**1,652**	**0.90**	**0.22**	**3,661**	**0.63**	**0.15**
0.20	482	1.01	0.25	1,202	0.84	0.21	1,684	0.89	0.22	3,738	0.62	0.15
0.18	491	1.00	0.25	1,229	0.83	0.20	1,720	0.88	0.22	3,806	0.62	0.15
0.10	519	0.95	0.24	1,289	0.80	0.20	1,807	0.84	0.21	4,074	0.59	0.14
0.00	523	0.94	0.24	1,320	0.78	0.20	1,844	0.83	0.21	4,125	0.58	0.14

Table 13-29: Tonnage Grade Curve, Mixed

CHALCOPYRITE

Cut Off (%Cu T)	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]	Tonnage [Kt]	CuT [%]	CuS [%]
1.20	13	1.73	0.06	21	1.65	0.05	34	1.68	0.06	15	1.42	0.06
1.10	17	1.61	0.05	24	1.58	0.05	41	1.60	0.05	25	1.31	0.06
1.00	22	1.47	0.04	30	1.48	0.05	52	1.48	0.05	35	1.23	0.05
0.90	32	1.31	0.04	34	1.42	0.04	66	1.36	0.04	52	1.14	0.05
0.80	45	1.17	0.04	43	1.30	0.04	88	1.24	0.04	75	1.05	0.05
0.70	61	1.06	0.03	53	1.19	0.04	114	1.12	0.04	121	0.94	0.06
0.60	85	0.94	0.03	70	1.06	0.03	155	1.00	0.03	165	0.86	0.05
0.50	113	0.84	0.03	90	0.94	0.03	203	0.89	0.03	242	0.76	0.04
0.40	133	0.79	0.03	115	0.83	0.03	248	0.81	0.03	331	0.68	0.04
0.30	146	0.75	0.03	161	0.70	0.03	307	0.72	0.03	411	0.61	0.04
0.25	153	0.73	0.03	170	0.67	0.03	323	0.70	0.03	440	0.59	0.04
0.22	**159**	**0.71**	**0.03**	**177**	**0.66**	**0.03**	**336**	**0.68**	**0.03**	**453**	**0.58**	**0.04**
0.20	164	0.69	0.03	178	0.65	0.03	343	0.67	0.03	466	0.57	0.04
0.18	173	0.67	0.03	182	0.64	0.03	355	0.65	0.03	475	0.56	0.03
0.10	193	0.61	0.03	188	0.63	0.03	381	0.62	0.03	487	0.55	0.03
0.00	195	0.61	0.03	188	0.63	0.03	384	0.62	0.03	488	0.55	0.03

Table 13-30: Tonnage Grade Curve, Chalcopyrite

The following figure shows a 3D view of the Resources pit.

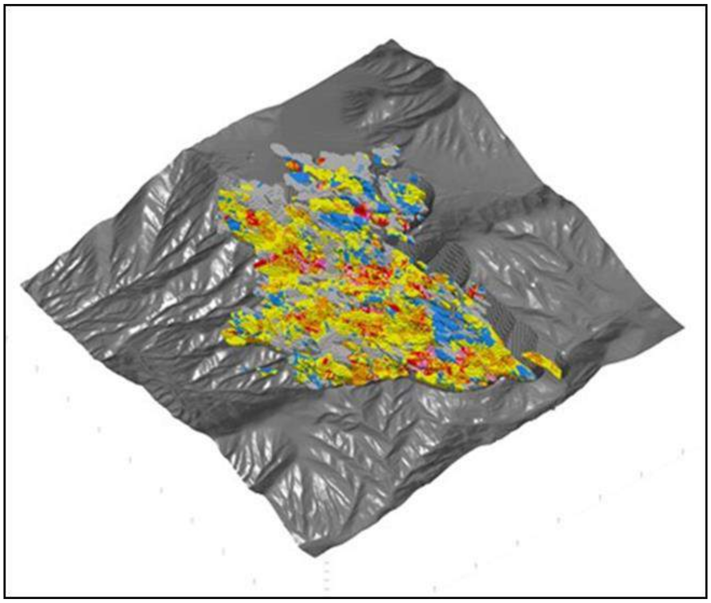


Figure 13-25: Resource Pit and CuT Block Model

For this pit and using the marginal COG values mentioned above, it is estimated as a preliminary approach, based on Measured, Indicated and Inferred Resources, that a total of 70.4 Mt @ 0.60% CuT of Measured + Indicated plus 43.0 Mt @ 0.52% CuT of Inferred are sent to the Heap Leach pads and 5.8 Mt @ 0.20 of Measured + Indicated plus 4.1 Mt @ 0.18% CuT of Inferred to the ROM pads.

Table 13-31 shows the estimated mineral resource per category, for a COG = 0.22 % CuT.

				Contained Metal	
	Quantity	Grade		CuT	CuS
	Tonnes	CuT	CuS	Tonnes	Tonnes
Classification	(000s)	(%)	(%)	(t)	(t)
Measured					
Brochantite	10.890	0,76	0,55	82.418	59.835
Chrysocolla	4.918	0,59	0,45	29.016	22.191
Enriched	1.176	0,75	0,17	8.874	1.974
Mixed	475	1,02	0,26	4.865	1.217
Wad	3	0,27	0,17	7	4
Wad GT 0.1	3.260	0,34	0,20	11.103	6.550
Total Indicated	**20.721**	**0,66**	**0,44**	**136.283**	**91.772**
Indicated					
Brochantite	24.719	0,68	0,49	167.463	121.418
Chrysocolla	9.581	0,50	0,37	48.298	35.668
Enriched	3.468	0,69	0,14	23.769	4.899
Mixed	1.177	0,86	0,21	10.076	2.457
Wad	36	0,26	0,14	93	50
Wad GT 0.1	10.686	0,32	0,18	33.955	19.249
Total Measured	**49.666**	**0,57**	**0,37**	**283.654**	**183.741**
Measured and Indicated					
Brochantite	35.609	0,70	0,51	249.881	181.253
Chrysocolla	14.499	0,53	0,40	77.314	57.859
Enriched	4.644	0,70	0,15	32.644	6.873
Mixed	1.652	0,90	0,22	14.941	3.675
Wad	38	0,26	0,14	100	54
Wad GT 0.1	13.945	0,32	0,19	45.058	25.799
Total Measured and Indicated	**70.387**	**0,60**	**0,39**	**419.937**	**275.513**
Inferred					
Brochantite	17.618	0,63	0,42	110.712	74.266
Chrysocolla	9.978	0,47	0,33	47.077	32.680
Enriched	2.193	0,63	0,13	13.786	2.777
Mixed	3.661	0,63	0,15	23.197	5.525
Wad	43	0,27	0,09	115	38
Wad GT 0.1	9.521	0,31	0,17	29.584	16.459
Total Inferred	**43.015**	**0,52**	**0,31**	**224.471**	**131.746**

Table 13-31: Mineral Resource Estimate for the Marimaca Deposit, based on a cutoff grade of 0.22% CuT. 15 th January, 2020, Luis Oviedo, P. Geo.

Notes:

1. **Mineral resources are reported within a constraining pit shell developed using Whittle™ software. Assumptions include a metal price of US$3.00/lb for Cu and process recoveries of 76% for CuT leaching and 40% for Cu ROM leaching US$ 2.00/t of mining. US$9.0/tonne for leach processing, and US$2.50/tonne for ROM process; both figures including G&A.**
2. **Assumptions include 100% mining recovery.**
3. **An external dilution factor was not considered during this resource estimation. Internal dilution within a 5 m x 5 m x 5 m is considered and the use of small loading equipment is foreseen for adequate selectivity.**
4. **Quantities and grades in a mineral resource estimate are rounded to an appropriate number of significant figures to reflect that they are approximations.**

13.19 Reporting Sensitivity

Table 13-32 shows the sensitivity of the Marimaca Mineral Resource Estimate to variations in the CuT cutoff grade, highlighting in bold text the base case COG.

				Contained Metal	
	Quantity	**Grade**		**CuT**	**CuS**
	Tonnes	**CuT**	**CuS**	**Tonnes**	**Tonnes**
Classification	**(000s)**	**(%)**	**(%)**	**(t)**	**(t)**
Measured					
0,70	7.155	1,09	0,72	78.135	51.286
0,50	11.397	0,91	0,61	103.293	69.134
0,30	17.865	0,72	0,49	128.881	87.138
0,25	19.607	0,68	0,46	133.668	90.217
0,22	**20.721**	**0,66**	**0,44**	**136.283**	**91.772**
0,20	21.467	0,64	0,43	137.851	92.661
0,18	22.072	0,63	0,42	139.003	93.289
Indicated					
0,70	13.180	1,01	0,62	133.118	82.346
0,50	23.285	0,83	0,53	192.951	123.999
0,30	40.253	0,64	0,42	259.242	169.048
0,25	45.995	0,60	0,39	275.026	178.796
0,22	**49.666**	**0,57**	**0,37**	**283.654**	**183.741**
0,20	52.020	0,55	0,36	288.604	186.461
0,18	54.109	0,54	0,35	292.576	188.601
Measured and Indicated					
0,70	20.335	1,04	0,66	211.253	133.632
0,50	34.682	0,85	0,56	296.244	193.133
0,30	58.118	0,67	0,44	388.123	256.186
0,25	65.602	0,62	0,41	408.693	269.013
0,22	**70.387**	**0,60**	**0,39**	**419.937**	**275.513**
0,20	73.487	0,58	0,38	426.455	279.122
0,18	76.181	0,57	0,37	431.579	281.891
Inferred					
0,70	8.680	1,00	0,51	86.987	44.685
0,50	16.926	0,80	0,44	135.609	75.146
0,30	33.410	0,60	0,35	199.490	116.986
0,25	39.477	0,55	0,32	216.147	127.012
0,22	**43.015**	**0,52**	**0,31**	**224.471**	**131.746**
0,20	45.192	0,51	0,30	229.048	134.201
0,18	47.164	0,49	0,29	232.798	136.288

Table 13-32: Sensitivity of the mineral resource to changes in CuT cut-off grade (base case cutoff)

Additional to the sensitivity showed above, a second run of the pit optimization algorithm was done, this time using a copper price of 3.50 US$/lb and maintaining the rest of the parameters fixed (Table 13-33).

				Contained Metal	
Classification	Quantity	Grade		CuT	CuS
	Tonnes	CuT	CuS	Tonnes	Tonnes
	(000s)	(%)	(%)	(t)	(t)
Measured					
0,70	7.174	1,09	0,72	78.296	51.346
0,50	11.443	0,91	0,61	103.606	69.236
0,30	18.029	0,72	0,48	129.652	87.428
0,25	19.814	0,68	0,46	134.557	90.567
0,22	**20.958**	**0,65**	**0,44**	**137.242**	**92.160**
0,20	21.728	0,64	0,43	138.860	93.080
0,18	22.360	0,63	0,42	140.063	93.742
Indicated					
0,70	13.261	1,01	0,62	133.856	82.602
0,50	23.517	0,83	0,53	194.569	124.660
0,30	41.088	0,64	0,42	263.133	170.899
0,25	47.055	0,59	0,38	279.540	180.966
0,22	**50.871**	**0,57**	**0,37**	**288.508**	**186.089**
0,20	53.327	0,55	0,35	293.672	188.920
0,18	55.535	0,54	0,34	297.870	191.180
Measured and Indicated					
0,70	20.434	1,04	0,66	212.152	133.947
0,50	34.960	0,85	0,55	298.175	193.896
0,30	59.117	0,66	0,44	392.785	258.327
0,25	66.870	0,62	0,41	414.097	271.533
0,22	**71.829**	**0,59**	**0,39**	**425.750**	**278.249**
0,20	75.055	0,58	0,38	432.531	282.000
0,18	77.896	0,56	0,37	437.932	284.921
Inferred					
0,70	8.876	1,00	0,51	88.632	45.343
0,50	17.684	0,79	0,44	140.512	77.263
0,30	35.365	0,59	0,34	209.019	121.521
0,25	42.076	0,54	0,31	227.455	132.404
0,22	**46.092**	**0,51**	**0,30**	**236.902**	**137.689**
0,20	48.572	0,50	0,29	242.114	140.474
0,18	50.829	0,48	0,28	246.404	142.837

Table 13-33: Shows the sensitivity values for this new pit.

13.20 General Considerations and Other Factors

Apart from the conditions identified in this report, and according to the available information, NCL is not aware of other environmental, permitting, legal title, taxation, socio-economic or political factors that could affect materially the Mineral Resource estimate.

14 MINING METHOD

The Marimaca deposit would be mineable by open pit methods

15 RECOVERY METHODS

The Marimaca deposit would be exploited using heap leach methods to produce copper cathode via SXEW (solvent extraction and electrowinning)

16 PROJECT INFRASTRUCTURE

The project is located in an area of good existing infrastructure

17 ADJACENT PROPERTIES

There is not relevant information regarding adjacent properties.

18 OTHER RELEVANT DATA AND INFORMATION

NCL thinks it has dealt in depth with the issues that should be involved in this study. At the moment there are no other relevant issues that we would like to discuss in this report.

19 INTERPRETATION AND CONCLUSIONS

NCL was retained by Coro to visit Marimaca, inspect the project, review and audit the data and estimate the Mineral Resource. NCL examined the different sources of input information: raw data (QA/QC), exploration, geology and mineral modelling estimation units.

The purpose of the investigation was to estimate the Mineral Resource, updating the 2018 block model, in compliance with generally recognized industry best practices and report them according to Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

NCL carried out a Resource Estimation for the part of the deposit located on the Marimaca-La Atómica and Atahualpa claims, resulting in the estimation of Measured, Indicated and Inferred Resources. Resultant figures inside an optimized pit envelope with a COG of 0.22% CuT are 70.4 Mt @ 0.60% CuT of Measured + Indicated Resources, plus 43.0 Mt @ 0.52% CuT of Inferred, plus 10.7 Mt of potential mineralized rock.

Based on the 2019 Mineral Resources estimation, reflecting a substantial increase in the Measured and Indicated Resources inventory, due to the exploration campaign carried out during 2018 and 2019.

District exploration targeting is now more defined because of the newly acquired claims around and close to the project that should be planned, including the use of classical exploration and high-resolution technologies to enhance exploration targeting.

The technical information on Marimaca attests to the high overall quality of the exploration and design work completed by the Coro personnel. NCL examined the data, the exploration, and the geology modelling and produced the Mineral Resource estimates of Marimaca. On the basis of this work, NCL concluded that the models, Mineral Resources and Statements for Marimaca January 2020 are appropriately categorized and free of material errors.

Other than disclosed in this technical report, NCL is not aware of any other significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the Marimaca Project.

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ANNEXES

21 ANNEX 1

21.1 Lawyers Land Tenure Letter

Bofill Mir & Alvarez Jana
Abogados

Santiago, December 20, 2019

Luis Tondo CEO Coro Mining Corporation Via email
Ref.: Marimaca Mining Project Legal Opinion

Dear Luis,

As Chilean counsel to Coro Mining Corporation ("Coro"), we have been asked to advise on the status and legal condition of the agreements by which Coro's Chilean subsidiaries (i) Compañía Minera Cielo Azul Limitada ("MCAL"), (ii) Sociedad Contractual Minera Compañía Minera NewCo Marimaca ("Newco Marimaca"); (iv) Compañía Ivan SpA ("Compañía Ivan"); and (v) Minera Rayrock Limitada ("Rayrock" and jointly with MCAL, Newco Marimaca and Compañía Ivan the "Coro Subsidiaries") have actual and/or eventual rights ("Marimaca Agreements") over various mining properties that comprise the Marimaca Area1 and its surroundings, both located in the borough of Mejillones, province of Antofagasta, Antofagasta Region, Chile ("Project").

For the purposes of this opinion, we have examined originals or copies, certified or identified to our satisfaction, of the documents related to the Marimaca Agreements and of such official public records, certificates of public officials and such other documents. Furthermore, we have considered such questions of law and made such other investigations, as we have deemed relevant or necessary as a basis for the opinion expressed herein.

We have assumed the genuineness of all signatures, the legal capacity of all individuals (other than Chilean individuals), the authenticity of all documents submitted to us as originals and the conformity to authentic original documents of all documents submitted to us as certified, conformed or photo static copies or facsimiles thereof. We have also assumed the completeness, truth and accuracy of all facts set forth in the official public records, certificates and documents supplied by public officials or otherwise conveyed to us by public officials.

We are solicitors qualified to carry on the practice of law in Chile only and we express no opinion as to any laws or matters governed by any laws other than the laws of Chile.

In relation to the aforementioned, we can inform the following:

1 "Marimaca Area" means the area located in in the borough of Mejillones, province of Antofagasta, Antofagasta Region, Chile, which comprised the mining concessions that surround the Marimaca Project. "Marimaca Project" means the mining project located in the borough of Mejillones, province of Antofagasta, Antofagasta Region, Chile, which area was already explored.

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I. Agreements over Mining Properties in Marimaca Area.

1. Option Agreement over Shares of Newco Marimaca

   a. Incorporation of Newco Marimaca and participation of the partners According to the corporate documents described herein, Newco Marimaca is the owner of the following exploitation mining concessions “MARIMACA 1 to 23”2 and “SOR 1 to 16”, located in the borough of Mejillones, province of Antofagasta, Antofagasta Region, Chile (“Marimaca Properties”).

By public deed dated September 23rd, 2015 granted before the Notary Public of Antofagasta María Soledad Lascar Merino, Mrs. María Aura del Carmen Echanes Morgado, Mr. Mario Carrizo Darlington, Mr. Max Salomón Carrizo Echanes and Mr. Mario Carrizo Echanes incorporated Newco Marimaca. The said company is registered on page 2097 number 528 of the Property Registry and its shares on page 4271 number 80 of the Shareholders Registry, both corresponding to the year 2015 of the Mining Registrar of Antofagasta.

Newco Marimaca will last 10 years from the date of its incorporation, term which will be tacitly and automatically extended once expired, for equal and successive periods of 2 years each, unless the Board agrees to terminate the company. It is a separate legal entity and is subject to suit and sue in its own name.

Newco Marimaca has all necessary corporate power and authority to own, lease and operate its properties and assets and to conduct its business at and in the places where such properties and assets are now owned, leased or operated or such business is now conducted.

Newco Marimaca has the legal status and powers under its constitutional documents and the laws of Chile to carry on the business of a mining company.

No notice of, and no application for voluntary liquidation or judicial liquidation under Chilean bankruptcy laws has been filed with respect to Newco Marimaca, nor has a moratorium been declared on the payment of any indebtedness of the company nor has any distress, execution or other process been levied nor is there any unfulfilled or unsatisfied judgment or court order outstanding or any analogous event which would have a material adverse effect on the assets, financial condition, prospects or operations of the company.

The social interest is divided into 100 shares, which are subscribed and paid as follows:

2 Exploitation mining concession “Marimaca 1 to 23” is compromised by the following pertenencias, which were all contributed to Newco Marimaca by the Owners (as defined below): “Marimaca 1 to 4; 10 to 14; and 17 to 23”, “Marimaca 5 to 9”, “Marimaca 15” and “Marimaca 16”.

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i. 25 shares, which Mario Carrizo Darlington subscribed by means of contributing to the company the exploitation mining concessions named “MARIMACA 1 to 4; 10 to 14; and 17 to 23”, whose title in favor of the contributor Mario Carrizo Darlington is registered on page 338 number 199 of the Property Registry of the Mining Registrar of Antofagasta, corresponding to the year 1988, which the partners agree to value in the sum of $ 5,000,000 Chilean pesos. The contribution of “MARIMACA 1 to 4; 10 to 14; and 17 to 23” to Newco Marimaca was duly registered on page 3100 number 1122 of year 2016 of the Property Registry of the Mining Registrar of Antofagasta. Because of the creation of the new Mejillones Mining Registrar, modifying the jurisdiction of the Registrar of Antofagasta, said exploitation mining concession had to be reregistered on page 38 back number 13 of year 2017 of the Property Registry of the Mining Registrar of Mejillones;

ii. 25 shares, subscribed by María Aura del Carmen Echanes Morgado through the contribution of the exploitation mining concessions named “MARIMACA 5 to 9”, whose title in favor of the contributor María Aura Echanes Morgado is registered on page 617 number 125 of the Property Registry of the Mining Registrar of Antofagasta, corresponding to the year 1991, which the partners agree to value in the sum of $ 5,000,000 Chilean pesos. The contribution of “MARIMACA 5 to 9” to Newco Marimaca was duly registered on page 2099 number 530 of year 2015 of the Property Registry of the Mining Registrar of Antofagasta. Because of the creation of the new Mejillones Mining Registrar, modifying the jurisdiction of the Registrar of Antofagasta, said exploitation mining concession had to be reregistered on page 37 number 12 of year 2017 of the Property Registry of the Mining Registrar of Mejillones;

iii. 25 shares, subscribed by Max Salomón Carrizo Echanes through the contribution of the exploitation mining concessions named “MARIMACA 15” and “MARIMACA 16”, whose title in favor of the contributor Max Salomón Carrizo Echanes is registered on page 1041 number 220 of the Property Registry of the Mining Registrar of Antofagasta, corresponding to the year 2013, which the partners agree to value in the sum of $ 5,000,000 Chilean pesos. The contribution of “MARIMACA 15” and “MARIMACA 16” to Newco Marimaca was duly registered on page 2098 number 529 of year 2015 of the Property Registry of the Mining Registrar of Antofagasta. Because of the creation of the new Mejillones Mining Registrar, modifying the jurisdiction of the Registrar of Antofagasta, said exploitation mining concessions had to be reregistered on page 36 number 13 of year 2017 of the Property Registry of the Mining Registrar of Mejillones; and

iv. 25 shares, subscribed by Mr. Mario Alfonso Carrizo Echanes in the incorporation act and that he will pay by means of the contribution in money of the sum of $ 5,000,000 Chilean pesos within the term of one year counted from the date of the incorporation public deed. Subsequently, by means of public deed dated September 11, 2018 granted

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before the Notary Public of Antofagasta Ximena Garrido Granada, Mr. Mario Alfonso Carrizo Echanes paid the subscribed shares by contributing exploitation mining concession “SOR 1 AL 16”, jointly appraised by the Owners (as defined below) in $ 5,000,000 Chilean Pesos. The contribution of exploitation mining concession “SOR 1 AL 16” to Newco Marimaca was duly registered on page 1,172 number 260 of the Property Registry of the Mining Registrar of Mejillones corresponding to year 2018.

The Marimaca Properties, according to the Marimaca Option Agreement (as defined below), include all mining concessions in the process of being granted and granted to the Owners or related parties, within the area of interest of the project as defined in the Marimaca Option Agreement.

Under the Marimaca Option Agreement, the Owners (as defined below) encumbered Marimaca Properties with a prohibition in favor of MCAL, forcing them not to encumber or alienate them or celebrate contracts of any kind with respect to them, which shall remain in force for the term of the Second Option and, as the case may be, until granting and registration of the deed of exercise or acceptance of the Second Option. Newco Marimaca will not be able to assign or transfer to third parties, in any capacity, royalties or rights to extract minerals from the Marimaca Properties[3].

The prohibition of encumbering and disposing of the exploitation mining concessions “MARIMACA 5 to 9”, “MARIMACA 15” and “MARIMACA 16” were originally registered on page 75 number 8 of the Prohibitions and Interdictions Registry of the Mining Registrar of Antofagasta corresponding to year 2016. Later, the prohibition over said mining concessions was re-registered on page 1 number 1 of the Prohibitions and Interdictions Registry of the Mining Registrar of Mejillones corresponding to year 2017 and as such is valid and enforceable as against third parties.

The registration of the prohibition of encumbering and disposing of the mining concessions “MARIMACA 1 to 4”, “MARIMACA 10 to 14” and “MARIMACA 17 to 23” is registered on page 3 number 2 of the Prohibitions and Interdictions Registry of the Mining Registrar of Mejillones corresponding to year 2017 and as such is valid and enforceable as against third parties.

b. Terms detailed in the Option Agreement to acquire up to 75% of Newco Marimaca

On November 16th, 2015 MCAL and the shareholders of Newco Marimaca (the “Owners”) entered into an option agreement for MCAL to acquire up to 75% of NewCo Marimaca (the “Marimaca

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[3] The Marimaca Option Agreement establishes that the Marimaca Properties include all mining concessions within the area of interest of the project as defined in the Marimaca Option Agreement, which includes exploitation mining concession “SOR 1 AL 16”. Nevertheless, the registrations of prohibitions of disposing and encumbering the Marimaca Properties constituted in favor of MCAL do not refer specifically to exploitation mining concession “SOR 1 AL 16”. By means of public deed dated December 10, 2019, delivered before the Notary Public of Antofagasta Mr. Nicolás Fernando Arrieta Concha, Newco Marimaca encumbered the aforementioned mining concession “SOR 1 AL 16” with a prohibition of disposing and encumbering in favor of MCAL. As of this date, said prohibition has not been yet registered before the Mining Registrar of Mejillones.

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Option Agreement”). Therefore, MCAL is the beneficiary of two options under the terms of Section 169 of the Chilean Mining Code, with the character of irrevocable and direct, to acquire the number of shares that are equivalent to 75% of the total shares of Newco Marimaca.

The First and the Second Option of Marimaca Option Agreement were registered on page 69 number 1 and page 70 number 2 of the Encumbrances and Prohibitions Register of the Shareholders’ Registry of the Mining Registrar of Antofagasta corresponding to year 2016. Moreover, the Marimaca Option Agreement was also duly registered on page 1 number 1 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 20174.

The Owners encumbered their shares in Newco Marimaca, forcing them not to encumber or alienate them or celebrate contracts of any kind with respect to them, which shall remain in force for the term of the Second Option and, as the case may be, until the granting and registration of the deed of exercise or acceptance of the Second Option. The prohibition of encumbering and disposing of Newco Marimaca shares is registered on page 71 number 3 of the Encumbrances and Prohibitions Register of the Shareholders’ Registry of the Mining Registrar of Antofagasta corresponding to year 2016 and as such is valid and enforceable as against third parties.

The Marimaca Option Agreement has been amended as follows:

i. By means of amendment public deed dated March 18, 2016 delivered before the Notary Public of Santiago Antonieta Mendoza Escalas the term the Owners had to lift all liens, mortgages, encumbrances, prohibitions, litigations over the Marimaca Properties before they were contributed to Newco Marimaca was extended. Said amendment was duly registered on page 20 number 2 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017.

ii. By means of supplement and amendment public deed dated September 9, 2016 delivered before the Notary Public of Santiago Antonieta Mendoza Escalas additional 4 By means of public deed dated December 10, 2019, delivered before the Notary Public of Antofagasta Mr. Nicolás Fernando Arrieta Concha, the Owners, MCAL and Newco Maricama, among others, agreed to cancel the following registrations before the Mining Registrar of Mejillones: (i) the Option Agreement registered on page 1 number 1 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017, (ii) the first amendment of the Option Agreement registered on page 20 number 2 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017; (iii) the supplement and public deed registered on page 23 number 3 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017; (iv) the rectification public deed registered on page 27 number 4 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017; (v) the second amendment of the Option Agreement registered on page 31 number 5 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017; (vi) the exercise of the Option Agreement registered on page 1092 number 228 of the Property Registry of the Mining Registrar of Mejillones corresponding to year 2018. As of this date, the aforementioned cancelation public deed has not been yet registered before the Mining Registrar of Mejillones.

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background information was incorporated to section 1 of the Marimaca Option Agreement. Said public deed was duly registered on page 23 number 3 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017.

iii. By means of rectification public deed dated March 3, 2017 delivered before the Notary Public of Santiago Antonieta Mendoza Escalas the registration information regarding mining concessions “MARIMACA 1 to 4”, “MARIMACA 10 to 14”, “MARIMACA 17 to 23” was corrected. Said public deed was duly registered on page 27 number 4 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017.

iv. By means of amendment public deed dated March 28, 2017 delivered before the Notary Public of Santiago Antonieta Mendoza Escalas MCAL and the Owners agreed to:

a) Establish that the execution of the First and Second Option involves the purchase of 51% and 24% of Newco Marimaca by means of transferring complete shares from each of the shareholders which total that percentage of all of the shares, instead of transferring fractional shares;
b) Include an alternative pre-condition for MCAL to exercise the Second Option by purchasing and contributing to Newco Marimaca a SX-EW plant with an annual production capacity of not less than 1,500 tons of copper cathodes, as well as the title over the surface of the property on which the said plant is located.

Said public deed was duly registered on the back of page 71 number 4 of the Encumbrances and Prohibitions Registry of the Mining Registrar of Antofagasta corresponding to year 2017 and on page 31 number 5 of the Mortgages and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to year 2017.

As amended, the Marimaca Option Agreement terms are the following:

i. First Option: 51% of the total shares for a price of USD 185,000. As condition precedent for the execution of the First Option, MCAL must conduct a feasibility study for the Project. The expiration date of the First Option was August 6, 2018.
ii. Second Option: 24% of the total shares for a price of USD $ 1,000. As condition precedent to the execution of the second option: /a/ MCAL must have obtained the required financing for the construction of the Project, according with the conclusions arrived by means of the feasibility study conducted by MCAL as condition precedent for the execution of the First Option; or /b/ MCAL must have purchased and contributed to Newco Marimaca a SX-EW plant with an annual production capacity of

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not less than 1,500 tons of copper cathodes, as well as the title over the surface rights on which the said plant is located.

d. Exercise of First Option

By means of public deed dated June 21, 2018 delivered before the Notary Public of Antofagasta María Soledad Lascar Merino, MCAL exercised the First Option and therefore acquired 51% of the total amount of shares of Newco Marimaca.
The exercised of the First Option was duly registered on page 1092 number 228 of the Property Registry of the Mining Registrar of Mejillones corresponding to year 2018 and on page 4349 number 83, page 4350 number 84, page 4350 number 85 and page 4350 number 86, all of the Shareholders' Registry number 31 of the Mining Registrar of Antofagasta corresponding to year 2018.
After the exercise of the First Option the current shareholders of Newco Marimaca are:

i. Mario Carrizo Darlington: 13 shares ii. María Aura del Carmen Echanes Morgado: 12 shares iii. Max Salomón Carrizo Echanes: 12 shares iv. Mario Alfonso Carrizo Echanes: 12 shares v. MCAL: 51 shares Total: 100 shares.

Based on our investigations we are of the opinion that none of the parties to the Marimaca Option Agreement is in default in any material respect in the observance or performance of any term, covenant or obligation to nor has any such default been alleged and no event has occurred which, with notice or lapse of time or both, would constitute such a default by any party to the agreement, except for the execution of Shareholders Agreement, which should be subscribed after MCAL exercises the First Option and acquires 51% of the total shares of Newco Marimaca.

2. Frame Agreement with Carrizo Family

a. Terms detailed in the Frame Agreement

By means of public deed dated August 27, 2019, MCAL, Inversiones Cielo Azul Limitada5 ("ICAL" and jointly with MCAL the "Buyers") and the Owners entered into a frame agreement in

5 Contractual Mining Corporations (Sociedad Contractual Minera) such as Newco Marimaca may not have less than two shareholders. Therefore, ICAL –a subsidiary company from Coro Mining Corp- is incorporated to the Frame Agreement in order to acquire a nominal percentage of participation in Newco Marimaca.

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order to have MCAL and ICAL purchase the total amount of shares of Newco Marimaca (the "Frame Agreement"), according to the following terms:

MCAL will purchase 48 shares of Newco Marimaca, equivalent to a 48% of the total amount of shares of Newco Marimaca. Once MCAL has acquired said 48 shares, it shall own 99% of the total amount of shares of Newco Marimaca.

In addition, ICAL shall purchase one share of Newco Marimaca, equivalent to a 1% of the total amount of shares of Newco Marimaca. Therefore, both MCAL (99%) and ICAL (1%) shall be the sole shareholders of Newco Marimaca.

In order to produce the aforementioned effects, the Buyers and the Owners have agreed to the following timeline:

i. Each of the Owners shall incorporate new companies by shares ("SPV") in which each one of them shall be the sole shareholder, within 90 days from August 27, 2019.
ii. Once the SPVs are incorporated, each of the Owners shall transfer all of their corresponding shares in Newco Marimaca to their respective SPV6 (jointly step i. and ii. the "Reorganization").
iii. MCAL shall waive the prohibition to dispose and encumber constituted over Newco Marimaca's shares by means of the Marimaca Option Agreement in order to allow the Owners fulfill the Reorganization. Nevertheless, once the Owners' shares in Newco Marimaca are duly transferred to their corresponding SPVs, both the SPVs and the Owners shall again constitute a prohibition of disposing and encumbering over the total amount of shares they own in Newco Marimaca.

Pursuant to the Frame Agreement, the Owners are compelled to fulfill the Reorganization process within 90 days from August 27, 2019 (the "Reorganization Term"). The Owners shall notify the Buyers that the Reorganization been completed and attach a copy of their corresponding shares duly registered under the name of their respective SPVs ("Reorganization Notice"). Each SPV shall transfer all their shares in Newco Marimaca to the Buyers by means of a shares sale and purchase public deed to be executed within 5 days from the reception of the Reorganization Notice by the Buyers ("Marimaca SPA").

If the Buyers do not receive the Reorganization Notice, the sale and purchase public deed shall be executed within 10 days from the registration of the Newco Marimaca shares under the name of the corresponding SPVs in the Shareholders Registry of the Antofagasta Mining Registrar.

6 Together with the transfer of their shares, the Owners shall also transfer their corresponding rights in the Marimaca Option Agreement to their respective SPVs.

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Furthermore, if the Owners fail to carry out the Reorganization within the Reorganization Term, each one of the Owners shall be compelled to enter individually and directly into shares sale and purchase agreement in order to transfer the total amount of their corresponding shares in Newco Marimaca to the Buyers within 10 days from the expiration of the Reorganization Term.

A draft of the sales and purchase agreement of said shares was annexed to the Frame Agreement.

Simultaneously with the execution of the Marimaca SPA Mario Carrizo Darlington, Mario Carrizo Echanes and María Aura Echanes Morgado shall submit their resignation to Newco Marimaca's board of directors and Mario Carrizo Darlington shall submit his resignation as Newco Marimaca's general manager.

Also simultaneously with the execution of the Marimaca SPA, the Owners and MCAL shall terminate and cancel the Marimaca Option Agreement by means of a public deed.

b. Compensation for transfer of Newco Marimaca shares

As compensation for the transfer of the Newco Marimaca shares:
The Buyers shall pay the Owners the total and final amount of USD 12,000,000 ("Marimaca SPA Price"). Such payment shall be distributed to the Owners or their SPVs, as appropriate, in proportion to the amount of Newco Marimaca shares they own. Consequently, MCAL and ICAL shall pay USD 11,755,102 and USD 244,898 respectively, according to the following schedule:

i. The Owners shall pay USD 6,000,000 together with the execution of the Marimaca SPA.
ii. MCAL and ICAL shall pay USD 5,755,102 and USD 244,898, respectively.
iii. MCAL shall pay USD 3,000,000 within 12 months from the execution of the Marimaca SPA.
iv. MCAL shall pay USD 3,000,000 within 24 months from the execution of the Marimaca SPA.

In order to guarantee the payment of the Marimaca SPA Price, the Buyers shall constitute a pledge without conveyance and prohibition to dispose and encumber in favor of the Owners over the shares of Newco Marimaca acquired by the Buyers through the Marimaca SPA. The Owners shall cancel and terminate said pledge as soon as the Buyers complete the payment of the Marimaca SPA Price.

In addition, the parties agreed to execute the following agreements:

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i. Rayrock shall sell the mining concessions indicated in Annex 9a7 of the Frame Agreement to Sociedad Contractual Minera Elenita ("Elenita").8

The price of said mining concession sales and purchase agreement shall be USD 1,000, to be paid together with the execution of the corresponding sales and purchase public deed.

ii. Elenita shall sell the mining concessions indicated in Annex 9b9 of the Frame Agreement to Newco Marimaca.

The price that Newco Marimaca shall pay in exchange of said mining concession sales and purchase agreement shall consist in:
A fixed amount of USD 1,000, to be paid together with the execution of the corresponding sales and purchase public deed.
A royalty of 1.5% of the Net Smelter Return from the sale or transfer of the minerals, metals or other mineral products –refined or not– from the mining concessions "MARIMACA 1 to 23" and "SOR 1 to16" (the "Marimaca Royalty").
Newco Marimaca shall have the pre-emptive right to acquire 1.0% of the Marimaca Royalty within the term starting from the constitution of the Marimaca Royalty until 24 months from the initiation of the commercial production of "Marimaca 1/23" and "SOR 1 to 16", at the price of USD 4,000,000. Furthermore, if a third party makes an offer for the Marimaca Royalty, then Newco Marimaca shall have the right of first refusal to acquire the Marimaca Royalty by matching the price, terms and conditions set out in the third- party offer.
Based on our investigations we are of the opinion that none of the parties to the Frame Agreement is in default in any material respect in the observance or performance of any term, covenant or obligation to nor has any such default been alleged and no event has occurred which, with notice or lapse of time or both, would constitute such a default by any party to the agreement.

7 The following mining properties: (i) "Pampa 81, 16", "Pampa 81, 17", "Pampa 81, 18", "Pampa 81, 19", "Pampa 81, 20", which are part of the exploitation mining concession "Pampa 81, 1 to 20"; (ii) "Pampa 47, 1", "Pampa 47, 2", "Pampa 47, 3", "Pampa 47, 4", "Pampa 47, 5", which are part of the exploitation mining concession "Pampa 47, 1 to 20"; (iii) 5 mining properties of five hectares each, product of division of exploitation mining concession "Pampa 81, 21 to 40"; (iv) 5 mining properties of five hectares each, product of division of exploitation mining concession "Pampa 47, 21 to 40"; and (v) exploitation mining concession "Tiso 1, 1 to 20". 8 Sociedad Contractual Minera Elenita is a related company of the Owners. 9 Mining property "Sello Nueve" which is part of exploitation mining concession "Sello Uno al Nueve"

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3. La Atómica Mining Option Agreement

By public deed granted on October 31, 2017 in the offices of the Santiago Notary Public Ms. Antonieta Mendoza, MCAL has entered into an option agreement under the terms of Section 169 of the Chilean Mining Code, with the character of irrevocable and direct, to purchase the exploitation mining concession "LA ATOMICA 1 to 10", owned by Inversiones Creciente Limitada (the "Atómica Option Agreement"). Said option agreement was duly registered on page 211 number 11 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2017, and is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms. Below is a summary of the key provisions set forth in the Atomica Option Agreement.
The Atómica Option Agreement has been amended by means of amendment public deed dated November 14, 2019, delivered before the Notary Public of Santiago Antonieta Mendoza Escalas, by which the term for the payment of the fourth instalment of the fixed price was modified. 1011

a. Terms of La Atómica Option Agreement:

   i. Unilateral and irrevocable option to purchase exploitation mining concession "LA ATOMICA 1 to 10".
   ii. MCAL is granted access to the area covered by the aforementioned mining right to conduct exploration works (including drilling and extraction of minerals, to the extent required for such exploration works).
   iii. MCAL undertakes to pay any annual mining license fees applicable under Chilean Law and to protect and maintain the mining concessions subject matter of this agreement.
   iv. The Atómica Option Agreement term expire on November 14, 2020.
   v. Inversiones Creciente Limitada constituted the following prohibitions in favor of MCAL (jointly the "Atómica Prohibitions"): (a) prohibition to dispose and encumber exploitation mining concession "LA ATOMICA 1 to 10"; and (b) prohibition to dispose, transfer or constitute in favor of third parties, at any title, rights over the extractions of minerals from exploitation mining concession "LA ATOMICA 1 to 10",

10 According to the amendment, the payment of US1,000,000 set out in section Six.Four. of the Atómica Option Agreement was divided in two payments, as follows: (i) USD 500,000 paid on November 14, 2019 and (ii) USD 500,000 to be paid on March 14, 2020, plus an interest of 0.75% per month between November 14, 2019 and March 14, 2020. The parties' estate that said interest will be equivalent to USD 15,000. 11 The amendment public deed dated November 14, 2019, delivered before the Notary Public of Santiago Antonieta Mendoza Escalas, it is in process of registration before the Mining Registrar of Mejillones.

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with exception of the rights established in section 15 of the Atómica Option Agreement12. The Atómica Prohibitions were duly registered on page 26 number 5 of the Prohibitions and Interdictions Registry of the Mining Registrar of Mejillones corresponding to the year 2017.

b. Purchase Price:

The aggregate price of the Atómica Option Agreement is divided in the following manner:

   i. Fixed price of USD 6,000,000 to be paid as follows:

Due date Amount Before execution USD 20,000 Signing of the option USD 80,000
November 14, 2018 USD 500,000 November 14, 2019 USD 500,000

March 14, 2020

USD 500,000 plus USD 15,000 for interest November 14, 2020 USD 4,400,000

ii. A Royalty of 1.5% of the Net Smelter Return from the sale or transfer of the minerals, metals or other mineral products –refined or not– from exploitation mining concession "LA ATOMICA 1 to 10" (the "Atómica Royalty"). MCAL has the right to buy 0.5% of Atómica Royalty at any time after the exercise of the option contained under the Atómica Option Agreement for the price of USD 2,000,000.

The Atomica Royalty was duly registered on page 227 number 12 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2017; and 12 In section 15 of the Atómica Option Agreement MCAL acknowledges the mineral extraction from the exploiting mining concession "LA ATOMICA 1 to 10" carried out by company Manuel Abel Segovia Aguirre Servicios Mineros E.I.R.L. in attention to lease agreement entered into with Inversiones Creciente Limitada. MCAL shall allow said extraction to continue under the following conditions: (i) said exploitation shall not exceed a monthly mineral extraction of 2,000 tons. Furthermore, said extracted mineral shall be exclusively delivered to a purchasing power (poder de compra) of ENAMI (National Mining Company); (ii) said exploitation works shall not affect nor interfere with MCAL's exploration works; and (iii) when the option is exercised, the workers and companies who are currently working in the area must leave and the exploitation mining concession "LA ATOMICA 1 to 10" must be delivered free of contracts with third parties and any other encumbrance.

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Based on our investigations we are of the opinion that none of the parties to the Atomica Option Agreement is in default in any material respect in the observance or performance of any term, covenant or obligation to nor has any such default been alleged and no event has occurred which, with notice or lapse of time or both, would constitute such a default by any party to the agreement.

4. Capax Purchase and Sell Agreement

By a public deed granted August 3, 2018 in the offices of the Santiago Notary Public Ms. Antonieta Mendoza, MCAL entered into a mining concessions sales and purchase agreement with CAPAX S.A. (the "Capax Purchase Agreement") for the following exploitation mining concessions "SANTA MARÍA UNO 1 and 2", "SANTA MARÍA DOS 1 to 2", "VIDA DOS 1 to 17", "INCA 1 to 2", "SORPRESA 1 to 10", "SORPRESA II 1 to 15", "ATAHUALPA 1 to 2", "TRUSKA UNO 1 to 9", "TRUSKA DOS 1 to 20, reduced to TRUSKA DOS 1 TO 12" (jointly the "Capax Mining Concessions").
Capax Purchase Agreement was duly registered on page 1126 number 243 of the Property Registry of the Mining Registrar of Mejillones corresponding to the year 2018; consequently, the Capax Mining Concessions were duly registered under the name of MCAL. Capax Purchase Agreement is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms. Below is a summary of the key provisions set forth in the Capax Purchase Agreement.
The aggregate price of the Capax Purchase Agreement is divided in the following manner:

i. Fixed price of USD 5,800,000, which was paid as follows (a) USD 100,000 duly paid before the execution of the Capax Purchase Agreement; and (b) USD 5,700,000 paid in the date of execution of said agreement.
ii. A Royalty of 2.0% of the Net Smelter Return from the sale or transfer of the minerals, metals or other mineral products –refined or not– from the Capax Mining Concessions (the "Capax Royalty"). MCAL shall not be compelled to develop and exploit the Capax Mining Concessions and shall only be obliged to pay the Capax Royalty if the Capax Mining Concessions are being developed and exploited.

The Capax Royalty was duly registered on page 252 number 52 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2018. By means of public granted February 1, 2019 in the offices of the Santiago Notary Public Ms. Antonieta Mendoza MCAL entered into an option agreement ("Capax Royalties Option Agreement") under the terms of Section 169 of the Chilean Mining Code, with the character of

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irrevocable and direct, to acquire the Capax Royalty and the rights over the Rodeada Royalty (as defined below). Said option agreement was duly registered on page 16 number 2 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2019, and is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms. Below is a summary of the key provisions set forth in the Capax Royalties Option Agreement.

a. Terms of Capax Royalties Option Agreement:

   i. Unilateral and irrevocable option to purchase Capax Royalty and the rights over the Rodeada Royalty.
   ii. The Capax Royalties Option Agreement term expires on February 1, 2022.
   iii. Capax constituted prohibition to dispose and encumber the Capax Royalty and Rodeada Royalty.

Said prohibitions were duly registered on page 8 number 2 of the Prohibitions and Interdictions Registry of the Mining Registrar of Mejillones corresponding to the year 2019.

b. Purchase Price: Fixed price of USD 2,200,000 to be paid as follows:

Due date Amount Signing of the option USD 200,000 February 1, 2020 USD 200,000 February 1, 2021 USD 200,000 February 1, 2022 USD 1,600,000

5. La Rodeada Sales and Purchase Agreement

   By a public deed granted March 18, 2019 in the offices of the Santiago Notary Public Ms. Antonieta Mendoza, MCAL has entered into a shares sales and purchase agreement with CAPAX S.A. (the “Rodeada Purchase Agreement”) for 50 shares in Sociedad Legal Minera Rodeada Uno del Mineral de Naguayán (“SLM Rodeada”). According to the Rodeada Purchase Agreement, SLM Rodeada is sole and current owner of the exploitation mining concession “RODEADA UNO to TRES”.

   The Rodeada Purchase Agreement was duly registered on the back of page 7 number 7 of the Shareholders Registry of the Mining Registrar of Mejillones corresponding to the year 2019; consequently, the 50 shares in SLM Rodeade were duly registered under the name of MCAL. The Rodeada Purchase Agreement is a legal and binding agreement under Chilean law, enforceable

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   against the parties thereto in accordance with its terms. Below is a summary of the key provisions set forth in the Rodeada Purchase Agreement.

   The aggregate price of the the Rodeada Purchase Agreement is divided in the following manner:

   i. Fixed price of USD 200,000, which was paid in the date of execution of said agreement.
   ii. A Royalty of 2.0% of the Net Smelter Return from the sale or transfer of the minerals, metals or other mineral products –refined or not– from exploitation mining concession “RODEADA UNO to TRES” (the “Rodeada Royalty”)13. MCAL shall not be compelled to develop and exploit the exploitation mining concession “RODEADA UNO to TRES” and shall only be obliged to pay the Rodeada Royalty if the exploitation mining concession “RODEADA UNO to TRES” is being developed and exploited.

The Rodeada Royalty was duly registered on page 30 number 3 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2019. Finally, according to shareholder certificate issued by the Mining Registry of Mejillones on March 28, 2018 the sole shareholders of SLM Rodeada are:

i. Manuel Carachi Mena 50 shares ii. MCAL 50 shares Total: 100 shares.

6. Naguayan Mining Option Agreement

   By public deed granted on January 3, 2018 in the offices of the Santiago Notary Public Ms. Antonieta Mendoza, MCAL has entered into an option agreement to purchase exploitation mining concessions “ROBLE 1 1 to 10”, “OLIMPO 1 to 20”, “TARSO 1 to 13”, “MACHO 1 to 20”, “SAN LORENZO 1 to 10”, “SICILIA 1 to 20”, “SAN PATRICK 1 to 20”, “MORENCIA 1 to 20”, “NEPAL 1 to 20”, “ALERCE I 1 to 20” and “CEDRO I 1 to 20”, owned by Compañía Minera Naguayán S.C.M. (the “Naguayan Option Agreement”). Said option agreement was duly registered on page 1 number 1 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2018, and is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms. Below is a summary of the key provisions set forth in the Naguayan Option Agreement.

13 Please note that the Rodeada Royalty is subject to the Capax Royalties Option Agreement described in section I. 4. above.

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The Naguayan Option Agreement has been amended by means of amendment public deed dated November 28, 2019, delivered before the Notary Public of Santiago Antonieta Mendoza Escalas, by which the term for the payment of the third installment of the fixed price were modified. 14 15

a. Terms of Naguayan Option Agreement:

  i. Unilateral and irrevocable option to purchase exploitation mining concessions ROBLE 1 1 to 10”, “OLIMPO 1 to 20”, “TARSO 1 to 13”, “MACHO 1 to 20”, “SAN LORENZO 1 to 10”, “SICILIA 1 to 20”, “SAN PATRICK 1 to 20”, “MORENCIA 1 to 20”, “NEPAL 1 to 20”, “ALERCE I 1 to 20” and “CEDRO I 1 to 20” (jointly the “Naguayan Mining Concessions”).
  ii. MCAL is granted access to the area covered by the aforementioned mining right to conduct exploration works (including drilling and extraction of minerals, to the extent required for such exploration works).
  iii. MCAL undertakes to pay any annual mining license fees applicable under Chilean Law and to protect and maintain the mining concessions subject matter of this agreement.
  iv. The Naguayan Option Agreement term expired on January 3, 2022.

Compañía Minera Naguayán S.C.M. constituted the following prohibitions in favor of MCAL (jointly the “Naguayan Prohibitions”): (a) prohibition to dispose and encumber the Naguayan Mining Concessions; (b) Prohibition to dispose, transfer or constitute in favor of third parties, at any title, rights over the extractions of minerals from the Naguayan Mining Concessions, with exception of the rights established in section 15 of the Naguayan Option Agreement16.

14 According to the amendment, the payment of US700,000 set out in section Six.three. of the Naguayan Option Agreement was divided in two payments, as follows: (i) USD 400,000 to be paid on January 3, 2020 and (ii) USD 300,000 to be paid on April 13, 2020, plus an interest of 0.03% per day between January 4, 2020 and April 13, 2020. The parties’ estate that said interest will be equivalent to USD 9,227. 15 The amendment public deed dated November 28, 2019, delivered before the Notary Public of Santiago Antonieta Mendoza Escalas, it is in process of registration before the Mining Registrar of Mejillones. 16 In section 15 of the Naguayan Option Agreement MCAL acknowledges the mineral extraction in attention to lease contracts entered into by the following third parties with Compañía Minera Naguayán S.C.M.: /A/ Company Osvaldo Farías Productor Minero E.I.R.L over mining concession “ALERCE I 14, 15, 16 and 17”; /B/Minería y Exploración Jorge Labra E.I.R.L. over mining concessions “OLIMPO 16 and 17” and “OLIMPO 18”; and /C/ Sierra Gorda SCM over mining concession “OLIMPO 5, 6, and 7”. MCAL shall allow the extraction of mineral from the companies referred to in letters /A/ /B/ and /C/ to continue under the following conditions: (i) said exploitation shall not exceed a monthly mineral extraction of 2,000 tons. The extracted mineral shall be exclusively delivered to ENAMI (National Mining Company) or other purchasing power (poder de compra); (ii) said exploitation works shall not affect nor interfere with MCAL’s exploration works; and (iii) when the option is exercised, the workers and companies who are currently working in the area must leave and the Naguayan Mining Concessions must be delivered free of contracts with third parties and any other encumbrance.

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The Naguayan Prohibitions was duly registered on page 1 number 1 of the Prohibitions and Interdictions Registry of the Mining Registrar of Mejillones corresponding to the year 2018.

b. Purchase Price:

The aggregate price of the Naguayan Option Agreement is divided in the following manner:

i. Fixed price of USD 6,500,000 to be paid as follows:

   Due date Amount Signing of the option USD 200,000 January 3, 2019 USD 300,000 January 3, 2020 USD 400,000 April 13, 2020 USD 300,000 plus 9,227 for interest January 3, 2021 USD 1,750,000 January 3, 2022 USD 3,550,000

ii. A Royalty of 1.5% of the Net Smelter Return from the sale or transfer of the minerals, metals or other mineral products –refined or not– from the Naguayan Mining Concessions (the “Naguayan Royalty”). MCAL shall not be compelled to develop and exploit the Naguayan Mining Concessions and shall only be obliged to pay the Naguayan Royalty if the Naguayan Mining Concessions are being developed and exploited.

   MCAL has the right to buy 0.5% of the Naguayan Royalty once the option under the Naguayan Option Agreement has been exercised and within the term of 12 months from the initiation of the commercial production of the Naguayan Mining Concessions for the price of USD 2,000,000 (the “Naguayan Royalty Buyback Right”). Compañía Minera Naguayán S.C.M. may not transfer said 0.5% of the Naguayan Royalty as long as the Naguayan Royalty Buyback Right is still in force.
   If Compañía Minera Naguayán S.C.M. decides to transfer the remaining 1.0% of the Naguayan Royalty, MCAL will have a right of first refusal to acquire the said portion of the Naguayan Royalty, according to the terms and conditions established in the Naguayan Option Agreement.
   The Naguayan Royalty was duly registered on page 23 number 2 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2018

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Based on our investigations we are of the opinion that none of the parties to the Naguayan Option Agreement is in default in any material respect in the observance or performance of any term, covenant or obligation to nor has any such default been alleged and no event has occurred which, with notice or lapse of time or both, would constitute such a default by any party to the agreement.

7. Proyecta Mining Option Agreement

   By public deed granted on May 6, 2019 in the offices of the Santiago Notary Public Ms. Antonieta Mendoza, MCAL has entered into an option agreement to purchase the exploitation mining concessions “LA MINA LA MERCEDES UNO 1 to 7”, “LA MINA LA MERCEDES DOS 1 to 6”, “LLANO 15 1 to 15”, “LLANO 16 1 to 15”, “LLANO 17 1 to 35”, “LLANO 18 1 to 36”, “LLANO 19 1 to 40”, “LLANO 20 1 to 46”, “LLANO 21 1 to 50”, “LLANO 22 1 to 50”, “LLANO 23 1 to 50”, “LLANO 24 1 to 10”, “LLANO 25 1 to 10”, “LLANO 26 1 to 2”, “LLANO 29 1 to 10”, “LLANO 31 1 to 5”, “LLANO 33 1-20”, owned by Proyecta S.A. and Sociedad Contractual Minera Proyecta (the “Proyecta Option Agreement”). Said option agreement was duly registered on page 37 number 5 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2019, and is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms. Below is a summary of the key provisions set forth in the Proyecta Option Agreement.

a. Terms of Proyecta Option Agreement:

   i. Unilateral and irrevocable option to purchase exploitation mining concessions “LA MINA LAS MERCEDES UNO 1 to 17”, “LA MINA LAS MERCEDES DOS 1 to 6”, “LLANO 15 1 to 15”, “LLAMO 16 1 to 15”, “LLANO 17 1 to 35”, “LLANO 18 1 to 36”, “LLANO 19 1 to 40”, “LLANO 20 1 to 46”, “LLANO 21 1 to 50”, “LLANO 22 1 to 50”, “LLANO 23 1 to 50”, “LLANO 24 1 to 10”, “LLANO 25 1 to 10”, “LLANO 26 1 to 2”, “LLANO 29 1 to 10”, “LLANO 31 1 to 5”, “LLANO 33 1-20” (jointly the “Proyecta Mining Concessions”).
   ii. MCAL is granted access to the area covered by the aforementioned mining right to conduct exploration works (including drilling and extraction of minerals, to the extent required for such exploration works).

iii. MCAL undertakes to pay any annual mining license fees applicable under Chilean Law and to protect and maintain the mining concessions subject matter of this agreement.
iv. The Proyecta Option Agreement term expired on May 6, 2023.
v. Proyecta S.A. and Sociedad Contractual Minera Proyecta constituted the following prohibitions in favor of MCAL (jointly the “Proyecta Prohibition”): (a) prohibition to dispose and encumber the Proyecta Mining Concessions; (b) Prohibition to dispose,

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transfer or constitute in favor of third parties, at any title, rights over the extractions of minerals from the Proyecta Mining Concessions.

The Proyecta Prohibitions were duly registered on page 12 number 3 of the Prohibitions and Interdictions Registry of the Mining Registrar of Mejillones corresponding to the year 2019.

b. Purchase Price:

The aggregate price of the Proyecta Option Agreement is divided in the following manner:

i. Fixed price of USD 2,000,000 to be paid as follows:

Due date Amount Condition precedent17 USD 50,000 May 6, 2020 USD 50,000 May 6, 2021 USD 100,000 November 6, 2021 USD 125,000 May 6, 2022 USD 125,000 November 6, 2022 USD 150,000 May 6, 2023 USD 1,400,000

ii. A Royalty of 1.0% of the Net Smelter Return from the sale or transfer of the minerals, metals or other mineral products –refined or not– from the Proyecta Mining Concessions (the “Proyecta Royalty”)18. MCAL shall not be compelled to develop and exploit the Proyecta Mining Concessions and shall only be obliged to pay the Proyecta Royalty if the Proyecta Mining Concessions are being developed and exploited.

MCAL has the right to buy the Proyecta Royalty within the term of 24 months from the initiation of the commercial production of the Proyecta Mining Concessions for the price of USD 500,000 (the “Proyecta Royalty Buyback Right”). Proyecta S.A. and Sociedad Contractual Minera Proyecta may not transfer the Proyecta Royalty as long as the Proyecta Royalty Buyback Right is still in force19.

17 Once the Proyecta Mining Concessions, the Proyecta Prohibition and the Proyecta Option Agreement are duly registered in the Mejillones Mining Registrar. 18 The Projecta Royatly shall be equally divided between Proyecta S.A. and Sociedad Contractual Minera Proyecta 19 The Proyecta Option Agreement establishes a right of first refusal in favor of MCAL in case Proyecta S.A. and Sociedad Contractual Minera Proyecta decides to transfer the Proyecta Royalty while the Proyecta Royalty Buyback Right is still in force. Nevertheless, said right of first refusal is not applicable to this contract, thus Proyecta S.A. and Sociedad Contractual Minera Proyecta are contractally prohibited to transfer the Proyecta Royalty while the Proyecta Royalty Buyback Right is still in force

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The Proyecta Royalty was duly registered on page 55 number 6 of the Mortgage and Encumbrances Registry of the Mining Registrar of Mejillones corresponding to the year 2019 Based on our investigations we are of the opinion that none of the parties to the Proyecta Option Agreement is in default in any material respect in the observance or performance of any term, covenant or obligation to nor has any such default been alleged and no event has occurred which, with notice or lapse of time or both, would constitute such a default by any party to the agreement.

II. Agreements over Mining Properties in the surroundings of Marimaca Area.

1. Rayrock Sales and Purchase Agreement20

a. Minera Rayrock Limitada

MCAL entered into a sales and purchase agreement with RAYROCK ANTOFAGASTA S.A.C. and COMPAÑÍA MINERA MILPO S.A.A. dated June 8, 2017 and delivered before the Notary Public of Santiago Antonieta Mendoza Escalas (the “Rayrock

SPA")21. The Rayrock SPA which was duly registered on page 47.080 number 25.554 of the Commerce Registry of the Real Estate Registrar of Santiago corresponding to the year 2017, published on the Official Gazette (Diario Oficial) on June 22, 2017 and is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms.
By means of the Rayrock SPA, MCAL acquired 99.9% of the interest of Minera Rayrock Limitada ("Rayrock") and Pablo Mir Balmaceda adquired 0,1% of the total interest of Rayrock. The transfer of the Rayrock's interest was distributed as follows:

i. RAYROCK ANTOFAGASTA S.A.C. sold 15.82% in Rayrock to MCAL for USD 983,748.06.
ii. COMPAÑÍA MINERA MILPO S.A.A. sold 84.08% in Rayrock to MCAL for USD 5,228,415.78

20 The mining properties owned by Minera Rayrock Limitada and Compañía Minera Iván SpA are surrounding the Marimaca Area. 21 By means of private instrument with the same date as the Rayrock SPA, MCAL, RAYROCK ANTOFAGASTA S.A.C. and COMPAÑÍA MINERA MILPO S.A.A. entered into a frame agreement that described, regulated and arranged in a more detailed manner the transfer of rights in Rayrock from RAYROCK ANTOFAGASTA S.A.C. and COMPAÑÍA MINERA MILPO S.A.A. to MCAL.

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iii. RAYROCK ANTOFAGASTA S.A.C. 0.1% in Rayrock to Pablo Mir Balmaceda for USD 6,218.38.

Together with the Rayrock SPA, Minera Rayrock Limitada and Compañía Minera Milpo S.A.A. entered into a royalty agreement by means of public deed dated May 26, 2017 delivered before the Notary Public of Santiago Eduardo Avello Concha (the "Rayrock Royalty"). All of the mining concessions listed in the Rayrock SPA property of Rayrock were subject to the Rayrock Royalty, under the following terms: Rayrock committed to pay Compañía Minera Milpo S.A.A. either a 1.5% or 2% NSR over trimestral production extracted from its mining concessions, according to the terms of the Rayrock Royalty22.

b. Compañía Iván SpA

By means of public deed dated January 25, 2019 delivered before the Notary Public of Santiago Antonieta Mendoza Escalas, Rayrock's shareholders agreed to a spinoff which caused the division of Rayrock ("Rayrock Spinoff"). The Rayrock Spinoff was duly registered on page 12.481 number 6570 and on page 12.614 number 6.613 of the Commerce Registry of the Real State Registrar of Santiago corresponding to the year 2017, published on the Official Gazette (Diario Oficial) on February 18, 2019 and is a legal and binding agreement under Chilean law, enforceable against the parties thereto in accordance with its terms23.
Because of the Rayrock Spinoff a new company named Compañía Iván Limitada was incorporated. According to the Rayrock Spinoff, the sole partners of Compañía Ivan Limitada were MCAL (99.9%) and Pablo Mir Balmaceda (0.1%).

22 According to the Rayrock Royalty, (i) the mining concessions which were affected by royalties in favor of third parties previous to the subscription of the Rayrock Royalty shall be committed to pay Compañía Minera Milpo S.A.A. a 1.5% NRS; and (ii) the mining concessions which were not affected by royalties in favor of third parties previous to the subscription of the Rayrock Royalty shall be committed to pay Compañía Minera Milpo S.A.A. a 2.0% NRS. According to the referred Rayrock frame agreement, previous to the Rayrock SPA and the Rayrock Royalty Rayrock's mining concessions were affected by the following royalties: (i) Royalty in favor of J. Hunt granted by means of private instrument dated January 3, 1994; and (ii) Royalty in favor of J. Hunt and J. Hunt Resources Associates, granted by means of private instrument dated September 1, 1994. 23 Moreover, by public deed dated February 25, 2019 delivered before the Notary Public of Santiago Antonieta Mendoza Escalas Compañía Ivan Limitada was transformed to Compañía Ivan SpA, a joint-stock company (sociedad por acciones). Said transformation public deed was duly registered on page 18.032 number 9.283 of the Commerce Registry of the Real State Registrar of Santiago corresponding to the year 2019, published on the Official Gazette (Diario Oficial) on March 16, 2019. Finally, by means of private instrument dated February 25, 2019 Pablo Mir Balmaceda transferred his total amount of shares (684 shares) in Compañía Ivan SpA to MCAL. Consequentially, MCAL is the sole shareholder of Compañía Ivan SpA.

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As consequence of the Rayrock Spinoff, Compañía Ivan Limitada owns exploitation mining concessions “NOTABLE UNO 1 to 30”; “TERRIBLE 1 to 143”; “DESES V 1 to 27”; and “JUNTO 1 to 10”24.

III. Surface Rights

In accordance with the Chilean Mining Code, every registered titleholder of a mining concession, whether exploitation or exploration, has the right to establish an occupation easement over the surface properties required for the comfortable exploration or exploitation of its concession. In the event that the surface property owner does not voluntarily agree to the granting of the easement, the titleholder of the mining concession may request such easement before the Courts of Justice, who shall grant the same upon determination of due compensation for damages. Below is a summary of the key provisions regarding the Marimaca Project easement.

a. Mining Easement Claim

On April 1, 2019 MCAL submitted a legal mining easement claim before the 1st Civil Court of Antofagasta in order to constitute a mining easement over State owned land (the “Marimaca Project Easement”)25.

MCAL requested the Marimaca Project Easement in benefit of the following mining concessions (jointly the “Easement Mining Concessions”): “MIRANDA I 1 to 146”, “MIRANDA II 1 to 30”, “MIRANDA III 1 to 130”, “MIRANDA IV 1 to 48”, “CHACAYA 1 1 to 200”, “CHACAYA 3 1 to 300”, “CHACAYA 5 1 to 100”, “CHACAYA 7 1 to 300”, “CHACAYA 10 1 to 300”, “CHACAYA 11 1 to 200” and “CHACAYA 12 1 to 300” Marimaca Project Easement was requested in order to occupy and use a surface of 4,465 hectares covered by the Easement Mining Concessions and its surrounding areas for:

i. Exploitation and benefit of the extracted minerals
ii. Installation of necessary infrastructure for the proper conservation and care of the personnel
iii. Occupation and transit along the roads that must be travelled for the proper exploitation process od the Easement Mining Concessions
iv. Installation of the infrastructure necessary for the development of the Marimaca Project 24 Compañía Ivan Limitada was also appointed with: (i) Mining Easement granted by the 4th Civil Court of Antofagasta on May 4, 2012 in civil procedure with identification number C-5211-2010; and (ii) the total amount of fixed assets of Ivan Plant, as detailed in the Rayrock Spinoff Agreement. 25 Civil procedure identification number C-1,764-2019 of the 1st Civil Court of Antofagasta.

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v. Enabling the terrain
vi. Preparing mappings
vii. Performing necessary engineering studies
viii. Executing all other activity necessary to carry out the exploitation and benefit of the Easement Mining Concessions.

MCAL has requested the Court to allow the Marimaca Easement to last 30 years.

b. Status

As of the date of this legal opinion, the Marimaca Easement procedure is in the state of final resolution. On December 16, 2019 the Civil Court determined that it had been provided with all the documents necessary in order to dictate the final resolution. According to article 235 n°4 of the Mining Code, the final resolution should be dictated within 5 days after the Civil Court receives the corresponding documents.

c. Provisional Easement

According to section 125 of the Chilean Mining Code, the court has granted MCAL a provisional easement, which allows MCAL to benefit the requested easement in advance, pending final resolution (the "Provisional Easement").
In order to benefit from the Provisional Easement, MCAL has paid a compensation of $ 5,000,000 Chilean pesos26.
Finally, the Provisional Easement was duly registered on page 210 number 79 of the Mortgage and Encumbrances Registry of the Mejillones Real State Registrar corresponding to year 2019.

IV. Final disclaimer

The opinions expressed herein are limited to questions arising under the law of the Republic of Chile. This Legal Opinion is effective only as of the date hereof. We expressly disclaim any responsibility to advise you of any development or circumstance of any kind including any change of law or fact that may occur after the date of this opinion even though such development, circumstance or change may affect the legal analysis, a legal conclusion or any other matter set forth in or relating to this Legal Opinion. Accordingly, any person relying on this Legal Opinion at 26 Equivalent to approximately USD 7,217

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any time after the date hereof should seek advice of its counsel to become aware of the proper application of this Legal Opinion, in due course.
This Legal Opinion is issued for the exclusive benefit of, and may be relied upon by, Coro Mining Corporation in connection with NI 43-101 report corresponding to year 2019.
This Legal Opinion must not be relied upon by anyone other than Coro Mining Corporation or for any other purpose, other than on enforcement of rights or actions brought directly in relation to this Legal Opinion or quoted or referred to in any public document or filed with anyone without the express consent of BMAJ.
This Legal Opinion may be disclosed to Coro Mining Corporation's legal and other professional advisers and insurers and may be further disclosed by Coro Mining Corporation as required by applicable law, regulation, or pursuant to the requirement or request of any applicable regulatory agency or government body having jurisdiction over Coro Mining Corporation or by Coro Mining Corporation to establish or maintain a defense in any legal proceedings or regulatory investigation of any nature, or for the purposes of the NI 43-101 report corresponding to year 2019.
If you require any further information or clarification, please let me know.

Yours sincerely,

Pablo Mir Balmaceda,
Bofill Mir & Álvarez Jana Abogados Limitada

21.2 List of Mining and Exploration Concessions

The following table shows the Coro Mining Concessions. All the companies in the "Owner" column are fully owned by Coro Mining.

Table 21-1: List of Concessions in the Marimaca Area

Name	Number	Owner	Area	Type	Status
Marimaca 1/23 (1/14 - 17/23)	02203-0273-3	NewCo	103	Exploitation	Constituted
Marimaca 1/23 (15-16)	02203-1440-5	NewCo	10	Exploitation	Constituted
La Atómica 1/10*	02203-0025-0	IC	50	Exploitation	Constituted
Miranda I 1 to 146	022031546-0	Cielo Azul	146	Exploitation	Constituted
Miranda II 1 to 30	022031545-2	Cielo Azul	30	Exploitation	In process
Miranda III 1 to 130	022031547-9	Cielo Azul	130	Exploitation	Constituted
Miranda IV 1 to 48	022031548-7	Cielo Azul	48	Exploitation	Constituted
Cedro I 1-20*	022031043-4	Naguayán	96	Exploitation	Constituted
Olimpo 1-20*	022030858-8	Naguayán	200	Exploitation	Constituted
Roble I, 1-10*	022030832-4	Naguayán	100	Exploitation	Constituted
Nepal, 1-20*	022031041-8	Naguayán	64	Exploitation	Constituted
Tarso 1-13*	022030932-0	Naguayán	65	Exploitation	Constituted
Alerce I 1-20*	022031042-6	Naguayán	100	Exploitation	Constituted
Macho 1-20*	022030934-7	Naguayán	100	Exploitation	Constituted
Morencia 1-20*	022031040-K	Naguayán	100	Exploitation	Constituted
Sicilia 1-20*	022031038-8	Naguayán	100	Exploitation	Constituted
San Lorenzo 1-20 red. 1-10*	022031007-8	Naguayán	50	Exploitation	Constituted
San Patrik 1-20*	022031039-6	Naguayán	100	Exploitation	Constituted
Atahualpa ½	022030001-3	Cielo Azul	10	Exploitation	Constituted
Inca ½	022030161-3	Cielo Azul	3	Exploitation	Constituted
Rodeada 1/3	022030064-1	Rodeada Uno	4	Exploitation	Constituted
Santa Maria ½	022030226-1	Cielo Azul	10	Exploitation	Constituted
Santa Maria II uno to dos	022030452-3	Cielo Azul	10	Exploitation	Constituted
Sorpresa 1 to 10	022030448-5	Cielo Azul	81	Exploitation	Constituted
Sorpresa II 1 to 15	022030486-8	Cielo Azul	150	Exploitation	Constituted
Sor 1/16	022030448-5	NewCo	16	Exploitation	Constituted
Truska 1 1/9	022030938-k	Cielo Azul	18	Exploitation	Constituted
Truska 2 1/12	022030939-8	Cielo Azul	39	Exploitation	Constituted
Vida Dos 1/20	022030593-7	Cielo Azul	64	Exploitation	Constituted
Chacaya 1 1 to 168	02203-1563-0	Cielo Azul	168	Exploitation	Constituted
Chacaya 3 1 to 246	02203-1564-9	Cielo Azul	246	Exploitation	Constituted
Chacaya 5 1 to 100	02203-1565-7	Cielo Azul	100	Exploitation	Constituted
Chacaya 7 1 to 300	02203-1566-5	Cielo Azul	300	Exploitation	Constituted
Chacaya 10 1 to 292	02203-1567-3	Cielo Azul	292	Exploitation	Constituted
Chacaya 11 1 to 170	02203-1568-1	Cielo Azul	170	Exploitation	Constituted
Chacaya 12 1 to 200	02203-1569-K	Cielo Azul	200	Exploitation	Constituted
Miranda 1 1 to 300	In process	Cielo Azul	300	Exploitation	In process
Miranda 13 1 to 300	In process	Cielo Azul	300	Exploitation	In process

Miranda 18 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Miranda 19 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Miranda 20 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Miranda 21 1 to 300	In process	Cielo Azul	300	Exploitation	In process
Miranda 22 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Llano 15 1/15*	022031047-7	Proyecta	15	Exploitation	Constituted
Llano 16 1/15*	022031048-5	Proyecta	15	Exploitation	Constituted
Llano 17 1/35*	022031049-3	Proyecta	35	Exploitation	Constituted
Llano 18 1/36*	022031050-7	Proyecta	36	Exploitation	Constituted
Llano 19 1/40*	022031051-5	Proyecta	40	Exploitation	Constituted
Llano 20 1/46*	022031052-3	Proyecta	46	Exploitation	Constituted
Llano 21 1/50*	022031053-1	Proyecta	50	Exploitation	Constituted
Llano 22 1/50*	022031054-K	Proyecta	50	Exploitation	Constituted
Llano 23 1/50*	022031055-8	Proyecta	50	Exploitation	Constituted
Llano 24 1/10*	022031056-6	Proyecta	10	Exploitation	Constituted
Llano 25 1/10*	022031057-4	Proyecta	10	Exploitation	Constituted
Llano 26 ½*	022031058-2	Proyecta	2	Exploitation	Constituted
Llano 29 1/10*	022031342-5	Proyecta	55	Exploitation	Constituted
Llano 31 1/5*	022031097-3	Proyecta	5	Exploitation	Constituted
Llano 33 1/20*	022031343-3	Proyecta	130	Exploitation	Constituted
La Mina la Mercedes Uno 1*	022030850-2	Proyecta	70	Exploitation	Constituted
La Mina la Mercedes Dos 1*	022030851-0	Proyecta	48	Exploitation	Constituted
Name	**Number**	**Owner**	**Area**	**Type**	**Status**
Marimaca 1/23 (1/14 - 17/23)	02203-0273-3	NewCo	103	Exploitation	Constituted
Marimaca 1/23 (15-16)	02203-1440-5	NewCo	10	Exploitation	Constituted
La Atómica 1/10*	02203-0025-0	IC	50	Exploitation	Constituted
Miranda I 1 to 146	022031546-0	Cielo Azul	146	Exploitation	Constituted
Miranda II 1 to 30	022031545-2	Cielo Azul	30	Exploitation	In process
Miranda III 1 to 130	022031547-9	Cielo Azul	130	Exploitation	Constituted
Miranda IV 1 to 48	022031548-7	Cielo Azul	48	Exploitation	Constituted
Cedro I 1-20*	022031043-4	Naguayán	96	Exploitation	Constituted
Olimpo 1-20*	022030858-8	Naguayán	200	Exploitation	Constituted
Roble I, 1-10*	022030832-4	Naguayán	100	Exploitation	Constituted
Nepal, 1-20*	022031041-8	Naguayán	64	Exploitation	Constituted
Tarso 1-13*	022030932-0	Naguayán	65	Exploitation	Constituted
Alerce I 1-20*	022031042-6	Naguayán	100	Exploitation	Constituted
Macho 1-20*	022030934-7	Naguayán	100	Exploitation	Constituted
Morencia 1-20*	022031040-K	Naguayán	100	Exploitation	Constituted
Sicilia 1-20*	022031038-8	Naguayán	100	Exploitation	Constituted
San Lorenzo 1-20 red. 1-10*	022031007-8	Naguayán	50	Exploitation	Constituted
San Patrik 1-20*	022031039-6	Naguayán	100	Exploitation	Constituted
Atahualpa ½	022030001-3	Cielo Azul	10	Exploitation	Constituted
Inca ½	022030161-3	Cielo Azul	3	Exploitation	Constituted
Rodeada 1/3	022030064-1	Rodeada Uno	4	Exploitation	Constituted

Santa Maria ½	022030226-1	Cielo Azul	10	Exploitation	Constituted
Santa Maria II uno to dos	022030452-3	Cielo Azul	10	Exploitation	Constituted
Sorpresa 1 to 10	022030448-5	Cielo Azul	81	Exploitation	Constituted
Sorpresa II 1 to 15	022030486-8	Cielo Azul	150	Exploitation	Constituted
Sor 1/16	022030448-5	NewCo	16	Exploitation	Constituted
Truska 1 1/9	022030938-k	Cielo Azul	18	Exploitation	Constituted
Truska 2 1/12	022030939-8	Cielo Azul	39	Exploitation	Constituted
Vida Dos 1/20	022030593-7	Cielo Azul	64	Exploitation	Constituted
Chacaya 1 1 to 168	02203-1563-0	Cielo Azul	168	Exploitation	Constituted
Chacaya 3 1 to 246	02203-1564-9	Cielo Azul	246	Exploitation	Constituted
Chacaya 5 1 to 100	02203-1565-7	Cielo Azul	100	Exploitation	Constituted
Chacaya 7 1 to 300	02203-1566-5	Cielo Azul	300	Exploitation	Constituted
Chacaya 10 1 to 292	02203-1567-3	Cielo Azul	292	Exploitation	Constituted
Chacaya 11 1 to 170	02203-1568-1	Cielo Azul	170	Exploitation	Constituted
Chacaya 12 1 to 200	02203-1569-K	Cielo Azul	200	Exploitation	Constituted
Miranda 1 1 to 300	In process	Cielo Azul	300	Exploitation	In process
Miranda 13 1 to 300	In process	Cielo Azul	300	Exploitation	In process
Miranda 18 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Miranda 19 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Miranda 20 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Miranda 21 1 to 300	In process	Cielo Azul	300	Exploitation	In process
Miranda 22 1 to 200	In process	Cielo Azul	200	Exploitation	In process
Llano 15 1/15*	022031047-7	Proyecta	15	Exploitation	Constituted
Llano 16 1/15*	022031048-5	Proyecta	15	Exploitation	Constituted
Llano 17 1/35*	022031049-3	Proyecta	35	Exploitation	Constituted
Llano 18 1/36*	022031050-7	Proyecta	36	Exploitation	Constituted
Llano 19 1/40*	022031051-5	Proyecta	40	Exploitation	Constituted
Llano 20 1/46*	022031052-3	Proyecta	46	Exploitation	Constituted
Llano 21 1/50*	022031053-1	Proyecta	50	Exploitation	Constituted
Llano 22 1/50*	022031054-K	Proyecta	50	Exploitation	Constituted
Llano 23 1/50*	022031055-8	Proyecta	50	Exploitation	Constituted
Llano 24 1/10*	022031056-6	Proyecta	10	Exploitation	Constituted
Llano 25 1/10*	022031057-4	Proyecta	10	Exploitation	Constituted
Llano 26 ½*	022031058-2	Proyecta	2	Exploitation	Constituted
Llano 29 1/10*	022031342-5	Proyecta	55	Exploitation	Constituted
Llano 31 1/5*	022031097-3	Proyecta	5	Exploitation	Constituted
Llano 33 1/20*	022031343-3	Proyecta	130	Exploitation	Constituted
La Mina la Mercedes Uno 1*	022030850-2	Proyecta	70	Exploitation	Constituted
La Mina la Mercedes Dos 1*	022030851-0	Proyecta	48	Exploitation	Constituted

IC - Inversiones Creciente S.A.

Cielo Azul - Compañía Minera Cielo Azul Limitada
Naguayán - Compañía Minera Naguayán SCM
NewCo - Sociedad Contractual Minera NewCo Marimaca
Rodeada uno - Sociedad Legal Minera Rodeada Uno
Proyecta – Proyecta S.A. and Sociedad Contractual Minera Proyecta

**Option Contracts*

Table 21-2: List of Concessions in the Surroundings Rayrock Area

Name	Number	Owner	Area	Type	Status
Florencia 1 1/10	02201-6270-	Rayrock	100	Exploitation	Constituted
Florencia 2 1/10	02201-6271-	Rayrock	100	Exploitation	Constituted
Florencia 4 1/10	02201-6273-	Rayrock	100	Exploitation	Constituted
Florencia 5 1/10	02201-6274-	Rayrock	100	Exploitation	Constituted
Florencia 6 1/10	02201-6275-	Rayrock	100	Exploitation	Constituted
Francisca 1 1/10	02201-6283-	Rayrock	100	Exploitation	Constituted
Francisca 6 1/10	02201-6284-	Rayrock	100	Exploitation	Constituted
Francisca 7 1/10	02201-6285-	Rayrock	100	Exploitation	Constituted
LIT A ½	02201-6265-	Rayrock	20	Exploitation	Constituted
LIT B	02201-6266-	Rayrock	6	Exploitation	Constituted
LIT C	02201-6267-	Rayrock	5	Exploitation	Constituted
LIT D	02201-6268-	Rayrock	2	Exploitation	Constituted
LIT E	02201-6269-	Rayrock	3	Exploitation	Constituted
Pamela 1 1/10	02201-6276-	Rayrock	100	Exploitation	Constituted
Pamela 2 1/10	02201-6277-	Rayrock	100	Exploitation	Constituted
Pamela 3 1/10	02201-6278-	Rayrock	100	Exploitation	Constituted
Pamela 4 1/10	02201-6279-	Rayrock	100	Exploitation	Constituted
Renata 1 1/8	02201-6280-	Rayrock	40	Exploitation	Constituted
Renata 2 1/10	02201-6281-	Rayrock	100	Exploitation	Constituted
Renata 3 1/10	02201-6282-	Rayrock	100	Exploitation	Constituted
Alejandra 1/40	02203-0585-	Rayrock	309	Exploitation	Constituted
Andalucía 1/35	02203-0440-	Rayrock	109	Exploitation	Constituted
Andre 1/20	02201-7536-	Rayrock	90	Exploitation	Constituted
Angel 14 ¼	02201-2975-	Rayrock	20	Exploitation	Constituted
Angel 5 1/10	02201-3239-	Rayrock	91	Exploitation	Constituted
Angel 5 1/14	02201-2970-	Rayrock	126	Exploitation	Constituted
Angel 4 1/114	02203-0494-	Rayrock	552	Exploitation	Constituted
Angel 4 1/30	02203-0584-	Rayrock	300	Exploitation	Constituted
Angel 10 1/16	02201-2976-	Rayrock	155	Exploitation	Constituted
Angel 2 1/104	02203-0492-	Rayrock	520	Exploitation	Constituted
Angel 2 1/40	02203-0582-	Rayrock	349	Exploitation	Constituted
Angel 9 1/101	02203-0496-	Rayrock	437	Exploitation	Constituted
Angel 8 1/56	02203-0495-	Rayrock	254	Exploitation	Constituted
Angel 11 1/9	02201-2973-	Rayrock	86	Exploitation	Constituted
Angel 6 1/33	02201-2971-	Rayrock	161	Exploitation	Constituted
Angel 6 1/40	02201-3240-	Rayrock	400	Exploitation	Constituted
Angel 7 1/12	02201-2972-	Rayrock	120	Exploitation	Constituted
Angel 7 1/20	02201-3241-	Rayrock	200	Exploitation	Constituted
Angel 13 ½	02201-2974-	Rayrock	10	Exploitation	Constituted
Angel 3 1/120	02203-0493-	Rayrock	600	Exploitation	Constituted
Angel 3 1/30	02203-0583-	Rayrock	300	Exploitation	Constituted
Angel 1 1/40	02203-0581-	Rayrock	388	Exploitation	Constituted

Anita 1/25	02201-7528-	Rayrock	250	Exploitation	Constituted
Anto 1/20	02201-7526-	Rayrock	200	Exploitation	Constituted
Cantera 4 1/30	02201-4750-	Rayrock	300	Exploitation	Constituted
Cantera 5 1/28	02201-4751-	Rayrock	140	Exploitation	Constituted
Cantera 6 1/10	02201-4752-	Rayrock	100	Exploitation	Constituted
Cantera 7 1/10	02201-4753-	Rayrock	100	Exploitation	Constituted
Cantera 2 1/10	02201-3027-	Rayrock	100	Exploitation	Constituted
Cantera 3 1/20	02201-4216-	Rayrock	200	Exploitation	Constituted
Castilla	02203-0730-	Rayrock	1	Exploitation	Constituted
Cato 1/20	02201-7525-	Rayrock	200	Exploitation	Constituted
Cecilia 1/17	02203-0550-	Rayrock	170	Exploitation	Constituted
Celeste 1/40	02201-2814-	Rayrock	400	Exploitation	Constituted
Claudia 1/10	02203-0642-	Rayrock	100	Exploitation	Constituted
Deses I 1/17	02201-4244-	Rayrock	160	Exploitation	Constituted
Deses II 1/30	02201-4245-	Rayrock	300	Exploitation	Constituted
Deses III 1/30	02201-4246-	Rayrock	300	Exploitation	Constituted
Deses IV 1/40	02201-4247-	Rayrock	400	Exploitation	Constituted
Deses V 1/27	02201-4248-	Iván SpA	270	Exploitation	Constituted
Deses VI 1/24	02201-4249-	Rayrock	197	Exploitation	Constituted
Empalme 1/20	02201-4081-	Rayrock	200	Exploitation	Constituted
Empalme ii 1/20	02201-4243-	Rayrock	200	Exploitation	Constituted
Flor 1/25	02201-7535-	Rayrock	215	Exploitation	Constituted
Fran 1/15	02201-7538-	Rayrock	150	Exploitation	Constituted
Galicia 1/10	02203-0287-	Rayrock	42	Exploitation	Constituted
Guanaquito 1/24	02201-2648-	Rayrock	240	Exploitation	Constituted
Isi 1/25	02201-7534-	Rayrock	150	Exploitation	Constituted
Ivan 1/100	02203-0036-	Rayrock	500	Exploitation	Constituted
Jacqueline 1/30	02201-3603-	Rayrock	300	Exploitation	Constituted
Junto 1/10	02201-2812-	Iván SpA	100	Exploitation	Constituted
Lada 1/20	02201-2895-	Rayrock	200	Exploitation	Constituted
Limonita 1/10	02201-2813-	Rayrock	70	Exploitation	Constituted
Linda 1/35	02201-7530-	Rayrock	350	Exploitation	Constituted
Lixiviado 1/10	02201-2894-	Rayrock	100	Exploitation	Constituted
Lorena 1/30	02203-0790-	Rayrock	300	Exploitation	Constituted
Los Santos 35 1/10	02203-0487-	Rayrock	100	Exploitation	Constituted
Los Santos 36 1/10	02203-0488-	Rayrock	100	Exploitation	Constituted
Los Santos 37 1/10	02203-0489-	Rayrock	100	Exploitation	Constituted
Los Santos 38 1/10	02203-0490-	Rayrock	100	Exploitation	Constituted
Luna 1/70	02201-7532-	Rayrock	700	Exploitation	Constituted
Marcia 1/29	02201-3602-	Rayrock	289	Exploitation	Constituted
Maria Cristina 1/20	02203-0586-	Rayrock	180	Exploitation	Constituted
Matias 1/30	02201-4097-	Rayrock	300	Exploitation	Constituted
Mely 1/90	02201-7531-	Rayrock	900	Exploitation	Constituted
Minivan I	02201-2305-	Rayrock	1	Exploitation	Constituted
Minivan II	02201-2306-	Rayrock	1	Exploitation	Constituted

Minivan III	02201-3060-	Rayrock	1	Exploitation	Constituted
Naguayán 1 1/20	02203-0579-	Rayrock	200	Exploitation	Constituted
Naguayán 2 1/20	02203-0580-	Rayrock	200	Exploitation	Constituted
Naguayán 3 1/30	02203-0592-	Rayrock	300	Exploitation	Constituted
Naguayán 4 1/30	02203-0670-	Rayrock	264	Exploitation	Constituted
Nena 1/10	02201-7529-	Rayrock	100	Exploitation	Constituted
Notable 2 1/5	02201-3130-	Rayrock	50	Exploitation	Constituted
Notable 1 1/30	02201-3129-	Iván SpA	255	Exploitation	Constituted
Pam 1/20	02201-7537-	Rayrock	200	Exploitation	Constituted
Paola 1/30	02203-0787-	Rayrock	300	Exploitation	Constituted
Patricia 1/30	02203-0789-	Rayrock	300	Exploitation	Constituted
Patricia ann 1/10	02203-0641-	Rayrock	100	Exploitation	Constituted
Porvenir	02203-0198-	Rayrock	1	Exploitation	Constituted
Priscilla 1/30	02203-0788-	Rayrock	300	Exploitation	Constituted
Ren 1/35	02201-7533-	Rayrock	300	Exploitation	Constituted
Ripio 1/80	02201-2893-	Rayrock	800	Exploitation	Constituted
Romi 1/20	02201-7527-	Rayrock	200	Exploitation	Constituted
Rosa 1/30	02201-2649-	Rayrock	300	Exploitation	Constituted
Roxana 1/10	02201-3263-	Rayrock	100	Exploitation	Constituted
Ruth 1/30	02203-0791-	Rayrock	300	Exploitation	Constituted
Sierra Azul 1/14	02201-1606-	Rayrock	70	Exploitation	Constituted
Susan 1/21	02201-3600-	Rayrock	210	Exploitation	Constituted
Tapa 1/30	02201-3062-	Rayrock	300	Exploitation	Constituted
Terrible 1/143	02201-1588-	Iván SpA	671	Exploitation	Constituted
Tiso 1 1/20	02201-4807-	Rayrock	175	Exploitation	Constituted
Tomy 1/10	02201-7524-	Rayrock	100	Exploitation	Constituted
Topo 1/26	02201-3061-	Rayrock	235	Exploitation	Constituted
Union 1/20	02201-2815-	Rayrock	200	Exploitation	Constituted
Yayito 1/10	02201-3599-	Rayrock	100	Exploitation	Constituted
Zar	02201-1612-	Rayrock	1	Exploitation	Constituted
Zarina	02201-1611-	Rayrock	1	Exploitation	Constituted

Name	**Number**	**Owner**	**Area**	**Type**	**Status**
Antena III 1/30	02206-0818-2	Rayrock	300	Exploitation	Constituted
Antena IV 1/30	02206-0819-0	Rayrock	300	Exploitation	Constituted
Antena V 1/30 (1/15)	02206-0820-4	Rayrock	150	Exploitation	Constituted
Antena VI 1/30 (1/15)	02206-0821-2	Rayrock	150	Exploitation	Constituted
Antena VII 1/30(1/15)	02206-0822-0	Rayrock	150	Exploitation	Constituted
Antena VIII 1/30 (1/15)	02206-0823-9	Rayrock	150	Exploitation	Constituted
Capel 1/10	02206-0466-7	Rayrock	100	Exploitation	Constituted
Quimurco v 1/30	02206-0828-K	Rayrock	300	Exploitation	Constituted
Quimurco vii 1/30	02206-0830-1	Rayrock	300	Exploitation	Constituted
Pampa 63 1/80	02206-2617-2	Rayrock	800	Exploitation	Constituted
Pampa 76 1/20	02206-2943-0	Rayrock	200	Exploitation	Constituted
Pampa 76 31/50	02206-2944-9	Rayrock	200	Exploitation	Constituted

Pampa 77 1/25	02206-2945-7	Rayrock	250	Exploitation	Constituted
Pampa 77 31/50	02206-2946-5	Rayrock	200	Exploitation	Constituted
Pampa 82 1/20	02206-3177-K	Rayrock	200	Exploitation	Constituted
Pampa 83 1/20	02206-3178-8	Rayrock	200	Exploitation	Constituted
Pampa 84 1/20	02206-3179-6	Rayrock	200	Exploitation	Constituted
Pampa 85 1/20	02206-3180-K	Rayrock	200	Exploitation	Constituted
Pampa 86 1/20	02206-3189-3	Rayrock	200	Exploitation	Constituted
Pampa 87 1/20	02206-3194-K	Rayrock	200	Exploitation	Constituted
Pia I 1/20	02206-0676-7	Rayrock	200	Exploitation	Constituted
Pia II 1/10	02206-0677-5	Rayrock	100	Exploitation	Constituted
Pia III 1/20	02206-0678-3	Rayrock	200	Exploitation	Constituted
Pia IV 1/20	02206-0679-1	Rayrock	200	Exploitation	Constituted
Pia V 1/30	02206-1065-9	Rayrock	300	Exploitation	Constituted
Constanza I 1/20	02206-0669-4	Rayrock	161	Exploitation	Constituted
Constanza II 1/9	02206-0670-8	Rayrock	90	Exploitation	Constituted
Constanza III 1/20	02206-0671-6	Rayrock	200	Exploitation	Constituted
Constanza IV 1/20	02206-1063-2	Rayrock	200	Exploitation	Constituted
Honduras	02206-1242-2	Rayrock	1	Exploitation	Constituted
Nicaragua	02206-1240-6	Rayrock	1	Exploitation	Constituted
Pampa 44 1/40	02206-2510-9	Rayrock	400	Exploitation	Constituted
Pampa 47 1/20	02206-2941-4	Rayrock	198	Exploitation	Constituted
Pampa 47 21/40	02206-2942-2	Rayrock	200	Exploitation	Constituted
Pampa 50 ¼	02206-2511-7	Rayrock	26	Exploitation	Constituted
Pampa 53 1/60	02206-2512-5	Rayrock	600	Exploitation	Constituted
Pampa 54 1/44	02206-2513-3	Rayrock	410	Exploitation	Constituted
Pampa 55 1/19	02206-2514-1	Rayrock	150	Exploitation	Constituted
Pampa 56 1/20	02206-2515-K	Rayrock	174	Exploitation	Constituted
Pampa 62 1/80	02206-2517-6	Rayrock	800	Exploitation	Constituted
Pampa 68 1/80	02206-2618-0	Rayrock	800	Exploitation	Constituted
Pampa 69 1/60	02206-2619-9	Rayrock	600	Exploitation	Constituted
Pampa 69 61/120	02206-2620-2	Rayrock	600	Exploitation	Constituted
Pampa 70 1/40	02206-2621-0	Rayrock	400	Exploitation	Constituted
Pampa 70 61/120	02206-2622-9	Rayrock	600	Exploitation	Constituted
Pampa 71 1/20	02206-2623-7	Rayrock	170	Exploitation	Constituted
Pampa 72 1/40	02206-2624-5	Rayrock	280	Exploitation	Constituted
Pampa 73 1/60	02206-2625-3	Rayrock	600	Exploitation	Constituted
Pampa 74 1/60	02206-2626-1	Rayrock	540	Exploitation	Constituted
Pampa 78 1/10	02206-2947-3	Rayrock	70	Exploitation	Constituted
Pampa 81 1/20	02206-3192-3	Rayrock	164	Exploitation	Constituted
Pampa 81 21/40	02206-3193-1	Rayrock	200	Exploitation	Constituted
Panama 1/12	02206-1482-4	Rayrock	72	Exploitation	Constituted
Puerto Rico 1/12	02206-1481-6	Rayrock	47	Exploitation	Constituted
Salvador	02206-1241-4	Rayrock	1	Exploitation	Constituted
Blanquita A01	In process	Cielo Azul	300	Exploration	In process
Blanquita A02	In process	Cielo Azul	300	Exploration	In process

Blanquita A03	In process	Cielo Azul	300	Exploration	In process
Blanquita A04	In process	Cielo Azul	300	Exploration	In process
Blanquita A05	In process	Cielo Azul	300	Exploration	In process
Blanquita A06	In process	Cielo Azul	300	Exploration	In process
Blanquita A07	In process	Cielo Azul	300	Exploration	In process
Blanquita A08	In process	Cielo Azul	300	Exploration	In process
Blanquita A09	In process	Cielo Azul	300	Exploration	In process
Blanquita A10	In process	Cielo Azul	300	Exploration	In process
Blanquita A11	In process	Cielo Azul	200	Exploration	In process
Blanquita A12	In process	Cielo Azul	300	Exploration	In process
Blanquita A13	In process	Cielo Azul	300	Exploration	In process
Chacaya 15	022032948-8	Cielo Azul	200	Exploration	Constituted
Chacaya 16	022032949-6	Cielo Azul	300	Exploration	In process
Chacaya A17	In process	Cielo Azul	100	Exploration	In process
Chacaya A18	In process	Cielo Azul	300	Exploration	In process
Chacaya A19	In process	Cielo Azul	200	Exploration	In process
Chacaya A20	In process	Cielo Azul	100	Exploration	In process
Chacaya A21	In process	Cielo Azul	300	Exploration	In process
Chacaya A22	In process	Cielo Azul	300	Exploration	In process
Chacaya A23	In process	Cielo Azul	200	Exploration	In process
Chacaya B02	In process	Cielo Azul	300	Exploration	In process
Chacaya B04	In process	Cielo Azul	200	Exploration	In process
Chacaya B06	In process	Cielo Azul	300	Exploration	In process
Chacaya B08	In process	Cielo Azul	300	Exploration	In process
Chacaya B09	In process	Cielo Azul	300	Exploration	In process
Chacaya B11	In process	Cielo Azul	200	Exploration	In process
Chacaya B12	In process	Cielo Azul	300	Exploration	In process
Chacaya B13	In process	Cielo Azul	200	Exploration	In process
Chacaya B14	In process	Cielo Azul	200	Exploration	In process
Naguayán B04	In process	Cielo Azul	300	Exploration	In process
Naguayán B07	In process	Cielo Azul	300	Exploration	In process
Naguayán B08	In process	Cielo Azul	300	Exploration	In process
Miranda A1	022033104-0	Cielo Azul	300	Exploration	In process
Miranda A2	022033091-5	Cielo Azul	300	Exploration	In process
Miranda A3	022033092-3	Cielo Azul	300	Exploration	In process
Miranda A4	022033093-1	Cielo Azul	300	Exploration	In process
Miranda A5	022033103-2	Cielo Azul	300	Exploration	In process
Miranda A6	022033094-K	Cielo Azul	300	Exploration	In process
Miranda A7	022033095-8	Cielo Azul	300	Exploration	In process
Miranda A8	022033096-6	Cielo Azul	200	Exploration	In process
Miranda A9	022033097-4	Cielo Azul	200	Exploration	In process
Miranda A11	022032865-1	Cielo Azul	200	Exploration	In process
Miranda A12	022033099-0	Cielo Azul	300	Exploration	In process
Miranda A13	022033100-8	Cielo Azul	300	Exploration	In process
Miranda A14	022033101-6	Cielo Azul	300	Exploration	In process

Miranda A15	022033102-4	Cielo Azul	300	Exploration	In process
Miranda A16	022033090-7	Cielo Azul	300	Exploration	In process
Miranda A17	022033084-2	Cielo Azul	300	Exploration	In process
Miranda A18	022033086-9	Cielo Azul	200	Exploration	In process
Miranda A19	022033085-0	Cielo Azul	200	Exploration	In process
Miranda 20	022032950-K	Cielo Azul	200	Exploration	In process
Miranda A20	022033087-7	Cielo Azul	200	Exploration	In process
Miranda A21	022033088-5	Cielo Azul	300	Exploration	In process
Miranda A22	022033089-3	Cielo Azul	200	Exploration	In process
Miranda 23	022032951-8	Cielo Azul	200	Exploration	Constituted
Morado 1	022033016-8	Cielo Azul	200	Exploration	Constituted
Morado 2	022033018-4	Cielo Azul	200	Exploration	Constituted
Morado 3	022033044-3	Cielo Azul	300	Exploration	Constituted
Morado 4	022033043-5	Cielo Azul	300	Exploration	Constituted
Morado 5	022033020-6	Cielo Azul	300	Exploration	Constituted
Morado 6	022033042-7	Cielo Azul	300	Exploration	Constituted
Morado 7	022033041-9	Cielo Azul	300	Exploration	Constituted
Morado 8	022033040-0	Cielo Azul	300	Exploration	Constituted
Negro 1	022033039-7	Cielo Azul	200	Exploration	Constituted
Negro 2	022033038-9	Cielo Azul	200	Exploration	Constituted
Negro 3	022033037-0	Cielo Azul	200	Exploration	Constituted
Negro 4	022033036-2	Cielo Azul	200	Exploration	Constituted
Negro 5	022033035-4	Cielo Azul	200	Exploration	Constituted
Negro 6	022033034-6	Cielo Azul	300	Exploration	Constituted
Negro 7	022033033-8	Cielo Azul	300	Exploration	Constituted
Negro 8	022033032-K	Cielo Azul	300	Exploration	Constituted
Negro 9	022033031-1	Cielo Azul	300	Exploration	Constituted
Negro 10	022033017-6	Cielo Azul	300	Exploration	Constituted
Fortuna 1	022033021-4	Cielo Azul	200	Exploration	Constituted
Fortuna 2	022033022-2	Cielo Azul	200	Exploration	Constituted
Fortuna 3	022033019-2	Cielo Azul	300	Exploration	Constituted
Fortuna 4	022033023-0	Cielo Azul	300	Exploration	Constituted
Fortuna 5	022033024-9	Cielo Azul	300	Exploration	Constituted
Fortuna 6	022033025-7	Cielo Azul	300	Exploration	Constituted
Fortuna 7	022033026-5	Cielo Azul	300	Exploration	Constituted
Fortuna 8	022033027-3	Cielo Azul	300	Exploration	Constituted
Fortuna 9	022033028-1	Cielo Azul	300	Exploration	Constituted
Fortuna 10	022033029-K	Cielo Azul	300	Exploration	Constituted
Fortuna 11	022033030-3	Cielo Azul	300	Exploration	Constituted
Fortuna 12	02201R089-5	Cielo Azul	300	Exploration	Constituted
Fortuna 13	02201R090-9	Cielo Azul	300	Exploration	Constituted
Fortuna 14	02201R173-5	Cielo Azul	300	Exploration	Constituted
Fortuna A12	In process	Cielo Azul	300	Exploration	In process
Fortuna A13	In process	Cielo Azul	300	Exploration	In process
Fortuna A14	In process	Cielo Azul	300	Exploration	In process

22 ANEXX 2

22.1 MCAL splitting protocols, recovery and sample collection protocols

RC DRILLHOLES	PROTOCOLS
Field	
Location of field recommendations with GPS in corrected PSAD56 coordinates	Table of recommendations in excel
Construction of platform and staking of the recommendation with lime mark in azimuth	Control shift equipment
Verification of equipment installation with compass and inclinometer	
Drilling bit diameter register	Report scanned drill holes
Database with serial numbers and identification of control samples (B), reference materials and duplicates	Registration in excel and serial cards
Preparation of materials: bags; Labels, cutting boxes	Serial Sample Cards
Report of shift, log diameter and other operational	Report scanned drill holes
Continuous sampling every 2 m	Report scanned drill holes
Collection and quartet in riffles	Controller observation
Control of mass in situ shows total and in 1st and 3rd quartet	Record in notebook / report
Samples A and B are pocketed in plastic bags 40x60 labeled with probing, interval, series with bracket ticket	
Sample of cutting, plastic box 20 divisions thick and thin, back bag of approx 1 kg	Physical backing
Sample B is stored in the site	Physical backing
Sample A is sent to mechanical preparation	Guide (1) preparation request, pulps in three envelopes, rejection is eliminated
Transportation of samples by truck from project to laboratory	Guide (1) preparation request
Identification of the collar using PVC pipe and metal plate with the name of the well	Physical location
Measurement of deflection and orientation of structures	Meter Report
Measurement of collar location with topography	Definitive certificate of coordinates
Laboratory	
Lab receiving and mass control	Data to lab control system. Mass control report in excel + physical table and particle size control every xxx samples
Mechanical Preparation	Preparation Protocols
Drying 105 ° C	Preparation Protocols
Sieving and crushing 85% low # 10	Preparation Protocols
Rotary divider split	Preparation Protocols
Spray 500-700 g 95% low # 150	Preparation Protocols
Obtain three envelopes of pulps 2 of 125g and 1 of 250 g	Preparation Protocols
Send the envelopes to MCAL to generate lots of analysis	

MCAL receiving pulps	Received in physical
Standard revision according to shipping guides to preparation	Revision against shipping guides (1)
Insertion of control samples, reference materials and duplicates of 2 ° on	
Shipping to chemical analysis	Test request guide (2) with attached detail of samples sent (according to master table)
Chemical analysis	
Reception of batches of pulps	
CuT: 1 g digestion with 10 ml mixture HNO3 + 4 ml HClO4 + 1 ml H2SO4 in 20 ml dilution of 50% HCl for a 100 ml gauge flask	Chemical analysis protocols
Quantification with AAS limit of detection of 0.01% for CuT	Chemical analysis protocols
CuS: 1 g leaching with 50 ml H2SO4 in 250 ml gauge flask, shaking at 130 RPM for 1 hour	Chemical analysis protocols
Quantification with AAS limit of detection of 0.01% for CuT	Chemical analysis protocols
MCAL receiving results and Qa-Qc	Laboratory reports in excel sheet by lots of approx 50 samples
Input of results to database	Excel table
Review of control samples according to Qa-Qc system	Excel chart charts and statistics
Under Qa-Qc re-analysis is requested (new reception circuit-review results)	Excel table
Validated results are sent to users	Excel table
Official database	Excel table with backs of physical certificates of laboratory
Chemical Results Master Chart	
Table with masses - recoveries	
Operating time chart	
Tables of Qa-Qc	
Excel tables with lab results - digital files	
Physical backups	
Samples B (MAR 17 to 54)	
Cutting boxes and backing	
Pulps	

DDH	**PROTOCOLS**
Field	
Location of field recommendations with GPS in corrected PSAD56 coordinates	Table of recommendations in excel
Construction of platform, settling pool, and staked recommendation with lime mark on azimuth	Control shift equipment
Verification of equipment installation with compass and inclinometer	
Drilling diameter registration	
Obtaining the control sample according to drilling races	
Sample is available in aluminum trays, runs provided by wooden blocks (white color)	
Record drilling depths and recoveries	Report scanned drill holes
Transfer of tray to sample and first geological revision	

Race review, recoveries and regularization at intervals of 2 m marked with wooden blocks (yellow)	Registration of careers and regularized sections with their recovery measures
Geotechnical mapping and identification of PU specimens and geotechnical tests	Logging in
Photograph of trays of witnesses (in natural light)	Photographic record
Weighing of each tray	Weight record of trays with full control
Geological mapping	Log
Database with serial numbers and identification of control samples (B), reference materials and duplicates	Registration in excel and serial cards
Preparation of materials: bags; Labels.	Serial Sample Cards
Sampling by hydraulic guillotine break at intervals of 2 m and shelf in plastic bags 40x60 labeled with probing, interval, series with clasped ticket	
Weighing of each sample	Weight register
Tray Weighing (sample quality check)	Tray weight register with half control
Photo of trays with half of witnesses (in natural light)	Photo Registration
Tray storage	
Transportation of samples by truck from project to laboratory	
Identification of the collar using PVC pipe and metal plate with the name of the well	Physical location
Measurement of deviation	Meter Report
Measurement of collar location with topography	Definitive certificate of coordinates
Lab receiving and mass control	Data to lab control system. Mass control report in excel + physical table and granulometric control every xxx samples
Mechanical preparation	Preparation Protocols
Drying 105 ° C	Preparation Protocols
Sieving and crushing at ¼ "	
Sieving and crushing 85% low # 10	Preparation Protocols
Rotary divider split	Preparation Protocols
Spray 500-700 g 95% low # 150	Preparation Protocols
Obtain three envelopes of pulps 2 of 125g and 1 of 250 g	Preparation Protocols
Sending the envelopes to MCAL to generate lots of analysis	
Pulp reception	Physical reception
Serial revision according to shipping guides to preparation	Revision against shipping guides (1)
Insertion of control samples, reference materials and duplicates of 2 ° on	
Shipping to chemical analysis	Analysis request guide (2) with attached detail of submitted samples (according to master table)
Reception of batches of pulps	
CuT: 1 g digestion with 10 ml mixture HNO3 + 4 ml HClO4 + 1 ml H2SO4 in 20 ml diluent of 50% HCl for a 100 m capacity flask l	Chemical analysis protocols
Quantification with AAS limit of detection of 0.01% for CuT	Chemical analysis protocols
CuS: 1 g leaching with 50 ml H2SO4 in 250 ml gauge flask, shaking at 130 RPM for 1 hour	Chemical analysis protocols
Quantification with AAS limit of detection of 0.01% for CuT	Chemical analysis protocols

Reception of results and Qa-Qc	Laboratory reports in excel sheet by lots of approx 50 samples
Input of results to database	Excel table
Review of control samples according to Qa-Qc system	Excel chart graphs and statistics
Under Qa-Qc re-analysis is requested (new circuit of reception-revision of results)	Excel table
Validated results are sent to users	Excel table
Official database	Excel table with backs of physical certificates of laboratory
Chemical Results Master Chart	
Table with recoveries of races and regularization	
Table with masses of trays and samples	
Operating time chart	
Tables of Qa-Qc	
Excel tables with lab results - digital files	
Physical backups	
Preparation reject at -10 #	
Half Wit Trays	
Pulps	

OTHER PROCEDURES
PU Test Tubes
Serial identification
Photography
Geological description (Rx-ZAL-ZMIN)
Uniaxial Loading Probes
ID
Photography
Serial identification
PU samples made on full-length and full-length test specimens
Pre and post test photo lab registration
Metallurgical samples
Interval selection table
Tray Extraction
Record of weights sub-samples of 2 m
Bags, sample number, bag number
Shipping to lab

Signature Page: Updated and Expanded Resource Estimate for the Marimaca Copper Project, Antofagasta Province, Region II, Chile

Prepared for: Coro Mining Corporation
Prepared by: NCL Ingenieria y Construccion SpA

NCL Project Number: 1935
Effective date: January 15th 2020
Signature date: January 15thh 2020

Authored by: Luis Oviedo, P. Geo.

CERTIFICATE OF QUALIFIED PERSON

I, Luis Oviedo, P.Geo, I am a consultant and QP with NCL and I have an employment address at 230, General del Canto, Providencia, Santiago de Chile. This certificate applies to the technical report titled “Updated and Expanded Resource Estimate for the Marimaca Copper Project, Antofagasta Province, Region II, Chile” that has an effective date of January 15th, 2020 (the “technical report).

I am a registered Professional Geologist (P.Geo.) in Chile. I am registered member of the Comisión Calificadora de Competencias en Recursos y Reservas Mineras (Chilean Mining Commission: RM, CMC) with the number 013. I graduated with a Geologist degree from the University of Chile in 1977. Postgraduate “Evaluation and Certification of Mining Assets”. Universidad Católica de Valparaíso, 2008, Chile.

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I have practiced my profession for over 40 years since graduation. I have been directly involved in resource estimates for all types of mines, audits, half-lives and technical reports of resources for stock exchanges and financial institutions in Canada, Chile, Peru, Ecuador and Colombia. I am a “qualified person” as that term is defined in NI 43-101 - Standards of Disclosure for Mineral Projects (“NI 43-101”), JORC and other stock exchanges in the world.

I visited twice the Marimaca Project (the “Project”) 3 days in December 2016 and 2 days in August 2019. I am responsible for the complete report.

I am independent of Coro Mining Corp. as independence is described by Section 1.5 of NI 43-101.

I have been involved with the Project since November 2016 for the preparation of the first Resources Estimation study in 2017 and the preparation of the 43 -101 Technical Report “Updated Resurce Estimate for the Marimaca Copper Project, Antofagasta Province Region II, Chile” May 2018.

I have read NI 43-101 and the sections of the technical report for which I am responsible have been prepared in compliance with NI 43-101.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all the scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: January 15th, 2020
Signed and sealed
Luis Oviedo H. PGeo, QP