

**SENDERO RESOURCES CORP.**

**AND**

**1319732 B.C LTD.**

**NI 43-101 TECHNICAL REPORT**

**ON THE PEÑAS NEGRAS**

**COPPER-GOLD PROJECT**

**IN LA RIOJA, ARGENTINA**

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## 1.0 SUMMARY

### 1.1 INTRODUCTION

Sendero Resources Corp. (Sendero), a British Columbia company and 1319732 B.C. Ltd. (131), a British Columbia company, have retained Micon International Co Limited (Micon) to provide an Independent Summary and Review of the Peñas Negras Project located in the province of La Rioja, Argentina. Micon has compiled this Technical Report to comply with the Canadian National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects, Form NI 43-101F1 requirements.

Sendero is a private exploration company that holds a 100% interest in the Peñas Negras Project (the Project) through its wholly owned subsidiary, Barton SAS (Barton), a simplified stock company based in San Juan, Argentina. 131 is an unlisted reporting issuer that is focused on investigating and evaluating business opportunities in the Canadian public markets.

Sendero entered into a share transfer agreement on 26<sup>th</sup> October 2021 with the owner of Barton pursuant to which the Sendero acquired 100% of the issued and outstanding share capital of Barton in exchange for the issuance of 12,500,000 Sendero common shares to Hernan Vera, a director of the Sendero.

Sendero and 131 entered into a definitive letter agreement on 2<sup>nd</sup> March 2023, pursuant to which the parties agreed to complete a three-cornered amalgamation, with the ultimate result that the successor of 131 (the “Resulting Issuer”) will continue on as a Canadian reporting issuer and 100% owner of the business of Sendero (the “Transaction”). The completion of the Transaction is subject to certain conditions, which include the following:

- 131 will complete a share split and certain reorganisation transactions (collectively, the “Split”) such that 131 will have an aggregate of 6,000,000 common shares on a post-Split basis;
- Sendero will conduct a concurrent brokered private placement for up to CAD\$3,750,000 in gross proceeds of subscription receipts and a concurrent non-brokered private placement of units;
- A wholly owned subsidiary of 131 will amalgamate with Sendero under the *Business Corporations Act* (British Columbia) and, in exchange for the common shares of Sendero, the shareholders of Sendero shall receive post-Split 131 shares on a 1:1 basis;
- Upon completion of the Transaction, the Resulting Issuer will change its name to “Sendero Resources Corp.”; and,
- The Resulting Issuer will apply to list its common shares for trading on the TSX Venture Exchange.

In this Report, the term Peñas Negras Project (the Project) refers to the area within the exploration or mining concessions upon which the historical exploration has been conducted, while the term Peñas Negras Property (the Property) refers to the entire land package (mineral claims). The information in this Report was derived from published material, data, professional opinions, and unpublished material submitted by the professional staff of Sendero and 131 or its consultants supplemented by Micon and the Qualified Person (QPs) independent observations and analysis. Much of these data came from prior reports on the Peñas Negras

Project, updated information provided by Sendero and 131, and information researched by Micon and the QPs.

Micon is a private company internally owned and is entirely independent of Sendero, 131 and their affiliated companies. The personnel responsible for this review and opinions expressed in this Report are Micon's full-time employees or Micon associates. For its services in preparing the report, Micon is receiving payment based upon time and expenses and will not receive any capital stock from Sendero, 131 or any of their affiliated companies. Micon is reimbursing its associates based upon time and expenses. Micon and the QPs do not have any previous material interest in Sendero, 131 or related entities.

This Report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals, and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, neither Micon nor the QPs considers them to be material.

This Report is intended to be used by Sendero and 131, subject to the terms and conditions of its agreement with Micon. That agreement permits Sendero and 131 to file this Report as a Technical Report with the Canadian Securities Administrators (CSA) under provincial securities legislation.

The conclusions and recommendations in this report reflect the authors' best independent judgment in light of the information available to them at the time of writing. The authors and Micon reserve the right, but will not be obliged, to revise this Report and conclusions if additional information becomes known to them after the date of this Report. Use of this report acknowledges acceptance of the foregoing conditions.

The Peñas Negras Properties was visited by Dr. Julio Bruna Novillo, CPG (Dr. Bruna), on 20<sup>th</sup> and 21<sup>st</sup> December 2021, for the purposes of completing the NI 43-101 required site visits. The scope of the site inspection was to discuss and review during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralisation, structural characteristics, historical drill pads, infrastructure and permits, and environmental impacts.

Dr. Bruna reviewed the results of exploration conducted during the 2022-2023 exploration season and concluded that although it served to enhance the understanding of the potential of the Project, the new information did not have a material impact on the Project. Therefore, the site visit made by Dr. Bruna in December 2021 is considered to be current.

Dr. Bruna is an independent consultant, Certified Professional Geologist (CPG), Micon Associate and a Fellow of the Australasian Institute of Mining and Metallurgy, in Geology FAusIMM(CP) who is based in Córdoba, Argentina. During the site visit, Dr. Bruna was accompanied by Mr. Ríos Gómez, Senior Geologist from Barton, and focussed the inspection on verifying the general geological setting, and site conditions, and where the different drilling programmes were undertaken.

The visit to the site was carried out before the end of the exploratory works in April 2022. The QP considers the inspection of the site current since there have been no substantial changes in the scientific and technical information on the property since the time of his inspection, as detailed in Section 9.0. The relevant work conducted was surface rock chip sampling. During his site visit, the QP reviewed these sampling methods and procedures.

## 1.2 PROPERTY DESCRIPTION, LOCATION AND MINERAL TENURE

The Peñas Negras Project is located in north-western Argentina in the General Lamadrid department, in the province of La Rioja, just north of the San Juan province near the Chilean border. The area presents elevations ranging from 3,900 masl to 4,955 masl. The central geographic coordinates are 28°19' south latitude and 69°25' west longitude, or 2,458,457 m East, and 6,868,474 m North (Gauss Krüger - Zone 2, POSGAR 94).

The district hosts an elongate belt of rocks containing sizeable hydrothermal alteration zones, with geological evidence of porphyry gold and copper-gold mineralisation and potential for epithermal gold-silver deposits. It is located in a developing porphyry district at the intersection between the south end of the Maricunga Copper-Gold Belt and the northern extent of the El Indio Gold-Silver Belt, with both districts hosting world-class porphyry and epithermal deposits.

The Project is located 450 km northwest from the city of La Rioja and 130 km and 165 km, in the same direction, from the towns of Vinchina and Guandacol, respectively. Access to the Property is via the Vinchina and Guandacol. The route passes through Vinchina, advances along the road to the Pircas Negras international pass and on through the towns of Jagüe-Laguna Brava-Campamento Barrancas Blancas-Río Salado-Pucha Pucha. The route continues along the Peñas Negras river to the Peñas Negras camp. It takes approximately 5 hours to reach the project area.

A second access option is through Guandacol-Arroyo Troya-Río Macho Muerto-Río Peñas Negras. It is recommended not to travel this route in summer due to possible cuts caused by seasonal rains, especially in the Arroyo Troya area.

Barton is the holder of ten mining concessions covering 11,682.54 ha (116.83 km<sup>2</sup>), all of which properties are plotted on the Provincial Mining Cadastre of the province of La Rioja, according to the Gauss Kruger coordinates and updated to April 2023. The property includes six exploitation concessions (Minas) totalling 5,515.26 ha and four exploration concessions (Cateos) totalling 6,167.28 ha, for a total of 11,682.54 ha.

The QPs note the certificates issued on 25<sup>th</sup> August 2021, by the Department of Mining Notary of the province of La Rioja, certifying that the mining concessions belong to Barton SAS and that they do not register encumbrances, debt, or asset forfeiture. The Cateo Caserones presents a certificate issued on 29<sup>th</sup> March 2023.

A total rental payment of US\$2,562 was made for the 2021 to 2022 seasons and US\$2,474 for 2022 to 2023 on the exploitation concessions.

Surface exploration work in the Peñas Negras area is permitted under three Declaración de Impacto Ambiental's (DIA's). The original DIA applications were submitted on 30<sup>th</sup> November 2021 for the Isidoro, Don Álvaro and El Chiqui exploration permits (Cateo) and were granted on 30<sup>th</sup> November 2023 under Resolutions 355-SE-2021, 356-SE-2021 and 357-SE-2021, respectively.

New EIAs before the expiration of the current resolutions must be submitted and meet the requirements established in resolution SA 037/15 of the Secretary of the Environment of La Rioja. In the case of requiring new roads or drilling, it is necessary to present a new EIA that contemplates these stages with the corresponding permits and qualifications.

The Argentine Mining Code (AMC) sets out rules under which surface rights and easements can be granted for a mining operation and covers aspects including land occupation, rights-of-way, access routes, transport routes, rail lines, water usage and any other infrastructure needed for operations.

The properties of Barton SAS are located in the General Lamadrid Department of the Province of La Rioja, in the area called "Usos Múltiples" ("Multiple Uses"), which is the marginal area of the Laguna Brava Provincial Reserve, where mining activities are fully authorised (Resol. N° 286 – Environmental secretary).

Barton has negotiated access and the right to use surface lands sufficient for many years of operation. A sufficient area exists at the Peñas Negras Project for all anticipated future surface infrastructure.

### **1.3 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

The Project covers an area of approximately 117 km<sup>2</sup> and is located within the region known as Cordillera Frontal in the province of La Rioja, Argentina. It is located approximately 1,300 km from Buenos Aires and 625 km northeast of Santiago, Chile.

The Peñas Negras Project is remote; other than road access, no infrastructure is available. The most important logistics centre in the region is San Juan, which has a population of approximately 818,234 people. San Juan has a domestic airport with daily scheduled flights to Buenos Aires. The city of Mendoza, approximately 170 km (2.0 hours driving time) south of San Juan city, has an international airport with flights to Santiago and elsewhere internationally and within Argentina. The nearest city in Chile is Copiapó, which has approximately 175,000 people and is a regional mining hub with access to mining materials and skilled labour as well as a modern airport with several daily flights to Santiago.

The El Dorado basecamp installed on-site by Minera Eldorado SA (Eldorado) company and later expanded by YAMIRI SA is located about 500 km from San Juan, the city from which the technical and logistical support for the exploration campaign will be operated. The power sources for the camp are provided through an electric generator.

There are two alternative access routes: a) From Guandacol (San Juan), with the total length of the trip 242 km, and it takes about 4.5 hours to cover the distance using 4 x 4 vehicles, and b) from Jagüe (La Rioja), via a route of 162 km that requires about 4 hours to cover using 4 x 4 vehicles.

The Project is located in the phytogeographic province called Altoandina, which includes levels between 4,650 masl and 3,600 masl. The area is associated with a cold climate Type B (tundra), covering all of the mining properties with average summer temperatures between 5°C and 25°C, while the average winter temperature can reach values between -7°C and -25°C.

There is little or no vegetation cover, resulting in significant surface flow when rains occur and extensive alluvial plains with drainage of some importance. There is a substantial water supply in many drainages in an unvegetated landscape and no difficulty locating sufficient water to support drilling despite the barrenness.

Due to severe weather conditions, exploration work can only be carried out in the summer season (November to April).

The Property is located close to two logistical, industrial, and mining centres: San Juan, Argentina (to the south) and Copiapo, Chile (to the north) to 50 km to the border crossing station (migratory and custom facilities) in eastern Chile.

The most outstanding feature of the region is the mountain range that forms the international border between Argentina and Chile, with heights that are consistently higher than 4,000 masl. Elevations such as Cerro El Potro at 5,879 masl, Cerro Colorado at 5,172 masl, Cerro Caserones at 5,147 masl and Cerro Come Caballos at 5,199 masl, all located on the international border, mark the most impressive peaks in the work zone.

The Peñas Negras Project has large enough properties to locate and accommodate the infrastructure necessary to host any future mining operations, should sufficient economic mineralisation be identified on the property.

## **1.4 HISTORY**

Peñas Negras has been a district explored by companies within the last couple of decades. Similar geological features and a short distance to the prolific mining zone of Maricunga and El Indio belts have encouraged exploration. The Maricunga belt to the north is notable for its porphyry gold-copper systems, and the El Indio belt to the south hosts world-class high sulphidation epithermal deposits.

Exploration work in the area began in the 1970s by the National Mining Service (North Cordilleran Plan) performing geochemical sediment prospecting tasks on different rivers and basins of the Cordillera Frontal.

Between 1987 and 1988, geologists from BRGM (Bureau de Recherches Géologiques et Minières, France) performed geological mapping and geochemical sampling of the area.

In 1992, the company Norwest Mine Service, with the support of Campbell and Associates, studied and carried out some works with Thematic Mapper (TM) satellite images in an area of the Andes Mountains that included the provinces of Catamarca, La Rioja and San Juan. The work identified more than 40 areas or sectors with colour anomalies, which were considered targets to be evaluated in the field.

From 1994 to 1995, Minera El Solitario SA (El Solitario) worked in the area Crown Property (the area for them was Solitario 23-I cateo), with a short prospecting programme. The programme was limited to sampling of rocks and soils, and the excavation and sampling of a pair of trenches. Finally, a short drilling programme was developed.

Between 1994 and 1997, Minera Eldorado SA (Eldorado) completed geological studies and various sampling programmes, including 10,150 m of reverse circulation (RC) and diamond drill core (DD) drilling, distributed mainly between the colour anomalies 16 and 14. About 13,033 m of trenches and accesses were constructed, where a total of 4,619 samples were collected. Within these activities, 108.3 km of ground magnetometry and 192.20 km of induced polarisation/resistivity were performed between anomalies 14, 16, 18A (Cerro El Potro - Sillimanita), 19 (Miranda), and Ritsuko.

From 1995 to 1998, the National Secretary of Mining conducted expeditionary work in La Ollita, La Vicuña and Río Tamberías, in compliance with the PASMA project and the agreement with JICA/MMA/JMEC.

In 2007, Minera Vale Río Doce - DEPROMIN SA, carried out exploration work in what they called the "Regional Project," which was divided into two zones, Regional North (Peñas Negras area) in the province of La Rioja and Regional South (Cordón de La Brea area) in the province of San Juan. The studies in the Peñas Negras area were concentrated in the areas of Caserones, Solitario 23-I, Ritsuko, Miranda (former Anomaly 19 of the TDP) and Solitario 17.

In 2012, Golden Arrow carried out exploration tasks developed for the Caballos area, north of the Project property block, and an exploration agreement was also signed for the Ritsuko sector. The tasks performed were a background compilation of previous work and basic prospecting activities, mainly surface geochemistry, on alteration zones present in the western margin of the caldera.

From 2009 to 2014, Anglo American Argentina SA (Anglo American) was the last company to conduct exploratory work in the Cristian I-II-III and Ángela II-III mining concessions. A total of 833 different types of samples were collected. A geophysical survey of 140 km of magnetometry and 23 km of induced polarisation/resistivity were carried out. During the period between 2011 and 2012 six diamond drill holes were drilled.

There have not been any historical resource estimates conducted on the Project and there has not been any historical mining conducted in the area of the concessions.

## **1.5 GEOLOGICAL SETTING AND MINERALISATION**

The Peñas Negras district is located within the morphostructural unit corresponding to the Cordillera Frontal Geological Province in the high mountain range of La Rioja.

According to the Pastillos 6929-I Geological Sheet (Fauqué, 1999), the basement comprises sandstones, quartzites, limonitic units, and conglomerates belonging to the Ranchillos Formation, assigned to the Carboniferous. Above, there is a volcanoclastic unit belonging to the Choiyoi Group (Permo-Triassic), a volcano-sedimentary complex. The unit is composed of a group of volcanic and pyroclastic rocks characterised by acid rocks of rhyolitic and rhyodacitic composition and intermediate to basic andesitic rocks. In general, these rocks are folded and partially metamorphosed by Permo-Triassic granitic intrusions of the Carnerito Formation (Marcos et al., 1971).

Also, reduced outcrops of conglomerates and multicoloured sandstones can be observed in the sector belonging to the Chapitas Formation (Marcos et al., 1971), whose age is assigned to the Jurassic-Cretaceous, although it is probable that they are younger, possibly Palaeocene.

The Oligo-Miocene magmatism is limited to the Cordillera Frontal area. They consist of andesites and dacites from the Doña Ana Formation (Otamendi et al., 1994), 27 Ma to 19 Ma old and rhyolites, dacites and andesites from the Las Tórtolas Formation, 17 Ma to 11 Ma old. These units are intruded and altered by rhyolitic, dacitic, dioritic and quartz-dioritic domes and dykes.

The deformation of the Palaeozoic sediments in the Cordillera Frontal area is attributable to movements that occurred at the end of the Palaeozoic. The Andean orogeny would have

produced tilting and lateral movement of blocks, leaving the oldest Tertiary volcanites in some sectors folded and others in a homoclinal position. At the same time, the Veladero Formation lies in a sub-horizontal position indicating the minor effect of neotectonics.

Finally, and in congruency with the tectonic uplift suffered in the area, the erosion of the tertiary rocks has taken place exposing the basement and the mineralised porphyries.

In the Peña Negra Project, a chain of volcanic units has been emplaced from the lower Oligocene. It constitutes a belt of about 50 km wide, built on a base that includes intrusive and volcanic units of the Palaeozoic and perhaps Mesozoic. The Peñas Negras Project has several areas or sectors of interest:

- **Cerro Verde:** is a sector comprising two well-differentiated areas Cerro Verde North (Ángela II-III) and Cerro Verde South (Cristian I-II-III);
- **El Chiqui:** is an area comprising several targets of interest, some already tested and explored, such as La Ollita, Tamberías, Crown Property, partially the area called Vicuña, located 5.5 km NNE of La Ollita;
- **Don Álvaro and Isidoro:** located north and east of El Chiqui, covering sectors evaluated in previous exploratory works within the La Ollita area, and even Isidoro covers part of the La Peña sector;
- **Ritsuko:** volcanic caldera with strong colour anomalies and domoic bodies in its interior; and,
- **Caserones:** the area has characteristics related to the porphyry copper system, developed in the rhyolitic basement of the Choiyoi Group (Permo-Triassic).

Regarding the geology in the sector, the lithological units are older to the west and younger to the east. The Permo-Triassic granitic/volcanic basement, followed by the Upper Eocene-Oligocene volcanic/sedimentary/Intrusive sequences, the Middle to Lower Miocene volcano-sedimentary units, and finally, the moraine deposits (of fluvio-glacial origin). The Pleistocene-Holocene sediments occupy the slope areas, river courses and valleys in the region. There is more significant erosion of the lithological units to the west and less to the east. The Eocene-Oligocene units outcrop within a north-eastern corridor (generating a pull-apart system) defined by structures that contact the Permo-Triassic basement units and the Lower to Middle Miocene sediments and volcanites.

## 1.6 DEPOSIT TYPES

The Maricunga belt to the north is notable for its porphyry gold-copper systems, and the El Indio belt to the south hosts world-class high sulphidation (HS) epithermal deposits. Historically, the area has been overshadowed by these two high-profile metallogenic belts, partly due to the lack of preservation of extensive Miocene volcanic rocks, which was incorrectly interpreted to reflect a paucity of Miocene mineral deposits. Latterly, the area has proved to be very prospective for porphyry copper-gold and epithermal systems, and subsequent works have shown this to be the case, with the discovery of Josemaría, Filo del Sol and Los Helados deposits with Late Oligocene to Late Miocene ages.

In recent times, exploration work carried out has discovered several projects on the Argentine side (Josemaría and Filo del Sol in San Juan, Cerro Delta and Caballos in La Rioja, Valle Ancho north of Catamarca). These discoveries demonstrate the continuity of these metallogenic belts. In general, they are associated with groups of subvolcanic and even domoic

bodies that generate significant mineralisation in Cu, Cu-Au-Mo, Au-Ag and other minor elements such as As±Sb±Te, among others.

The overall alteration mineralisation architecture is heavily dependent on the structural setting and degree of telescoping of Andean porphyry copper systems. These factors vary between structural blocks due to stress partitioning and do not appear to be constant throughout entire segments of a metallogenic belt. The vertical alteration mineralisation sequence tends to be highly telescoped with appreciable overprinting and mineralogical reconstitution of earlier and deeper zones during younger and shallower hydrothermal events. The overprint geometry, especially the form and position of the sericitic and deep parts of advanced argillic zones, is highly influenced by faults active during deposit genesis (Sillitoe and Perelló, 2005).

Alteration zoning and overprinting relationships in a porphyry system at different temperatures and types, coexisting with the typical ones generated (potassic, propylitic, phyllic, intermediate argillic) with alterations due to more acidic fluids corresponding to the high sulphidation stage (advanced argillic, sericitisation and silicification mainly) (Sillitoe, 2010).

Porphyry subvolcanic bodies are present in the Project area, mainly consisting of a dacitic composition and, to a lesser extent, dioritic-quartz and dioritic.

Therefore, all these properties are considered gold-copper porphyry systems with overprinted epithermal mineralisation, belonging to a transition between the southern end of the so-called Maricunga Belt and porphyries area as the Josemaría project, in the territory of San Juan.

## 1.7 EXPLORATION

Favourable geology has been explored since the 1990s with well-developed targets and some historical exploration programmes on the property.

The Project database for different historical exploration programmes is summarised below:

- Assay results from 9,430 m of Reverse Circulation (RC);
- Assay results from 3,282.6 m of Diamond Drilling (DD);
- Assay results for over 6,141 surface samples;
- 248.30 line-km of ground magnetic surveying;
- 236 line-km of IP geophysical surveying; and,
- Processed Satellite Alteration Imagery.

Minera El Solitario SA (El Solitario), a company subsidiary of Sovereign Gold (USA), worked between 1994 and 1995 in the area known as Crown Property (the area for them was Solitario 23-I cateo), with a relatively short prospecting programme, it was limited to a sampling of rocks and soils, the excavation and sampling of a pair of trenches. Finally, a short drilling programme was developed. The results were not as satisfactory as expected, and the company abandoned the cateo (exploration permit).

Minera Eldorado SA (Eldorado) was the Argentinian subsidiary of Eldorado Gold Corporation, based in Vancouver, Canada. The company carried out a series of prospecting and exploration programmes completed between 1994 and 1997, which began with geological surveys and sampling a slope, soils, rock chips and stream sediments in rivers.

In this period, 10,140.90 m of reverse circulation and diamond drilling was carried out, distributed mainly between the La Ollita (El Chiqui) and Cristian III (Cerro Verde). After the drill hole was completed, a PVC pipe was placed in the hole, and the collar was cemented. The drill hole number, total depth, azimuth, and inclination were stamped into a metal plate cemented into the collar pad. About 13,033 m of trenches and accesses were constructed, in which a total of 4,619 samples were collected.

A complete geophysical study was conducted by the Geodata company, which executed 108.30 km of ground magnetometry and 192.20 km of induced polarisation/resistivity were performed between the areas of anomalies 14, 16, 18A (Cerro El Potro - Sillimanita), 19 (Miranda) and Ritsuko.

In 2007, the company Minera Vale Río Doce together with DEPRON SA (Desarrollo y Proyectos Mineros SA), carried out exploration works in what they called "Regional Project", which was divided into two zones, Regional Norte (Peñas Negras area) in the province of La Rioja and Regional Sur (Cordón de La Brea area) in the province of San Juan. Studies in the Peñas Negras area focused on the Caserones, Solitario 23-I (El Chiqui), Ritsuko, Miranda (former Anomaly 19 of the TDP programme) and Solitario 17 sectors.

In 2012, the Golden Arrow company, a subsidiary of Grosso Group (Canada), carried out exploration tasks developed for the Caballos area, north of the Project property block, and an exploration agreement was also signed for the Ritsuko sector. The tasks carried out in the area focused on collecting background information on previous work and basic prospecting activities. It consisted mainly of surface geochemistry on zones of argillic alteration with silicification, generally associated with quartz stockwork and iron oxides, present on the western margin of the caldera. A soil grid and complete sampling of different rocky outcrops were carried out. The company did not carry out any more work, leaving the area.

Anglo American was the last company to work in the area between 2009 and 2014, and it carried out exploratory work in the Cristian I-II-III and the Ángela II-III concessions. This sector was defined by Minera Anglo American Argentina SA (Anglo American) as the Cerro Verde Project (North and South). A total of 833 rock chips, soil, water, lag-type, and stream sediment samples were collected. These samples were collected selectively in the rock outcrops of these areas and systematically in three grids, carried out in the sectors of Ángela II-III.

The geophysical survey carried out by Anglo American included 140 km of magnetometry with east-west oriented lines and 23 km of induced polarisation/resistivity with seven east-west and one north-south oriented lines. Line spacing was 200 m for both methods. Preliminary analysis of these surveys showed indications of magnetite-bearing and magnetite-free bodies and IP signals in the area's northern and southern blocks.

Between 2009 and 2011, six diamond holes were drilled for a total of 2,597.70 m to test the geochemical and geophysical anomalies defined in the previous campaigns. These were distributed mainly between the Cristian I-II and Ángela II-III areas, proving the existence of mineralisation below the presence of a lithocap. In this last sector, a trench was made for detailed mapping and geochemical sampling. After the drill hole was completed, a PVC pipe was placed in the hole, and the collar was cemented. The drill hole number, total depth, azimuth, and inclination were stamped into a metal plate cemented into the collar pad.

Two different hydrothermal systems were identified from the exploration work carried out. The Cristian I-II-III areas correspond to a porphyry system, developed in the Miocene volcanic rocks, intruded by dioritic-type bodies, emplaced according to the northwest direction. In the Ángela II and III area, a hydrothermal system was defined in Permo-Triassic basement rocks (Choiyoi Group), formed by granites and volcanic rocks with a lithocap on the surface hydrothermal breccias, presence of grey banded quartz-epidote-tourmaline-pyrite veinlets. In this sector, some zones of supergene enrichment (chalcocite) were identified.

All these works led to the conclusion that the sector of greater interest was the north sector. This was mainly due to the intersection of the zone of copper supergene enrichment, identified by drillings. The best gold assay (best value of 1 g/t Au) was only obtained in the sampling of a trench related to epithermal structures.

Regarding sample preparation, security, analysis and data verification, all data is historical from previous operators. There is no access to any physical samples, neither core, RC cuttings or laboratory pulps or rejects.

However, there is access to a great deal of valuable historical data compiled into a Geographic Information System (GIS), but it is not possible to verify its accuracy or suitability at this time. Most of the information is between 10 years and 25 years old, is difficult to source and has no access to assay certificates. The database will be used to lead back into the most important areas, guide drilling decisions in some places and generally will have to rely on this data from large reputable former operators like Anglo American and Eldorado.

During the 2021 to 2022 and 2022 to 2023 exploration seasons (November to April), Sendero completed significant work with the objective of mapping and sampling in detail the lithologies present, alterations and mineralised sectors in the different prospects of interest that comprise the Peñas Negras Project.

The exploration programme involved surface work, including geological mapping and surface geochemistry (talus and rock sampling). An aeromagnetic and radiometric study carried out by the company New Sense (Canada) a detailed tectonic/structural analysis was carried out by Winocur (2022) over a central area that he covered within the Peñas Negras Project.

In addition to these field studies have been added investigations and detailed desk studies, beginning with a complete interpretation of the geophysical data carried out by Fathom Geophysics (Toronto, Canada), a spectral study through ASTER images of the area covered by the Peñas Negras Project carried out by Ducart (Campinas, São Paulo, Brazil, 2022). This work included the measurement, processing, and interpretation of spectral data from field samples. Spectral measurements were made at the Institute of Geosciences of the University of Campinas with an ASD/FieldSpec-4 spectroradiometer.

A total of 587 samples were taken comprising both talus fines and rock chip samples. A sampling of the talus fines has been completed using a compositing method that results in samples representative of 100 m along the sampling line. The distance between lines is 200 m, while the separation between contiguous samples is 100 m. However, each sample is composed of 5 samples spaced 20 m apart. The line is oriented east-west or north-south (perpendicular to the main structures of the sector).

The sampling methodology consisted of digging a hole between 30 cm and 40 cm, extracting the soil with a hand shovel, and sieving it through a 10-mesh screen until the required weight was achieved (approximately 2 kg) was achieved. In the camp, the five composite samples were mixed and manually quartered, resulting in a final sample of approximately 5 kg and an equal amount of reject.

Rock chip outcrops were sampled by collecting approximately 1 kg to 3 kg of sample. The sample location, length and geological descriptions were recorded.

During the 2021 to 2022 exploration season Sendero collected numerous surface samples across the entire project area. A total of 348 samples were taken comprising both talus fines and rock chip samples. Talus fines samples were taken along 100 m long lines at 20 m intervals from a depth of approximately 40 cm. Rock samples were taken in areas surrounding talus fines lines in order to complement the results. The results of this sampling programme further confirmed the work of earlier companies.

In addition to the geochemical sampling work, Sendero also commissioned New-Sense Geophysics Ltd. to fly a property wide airborne magnetic and gamma-ray spectrometric surveys. The survey produced 715.1 line-km of geophysical survey data covering 125.1 square km. The area's magnetic data was processed to produce images that help differentiate lithologies, highlight possible structures that could be related to mineralisation and analyse the distribution of magnetic rocks in the area. Radiometric data was used to highlight possible potassic alteration and different volcanic and intrusive lithologies.

## **1.8 DATA VERIFICATION**

The Peñas Negras Properties were visited by Dr. Julio Bruna, (CPG) on the 20<sup>th</sup> and 21<sup>st</sup> December 2021, for the purposes of completing the NI 43-101 required site visits. The scope of the site inspection was to discuss and review during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralisation, structural characteristics, historical drill pads, infrastructure and permits and environmental impacts.

Dr. Bruna is an independent consultant, Certified Professional Geologist (CPG), Micon Associate and a member of the Australasian Institute of Mining and Metallurgy, Fellow Chartered Professional in Geology and AusIMM (CP Geo) who is based in Córdoba, Argentina. During the site visit, Dr. Bruna was accompanied by Mr. Ríos Gómez, Senior Geologist from Barton, and focussed the inspection on verifying the general geological setting, and site conditions, where the different drilling programmes were undertaken.

The site was visited in the first season of 2021 to 2022 before the end of the exploratory works in April 2023. The QP considers the inspection of the site current since there have been no substantial changes in the scientific and technical information on the property since the time of his inspection, as detailed in Section 12.0.

The relevant exploration work was surface rock chip sampling. During his site visit, the QP reviewed these sampling methods and procedures.

The QP considers the check assay programme adequate to provide confidence in the data. Samples associated with QA/QC failures are reviewed before inclusion in the exploration databases.

Exploration sampling, security, and analysis procedures are being conducted in a manner that meets industry standard practice. The coarse reject samples and the master pulps are saved and available for further checks in a warehouse at Guandacol and San Juan.

## 1.9 CONCLUSIONS

Given the work conducted previously at the Project, there is access to a significant amount of valuable historical data compiled into a Geographic Information System. Still, its accuracy cannot be verified or its suitability at this time as there is no access to any physical samples, neither core, RC cuttings or geochemistry pulps or rejects. Most of the information is between 10 and 25 years old, is difficult to source, and has no assay certificates available.

Micon and the QPs believe that the database has to be used to lead back into the most important areas and guide drilling decisions in some places through a more detailed analysis of the results of the previous exploration programmes. A focused exploration programme should follow this in delineating the mineralised bodies geometry and their confirmation. This will assist Sendero and 131 to start estimating the resources and identifying other exploration targets elsewhere on the Property.

In case of future access to any historical physical samples, Sendero and 131 will need to conduct further work, as much as possible, including a relogging and sample check of the remaining historical core and conduct further verification mapping and sampling with QA/QC on the property to be able to incorporate the historical data into future resource estimates.

The QPs notes that Barton will decide whether reduction of the area covered by Cateos is required subsequent to the completion of the proposed exploration programme. The reduction of the size of the Cateos is not currently mandatory but is subject to the results of the proposed exploration programme. If the proposed exploration programme demonstrates that the entire area of the present Cateos has high mineral potential, then it will not be necessary to reduce the area covered by the Cateos.

Sendero and 131 commissioned the Qualified Persons responsible for this technical Report to review all the historical and available geological information such as geology, geochemical, geophysical, surface trenching and diamond drill core sampling pertaining to the Peñas Negras Project (located in the province of La Rioja, Argentina) to compile all available information in accordance with the guidelines of the Canadian Institute of Mining and Metallurgy (CIMM), and to define and validate the mineralised sectors and identifying new sectors by carrying out various stages of exploration.

The exploration work carried out since the 1990s by different companies (surface sampling, mapping, geophysics, and drilling) at the Peñas Negras Project allowed the QP to recognise the evidence of two different deposit styles formed at different crustal levels with characteristic metal grades and metallurgy. The first is an epithermal system with HS characteristics represented by the association of Au-Ag-Cu-As-Sb-Te, controlled by structures, and directly linked to a porphyry-type system at depth. The second corresponds to a porphyry Cu-Au±Mo system, developed in Miocene volcanic rocks, intruded by dacitic-dioritic-type bodies.

The 2021 to 2023 exploration programme included detailed geological and structural mapping, sampling of surface materials and geophysical studies.

The size of the Property package, coupled with the style of mineralisation, indicates a clear need for a careful and systematic approach to target definitions.

This Technical Report's purpose is to provide the basic foundations for advancing the Peñas Negras Property in a logical and systematic manner from its present status through the various stages of Mineral Resource definition and the economic viability determination, following the Best Practice Guidelines for exploration programmes according to CIM Mineral Exploration (2018).

In future Sendero and 131 must focus its explorations programmes on confirmation of mineralisation, improve the quality of the data to be used for resource estimation, and expand the known mineralisation at the Peñas Negras Project.

The QPs of this report are confident that Sendero and 131 will undertake this work as part of its overall exploration programmes and be able to validate the historical information.

## 1.10 RECOMMENDATIONS

Once the merger transaction is complete Sendero and 131 plan to conduct an exploration programme at its Peñas Negras Project through its 100% subsidiary Barton SAS.

The proposed Sendero and 131 exploration programme includes a Phase I, during which geological mapping, talus fines sampling and infrastructure improvements will be conducted. This work will include road and drill site preparation. The Phase II exploration will include a 4,000 m drilling programme.

The total cost of the proposed exploration programme is CAD\$2,455,400. The work is planned to commence in November 2023 and is expected to be completed in March 2024 (Table 1.1). The Phase II programme is contingent on the results of the Phase I programme. This is largely dependent on access to sufficient drilling sites given the high elevation and potential for significant snow accumulation.

**Table 1.1: Sendero and 131 Budget for the Exploration of the Peñas Negras Project 2023 - 2024**

Item	Programme Costs		
	Phase I Aug 2023 - Dec 2023 (CAD\$)	Phase II Jan 2024 - Apr 2024 (CAD\$)	Total Cost (CAD\$)
Field Supervision, Geologists	51,200	51,200	102,400
Data Compilation, Modelling, Analysis	15,000	-	15,000
Roads, Access, and Drill Site Preparation	100,000	-	100,000
Surveying	30,000	-	30,000
Permits	20,000	-	20,000
Camp and Housing	85,000	136,000	221,000
Vehicles	25,000	40,000	65,000
Geochemical Talus Fines Sampling and Analyses	192,000	-	192,000
Drilling (2,500 m RC, 1,500 m DD)*	-	1,710,000	1,710,000
<b>Total</b>	<b>518,200</b>	<b>1,937,200</b>	<b>2,455,400</b>

Notes: Phase I: Re-establish base camp, access; roads and drill site prep; talus fines geochemistry programme.  
Phase II: Camp improvements continued; drilling programme; 6-8 drill holes in preliminary target areas.  
\* Drill hole locations will be finalised after compilation of both historical and recent exploration data.

The 2023-2024 exploration programme consists of target definition work that includes geochemical and geological work, and a drilling programme of approximately 4,000 m (2,500 m RC and 1,500 m DD).

By Phase II, the RC drilling will be used on the newly identified targets and based on the results of the surface works, geophysics and analytical values obtained in Phase I. Also, considering the historical information, the DD programme will seek to confirm the mineralised sectors.

Micon and the QPs have reviewed Sendero and 131's proposal for its exploration programme on the Peñas Negras property and recommend that Barton continues the exploration programme as proposed. The programme is subject to funding and any other matters, which may cause the proposed exploration programme to be altered in the ordinary course of its business activities or alterations that may affect the programme as a result of exploration activities or access due to climatic conditions prevailing at the time.

## 2.0 INTRODUCTION

### 2.1 TERMS OF REFERENCE

Sendero Resources Corp. (Sendero), a British Columbia company and 1319732 B.C. Ltd. (131), a British Columbia company, have retained Micon International Co Limited (Micon) to provide an Independent Summary and Review of the Peñas Negras Project located in the province of La Rioja, Argentina. Micon has compiled and updated this Technical Report to comply with the Canadian National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects, Form NI 43-101F1 requirements.

Sendero is a private exploration company that holds a 100% interest in the Peñas Negras Project (the Project) through its wholly owned subsidiary, Barton SAS (Barton), a simplified stock company based in San Juan, Argentina. 131 is an unlisted reporting issuer that is focused on investigating and evaluating business opportunities in the Canadian public markets.

Micon has compiled this Technical Report to comply with the Canadian National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects, Form NI 43-101F1 requirements.

In this Report, the term Peñas Negras Project (the Project) refers to the area within the exploration or mining concessions upon which the historical exploration has been conducted, while the term Peñas Negras Property (the Property) refers to the entire land package (mineral claims).

The information in this Report was derived from published material, data, professional opinions, and unpublished material submitted by the professional staff of Sendero and 131 or its consultants supplemented by Micon and the Qualified Person (QPs) independent observations and analysis. Much of these data came from prior reports on the Peñas Negras Project, updated information provided by Sendero and 131, and information researched by Micon and the QPs. Micon and the QPs do not have any previous material interest in Sendero, 131 or any of their affiliated companies.

This Report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals, and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, neither Micon nor the QPs considers them to be material.

This Report is intended to be used by Sendero and 131, subject to the terms and conditions of its agreement with Micon. That agreement permits Sendero and 131 to file this Report as a Technical Report with the Canadian Securities Administrators (CSA) under provincial securities legislation.

The conclusions and recommendations in this report reflect the authors' best independent judgment in light of the information available to them at the time of writing. The authors and Micon reserves the right, but will not be obliged, to revise this Report and conclusions if additional information becomes known to them after the date of this Report. Use of this report acknowledges acceptance of the foregoing conditions.

## 2.2 INDEPENDENCE

This Report has been compiled by Micon International Co Limited on behalf Sendero and 131 in accordance with the scope of work determined by Sendero and 131.

Micon has exercised reasonable technical skill and diligence. The opinions expressed herein are those of Micon and are based on information provided by Sendero and 131, and the site visit conducted by Dr. Bruna during 20<sup>th</sup> - 21<sup>st</sup> December 2021. In conducting the Independent Summary and Review Micon has found no reason to doubt the reliability or completeness of the data provided by Sendero and 131.

Whilst Micon has reviewed the exploration and mining licences, permits and entitlements of the property in so far as these may influence the investigation and development of the mining assets, Micon has not undertaken legal due diligence of the asset portfolio described in this Report. The reader is therefore cautioned that the inclusion of exploration and mining properties within this Report does not in any form imply legal ownership.

Micon is a private company internally owned and is entirely independent of Sendero, 131 and their affiliated companies. The personnel responsible for this review and opinions expressed in this Report are Micon's full-time employees or Micon associates. For its services in preparing the report, Micon will receive payment based upon time and expenses and will not receive any capital stock from Sendero, 131 or any of their affiliated companies. Micon will reimburse its associates based upon time and expenses.

## 2.3 QUALIFIED PERSONS, SITE VISIT AND AREAS OF RESPONSIBILITY

The principal consultants responsible for the Independent Summary and Review and the preparation of this Technical Report have extensive experience in the mining industry and have appropriate professional qualifications:

- Julio Bruna Novillo, PhD, CPG, FAusIMM(CP), Micon Associate and Consultant with Patagonia Geosciences (PGSc); and,
- Stanley C. Bartlett, M.Sc., PGeo., Micon Vice President and Senior Economic Geologist.

The Peñas Negras Properties was visited by Dr Julio Bruna, CPG, on 20<sup>th</sup> and 21<sup>st</sup> December 2021, for the purposes of completing the NI 43-101 required site visits. The scope of the site inspection was to discuss and review during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralisation, structural characteristics, historical drill pads, infrastructure and permits, and environmental impacts.

Dr. Bruna reviewed the results of exploration conducted during the 2022-2023 exploration season and concluded that although it served to enhance the understanding of the potential of the Project, the new information did not have a material impact on the Project. Therefore, the site visit made by Dr. Bruna in December 2021 is considered to be current.

Dr. Bruna is an independent consultant, Certified Professional Geologist (CPG), Micon Associate and a Fellow of the Australasian Institute of Mining and Metallurgy, in Geology

FAusIMM(CP) who is based in Córdoba, Argentina. During the site visit, Dr. Bruna was accompanied by Mr. Ríos Gómez, Senior Geologist from Barton, and focussed the inspection on verifying the general geological setting, and site conditions, and where the different drilling programmes were undertaken.

The site was visited in the first season of 2021 to 2022 before the end of the exploratory works in April 2023. The QP considers the inspection of the site current since there have been no substantial changes in the scientific and technical information on the property since the time of his inspection, as detailed in Section 12.0.

The relevant work conducted was surface sampling. During his site visit, the QP reviewed these sampling methods and procedures.

The Table 2.1 identifies which items of the Technical Report have been the responsibilities of each QP.

**Table 2.1: Qualified Persons**

Company	Qualified Person	Site Visit	Responsibility
Independent	Dr. Julio Bruna Novillo	20 <sup>th</sup> - 21 <sup>st</sup> December 2021	All Sections, except Section 1.0
Micon	Stanley C. Bartlett	No Visit	Overall responsibility on behalf of Micon. Peer-review of the draft technical report. Executive Summary (Section 1).

This is the first Technical Report for the Project, prepared on behalf of Sendero and 131, and is based on data, professional opinions, and unpublished material submitted by the professional staff of Sendero and 131, Barton, and its consultants. Sendero, 131, and Barton prepared and provided much of the data.

Micon and the QPs are pleased to acknowledge the helpful cooperation of the Sendero, 131 management and Barton's personnel, all of whom made all data requested available and responded openly and helpfully to all questions, queries, and requests for material.

## 2.4 UNITS AND ABBREVIATIONS

Currency amounts are stated in either US dollars (US\$) or Canadian dollars (CAD\$). Quantities are generally stated imperial units as the United States still uses this system of measurement. However, some areas may state the measurements in metric units, which is the standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, grams (g) and grams per metric tonne (g/t) for gold and silver grades (g/t Au, g/t Ag). Wherever applicable, Imperial units have been converted to Système International d'Unités (SI) units for reporting consistency. Precious metal grades may be expressed in parts per million (ppm) or parts per billion (ppb), and their quantities may also be reported in troy ounces (ounces, oz), a common practice in the mining industry. A list of abbreviations is provided in Table 2.2 and a glossary of mining and other related terms in Appendix 1.

**Table 2.2: List of Abbreviations**

Name	Abbreviation
1319732 B.C Ltd	131
Argentine Geological Mining Service	SEGEMAR
Argentine Geodesic Positions	POSGAR'94
Argentine Mining Code	AMC
Average	Avg
Australasian Institute of Mining and Metallurgy	AusIMM
Barton SAS	Barton
Gold	Au
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Canadian Standards Association	CSA
Centimetre(s)	cm
Certified reference material	CRM
Copper	Cu
Day	d
Declaration of Environmental Impact	DIA
Degrees Celsius	°C
Degrees Fahrenheit	°F
Digital elevation model	DEM
Diamond Drilling Hole	DDH
Dollar(s) US	\$ and US\$
Dollar(s) Canadian	CAD\$
Minera Eldorado SA	Eldorado
Mineral Anglo American Argentina SA	Anglo American
Environmental Impact Assessment	EIA
Environmental Protection Act	EPA
Gram(s)	g
Grams per metric tonne	g/t
Greater than	>
Hectare(s)	ha
High-sulfidation	HS
Inch(es)	in
Induced polarisation	IP
Intermediate-sulphidation	IS
Kilogram(s)	kg
Kilometre(s)	km
Less than	<
Mean Relative Error	MER
Metre(s)	m
Metres above sea level	masl
Micon International Co Limited	Micon
Million tonnes	Mt
Million ounces	Moz
Million years	Ma
Million metric tonnes per year	Mt/y
Milligram(s)	mg
Millimetre(s)	mm
Not available/applicable	n.a.
Ounces	oz
Parts per billion	ppb
Parts per million	ppm

Name	Abbreviation
Proyecto de Apoyo al Sector Minero Argentino	PASMA
Patagonia Geosciences	PGSc
Peñas Negras Project	Peñas Negras or the Project
Peñas Negras property	The property
Percent(age)	%
Pound(s)	lb(s)
Quality Assurance/Quality Control	QA/QC
Reverse Circulation	RC
Second	s
Securities and Exchange Commission	SEC
Sendero Resources Corporation	Sendero
Silver	Ag
Support Project for the Argentine Mining Sector	PASMA
Standard Deviation	SD
System for Electronic Document Analysis and Retrieval	SEDAR
Système International d'Unités	SI
Thematic Mapper	TM
Three-dimension	3D
Trade Development Project	TDP
Imperial Tonnes	t
Universal Transverse Mercator	UTM
World Geodetic System	WGS
Year	y

## 2.5 INFORMATION SOURCES

The material in this Report was derived from published material, data, professional opinions, and unpublished material submitted by the professional staff of Sendero and 131 or its consultants. Some opinions were developed during the site visit conducted by Dr. Bruna during 20<sup>th</sup> - 21<sup>st</sup> December 2021. Much of these data came from material prepared and provided by Sendero and 131. The sources for the information contained in this report are listed in Section 27.0.

The descriptions of geology, mineralisation, and exploration used in this Report are taken from reports prepared by various organisations and companies or their contracted consultants and from various government and academic publications. The conclusions of this Report are based in part on data available in published and unpublished reports supplied by the companies which have conducted exploration on the property and information supplied by Sendero and 131, and the site visit conducted by Dr. Bruna during 20<sup>th</sup> - 21<sup>st</sup> December 2021. Reputable companies supplied the information provided to Sendero and 131. Micon and the QPs have no reason to doubt its validity and have used the information where it has been verified through their review and discussions.

Some figures and tables contained within this Report were reproduced or derived from historical reports written on the property by various individuals and supplied to Micon by Sendero and 131 for this Report. In the cases where others supplied photographs, figures, or tables, they are referenced below the inserted item.

### 3.0 RELIANCE ON OTHER EXPERTS

In this Report, discussions regarding royalties, permitting, taxation, and environmental matters are based on material provided by Sendero and 131, and Barton. Micon and the QPs are not qualified to comment on such matters and have relied on the representations and documentation provided by Sendero and 131 for such discussions.

Sendero and 131 or its consultants initially provided all data used in this Report. Micon and the QPs have reviewed and analysed these data and have drawn their conclusions from there, plus knowledge gained during the December 2021 site visit. All of the documentation supplied by Sendero and 131 and references used by Micon are noted in Section 27 of this Report.

Dr. Bruna reviewed the results of exploration conducted during the 2022-2023 exploration season and concluded that although it served to enhance the understanding of the potential of the Project, the new information did not have a material impact on the Project. Therefore, the site visit made by Dr. Bruna in December 2021 is considered to be current.

Micon and the QPs offer no legal opinion about the validity of the title to the mineral concessions claimed by Barton, as Micon and the QPs are not qualified to comment on such matters. However, Barton has provided Micon and the QPs with letters of assurance that all mining concessions (minas and cateos) are valid and the respective environmental reports, as well as the request for sectoral permits required to explore and operate the Peñas Negras Project have been requested in accordance with the current regulations. These letters, dated 15<sup>th</sup> September 2021 and 13<sup>th</sup> April 2023, are from the legal firm of MGN (Estudio Novoa, Lawyers), located in San Juan, Argentina (Soria, 2021 and 2023). Barton also provided due diligence on the legal opinion; the conclusion final and reliance letter has been included as Appendix 2. In summary, MGN in 2023 concluded that:

*Based on the considerations above and according to Argentine legislation, our opinion is as follows:*

- 1. Barton is the owner of “Proyecto (Project) Peñas Negras”. It has the exclusive right to explore and operate that Project pursuant to the Argentine Mining Code and the Code of Mining Procedures of the Province of La Rioja.*
- 2. The six (6) exploitation concessions that are part of this Project, identified as File N° 232-B-1995 Angela II; File N° 234-B-1995 Angela III; File N° 50-B-1995 Cristian I; File N° 48-B-1995 Cristian II; File N° 47-B-1995 Cristian III and File N° 60-B-1996 Ritsuko, are legally registered in the name of Barton; they have been duly measured and have an activation-reactivation plan submitted and pending compliance, with their corresponding Environmental Impact Report (IIA) pending approval. Once the required IIA approval is granted through the corresponding Environmental Impact Assessment (DIA) resolution, the proposed activities can be carried out. There is no mining ‘canon’ pending payment to date, and there are no liens, mortgages or inhibitions registered with the Mining Registry of the Province of La Rioja on any such properties.*

*The mine exploitation concessions are granted with no time limit provided that the provisions of the Argentine Mining Code (especially Articles 216, 217 and 218, as amended) are complied with by the concession holder.*

3. *The three (3) exploration permits that are part of the Project, identified as File N° 21-B-2020 Don Álvaro; File N° 10-B-2020 El Chiqui and File N° 04-B-2021 Isidoro, are current and legally registered in Barton's name, with the Environmental Impact Report pending approval. Canon payment is not required, and there are no liens, mortgages or inhibitions on the property registered with the Mining Registry of the Province of La Rioja.*

*The exploration permits are temporary and subject to concession resolutions and to compliance by the concession holder with the provisions of the Argentine Mining Code and the Code of Mining Procedures of the Province of La Rioja.*

4. *Although the Project is located within the areas included in the Laguna Brava Provincial Multiple-Use Reserve (a conservation area established for the preservation of natural ecosystems and archaeological sites), it is not within the reserve's intangible or buffer zones; therefore, it is possible to carry out all the mining activities necessary for the development of the Project pursuant to Resolution N° 286 from the Environmental Secretariat of the Province of La Rioja.*

*In our opinion, all the mining rights and the corresponding approvals of environmental reports that are required for Barton to be able to explore and operate the Peñas Negras Project have been requested in accordance with current regulations and we have no reason to believe that they might be withheld by the Mining Authority (Soria, 2023).*

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 GENERAL INFORMATION

The Peñas Negras Project is located in north-western Argentina in the General Lamadrid department, the province of La Rioja, just north of the San Juan province near the Chilean border. The area presents elevations ranging from 3,900 masl to 4,955 masl. The central geographic coordinates are 28°, 19' south latitude and 69°, 25' west longitude, or 2,458,457 m East, and 6,868,474 m North (Gauss Krüger - Zone 2, POSGAR 94).

The district shows an elongate belt of rocks containing sizeable hydrothermal alteration zones, with geological evidence of porphyry gold and copper-gold mineralisation and potential for epithermal gold-silver deposits. It is located in a developing porphyries district at the intersection between the south end of the Maricunga Copper-Gold Belt and the northern extent of the El Indio Gold-Silver Belt, with both districts hosting world-class porphyries and epithermal deposits.

The Project is located 450 km northwest from the city of La Rioja and 130 km and 165 km, in the same direction, from the towns of Vinchina and Guandacol, respectively. The property can be accessed through Guandacol following the route Arroyo Troya-Río Macho Muerto-Río Peñas Negras; however, this route is not recommended in summer due to possible cuts caused by seasonal rains, especially in the Arroyo Troya area (Figure 4.1).

### 4.2 PROPERTY DESCRIPTION AND OWNERSHIP

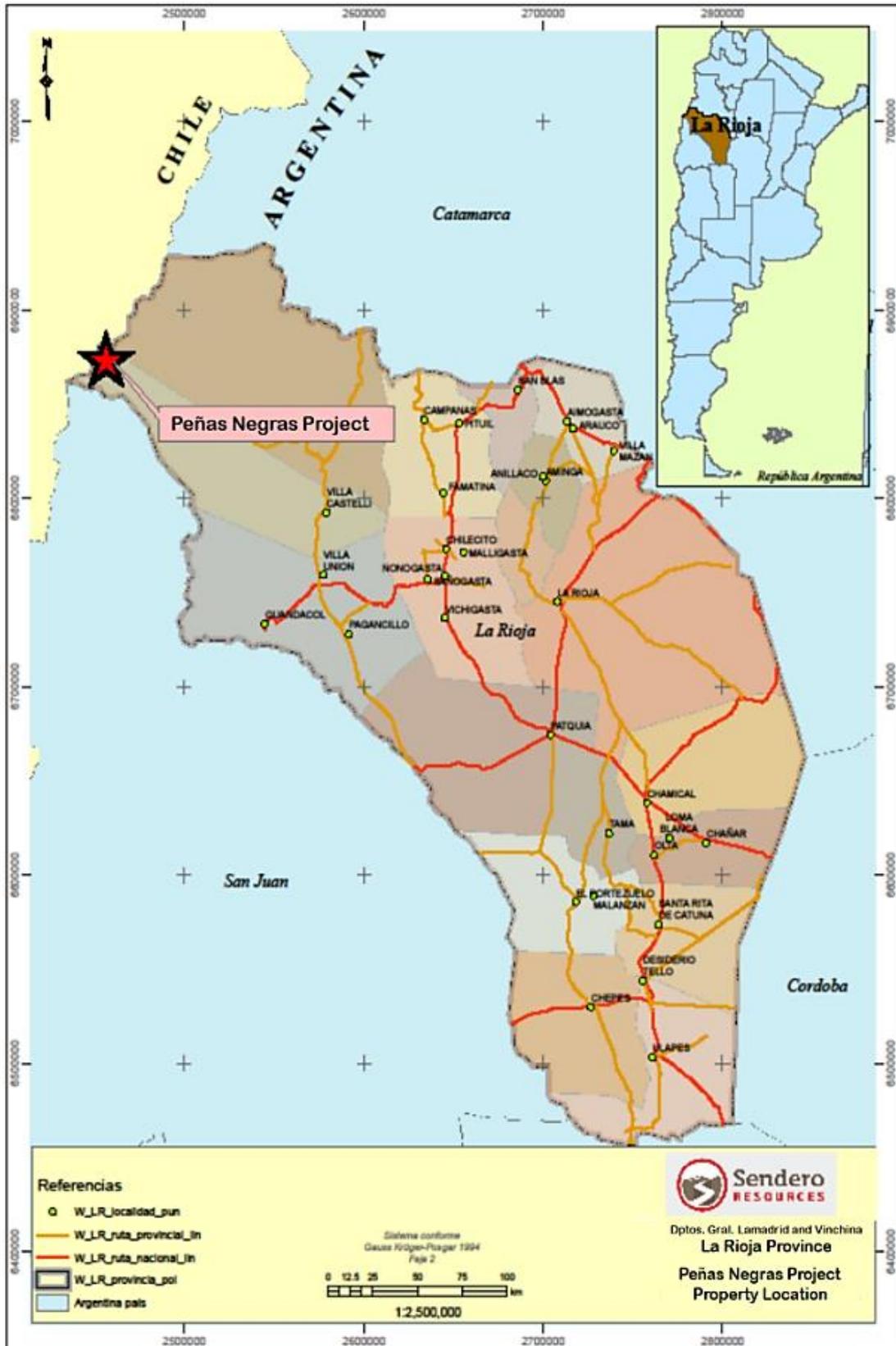
The ten mining concessions covering 11,682.54 ha (116.83 km<sup>2</sup>) are held by Barton SAS, a 100% subsidiary of Sendero. Sendero entered into a share transfer agreement on 26<sup>th</sup> October 2021 with the owner of Barton pursuant to which the Sendero acquired 100% of the issued and outstanding share capital of Barton in exchange for the issuance of 12,500,000 Sendero common shares to Hernan Vera, a director of the Sendero. According to the Gauss Kruger coordinates, all the properties are plotted on the Provincial Mining Cadastre of the province of La Rioja and updated to June 2021 (Table 4.1, Figure 4.2).

The QPs note the certificates issued on 25<sup>th</sup> August 2021, by the Department of Mining Notary of the province of La Rioja, certifying that the mining concessions belong to Barton SAS and that they do not register encumbrances, debt, or asset forfeiture. The Cateo Caserones presents a certificate issued on 29th March 2023.

The Peñas Negras property falls within the jurisdiction of the province of La Rioja. The property includes six exploitation concessions (Minas) totalling 5,515.26 ha and four exploration concessions (Cateos) totalling 6,167.28 ha, for a total of 11,682.54 ha (Table 4.1). A total rental payment of US\$2,562 will be assessed on the exploitation concessions in 2021.

A total rental payment of US\$2,562 was made for the 2021 to 2022 seasons and US\$2,474 for 2022 to 2023 on the exploitation concessions.

Figure 4.1: Location and Regional Infrastructure of the Project



Source: Sendero Resources Corp., 2021.

**Table 4.1: Legal Mining Concessions of the Project**

Concession Name	File Number	Concession Type	Point	Gauss Krüger Easting	Gauss Krüger Northing	Status	Surface (ha)	Granted Date	Canon, Annual Payment (US\$)*
CRISTIAN I	50-V-1995	Mina	NW	2,453,277	6,867,652	Granted	500.00	02.08.21	450.00
			NE	2,456,611	6,867,652				
			SE	2,456,611	6,866,152				
			SW	2,453,277	6,866,152				
CRISTIAN II	48-V-1995	Mina	NW	2,453,009	6,868,752	Granted	396.20	02.08.21	360.00
			NE	2,456,611	6,868,752				
			SE	2,456,611	6,867,652				
			SW	2,453,009	6,867,652				
CRISTIAN III	47-V-1995	Mina	NW	2,453,002	6,870,752	Granted	481.65	02.08.21	450.00
			NE	2,455,411	6,870,752				
			SE	2,455,411	6,868,752				
			SW	2,453,002	6,868,752				
ANGELA II	232-M-1995	Mina	NW	2,454,211	6,874,792	Granted	499.65	02.08.21	404.00
			NE	2,455,459	6,874,792				
			SE	2,455,461	6,870,792				
			SW	2,454,211	6,870,792				
ANGELA III	234-M-1995	Mina	NW	2,453,161	6,874,809	Granted	400.00	02.08.21	405.00
			NE	2,454,161	6,874,809				
			SE	2,454,161	6,870,809				
			SW	2,453,161	6,870,809				
RITSUKO	60-V-1996	Mina	01	2,456,611	6,866,192	Granted	3,237.76	02.08.21	2,967.00
			02	2,462,611	6,866,192				
			03	2,462,611	6,860,792				
			04	2,457,334	6,860,792				
			05	2,457,334	6,860,823				
			06	2,456,611	6,860,823				
ELCHIQUI	10-V-2020	Cateo	01	2,455,411	6,870,652	Granted	869.21	24.06.21	N/A
			02	2,458,241	6,870,652				
			03	2,458,241	6,869,792				
			04	2,456,741	6,869,792				
			05	2,456,616	6,868,792				
			06	2,458,511	6,868,792				
			07	2,458,511	6,866,192				
			08	2,456,611	6,866,192				
			09	2,456,611	6,868,752				
			10	2,455,411	6,868,752				
DON ALVARO	21-V-2020	Cateo	01	2,451,709	6,874,809	Granted	1,492.64	26.08.21	N/A
			02	2,452,350	6,875,269				
			03	2,452,722	6,875,409				
			04	2,457,911	6,875,409				
			05	2,457,911	6,874,792				
			06	2,458,241	6,874,218				
			07	2,458,241	6,870,652				
			08	2,455,411	6,870,652				
			09	2,455,411	6,870,752				
			10	2,455,341	6,870,752				
			11	2,455,342	6,870,792				
			12	2,455,461	6,870,792				
			13	2,455,459	6,874,792				
			14	2,455,459	6,874,792				
			15	2,455,459	6,874,809				

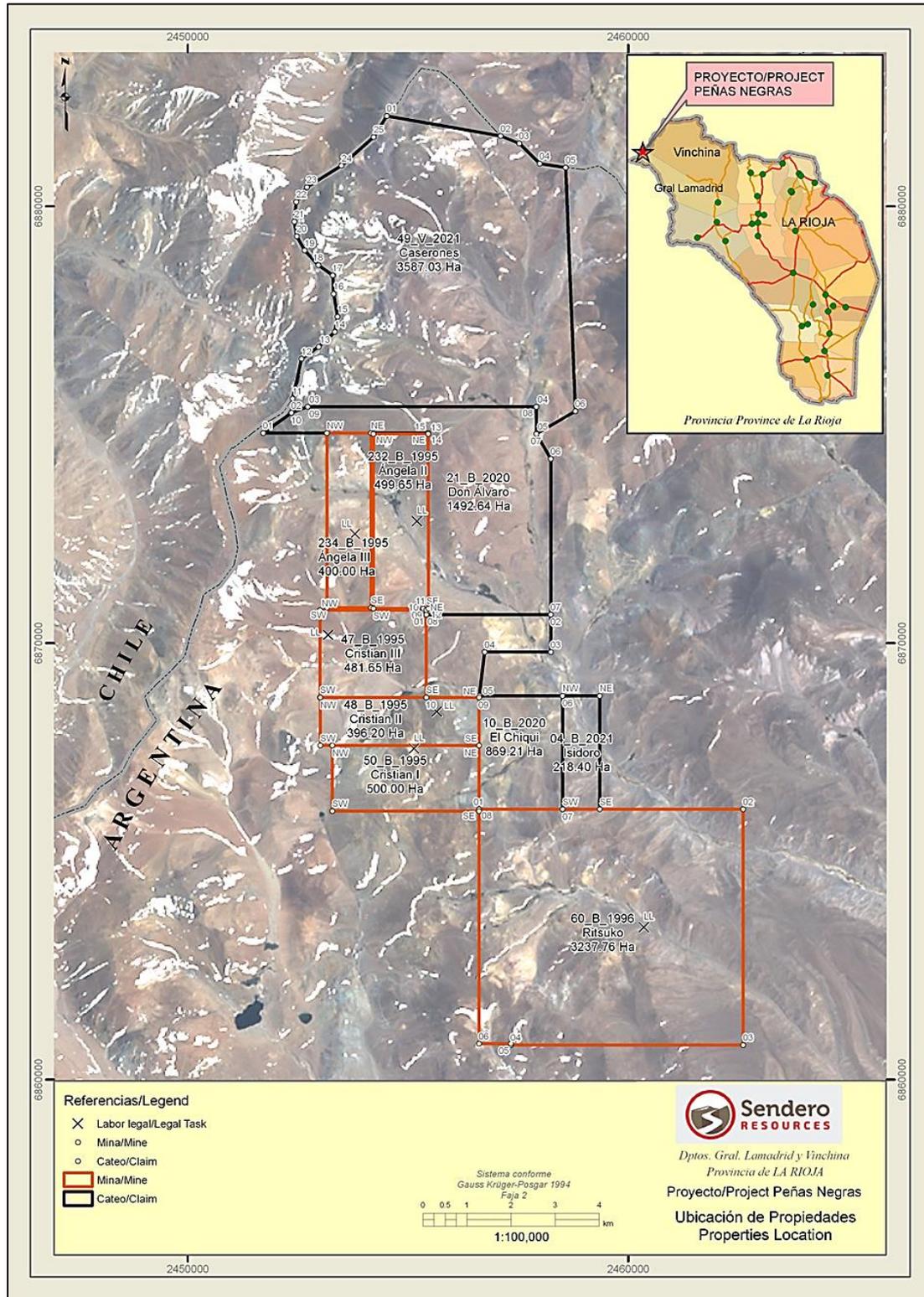
**Table 4.1: Legal Mining Concessions of the Project (cont.)**

Concession Name	File Number	Concession Type	Point	Gauss Krüger Easting	Gauss Krüger Northing	Status	Surface (ha)	Granted Date	Canon, Annual Payment (US\$)
ISIDORO	04-V-2021	Cateo	NW	2,458,511	6,868,792	Granted	218.40	24.06.21	N/A
			NE	2,459,351	6,868,792				
			SE	2,459,351	6,866,192				
			SW	2,458,511	6,866,192				
CASERONES	49-V-2021	Cateo	01	2,454,519	6,882,070	Granted	3,587.03	29.03.23	N/A
			02	2,457,102	6,881,611				
			03	2,457,524	6,881,444				
			04	2,457,987	6,880,979				
			05	2,458,580	6,880,890				
			06	2,458,801	6,875,313				
			07	2,457,911	6,874,792				
			08	2,457,911	6,875,409				
			09	2,452,722	6,875,409				
			10	2,452,350	6,875,269				
			11	2,452,375	6,875,596				
			12	2,452,580	6,876,508				
			13	2,452,965	6,876,785				
			14	2,453,336	6,877,127				
			15	2,453,402	6,877,477				
			16	2,453,313	6,877,998				
			17	2,453,289	6,878,417				
18	2,452,962	6,878,655							
19	2,452,653	6,878,989							
20	2,452,470	6,879,317							
21	2,452,416	6,879,653							
22	2,452,461	6,880,106							
23	2,452,699	6,880,439							
24	2,453,489	6,880,932							
25	2,454,219	6,881,589							
							<b>11,682.54</b>	-	<b>5,034.00</b>

\*The conversion from the Argentinean Peso to the US\$ used an official exchange rate of 105.00 pesos per US\$ dollar for seasons 2021 to 2023.

\*The conversion from the Argentinean Peso to the US\$ used an official exchange rate of 215.00 pesos per US\$ dollar for seasons 2022 to 2023.

Figure 4.2: Location Map of the Mining Concessions for the Project



Source: Sendero Resources Corp., 2021.

### 4.3 MINERAL TENURE AND STATUS

The QPs have not reviewed the mineral tenure nor independently verified the legal status, ownership of the Project area or underlying property agreements. The QPs have entirely relied upon and disclaims responsibility for information derived from legal experts for this information through the following documents: Ref: Due Diligence dated 15<sup>th</sup> September 2021, and Ref: Mining Title Opinion in relation to the Peñas Negras Project, 13<sup>th</sup> April 2023; from the legal firm of MGN (Estudio Novoa, Lawyers), located in San Juan, Argentina (Soria, 2021 and 2023) see Appendix 2.

#### 4.3.1 Categories of Mineral Rights in Argentina

Argentina is a federal republic composed of 23 provinces and one autonomous city (Buenos Aires). The federal, provincial, and municipal governments all have input into mining regulations, but the National Mining Code regulates the mining activities in Argentina. According to Argentine law, mineral resources belong to the province where the same is located. Each province has the authority to grant exploration permits and exploitation concession rights to private applicant entities. However, the Federal Congress is entitled to enact the National Mining code and any substantive mining legislation applicable in all of the country. Provinces have the authority to regulate the National Mining Code's procedural aspects and organise each enforcement authority within its territory.

Argentinian law provides two types of mining rights: exploration permits (Cateo), which are limited in duration and allow for the exploration of a mineral property, and mining permits (Mina), which allow for the exploitation of the minerals of the subject property.

In Argentina, mineral rights are acquired by application to the government through a system based entirely on paper staking. A mineral property may go through several classification stages during its lifetime and begins with a Cateo (exploration permit).

Once an application for a Cateo has been made, any mineral discoveries made by third parties belong to the Cateo applicant. A Cateo consists of one to twenty units - each unit being 500 ha in size. A fee, calculated per hectare, is required within five days of the Cateos approval. The term of a Cateo, which varies based on size, begins 30 days after approval. A Cateo of one unit has a duration of 150 days, and for each additional unit, its duration is increased by another 50 days. Another requirement is that larger Cateos must reduce in size at certain times. At 300 days after approval, half of the area above four units must be relinquished. At 700 days after approval, half of the remaining space must be released. To move to the next stage, the Cateo holder must apply within the term of the Cateo by reporting a mineral discovery.

Upon approval, this will result in mining rights (Manifestacion de Descubrimiento) for an area up to 3.000 ha. Once approved, the holder may conduct a measuring stage until a mineral resource has been defined or a legal survey to apply for a Mina or mining lease. The property will generally stay in the Manifestacion de Descubrimiento stage until a mineral resource has been determined.

## 4.3.2 Tenure History

### 4.3.2.1 Minas

The following information has been summarised for each Mina.

#### **Cristian I**

- In 1995, Mr. Juan Lirio was the first applicant for this mining concession and controlled the area until 2009;
- The Legal Work was executed in 2003. In the same year, the mining right's expiration was declared for not complying with the publication of edicts;
- In 2005 it was resolved to register the mining property in the Mines Registry;
- In 2009, the mining rights expired due to a lack of deposit payment, which is budgeted by the commission of services related to measurement works;
- In 2009 the mining rights were transferred to Mr. Jorge Zamorano;
- In 2011, the ownership of the concession was transferred to the company Minera Anglo American Argentina SA. In addition, in that same period, the Environmental Impact Report was approved;
- In 2014 the measurement works were approved, and in 2016 the Investment Plan and Amount were approved;
- In 2017, the expiration of mining rights was declared due to non-payment of the mining canon, which was rescued in 2018; and,
- During this last year (2018), the update of the Environmental Impact Report was approved. In 2019 the expiration of the mining right was resolved due to non-payment of the mining canon. Mr. Hernán Vera was awarded the mining concession in February 2020, and he transferred ownership to the company Barton SAS on 2<sup>nd</sup> August 2021 (DISP.N° 235/21).

#### **Cristian II**

- In 1995, Mr. Juan Lirio requested the concession of the mining right for an area of 500 ha, which he maintained until 2009. During that period, the owner of the right was notified on four occasions for not complying with the legal procedures: due to lack of interest regarding the area, non-presentation of the Legal Work (which was approved in 2005), non-compliance with the measurement request (published in 2005) and due to non-payment of the canon, which causes the expiration of the mining right;
- In 2009, the area was granted to Mr. Jorge Zamorano, and the Environmental Impact Report was approved. In 2011 Mr. Jorge Zamorano transferred the mining rights to the company Minera Anglo American Argentina SA. For the benefit of the company, the measurement procedures were approved in 2014. In 2017, the Investment Plan and Amount were approved, and the update of the Environmental Impact Report was approved in 2018;
- In 2019, due to lack of payment of the mining canon, the mining rights were declared expired to the detriment of Minera Anglo American SA; and,
- In 2020 Hernán Vera was awarded the Cristian II mining property, and on 5<sup>th</sup> August 2021, he transferred the mining rights to Barton SAS (DISP. 235/21).

## **Ángela II**

- On October 9, 1995, Mr. Sandro Glasiuk requested the concession of the mining property and maintained ownership until 2008;
- In 2008, the right was declared expired due to the lack of payment requested by the commission of services required about the measurement and for not complying with the payment of mining royalties;
- Mr. Juan Márquez, Sebastián Márquez, Enrique Claudio Márquez, and Mrs. Elena Carrasano were awarded the concession in 2008, and that same year the Engineer Erwin Rodriguez was appointed to carry out the measurement works;
- In the year 2009 was declared abandoned for not making the corresponding deposit to verify measurement works, and the mining property is declared vacant;
- Minera Anglo American Argentina SA was awarded the concession on 11<sup>th</sup> March 2010, and the procedural steps regarding the measurement were suspended pending better conditions for its completion. In 2012 the Environmental Impact Report was approved, and in 2015 the measurement works were approved. On 4<sup>th</sup> May 2017, the process was declared abandoned due to the expiration of the update of the Environmental Impact Report; and,
- On 21<sup>st</sup> February 2020, Mr. Hernán Vera was awarded the mining right, following which he transferred the concession titles to the Barton SAS Company on 2<sup>nd</sup> August 2021 (DISP.N°233/21).

## **Ángela III**

- The first request on Mina Ángela III on 9<sup>th</sup> October 1995, by Mr. Sandro Glasiuk and was registered on 30<sup>th</sup> July 2001. The Legal Work was carried out in April 2003, and the rights were declared expired due to non-compliance with the measurement request and non-payment of the corresponding fees in 2008. This situation led to the vacancy of the concession;
- On 8<sup>th</sup> October 2008, the legal rights of the Mine were granted to Mr. Juan Márquez, Sebastián Márquez, Enrique Claudio Márquez and Mrs. Elena Carrasano. During that same year, Eng. Erwin Rodríguez was appointed as the person in charge of executing the measurement on the mining property. In 2009, the competent provincial body resolved to annul the registration due to abandonment of the corresponding procedures and ordered the release of the area, leaving it vacant again;
- In 2010, Minera Anglo American SA was awarded the mining property rights. In 2014, the measurement, plan, and investment amount operations were approved. In 2017, the request for an extension was rejected, and the legal procedures were considered abandoned, leaving it registered as a vacancy; and,
- Finally, in 2020, the mining rights of the property were granted to Mr. Hernán Vera, who transferred the rights to the Barton SAS Company on 2<sup>nd</sup> August 2021 (DISP. N° 236/21).

### **Cristian III**

- The first concessionaire of the Cristian III was Mr. Juan Lirio, and he had the ownership of the right from 3<sup>rd</sup> April 1995 to 2008. The edicts (2001) were published in that period, and the Legal Work was executed in 2003. Due to lack of compliance with the measurement request, the mining rights expired in 2005, which was revoked that same year, and the measurement edicts' publication was ordered. In November 2008, the legal expiration right to the property was declared due to non-payment of the mining canon;
- In 2009, Mr. Jorge Zamorano was awarded the mining concession, and utilising a resolution of the Secretariat Environment of the Province, the Environmental Impact Report was approved. In 2011, Mr. Alberto Rocha was appointed to carry out the measurement works, and Mr. Zamorano transferred the ownership of the mining right to Minera Anglo American Argentina SA;
- Minera Anglo American Argentina SA, in 2015 the measurement was approved, in 2017 the Investment Plan and Amount were approved, and in 2018 the update of the Environmental Impact Report was approved. In 2019 the expiration of the mining right was declared due to non-payment of the mining canon; and,
- Mr. Hernán Vera was awarded the mining concession in 2020 and he transferred these rights to the Barton SAS Company on 2<sup>nd</sup> August 2021 (DISP.N° 238/21).

### **Ritsuko**

- The first request for the Ritsuko was made by Compañía Minera El Solitario Argentino SA (El Solitario) in 1996. A year later, the mining rights of this property were transferred to Minera El Dorado SA, a company that operated on the concession until the year 2000;
- In 2004, El Solitario retook control of mining law. This same year, the Department of Mining Geology of the Province of La Rioja declared the expiration of the right due to non-compliance with the observations made concerning the Legal Work. This resolution was revoked in 2005, and consequently, the Provincial Mining Cadastre re-graphs the mining concession;
- During the 2005, El Solitario transferred the mining rights of the Ritsuko to Compañía Minera San Juan SA (Company constituted by Minera Barrick Gold Argentina and El Solitario Argentino), which operated in the area until the year 2008. During 2005, the company executes the Legal Work. In 2011, the legal abandonment procedures were declared, and the registration was ordered as a vacancy;
- In 2012, Inversiones Mineras Australes (Grosso Group) took control of the mining concession and managed to approve the Environmental Impact Report within the activities carried out;
- In 2013 the mining rights were transferred to the company Valle del Cura SA, and a year later, in 2014, these mining rights were again transferred to the mining company Desarrollo de Recursos SA (all these companies belong to Grosso Group - Canada);
- In 2017, the rights of this mining company over the property expired for not complying with the update of the Environmental Impact Report; and,
- Finally, Mr. Hernán Vera was awarded the mining concession in 2020, and he transferred the rights to Barton SAS on 2<sup>nd</sup> August 2021 (DISP. 235/21).

#### 4.3.2.2 Cateos

The following information has been summarised for each Cateo.

##### **El Chiqui - Don Álvaro – Isidoro**

- The area now covered by the Cateos El Chiqui, Don Álvaro and Isidoro, was once covered by properties requested in 1993 by the company Lir-Fer Construcciones (today represented by Mr. J. D. Lirio). These properties were negotiated at the time (1993) by the company Minera Eldorado SA (Eldorado), which explored between 1994 and 1997 the entire area covered by the concessioned mining properties at that time;
- In 1998, Eldorado vacated the properties, which were taken over by YAMIRI SEM (a state-private company) that kept them in its power until 2009. The state-private company had a series of legal problems and disappeared between 2008/2009;
- The properties were later written off, and over time, some sectors were covered by different requests for searches. The most significant amount of the land (90%) of the Eldorado block was requested and awarded to Mr. Hernán A. Vera, who transferred them to Barton SAS; and,
- The mining properties that make up the El Chiqui - Don Álvaro - Isidoro prospect cover a total area of 2,820 hectares ( $\pm 28 \text{ km}^2$ ).

##### **Caserones**

- The requested search area is 3,285 hectares ( $\pm 33 \text{ km}^2$ ), consisting of 8 units of measurement of exploration (8 units/500 ha) located over 4,500 masl; and,
- Different companies toured the area, but specifically, the Brazilian company Vale surveyed a sector of the current Cateo surface. Vale carried out an exploration programme, including general geological and orientation sampling surveys of the surface. The property was requested and awarded to Mr. Hernán A. Vera, who transferred it to Barton SAS. Still pending and in the process of granting.

#### 4.3.3 Environmental Regulations

The Environmental Protection Act (EPA) of Argentina, enacted in 1996, establishes the guidelines for preparing environmental impact assessment studies for mining projects. The federal nature of the Argentine government leaves the application of the EPA to each province. Initially, the Provinces adhered to the mining law and established the provincial mining secretary as the applicable authority. However, starting in 2002, several provinces have re-evaluated their approach to mining and have shifted the environmental criteria and authority to the environmental secretary.

A party wishing to commence or modify any mining-related activity as defined by the EPA, including prospecting, exploration, exploitation, development, preparation, extraction, and storage of mineral substances, as well as property abandonment or mine closure activity, must prepare and submit to the Provincial Mining and Environmental Authorities an Informe de Impacto Ambiental or Environmental Impact Assessment (IIA) prior to commencing the work. Each EIA must describe the nature of the proposed work, its potential risk to the environment, and the measures that will be taken to mitigate that risk. The provincial authorities have a sixty-

day period to review and either approve or reject the EIA; however, the EIA is not automatically approved if the provincial authorities have not responded within that period. Usually, provincial authorities have questions, comments, or require additional information or studies, granting thirty days to the applicant to answer the questions or file additional information or documents.

If accepted by the provincial authorities, the EIA is used as the basis to issue a Declaración de Impacto Ambiental (DIA) or Declaration of Environmental Impact (DEI) to which the applicant must agree to uphold during the mining-related activity in question. The DEI must be updated at least once every two years. Sanctions and penalties for non-compliance to the DEI are outlined in the EPA. They may include warnings, fines, suspension of Environmental permits, restoration of the environment, temporary or permanent closure of activities, and removal of authorisation to conduct mining-related activities.

#### **4.3.4 Works Permitting**

Holders of any mineral concessions in the province of La Rioja are required to submit an EIA before commencing exploration or mining activities and to submit a new report every two years.

These reports' contents vary according to the type and stage of activity on the property. The information requested is submitted administratively as an exploration permit and must be renewed every two years or when a change in activity on the property is expected to occur.

The permitting process is simple, and this is usually a 30 day to 60-day process.

#### **4.3.5 Peñas Negras Permits**

Surface exploration work in the Peñas Negras area is permitted under three DIAs. The original DIA applications were submitted on 30<sup>th</sup> November 2021 for the Isidoro, Don Álvaro and El Chiqui exploration permits (Cateo) and were granted on 30<sup>th</sup> November 2023 under Resolution 355-SE-2021, 356-SE-2021 and 357-SE-2021, respectively.

New EIAs before the expiration of the current resolutions must be submitted and meet the requirements established in resolution SA 037/15 of the Secretary of the Environment of La Rioja. In the case of requiring new roads or drilling, it is necessary to present a new EIA that contemplates these stages with the corresponding permits and qualifications.

#### **4.3.6 Peñas Negras Environmental Liabilities**

Existing environmental liabilities are limited to those associated with exploration-stage properties. They would involve the removal of the exploration camps and rehabilitation of drill sites and drill site access roads.

#### **4.3.7 Closure Considerations**

Closure must be covered by submission of a new EIA, or an update/amendment to an existing approved EIA. The document must include details of the proposed environmental rehabilitation, reclamation, or adjustment activities, and discuss how post-closure

environmental impacts will be avoided. The EIA must include data on post-closure monitoring, but current regulatory requirements do not entail the submission of formal closure plans.

#### **4.4 SURFACE RIGHTS**

The Argentine Mining Code (AMC) sets out rules under which surface rights and easements can be granted for a mining operation and covers aspects including land occupation, rights-of-way, access routes, transport routes, rail lines, water usage and any other infrastructure needed for operations.

The properties of Barton SAS are located in the General Lamadrid Department of the Province of La Rioja, in the area called "Usos Múltiples" ("Multiple Uses"), which is the marginal area of the Laguna Brava Provincial Reserve, where mining activities are fully authorised (Resol. N° 286 – Environmental secretary).

Barton has negotiated access and the right to use surface lands sufficient for many years of operation. A sufficient area exists at the Peñas Negras Project for all anticipated future surface infrastructure.

#### **4.5 MICON QPS COMMENTS**

Micon and the QPs are not aware of any significant factors or risks other than those discussed in this section of this Report that may affect access, title, or right or ability to perform work on the property by Sendero and 131. Micon and the QPs understand that further permitting and environmental studies could be required if sufficient mineralisation is discovered, and further economic studies demonstrated that the mineralisation is sufficient to host a mining operation.

Micon and the QPs are not aware of any significant environmental liabilities related to the Project and understand that there is no reason to assume that environmental permits required to conduct exploration would not be issued as required.

Micon and the QPs have not independently reviewed ownership of the Project area and the underlying property agreements. They have also not independently reviewed the Project mineral tenure and the overlying surface rights. The QPs have entirely relied upon and disclaim responsibility for information derived from Peñas Negras staff and legal experts retained by Sendero and 131 for this information relating to legal ownership and is used in Section 4.3 of this Technical Report. Assurances of legal title and conformity to environmental regulations are provided in the letters by MGN Estudios Novoa presented in Appendix 2.

The QPs notes that Barton will decide whether reduction of the area is required subsequent to the completion of the proposed exploration programme. The reduction of the size of the Cateos is not currently mandatory but is subject to the results of the proposed exploration programme. If the proposed exploration programme demonstrates that the entire area of the present Cateos has high mineral potential, then it will not be necessary to reduce the area covered by the Cateos.

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1 ACCESS TO PROPERTY**

The Project covers an area of approximately 117 km<sup>2</sup> and is located within the region known as Cordillera Frontal in the province of La Rioja, Argentina. It is located approximately 1,300 km from Buenos Aires and 625 km NE of Santiago, Chile.

The El Dorado base camp was installed on-site by Minera Eldorado SA (Eldorado) company and later expanded by YAMIRI SA. It is located about 500 km from San Juan, the city from which the technical and logistical support for the exploration campaign will be operated.

Two alternative access routes (Figure 5.1) are detailed below:

a) From San Juan to the town of Jachal (San Juan), onward to the town of Guandacol in the province of La Rioja. Guandacol is one of the population centres closest to the camp and access is by paved road, which is generally in good condition.

From the town of Guandacol to Puerta del Leoncito, the route continues along a rough road, which in part, coincides with the flooded valley of the Guandacol River. From here the road ascends to La Brea or Cajón de La Brea, where since the end of the 1970s, there is a mining camp belonging to the Minera Macho Muerto company. Today the camp is occupied by a company that provides mining services to the mining projects Josemaría and Filo del Sol.

From La Brea, the route follows well defined tracks to the mouth of the Quebrada de Peña Negra, in which the Peña Negra River flows. This portion of the road is maintained as it is the access road to the Josemaría Project. The road continues along the northern edge of Quebrada de Peña Negra westward for 20 km until it reaches the El Dorado camp located on the Tamberías Stream, about 400 m from its junction with the Peña Negra River.

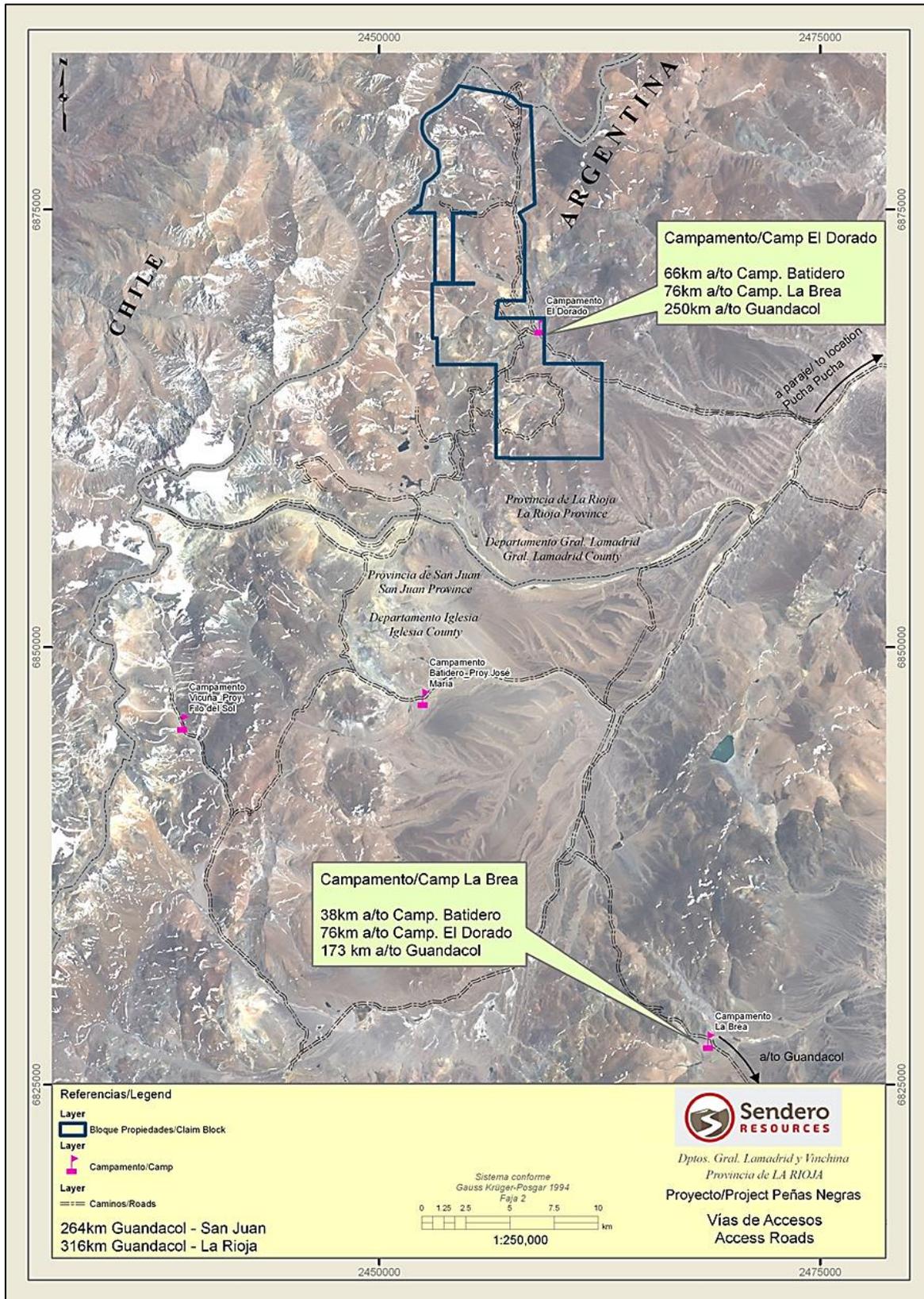
The total length of the trip from Guandacol is 242 km, and it takes about 4.5 hours to travel using 4 x 4 vehicles.

b) From the town of Guandacol, the route heads east to the city of Villa Unión and further to the town of Vinchina. From Vinchina the route passing through the town of Villa Castelli, along the paved national route to the town of Jagüe, the population centre closest to the Project. From this locality and up to Laguna Brava, the route continues along the international road to Chile, Paso de Pircas Negras (currently asphalted), passing through Portezuelo del Peñón. The road follows the border of Laguna Brava to the ESE and continues along a well-defined mining track. This track continues to the west towards Refugio Pastillos to continue northwest towards the junction of the Blanco and Salado Rivers, a place known as Refugio Pucha-Pucha. From there the route follows in a WSW direction along with the Quebrada del Río Peñas Negras to the base camp El Dorado located on the Tamberías Stream.

The total length of the route is 162 km from Jagüe, and it takes about 4 hours to travel with 4 x 4 vehicles.

There is a variant to the road described, which continues along the section of the international road from Laguna Brava to the Barrancas Blancas Refugio, and from here turns to the south, bordering the Quebrada del Río Salado to Pucha-Pucha, where the path described above is continued. This trail is currently closed by National Customs.

Figure 5.1: Location of the El Dorado Camp in the Project and its Access Roads

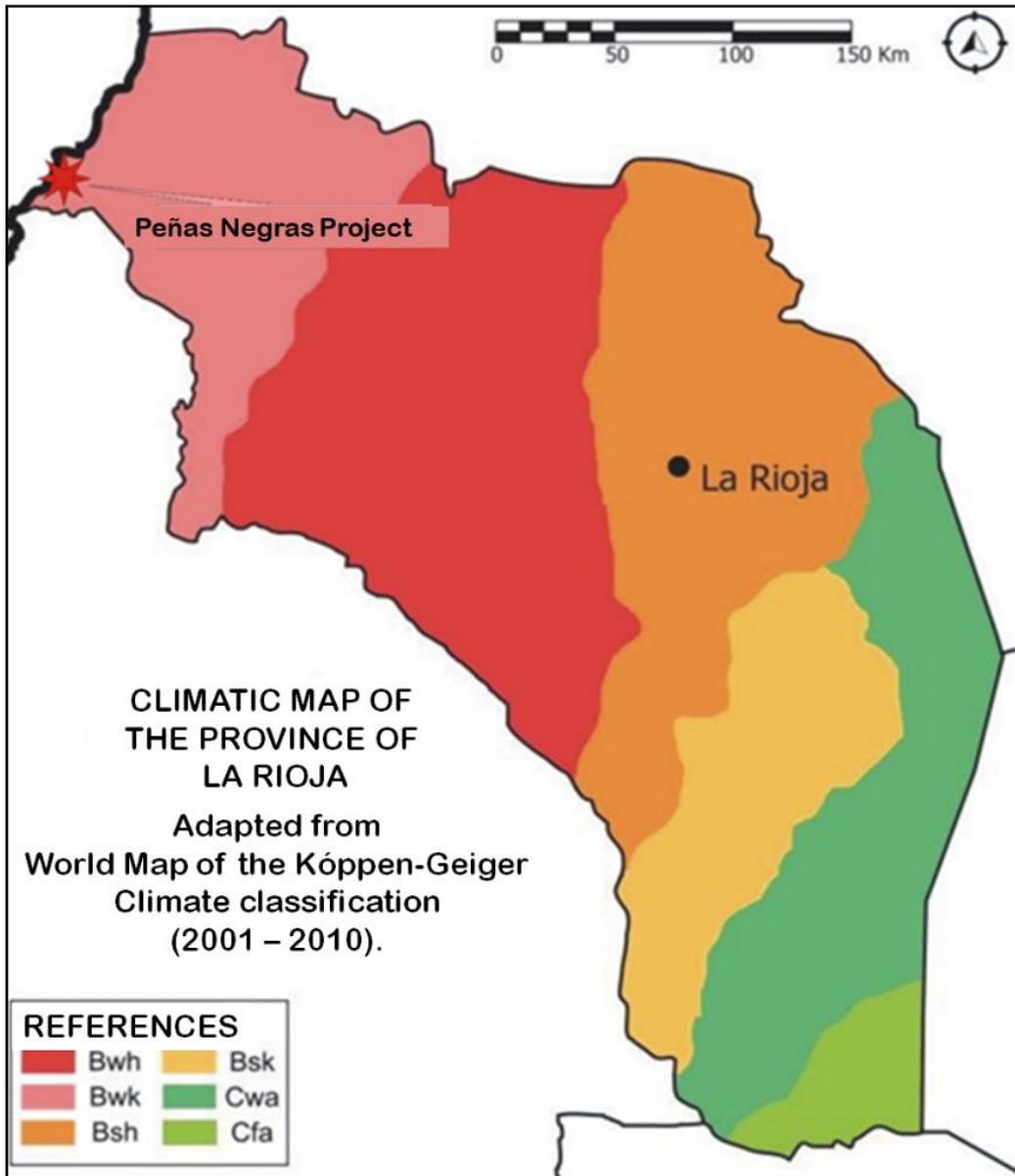


Source: Sendero Resources Corp., 2021.

## 5.2 CLIMATE

According to the Köppen-Geiger climatic scale (Kottek et al., 2006), the climate of the province includes Bwh (warm arid), Bwk (cold arid), Bsh (warm semi-arid), Bsk (cold semi-arid), Cwa (temperate with cold winters and warm summers), Cfa (very humid temperate with hot summers). The general condition of the Project area is Bwh, a dry climate with low precipitation (desert) where evaporation exceeds annual precipitation. Vegetation is limited to xerophytic plants (Figure 5.2).

Figure 5.2: Climate Map of the Province of La Rioja and the Project



Source: Adapted from Kottek et al. (2006) and modified from Soto, 2018.

The Project is located in the phytogeographic province called Altoandina, which includes levels between 4,650 masl and 3,600 masl (Soto, 2018). The area is associated with a cold climate Type B (tundra), covering all of the mining properties with average summer temperatures between 5°C and 25°C, while the average winter temperature can reach values between -7°C and -25°C.

The mean annual temperature does not exceed 10°C and scarce precipitation in the form of snow occurs between May and August. Average annual precipitation values range from 168 mm to 178 mm due to the Andes Mountains acting as an orographic barrier to the humid air masses coming from the Pacific Ocean (from west to east).

There is little or no vegetation cover, resulting in significant surface flow when rains occur and extensive alluvial plains with drainage of some importance. There is a substantial water supply in many drainages in an unvegetated landscape and no difficulty locating sufficient water to support drilling despite the barrenness.

Due to severe weather conditions, exploration work can only be carried out in the summer season (November to April).

### **5.3 LOCAL RESOURCES AND INFRASTRUCTURE**

The property is located close to two logistical, industrial, and mining centres: San Juan 520 km to the south of Argentina, and Copiapo, to the north in Chile. It is 50 km to the border crossing station (migratory and custom facilities) in eastern Chile.

The Peñas Negras Project is remote; other than road access, no infrastructure is available. The most important logistics centre in the region is San Juan, which has a population of approximately 818,234 people. San Juan has a domestic airport with daily scheduled flights to Buenos Aires. The city of Mendoza, approximately 170 km (2.0 hours driving time) south of San Juan city, has an international airport with flights to Santiago and elsewhere internationally and within Argentina. The nearest city in Chile is Copiapó, which has approximately 175,000 people and is a regional mining hub with access to mining materials and skilled labour as well as a modern airport with several daily flights to Santiago.

The closest localities to the Project are located at an average distance of 180 km to 200 km from the base camp: Villa Unión and Vinchina as main ones, by the alternative Villa Unión-Villa Castelli-Vinchina-Jagüe-Laguna Brava-Pastillos-Pucha Pucha/Río Salado-Río Blanco-Qda. Peñas Negras. A similar distance from the locality of Guandacol if this other alternative is used.

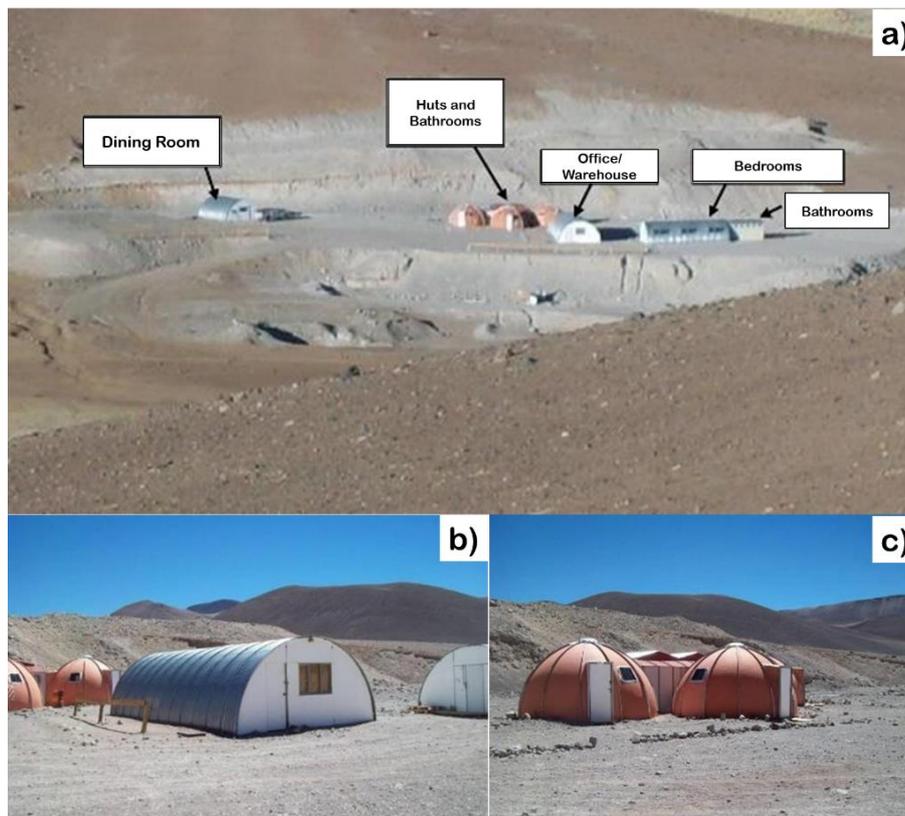
Guandacol is a mining town with 2,525 people that have served the Gualcamayo mine since early 2000. There are a significant number of skills capable of working on any mining project. It has basic supplies necessary for working in Cordillera (fuel, hardware, rubber, lodging, among others).

Villa Castelli and Vinchina have been mining towns for many decades. There have been numerous active mines in the area. However, this activity has decreased in recent years. Vinchina, mainly, has a supply of essential inputs.

The city of Villa Unión, with 4,931 people and 270 km from the Project, is the largest urban conglomerate in the region. All the basic supplies necessary for the logistics of the Project support (fuel, hardware, electrical materials, computers, food, and lodging) are readily available in this town.

The El Dorado camp is located at the geographical coordinates of 28° 19' S and 69° 25' O, is maintained in good condition and has subsequently been upgraded by some companies. The power sources for the camp are provided through an electric generator (Figure 5.3).

**Figure 5.3: a) General View of the El Dorado Camp Built by Eldorado  
b) Detail of the Office/Warehouse; c) Detail of the Huts and Bathrooms**



Source: Photographs taken from the report of Exponential Metals, 2020.

## 5.4 PHYSIOGRAPHY

The most outstanding feature of the region is the mountain range that forms the international border between Argentina and Chile. Elevations in the range are consistently higher than 4,000 masl. Peaks such as Cerro El Potro at 5,879 masl, Cerro Colorado at 5,172 masl, Cerro Caserones at 5,147 masl and Cerro Come Caballos at 5,199 masl are all located on the international border and are markedly the most impressive mountains in the work zone.

In the Project area, there are several "portezuelos or abras" used in the past for cattle herding and the passage of merchandise from one country to another, among them from south to north are: La Ollita (4,756 masl), Peñas Negras (4,356 masl), Come Caballos (4,548 masl) and Pircas Negras (4,165 masl).

The morphostructural unit of Cordillera Frontal extends for more than 700 km from the provinces of Catamarca to Mendoza, passing along all of La Rioja and San Juan. It borders to the east with the geological province of Precordillera. At its northern end, both geological units constitute a single morphostructural block that detaches from the southern edge of the Puna.

The leading hydrographic network has as its headwaters on the steep slopes of the mountain range located on the international boundary. These water currents fed by snowmelt are generally subsequent; they follow the main tectonic lineaments dominant in the region.

Within the Project area, El Blanco, El Potro, Peña Negra, Peña Negra, La Ollita, and Pucha-Pucha Rivers should be mentioned for their importance. The first mentioned river is the one

with the most extensive coverage since from its source at the southeast slope of Cerro Blanco (5,268 masl) to its disappearance in the wetland known as San Guillermo Reserve (in the province of San Juan), it has a length of more than 80 km. Numerous watercourses of stationary and discontinuous regime feed the main rivers, most of them short distances, coming from the previously mentioned hills.

In the Project, there is a predominance of poorly developed soils, which in many cases makes geological prospecting in the area difficult. This is due to the effects of climate (weathering and erosion processes) and relief (structure and steep slopes). Rocky outcrops are observed on mountain slopes and summits, where exposed lithological units with thin and poorly developed soil horizons are generally covered by debris and debris cones.

In the valleys, on the other hand, deposits of fluvial (unconsolidated sediments of varying grain size) and glacial or fluvioglacial (moraines and blocks) materials predominate (Figure 5.4).

**Figure 5.4: Photograph of the Ritsuko Sector showing the Different Physiographic Features of the Project (View of the Rhyodacitic Dome on the Rim of the Caldera)**



Source: Barton, 2020

## **5.5 MICON QPS COMMENTS**

Micon and the QPs believe that, to the extent relevant to the Peñas Negras Project, there is no reason to believe that Sendero and 131 will be unable to obtain the surface access, environmental sign-off, power, water, and personnel to conduct exploration programmes on the property. Micon and the QPs also believe that the exploration programmes could be conducted in the summer (November to April).

The Peñas Negras Project has large enough property on which to locate and accommodate the infrastructure necessary to host any future mining operations, should sufficient economic mineralisation be identified on the property.

## **6.0 HISTORY**

### **6.1 EXPLORATION AND DEVELOPMENT BY PREVIOUS OWNERS**

Peñas Negras has been a district explored by companies in the last couple of decades. Similar geological features and a short distance to the prolific mining zone of Maricunga and El Indio belts encouraged exploration. The Maricunga belt to the north is notable for its porphyry gold-copper systems, and the El Indio belt to the south hosts world-class high sulphidation epithermal deposits.

All the companies worked in different portions of the district (Peñas Negras is a significant area of about 400 km<sup>2</sup>) some attractive discoveries were made in different zones like La Ollita, Vicuña, Tamberías, Cerro Verde or Ritzuko where encouraging results were obtained.

The Secretariat of Mining of Argentina, through the support of the IDB (Inter-American Development Bank), carried out the Trade Development Project (TDP). Through this project the company Norwest Mine Service studied and analysed TM (Thematic Mapper) satellite images in an area of the Andes Mountains that included the provinces of Catamarca, La Rioja, and San Juan. More than forty areas or sectors with colour anomalies were identified, which were considered targets to be evaluated in the field.

In mid-1993, a joint venture was carried out between HRC Development Corporation-Eldorado Gold Corporation to acquired information reprocessed by Earth Resources Surveys Inc. covering the various anomalies. Intense exploratory activity was generated by companies between 1993 and 1997.

Among these areas or sectors, Anomaly 14 and Anomaly 16 stand out, which later constituted the Peñas Negras Project. A summary of the property and exploration in the Project area is in Table 6.1 and Figure 6.1.

There have not been any historical resource estimates conducted on the Project and there has not been any historical mining conducted in the area of the concessions.

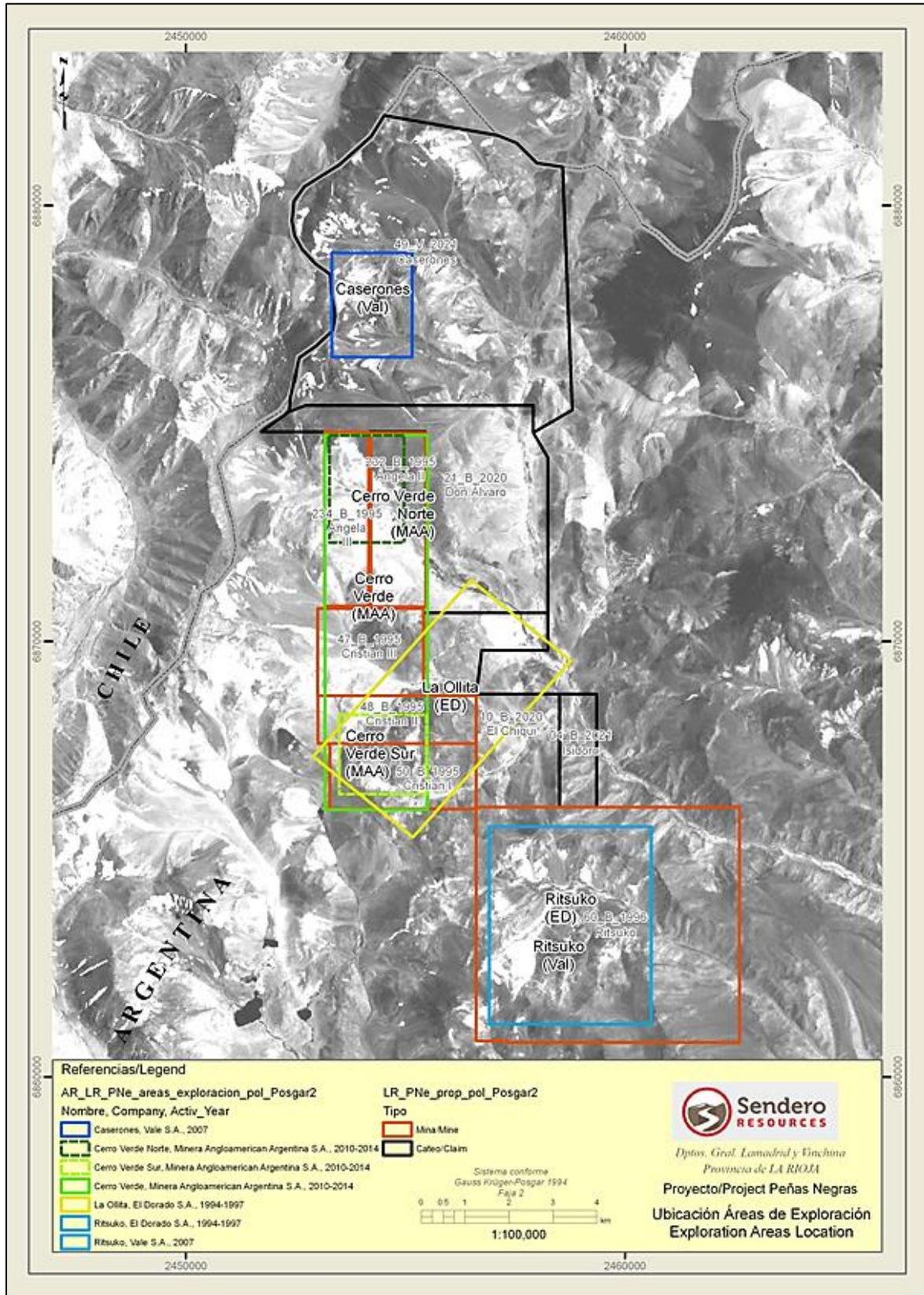
### **6.2 PROSPECTS-ANOMALIES EXPLORED AND EQUIVALENCES**

The Project presents intense discontinuous exploration activity through the years to the present. Over time, the different companies that developed exploration have changed the name of the original chromatic anomalies. The following Table 6.2 presents a historical summary of the names of the prospects and anomalies and their equivalences to the present.

**Table 6.1: Exploration History of the Properties that the Project Includes**

Year	Company	Description
1970s	National Mining Service	Exploration work in the area began in the 1970s by the National Mining Service (North Cordilleran Plan) performing geochemical sediment prospecting tasks on different rivers and basins of the Cordillera Frontal.
1987-1988	BRGM	Geologists from Bureau de Recherches Géologiques et Minières, France (BRGM) performed geological recognition and geochemical sampling of the area.
1992	Norwest Mine Service	The company Norwest Mine Service with the support of Campbell and associates studied and carried out some works with Thematic Mapper (TM) satellite images in an area of the Andes Mountains that included the provinces of Catamarca, La Rioja, and San Juan, locating and pointing out more than 40 areas or sectors with colour anomalies, which were considered targets to be evaluated in the field.
1994-1995	Minera El Solitario SA	This company worked in the area Crown Property (the area for them was Solitario 23-I cateo), with a reasonably short prospecting programme, it was limited to a sampling of rocks and soils, the construction of a pair of trenches and their respective sampling. Finally, a short drilling programme was developed.
1994-1997	Minera Eldorado SA	There were geological studies and various sampling types, with 10,150 m of RC and diamond drillings distributed mainly between the colour anomalies 16 and 14. About 13,033 m of trenches and accesses were constructed, where a total of 4,619 samples were collected. Within these activities, 108.3 km of ground magnetometry and 192.20 km of induced polarisation/resistivity were performed between the anomalies 14, 16, 18A (Cerro El Potro - Sillimanita), 19 (Miranda), and Ritsuko.
1995-1998	National Secretary of Mining	Conducted expedition work in La Ollita, La Vicuña and Río Tamberías, in compliance with the PASMA project and the agreement with JICA/MMA/JMEC.
2007	Minera Vale Río Doce - DEPROMIN SA	They carried out exploration work in the area they called "Regional Project," which was divided into two zones, Regional North (Peñas Negras area) in the province of La Rioja and Regional South (Cordón de La Brea area) in the province of San Juan. The studies in the Peñas Negras area were concentrated in the areas or sectors of Caserones, Solitario 23-I, Ritsuko, Miranda (former Anomaly 19 of the TDP) and Solitario 17.
2012	Golden Arrow	They carried out exploration tasks developed for the Caballos area, north of the Project property block, and an exploration agreement was also signed for the Ritsuko sector. The tasks performed were background compilation of previous work and basic prospecting activities, mainly surface geochemistry, on alteration zones present in the western margin of the caldera.
2009-2014	Anglo American Argentina SA	It was the last company to conduct exploratory work in the Cristian I, II, III and the Ángela II-III mining concessions. A total of 833 different types of samples were collected. A geophysical survey of 140 km of magnetometry and 23 km of induced polarisation/resistivity was carried out. During the period from 2011 to 2012, six diamond drill holes were drilled.

Figure 6.1: Location Map of Areas with Exploration History in the Properties that the Project Includes



Source: Sendero Resources Corp., 2021.

**Table 6.2: Historical Summary of the Prospects and Anomalies Names and their Equivalences to the Present Project**

Concession Name	Prospects and Anomalies Names				
	Barton SAS (2021)	Anglo American Argentina SA (2009 - 2014)	Minera Vale Río Doce - DEPROMIN SA (2007)	Minera Eldorado SA (1994 - 1997)	National Secretary of Mining - TDP (1992)
Cristian I	C° Verde	C° Verde South	-	Cristian I, II, II	Anomaly 16G
Cristian II					
Cristian III		C° Verde North	-	-	-
Ángela II			-	-	-
Ángela III			-	-	-
Ritsuko	Ritsuko	-	Ritsuko	Ritsuko	Ritsuko
El Chiqui	El Chiqui	-	-	La Ollita / La Ollita central zone / Tamberías / Crown Property / Telluride zone / La Peña / El Solitario 23-I	Anomalies 16 - 16A - 16B - 16C - 14E - 23
Don Alvaro					
Isidoro					
Caserones	Caserones	-	Caserones	Caserones	Anomaly 15

### 6.3 HISTORICAL EXPLORATION PROGRAMMES

Favourable geology has been explored since the 1990s with well-developed targets and some historical exploration programmes on the property.

The Project database for different historical exploration programmes is summarised below:

- Assay results from 9,430 m of Reverse Circulation (RC);
- Assay results from 3,282.6 m of Diamond Drilling (DD);
- Assay results for over 6,141 surface samples;
- 248.30 line-km of ground magnetic surveying;
- 236 line-km of IP geophysical surveying; and,
- Processed Satellite Alteration Imagery.

#### 6.3.1 Exploration of Minera El Solitario SA

Minera El Solitario SA (El Solitario), a company subsidiary of Sovereign Gold (USA), worked between 1994 and 1995 in the area known as Crown Property (the area for them was Solitario 23-I cateo), with a reasonably short prospecting programme, it was limited to a sampling of rocks and soils, the construction of a pair of trenches and their respective sampling. Finally, a short drilling programme was developed. The results were not as satisfactory as expected, and the company abandoned the cateo.

### 6.3.2 Exploration of Minera Eldorado SA

Minera Eldorado SA (Eldorado) was a subsidiary company in Argentina of Eldorado Gold Corporation, Vancouver, Canada. They carried out a series of prospecting and exploration works developed between 1994 and 1997, which began with geological surveys and sampling a slope, soils, rock chips, and stream sediments in rivers.

In this period, 10,140.90 m in drilling programmes were carried out of the reverse circulation (RC) and diamond drill (DD) types, distributed mainly between the La Ollita (El Chiqui) and Cristian III (Cerro Verde). After the drill hole was completed, a PVC pipe was placed in the hole, and the collar was cemented. The drill hole number, total depth, azimuth, and inclination were stamped into a metal plate cemented into the collar pad. About 13,033 m of trenches and accesses were constructed, in which a total of 4,619 samples were collected.

A complete geophysical study was conducted by the Geodata company, which executed 108.30 km of ground magnetometry and 192.20 km of induced polarisation/resistivity were performed between the areas of anomalies 14, 16, 18A (Cerro El Potro - Sillimanita), 19 (Miranda) and Ritsuko.

On the magnetism study, a set of 17 profiles oriented N82°E were measured, taking magnetic field readings every 10 m. Also, three kinds of schemes of the measured magnetic field were built: a) map of profiles for each line, b) a contour map of the total magnetic field, c) and a map of the whole magnetic field reduced to the pole (Figure 6.2).

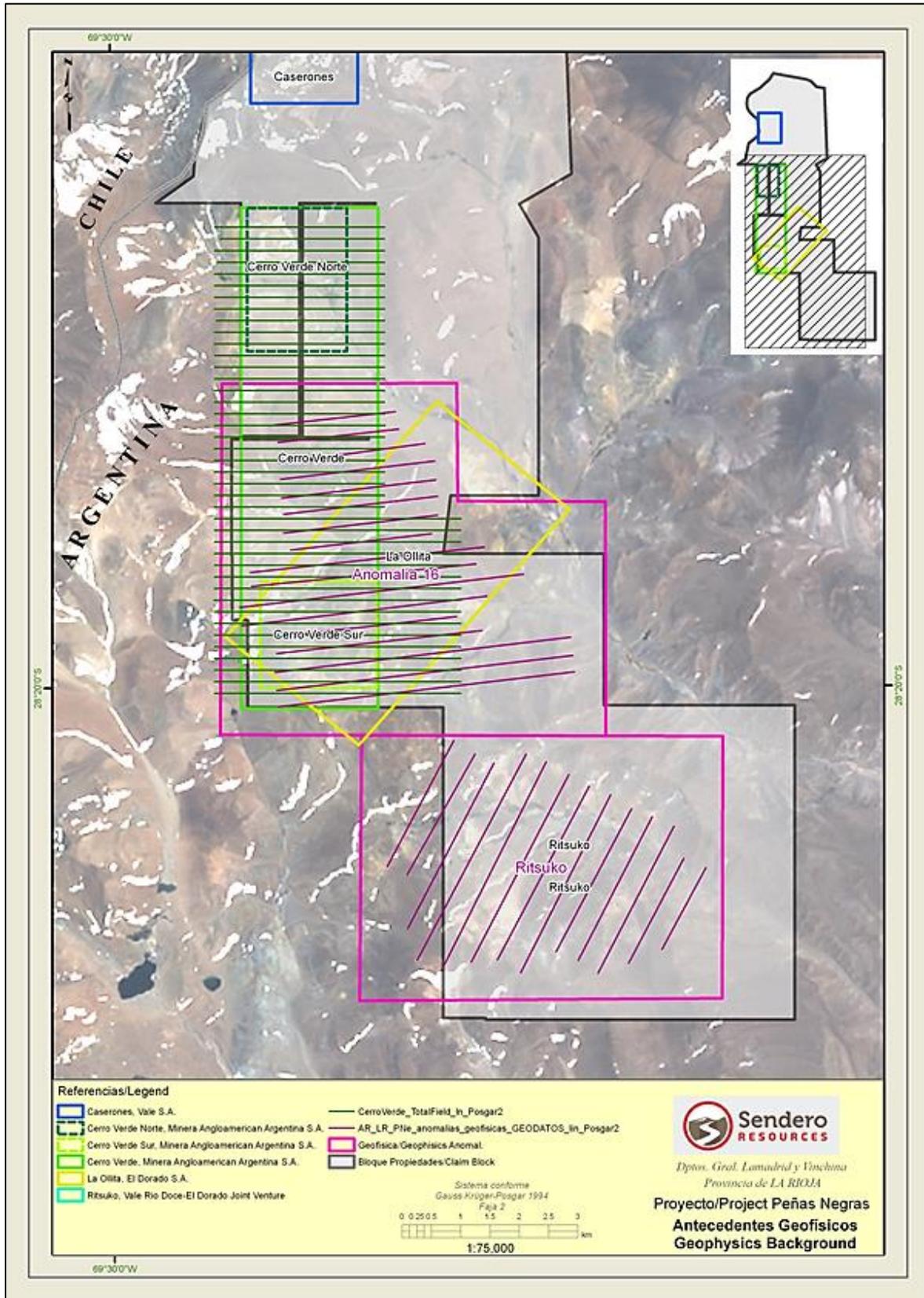
In the 1996-1997 campaign in Anomaly 16, 757 rock chips and soil samples were collected. In addition, in the Cristian I, II, III sectors, about 1,106 meters of trenches and accesses were sampled, with the collection of 254 rock chips and continuous channel samples and six grab samples (unique, selected samples). In the Crown Property area (sectors A and B), 1,503 trenches and accesses were sampled, obtaining 404 rock chips and channel samples, in addition to 30 grab samples.

Another sector that Eldorado evaluated was the area known as the Cristian, especially the Cristian I property. In the Crown Property area, it was concluded that there is evidence of an epithermal system represented by the association of gold, silver, and arsenic, controlled by structures and, the first of them shows a direct link to a porphyry copper system at depth.

These studies confirmed the existence of a mineralised area of Au±Ag±Cu in the central zone of La Ollita (El Chiqui), irregularly delimiting a mineralised body, open to the northwest and southwest, in-depth. Eldorado's recommendations for the area of Anomaly 16 (El Chiqui) were focused on drilling deeper (> 600 m) to define the continuity of the porphyry copper-gold system, seek to expand geological resources, and continue with a drilling programme in the Cristian I and Crown Property sectors.

In the sector called Ritsuko, located immediately south of Anomaly 16, geologists from Eldorado defined it as a "volcanic caldera," strongly leached, which explains the low anomalous values in gold, silver, and other elements found, only in the rims, especially in the NW sector, some silicified structures and with the presence of quartz showed anomalous values in gold. The geophysical studies (strong magnetic lineaments) indicate that the possible mineralisation is structurally controlled.

Figure 6.2: Location Map of the Historical Geophysical Exploration Programmes Present in the Project



Source: Sendero Resources Corp., 2021.

### **6.3.1 Exploration of Minera Vale Río Doce - DEPROMIN SA**

In 2007, the company Minera Vale Río Doce together with DEPROMIN SA (Desarrollo y Proyectos Mineros SA), carried out exploration works in what they called "Regional Project", which was divided into two zones, Regional Norte (Peñas Negras area) in the province of La Rioja and Regional Sur (Cordón de La Brea area) in the province of San Juan. Studies in the Peñas Negras area focused on the Caserones, Solitario 23-I (El Chiqui), Ritsuko, Miranda (former Anomaly 19 of the TDP programme) and Solitario 17 sectors.

The exploration programme consisted of detailed geological studies and surface geochemistry (rocks, soils, and slope), which included sampling over the existing trenches in the area. All these exploration tasks allowed concluding that the Caserones area has characteristics related to the porphyry copper system, developed in the rhyolitic basement of the Choiyoi Group (Permo-Triassic).

Regarding the Solitario 23-I area (El Chiqui), volcanic rocks intruded by dacitic dykes associated with quartz veinlets with Au and Cu were described, defining the area as a lateral zone of an auriferous porphyry body. In the Ritsuko sector, a caldera-type structure with dacitic domes and porphyritic bodies was described. The Miranda area concluded that the colour anomaly corresponds to domitic structures of volcanoclastic rocks intruded by subvolcanic bodies, defining it as an edge zone of a porphyry-type system.

The area Solitario 17 showed the Permo-Triassic granitic basement is intruded by a porphyry-type system with Cu mineralisation (copper oxides and sulphides).

### **6.3.2 Exploration of Golden Arrow**

In 2012, the Golden Arrow company, a subsidiary of Grosso Group (Canada), carried out exploration tasks developed for the Caballos area, north of the Project property block, and an exploration agreement was also signed Ritsuko sector. The tasks carried out in the area focused on collecting background information on previous work and basic prospecting activities. It consisted mainly of surface geochemistry on zones of argillic alteration with silicification, generally associated with quartz stockwork and iron oxides, present on the western margin of the caldera. A soil grid and complete sampling of different rocky outcrops were carried out. Later, the company did not carry out any more work, leaving the area.

### **6.3.3 Exploration of Minera Anglo American Argentina SA**

It was the last company to work in the area between 2009 and 2014, and it carried out exploratory work in the Cristian I-II-III and the Ángela II-III concessions. This sector was defined by Minera Anglo American Argentina SA (Anglo American) as the Cerro Verde Project (North and South). A total of 833 rock chips, soil, water, lag type and stream sediment samples were collected. These samples were collected selectively in the rock outcrops of these areas and systematically in three grids, carried out in the sectors of Ángela II-III.

The geophysical survey carried out by Anglo American included 140 km of magnetometry with east-west oriented lines and 23 km of induced polarisation/resistivity with seven east-west and one north-south oriented lines. Line spacing was 200 m for both methods. Preliminary analysis of these surveys showed indications of magnetite-bearing and magnetite-free bodies and IP signals in the area's northern and southern blocks (Figure 6.2).

Between 2009 and 2011, six DD holes were drilled with a total of 2,597.70 m to test the geochemical and geophysical anomalies defined in the previous campaigns, distributed mainly

between the Cristian I-II and Ángela II-III areas, proving the existence of mineralisation below the presence of a lithocap. In this last sector, a trench was made for detailed mapping and geochemical sampling. After the drill hole was completed, a PVC pipe was placed in the hole, and the collar was cemented. The drill hole number, total depth, azimuth, and inclination were stamped into a metal plate cemented into the collar pad.

Two different hydrothermal systems were identified from the exploration work carried out. The Cristian I-II-III areas correspond to a porphyry system, developed in Miocene volcanic rocks, intruded by dioritic-type bodies, emplaced according to the northwest direction. In the Ángela II-III area, a hydrothermal system was defined in Permo-Triassic basement rocks (Choiyoi Group), formed by granites and volcanic rocks with a lithocap on the surface hydrothermal breccias, presence of grey banded quartz-epidote-tourmaline-pyrite veinlets. In this sector, some zones of supergene enrichment (chalcocite) were identified.

The work from the various programs allowed us to conclude that the sector of greater interest was the north sector, mainly by the intersection of the zone of supergene enrichment, identified in drill holes, since the gold values observed (generally less than 1 g/t Au) were only obtained from trench samples related to epithermal structures.

#### 6.4 EXPLORATION HISTORIC RESULTS

The exploration works carried out since the 1990s by different companies (surface sampling, mapping, geophysics, and drilling) at the Peñas Negras Project allowed us to recognise the evidence of two different deposit styles formed at different crustal levels with characteristic metal grades and metallurgy. The first is an epithermal system with HS characteristics represented by the association of Au-Ag-Cu-As-Sb-Te, controlled by structures, and directly links to a porphyry-type system at depth. The second corresponds to a porphyry Cu-Au±Mo system, developed in Miocene volcanic rocks, intruded by dacitic-dioritic-type bodies.

#### 6.5 HISTORICAL DRILLING PROGRAMMES

A summary of the prior drilling programmes conducted on the Peñas Negras Project from 1995 to 2012 is contained in Table 6.3.

**Table 6.3: Summary of the Peñas Negras Project Drilling Programmes from 1995 to 2011**

Prospect	Period	Company	Drilling Method/Type		Number of Drill Holes	Total (m)
			RC	DD		
El Solitario 23-I (El Chiqui)	1994 - 1995	El Solitario	4	-	4	430.00
<b>Total</b>			<b>4</b>	<b>0</b>	<b>4</b>	<b>430.00</b>
La Ollita (El Chiqui)	1995 - 1997	Eldorado	58	3	61	9,306.90
Cristian III (Cerro Verde)			4	-	4	808.00
<b>Total</b>			<b>62</b>	<b>3</b>	<b>65</b>	<b>10,114.90</b>
Ángela II-III (Cerro Verde)	2011 - 2012	Anglo American	-	4	4	1,911.30
Cristian I-II (Cerro Verde)			-	2	2	686.40
<b>Total</b>			<b>0</b>	<b>6</b>	<b>6</b>	<b>2,597.70</b>
<b>TOTAL</b>			<b>66</b>	<b>9</b>	<b>75</b>	<b>13,142.60</b>

Source: Table derived from the database by Sendero Resources Corp., 2021.

Note: The drilling method or type was either Reverse Circulation (RC) or Diamond Drilling (DD).

### 6.5.1 1994 to 1995 El Solitario Drilling Programme

Between 1994 and 1995, a short drilling programme was developed; there were four holes in RC totalling about 430 m of the Crown Property or Solitario 23-I cateo (El Chiqui). However, no documentation regarding the drilling procedures or a summary, interpretation and results of the programmes was available.

### 6.5.2 1995 to 1997 Eldorado Drilling Programmes

The exploration drilling campaign in the El Chiqui prospect was designed to test the mineral deposit model identified from surface geological, geochemical and geophysics work. In this period, 10,140.90 m in drilling programmes were carried out of reverse circulation (RC) and diamond drill (DD) types, distributed mainly between the La Ollita (El Chiqui) with a total of 9,430 m (58 RC and 3 DD) and Cristian III (Cerro Verde) with a total of 808.00 m (4 RC). DD holes involved both HQ and NQ size core drilling, and the RC rig used was a Drill-Tech D 22 K and 40 T, with tricone.

#### 6.5.2.1 Locations

The 1995 and 1997 Eldorado holes and their collar positions are summarised in Table 6.4.

**Table 6.4: Summary of the Drill Hole Information for the 1995 to 1997 Eldorado Drill Programmes**

Drill Hole ID	Prospect	Easting (GK)	Northing (GK)	Azimuth (°)	Dip (°)	Depth (m)
PND001	La Ollita	2,456,564	6,870,551	174	60	195.55
PND002		2,456,731	6,870,415	0	90	250.00
PND003		2,457,098	6,870,087	360	55	239.35
PNR001	La Ollita	2,456,951	6,870,172	0	90	50.00
PNR002		2,456,856	6,870,349	0	90	50.00
PNR003		2,456,742	6,870,406	0	90	100.00
PNR004		2,456,607	6,870,328	0	90	50.00
PNR005		2,456,704	6,870,158	0	90	50.00
PNR006		2,456,723	6,870,283	0	90	50.00
PNR007		2,456,835	6,870,227	0	90	50.00
PNR008		2,456,814	6,870,107	0	90	50.00
PNR009		2,456,933	6,870,052	0	90	50.00
PNR010		2,456,797	6,869,972	0	90	50.00
PNR011		2,456,908	6,869,919	0	90	50.00
PNR012		2,456,888	6,869,798	0	90	50.00
PNR013		2,456,999	6,869,742	0	90	50.00
PNR014		2,457,021	6,869,867	0	90	50.00
PNR015		2,457,037	6,869,989	0	90	50.00
PNR016		2,457,058	6,870,121	0	90	54.00
PNR017		2,457,170	6,870,062	0	90	54.00
PNR018		2,457,131	6,869,821	0	90	52.00
PNR019		2,457,110	6,869,692	0	90	52.00
PNR020		2,457,229	6,869,642	0	90	52.00
PNR021		2,456,893	6,870,329	0	90	162.00

**Table 6.4: Summary of the Drill Hole Information for the 1995 to 1997 Eldorado Drill Programmes**

Drill Hole ID	Prospect	Easting (GK)	Northing (GK)	Azimuth (°)	Dip (°)	Depth (m)
PNR022	La Ollita	2,456,782	6,870,416	0	90	156.00
PNR023		2,456,806	6,870,218	0	90	240.00
PNR024		2,456,830	6,870,019	0	90	220.00
PNR025		2,456,869	6,870,527	0	90	222.00
PNR026		2,456,758	6,870,615	0	90	198.00
PNR027		2,456,547	6,870,690	0	90	144.00
PNR028		2,456,571	6,870,491	0	90	204.00
PNR029		2,456,595	6,870,293	0	90	250.00
PNR030		2,456,619	6,870,094	0	90	220.00
PNR031		2,456,643	6,869,896	0	90	210.00
PNR032		2,456,433	6,869,971	0	90	50.00
PNR033		2,456,409	6,870,170	0	90	270.00
PNR034		2,456,980	6,870,440	0	90	252.00
PNR035		2,456,384	6,870,368	0	90	50.00
PNR036		2,457,016	6,870,142	0	90	156.00
PNR037		2,457,040	6,869,944	0	90	180.00
PNR038		2,456,854	6,869,820	0	90	168.00
PNR039		2,457,569	6,870,174	175	60	102.00
PNR040		2,457,328	6,870,232	180	60	150.00
PNR041		2,456,433	6,869,971	0	90	252.00
PNR042		2,456,384	6,870,368	0	90	174.00
PNR043		2,458,105	6,870,677	0	90	218.00
PNR044		2,458,023	6,870,566	0	90	198.00
PNR045		2,456,150	6,870,642	0	90	126.00
PNR046		2,456,222	6,870,046	0	90	114.00
PNR047		2,456,404	6,870,622	0	90	298.00
PNR048		2,455,726	6,869,986	0	90	90.00
PNR049		Cristian III	2,455,180	6,869,920	0	90
PNR050	La Ollita	2,455,935	6,869,508	0	90	258.00
PNR051	Cristian III	2,454,755	6,869,264	0	90	72.00
PNR052	Cristian III	2,455,240	6,869,424	0	90	150.00
PNR053	La Ollita	2,457,313	6,870,103	360	55	118.00
PNR054		2,457,215	6,870,166	0	90	270.00
PNR055		2,456,372	6,870,467	0	90	150.00
PNR056		2,456,174	6,870,443	0	90	348.00
PNR057		2,455,813	6,870,097	0	90	234.00
PNR058		2,455,987	6,870,320	0	90	246.00
PNR059	Cristian III	2,455,515	6,870,061	0	90	300.00
PNR060	La Ollita	2,455,738	6,869,887	0	90	166.00
PNR061		2,456,198	6,870,245	0	90	354.00
PNR062		2,456,011	6,870,121	0	90	340.00
<b>Total</b>						<b>10,114.90</b>

Source: Table derived from the database by Sendero Resources Corp., 2021

### 6.5.2.2 1995 and 1997 Drilling Results

An 80% of the drill holes were crossing volcanic rocks, dacites and andesites porphyroides. In contrast, 20% of the crossed rocks are intrusive as dacitic porphyry and diorite porphyry. A dacitic porphyry has been identified in drill holes PNR 29, 30, 33, 49, 62 and PND 3, and dioritic porphyries have been observed in PNR 21, 22, 39, 40, 51, 52, 53, 54, 56, 61 and 62 drill holes. Based on the logging done onto the cores, three main types of hydrothermal alterations have been identified: a) Propylitic alteration with chlorite+epidote+magnetite+pyrite+carbonate; b) Silica alteration with pervasive silica in patches and veinlets, and c) Phyllic alteration with sericite+ quartz+pyrite+clays. Silicification occurs with at least two pervasive silicification pulses and, in general, is passing through fractures and is associated with intrusive units. D-type veinlets of quartz+pyrite in quartz+sericite halos are common in-depth, as seen in PND 2 and 3 drill holes.

The mineralisation observed by the microscope has allowed differentiating two sectors, which indeed represent two levels of mineralised blocks. Sector 1 is where PNR 21 up to PNR 44 drill holes are located and the PNR 53, 54, PND 1, 2 and 3 drill holes zone. Sector 2 is the zone where PNR 50, 51, 52, 56, 57, 58, 59, 60, 61 and 62 are located.

Sector 1 covers about 52 m morainic material and then below about 25 m of oxidation layer. This one, featured by having goethite+jarosite spread in veinlets and filling open spaces. The goethite+ jarosite ratio is about 6:2. Traces of Cu and Mn oxides are observed. Gold values of 0.2 g/t Au to 0.3 g/t Au are found in the oxide zone of PNR 21, 22, 29, 31. On the oxidation zone of PNR 36 up to PNR40, drill holes, vuggy quartz+goethite+jarosite, silica patches, and some magnetite veinlets. Gold values in these zones are between 0.10 g/t Au to 0.30 g/t Au (PNR 36, 37, 39).

Below the oxidation zone, a mixed zone of about 10 metres is observed. It contains pyrite and also some chalcocite traces. On the PNR 21, 22, 24 and 39 drill holes, copper values reach up to 0.2%.

In the sulphide zone from 75 m too deep, pyrite is disseminated in a fine-grain, sphalerite galena and Cu sulphides trace (chalcopyrite and bornite). Anomalous Au values range from 0.10 to 1.00 g/t Au and 0.02 to 0.10% Cu. The PNR 21, 22, 23, 24, 25, 30, 33, 38, 39, 40 and PND 2 drill holes show microcrystalline quartz in veinlets±patches containing sphalerite, galena, some chalcopyrite and bornite, tiny pyrite veinlets, and dark pyrite that fills planes of fracture. High gold values (3.00 to 4.00 g/t Au) as found in some drill holes as PNR 28 are consistent with an increased veinlet concentration, as well as microcrystalline quartz and copper sulphides presence.

Sector 2 has a morainic cover of up to 160 m; initially, it only contains some traces of oxidation. The primary mineralisation is given by two generations of pyrite, one of fine grain and another of coarse grain. There is also chalcopyrite, sphalerite, and galena traces; the accessory mineral is carbonate in disseminated and veinlets. The PNR 51, 56, 61 and 62 drill holes have values from 0.10 g/t Au to 1.00 g/t Au and up to 0.06% Cu. Higher grades would be related to intense veinlets concentration and the presence of smoked quartz stockwork with chalcopyrite and disseminated magnetite. In addition, chalcopyrite and pyrite on fine-grain disseminated and in aggregates are present. This veinlets concentration is intense, up to 3% on the diorite porphyry. A lower percentage of up to 1% is present in the adjacent contact areas (PNR 56, 61, 62) (Table 6.5).

The locations of 1995 and 1997 Eldorado drill holes are shown in Figure 6.3.

**Table 6.5: Summary of the Drill Hole Information for the Eldorado Drill Programmes 2011 to 2012**

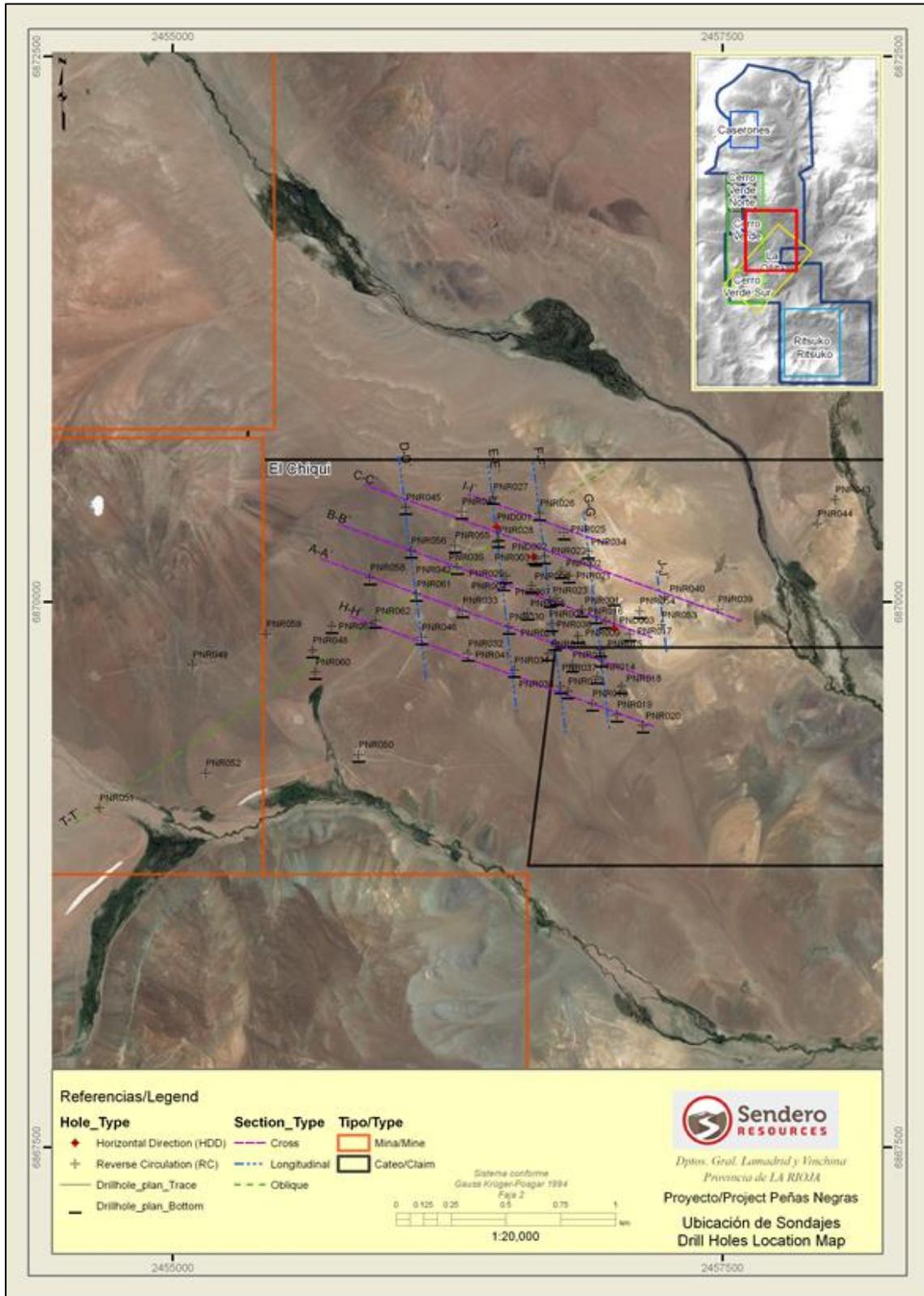
Drill Hole	From (m)	To (m)	Length (m)	Average Grade (g/t Au)	Grade Range (g/t Au)	Average Grade (Cu ppm)
PNR 3	34	58	24	0.56	0.20 - 1.07	-
	58	80	22	1.45	0.80 - 2.18	-
	80	100	20	0.67	0.34 - 1.22	-
PNR 21	30	56	26	0.32	0.12 - 0.97	700
	116	136	20	0.34	0.12 - 0.72	600
PNR 22	54	96	42	0.47	0.21 - 0.94	1,150
	96	156	60	0.23	0.21 - 0.65	800
PNR 23	68	80	12	0.41	0.31 - 0.86	1,700
	188	194	6	1.71	0.67 - 1.93	780
PNR 24	118	126	8	1.22	0.22 - 3.94	1,500
PNR 28	78	86	8	1.22	0.27 - 3.34	130
	194	204	10	0.42	0.14 - 0.82	150
PNR 30	59	80	21	0.40	0.27 - 0.59	1,200
	110	126	16	0.73	0.44 - 1.39	1,250
	126	220	94	0.38	0.17 - 0.53	900
PNR 33	82	152	70	0.27	0.14 - 0.47	1,500
	260	270	10	0.79	0.28 - 1.64	1,400
PNR 39	8	22	14	0.68	0.17 - 2.19	-
	60	68	8	0.76	0.44 - 1.13	700
	94	102	8	0.50	0.34 - 0.59	210
PNR 56	328	348	20	0.67	0.32 - 1.98	-
PNR 61	224	250	26	0.34	0.19 - 0.54	-
	308	318	10	0.39	0.32 - 0.53	-
PNR 62	276	298	22	0.24	0.15 - 0.44	-
	316	318	2	3.16	-	-
PND 1	156.25	167.35	11.1	0.31*	0.16* - 0.60*	150
	174.65	195.55	20.9	0.69*	0.55* - 1.05*	510
PND 2	38.60	55.75	17.15	0.58*	0.22* - 1.11*	600
	55.75	76.20	18.8	1.93*	1.04* - 3.71*	1,800
	77.80	91.05	13.25	1.28*	0.96* - 1.81*	1,400
	91.05	140.25	45.20	0.72*	0.39* - 1.42*	800
	140.25	187.70	47.45	0.46*	0.23* - 1.20*	630

Source: Table taken from the Exponential Metals Report, 2020.

Notes: \*Weighted average.

Until now insufficient work has been conducted to determine the true thickness of the mineralisation.

Figure 6.3: Location Map of Eldorado Drill Holes from 1995 to 1997



Source: Sendero Resources Corp., 2021.

### 6.5.3 2010 and 2011 Minera Anglo American Argentina SA - DD Programme

The exploration drilling campaign in the Cerro Verde Project was designed to test the mineral deposit model identified from surface geological, geochemical and geophysics work.

Six holes were drilled, 2 in Cerro Verde South (Cristian I-II-III) and 4 in Cerro Verde North (Ángela II-III), totalling 2,597.70 m. The drilling was carried out with a UDR-200 machine, starting the perforations with a tricone until the overburden was crossed. The size core drilling was PQ up to 100m and then QH until the end of the drilling. The survey measurements of the holes were carried out with Reflex EZ-Shot equipment from a depth of 100 m every 25 m. Diamonds core were logged, sampled, and analysed at the ALS Laboratory in Lima, Peru<sup>1</sup>.

#### 6.5.3.1 Locations

The 2011 and 2012 Anglo American holes, sector and their collar positions are summarised in Table 6.6. The drill holes are shown in Figure 6.4.

**Table 6.6: Summary of the Drill Hole Information for Anglo American Drill Programmes 2011 to 2012**

Year	Drill Hole ID	Sector	Easting (GK)	Northing (GK)	Azimuth (°)	Dip (°)	Depth (m)
2011	CEV011DDH001	Cristian I y II	2,454,505	6,868,091	225°	70°	430.40
2011	CEV011DDH002	Cristian I y II	2,454,534	6,867,755	225°	70°	256.00
2011	CEV011DDH003	Angela II y III	2,454,069	6,873,900	315°	70°	529.80
2012	CEV012DDH001	Angela II y III	2,453,501	6,873,171	270°	80°	553.10
2012	CEV012DDH002	Angela II y III	2,453,895	6,873,660	0°	90°	407.40
2012	CEV012DDH003	Angela II y III	2,454,744	6,873,373	0°	90°	421.00
2012	CEV012DDH004	Angela II y III	2,454,129	6,873,621	0°	90°	40.00

Source: Table taken from the Anglo American Reports, 2012 to 2013.

<sup>1</sup> ALS Laboratory, Lima, Peru, is accredited ISO 17025: 2005, ISO 9001:2008, which covers the analysis period.



### 6.5.3.2 2011 and 2012 Drilling Results

- CEV11-DDH-001 drill hole cut geology with a domain of dacitic volcanoclastic units with a breccia texture. All these units are strongly associated with chlorite-sericite-quartz-pyrite minerals. Veinlet presence is about 5% on the quartz-magnetite portion of the hole at the first 20 m. That presence of veinlets is also observed in the about 300 m length of fine texture andesitic bodies. In a subordinate way, some quartz-molybdenum veins with a density of about 2% from 60 m deep are observed. This percentage is decreasing in-depth, both in thickness and in quantity. In general, the content of pyrite reaches 10%. Main interception was: 10 m at 0.20 g/t Au; 457 ppm Cu; from 8.00 m to 18.00 m;
- CEV11-DDH-002 drill hole has similar characteristics to the drill hole before. The more significant intercepts were: 2 m at 25.60 g/t Ag; from 76.00 m to 78.00 m coincident with the thick dioritic porphyry body associated with quartz-magnetite veinlets and 8 m at 4.95 g/t Ag; from 136.00 m to 144.00 m, coincident with a fault zone;
- CEV11-DDH-003 drill hole cut mainly a Permo-Triassic granite, which was varying in textures from thick to fine. At 492 m, subvertical parallel structures affected by quartz-sericite alteration accompanied by grey quartz veinlets about 5 mm thick are observed. These veins are placed in a similar orientation to local structures. The drill hole is cutting at 514 m deep, a fine-grained andesitic intrusive body affected by sericitic and propylitic alteration. At this depth, some high sulfidation structures associated with enargite-tetrahedrite were recognised. Significant grades include: 78 m at 0.10% Cu; from 76.00 m to 154.00 m. In addition, 64 m at 0.03% Cu, from 164.00 m to 228.00 m;
- CEV12-DDH-001 drill hole has similar characteristics to the drill hole before. There is a predominance of granitic units throughout the hole. A sericite-kaolinite-silica alteration is observed below the lithocap/leaching zone, associated with banded grey quartz veinlets of up to 1 cm thick. From the 100 m deep up to the end of the hole, granite alteration varies to a sericite-chlorite-illite-smectite one, accompanied by banded grey quartz epidote-tourmaline veinlets and quartz-illite-pyrite veinlets. There is also a little dissemination of tourmaline-pyrite. The enrichment zone was 58 m to 95 m, represented by secondary chalcocite precipitation over the pyrite mineral and a fracture filler. The more significant grade for this hole was 40 m at 0.05% Cu;
- CEV12-DDH-002 drill hole has pyrite disseminated up to 120 m in approximately 3% and the few fine veinlets in approximately 1% to 2%. It is identified from the first meters, chalcocite enrichment on pyrite crystals at 0.5% up to a depth of 110 m. The pyrite-quartz veins are weak from the surface to the bottom of the hole, not >2%; and,
- CEV12-DDH-003 drill hole has mineralisation related to small epithermal structures formed by chalcopyrite-drusiform quartz-enargite-pyrite filled with empty spaces. At least four structures, about 5 m thick, were identified throughout the hole. Mineralised drill hole intersections: 10 m at 0.14% Cu, from 30.00 m to 40.00 m; 2 m at 0.29% Cu, from 232.00 m to 234.00 m and 4 m at 0.17% Cu, from 342.00 m to 346.00 m.

Table 6.7 summarises the Anglo American 2011 and 2012 drilling results for the Peñas Negras Project; the various mineralised intercepts are shown for each drill hole.

**Table 6.7: Summary of the Anglo American Mineralised Drill Hole Intersections 2011 and 2012**

Drill Hole ID	Drilling Intersections		Assay Results				
	From (m)	To (m)	Interval (m)	Au Eq* (g/t) - Avg.	Gold Range (g/t Au)	Cu Eq* (%) - Avg.	Copper Range (Cu %)
CEV11DDH001	8	94	86	0.11	0.01 - 0.35	-	-
	8	18	10	0.26	0.17 - 0.35	-	-
CEV11DDH002	12	22	10	0.11	0.05 - 0.09	-	-
	84	106	22	0.14	0.07 - 0.12	-	-
	116	130	14	0.18	0.10 - 0.27	-	-
CEV11DDH003	82	120	38	-	-	0.13	0.05 - 0.27
	126	150	24	-	-	0.18	0.04 - 0.43
	474	482	8	-	-	0.13	0.04 - 0.06
	496	508	12	-	-	0.36	0.04 - >10,000
	516	524	8	-	-	0.18	0.01 - 0.15
CEV12DDH001	32	38	6	-	-	0.24	0.00 - 0.00
	60	64	4	-	-	0.12	0.11 - 0.13
	84	90	6	-	-	0.10	0.01 - 0.14
	400	402	2	-	-	0.46	0.35

Source: Table taken from the Exponential Metals Report, 2020.

Notes: \*\*Including Au, Ag, Cu and Mo.

Until now insufficient work has been conducted to determine the true thickness of the mineralisation.

## 7.0 GEOLOGICAL SETTING AND MINERALISATION

### 7.1 REGIONAL GEOLOGY

The Peñas Negras district is located within the morphostructural unit corresponding to the Cordillera Frontal Geological Province in the high mountain range of La Rioja.

According to the Pastillos 6929-I Geological Sheet (Fauqué, 1999; SEGEMAR, 2005) (Figures 7.1 and 7.2), the basement comprises sandstones, quartzites, limonites, and conglomerates belonging to the Ranchillos Formation, assigned to the Carboniferous. Above, there is a volcanoclastic unit belonging to the Choiyoi Group (Permo-Triassic), a volcano-sedimentary complex composed of a group of volcanic and pyroclastic rocks characterised by a rhyolitic and rhyodacitic composition for the more acidic units and andesitic for the intermediate to basic units. In general, these rocks are folded and partially metamorphosed by Permo-Triassic granitic intrusions of the Carnerito Formation (Marcos et al., 1971).

Also, reduced outcrops of conglomerates and multicoloured sandstones can be observed in the sector of the Chapitas Formation (Marcos et al., 1971), whose age is assigned to the Jurassic-Cretaceous, although it is probable that they are younger (Palaeocene?).

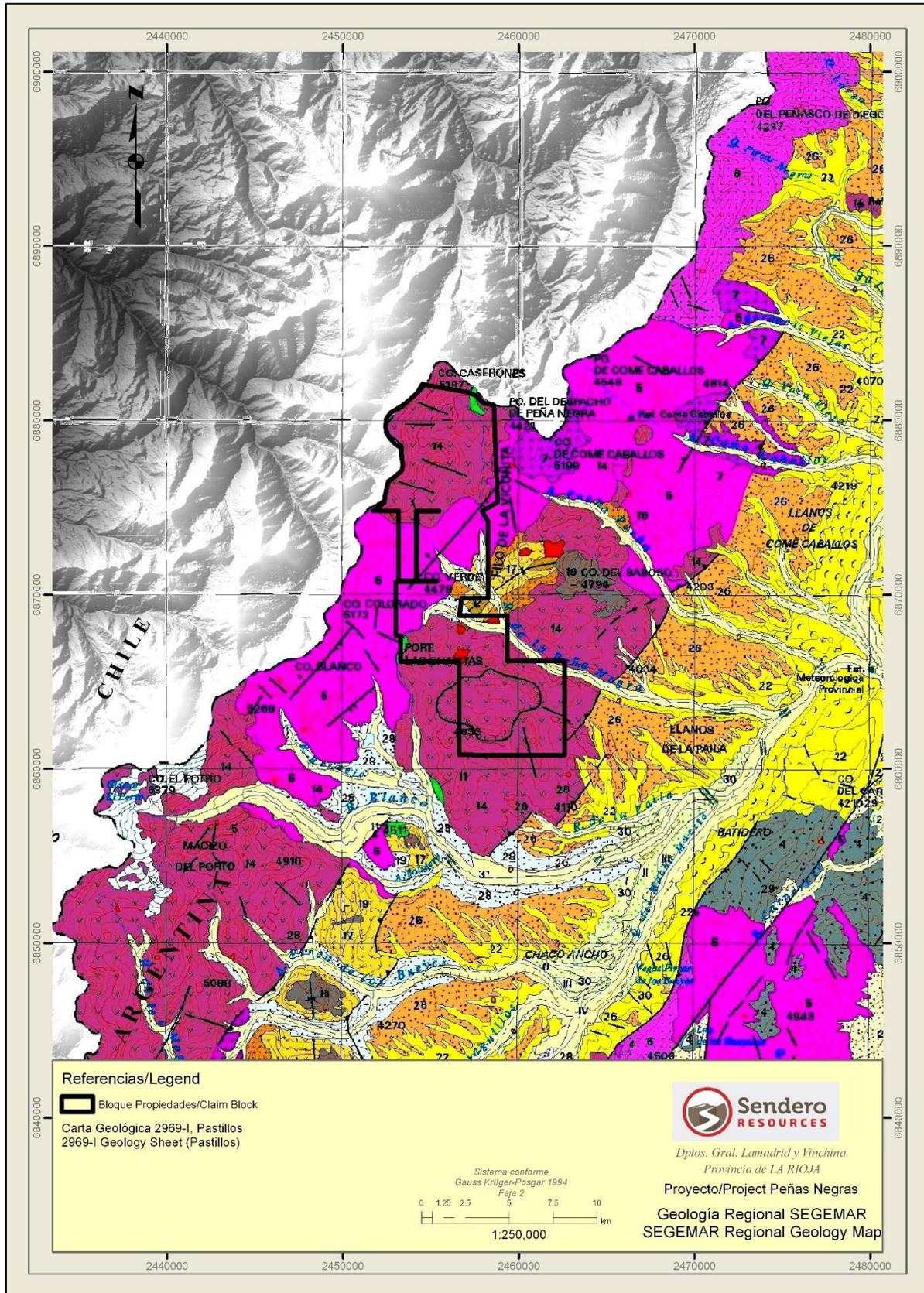
The Oligo-Miocene magmatism is limited to the Cordillera Frontal. They include andesites and dacites of the Doña Ana Formation (Otamendi et al., 1994) 27 Ma to 19 Ma, and rhyolites, dacites and andesites of the Las Tórtolas Formation, 17 Ma to 11 Ma, which are intruded and altered by rhyolitic, dacitic, dioritic and quartz-dioritic domes and dykes.

Pliocene-Pleistocene volcanic events are represented by a large volume of andesite-basalt that cover the entire mountain range; the stratovolcanoes Bonete Grande, Bonete Chico and Pisis were formed as a result of the same event. Within the province, it has been divided (Marcos et al., 1971) into the Barrancas Viejas Formation and the Veladero Formation. The former is intercalated with sandstones, conglomerates, tuffs, tuffites and gypsum. The stratigraphy is strongly folded and covered by the latter, discordant lava-pyroclastic. In the valley of the Blanco River, domes, plugs, dykes and andesitic, trachyandesitic and basaltic layered seams cut and alter the Carboniferous sediments.

The continuity of the Maricunga and the Indio belts into a single belt entering Argentina is linked to the displacement of the magmatic arc and Miocene to post-Miocene magmatism. Mpodozis and Kay (2003) mention a connection between both, interpreting a single Neogene magmatism belt, not two discontinuous bands. It is worth mentioning that different authors have referred to this region as the El Potro Belt (Panteleyev and Cravero, 2001; Jones et al., 2007) or the Salado Belt (Rode and Carrizo, 2007), coinciding that it represents the continuity of the Miocene mineralisation of Maricunga in Argentine territory.

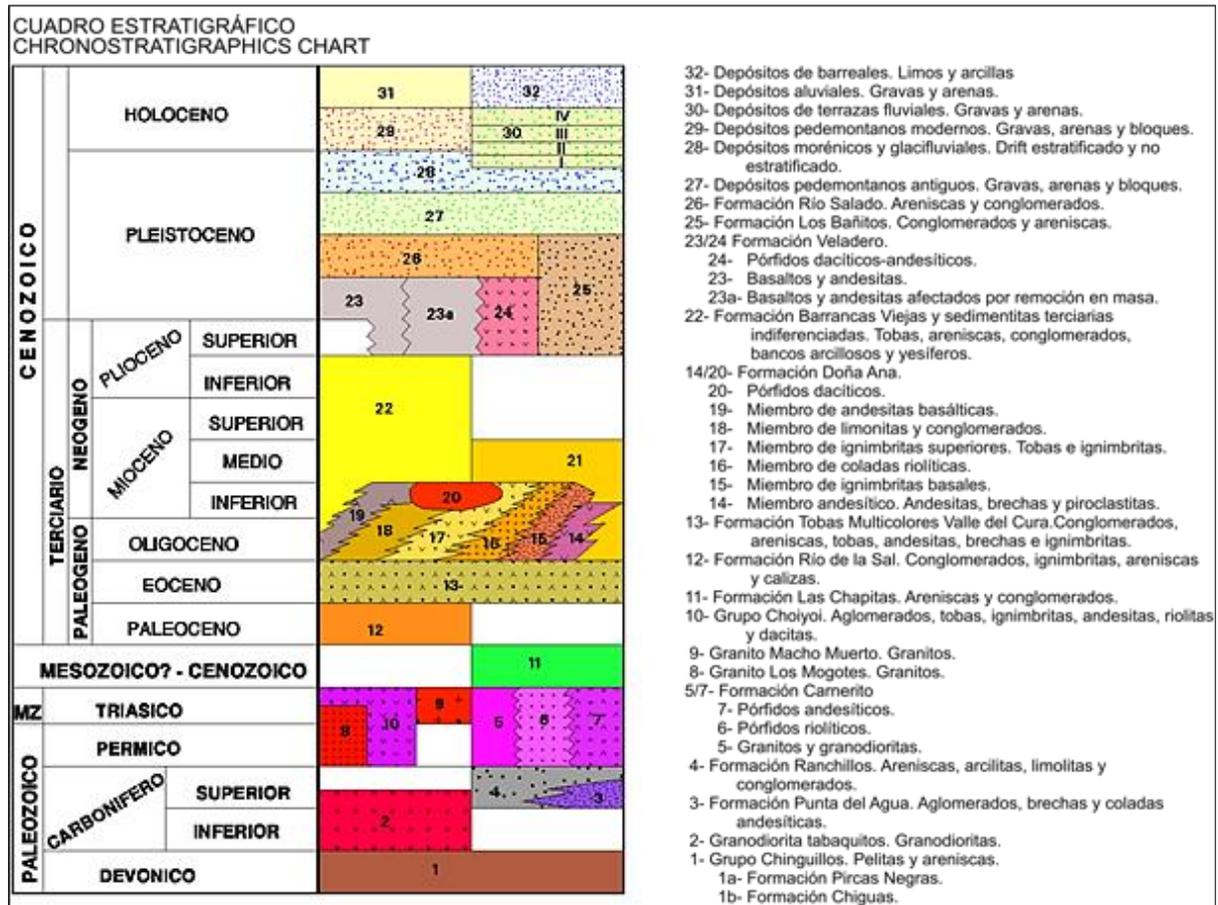
Finally, and in congruency with the tectonic uplift evident in the area, the erosion of the tertiary rocks has taken place, exposing the basement and the mineralised porphyries (Ortiz et al., 2015).

**Figure 7.1: Simplified Regional Geology Map of the Peñas Negras District**



Source: Sendero Resources Corp., 2021. Modified from Pastillos Geological Map 2969-I (SEGEMAR, 2005).

Figure 7.2: Legend Chronostratigraphic Chart of the Regional Geology Map of the Peñas Negras District.



Source: Sendero Resources Corp., 2021. Modified from Pastillos Geological Map 2969-I (SEGEMAR, 2005).

The structure of the sector has a significant lineament, reflected by the courses of the Salado, Macho Muerto and de la Sal Rivers. This mega fault made possible the rise of the Cordón de la Brea in the Mesozoic and Cenozoic. The remarkable alignment of the northeast corridor of the alteration zones and prospects (Caserones, La Ollita (El Chiqui), Río Tamberías (El Chiqui) and Ritsuko) is worth mentioning.

The deformation of the Palaeozoic sediments in the Cordillera Frontal is attributable to movements that occurred at the end of the Palaeozoic. The Andean orogeny would have produced tilting and lateral movement of blocks, leaving the oldest Tertiary volcanites in some sectors folded and others in a homoclinal position. At the same time, the Veladero Formation lies in a sub-horizontal position indicating the minor effect of neotectonics.

## 7.2 LOCAL GEOLOGY

In the Peña Negra Project, a chain of volcanic units was formed during the lower Oligocene. It constitutes a belt approximately 50 km wide, deposited on a basement that includes intrusive and volcanic units of the Palaeozoic and perhaps Mesozoic. The Project has several areas or sectors of interest:

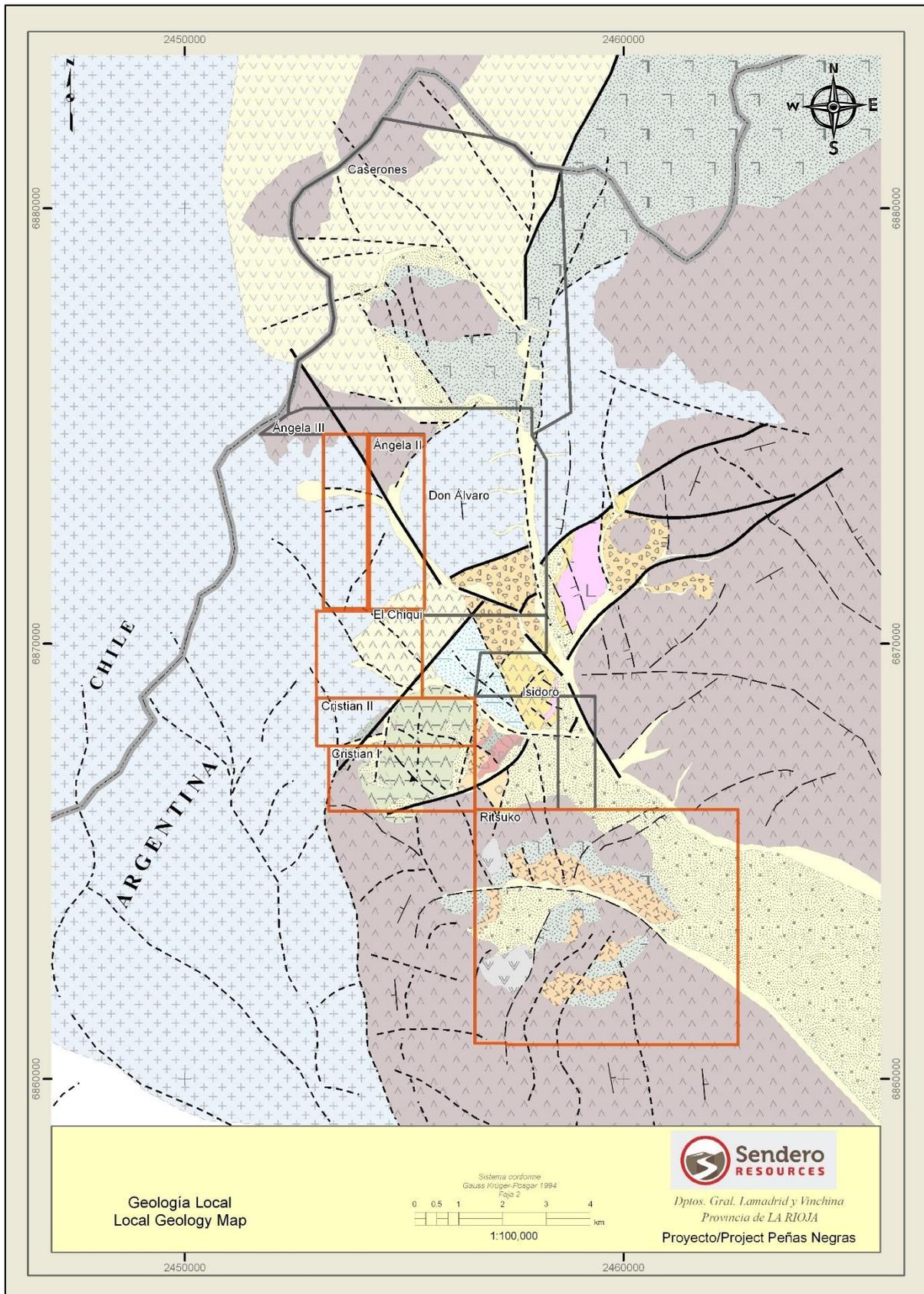
- Cerro Verde: is a sector comprising two well-differentiated areas Cerro Verde North (Ángela II-III) and Cerro Verde South (Cristian I-II-III);
- El Chiqui: is an area comprising several targets of interest, some already tested and explored, such as La Ollita, Tamberías, Crown Property and partially the area called Vicuña, located 5.5 km NNE of La Ollita;
- Don Álvaro and Isidoro: located north and east of El Chiqui, covering sectors evaluated in previous exploratory works within the La Ollita area, and even Isidoro covers part of the La Peña sector;
- Ritsuko: volcanic caldera with strong colour anomalies and domoic bodies in its interior; and,
- Caserones: the area has characteristics related to the porphyry copper system, developed in the rhyolitic basement of the Choiyoi Group (Permo-Triassic).

Regarding the geology in the sector, the lithological units are older to the west and younger to the east. The Permo-Triassic granitic/volcanic basement, followed by the Upper Eocene-Oligocene volcanic/sedimentary/intrusive sequences, the Middle to Lower Miocene volcano-sedimentary units, and finally, the moraine deposits (of fluvio-glacial origin). The Pleistocene-Holocene sediments occupy the slope areas, river courses and valleys in the region. There is more significant erosion of the lithological units to the west and less to the east. The Eocene-Oligocene units outcrop within a north-eastern corridor (generating a pull-apart system) defined by structures that contact the Permo-Triassic basement units and the Lower to Middle Miocene sediments and volcanites (Table 7.1 and Figures 7.3, 7.4).

**Table 7.1: Simplified Chronostratigraphic Summary of the Cordillera Frontal in the Sector of the Project**

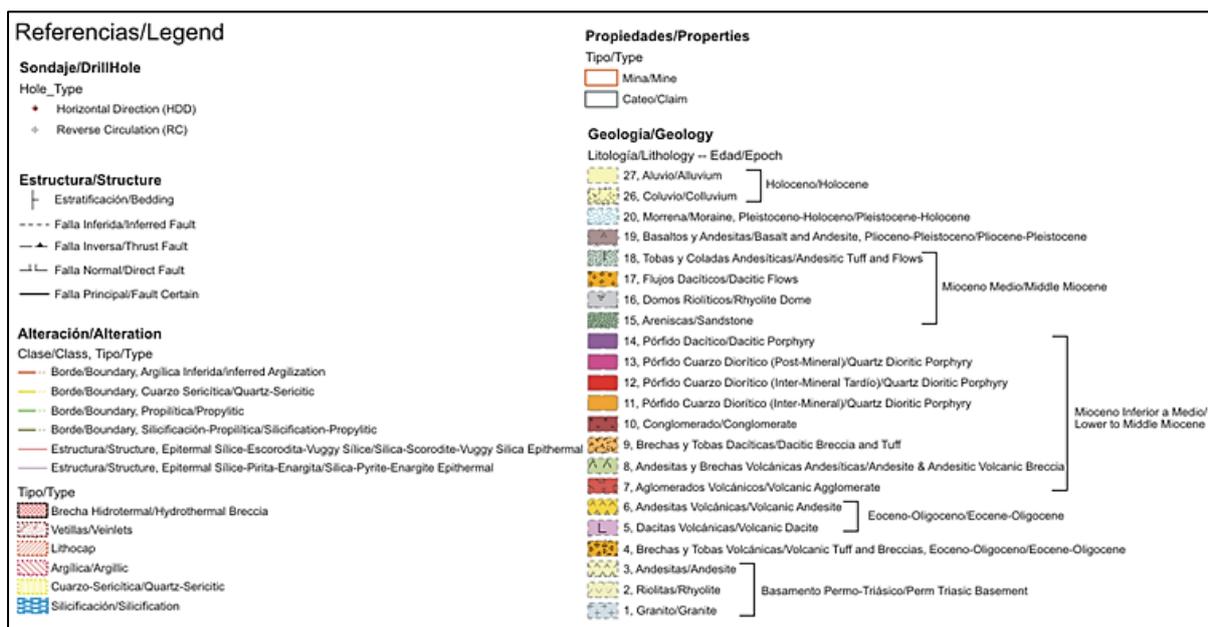
Era	Epoch	Units
Cenozoic	Holocene	Colluvial and alluvial material.
	Pleistocene-Holocene	Morainic deposits.
	Pliocene-Pleistocene	Basalts and andesites.
	Lower To Middle Miocene	With basal sediments and volcanoclastics, dacitic flows, breccias, rhyodacitic domes and dioritic-rhyodacitic intrusives.
	Eocene-Oligocene	Volcanic breccias and tuffs, andesitic and dacitic flows, and dacitic-rhyodacitic intrusives.
Mesozoic	Cretaceous – Palaeocene?	Varicoloured fine sandstones and purple/reddish conglomerates.
Palaeozoic	Permo-Triassic	Granites, mafic dykes, rhyolites, dacites and volcanic andesites.

**Figure 7.3: Geological Map of all the Properties Involved in the Project**



Source: Sendero Resources Corp., 2021.

Figure 7.4: Legend of Geological Map of all the Properties Involved in the Project



Source: Sendero Resources Corp., 2021.

The first work executed in the area was carried out due to the interest in developing prospecting and exploration programmes in the area known in the 1990s as the Maricunga Belt in Chilean territory. This area consisted of a series of gold and copper deposits associated with copper/gold porphyry-type systems such as the well-known Maricunga Mine (ex-Refugio), Aldebarán, Caspiche and more recently the Caserones Project (ex-Regalito).

However, the discovery of Josemaría initially and Filo del Sol later, have led to the expectation that the area represents a transition between the Maricunga belt and the El Indio belt. However, El Indio mineralisation is of a distinct age from these last projects located in San Juan territory, nor does its mineralisation correspond to the presence of porphyry intrusions.

### 7.2.1 Structure

According to the work carried out by Eldorado and Anglo American in the Cerro Verde sector and the existing anomalies in El Chiqui and Don Álvaro, structures through which the hydrothermal fluids circulated and the emplacement of the intrusives are preferentially controlled with NW-NW, NE-NNE N-S direction, and in a subordinate E-W way.

However, direct analysis of satellite images shows prominent NE-SW lineaments cut and segmented by NW-SE structures. The most easterly lineament coincides with the Macho Muerto Ridge (in San Juan); the northwest faults generally end in this large northeast lineament and could be rotated towards that same direction, indicating a sinistral movement of the eastern block.

Another major NE lineament crosses the central sector of the district, which connects the Upper Oligocene-Lower Miocene units with the Upper Eocene-Oligocene sequences.

A third lineament, somewhat more segmented to the west, and probably coincident with the subsidiaries of the Mondaquita Fault to the north and Los Helados Fault to the south, generate a western block that should move north-eastward.

Northwest structures also show eastward displacements in sectors, which could eventually influence the emplacements of hydrothermal systems and subvolcanic intrusive bodies. The large deposits/mining projects in the area are located at these essential northwest or northeast lineaments. Such is the case of Caserones, Anomalies 16 and 14 (El Chiqui and part of Don Álvaro), Josemaría, Los Helados, Filo del Sol and Mogotes.

For the Peñas Negras district, it can be observed that the existing lithological units in the area are in contact by faults, forming a northeast structural corridor, in which the main characteristic is that it only affects the Eocene-Oligocene volcanic units. These structures contact the Permo-Triassic basement to the west and the Lower to Middle Miocene units to the east. Two structural styles can be observed in the area, described as the Northern Segment and Southern Segment. The first one is located between the Quebradas del Arroyo Pucha Pucha-Punta Negra, and the second one is located between the Quebradas Punta Negra and Río Blanco.

### **7.2.2 Lithology**

The bedrock of the mineralising porphyritic bodies is the Permo-Triassic basement (called Choiyoi Group). There are several examples of hydrothermal systems developed in this type of basement, such as the Josemaría Project, Anomaly 18 (Sillimanite/El Potro), Los Helados and Caserones, these last two are on the Chilean side. Josemaría it is partially covered by volcanic/sedimentary sequences, which start with a hematitic basal conglomerate (red bed) followed by sandstone sequences. This conglomerate is characterised by mainly altered rhyolitic volcanic rocks clasts, and in some cases, with quartz veinlets Type A (Sillitoe, 2019). In the sector of Anomaly 14, Cateo El Chiqui and Minas Cristian I-II, layers of conglomerates and sandstones have been observed similar to those described above. These, according to their position and degree of alteration, could serve as a prospective guide to vector surface evidence and determine the proximity of hydrothermal systems. With doubt, they can be considered comparable to those described in the Josemaría Project.

Surface mapping, drilling and petrographic descriptions made on samples obtained at Mina Cristian I describe rocks of andesitic composition, andesites and dacitic volcanic breccias intruded by dioritic dyke-like bodies (Zamorano, 2010; Cornejo, 2010). According to the description of drill samples prepared by Minera Eldorado as well as surface samples, volcanic rocks of dacitic composition, lithic tuffs, lapilli tuffs, crystalline tuffs, volcanic breccias, dacites and porphyritic andesites are described for the El Chiqui sector, the latter located in the peripheries of the area drilled. All of the above have been intruded by bodies of dacitic and dioritic composition. The description of the altered lithological units in La Ollita covered by the Cateo El Chiqui coincides with acid volcanic units of the Eocene-Oligocene. At the same time, the rocks in the Cristian I-II could belong to the volcanism of the Lower to Middle Miocene, given their compositional characteristics and partial development of the alteration.

### **7.2.3 Radiometric Ages**

Radiometric studies in the Maricunga Belt define six discrete magmatic events, between 26 Ma and 5 Ma. The periods between 25 Ma to 20 Ma and 17 Ma to 11 Ma are related to hydrothermal alteration and precious metals mineralisation, which are associated with multiple complexes of dacitic domes or auriferous or cupro-auriferous porphyries located in very high subvolcanic levels (Mpodozis and Kay, 1995).

The radiometric ages from the Peñas Negras district are restricted to those obtained by Anglo American and the studies carried out by the Argentine Geological Mining Service (SEGEMAR). These yield ages of  $20.0 \pm 0.7$  Ma (K/Ar in muscovite-quartz) in samples of the altered Permo-Triassic basement (in the sector of Ángela II and III). A sample of volcanic rocks taken in the Río Tamberías sector (El Chiqui) indicated an age between 36.3 Ma to 34.1 Ma for and a sample of volcanic rock from a sector near the El Dorado camp, in the sector of Cateo El Chiqui also yielded 35.6 Ma (Panteleyev, 2001). The younger ages determined in the samples taken in the Río Tamberías sector (20.2 Ma and 27.3 Ma) are due to the alteration of hornblende to chlorite (Panteleyev, 2001).

Therefore, given the ages obtained, it is interpreted that these studies assign to the volcanic units outcropping in the Cateo El Chiqui (La Ollita hydrothermal system host rock) an Eocene-Oligocene age and to which the subsequent hydrothermal activity is linked. In contrast, the hydrothermal system would have acted in the Ángela II-III sectors in the Lower Miocene.

#### **7.2.4 Alteration and Mineralisation**

In the Project in general, argillic, advanced argillic and propylitic alterations are mainly identified. At depth, evidenced by drilling, the rocks are affected in some cases, by silicification and phyllic alteration (sericite-chlorite±quartz-tourmaline), accompanied by veinlets of banded/smoky quartz "Maricunga type," quartz-pyrite, quartz-magnetite, magnetite, and milky quartz, in addition to limonite-jarosite and clays in oxidation zones. According to Eldorado's report, the potassic alteration was identified in Anomaly 14 -Sector La Peña- (today part of the Cateo Don Álvaro) and Ritsuko, represented by the presence of secondary biotite and potassium feldspar. In Anomaly 16, the potassic alteration is described with doubts towards the end of the drill holes in the form of patches by an overprinting phyllic alteration.

Following Gustavson and Hunt's classification (1975), Type D veinlets associated with the quartz-sericite alteration were identified in the sector of the Ángela II-III, El Chiqui and C°Verde (Cristian I-II properties), while in the Cristian I area, Type B veinlets were identified, which do not exceed 5% and 2% in volume, respectively.

According to the ages defined in the radiometric studies on volcanic rocks and alteration, in the sector of El Chiqui and Ángela II-III, they conclude that possibly these hydrothermal systems worked with different lithostatic and hydrostatic pressures than those that acted in the Josemaría deposit, thus explaining the presence of dark grey banded quartz veinlets sometimes denominated as "Maricunga type". Studies of deposits belonging to the Maricunga Belt explain that the banded quartz veinlets are formed after the A-type veinlets. In addition, the dark grey colour is due to the high density of fluid inclusions rich in steam and magnetite grains. Studies of fluid inclusions in banded veinlets indicate formation temperatures of 350°C and pressures of 20 bar and 150 bar, interpreting depths of 0.20 km to 1.50 km. In this same work, it is proposed that the formation of these veins occurs by flashes due to abrupt decompression from lithostatic to hydrostatic pressure at depths (Muntean and Einaudi, 2000).

The mineralisation occurrence is described as disseminated and veinlets, probably caused by multiphase porphyry intrusion (pre, syn and post-mineral) of dacitic and dioritic composition bodies, according to the contribution and linkage to mineralisation. In the Cateos El Chiqui and Don Álvaro case, there is no necessary information to know the percentage by volume of veinlets, while these do not exceed the Cristian I and Ángela II-III sectors of 5%.

## 7.2.5 Property Geology – Cerro Verde

The Cerro Verde prospect is conformed for the anomalies: (Cristian I-II-III and Ángela II-III) and presents characteristics similar to porphyry copper-gold systems, with alteration zoning and overprinting relationships. Field observations include early alteration of plagioclase with variable intensity overprinting of the argillic, advanced argillic and sericite alterations, whose geometry and mineral association evidence epizonal-type sites with a low level of erosion.

In the northern sector, alteration events are observed that are overprinting in the early alteration. The lithological units are affected by an overprinting of a weak argillic alteration in the southern sector.

### 7.2.5.1 Structure

Structures characterise the sector with northeast and northwest directions and subordinately with E-W orientations. This configuration is due to the reactivation of old northeast structures (Triassic rift) and the generation of tectonic pillars in the Miocene. The works carried out by Anglo American determined that the northwest directions were responsible for the emplacement of the subvolcanic bodies related to the mineralisation. On the other hand, the abrupt exposure of the outcrops of the Permo-Triassic located in the northern sector of the Project also responds to northwest lineaments.

### 7.2.5.2 Lithology

In the area, pre-mineral units correspond to volcanic sequences of rhyolitic and dacitic composition belonging to the Choiyoi Group (Permo-Triassic). This volcanic complex is intruded by the granite of the Carnerito Formation (Permo-Triassic), widely distributed in Ángela II-III concessions. Covering the above are andesitic and dacitic volcanic rocks, volcanic agglomerates, and lithic tuffs of the same composition and volcarenites(?), of the Doña Ana Formation (Oligocene-Lower Miocene).

The rocks of the Choiyoi Group present porphyritic, fluid, and aphanitic textures; the phenocrysts are mainly composed of plagioclase, potassium feldspar and quartz eyes. The groundmass has a felsitic, microfelsitic and hyalopylitic aspect. These rocks outcrop mainly in the northern sector of the Project (Ángela III). The granitic unit of the Carnerito Formation is characterised by fine and thick facies of reddish and pinkish tones, with phaneritic and porphyritic textures. This granitic unit covers about 80% of the outcrops in the sector of Ángela II and III.

The outcrops of the Doña Ana Formation correspond to volcanic rocks of dark grey, purple, and greenish colours, with porphyritic, aphanitic, brecciated and fluid textures, with porphyritic, aphanitic, brecciated phenocrysts of plagioclase, pyroxenes, biotites, amphiboles and in a subordinate form, quartz eyes in the most acidic specimens. Outcrops of these lithological units dominate in the Cristian I-II-III concessions and are observed in a very discrete form in Ángela III with total absence in Ángela II.

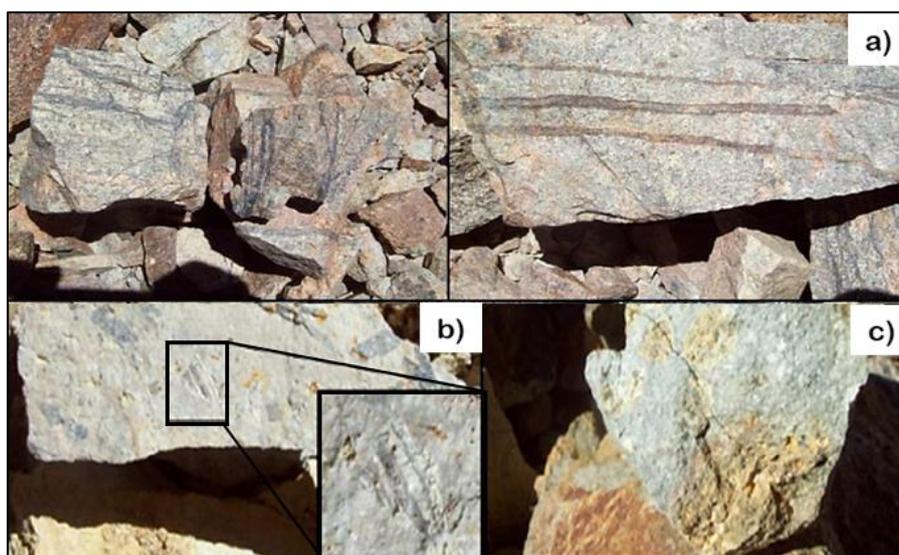
The inter-mineral units are related to a series of tabular subvolcanic bodies of dacite, andesite, diorite, quartz diorite and fine quartz microdiorite units, composed of plagioclase phenocrysts, pyroxenes, amphiboles, biotites and quartz eyes. The groundmass has a felsic, hypidiomorphic texture and intergranular and inequigranular aggregates, with flow features and phenocryst orientation. These dyke-like bodies are emplaced in structures of variable N20°-50°W orientation with 70°SW of metric to decimetric thicknesses. This complex was accompanied

by late-magmatic episodes, developing veinlets with copper and gold contents, giving rise to porphyry-type systems.

A second group is related to brecciated units originated by the emplacement of subvolcanic bodies, elongated along with the contacts of the dykes. The composition of the fragments is related to the time of emplacement. In some cases, breccias have been observed with 100% volcanic rock fragments belonging to the till with minor mineralisation of disseminated chalcopyrite. In other cases, fragments corresponding to subvolcanic units or volcanic rocks, sometimes with quartz-magnetite and magnetite veinlets. This type of breccia is observed in the central sector of the Cristian I, with thicknesses that are not greater than 4 m (Figure 7.5).

**Figure 7.5: Photographs of Rocks from the Cerro Verde Property**

- a) Volcanic rock with quartz-magnetite sheeted veinlets;
- b) Hydrothermal breccia with quartz veinlets in fragments;
- c) Hydrothermal breccia with argillised fragments



Source: Photographs taken from the Anglo American Report, 2010.

The post-mineral units have similar characteristics to the inter-mineral dykes concerning composition and strengths, and they do not show veinlets nor mineralisation. They have a northwest preferential orientation and outcrop within the Cristian II concession.

Another unit considered post-mineral corresponds to rock dust breccias, polymict matrix-supported type with granite and rhyolite fragments. It should be noted that this type of structure sub-branch along northeast structures with thicknesses less than 3 m. They are observed in the sector of Ángela.

The unconsolidated deposits correspond to alluvial, colluvial deposits that cover 85% of the Project. From a granulometric point of view, they correspond to different-sized rocks (less than 25 cm), and their composition is directly related to the existing units in the sector, located on slopes and valley bottoms.

### 7.2.5.3 Alteration

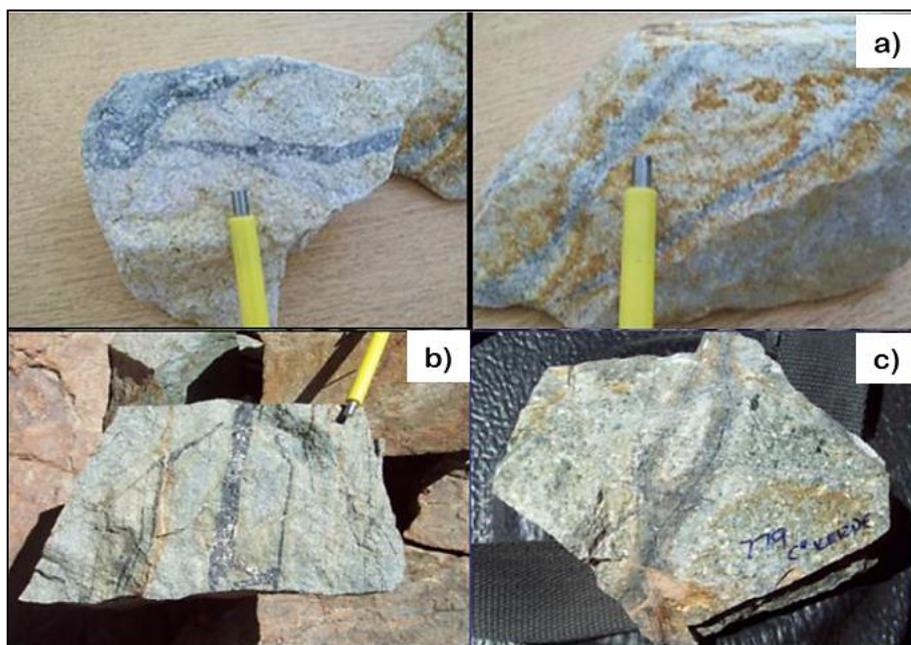
In the Cerro Verde Norte sector, the argillic alteration affects almost the entire granitic unit existing in the northern sector of the Project. This mineralogical association is defined by smectite-montmorillonite-kaolinite/goethite of moderate to weak intensity.

Advanced argillic alteration is evidenced by quartz-alunite-pyrophyllite/jarosite-goethite affecting the upper part of the hydrothermal system. There are also quartz-chalcedony black-banded Maricunga type and quartz-pyrite (chalcopryite) veinlets observed in subparallel and multidirectional arrangements. The quartz-alunite-jarosite association is also recognised in the area, constituting a lithocap type structure. The sericitic alteration is represented by sericite-illite-tourmaline associated with a rock dust breccia and discretely affects the granite and volcanic rocks existing in the sector. Some Type D veinlets were observed in outcrops within the alteration zone.

In the Cristian I-II sectors, the sub-volcanic and volcanic units are affected by silica-biotite and chlorite-epidote alteration, associated with quartz-magnetite±K-feldspar and granular magnetite-epidote veinlets in stockworks and sub-parallel arrangements, the latter in contact zones, characteristic of tabular bodies of epizonal emplacement. The contact relationship of the veinlets shows that the magnetite veinlets cut the quartz veinlets (Figure 7.6).

**Figure 7.6: Photographs of Rocks from the Cerro Verde Property**

- a) Cerro Verde Norte sector volcanic rock with D-type quartz-sericite veinlets;
- b) Sheeted magnetite veinlets;
- c) Sinuous magnetite veinlets with fine magnetite halo.



Source: Photographs taken from the Anglo American Report, 2010.

The argillic alteration corresponds to smectite-montmorillonite-kaolinite/goethite mineral association of moderate to weak intensity and affects andesitic volcanic units.

In this sector, there are milky quartz veinlet-like structures east of the zone of the inter-mineral sub-volcanic units with an irregular distribution. They are NNW oriented veins with thicknesses up to 25 cm, and an unconsolidated material cover does not determine its length. The rock that contains them is affected by a discrete halo of clays.

#### 7.2.5.4 Mineralisation

In the Ángela II-III sectors analysis of surface samples yielded anomalous values for copper, gold, silver, and molybdenum in the central sector of the hydrothermal alteration zone. The anomalous values coincide with zones of quartz-magnetite-pyrite-chalcopyrite and black banded Maricunga-type quartz-chalcedony veinlets.

In the eastern sector of the alteration zone creek anomalous values of copper, lead, zinc, silver, and gold were reported. In general, high concentrations are distributed in the lower elevations valley, aligned to the line of the existing riverbed in the area. In the case of gold, they are distributed in the middle part of the northern slope of the creek.

In the southern sector of the Ángela properties, outside the creek and alteration zone, anomalous values of silver, gold, copper, lead, and zinc were obtained. The distribution of the high values does not follow a defined pattern.

During the first field campaigns in the Cristian properties sector, 259 samples of mainly rock type, stream sediments, slope and water were collected. Anomalous values were obtained for gold, copper, and silver. Anomalous values are generally associated with quartz-chalcopyrite and magnetite-chalcopyrite veinlets in the sector where the intermineral subvolcanic bodies outcrop, affected by the chlorite-magnetite alteration with the alteration of chlorite silica-potassium feldspar concentrations.

The highest anomalous value in gold corresponds to 3.90 ppm and is related to a sample collected on the milky quartz veinlet, located east of the zone where the inter-mineral bodies outcrop. Minor gold anomalies (0.13, 0.20 and 0.31 ppm) were identified to the east and southeast of the sector where the dioritic/quartz dioritic dykes outcrop, these samples could be linked to argillic alteration zones, outcrops of quartz veinlets, or mineralised dykes not identified in these works.

In the Cristian I-II-III sectors, from the geochemistry work developed by Eldorado, Trench 1 (Tr1) sampling along a 90 m section showed an average value of 0.15 ppm of gold and another 30 m section yielded an average grade of 0.15 Au ppm. In these sections copper averages 600 ppm. Anomalies for molybdenum vary between 10 Mo ppm to 50 Mo ppm and for zinc between 300 Zn ppm and 700 Zn ppm.

In Trench 2 (Tr2), a 65 m section stands out with an average value of 0.16 Au ppm. Copper associated with this section averaged 900 ppm and Mo averaged 32 ppm.

A sampling at Access 1 yielded an average Au value of 0.26 ppm. Cu averaged 0.10% over the same interval, Mo 30 ppm and anomalous Te values.

#### 7.2.6 Property Geology – El Chiqui

The El Chiqui prospect is conformed for the anomalies: La Ollita; La Ollita Central Zone; Tamberías; Crown Property; Telluride Zone; La Peña and El Solitario.

The Eldorado's exploration work for this sector identified an epithermal system of Au-Ag±As±Sb±Te, at surface levels as defined in the central sector.

In-depth and in the central-west sector, the characteristics were associated with a porphyry copper system represented by the association of Cu-Au±Mo.

#### **7.2.6.1 Structure**

It is concluded that the structure for this zone follows the general guidelines for the whole area of the Peñas Negras district, where significant faults with northwest direction have generated distensive basins type pull apart oriented towards the northeast. For the anomaly's central sector, the blocks' vertical displacements have generated a graben-type valley covered by thick detrital and glacial material (moraines).

To the southwest of the Tamberías river, circular structures were described that are postulated as possible structures related to calderas, volcanic domes. Intrusive bodies that outcrop in the sector are arranged following these circular lineaments. These characteristics would show isolated dome bodies located in distensive structures, reaching superficial levels in the crust, related to caldera rims (similar characteristics, defined for the Maricunga Belt). The importance of the east-west and north-south structures in the implication emplacement intrusive bodies are also mentioned.

For the SE areas of Cateo El Chiqui, the structures follow NNW, NNE, WNW and N-S, sub-vertical directions.

#### **7.2.6.2 Lithology**

In the El Chiqui sector, there are lithological units of the so-called Doña Ana Formation, consisting mainly of volcanic and volcanoclastic rocks of andesitic and dacitic composition. These Eocene-Oligocene volcanites have at the base a polymictic conglomerate of rounded to sub-rounded clasts of silica, volcanic rocks and Triassic granitoids. On top, there are brecciated sequences and acid tuffs, the central unit, which is characterised by alteration and mineralisation. All these volcanic units are intruded by porphyritic bodies, dyke-like, of dacitic and even dioritic composition.

Another area explored within cateo El Chiqui corresponds to the ex-Solitario 23 located to the SE of the primary system of La Ollita. There is intercalation of sedimentary and volcanic sequences in the area, outcropping in the base conglomerate levels and volcanic agglomerates. Over them, there are andesite sequences with a marked porphyritic texture correlated with the unit described in the northern zone of Ritsuko. Then, continuing with the succession, towards the roof, tuffs of dacitic composition outcrop NW and gently dipping (20°SE), further up another level of volcanic agglomerate, but with a different structural position to the dacitic tuffs, which would indicate a fault contact.

#### **7.2.6.3 Alteration**

The volcanoclastic units, breccias, tuffs and lapilli tuffs, corresponding to the Doña Ana Formation are the rocks with the best aptitude to host alteration and mineralisation since their higher permeability and porosity favour the circulation of hydrothermal fluids.

In general terms, clear zoning of the alterations present in the area is described, with an argillised and silicified centre surrounded by propylitic alteration. In the El Chiqui sector, the illite-sericite-kaolinite-pyrite association is the most extensive alteration in the area.

Silicification is associated with zones of more significant fracturing in a pervasive form in this central sector.

The propylitic alteration affects the sequences of the volcanoclastic units of the basic composition, with variable intensities from weakly moderate to moderate/intense in porphyritic bodies present in the area. It is characterised by chlorite-epidote-magnetite-calcite-gypsum association.

Mapping and sampling in the ex-Solitario 23 area trenches describe argillic alteration and pervasive silicification, associated with smoky quartz veinlets, ochreous quartz (vuggy type), quartz-jarosite veinlets and milky white quartz veinlets, in addition, presence of iron oxides (hematite-goethite). The propylitic alteration weakly affects the host rock and is developed on dacitic porphyry and andesitic tuff (Figure 7.7).

In Crown Property B, strong silicification and moderate argillic alteration are described as associated with veinlets of smoky quartz and grey quartz plus jarosite-goethite-hematite, developed in dacitic porphyry and intrusion breccia of dacitic composition.

**Figure 7.7: Photograph taken from the Regional Camp South of the Solitario 23-I Sector (El Chiqui)**



Source: Barton, 2021.

Note: At the centre-left is an altered zone with solid structural control, grey quartz veinlet and the presence of possible sulphides with the brecciated-argillised dacitic host rock.

#### **7.2.6.4 Mineralisation**

According to the results of the soil geochemistry work carried out by Eldorado in the 1996-1997 season, for the El Chiqui sector, two anomalous gold areas were defined. The first one, developed in an area of 1,000 m by 400 m, with values over 0.10 Au ppm and point values of 0.43 Au ppm, 0.43 Au ppm and 0.57 Au ppm.

The second anomalous sector corresponds to 900 m by 150 m, with values above 0.20 ppb. These anomalies occur in the context of volcanic rocks of andesitic and dacitic composition, volcanic breccias, tuffaceous and lapillitic levels, intruded by porphyritic bodies of dacitic composition, in general, associated to a moderate to intense silicic/argillic alteration with the

development of silica-jarosite-magnetite veinlets. They postulate these sectors like the ones that show on the surface the circulation of mineralising hydrothermal fluids.

For Cu, the values exceed 400 ppm and are correlated with the Au values. In addition, they are coincident with the sectors mentioned above. Zinc is another distinctive element, with values between 200 ppm and 500 ppm, distributed in a halo around the two zones considered.

Trench geochemistry showed Au values between 0.50 ppm to 1 ppm, associated with Te (between 20 ppm to 100 ppm), Ag (between 10 to 200 ppm), Pb (between 0.80% to 1.00%), high As values (between 200 ppm to 1,000 ppm) and with an average value above 100 ppm. These values are associated with quartz-jarosite-hematite veinlets.

From the geochemical analysis, it was defined that the mineralisation occurred in different events or mineralisation pulses. According to the different paragenetic associations, three well-differentiated events are inferred:

- Au-Te±Ag±Pb±As;
- Au-As±Sb±Pb; and,
- As-Pb±Sb±Ag.

For the E sector of the second anomaly covered by the cateo El Chiqui and partially by the cateo Isidoro, the Trench 1 (Tr1) yielded average gold values of 0.32 Au ppm, with 6.60 Ag ppm, Pb 0.10%, and with anomalous As values.

High gold values are associate with the interface of silicic and phyllic alterations±silicified areas with the development of grey-dark to black quartz bands±microcrystalline veinlets.

It should be noted that the drillings carried out in the central area of El Chiqui ended in phyllic alteration±pervasive silicification, with relicts of potassic alteration (biotite), suggesting that the potassic nucleus was being reached in-depth.

Geological observations support the interpretation of a mineralised system in its entirety represented by a telescopic porphyry-epithermal system, with multiple intrusions and veinlets centres and small breccias, thus combining aspects of both types of deposits.

Another highly prospective sector of El Chiqui is in the west and southwest. Sector showing anomalous values of Au-Cu±Mo. Some porphyry-type processes are emerging to the surface in some specific sectors.

## **7.2.7 Property Geology – Ritsuko**

### **7.2.7.1 Structure**

In the area covered by the Ritsuko, circular volcanic caldera-type structures are observed in the area, characterised by a central depression, and elevated rims, as well as the presence of a domic body located along a mega-trace of NNW-SSE orientation (Figure 7.8).

**Figure 7.8: Photograph of the Rhyodacite Domic Body on the SSW Rim of the so-called Ritsuko Caldera (The accesses built for continuous rock sampling are observed)**



Source: Barton, 2021.

#### **7.2.7.2 Lithology**

It consists of andesitic to basandesite flows belonging to the Veladero-Lavas de Pircas Negras Formation in the circular structure's central and outer rim sectors. For the internal borders, the geological units present are composed of tuffs and collapse breccias of rhyodacitic to dacitic composition, assigned with doubts to the Cerro Tórtolas Formation.

#### **7.2.7.3 Alteration**

The potassic alteration affects the outcropping domic body at the SSW edge of the circular structure and subvolcanic bodies observed at the NE end of the caldera. This alteration is characterised by secondary biotite and K-feldspar. The propylitic alteration is defined by chlorite-epidote-opaline quartz and pyrite association, affecting intermediate to basic composition lava levels. The argillic alteration is represented by kaolinite-sericite, quartz and alunite in subordinate form and affects the sector's volcanoclastic rocks. Silicification is restricted to the subvolcanic bodies, affecting them pervasively and in fractures.

Iron oxides were observed with hematite and limonite associated with veinlets in sectors affected by argillic alteration, while the goethite was associated with the brecciated bodies and jarosite to the central dome accompanying the grey quartz veinlets. Native sulphur is observed in the tuffaceous units and lava bodies and realgar mainly associated with lava levels located to the SSE of the dacitic dome. The presence of these minerals suggests superficial levels of the epithermal system.

#### **7.2.7.4 Mineralisation**

According to the surface geochemistry work results, trench and access work are described over dacitic breccias, dacitic porphyries, fault breccias and tuffaceous levels, associated with moderate to intense levels of silicification and moderate argillisation related to structures, in addition to quartz veinlets, quartz-jarosite-iron oxides±carbonates and gypsum. In general, no anomalous gold values were obtained, except for a 3 m section of 6.80 ppm in the trench IIA (Tr IIA), highlighted with values between 100 ppm to 300 ppm and zinc with values fluctuating between 400 ppm to 720 ppm, with maximums of 1,000 ppm. In the sampled accesses, the works carried out showed maximum values of 1.70 ppm and 1.30 ppm of gold with averages >0.12 ppm, correlated with arsenic. The veinlets in this sector are oriented to the northwest.

#### **7.2.8 Property Geology – Caserones**

##### **7.2.8.1 Structure**

In the Caserones prospect, a series of volcanic rocks belonging to the Permo-Triassic volcanic event is developed, intruded by small porphyry outcrops of probable Tertiary age (Miocene?). The whole is controlled by transpressive tectonics originating horst and graben systems, delimited by high-angle reverse faults, making a good stratigraphic correlation very difficult. In general, in the easternmost blocks, the volcanic sequence is better preserved.

NW-SE structures have slid the bodies concerning each other; this is evidenced by analysing the dismemberment of the Palaeozoic blocks. A mega-structure of NW-ESE orientation crosses the anomaly, delimits the central sector to the south, causes a series of small, brecciated bodies and extends towards the E-SE forms Quebrada de Pucha-Pucha. With NE-SW direction, extensional fracturing lifted the western blocks and aligned the central dacitic bodies (lava flows and porphyries), which have the greatest argillic and partly silicic alteration in the area.

##### **7.2.8.2 Lithology**

The oldest rocks are rhyolitic lavas of reddish-brown composition with flow textures, medium-grain, quartz phenocrysts, potassium feldspar and plagioclase in a moderately silicified felsic paste. In a concordant way, it overlies in net contact, a volcanoclastic sequence 60 m to 80 m thick, with greenish tones, mesosilicic composition, integrated by andesitic volcanic flows and breccias that towards the top passes to lenticular bodies (lava flows) 2 m to 5 m thick strongly magnetic of basandesitic composition.

The series again passes to acid volcanism, represented by ignimbritic breccias and powerful banks of much silicified rhyolitic ignimbrites, stratiform. The different levels are between 10 cm to 50 cm thick, and it represents the most significant areal extension of outcrops in the area with a predominant trend is between N 10° to N 20° and a dip of 30° to 40° to the E and SE. In the western blocks, levels of volcanic agglomerates with a varied thickness (10 m to >50 m) were identified discontinuously, covering the older units and andesitic flows and breccias. The agglomerate is polymict, subrounded clasts and blocks of volcanic rocks in a sand-sized volcanic matrix of rhyolitic composition. No correlation with ignimbritic banks is observed.

There are also dacitic porphyry bodies (rhyodacitic), as "fingers" and thin dykes are arranged intruding, especially in previous sequences. These small bodies, which outcrop in the central sector of the area, are oriented in a sub-meridional direction. They show a substantial variation in texture; in some sectors, they are coarse-grained, formed by plagioclase and quartz in a silicified matrix with fine dissemination of hematite. In others, the texture is obliterated by a solid siliceous alteration.

Along the property's western edge, discontinuous outcrops of greenish-grey, fine-grained, moderately magnetic, rhyolitic to rhyodacitic, quartz, plagioclase and mafic (biotite) lavas in a siliceous paste appear at the top of the sequence. The stratigraphic sequence is intruded by a series of parallel post-mineral, N-S and NNE-SSW-trending dykes of andesitic composition. Thicknesses vary from a few meters to 10 m, covered in parts by colluvial deposits that mask the rocks. Finally, the presence of porphyry of dacitic composition with the development of large amphibole crystals is worth mentioning, which is interpreted as post-mineral. It outcrops in the form of seams with thicknesses up to 100 m regionally oriented N 10°/20°W.

### **7.2.8.3 Alteration**

Silicification is the dominant alteration, subordinating the argillic and locally a weak phyllic alteration. The propylitic alteration dominates in rocks of intermediate composition and generally occurs at the edges of the area. It manifests itself both pervasively and as a selective replacement, mainly affecting the dacitic porphyry, which in some sectors is converted into a mass of silica and is associated with fine dissemination of hematite (0.20-10%). The alteration is intense in the northern sector of the body, where it almost wholly obliterates the textures.

The alteration is intense in the volcanic agglomerate levels involving clasts and matrices between the north-central and south-central gullies. In general, it affects the rocks at the edges of the porphyry, especially the matrix of those. A low-temperature silica filling fracture or diachases, chalcedonic type, was identified, forming small geodes±druses.

The argillic alteration is, in general, subordinated to silicification. In the outcrops north of Sur creek and the rhyolitic lavas levels, the feldspar phenocrysts, plagioclase, and the matrix are affected in a semi-pervasive form represented by the kaolinite±silica association. It also affects the volcanic agglomerate deposits, with variable intensity, being more evident in the areas of more significant fracturing, wherein some specific sectors appear as a product of gas leaks. The phyllic alteration has a weak to moderate intensity, represented by the quartz±sericite association, only observed in the low topographic levels of the volcanic agglomerate, always outcropping in the contacts with the dacitic porphyry (Figure 7.9).

**Figure 7.9: Photograph Close to the Outcrop of the Dacitic Porphyry with Intense Silicification and Reddish Hematite Stain**



Source: Barton, 2020.

The propylitic alteration is preferentially found on rocks of andesitic composition and is characterised by the association chlorite±clay±epidote±quartz of greenish-grey colour, arranged in veinlets or the form of massive replacement of the rocky matrix.

#### **7.2.8.4 Mineralisation**

In the rocks peripheral to the dacitic porphyry in the southern sector, veinlets (170°/80°) 1 to 2 cm thick filled with white silica±epidote±boxworks with jarosite are observed, also in the eastern sector, in the rhyolitic flows, but in this case with different directions. Hematite and limonite with the weak presence of jarosite stains accompany the most altered sectors of the area. They are sometimes found filling cavities left by possible oxidation of ferromagnesian minerals or perhaps sulphides.

The mineralisation observed in the dacitic porphyry is restricted to the presence of iron oxides (jarosite) and fine dissemination of hematite that in the head of Centro creek reaches approximately 10% of the volume of the outcropping rock. Dark-grey quartz veinlets partly with oxidised edges and locally somewhat magnetic are present in this sector, both in the porphyry and in the rhyolitic till, constituting a kind of open stockwork, with fine veinlets up to 0.5 cm thick.

According to the geochemistry works in samples of rock chips taken in the dacitic porphyry, they showed low values in Au (50 ppm); this sample is located in a sector with the presence of hematite and jarosite associated with grey quartz veinlets. Weakly anomalous Mo values above ten ppm were detected associated with the porphyry.

The grab samples collected on the fine veinlets found in the porphyry outcrops do not exceed 0.01 Au ppm in any case. The rock generally shows fine veinlets±stains of jarosite possibly

coming from the leaching of primary sulphides, corroborated by observing a weak to moderate dissemination of box works with indigenous limonite.

The rhyolite bank outcropping on the right margin of Sur creek shows a moderate quartz-hematite stockwork. Two rock chip samples were taken at the site and yielded low gold ( $> 0.012$  Au ppm) and copper ( $> 15$  Cu ppm) values, respectively, as well as a value  $>10$  ppm Mo. Over 26 rock chip samples, the highest Cu value with 66 ppm corresponded to a sample with intense limonitisation (about 60 m average) represented by sectors with dissemination and veinlets with hematite. Four slope lines (of the "contour line" type) were made and sampled, located in slopes corresponding to Sur and Centro Sur creeks and two lines in the Centro Norte, separated by sampling every 50 and 100 m. A total of 46 soil samples (slope) were obtained. Most of the results for Au in soil samples are  $< 0.02$  ppm. The Cu values oscillate approximately between 35 ppm with some maximum to 50 ppm, and that according to the considered ranges would be found marking moderate anomalous sectors.

### **7.2.9 Summary Geology Properties**

The main geological characteristics of the properties in the Peñas Negras Project are summarised in Table 7.2.

**Table 7.2: Summary of the Main Geological Characteristics of the Properties in the Project**

Concession Name	Prospect Name	Level of Erosion	Intrusion Composition	Host Rocks	Type Alteration	Mineralisation Style	Vein-Veinlet of Mineralisation	Deposit Types	Structural Control
Cristian I	Cerro Verde (North and South)	Low-Intermediate	Dacite, diorite, quartz diorite.	Rhyolitic-dacitic (Permo-Triassic), intruded by granite Carerito Fm. Andesitic-dacitic volcanic rocks, volcanic agglomerates, and lithic tuffs (Oligocene-Lower Miocene).	Intermediate argillic, advanced argillic, quartz-sericite	stockworks-veinlets±breccia	Veinlets quartz-magnetite-pyrite-chalcopyrite and black banded quartz-chalcedony. Veinlets Type B and D.	Porphyry (Cu-Au±Mo)	NE and NW directions, and subordinate with E-W orientations
Cristian II								High Sulphidation (Cu-Au±Ag±Mo)	
Cristian III									
Angela II									
Angela III									
Elchiqui Isidoro	El Chiqui	Low	Dacite, diorite,	Rocks andesitic and dacitic (Eocene-Oligocene) in base Triassic granitoids. On top, brecciated sequences and acid tuffs. All these volcanic units are intruded by porphyritic bodies dacitic-dioritic.	Argillic-Silicification	stockworks-veinlets±breccias	Smoky quartz veinlets, ocherous quartz (vuggy type), quartz-jarosite veinlets and milky white quartz veinlets.	High Sulphidation (Cu-Au±Ag±Mo)	Faults with NW direction have generated distensive basins-type pull apart oriented towards the NE.
					Phyllic±Potassic (biotite)		Veinlets centres and small breccias	Porphyry (Cu-Au±Mo)	
Don Alvaro		Low	Dacitic-andesitic	A sequence of tertiary volcanic rocks (lithic tuffs, lapilli tuffs and andesitic-dacitic composition).	Silicification-Potassic (biotite)±Argillic	stockworks-veinlets	stockworks of quartz ± magnetite; silica veinlets ± hematite ± jarosite;	Porphyry (Cu±Au)	North-south, predominant orientation.
Ritsuko	Ritsuko	Low	Rhyodacitic-dacitic	Andesitic-basandesite flows, tuffs, breccias rhyodacitic-dacitic.	Potassic (biotite-K-feldspar)±Argillic±Silicification	veinlets	Gray quartz veinlets; quartz-jarosite-iron oxides±carbonates, and gypsum veinlets	High Sulphidation (Au±Zn±As)	Domic body located along a mega-trace of NNW-SSE orientation.
Caserones	Caserones	Low	Dacitic	Rhyolitic lavas, andesitic volcanic flows and breccias, ignimbritic breccias, agglomerates (Permo-Triassic)	Silicification-Argillic ±Phyllic	stockworks-veinlets-dissemination	silica±epidote±boxworks with jarosite and dark-grey quartz veinlets	Porphyry Au±Cu±Mo	Mega-structure NW-ESE orientation crosses the anomaly. NE-SW direction, extensional fracturing.

## 8.0 DEPOSIT TYPES

### 8.1 METALLOGENESIS

The Maricunga belt to the north is notable for its porphyry Au-Cu systems, and the El Indio belt to the south hosts world-class high sulphidation (HS) epithermal deposits. Historically, the area has been overshadowed by these two high-profile metallogenic belts, partly due to the lack of preservation of extensive Miocene volcanic rocks, which was incorrectly interpreted to reflect a paucity of Miocene mineral deposits. Latterly, the area has proved to be very prospective for porphyry copper-gold and epithermal systems, and subsequent works have shown this to be the case, with the discovery of Josemaría, Filo del Sol and Los Helados deposits with Late Oligocene to Late Miocene ages.

A distinctive feature of the Maricunga belt is the presence of several gold-rich porphyry systems emplaced beneath andesitic stratovolcanoes and related with dioritic to quartz-dioritic porphyritic intrusives and vast hydrothermal alteration zones (Vila and Sillitoe, 1991; Muntean and Einaudi, 2001; Gamonal and Bissig, 2019; Naranjo et al., 2019).

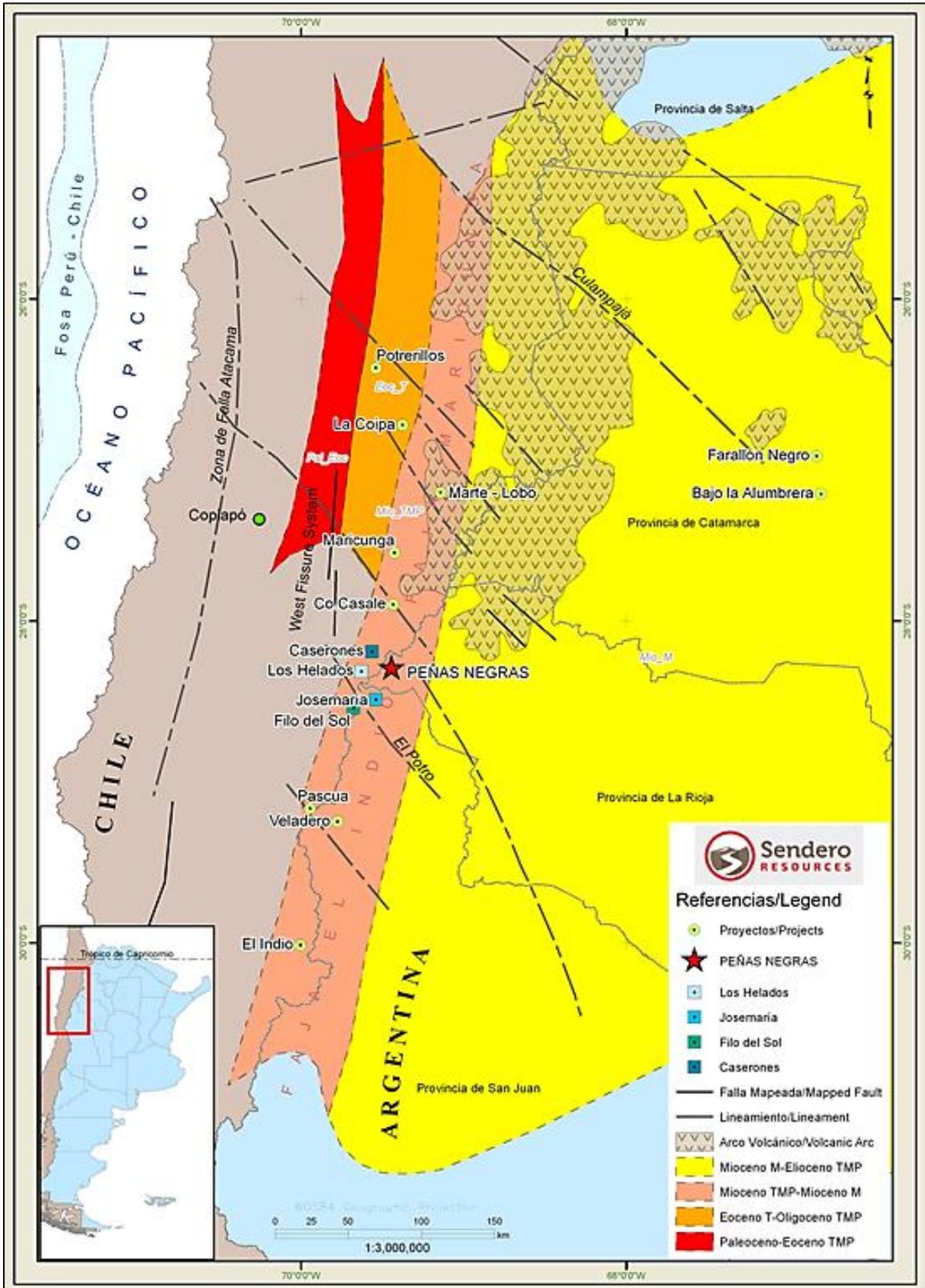
They mainly include gold-(copper) mineralisation in well-developed quartz stockwork. Iron oxides, both early magnetite and late hematite, constitute > 10% of mineralised rocks (Cabello, 2021). The Marte and Lobo deposits are classified as porphyry gold deposits, but Refugio (Maricunga) and Cerro Casale are closer to gold-rich porphyry coppers (Vila and Sillitoe, 1991). A number of those porphyry systems present an overprint of advanced argillic alteration, including quartz-alunite, pyrite, bornite, native sulphur and enargite (Vila, 1991b). An upper advanced argillic alteration is also present. (Sillitoe et al., 2013).

The El Indio belt is a 200-km long near-continuous belt of hydrothermal alteration centres (Maksaev et al., 1984; Siddeley and Araneda, 1990; Bissig et al., 2002) preserved within a north-south graben system, controlled by high angle faults (Nasi et al., 1990). The extended hydrothermally altered zones appear related to porphyritic stocks. Gold mineralisation occurs in various styles: vein systems (El Indio and Sancarrón), fault and hydrothermal breccias (Tambo) and stratabound deposits (Pascua).

In recent times, exploration work carried out has discovered several projects on the Argentine side (Josemaría and Filo del Sol in San Juan, Cerro Delta and Caballos in La Rioja, Valle Ancho north of Catamarca). These discoveries demonstrate the continuity of these metallogenic belts. In general, they are associated with groups of subvolcanic and even domitic bodies that generate significant mineralisation in Cu, Cu-Au-Mo, Au-Ag and other minor elements such as As±Sb±Te, among others (Figure 8.1).

These porphyry systems are found in intrusive belts associated with magmatism generated by subduction and whose formation is due to the interaction of the Nazca Plate that subducts under the South American Plate, generating significant volumes of ascending magmas below the retroarc volcanic systems. It produces sectors of alteration in the surrounding rocks and the location of epizonal-type porphyry bodies (close to the surface) and associated domitic bodies, whose hot and partially acidic fluids generate large zones of alteration (visible as strong colour anomalies in satellite images).

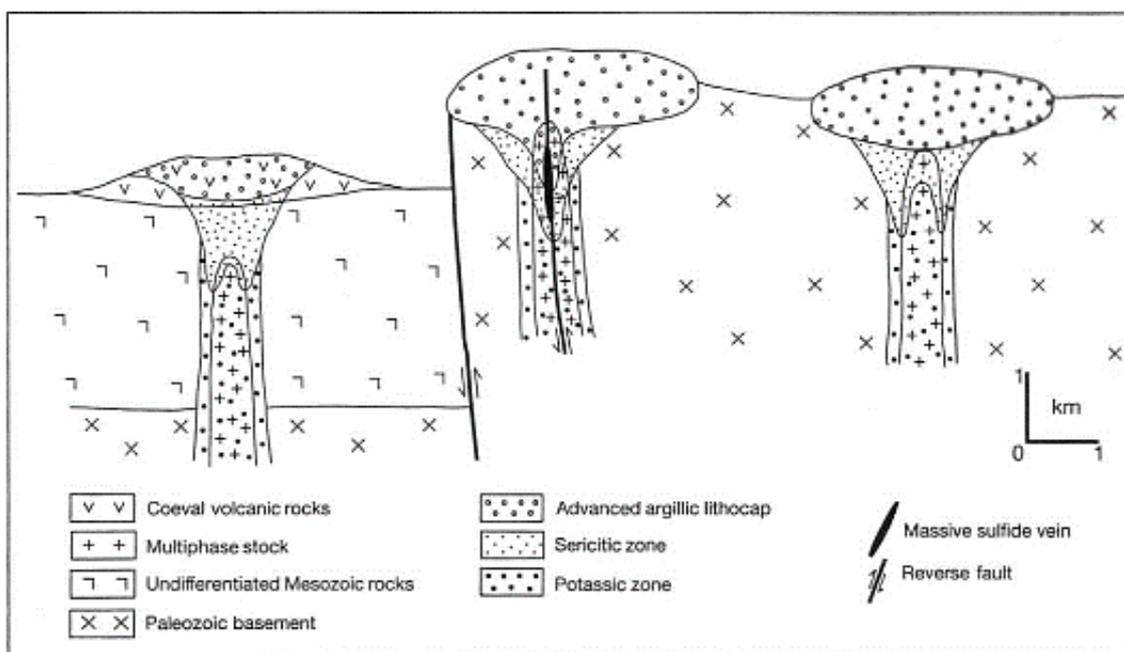
**Figure 8.1: Regional Location of the Peñas Negras Project in the context of Metallogenic Belts of the Central Andes**



Source: Sendero Resources Corp., 2021. Modified from Sillitoe and Perelló, 2005.

The overall alteration-mineralisation architecture is heavily dependent on the structural setting and degree of telescoping of Andean porphyry Cu systems. These factors vary between structural blocks due to stress partitioning and do not appear to be constant throughout entire segments of a metallogenic belt. The vertical alteration-mineralisation sequence tends to be highly telescoped with appreciable overprinting and mineralogic reconstitution of earlier and deeper zones during younger and shallower hydrothermal events. The overprint geometry, especially the form and position of the sericitic and deep parts of advanced argillic zones, is highly influenced by faults active during deposit genesis (Sillitoe and Perelló, 2005) (Figure 8.2).

**Figure 8.2: Schematic Section Showing Typical Alteration Zoning and Degrees of Telescoping in Andean Porphyry Copper Deposits**



Source: Modified from Sillitoe and Perelló, 2005.

Note: The telescoped deposits in the uplifted fault block, contrasting with the lack of telescoping in the deposit beyond it, where coeval volcanism is well developed. The telescoping in the uplifted block varies from strongly to non-fault controlled. The proximity of the deposits is not necessarily implied.

## 8.2 GEOLOGICAL AND GENETIC MODELS

During the Upper Oligocene-Lower Miocene bodies mainly of dacitic composition and, to a lesser extent, dioritic-quartz dioritic were located on the middle and the basal portion of the Doña Ana Formation developing Au-Cu porphyry systems characterised by an immediate hydrothermal alteration in its dome and a strong presence of native gold associated with Cu and As minerals.

Subsequent compressive tectonics produces the folding of the units, their fracturing and brecciation. In the consequent distention period, the volcanic activity is restarted, and through the created ducts, an epithermal system related to small dacitic stocks is developed.

The faulty conjugated systems in the region result from horizontal movements (strike-slip) produced in Argentina's Cordillera Frontal region. It is a tectonically favourable sequence, which covers a wide area of approximately 100 km in length and with variable width between

20 km and 30 km. There are many intrusive likely syntectonic, shallow deposits associated with a chain of currently dormant volcanic elements. The area has a strong N 25 E orientation and would correspond to a traversing field between large W-NW structures, reactivated repeatedly by the different phases of Andean tectonics.

In the Peñas Negras district, the tectonic framework is a series of normal north-south orientation faults that cut volcanic sequences in various sectors, as well as high-angle reverse faults that are bordering and partially limiting the basement rocks. These are previous to the Andean tectonics episode, and they have been reactivated with greater or lesser intensity during this period. The area was under a sequence of plutonic-Cenozoic volcanic events that were closely similar to the metallogenetic conditions of the Maricunga and El Indio gold belts.

At this stage, a robust quartz-sericite alteration is over-imposed to the original potassium alteration, and there is a development of advanced argillic alteration at sub-surface levels. Epithermal fluids circulated through fractures and breccias deposited electrum alongside Cu, Pb, Zn, As, Sb, Te, and Bi minerals. Stormwater probably intervenes, by cooling, the epithermal deposition. They are undoubtedly related to the presence of supergene gold, fine grain. All of these projects are considered Au-Cu porphyry systems with over-imposed epithermal mineralisation, belonging to the southern end of the so-called Maricunga Belt.

During the Upper Oligocene-Lower Miocene, dacitic, dioritic and quartz-dioritic bodies were located on the middle and the basal portion of the Doña Ana Formation developing Au-Cu porphyry systems characterised by an immediate hydrothermal alteration in its dome and a strong presence of native gold associated with Cu and As minerals. Subsequent compressive tectonics produces the folding of the units, their fracturing and brecciation.

The faulty conjugated systems in the region result from horizontal movements (strike-slip) produced in Argentina's Cordillera Frontal region. It is a tectonically favourable sequence, which covers a wide area of approximately 100 km in length and with variable width from 20 km to 30 km. There are many intrusive likely syntectonic, shallow deposits associated with a chain of currently dormant volcanic elements.

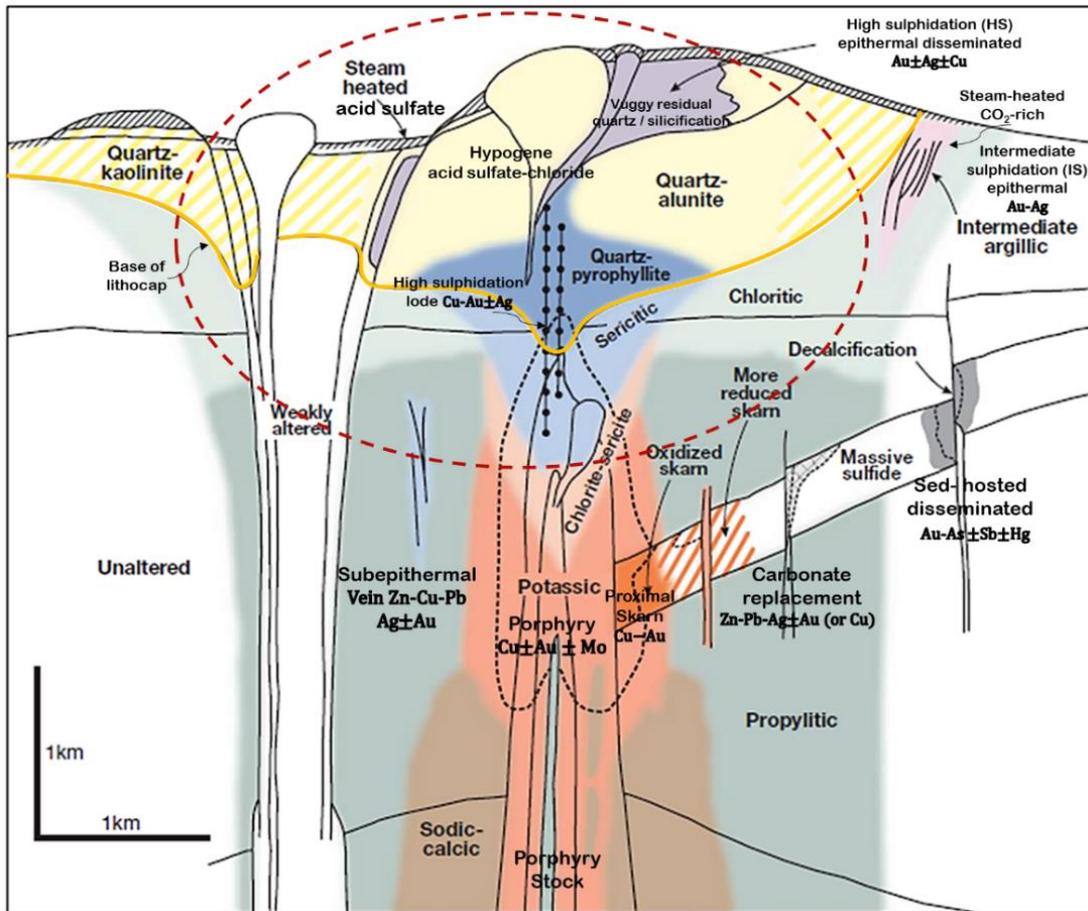
In the Peñas Negras area, the tectonic frame is a series of normal north-south orientation faults that cut volcanic sequences in various sectors and high-angle reverse faults bordering and partially limiting the basement rocks.

In the later period of distension, volcanic activity restarts and, through the ducts created, an epithermal system develops related to small stocks of dacites and andesites. At this stage, an intense quartz-sericite alteration is overprinting on the original potassic and propylitic alteration, developing an advanced argillic alteration at subsurface levels. Circulation of epithermal fluids through fractures and breccias deposit electrum together with tellurium and minerals Cu, Pb, Zn, As, Sb and Bi (Sillitoe and Hedenquist, 2003).

Meteoric waters probably intervene, cooling the epithermal deposition. They are undoubtedly related to the presence of supergenic, fine-grained gold.

Alteration zoning and overprinting relationships in a porphyry system at different temperatures and types, coexisting the typical ones generated (potassic, propylitic, phyllic, intermediate argillic) with alterations due to more acidified fluids corresponding to the high sulfidation stage (advanced argillic, sericitisation and silicification mainly) (Sillitoe, 2010) (Figure 8.3).

**Figure 8.3: Schematic Section Shows the Anatomy of a Telescoped Cu-Au Porphyry System**  
Different Types of Deposits, Typical Alteration Zoning and Degrees of Telescoping are Present in the Project Area



Source: Modified from Sillitoe, 2010.

Sillitoe et al. (2019) documented a telescoped Cu-Au porphyry system development at Josemaria over a relatively short geological time frame: “Formation, Exhumation, and Burial in Two Million Years”.

The mineralisation contains both disseminated sulphides and various vein, veinlet and stockwork systems that also contain sulphides. An essential characteristic of porphyry districts is that they do not form deposits in isolation but appear in clusters. The latter is typical of the Maricunga porphyries, and an example of this is the case in other systems of the Maricunga belt or Maricunga mine (ex-Refugio), where the mineralised porphyry bodies are spaced on the order of 1 km (Sillitoe and Hedenquist, 2003). Porphyry subvolcanic bodies are present in the Project area, mainly of dacitic composition and, to a lesser extent, dioritic-quartz dioritic.

Therefore, all these properties are considered Au-Cu porphyry systems with overprinted epithermal mineralisation, belonging to a transition between the southern end of the so-called Maricunga Belt and porphyries' area as the Josemaría Project, in the territory of San Juan. Proximity to these deposits does not indicate that similar mineralisation will occur at the Project, and if mineralisation does occur, it will occur in sufficient quantity or grade that would result in an economic extraction scenario. However, Sendero and 131 uses these deposits as models to guide the exploration process.

## 9.0 EXPLORATION

### 9.1 SENDERO EXPLORATION PROGRAMMES

During the 2021 to 2022 and 2022 to 2023 exploration seasons (November to April), Sendero completed valuable work with the objective of mapping and sampling in detail the lithologies present, alterations and mineralised sectors in the different prospects of interest that comprise the Peñas Negras Project.

The exploration programme involved surface work, including geological mapping and surface geochemistry (talus and rock sampling). An aeromagnetic and radiometric study carried out by the company New Sense (Canada), a detailed tectonic/structural analysis was carried out by Winocur (2022) over a central area that he covered within the Peñas Negras Project.

In addition to these field studies have been added investigations and detailed desk studies, beginning with a complete interpretation of the geophysical data carried out by Fathom Geophysics (Toronto, Canada), a spectral study through ASTER images of the area covered by the Peñas Negras Project carried out by Ducart (Campinas, São Paulo, Brazil, 2022). This work included the measurement, processing, and interpretation of spectral data from field samples. Spectral measurements were made at the Institute of Geosciences of the University of Campinas with an ASD/FieldSpec-4 spectroradiometer.

#### 9.1.1 Geochemical Surveys

Numerous surface samples were collected across the Project area. A total of 587 samples were taken comprising both talus fines and rock chip samples (Figure 9.1).

425 talus fines samples were taken along 100 m long lines at 20 m intervals (Table 9.1).

**Table 9.1: Summary of the Talus Fines Samples Collected in the Different Project Sectors**

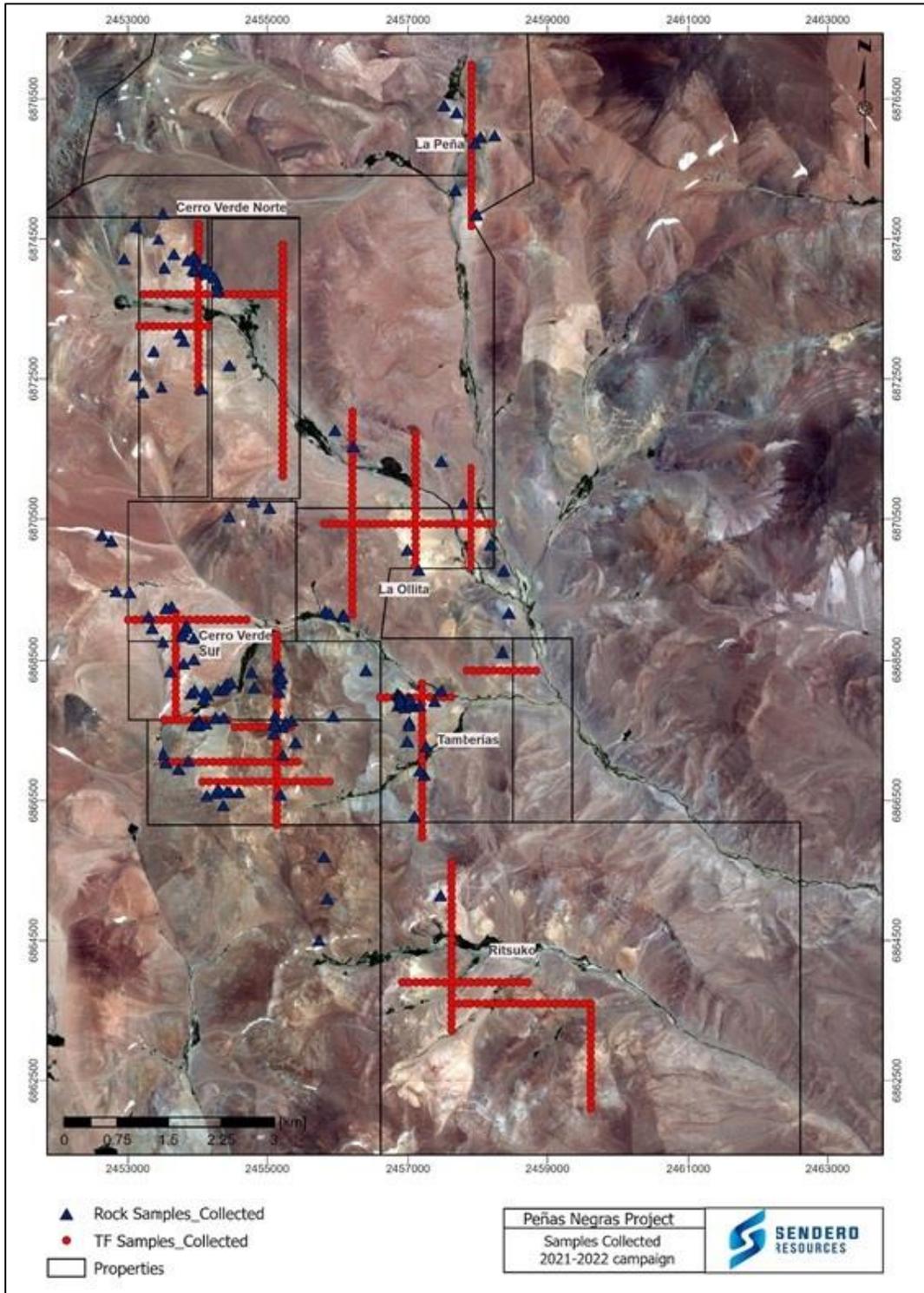
Prospect Name	Quantity
Cerro Verde North	87
Cerro Verde South	112
La Ollita	129
La Peña	19
Ritsuko	78
<b>Total</b>	<b>425</b>

During the geological mapping, 162 rock chip samples were collected (Table 9.2), which were analysed and different complementary studies were carried out (PIMA, petrography, chalcography, and fluid inclusions).

**Table 9.2: Summary of the Rock Chip Samples Collected in the Different Project Sectors**

Prospect Name	Quantity
Cerro Verde North	35
Cerro Verde South	76
La Ollita	38
La Peña	13
Ritsuko	-
<b>Total</b>	<b>162</b>

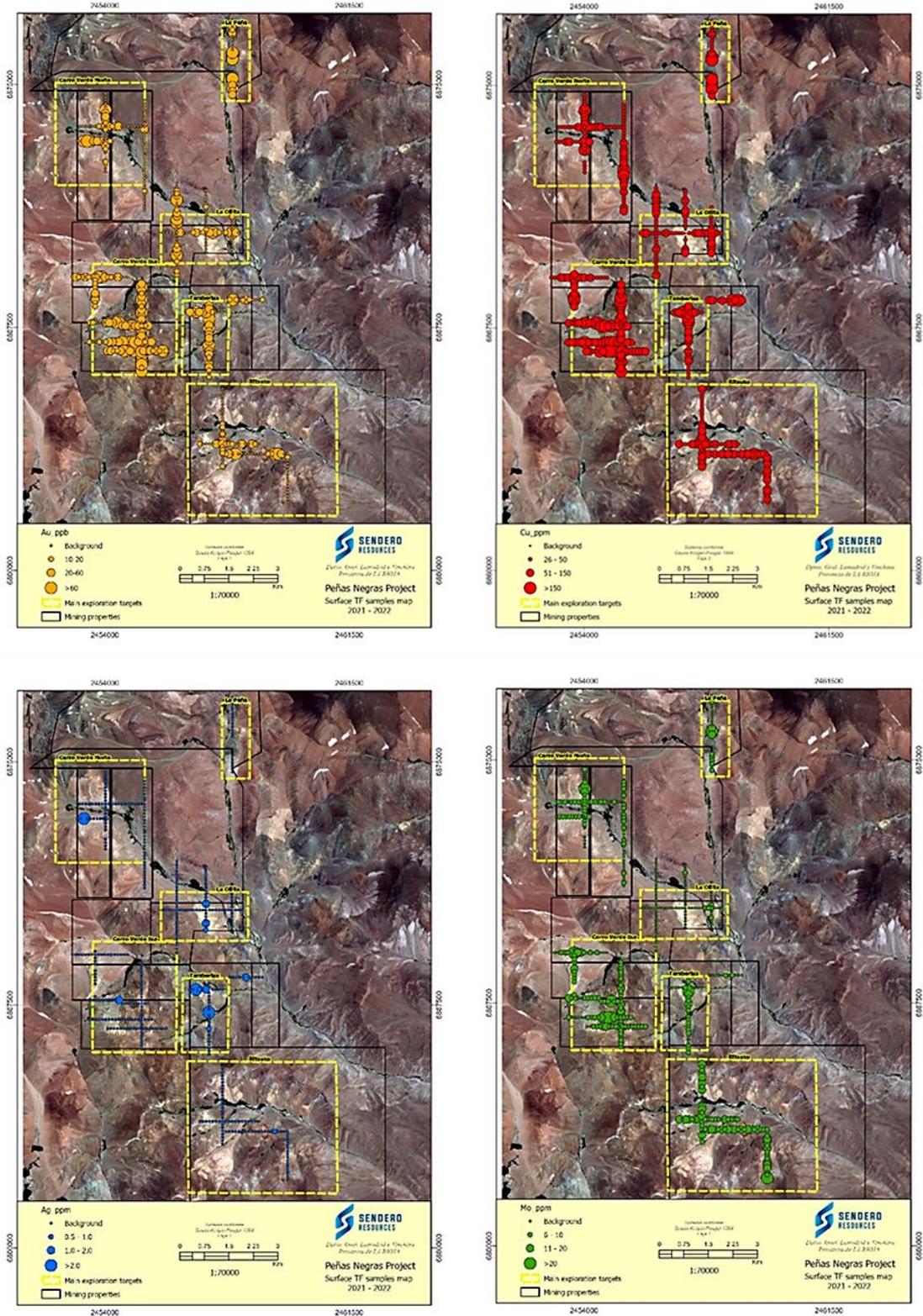
**Figure 9.1: Distribution of the Total Samples Collected from Talus Fines and Rock Chip Samples for the Project**



Source: Sendero, 2022.

The gold, copper, silver, and molybdenum grade distributions for the updated talus fines samples grid are shown in Figure 9.2.

**Figure 9.2: Gold, Copper, Silver, and Molybdenum Grade Distributions for the Updated Talus Fines Samples Grid for the Project**



Source: Sendero, 2022.

### 9.1.2 Geophysical Survey

Sendero also commissioned New-Sense Geophysics Ltd. (Canada) geophysics to fly a property-wide helicopter-borne magnetic and gamma-ray spectrometric survey between 19<sup>th</sup> and 28<sup>th</sup> of March 2022.

The goal of this work was to:

- Process the Project area's magnetic data to:
  - Produce images that help differentiate lithologies in the area;
  - Highlight possible structures that could be related to mineralisation; and,
  - Generate a 3D inversion to constrain the 3D distribution of magnetic rocks in the Area.
- Process the Project area's radiometric data to highlight possible:
  - Potassic alteration; and,
  - Different volcanic and intrusive lithologies.
- Produce a manual interpretation of the magnetic and radiometric data; and,
- Use the products to evaluate the potential for porphyry and high sulphidation epithermal mineralisation.

In total, 715.1 line-kilometres were flown covering an area of 125.1 square kilometres. The survey data has a 200 m line-spacing. All gridded products use a cell size of 50 m. A total of 715.1 line-km of airborne magnetic and radiometric data was flown, collected, processed, and finalised.

The geophysical equipment comprised of one high-sensitivity Cesium-3 magnetometer and a 1024-channel spectrometer with four downward-looking crystals (total 16 litres) and one upward-looking crystal (total 4 litres). The airborne ancillary equipment included digital recorders, a fluxgate magnetometer, radar altimeter and a global positioning system (GPS) receiver, which provided accurate real-time navigation and subsequent flight path recovery. Ground equipment included a magnetic base station with GPS time synchronization and a PC-based field workstation, which was used to check the data quality and completeness daily. The nominal survey height was 80 m and the actual radar altimeter height averaged 75.6 m.

The magnetic and radiometric data are of high quality and were supplied with WGS84 UTM Zone 19S coordinates. All original outputs of work used this coordinate system. Also, a second set of all products were provided with coordinates in POSGAR94 Argentina Zone 2 coordinates. All files have P94Z2 appended to the filename.

In May 2022, magnetic and radiometric data processing, manual geological interpretation, and 3-D magnetic inversion at the Peñas Negras Project was completed by Fathom Geophysics LLC (United States), which was useful in defining the geological features of the Project (Belfield and Core, 2022).

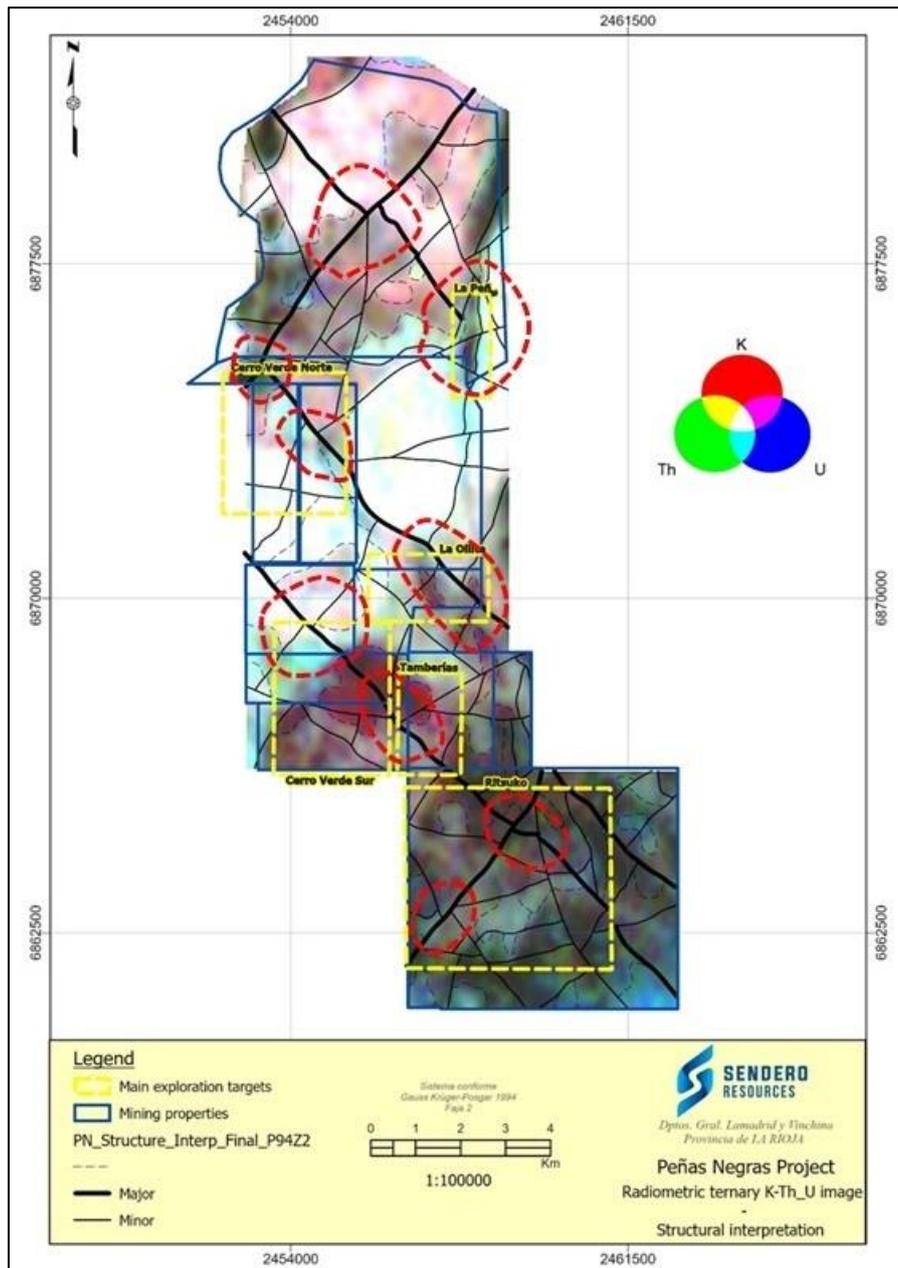
The processing and interpretation completed for this work can be used to highlight areas with the potential to host porphyry copper and high sulphidation epithermal mineralisation.

Felsic intrusive activity and structural setting are both key factors to consider for these styles of mineralisation.

Discussion of the results can be seen integrated into Figure 9.3, which shows areas that have apparent felsic intrusions that are Eocene to Miocene in age and with possible local extension in areas with significant structural intersections. The areas within and adjacent to these anomalies have good potential for porphyry copper mineralisation. The high-K signature associated with most of the anomalies could be indicative of potassic alteration.

Porphyry copper and high-sulphidation gold systems often form in locally extensional environments during broader compressive tectonic regimes.

**Figure 9.3: Favourable Structural Settings and Possible High-Level Intrusions**



Source: Sendero, 2022. Modified from Fathom Geophysics LLC (Belfield and Core, 2022).

Note: The northwest-trending and two major northeast-trending faults appear to show normal displacement. The extensional setting would be favourable for porphyry copper or epithermal mineralisation. Particularly at significant structural intersections as indicated by the red polygons. The areas are red in the K-Th-U RGB ternary and are high in the Kd radiometric images suggesting that they are enriched in potassium.

## 9.2 MICON QPS COMMENTS

Micon and the QPs have reviewed the exploration work conducted by Sendero and believe that, based on the previous exploration, the Project warrants further exploration to validate and expand on the existing mineralisation, determine the drilling targets to be tested in Phase II, as well as identify other mineralised zones on the property.

## **10.0 DRILLING**

### **10.1 SENDERO AND 131 DRILLING PROGRAMMES**

Sendero and 131 have not undertaken any drilling programmes on the Peñas Negras Project to date.

### **10.2 MICON QPS COMMENTS**

Micon and the QPs have reviewed the information available for the previous drilling programmes conducted on the Peñas Negras Project before Sendero and 131's involvement in the property. Micon and the QPs believe that, based on the previous drilling programmes, the Project warrants further drilling to validate mineralised interceptions, identify the extent of the existing mineralisation and identify different mineralised zones on the property. However, given the spotty nature of the available information for the historical drill programmes, Sendero and 131 should prioritise conducting verification diamond drilling.

## **11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

### **11.1 HISTORICAL SAMPLING AND APPROACH**

Prior to 2000 commercial assay laboratories were not generally certified according to ISO standards. However, commercial assay laboratories participated in round robin exercises with other laboratories and also had developed their own QA/QC procedures. Subsequent to 2000 the majority of the commercial assay laboratories throughout the world are ISO certified.

#### **11.1.1 1994 to 1995 El Solitario Sampling Programmes**

##### **11.1.1.1 Drilling Sampling**

A short drilling programme was developed, with four holes in RC totalling about 430 m.

No documentation regarding the sample preparation, analyses and security was available. There is also no documentation related to the assay laboratories used for this programme and the preservation of samples.

#### **11.1.2 1995 to 1997 Eldorado Sampling Programmes**

##### **11.1.2.1 Surface Sampling**

Different sampling techniques and two different laboratories were used for sample submission and analysis, Bondar Clegg, Vancouver, Canada and American Assay, Nevada, USA

The programme consisted of regional and local soil sampling:

- The geophysical grid used had a spacing of 300 m by 50 m;
- The material was collected from holes no more than 0.40 m to 0.45 m deep and screened to pass 30 mesh;
- In the laboratory material was dried and crushed to passing 80 mesh;
- Samples were splitting to yield a 0.4 kg subsample;
- Subsamples were crushed and pulverised to 150 mesh;
- Samples were analysed by Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for 34 elements; and,
- Samples were analysed for gold by fire assay (FA) and atomic absorption spectrophotometry (AAS).

In addition to the traditional method, the Enzyme Leach method was used in some specific sectors. This method was applied to samples from the oxidation layer of poorly developed soils usually present immediately above the bedrock. Samples of average weight of 200 g were sent to Activation Laboratories Ltd. Ontario (Canada), where they were pulverised, digested, and later attacked using leaching solutions based on organic enzymes that produce a partial extraction of elements.

Rock chip samples were collected on continuous lines along rock outcrops, generally at intervals of 2 m to 4 m. Sample weights varied between 2.50 kg and 4.00 kg. Samples were

analysed at the Bondar Clegg laboratory in Vancouver. Dried samples were crushed and pulverised to minus 150 mesh and analysed using the techniques mentioned above for soils.

The surface work was completed with the excavation of trenches on targets with marked hydrothermal alteration. The surface detrital cover was first removed and to access the underlying oxidised and leached material. Sampling in these places was conducted using a continuous channel 10 cm wide by 6 cm deep and a sampling interval of 3 m. The samples were prepared and analysed following the same method used for the rock chip samples.

Rock samples were also collected selectively (grab samples), which were selected for their specific geological characteristics.

### **11.1.2.2 Drilling Sampling**

Fifty-nine holes were drilled in the areas known as La Ollita (Anomaly 16C) and Cateo El Chiqui. A further three holes were drilled in the area known as Cristian III (Anomaly 16-G). The first 20 drill holes were carried out at the end of 1995 and 1996 using a Drill-Tech 25 K drilling machine, employing the air-lift reverse circulation method. The average depth of the drill holes was 50 m, except for the PNR-3 hole, which reached 100 m.

The sampling interval was 2 m, and the samples were processed according to a designed "flowsheet", which consisted of a hand quartering. The sample was divided into four equal portions and two opposite quarters were taken as samples. One sample was sent for analysis and the second as backup and to be logged, before being sent to analyse for Au (FA) and 34 elements, using ICP-MS techniques.

In the following 1996-1997 season, the drilling programme comprised two stages. The first completed 20 drill holes with an average depth of 180 m (PNR21-PNR40), with two not exceeding 50 m (PNR32-35). This stage was carried out with a Drill-Tech D 22 K drilling machine, without placing casing or using additives such as bentonite. A series of technical problems contributed to heavy contamination of several metres of the core, especially when crossing the moraine that covers a portion of the area.

In the second stage, 22 drill holes were completed to different depths (PNR41-PNR62). A more potent Drill-Tech D 40 T machine from Ingeoma SA was used. In addition, casing and different binders and sealants were used to minimise contamination and prevent problems in the hole when cutting the moraine that covers the area drilled.

The programme was completed with three diamond drill holes (PND1-PND3), carried out by a Longyear 38 drill rig.

The sampling interval was 2 m in the RC drill holes. The samples were prepared and analysed following the same method that was used for rock chip samples.

The treatment and preparation of the samples in the DD holes was carried out in the following steps:

- Measurement of the percentage of core recovery, measurement of geomechanical parameters, including RQD, FF, description of the type and number of fractures;

- Logging of observations, including lithology, alteration, mineralogy, and structural features;
- The sampling was performed at 2 m intervals if there was mineralogical and/or structural continuity. In the event of a change in these characteristics smaller sample intervals were collected to a minimum of 0.50 m;
- In the end, the drill core was split using a hydraulic guillotine, sampled, bagged to be sent to the laboratory, where the usual procedure previously described was followed; and,
- No background documentation regarding the sampling method and approach was available, nor the QA/QC process and results. The drilling procedures, the method and directional survey, and the originals analytical results of the drilling programmes were not available for review.

No logs for drill cuttings and cores samples are available.

### **11.1.3 2007 Minera Vale Río Doce - DEPROMIN SA Sampling Programmes**

#### **11.1.3.1 Surface Sampling**

Samples were sent to the ALS Chemex Laboratory in Vancouver, Canada, for analysis as agreed with CVRD. A variety of sample types were collected and each was subject to a specific method of sample preparation. The work consisted of local soil sampling on a general spacing of 100 m. As required, the sample interval was reduced to 50 m. Samples were not collected on a systematic grid, but rather on ground lines arranged to traverse the slopes below the altered areas.

Soil samples were collected from holes between 0.40 m to 0.45 m deep on a grid that covered all areas evaluated. Material was sieved to -10 mesh and later ground at the laboratory to minus 80 mesh. Rock chip samples were collected on lithologies and in places chosen by geologists, with lengths between 2 m to 4 m when the rock and/or fractures/veinlets allowed it. Samples varied in weight between 2.00 kg to 4.00 kg. These samples were crushed and pulverised to 150 mesh.

The grab-type sampling technique was also used.

Hand samples representative of the most rocks were collected to facilitate petrologic and petrographic studies. Some samples were subject to portable infra-red mineral analyser (PIMA) spectrometer analysis. The technique allowed rapid field-based identification of hydrothermal alteration minerals and delineation of alteration zones with variations in mineral composition, crystallinity, and relative abundance.

The samples were sent to ALS Chemex and analysed by the ICP-MS for 34 elements and gold for FA and AAS.

### **11.1.4 2010 and 2011 Minera Anglo American Argentina SA Sampling Programmes**

#### **11.1.4.1 Surface Sampling**

Surface geochemistry work was conducted over all of the mining concessions involved (Angela II-III and Cristian I-II-III). A total of 833 rock chips, soil, water, lag type and stream sediment samples were collected.

Soil samples (drainage, slope, and colluvium) were collected on a grid of 100 m by 100 m. Samples of unconsolidated material were collected from a depth of approximately 0.50 m, and each 2.00 kg sample was screened to 10 mesh, then bagged, labelled, and recorded in the sampling book.

For lag-type samples approximately 1 kg of rock fragments (no larger than 5 cm) was collected in sub-outcropping sectors. A radius of 1 m from the centre point of the sample was considered. The samples were bagged and duly labelled. It should be noted that this type of sample was collected when it was not possible to extract soil or colluvium from the slopes or sediment from dry drainages.

For quality assurance and quality control (QA/QC), sample standards were included approximately every 20 samples. The standards were of type 52-P, 53-P and LBS-5 for rock, lag, drainage, colluvium, and slope samples, while in the case of water samples, the standard was type TM-27.2. All samples were sent to the Acme Analytical Laboratories S.A. Argentina. Acme Analytical Laboratories are accredited ISO 9001:2008, which covers the analysis period. The sample preparation and analytical procedures were:

- Crush, split and pulverise 500 g rock to 200 mesh;
- Dry Pulps at 105°C prior analysis; and,
- 1:1:1 Agua Regia digestion ultra-trace ICP-MS analysis (G1F30 method code).

#### **11.1.4.2 Drilling Sampling**

In 2013, Anglo American reported that between 2011 and 2012, six drill holes were completed. The only comment was that the sampling interval was 2 m and that the core was cut in half and sent for mechanical preparation to the ALS Laboratory in Mendoza, Argentina. The ALS Laboratory, Mendoza, Argentina, is accredited ISO 17025: 2005 and ISO 9001:2008, which covers the analysis period. Sample pulps were sent for analysis to the ALS Laboratory in Lima, Peru, using the ICP method where gold was determined by fire test (Au-ICP21) and copper was analysed by digestion via aqua regia (ME-ICP41). ALS Laboratory, Lima, Peru, is accredited ISO 17025: 2005 and ISO 9001:2008, which covers the analysis period. Control samples were inserted for QA/QC.

No background documentation regarding the sampling method and approach or about the QA/QC process and results was available.

## **11.2 2021-2023 SENDERO SAMPLING PROGRAMMES**

### **11.2.1 Surface Sampling Methods**

Sampling of the talus fines has been completed using a compositing method that results in samples representative of 100 m along the sampling line. The distance between lines is 200 m, while the separation between contiguous samples is 100 m. However, each sample is composed of 5 samples spaced 20 m apart. The line is oriented east-west or north-south (perpendicular to the main structures of the sector).

The sampling methodology consisted of digging a hole between 30 cm and 40 cm, extracting the soil with a hand shovel, and sieving it through a 10-mesh screen until the required weight (approximately 2 kg) was achieved. In the camp, the five composite samples were mixed and

manually quartered, resulting in a final sample of approximately 5 kg and an equal amount of reject.

Rock chip outcrops were sampled by collecting approximately 1 kg to 3 kg of sample. The sample location, length and geological descriptions were recorded.

### **11.2.2 Analytical and Test Laboratories**

Surface samples were analysed by Alex Stewart International Argentina (“ASI”) in Mendoza. ASI complies with certification ISO 9001:2015 and accreditation ISO 17025:2017 as part of its internal quality system.

### **11.2.3 Sample Preparation, Analysis and Security**

Information on sample preparation and analysis of the surface talus fines and rock chip samples is summarised below:

- The procedure used to prepare talus fines samples was: sample preparation, procedures for pulp homogenisation and barcode assignment (P1). Then, dried, and crushed to 10 mesh (> or = 80%) (P2);
- The procedure used to prepare rock chip samples was: sample preparation, procedures for pulp homogenisation and barcode assignment (P1). Then, dried, crushed to 10 mesh (> or = 80%), cracked (600 g), and pulverised to 106 µm (> or = 95%) (P5);
- Gold was determined by fire assay with an atomic absorption spectroscopy (AAS) finish based on a 50 g for talus fines samples (Au3-50) and a 30 g sample (Au4-30) for rock chip samples.
- The detection limit and the upper range for these methods were: 0.01 Au ppm and 100.00 Au ppm for Au4-30 and 0.002 Au ppm and 20.00 Au ppm for Au3-50, respectively.
- All samples were analysed for 39 elements using method ICP-AR 39. Dissolution of 0.2 g in aqua regia (partial digestion for some elements, especially Al, Ba, Cr, K, Na, Sn, Sr, Ta, Ti, V and W). Determination in ICP-OES Radial.

Assay results were provided in digital format (both spreadsheet and PDF) by the laboratory and were automatically loaded into the database after validation.

Detection limits and ranges are displayed in Table 11.1.

**Table 11.1: Summary of the Detection Limits (ICP-MA 39), according to ASI Laboratory**

Element	Detection Limit								
Ag	0.5-200 ppm	Cr	1-10,000 ppm	Mg	0.01-10%	S	0.01-10%	Ti	0.01-5%
Al	0.01-10%	Cu	1-10,000 ppm	Mn	1-20,000 ppm	Sb	5-2,000 ppm	Tl	5-1,000 ppm
As	5-10,000 ppm	Fe	0.01-10%	Mo	1-10,000 ppm	Sc	5-2,000 ppm	V	1-10,000 ppm
Ba	2-2,000 ppm	Ga	2-2,000 ppm	Na	0.01-5%	Se	10-2,000 ppm	W	20-2,000 ppm
Bi	5-2,000 ppm	Hg	2-500 ppm	Nb	1-10,000 ppm	Sn	20-2,000 ppm	Y	1-2,000 ppm
Ca	0.01-10%	K	0.01-10%	Ni	1-10,000 ppm	Sr	1-2,000 ppm	Zn	1-10,000 ppm
Cd	1-2,000 ppm	La	1-2,000 ppm	P	10-10,000 ppm	Ta	10-1,000 ppm	Zr	1-5,000 ppm
Co	1-10,000 ppm	Li	2-10,000 ppm	Pb	2-10,000 ppm	Te	10-2,000 ppm	-	-

Samples were prepared for shipping to Mendoza in the Project camp. The details of each shipment, including the name of the driver, are recorded before being transported by Barton personnel to the ASI laboratory.

The authors are not aware of any reasons for concern regarding the security of the samples.

#### 11.2.4 Quality Assurance and Quality Control

Standard, duplicate, and blank control samples were used for the QA/QC programme.

A total of 674 samples were generated, with 587 original or primary samples corresponding to talus fines and rock chip samples. A total of 87 control samples were incorporated in the process, which represents 14.7% of the total samples (Table 11.2).

**Table 11.2: Summary of the Surface Samples and their QA/QC Control Samples**

No. of Surface Samples	No. QA/QC Samples	Total Samples (%)	Standards		Duplicates		Blanks	
587	87	15	25	4%	30	5%	32	5%

Standards, blanks, and duplicates are inserted using the following systematic sequence every nine samples: blank/duplicate-standard/blank.

The results obtained from the control programme are discussed in Section 11.2.4.1.

##### 11.2.4.1 Standards

Commercial standards were used as independent reference materials for quality control of copper, silver, and gold analyses, bought from OREAS (Ore Research & Exploration, Australia).

Table 11.3 is a list of the standards used to date, with their certified values, plus and minus one-two-three standard deviation limits as well as the number of each that has been used.

**Table 11.3: List of the Standards Used in the QAQC of the Surface Samples**

Standard	Element	Certified Value	SD	-1 SD	+1 SD	-2 SD	+2 SD	-3 SD	+3 SD
OREAS 501 d	Au (ppm)	0.232	0.010	0.222	0.242	0.212	0.252	0.202	0.262
	Ag (ppm)	0.664	0.053	0.611	0.717	0.558	0.77	0.505	0.823
	Cu (%)	0.272	0.009	0.263	0.281	0.254	0.29	0.245	0.299
OREAS 606	Au (ppm)	0.340	0.010	0.330	0.350	0.320	0.360	0.310	0.370
	Ag (ppm)	1.020	0.060	0.960	1.080	0.900	1.140	0.840	1.200
	Cu (ppm)	268	11	257	279	246	290	235	301

The statistical summary of the standard results including the calculated bias are presented in Table 11.4.

**Table 11.4: Statistical Summary of the Standards Samples Results**

Statistics	OREAS 501 d			OREAS 606		
	Au (ppm)	Ag (ppm)	Cu (%)	Au (ppm)	Ag (ppm)	Cu (ppm)
No. of Analyses	16	-	16	9	-	9
No. Outside Warning Limits	0	-	0	0	-	0
No. Outside Error Limits	0	-	0	0	-	0
% Outside Error Limits	0	-	0	0	-	0
Mean	0,217	-	0,265	0,333	-	269
Median	0,217	-	0,265	0,333	-	265
Minimum	0,208	-	0,263	0,322	-	261
Maximum	0,230	-	0,270	0,344	-	283
Standard Deviation	0,007	-	0,002	0,006	-	8,026
Standard Error	0,002	-	0,0005	0,002	-	2,837
% Relative. Standard Deviation	0,890	-	0,182	0,643	-	1,055
<b>% Mean Bias</b>	<b>-7</b>	<b>-</b>	<b>-3</b>	<b>-2</b>	<b>-</b>	<b>0,21</b>

The accuracy of the ASI laboratory for OREAS standards 501d and 600 for gold and copper are acceptable, with the overall negative bias of analytical results of < -7%; 100% of the results are within the limit of  $\pm 2SD$ .

The analytical results obtained for silver are below the detection limits and are not considered for statistics.

#### 11.2.4.2 Duplicates

A total of 30 field duplicate results for surface samples were available for analysis. The statistical summary of the field duplicate samples is presented in Table 11.5.

**Table 11.5: Statistical Summary of the Field Duplicate Samples Results**

Statistics	Gold		Silver		Copper	
	Original (Au ppm)	Duplicate (Au ppm)	Original (Ag ppm)	Duplicate (Ag ppm)	Original (Cu ppm)	Duplicate (Cu ppm)
No. of Analyses	30	30	30	30	30	30
No. of Analyses Discarded	1	1	1	1	1	1
Mean	37	34	0.127	0.127	221	210
Median	12	10	0.025	0.025	61	64
Minimum	0.005	0.005	0.025	0.025	14	12
Maximum	301	298	1.800	1.900	2602	2537
Standard Deviation	61	59	0.386	0.393	569	538
Coefficient of Variation	2	2	3.042	3.102	2.576	2.560
Range	300.995	297.995	1.775	1.875	2588	2525
Standard Error	11.525	11.223	0.073	0.074	107.582	101.684
Coefficient of Correlation	0.935		0.998		0.999	
Coefficient of Determination	0.875		0.996		0.997	
ERM %	30		1		7	
MPRD %	26		1		8	

The mean grade of original samples is slightly greater than the mean grade of the duplicated samples. No failures were recognised in the preparation and assay duplicates in 29 pairs of samples. Field duplicates have good correlation factors; Au R<sup>2</sup>: 0.876, Ag R<sup>2</sup>: 0.995 and Cu R<sup>2</sup>: 0.997.

Assay precision from field duplicates is at an acceptable level for gold, silver, and copper.

#### 11.2.4.3 Blanks

In total, 32 blank samples were analysed. These samples are laboratory certified quartz coarse blanks.

The statistical summary of the blank sample analytical results is presented in Table 11.6.

**Table 11.6: Statistical Summary of the Blank Samples Results**

Statistics	Au (ppm)	Ag (ppm)	Cu (ppm)
No. of Analyses	32	32	32
Mean	0.405	0.250	8.839
Median	0.500	0.250	10.000
Standard Deviation	0.197	0.000	2.423
Minimum	0.010	0.250	4.000
Maximum	0.500	0.250	12.000
Error Limit	0.100	5.000	10.000
No. Outside Error Limits	0	0	7
% Outside Error Limits	0%	0%	22%

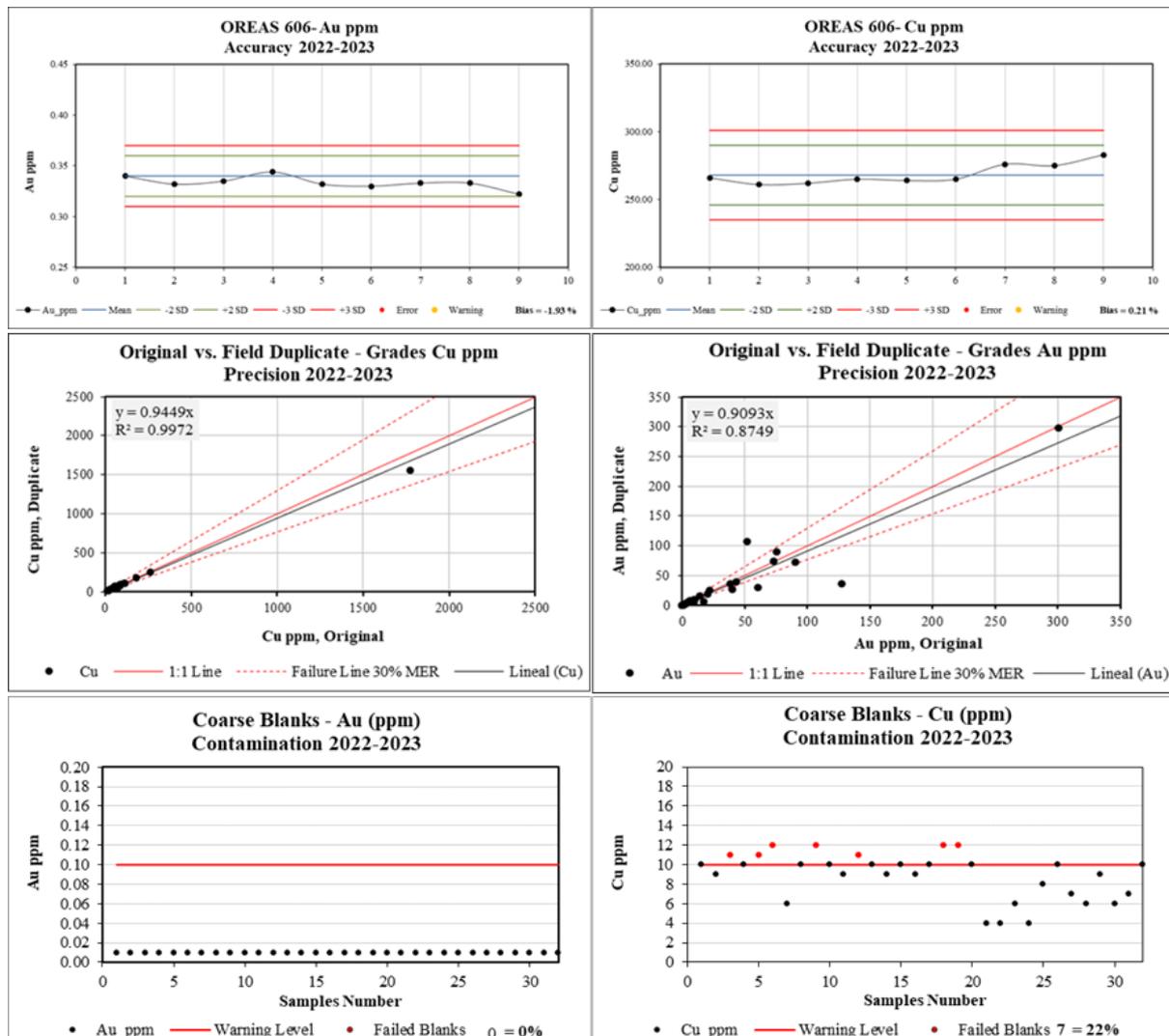
The contamination was assessed using a safe line of ten times the minimum detection limit as a maximum limit for contamination. It assumes a significant level of contamination if the value of the blanks exceeds the minimum detection limit in a proportion of 5 %.

No gold or silver failures occurred. There are 22% failures occurring for copper.

The blank samples from this period do not present significant levels of contamination. Therefore, the results are considered acceptable.

Some examples of check graphs are shown in Figure 11.1, which shows the certified reference material (CRM) check (Accuracy), Field Duplicate check (Precision) and the Coarse Blanks check (Contamination) from 2021-2022.

**Figure 11.1: Examples of Check Graphs which the CRM Check (Accuracy), Field Duplicate Check (Precision) and the Coarse Blanks Check (Contamination) 2021 to 2022**



#### 11.2.4.4 Conclusions

The main conclusions of the QA/QC results of the surface sampling and the assay programme 2021 – 2023 are summarised below:

- The accuracy of the primary laboratory (ASI) is acceptable for Au and Cu;
- For all CRMs, the Cu and Au biases fall within acceptable limits (<10%). There was no failed data for either element;
- The precision of the primary laboratory (ASI) is acceptable for Au, Ag, and Cu;
  - For Au, Ag, and Cu, the Mean Relative Error (MER %) for all duplicate types falls within acceptable limits (<30%).
  - Assay precision from field duplicates for Ag and Cu is very good and for Au it is acceptable, considering that it has more variability, related to the inherent heterogeneity and characteristics of the material being sampled;
- The blank samples from this period do not present significant levels of contamination. Therefore, the results for gold, silver and copper are considered acceptable;
- In future sampling campaigns, 4% to 10% of total pulps obtained must be sent to a secondary laboratory, with their corresponding standard samples inserted, as a check for the main laboratory. For this cross-validation to be useful, both laboratories must use the same assaying method and protocols for both gold, silver, and copper; and,
- The QA/QC programme has to be dynamic and interact with the laboratory, evaluate the test results as they become available, and work together during the sampling programme to correct and minimise the number of times the different control samples may fail.

### 11.3 MICON QPS COMMENTS

Micon and the QPs have not been able to review the available information regarding sample preparation, security, analysis, and data verification because all data is historical from previous operators, and there is no access to any physical samples, either core, RC cuttings or geochemical sample pulps or rejects. There is access to a great deal of valuable historical data compiled into a Geographic Information System (GIS), but again, it is not possible to verify its accuracy or suitability at this time. Most of the information is between 10 and 25 years old, is difficult to source, and there is no access to assay certificates. The database will be used to lead back into the most important areas, guide drilling decisions in some places. Micon considers the data to be of excellent quality having been developed by large reputable operators like Anglo American and Eldorado.

Micon and the QPs believe that the security of the samples from acquisition to analysis presents procedures that include the use of secure sampling, storage, and sample preparation facilities and the prompt, secure, and direct shipping of samples to the laboratory, according to the deposit type, style of mineralisation, and the logistical requirements of the site. The sample preparation procedures used in talus fines samples are appropriate, and the sample digestion and analytical methods chosen are adequately documented and justified.

The exploration and production sample preparation, security and analytical procedures are correct and adequate for the purpose of this Technical Report. The sample methods and density are appropriate, and the samples are of sufficient quality to comprise a representative, unbiased database.

Based on the results obtained in the QA/QC programme framework, the confidence level in the assays is acceptable. The results obtained have been confirmed and/or reproduced within reasonable limits by an alternate laboratory.

## **12.0 DATA VERIFICATION**

### **12.1 SITE VISIT**

The Peñas Negras Properties was visited by Dr. Julio Bruna, CPG, on 20<sup>th</sup> and 21<sup>st</sup> December 2021, for the purposes of completing the NI 43-101 required site visits. The scope of the site inspection was to discuss and review during the visit general data acquisition procedures, sampling procedures, quality assurance/quality control (QA/QC), geology, mineralisation, structural characteristics, historical drill pads, infrastructure and permits, and environmental impacts.

Dr. Bruna is an independent consultant, Certified Professional Geologist (CPG), Micon Associate and a Fellow of the Australasian Institute of Mining and Metallurgy, in Geology FAusIMM(CP) who is based in Córdoba, Argentina. During the site visit, Dr. Bruna was accompanied by Mr. Ríos Gómez, Senior Geologist from Barton, and focussed the inspection on verifying the general geological setting, and site conditions, and where the different drilling programmes were undertaken.

The relevant works were surface sampling. During his site visit, the QP reviewed these sampling methods and procedures.

The site was visited during the exploration season of 2021 to 2022 and before the end of the exploration work in April 2023. The QP has reviewed the results of exploration conducted during the 2022-2023 exploration season and concluded that although it served to enhance the understanding of the potential of the Project, the new information, as detailed in Section 12.0, did not have a material impact on the Project. Therefore, the site visit made by Dr. Bruna in December 2021 is considered to be current.

#### **12.1.1 Certificates Review**

The QP received original assay certificates in cvs and pdf formats for the samples collected in 2021 to 2023 season in the current database. A random manual check of 10% of the database against the original certificates was conducted. The error rate within the database is less than 1% based on the number of samples spot checked.

#### **12.1.2 Adequacy of Data**

The QP considers the check assay programme adequate to provide confidence in the data. Samples associated with QA/QC failures are reviewed before inclusion in the exploration databases. The results of the QA/QC programme are discussed in Section 11.2.4.

Exploration sampling, security, and analysis procedures are being conducted in a manner that meets industry standard practice. The coarse reject samples and the master pulps are safe and available for further checks in a warehouse at Guandacol and San Juan.

#### **12.1.3 Surface Sampling Methods Procedures Review**

A sampling of talus fines and rock chips was carried out in the Peñas Negras properties. The QP was present in the first samplings during his visit in December 2021 (Figure 12.1), he

reviewed the procedure, and considered it suitable for surface sampling. These samplings are similar to those carried out in other projects on adjacent properties.

**Figure 12.1: Photographs on the Procedure of Surface Sampling Method Type for Talus Fines**



Source: Micon Site Visit Photographs 2021

#### 12.1.4 Geology and Mineralisation Review

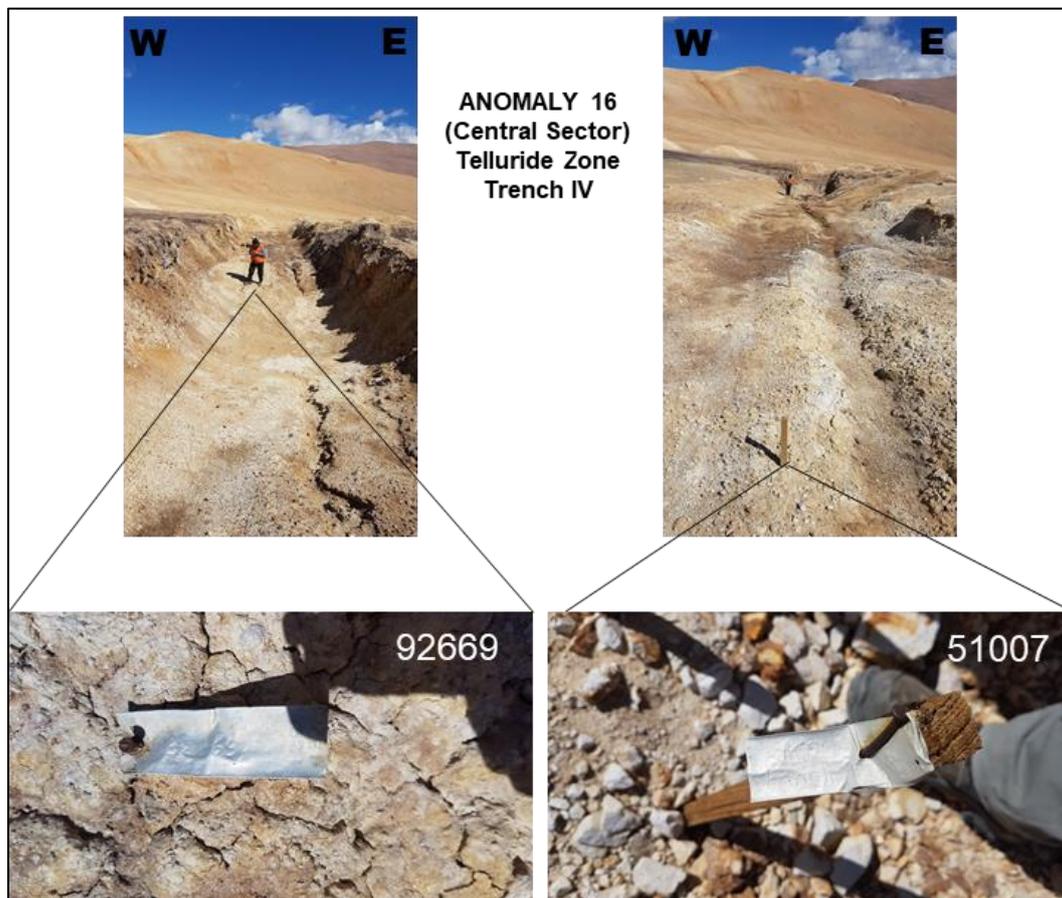
It was observed that the local geology corresponds to the general description reported in previous reports. The geology of the Telluride Zone of the central sector of the Anomaly 16 property was reviewed (Figure 12.2). Table 12.1 presents the analytical results obtained by Eldorado for samples 92669 and 51007 from the Telluride Zone of the central sector of Anomaly 16.

The volcanoclastic units, breccias, tuffs and lapilli tuffs, corresponding to the Doña Ana Formation, are the rocks best suited to host alteration and mineralisation, due to their higher permeability and porosity favour the circulation of hydrothermal fluids. Mapping and sampling in Trench IV discovered argillic alteration and pervasive silicification, associated with smoky quartz veinlets, ochreous quartz (vuggy type), quartz-jarosite veinlets and chalcedonic quartz veinlets; in addition, presence of iron oxides (hematite-goethite). Silicification is associated with zones of more significant fracturing.

It is still possible to identify some of the historical drill pads and some drill holes were identified in the field. The identification of the drill holes was enabled via the PVC pipes or casings. The hole ID was marked on an aluminium tag and/or written with a marker on the

PVC or the cement base. Coordinates of the drill holes were surveyed using a handheld GPS (Garmin. Etrex 22x) and compared with the coordinates in the dataset provided by Sendero.

**Figure 12.2: Photographs of the Telluride Zone of the Central Sector of Anomaly 16 (Argillic alteration and pervasive silicification associated with zones of more significant fracturing)**



Source: Micon Site Visit Photographs 2021

**Table 12.1: Analytical Results for Samples 92669 and 51007**

Sample No	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)	Te (ppm)
92669	137	6.2	10	121	32	33	6	7.9
51007	20	0.4	19	60	38	17	-5	-10

Source: Minera Eldorado SA

### 12.1.5 Drill Pads Historical Review

During the site visit, the historical drilling programme pads were inspected, and a number of the drill hole collars were located. In the central area of the El Chiqui (Eldorado), six of the 65 drill holes sites were visited. In addition, in the Cerro Verde Project drilling area (Anglo-American), four of the six drill holes sites were visited (Figures 12.3 and 12.4).

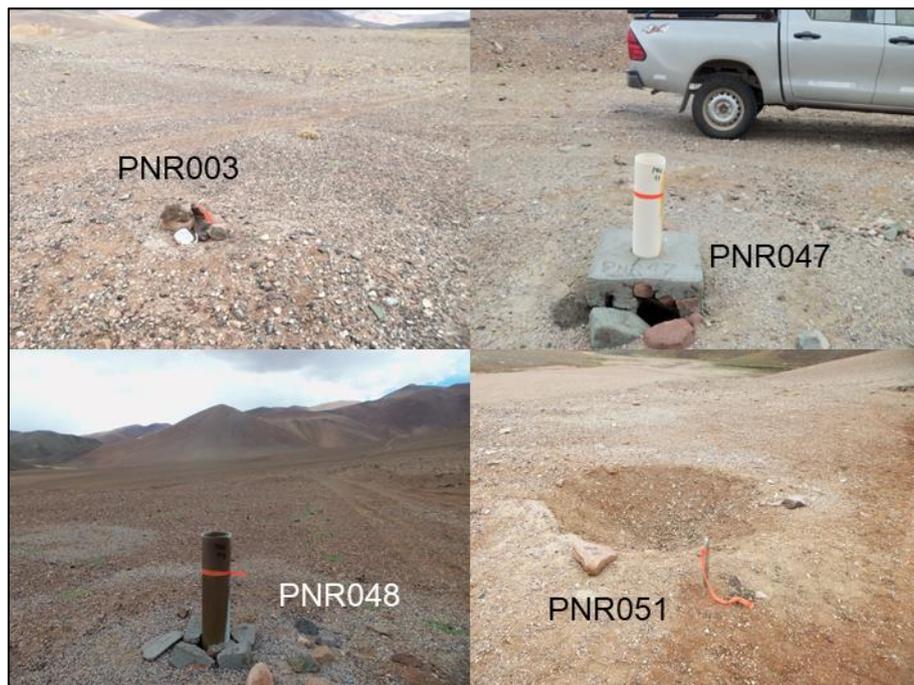
Locations of the ten drill holes inspected during the site visit were compared to the Sendero reported data and a summary is reported in Table 12.2. The results do exhibit small differences between the Sendero data and the Micon data, however in general, the agreement in eastings,

northings and elevations between the verification measurements and differential GPS data is excellent.

**Table 12.2: Summary Results of Comparison of Locations of 10 Drill Holes  
(Coordinates are Gauss Krüger)**

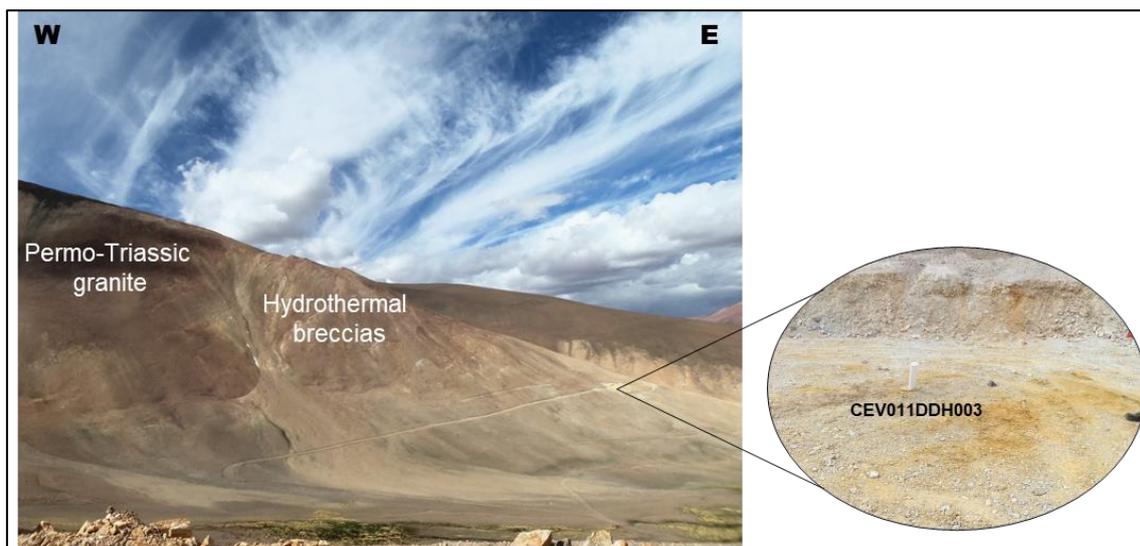
Drill Hole ID	Sendero			Micon			Differences		
	Easting (GK)	Northing (GK)	Elevation (m)	Easting (GK)	Northing (GK)	Elevation (m)	Easting (GK)	Northing (GK)	Elevation (m)
PNR003	2,456,742	6,870,406	4075.00	2,456,747	6,870,402	4082.00	-5	4	-7
PNR027	2,456,547	6,870,690	4087.00	2,456,546	6,870,689	4090.00	1	1	-3
PNR045	2,456,150	6,870,642	4077.00	2,456,149	6,870,639	4079.00	1	3	-2
PNR047	2,456,404	6,870,622	4095.00	2,456,409	6,870,620	4095.00	-5	2	0
PNR048	2,455,726	6,869,986	4058.00	2,455,729	6,869,978	4062.00	-4	8	-4
PNR051	2,454,755	6,869,264	4039.00	2,454,752	6,869,255	4044.00	3	9	-5
CEV011DDH001	2,454,505	6,868,091	4094.00	2,454,504	6,868,088	4093.00	1	3	1
CEV011DDH002	2,454,534	6,867,755	4107.00	2,454,536	6,867,754	4113.00	-2	1	-6
CEV011DDH003	2,454,069	6,873,900	4169.00	2,454,070	6,873,905	4169.00	-1	-5	0
CEV012DDH001	2,453,501	6,873,171	4224.00	2,453,500	6,873,163	4225.00	1	8	-1

**Figure 12.3: Photographs of Drill Holes Identified in the Field from the El Chiqui Property**



Source: Micon Site Visit Photographs 2021

**Figure 12.4: Photographs of Rocks from the Cerro Verde Norte Property and Location of Drill Pad CEV011DDH003**



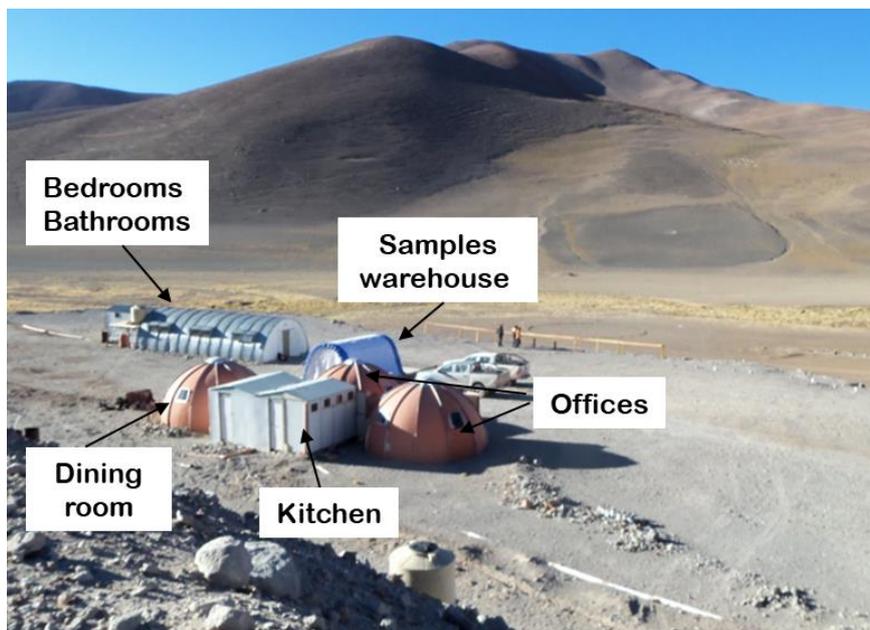
Source: Micon Site Visit Photographs 2021

During the site visit, no samples of the mineralised sectors were taken, and no evidence of recent exploration work was observed over the area of interest.

### 12.1.6 Camp Review

The camp was refitted and its facilities were upgraded and put into operation for the 2021 to 2023 exploration programme staff (Figure 12.5).

**Figure 12.5: Photograph of Campamento Peñas Negras**



Source: Micon Site Visit Photographs 2021

## 12.2 MICON QPS COMMENTS

Micon and the QPs consider that there is abundant historical data available for the Peñas Negras Project from the public domain and companies that previously operated in the region. Most historical information is from 10 to 25 years old and difficult to source. Data accuracy or suitability cannot be verified at this time, as there is no access to physical samples, such as core, RC cuttings, geochemistry pulps, or rejects. Assay certificates, and other original and raw geophysical data, are unavailable to Sendero and 131.

Sendero and 131 have compiled the current historical geology and mineralisation data, and the QPs recognise the significant mineral potential of the Project area. Sendero and 131 are implementing an exploration programme based upon modern best practices utilising compliant sample preparation, sample analysis, QA/QC, chain of custody, and data verification methods for its work going forward.

### **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

No current metallurgical test work is available for the Peñas Negras Project.

## **14.0 MINERAL RESOURCE ESTIMATES**

The Peñas Negras Project is at an early stage of development and as a result there are no mineral resources that comply with the requirements of CIM Standards to be reported at this time.

## **TECHNICAL REPORT SECTIONS NOT REQUIRED**

The following sections, which form part of the NI 43-101 reporting requirements for advanced projects or properties, are not relevant to this Technical Report.

### **15.0 ORE RESERVE ESTIMATES**

### **16.0 MINING METHODS**

### **17.0 RECOVERY METHODS**

### **18.0 PROJECT INFRASTRUCTURE**

### **19.0 MARKET STUDIES AND CONTRACTS**

### **20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

### **21.0 CAPITAL AND OPERATING COSTS**

### **22.0 ECONOMIC ANALYSIS**

## 23.0 ADJACENT PROPERTIES

The Peñas Negras district, with its proximity to many significant clusters of world-class projects, is believed to contain excellent Maricunga-El Indio style gold/copper-gold mineralisation targets.

The Project is located in the southern segment of the Maricunga Belt in a known mining, advanced exploration, and exploration projects area. The information reported in this section is available in the public domain from the companies listed below.

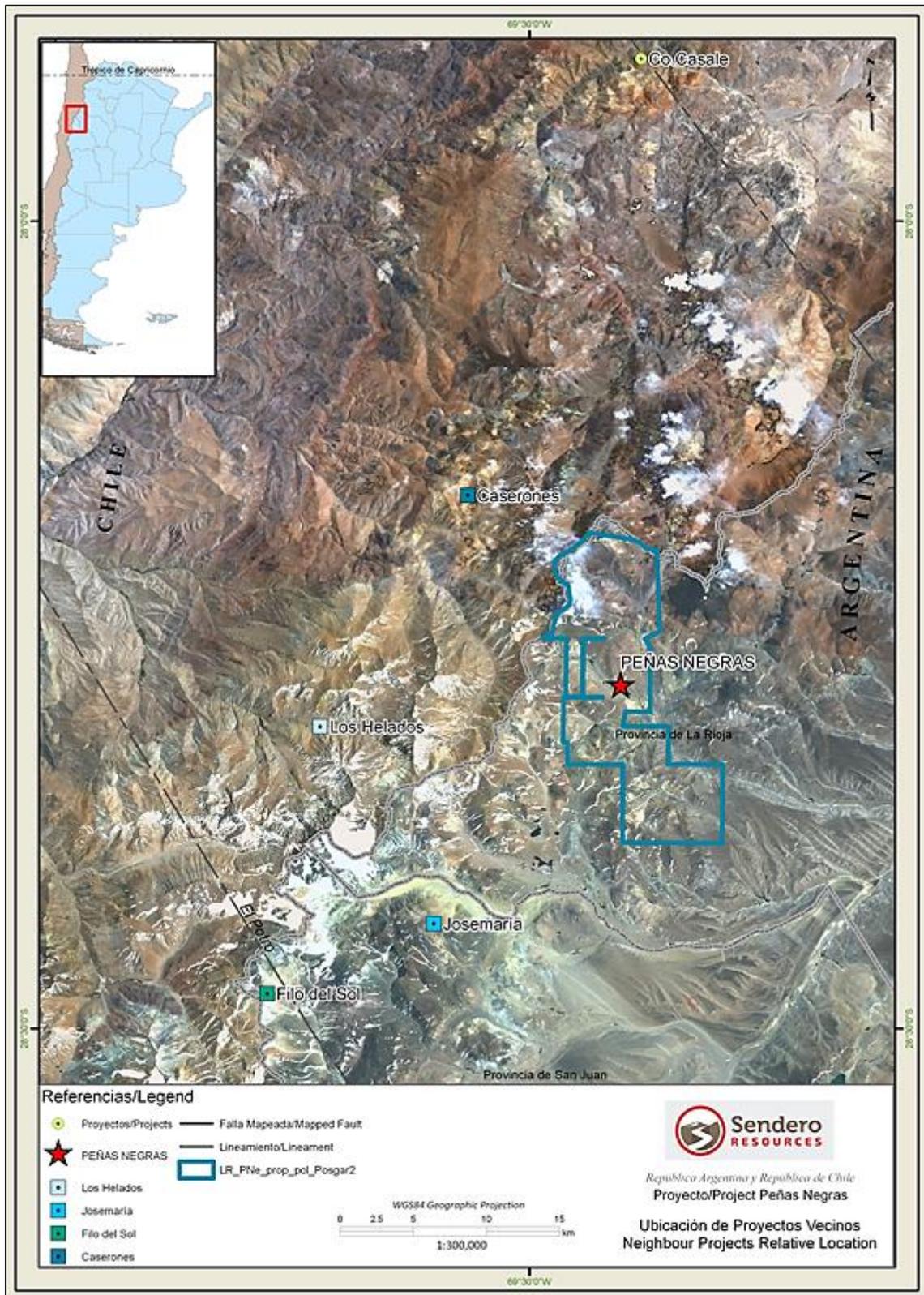
The Peñas Negras Project is located adjacent to:

- 11 km to the west is the Los Helados Project of NGex Resources Inc. The deposit is classified as a porphyry copper-gold system. The mineral resource estimate category is Indicated, 2,099 Mt at 0.38% Cu, 0.15 g/t Au and 1.37 g/t Ag (NI 43-101 Technical Report, 2019);
- 12 km to the southeast is the Josemaría Project of Josemaria Resources Inc. (Lundin Group). The deposit is classified as a porphyry copper-gold system. The sulphide mineral resource estimate has categories Measured + Indicated of 1,159 Mt at 0.29% Cu, 0.21 g/t Au and 0.90 g/t Ag (NI 43-101 Technical Report, 2020);
- 25 km to the southeast is the Filo del Sol Project of Filo Mining Corp. (Lundin Group). This is a high-sulphidation epithermal copper-gold-silver deposit associated with an extensive porphyry copper-gold system. The mineral reserve estimate category is Probable, 259.10 Mt at 0.39% Cu, 0.33 g/t Au and 15.10 g/t Ag (NI 43-101 Technical Report, 2019); and,
- 22 km to the northwest is the Caserones Mine (Cu-Mo) of Lumina Copper Chile (Nippon Caserones Resources Co). This is an Andean-type porphyry copper deposit located at the southern end of the Maricunga District. The mineral reserve estimate is 1,047 Mt @ 0.34% Cu, 126 ppm Mo and annual production of 150,000 t Cu. (<https://www.fluor.com/projects/copper-mine-utilities-offsites-epcm>).

Micon and the QPs have been unable to verify the information listed above and the information is not necessarily indicative of the mineralisation on the property that is the subject of this Technical Report.

Figure 23.1 presents the location of the adjacent mines and advanced projects to the Peñas Negras Project.

Figure 23.1: Location of Adjacent Mines and Advanced Projects to the Peñas Negras Project



Source: Sendero Resources Corp., 2021.

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

All relevant data and information regarding the Peñas Negras Project have been included in other sections of this Technical Report.

Micon and the QPs are not aware of any other data that would make a material difference to the quality of this Technical Report or make it more understandable, or without which the Report would be incomplete or misleading.

## 25.0 INTERPRETATION AND CONCLUSIONS

### 25.1 RISKS AND UNCERTAINTIES

Given the work conducted previously at the Project, there is access to a significant amount of valuable historical data compiled into a Geographic Information System (GIS). Still, its accuracy cannot be verified or its suitability at this time as there is no access to any physical samples, neither core, RC cuttings or geochemist pulps or rejects. Most of the information is between 10 and 25 years old, is difficult to source, and has no access to assay certificates.

Micon and the QPs believe that the database has to be used to lead back into the most important areas and guide drilling decisions in some places through a more detailed analysis of the results of the previous exploration programmes. A focused exploration programme should follow this in delineating the mineralised bodies geometry and their confirmation. This will assist Sendero and 131 to start estimating the resources and identifying other exploration targets elsewhere on the Property.

In case of future access to any historical physical samples, Sendero and 131 will need to conduct further work, as much as possible, including a relogging and sample check of the remaining historical core and conduct further verification mapping and sampling with QA/QC on the property to be able to incorporate the historical data into future resource estimates.

The QPs notes that Barton will decide whether reduction of the area covered by Cateos is required subsequent to the completion of the proposed exploration programme. The reduction of the size of the Cateos is not currently mandatory but is subject to the results of the proposed exploration programme. If the proposed exploration programme demonstrates that the entire area of the present Cateos has high mineral potential, then it will not be necessary to reduce the area covered by the Cateos.

The Project is located at a high elevation in the Andes Mountains. In such environments that receive significant volumes of snowfall there is a minor risk that snow accumulation may prevent access to preferred drilling sites during the summer exploration season.

### 25.2 CONCLUSIONS

Sendero and 131 commissioned the Qualified Persons responsible for this technical Report to review all the historical and available geological information such as geology, geochemical, geophysical, surface trenching and diamond drill core sampling pertaining to the Peñas Negras Project (located in the province of La Rioja, Argentina) to compile all available information in accordance with the guidelines of the Canadian Institute of Mining and Metallurgy (CIMM), and to define and validate the mineralised sectors and identifying new sectors by carrying out various stages of exploration

The property is located in a developing porphyry district at the intersection between the south end of the Maricunga Copper-Gold Belt and the northern extent of the El Indio Gold-Silver Belt, with both districts hosting world-class porphyry and epithermal deposits. The Project was confirmed by extensive exploration in the district during the 1990s by major mining companies and the subsequent discovery of three world-class mining projects adjacent to the property, Josemaria, Filo del Sol, and Los Helados. The anomalies of the property, such as La Ollita, Ángela and Ritzuko, are epithermal gold systems of the HS variety, that may be overprinting

the adjacent or deeper copper-gold porphyry system (Cerro Verde), depending on erosion level that causes a progressive descent of the palaeosurface and an alteration mineralisation telescoping.

The property presents altered volcanoclastic units of the Choiyoi Group (Permo-Triassic), with extensive alteration anomalies at the surface that follow a significant structural trend and hosts elevated anomalous values of copper, gold, and pathfinder elements; overlain by Late Oligocene-Miocene age volcanic rocks (andesites and dacites of the Doña Ana Formation and rhyolites, dacites and andesites of the Las Tórtolas Formation). In congruency with the tectonic uplift experienced in the area, the erosion of the tertiary rocks has taken place, exposing the basement and the mineralised porphyries. Major NNE structures define a belt of favourable host rocks with multiphase porphyry intrusions, mainly of dacitic composition and, to a lesser extent, dioritic-quartz dioritic compositions in the Project area.

The exploration works carried out since the 1990s by different companies (surface sampling, mapping, geophysics, and drilling) at the Peñas Negras Project allowed us to recognise the evidence of two different deposit styles formed at different crustal levels with characteristic metal grades and metallurgy. The first is an epithermal system with HS characteristics represented by the association of Au-Ag-Cu-As-Sb-Te, controlled by structures, and directly linked to a porphyry-type system at depth. The second corresponds to a porphyry Cu-Au±Mo system, developed in Miocene volcanic rocks, intruded by dacitic-dioritic-type bodies.

Phase I of the 2021 to 2023 exploration programme included detailed geological and structural mapping, sampling of surface materials and geophysical studies.

The size of the Property package, coupled with the style of mineralisation, indicates a clear need for a careful and systematic approach to target definitions.

This Technical Report's purpose is to provide the basic foundations for advancing the Peñas Negras Property in a logical and systematic manner from its present status through the various stages of Mineral Resource definition and the economic viability determination, following the Best Practice Guidelines for exploration programmes according to CIM Mineral Exploration (2018).

Sendero and 131 must focus its explorations programmes on confirmation of mineralisation, improve the quality of the data for a resource estimate, and expand the known mineralisation at the Peñas Negras Project.

Micon and the QPs of this report are confident that Sendero and 131 will undertake this work as part of its overall exploration programmes and be able to validate the historical information.

## 26.0 RECOMMENDATIONS

Once the merger transaction is complete Sendero and 131 plan to conduct an exploration programme at its Peñas Negras Project through its 100% subsidiary Barton SAS.

The proposed Sendero and 131 exploration programme includes a Phase I, during which geological mapping, talus fines sampling and infrastructure improvements will be conducted. This work will include road and drill site preparation. The Phase II exploration will include a 4,000 m drilling programme.

The total cost of the proposed exploration programme is CAD\$2,455,400. The work is planned to commence in November 2023 and is expected to be completed in March 2024 (Table 26.1). The Phase II programme is contingent on the results of the Phase I programme. This is largely dependent on access to sufficient drilling sites given the high elevation and potential for significant snow accumulation.

**Table 26.1: Sendero and 131 Budget for the Exploration of the Peñas Negras Project 2023 - 2024**

Item	Programme Costs		
	Phase I Aug 2023 - Dec 2023 (CAD\$)	Phase II Jan 2024 - Apr 2024 (CAD\$)	Total Cost (CAD\$)
Field Supervision, Geologists	51,200	51,200	102,400
Data Compilation, Modelling, Analysis	15,000	-	15,000
Roads, Access, and Drill Site Preparation	100,000	-	100,000
Surveying	30,000	-	30,000
Permits	20,000	-	20,000
Camp and Housing	85,000	136,000	221,000
Vehicles	25,000	40,000	65,000
Geochemical Talus Fines Sampling and Analyses	192,000	-	192,000
Drilling (2,500 m RC, 1,500 m DD)*	-	1,710,000	1,710,000
<b>Total</b>	<b>518,200</b>	<b>1,937,200</b>	<b>2,455,400</b>

Notes: Phase I: Re-establish base camp, access; roads and drill site prep; talus fines geochemistry programme.  
Phase II: Camp improvements continued; drilling programme; 6-8 drill holes in preliminary target areas.  
\* Drill hole locations will be finalised after compilation of both historical and recent exploration data.

The 2023-2024 exploration programme consists of target definition work that includes geochemical and geological work, and a drilling programme of approximately 4,000 m (2,500 m RC and 1,500 m DD).

By Phase II, the RC drilling will be used on the newly identified targets and based on the results of the surface works and analytical values obtained in Phase I. Also, considering the historical information, the DD programme will seek to confirm the mineralised sectors.

Micon and the QPs have reviewed Sendero and 131's proposal for its exploration programme on the Peñas Negras property and recommend that Barton continues the exploration programme as proposed. The programme is subject to funding and any other matters, which may cause the proposed exploration programme to be altered in the ordinary course of its business activities or alterations that may affect the programme as a result of exploration activities themselves.

## 26.1 RECOMMENDATIONS

Through its acquisition of the Peñas Negras Project, Sendero and 131 is acquiring a property upon which historical exploration programmes have outlined a copper-gold mineralisation that has not been fully explored using modern techniques and following good practices.

Micon and the QPs agree with the general direction of Sendero and 131's initial and proposed exploration programmes for the Project and make the following additional general recommendations for the Property:

1. Barton personnel review the November 2018 CIM Mineral Exploration Best Practice Guidelines (the Exploration Guidelines) for exploration programmes and make any necessary adjustments to ensure that it is conducting its exploration programmes within the guidelines.
2. All Sendero and 131's exploration QA/QC procedures and practices be compiled into one document. This document can be used for training purposes for new personnel and is also a record of all QA/QC procedures and practices that can be appended to any report in the future.
3. A logging protocol be carried out before starting the drilling to unify criteria, taking historical information as a basis.
4. Implementing a modern system that complies with the best practices of sample preparation, analysis, security, a chain of custody and data verification for future exploration work.
5. The available historical information and data be organised and to implement an adequate data management system. A robust and auditable base ensures the reliability and integrity of the data. This will facilitate the re-interpretation, acceptable use and benefit of previous and future information generated for the Project.
6. A PIMA (portable infrared mineral analyser) be used to identify and map alteration mineral assemblages accurately and which are important to the understanding of and exploration for hydrothermal ore deposits. Data collection must be systematically organised and carried out by a trained operator.
7. For any future exploration programmes, all the samples generated are assayed for arsenic, mercury, and antimony, in addition to the economic minerals. This is due to the previously high levels of these elements identified in the mineralisation and their potential deleterious processing and environmental effects. These elements will need to be modelled in any future mineral resource block model to identify their potential extent and assist with identifying ways to mitigate their effects.

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## 28.0 DATE AND SIGNATURE PAGE

Signed on behalf of Patagonia GEOSCIENCES:



-----  
**Julio Bruna Novillo, PhD, CPG, FAusIMM (CP) (#992246)**

**Principal Geologist,**

**PATAGONIA GEOSCIENCES**

**Effective Date: 18<sup>th</sup> July 2023**

**Signed Date: 18<sup>th</sup> July 2023**

**Updated: 18<sup>th</sup> July 2023**

Signed on behalf of Micon International Co Limited:


-----  
**Stanley C. Bartlett, M.Sc., PGeo. (#19698)**

**Senior Geologist and Vice President,**

**Micon International Co Limited**

**Effective Date: 18<sup>th</sup> July 2023**

**Signed Date: 18<sup>th</sup> July 2023**

**Updated: 18<sup>th</sup> July 2023**

## 29.0 QUALIFIED PERSON CERTIFICATES AND CONSENT

### CERTIFICATE OF CO-AUTHOR JULIO BRUNA NOVILLO

As the author of the “NI 43-101 Technical Report on the Peñas Negras Copper-Gold Project in La Rioja, Argentina”, with effective date 18<sup>th</sup> July 2023, I, Julio Bruna Novillo, hereby certify that:

- 1) I am employed as an Associate Principal Geologist by, and conducted this assignment for, Micon International Co Limited, Suite 10, Keswick Hall, Norwich, United Kingdom. tel. 0044(1603) 501 501, e-mail [jbruna\\_geo@hotmail.com](mailto:jbruna_geo@hotmail.com) ;
- 2) I hold the following academic qualifications:

Geologist	National University of Córdoba, Argentina, 1993;
MBA	University Institute ESEADE, Argentina, 2009;
PhD (Geology)	National University of Catamarca, Argentina, 2019;
- 3) I am registered at the College of Geologists of the Province of Córdoba (membership #A-759). In addition, I am a member in good standing of several other technical associations and societies, including; Fellow FAusIMM CP (Geo) Membership #992246, CIM Membership #152176 and Society of Economic Geologists (Fellow Member SEG #104383;
- 4) I have worked as a geologist in the minerals industry for more than 30 years;
- 5) I do, by reason of education, experience and professional qualifications fulfil the requirements of a Qualified Person as defined by NI 43-101 and CIM Standards. My work experience includes ten years as an exploration geologist for gold and base metal deposits, ten years as a mine geologist in open-pit mines, and more than seven years as a consulting geologist working in base metals and precious metals lithium brines;
- 6) I visited the Peñas Negras Project from 20<sup>th</sup> to 21<sup>st</sup> December 2021, to assess the current site and infrastructure conditions;
- 7) I am responsible for Sections 2.0 – 31.0 of this Report;
- 8) I am independent of Sendero Resources Corporation, 1319732 B.C Ltd. and Barton SAS and the directors, senior management, and its other advisers of these companies, and I have had no prior involvement in the Peñas Negras Copper-Gold Project;
- 9) I have read Canadian National Instrument 43-101 and the Technical Report and confirm that this Report has been prepared in compliance with the instrument; and,
- 10) As of the date of this certificate, to the best of my knowledge, information, and belief, the “NI 43-101 Technical Report on the Peñas Negras Copper-Gold Project in La Rioja, Argentina”, with effective date 18<sup>th</sup> July 2023, contains all scientific and technical information that is required to be disclosed to make this Report not misleading.



-----  
**Julio Bruna Novillo, PhD, CPG, FAusIMM (CP) (#992246)**  
**Principal Geologist, Associate Consultant,**  
**Patagonia GEOSCIENCES**

**Effective Date: 18<sup>th</sup> July 2023**

**Signed Date: 18<sup>th</sup> July 2023**

**Updated: 18<sup>th</sup> July 2023**

## CERTIFICATE OF CO-AUTHOR STANLEY CURRIE BARTLETT

As the co-author of the “NI 43-101 Technical Report on the Peñas Negras Copper-Gold Project in La Rioja, Argentina”, with effective date 18<sup>th</sup> July 2023, I, Stanley Currie Bartlett, hereby certify that:

- 1) I am employed, as a Senior Geologist and Vice President, by, and conducted this assignment for, Micon International Co Limited, Suite 10, Keswick Hall, Norwich, United Kingdom. tel. 0044(1603) 501 501, e-mail [sbartlett@micon-international.co.uk](mailto:sbartlett@micon-international.co.uk);
- 2) I hold the following academic qualifications:  
B.Sc. Geological Sciences      University of British Columbia, Vancouver, Canada, 1979;  
M.Sc. (Mining Geology)      Camborne School of Mines, Redruth, England, 1987;
- 3) I am a registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (membership # 19698); In addition, I am a member in good standing of the Society for Mining, Metallurgy and Exploration;
- 4) I have worked as a geologist in the minerals industry for 44 years;
- 5) I do, by reason of education, experience and professional qualifications fulfil the requirements of a Qualified Person as defined by NI 43-101 and CIM Standards. My work experience includes five years as an exploration geologist developing tungsten, gold, silver and base metal deposits, more than 14 years as a mining geologist in both open pit and underground mines and 25 years as a consulting geologist working in precious, ferrous, and base metals and industrial minerals. I have more than 30 years of experience of mineral resource estimation;
- 6) I have not visited the Peñas Negras Project;
- 7) I am responsible for Section 1.0 of this Report;
- 8) I am independent of Sendero Resources Corporation, 1319732 B.C Ltd and Barton SAS and the directors, senior management, and its other advisers of these companies, and I have had no prior involvement in the Peñas Negras Copper-Gold Project;
- 9) I have read Canadian National Instrument 43-101 and the Technical Report and confirm that this Report has been prepared in compliance with the instrument; and,
- 10) As of the date of this certificate, to the best of my knowledge, information, and belief, the “NI 43-101 Technical Report on the Peñas Negras Copper-Gold Project in La Rioja, Argentina”, with effective date 18<sup>th</sup> July 2023, contains all scientific and technical information that is required to be disclosed to make this Report not misleading.



---

**Stanley C. Bartlett, M.Sc., PGeo. (#19698)**  
**Senior Geologist and Vice President,**  
**Micon International Co Limited**  
Effective Date:      18<sup>th</sup> July 2023  
Signed Date:        18<sup>th</sup> July 2023  
Updated:            18<sup>th</sup> July 2023

## 30.0 APPENDIX 1

### 30.1 GLOSSARY OF MINING AND OTHER RELATED TERMS

**Assay:** A chemical test is performed on a sample of ores or minerals to determine the number of valuable metals.

**Base metal:** Any non-precious metal (e.g. copper, lead, zinc, nickel).

**Cateo:** Exploration concession.

**Channel sample:** A sample composed of pieces of vein or mineralisation that have been cut out of a small trench or channel, usually about 10 cm wide and 2 cm deep.

**Chip sample:** A method of sampling a rock exposure whereby a regular series of small chips of rock is broken off along a line across the face.

**CIM Standards:** The CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council from time to time. The most recent update adopted by the CIM Council is effective as of 27<sup>th</sup> November 2010.

**Contact:** A geological term used to describe the line or plane along which two different rock formations meet.

**Core:** The long cylindrical piece of rock, about an inch in diameter, was brought to the surface by diamond drilling.

**Core sample:** One or several pieces of whole or split parts of core selected as a sample for analysis or assay.

**Cut-off grade:** The lowest grade of mineralised rock that qualifies as ore grade in a given deposit is also used as the lowest grade below which the mineralised rock currently cannot be profitably exploited. Cut-off grades vary between deposits depending upon the ore's amenability to gold extraction and production costs.

**Dacite:** A finely crystalline extrusive igneous rock with an intermediate composition, equivalent of quartz diorite, usually light in colour and often porphyritic. It is found in lava flows, dykes, sills and pyroclastic rocks.

**Deposit:** An informal term for an accumulation of mineralisation or other valuable Earth material of any origin.

**Dip:** The angle at which a vein, structure or rock bed is inclined from the horizontal as measured at right angles to the strike.

**Epithermal:** Hydrothermal mineralisation formed within one kilometre of the Earth's surface, in the temperature range of 50° to 200°C.

**Epithermal deposits:** Epithermal gold deposits which develop above the porphyry environment at depths up to 1 km below the surface and at temperatures less than 300°C they are distinguished as low and high sulphidation.

**Exploration:** Prospecting, sampling, mapping, diamond drilling and other work involved in searching for ore.

**Fault:** A break in the Earth's crust caused by tectonic forces which have moved the rock on one side concerning the other.

**Fracture:** A break in the rock, the opening of which allows mineral-bearing solutions to enter. A "cross-fracture" is a minor break extending at more or less right angles to the direction of the principal fractures.

**Grade:** Term used to indicate the concentration of an economically desirable mineral or element in its host rock as a function of its relative mass. With gold, this term may be expressed as grams per tonne (g/t) or ounces per tonne (oz/t).

**Gram:** One gram is equal to 0.0321507 troy ounces.

**Hanging wall:** The rock on the upper side of a vein or mineralisation.

**High grade:** Rich mineralisation or ore. As a verb, it refers to selective mining of the best ore in a deposit.

**Host rock:** Wall (surrounding) rock that confines the mineral occurrence zone.

**Hydrothermal:** Pertaining to or related to heated or superheated water deposition of minerals often associated with hot solutions produced by cooling magma.

**Igneous rock:** A rock formed by the solidification of magma.

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

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

**Intrusion / Intrusive:** A body of igneous rock that invades older rock. The invading rock may be a plastic solid or magma that pushes its way into the older rock.

**Leaching:** The separation, selective removal or dissolving-out of soluble constituents from a rock or ore body by the natural actions of percolating solutions.

**Magmatic:** Consisting of, relating to or of magma origin.

**Magmatism:** Emplacement of magma within and/or on the surface of crustal rocks by igneous activity. Volcanism is the surface expression of magmatism.

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

**Mine:** A mineral mining enterprise. The term is often used to refer to an underground mine.

**Mineral:** A naturally occurring homogeneous substance that has definite physical properties and chemical composition and, if formed under favourable conditions, a definite crystal form.

**Mineral Concession:** That portion of public mineral lands which a party has staked or marked out in accordance with federal or state mining laws to acquire the right to explore for and exploit the minerals under the surface.

**Mineral Deposit:** A body of mineralisation that represents a concentration of valuable metals. The limits can be defined by geological contacts or assay cut-off grade criteria.

**Mineralisation:** The processes by which minerals are introduced into a rock, resulting in a valuable or potentially valuable deposit.

**Mineral Resource:** 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. Mineral Resources are sub-divided to increase geological confidence into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource. The term mineral resource used in this report is a Canadian mining term defined by NI 43-101. Standards of Disclosure for Mineral Projects under the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the CIM), Standards on Mineral Resource and Mineral Reserves Definitions and guidelines adopted by the CIM Council on December 11, 2005, updated as of 27<sup>th</sup> November 2010, and more recently updated as of 10<sup>th</sup> May 2014 (the CIM Standards).

**NI 43-101:** National Instrument 43-101 is a national instrument for Canada's Standards of Disclosure for Mineral Projects. The Instrument is a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned by, or explored by, companies that report these results on stock exchanges within Canada. This includes foreign-owned mining entities who trade on stock exchanges overseen by the Canadian Securities Administrators (CSA), even if they only trade on Over Counter (OTC) derivatives or other instrumented securities. The NI 43-101 rules and guidelines were updated as of 30<sup>th</sup> June 2011.

**Orebody:** A natural accumulation of ore confined to a certain structural and geological element or a combination of such elements.

**Outcrop:** An exposure of rock or mineralisation can be seen on the surface that is not covered by soil or water.

**Oxidation:** A chemical reaction caused by exposure to oxygen that result in a change in the chemical composition of a mineral.

**Ounce:** A measure of weight in gold and other precious metals, correctly troy ounces, which weighs 31.2 grams as distinct from an imperial ounce which weigh 28.4 grams.

**PASMA:** Proyecto de Apoyo al Sector Minero Argentino = literally: Project of Help to the Argentinian Mining Sector.

**Porphyry deposits:** Porphyry deposits are large, low-to medium-grade deposits in which primary (hypogene) ore minerals are dominantly structurally controlled and which are spatially and genetically related to felsic to intermediate porphyritic intrusions. Their large size and structural control are distinguished from other granite-related deposits such as skarns and mantos, mainly stockworks, veinlets, vein sets, fractures, and breccias.

**Porphyritic (with porphyritic structure):** Rock that contains relatively large crystals (phenocrysts) cemented by a groundmass of smaller crystals, glassy or non-holocrystalline material.

**Qualified Person:** Conforms to that definition under NI 43-101 for an individual: (a) to be an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, related to mineral exploration or mining; (b) has at least five years' experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice; (c) to have experience relevant to the subject matter of the mineral project and the technical report; (d) is in good standing with a professional association; and (e) in the case of a professional association in a foreign jurisdiction, has a membership designation that (i) requires attainment of a position of responsibility in their profession that requires the exercise of independent judgement; and (ii) requires (A.) a favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or (B.) a recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining.

**Sampling:** The process of studying the qualitative and quantitative composition and properties of natural formations comprising a deposit.

**Sedimentary rock:** Rock formed by sedimentation of substances in water, less often from air and due to glacial actions on the land surface and within sea and ocean basins. Sedimentation can be mechanical (under the influence of gravity or environment dynamics changes), chemical (from water solutions upon their reaching saturation concentrations and as a result of exchange reactions), or biogenic (under the influence of biological activity).

**Stockwork:** A complex system of structurally controlled or randomly oriented veinlets.

**Sulphides:** A group of minerals containing sulphur and other metallic elements such as copper and zinc. Gold and silver are often associated with sulphide enrichment in mineralisation.

**Trenching:** In geological exploration, a narrow, shallow ditch cut across a mineral showing or deposits to obtain samples or to observe character.

**Vein:** Tabular geological body formed as a result of mineral substance filling a fracture or due to metasomatic replacement of rock with mineral(s) along a fracture. Unlike dykes formed primarily by magmatic rock, a vein is composed of vein and ore minerals (quartz, carbonated, sulphides etc.).

**Veinlet:** A small vein.

**Wall rocks:** Rock units on either side of a body of mineralisation forming the hanging wall and footwall rocks.

**Zone:** An area of distinct mineralisation.

## 31.0 APPENDIX 2

### 31.1 LEGAL OPINION AND CONCLUSION FINAL RELIANCE LETTER FOR THE PEÑAS NEGRAS PROJECT (2021)



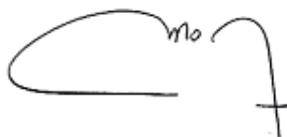
#### **"Peñas Negras" Project**

***Ref.: Due Diligence***

*San Juan, September 15, 2021*

*It is hereby notified that all mining concessions (minas and cateos) and their respective environmental reports, as well as the request for sectoral permits, in each case, that is necessary for Barton SAS to explore and operate the Peñas Negras Project, has been requested in accordance with current regulations and/or those that have not yet been managed may be requested, without our having reasonable grounds to believe that the corresponding competent authorities may not grant them.*

*Yours very truly,*



**María Carolina Soria**

## 31.2 LEGAL OPINION RELIANCE LETTER FOR THE PEÑAS NEGRAS PROJECT (2023)



San Juan, Argentina, April 13th, 2023.

To: Echelon and **M Partens**

Re: Mining Title Opinion in relation to the Peñas Negras Project.

Dear Sirs,

### I. Introduction

We have acted as special counsel in the Republic of Argentina (“Argentina”) to BARTON S.A.S. (“Barton”), a corporation organized under the laws of Argentina, in connection with the review, legal assessment of, and delivery to you of this opinion pertaining to certain mining titles held by Barton in the province of La Rioja, in Argentina (the Peñas Negras Project).

In rendering the opinions set forth hereinafter, we have taken into account the laws, decrees, resolutions and other regulations in force in Argentina as of the date of this opinion applicable to the subject matter thereof.

In rendering the opinions set forth hereinafter, we have taken into account the laws, decrees, resolutions and other regulations in force in Argentina as of the date of this opinion applicable to the subject matter thereof.

### II. Argentine Law

1. We are qualified to practice law in Argentina.

2. The opinions below are based, among other items, on our examination of the following documentation:

- (a) Certificate of Legal Status dated August 25th, 2021, with respect to each of the La Rioja Mining Titles, issued by La Rioja Director of Mining Notary, General Mining Department, copies of which are attached hereto;
- (b) Invoice acknowledging payment of mining ‘canon’ (fee). corresponding to the 1st half of 2023

### III. Legal Opinion.

In Argentina, information about the holders of mining concessions can be obtained from the Argentine Mining Information Center (C.I.M.A), but each Province has to update this information. In the case of our firm, we have never been able to access this website.

Av. Ignacio de la Roza Oeste 568. 5400 - San Juan, Argentina.  
T. 54 264 - 4225835/42111888 [csestudionovoa@yahoo.com](mailto:csestudionovoa@yahoo.com)



The Province of La Rioja, like many other provinces in the country, has no online Register of Mining Properties. Therefore, the required information on mining rights is to be obtained from the Ministry of Mining, located at 812, Pelagio B. Luna St., F5300, La Rioja City. There is a graphic record in this Office, in AutoCAD format, that is updated monthly and is available as a paid service.

Based on the considerations above and according to Argentine legislation, our opinion is as follows:

1. Barton is the owner of "Proyecto (Project) Peñas Negras". It has the exclusive right to explore and operate that Project pursuant to the Argentine Mining Code and the Code of Mining Procedures of the Province of La Rioja.
2. The six (6) exploitation concessions that are part of this Project, identified as File N° 232-B-1995 *Angela II*; File N° 234-B-1995 *Angela III*; File N° 50-B-1995 *Cristian I*; File N° 48-B-1995 *Cristian II*; File N° 47-B-1995 *Cristian III* and File N° 60-B-1996 *Ritsuko*, are legally registered in the name of Barton; they have been duly measured and have an activation-reactivation plan submitted and pending compliance, with their corresponding Environmental Impact Report (IIA) pending approval. Once the required IIA approval is granted through the corresponding Environmental Impact Assessment (D.I.A) resolution, the proposed activities can be carried out. There is no mining 'canon' pending payment to date and there are no liens, mortgages or inhibitions registered with the Mining Registry of the Province of La Rioja on any such properties.  
  
The mine exploitation concessions are granted with no time limit provided that the provisions of the Argentine Mining Code (especially Articles 216, 217 and 218, as amended) are complied with by the concession holder.
3. The three (3) exploration permits that are part of the Project, identified as File N° 21-B-2020 *Don Álvaro*; File N° 10-B-2020 *El Chiqui* and File N° 04-B-2021 *Isidoro*, are current and legally registered in Barton's name, with the

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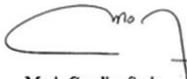


Environmental Impact Report pending approval. Canon payment is not required, and there are no liens, mortgages or inhibitions on the property registered with the Mining Registry of the Province of La Rioja.

The exploration permits are temporary and subject to concession resolutions and to compliance by the concession holder with the provisions of the Argentine Mining Code and the Code of Mining Procedures of the Province of La Rioja.

4. Although the Project is located within the areas included in the Laguna Brava Provincial Multiple-Use Reserve (a conservation area established for the preservation of natural ecosystems and archaeological sites), it is not within the reserve's intangible or buffer zones; therefore, it is possible to carry out all the mining activities necessary for the development of the Project pursuant to Resolution N° 286 from the Environmental Secretariat of the Province of La Rioja. In our opinion, all the mining rights and the corresponding approvals of environmental reports that are required for Barton to be able to explore and operate the Peñas Negras Project have been requested in accordance with current regulations and we have no reason to believe that they might be withheld by the Mining Authority.

Best Regards,



**Maria Carolina Soria**  
Partner Lawyer  
M.P. 3409

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### III. Legal Opinion.

In Argentina, information about the holders of mining concessions can be obtained from the Argentine Mining Information Center (C.I.M.A), but each Province has to update this information. In the case of our firm, we have never been able to access this website.

The Province of La Rioja, like many other provinces in the country, has no online Register of Mining Properties. Therefore, the required information on mining rights is to be obtained from the Ministry of Mining, located at 812, Pelagio B. Luna St., F5300, La Rioja City. There is a graphic record in this Office, in AutoCAD format, that is updated monthly and is available as a paid service.

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The mine exploitation concessions are granted with no time limit provided that the provisions of the Argentine Mining Code (especially Articles 216, 217 and

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218, as amended) are complied with by the concession holder.

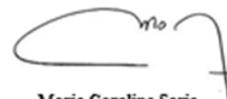
3. The three (3) exploration permits that are part of the Project, identified as File N° 21-B-2020 *Don Álvaro*; File N° 10-B-2020 *El Chiqui* and File N° 04-B-2021 *Isidoro* are current and legally registered in Barton's name, with the Environmental Impact Report pending approval. Canon payment is not required, and there are no liens, mortgages or inhibitions on the property registered with the Mining Registry of the Province of La Rioja.

The exploration permits are temporary and subject to concession resolutions and to compliance by the concession holder with the provisions of the Argentine Mining Code and the Code of Mining Procedures of the Province of La Rioja.

4. Although the Project is located within the areas included in the Laguna Brava Provincial Multiple-Use Reserve (a conservation area established for the preservation of natural ecosystems and archaeological sites), it is not within the reserve's intangible or buffer zones; therefore, it is possible to carry out all the mining activities necessary for the development of the Project pursuant to Resolution N° 286 from the Environmental Secretariat of the Province of La Rioja.

In our opinion, all the mining rights and the corresponding approvals of environmental reports that are required for Barton to be able to explore and operate the Peñas Negras Project have been requested in accordance with current regulations and we have no reason to believe that they might be withheld by the Mining Authority.

Best Regards,



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