National Instrument 43-101 Technical Report
for the Buen Retiro Copper Project

Atacama Region III
Copiapó Province and Copiapó Comuna
Chile

Report Prepared for:

Fitzroy Minerals Inc.
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Effective Date: 15 August 2024
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Qualified Person:
Scott Jobin-Bevans (P.Geo., PhD, PMP)
Principal Geoscientist
Caracle Creek Chile SpA

Project Number: 712.24.00.CH

DATE AND SIGNATURE

The Report, "National Instrument 43-101 Technical Report for the Buen Retiro Copper Project, Atacama Region III, Copiapó Province and Copiapó Comuna, Chile", originally issued 23 October 2024, amended 20 February 2025, and with an effective date of 15 August 2024, was prepared for Fitzroy Minerals Inc. by Caracle Creek Chile SpA and authored by the following:

/s/ Scott Jobin-Bevans

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Scott Jobin-Bevans (P.Geo. PGO #0183, PhD, PMP)
Managing Director and Principal Geoscientist
Caracle Creek Chile SpA

Dated: 20 February 2025

CERTIFICATE OF QUALIFIED PERSON

Scott Jobin-Bevans (P.Geo.)

I, Scott Jobin-Bevans, P.Geo., do hereby certify that:

1. I am an independent consultant and Principal Geoscientist with Caracle Creek Chile SpA and have an address at Benjamin 2935 – Ste. 302, Las Condes, Santiago, Chile.
2. I graduated from the University of Manitoba (Winnipeg, Manitoba), BSc. Geosciences (Hons) in 1995 and from the University of Western Ontario (London, Ontario), PhD. (Geology) in 2004.
3. I am a registered member, in good standing, of the Association of Professional Geoscientists of Ontario, License Number 0183 (since June 2002).
4. I have practiced my profession continuously for more than 29 years, having worked mainly in mineral exploration but also having experience in mine site geology, mineral resource and reserve estimations, preliminary economic assessments, pre-feasibility studies, due diligence, valuation and evaluation reporting. I have authored, co-authored or contributed to numerous NI 43-101 and JORC Code reports on a multitude of commodities including nickel-copper-platinum group elements, base metals, gold, silver, vanadium, rare earth element, and lithium projects in Canada, the United States, China, Central and South America, Europe, Africa, and Australia.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for all sections in the technical report titled, "National Instrument 43-101 Technical Report for the Buen Retiro Copper Project, Atacama Region III, Copiapó Province and Copiapó Comuna, Chile" (the "Technical Report"), originally issued 23 October 2024, amended 20 February 2025, and with an effective date of 15 August 2024.
7. I visited the Beun Retiro Copper Project for 2 days on the 13 and 14 August 2024.
8. I am independent of Fitzroy Minerals Inc, (the Issuer), Ptolemy Mining Limited (the Vendor), Rinaldo Trabucco Vecchiola, Sociedad Punta del Cobre S.A., and Inversiones AMP Limitada, applying all of the tests in Section 1.5 of NI 43-101 and Companion Policy 43-101CP.
9. I have had no previous connection with the Buen Retiro Copper Project, the subject of the Technical Report.
10. I have read NI 43-101, Form 43-101F1 and confirm the Technical Report has been prepared in compliance with that instrument and form.
11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed at Santiago, Chile this 20th day of February 2025.

/s/ Scott Jobin-Bevans

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Scott Jobin-Bevans (P.Geo., PhD, PMP)

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1.0 SUMMARY

1.1 Introduction

Geological consulting group Caracle Creek Chile SpA ("Caracle") was engaged by Canadian public company Fitzroy Minerals Inc. ("Fitzroy", the "Company", or the "Issuer"), to prepare an independent National Instrument 43-101 ("NI 43-101") Technical Report (the "Report") for the Buen Retiro Project ("Buen Retiro" or the "Project" or the "Property"), located in Atacama Region III, Copiapó Province, Copiapó Comuna, Chile, and held by Ptolemy Mining Limited (UK registered) through its wholly owned Chilean subsidiary Ptolemy Mining Ltda (together "Ptolemy Mining" or "PML"). The Report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1 (June 30, 2011).

The Report covers the Buen Retiro Project which includes the Manto Negro, Sierra Fritis and Buen Retiro Properties. The Manto Negro property includes the Manto Negro Mine which has seen past production, whereas the Buen Retiro is proximal to and surrounds the Manto Negro and represents brownfield to greenfield targets, and the Sierra Fritis property which is being explored as a greenfield opportunity.

1.1.1 Purpose of the Technical Report

The Technical Report has been prepared for Fitzroy Minerals Inc., a Canadian public company trading on the Toronto Stock Exchange (TSX-V: FTZ), to provide a summary of scientific and technical information and data concerning the Project, in support of the Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101.

Specifically, the Report is to be used to support the acquisition of all the issued and outstanding ordinary shares or all the assets of Ptolemy Mining Ltda (Fitzroy news releases 27 June 2024 and 30 January 2025). Ptolemy Mining is a UK registered private company.

This Report verifies the data and information related to historical and current mineral exploration on the Project and presents a report on data and information available from the Company and in the public domain.

1.1.2 Previous Technical Reports

There are no previous NI 43-101 Technical Reports prepared for the Issuer, Fitzroy Minerals Inc., regarding the Buen Retiro Project and as such this Report, originally issued 23 October 2024 and amended 20 February 2025, is the current technical report regarding the Project.

The original report was filed on SEDAR+ 8 November 2024 (Fitzroy news release 8 November 2024).

1.1.3 Effective Date

The Effective Date of the Report is 15 August 2024 ("Effective Date").

1.1.4 Qualifications of Consultants

The Report has been prepared by Dr. Scott Jobin-Bevans (the "Author" or the "Consultant"), Managing Director and Principal Geoscientist at Caracle Creek Chile SpA. Dr. Jobin-Bevans is a professional geoscientist (P.Geo., PGO #0183) with experience in geology, mineral exploration, mineral resource and reserve estimation and classification, land tenure management, metallurgical testing, mineral processing, capital and operating cost estimation, and mineral economics.

Dr. Jobin-Bevans, by virtue of his education, experience, and professional association, is a Qualified Person ("QP"), as that term is defined in NI 43-101 and specifically sections 1.5 and 5.1 of NI 43-101CP (Companion Policy). Dr. Jobin-Bevans is responsible for preparing all sections of the Report.

1.2 Personal Inspection (Site Visit)

On 13 and 14 August 2024, at the request of the Issuer, Dr. Scott Jobin-Bevans (P.Geo., PhD) completed a Personal Inspection (site visit) on the Buen Retiro Copper Project, accompanied by geologist Gilberto Schubert (Technical Advisor to Fitzroy). Access to the Project area is excellent.

The Personal Inspection of the Project was made as a requirement of NI 43-101 for the preparation of the Report and to observe general access and Property conditions, to observe copper mineralization exposed in the historical Manto Negro Copper Mine, to verify the position of prominent features associated with the Project, to review some of the diamond drill core from the 2023-2024 drilling program, and to visit the core processing facilities south of Copiapó.

The Author (QP) also examined core from five 2023-2024 drill holes BRT-DDH-003, BRT-DDH-005, BRT-DDH-006, BRT-DDH-011 and BRT-DDH-013, comparing core logs and core assay results against the observable mineralization and features in the core. The Author is satisfied with the observations and comparisons made with respect to the core, core logs, and assay results and as such determined it was not necessary to take any core samples for check assays.

Dr. Jobin-Bevans is satisfied with the quality of sampling and record keeping (database) procedures followed by the Vendor with respect to diamond drilling, DTH (Down-the-Hole or air core) drilling, and geological mapping and rock sampling.

1.3 Sources of Information

The information, conclusions, opinions, and estimates contained herein are based on:

- information available to the Author (QP) at the time of preparation of the Report;
- assumptions, conditions, and qualifications as set forth in the Report; and
- data, reports, and other information supplied by Fitzroy as well as third party/public sources.

For the purposes of the Report, the Author (QP) has relied on concession ownership information provided by Fitzroy and Ptolemy Mining. The Author has not researched legal property title or mineral rights for the Project and expresses no legal opinion as to the ownership status of the Project.

The Author was provided and reviewed the underlying agreements related to the transaction terms (*see* Section 4.4 - Transaction Terms and Agreement) and has reviewed the land tenure reporting from Terradap Chile Limitada (Aceval, 2024) who were engaged by the Issuer to provide professional land tenure services in Chile.

General information on Chile was accessed through the Chilean government website and digital data and information for Chile is available online from Servicio Nacional de Geología y Mineria (SERNAGEOMIN). An interactive database, Portal GEOMIN, is available online from SERNAGEOMIN. The mining lands system for Chile is accessed online through SERNAGEOMIN and the Catastro de Concesiones Mineras.

1.4 Reliance on other Experts

The Report has been prepared by Caracle Creek Chile SpA (Caracle) for the Issuer, Fitzroy Minerals Inc. The Author (QP) has not relied on any other report, opinion or statement of another expert who is not a qualified person, or on information provided by the Issuer concerning legal, political, environmental or tax matters relevant to the Report.

1.5 Property Description and Location

The Buen Retiro Copper Project is located about 50 km south of the City of Copiapó, about 60 km directly east from the coast, with the Pan-American Highway (Ruta 5) cutting through the Sierra Fritis concessions in the eastern part of the Property. The Project is in the Atacama Region III, Copiapó Province and Copiapó Comuna.

All known copper mineralization that is the focus of the Report is located within the boundary of the mining lands that comprise the Buen Retiro Copper Project.

The Buen Retiro Copper Project comprises a total of 71 mining concessions, covering approximately 13,738 ha and located in Atacama Region III, Copiapó Province and Copiapó Comuna. Information regarding the mining concessions has been supplied to the Author by Ptolemy Mining.

The 71 mining concessions comprise 14 Exploración 1983 (3,400 ha), 48 Explotación 1983 (10,197 ha), and 9 Explotación 1932 (141 ha) concessions (Table 4-1). Property rights associated with the 57 Explotación mining concessions are permanent and the concessions do not expire once constituted if the annual fees are paid. The 14 Exploración mining concessions are pending conversion to Explotación concessions.

In March 2025, the annual payment required to keep the 71 concessions in good standing will be approximately CLP$90-95M (approx. US$95,000-US$100,000).

1.5.1 Transaction Terms and Agreement

On 30 October 2024, Fitzroy announced that it had entered into a share exchange agreement (the “Definitive Agreement”) dated 30 October 2024 with Ptolemy Mining Limited and the shareholders of Ptolemy (the “Vendors”), pursuant to which the Company will acquire all the issued and outstanding securities of Ptolemy from the Vendors (the “Acquisition”) (Fitzroy news release 30 October 2024). Fitzroy had previously paid Ptolemy Mining an exclusivity fee of US$100,000 for 90-day exclusivity (the “Exclusivity Period”), to complete its technical, financial and legal due diligence investigations (Fitzroy news release 27 June 2024). The Company paid the Vendors an additional US$100,000 to extend the Exclusivity Period to 22 December 2024, to complete their due diligence and negotiate the Definitive Agreement (Fitzroy news release 27 September 2024).

On 28 November 2024, the Company received conditional approval from the TSX Venture Exchange to close the Acquisition, subject to satisfying several conditions, including the completion of the audit on Ptolemy’s financial statements and completion of the Company’s previously announced non-brokered private placement (Fitzroy news release 28 November 2024).

On 30 January 2025, the Company entered into an amendment to the share exchange agreement, pursuant to which the termination date was extended from 31 January 2025 to 28 February 2025.

Ptolemy Mining, a UK registered private company, that through a wholly owned subsidiary (Ptolemy Mining Ltda.), is the legal and beneficial holder of 100% of the Manto Negro, Buen Retiro and Sierra Fritis properties located in Chile. The Manto Negro and Buen Retiro concessions are held under a single option agreement, the "Buen Retiro Option" (Option 1), with vendors Sociedad Punta del Cobre S.A. ("Pucobre") and Sociedad Contractual Minera Buen Retiro ("SCMBR"). The Sierra Fritis concessions are held under a separate option agreement, the "Sierra Fritis Option" (Option 2), with vendors Rinaldo Vecchiola and Inversiones AMP Limitada ("AMP").

Ptolemy Mining, a UK registered private company, that through a wholly owned subsidiary, is the legal and beneficial holder of 100% of the Manto Negro, Buen Retiro and Sierra Fritis properties located in Chile. The Manto Negro and Buen Retiro concessions are held under a single option agreement, the "Buen Retiro Option" (Option 1), with vendors Sociedad Punta del Cobre S.A. ("Pucobre") and Sociedad Contractual Minera Buen Retiro ("SCMBR"). The Sierra Fritis concessions are held under a separate option agreement, the "Sierra Fritis Option" (Option 2), with vendors Rinaldo Vecchiola and Inversiones AMP Limitada ("AMP").

1.5.2 Surface Rights and Legal Access

The Project is contained 100% within private property held by "Hacienda Castilla", which is owned by Brazilian company the Eike Batista Group. There is an easement in favour of Pucobre that allows for access to the Manto Negro Mine area and the remainder of the Property can be accessed without issue for the purposes of mineral exploration.

At this stage of the Project, access to complete mineral exploration activities is not inhibited. Article 14 of the Chilean Mining Code (the "Code") states that any person is entitled to dig test holes and to take samples in search for mineral substances, regardless of ownership or property rights over surface lands, except in lands included within the limits of a mining concession granted to a third party, if the damage is compensated to the person that holds the rights on those surface lands. Moreover, Article 15 of the Code set forth that test holes may be freely dug in and samples taken from open and uncultivated land, regardless of the current holder or owner of the surface land.

1.5.3 Community Consultation

There is no need for any community consultation within the Project and area.

1.5.4 Environmental Studies and Liabilities

The Author is not aware of any environmental liabilities associated with the Project. The Author is unable to comment on any remediation which may have been undertaken by previous companies and is not aware of any environmental liabilities associated with the Projects. For all exploration work in Chile, any disturbance done to the land must be remediated.

1.5.5 Current Permits and Work Status

Permits for basic exploration are not required in Chile and at this stage of exploration there is no requirement to hold an exploration permit. Ptolemy Mining has submitted to SERNAGEOMIN their "Formulario de Inicio de Actividades de Exploración", which informs the ministry that the company is undertaking exploration work in the area (required when there are less than 40 drill platforms).

The Buen Retiro Project is an active mineral exploration project with the most recent diamond drilling program ending in May 2024.

1.5.6 Royalties and Obligations

Under the terms of the two option agreements held by Ptolemy Mining Ltda, the Manto Negro / Buen Retiro concessions and the Sierra Fritis concessions are all subject to a NSR royalty.

The Manto Negro / Buen Retiro Option contains provisions regulating a 1.0% NSR royalty that will be granted to each of SCMBR and Pucobre on future production from the Project Concessions (regardless of whether they were owned by Pucobre or SCMBR prior to the exercise of the Option or not). Notwithstanding the foregoing, the Option contains an option for the Subsidiary to buy-back a 0.5% NSR from each of the vendors at a price of US$2,500,000 (the Buy-Back Option). This Buy-Back Option may be exercised by the Subsidiary at any time as from the Option Exercise Date until the beginning of commercial production on any of the Project Concessions.

The Sierra Fritis Option contains provisions regulating a 2.0% NSR royalty that will be granted to AMP on future production from the mining concessions. Notwithstanding the foregoing, the Option contains an option for the Subsidiary to buy-back 1.0% NSR from AMP at a price of US$5,000,000 (the Buy-Back Option). This Buy-Back Option may be exercised by the Subsidiary at any time as from the Option Exercise Date until the beginning of commercial production on the Project Concessions.

In addition, Mr. Merlin Marr-Johnson, the President and Chief Executive Officer of the Company, owns performance rights convertible upon a triggering event into approximately 6% of the outstanding shares of Ptolemy Mining (Fitzroy news release 27 June 2024).

1.5.7 Other Significant Factors and Risks

As of the Effective Date of the Report, the Author is not aware of any significant factors that may affect access, title, or the right or ability to perform the proposed work program on the concessions that comprise the Buen Retiro Project.

1.6 Property Access and Operating Season

The Buen Retiro Copper Project is in the Atacama Region, Region III of northern Chile, about 50 km south-southwest of the mining City of Copiapó and about 83 km north-northeast of the City of Vallenar. The Project area can be accessed by the Chile roads C-999 in the north and the C-408 in the south, with both regional roads running west from Ruta 5 (Panamericana Norte), a well-maintained multi-lane national highway.

The Project area encompasses ample space to support any future mining operations and currently encompasses the past producing (2005-2009) Manto Negro Mine which was an open pit operation.

The relatively low elevation and favourable climate allows for most exploration work (geological mapping, surface sampling, drilling and geophysical surveys) to be completed year-round.

1.7 History

One of the more significant precious metal and copper producing belts in Chile, the region around the Buen Retiro Copper Project offers an opportunity for the discovery of shallow- (<200 m) and medium-depth (<400 m) copper-rich deposits (*i.e.*, Iron Oxide Copper Gold ("IOCG"), and/or Iron Oxide Apatite ("IOA") and/or Manto-Style), and even deeper porphyry copper-gold deposits.

A summary of known historical exploration work completed within or near the boundaries of the Buen Retiro Copper Project prior to 2023 is provided in Table 1-1 and exploration work done by the Vendor in 2023-2024 is provided in Table 1-2.

1.7.1 Prior Ownership and Ownership Changes

The earliest ownership of at least part of the current Property can be traced to 1911 when Hochschild staked the first concessions in what is now the Manto Negro Property. In 1938 and 1953, new concessions were added by Hochschild in the area. In 1963, CORFO staked what was the referred to as the Sierra Fritis concession which covered what was viewed as an important aeromagnetic anomaly.

On an unknown date, Hochschild Mining, under Empresa Minera de Mantos Blancos ("EMABLOS"), completed exploration work on the Manto Negro Property, including short drill holes in what would later become the Manto Negro mine. In 2004-2005, Alejandro Moreno and CORFO optioned the Buen Retiro and Sierra Fritis properties to Teck and JOGMEC under the CCJV Option.

Soon after the end of the CCJV option CORFO auctioned off the Sierra Fritis Property which was awarded to Alejandro Moreno.

During the 2000s, Sociedad Punta Del Cobre S.A. (Pucobre) acquired the Manto Negro Property concessions from Hochschild and completed exploration work including a mineral resource estimation. In 2005, Pucobre was granted a licence to exploit the Manto Negro Deposit by open pit method; production was carried out from 2005 to 2009.

In 2021, SCMBR spun out the Sierra Fritis Property to Inversiones Limitada (AMP).

In 2023, Ptolemy Mining Limited (the Project Vendor) signed the Buen Retiro Option Agreement with Pucobre (Manto Negro Property) and SCMBR (Buen Retiro Property). Also in 2023, Ptolemy Mining Limited signed the Sierra Fritis Option Agreement with AMP.

Ptolemy Mining Limited is a UK registered private company that, through a wholly owned subsidiary (Ptolemy Mining Ltda), is the legal and beneficial holder of the Manto Negro, Buen Retiro and Sierra Fritis properties located in Chile. The Manto Negro and Buen Retiro concessions are held under a single option agreement, the Buen Retiro Option ("Option 1"). The Sierra Fritis concessions are held under a separate option agreement, the Sierra Fritis Option ("Option 2").

On 28 November 2024, the Company received conditional approval from the TSX Venture Exchange to close the Acquisition, subject to satisfying several conditions, including the completion of the audit on Ptolemy's financial statements and completion of the Company's previously announced non-brokered private placement (Fitzroy news release 28 November 2024).

On 30 January 2025, the Company entered into an amendment to the share exchange agreement, pursuant to which the termination date was extended from 31 January 2025 to 28 February 2025 (*see* Section 4.4 – Transaction Terms and Agreement).

1.7.2 Historical Exploration Work (Prior to 2023)

Exploration work in the Buen Retiro Project can be traced back to 1961 when CORFO completed an airborne magnetic survey in the region and in 1963 staked the "Sierra Fritis" property. A summary of known historical exploration work completed prior to 2023, within or near the boundaries of the current Buen Retiro Copper Project, is provided in Table 1-1.

1.7.3 Historical Mineral Processing and Metallurgical Testing

There are no reliable records of historical mineral processing and metallurgical testing related to mineralization within the boundaries of the Project. At site there are abandoned remains of an abandoned Cu-cement reduction process plant (Ortuzar), of which there are no records and no information.

1.7.4 Historical Mineral Resource Estimates

The Author is not aware of any historical mineral resource estimates within the Buen Retiro Project. The Manto Negro Deposit was mined between 2005 and 2009 and there are no stated mineral resources (or reserves) remaining.

1.7.5 Historical Production

In January 2005, NCL Ingeniería y Construcción S.A. prepared a conceptual study for Pucobre which examined the feasibility for the mining of the Manto Negro Deposit with a plan to truck the mined ore to Pucobre's Biocobre SX-EW plant located 70 km by road near Copiapó (NCL, 2005). The mining plan called for production of 500,000 tpm (open pit) and applying a 5% mining dilution calculated that the open pit held approximately 1.065 Mt at 2.17% Cu(T) or 1.80% Cu(S). Pucobre acted on this economic report and put the Manto Negro Mine into production in 2005, producing from an open pit operation through 2009 (Table 1-2).

Table 1-1. Summary of known historical exploration work completed at the Buen Retiro Copper Project (2004-2015).

Year	Period	Category	Company/Operator	Contractor	Property	Description	Comments	Datum	Reference
2004-2005	-	Geological Mapping	Teck Cominco / JOGMEC	JOGMEC Geologist	Sierra Fritis and Buen Retiro	1:50 000 scale; lithology and alteration			Teck Cominco (2006)
2004-2005	-	Geochemical Rock Sampling	Teck Cominco / JOGMEC	JOGMEC Geologist		24 rock samples - Sierra de Fritis and Castilla mine areas			Teck Cominco (2006)
2005	May-June	Geophysics	Teck Cominco / JOGMEC	Quantec Geoscience Chile Ltda		IP-Resistivity gradient array survey; 15 lines; 186.3 line-km		PSAD56 19S	Teck Cominco (2006)
2005	September	Geophysics	Teck Cominco / JOGMEC	Quantec Geoscience Chile Ltda		IP (pole-dipole)-Res survey; 3 lines		PSAD56 19S	Teck Cominco (2006)
2005	December	Geophysics	Teck Cominco / JOGMEC	Quantec Geoscience Chile Ltda		regional gravity survey (ground); 180 stations/300 km^2	interpretation by Teck Cominco	PSAD56 19S	Teck Cominco (2006)
2004-2005	H2 2005	Drilling - Reverse Circulation	Teck Cominco / JOGMEC	JOGMEC Geologist		10 RC holes (LAR series); total 2,845 m; tested Cu-oxide zone	CCJV - Teck concessions and 2 option agreements (CORFO - Sierra Fritis and Alejandro Moreno)	PSAD56 19S	Teck Cominco (2006)
?	uncertain	Drilling - DTH (air core)	Sociedad Punta del Cobre S.A.		Manto Negro	MN-series: 116 holes; 11,939 m	tested Cu-oxide zone		
?	uncertain	Drilling - DTH (air core)	Sociedad Punta del Cobre S.A.		Manto Negro	MNE-series: 19 DTH holes (NCL, 2005); total 2,887.8 m	tested Cu-oxide zone		
?	uncertain	Drilling - DTH (air core)	Sociedad Punta del Cobre S.A.		Manto Negro	MNP-series: 2 DTH holes (NCL, 2005); total 230.9 m	tested Cu-oxide zone		
2004	uncertain	Drilling - diamond	Sociedad Punta del Cobre S.A.		Manto Negro	DDH-series: 15 diamond drill holes (NCL, 2005); total 1,607.6 m	tested Cu-oxide zone within future open pit		
?	uncertain	Drilling - Reverse Circulation	Hochschild		Manto Negro	R-series: 25 RC holes (NCL, 2005); total 3,130.7 m			
2004	February	Geological Mapping	Sociedad Punta del Cobre S.A.		Manto Negro	geological mapping and data compilation over the Manto Negro area	Based on Hochschild Work		Pucobre (2004)
2004	February	Trenching	Sociedad Punta del Cobre S.A.		Manto Negro	T-series			
2004	April	Geophysics	Sociedad Punta del Cobre S.A.	Geodatos Geofísica de Avanzada	Manto Negro	radiometrics			
2004	April	Geophysics	Sociedad Punta del Cobre S.A.	Geodatos Geofísica de Avanzada	Manto Negro	magnetics			
2005	January	PEA Study	Sociedad Punta del Cobre S.A.	NCL Ingenieria y Construccion S.A.	Manto Negro	conceptual economic study for open pit operation	positive study		NCL (2005)
2005	January	Geophysics	Sociedad Punta del Cobre S.A.	Geodatos Geofísica de Avanzada	Manto Negro	transient electromagnetics (TEM); old Ortuzar Plant sector			
2006	March	Geophysics	Sociedad Punta del Cobre S.A.	Argali Geofísica E.I.R.L.	Manto Negro	magnetics; southwest sector		PSAD56 19S	
2007	November	Geophysics	Sociedad Punta del Cobre S.A.	KMS Borya	Manto Negro	IP (dipole-dipole)/Resistivity; north of mine		WGS84/PSAD56	
2008		Geophysics	SCMBR	Maping Ltda	Sierra Fritis and Buen Retiro				
2009-2010		Drilling - diamond	SCMBR	Vecchiola S.A.	Sierra Fritis	P-series: 2 diamond drill holes (P-1/P-2); total 670.6 m	Cubelli (2010); Penoles assays core		Cubelli (2010) see also Acevedo (2012)
2008		Petrography	Minera Peñoles Chile	Minera Peñoles de Chile (2010 report)			Cubelli (2010)		Cubelli (2010)
2010	November	Field Review	Minera Peñoles Chile	Minera Peñoles de Chile (2010 report)					Cubelli (2010)
2011	August	Geophysics	CGX Castilla Generacion S.A.	Argali Geofísica E.I.R.L.		ground magnetics; 2x2 km grid for 82 line-km; 3D Mag-Inversion		PSAD56 19S	Jordan (2011a)
2011	September-October	Geophysics	Minera Sierra Fritis (Mineria Activa)	Argali Geofísica E.I.R.L.		ground magnetics; ~10x27 km grid for 1,982 line-km; 3D Mag-Inversion		PSAD56 19S	Jordan (2011b)
2011-2012	December-May	Drilling - diamond	Mineria Activa	Expert Drillings		SF-series: 3 diamond drill holes (SF-01B, 02, 03); total 1,945.95 m	hole SF-01 abandoned (249.5 m)		Mineria Activa (2012) Acevedo (2012)
2011	June	Drilling - Reverse Circulation	Sociedad Punta del Cobre S.A.	Pucobre	Buen Retiro	AR11-series: 23 RC holes; total 3,029 m	tested Cu-oxide zone south of the Manto Negro pit		Pucobre (2011)
2011	September	Field Program	Mineria Activa	Mineria Activa	Sierra Fritis	review of work done from September 2011 to May 2012			Acevedo (2012)
2015	February	Geophysics	SCMBR	Maping Ltda.	Buen Retiro	IP-Resistivity; 1 line 4.3 km long			Perez (2015)

Table 1-2. Summary of open pit Cu-oxide production from the Manto Negro Copper Mine (Pucobre).

Year	Mined (t)	Cu(S) Oxide Grade (%)
2005	122,734	0.95
2006	310,758	1.4
2007	301,499	0.91
2008	309,667	1.16
2009	267,209	1.38
Totals:	**1,311,867**	**1.19**

1.7.6 Historical Exploration Work (2023-2024)

Since 2023, Ptolemy Technical Services SpA ("PTSS") has completed geophysical surveys (gravity, IP/Resistivity), aero photogrammetric and topographic survey, diamond drilling, research studies (field visit), and petrographic and lithological studies (Table 1-3). Work completed to date by the Vendor is of sufficient quality with sampling and mapping techniques, along with Quality Assurance / Quality Control ("QA/QC") procedures being completed to industry standard and sufficient for the purposes of the Report.

Table 1-3. Summary of exploration work completed by Ptolemy Mining Limited (2023-2024).

Year	Period	Category	Company/Operator	Contractor	Property	Description	Datum	Reference
2023	November	Geophysics	Ptolemy Technical Services	Geodatos Geofísica de Avanzada	Sierra Fritis	gravity; 3.3 x 3.5 km2; 178 stations every 100 m (8 lines)	PSAD56 19S	Geodatos (2023)
2023	August-October	Geophysics	Ptolemy Technical Services	Argali Geofísica E.I.R.L.	Sierra Fritis	92.05 line-km IP (pole-dipole)/Resistivity; 380 line-km detailed ground magnetics; 3D inversion	WGS84 Z19S	Jordan (2023)
2023	July	Remote Sensing	Ptolemy Technical Services	APEX	All	aero photogrammetric and topographic survey; VTOL UAV (6cm/pixel)	WGS84 Z19S	Schubert (2024c)
2023-2024	November-March	Drilling - diamond	Ptolemy Technical Services	Blackrock Drilling	All	BRT-DDH001 to 014A (NQ Size); 3,906.4 m and 3,430 samples	WGS84 Z19S	Schubert (2024a)
2024	March	Tech Report	Ptolemy Mining Limited	Irene del Real Contreras	All	field visit (8-9 March 2024)	WGS84 Z19S	del Real (2024)
2024	April-July	Petrography	Ptolemy Technical Services	Balmin Ltda. (Gloria Balmaceda)	All	petrographic and lithological descriptions	-	Balmin (2024)

1.8 Geological Setting and Mineralization

The Buen Retiro Project is in the Atacama Region of north-central Chile and is within the extensive Andean metallogenic iron belt, often referred to as the Chilean Iron Belt ("CIB") or the Coastal IOCG Belt. The CIB extends from immediately north of the capital City of Santiago through northern Chile, just south of Antofagasta and then continues northward from the southern border of Peru and into the Lima area, a total length of about 2,000 kilometres (Sillitoe, 2003).

The CIB hosts several significant mineral deposits that range from iron oxide-apatite (IOA), IOCG to Manto-type copper deposits. Within the CIB, the Atacama Region is one of the best endowed areas with significant IOA deposits such as Los Colorados or Algarrobo and the Candelaria-Punta del Cobre district, the largest IOCG district of the belt, together with the Mantoverde IOCG/Manto deposit (del Real, 2024; *e.g.*, Sillitoe, 2003).

Within the CIB, the Buen Retiro Project is located about 60 km north-northeast from the Los Colorados deposit, about 43 km south-southwest from the Candelaria-Punta del Cobre district, and about 143 km south from the Mantoverde deposit.

IOCG deposits from the Andean belt formed between the Late Jurassic to mid Cretaceous (163-100 Ma), a period characterized by two cycles of volcanic arc magmatism with roughly north-south orientation along the present-day Coastal Cordillera and a back-arc basin to the east of the arc (del Real, 2024).

Mineralization in the Buen Retiro Project is hosted within the volcanic rocks from the second cycle of arc magmatism and basin formation, the arc volcanic rocks correspond to the Punta del Cobre Formation and Bandurrias Group, where the first underlies the marine sedimentary formations of the Chañarcillo Group, whereas the rocks of the second interfinger with the marine basin (Segerstrom and Ruiz, 1962; Marschik and Fontboté, 2001) (del Real, 2024).

1.8.1 Regional Structure

Both IOCG and IOA deposits formed along the margin are associated in space and time with the development of the Atacama Fault System; a continental-scale, trench parallel series of interconnected, dominantly strike-slip faults located along the Coastal Cordillera that can be traced for more than 1,000 km (Arabasz, 1971). A complex kinematic evolution has been documented in the Atacama Fault System consisting of ductile strike-slip and sinistral-slip deformation during the Early Cretaceous evolving to a brittle sinistral strike-slip deformation during the mid-Cretaceous (Scheuber *et al.*, 1995; Dallmeyer *et al.*, 1996; Scheuber and Gonzalez, 1999; Grocott and Taylor, 2002) (del Real, 2024).

1.8.2 Property Geology

The area that hosts the Buen Retiro Project is predominantly covered by alluvial gravels with a thickness between 50 and 120 m (Minería Activa, 2012), and several outcrops with volcanic rocks from the Punta del Cobre Formation that interfinger with sedimentary rocks from the Chañarcillo Group. These lithologies are intruded by Lower Cretaceous granitoids which correspond to the Barros Luco diorite (130-120 Ma, Blanco *et al.*, 2003) towards the north and the Sierra Atacama Monzodiorite (116 - 106 Ma, Blanco *et al.*, 2003) towards the east. The geology of the Project has been mostly defined by previous drilling in the Sierra Fritis area and Manto Negro and Buen Retiro properties, as well as the geological characterization of the Manto Negro Deposit (del Real, 2024).

The main geological units that underly the Buen Retiro Project are the Punta del Cobre Formation (Lower Cretaceous), the primary target lithology, magmatic breccias which have been described both in recent drill core in the Manto Negro Deposit and by diamond drilling in the Sierra Fritis area, fine- to medium-grained dacite porphyry, characterized by plagioclase and amphibole phenocrysts and can present quartz eyes, and hypabyssal diorite intrusive that forms tabular bodies with a north-northeast and north-northwest orientation.

1.8.3 Property Alteration and Mineralization

The Buen Retiro Project, which includes the Manto Negro Copper Deposit that was operated by Pucobre from 2005-2009, the Buen Retiro Property which surrounds the Manto Negro Property, and the Sierra Fritis Property which surrounds both the Buen Retiro and Manto Negro properties. Evidence of alteration and mineralization in the Project, both in the Manto Negro Deposit and the surroundings, display characteristics typical of an IOCG – IOA district (del Real, 2024).

An early Na-Ca district scale alteration characterized by albite and epidote was recognized in previous surface mapping work carried out by Teck Cominco (Teck Cominco, 2005) and in drill core from Sierra Fritis. Sodic-Ca alteration is overprinted by magnetite/specularite alteration; this alteration is widely documented in previous technical reports on the Project, and it is the main alteration observed in the Manto Negro Deposit. Drill core from Sierra Fritis (Minería Activa, 2012) and surface mapping done by Teck Cominco document magnetite alteration in paragenesis with actinolite and with K-feldspar-biotite and minor sulphides that would form part of an Ca-Fe and K-Fe alteration assemblage respectively. Drill core just north from the Manto Negro Deposit (drill hole BRT-DDH-003) intercepted volcanic rocks from the Punta del Cobre Formation with a distinctive hematite-biotite alteration and K-feldspar veining and selective alteration with sulphide mineralization. Overprinting these alterations chlorite and epidote have been documented, especially in volcanic rocks where they replace mafic minerals.

Hypogene alteration in the Manto Negro Deposit is characterized by an early silicification of the host rocks in some areas with albite, that is overprinted by quartz-magnetite veins and breccias and later specular hematite, magnetite and mushketovite (magnetite pseudomorphs after hematite) contained in veins and/or breccias with a predominant north-south orientation or disseminated in the host rock. Although the deposit is strongly affected by supergene alteration, it is possible to interpret that some of the magnetite veins also contained K-feldspar which is now altered to sericite. A chlorite-epidote alteration overprints previous hypogene alterations. Supergene alteration in the Manto Negro Deposit is characterized by limonite, such as iron oxides (hematite and goethite after magnetite and sulphides evidenced by boxwork) or jarosite. Sericite alteration is intense throughout the mine, mainly altering plagioclase and K-feldspar. Minor illite was recognized in drill core from the mine altering plagioclase.

Supergene alteration is more intense in the southern half of the Manto Negro open pit associated with stronger fracturing and faulting compared to the northern segment of the pit (del Real, 2024).

1.9 Deposit Types

There are two deposit types being explored for within the Buen Retiro Copper Project: (1) Andean Iron Oxide Copper-Gold (IOCG) vein systems and (2) deeper-larger porphyry copper deposits (“PCD”).

The Andean IOCG deposit types in the Coastal Cordillera of northern Chile comprise iron oxide copper-gold (sensu stricto), iron oxide-apatite (IOA), and stratabound/replacement Cu(-Ag) deposits, also known as Manto-type Cu(-Ag) deposits (Barra *et al.*, 2017). IOCG and Manto-type deposits constitute the second most important source of copper in Chile after porphyry Cu-Mo systems, whereas IOA deposits are an important source of iron.

IOCG type deposits within the Coastal Cordillera of northern Chile appear to have a strong spatial and temporal relationship with the Atacama Fault System (“AFS”). Defined primarily by their elevated hydrothermal magnetite and/or specular hematite contents, accompanied by chalcopyrite ± bornite and by-product gold, IOCG type deposits constitute a broad, imprecisely defined deposit type that is related to a variety of tectono-magmatic settings. The youngest IOCG belt is in the Coastal Cordillera of northern Chile and southern Peru, where it is part of a volcano-plutonic arc of Jurassic through Early Cretaceous age and closely associated with Mesozoic batholiths and major arc-parallel fault systems (Sillitoe, 2003).

Mineralized systems associated with PCDs commonly include polymetallic skarn, carbonate replacement and stratabound (*i.e.*, Manto-style copper), sediment-hosted gold silver, and high-, intermediate-, and low-sulfidation epithermal silver-gold-base metal deposit types (Sillitoe and Perello, 2005; Sillitoe, 2010).

Porphyry Copper Deposits are typically hosted by intermediate to felsic intrusives, with porphyritic textures and often associated with multiple intrusive events that form composite intrusion centres (Seedorff *et al.*, 2005). A commonly occurring alteration zoning exists in PCDs with potassic alteration (K-feldspar-biotite) at the core, followed by sericitic alteration (muscovite/sericite ± chlorite), and finally clay dominant alteration assemblages distal from the intrusive centre (Seedorff *et al.*, 2005). Mineralization is most commonly vein-hosted and include sulphide-rich veins (*i.e.*, copper sulphides) associated with potassic alteration and pyritic veins with sericite halos; veins may also form stockworks (Seedorff *et al.*, 2005). Ancillary minerals in PCDs which can be of potential economic importance include gold, molybdenum, tungsten, and tin.

1.10 Exploration

The Issuer, Fitzroy Minerals Inc., has not conducted any exploration work on the Project. All work reported herein is historical in nature and has been completed by previous operators (pre-2023) and by the Vendor (2023-2024) through its subsidiary Ptolemy Technical Services SpA (PTSS).

1.11 Drilling

The Issuer, Fitzroy Minerals Inc., has not conducted any drilling on the Project. All drilling reported herein has been completed by the Vendor through its subsidiary Ptolemy Technical Services SpA (PTSS) and is therefore considered historical drilling.

In 2023 and 2024, two programs of drilling were completed on the Property by PML, overseen by its subsidiary PTSS, both based in Chile: (1) Diamond Drilling on the Buen Retiro and Sierra Fritis concessions (5,423.70 m in 15 holes) and (2) Down-the-Hole (DTH) air core drilling on a set grid in the area around diamond drill hole BRT-DDH003 (585.28 m in 43 holes).

Between November 2023 and May 2024, PTSS completed 15 NQ-size diamond drill holes (BRT-series) totalling 4,555.20 m on the Buen Retiro Property and two scout holes on the Sierra Fritis Property (SFR-series) totalling 868.50 metres. A total of 5,423.70 m was drilled, 5,173.70 m was recovered and geo-logged and 4,764.70 m of half core samples were collected.

1.12 Sample Preparation, Analysis and Security

The Issuer, Fitzroy Minerals Inc., has not conducted any sampling or exploration work on the Project. All work reported herein was completed by the Vendor (PML) through its subsidiary Ptolemy Technical Services SpA (PTSS). This section reviews all known sample preparation, analysis and security as it relates to historical exploration work completed on the Project by the Vendor (PML).

Mr. Gilberto Schubert (P.Geo.), a Qualified Person as defined by NI 43-101, was responsible for the exploration programs implemented by the PML, including QA/QC. The Company has developed procedure manuals for overall operations (rock sampling, core sampling, DTH chip sampling, core storage, QA/QC, analytical techniques, and geological mapping), core sampling (PPE, core measuring, sampling, geotechnical (Recovery, RQD), logging and photography), drill hole surveys, and drill rig safety and clean up; these procedural manuals have been reviewed by the Author.

It is the Author's opinion that the procedures, policies and protocols followed for diamond drilling (core samples), air core drilling (chip samples) are sufficient and appropriate, and that the sampling procedures, sample handling, and assaying methods used, to the extent that they are known, are consistent with good exploration and operational practices such that the data is reliable for the purpose of the Report.

1.13 Data Verification

The Author (QP) has reviewed historical and current data and information regarding past and current exploration work on the Property, and as provided by the Issuer Fitzroy Minerals, the target company PML, and that available in the public domain. The Author has no reason to doubt the adequacy of historical sample preparation, security and analytical procedures as presented, and have confidence in the historical information and data and its use for the purposes of the Report.

The Author has independently reviewed the status of the mining concessions held by the Vendor through the Government of Chile's online system (Catastro Minero) which is administered by SERNAGEOMIN.

Dr. Scott Jobin-Bevans (P.Geo., PhD), QP for the Report visited the Property on 13 and 14 August 2024. The 13 August was spent at the Manto Negro Mine and area whereas the 14 August was spent reviewing drill core intersections against assay results along with a review of the QA/QC procedures and the core preparation facilities south of Copiapó. The Author was accompanied by Gilberto Schubert (Technical Advisor, Fitzroy Minerals) and two Company Geologists (Felipe Fuenzalida and Ricardo Lobos).

The Author confirmed the presence of copper oxide mineralization, and the general geology as described by previous operators, PML, and Fitzroy Minerals.

1.14 Mineral Processing and Metallurgical Testing

There has been no historical or current mineral processing or metallurgical test work on material from the Property.

1.15 Mineral Resource Estimates

There are no historical or current mineral resources estimates on the Property.

1.16 Adjacent properties

The Author (QP) is not aware of any adjacent properties which have an important bearing on the potential of the Buen Retiro Copper Project.

1.17 Other Relevant Data and Information

The Author (QP) is not aware of any additional information or explanations necessary to make the Report understandable and not misleading.

1.18 Interpretation and Conclusions

The objective of the Report was to prepare an independent NI 43-101 Technical Report, capturing historical and current information and data available about the Buen Retiro Copper Project, providing interpretation and conclusions, and making recommendations for future work.

The Buen Retiro Copper Project is located about 50 km south of the City of Copiapó, about 60 km directly east from the coast, with the Pan-American Highway (Ruta 5) cutting through the Sierra Fritis concessions in the eastern part of the Property. The Project is in the Atacama Region III, Copiapó Province and Copiapó Comuna.

The Buen Retiro Project is in the Atacama Region of north-central Chile and is within the extensive Andean metallogenic iron belt, often referred to as the Chilean Iron Belt ("CIB") or the Coastal IOCG Belt. The CIB extends from immediately north of the capital City of Santiago through northern Chile, just south of Antofagasta and then continues northward from the southern border of Peru and into the Lima area, a total length of about 2,000 kilometres (Sillitoe, 2003).

The CIB hosts several significant mineral deposits that range from iron oxide-apatite (IOA), IOCG to Manto-type copper deposits. Within the CIB, the Atacama Region is one of the best endowed areas with significant IOA deposits such as Los Colorados or Algarrobo and the Candelaria-Punta del Cobre district, the largest IOCG district of the belt, together with the Mantoverde IOCG/Manto deposit (del Real, 2024; *e.g.*, Sillitoe, 2003).

One of the more significant precious metal and copper producing belts in Chile, the region around the Buen Retiro Copper Project offers an opportunity for the discovery of shallow copper-rich deposits and deeper porphyry copper deposits.

The earliest ownership of at least part of the current Property can be traced to 1911 when Hochschild staked the first concessions in what is now the Manto Negro property. In 1938 and 1953, new concessions were added by Hochschild in the area. In 1963, CORFO staked what was the referred to as the Sierra Fritis concession which covered what was viewed as an important aeromagnetic anomaly.

Since that time, the Project and immediate area has seen geological mapping and rock sampling (2004-2005), geophysics (2005), and reverse circulation drilling (2004-2005) by Teck Cominco and JOGMEC, geological mapping (2004), diamond drilling and reverse circulation drilling (2003-2004), trenching (2004), geophysics (2004-2008), and a PEA study (2005).

Post production in 2009, additional exploration work included geophysics (2011), diamond drilling (2011-2012), reverse circulation drilling (2011), and geophysics (2015).

In January 2005, NCL Ingeniería y Construcción S.A. prepared a conceptual study for Pucobre which examined the feasibility for the mining of the Manto Negro Deposit with a plan to truck the mined ore to Pucobre's Biocobre SX-EW plant located 70 km by road near Copiapó (NCL, 2005). The economic study considered both open pit and underground extraction models but determined that an open pit mining scenario was much more favourable than underground.

The mining plan called for production of 500,000 tpm and applying a 5% mining dilution calculated that the open pit held approximately 1.065 Mt at 2.17% Cu(T) or 1.80% Cu(S). Pucobre acted on this economic report and put the Manto Negro Mine into production in 2005, producing from an open pit operation through 2009 that totalled 1,311,867 tonnes mined at 1.19% Cu(S) (copper oxide).

1.18.1 Exploration Potential

The geological characteristics described for the Buen Retiro Project together with its geographic location within the Chilean Iron Belt make the Project an interesting prospect for further IOCG and IOA exploration. The Project shows characteristics typical of IOCG-rich districts, which can be divided into (del Real, 2024):

1. Hydrothermal alteration paragenesis represented by early Na-Ca alteration overprinted by biotite-K-feldspar-magnetite/hematite alteration associated with sulphide mineralization and later chlorite-epidote alteration;
2. Favorable host rocks, where alteration and mineralization in the Project is hosted in the Punta del Cobre Formation (volcanic-volcanic sedimentary), one of the main hosts for IOCG mineralization in the region including the Candelaria Mine (Lundin Mining);
3. Associated magmatism with the main intrusions in the Project being the Barros Luco diorite and the Sierra de Atacama diorite; both intrusive units have ages and a composition associated with IOCG mineralization in the region, suggesting that these intrusions could be the fluid source for mineralization within the Project and area; and
4. Favorable structural control where ground magnetics geophysics carried out over the Property show a strong north-northeast structural control in the area which is host to the Manto Negro Copper Deposit. Deformation with the north-northeast orientation hosts significant IOCG and IOA mineralization in the region (*e.g.*, Filipina-Astillas and Los Colorados deposits), and north-south to north-northeast faulting in the region is associated with the Atacama Fault System which hosts IOCG- and IOA-type deposits.

The Project is also located just west of other IOCG and IOA deposits, such as the San Marcos IOCG skarn (13 km east of Buen Retiro) and the Bandurrias IOA deposit (15 km east of Buen Retiro).

1.18.2 Risks and Uncertainties

Risks and uncertainties which may reasonably affect reliability or confidence in future work on the Property relate mainly to the reproducibility of exploration results (*i.e.*, exploration risk) in a future production environment. Exploration risk is inherently high, and in the case of Buen Retiro, the exploration for IOCG and porphyry copper-gold deposits and related mineralization is mitigated by applying the latest surface sampling techniques, geophysical surveys and targeted and efficient drilling programs aimed at developing high-confidence targets.

The Author is not aware of any other significant risks or uncertainties that would impact the Issuer’s ability to perform the recommended work program (*see* Section 26.0 - Recommendations) or other future exploration work programs on the Property.

1.18.3 Conclusions

Based on the Property’s favourable location within the prolific Chilean Iron Belt and the exploration potential for copper-gold mineralization associated with IOCG- or PCD-type deposits, the Property presents an excellent opportunity for the exploration and discovery of a copper and copper-gold deposits.

Characteristics and potential of the Buen Retiro Project are of sufficient merit to justify additional exploration work including surface sampling and drilling programs.

1.19 Recommendations

It is the opinion of the Author (QP) that the geological setting and character of the copper mineralization discovered to date on the Buen Retiro Copper Project is of sufficient merit to justify additional exploration and development expenditures. A recommended work program, arising through the preparation of the Report and consultation with Fitzroy Minerals Inc., is provided below.

The Project has seen a significant mount of work within the area around the Manto Negro Mine and Bueno Retiro concessions (geological mapping, geophysical surveys, rock sampling, and diamond and DTH drilling) but there is considerable opportunity for exploration and discovery within the larger area covered by the Sierra Fritis concessions.

The Author recommends a two-phase program with Phase 2 contingent on the success (results) of Phase 1 (Table 1-4). The Phase 1 component is proposed to include data compilation and review, 2D and 3D modelling and targeting, and 2,441 m of diamond drilling targeting high priority targets (approx. C$1.1M). Contingent on the results of Phase 1, Phase 2 (approx. C$2.7M) is proposed to include updated modelling and targeting, followed by 6,481 m of diamond drilling, designed to test any new targets, but also previously developed targets based on geophysical, geochemical, and geological exploration work (Table 1-4).

The Phase 1 exploration program should be able to be completed within a 12-month period. The approximate annual cost to renew the concessions has also been included in the Phase 1 budget.

Table 1-4. Budget estimate, recommended Phase 1 & Phase 2 exploration programs, Buen Retiro Copper Project, Chile.

Item	Description	Unit	No. Units	US$/Unit	C$/Unit	Amount (C$)
Phase 1						
Data and Information Compilation/Review	review of all data and information	hr	32	$160	$216	$6,912
Modelling (2D/3D) and Targeting	drill hole targeting/planning	hr	40	$200	$270	$10,800
Diamond Drilling - priority targets	2,400 m (NQ); all-in costs	m	2,441	$185	$250	$609,640
Assays (multi-element and Au) - drill core	about 85% of total metres sampled (per metre)	ea.	2,075	$35	$47	$98,037
QA/QC	CRMs and duplicates (10% of primary samples)	ea.	207	$75	$101	$21,008
Personnel - drilling program	2 geologists and 2 assistants	day	57	$1,300	$1,755	$100,799
G&A	food, accommodation, vehicles, fuel, supplies, etc. (~10% of program)	ea.	1	$61,025	$82,384	$82,384
Mining Patents	Mining fees for the concessions	ea.	1	$80,000	$108,000	$108,000
Contingency (10%)		ea.	1		$92,958	$92,958
					Phase 1 (C$):	**$1,130,537**
Item	**Description**	**Unit**	**No. Units**	**US$/Unit**	**C$/Unit**	**Amount (C$)**
Phase 2 - Contingent on the results of Phase 1						
Update 2D/3D Models and Targeting	drill hole targeting/planning	hr	16	$200	$270	$4,320

Item	Description	Unit	No. Units	US$/Unit	C$/Unit	Amount (C$)
Diamond Drilling - follow up and secondary targets	6,522 m (NQ); all-in costs	m	6,481	$185	$250	$1,618,630
Assays (multi-element and Au) - drill core	about 85% of total metres sampled (per metre)	ea.	5,509	$35	$47	$260,293
QA/QC	CRMs and duplicates (10% of primary samples)	ea.	551	$75	$101	$55,777
Personnel - drilling program	2 geologists and 2 assistants	day	152	$1,300	$1,755	$267,627
G&A	food, accommodation, vehicles, fuel, supplies, etc. (~10% of program)	ea.	1	$162,025	$218,734	$218,734
Contingency (10%)		ea.	1		$242,538	$242,538
					Phase 2 (C$):	**$2,667,919**

*does not include local taxes, fees, tenement payments, or corporate/management overhead; USD$1 = C$1.35

The 1,300 m northeast trend, defined by geophysics, the BRT-series diamond drilling and the DTH drilling around diamond drill hole BRT-DDH003, should be drill tested as part of the recommended Phase 1 exploration program which includes 2,441 m of diamond drilling (*see* Table 1-4). Preliminary locations of the diamond drill holes and their attributes (length, Az, dip) are provided in Section 26.0 – Recommendations. Exact locations of these drill holes should be determined after a comprehensive review of the data and information; 400 m contingency has been added to the drilling metres.

2.0 INTRODUCTION

Geological consulting group Caracle Creek Chile SpA ("Caracle") was engaged by Canadian public company Fitzroy Minerals Inc. ("Fitzroy", the "Company", or the "Issuer"), to prepare an independent National Instrument 43-101 ("NI 43-101") Technical Report (the "Report") for the Buen Retiro Project ("Buen Retiro" or the "Project" or the "Property"), located in Atacama Region III, Copiapó Province, Copiapó Comuna, Chile, and held by Ptolemy Mining Limited (UK registered) through its wholly owned Chilean subsidiary Ptolemy Mining Ltda (together "Ptolemy Mining" or "PML") (Figure 2-1). The Report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1 (30 June 2011).

The Report covers the Buen Retiro Project which includes the Manto Negro, Sierra Fritis and Buen Retiro Properties. The Manto Negro property includes the Manto Negro Mine which has seen past production, whereas the Buen Retiro is proximal to and surrounds the Manto Negro and represents brownfield to greenfield targets, and the Sierra Fritis property which is being explored as a greenfield opportunity (*see* Section 4.0 – Property Description and Location).

2.1 Purpose of the Technical Report

The Technical Report has been prepared for Fitzroy Minerals Inc., a Canadian public company trading on the Toronto Stock Exchange (TSX-V: FTZ), to provide a summary of scientific and technical information and data concerning the Project, in support of the Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101.

Specifically, the Report is to be used to support the acquisition of all the issued and outstanding ordinary shares or all the assets of Ptolemy Mining Ltd (Fitzroy news releases 27 June 2024 and 30 January 2025). Ptolemy Mining Ltd is a UK registered private company.

This Report verifies the data and information related to historical and current mineral exploration on the Project and presents a report on data and information available from the Company and in the public domain.

The quality of information, conclusions, and recommendations contained herein have been determined using information available at the time of Report preparation and data supplied by outside sources as outlined in Section 2.6 - Sources of Information and Section 27.0 - References.

2.2 Previous Technical Reports

There are no previous NI 43-101 Technical Reports prepared for the Issuer, Fitzroy Minerals Inc., regarding the Buen Retiro Project and as such this Report, originally issued 23 October 2024 and amended 20 February 2025, is the current technical report regarding the Project.

The original report was filed on SEDAR+ 8 November 2024 (Fitzroy news release 8 November 2024).

2.3 Effective Date

The Effective Date of the Report is 15 August 2024 ("Effective Date").

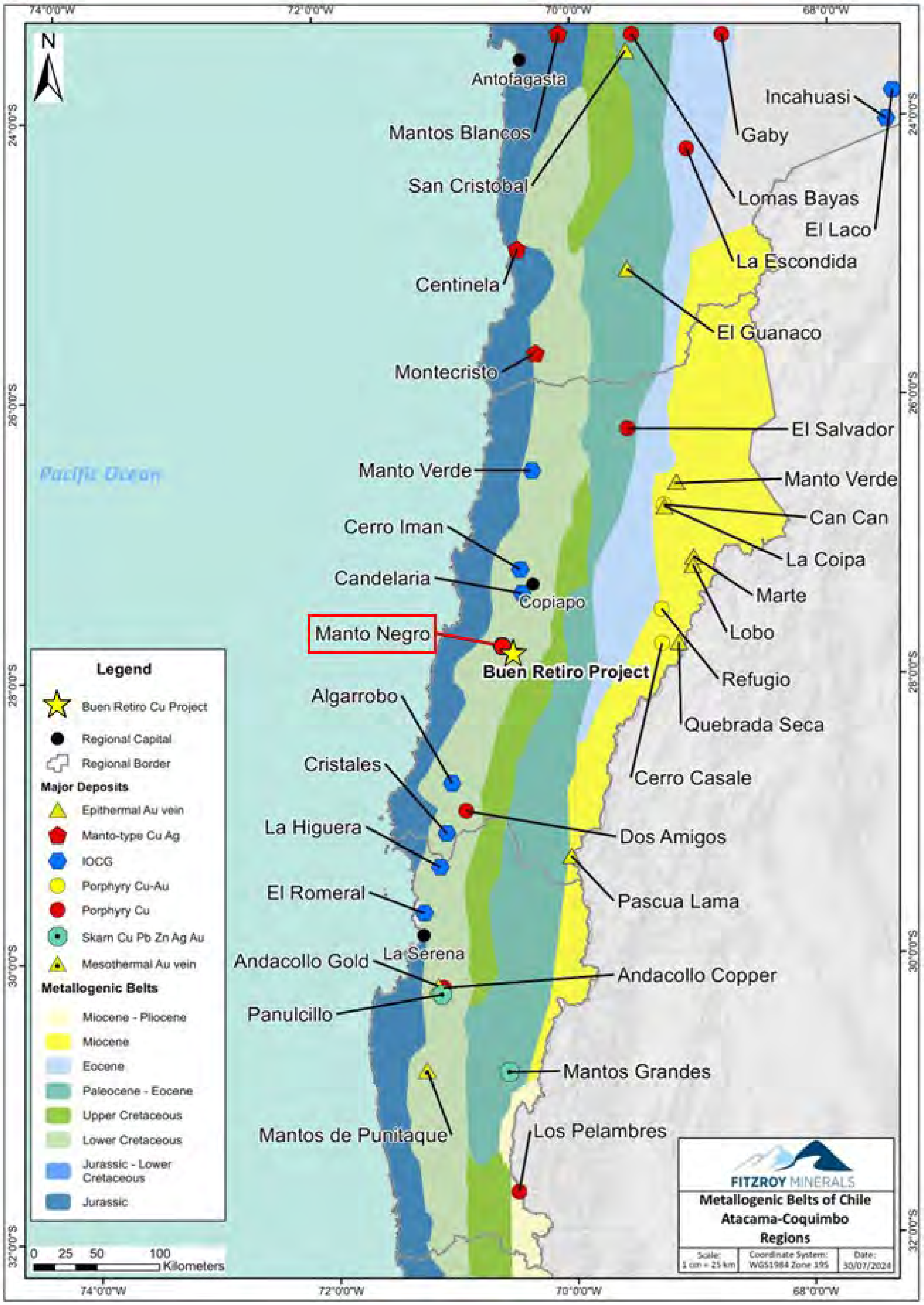


Figure 2-1. Generalized metallogenic belts of northern Chile and the approximate location of the Buen Retiro Project (yellow star) and Manto Negro Mine (red), Atacama Region IIII, Copiapó Province and Copiapó Comuna, Chile. Also shown are the locations of major mineral deposits and mines (basemap information from SERNAGEOMIN, 2024) (Caracle Creek, 2025).

2.4 Qualifications of Consultants

The Report has been prepared by Dr. Scott Jobin-Bevans (the "Author" or the "Consultant"), Managing Director and Principal Geoscientist at Caracle Creek Chile SpA. Dr. Jobin-Bevans is a professional geoscientist (P.Geo., PGO #0183) with experience in geology, mineral exploration, mineral resource and reserve estimation and classification, land tenure management, metallurgical testing, mineral processing, capital and operating cost estimation, and mineral economics.

Dr. Jobin-Bevans, by virtue of his education, experience, and professional association, is a Qualified Person ("QP"), as that term is defined in NI 43-101 and specifically sections 1.5 and 5.1 of NI 43-101CP (Companion Policy). Dr. Jobin-Bevans is responsible for preparing all sections of the Report.

The Consultant employed in the preparation of the Report has no beneficial interest in Fitzroy Minerals Inc. or Ptolemy Mining Ltd and is not an insider, associate, or affiliate of Fitzroy or Ptolemy Mining and its subsidiaries. The results of the Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Fitzroy and the Consultant. The Consultant is being paid a fee for his work in accordance with normal professional consulting practices.

2.5 Personal Inspection (Site Visit)

On 13 and 14 August 2024, at the request of the Issuer, Dr. Scott Jobin-Bevans (P.Geo., PhD) completed a Personal Inspection (site visit) on the Buen Retiro Copper Project, accompanied by geologist Gilberto Schubert (Technical Advisor to Fitzroy). Access to the Project area is excellent (*see* Section 5.1 - Accessibility).

The Personal Inspection of the Project was made as a requirement of NI 43-101 for the preparation of the Report and to observe general access and Property conditions, to observe copper mineralization exposed in the historical Manto Negro Copper Mine, to verify the position of prominent features associated with the Project (Table 2-1), to review some of the diamond drill core from the 2023-2024 drilling program (Table 2-2), and to visit the core processing facilities south of Copiapó. A selection of photographs taken during the Personal Inspection of the Project area and drill core are provided in Figure 2-2 and Figure 2-3, respectively.

Table 2-1. Selected GPS waypoints collected during the Personal Inspection of the Buen Retiro Project.

Item	Description	UTMX (mE)	UTMY (mN)	UTMZ (m)
Manto Negro Mine	lower level of open pit	345131	6921937	312
Manto Negro Mine	north end of open pit	345165	6922165	326
BRT-DDH-005	diamond drill hole collar	345364	6921156	373
BRT-DDH-003	diamond drill hole collar	345093	6922911	364
Concession Monument	Manto Negro VI	345363	6921811	383
Core Shed & Storage	core processing facility	365805	6966326	581

*WGS84 Zone 19S; average accuracy of +/-3 metres; collected with a Garmin eTrex 30x handheld GPS unit.

Dr. Jobin-Bevans is satisfied with the quality of sampling and record keeping (database) procedures followed by the Vendor with respect to diamond drilling, DTH (Down-the-Hole or air core) drilling, and geological mapping and rock sampling.


(A) Historical producer, Manto Negro open pit mine (looking north).


(B) Diamond drill hole collar BRT-DDH-005, capped and labelled (2023-2024 drilling program).


(C) Diamond drill hole collar BRT-DDH-003 - yellow arrow (2023-2024 program program) with drill hole return sump in foreground.

(D) Main concession monument for Manto Negro VI concession (2004).


(E) Core shed – core processing and storage located south of the City of Copiapó.

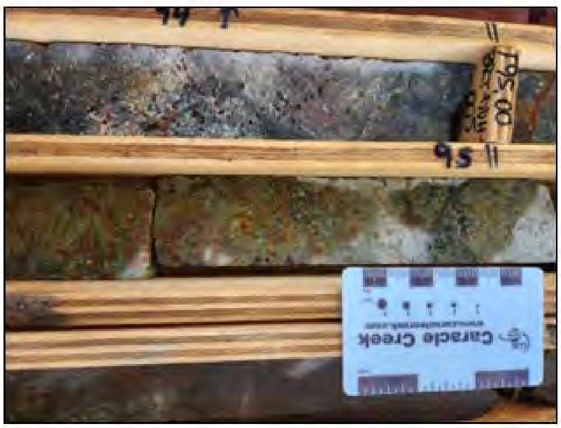

(F) Location of DTH drill hole near diamond drill hole BRT-DDH-003.

Figure 2-2. Selection of photos taken during the Personal Inspection of the Buen Retiro Copper Project (Caracle Creek, 2024).

The Author (QP) also examined core from five 2023-2024 drill holes BRT-DDH-003, BRT-DDH-005, BRT-DDH-006, BRT-DDH-011 and BRT-DDH-013, comparing core logs and core assay results against the observable mineralization and features in the core (Figure 2-3; Table 2-2).

(A) Typical overburden: unconsolidated sands (top row in tray) and consolidated gravels (lower 3 rows in tray).

(B) BRT-DDH-003 (~244 m): sulphide zone mineralization starts at ~68 m, dominated by chalcopyrite veinlets.



(C) BRT-DDH-005 (~95 m): limonite-spotted volcanics with chalcocite, chrysocolla and rare cuprite.

(D) BRT-DDH-006 (~8.0 m): chrysocolla dominated with chalcocite and rare cuprite (inset: red cuprite at ~126 m).

(E) BRT-DDH-011 (~91 m): drill hole dominated by black tenorite (CuO) as veinlets and fracture fill.

(F) BRT-DDH-013 (~165 m): native copper (upper grey intersection) dominated with chalcocite. The blue PVC marks a petrographic sample of core (inset: polished block of core with native copper).

Figure 2-3. Selection of photos taken during the Personal Inspection of the 2023-2024 diamond drill core, Buen Retiro Copper Project (Caracle Creek, 2024).

Table 2-2. Summary and notes from examination of 2023-2024 diamond drill core.

Drill Hole	From (m)	To (m)	Interval (m)	Cu (%) Approx.	Notes/Mineralization
BRT-DDH-003	68.00	70.00	2.00	0.76	sulphide zone; chalcopyrite veinlets and blebs; clasts of diorite in volcanic host; clasts have diss. chalcopyrite
	242.00	243.00	1.00	1.21	
	261.00	262.00	1.00	1.01	
BRT-DDH-005	95.00	96.00	1.00	3.56	spotted with limonite; diss. cuprite (rare); mainly chalcocite
	148.00	150.00	2.00	9.2-9.6	mainly native copper and chalcocite
BRT-DDH-006	8.00	9.00	1.00	2.10	chrysocolla dominated; chalcocite
	80.00	81.00	1.00	4.10	chalcocite; chrysocolla; cuprite (red) crystal at 126 m
	136.00	137.00	1.00	2.10	chalcocite; pyrite; chalcopyrite
BRT-DDH-011	83.00	84.00	1.00	3.20	dominated by tenorite (CuO) veinlets; chalcocite; hematite
BRT-DDH-013	133.00	136.00	3.00	5.59-6.08	volcanic breccia; chalcocite
	164.73	165.00	0.27	4.30	chalcocite; native copper

The Author is satisfied with the observations and comparisons made with respect to the core, core logs, and assay results and as such determined it was not necessary to take any core samples for check assays.

2.6 Sources of Information

The information, conclusions, opinions, and estimates contained herein are based on:

- information available to the Author (QP) at the time of preparation of the Report;
- assumptions, conditions, and qualifications as set forth in the Report; and
- data, reports, and other information supplied by Fitzroy as well as third party/public sources.

For the purposes of the Report, the Author (QP) has relied on concession ownership information provided by Fitzroy and Ptolemy Mining. The Author has not researched legal property title or mineral rights for the Project and expresses no legal opinion as to the ownership status of the Project.

The Report is based on, but not limited to, internal Company emails and memoranda, historical reports, maps, data, and publicly available information and data (*e.g.*, government and internet), as cited throughout the Report and listed in Section 27.0 - References.

Company personnel and associates were actively consulted before and during the Report preparation and during the Personal Inspection, including Fitzroy personnel Merlin Marr-Johnson (CEO) and Gilbert Schubert (Technical Advisor to Fitzroy and Ptolemy Mining's Manager).

The Author was provided and reviewed the underlying agreements related to the transaction terms (*see* Section 4.4 - Transaction Terms and Agreement) and has reviewed the land tenure reporting from Terradap Chile Limitada (Aceval, 2024) who were engaged by the Issuer to provide professional land tenure services in Chile.

General information on Chile was accessed through the Chilean government website and digital data and information for Chile is available online from Servicio Nacional de Geología y Mineria (SERNAGEOMIN). An interactive database, Portal GEOMIN, is available online from SERNAGEOMIN. The mining lands system for Chile is accessed online through SERNAGEOMIN and the Catastro de Concesiones Mineras.

Additional information was reviewed and acquired through public online sources including Fitzroy's website, through SEDAR+ (System for Electronic Document Analysis and Retrieval), and various other corporate websites.

Standard professional review procedures were used by the Author in the preparation of the Report. The Author consulted and utilized various sources of information and data, including historical files provided by the Issuer and the Vendor, and government publications. In addition, Dr. Jobin-Bevans (P.Geo.) completed a personal inspection of the Project to confirm features within the Property, including accessibility, infrastructure, mineralization, historical and current data and information, as presented.

Except for the purposes legislated under Canadian provincial securities laws, any use of the Report by any third party is at that party's sole risk.

2.7 Commonly Used Terms, Initialisms and Units of Measure

All units in the Report are based on the International System of Units ("SI Units"), except for units that are industry standards, such as troy ounces for the mass of precious metals. Table 2-3 provides a list of some of the terms and abbreviations used in the Report.

Unless specified otherwise, the currency used is Canadian Dollars (CAD$, C$ or CAD) and coordinates are given mainly in WGS84 Zone 19S (EPSG:32719) but occasionally, where indicated, are provided in Provisional Sud American Datum de 1956 ("PSAD56"), UTM Zone 19S (EPSG:24879).

Table 2-3. Commonly used units of measure, abbreviations, initialisms and technical terms in the Report.

Units of Measure/Abbreviations		Initialisms/Abbreviations	
above sea level	ASL	AA	Atomic Absorption
annum (year)	a	PGO	Professional Geoscientists of Ontario
billion years ago	Ga	CRM	Certified Reference Material
centimetre	cm	DDH	Diamond Drill Hole
degree	°	EM	Electromagnetic
degrees Celsius	°C	EOH	End of Hole
dollar (Canadian)	C$	EPSG	European Petroleum Survey Group
foot	ft	FA	Fire Assay
gram	g	ICP	Inductively Coupled Plasma
grams per tonne	g/t	Int.	Interval
greater than	>	Lat.	Latitude
hectares	ha	Long.	Longitude
hour	hr	LDL	Lower Detection Limit
inch	in	LLD	Lower Limit of Detection
kilo (thousand)	K	MAG	Magnetic Survey or Magnetometer
kilogram	kg	NAD 83	North American Datum 83
kilometre	km	NI 43-101	National Instrument 43-101
less tan	<	NSR	Net Smelter Return Royalty
litre	L	P.Geo.	Professional Geoscientist or Professional Geologist
megawatt	Mw	PSAD56	Provisional Sud American Datum de 1956

Units of Measure/Abbreviations		Initialisms/Abbreviations	
metre	m	QA/QC	Quality Assurance / Quality Control
Millimetre	mm	QP	Qualified Person
million	M	qtz	Quartz
million years ago	Ma	RC	Reverse Circulation
nanotesla	nT	SEM	Scanning Electron Microscope
not analyzed	na	SG	Specific Gravity
ounce	oz	SI	International System of Units
parts per million	ppm	UTM	Universal Transverse Mercator
parts per billion	ppb	WGS 84	World Geodetic System 1984
percent	%	Cu(S)	Copper Soluble (Cu-oxide)
pound(s)	lb.	Cu(T)	Copper Total (Cu-oxide + sulphide)
short ton (2,000 lb)	st	Cu(Sul)	Copper Sulphide
specific gravity	SG	**Minerals***	
square kilometre	km2	Act	actinolite
square metre	m2	Azu	azurite
three-dimensional	3D	Bn	bornite
tonne (1,000 kg) (metric tonne)	t	Cc	chalcocite
Elements		Ccp	chalcopyrite
calcium	Ca	Chl	chlorite
cobalt	Co	Ccl	chrysocolla
copper	Cu	Cv	covellite
gold	Au	Cpr	cuprite
iron	Fe	Dg	digenite
potassium	K	Lim	limonite
silver	Ag	Mag	magnetite
sodium	Na	Mlc	malachite
sulphur	S	Kfs	potassium feldspar
		Py	pyrite
		Qz	quartz
		Tlc	talc

*IMA-CNMNC approved mineral symbols

3.0 RELIANCE ON OTHER EXPERTS

The Report has been prepared by Caracle Creek Chile SpA (Caracle) for the Issuer, Fitzroy Minerals Inc. The Author (QP) has not relied on any other report, opinion or statement of another expert who is not a qualified person, or on information provided by the Issuer concerning legal, political, environmental or tax matters relevant to the Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Buen Retiro Copper Project is located about 50 km south of the City of Copiapó, about 50 km directly east from the coast, with the Pan-American Highway (Ruta 5) cutting through the Sierra Fritis concessions in the eastern part of the Property (*see* Figure 2-1; Figure 4-1 to 4-3; Figure 5-1). The Project is in the Atacama Region III, Copiapó Province and Copiapó Comuna.

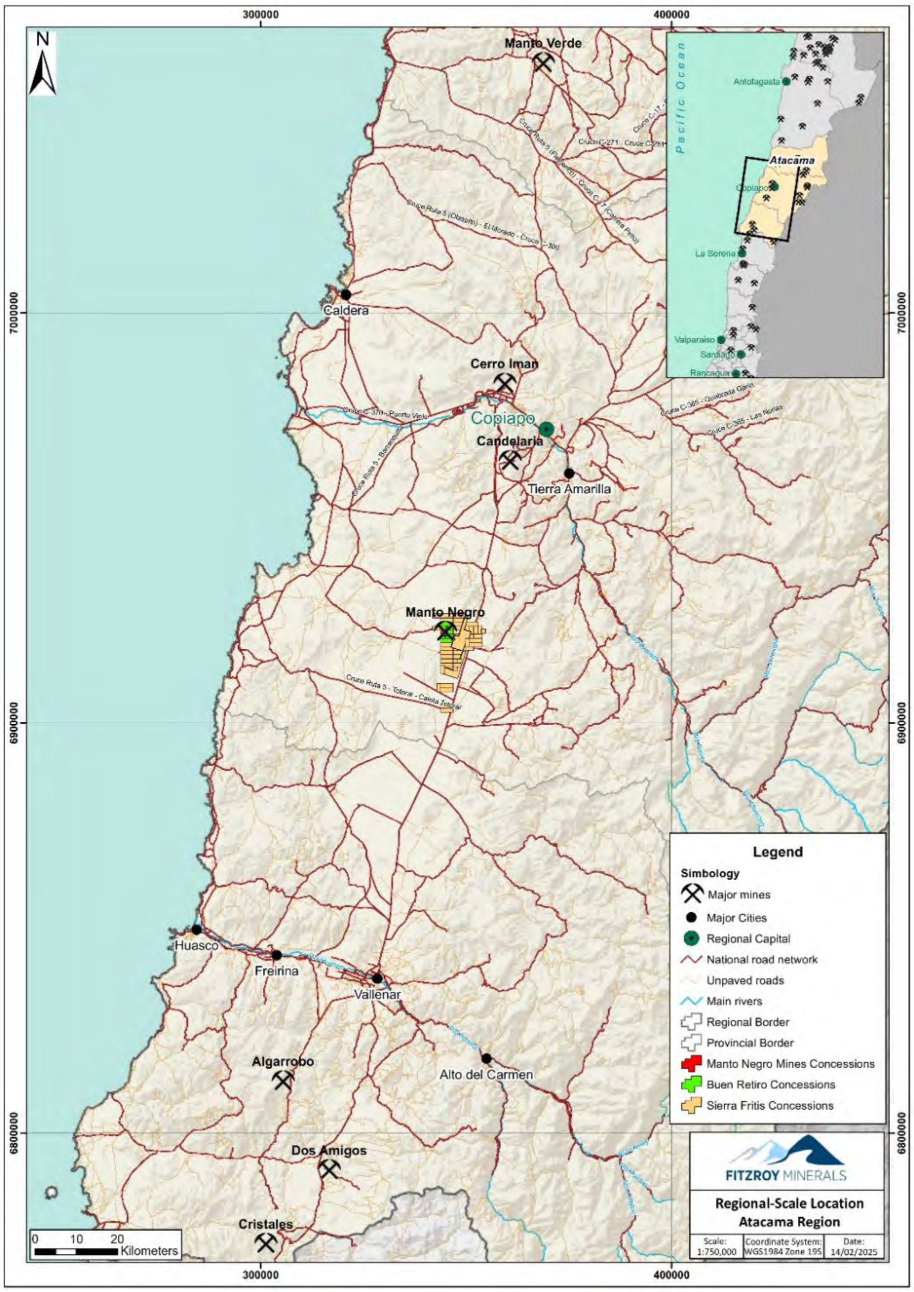


Figure 4-1. Regional-scale map showing the location of the concessions that comprise the Buen Retiro Copper Project, located about 50 km south of the City of Copiapó, Chile (basemap information from SERNAGEOMIN, 2024) (Caracle Creek, 2025).

The Buen Retiro Property is centred at approximately WGS84 19S 346946mE, 6920447mS (Lat/Long -27.831922°/-70.554139°) (Figure 4-2).

All known copper mineralization that is the focus of the Report is located within the boundary of the mining lands that comprise the Buen Retiro Copper Project.

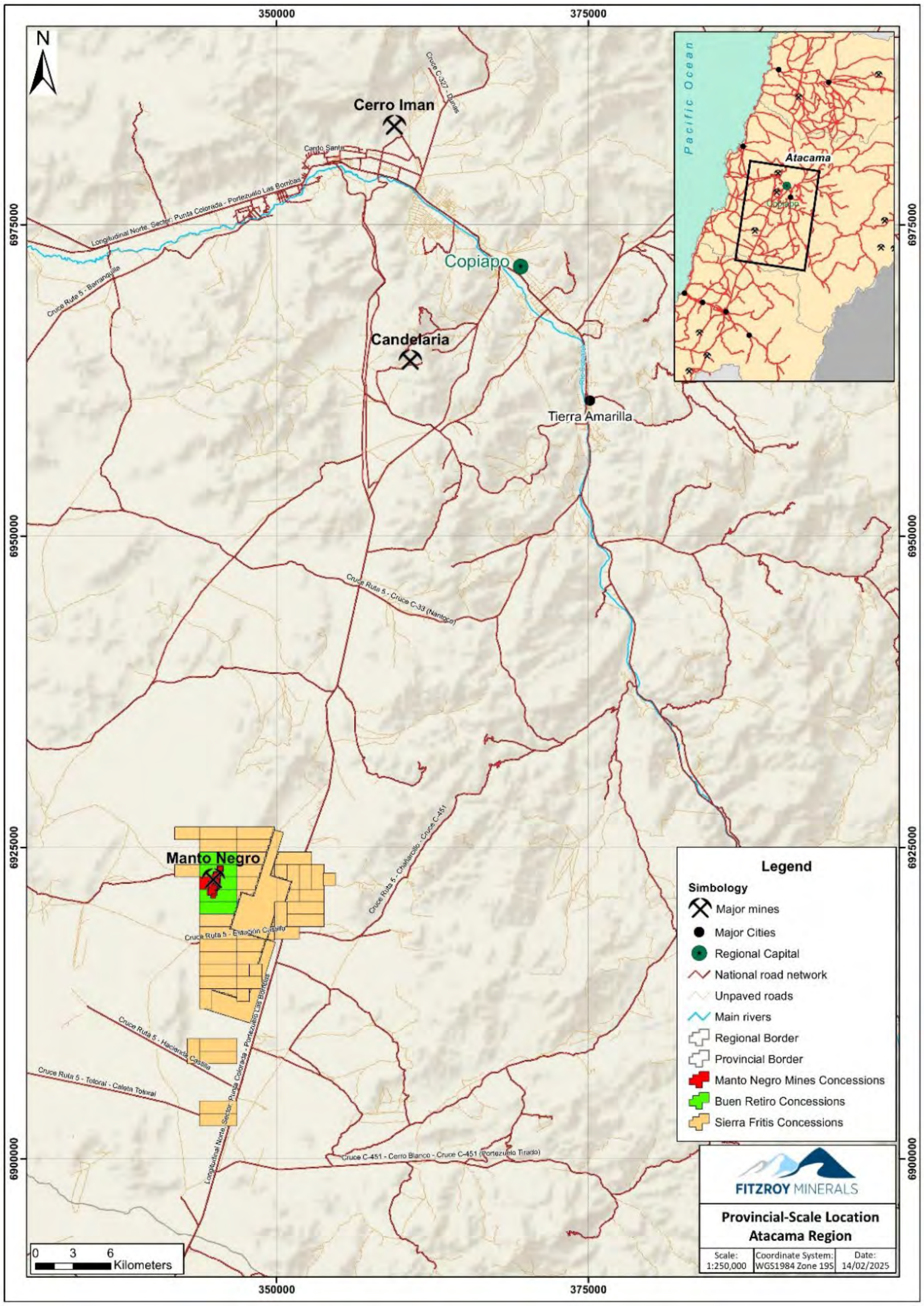


Figure 4-2. Provincial-scale map showing the location of the Buen Retiro Copper Project (orange, green and red), Atacama Region III, Copiapó Province, Copiapó Comuna, Chile (information and base map from SERNAGEOMIN, 2024) (Caracle Creek, 2025)..

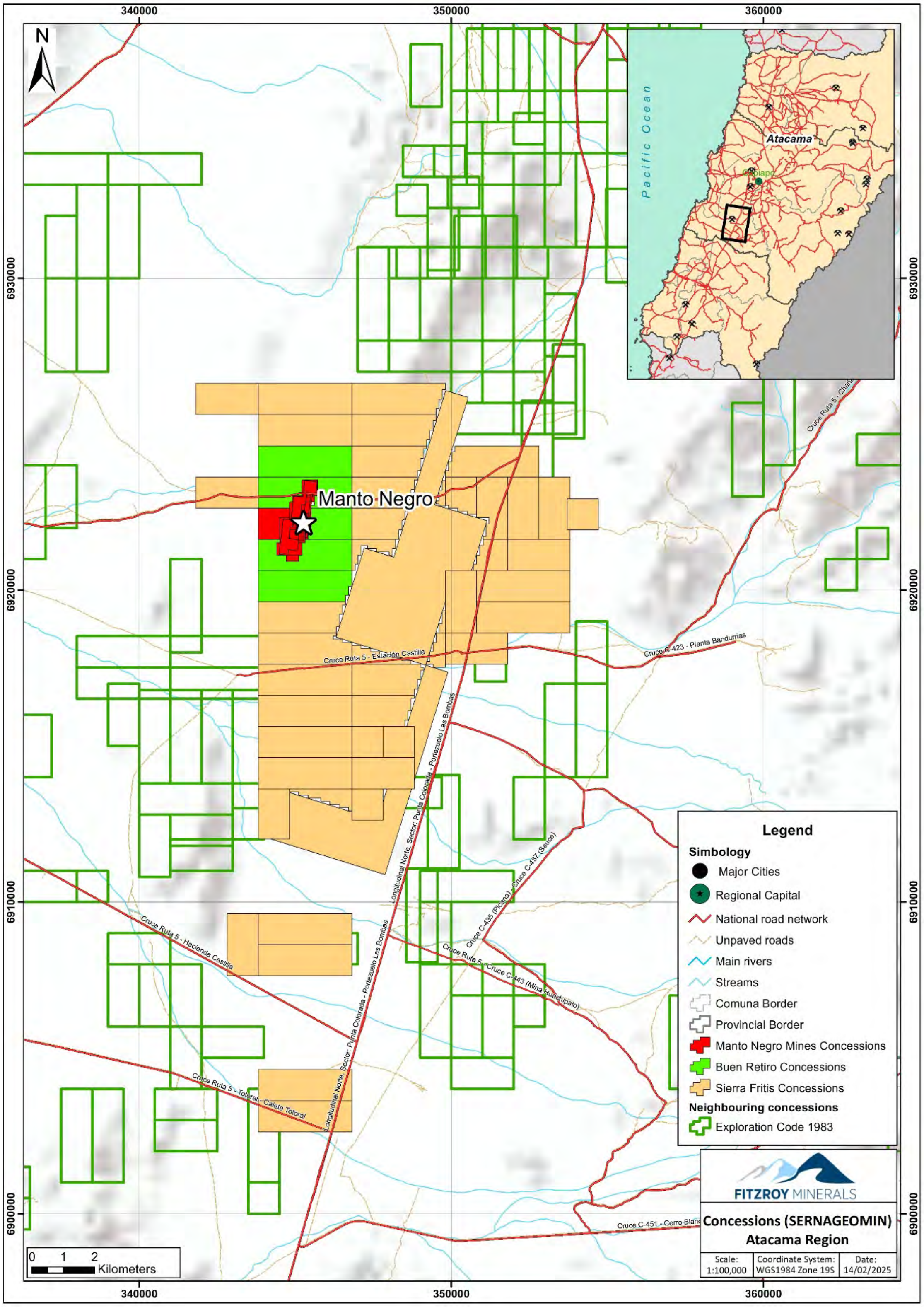


Figure 4-3. Outline of the Buen Retiro Copper Project with the location of the concessions that comprise the Manto Negro Property and the Buen Retiro Property (Option 1 – Pucobre and SCMBR) and the Sierra Fritis Property (Option 2 – Rinaldo Vecchiola and AMP) concessions; the white star marks the location of the historical producer Manto Negro Copper Mine (Caracle Creek, 2025).

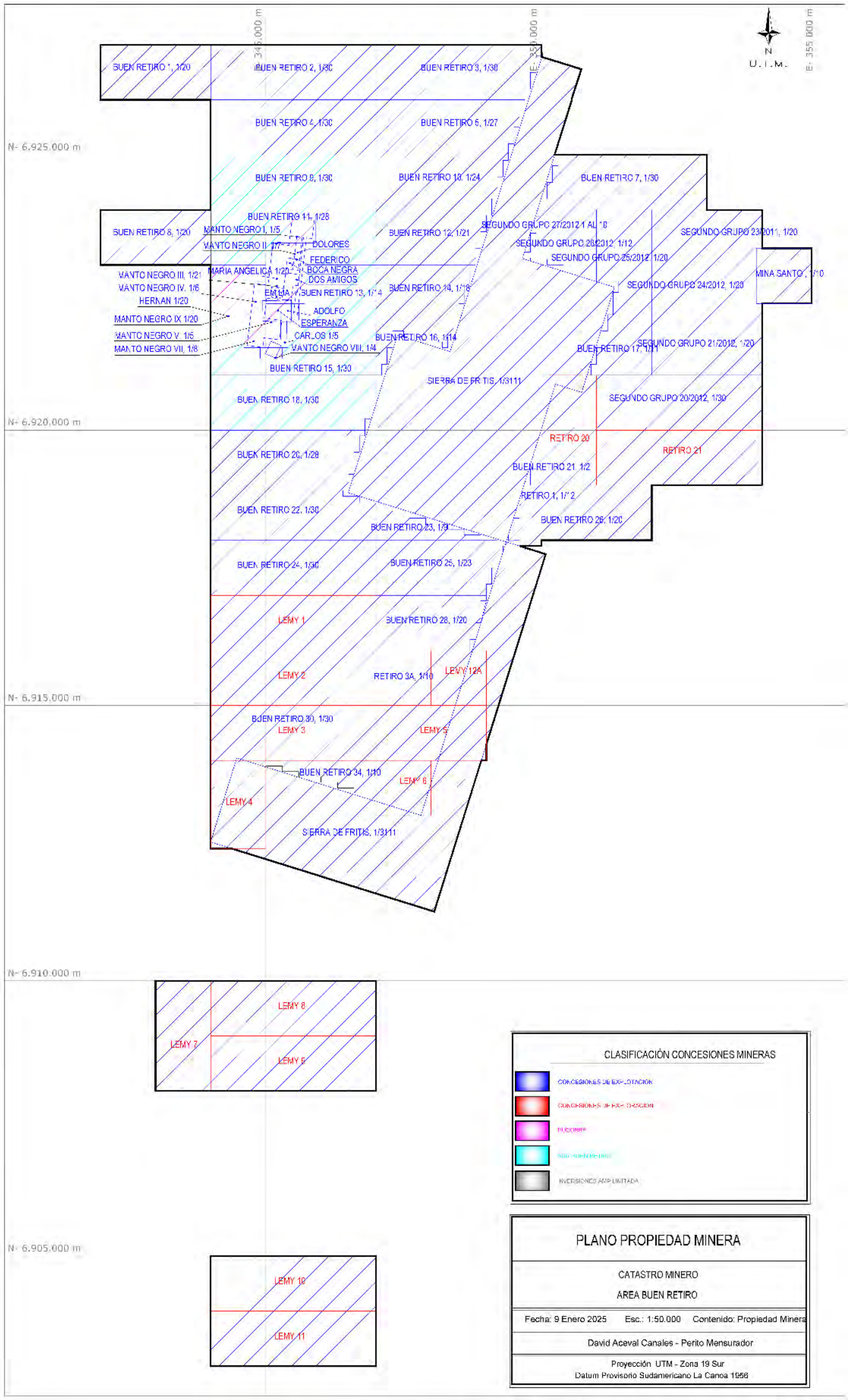


Figure 4-4. Local-scale map showing the concessions colour-coded by type and by Option Agreement, Buen Retiro Copper Project (*see* Table 4-1) (concessions from SERNAGEOMIN, Catastro de Concesiones Mineras, 2025; concession map, Fitzroy Minerals, 2025).

4.2 Mineral Disposition

The concessions that comprise the Buen Retiro Copper Project are summarized in Table 4-1 and shown in Figure 4-3 and Figure 4-4. These 71 mining concessions (Explotación 1932 and 1983 and Exploración 1983), listed in the national mining claims register (SERNAGEOMIN), and are in Atacama Region III, Copiapó Province and Copiapó Comuna. Information regarding the mining concessions has been supplied to the Author by Fitzroy Minerals.

4.3 Claim Status and Holding Costs

The Project comprises 71 mining concessions (approx. 13,738 ha) of which 14 are Exploración 1983 (3,400 ha), 48 are Explotación 1983 (10,197 ha), and 9 are Explotación 1932 (141 ha) (Table 4-1). Property rights associated with the 57 Explotación mining concessions are permanent and the concessions do not expire once constituted if the annual fees are paid. The 14 Exploración mining concessions are pending conversion to Explotación concessions.

In March 2025, the annual payment required to keep the 71 concessions in good standing will be approximately CLP$90-95M (approx. US$95,000-US$100,000).

Table 4-1. Summary of the 71 Buen Retiro mining concessions.

No.	ROL National	Name	Holder	Area (ha)	Type	Status
1	032017138 - 5	BUEN RETIRO 1 1/20	Inversiones AMP Limitada	200	Explotación 1983	Constitudia
2	032017146 - 6	BUEN RETIRO 10 1/24	Inversiones AMP Limitada	223	Explotación 1983	Constitudia
3	032017148 - 2	BUEN RETIRO 12 1/21	Inversiones AMP Limitada	192	Explotación 1983	Constitudia
4	032017150 - 4	BUEN RETIRO 14 1/18	Inversiones AMP Limitada	162	Explotación 1983	Constitudia
5	032017152 - 0	BUEN RETIRO 16 1/14	Inversiones AMP Limitada	60	Explotación 1983	Constitudia
6	032017153 - 9	BUEN RETIRO 17 1/11	Inversiones AMP Limitada	95	Explotación 1983	Constitudia
7	032017139 - 3	BUEN RETIRO 2 1/30	Inversiones AMP Limitada	300	Explotación 1983	Constitudia
8	032017156 - 3	BUEN RETIRO 20 1/28	Inversiones AMP Limitada	263	Explotación 1983	Constitudia
9	032017157 - 1	BUEN RETIRO 21 1/2	Inversiones AMP Limitada	10	Explotación 1983	Constitudia
10	032017158 - K	BUEN RETIRO 22 1/30	Inversiones AMP Limitada	286	Explotación 1983	Constitudia
11	032017159 - 8	BUEN RETIRO 23 1/9	Inversiones AMP Limitada	66	Explotación 1983	Constitudia
12	032017160 - 1	BUEN RETIRO 24 1/30	Inversiones AMP Limitada	300	Explotación 1983	Constitudia
13	032017369 - 8	BUEN RET1R0 25 1/23	Inversiones AMP Limitada	214	Explotación 1983	Constitudia
14	032017161 - K	BUEN RETIRO 26 1/20	Inversiones AMP Limitada	200	Explotación 1983	Constitudia
15	032017163 - 6	BUEN RETIRO 28 1/20	Inversiones AMP Limitada	184	Explotación 1983	Constitudia

No.	ROL National	Name	Holder	Area (ha)	Type	Status
16	032017140 - 7	BUEN RETIRO 3 1/30	Inversiones AMP Limitada	285	Explotación 1983	Constitudia
17	032017165 - 2	BUEN RETIRO 30 1/30	Inversiones AMP Limitada	297	Explotación 1983	Constitudia
18	032017168 - 7	BUEN RETIRO 34 1/10	Inversiones AMP Limitada	73	Explotación 1983	Constitudia
19	032017141 - 5	BUEN RETIRO 4 1/30	Inversiones AMP Limitada	300	Explotación 1983	Constitudia
20	032017142 - 3	BUEN RETIRO 5 1/27	Inversiones AMP Limitada	255	Explotación 1983	Constitudia
21	032017143 - 1	BUEN RETIRO 7 1/30	Inversiones AMP Limitada	285	Explotación 1983	Constitudia
22	032017144 - K	BUEN RETIRO 8 1/20	Inversiones AMP Limitada	200	Explotación 1983	Constitudia
23	032014829 - 4	MINA SANTO 1/10	Inversiones AMP Limitada	100	Explotación 1983	Constitudia
24	032017422 - 8	RETIRO 1 1/12	Inversiones AMP Limitada	46	Explotación 1983	Constitudia
25	03201B142 - 5	SEGUNDO GRUPO 20/2012 1/30	Inversiones AMP Limitada	300	Explotación 1983	Constitudia
26	03201B143 - 3	SEGUNDO GRUPO 21/2012 1/20	Inversiones AMP Limitada	200	Explotación 1983	Constitudia
27	03201Bl73 - 5	SEGUNDO GRUPO 23/2011 1/20	Inversiones AMP Limitada	190	Explotación 1983	Constitudia
28	03201B145 - K	SEGUNDO GRUPO 24/2012 1/20	Inversiones AMP Limitada	200	Explotación 1983	Constitudia
29	03201B146 - 8	SEGUNDO GRUPO 25/2012 1/20	Inversiones AMP Limitada	178	Explotación 1983	Constitudia
30	03201B147 - 6	SEGUNDO GRUPO 26/2012 1/12	Inversiones AMP Limitada	108	Explotación 1983	Constitudia
31	032018504 - 8	SEGUNDO GRUPO 27/2012 1/3	Inversiones AMP Limitada	14	Explotación 1983	Constitudia
32	032011655 - 4	SIERRA DE FRITIS 1/3111	Inversiones AMP Limitada	2740	Explotación 1983	Constitudia
33	032019660 - 4	RETIRO 3A 1/10	Inversiones AMP Limitada	100	Explotación 1983	Constitudia
34	032017145 - 8	Buen Retiro 9 1/30	SCM Buen Retiro	300	Explotación 1983	Constitudia
35	032017147 - 4	Buen Retiro 11 1/28	SCM Buen Retiro	246	Explotación 1983	Constitudia
36	032017149 - 0	Buen Retiro 13 1/14	SCM Buen Retiro	133	Explotación 1983	Constitudia
37	032017151 - 2	Buen Retiro 15 1/30	SCM Buen Retiro	252	Explotación 1983	Constitudia
38	032017154 - 7	Buen Retiro 18 1/30	SCM Buen Retiro	293	Explotación 1983	Constitudia
39	032016767 - 1	MANTO NEGRO I 1/5	Pucobre	25	Explotación 1983	Constitudia
40	032016768 - K	MANTO NEGRO II 1/7	Pucobre	14	Explotación 1983	Constitudia

No.	ROL National	Name	Holder	Area (ha)	Type	Status
41	032016780 - 9	MANTO NEGRO III 1/21	Pucobre	63	Explotación 1983	Constitudia
42	032016781 - 7	MANTO NEGRO IV 1/6	Pucobre	24	Explotación 1983	Constitudia
43	032016782 - 5	MANTO NEGRO V 1/5	Pucobre	20	Explotación 1983	Constitudia
44	032016783 - 3	MANTO NEGRO VI 1	Pucobre	3	Explotación 1983	Constitudia
45	032016784 - 1	MANTO NEGRO VII 1/8	Pucobre	32	Explotación 1983	Constitudia
46	032016785 - K	MANTO NEGRO VIII 1/4	Pucobre	8	Explotación 1983	Constitudia
47	032016034 - 0	HERNAN 1/20	Pucobre	79	Explotación 1983	Constitudia
48	032017589 - 5	MANTO NEGRO IX 1/20	Pucobre	79	Explotación 1983	Constitudia
49	032010345 - 2	MARIA ANGELICA 1/20	Pucobre	93	Explotación 1932	Constitudia
50	032010363 - 0	DOS AMIGOS	Pucobre	10	Explotación 1932	Constitudia
51	032010362 - 2	DOLORES	Pucobre	4	Explotación 1932	Constitudia
52	032010323 - 1	FEDERICO	Pucobre	2	Explotación 1932	Constitudia
53	032010331 - 2	BOCA NEGRA	Pucobre	2	Explotación 1932	Constitudia
54	032010589 - 7	EMILIA	Pucobre	2	Explotación 1932	Constitudia
55	032010940 - K	CARLOS 1/5	Pucobre	21	Explotación 1932	Constitudia
56	032010360 - 6	ESPERANZ	Pucobre	4	Explotación 1932	Constitudia
57	032011996 - 0	ADOLFO	Pucobre	3	Explotación 1932	Constitudia
58	03201Q057 - 9	RETIRO 20	Inversiones AMP Limitada	200	Exploración 1983	Pending
59	03201Q069 - 2	RETIRO 21	Inversiones AMP Limitada	300	Exploración 1983	Pending
60	03201Q137 - 0	LEMY 1	Inversiones AMP Limitada	300	Exploración 1983	Pending
61	03201Q150 - 8	LEMY 2	Inversiones AMP Limitada	300	Exploración 1983	Pending
62	03201Q158 - 3	LEMY 3	Inversiones AMP Limitada	300	Exploración 1983	Pending
63	03201Q133 - 8	LEMY 4	Inversiones AMP Limitada	200	Exploración 1983	Pending
64	03201Q136 - 2	LEMY 5	Inversiones AMP Limitada	200	Exploración 1983	Pending
65	03201Q149 - 4	LEMY 6	Inversiones AMP Limitada	100	Exploración 1983	Pending

No.	ROL National	Name	Holder	Area (ha)	Type	Status
66	03201Q132 - K	LEMY 7	Inversiones AMP Limitada	200	Exploración 1983	Pending
67	03201Q159 - 1	LEMY 8	Inversiones AMP Limitada	300	Exploración 1983	Pending
68	03201Q135 - 4	LEMY 9	Inversiones AMP Limitada	300	Exploración 1983	Pending
69	03201Q148 – 6	LEMY 10	Inversiones AMP Limitada	300	Exploración 1983	Pending
70	03201Q131 - 1	LEMY 11	Inversiones AMP Limitada	300	Exploración 1983	Pending
71	03201Q345 - 4	LEMY 12A	Inversiones AMP Limitada	100	Exploración 1983	Pending
			Totals:	**13,738**		
			Explotación:	**10,338**		
			Exploración:	**3,400**		

Pucobre = Sociedad Punta del Cobre S.A.; SCM Buen Retiro (SCMBR) = Sociedad Contractual Minera Buen Retiro
Pucobre and SCMBR = Option 1 (Manto Negro / Buen Retiro); Inversiones AMP Limitada = Option 2 (Sierra Fritis)

4.4 Transaction Terms and Agreement

On 30 October 2024, Fitzroy announced that it had entered into a share exchange agreement (the "Definitive Agreement") dated 30 October 2024 with Ptolemy Mining Limited and the shareholders of Ptolemy (the "Vendors"), pursuant to which the Company will acquire all the issued and outstanding securities of Ptolemy from the Vendors (the "Acquisition") (Fitzroy news release 30 October 2024). Fitzroy had previously paid Ptolemy Mining an exclusivity fee of US$100,000 for 90-day exclusivity (the "Exclusivity Period"), to complete its technical, financial and legal due diligence investigations (Fitzroy news release 27 June 2024). The Company paid the Vendors an additional US$100,000 to extend the Exclusivity Period to 22 December 2024, to complete their due diligence and negotiate the Definitive Agreement (Fitzroy news release 27 September 2024).

On 28 November 2024, the Company received conditional approval from the TSX Venture Exchange to close the Acquisition, subject to satisfying several conditions, including the completion of the audit on Ptolemy's financial statements and completion of the Company's previously announced non-brokered private placement (Fitzroy news release 28 November 2024).

On 30 January 2025, the Company entered into an amendment to the share exchange agreement, pursuant to which the termination date was extended from 31 January 2025 to 28 February 2025.

Ptolemy Mining, a UK registered private company, that through a wholly owned subsidiary (Ptolemy Mining Ltda.), is the legal and beneficial holder of 100% of the Manto Negro, Buen Retiro and Sierra Fritis properties located in Chile. The Manto Negro and Buen Retiro concessions are held under a single option agreement, the "Buen Retiro Option" (Option 1), with vendors Sociedad Punta del Cobre S.A. ("Pucobre") and Sociedad Contractual Minera Buen Retiro ("SCMBR"). The Sierra Fritis concessions are held under a separate option agreement, the "Sierra Fritis Option" (Option 2), with vendors Rinaldo Vecchiola and Inversiones AMP Limitada ("AMP").

4.4.1 Mining Option Agreement 1 – Manto Negro / Buen Retiro

The Author has reviewed the Option Agreement and concessions with respect to Option 1 (*see* Table 4-1), as provided by Fitzroy and the associated Mining Option Agreement ("MOA") and Share Option Agreement

("SOA"). The MOA includes the right for Ptolemy Mining Ltd.'s Chilean subsidiary Ptolemy Technical Services SpA ("Subsidiary") to carry out Exploration Activities as follows:

- Stage 1 Exploration Operations: within twelve (12) months from the execution of the MOA, the Subsidiary must invest a minimum of US$2,000,000 in Eligible Expenses, including Eligible Expenses incurred in connection with not less than 2,000 metres of drilling. On 2 May 2024 a contractual addendum was signed that extended the original term by another six months.
- Stage 2 Exploration Operations: within a period up to thirty-six (36) months staring at the end of Stage 1 and ending not later than forty-eight (48) months from the execution of the MOA, the Subsidiary must invest a minimum of US$5,000,000 in Eligible Expenses, including Eligible Expenses incurred in connection with not less than 10,000 metres of drilling. These Eligible Expenses are expected to be evenly distributed over the thirty-six (36) months period, with no consecutive twelve (12) month period seeing less than US$1,000,000 of Eligible Expenses.
- Stage 3 Exploration Operations: the activities to be carried out by the Subsidiary in relation to the completion of a full integration of the new and the existing data in the form of a technical report.

The Subsidiary shall have the right to exercise the Option at any time as from the date on which Stage 1, Stage 2, and Stage 3 Exploration Operations have been completed, having invested at least US$7,000,000 in Eligible Expenses, including Eligible Expenses incurred in connection with not less than 12,000 metres of drilling, up to and until 60 months as from the date of execution of the MOA (the "Option Exercise Period").

The price payable for the purchase of the Project concessions by the Subsidiary shall be US$4,000,000, which shall be payable to SCMBR and AMP (50% for each Vendor) following exercise of the Option simultaneously with the registration of the Project Concessions in the name of Subsidiary free and clear of any mortgage or any other lien.

After acquisition of the Project Concessions following the exercise of the Option by the Subsidiary, Pucobre shall be granted a call option to purchase 30% of the Subsidiary´s issued and outstanding shares (the "Pucobre Call Option"). The purchase price of the shares under the Pucobre Call Option will be 3 times 30% of the addition of the following amounts: (i) a fixed amount of US$300,000, which are estimated to be paid as legal, administrative and technical due diligence expenses to materialize all the agreements contemplated hereby; (ii) all the Eligible Expenses effectively incurred by Subsidiary to complete Stage 1, Stage 2, and Stage 3 Exploration Operations; plus (ii) the Option Price paid to exercise the Option under the Mining Option Agreement. The Manto Negro and Buen Retiro concessions are subject to a Net Smelter Return ("NSR") royalty (*see* Section 4.11 – Royalties and Obligations).

4.4.2 Mining Option Agreement 2 – Sierra Fritis

The Author has reviewed the Option Agreement and concessions with respect to Option 2 (*see* Table 4-1), as provided by Fitzroy. A signing payment of US$50,000 was payable by the Subsidiary to AMP with a further four payments of US$50,000 each to be made to AMP over the four subsequent anniversaries (total US$250,000) from the signing of the Transaction Documents. In addition, the Subsidiary will provide AMP with US$250,000 to meet high priority overdue payments with respect to its concession fees.

The MOA includes the right for Ptolemy Mining Ltd.'s Chilean subsidiary Ptolemy Technical Services SpA ("Subsidiary") to carry out Exploration Activities as follows:

- Stage 1 Exploration Operations: within twelve (12) months from the execution of the MOA, the Subsidiary must invest a minimum of US$500,000 in Eligible Expenses.
- Stage 2 Exploration Operations: within a period up to thirty-six (36) months staring at the end of Stage 1 and ending not later than forty-eight (48) months from the execution of the MOA, the Subsidiary must invest a minimum of US$2,100,000 in Eligible Expenses, including Eligible Expenses incurred in connection with not less than 10,000 metres of drilling. These Eligible Expenses are expected to be evenly distributed over the thirty-six (36) months period, with no consecutive twelve (12) month period seeing less than US$350,000 of Eligible Expenses.
- Stage 3 Exploration Operations: the activities to be carried out by the Subsidiary in relation to the completion of a full integration of the new and the existing data in the form of a technical report.

The Subsidiary shall have the right to exercise the Option at any time as from the date on which Stage 1, Stage 2, and Stage 3 Exploration Operations have been completed, having invested at least US$2,850,000 in Eligible Expenses, including Eligible Expenses incurred in connection with US$250,000 for concession payments, up to and until 60 months as from the date of execution of the MOA (the "Option Exercise Period").

The price payable for the purchase of the Project concessions by the Subsidiary shall be US$50,000, payable to AMP following exercise of the Option simultaneously with the registration of the Project Concessions in the name of Subsidiary free and clear of any mortgage or any other lien. The Sierra Fritis concessions are subject to a NSR royalty (*see* Section 4.11 – Royalties and Obligations).

4.5 Mineral Tenure in Chile

The Political Constitution of the Republic of Chile ("Constitución Política de la República") provides that the Chilean State has absolute, exclusive, inalienable and imprescriptible property over all mines and mineral substances located within the national territory, except for surface clays, notwithstanding the ownership of natural or legal persons over the superficial land in the interior of which they are located.

Private individuals may develop mining exploration and exploitation works based on mining concessions granted by judicial resolution. In accordance with Chilean mining legislation, there are 2 types of mining concessions in Chile, exploration (Exploración) and exploitation (Explotación).

Chile's current mining and land tenure policies were first incorporated into laws in 1982 and amended in 1983. The laws were established to secure the property rights of both domestic and foreign investors to stimulate mining development in Chile.

Since February 2023, the Chilean Government has made or has been proposing several amendments to the Chilean Mining Code ("Mining Code"). The most recent changes to the Mining Code took place 1 January 2024 and 2 August 2024.

In addition to changes to the annual fee structures and obligation to report on exploration work completed, the distinction between metallic and non-metallic mining concessions and in turn fees was eliminated.

Annual payments for mining concessions in Chile are calculated based on the Monthly Tax Unit or “UTM”. The UTM (Unidad Tributaria Mensual) is similar to the Chilean UF (Unidad de Fomento) but is used for administration purposes and is the official indicator managed by the tax authority. The UTM is updated and posted online monthly (CLP$67.429 for January 2025).

4.5.1 Exploration (Exploración) Concession

Exploration concessions are meant to provide the holder access to the specified lands to carry out baseline mineral exploration activities such as rock or soil sampling, geophysics, mechanical trenching, and drilling. An exploration concession is obtained by the filing of a claim which includes all minerals that are being explored for within its area.

Exploration concessions are granted for a period of 4 years but could be extended for an additional 4 years through application to SERNAGEOMIN within the first 6 months of the last year of the concession, a report with the geological information obtained from mineral exploration on the property. Alternatively, the mining concessionaire may submit proof that an Environmental Qualification Resolution ("RCA") was granted to the property, or that the property has been admitted and there is an ongoing process in the Environmental Impact Assessment System (the "SEIA").

From the filing of the application for an exploration concession until a term of 1 year from its expiration, its holder may not acquire, directly or through an intermediary (*e.g.*, a relative or a related company), a new exploration concession that includes, wholly or in part, the area covered by the original exploration concession.

For each exploration concession, the titleholder must pay an annual fee of 3/50 Monthly Tax Unit (“UTM”) per hectare or approximately US$4.31 per hectare (as of August 2024) to the Chilean Treasury. At the end of this 4 year period, the exploration concession may be: (a) renewed as an exploration concession, for a new term of up to 4 further years and in which case the titleholder must waive at least 50% of the surface area of the existing exploration concession; or (b) be converted, totally or partially, into exploitation concessions by exercising the pre-emptive right.

To convert an exploration concession to an exploitation concession, the holder must file a for survey (“solicitud de mensura”), which includes delineation of the exploitation concession by UTM coordinates. The process to grant an exploitation concession is between 91 to 120 days, inclusive from the filing date of the mining concession.

4.5.1.1 Pre-emptive Rights

Exploration concessions can overlap or be granted over the same area of land with pre-existing concessions (preferential right); however, the rights granted by an Exploration concession can only be exercised by the titleholder with the earliest dated exploration concession over a particular area.

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

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

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

4.5.2 Exploitation (Explotación) Concession

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

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

Exploitation concessions are of indefinite duration if the annual fees are paid. Notwithstanding the 4 scenarios outlined below, the mining fees per hectare for exploitation concessions increase progressively:

- 4/10 UTM for the first 5 years;
- 8/10 UTM for years 6 to 10;
- 9/10 UTM for years 11 to 15;
- 1.2 UTM for years 16-20;
- 3.0 UTM for years 21 to 25;
- 6.0 UTM for years 26 to 30; and
- 12.0 UTM for years 31 onwards.

There are however, 4 scenarios allowing for a reduced mining fee of 1/10 UTM per hectare annually:

1. Exploitation concessions demonstrating mining operations. It will be considered that a concession has begun mining when activities are undertaken that permanently allow the development of mining operations (as defined in the Mining Closure Law). This includes advanced geological exploration such as delineation of a defined mineral resource (subject to the SEIA), prospecting, construction, exploitation, or the processing of minerals from a mineral resource and activities related to fulfilling a closure plan.

1. Exploitation concessions that have not shown mining operations but that are under environmental assessment at the SEIA or have an RCA.

2. The property has advanced into small-scale mining, which includes exploitation concessions not required to enter the SEIA but are requesting specific permits under Title XV of the Mining Safety

Regulation (*e.g.*, a permit to start the exploitation of a mine with an extraction of less than 5,000 tons per month). The benefit of reduced mining fees in this scenario can only be granted once.

3. For certain concessionaires who own less than 500 ha of exploitation concessions, including those held by relatives or related companies. This scenario applies when works are performed under any of the first 3 scenarios. Once the requirements are met, it is presumed that this scenario is maintained for a term of 5 years. However, for a one-time period of 5 years, concessionaires in this category will be presumed to meet the criteria without needing to provide proof.

4.5.2.1 Preferential Rights

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

The preferential right over the areas covered by mining concessions is determined by the chronological order of the mining concessions judicial request. Therefore, the first mining concessionaire to request a mining concession over a certain area shall have the preferential right to explore or exploit such area once its mining concession is dully constituted. If that mining concessionaire fails to duly constitute its mining concession (due to not meeting deadlines or fulfilling requirements), then the preferential right shall pass to the mining concessionaire that has presented its judicial request right after the one who failed to constitute.

Rights over exploration and exploitation mining concessions in process of being granted may be transferred and disposed of once the judicial request has been duly registered in the corresponding Mining Registrar.

4.5.3 Obligation to Report

New to the Mining Code is the obligation for the holder of a mining concession to report on the exploration work and geological information collected on the property. This regulation replaces the existing procedure for the submission of basic geological exploration work.

The holder of an exploration concession must submit all the geological information obtained from its exploration work to SERNAGEOMIN within 30 days after the concession has expired or the granting period has elapsed. Additionally, to request an extension of the term of the concession, a report with all the geological information obtained through exploration must be submitted within the first 6 months of the last year of the concession's validity.

The holder of an exploitation concession must submit to SERNAGEOMIN, every 2 years, all the geological information obtained from exploration work carried out during that period. If the exploration or exploitation concessionaire has carried out advanced exploration (*e.g.*, mineral resource delineation), the information submitted will be deemed confidential by SERNAGEOMIN for a period of 4 years from its submission, if this is requested by the holder.

Geological information obtained from exploration work executed on their mining concessions to SERNAGEOMIN, through a form on the SERNAGEOMIN website, which must have the following information (if it exists):

1. Presentation of the project: explored area and exploration activities, among others.
2. Regional and district geological maps of the project.
3. Geophysical surveys.
4. Geochemical surveys and surface samples.
5. Drilling information.

The report is submitted together with an affidavit stating that such information is complete, consistent and truthful. After SERNAGEOMIN receives the report from the Reporting Entity, it shall conduct a formal examination, with the possibility of granting a term to correct errors and/or omissions, and then a thorough examination with respect to technical aspects, content and format of the report. In this respect, SERNAGEOMIN can request to the Reporting Entity clarifications, amendments or supplements. Finally, SERNAGEOMIN shall issue a resolution that will consider the obligation to submit the information as having been fulfilled, or else will initiate a sanctioning process.

The information is and will continue to be property of the Reporting Entity (claim holder) but will be available for public consultation in accordance with the provisions of the Access to Public Information law (Law No. 20,285). The Reporting Entity may indicate, and provide evidence, that the information comes from Advanced Geological Exploration work, in which case it will be considered confidential for 4 years as of its submission to SERNAGEOMIN.

4.5.3.1 Failure to Comply

Failure to comply with this technical reporting obligation will result in a fine of up to 100 UTM on the concessionaire which as of August 2024 amounts to approximately CLP$6.590.100 or US$7,183.

To determine the fine to apply, SERNAGEOMIN will take into consideration the following factors:

1. Previous conduct of the offender.
2. Economic capacity of the offender.
3. Seriousness of the infraction.
4. Negligence or malicious acts in not complying with the submitting of the information.

Notwithstanding the fine, SERNAGEOMIN is authorized to require such information anyway, and if the mining concessionaire does not comply, the fine can be doubled and, additionally, the benefit of a reduced mining fee, if requested, will be denied.

4.6 Surface Rights and Legal Access

The Project is contained 100% within private property held by “Hacienda Castilla”, which is owned by AMX de Chile S.A. and y Rex Inversiones SpA, both part of the Brazilian Eike Batista Group. There is an easement in favour of Pucobre that allows for access to the Manto Negro Mine area and the remainder of the Property can be accessed without issue for the purposes of mineral exploration.

At this stage of the Project, access to complete mineral exploration activities is not inhibited. Article 14 of the Chilean Mining Code (the "Code") states that any person is entitled to dig test holes and to take samples in search for mineral substances, regardless of ownership or property rights over surface lands, except in lands included within the limits of a mining concession granted to a third party, as long as the damage is compensated to the person that holds the rights on those surface lands. Moreover, Article 15 of the Code set forth that test holes may be freely dug in and samples taken from open and uncultivated land, regardless of the current holder or owner of the surface land.

4.7 Community Consultation

There is no need for any community consultation within the Project and area.

4.8 Environmental Studies and Liabilities

The Author is not aware of any environmental liabilities associated with the Project. The Author is unable to comment on any remediation which may have been undertaken by previous companies and is not aware of any environmental liabilities associated with the Projects. For all exploration work in Chile, any disturbance done to the land must be remediated.

4.9 Current Permits and Work Status

Permits for basic exploration are not required in Chile and at this stage of exploration there is no requirement to hold an exploration permit. Ptolemy Mining has submitted to SERNAGEOMIN their "Formulario de Inicio de Actividades de Exploración", which informs the ministry that the company is undertaking exploration work in the area (required when there are less than 40 drill platforms).

The Buen Retiro Project is an active mineral exploration project with the most recent diamond drilling program ending in May 2024.

4.10 Royalties and Obligations

Under the terms of the two option agreements held by Ptolemy Mining Ltda, the Manto Negro / Buen Retiro concessions and the Sierra Fritis concessions are all subject to a NSR royalty.

The Manto Negro / Buen Retiro Option 1 contains provisions regulating a 1.0% NSR royalty that will be granted to each of SCMBR and Pucobre on future production from the Project Concessions (regardless of whether they were owned by Pucobre or SCMBR prior to the exercise of the Option or not). Notwithstanding the foregoing, Option 1 contains an option for the Subsidiary to buy-back a 0.5% NSR from each of the vendors at a price of US$2,500,000 (the Buy-Back Option). This Buy-Back Option may be exercised by the Subsidiary at any time as from the Option Exercise Date until the beginning of commercial production on any of the Project Concessions.

The Sierra Fritis Option 2 contains provisions regulating a 2.0% NSR royalty that will be granted to AMP on future production from the mining concessions. Notwithstanding the foregoing, Option 2 contains an option for the Subsidiary to buy-back 1.0% NSR from AMP at a price of US$5,000,000 (the Buy-Back Option). This Buy-Back Option may be exercised by the Subsidiary at any time as from the Option Exercise Date until the beginning of commercial production on the Project Concessions.

In addition, Mr. Merlin Marr-Johnson, the President and Chief Executive Officer of the Company, owns performance rights convertible upon a triggering event into approximately 6% of the outstanding shares of Ptolemy Mining (Fitzroy news release 27 June 2024).

The Author is not aware of any other royalties or obligations associated with the concessions that comprise the Buen Retiro Copper Project.

4.11 Other Significant Factors and Risks

As of the Effective Date of the Report, the Author is not aware of any significant factors that may affect access, title, or the right or ability to perform the proposed work program on the concessions that comprise the Buen Retiro Project.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Buen Retiro Copper Project is in the Atacama Region, Region III of northern Chile, about 50 km south-southwest of the mining City of Copiapó and about 83 km north-northeast of the City of Vallenar (Figure 5-1). The Project area can be accessed by the Chile roads C-999 in the north and the C-408 in the south, with both regional roads running west from Ruta 5 (Panamericana Norte), a well-maintained multi-lane national highway (Figure 5-1). The Project is also connected to Caleta Totoral (Cove) on the coast by a 57 km dirt road (C-399).

The Project area encompasses ample space to support any future mining operations and currently encompasses the past producing (2005-2009) Manto Negro Mine which was an open pit operation.

5.1.1 Surface Rights and Access

According to the Company, the surface rights associated with the Project are privately held by “Hacienda Castilla”, which is owned by AMX de Chile S.A. and y Rex Inversiones SpA. There is an easement in favour of Pucobre that allows for access to the Manto Negro Mine area and the remainder of the Property can be accessed without issue for the purposes of mineral exploration and to date there has been no issue with access to the Project area.

In Chile, a mining concession has absolute priority in terms of access; therefore, any legal requirement for an easement must be granted immediately by the surface rights owner, provided that the mining concession owner can demonstrate that they are undertaking exploration/mining activity in the area.

5.2 Climate and Operating Season

The Project is located in Chile’s near north (Norte Chico) which extends from the Copiapó River to just north of the capital City of Santiago. It is a semi-arid region whose central area receives an average of about 25 mm (0.98 in) of rain during each of the four winter months (June to September), with trace amounts the rest of the year. The near north is also subject to droughts. The temperatures are moderate, with an average of 18.5°C (65°F) during the summer and about 12°C (54°F) during the winter at sea level. The winter rains and the melting of the snow that accumulates on the Andes produce rivers whose flow varies with the seasons, but which carry water year-round.

The relatively low elevation and favourable climate allows for most exploration work (geological mapping, surface sampling, drilling and geophysical surveys) to be completed year-round.

5.3 Local Resources and Infrastructure

The largest population centre closest to the Project is the City of Copiapó (pop: 209,519 in 2023) which is the capital of Copiapó Province and Atacama Region. Copiapó is a modern city with all regular services, along with numerous mining-related businesses in the city. Future personnel for any major exploration programs or mining operation would likely come from the mining-experienced people in the Copiapó Region. Copiapó itself is strategically located on the Pan-American Highway.

Ptolemy Mining operates its exploration and drilling programs out of Copiapó, about a 40-minute drive to the Project, and has shelter (sea-can container) and toilet facilities on-site as per Chilean legal requirements.

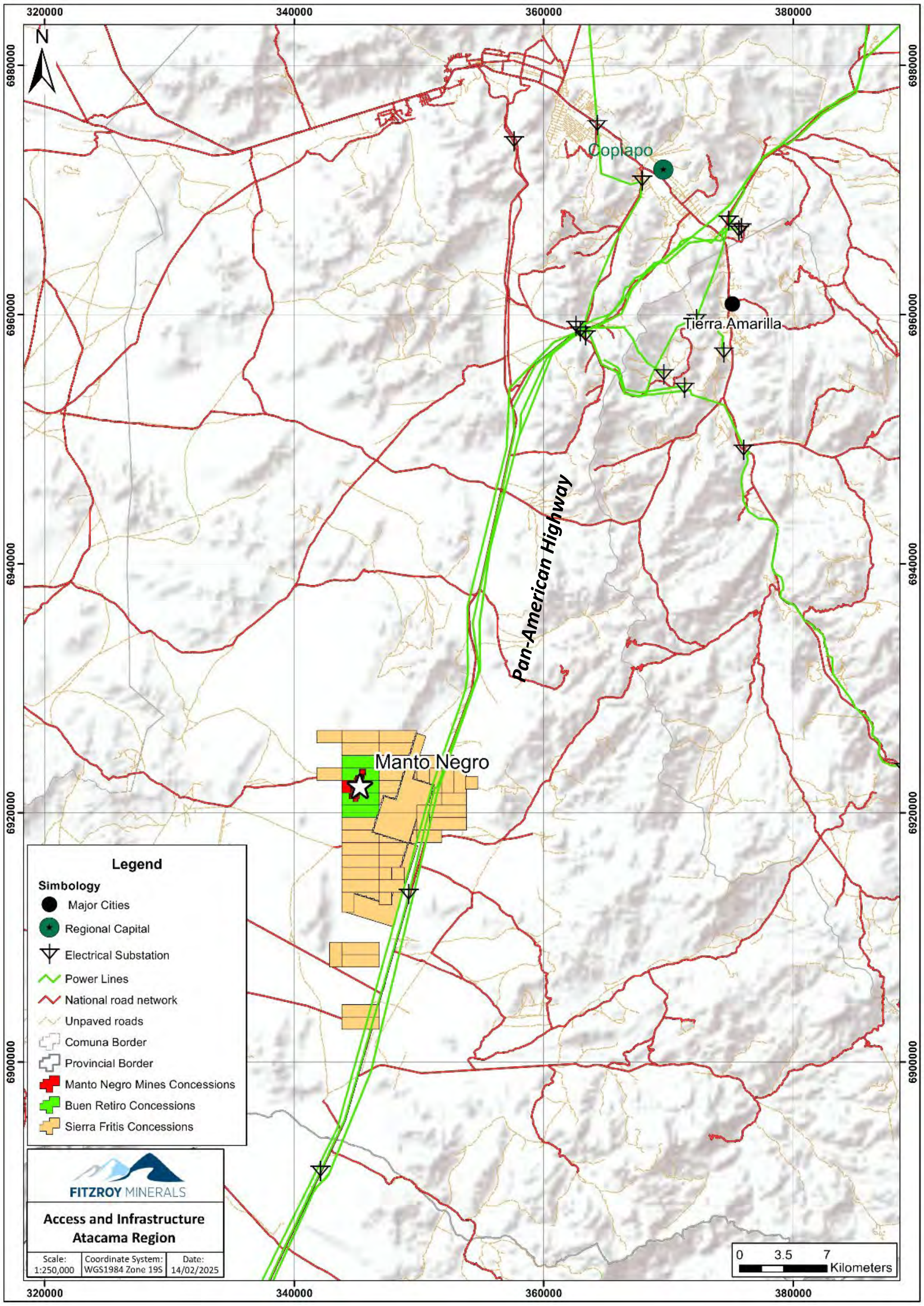


Figure 5-1. Location, access and infrastructure around the Buen Retiro Copper Project, Chile, including the Pan-American Highway (Ruta 5) which cuts through the eastern portion of the concessions (Caracle Creek, 2025).

For the most recent drilling program, PML have a secure core shed and core storage area on the outskirts south of Copiapó, on the road to the Property. It is one of the last warehouses outside of Copiapó that has power, security, and a complete perimeter wall. Ptolemy Mining rent half of the warehouse, a toilet, and two sea-can containers. There is space within the rented area to expand and build out additional core, equipment storage, and larger sample processing facilities. Currently there is a core-cutting shed with a water-recycling system and PML trucks water to the facility where it is stored in large rubber water bladders. There is ample room on the rented property to store field rock and soil samples and drill core rejects and pulps.

Copiapó regional airport is serviced by regional flights from Santiago and other destinations daily. The regional airport is located approximately midway between Copiapó in the south and Caldera in the north.

There is no infrastructure located on the Project, other than the historical infrastructure related to the Manto Negro Mine operations, and cellular telephone service only available at the highest points of the projector along the national highway Ruta 5.

In general, the Chilean mining industry is extremely well developed, with the country being a major producer of copper, iron ore and other metals. Mining supplies and equipment as well as a highly trained technical and professional workforce are available in Chile, and major international mining companies operating in Chile have little requirement for expatriate employees. Several international exploration and mining service companies and engineering firms also operate in Chile and provide excellent geological and logistical support to foreign companies.

5.4 Physiography

The Project is located within Chile’s Atacama Region (Region III) with elevation that ranges from about 300 m to 715 metres ASL. Figure 5-2 shows typical topography and other features within the Project area. The Project area is mainly covered by sands and gravels except for hilly areas.

5.4.1 Water Availability

Water for exploration activities must be bought in Copiapó and trucked into site or leased from the landowners’ water rights as PML does not hold any water rights and the concessions are on private property.

5.4.2 Flora and Fauna

Vegetation consists of shrubs and trees of low to moderate height, which mainly grow at the bottom of valleys near the intermittent (seasonal) rivers and streams. Cacti and lichen growth is common.

Typically, there is very little animal life in the region and when present it is generally restricted to small lizards, small mammals (*i.e.*, rodents), birds (*e.g.*, vultures) and insects (*i.e.*, spiders, ants, butterflies) whose concentrations increase in areas with a year-round water source.

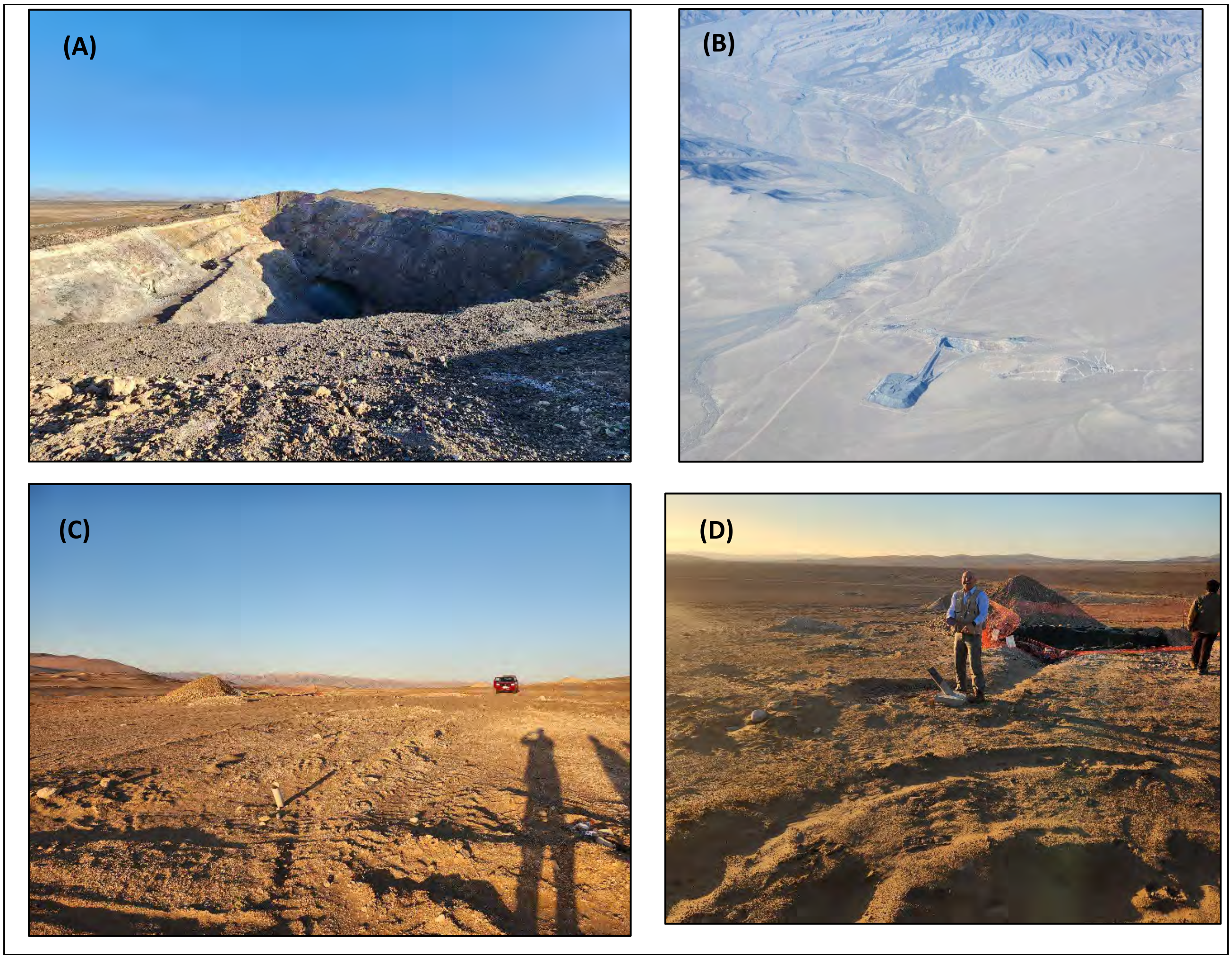


Figure 5-2. Various features and topography in the area of the Buen Retiro Copper Project, Chile.(A) Historical producer, Negro Mine open pit mine looking south, (B) Manto Negro Mine and area looking east-northeast showing the general topography of the region. (C)(D) General "lay-of-the-land" around diamond drill hole BRT-DDH-003, typical of the Property (Caracle Creek, 2024).

6.0 HISTORY

Mining has played a key role in Chile's economy starting in the 16th Century, with gold, silver and copper being mined from high-grade deposits. Copper mining has employed a sizable portion of the population both directly and indirectly over the last 100 years. One of the more significant precious metal and copper producing belts in Chile, the region around the Buen Retiro Copper Project offers an opportunity for the discovery of shallow- (<200 m) and medium-depth (<400 m) copper-rich deposits, and even deeper porphyry copper-gold deposits.

It is the Author's opinion that, to the extent to which they are known, the procedures and protocols for rock grab sampling, geological mapping, geophysical surveys, and diamond drilling are sufficient and appropriate, and that the sampling, assaying methods, data collection, and exploration procedures, used are consistent with good exploration and operational practices such that the data is reliable for the purpose of the Report (*see* Section 2.1 – Purpose of the Technical Report).

6.1 Prior Ownership and Ownership Changes

The earliest ownership of at least part of the current Property can be traced to 1911 when Hochschild staked the first concessions in what is now the Manto Negro property. In 1938 and 1953, new concessions were added by Hochschild in the area. In 1963, CORFO staked what was the referred to as the Sierra Fritis concession which covered what was viewed as an important aeromagnetic anomaly.

On an unknown date, Hochschild Mining, under Empresa Minera de Mantos Blancos ("EMABLOS"), completed exploration work on the Manto Negro Property, including short drill holes in what would later become the Manto Negro mine. In 2004-2005, Alejandro Moreno and CORFO optioned the Buen Retiro and Sierra Fritis properties to Teck and JOGMEC under the CCJV Option.

Soon after the end of the CCJV option CORFO auctioned off the Sierra Fritis Property which was awarded to Alejandro Moreno.

During the 2000s, Sociedad Punta Del Cobre S.A. (Pucobre) acquired the Manto Negro Property concessions from Hochschild and completed exploration work including a mineral resource estimation. In 2005, Pucobre was granted a licence to exploit the Manto Negro Deposit by open pit method; production was carried out from 2005 to 2009.

In 2021, SCMBR spun out the Sierra Fritis Property to Inversiones AMP LTDA (AMP).

In 2023, Ptolemy Mining Limited (the Project Vendor) signed the Buen Retiro Option Agreement with Pucobre (Manto Negro Property) and SCMBR (Buen Retiro Property). Also in 2023, Ptolemy Mining Limited signed the Sierra Fritis Option Agreement with AMP.

Ptolemy Mining Limited is a UK registered private company that, through a wholly owned subsidiary (Ptolemy Mining Ltda), is the legal and beneficial holder of the Manto Negro, Buen Retiro and Sierra Fritis properties located in Chile. The Manto Negro and Buen Retiro concessions are held under a single option agreement, the Buen Retiro Option ("Option 1"). The Sierra Fritis concessions are held under a separate option agreement, the Sierra Fritis Option ("Option 2").

On 28 November 2024, the Company received conditional approval from the TSX Venture Exchange to close the Acquisition, subject to satisfying several conditions, including the completion of the audit on Ptolemy's financial statements and completion of the Company's previously announced non-brokered private placement (Fitzroy news release 28 November 2024).

On 30 January 2025, the Company entered into an amendment to the share exchange agreement, pursuant to which the termination date was extended from 31 January 2025 to 28 February 2025 (*see* Section 4.4 – Transaction Terms and Agreement).

6.2 Government Data and Information

Data and information which covers some of the Projects, mostly at regional scale, is available through the Chilean Government website of SERNAGEOMIN, Servicio Nacional de Geología y Mineria. There is a regional magnetic surveys, radiometric surveys, and geological reports available online at Tienda Digital (SERNAGEOMIN) which covers the area of the Project (Castilla (C32) and Los Loros (C33) quadrants).

6.3 Historical Exploration Work (Prior to 2023)

Exploration work in the Buen Retiro Project area can be traced back to 1961 when CORFO completed an airborne magnetic survey in the region and in 1963 staked the "Sierra Fritis" property. A summary of known historical exploration work completed prior to 2023, within or near the boundaries of the current Buen Retiro Copper Project, is provided in Table 6-1. Figure 6-1 provides an outline of the historical property boundary as referenced with respect to the historical exploration work in Table 6-1 and in the Report.

Historical results from exploration work on or proximal to the Project have not been verified by the Author or a Qualified Person associated with the Company and as such are not necessarily indicative of the results to be found on the Project.

It is the Author's opinion that to the extent that it is known, the sample preparation, analysis, handling and security, and reporting, as it impacts the historical information and data, is adequate for the purposes of the Report (*see* Section 2.1 – Purpose of the Technical Report).

Table 6-1. Summary of known historical exploration work completed at the Buen Retiro Copper Project (2004-2015).

Year	Period	Category	Company/Operator	Contractor	Property	Description	Comments	Datum	Reference
2004-2005	-	Geological Mapping	Teck Cominco / JOGMEC	JOGMEC Geologist	Sierra Fritis and Buen Retiro	1:50 000 scale; lithology and alteration			Teck Cominco (2006)
2004-2005	-	Geochemical Rock Sampling	Teck Cominco / JOGMEC	JOGMEC Geologist	Sierra Fritis and Buen Retiro	24 rock samples - Sierra de Fritis and Castilla mine areas			Teck Cominco (2006)
2005	May-June	Geophysics	Teck Cominco / JOGMEC	Quantec Geoscience Chile Ltda	Sierra Fritis and Buen Retiro	IP-Resistivity gradient array survey; 15 lines; 186.3 line-km		PSAD56 19S	Teck Cominco (2006)
2005	September	Geophysics	Teck Cominco / JOGMEC	Quantec Geoscience Chile Ltda	Sierra Fritis and Buen Retiro	IP (pole-dipole)-Res survey; 3 lines		PSAD56 19S	Teck Cominco (2006)
2005	December	Geophysics	Teck Cominco / JOGMEC	Quantec Geoscience Chile Ltda	Sierra Fritis and Buen Retiro	regional gravity survey (ground); 180 stations/300 km^2	interpretation by Teck Cominco	PSAD56 19S	Teck Cominco (2006)
2004-2005	H2 2005	Drilling - Reverse Circulation	Teck Cominco / JOGMEC	JOGMEC Geologist	Sierra Fritis and Buen Retiro	10 RC holes (LAR series); total 2,845 m; tested Cu-oxide zone	CCJV - Teck concessions and 2 option agreements (CORFO - Sierra Fritis and Alejandro Moreno)	PSAD56 19S	Teck Cominco (2006)
?	uncertain	Drilling - DTH (air core)	Sociedad Punta del Cobre S.A.		Manto Negro	MN-series: 116 holes; 11,939 m	tested Cu-oxide zone		
?	uncertain	Drilling - DTH (air core)	Sociedad Punta del Cobre S.A.		Manto Negro	MNE-series: 19 DTH holes (NCL, 2005); total 2,887.8 m	tested Cu-oxide zone		
?	uncertain	Drilling - DTH (air core)	Sociedad Punta del Cobre S.A.		Manto Negro	MNP-series: 2 DTH holes (NCL, 2005); total 230.9 m	tested Cu-oxide zone		
2004	uncertain	Drilling - diamond	Sociedad Punta del Cobre S.A.		Manto Negro	DDH-series: 15 diamond drill holes (NCL, 2005); total 1,607.6 m	tested Cu-oxide zone within future open pit		
?	uncertain	Drilling - Reverse Circulation	Hochschild		Manto Negro	R-series: 25 RC holes (NCL, 2005); total 3,130.7 m			
2004	February	Geological Mapping	Sociedad Punta del Cobre S.A.		Manto Negro	geological mapping and data compilation over the Manto Negro area	Based on Hochschild Work		Pucobre (2004)
2004	February	Trenching	Sociedad Punta del Cobre S.A.		Manto Negro	T-series			
2004	April	Geophysics	Sociedad Punta del Cobre S.A.	Geodatos Geofísica de Avanzada	Manto Negro	radiometrics			
2004	April	Geophysics	Sociedad Punta del Cobre S.A.	Geodatos Geofísica de Avanzada	Manto Negro	magnetics			
2005	January	PEA Study	Sociedad Punta del Cobre S.A.	NCL Ingenieria y Construccion S.A.	Manto Negro	conceptual economic study for open pit operation	positive study		NCL (2005)
2005	January	Geophysics	Sociedad Punta del Cobre S.A.	Geodatos Geofísica de Avanzada	Manto Negro	transient electromagnetics (TEM); old Ortuzar Plant sector			
2006	March	Geophysics	Sociedad Punta del Cobre S.A.	Argali Geofísica E.I.R.L.	Manto Negro	magnetics; southwest sector		PSAD56 19S	
2007	November	Geophysics	Sociedad Punta del Cobre S.A.	KMS Borya	Manto Negro	IP (dipole-dipole)/Resistivity; north of mine		WGS84/PSAD56	
2008		Geophysics	SCMBR	Maping Ltda	Sierra Fritis and Buen Retiro				
2009-2010		Drilling - diamond	SCMBR	Vecchiola S.A.	Sierra Fritis	P-series: 2 diamond drill holes (P-1/P-2); total 670.6 m	Cubelli (2010); Penoles assays core		Cubelli (2010) see also Acevedo (2012)
2008		Petrography	Minera Peñoles Chile	Minera Peñoles de Chile (2010 report)	Sierra Fritis		Cubelli (2010)		Cubelli (2010)
2010	November	Field Review	Minera Peñoles Chile	Minera Peñoles de Chile (2010 report)	Sierra Fritis				Cubelli (2010)
2011	August	Geophysics	CGX Castilla Generacion S.A.	Argali Geofísica E.I.R.L.	Sierra Fritis	ground magnetics; 2x2 km grid for 82 line-km; 3D Mag-Inversion		PSAD56 19S	Jordan (2011a)
2011	September-October	Geophysics	Minera Sierra Fritis (Mineria Activa)	Argali Geofísica E.I.R.L.	Sierra Fritis	ground magnetics; ~10x27 km grid for 1,982 line-km; 3D Mag-Inversion		PSAD56 19S	Jordan (2011b)
2011-2012	December-May	Drilling - diamond	Mineria Activa	Expert Drillings	Sierra Fritis	SF-series: 3 diamond drill holes (SF-01B, 02, 03); total 1,945.95 m	hole SF-01 abandoned (249.5 m)		Mineria Activa (2012) Acevedo (2012)
2011	June	Drilling - Reverse Circulation	Sociedad Punta del Cobre S.A.	Pucobre	Buen Retiro	AR11-series: 23 RC holes; total 3,029 m	tested Cu-oxide zone south of the Manto Negro pit		Pucobre (2011)
2011	September	Field Program	Mineria Activa	Mineria Activa	Sierra Fritis	review of work done from September 2011 to May 2012			Acevedo (2012)
2015	February	Geophysics	SCMBR	Maping Ltda.	Buen Retiro	IP-Resistivity; 1 line 4.3 km long			Perez (2015)

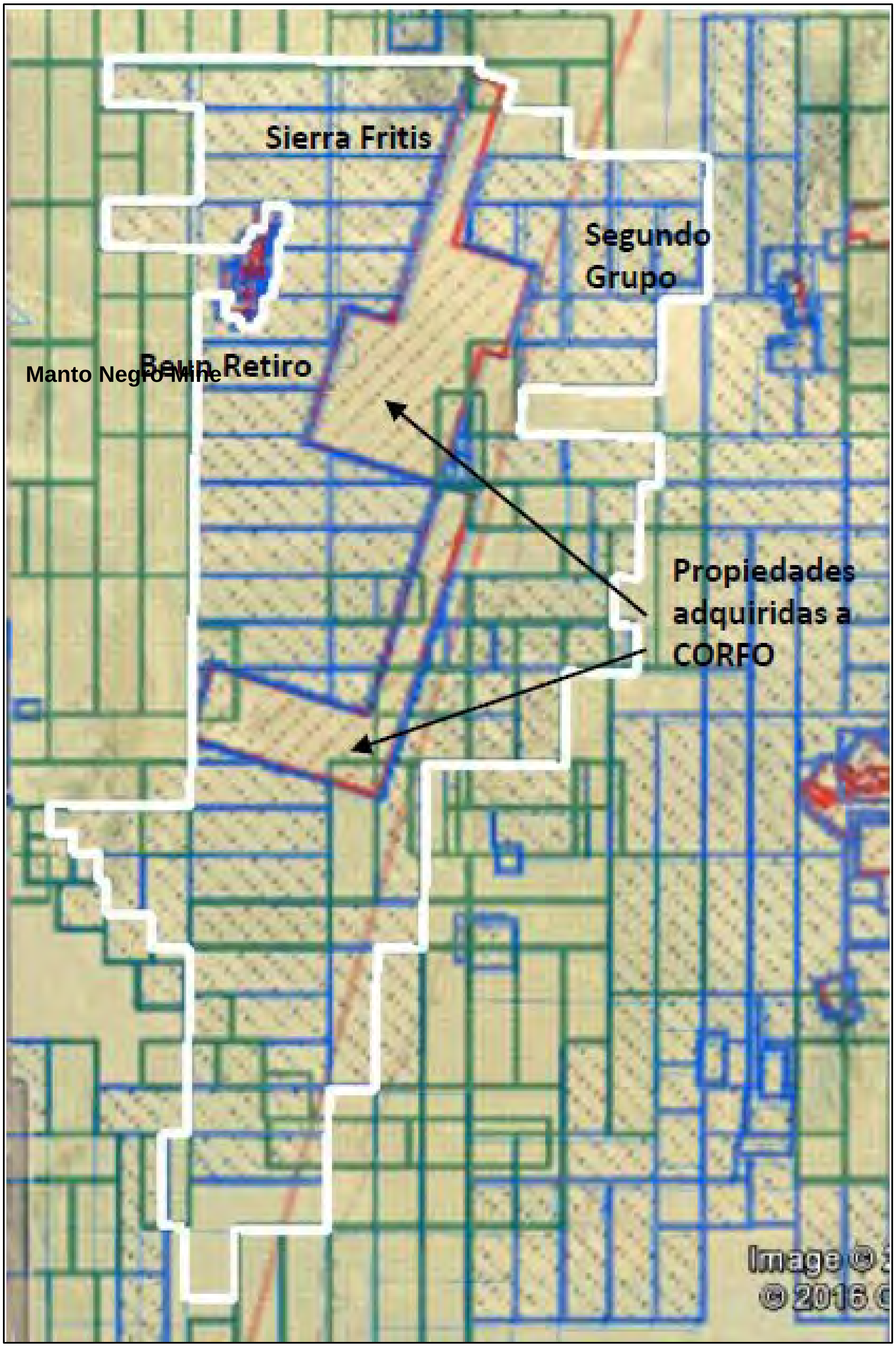


Figure 6-1. Historical outline of the Buen Retiro Copper Project (white Boundary) with the location of the historical CORFO property, the Manto Negro Mine, and the historical nomenclature used to describe the Property (Schubert, 2022).

6.3.1 Geological Mapping – Pucobre (2004)

In 2004, Pucobre completed geological mapping (1:500 scale) over the Manto Negro Mine Property, specifically over the Explotación concessions previously held by J & H Hochschild, located adjacent to the old Ortúzar Cu-cement plant (Pucobre, 2024).

Geological mapping revealed an important system of NE-NNE faults corresponding to the southern prolongation of the AFS. Large intrusive rocks (tonalites, granites and granodiorites) from the Jurassic and Tertiary are in contact with volcanic rocks from the Lower and Upper Cretaceous (La Negra and/or Bandurrias formations) and intrusives from the Lower and Upper Cretaceous (Figure 6-2).

Due to the nature of the drill holes (reverse circulation), only the oxidation zone of the deposit was recognized, and very partially the sulphide zone. Pucobre characterised the oxidized ore as consisting mostly of chrysocolla with less atacamite. Both were irregularly distributed along strike and depth.

Vein-type copper mineralization has a strike of just over 1,500 metres. The widths of mineralized veins in the oxidation zone varies from a few centimetres to 50 metres. In the segment selected for its best grades (profiles 6,922,200-N to 6,922,500-N) the intersections varied between 9.00 metres and 23.00 metres.

Regarding the Manto Negro orebody, NCL (2005) mentions that the oxidation zone reaches approximately 90 metres deep (around 310 m ASL) from where the groundwater level is present. The boundary is also marked by the appearance of zones very rich in native copper and where pyrite and chalcopyrite were also observed in the "cuttings" of the holes. The main advantage of the Manto Negro orebody is the wide oxidation zone, in addition its high copper grades. For the modeling of the mineralization, the cut-off grade was of 0.5% Cu(T). Sporadic values below this COG were allowed inside the orebody model, as a way of ensuring the continuity of the orebody material wall. The inclusion of some lower grade internal waste reduced the grade of the overall resource blocks.

NCL (2005) generated composites of 2 m for the borehole results from EMABLOS. The generalized view of the results obtained in this case indicates that the copper content of the vein varies between a minimum of 0.5% Cu(T) and 7.78% Cu(T).

The sulphide zone, which has not been widely recognized, is of importance in the selected segment, since it starts immediately below the supergene enrichment level, which is expressed by the high copper content below the water table. Drill hole MN-31 intersected 16.0 metres of 7.14% Cu(T), 0.88% Cu(S), and 6.26% Cu(Sul).

In relation to the hypogene zone (primary sulphides from the deepest levels) there is little information, except that the ore would consist of chalcopyrite, with pyrite as gangue. The primary sulphide zone is a good target to recognize, since the oxide zone is closely associated with semi-vertical breccia zones, which should have continuity towards the sulphide zone, due to the structural characteristics of the deposit.

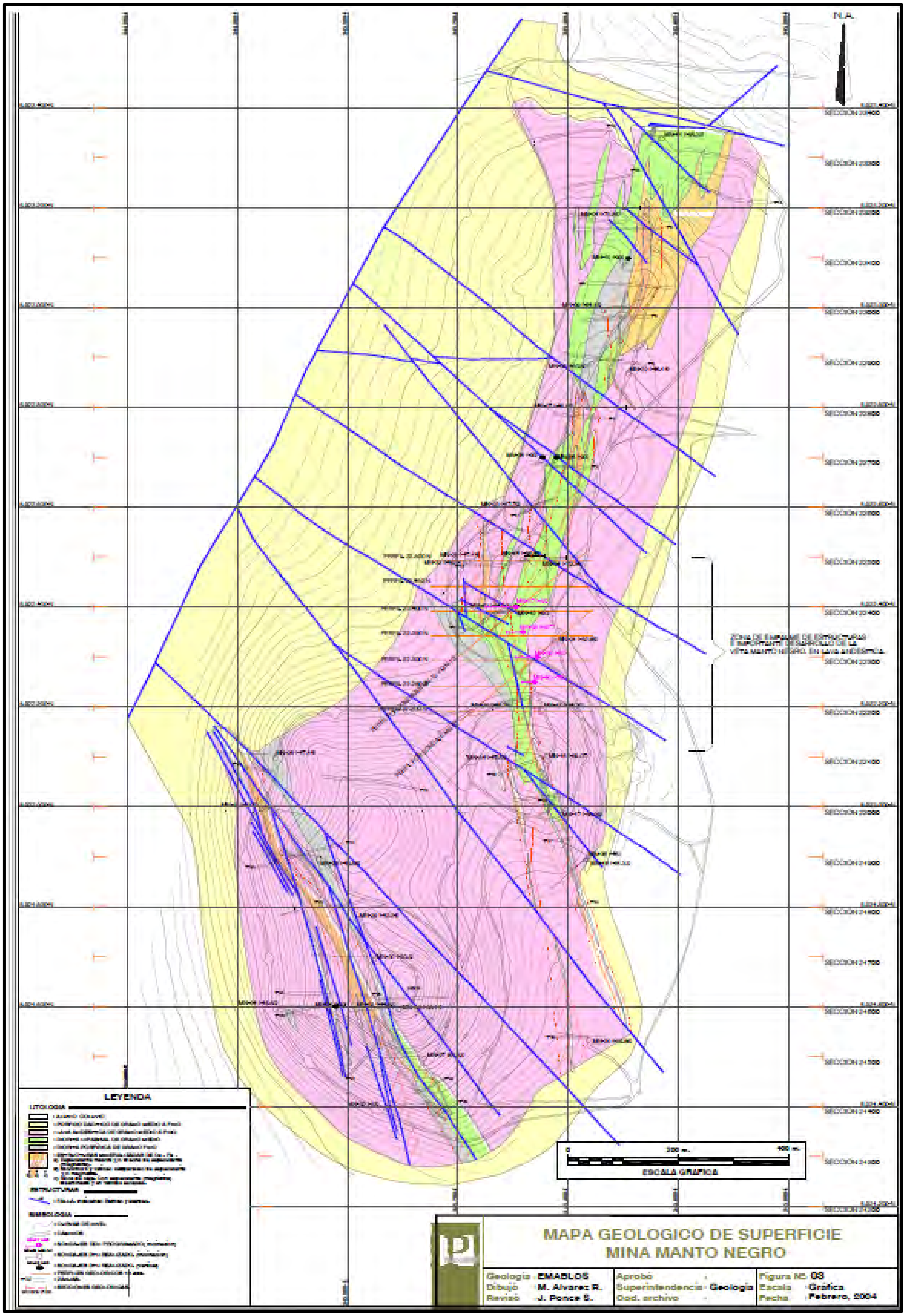


Figure 6-2. Geological map over the Manto Negro Mine area by Pucobre (Pucobre, 2004).

6.3.2 Drilling (Core, Reverse Circulation, Air Core) – Pucobre (2003-2004)

The database provided by NCL (2005) as used in the mineral resource estimation in early 2005 for the Manto Negro Mine, does not contain a complete record of the historical drilling. What is reported and is presumed to be from Pucobre drilling programs in 2003 and 2004, is from diamond drilling (DDH) in 15 holes (1,607.6 m), reverse circulation (RC) or DTH (air core) in 25 holes (3,130.7 m), and RC or DTH (air core) in 136 holes (15,216.6 m). There are no comprehensive reports available for the drilling completed prior to 2011 and as such the dates herein are approximate as is the type of drilling performed.

Up until to the end of 2004, Pucobre (partially funded by Hochschild Mining) completed a total of 19,954.9 m comprising at least 1,608 m of core drilling (DDH-series holes; Pucobre), 3,131 m of RC or DTH drilling (R-series holes; Hochschild Mining), and 15,217 m of RC or DTH (air core) drilling (MN-, MNE-, MNP-series; Hochschild Mining) (NCL, 2005). A summary of this drilling is provided in Table 6-2. It should be noted that the Author and the Company are uncertain if the R-, MN-, ME-, and MNP-series drill holes were either RC or DTH (air core).

Table 6-2. Summary (incomplete) of core and chip (RC or Air Core) drilling by Pucobre 2003 and 2004 (NCL, 2005).

Drill Hole	Type	UTMX (ME)	UTMY (mN)	UTMZ (m)	Length (m)	Az	Dip
DDH-37	core	345306.82	6922400.37	384.61	115.3	270.50	-54.7
DDH-38	core	345313.63	6922349.96	383.58	73.0	272.20	-54.1
DDH-39	core	345314.44	6922350.37	383.79	100.0	270.00	-80.0
DDH-40	core	345340.52	6922300.25	383.44	80.0	271.90	-47.9
DDH-41	core	345339.30	6922249.16	390.00	90.0	260.50	-73.3
DDH-42	core	345319.50	6922499.95	387.25	118.5	263.09	-69.8
DDH-43	core	345319.04	6922499.92	387.26	100.0	269.31	-53.0
DDH-44	core	345330.16	6922450.08	384.07	113.8	261.62	-75.4
DDH-45	core	345329.87	6922450.07	384.08	111.0	270.51	-63.3
DDH-46	core	345306.03	6922400.30	384.57	80.0	265.82	-38.6
DDH-47	core	345359.65	6922350.00	380.78	140.0	276.41	-70.6
DDH-48	core	345358.43	6922300.16	383.02	115.0	267.57	-63.7
DDH-49	core	345382.22	6922250.07	386.08	140.0	262.69	-74.0
DDH-50	core	345394.00	6922200.00	391.50	115.0	262.40	-65.8
DDH-51	core	345386.52	6922150.08	400.15	116.0	255.18	-88.1
				Sub-Total:	**1,607.6**		
R1	DTH or RC	345400.46	6922001.85	401.01	150.0	270.00	-75.0
R4	DTH or RC	345387.31	6922148.40	401.25	127.0	270.00	-65.0
R5	DTH or RC	345359.51	6922201.04	395.46	120.0	270.00	-75.0
R6	DTH or RC	345386.80	6922208.35	391.99	132.0	270.00	-75.0
R7	DTH or RC	345382.09	6922247.63	387.69	131.0	270.00	-65.0
R8	DTH or RC	345349.83	6922300.74	384.58	108.0	270.00	-55.0
R9	DTH or RC	345339.74	6922351.46	383.07	137.0	270.00	-55.0
R10	DTH or RC	345350.00	6922401.97	381.98	182.7	270.00	-85.0
R11	DTH or RC	345337.10	6922452.97	384.70	90.0	270.00	-80.0
R12	DTH or RC	345291.05	6922503.63	390.69	80.0	270.00	-30.0
R14	DTH or RC	345351.15	6922501.77	384.93	90.0	270.00	-60.0
R15	DTH or RC	345318.94	6922553.00	385.49	90.0	90.00	-75.0
R17	DTH or RC	345325.57	6922602.39	386.59	110.0	90.00	-80.0
R20	DTH or RC	345312.70	6922702.00	382.35	150.0	90.00	-80.0
R21	DTH or RC	345416.97	6922800.00	387.83	110.0	90.00	-75.0

Drill Hole	Type	UTMX (ME)	UTMY (mN)	UTMZ (m)	Length (m)	Az	Dip
R23	DTH or RC	345340.88	6922351.71	382.99	132.0	270.00	-70.0
R24	DTH or RC	345394.04	6922207.76	391.40	159.0	0.00	-90.0
R25	DTH or RC	345317.48	6922552.56	385.61	123.0	270.00	-60.0
R27	DTH or RC	345329.94	6922453.48	385.46	130.0	270.00	-80.0
R28	DTH or RC	345341.06	6922452.87	384.33	117.0	270.00	-80.0
R29	DTH or RC	345342.66	6922406.03	382.77	98.0	270.00	-79.0
R30	DTH or RC	345359.55	6922351.95	382.02	161.0	270.00	-80.0
R31	DTH or RC	345358.64	6922300.71	384.58	144.0	270.00	-80.0
R32	DTH or RC	345369.05	6922255.73	387.86	120.0	270.00	-55.0
R33	DTH or RC	345392.91	6922249.51	386.73	139.0	270.00	-80.0
				Sub-Total:	**3,130.7**		
MN-x1	DTH or RC	345197.45	6922500.24	377.27	140.0	93.40	-65.7
MN-001	DTH or RC	344977.68	6921600.36	401.51	110.0	0.00	-90.0
MN-002	DTH or RC	345094.16	6921599.34	434.49	145.0	269.34	-44.8
MN-003	DTH or RC	345096.40	6921599.49	434.76	186.0	263.85	-60.1
MN-004	DTH or RC	344869.82	6921600.30	373.45	180.0	88.89	-45.6
MN-005	DTH or RC	345378.47	6922699.77	387.36	26.0	0.00	-90.0
MN-006	DTH or RC	345353.46	6922700.15	387.29	166.0	0.00	-90.0
MN-007	DTH or RC	345417.49	6922799.83	387.78	126.0	89.79	-46.4
MN-008	DTH or RC	345445.13	6922893.89	384.32	106.0	87.86	-60.6
MN-009	DTH or RC	345467.40	6923000.01	381.05	100.0	83.81	-64.2
MN-010	DTH or RC	345508.94	6923098.34	378.48	100.0	0.00	-90.0
MN-011	DTH or RC	345572.52	6923343.44	362.79	90.0	274.64	-65.3
MN-012	DTH or RC	345305.36	6922402.03	385.23	120.0	0.00	-90.0
MN-013	DTH or RC	345301.96	6922401.07	385.44	130.0	227.91	-54.0
MN-014	DTH or RC	345320.08	6922501.87	388.05	102.0	90.08	-68.9
MN-015	DTH or RC	345355.55	6922198.85	394.81	110.0	271.33	-64.3
MN-016	DTH or RC	345364.81	6922098.42	408.34	125.0	265.74	-69.1
MN-017	DTH or RC	345399.09	6922001.20	400.86	125.0	275.09	-56.1
MN-018	DTH or RC	345438.51	6921899.63	388.00	125.0	302.75	-61.3
MN-019	DTH or RC	344844.60	6922001.18	381.23	138.0	102.27	-53.1
MN-020	DTH or RC	345439.04	6921538.65	373.64	120.0	277.93	-59.9
MN-021	DTH or RC	345500.65	6923199.04	370.61	94.0	88.81	-70.8
MN-022	DTH or RC	345511.49	6922873.01	380.60	136.0	217.44	-45.3
MN-023	DTH or RC	345324.55	6922601.35	385.05	110.0	230.21	-46.1
MN-024	DTH or RC	345364.27	6922499.03	382.79	105.0	73.01	-57.8
MN-025	DTH or RC	345228.59	6922498.61	381.77	120.0	89.91	-72.3
MN-026	DTH or RC	344870.19	6922104.06	385.92	148.0	85.55	-51.3
MN-027	DTH or RC	345141.72	6921501.01	405.41	170.0	272.87	-47.1
MN-028	DTH or RC	344949.36	6921901.69	413.58	140.0	267.24	-53.0
MN-029	DTH or RC	345017.33	6921799.01	419.33	156.0	225.00	-45.0
MN-030	DTH or RC	345049.80	6921698.88	424.19	180.0	272.24	-43.9
MN-031	DTH or RC	345378.50	6922338.39	380.81	156.0	268.99	-42.2
MN-032	DTH or RC	345064.44	6921401.26	374.21	150.0	87.17	-50.3
MN-033	DTH or RC	345219.45	6922496.29	381.99	120.0	227.27	-52.7
MN-034	DTH or RC	345221.23	6922095.07	397.78	100.0	85.61	-55.5
MN-035	DTH or RC	345226.72	6922197.19	389.24	110.0	236.37	-46.0

Drill Hole	Type	UTMX (ME)	UTMY (mN)	UTMZ (m)	Length (m)	Az	Dip
MN-036	DTH or RC	345434.00	6921900.00	390.00	126.0	228.04	-47.6
MN-053	DTH or RC	345324.24	6922475.01	383.90	65.4	90.00	-65.0
MN-054	DTH or RC	345324.24	6922475.01	383.90	80.0	270.00	-55.6
MN-055	DTH or RC	345284.44	6922475.03	377.11	42.0	270.00	-44.7
MN-056	DTH or RC	345350.10	6922427.75	377.79	82.4	270.00	-59.2
MN-058	DTH or RC	345279.31	6922425.05	371.45	60.0	270.00	-51.7
MN-059	DTH or RC	345352.04	6922398.59	367.85	91.6	270.00	-59.9
MN-060	DTH or RC	345321.62	6922399.85	360.20	60.0	270.00	-58.1
MN-061	DTH or RC	345267.64	6922399.91	370.78	45.0	270.00	-50.2
MN-063	DTH or RC	345305.50	6922375.12	365.20	61.3	270.00	-59.8
MN-065	DTH or RC	345332.05	6922324.88	347.74	60.0	270.00	-50.8
MN-067	DTH or RC	345324.87	6922275.03	335.73	40.0	270.00	-50.0
MN-069	DTH or RC	345358.07	6922225.14	336.06	45.0	90.00	-34.0
MN-070	DTH or RC	345357.87	6922225.05	335.99	35.0	270.00	-48.1
MN-073	DTH or RC	345349.96	6922174.89	341.60	36.9	270.00	-50.0
MN-075	DTH or RC	345351.79	6922500.04	379.59	62.5	90.00	-41.3
MN-076	DTH or RC	345355.13	6922435.11	377.64	73.1	90.00	-67.7
MN-077	DTH or RC	345351.35	6922550.28	384.07	60.5	90.00	-64.1
MN-078	DTH or RC	345349.72	6922550.13	384.20	90.4	270.00	-58.3
MN-079	DTH or RC	345355.13	6922435.11	377.64	50.0	90.00	-40.0
MN-080	DTH or RC	345350.49	6922500.07	379.69	50.0	90.00	-43.6
MN-082	DTH or RC	345404.61	6922002.65	398.93	90.0	270.00	-59.2
MN-083	DTH or RC	345381.41	6922050.00	405.43	100.0	270.00	-74.7
MN-084	DTH or RC	345324.87	6922275.03	335.73	50.0	90.00	-69.2
MN-085	DTH or RC	345351.37	6922174.74	341.52	38.5	0.00	-90.0
MN-086	DTH or RC	345349.52	6922599.90	386.43	57.5	90.00	-63.7
MN-087	DTH or RC	345367.07	6922174.33	341.69	40.0	90.00	-40.8
MN-088	DTH or RC	345349.52	6922599.90	386.43	85.8	0.00	-90.0
MN-102	DTH or RC	345298.71	6922323.01	335.31	40.2	90.00	-60.0
MN-103	DTH or RC	345314.96	6922375.22	329.45	60.2	90.00	-60.0
MN-104	DTH or RC	345311.93	6922375.06	329.55	66.0	270.00	-55.0
MN-105	DTH or RC	345351.29	6922332.99	334.52	100.5	270.00	-60.0
MN-106	DTH or RC	345301.99	6922414.96	329.74	60.2	270.00	-50.0
MN-109	DTH or RC	345247.91	6922612.91	376.91	142.6	90.00	-45.0
MN-110	DTH or RC	345330.00	6922525.00	336.00	68.5	90.00	-55.0
MN-111	DTH or RC	345351.29	6922332.99	334.52	87.6	270.00	-45.0
MN-112	DTH or RC	345355.45	6922269.28	319.56	76.0	270.00	-70.0
MN-113	DTH or RC	345335.46	6922454.53	323.48	31.6	90.00	-70.0
MN-114	DTH or RC	345330.19	6922424.87	324.15	48.7	90.00	-70.0
MN-115	DTH or RC	345328.97	6922424.86	324.12	32.1	270.00	-70.0
MN-116	DTH or RC	345231.00	6922159.95	394.44	44.1	90.00	-45.0
MN-120	DTH or RC	345145.50	6921501.06	402.51	142.0	225.60	-52.9
MN-121	DTH or RC	345141.00	6921500.00	405.00	145.5	270.00	-60.0
MN-122	DTH or RC	345140.00	6921526.00	410.00	109.4	270.00	-30.0
MN-123	DTH or RC	345140.00	6921526.00	410.00	120.5	270.00	-60.0
MN-126	DTH or RC	345197.12	6922500.25	379.62	140.0	96.18	-67.8
MN-127	DTH or RC	345209.56	6922524.00	380.08	112.0	90.93	-62.0

Drill Hole	Type	UTMX (ME)	UTMY (mN)	UTMZ (m)	Length (m)	Az	Dip
MN-131	DTH or RC	344970.16	6921611.28	399.62	126.0	68.79	-61.9
MN-133	DTH or RC	344971.26	6921636.17	398.97	117.2	94.98	-68.0
MN-135	DTH or RC	344972.01	6921636.23	399.02	122.0	89.64	-50.3
MN-136	DTH or RC	344987.19	6921593.15	401.51	96.7	86.40	-74.0
MN-137	DTH or RC	344987.91	6921593.06	401.47	122.0	99.52	-64.9
MN-138	DTH or RC	344961.36	6921695.86	398.14	112.8	94.22	-70.2
MN-139	DTH or RC	344961.98	6921695.80	398.16	132.0	94.79	-54.5
MN-140	DTH or RC	344961.78	6921694.27	398.16	179.8	141.45	-44.9
MN-141	DTH or RC	344961.42	6921694.75	398.15	182.0	136.47	-59.0
MN-142	DTH or RC	344867.81	6921609.62	372.95	75.8	84.66	-39.1
MN-144	DTH or RC	344916.85	6921822.14	393.13	133.6	65.91	-52.3
MN-145	DTH or RC	344938.74	6921772.05	395.32	126.4	66.00	-43.0
MN-147	DTH or RC	344947.00	6921746.72	397.13	124.8	51.96	-68.8
MN-148	DTH or RC	344947.43	6921746.86	396.28	170.0	61.39	-67.8
MN-149	DTH or RC	345227.69	6921400.34	378.20	170.0	302.31	-48.9
MN-151	DTH or RC	345259.55	6921513.21	387.71	151.0	358.29	-39.0
MN-152	DTH or RC	345256.85	6921513.21	387.85	150.0	307.22	-54.8
MN-150	DTH or RC	345227.71	6921400.36	378.23	130.0	307.65	-47.8
MN-153	DTH or RC	344835.95	6921873.79	376.89	136.7	81.62	-44.3
MN-154	DTH or RC	345226.56	6921399.79	378.11	106.0	267.85	-45.9
MN-155	DTH or RC	345227.30	6921399.67	378.11	118.5	280.90	-48.8
MN-156	DTH or RC	344814.67	6921920.76	374.97	135.5	73.81	-44.5
MN-157	DTH or RC	345149.09	6921495.85	402.23	105.0	103.53	-44.7
MN-158	DTH or RC	345117.94	6921522.42	410.49	120.0	89.60	-68.7
MN-159	DTH or RC	345098.49	6921599.40	433.53	122.0	230.63	-52.1
MN-160	DTH or RC	345149.82	6921361.35	371.40	103.5	263.28	-74.7
MN-161	DTH or RC	345154.25	6921361.89	371.45	146.0	78.61	-34.0
MN-162	DTH or RC	345148.33	6921360.99	371.37	117.0	266.55	-42.0
MN-165	DTH or RC	345142.54	6921330.95	365.93	97.0	265.91	-42.1
MN-164	DTH or RC	345146.00	6921331.49	365.88	124.1	100.75	-63.5
MN-163	DTH or RC	345146.88	6921331.33	365.89	113.5	103.25	-54.5
MN-166	DTH or RC	345098.88	6921597.62	433.59	159.8	217.50	-56.2
MNE-01	DTH or RC	345316.07	6922637.50	385.48	106.5	97.00	-52.0
MNE-02	DTH or RC	345223.25	6922644.16	371.87	110.0	91.00	-55.4
MNE-03	DTH or RC	345250.04	6922700.04	372.79	190.0	90.00	-39.4
MNE-04	DTH or RC	345248.78	6922700.03	373.03	220.1	88.80	-68.8
MNE-05	DTH or RC	345197.96	6922800.31	365.27	109.5	97.98	-52.6
MNE-06	DTH or RC	345233.72	6922899.60	363.94	103.6	98.54	-52.1
MNE-07	DTH or RC	345212.55	6922899.95	362.70	139.6	83.75	-52.0
MNE-08	DTH or RC	345210.77	6922899.78	362.55	123.6	258.59	-53.9
MNE-09	DTH or RC	345230.18	6922999.67	363.57	126.1	95.56	-52.3
MNE-10	DTH or RC	345241.09	6923100.04	362.04	115.5	93.52	-42.7
MNE-11	DTH or RC	345235.07	6923200.64	359.96	116.4	92.11	-38.6
MNE-12	DTH or RC	345236.61	6923300.05	357.18	196.5	90.65	-40.6
MNE-13	DTH or RC	345288.33	6923301.02	360.13	176.3	90.59	-45.5
MNE-14	DTH or RC	345236.08	6923350.53	355.30	110.2	92.42	-45.5
MNE-15	DTH or RC	345236.97	6923249.80	359.01	345.8	92.08	-40.5

Drill Hole	Type	UTMX (ME)	UTMY (mN)	UTMZ (m)	Length (m)	Az	Dip
MNE-16	DTH or RC	345235.97	6923249.80	359.01	159.5	270.00	-45.0
MNE-17	DTH or RC	345377.12	6923342.80	360.33	127.1	268.13	-50.9
MNE-18	DTH or RC	345405.58	6923340.79	360.99	148.6	275.03	-49.4
MNE-19	DTH or RC	345238.57	6923099.51	361.96	162.9	266.03	-43.4
MNP070801	DTH or RC	345181.50	6922440.00	375.50	97.8	125.00	-60.0
MNP070802	DTH or RC	345181.50	6922440.00	375.50	133.1	125.00	-45.0
				Sub-Total:	**15,216.6**		
				Total:	**19,954.9**		

6.3.3 Drilling (Blast Holes) – Pucobre (2005-2009)

As part of the open pit mine production Pucobre drilled 37,670 blast holes from 2005 to 2009, totalling about 243,312 metres. The Author has reviewed the excel files associated with the blast hole drilling, including the collars and assays but there is not other documentation associated with the blast hole drilling. Assays range from 0.00% Cu(T) to 26.09% Cu(T) (average 0.37% Cu(T) in 35,524 samples) and a selected list of high-grade assay results is provided in Table 6-3. No other information can be provided by the Author.

Table 6-3. Selected high-grade copper results from blast holes, Pucobre production 2005 to 2009.

Blast Hole	From (m)	To (m)	Cu(T) (%)
DIC-468	0	5.9	12.55
2006-2174	0	6.26	10.13
2006-2473	0	7.09	10.96
2006-4374	0	6.95	10.62
2006-5134	0	6.35	15.22
2006-5495	0	5.97	16.11
2006-5497	0	6.02	10.98
2006-5955	0	5.76	12.51
2006-7278	0	6.5	11.84
2006-7855	0	5.79	12.52
2006-8292	0	7.15	13.02
2006-8591	0	6.74	10.44
2006-11630	0	6.78	11.81
2006-13415	0	7.37	11.07
MAR-5522007	0	6.72	10.63
JUN-0052007	0	7.65	12.45
AGO-5452007	0	6.36	12.42
AGO-5462007	0	6.35	11.23
SEP-2862007	0	6.29	12.92
OCT-3132007	0	6.06	12.39
30817ENERO-2008	0	5.76	10.09
30818ENERO-2008	0	5.79	11.09
30819ENERO-2008	0	5.95	12.09
30820ENERO-2008	0	5.76	13.09

Blast Hole	From (m)	To (m)	Cu(T) (%)
30821ENERO-2008	0	5.76	14.09
30822ENERO-2008	0	5.67	15.09
30823ENERO-2008	0	5.61	16.09
30824ENERO-2008	0	5.5	17.09
30825ENERO-2008	0	5.44	18.09
30826ENERO-2008	0	5.51	19.09
30827ENERO-2008	0	5.46	20.09
30828ENERO-2008	0	5.43	21.09
30829ENERO-2008	0	5.46	22.09
30830ENERO-2008	0	5.56	23.09
30831ENERO-2008	0	5.62	24.09
30832ENERO-2008	0	5.63	25.09
30833ENERO-2008	0	5.61	26.09
35606AGOSTO-2008	0	5.58	11.64
35700AGOSTO-2008	0	7.27	10.1
35699AGOSTO-2008	0	7.25	10.1
35954SEPT-2008	0	5.68	12.55
36078SEPT-2008	0	7.64	13.49
36186SEPT-2008	0	5.51	12.46
36295SEPT-2008	0	7.8	11.46
36786OCTUBRE-2008	0	7.18	10.4
36153NOV2008	0	7.69	13.73
36154NOV2008	0	7.64	10.96
36159NOV2008	0	7.45	10.32
289DIC2008	0	9.23	10.22
292DIC2008	0	9.43	10.63
297DIC2008	0	8.62	14.3
298DIC2008	0	8.56	13.76
299DIC2008	0	8.61	15.49
300DIC2008	0	8.51	11.71

6.3.4 Geophysics TEM – Pucobre (2005)

From 15 to 16 January 2005, Geodatos Geofísica de Avanzada ("Geodatos") completed a total of six (6) Transient Electromagnetic ("TEM") borehole surveys, with a square loop of 200 m on each side of the borehole. The survey was located near the old Ortuzar Plant (Geodatos, 2005). The survey was contracted to Geodatos by Sociedad Punta del Cobre S.A. (Figure 6-3), which located the survey in the planned Wast Dump zone, with the aim of sterilizing the area. .

The geophysical interpretation of the TEM data consists of the inversion of the apparent resistivity curves to obtain the resistivities and thicknesses of a stratified subsurface model (1D model). This 1D model is considered valid in the vicinity of each station. The measurement of TEM boreholes along a profile makes it possible to detect lateral changes in geoelectrical parameters, which leads to a 2D view of the subsurface in each geoelectric section.

6.3.4.1 Significant Results, Recommendations and Conclusions

The objective of this work was the quantitative determination of the electrical properties of the subsoil in the waste dump area. These geoelectrical properties depend on the mineralogy (lithology) and microstructure (porosity, granulometry, fracturing) of the rocks.

The results of geoelectric prospecting are presented in the geological interpretation section of Figure 6-4 based on resistivity profiles combining the Layer Model and Smooth Model.

The interpretation of the Resistivity section has allowed interpreting the presence of the following geological units along the profile (Figure 6-4):

- A surface layer approximately 70 metres thick that has an average resistivity of approximately 30 ohm-m and has been interpreted as a sedimentary fill that corresponds to gravels and sands from the Atacama Desert.
- Immediately below the sedimentary surface cover, there is a unit of high relative resistivity, which has been interpreted as the basement rock. Since there is a very large variation in the resistivity of this basal rock, a drop in the sedimentary fill has been interpreted, where there are two different geological units. In the eastern half of the profile, a resistivity ranging from 1200 ohm-m to 4000 ohm-m is observed. and that corresponds to a healthy, possibly intrusive rock. In the western half of the profile, a resistivity ranging from 140 ohm-m to 450 ohm-m is observed. and that it has been interpreted as a possibly altered rock or a volcanic rock.
- Although in the western part of the profile it has been interpreted that the basal rock is approximately 70 metres deep, it can be seen that under the basal rock a relatively conductive unit is observed between stations 1 and 2. This unit has an average resistivity of 34 ohm-m and can be interpreted as a change in the properties of the basement, either by an alteration of the rock or by the presence of a unit of properties less hard than the rock that overlies it.

The possibility that the increase in the conductivity of the basal rock under stations 1 and 2 at the depth of approximately 160 metres, originates from alteration and possibly mineralization, is not ruled out. Therefore, Geodatos recommended to carry out an exploratory drilling in the vicinity of station 2, aimed at studying the relatively conductive zone located below 160 metres depth (Figure 6-4).

Pucobre (2011) mention the execution of a condemnation drill hole in the future waste dump area (probably in the zone suggested by Geodatos), but there is no record of this drilling in the available historical data base.

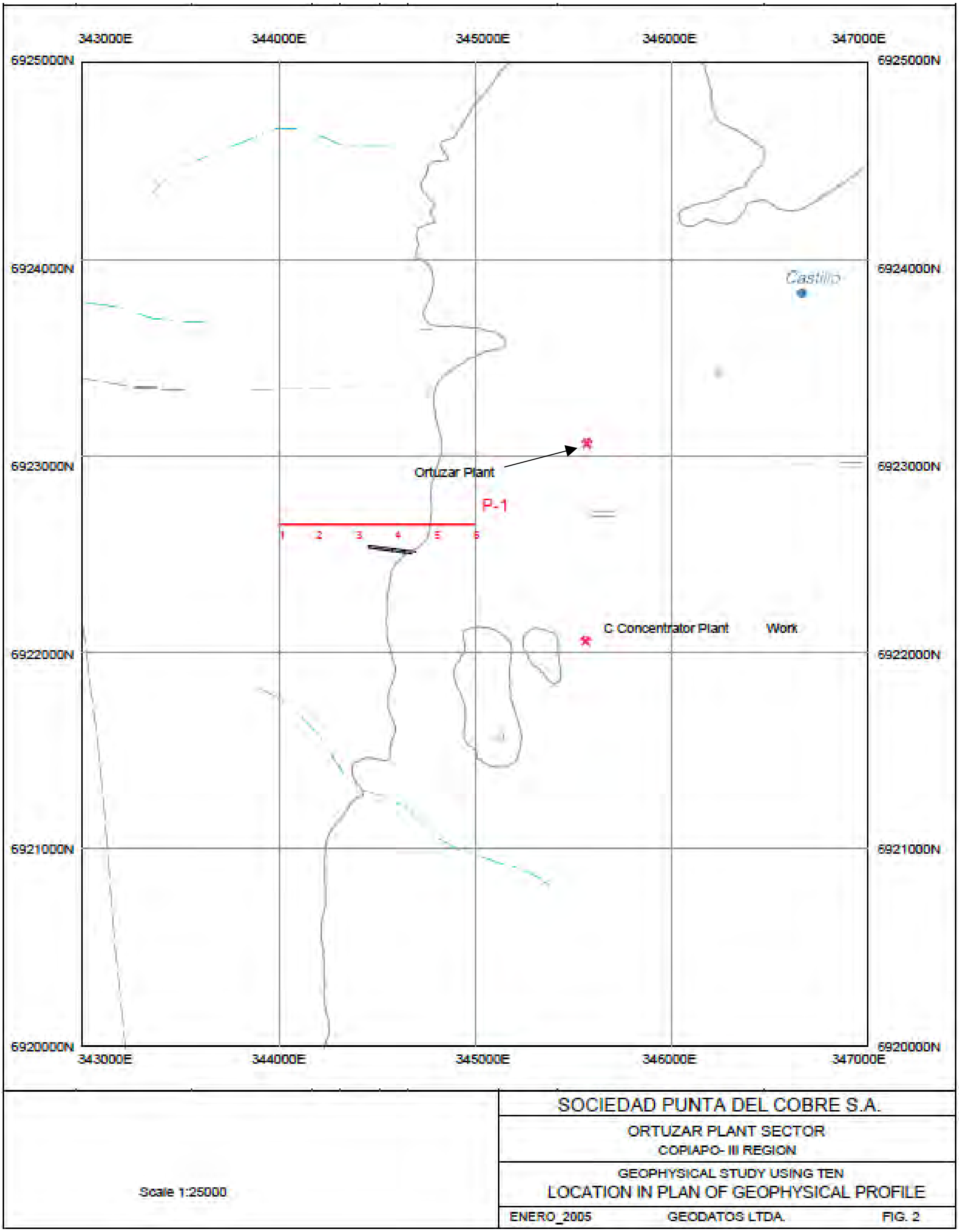


Figure 6-3. Location of the TEM survey line and the six boreholes (red line 1 to 6) and location of the old Ortuzar Plant and the C Concentrator Plant (Geodatos, 2005).

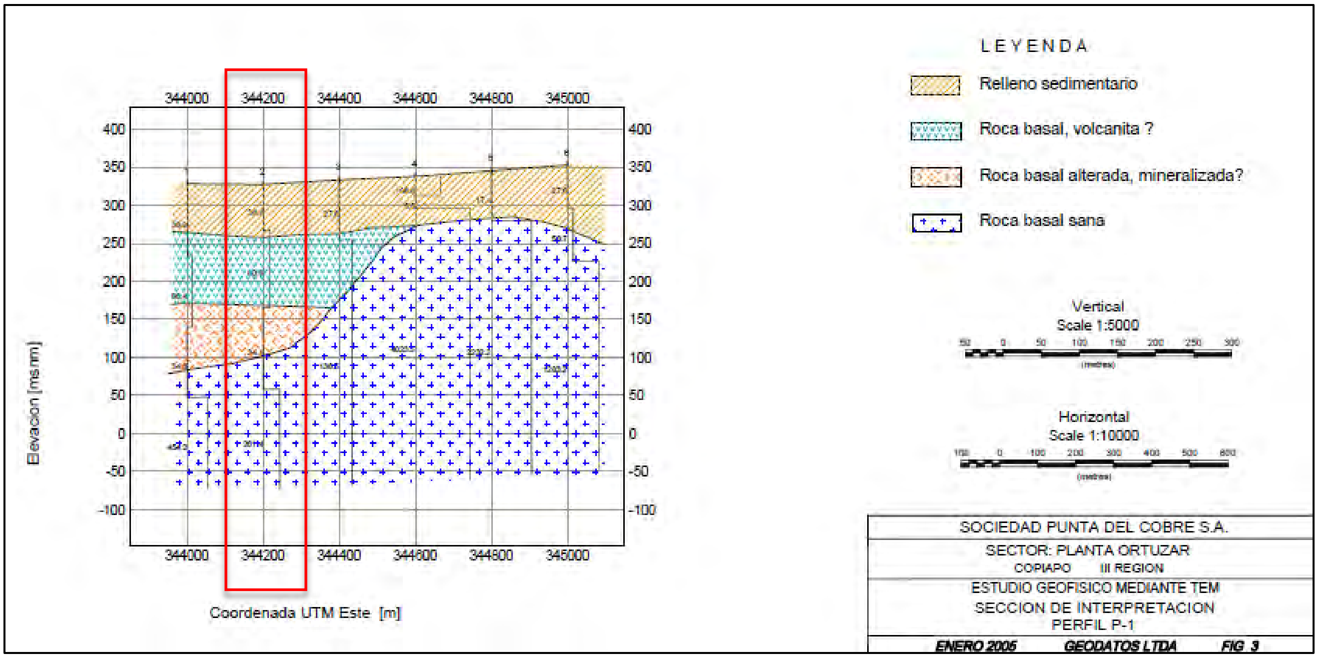


Figure 6-4. Geological section interpretation of the survey area based on TEM resistivity results and the recommended target area (red rectangle)(Geodatos, 2005).

6.3.5 Mineral Exploration Program - Teck Cominco (2004-2005)

In 2004, Teck Cominco ("Teck") and Japan Oil, Gas and Metals National Corporation ("JOGMEC") completed exploration work together under the CCJV, over a group of mining concessions comprising Teck's concessions, option agreements with Alejandro Moreno, and the Chilean Economic Development Agency (CORFO)(Tack Cominco, 2006). The total concessions covered 33,855 hectares. The work was focused within the Sierra Fritis area.

Under the CCJV, Teck carried out surface geo-mapping and sampling (work done by JOGMEC´s geologist Taro Kabashima), several geophysical surveys including gradient IP, pole-dipole IP, ground magnetometry, and an orientation gravity survey, and 10 air core drill holes ("AC") to test several geophysical anomalies (Teck Cominco, 2006).

Visual compilations of the work completed by Teck and JOGMEC in 2004 and 2005 is provided in Figure 6-5, Figure 6-6, Figure 6-7, and Figure 6-8. The noted aeromagnetic lineaments in Figure 6-5 are likely interpreted from Government of Chile airborne magnetics data.

6.3.5.1 Ground Magnetometer (2004)

A detailed ground magnetic survey was conducted to define the magnetic susceptibility and structure as well as the vertical gradient anomalies. This survey defined the north-northeast Los Colorados structure and a large magnetic body in the central part of the Las Americas project (presently Sierra Fritis group of concessions) as well as several more discrete structures and anomalies (Teck Cominco, 2006). Results from the detailed ground magnetics survey are shown in Figure 6-5 and Figure 6-7.

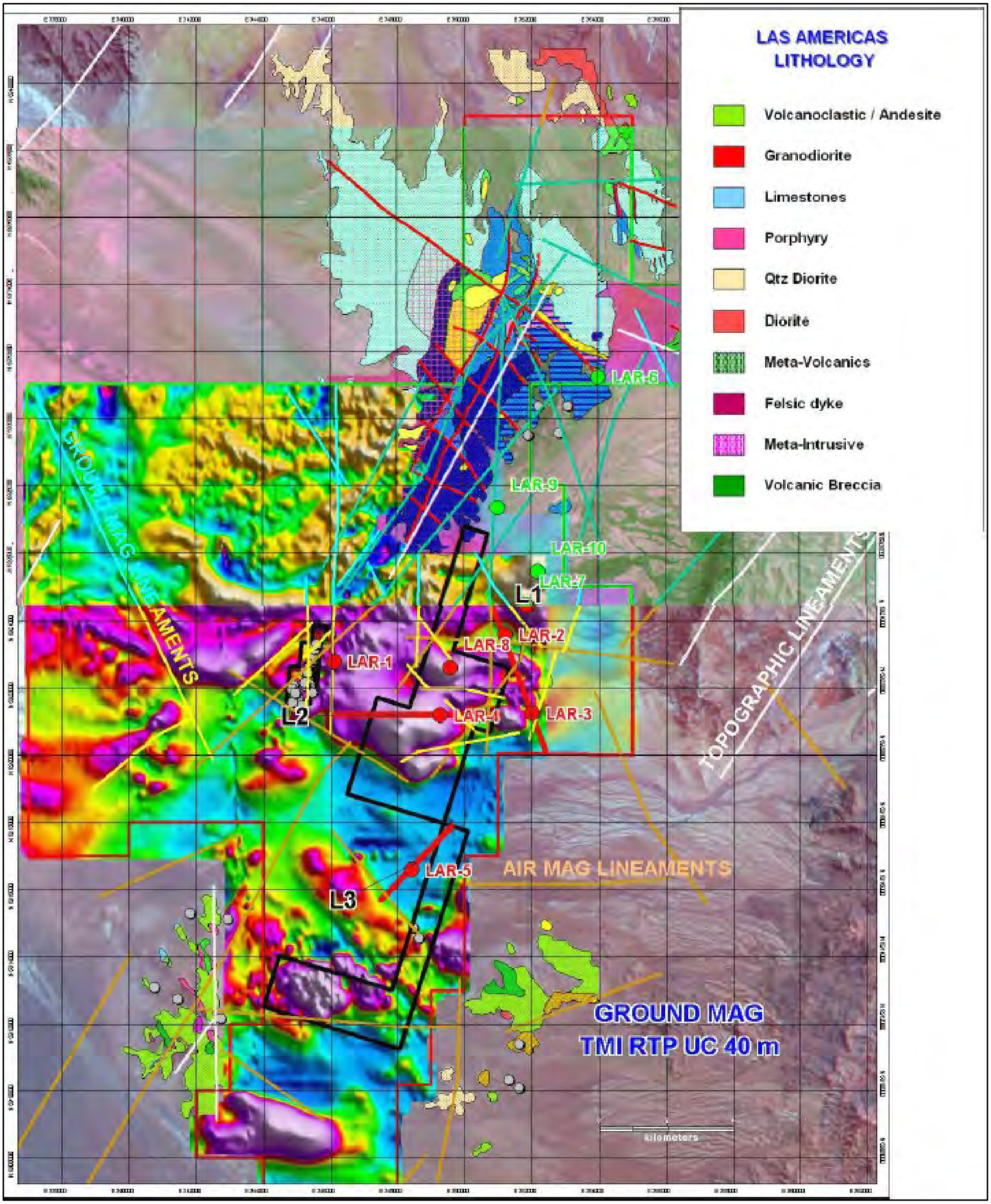


Figure 6-5. Plan map over the Manto Negro area showing the detailed ground mag (TMI RTP UC 40 m) and the location of the 10 air core (LAR series) drill holes, with interpreted structural lineaments, all overlain on the general geology of the property (Teck Cominco, 2006).

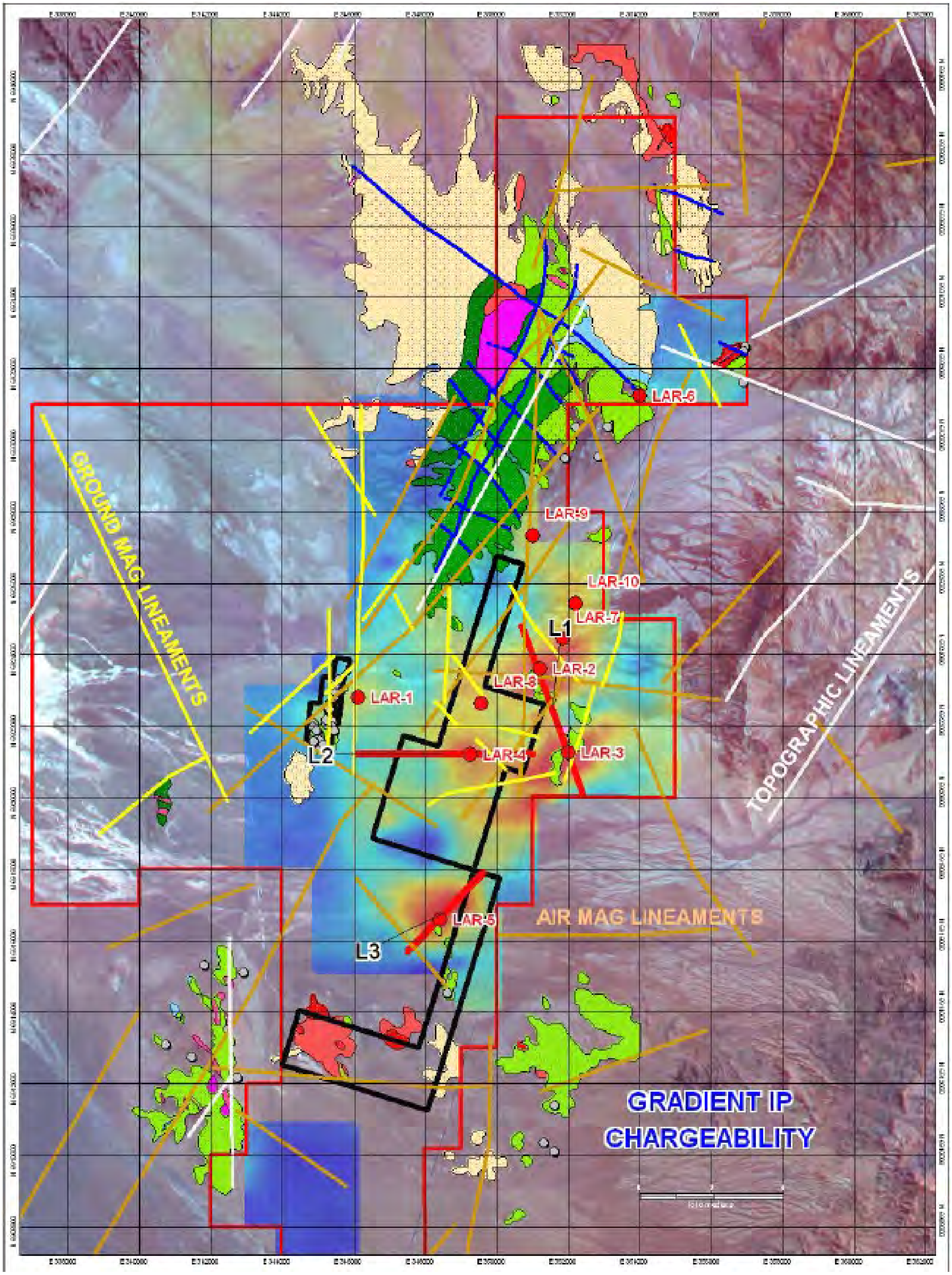


Figure 6-6. Plan map over the Manto Negro area showing the gradient IP chargeability results and the location of the 10 air core (LAR series) drill holes, with interpreted structural lineaments, all overlain on the general geology of the property; *see* Figure 6-5 for geological legend (Teck Cominco, 2006).

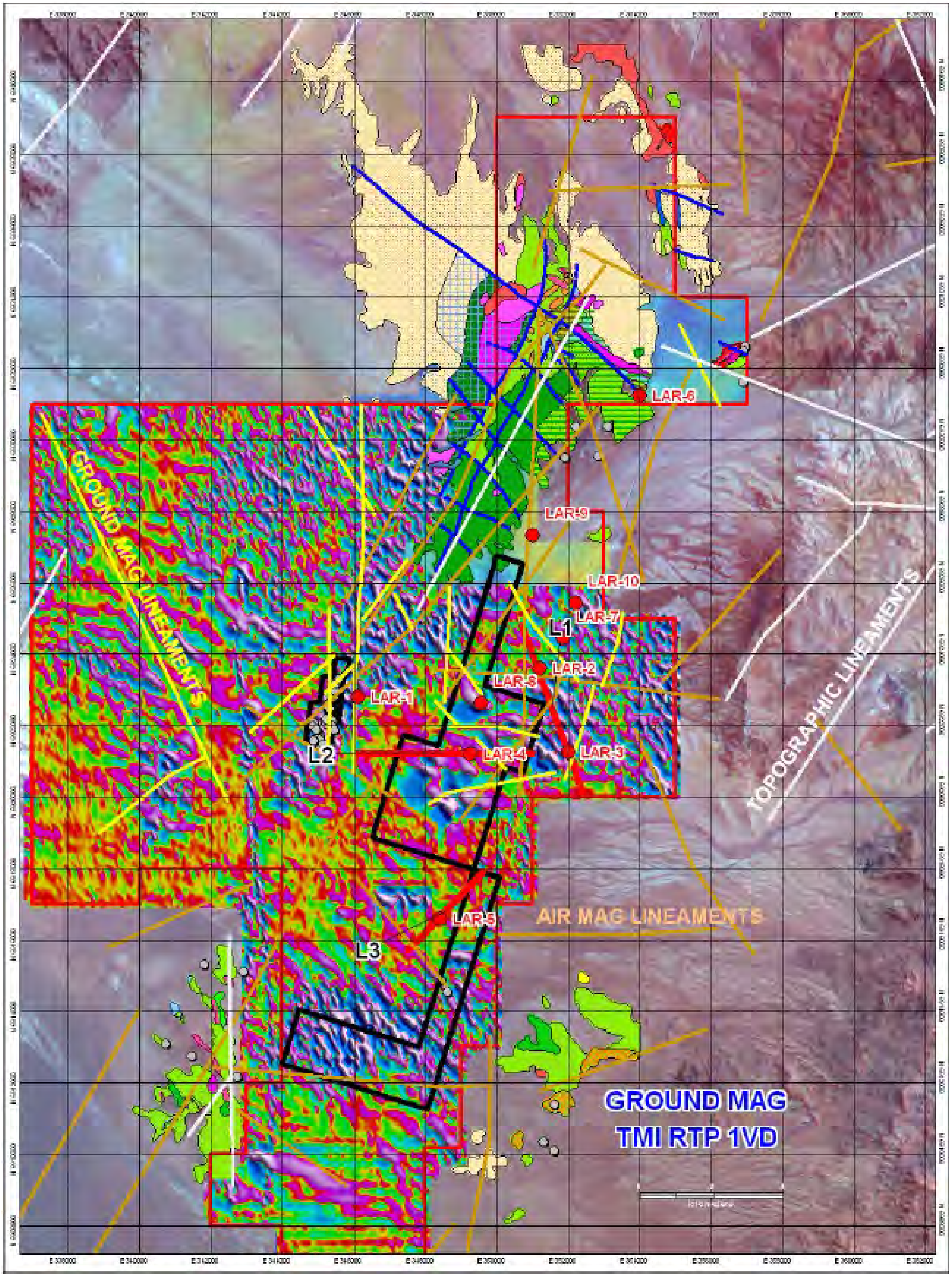


Figure 6-7. Plan map over the Manto Negro area showing the detailed ground magnetics (TMI, RTP, 1VD), the location of the 10 air core (LAR series) drill holes, with interpreted structural lineaments, all overlain on the general geology of the property; *see* Figure 6-5 for geological legend (Teck Cominco, 2006).

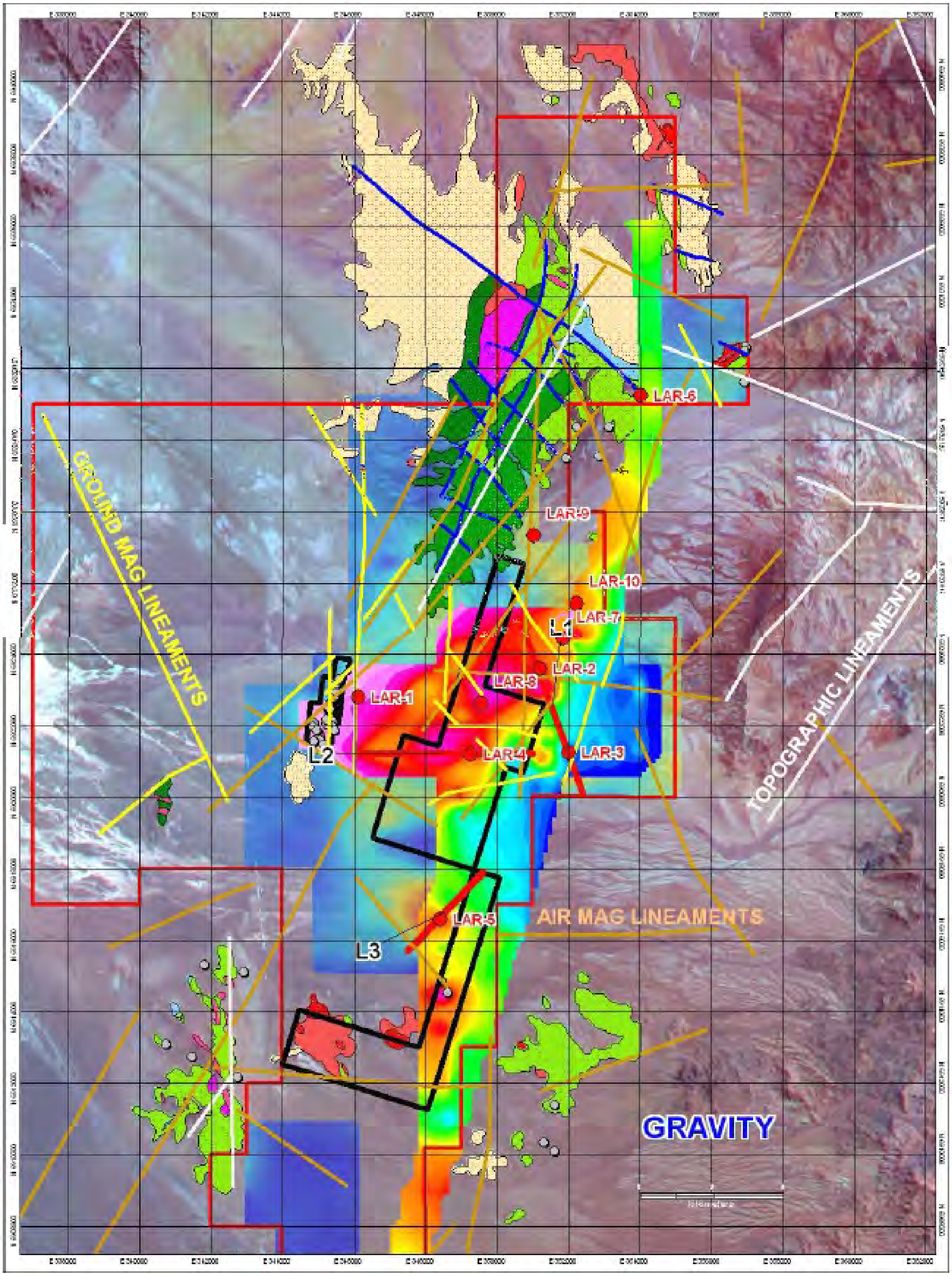


Figure 6-8. Plan map over the Manto Negro area showing the detailed ground gravity survey results, the location of the 10 air core (LAR series) drill holes, with interpreted structural lineaments, all overlain on the general geology of the property; *see* Figure 6-5 for geological legend (Teck Cominco, 2006).

6.3.5.2 Geochemical Rock Sampling (2004)

In 2004, a total of 24 rock samples were collected from the property targeting the area of alteration (Camus, 2006). The rock grab samples were taken from the rock units of the Sierra de Fritis and from the Castilla (Manto Negro) Mine. In general, copper contents generally exceeded 1,000 ppm Cu (Camus, 2006).

6.3.5.3 Geophysics – Gradient IP / Resistivity (2005)

During the months of May and June 2005, Teck Cominco Chile contracted Quantec Geoscience Chile Limitada ("Quantec") to conduct Gradient IP and Resistivity surveys (186.3 line-km) at the Las Americas Project (now mainly the Sierra Fritis area in Bueno Retiro Project). The objective of the geophysical surveys was to identify and map zones with the potential to host copper mineralization.

The IP and Resistivity surveys were conducted in the time domain utilizing the gradient array (PSAD56 UTM Zone 19S). Multiple current bipoles were employed during the survey. Station and dipole spacing were 300 metres and 600 metres. Data were collected over 15 north-south lines separated by 1 kilometre. In total, 186.3 line-km of data was collected. Data are presented as plan maps of the apparent resistivity (Figure 6-9) and chargeability. Detailed interpretation is not included, but several observations are included (Pystynen, 2005).

Current electrodes consisted of 4-6 pits which were dug by hand. Pit dimensions average 2 m x 2 m x 1 m and were lined with aluminum foil and wetted with hundreds of liters of water. The contact impedances were low after the amount of preparation taken. Receiver electrodes consisted of a stainless-steel rod imbedded in a pit. Many of the pits had been dug and watered with 10 to 20 liters of water. With this preparation, electrode contact impedances were generally low. Multiple readings were acquired at each point, and data were averaged after removal of spurious readings. Signal levels were moderate to high, except in the conductive portions of the grid which were located to the south. In this area, signal levels were poor and the dipole spacing was increased to 600 m to acquire adequate data. A total of 28 current bipoles were utilized during the survey.

Significant Results, Recommendations and Conclusions

The gradient array IP survey has outlined several zones of anomalously high chargeability, particularly on the central portion of the grid. Chargeability anomalies of up to 20 mV/V are present in various areas. The apparent resistivity plan view shows both resistive and conductive zones. The resistive zones may be indicative of silicified zones or fresh, unaltered rock with low permeability. The conductive zones may be indicative of structures, clays, conductive ground water, or conductive propylitic or argillic alteration. When the gradient array is employed, it is very important to consider the geology when interpreting the plan views. Anomalies will be diluted significantly by alluvial cover or other conductive material that overly the target zones. Likewise, variations in the depth of overlying cover will affect the anomaly amplitudes. Ideally, any other geological or geochemical data should also be considered when interpreting the data (Pystynen, 2005).

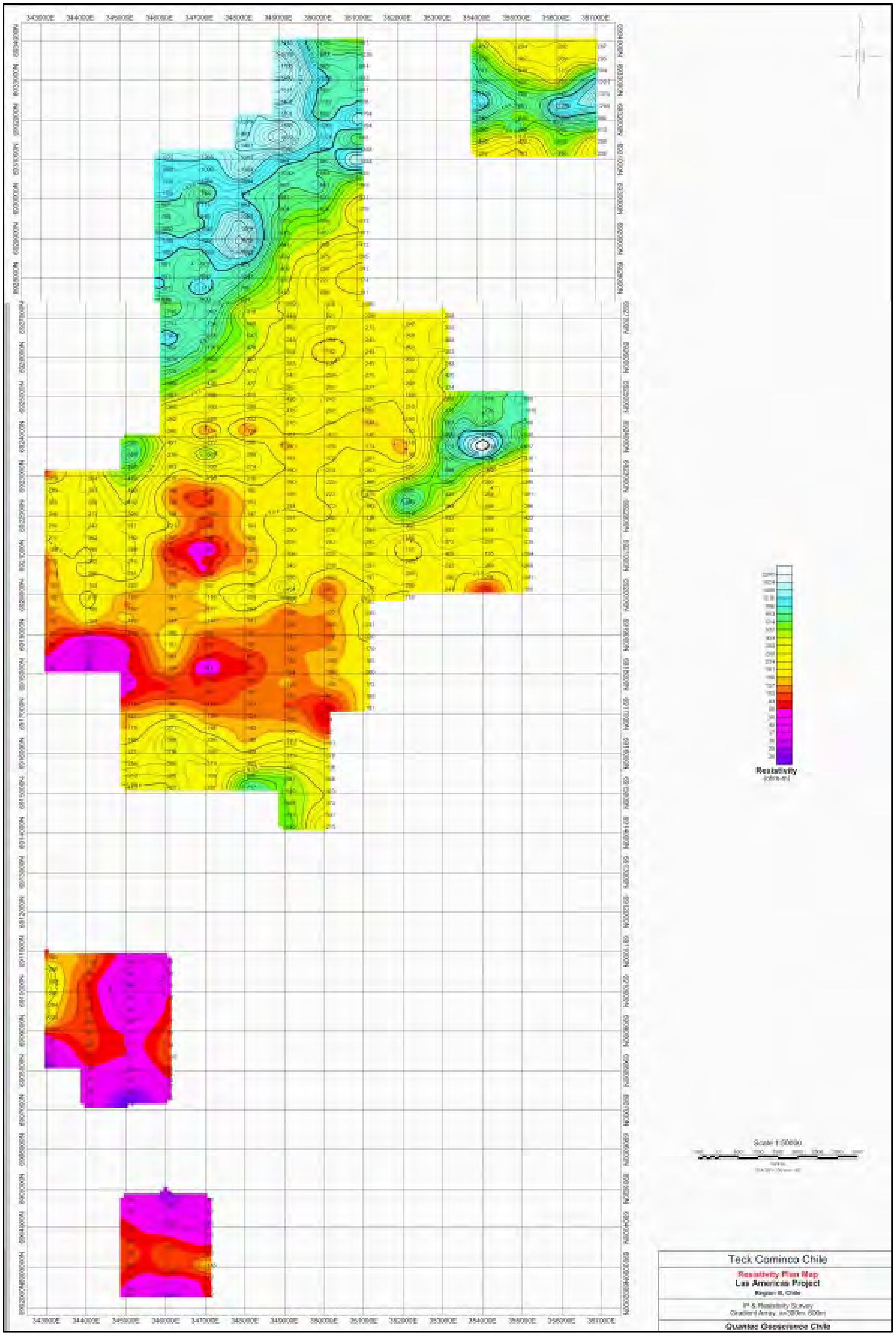


Figure 6-9. Resistivity plan map for the Las Americas Project (now Buen Retiro), Chile (Pystynen, 2005a).

6.3.5.4 Geophysics – Pole-Dipole IP /Resistivity (2005)

During the month of September 2005, Teck Cominco Chile contracted Quantec to conduct 3 lines of Pole-Dipole IP and Resistivity surveys (13.0 line-km) at the Las Americas Project (now Bueno Retiro) (Figure 6-10).

The objective of the geophysical surveys was to identify and map zones with the potential to host copper mineralization (Pystynen, 2005b). This was a follow up program to the May-June 2005 gradient IP survey (Pystynen, 2005a) which delineated several anomalous zones which warranted further investigation.

Three pole-dipole lines were chosen based on the gradient array survey anomalies. The IP survey utilized a pole-dipole array with a dipole spacing of 100 m expanded through 6 separations (n=1 to 6). The transmitted signal was a time-domain square wave with a frequency of 0.125 Hz. In total, 13.0 line-km of data were collected over 3 survey lines. The chargeability and resistivity data were inverted with DCIP2D, a 2D inversion program from the University of British Columbia (UBC), Canada. The IP data are presented as pseudosections of the raw data together with the inversion models (Pystynen, 2005b).

Significant Results, Recommendations and Conclusions

The primary objective of the IP and resistivity survey was to identify chargeability anomalies that may be indicative of sulphide mineralization. The resistivity data were expected to help identify lithologic changes and alterations. The apparent resistivity data shows both resistive and conductive zones.

The resistive zones may be indicative of silicified zones or fresh, unaltered rock with low permeability. The conductive zones may be indicative of structures, clays, conductive ground water, or conductive propylitic or argillic alteration.

The chargeability anomalies exhibited on the pole-dipole lines (Figure 6-11) correlate well with the chargeability anomalies that were delineated with the reconnaissance gradient array survey. Pystynen (2005b) recommends that other geological or geochemical data should also be considered when interpreting the data.

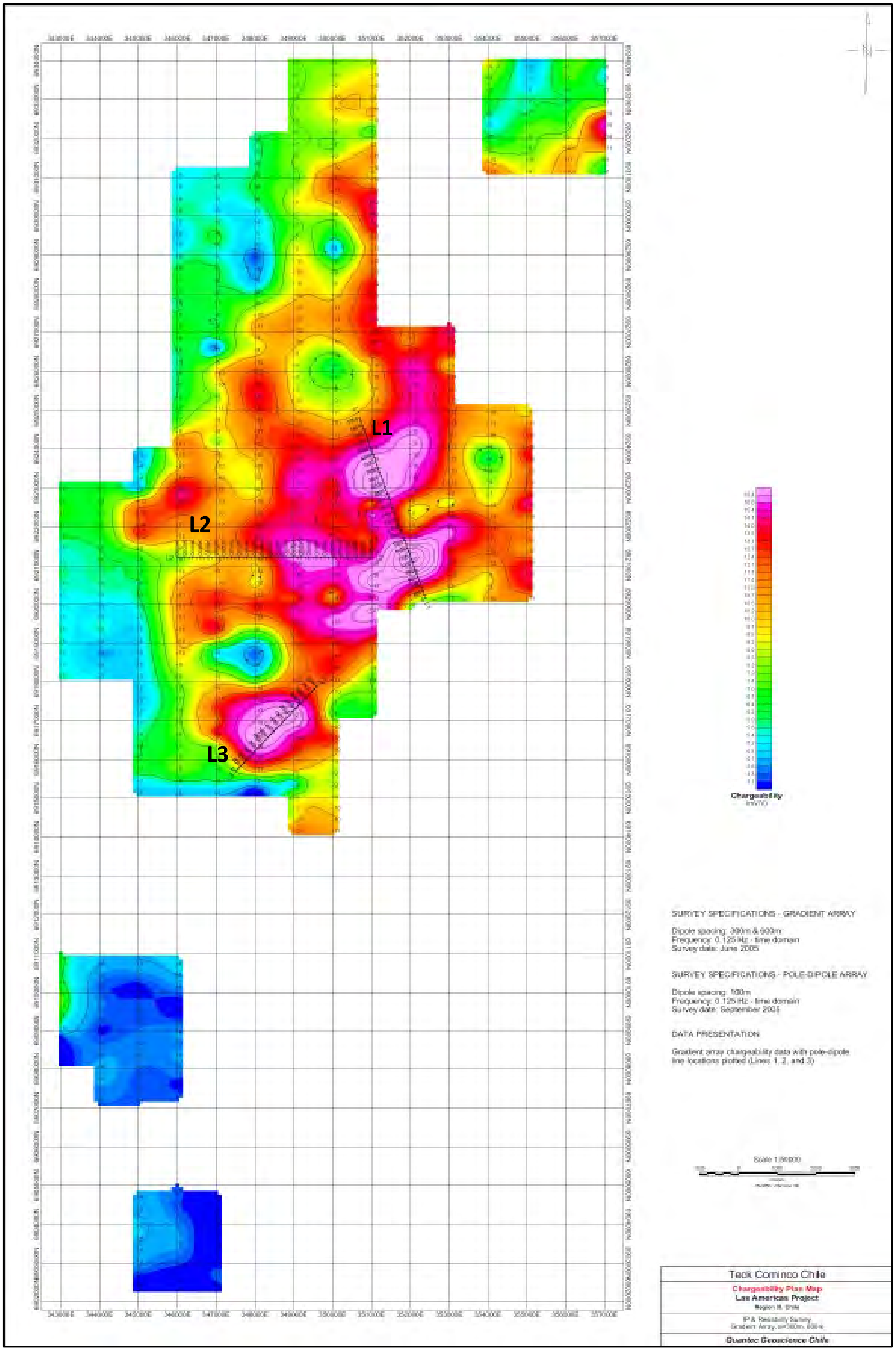


Figure 6-10. Location of the 3 survey lines (L1, L2, L3) overlain on the Chargeability plan map (Pystynen, 2005a) from the Las Americas Project (now Buen Retiro), Chile (Pystynen, 2005b).

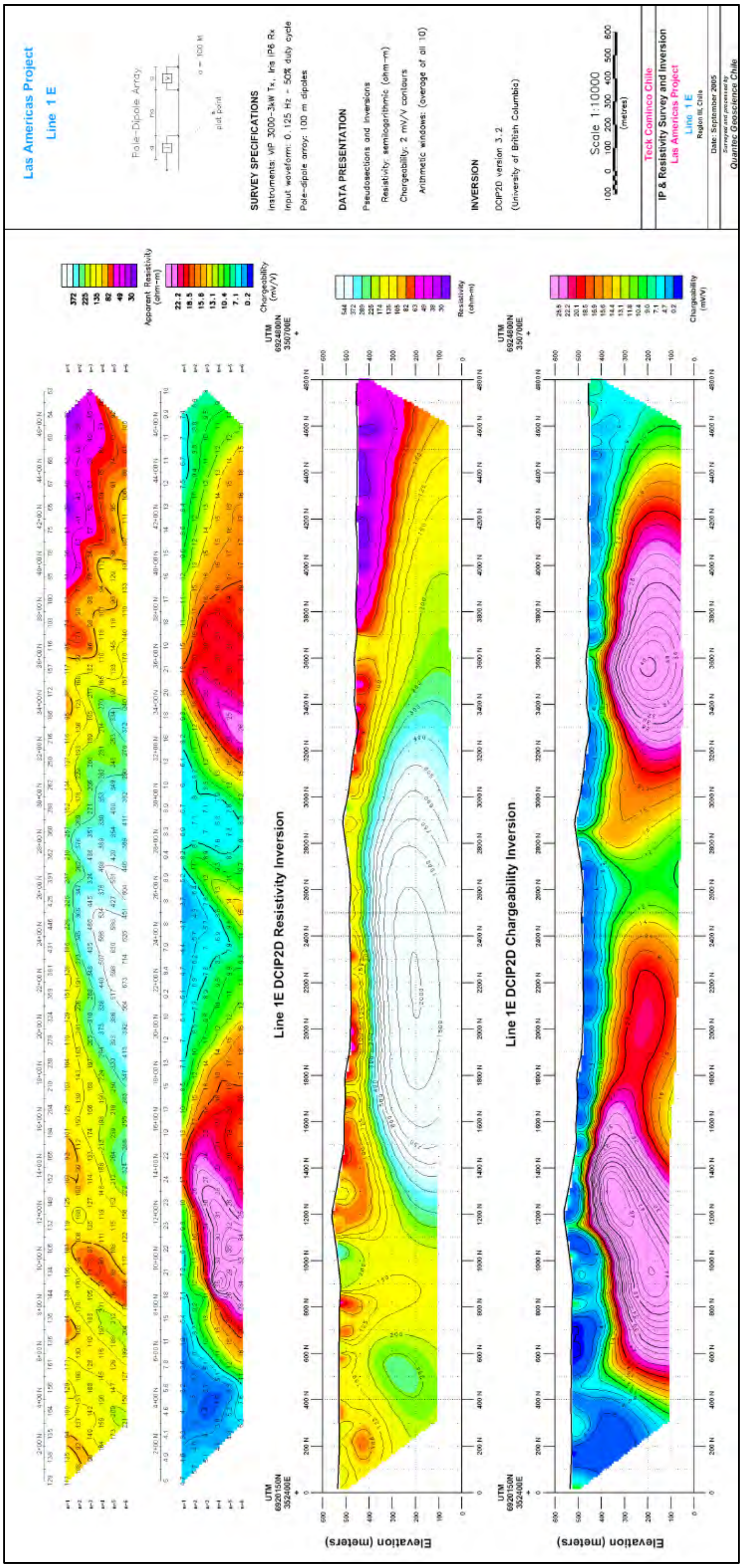


Figure 6-11. IP & Resistivity and Inversion pseudosections from the Las Americas Project (now Buen Retiro), Chile (Pystynen, 2005b).

6.3.5.5 Reverse Circulation Drilling (2005)

In the second half of 2005, Teck Cominco completed two reverse circulation ("RC") drill hole campaigns which comprised a total of 10 drill holes (LAR series, from which 7 are located inside what is now the Sierra Fritis-Buen Retiro properties) totalling 2,845 m, aimed at testing several geophysical targets in the Cu-oxide zone (Table 6-4) (Teck Cominco, 2006). The location of the LAR series RC holes is shown in Figure 6-5 through Figure 6-8.

Table 6-4. Summary of the Teck Cominco RC drill holes completed in 2005 on the Manto Negro Property.

FINAL	EAST	NORTH	AZ	DIP	LENGTH	OBJECTIVE
LAR-1	346100	6922800	270	70	300	TEST GRADIENT IP CHARGEABILITY ANOMALY ABOUT 1 KM NORTH EAST OF THE ORTUZAR MINE. THIS SUBTLE CHARGEABILITY CONTINUES TO THE CURRENT OPEN PIT AND COULD BE THE CONTINUATION OF COPPER MINERALIZATION FROM THE MINE. THE ANOMALY IS UNDER COVER BUT IT IS EXPECTED TO BE LOCATED IN VOLCANICS ROCKS.
LAR-2	351190	6923610	160	70	295	TEST THE NORTHERN CHARGEABILITY ANOMALY IN LINE 1 RELATED TO SURFACE HEMATITE AN SOME SULFIDE REMANENT WITHIN VOLCANIC ROCKS
LAR-3	351990	6921265	335	70	300	TEST SOUTHERN CHARGEABILITY ANOMALY IN LINE 1, IN VOLCANIC ROCK WITH LOCAL MAGNETITE LEACHED SULFIDES AND LOCAL ALBITE ALTERATION
LAR-4	349250	6921200	0	90	300	TEST MODERATE CHARGEABILITY ANOMALY IN LINE 2 COINCIDENT WITH A STRONG MAGNETIC SUCEPTIBILITY ANOMALY, NO OUTCROP IN THE AREA.
LAR-5	348400	6916600	0	90	350	TEST STRONG CHARGEABILITY ANOMALY IN LINE 3 WITH IN LOW MAGNETIC SUCEPTIBILITY AREA, BUT MINOR SPECULARITE AND ALBITE ALTERATION IN VOLCANICS NEAR BY. THE ANOMALY IS HIDDEN.
LAR-6	354000	6931250	45	60	296	TEST MODERATE CHARGEABILITY ANOMALY IN GRADENT ARRAY IN AN AREA OF VOLCANICS OVERLAIN BY LIMESTONES, WITH COPPER OCURENCES ASSOCIATED TO STRONG A HIGH MARGETIC GRADIENT.
LAR-7	351,836	6,924,431	225	70	254	HIGH CHARGEABILITY WITHIN STRONG MAG GRADIENT, NORTH OF LAR-2
LAR-8	349,560	6,922,620	0	90	204	HIGH GRAVITY WITH CHARGEABILITY AND HIGH MAG GRADIENT SOUTH FROM LAR-2 AND NORTH OF LAR-4
LAR-9	351,000	6,927,350	225	70	256	MODERATE CHARGEABILITY WITHIN THE INTERSECTIONS OF TWO MAIN STRUCTURES AND STRONG NA-CA ALTERATION IN MARGINS OF THE SIERRA FRITIS HILLS
LAR-10	352,200	6,925,450	270	70	290	MODERATE CHARGEABILITY WITHIN STRONG MAG GRADIENT NORTH OF LAR-7, TO TEST A POSSIBLE LOWER Tº ASSOCIATIONS

A summary of the results from the 10 drill hole (LAR-series) campaign is as follows, with assay results listed in Table 6-5 (Teck Cominco, 2006):

- LAR-1 intercepted at least two structures with higher copper content and chlorite specularite association, like the Ortuzar Mine, however no large structure or mineralized body was found.
- LAR-2 intercepted mostly volcanics with leached pyrite close to surface and fresh pyrite below with actinolite –albite alteration.

- LAR-3 similar association as LAR-2 albite-actinolite alteration in volcanics with pyrite and local tracer of chalcopyrite.
- LAR-4 intersected a diorite with chlorite- actinolite? – albite alteration and locally discrete calcite veins with some chalcopyrite.
- LAR-5 most likely an intrusive with local strong albite alteration and pyrite up to 8%
- LAR-6 intersected meta-andesites with chlorite-epidote and actinolite alteration with low presence of sulfides.
- LAR-7 cut a meta-andesites with strong early actinolite pervasive and scarce veinlets forming an actinolite-magnetite assemblage. there is a dioritic intrusion. dominant sulphide phase is pyrite occurring disseminated and minor veinlets, chalcopyrite is erratic occurring disseminated, veinlets and associated to fine calcite veinlets.
- LAR-8 cut an amphibolitized diorite with sphene disseminated associated to actinolite, magnetite just weak. Weak pyrite disseminated and veinlets and trace of chalcopyrite occurring disseminated and associated to fine calcite veinlets.
- LAR-9 cut a volcanic sequence affected by zoned hydrothermal alteration stratigraphically controlled. Pyroclastic breccias (upper and distal part) are partly replaced by epidote-albite assemblage and a lower tuffaceous-andesitic unit are replaced by chlorite-calcite assemblage with variable intensity of Fe metasomatism changing between hematite and magnetite; sulphide content is low and there are micro-dioritic dykes.
- LAR-10 cut a metamorphosed andesitic unit with dioritic intrusions, whole affected by actinolite-biotite assemblage and very variable magnetite. there is an albite-actinolite assemblage more related to the weak pyrite mineralisation occurring disseminated and veinlets. this assemblage is not very clear, if is pre or post biotite. trace chalcopyrite is just erratic.

  Note that LAR-6, LAR-09 and LAR-10 are out of the limits of present Project Buen Retiro.

The drilling results show the presence, in the central part of the area, of a diorite body that intrudes the volcanic units of the Punta del Cobre Formation in the form of a stock (LAR 8) and as mantle veins (LAR 2 and 4). The alteration present with varying degrees of intensity corresponds, in the central part, to albite-actinolite-biotite-magnetite-specular hematite which grades towards the most distal parts and superior to epidote-chlorite and pyrite. Pyrite is the most abundant sulphide and chalcopyrite occurs in trace amounts (Camus, 2006).

Drill holes LAR 1, 2, 4 and 8 show the highest relative values of Cu exceeding 400-500 ppm Cu, with LAR 1 having the highest contents with intercepts above 1500-1800 ppm Cu coinciding with relatively higher values in gold (Table 6-5). The remaining drill holes, especially those located outside the present Project Buen Retiro (LAR holes 6, 9, 10 and 5) have values even lower than 50 ppm Cu (Camus, 2006).

The values intercepted in the LAR 1 well and its proximity to the Castillo mine are suggestive of vectorization in that direction and it is this sector that has the least recognition with drilling about 4 km from the nearest drill hole located to the east of it. The magnetic anomaly also tends to decrease in intensity in that direction as does the IP (Camus, 2006).

Table 6-5. Summary of mean assay results, LAR-series drill holes completed by Teck Cominco in 2005 (Acevedo, 2012).

Drill Hole	Cu (ppm)	Cu (n)	Mo (ppm)	Mo (n)	Au (ppm)	Au (n)	Fe (%)	Fe (n)
LAR-1	534	98	3	73	0.016	60	9.1	99
LAR-2	117	96	3	28	0.009	85	5.7	97
LAR-3	277	98	24	99	0.015	97	4.1	98
LAR-4	323	99	3	93	0.025	62	4.1	99
LAR-5	52	124	6	90	0.035	119	5	124
LAR-6	132	97	3	83	0.041	35	5.4	97
LAR-7	104	76	3	76	0.014	67	6.5	76
LAR-8	363	51	2	34	0.100	41	6.5	51
LAR-9	22	68	2	26	0.007	18	6.3	77
LAR-10	39	92	3	87	0.010	20	5.4	94
Mean:	**196.3**		**5.2**		**0.027**		**5.81**	
Totals:		**899**		**689**		**604**		**912**

6.3.5.6 Geophysics – Regional Gravity Survey (2005)

During December 2005, Quantec Geoscience Limitada conducted a regional gravity survey on behalf of Teck Cominco Chile Limitada (Thorderson, 2005). The zone was previously surveyed by Teck Cominco with IP/Resistivity (Pystynen, 2005a, 2005b).

The objective of the gravity geophysical survey was to delineate any large regional structures, and to assist in the estimation of depth to basement.

The regional gravity survey was conducted using a variety of station spacings ranging from 200 metres in the center of the area of interest, out to 2000 metres. The total number of distinct stations that were measured was 180 and the area surveyed was about 30 km north-south and 10 km east-west.

A gravity base station was placed near the center of the survey area, and base station ties were conducted at roughly four-hour intervals. The survey coordinates were derived from survey monument IGM Base Castilla Este, a first order survey point with known coordinates in PSAD56 Zone 19S, with coordinates purchased from the Instituto Geográfico Militar de Chile. Gravity station GPS coordinates were originally collected in WGS84 and converted to PSAD56.

Significant Results, Recommendations and Conclusions

A plan map of the gravity survey results, including the large centrally located gravity high identified from the survey, is provided in Figure 6-8. The raw data from this survey is not available in the historical data base.

6.3.5.7 Teck Cominco-JOGMEC CCJV Summary (2004-2005)

Las Americas claim group sits along one of the main Atacama Fault Zone branches, the Los Colorado Fault, several high magnetic zones and copper occurrences can be located along this branch in the region, such as the Sierra Banderas area, hosting copper deposits (Caminada, Filipinas) and Iron deposits (Sosita, Huanteme, Los Colorados), or the Canto del Agua-Castilla zones, hosting the Ortuzar copper mine and the Boqueron Chañar Iron deposit.

At Las Americas project several discrete magnetic high anomalies in covered areas are associated also with large alteration around the Sierra Fritis area. Gradient IP survey defined a large zone with elevated chargeability, and local elevated mag susceptibility within the chargeable zones. Drilling shows that chargeability is almost exclusively pyrite hosted in a diorite intrusion or in volcanics and volcanoclastic rocks, very low copper values except for some anomalies were encountered in holes LAR-2 to LAR-10. Hole LAR-1 drilled some 1-kilometre northeast from the historical Ortuzar Copper Mine, intercepted a weak mineralized structure with copper oxides. Drill hole LAR-8, drilled to test the gravity anomaly, intercepted an Iron-sulfur-copper anomalous diorite, where disseminated pyrite and traces of chalcopyrite are though to be product of the diorite intrusion.

Some fluids after the cooling of this intrusion migrate to the volcanics and volcanoclastic rocks, in a phase of contact metamorphisms and metasomatism.

Thus, most of the volcanic rocks surrounding the diorite exhibit traces of copper mineralization and variable amount of pyrite, up to 3.0% total sulphide. A good example of this is the pole-dipole IP line along drill holes LAR-2 and LAR-3 were clearly a higher resistivity body, has higher chargeability values in its margins. Surface mapping shows the resistivity high is coincident in part with an outcropping diorite (Figure 6-12).

Evidence suggests that the chargeability anomalies are explained by the diorite intrusive and the concept of contact metamorphism which have low potential for a large deposit (Figure 6-13) (Teck Cominco, 2006).

Las Americas exhibits several areas with alteration related to contact metamorphism, contact metasomatism and clearly Iron Oxide Copper-Gold (“IOCG”) alteration assemblages. The large chargeability anomaly is related to pyrite and traces of chalcopyrite. Higher levels of magnetic susceptibility are related to magnetite but no increase of chalcopyrite was detected and the ratio Py/Ccp remains very high, also no higher copper was found in areas were magnetite seems to be depleted. A diorite intrusion with disseminated Pyrite is though to be the source of the iron and sulfur that produced and early stage of contact metamorphism (Amphibole-Biotite?) and a later event of metasomatism (Albite- Actinolite- Pyrite- Magnetite).

Although the CCJV recognized the area contained chargeability anomalies that had not been tested and that there was physically space for a hidden copper deposit, the analysis of all data suggested that the real possibilities of an enriched copper zone were slim and as such they made the decision to return the property to the owners (Teck Cominco, 2006).

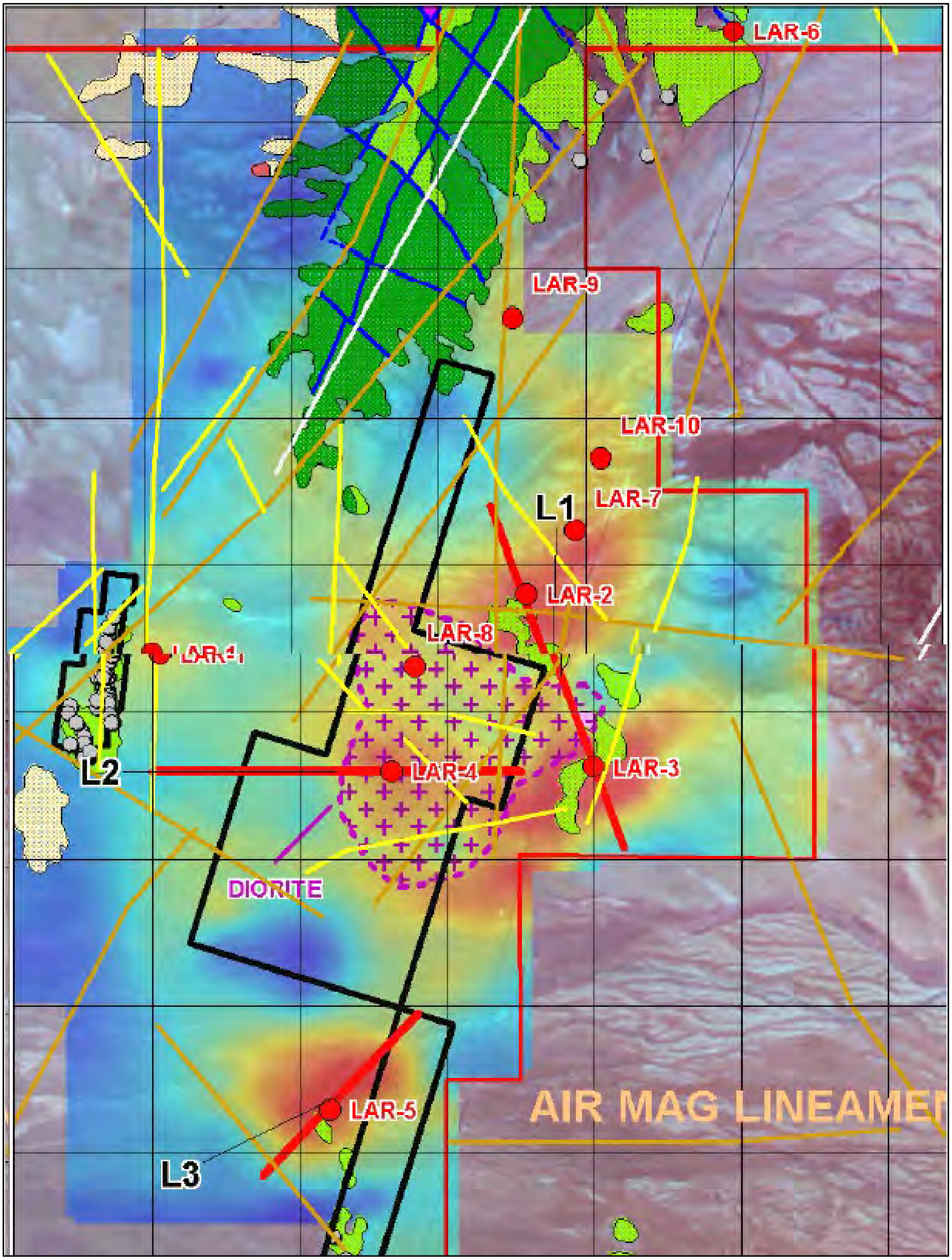


Figure 6-12. Compilation plan map showing the determined target area, centered around a diorite intrusive (polygon with crosses) (Teck Cominco, 2006).

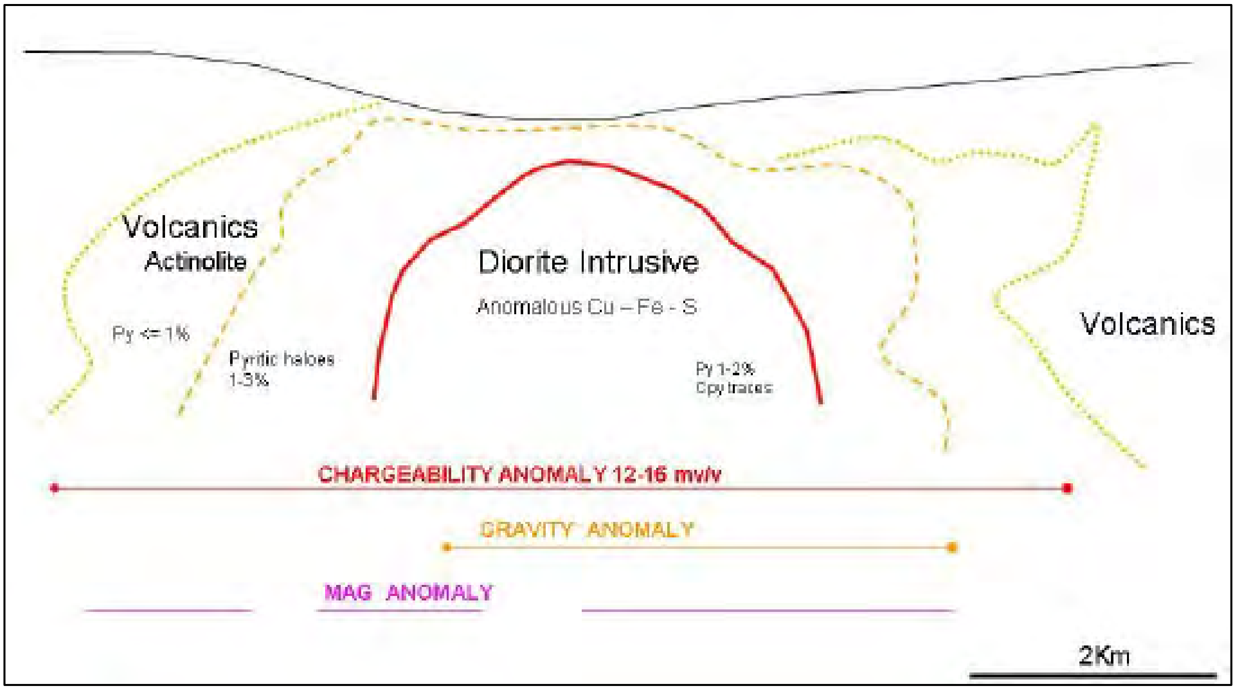


Figure 6-13. Schematic model for the Las Americas (Manto Negro) property (Teck Cominco, 2006).

6.3.6 Geophysics – Maping Ltda (2008)

In 2008, Maping Ltda. reprocessed the previous ground magnetic data and proposed drilling to target iron deposits (Figure 6-14). Two of the five targets were subsequently drilled by Vecchiola S.A. in 2009.

No other information is known from this geophysical survey and the report was not available to the Author.

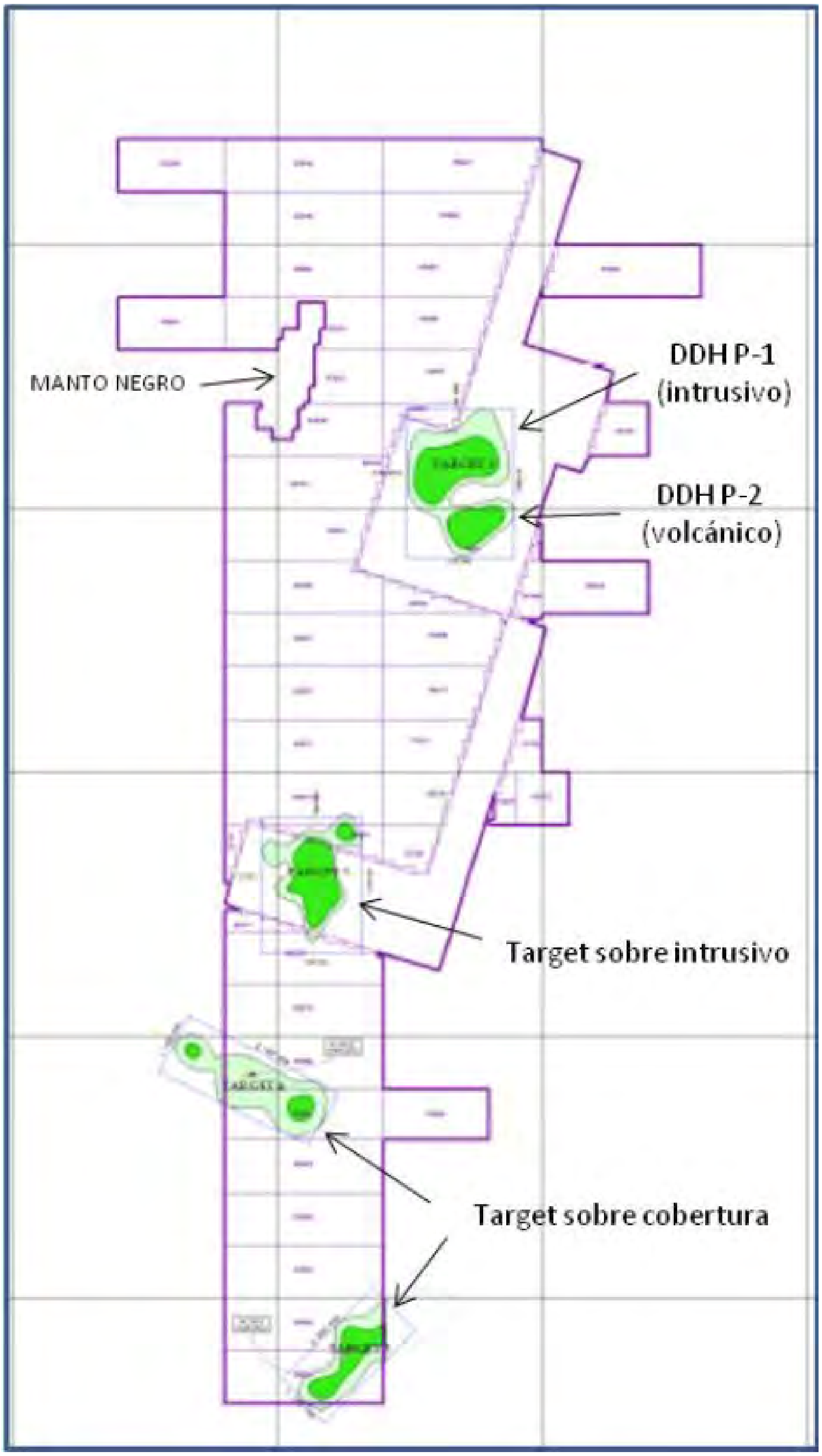


Figure 6-14. Magnetic high targets (green areas) delineated from the 2008 Maping Ltda geophysical survey and the location of the follow up drill holes (P1 and P2) completed by Peñoles in 2008 (Cubelli, 2010).

6.3.7 Diamond Drilling (Core) – SCMBR (2009)

In 2008, two vertical diamond drill holes (P1 and P2) were completed by Vecchiola S.A./ Peñoles, on behalf of SCMBR, located in the centre of the main magnetic anomaly (Figure 6-15). The objective of the drilling program was to identify a very large, high-grade iron (magnetite) deposit (Cubelli, 2010). The two drill holes (P1 at 319.8 m and P2 at 353.50 m) encountered iron mineralization of only moderate iron grade and little to no copper mineralization (Figure 6-16) (Acevedo, 2012):

- P1 (DDH-01): 6 m @ 27.6% Fe; 3 m @ 24.03% Fe; 15 m @ 38.28% Fe; 16 m @ 34.45% Fe.
- P2 (DDH-02): 14 m @ 30.7% Fe.

A plan map of the large magnetic anomaly with the two SCMBR drill holes, renamed to DDH-BR-01 (previously P1) and DDH-BR-02 (previously P2), is provided in Figure 6-17.

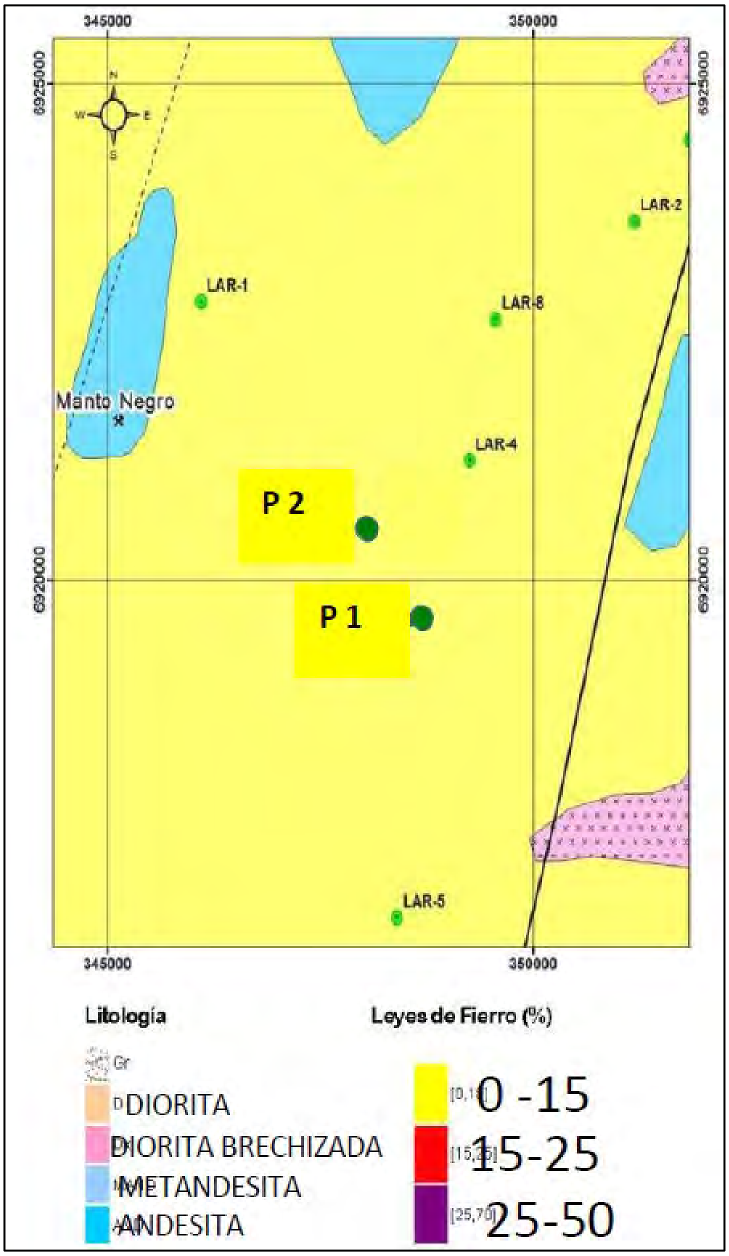


Figure 6-15. Location of the SCMBR P1 and P2 diamond drill holes and the Teck Cominco LAR-series diamond drill holes in the large, central magnetic anomaly; the geological and Fe-grade legends also apply to Figure 6-16 (Acevedo, 2012).

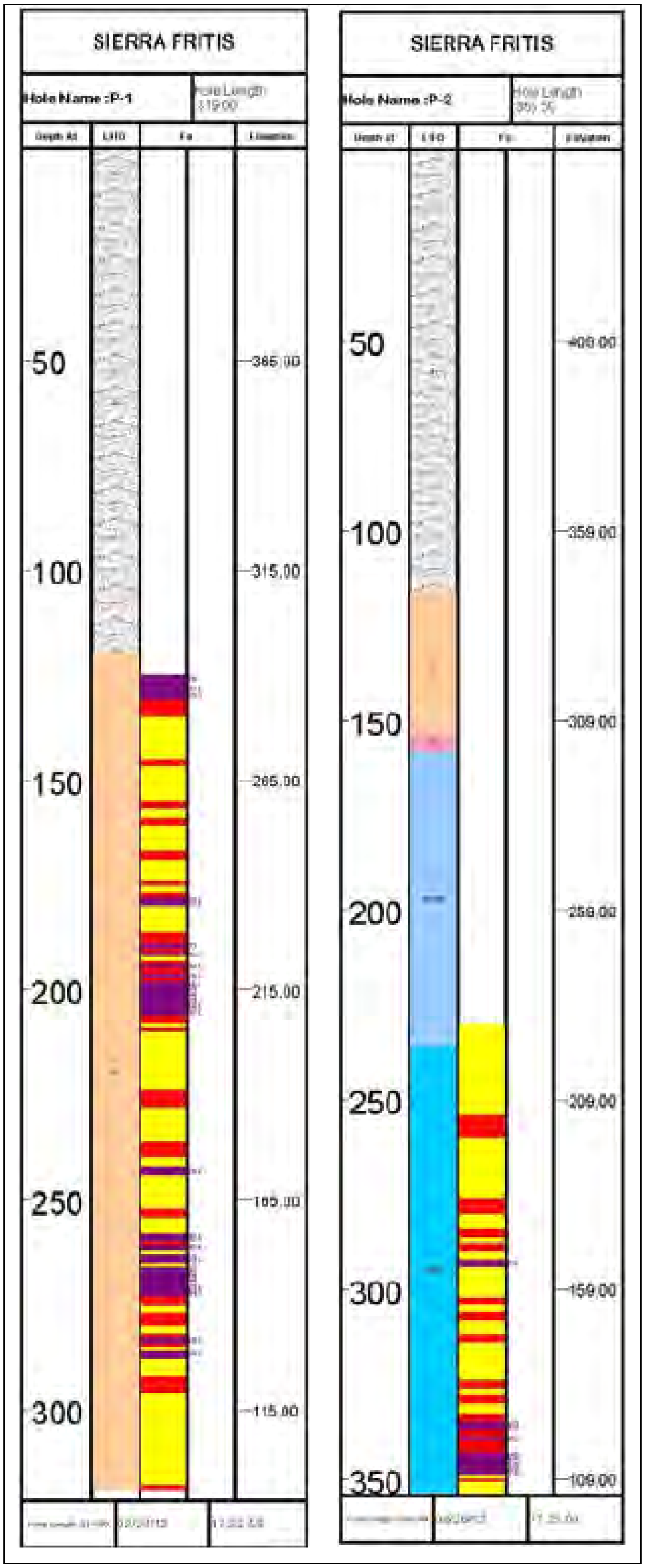


Figure 6-16. Strip logs for the two SCMBR diamond drill holes with P1 on left and P2 on right; the legend for the geology and the Fe-grade is the same legend in Figure 6-13 (Acevedo, 2012)

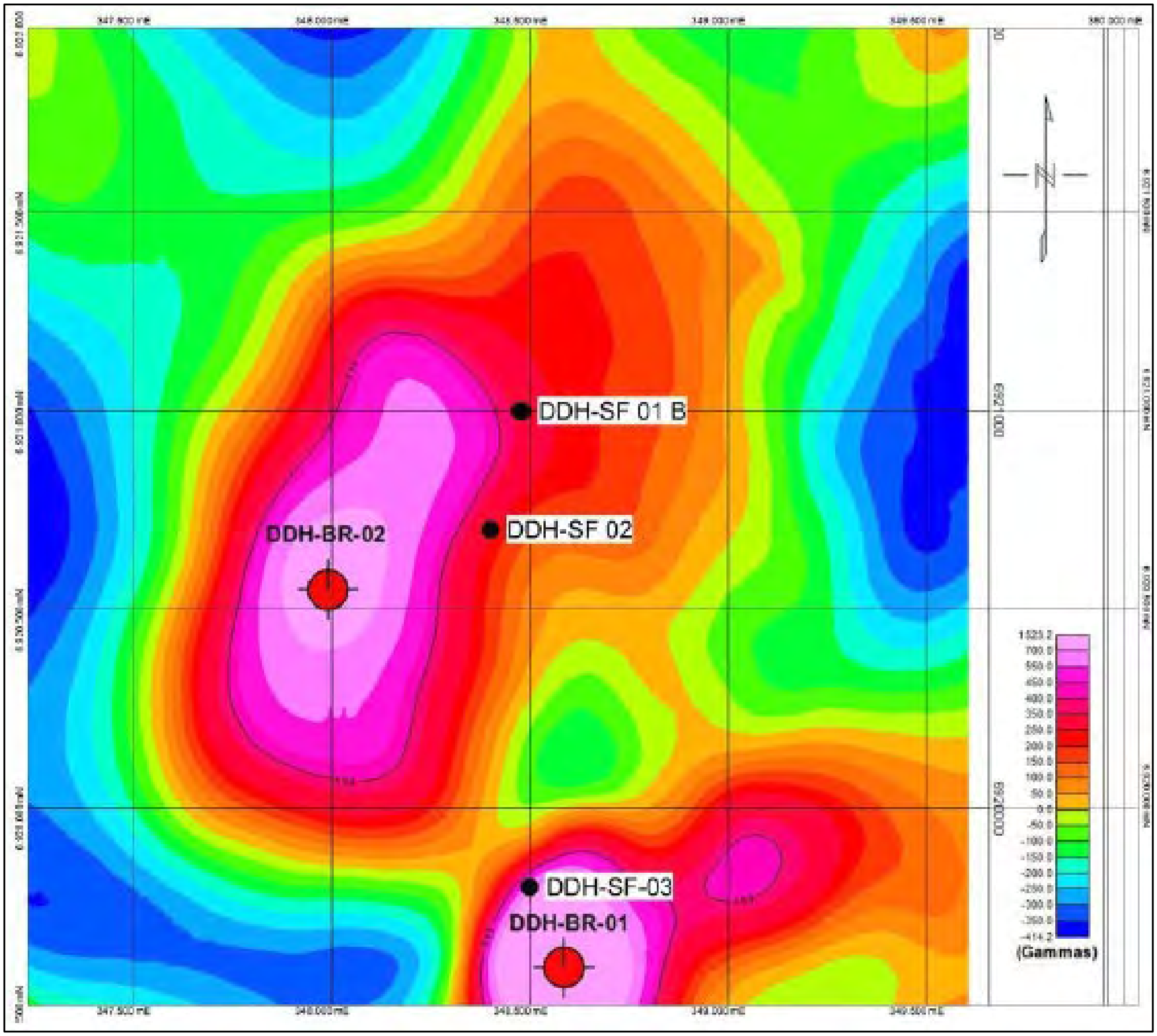


Figure 6-17. Plan map of the Reduced-to-Pole magnetic intensity in the central part of the property (*see* Figure 6-12) and location of the two Peñoles diamond drill holes (previously P1 and P2) and the location of three SF-series diamond drill holes completed in 2011-2012 (Acevedo, 2012).

One year after the execution of these two holes by SCMBR, targeting Magnetitic Iron deposits, Peñoles signed an NDA for assessing all the information, looking for potential Copper mineralization and re-logged the cores. Cubelli (2010) summarizes their conclusions over these core logs:

- DDH-P1: copper concentrations were not significant, with the average being 33.5 ppm Cu, with single assays that did not exceed 537 ppm Cu. Associated with a magnetite vein (198.2-204.7 m) is an average grade of 85 ppm Cu and 54.1% Fe. Concentrations of Au were generally under the lower limit of detection, occasionally reaching up to 0.012 ppm Au.
- DDH-P2: The highest copper concentrations were intersected between 343 and 350 m, where a higher density of magnetite-mushketovite-pyrite-chalcopyrite-calcite veinlets was intersected,

reaching an average grade of 0.2% Cu and 30.9% Fe within which a centimetre vein of magnetite-calcite-chalcopyrite graded 0.9% Cu and 40.5% Fe. Outside this zone, copper values do not exceed 200 ppm Cu, 15% Fe and 0.08 ppm Au, associated with higher Cu grades (Cubelli, 2010).

6.3.7.1 Significant Results, Recommendations and Conclusions

Bearing in mind that Peñoles was focused on an iron target and not a copper target, Cubelli (2010), summarized the results and interpretations from the studies of Peñoles and the SCMBR database:

- The sequences of andesitic volcanic rocks and the dioritic stocks that host the mineralization have poor primary permeability, in the case of andesites due to the intense silica-biotite-magnetite metasomatism that affects it and in the intrusive due to the intrinsic nature of the rock. Based on the above, the control of mineralization is structural, as occurs in the Manto Negro mine where a stockwork of magnetite with lower mushketovite and specularite with copper values associated with a system of faults and fractures is developed.
- Drill holes P-1 and P-2 tested two magnetic highs caused by the stockwork, which generally has less than 5 veinlets per metre, which implies the existence of a significant amount of internal waste.
- Copper mineralization is in the form of chalcopyrite, which is associated with a localized, discrete and late pulse of calcite + mushketovite.
- The background of the copper values in holes P-1 and P-2 is in the order of 50 ppm Cu, although copper occasionally reaches up to 0.9% Cu.
- The magnetite-actinolite association present in the deposit theoretically indicates a deep level of the hydrothermal system.
- The occasional presence of apatite suggests that the present Sierra Fritis system may be closer to the Fe-apatite deposit member (IOA) than to a Fe-Cu-Au deposit (IOCG).
- The Los Colorados fault that hosts the Manto Negro Fe-Cu-Au deposit and which is interpreted as the main control of the mineralization of the area is located outside the zone evaluated by Peñoles at this time (under control of Sociedad Minera Punta del Cobre and Compañía Minera del Pacifico, what is now the Manto Negro area).

Based on the above, Cubelli (2010) concluded that the mineralization of the prospect corresponds to a relatively deep stockwork composed of hypogene iron oxides, dominated by magnetite, with local and discrete values of copper whose potential at depth for the identification of copper-grade bodies of economic attractiveness are very limited.

6.3.8 Petrographic Study – Minera Peñoles de Chile (2010)

In 2010, results of petrographic studies and opaque minerals were obtained on two samples corresponding to mineralized veinlets obtained from drill holes P1 (DDH-P-01) and P2 (DDH-P-02) (Cubelli, 2010).

- Sample Drill Hole P-1: obtained in a magnetite-actinolite stockwork area located in a dioritic intrusive at a depth of 274.5 metres. The petrography indicates that the veinlets correspond to a typical iron ore formed by predominant magnetite together with actinolite with traces of specularite, the latter intergrown with calcite and smaller amounts of epidote. Because of the geological environment in which this mineralogical association is normally found, it can be classified as a particular type of magnetite and actinolite hornfels.

- Sample Drill Hole P-2: obtained from a brecciated vein with magnetite-pyrite-chalcopyrite-calcite mineralization, which is emplaced in albitized porphyry andesites at a depth of 255.5 metres. Petrography indicates that the mineralization is represented by an aggregate of iron ores consisting of magnetite-specularite and mushketovite together with pyrite and scarce chalcopyrite with calcite gangue, albite and traces of epidote and allanite (cerium and rare earth epidote). The association of magnetite-mushketovite and the presence of sulfides (pyrite - chalcopyrite) with calcite-albite gangue constitute common variations in magnetite-actinolite ores and reflect a greater predominance of hydrothermal events compared to those of igneous-metamorphic-metasomatic origin in which the magnetite-actinolite association prevails. Shear structures are common, and calcite and specularite growth with intense deformation are observed.

6.3.9 Drilling (Reverse Circulation) – Pucobre (2011)

In June 2011, Pucobre completed 23 reverse circulation drill holes (AR-series) totalling 2,949 metres (Figure 6-18; Figure 6-19; Table 6-6) in the southern part of what is now the Buen Retiro property and its limits with Manto Negro area. The objective of the drilling was to test for the southern continuation of known mineralized structures into the Manto Negro concessions (Pucobre, 2011).

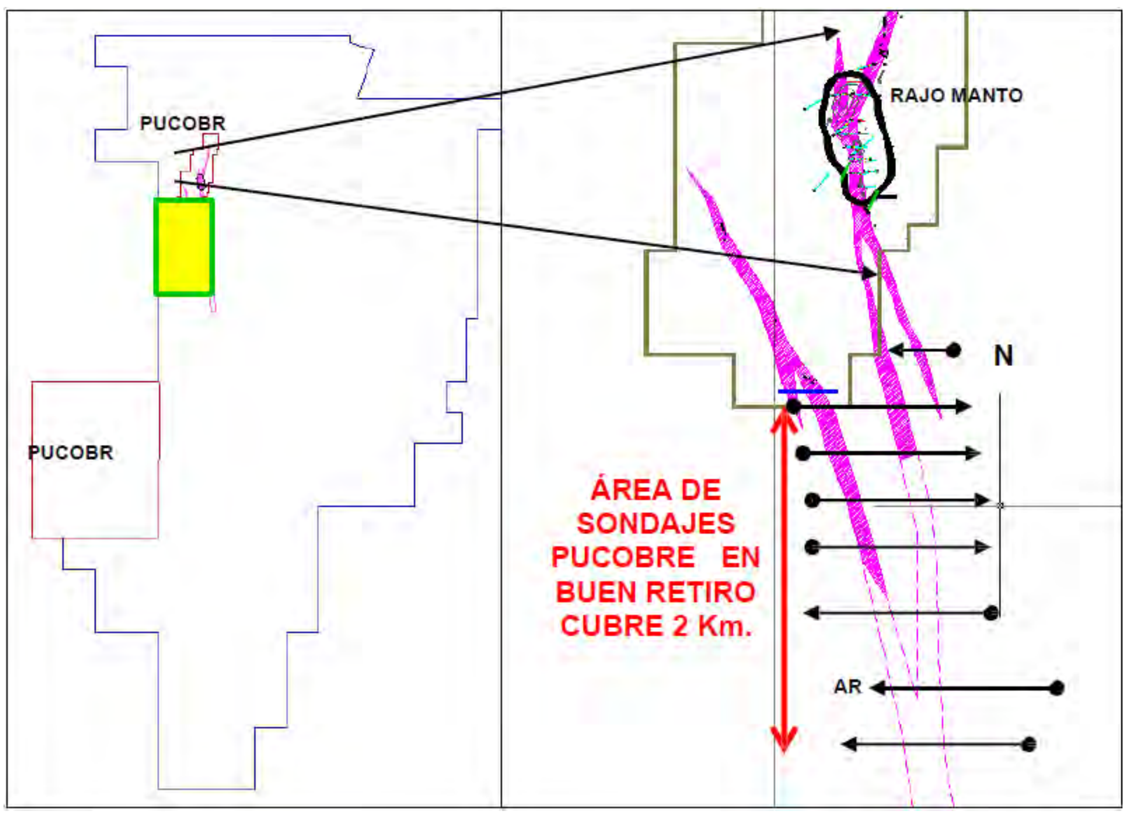


Figure 6-18. Location of the 23 AR-series drill holes completed by Pucobre in 2011 and located immediately south of the Manto Negro Mine (Pucobre, 2011).

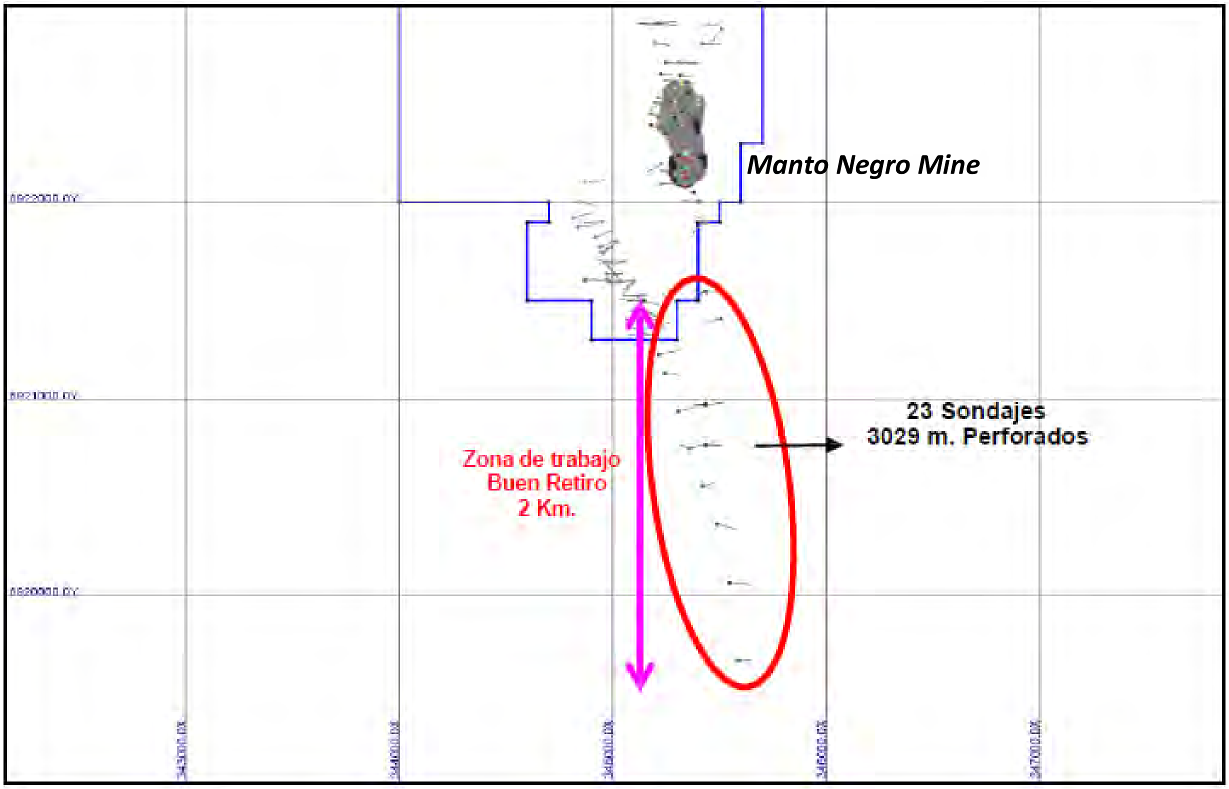


Figure 6-19. Detail view of the location of the 23 AR-series drill holes, south of the Manto Negro Mine (Pucobre, 2011).

Table 6-6. Summary of the 23 AR-series drill holes completed by Pucobre in 2011.

Drill Hole	UTMX (mE)	UTMY (mN)	UTMZ (m)	Az	Dip	Length (m)
AR11-BR-167	345214.52	6921224.33	361.36	76.45	-45.76	138
AR11-BR-168	345191.45	6921295.42	363.49	90.60	-64.81	150
AR11-BR-169	345188.29	6921294.96	363.32	270.00	-77.64	80
AR11-BR-170	345244.04	6921129.39	361.13	99.07	-61.48	150
AR11-BR-171	345303.42	6920937.04	360.86	78.37	-53.53	150
AR11-BR-172	345153.97	6921360.16	371.42	88.26	-51.17	150
AR11-BR-173	345431.58	6920974.83	363.10	259.05	-54.83	86
AR11-BR-174	345435.05	6920969.23	363.38	264.29	-59.53	120
AR11-BR-175	345438.96	6920966.84	363.41	80.27	-57.53	160
AR11-BR-176	345361.26	6920749.64	362.70	76.91	-55.26	200
AR11-BR-177	345434.31	6920762.70	364.44	90.97	-58.16	140
AR11-BR-178	345359.91	6920746.99	362.80	293.13	-66.03	180
AR11-BR-179	345421.37	6920553.61	365.01	74.36	-66.19	150
AR11-BR-180	345485.60	6920363.36	367.10	106.64	-54.50	180
AR11-BR-181	345546.63	6920064.08	367.25	146.31	-77.91	80
AR11-BR-182	345548.92	6920063.98	367.23	95.19	-49.82	160
AR11-BR-183	345586.86	6919666.07	368.63	87.45	-59.58	120
AR11-BR-184	345180.38	6922395.23	374.73	122.48	-55.93	120
AR11-BR-185	345507.37	6921405.54	364.82	255.73	-52.94	183

Drill Hole	UTMX (mE)	UTMY (mN)	UTMZ (m)	Az	Dip	Length (m)
AR11-BR-186	345429.26	6921544.27	371.28	233.20	-43.29	120
AR11-BR-187	345434.63	6921547.39	371.39	94.42	-51.06	80
AR11-BR-188	345437.35	6921547.49	371.21	92.99	-42.82	80
AR11-BR-189	345437.21	6921898.89	385.47	274.78	-47.49	92
					Total:	**2,949**

6.3.9.1 Significant Results, Recommendations and Conclusions

Pucobre (2011), summarized the results of the 23 drill hole program, including the following:

- 23 holes were drilled with a total length of 2,949 m, minimum length 80 m and maximum 200 m.
- overburden (gravels) are between 10 and 115 m and increase in thickness from north to south.
- the main structural system is N-S and NE with a secondary system at NW and E-W.
- a mixture of sulphide and oxide mineralisation predominates.
- Cu and Fe mineralization was detected mainly associated with areas of where structures were intersected.
- oxide mineralization include: chrysocolla, malachite and atacamite.
- at depth there is copper sulphide that includes chalcopyrite and chalcocite, along with native copper.
- identified high-grade mineralized intersections, erratic in strike and depth, and ranging from a few metres to 30 metres.
- the weighted mean of the mineralization does not exceed 1.0% Cu(T).

The analysis of Teck's geophysics and drilling programs, together with the drilling carried out by Pucobre, allows for several observations (Pucobre, 2011):

- Teck Cominco conducted an extensive geophysical program directing its drill holes to the best anomalies, without detecting any attractive mineralization. The best average grade achieved was 0.6% Cu(T); hole LAR-01, a hole located 1 km east of the Manto Negro Mine, averaged 0.18% Cu over 44.0 metres. This interception could represent a lateral and minor manifestation produced by the mineralization of Manto Negro.
- The IP anomalies detected by Teck are generated by an intrusive with pyrite mineralization, which was tested by Teck Cominco drill holes without detecting significant copper concentrations.
- The historical Pucobre drilling carried out to the south and north of the Manto Negro Mine pit indicate a thinning of the mineralized structures, which have the greatest thickness in the central area of the pit, and which coincide with the junction of geological structures.
- Pucobre drilled a reconnaissance hole in the dump area, west of the Manto Negro Mine without intercepting any anomalous copper.

- Pucobre drilled 23 drill holes in Buen Retiro property south of the Manto Negro Mine, totalling 3,029 m, with results that were considered negative for Pucobre.

6.3.10 Geophysics Ground Magnetics – CGX Castilla Generación S.A. (2011)

In August 2011, Argali Geofísica Chile E.I.R.L. (“Argali”) conducted ground magnetic surveys followed by 3D inversion at the extreme south portion of what is now Sierra Fritis area in Buen Retiro Project, on behalf of CGX Castilla Generación S.A. (“CGX Castilla”). The objective of the ground magnetic surveys was to delineate magnetic anomalies for exploration follow up (Jordan, 2011a).

The ground magnetic survey was conducted with a line spacing of 50 m on a measuring 2 x 2 km for a total of 82 km of survey coverage (Figure 6-20). Readings were taken once every 1 second or an approximate station spacing of approximately 0.5 to 1.5 metres. Survey control was maintained with a high-quality GPS system within the magnetometer. Compete UTM coordinates and elevation data were acquired simultaneously with each magnetic reading. The GPS datum was collected using PSAD56 corrected to surveyed claim markers in the vicinity of the Project. A checkpoint was measured twice daily with all the magnetometers. Repeatability of the corrected magnetic readings was usually within 2 nT, and the GPS UTM coordinate repeatability was generally within 2 m of the average value (Jordan, 2011a).

The magnetic data were acquired with the internal GPS and PSAD56 datum (Northern Chile, Zone 19S). This datum is the standard datum used for most mineral exploration in northern Chile. The coefficients are: dX= -270, dY=183, dZ=-390. Based on comparison with surveyed claim markers, there is a difference of approximately 30 N-S between surveyed coordinates and the mag GPS coordinates. Consequently, +30 m was added to the northing of the magnetic data prior to processing the data and making the maps. Correction applied: +0E, +30N to data prior to making maps. All UTM coordinates have been corrected to surveyed claim monuments in the Project vicinity (Jordan, 2011a).

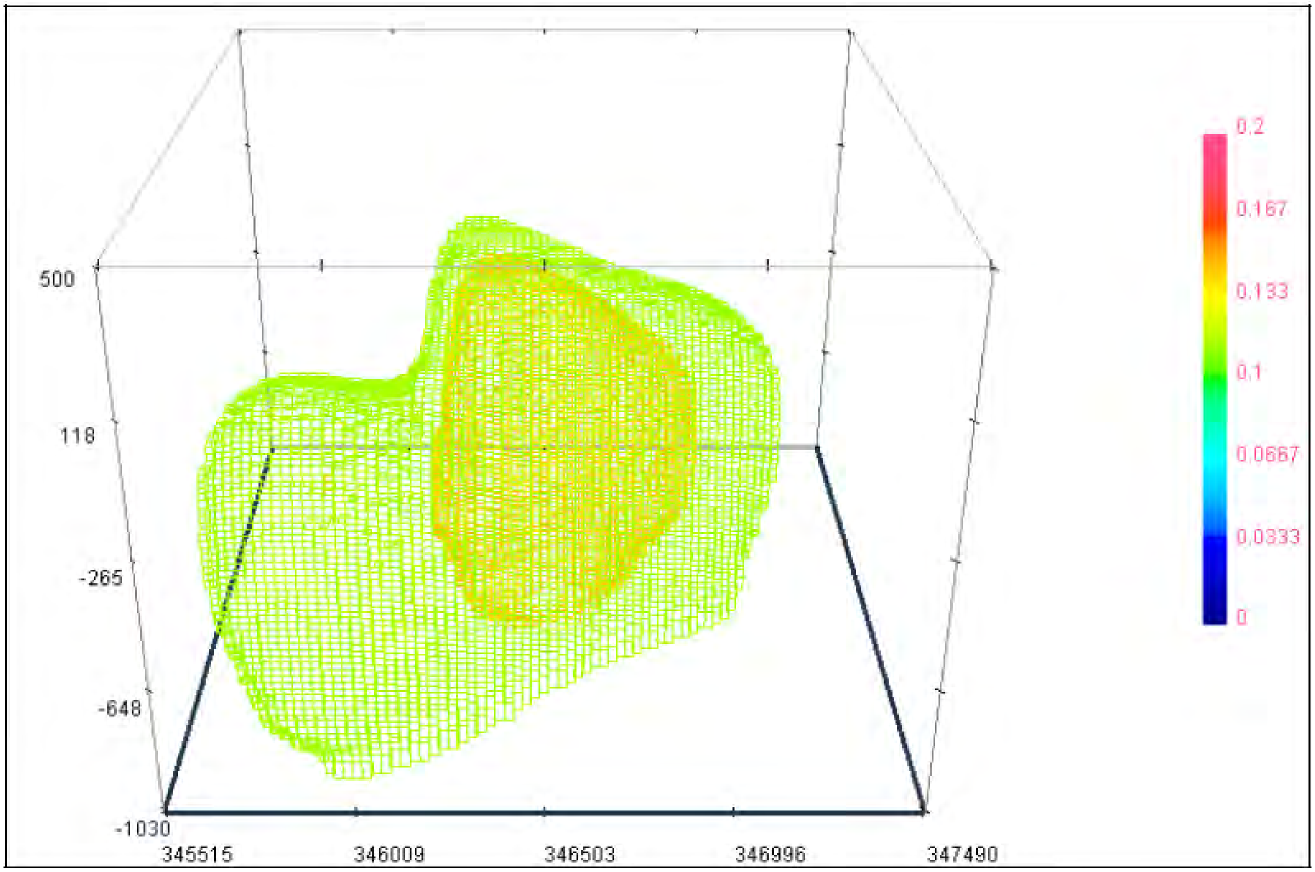


Figure 6-20. Buen Retiro 3D Magnetic Inversion showing magnetic susceptibilities of 0.11 SI (outer green zone) and 0.15 SI (inner orange zone). The 0.11 SI zone measures approximately 1500 x 200 m while the 0.15 SI zone measures approximately 500 x 200 metres. Depth to the anomalous zones is approximately 250 to 300 metres (Jordan, 2011a).

6.3.10.1 Significant Results, Recommendations and Conclusions

The ground magnetic data outline a large magnetic anomaly that indicates the presence of a large deep magnetic body with deep roots (*see* Figure 6-17). Depth to the top of the magnetic body is approximately 250 to 300 metres. The 3D inversion model measures approximately 1500 x 250 m at a magnetic susceptibility of 0.13 SI. At 0.18 to 0.20 SI, there is zone measuring approximately 200 m in diameter in the center of the grid. Economic magnetite mineralization typically has susceptibilities over 0.6 SI; consequently, the average magnetite grade at this target was expected to be low and less-than-economic and it was never drill-tested. Within the large volume of susceptibilities in the range 0.13 to 0.20 SI, there may be some small higher-grade lenses.

6.3.11 Mineral Exploration Program - Minería Activa (2011-2012)

Acevedo (2012), reported on the mineral exploration program completed from September 2011 to May 2012 by Minería Activa on the present Sierra Fritis area, Buen Retiro Project. The objective of Minería Activa was to find large Iron deposits, with some copper as by-product, following their successful discovery of Dominga Deposit, 190 km to the south. The work program that began in September 2011 consisted of:

- Geological-geophysical studies to define targets for a drilling program;

- Execution of a drilling campaign in the Northern Sector aimed at Priority Target 1, totalling approximately 1,945 m in 3 drill holes (SF-01B (601.1 m), SF-02 (797.15 m) and SF-03 (547.70 m));
- Loggings and geotechnical logging of 1,945 m of drill core;
- Magnetic susceptibility measurements of 1,650 m of drill core;
- Core processing (photography, cutting, sample preparation), chemical analysis (706 ICP61 analyses, 102 Cu(T) AA analyses and 6 Au AA analyses, 12 Davis tube analyses), and 45 density measurements; and
- Creation of database, analysis, results and final report.

The original first drill hole, SF-01, had to be abandoned due to operational problems and was replaced by SF-01B.

6.3.11.1 Geophysics Ground Magnetics – Minería Activa Sierra Fritis SpA (2011)

In September and October 2011, Argali Geofísica Chile E.I.R.L. (Argali) conducted ground magnetic surveys with 3D inversion at the Buen Retiro Project, on behalf of Minería Activa Sierra Fritis SpA ("Sierra Fritis"). The objective of the ground magnetic surveys was to delineate magnetic anomalies for exploration follow up (Jordan, 2011b).

The ground magnetic survey was conducted with a line spacing of 100 m over a large, irregular grid measuring up to 10 x 27 kilometres (Figure 6-21). A total of 1,982 line-km of data were acquired. Readings were taken once every 1 second or an approximate station spacing of approximately 0.5 to 1.5 metres. Survey control was maintained with a high-quality GPS system within the magnetometer. Compete UTM coordinates and elevation data were acquired simultaneously with each magnetic reading. The GPS datum was PSAD56 Zone 19S corrected to surveyed claim markers in the vicinity of the Project. A checkpoint was measured twice daily with all the magnetometers. Repeatability of the corrected magnetic readings was usually within 2 nT, and the GPS UTM coordinate repeatability was generally within 2 m of the average value.

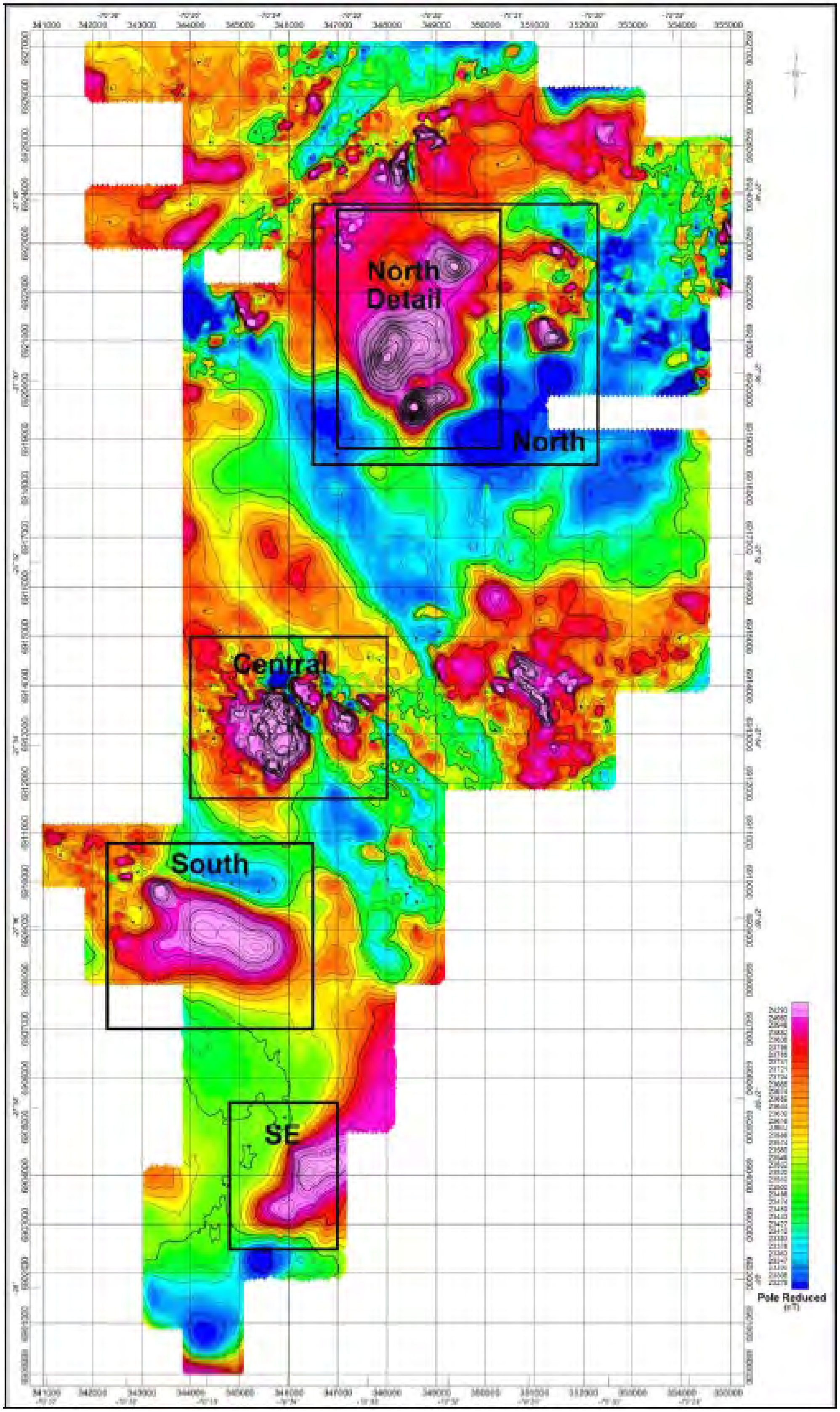


Figure 6-21. Pole-reduced magnetic response with the four areas modelled with 3D inversion (Jordan, 2011b).

The ground magnetic data outline large magnetic anomalies indicative of large magnetic bodies with deep roots. However, the amplitude of the anomalies is somewhat lower than expected for economic magnetite mineralization. The 3D inversions model the biggest anomalies with susceptibilities ranging from 0.15 to 0.5 SI. Typically, high-grade magnetite mineralization returns modelled susceptibilities from 0.5 to 2.0 SI. The average grade of the anomalous zones is expected to be comparatively low; however, the modelled volumes are enormous. It is possible that smaller zones of higher grades may be present within the prospective anomalous zones.

The most promising anomaly is located in the northern portion of the grid where two adjacent anomalies are modelled with susceptibilities up to 0.4 and 0.5 SI (*see* Figure 6-21). Shallow magnetic mineralization on or near the surface is identified in the central portion of the grid. Data indicate considerable depth extent of this magnetic material; however, there is no strong indication that magnetite grades increase significantly with depth.

Two magnetic anomalies in the south and southeast portions of the grid were modelled with susceptibilities from 0.15 to 0.19 SI (*see* Figure 6-21). Both zones measure approximately 1500 x 300 m and are located at 250 to 400 m depth. The low magnetic susceptibilities suggest low average grades; however, smaller zones of higher grade may be present.

IP surveys were recommended to be conducted over the magnetic anomalies to test for sulphides that may be associated with IOCG style mineralization (Jordan, 2011b).

Strong magnetic anomalies are observed throughout the Buen Retiro Project. In the northern and central portions of the Project where subcrop and outcrop are present, some of the strong magnetic anomalies are narrow in width, indicating the presence of magnetite in narrow veins or lenses on or near the surface. Other magnetic anomalies are much longer in wavelength and are indicative of bigger and deeper sources of magnetite. The longer wavelength anomalies are of principle interest in the search for large magnetite deposits. Four main anomalous zones were identified and subsequently modelled with 3D inversions: north, central, south and southeast (*see* Figure 6-21) (Jordan, 2011b):

- North Anomaly: The strongest magnetic anomalies at Buen Retiro (*see* Figure 6-21) are outlined in the northern part of the grid. In general, a large area measuring over 4 km in diameter is mapped as pole reduced high, indicating that magnetite content is elevated over a large area. Within the large area, there are several particularly strong anomalies. The two strongest anomalies are centred at 348000E, 6920700N and 348550E, 6919650N where pole reduced amplitudes exceed 26,000 and 27,000 nT, respectively. Two smaller and weaker anomalies are centred at 349350E, 6922500N and 351350E, 6921100N where pole reduced amplitudes exceed 25,500 and 24,500 nT, respectively. These anomalies were modelled with two 3D inversions.
- Central Anomaly: this anomaly (*see* Figure 6-21) differs from the other anomalies because the presence of short wavelength anomalies indicates that magnetic material is present on the surface. The anomalous zone measuring approximately 1.2 km in diameter correlates closely with small hills where outcrop or subcrop is present. After acquisition of the magnetic data, geologists have visited the zone and have detected locally abundant magnetite in disseminations and veinlets.

A 3D inversion was conducted over the central anomaly with the objective of modelling any deeper and larger magnetic bodies that may be present. The narrow anomalies associated with the shallow magnetic material were suppressed through filtering and sampling prior to inversion; consequently, the 3D inversion will not model the numerous small, shallow magnetite occurrences. The Central 3D inversion shows a large with magnetic susceptibility over 0.2 (SI) and a small shallow zone of 0.4 SI near the strongest pole reduced anomalies. The model indicates a possible steep dip to the east. The magnetic susceptibilities observed in the Central 3D inversion indicate that the average magnetite grade over the large volume is relatively low compared to other economic magnetite deposits. However, the anomalies from the shallow magnetic anomalies indicate that narrow higher-grade zones of magnetite may be present. The anomalies are attributed to a lithology or alteration with strongly elevated and variable magnetite content with potential for narrower zones of higher magnetite grades.

- South Anomaly: this anomaly (*see* Figure 6-21) is located approximately 4 km SW of the Central Anomaly in zone of alluvial cover. The pole reduced magnetic high reaching 24500nT indicates the presence of a deep magnetic body below the alluvial cover. The South 3D inversion outlines a magnetic body with a susceptibility of 0.15 SI that strikes ESE over a length of 1.5 kilometres. The modelled body is approximately 300 m wide and dips steeps to the SWS. The maximum modelled susceptibility is 0.19 SI which is substantially below the expected range for economic magnetite mineralization. Consequently, the average magnetite grade of the entire anomalous volume is expected to be lower than most magnetite deposits. Because the anomalous body is large and deep, it is possible that smaller, narrow lenses of higher-grade magnetite are present within the large volume of lower-grade material.

  The proximity of the South Anomaly to the Central Anomaly suggests the possibility that both anomalies may be generated by similar lithologies and magnetite content. The difference is that the South Anomaly is under alluvial cover and at least 250-400 m below the surface while magnetic material within the Central Anomaly is present at the surface.

- Southeast Anomaly: Located approximately 5 km south-southeast of the South Anomaly (*see* Figure 6-21), this anomaly hosts pole-reduced anomalies to 24,500 nT in two areas within a zone measuring approximately 1 km in diameter. The anomalies occur in a zone of alluvial cover and also under the highway and three major high-voltage power lines. Editing of the data near the power lines was necessary prior to inversion. The wavelengths of the SE anomalies are from 600 to 800 m which indicates a relatively deep source (from 250 to 400 m) with deep roots. However, the anomalies are only about 500 nT in amplitude which would indicate modest magnetite content.

  The southeast 3D magnetic inversion outlines a magnetic zone measuring approximately 1500 x 250 m with a magnetic susceptibility of 0.13 SI. The central part of the anomaly shows magnetic susceptibilities from 0.18 to 0.20 in a zone measuring approximately 200 m in diameter. Depth to the top of the magnetite zones varies from 250 to 300 m with a total depth extent that may exceed 1,000 metres. The low modelled magnetic susceptibilities at SE suggest that average magnetite will be low; however, there is a possibility of smaller zones of higher magnetite content within the anomalous area.

6.3.11.2 Significant Results, Recommendations and Conclusions

At Buen Retiro, multiple strong anomalies clearly indicate the presence of large deep magnetic bodies with deep roots (Jordan, 2011b). However, the modelled magnetic susceptibilities of these bodies range from 0.15 to 0.5 (SI) which are lower than the expected range of 0.5 to 2.0 (SI) for many economic magnetite deposits. Consequently, the average magnetite (Fe) grade of the Buen Retiro anomalies is expected to be low over the entire volume of the prospective zones. However, it is possible that smaller lenses of higher grades are present within the prospective zones.

The most promising targets are within the North anomaly where two zones are modelled with magnetic susceptibilities over 0.4 SI within huge volumes of 0.2 SI material. Some smaller high-grade zones may be present.

The Central anomaly consists of narrow anomalies from magnetic material on or near the surface and of wider anomalies associated with deeper magnetic sources. Given the modest modelled susceptibilities (0.15 to 0.4 SI) of the deeper zones, it is probable that the deeper magnetic material is similar in composition and grade to the shallower material. Consequently, a program of mapping and sampling the outcropping magnetic material is recommended.

The South anomaly is modelled with magnetic susceptibilities from 0.15 to 0.19 over a body measuring approximately 1500x300 m at 250 to 400 m depth. The low magnetic susceptibilities indicate relatively low average magnetite content; however, give the depth and large size of the prospective zone, smaller higher grades may be present.

The southeast anomaly is modelled with susceptibilities from 0.12 to 0.20 over a body similar in dimensions and depth to the South anomaly. Similarly, average magnetite content is expected to be low, but smaller zones of higher grades may be present.

The target (present Sierra Fritis area) anomalies lie within geology favorable for IOCG style mineralization. While average magnetite grades may be low, there is a probability that copper and gold are associated with the large volumes of magnetite mineralization. An IP survey has been designed to test the magnetic anomalies for sulphide mineralization. Drilling recommendations will be made pending results of the IP surveys (Jordan, 2011b).

6.3.11.3 Diamond Drilling Program (2011-2012)

The diamond drilling program began on 12 December 2011 and was completed on 18 May 2012 targeting the magnetic highs in the central area of the property in their search for a high-grade (>30% Fe), large-tonnage (>700 Mt) iron (magnetite) deposit (Acevedo, 2012). A total of four holes were completed with varying lengths between 249 and 797 metres. The first hole, SF-01, had to be abandoned due to operational problems at 249.5 metres. Delays in the drilling were due to obtaining a mining easement (3 months) and penetrating the overburden gravels which averaged 120 metres in thickness.

The drill holes were measured in their trajectory with gyroscope and no relevant deviations in azimuth and inclination were detected. Drill hole SF-02 was measured with an acoustic television in the 550 -650 m section to know the precise orientation and nature of structures. Table 6-7 is a summary of the diamond drill holes which excludes the abandoned hole SF-01 (Acevedo, 2012). Datum was collected in PSAD56 Zone 19S.

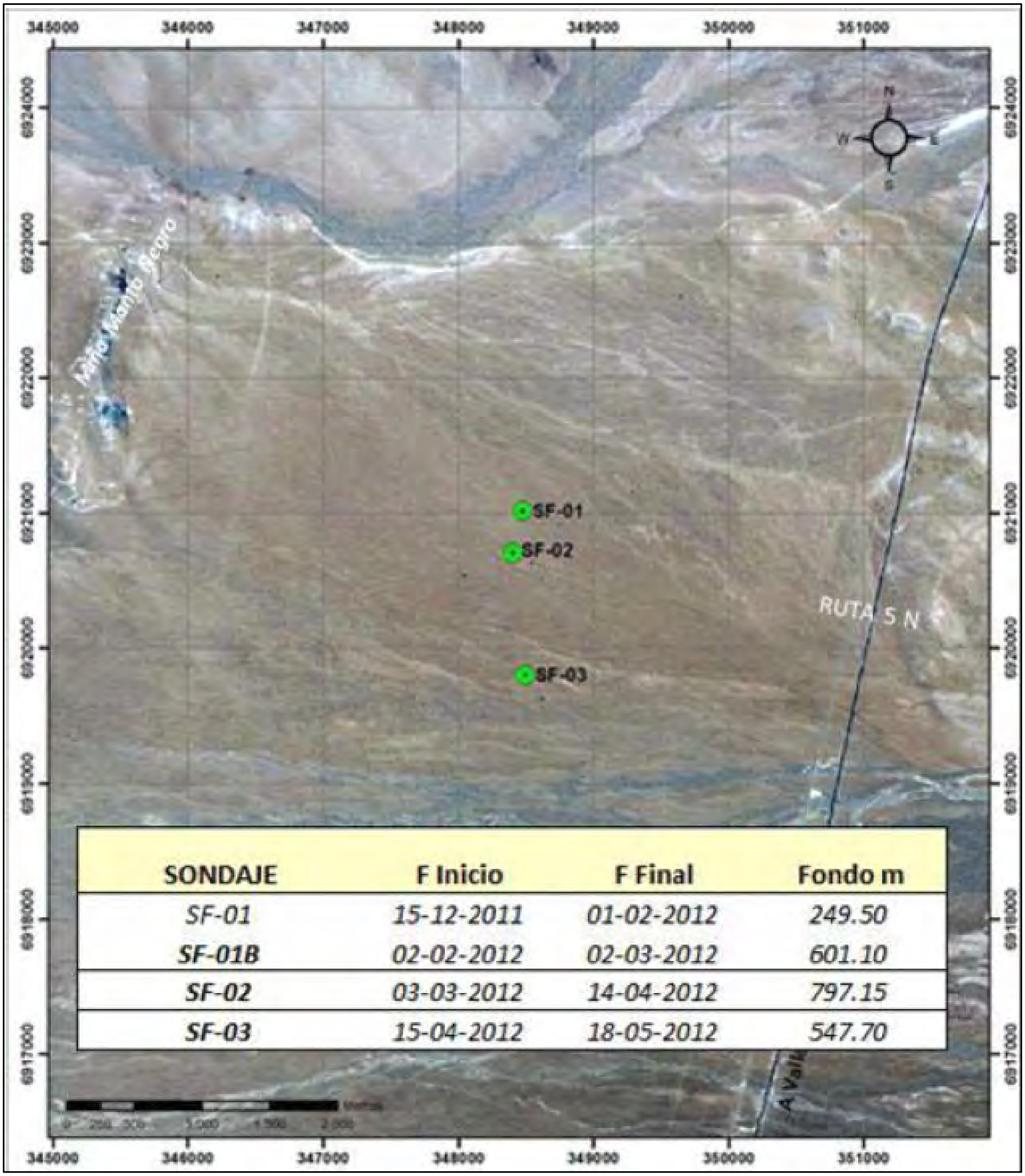
Table 6-7. Summary of the diamond drill holes completed in 2011-2012 by Minería Activa.

Drill Hole	UTMX (mE)	UTMY (mN)	Az	Dip	Length (m)
SF-1B	348475	6921013	270	-70	601.10
SF-02	348400	6920700	270	-70	797.15
SF-03	348500	6919800	0	-90	547.70
				Total (m):	**1,945.95**

The location of the diamond drill holes at Sierra Fritis (Buen Retiro) is shown in Figure 6-22 (*see* also Figure 6-17). The three drill holes overlain on a plan map of the gravity response for the area is shown in Figure 6-23. Table 6-8. Summarizes the samples sent by Sierra Fritis in March 2012 to ALS Minerals Laboratory (ALS Chile) located in Coquimbo; results were reported from April to June 2012.

Table 6-8. Summary of drill core sent to the ALS Laboratory in Coquimbo.

Drill Hole	Core Size	No. Trays	From (m)	To (m)	Total (m)
DDH-SF-01	HTW	72	110.20	249.50	139.30
DDH-SF-01B	HTW-NTW	240	134.20	601.10	466.90
DDH-SF-02	HTW-NTW-BTW	333	128.06	797.75	669.69
DDH-SF-03	HTW-NTW	151	72.75	376.85	304.10
	Totals:	**796**			**1,579.99**



SONDAJE	F Inicio	F Final	Fondo m
SF-01	15-12-2011	01-02-2012	249.50
SF-01B	02-02-2012	02-03-2012	601.10
SF-02	03-03-2012	14-04-2012	797.15
SF-03	15-04-2012	18-05-2012	547.70

Figure 6-22. Location of diamond drill holes completed in 2011-2012 by Minería Activa (Acevedo, 2012).

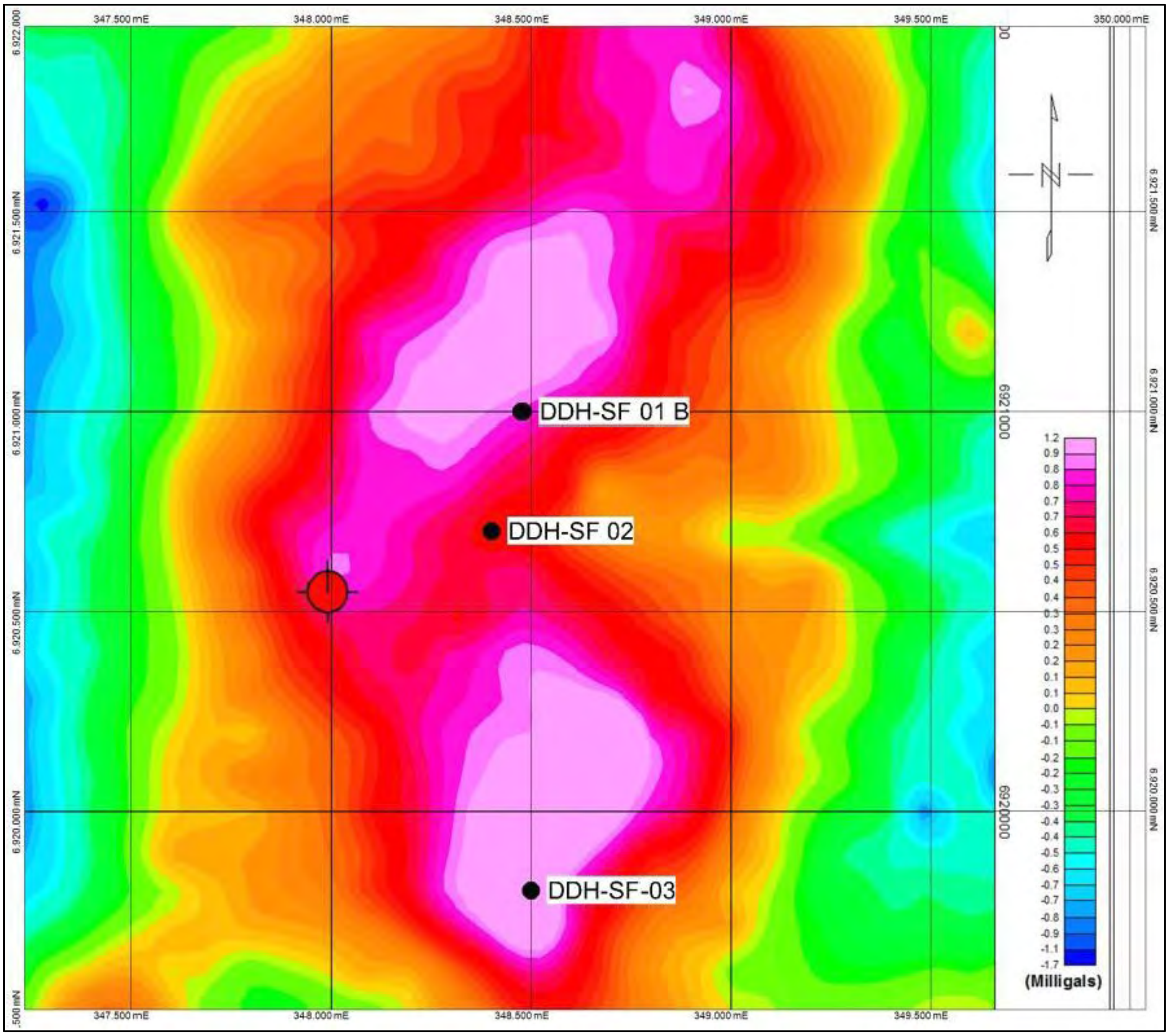


Figure 6-23. Location of the 3 diamond drill hole collars overlain on the gravity anomaly in the Northern Sector (*see* also Figure 6-17) (Acevedo, 2012).

6.3.11.4 Sampling and Analytical Procedures

Core samples were analyzed by ALS Minerals Laboratory with samples submitted to the Coquimbo location. The primary method for analyses was ICP (33 elements measured) and for grades over 15% Fe, the samples were re-analyzed with Atomic Absorption ("AA"), after acid digestion. Some samples were analyzed for Cu and Au to investigate the presence of Au in chalcopyrite, but the results were negative (Acevedo, 2012). ALS laboratory had their own internal controls of blanks, crushing duplicates and reference standards.

A Quality Assurance / Quality Control (QA/QC) program was put in place which included the introduction of blind analytical duplicates. The analytical duplicate validation criteria were based on the variation of the analysis of the duplicate sample from the analysis of the original sample. The results of the duplicate control, obtained for the SF-01B borehole, the only hole that had intersected iron mineralization of interest, showed that almost all grades between the original and the duplicate samples did not deviate and returned a correlation coefficient of 0.991 (Acevedo, 2012).

In addition to the lab and sample QA/QC, magnetic susceptibility measurements of the core were collected in systematic manner. This “mag-sus” data, together with the observed volume of magnetite obtained during core logging, allowed for the estimation of Fe grade. Although not precise, it discriminates well against expected economic grades (20-35% Fe) and sub-economic grades prior to submitting the core for assay at the laboratory and acts as a check against the assay results (Acevedo, 2012).

6.3.11.5 Significant Results, Recommendations and Conclusions

The drilling program identified gravel overburden ranging from 75 to 127 m in thickness (Acevedo, 2012). Below the gravels, an intrusive dioritic body was intersected which was widely distributed throughout the area, and to a lesser extent other intrusives of monzodioritic composition were noted. The diorite intrudes the host volcanic rocks and is associated with igneous breccia bodies and hydrothermal breccia structures that are variably mineralized with magnetite and/or pyrite-chalcopyrite (Acevedo, 2012).

The objective of the drilling campaign was to discover a high-grade, large-tonnage iron ore deposit. However, the holes drilled, only verified the existence of iron mineralization in very low quantity and grade. Iron mineralization identified in order of abundance, consisted of magnetite, mushketovite, martite (hematite pseudomorphs after magnetite), and hematite. In general, there is a zonation of iron ores given by hematite-limonite in the upper part of the oxidation-leaching that extends for about 120 to 180 m deep which then narrows to the primary zone of magnetite along with the other varieties of iron accompanied by sulphides (*i.e.*, pyrite and much lesser chalcopyrite). The best results of Fe grades, comparing the three drilled holes, were obtained in hole SF-01B which intersected massive magnetite in veins, breccias and vein stockworks. Even so, the iron grade was poor.

Drill holes also intersected copper mineralization in weak and restricted oxide and sulphide (chalcopyrite) zones; it was noted that the copper mineralization is independent of solid magnetite mineralization with high Fe grade. Hole SF-01B intersected 20 metres averaging 0.27% Cu(T) in discontinuous sections of 2.0 to 4.0 metres, the best of which is located between 222-226 m, consisting of 4.0 m of 0.63% Cu(T); hole SF-02 intersected weak chalcopyrite mineralization associated with specularite mineralization in two sections; one of 14 m with 0.2% Cu(T) and 0.06 ppm Au and another of 8.0 m with 0.11% Cu(T) (Acevedo, 2012).

Some of the features described by Acevedo (2012), such as the geological context of chalcopyrite mineralization associated with specularite and proximity to magnetite ores, are to some extent like those documented in IOCG deposits.

6.3.12 Geophysics IP/Resistivity – SCMBR (2015)

From 13 to 18 February 2015, under contract from SCMBR, Maping Ltda carried out a surface IP and Resistivity survey in part of the Buen Retiro Project (Perez, 2015). The single IP/Resistivity survey line was 4,300 metres long (43 stations) and oriented at approximately 21Az.

The objective of the geophysical program was to check a conceptual geological model under a cover of sediments and gravels of varying thickness(Perez, 2015). Map coverage of the 4,300 metre survey line is shown in Figure 6-24.

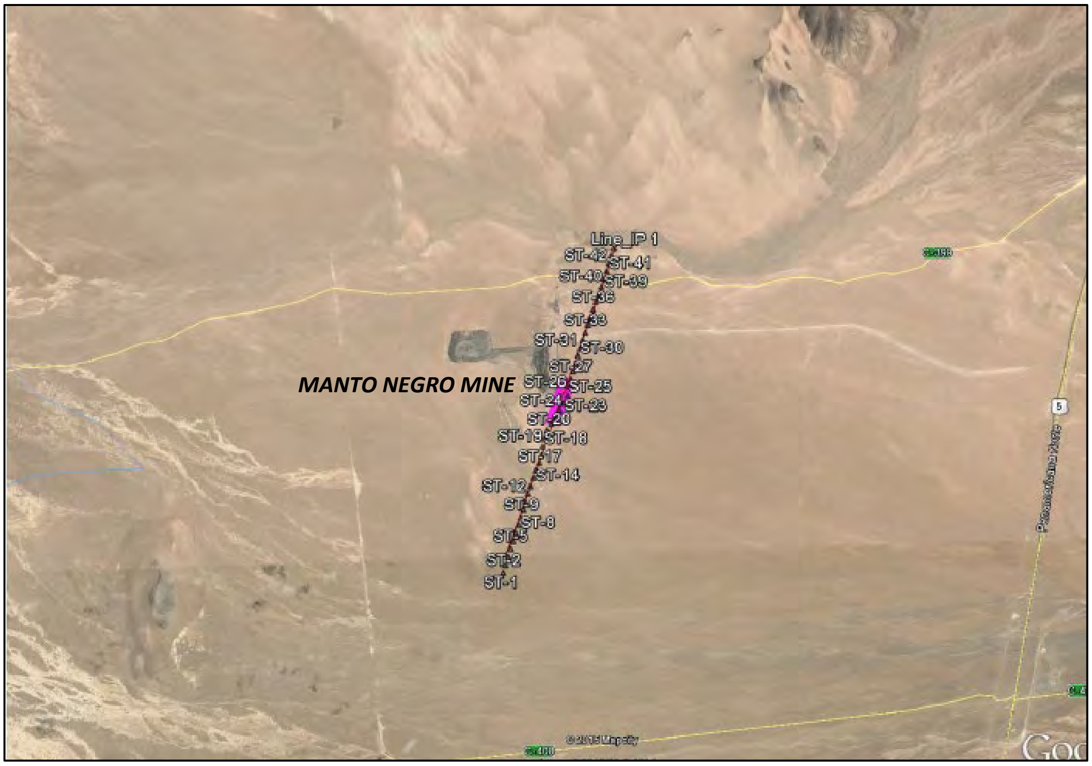


Figure 6-24. Location of the IP/Resistivity profile through the area east of the Manto Negro Mine open pit (Perez, 2015).

6.3.12.1 Tomography Profiles

The results of the IP/Resistivity survey are presented in pseudo-sections, of real relative resistivity, thus forming a two-dimensional mesh, with iso-resistivity curves, and IP iso-values, which quantitatively constitute the spatial variation (2D). In Figure 6-25, the trace of the IP/Resistivity survey and the pseudosection from the IP survey are shown in the area of the Manto Negro Mine. Red to magenta color corresponds to high IP values, while the light blue to blue color corresponds to low values, the rest corresponds to intermediate values.

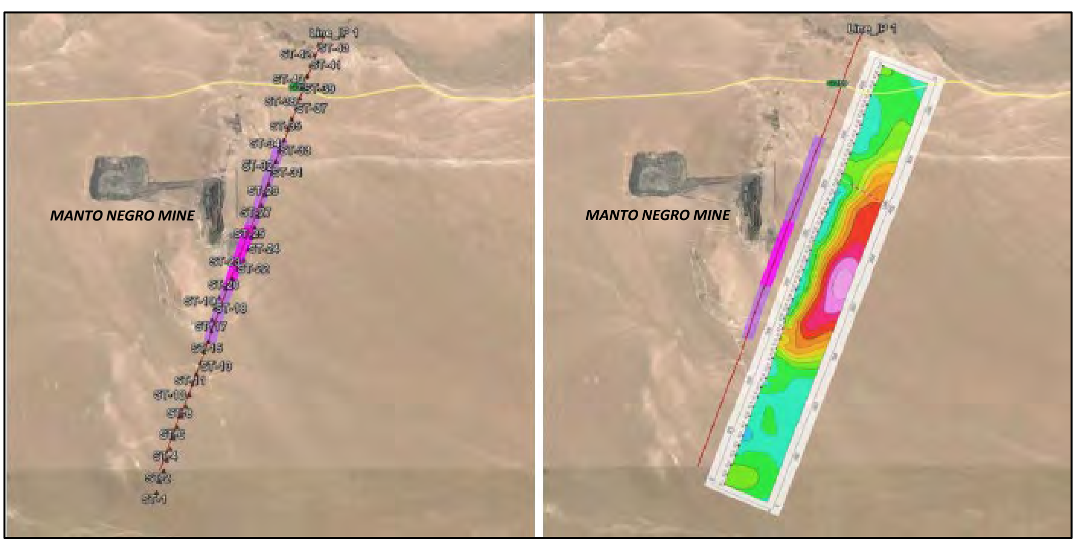


Figure 6-25. LEFT: Location of the IP profile in relation to the Manto Negro mine. RIGHT: Location of the profile and the IP pseudo-section on the east side of the survey line showing the high IP values located near the centre of the profile, and to the southeast of the mine pit (Perez, 2015).

6.4 Historical Mineral Processing and Metallurgical Testing

There are no reliable records of historical mineral processing and metallurgical testing related to mineralization within the boundaries of the Project. At site there are abandoned remains of an abandoned Cu-cement reduction process plant (Ortuzar), of which there are no records and no information.

6.5 Historical Mineral Resource Estimates

The Author is not aware of any historical mineral resource estimates within the Buen Retiro Project. The Manto Negro Deposit was mined between 2005 and 2009 and there are no stated mineral resources (or reserves) remaining.

6.6 Historical Production

In January 2005, NCL Ingeniería y Construcción S.A. prepared a conceptual study for Pucobre which examined the feasibility for the mining of the Manto Negro Deposit with a plan to truck the mined ore to Pucobre's Biocobre SX-EW plant located 70 km by road near Copiapó (NCL, 2005). The economic study considered both open pit and underground extraction models but determined that an open pit mining scenario was much more favourable than underground.

The mining plan called for production of 500,000 tpm and applying a 5% mining dilution calculated that the open pit held approximately 1.065 Mt at 2.17% Cu(T) or 1.80% Cu(S) (Figure 6-26). Pucobre acted on this economic report and put the Manto Negro Mine into production in 2005, producing from an open pit operation through 2009 (Table 6-9).

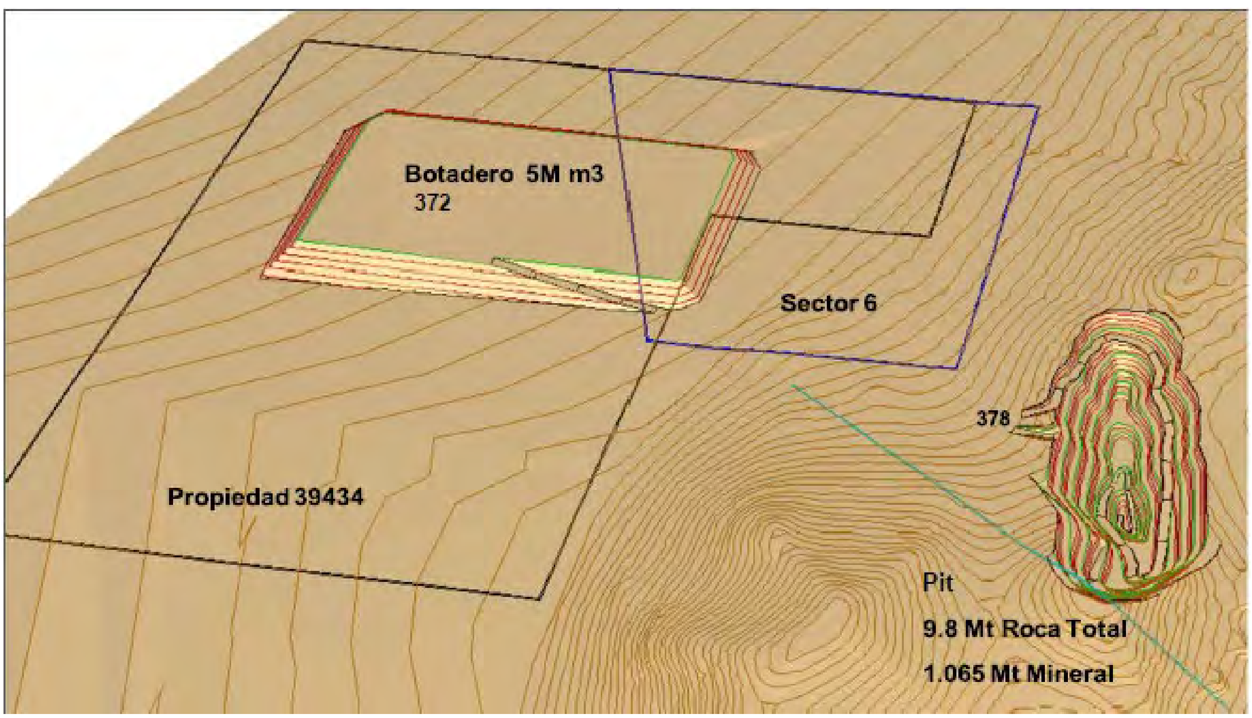


Figure 6-26. Mine plan showing the location of the Manto Negro open pit (1.065 Mt of Cu-oxide) and the waste dump (Botadero)(NCL, 2005).

Table 6-9. Summary of open pit Cu-oxide production from the Manto Negro Copper Mine (Pucobre).

Year	Mined (t)	Cu(S) Oxide Grade (%)
2005	122,734	0.95
2006	310,758	1.4
2007	301,499	0.91
2008	309,667	1.16
2009	267,209	1.38
Totals:	**1,311,867**	**1.19**

The NCL (2005) report was presented by Pucobre to the Chilean government's Environmental Assessment Service (SEA) as part of their environmental impact assessment system registration ("SEA") and their simplified environmental impact statement (DIA) application for the development of the Manto Negro open pit mine.

6.7 Historical Exploration Work (2023-2024)

Since 2023, PTSS has completed geophysical surveys (gravity, IP/Resistivity), aero photogrammetric and topographic survey, diamond drilling, DTH air core drilling, research studies (field mapping), and petrographic and lithological studies (Table 6-2).

Historical work completed by the Vendor is of sufficient quality with sampling and mapping techniques, along with QA/QC procedures being completed to industry standard and sufficient for the purposes of the Report.

Table 6-2. Summary of exploration work completed by Ptolemy Mining Limited (2023-2024).

Year	Period	Category	Company/ Operator	Contractor	Property	Description	Datum	Reference
2023	November	Geophysics	Ptolemy Technical Services	Geodatos Geofísica de Avanzada	Sierra Fritis	gravity; 3.3 x 3.5 km2; 178 stations every 100 m (8 lines)	PSAD56 19S	Geodatos (2023)
2023	August-October	Geophysics	Ptolemy Technical Services	Argali Geofísica E.I.R.L.	Sierra Fritis	92.05 line-km IP (pole-dipole)/Resistivity; 380 line-km detailed ground magnetics; 3D inversion	WGS84 Z19S	Jordan (2023)
2023	July	Remote Sensing	Ptolemy Technical Services	APEX	All	aero photogrammetric and topographic survey; VTOL UAV (6cm/pixel)	WGS84 Z19S	Schubert (2024b)
2023 - 2024	November - March	Drilling - diamond	Ptolemy Technical Services	Blackrock Drilling	All	BRT-DDH001 to 014A (NQ Size); 3,906.4 m and 3,430 samples	WGS84 Z19S	Schubert (2024a)

Year	Period	Category	Company/ Operator	Contractor	Property	Description	Datum	Reference
2024	March	Tech Report	Ptolemy Mining Limited	Irene del Real Contreras	All	field visit (8-9 March 2024)	WGS84 Z19S	del Real (2024)
2024	April-July	Petrography	Ptolemy Technical Services	Balmin Ltda. (Gloria Balmaceda)	All	petrographic and lithological descriptions	-	Balmin (2024)

6.7.1 Aerophotogrammetric and Topographic Survey (2023)

In July 2023, APEX (Chile) completed an aerophotogrammetric and topographic survey of the Project within one week and delivered the final products within a month. APEX performed the survey with a Vertical Take-off and Landing (“VTOL”) type Unmanned un-manned aerial vehicle (“UAV”), with a resolution of 6 cm/pixel and with an overlap of 70% longitudinal and 60% lateral. The topography was generated from the collection of data by the post-processing kinematic (“PPK”) method and produced contour lines at every 1 m in the WGS84 and PSAD56 systems; the projection to PSAD56 used ad-hoc parameters using as a comparison measurement milestones and notable points of the topographic base previously used by Pucobre, to allow the integration of the entire previous geological information base. The final products included high-precision topographic maps and high-resolution image tiles and digital tiles.

6.7.2 Geophysical Survey – Induced Polarization / Magnetics (2023)

From July to October 2023, Argali Geofísica Chile E.I.R.L. (“Argali’) conducted a pole-dipole induced polarization (IP) survey and magnetometer survey at the Buen Retiro Project on behalf of PTSS (Jordan, 2023; Schubert, 2023a).

The IP survey (92.05 line-km) was conducted on 25 east-west lines, spaced 250 m apart, followed by 2 lines over nearby exploration targets; a total of 380 line-km of magnetic data was acquired (Figure 6-27). Coordinates were collected in WGS84 Zone 19S, despite raw data for PSAD56 datum is also available. The conversion specifications were defined from the Topographic survey (Apex, 2023) and was used by Argali (2023) in its raw data conversion (WGS84: +184.3 to Easting, +375.4 to Northing = PSA56 (N. Chile).

The pole-dipole array was used with a 100 m dipole spacing (n=1 up to a maximum of 20) on 19 lines and with a 50 m dipole spacing (n= 1 to 8) plus 100 m dipoles (n=4 to 14) on eight lines, both intercalated, to increase resolution and outline possible structures and lineaments. Due to the depth to the chargeability, there was limited increase in resolution with the 50 m dipoles, so some lines originally planned for 50 m dipoles were changed to 100 metres. One previous IP line was reprocessed and re-inverted and incorporated into the 2023 data set. A digital 3D voxel of all the IP lines was also generated.

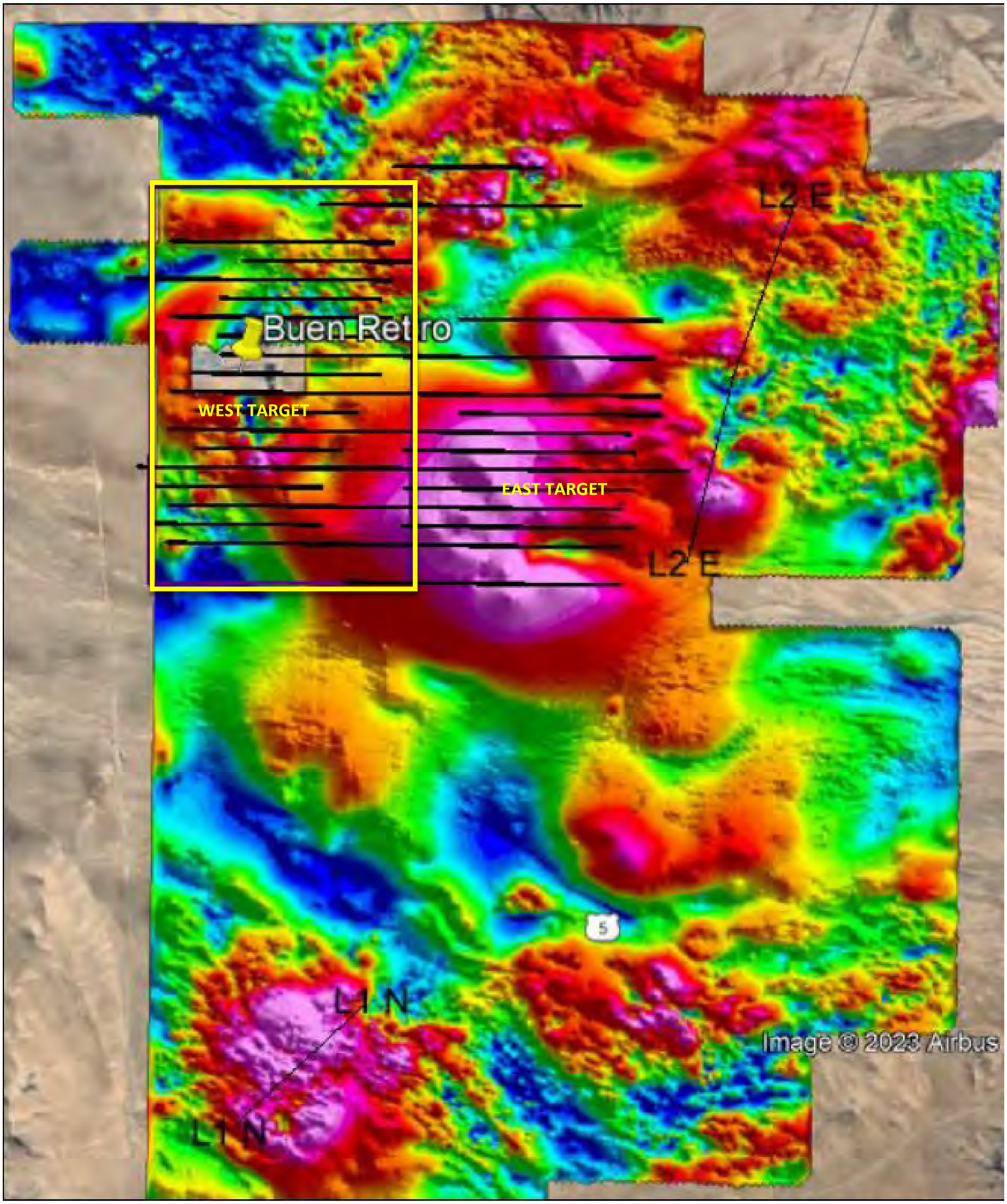


Figure 6-27. Buen Retiro Project showing the Analytic Signal of the Vertical Integral of the Total Field from the Jordan (2011b) magnetic survey. The 2023 magnetic detail survey area (yellow rectangle - covers the West Target), the twenty-five 2023 east-west IP lines, and the two northeast oriented exploration lines (L1 and L2), are also shown (Jordan, 2023).

Argali (2023), named the West Target the Buen Retiro and Manto Negro areas, while the East Target is referred to as the Sierra Fritis area. Figure 6-28 shows the location of the IP lines (100 m and 50 m spacing) over the West Target area (yellow rectangle in Figure 6-27; presently the Buen Retiro and Manto Negro areas).

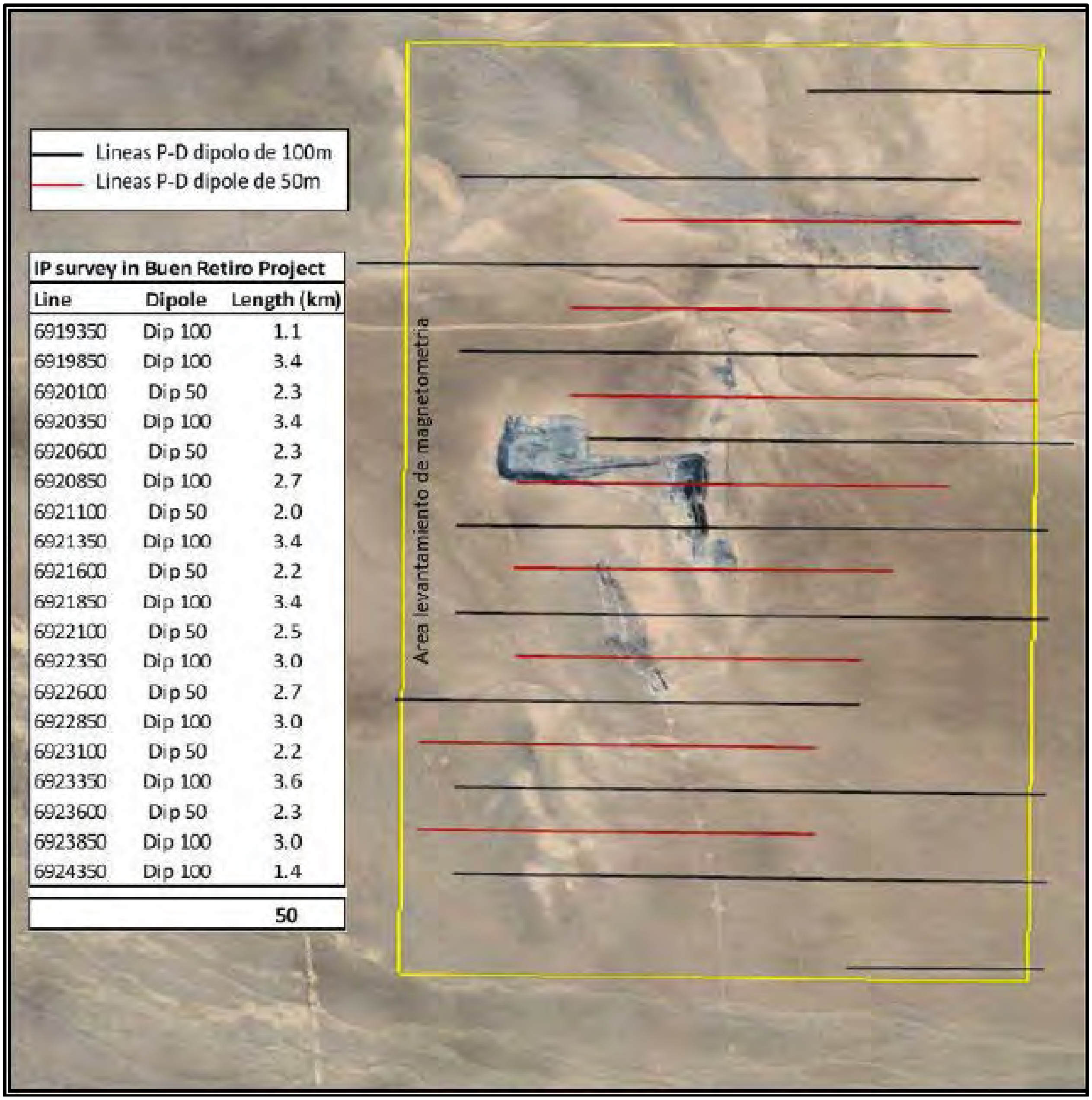


Figure 6-28. Location of the IP lines covering the West Target area which includes the Manto Negro Mine (Schubert, 2023a).

During 2011, Argali completed a large ground magnetic survey totalling approximately 2,000 line-km over a zone which is now the Sierra Fritis and Buen Retiro properties (*see* Figure 6-27) (Jordan, 2011b). The data were acquired with north-south lines spaced 100 m apart. Several large strong magnetic anomalies were outlined and subsequently drilled yielding interesting and possible economic magnetite grades in some areas. However, there was a gap in coverage over the Manto Negro Mine area and limited detail on the expected structures which tend to strike north-northwest through northeast.

Consequently, a 2023 magnetic survey was completed over the Manto Negro Mine and surrounding Buen Retiro area (5.3 x 3.5 km area) using east-west lines spaced 50 m apart (Jordan, 2023). A total of 380 line-km of ground magnetometer survey was performed over 108 lines. Maps of Total Field, Reduced-to-Pole, Analytic Signal of Total Field, Analytical Signal of Vertical Integral of Total Field, and dX, dY, dZ Vertical Derivative were generated. The magnetic data were inverted with the MAG3D code from UBC, creating a 3D model of the magnetic susceptibility which fits the observed total field data. Figure 6-29 shows the pole-reduced intensity from the 2023 magnetic survey which provides a reliable indication of magnetic zones.

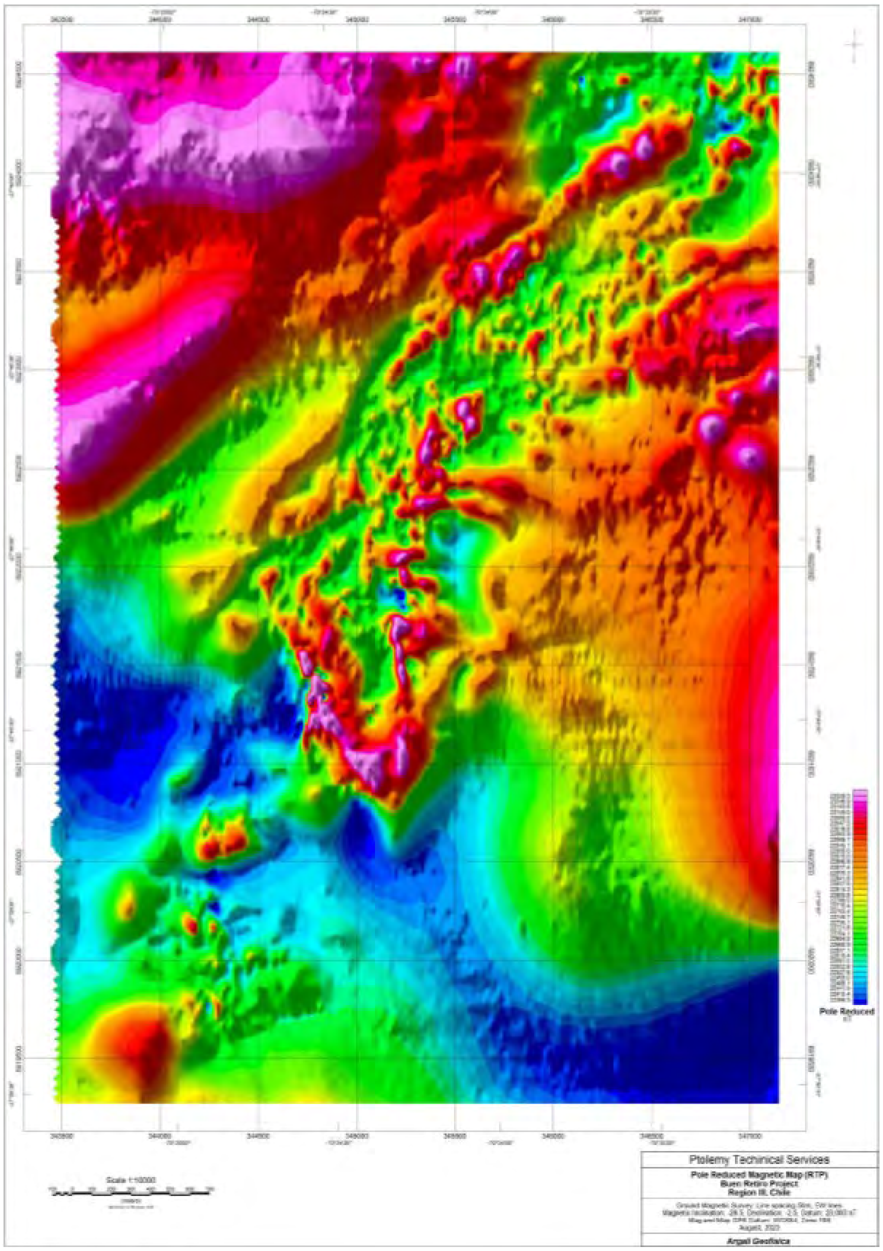


Figure 6-29. Buen Retiro Project magnetic survey results presented as reduced-to-pole (RTP); area surveyed approximately corresponds to the yellow rectangle in Figure 6-27 and Figure 6-28 (Jordan, 2023).

Figure 6-30 shows the Analytical Signal of the Total Field, which tends to identify shallow sources of magnetic material very well.

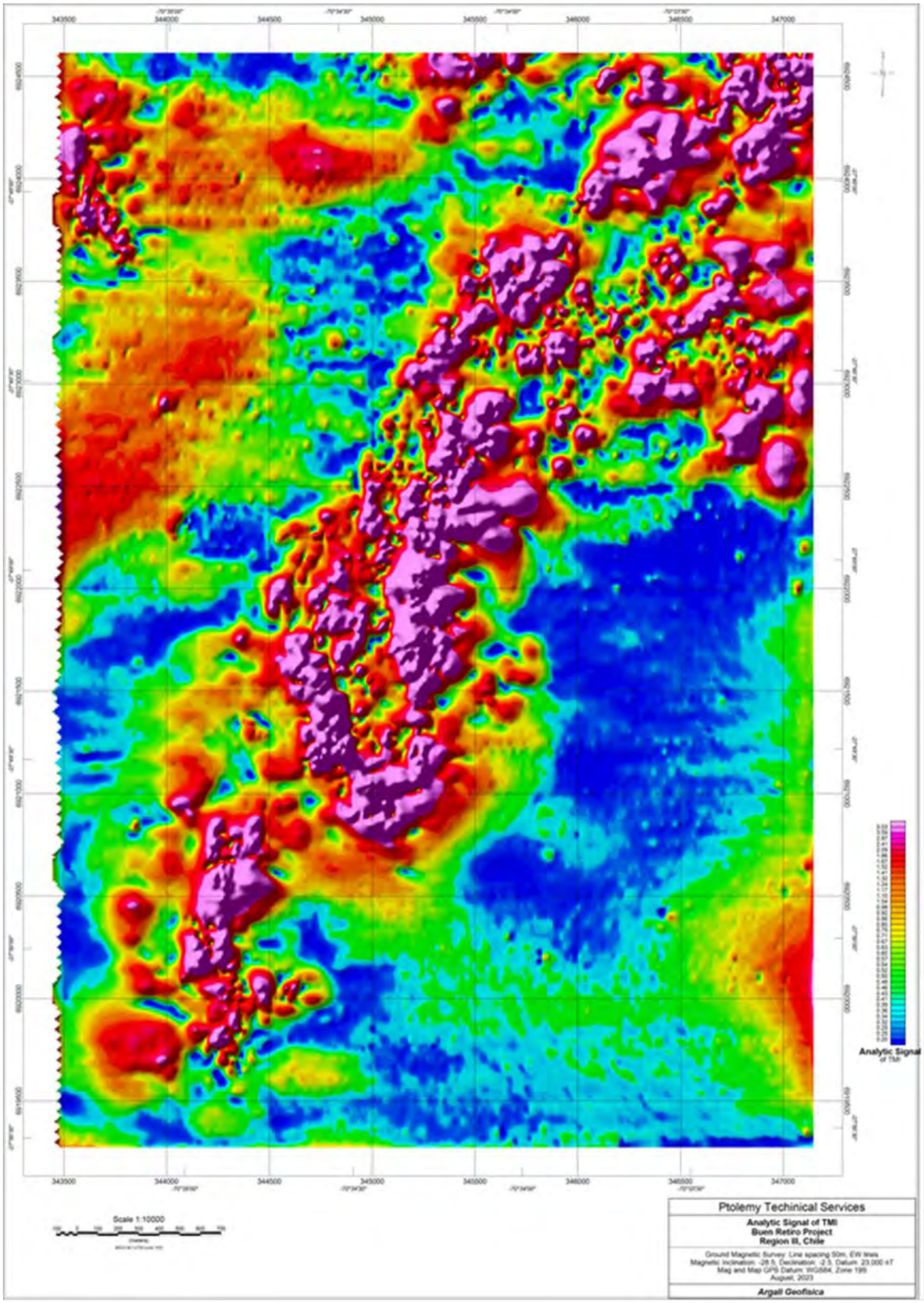


Figure 6-30. Buen Retiro Project magnetic survey results presented as Analytic Signal of Total Field; area surveyed approximately corresponds to the yellow rectangle in Figure 6-27 and Figure 6-28 (Jordan, 2023).

6.7.2.1 Significant Results, Recommendations and Conclusions

The 2023 magnetic data (West Target) outlined a north-south trend that passes just east of the Manto Negro Mine (*see* Figure 6-27, Figure 6-29, and Figure 6-30). The discontinuous trend extends 1,200 m south and 800 m north of the Manto Negro Mine area. A similar magnetic trend striking north-northwest is outlined south of the mine area. The magnetic anomalies increase in width and depth extent near the intersection of the north-south and north-northwest trends. A third major lineament is located further north, trending northeast over at least 3 kilometres (Jordan, 2023).

Results from the 3D inversion outline magnetic bodies in the central part of the grid, with susceptibilities ranging from 0.07 to 0.2 SI. For comparison, the north magnetic inversion from 2011 over the large magnetic anomaly to the east of Buen Retiro, returned a large deep body with susceptibilities from 0.15 to 0.4 SI. Some large IOCG deposits like Candelaria have modelled susceptibilities on the order of 0.2 SI (Jordan, 2023).

EW sections of the inverted model clearly show the location and approximate size of the magnetic anomalies. The sections between 6921610 mN and 6921210 mN (Figure 6-31) show anomalies extending from surface to -215 m ASL (approx. 550 m depth). Jordan (2023), mentions that the inversion tend to limit the depth extent thus, the magnetic anomalies may extend deeper than indicated by the model.

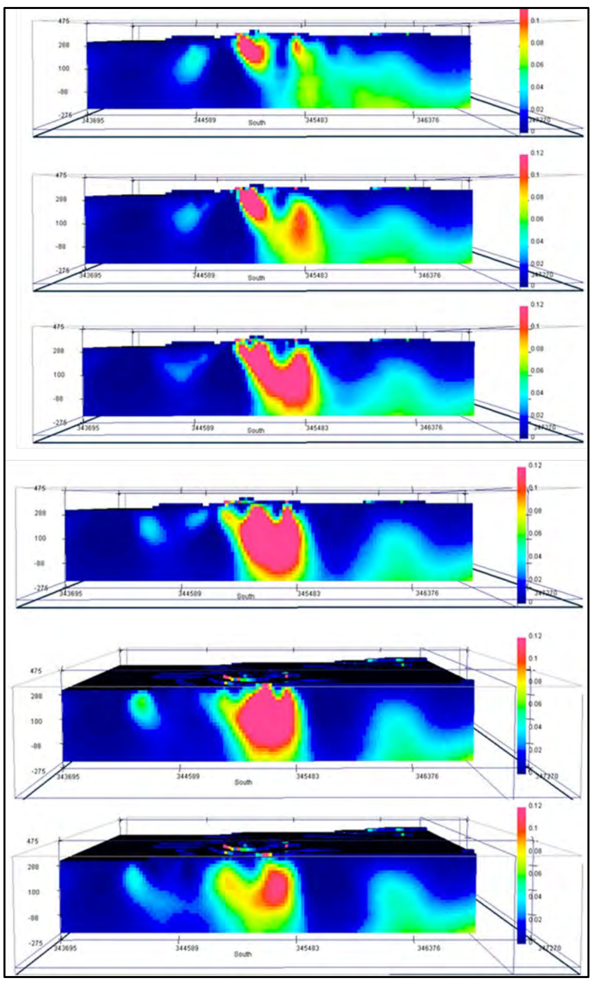


Figure 6-31. Buen Retiro Project 3D Model results presented in some east-west sections (6921710 mN at top to 6921210 mN at bottom) along the surveyed Buen Retiro area; Z-axis corresponds to altitude above sea level (Jordan, 2023)

A strong IP chargeability anomaly, approximately 800 x 1,700 m is centered on the Manto Negro Mine (Figure 6-32), which along with the magnetic trend (*see* Figure 6-29 and Figure 6-30), define a northeast-southwest trend, sharply bounded to the west and the east by throughgoing structures.

Near the Manto Negro Mine, on the two central lines, the anomaly consists of two lobes separated by approximately 500 m: one west of the pit and one to the east. Chargeabilities are slightly lower directly under the pit. A conductive zone that extends relatively deeply is noted immediately east of a narrow and shallow resistive zone on the west side of the pit. The conductive feature appears to be centered near the bottom of the pit. Possible conductive sources include a fault or structure. Interestingly, a similar pattern is outlined 500 m to the north on Line 6922600 mN in an area not yet affected by open pit mining (Jordan 2023).

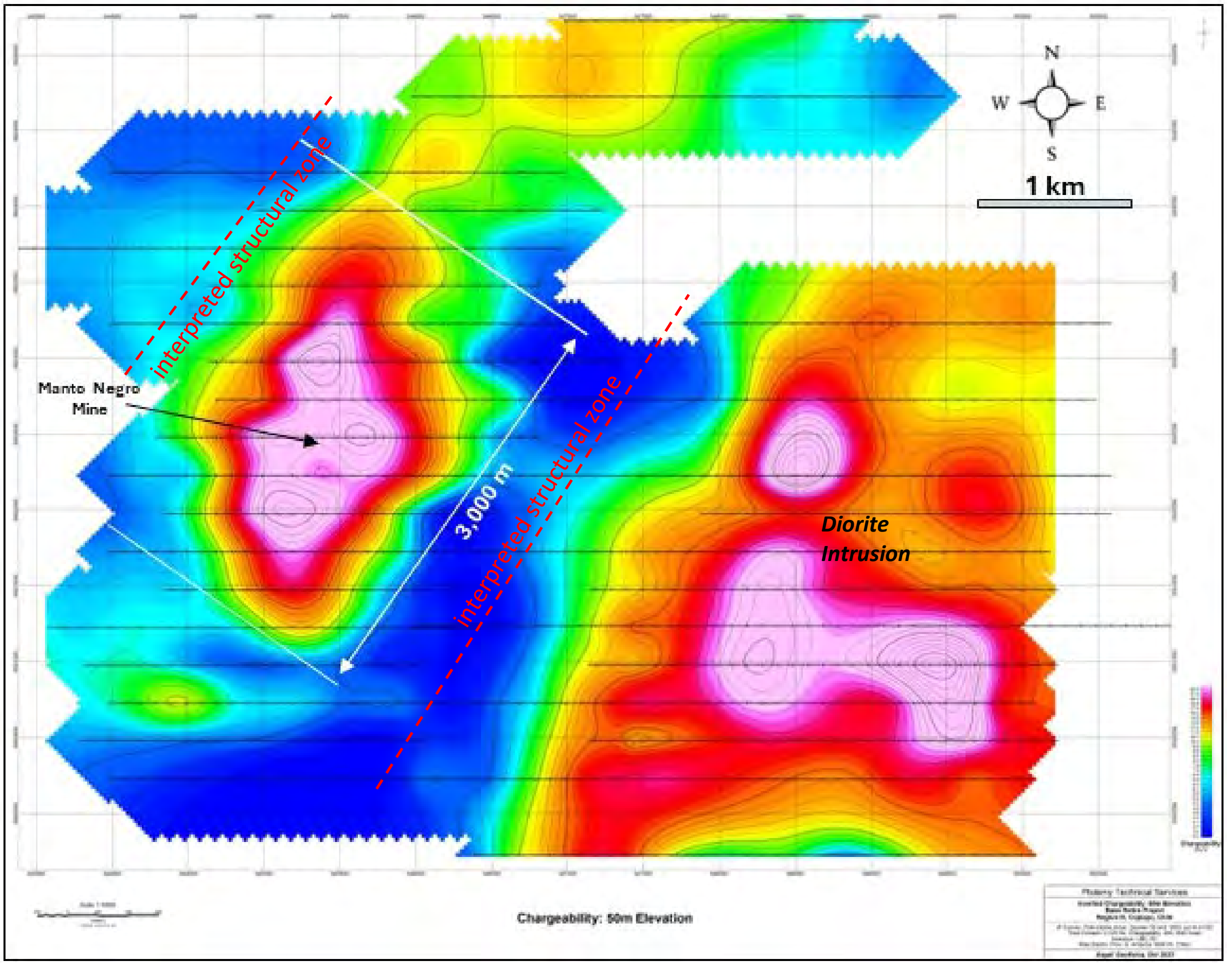


Figure 6-32. IP chargeability slice at 50 m depth. The Buen Retiro-Manto Negro area shows a clear 3.0 x 1.5 km anomaly, related to regional northeast-southwest strike-slip structural corridor; the approximate location of the Manto Negro Mine is indicated (after Jordan, 2023).

Schubert (2024b), proposed that the displaced lobes observed in the pit zone should probably correspond to a normal fault, closely associated with vein-type mineralization (Figure 6-33).

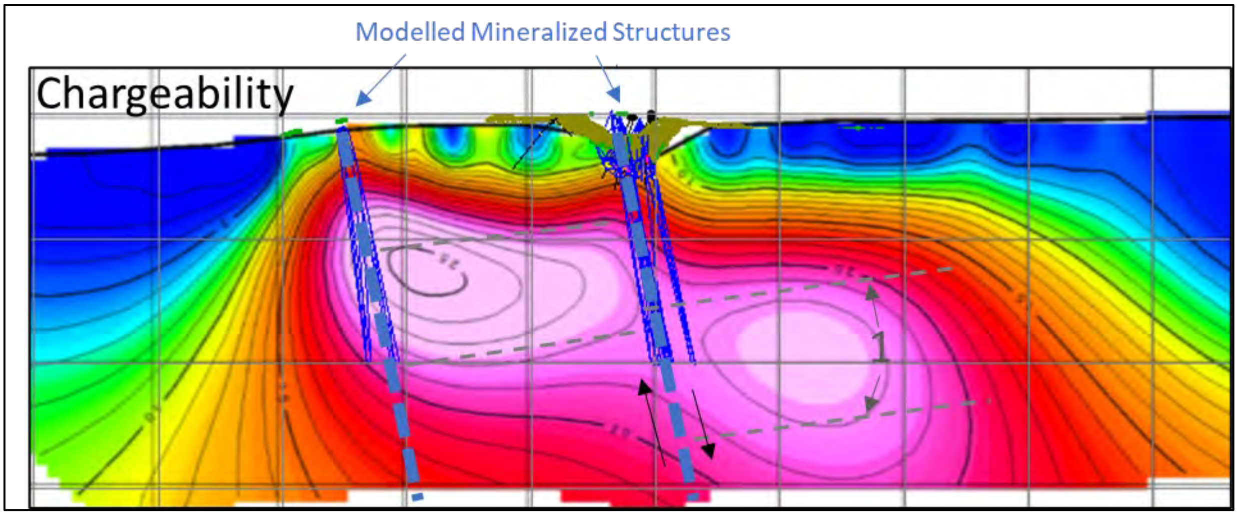


Figure 6-33. IP chargeability section 6921850 mN with interpreted mineralized structures (Schubert, 2024b).

The chargeability anomalies occur at relatively shallow depths from 50 m to 150 m and appear to extend to great depth, probably exceeding the depth penetration of the survey. There is some indication that the chargeability anomalies may dip to the east or that the east side of the anomaly is displaced deeper by faulting (Jordan, 2023).

The IP anomaly is parallel to the north-south magnetic trend and appears to be sharply bounded to the west by the north-northwest and northeast magnetic lows. High resistivities are generally associated with the chargeability anomaly as reflected in Figure 6-34, stacked inverted resistivity and chargeability inversions. The high chargeability amplitudes are indicative of notable pyrite content, but zones of copper sulphide are likely present (Jordan, 2023).

On the East Target, a large high amplitude IP chargeability anomaly is identified and remains open to the north and east. Similarly strong chargeabilities on Exploration Line 2 located about 1 km east further east, suggest that chargeable zone may measure 4 x 4 km or more. The chargeability anomaly is thought to be a pyritic belt, possibly with copper in some areas. Large deep magnetic anomalies identified during 2011 correlate with distortions in the chargeability anomalies and should be evaluated (Jordan, 2023).

Other anomalies of interest include Exploration Line 1, located about 6 km south of the main IP survey (Figure 6-35). The line is oriented southwest-northeast and is positioned over a large magnetic anomaly from the 2011 survey. Unlike all of the IP lines further north, the chargeabilities on Line 1 are comparatively very low (less than 6 mV/V). This line appears to be outside of the pyritic belt that envelops the entire East Target and beyond. The weak (5-6 mV/V) chargeability anomaly near the center of the line is well-defined and appears to have deep roots. The low chargeabilities indicate a paucity of pyrite, but copper sulphides may be present. Chargeabilities with these amplitudes in this region are sometimes associated with outcropping specularite, in which case the anomalies typically extend to the surface, like the chargeability anomaly on Line 1 (Jordan, 2023).

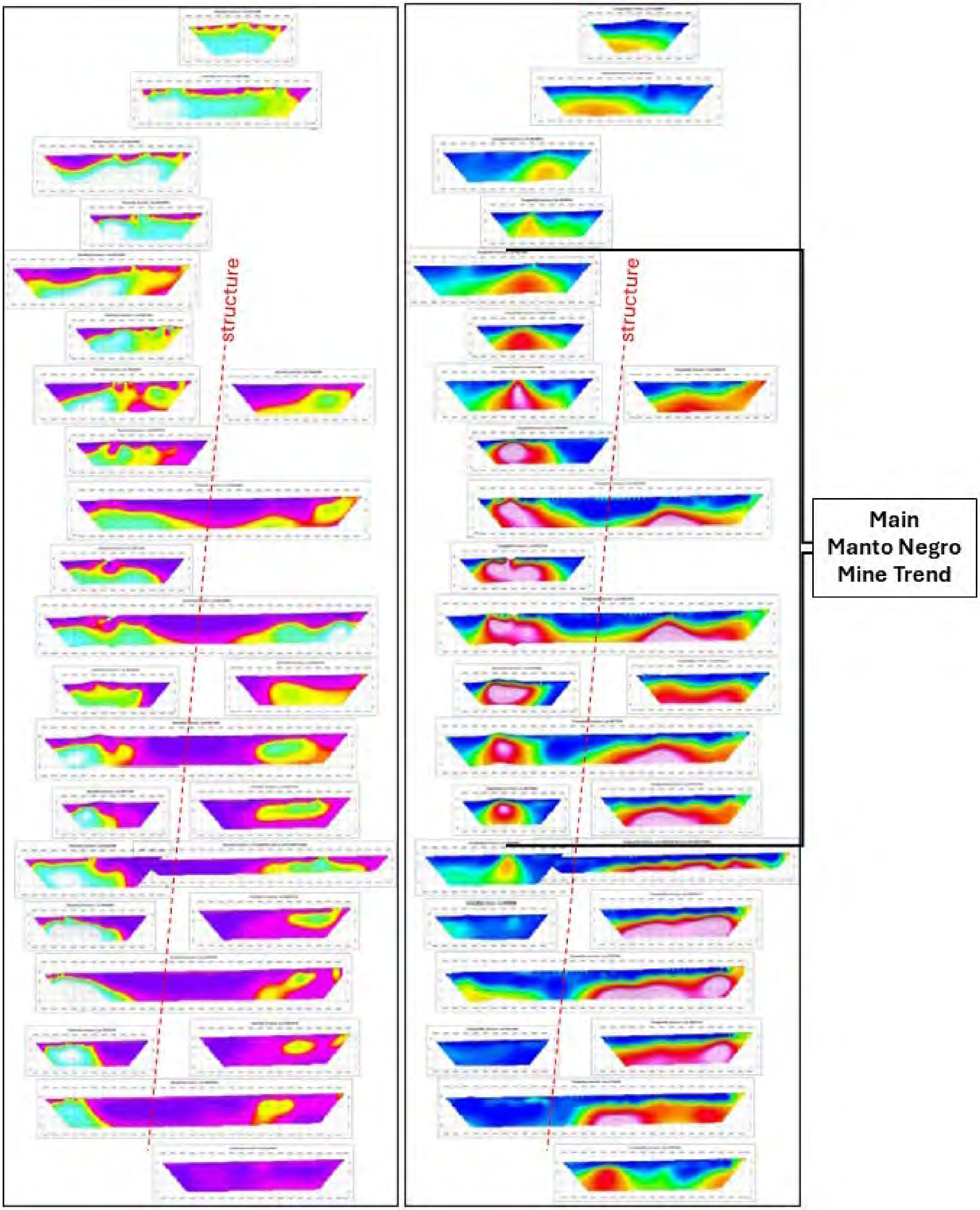


Figure 6-34. Geophysical IP-Resistivity survey (2023) along the main Manto Negro Mine trend or structural corridor. LEFT: stacked inverted resistivity. RIGHT: stacked inverted chargeability (after Jordan, 2023).

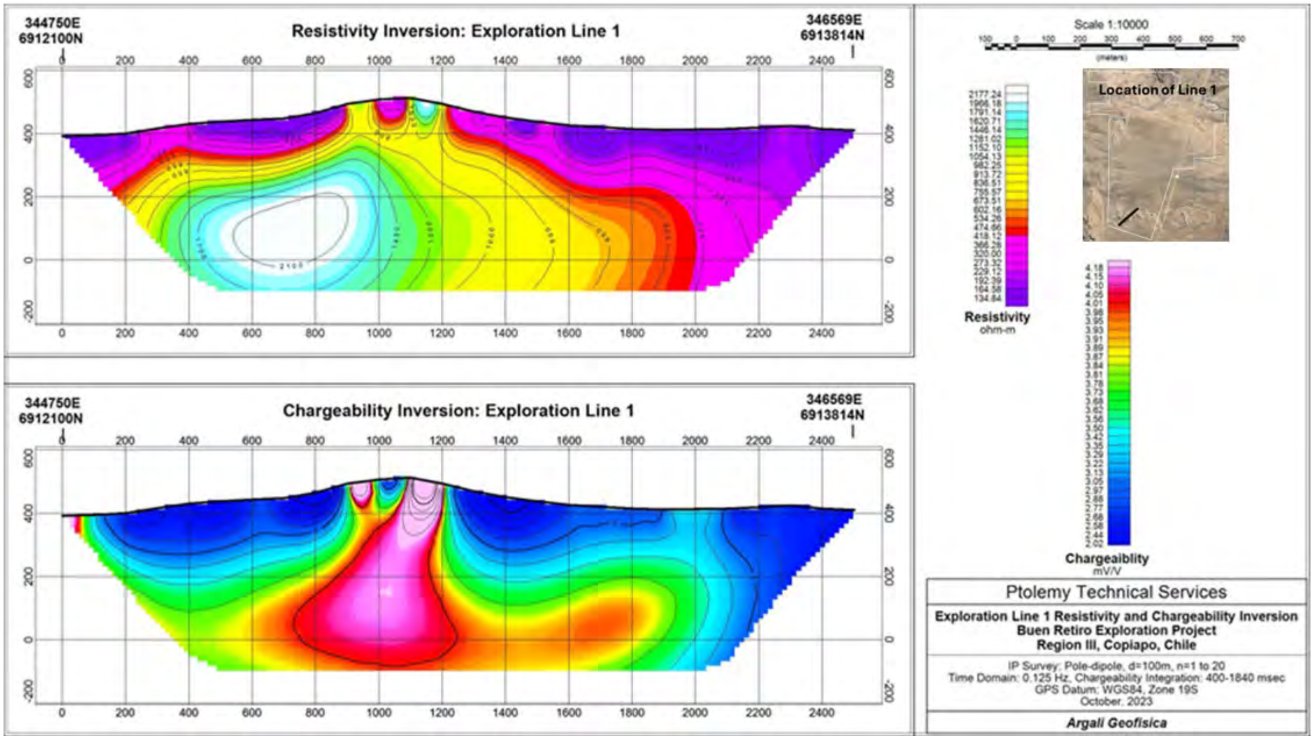


Figure 6-35. Exploration Line 1, in the extreme south of the main project block of properties. Top: resistivity; Bottom: chargeability, with a clear anomaly. This is directly related to the 2001 magnetic anomaly (Jordan, 2023).

6.7.3 Geophysics – Gravity Survey (2023)

From 5 to 8 November 2023, Geodatos Geofísica de Avanzada ("Geodatos") was contracted by PTSS to complete a gravimetric survey at the Sierra Fritis area using a Scintrex CG-5 gravimeter. The objective of the survey was to detect structurally controlled hematitic bodies. The survey covered 3.3 x 3.5 km^2 (east by north) with 178 stations every 100 m, and over eight east-west lines spaced at 500 metres (Figure 6-36) (Geodatos, 2023). Coordinates were referenced in PSAD56 Zone 19S.

To characterize the variations in subsurface density that cause the detected anomalies, the data were modelled using a 3D inversion system. In addition, two representative lines (major anomalies) were modelled with a 2.5D system (discrete variation of density) to delimit the main bodies. Both types of density models are displayed in perspectives with different cut-off values in East, North, Elevation, and Density Contrast.

After the application of drift, tide, latitude, open air, topographic, and Bouguer corrections, the Total Bouguer Gravity (Figure 6-37) and Residual Bouguer Gravity (Figure 6-38) were calculated. The Total Bouguer Gravity shows a strong southeast-northwest regional component.

3D data inversion (3D distribution of subsurface density) was calculated (Figure 6-39) with the GRAV3D Version 2.0 algorithm of the University of British Columbia (UBC), Canada, using Tensor Research's Model Vision Pro program, Australia, as an interactive interface (Geodatos, 2023).

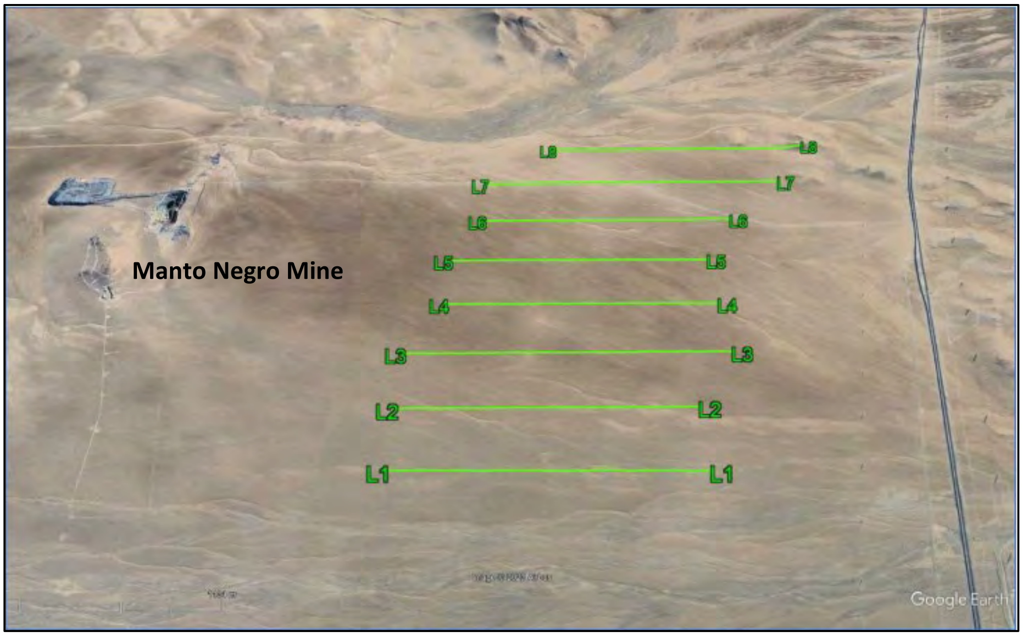


Figure 6-36. Perspective view (Google Earth) of the eight gravimetric survey lines (view to the north) east of the Manto Negro Mine (Geodatos, 2023).

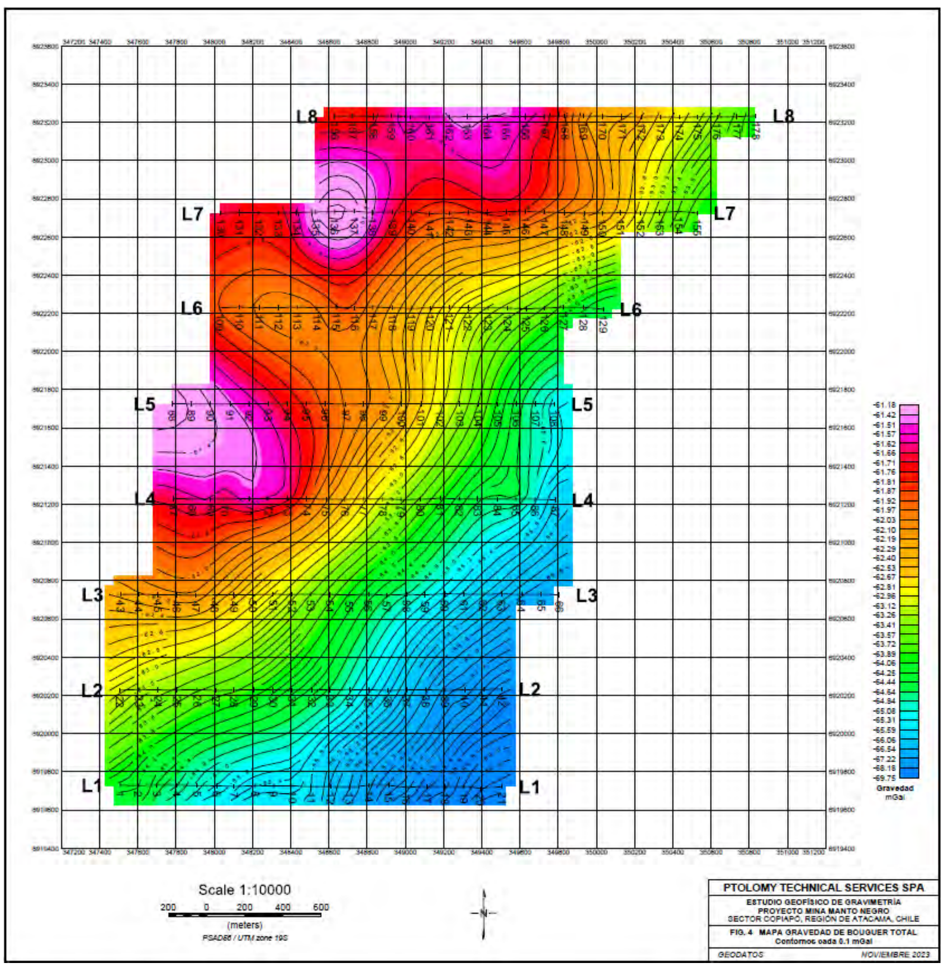


Figure 6-37. Total Bouguer Gravity results from the Manto Negro Mine project survey (Geodatos, 2023).

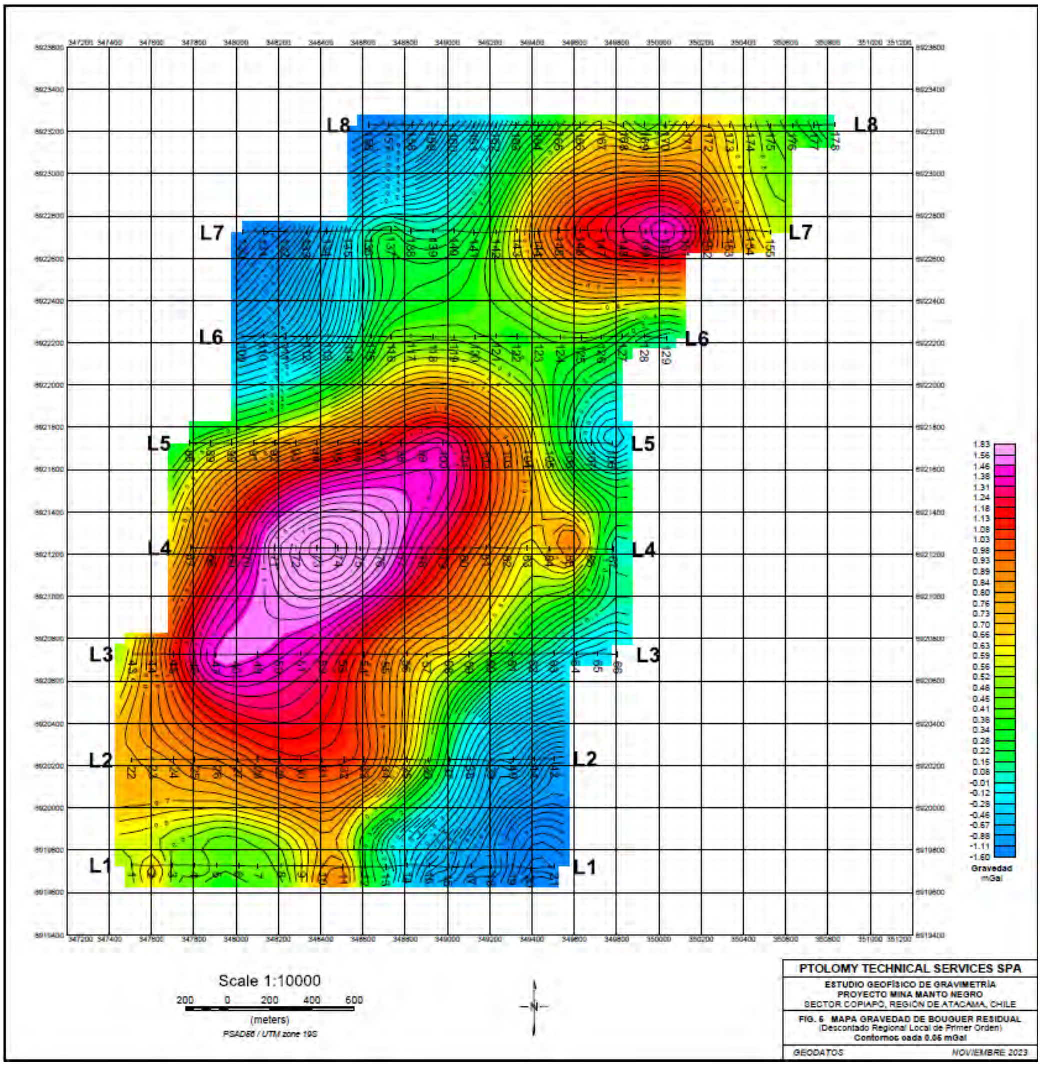


Figure 6-38. Residual Bouguer Gravity results from the Manto Negro Mine project survey (Geodatos, 2023).

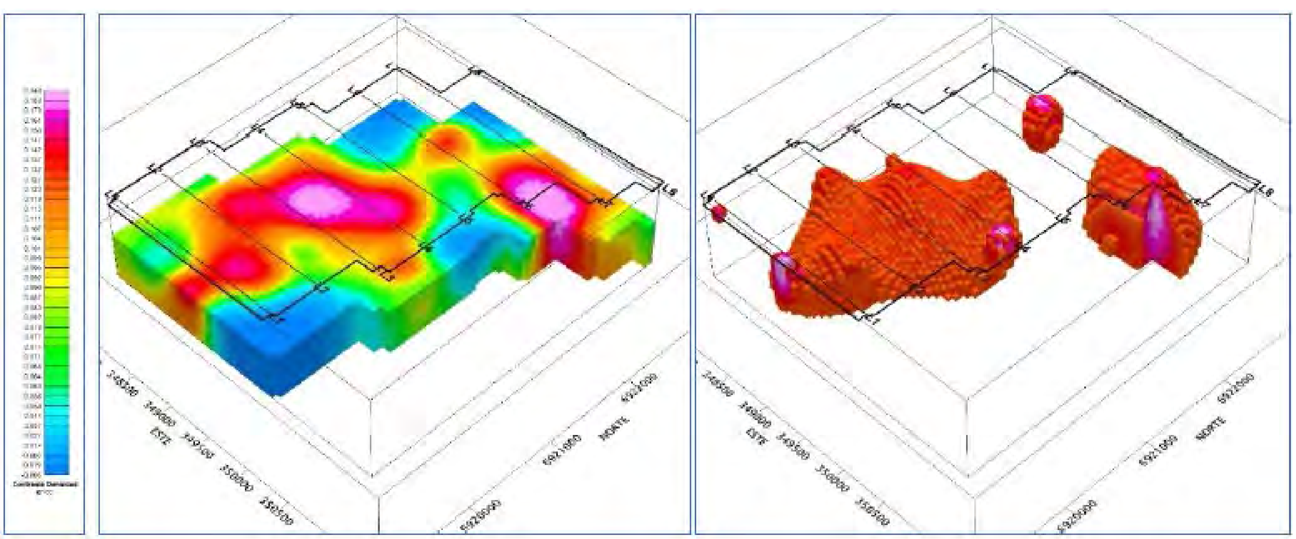


Figure 6-39. LEFT: 3D density model (inversion) looking northwest. RIGHT: image filtered to density ≥0.125 g/cm^3 (Geodatos, 2023).

6.7.4 Project Review - Irene del Real Contreras (2024)

On 8 and 9 March 2024, Dr. Irene del Real Contreras (Universidad Austral de Chile) visited the Project and reported on the prospectivity of the Buen Retiro Project and area. Various components from Dr. del Real's report are referenced in this Report.

6.7.4.1 Significant Results, Recommendations and Conclusions

Mineralization in the Project is found associated to the Manto Negro Deposit and in the Sierra Fritis area. The Manto Negro Deposit is characterized by structurally controlled (north-south to north-northwest) ore bodies that host Cu mineralization, the deposit has a strong supergene enrichment where mineralization is mostly contained as tenorite, cuprite or native Cu, although hypogene mineralization (chalcopyrite-pyrite) starts at 250 m ASL. Minor chalcopyrite mineralization in Sierra Fritis was intercepted by previous drilling and is associated to volcanic rocks of the Punta del Cobre Formation.

The Buen Retiro Project shows characteristics of IOCG and IOA mineralization, such as favorable hydrothermal alteration paragenesis together with favorable structures and host rocks. It is suggested to test in further depth hypogene mineralization in the Manto Negro Deposit and look for structure intersections for potentially larger ore bodies and test north-northwest to north-south magnetic anomalies towards the north and south of the structural corridor where the deposit is located. Mineralization in Sierra Fritis is proposed to be associated with a diorite intrusion in the area which has been previously intercepted by drilling and it is recommended as a potential target the volcanic rocks surrounding the intrusion. The intrusion is reported to have disseminated magnetite and pyrite as reflected in the magnetic and IP anomalies. Finally, it is recommended to characterize the geology of the area in depth to better understand the intrusions associated to mineralization and potential favorable horizons in the volcanic rocks for Manto-style and IOCG mineralization (del Real, 2024).

6.7.5 Geological Mapping (2024)

During the months of April, May and June 2024, detailed geological mapping in the Manto Negro Mine area (including the open pit) and the Buen Retiro and Sierra Fritis properties was completed by PTSS (Figure 6-40).

Mapping was completed over the Manto Negro Mine area (Figure 6-41) and over five other areas at various scales in the Buen Retiro and Sierra Fritis properties east and south of the Manto Negro Mine area (Figure 6-42 to 6-46).

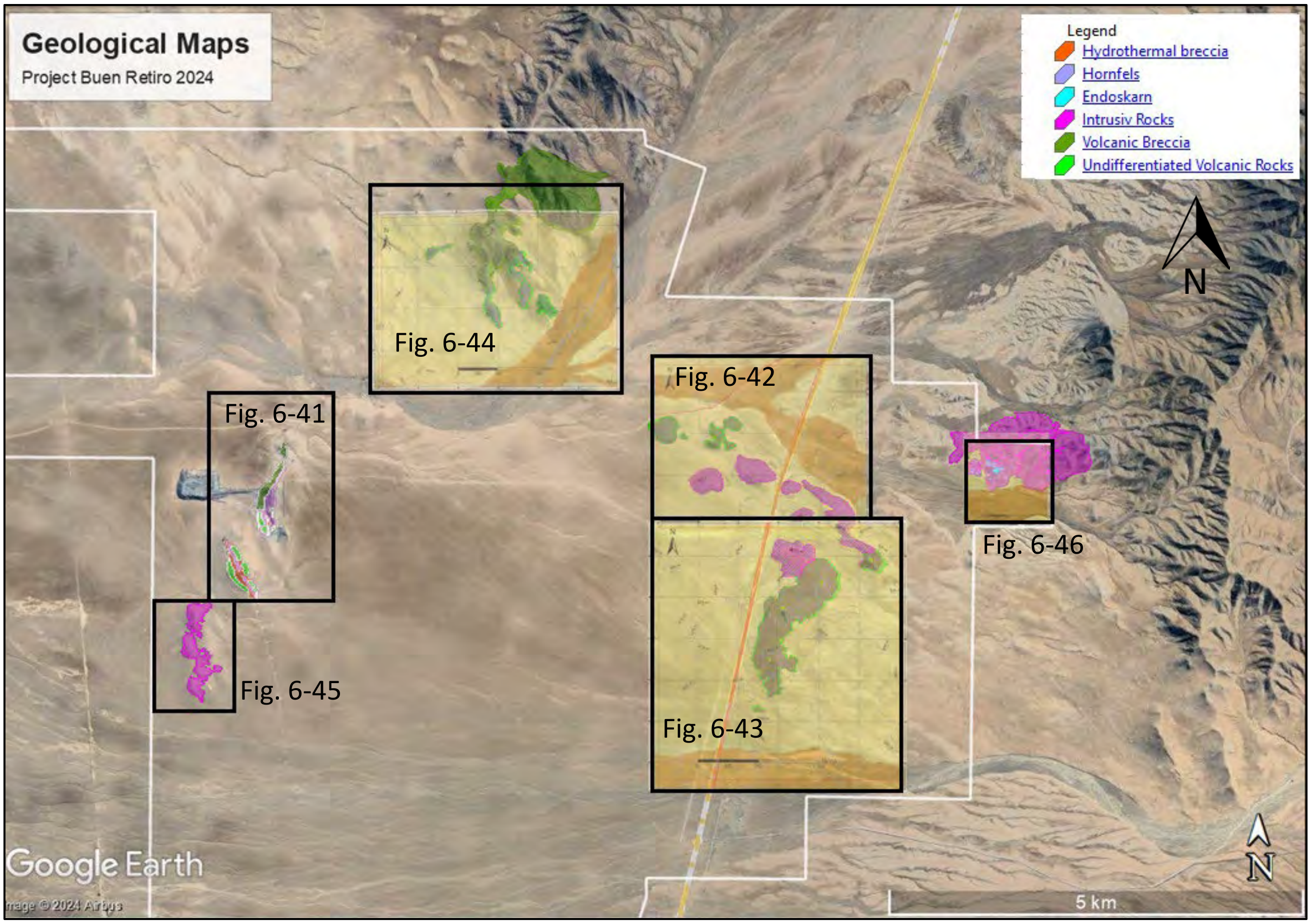
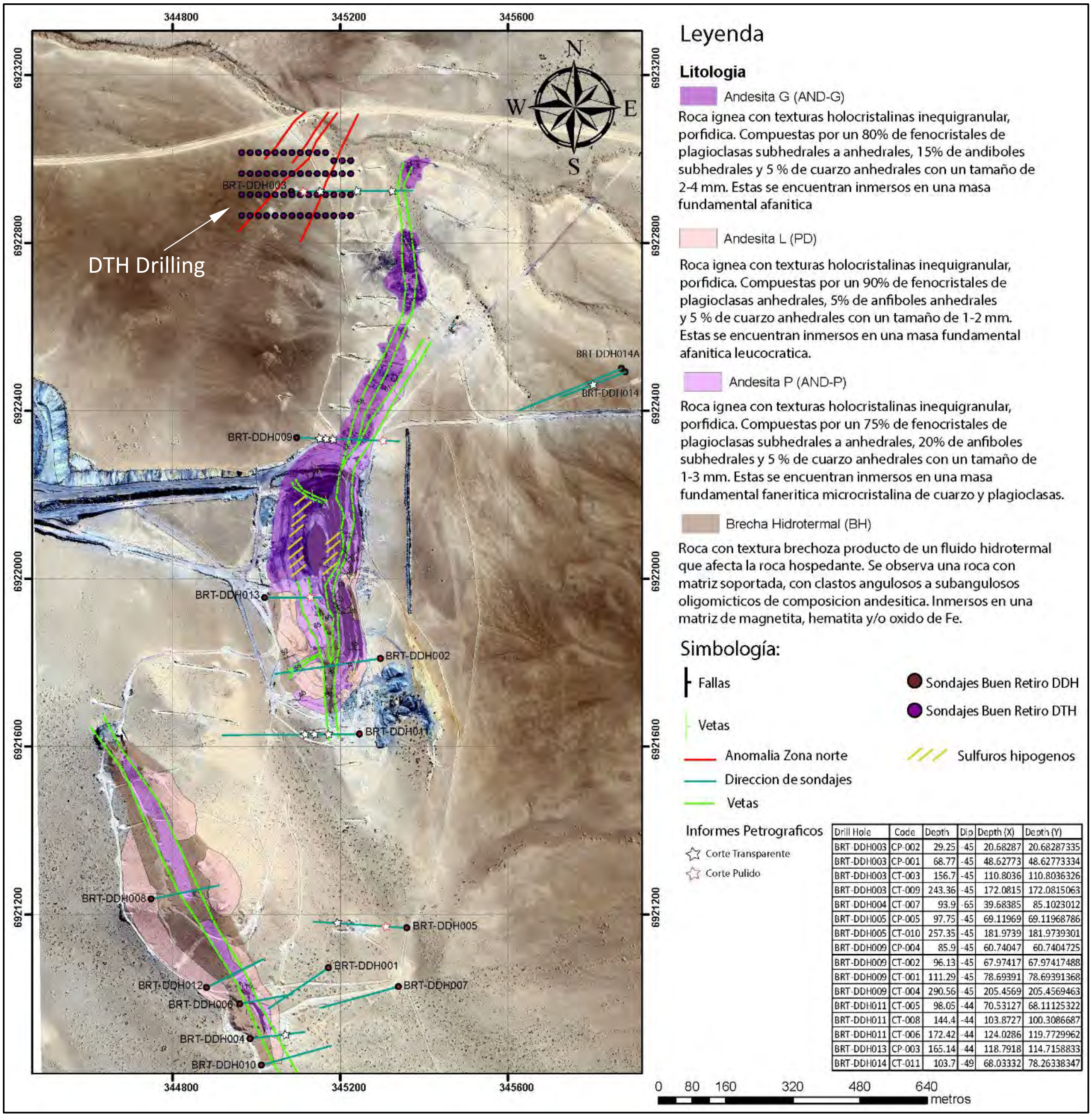


Figure 6-40. Location of geological map areas completed in 2024 (Figures 6-41 to 6-46) by Ptolemy Technical Services (Caracle Creek, 2024).



Drill Hole	Code	Depth	Dip	Depth (X)	Depth (Y)
BRT-DDH003	CP-002	29.25	-45	20.68287	20.68287335
BRT-DDH003	CP-001	68.77	-45	48.62773	48.62773334
BRT-DDH003	CT-003	156.7	-45	110.8036	110.8036326
BRT-DDH003	CT-009	243.36	-45	172.0815	172.0815063
BRT-DDH004	CT-007	93.9	-65	39.68385	85.1023012
BRT-DDH005	CP-005	97.75	-45	69.11969	69.11968786
BRT-DDH005	CT-010	257.35	-45	181.9739	181.9739301
BRT-DDH009	CP-004	85.9	-45	60.74047	60.7404725
BRT-DDH009	CT-002	96.13	-45	67.97417	67.97417488
BRT-DDH009	CT-001	111.29	-45	78.69391	78.69391368
BRT-DDH009	CT-004	290.56	-45	205.4569	205.4569463
BRT-DDH011	CT-005	98.05	-44	70.53127	68.11125322
BRT-DDH011	CT-008	144.4	-44	103.8727	100.3086687
BRT-DDH011	CT-006	172.42	-44	124.0286	119.7729962
BRT-DDH013	CP-003	165.14	-44	118.7918	114.7158833
BRT-DDH014	CT-011	103.7	-49	68.03332	78.26338347

Figure 6-41. Geological map over the past-producing Manto Negro Mine area (open pit) with BRT-series drill hole collars and traces and location of the DTH drill hole grid in the north, around BRT-DDH-003 (*see* Figure 6-40 for location), Buen Retiro Project (Ptolemy Technical Services, 2024).

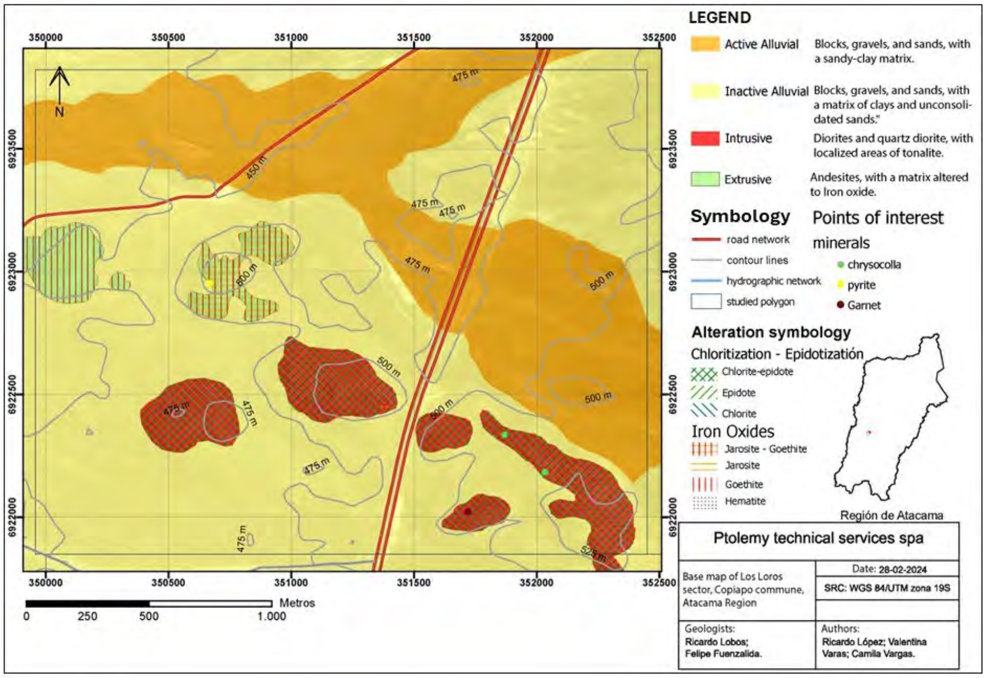


Figure 6-42. Geological map from the Island Hills area, Sierra Fritis concessions, east of the Manto Negro Mine area (*see* Figure 6-40 for location), Buen Retiro Project (Ptolemy Technical Services, 2024).

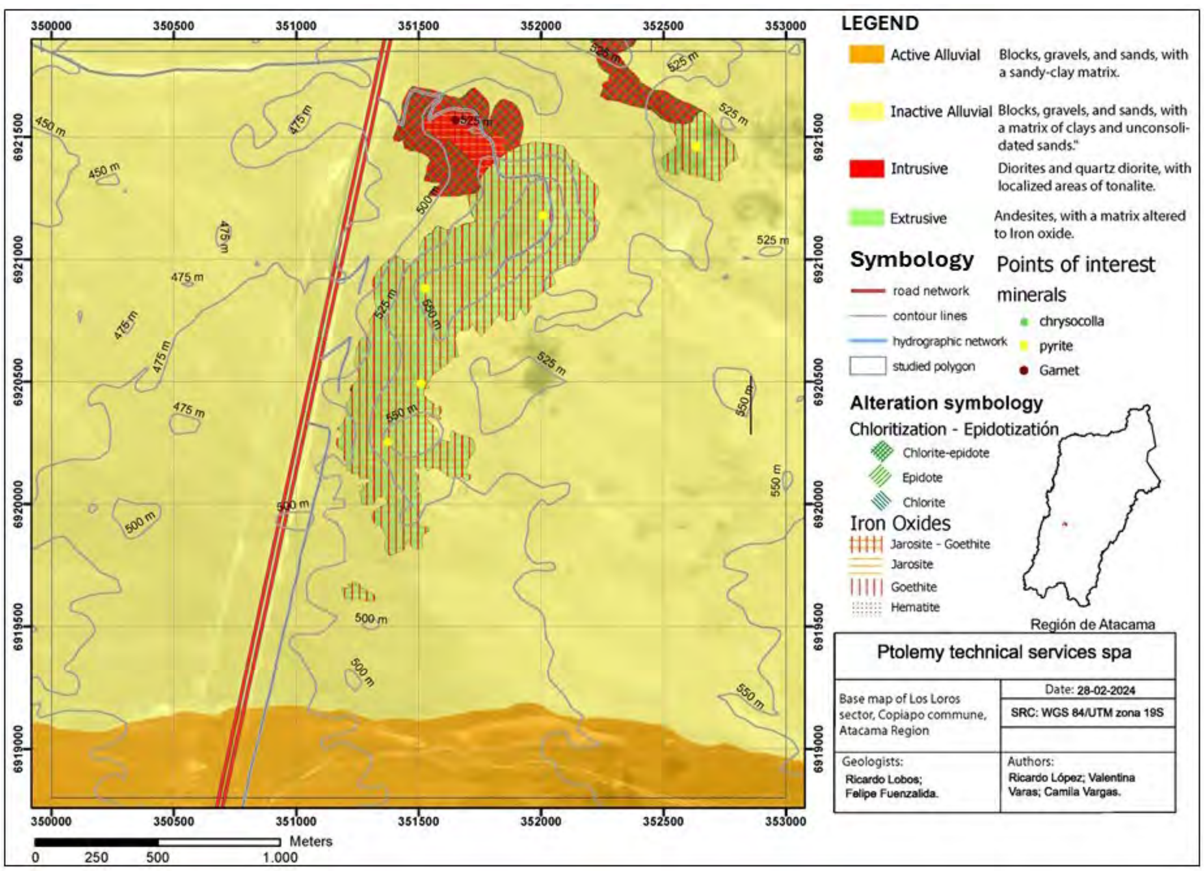


Figure 6-43. Geological map from the Island Hills area, Sierra Fritis concessions, east of the Manto Negro Mine area (*see* Figure 6-40 for location), Buen Retiro Project (Ptolemy Technical Services, 2024).

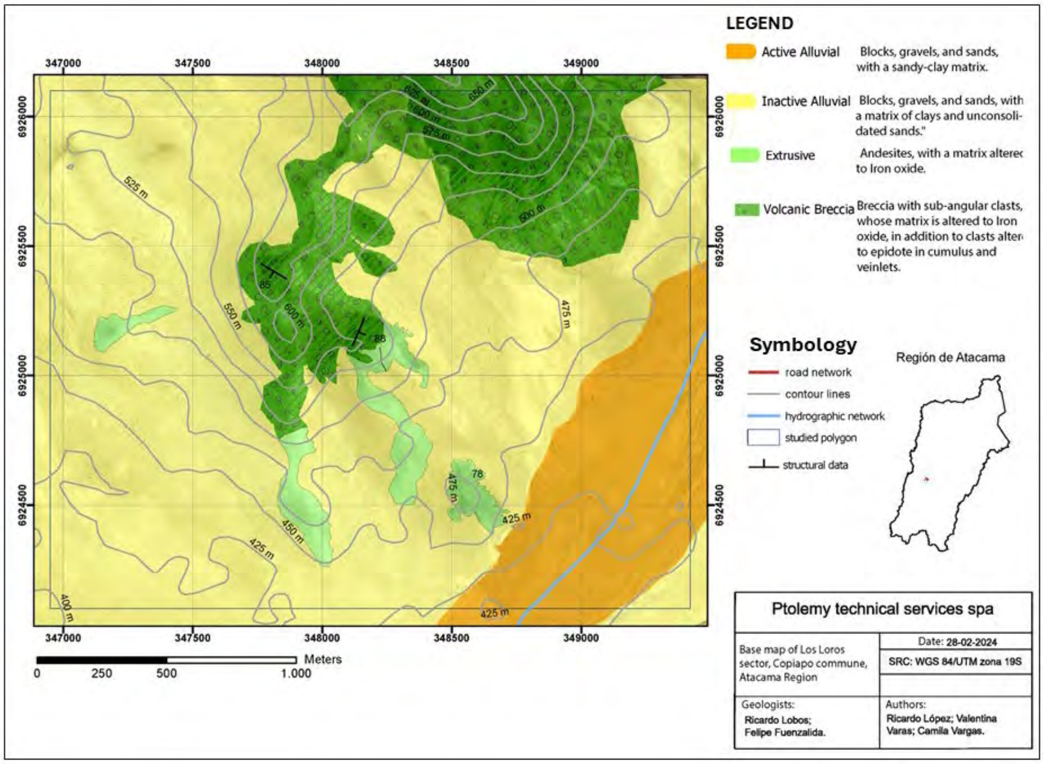


Figure 6-44. Geological map from the Sierra Fritis area, Sierra Fritis concessions, northeast of the Manto Negro Mine area (*see* Figure 6-40 for location), Buen Retiro Project (Ptolemy Technical Services, 2024).

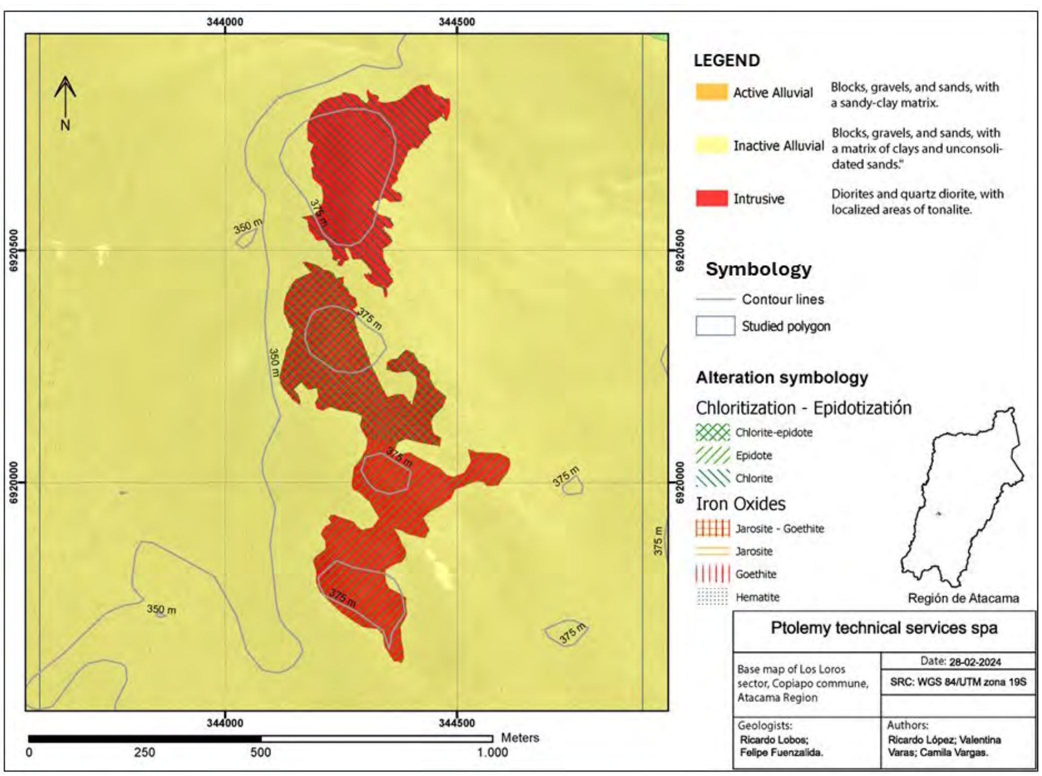


Figure 6-45. Geological map from the Buen Retiro concessions, immediately south of the Manto Negro Mine area (*see* Figure 6-40 for location), Buen Retiro Project (Ptolemy Technical Services, 2024).

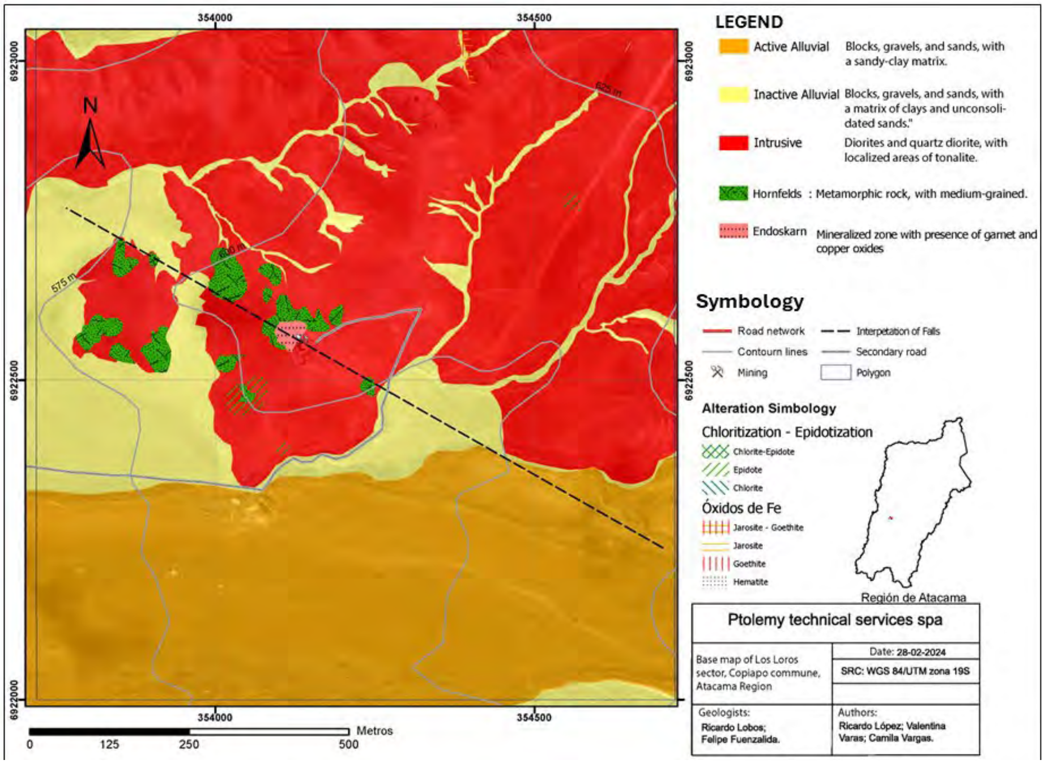


Figure 6-46. Geological map of the Minería El Santo area over the eastern boundary of the Sierra Fritis concessions, east of the Manto Negro Mine area (*see* Figure 6-40 for location), Buen Retiro Project (Ptolemy Technical Services, 2024).

6.7.6 Float Sampling – Magnetite vs Hematite (2024)

PTSS sampled float boulders from gravel to determine if there was a systematic distribution of hematite versus magnetite which could assist in future drill hole targeting (Figure 6-47). The results were considered inconclusive.

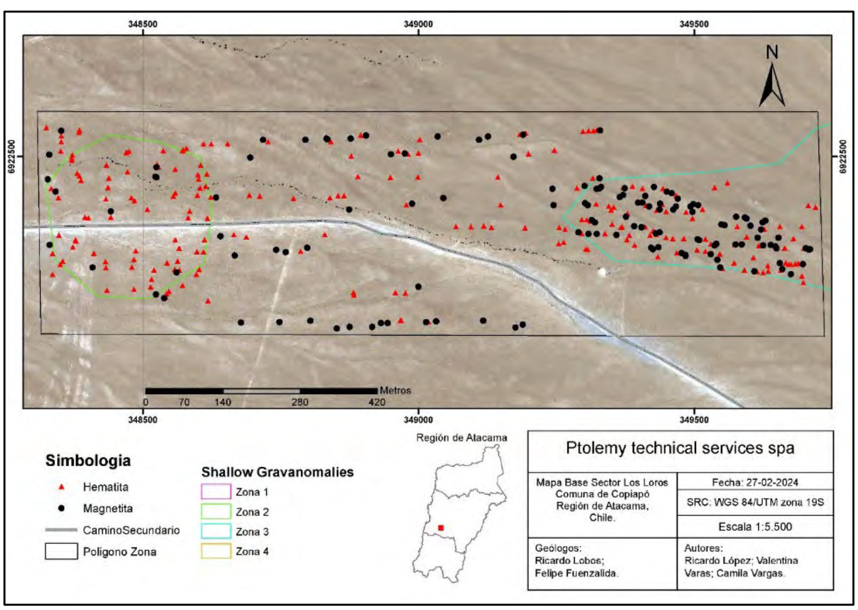


Figure 6-47. Plan map showing the distribution of hematite and magnetite dominated float boulders from surface sampling (Ptolemy Technical Services, 2024).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Buen Retiro Project is in the Atacama Region of north-central Chile and is within the extensive Andean metallogenic iron belt, often referred to as the Chilean Iron Belt ("CIB") or the Coastal IOCG Belt. The CIB extends from immediately north of the capital City of Santiago through northern Chile, just south of Antofagasta and then continues northward from the southern border of Peru and into the Lima area, a total length of about 2,000 kilometres (*see* Figure 2-1; Figure 7-1) (Sillitoe, 2003).

The CIB hosts several significant mineral deposits that range from iron oxide-apatite (IOA), IOCG to Manto-type copper deposits (Figure 7-1). Within the CIB, the Atacama Region is one of the best endowed areas with significant IOA deposits such as Los Colorados or Algarrobo and the Candelaria-Punta del Cobre District, the largest IOCG district of the CIB, together with the Mantoverde IOCG/Manto deposit (del Real, 2024; *e.g.*, Sillitoe, 2003). Deposit ages in the CIB range from approximately 90 Ma to 165 Ma (del Real, 2024).

Within the CIB, the Buen Retiro Project is located about 60 km north-northeast from the Los Colorados deposit, about 43 km south-southwest from the Candelaria-Punta del Cobre District, and about 143 km south from the Mantoverde deposit (*see* Figure 2-1 and Figure 4-1).

IOCG deposits from the Andean belt formed between the Late Jurassic to mid Cretaceous (163-100 Ma), a period characterized by two cycles of volcanic arc magmatism with roughly north-south orientation along the present-day Coastal Cordillera and a back-arc basin to the east of the arc (del Real, 2024).

From the mid Cretaceous on a significant paleogeographic reorganization occurred due to the opening of the Atlantic Ocean. The back-arc basins along the Andean margin closed as convergence rates related to subduction on the margin increased. With this, compression began in the upper plate and has been relatively continuous since then (Amilibia *et al.*, 2008; Ramos, 2009) (del Real, 2024).

Compression resulted in the inversion and closure of back-arc basins associated with uplift of the Late Jurassic and Early Cretaceous formations (Charrier and Pinto, 2007; Ramos, 2009; Chen *et al.*, 2013) (del Real, 2024).

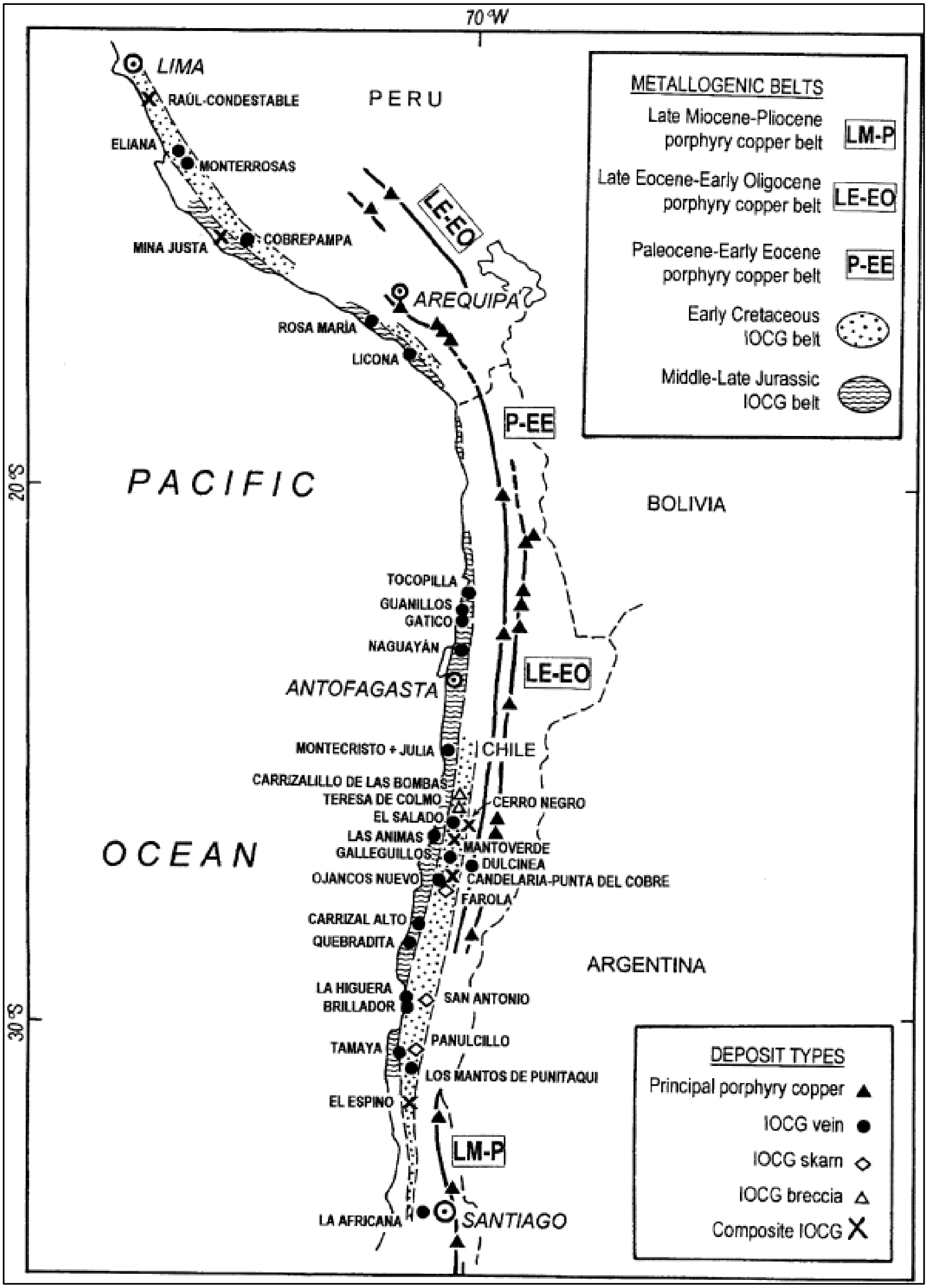


Figure 7-1. Subdivision of the central Andean IOCG province into western Middle–Late Jurassic and eastern Early Cretaceous belts, showing distribution of different deposit styles discussed in the text. Also marked are axes of Palaeocene–Early Eocene, Late Eocene–Early Oligocene and Late Miocene–Pliocene porphyry copper belts, including locations of principal deposits (Sillitoe, 2003).

7.1.1 Regional Structure

Both IOCG and IOA deposits formed along the margin are associated in space and time with the development of the Atacama Fault System (Figure 7-2); a continental-scale, trench parallel series of interconnected, dominantly strike-slip faults located along the Coastal Cordillera that can be traced for more than 1,000 km (Arabasz, 1971). A complex kinematic evolution has been documented in the Atacama Fault System consisting of ductile strike-slip and sinistral-slip deformation during the Early Cretaceous evolving to a brittle sinistral strike-slip deformation during the mid-Cretaceous (Scheuber *et al.*, 1995; Dallmeyer *et al.*, 1996; Scheuber and Gonzalez, 1999; Grocott and Taylor, 2002) (del Real, 2024).

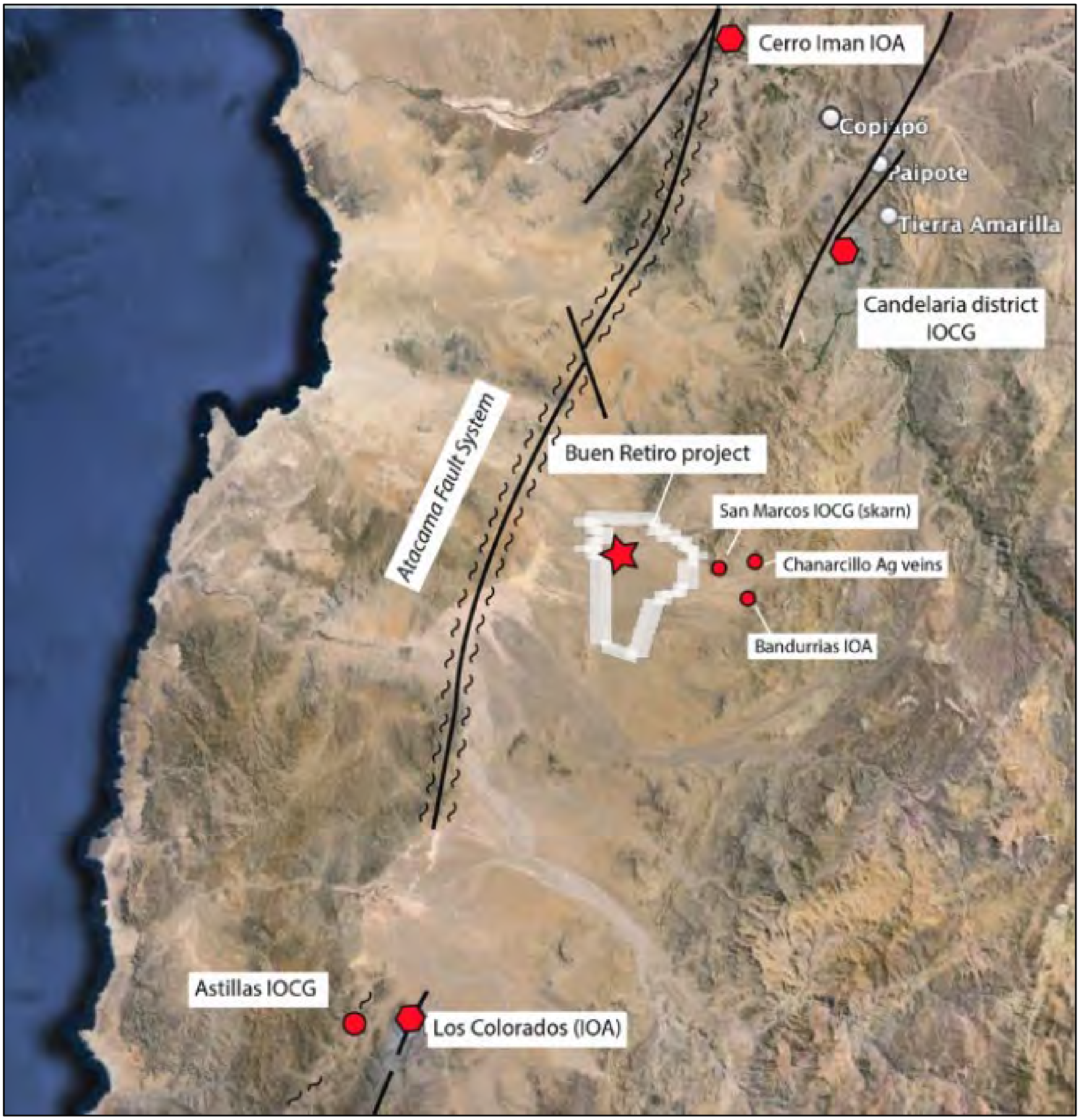


Figure 7-2. Regional structures and major deposits in the Atacama Region and approximate boundary of the Buen Retiro Copper Project (del Real, 2024).

7.1.2 Regional Mineralization

IOCG deposits comprise a broad and poorly defined set of mineralization styles which, as the name implies, are grouped together chiefly because they contain considerable amounts of hydrothermal magnetite and/or specular hematite in addition to copper oxide and copper sulphide minerals such as cuprite, chalcocite, chalcopyrite, and bornite (*e.g.*, Ray and Lefebure 2000). Besides the copper and by-product gold, the deposits may also contain appreciable amounts of Co, U, REE, Mo, Zn, Ag and other elements. IOCG deposits currently account for <5 and <1%, respectively, of the world's annually mined copper and gold production, much of it derived from Olympic Dam and Ernest Henry in Australia and Candelaria and Mantoverde in Chile (Sillitoe, 2003). Table 7-1 provides a selected summary of some of the more significant IOCG deposits in central Chile.

Mineralization as presented herein and in Table 7-1 is for illustration purposes only and is not necessarily indicative of the mineralization found or expected to be found on the Buen Retiro Copper Project.

Table 7-1. Tonnage and grade of selected IOCG deposits, central Andes, Chile; *see* Figure 7-1 (after Sillitoe, 2003).

Country	Deposit	Tonnage (Mt)	Cu (%)	Au (g/t)	Ag (g/t)
Chile	Tocopilla	~2.4	3.1	present locally	-
Chile	Montecristo	~15	1.6	0.6	-
Chile	Cerro Negro	249	0.4	~0.15	-
Chile	Teresa de Colmo	70	0.8	trace	-
Chile	Mantoverde	~200 Cu(S)/>400 Cu(Sul)	0.55 Cu(S)/0.52 Cu(Sul)	0.11	-
Chile	Candelaria	470	0.95	0.22	3.1
Chile	Punta del Cobre	~120	1.5	0.2-0.6	2-8
Chile	Carrizal Alto	3	5	-	-
Chile	Panulcillo	~3	2.7-3.5	up to 0.1	-
Chile	Tamaya	>2	12	-	-
Chile	Los Mantos de Punitaqui	~2 (gold zone only)	-	4	-
Chile	El Espino	~30	1.2	0.15	-
Chile	La Africana	3.3	2.5	-	-
Peru	Raul-Condestable	>25	1.7	0.9	6
Peru	Eliana	0.5	2.7	-	-
Peru	Monterrosas	1.9	1.0-1.2	6	20
Peru	Mina Justa	209	0.86	minor	present
Peru	Cobrepampa	3-5	2-5	present	15

7.2 Local Geology

The area that hosts the Buen Retiro Project is predominantly covered by alluvial gravels with a thickness between 50 and 120 m (Minería Activa, 2012), and a few outcrops with volcanic rocks from the Punta del Cobre Formation that interfinger with sedimentary rocks from the Chañarcillo Group (Figure 7-3). These lithologies are intruded by Lower Cretaceous granitoids which correspond to the Barros Luco diorite (130-120 Ma, Blanco *et al.*, 2003) towards the north and the Sierra Atacama Monzodiorite (116 - 106 Ma, Blanco *et al.*, 2003) towards the east. The geology of the Project has been mostly defined by previous drilling in the Sierra Fritis area and

Manto Negro and Buen Retiro properties, as well as the geological characterization of the Manto Negro Deposit (Figure 7-3) (del Real, 2024).

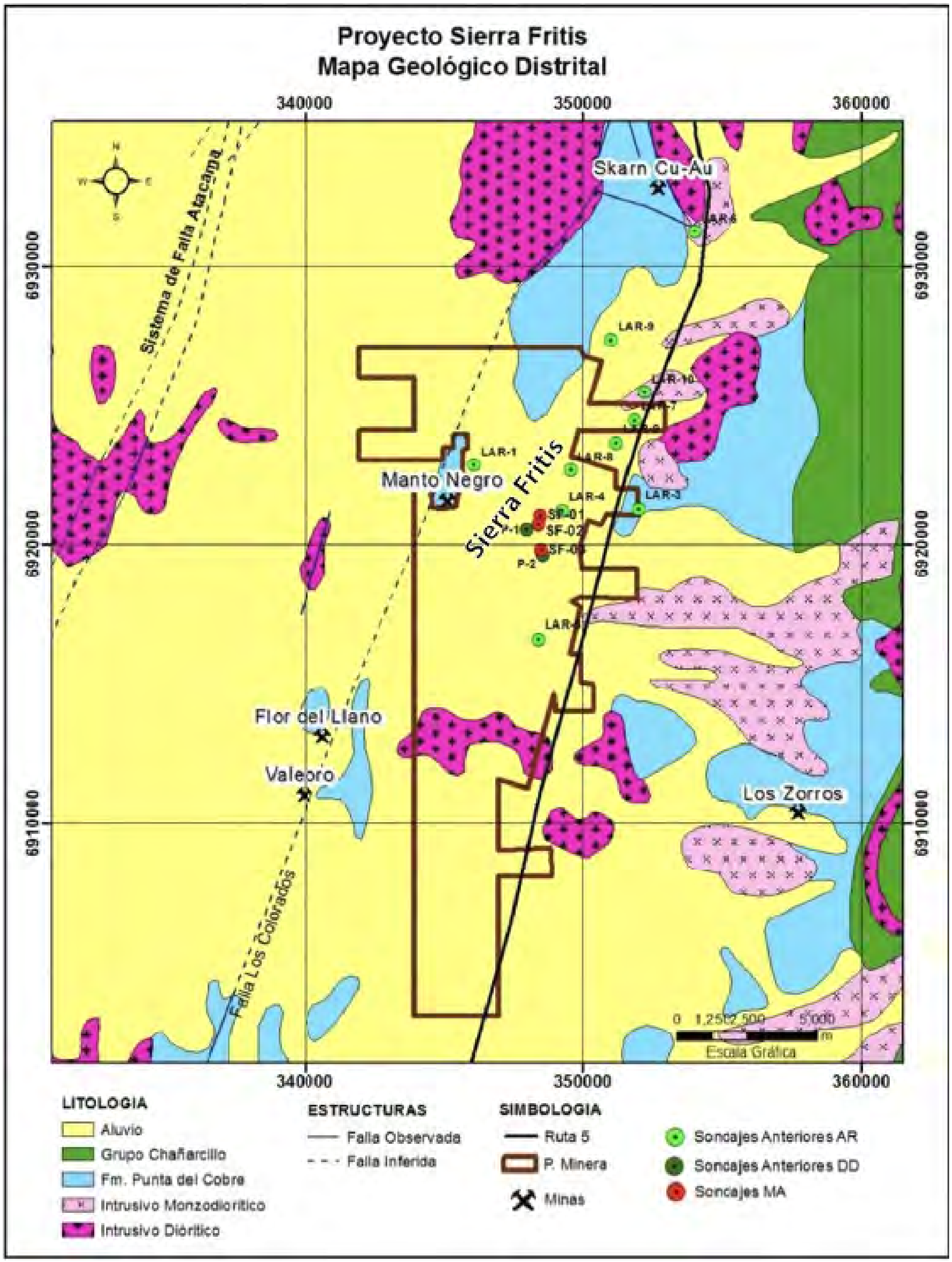


Figure 7-3. Local geology within and around the Buen Retiro Copper Project, Atacama Region, Chile (Mineria Activa, 2012). The property boundary shown is the historical boundary and not the current Project boundary.

7.2.1 Lithology

The main geological units that underly the Buen Retiro Project are shown in Figure 7-3, described below, and pictured in Figure 7-4 and Figure 7-5.

7.2.1.1 Punta del Cobre Formation (Lower Cretaceous)

This formation is characterized by andesitic lavas, autobreccia flows, block and ash flows, and reworked volcanic sediments. Within the Buen Retiro Project the formation is best observed in the Manto Negro Deposit, where the main lithology is a fine- to medium-grained andesite characterized by lava and autobreccia flows intercalated with volcaniclastic breccias intercepted by recent (2023-2024) drilling (Figure 7-4A, B, C).

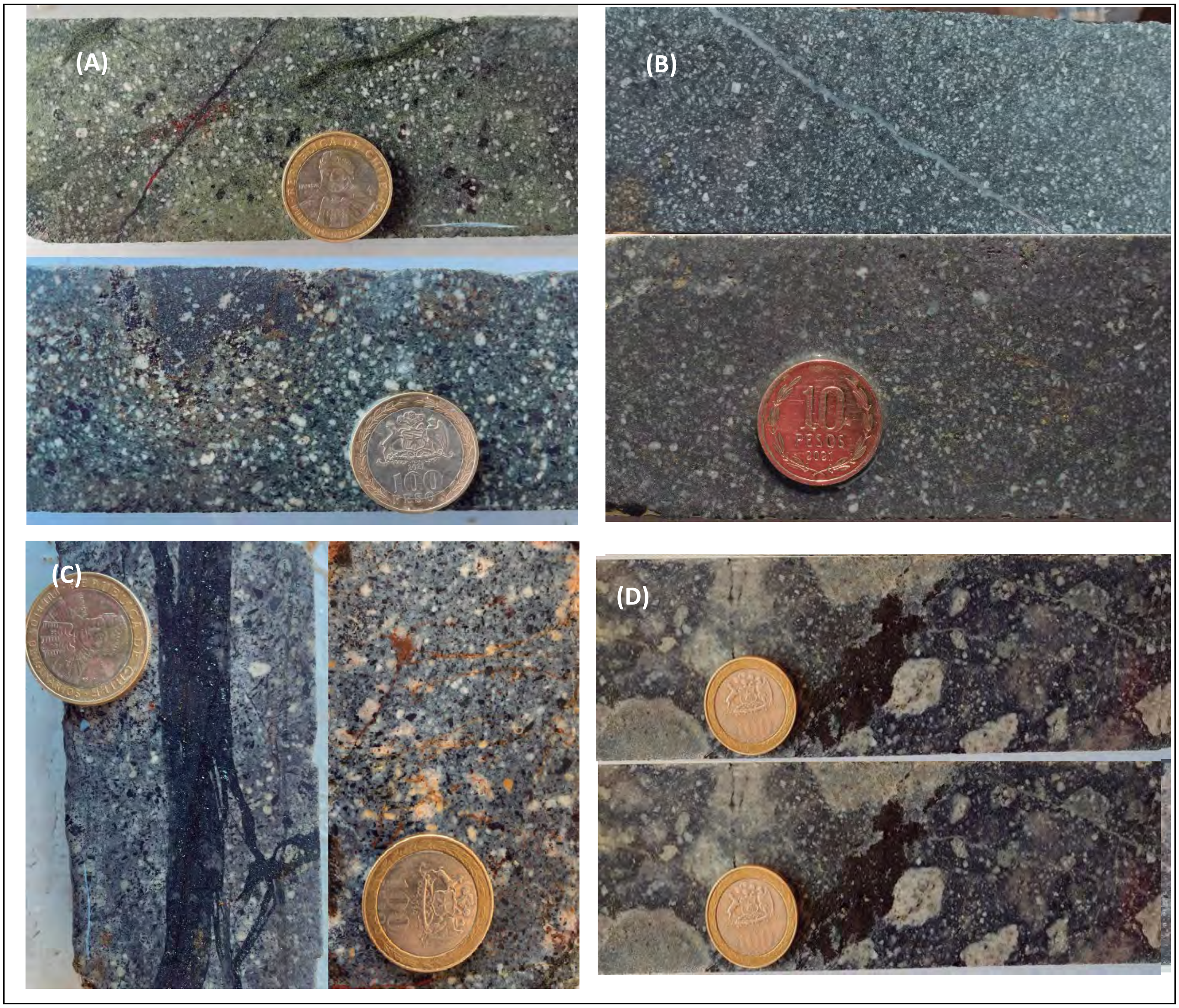


Figure 7-4. (A) Coarse-grained andesite (AND-G); (B) Fine-grained andesite (AND-F); (C) Andesite Porphyry (AND-P); (D) Volcanoclastic Breccia (BV) (Ptolemy Technical Services, 2024).

The Punta del Cobre Formation also outcrops towards the north area of the Property and towards the southwest, where it hosts the “Flor del Llano” and “Valeoro” prospects (del Real, 2024). Drilling carried out previously by Teck-Cominco and Minería Activa intercepted this formation in the Sierra Fritis area and was described as andesite affected by metamorphism that resulted from the intrusion of one of the diorite units in the area; it is not specified if it corresponds to the Barros Luco or Sierra de Atacama diorite unit (del Real, 2024).

7.2.1.2 Magmatic Breccias (HBx)

Magmatic breccias have been described both in recent drill core in the Manto Negro Deposit and by diamond drilling in the Sierra Fritis area (Figure 7-5B, C). In both areas it is described as igneous rocks with a brecciated texture characterized by fragments of intrusions with different compositions in an igneous matrix.

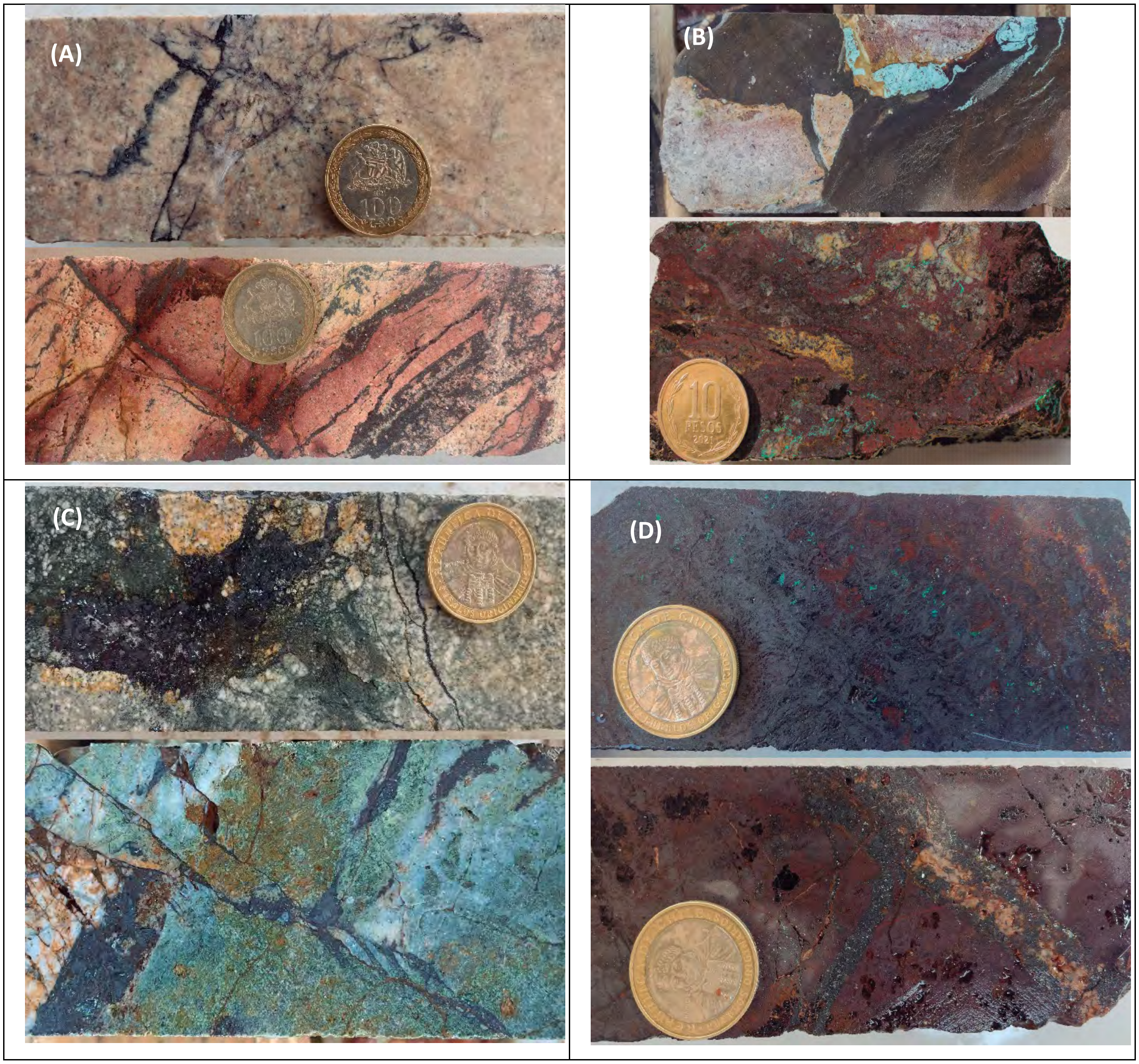


Figure 7-5. (A) Dacite Porphyry (PD); (B) Hydrothermal Breccia (HBx); (C) Hydrothermal Breccia (HBx) - green; (D) Massive Iron (FeM) (Ptolemy Technical Services, 2024).

7.2.1.3 Dacite Porphyry (PD)

This fine- to medium-grained unit was described in previous mapping carried out by Pucobre (*see* Figure 7-3), defining it as the most extensive in the Manto Negro copper deposit. The dacite porphyry (*see* Figure 7-5A) is characterized by plagioclase and amphibole phenocrysts and can present quartz eyes. Recent petrographic studies in this unit suggest that the rock is of andesitic composition and affected by intense albitization and/or sericitization, giving a whitish color to the rock.

7.2.1.4 Diorite Intrusion

Several dioritic intrusions have been documented in the Project (*see* Figure 7-3). In the Manto Negro Deposit it is described a hypabyssal diorite that forms tabular bodies with a north-northeast and north-northwest orientation (Pucobre, 2004). Drilling carried out by Minería Activa in the Sierra Fritis area intercepted predominantly a medium grained diorite unit with an equigranular texture characterized by disseminated magnetite. This unit can locally present granoblastic textures or be brecciated.

7.2.2 Structure

The most prominent structure in the Property area corresponds to a main branch of the Atacama Fault System ("AFS"), about 10 km west of the Project (*see* Figure 7-2). In this segment, the AFS forms a north-northeast oriented mylonite in the western border of the Barros Luco intrusive unit, characterized by hornblende and biotite protomylonites and ortomylonites with a granoblastic matrix. Towards the east of the mylonites the intrusion only shows a magmatic foliation. The origin of these mylonites is interpreted to be associated with the syntectonic emplacement of the Barros Luco intrusion in response to a sinistral transtensive movement of the AFS between 130-124 Ma (Seymour *et al.*, 2021). A second area with mylonites is reported 4 km west from the Project, in the Cerro Bandurrias (del Real, 2024).

The Manto Negro copper-iron deposit is interpreted to be aligned with the Flor de Llano and Valeoro prospects located south-southwest from the Project, together forming a northeast-north-northwest alignment (*see* Figure 7-3), with all three deposits likely controlled by the Los Colorados Fault (Mineria Activa, 2012). This alignment is also recognized by a recent ground magnetometer survey (Jordan, 2023), which recognized towards the east another northeast-north-northeast alignment, that forms a "structural corridor" where the Manto Negro Deposit is located. This locates the Manto Negro Deposit and its southern mineralized body in between two north-northeast structures (del Real, 2024).

North-northwest structures associated with a mineralized north-northwest body were mapped by Pucobre just south of the Manto Negro Deposit. Recent ground magnetometry work documents other north-northwest structures south and northeast from the Manto Negro Deposit. Several northwest structures that cut the Manto Negro Deposit were mapped by Pucobre. Most of these northwest structures are interpreted to not displace the host rocks and mineralization. Camus (2006), reports northwest strike slip faults that affect volcanic rocks from the Punta del Cobre formation that outcrop in Sierra Fritis. Finally, east-west structures and veins are documented in the Manto Negro Deposit (del Real, 2024).

In the Manto Negro Deposit, mineralization and alteration are mainly structurally controlled. However, due to the deformation, it is not entirely clear if the primary mineralization was vein-hosted IOCG and/or replacement Manto-style mineralization. Structurally controlled "veins" in the Manto Negro Deposit have a predominant north-south to north-northeast orientation, and a secondary northwest to north-northwest orientation, which is the orientation of the mineralized body just south of the open pit; secondary east-west veins are also documented in the mine and visible in the pit walls.

7.3 Mineralization and Alteration

The Buen Retiro Project, which includes the Manto Negro Copper Deposit that was operated by Pucobre from 2005-2009, the Buen Retiro Property which surrounds the Manto Negro Property, and the Sierra Fritis Property which surrounds both the Buen Retiro and Manto Negro properties (*see* Figure 4-3). Evidence of alteration and mineralization in the Project, both in the Manto Negro Deposit and the surroundings, display characteristics typical of an IOCG – IOA district (del Real, 2024).

Mineralization in the Buen Retiro Project is hosted within the volcanic rocks from the second cycle of arc magmatism and basin formation, with the arc volcanic rocks corresponding to the Punta del Cobre Formation and Bandurrias Group, where the first underlies the marine sedimentary formations of the Chañarcillo Group, whereas the rocks of the second interfinger with the marine basin (Segerstrom and Ruiz, 1962; Marschik and Fontboté, 2001) (del Real, 2024). The Punta del Cobre Formation hosts the IOCG deposits of the Punta del Cobre District which includes the Candelaria Deposit.

An early Na-Ca district scale alteration characterized by albite (Figure 7-6A) and epidote was recognized in previous surface mapping work carried out by Teck Cominco (Teck Cominco, 2005) and in drill core from Sierra Fritis. Sodic-Ca alteration is overprinted by magnetite/specularite alteration; this alteration is widely documented in previous technical reports on the Project and it is the main alteration observed in the Manto Negro Deposit. Drill core from Sierra Fritis (Mineria Activa, 2012) and surface mapping done by Teck (2005) document magnetite alteration in paragenesis with actinolite and with K-feldspar-biotite and minor sulphides that would form part of an Ca-Fe and K-Fe alteration assemblage respectively. Drill core just north from the Manto Negro Deposit (drill hole BRT-DDH-003) intercepted volcanic rocks from the Punta del Cobre Formation with a distinctive hematite-biotite alteration and K-feldspar veining and selective alteration with sulphide mineralization (Figure 7-6B and Figure 7-6C). Overprinting these alterations chlorite and epidote have been documented, especially in volcanic rocks where they replace mafic minerals.

Hypogene alteration in the Manto Negro Deposit is characterized by an early silicification of the host rocks in some areas with albite (Figure 7-6A), that is overprinted by quartz-magnetite veins and breccias (Figure 7-6D) and later specular hematite (Figure 7-6E), magnetite (Figure 7-6F) and mushketovite (magnetite pseudomorphs after hematite) contained in veins and/or breccias with a predominant north-south orientation or disseminated in the host rock. Although the deposit is strongly affected by supergene alteration, it is possible to interpret that some of the magnetite veins also contained K-feldspar which is now altered to sericite. A chlorite-epidote alteration overprints previous hypogene alterations. Supergene alteration in the Manto Negro Deposit is characterized by limonite, such as iron oxides (hematite and goethite after magnetite and sulphides evidenced by boxwork) or jarosite. Sericite alteration is intense throughout the mine, mainly altering plagioclase and K-feldspar. Minor illite was recognized in drill core from the mine altering plagioclase.

Supergene alteration is more intense in the southern half of the Manto Negro open pit associated with stronger fracturing and faulting compared to the northern segment of the pit (del Real, 2024).

7.3.1 Manto Negro and Buen Retiro Properties

The most significant copper mineralization discovered to date within the Buen Retiro Project is mostly concentrated in the Manto Negro Deposit and adjacent mineralized bodies. Mineralization in the Manto Negro Deposit is contained in veins or breccias with Fe oxides, where the main mineralized body of extends for ~1,500 m with a north-south to north-northeast orientation. There is a second mineralized body southwest from the main mineralized body that can be interpreted to extend for ~1,300 m (interpreted using drilling and ground magnetics) and has a north-northwest orientation.

Mineralization in the mine is predominantly associated with supergene processes and contained mostly in copper oxides such as tenorite, cuprite or native copper (Figure 7-7A and Figure 7-7B) together with other oxidized copper minerals such as chrysocolla (Figure 7-7C), atacamite, brochantite(?), copper sulfates (chalcanthite(?)) and copper-bearing limonite. Secondary copper sulphides such as chalcocite or covellite are minor. Supergene mineralization extends down to approximately 200-250 m ASL. Below this depth hypogene mineralization begins to be more abundant, where copper mineralization is mostly contained in chalcopyrite, although there is hypogene enrichment zone of chalcocite. Hypogene mineralization in the Manto Negro Mine is contained in veins and breccias, but drill core just northwest from the deposit (BRT-DDH-003) shows disseminated sulphides, in patches and in veinlets cutting the andesitic host rock (del Real, 2024).

7.3.2 Sierra Fritis Property

Mineralization has been historically documented in the Sierra Fritis area, where drilling carried out by Minería Activa intercepted 20 m of volcanic rocks (andesite) with sulphide mineralization (chalcopyrite) associated with specularite (specular hematite) that averaged 0.27% Cu(T). This mineralization style was also intercepted by previous RC drilling carried out by Teck Cominco (2005). Skarn-type mineralization is documented by Teck (2005), distributed in the alternation of limestone and volcaniclastic rocks around the northern highest hill of the Property in Sierra Fritis. Finally, northwest, north-northeast, northwest and north-south oriented quartz-Cu oxide-Fe oxide veins were identified in previous technical reports.

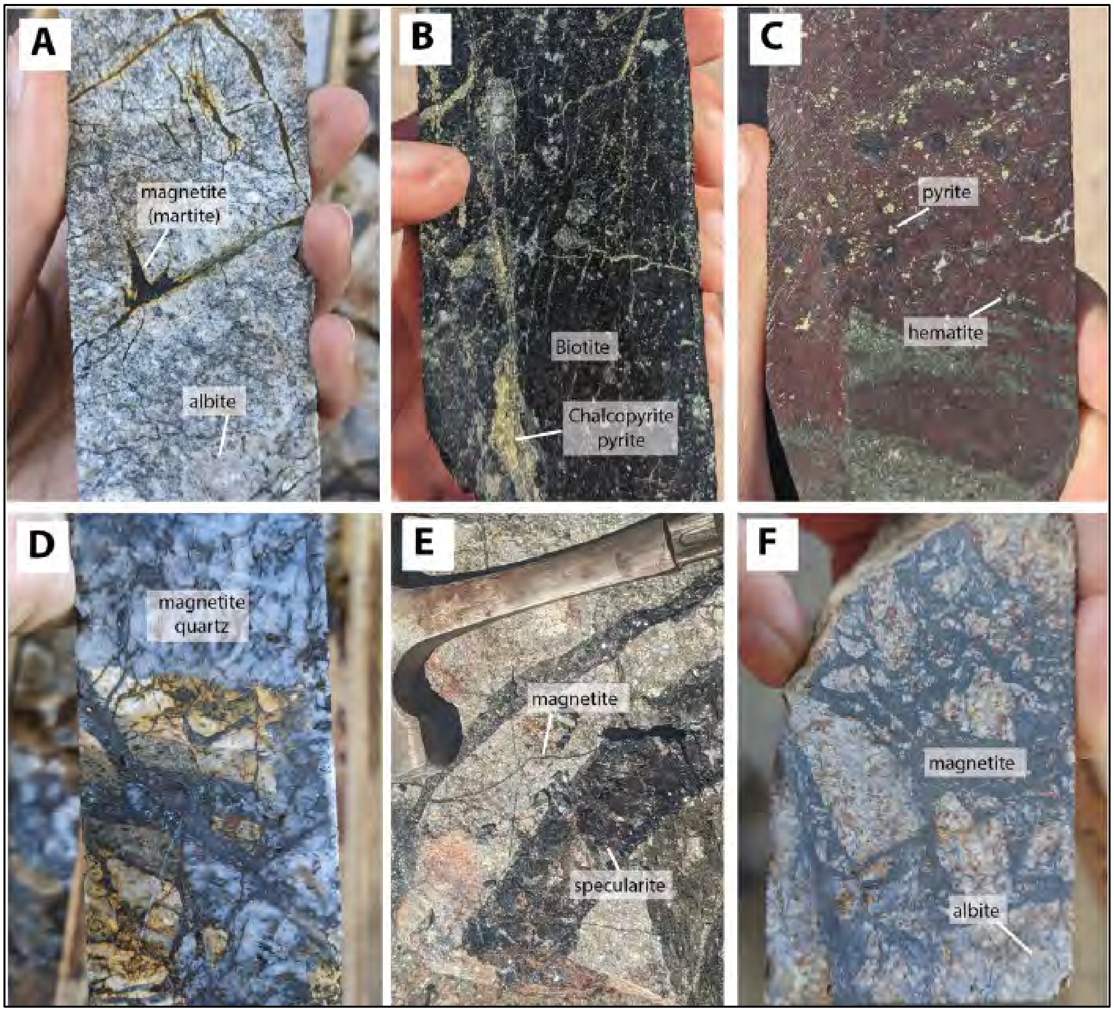


Figure 7-6. Main hypogene alteration and mineralization styles in the Project. (A) Albite alteration cut by magnetite/martite veins; (2) Andesitic rock with biotite alteration cut by chalcopyrite-pyrite veining; (C) volcaniclastic rock with hematite alteration and disseminated sulphides (chalcopyrite and pyrite); (D) magnetite quartz breccia and veining; (E) Specularite vein cutting magnetite veining; (F) Magnetite cemented breccia (del Real, 2024).

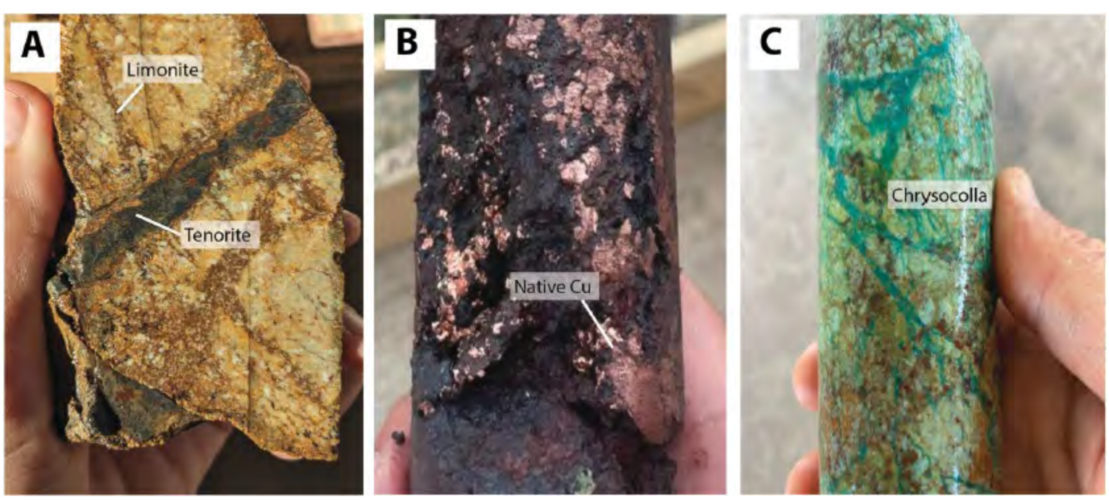


Figure 7-7. Supergene mineralization styles in the Manto Negro Deposit. (A) magnetite/martite vein with tenorite cutting limonite altered veins; (B) Native Cu mineralization; (C) chrysocolla mineralization (del Real, 2024).

7.4 Mineralization Style and Controls

Mineralization in the Project area shows characteristics of being mostly structurally controlled reflected by the vein and fault system which hosts mineralization in the Manto Negro Deposit. Lithologically controlled or "manto" style mineralization (*i.e.*, stratabound copper / replacement deposits) cannot be discounted as recent drilling (2023-2024) just north of the Manto Negro Deposit (*e.g.*, drill hole BRT-DDH-003) shows pervasive alteration and disseminated mineralization, predominantly lithologically hosted (del Real, 2024).

The main vein systems in the Manto Negro Deposit, where the open pit is located, have an overall north-south and a north-northwest orientation. These vein systems are easily identified through ground magnetics (Figure 7-8). The preferred orientation of veining could potentially be controlled by north-northeast sinistral strike slip deformation towards the west and east of the deposit that would have formed a "structural corridor" within which occurs the Manto Negro Deposit.

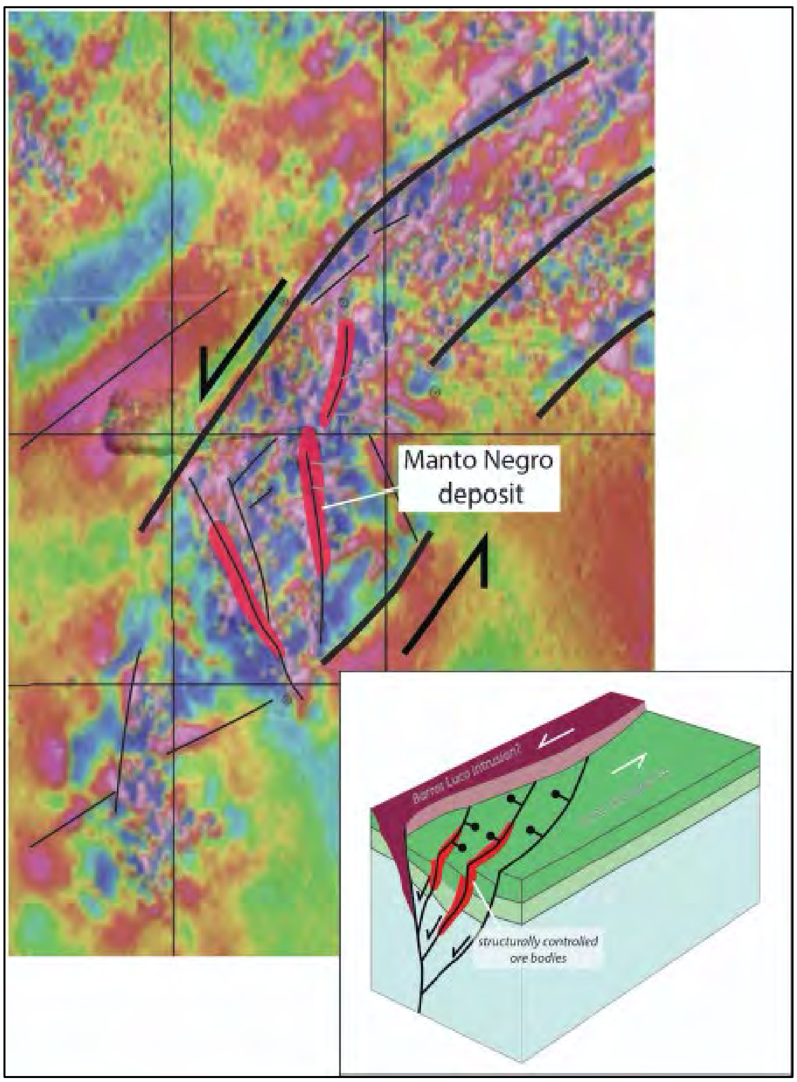


Figure 7-8. Interpretation of main structures in the district and its control over mineralization. It is proposed that the Manto Negro Deposit is controlled by a first order sinistral strike slip structure which could have formed a negative flower structure and the formation dilatational north-northwest to north-south structures that served as conduits for mineralization to ascend (del Real, 2024).

This structural corridor would have been favorable for dilatational structures which could have served as conduits for the ascent of fluids with the ideal Eh and pH conditions (Figure 7-9). Therefore, future targets to be explored could be north-northwest to north-south magnetic anomalies that line up with the structural corridor formed by north-northeast structures (del Real, 2024).

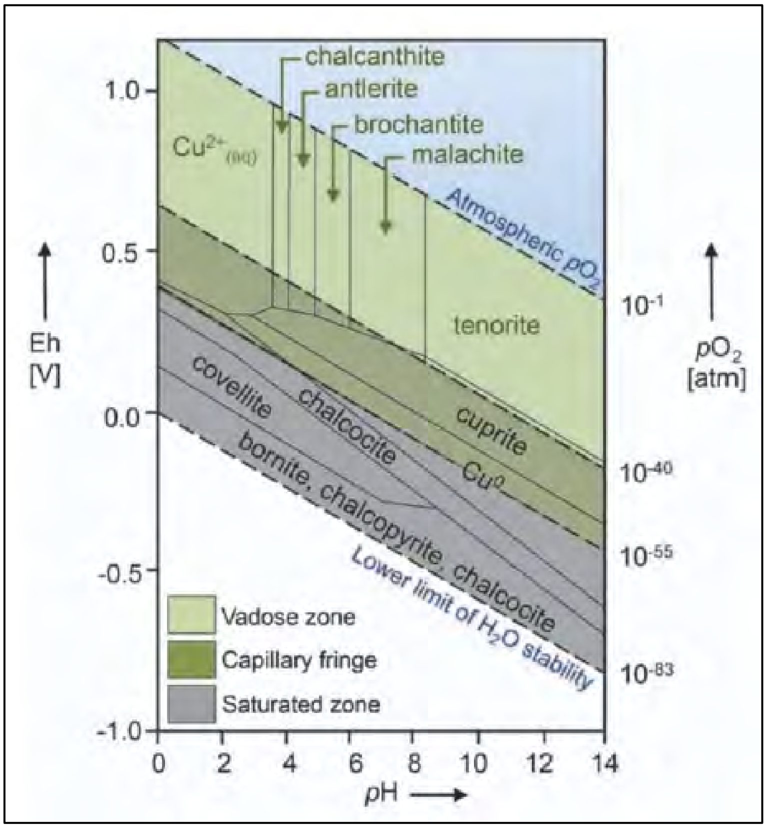


Figure 7-9. Supergene-enrichment mineralization formed through different Eh and pH conditions. Native Cu, tenorite and cuprite will form at higher pH conditions that supergene sulphides (Sillitoe 2005; del Real, 2024).

Copper mineralization in the Sierra Fritis area was documented as chalcopyrite associated with specularite in volcanic rocks from the Punta del Cobre Formation. Teck (2005), suggests that mineralization is controlled by the diorite intrusion which was intercepted by drilling in this area. The diorite is described as having disseminated magnetite and pyrite, which could be an explanation as to why this area shows a magnetic high and strong IP response. Future drilling should consider testing the volcanic rocks that surround the dioritic intrusion as a potential target for sulphide mineralization (del Real, 2024).

Evidence for structurally controlled IOCG mineralization is present on the Property and within the Manto Negro Mine open pit. In addition, there is the possibility for discovery of replacement Manto-style mineralization, which in the Punta del Cobre District is known to be hosted in altered andesitic rocks. Important IOCG deposits such as Mantoverde or Filipina-Astillas are hosted in structures, and the Manto Negro Deposit is open at depth, making the area below and around the historical mine an interesting target for future exploration (del Real, 2024).

8.0 DEPOSIT TYPES

There are three deposit types being explored for within the Buen Retiro Copper Project: (1) Andean Iron Oxide Copper-Gold (IOCG) vein systems; (2) Manto-style replacement deposits; and (2) deeper-larger porphyry (bulk-tonnage) copper deposits ("PCD").

8.1 IOCG (vein) and Manto (replacement) Deposits

The Andean IOCG deposit types in the Coastal Cordillera of northern Chile comprise iron oxide copper-gold (sensu stricto), iron oxide-apatite (IOA), and stratabound/replacement Cu(-Ag) deposits, also known as Manto-type Cu(-Ag) deposits (Barra *et al.*, 2017). IOCG and Manto-type deposits constitute the second most important source of copper in Chile after porphyry Cu-Mo systems, whereas IOA deposits are an important source of iron.

IOCG type deposits within the Coastal Cordillera of northern Chile appear to have a strong spatial and temporal relationship with the Atacama Fault System ("AFS"). Defined primarily by their elevated hydrothermal magnetite and/or specular hematite contents, accompanied by chalcopyrite ± bornite and by-product gold, IOCG type deposits constitute a broad, imprecisely defined deposit type that is related to a variety of tectono-magmatic settings. The youngest IOCG belt is in the Coastal Cordillera of northern Chile and southern Peru, where it is part of a volcano-plutonic arc of Jurassic through Early Cretaceous age and closely associated with Mesozoic batholiths and major arc-parallel fault systems (Sillitoe, 2003).

IOCG deposits in the Chilean IOCG Belt display close relations to the plutonic complexes and broadly coeval fault systems. Based on deposit morphology and dictated in part by lithological and structural parameters, they can be separated into several styles (Sillitoe, 2003): (i) veins; (ii) hydrothermal breccias; (iii) replacement mantos; (iv) calcic skarns; and (v) composite deposits that combine all or many of the preceding types. Figure 8-1 provides a typical section through an IOCG system showing some of the well-known characteristics.

Vein deposits tend to be hosted by intrusive rocks, especially equigranular gabbrodiorite and diorite, whereas larger composite deposits (*e.g.*, Candelaria-Punta del Cobre; *e.g.*, Marschik and Fontboté, 2001; Arevalo *et al.*, 2006) occur within volcano-sedimentary sequences up to 2 km from pluton contacts and in intimate association with major orogen-parallel fault systems. Structurally localised IOCG deposits normally share faults and fractures with pre-mineral mafic dykes, many of dioritic composition, thereby further emphasising the close connection with mafic magmatism (Sillitoe, 2003).

Deposits formed in association with sodic, calcic and potassic alteration, either alone or in some combination, reveal evidence of an upward and outward zonation from magnetite-actinolite-apatite to specular hematite chlorite-sericite and possess a Cu-Au-Co-Ni-As-Mo-U-(LREE) (light rare earth element) signature reminiscent of some calcic iron skarns around diorite intrusions. Scant observations suggest that massive calcite veins and, at shallower paleo-depths, extensive zones of barren pyritic feldspar-destructive alteration may be indicators of concealed IOCG deposits (Sillitoe, 2003).

With respect to the central Andean IOCG deposits, the balance of evidence strongly supports a magmatic-hydrothermal origin and a genetic connection with gabbrodiorite to diorite magmas from which the ore fluid may have been channelled by major ductile to brittle fault systems for several kilometres vertically or perhaps even laterally (Sillitoe, 2003).

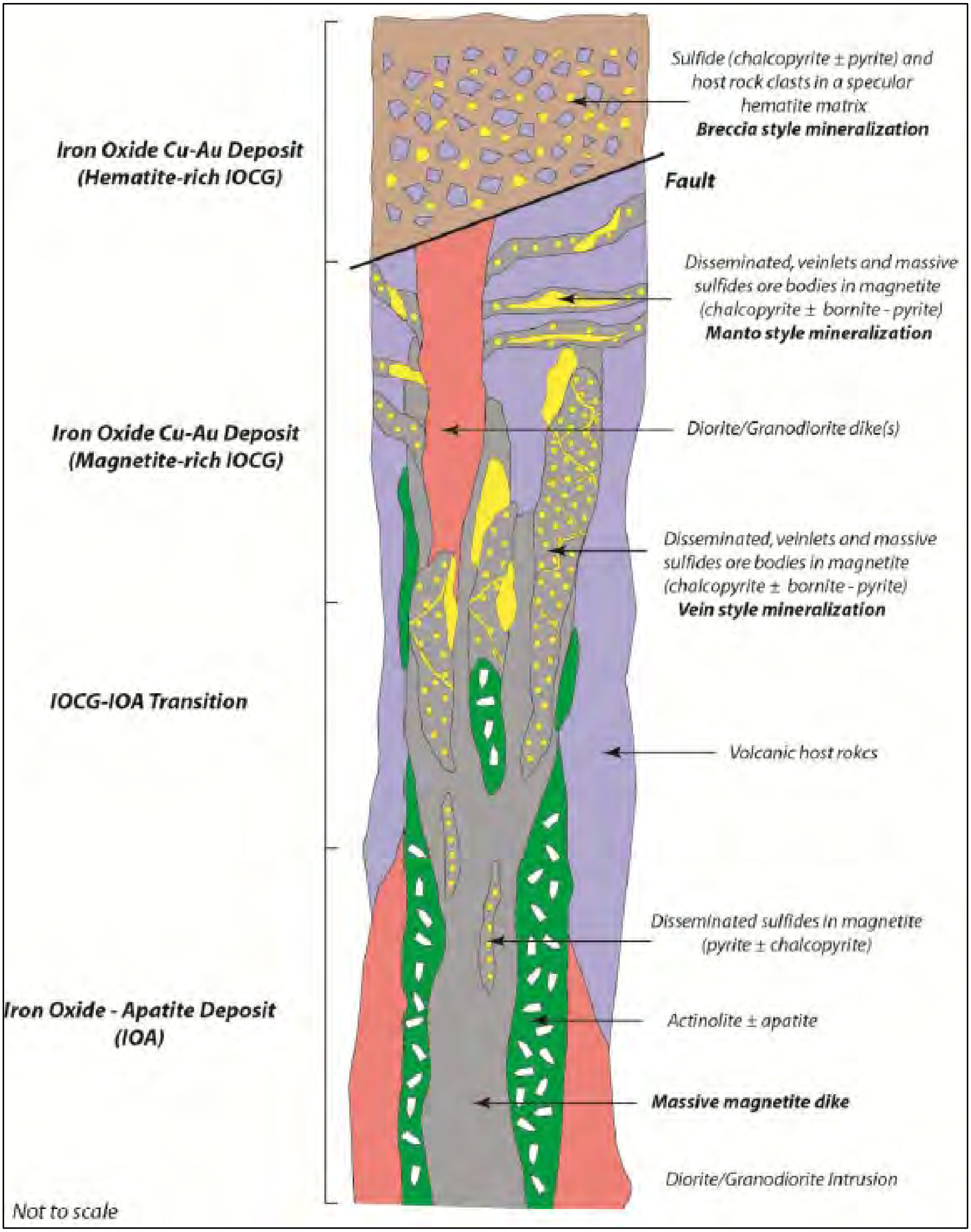


Figure 8-1. Vertical zoning showing the spatial and genetic relationship between IOA and IOCG deposits (Barra *et al.*, 2017).

8.2 Porphyry Copper Deposits

The secondary deposit type being explored for on the Property is the Porphyry Copper Deposit or "PCD" (Figure 8-2).

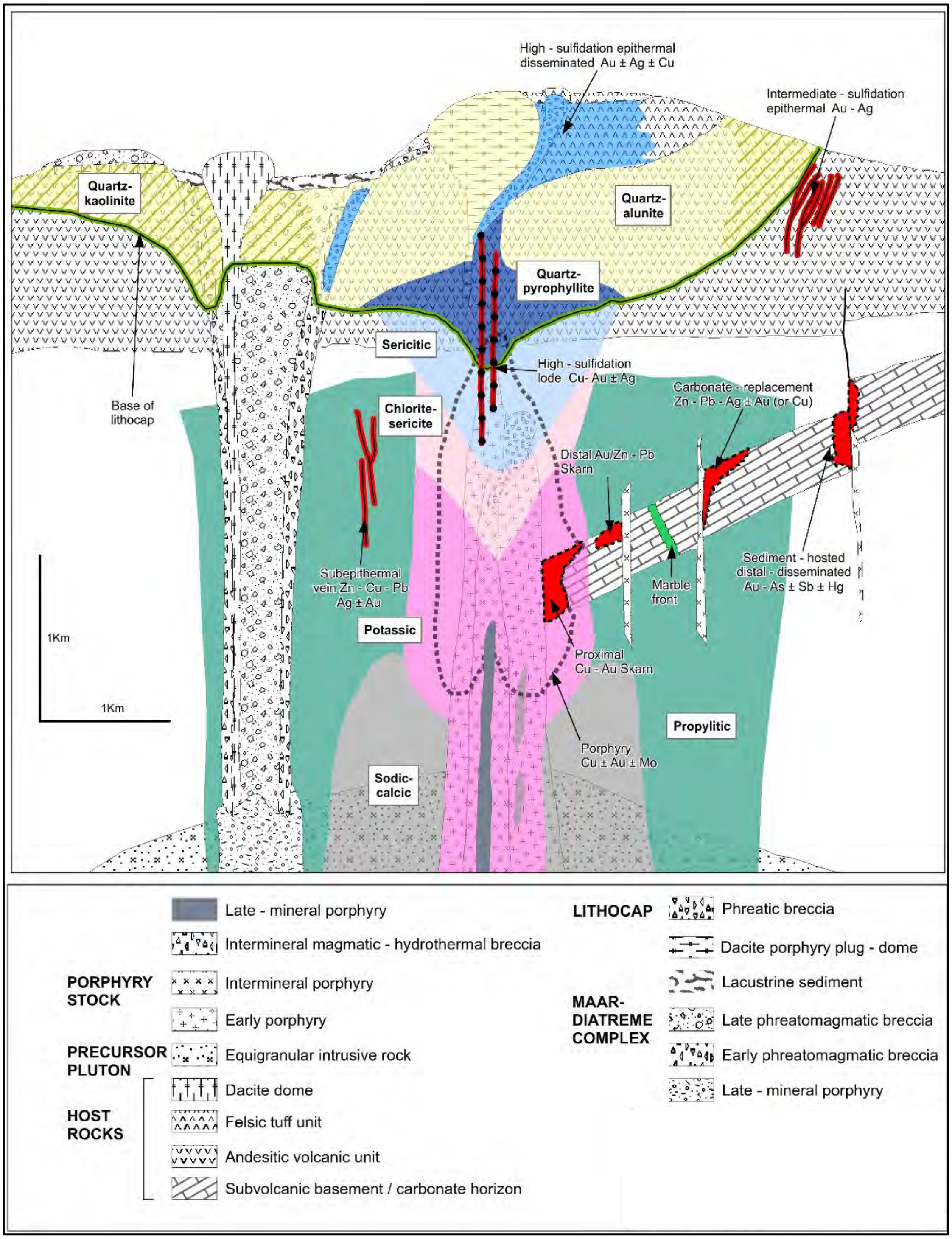


Figure 8-2. Schematic model showing the components of a porphyry copper-precious metal and polymetallic system with various deposit types and mineralization and alteration styles associated with the porphyry intrusive centre (after Sillitoe, 2010).

Mineralized systems associated with PCDs commonly include polymetallic skarn, carbonate replacement and stratabound (*i.e.*, Manto-style copper), sediment-hosted gold silver, and high-, intermediate-, and low-sulfidation epithermal silver-gold-base metal deposit types (Sillitoe and Perello, 2005; Sillitoe, 2010).

Porphyry Copper Deposits are typically hosted by intermediate to felsic intrusives, with porphyritic textures and often associated with multiple intrusive events that form composite intrusion centres (Seedorff *et al.*, 2005). A commonly occurring alteration zoning exists in PCDs with potassic alteration (K-feldspar-biotite) at the core, followed by sericitic alteration (muscovite/sericite ± chlorite), and finally clay dominant alteration assemblages distal from the intrusive centre (Seedorff *et al.*, 2005). Mineralization is most commonly vein-hosted and include sulphide-rich veins (*i.e.*, copper sulphides) associated with potassic alteration and pyritic veins with sericite halos; veins may also form stockworks (Seedorff *et al.*, 2005). Ancillary minerals in PCDs which can be of potential economic importance include gold, molybdenum, tungsten, and tin.

9.0 EXPLORATION

The Issuer, Fitzroy Minerals Inc., has not conducted any exploration work on the Project. All work reported herein is historical in nature and has been completed by previous operators (pre-2023) and by the Vendor (2023-2024) through its subsidiary Ptolemy Technical Services SpA (PTSS). These results are reviewed in Section 6.0 – History.

10.0 DRILLING

The Issuer, Fitzroy Minerals Inc., has not conducted any drilling on the Project. All drilling reported herein has been completed by the Vendor through its subsidiary Ptolemy Technical Services SpA (PTSS) and is therefore considered historical drilling.

In 2023 and 2024, two programs of drilling were completed on the Property by the Vendor (PML), overseen by its subsidiary PTSS, both private companies based in Chile: (1) Diamond Drilling on the Buen Retiro and Sierra Fritis concessions (5,423.70 m in 15 holes) and (2) Down-the-Hole (DTH) air core drilling on a set grid in the area around diamond drill hole BRT-DDH-003 (585.28 m in 43 holes). Sampling protocols, care and control of samples, and QA/QC protocols are reviewed in Section 11.0 - Sample Preparation, Analyses and Security.

10.1 Historical Diamond Drilling (2023-2024)

Between November 2023 and May 2024, PTSS completed 15 NQ-size diamond drill holes (BRT-series) totalling 4,555.20 m on the Buen Retiro Property (Table 10-1; Figure 10-1, Figure 10-2 and Figure 10-3) and two scout holes on the Sierra Fritis Property (SFR-series) totalling 868.50 m (Table 10-1; Figure 10-4). A total of 5,423.70 m was drilled, 5,173.70 m was recovered and geo-logged and 4,764.70 m of half core samples were collected (Table 10-2).

Table 10-1. Summary of diamond drill hole parameters for Buen Retiro (BRT-series) and Sierra Fritis (SFR-series).

Drill Hole	UTMX (mE)	UTMY (mN)	UTMZ (m)	Collar Az	Collar Dip	Depth (m)
BRT-DDH-001	345172	6921073	371.5	236	-52	280.00
BRT-DDH-002	345296	6921810	382.8	262	-51	404.00
BRT-DDH-003	345084	6922923	360.1	90	-45	410.00
BRT-DDH-004	344985	6920904	364.0	83	-65	311.00
BRT-DDH-005	345359	6921168	370.1	274	-45	314.70
BRT-DDH-006	344960	6920987	376.0	80	-45	180.00
BRT-DDH-007	345339	6921028	369.1	255	-53	320.00
BRT-DDH-008	344749	6921237	391.1	79	-45	233.00
BRT-DDH-009	345096	6922336	377.6	92	-45	346.50
BRT-DDH-010	345012	6920841	363.7	75	-46	250.00
BRT-DDH-011	345246	6921630	394.9	270	-44	455.10
BRT-DDH-012	344881	6921026	377.0	64	-44	212.00
BRT-DDH-013	345020	6921955	382.0	90	-44	187.10
BRT-DDH-014	345880	6922493	376.0	249	-49	250.00
BRT-DDH-014A	345871	6922501	380.0	248	-49	401.80
SFR-DDH-001	349948	6922189	433.0	355	-48	338.50
SFR-DDH-002	348375	6920722	437.0	305	-48	530.00
					Total:	**5,423.70**

Drill hole BRT-DDH-014 was stopped at 250.0 m when it encountered a fault and lost the hole. Drill hole BRT-DDH-014A was collared about 11 m northwest of BRT-DDH-014 and parallel to the original (14) hole, with the first 250.0 m not recovered. Once past the fault encountered in BRT-DDH-014, core was recovered in hole 14 until the end of hole at 401.80 metres.

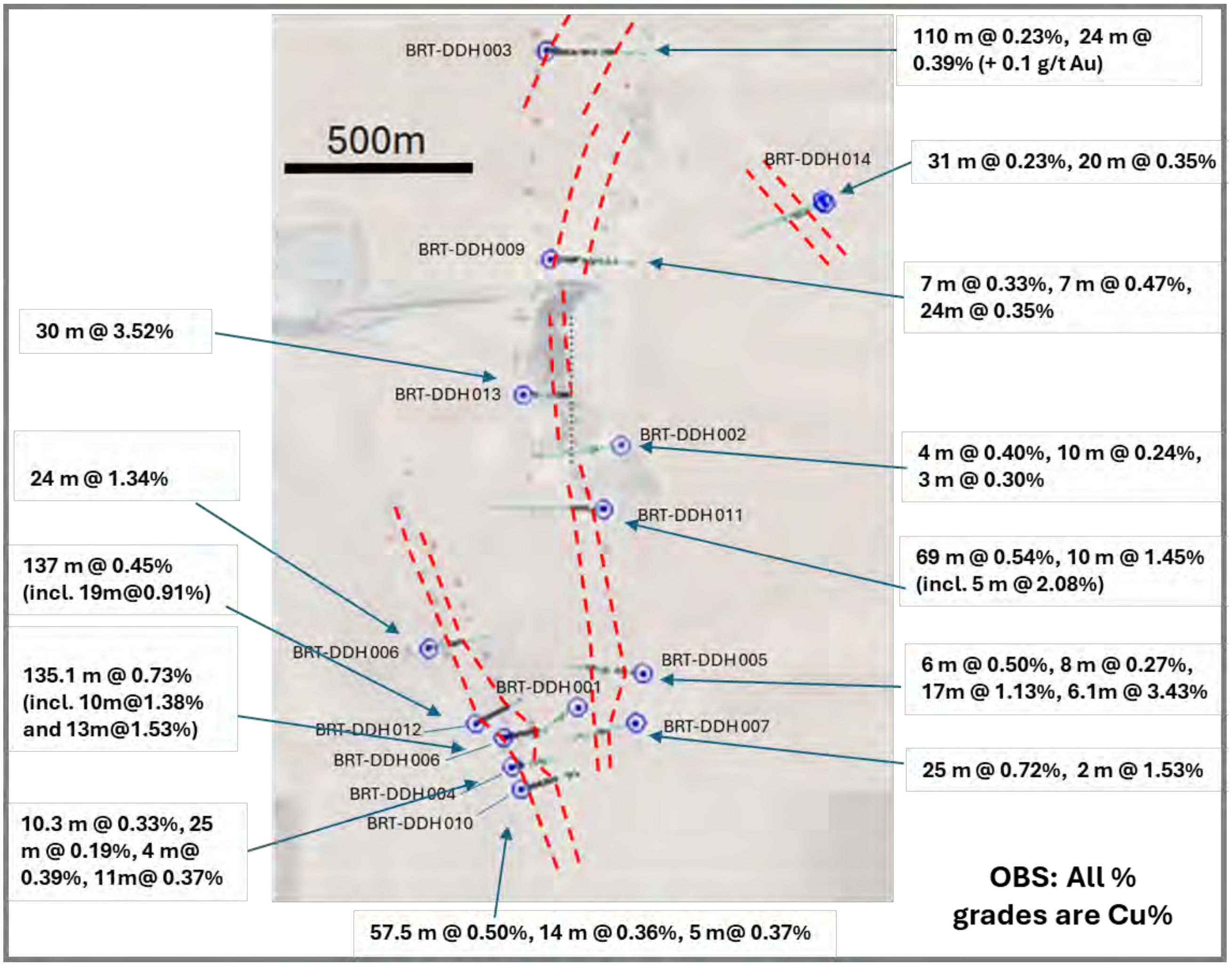


Figure 10-1. Location of 2023-2024 diamond drill hole collars and traces (BRT-series) with selected results (*see* Table 10-4 for results details), Buen Retiro Project. The Manto Negro Mine can be seen in the background of the image (Schubert, 2024b).

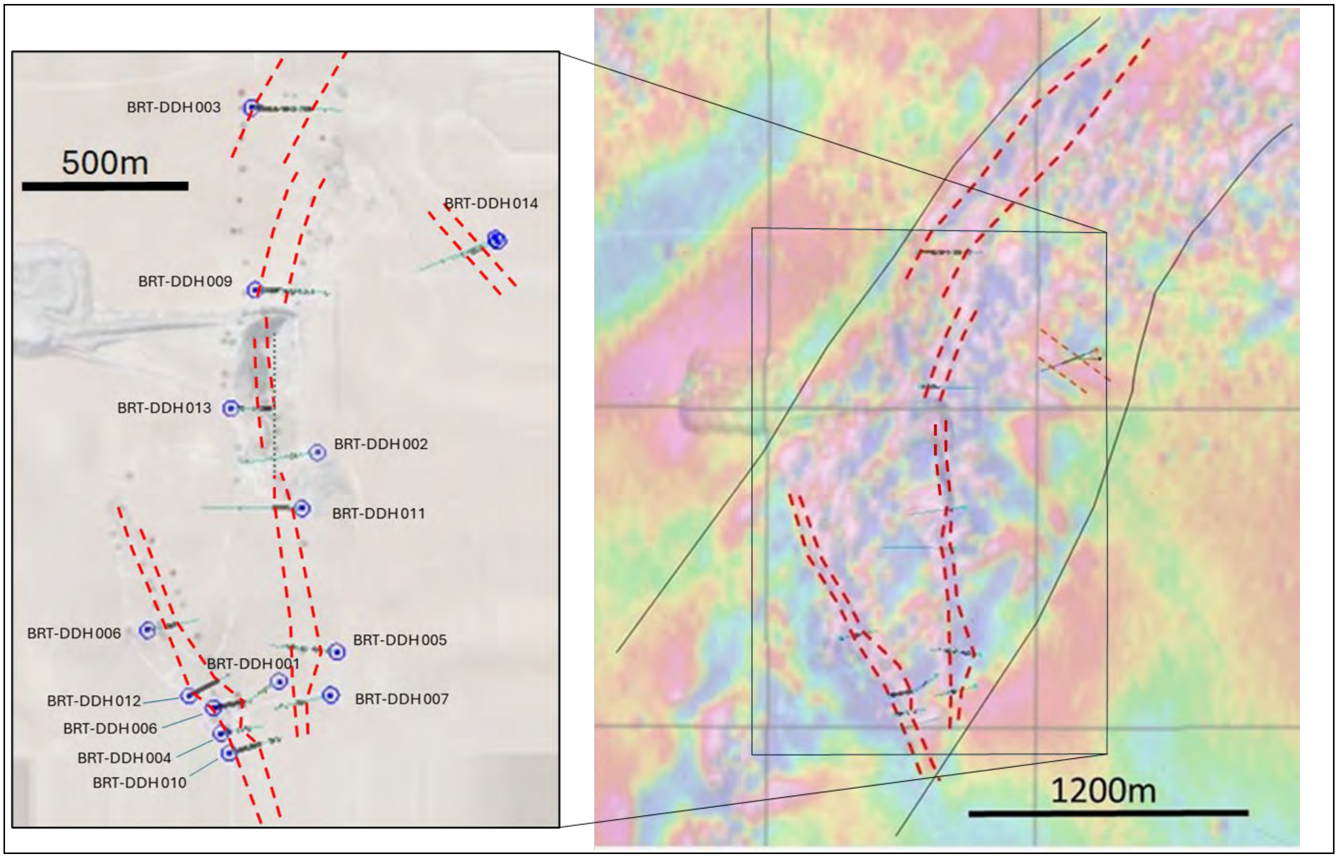


Figure 10-2. LEFT: Location of 2023-2024 diamond drill hole collars (BRT-series) with projected mineralized zones (dashed red). RIGHT: Location of interpreted mineralized northwest corridor with projected mineralized zones (dashed red) overlain on magnetic intensity (Schubert, 2024b)

Figure 10-3. Close up of the location of the first 13 BRT-series diamond drill holes located around the Manto Negro Mine area, including the location of BRT-DDH-003, the northernmost diamond drill hole (Schubert, 2024a).

Table 10-2. Summary of 2023-2024 drill hole information, samples collected, and core logged, Buen Retiro Project.

Drill Hole	Start (dd/mm/yy)	End (dd/mm/yy)	Sampled (m)	Geo-Logged (m)
BRT-DDH-001	23-11-23	01-12-23	259.20	280.00
BRT-DDH-002	02-12-23	11-12-24	398.50	404.00
BRT-DDH-003	12-12-24	20-12-24	400.30	410.00
BRT-DDH-004	20-12-24	28-12-24	303.30	311.00
BRT-DDH-005	29-12-24	07-01-24	296.70	314.70

Drill Hole	Start (dd/mm/yy)	End (dd/mm/yy)	Sampled (m)	Geo-Logged (m)
BRT-DDH-006	08-01-24	11-01-24	174.10	180.00
BRT-DDH-007	12-01-24	21-01-24	285.00	320.00
BRT-DDH-008	22-01-24	27-01-24	231.50	233.00
BRT-DDH-009	28-01-24	04-02-24	340.00	346.50
BRT-DDH-010	05-02-24	10-02-24	227.50	250.00
BRT-DDH-011	11-02-24	20-02-24	452.60	455.10
BRT-DDH-012	21-02-24	25-02-24	207.50	212.00
BRT-DDH-013	25-02-24	02-03-24	181.10	187.10
BRT-DDH-014	26-03-24	05-04-24	163.00	250.00
BRT-DDH-014A	06-04-24	14-04-24	151.80	151.80
SFR-DDH-001	03-03-24	10-03-24	37.00	338.50
SFR-DDH002	11-03-24	25-03-24	130	530.00
		Totals:	**4,239.10**	**5,173.70**

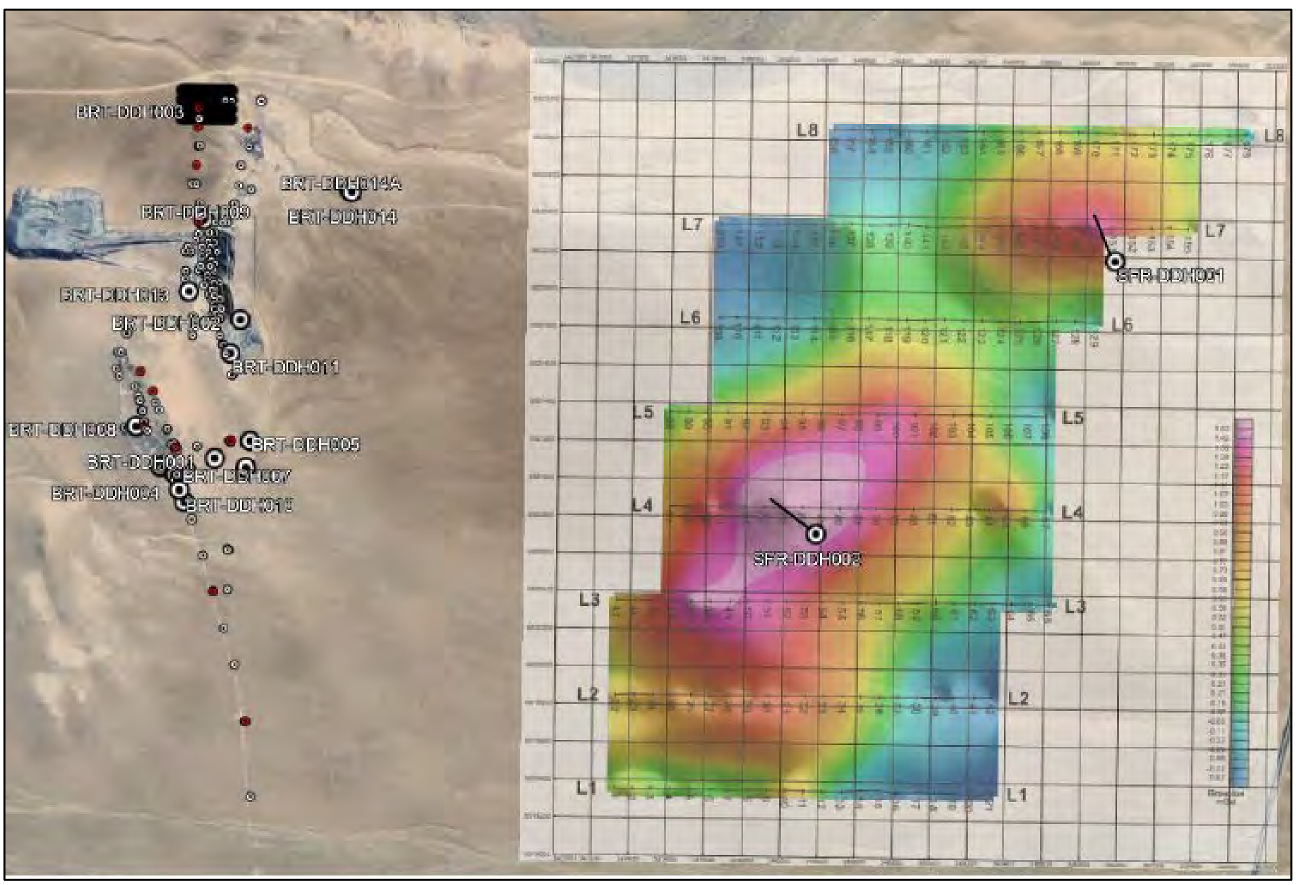


Figure 10-4. Location of the two Sierra Fritis scout drill hole collars and traces (SFR-series) overlain on gravity intensity map (right), located east of the Manto Negro Mine area (left) where the BRT-series holes were completed (Schubert, 2024b).

10.1.1 Drilling Process (BRT and SFR Series)

Blackrock Drilling mobilized to the Project on 21 November and began drilling on 23 November (Schubert, 2023b). A typical diamond drill hole rig set up is shown in Figure 10-5. PTSS contracted Mamoromaq Ltda. for the construction of the drill platforms and return pools and ALS Global (ALS-Patagonia) was the chosen assay laboratory. Drill core was processed and is stored at a leased warehouse located at "km 801" of route C-130 (ex R5N), south of Copiapó (Cuesta Cardones).

Blackrock Drilling carried out the first four drill holes with a CT-14 truck-mounted drill and from the fifth hole onward used a Boart Longyear 2021 tracked drill (LF-90). The operation ran 24 hours, with 4 teams in shifts of 14 x 14 hours. Average productivity during the first two months of operation was 38 m/day (Schubert, 2023b).

Figure 10-5. Diamond drill hole rig set up at hole BRT-DDH-005 (Fitzroy, 2024).

10.1.1.1 Drill Rig Alignment

In general, the drill rig was oriented on the site of the drill hole using a compass, hand-held GPS and the "trigonometric method". The trigonometric method uses a long rope to measure and site along the necessary azimuth from the drill hole collar to a point 10s of metres in the distance. This method is particularly effective in areas where there is the likelihood of compass interference by magnetic anomalies.

Once the rig was aligned, hole survey contractor SG Drill Chile confirmed the alignment using an Axis Champ Gyro North Seeking gyroscope, which provides the inclination and real-time measurement of the azimuth. The Company geologists also verified the inclination using a compass clinometer, measured twice: once when the machine is positioned and a second time when the rods and drill bit are "connected" and touching the ground.

10.1.1.2 Drill Collar Surveys

Once the drill hole was completed, the drill hole collar was measured (again) before cementing and marked by inserting large-diameter PVC piping (casing) into the hole for several metres and then cementing the PVC in place to ensure the azimuth and dip were preserved. The PVC collar is capped and then adequately labelled with the collar details (*i.e.*, name, Az and Dip). A platform closure checklist is completed which includes the cementing and marking of the collar, fencing in of the water sump, verifying the waterproofing (heavy black plastic) of the water sump, and overall cleanliness of the platform area. The collars were not surveyed using Differential GPS ("DGPS") as the topographic map control itself is cm-level accuracy, acceptable for this stage of the Project.

10.1.1.3 Drill Hole Surveys

Drill holes BRT-DDH001, 002 and 0014 and drill hole SFR-DDH001 were not surveyed as the survey equipment was not available at the time these holes were completed. Drill holes BRT-DDH003 to BRT-DDH014 and SFR-DD002 had in-hole deviation survey measurements carried out with a gyroscope (Champ Gyro SRO – provides real time North Seeking data) upon completion of the hole; the surveys were completed by the drilling company. Down-the-hole survey points were collected every 10 metres.

Of the two scout diamond drill holes SFR-DDH001 and SFR-DDH002 completed on the Sierra Fritis Property, only drill hole SFR-DDH002 was assayed (*see* Table 10-2) and surveyed down-the-hole.

10.1.2 Objectives

The first drilling campaign of 15 diamond drill holes at Buen Retiro had the following objectives (Schubert, 2024a) (Table 10-3):

- Review the repeatability of historical drill hole results, mainly from historical reverse circulation holes and generate data with international QA/QC standards;
- Generate detailed geological information (lithology, alteration, mineralogy, structures, etc.) of these sectors, since the historical drilling did not have or had a very basic level of geological information; and
- Investigate the different styles of mineralization previously identified at the Project, from the shallowest oxidized levels to lower (upper) zones of hypogene mineralization.

The first two drill holes (BRT-DDH001 and DDH002) were aimed at testing geophysical anomalies; the third hole BRT-DDH003 was designed to test the repeatability of the results of a historical reverse circulation drill hole and to investigate the geology of the area toward the north (Schubert, 2023b).

Table 10-3. Objectives for BRT-SFR series holes, Phase 1 diamond drilling (2023-2024), Buen Retiro Project.

Drill Hole	Objective
BRT-DDH-001	Test of magnetic anomaly with chargeability
BRT-DDH-002	Check of possible continuity of pit mineralization and upper part of IP anomaly
BRT-DDH-003	Twin hole of MNE-12 an MNE-13
BRT-DDH-004	Twin hole of AR-1-BR168
BRT-DDH-005	Perpendicular intersection to holes AR-11-BR 187, 188 and MN-020
BRT-DDH-006	Test mineralization between Holes AR11-BR172 and MN-161
BRT-DDH-007	Twin hole to AR11-BR185
BRT-DDH-008	Test mineralization between HolesMN-133 and 140
BRT-DDH-009	Twin hole to MNE-03 and oblique to MN-006
BRT-DDH-010	Twin hole to AR11-BR 167
BRT-DDH-011	Intersect mineralization below MN-017 and MN-082
BRT-DDH-012	Perpendicular intersection to holes MN-154, 155, 149 and 150
BRT-DDH-013	Intersect mineralization below old pit

Drill Hole	Objective
BRT-DDH-014	Twin hole to LAR-01
BRT-DDH-014A	Twin hole to LAR-01 and parallel to BRT-DDH-014 which was abandoned at ~250 m
SFR-DDH-001	Test gravimetric anomaly
SFR-DDH-002	Test gravimetric anomaly

10.1.3 Analytical Results

Core samples were prepared at the ALS-Patagonia lab in Copiapó and from there sent by ALS to the laboratory in Lima, Peru for analyses (*see* Section 11.0 - Sample Preparation, Analyses and Security). A summary of selected diamond drill core assay results from the 2023-2024 drilling program is provided in Table 10-4. As of the Effective Date of the Report, most of the samples from SFR-DDH 01 and SFR-DDH-02 were still pending assay results.

Table 10-4. Selected results from diamond drill core assays, 2023-2024 drilling, BRT- and SFR-series, Buen Retiro Project.

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)
BRT-DDH-001	94.00	104.00	10.00	0.38
and	115.00	119.00	4.00	0.37
and	226.00	229.00	3.00	0.27
BRT-DDH-002	98.00	102.00	4.00	0.40
and	130.00	140.00	10.00	0.24
and	172.00	175.00	3.00	0.30
BRT-DDH-003	9.72	120.00	110.28	0.23
incl.	68.00	70.00	2.00	0.76
and	92.00	112.00	20.00	0.31
and	134.00	166.00	32.00	0.21
and	185.00	200.00	15.00	0.19
and	241.00	265.00	24.00	0.39
incl.	241.00	250.00	9.00	0.56
incl.	242.00	243.00	1.00	1.21
incl.	261.00	262.00	1.00	1.01
BRT-DDH-004	7.70	18.00	10.30	0.33
and	44.00	69.00	25.00	0.19
and	168.00	172.00	4.00	0.39
incl.	169.00	170.00	1.00	0.88
and	174.00	178.00	4.00	0.30
and	200.00	211.00	11.00	0.37
incl.	205.00	206.00	1.00	0.82
BRT-DDH-005	35.00	41.00	6.00	0.50
incl.	37.00	39.00	2.00	1.22
and	70.00	78.00	8.00	0.27
and	91.00	108.00	17.00	1.13
incl.	94.00	103.00	9.00	1.83

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)
incl.	94.00	98.00	4.00	3.32
incl.	97.00	98.00	1.00	4.25
and	147.30	153.40	6.10	3.43
incl.	148.00	150.00	2.00	9.38
and	198.00	202.00	4.00	0.30
incl.	200.80	202.00	1.20	0.84
and	253.00	254.00	1.00	1.33
BRT-DDH-006	5.90	141.00	135.10	0.73
incl.	7.00	26.00	19.00	1.20
incl.	7.00	9.00	2.00	2.47
incl.	10.00	20.00	10.00	1.38
incl.	56.00	61.00	5.00	0.98
incl.	70.00	83.00	13.00	1.53
incl.	79.00	83.00	4.00	2.99
incl.	91.00	92.00	1.00	2.01
incl.	120.00	125.00	5.00	1.11
incl.	130.00	140.00	10.00	1.01
incl.	136.00	139.00	3.00	1.85
BRT-DDH-007	158.00	183.00	25.00	0.72
incl.	168.60	170.00	1.40	6.86
incl.	174.00	175.00	1.00	1.03
and	200.00	202.00	2.00	1.53
BRT-DDH-008	87.00	111.00	24.00	1.34
incl.	92.00	107.00	15.00	1.92
incl.	92.00	99.00	7.00	2.14
incl.	103.00	107.00	4.00	2.72
incl.	104.00	105.00	1.00	5.02
BRT-DDH-009	19.00	26.00	7.00	0.33
and	42.00	48.00	6.00	0.23
and	56.00	63.00	7.00	0.47
and	75.00	99.00	24.00	0.35
incl.	81.00	82.00	1.00	1.05
incl.	83.00	84.00	1.00	1.20
incl.	91.00	92.00	1.00	1.10
and	109.00	110.00	1.00	0.89
BRT-DDH-010	22.50	80.00	57.50	0.50
incl.	33.00	39.00	6.00	1.81
incl.	34.00	35.00	1.00	5.51
and	132.00	146.00	14.00	0.36
incl.	135.00	136.00	1.00	0.90

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)
and	196.00	205.00	9.00	0.25
and	227.00	232.00	5.00	0.37
BRT-DDH-011	57.00	126.00	69.00	0.54
incl.	69.00	70.00	1.00	0.87
and	76.00	86.00	10.00	1.45
incl.	80.00	85.00	5.00	2.08
incl.	83.00	84.00	1.00	3.16
BRT-DDH-012	11.00	148.00	137.00	0.45
incl.	35.00	65.00	30.00	0.27
incl.	67.00	145.00	78.00	0.63
incl.	79.00	86.00	7.00	1.74
incl.	81.00	82.00	1.00	2.92
incl.	84.00	85.00	1.00	3.59
incl.	92.00	96.00	4.00	1.48
incl.	94.00	95.00	1.00	2.10
incl.	113.00	132.00	19.00	0.91
incl.	119.00	120.00	1.00	2.77
incl.	123.00	124.00	1.00	1.31
incl.	141.00	142.00	1.00	1.11
BRT-DDH-013	130.00	137.00	7.00	2.78
incl.	133.00	137.00	4.00	4.81
incl.	135.00	136.00	1.00	6.08
and	141.00	171.00	30.00	3.52
incl.	142.00	143.00	1.00	6.53
incl.	141.00	145.00	4.00	4.75
incl.	156.00	168.00	12.00	4.96
incl.	156.00	157.00	1.00	6.44
incl.	160.00	161.00	1.00	7.63
incl.	166.00	167.00	1.00	6.76
and	175.00	176.00	1.00	1.48
BRT-DDH-014	87.00	118.00	31.00	0.23
and	122.00	142.00	20.00	0.35
incl.	123.00	124.00	1.00	2.76
incl.	128.00	129.00	1.00	0.83
and	177.00	178.00	1.00	0.83
BRT-DDH-014A	307.00	308.00	1.00	0.48
SFR-DDH-001	*assays pending*			
SFR-DDH-002	378.00	379.00	1.00	0.28
	additional assays pending			

*true widths of mineralization are not known and the interval shown reflects the length of core drilled

10.2 DTH Air Core Drilling

In the second half of March 2024, a 50 x 20 metre grid of Down-the-Hole ("DTH") short drill holes (585.28 m in 43 holes) in the northern part of the Project was planned and completed (Figure 10-6; Table 10-5). The objective of the DTH drilling program was to identify the trend of disseminated mineralization intersected in BRT-DDH003 (most northerly diamond drill hole) which is concealed under gravel. The contract drilling was completed by Holesteck Ltda (Schubert, 2024a).

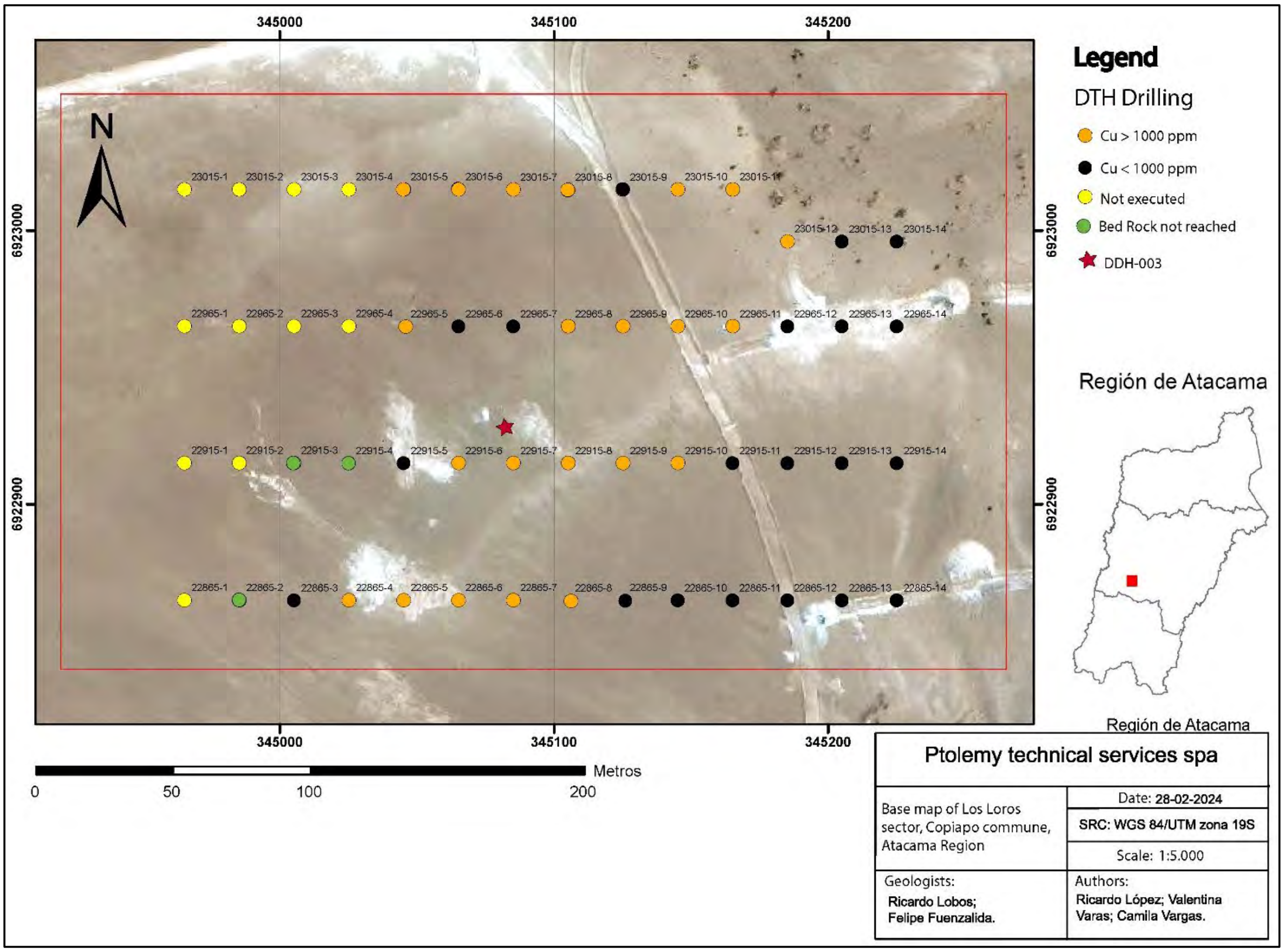


Figure 10-6. Plan map showing the assay results from DTH shallow drilling around drill hole BRT-DDH003. The location of the DTH drill holes relative to the Manto Negro Mine is shown in Figure 9-10 (Ptolemy Technical Services, 2024).

Air core or AC drilling uses compressed air to flush out rock chip samples with the broken rock (chips) from the cutting face passing to the surface in the space between the drill rods and the wall rock. This process introduces some unavoidable contamination into the samples. Air core drilling is ideal where unconsolidated ground is present above bedrock and when short holes are required. The air core drill rig setup is shown in Figure 10-7.

Table 10-5. Summary of DTH drill hole collar details, Buen Retiro Project (*see* Figure 10-6).

Line	Drill Hole	UTMX (mE)	UTMY (mN)	UTMZ (m)	Depth (m)
1 (North)	BRT-DTH 23015/1	344965	6923015	350.858	not completed
1 (North)	BRT-DTH 23015/2	344985	6923015	352.613	not completed
1 (North)	BRT-DTH 23015/3	345005	6923015	353.421	not completed

Line	Drill Hole	UTMX (mE)	UTMY (mN)	UTMZ (m)	Depth (m)
1 (North)	BRT-DTH 23015/4	345025	6923015	354.047	not completed
1 (North)	BRT-DTH 23015/5	345045	6923015	354.664	32.42
1 (North)	BRT-DTH 23015/6	345065	6923015	356.089	32.42
1 (North)	BRT-DTH 23015/7	345085	6923015	358.445	32.42
1 (North)	BRT-DTH 23015/8	345105	6923015	359.891	32.42
1 (North)	BRT-DTH 23015/9	345125	6923015	361.151	26.42
1 (North)	BRT-DTH 23015/10	345145	6923015	363.469	8.42
1 (North)	BRT-DTH 23015/11	345165	6923015	365.563	6.92
1 (North)	BRT-DTH 23015/12	345185	6922996	365.598	5.42
1 (North)	BRT-DTH 23015/13	345205	6922996	366.641	5.42
1 (North)	BRT-DTH 23015/14	345225	6922996	367.363	5.42
2	BRT-DTH 22965/1	344965	6922965	356.398	not completed
2	BRT-DTH 22965/2	344985	6922965	356.756	not completed
2	BRT-DTH 22965/3	345005	6922965	356.476	not completed
2	BRT-DTH 22965/4	345025	6922965	356.091	not completed
2	BRT-DTH 22965/5	345045	6922965	356.332	32.26
2	BRT-DTH 22965/6	345065	6922965	356.746	32.26
2	BRT-DTH 22965/7	345085	6922965	357.349	32.26
2	BRT-DTH 22965/8	345105	6922965	358.152	11.26
2	BRT-DTH 22965/9	345125	6922965	359.023	11.26
2	BRT-DTH 22965/10	345145	6922965	359.884	8.26
2	BRT-DTH 22965/11	345165	6922965	360.943	6.76
2	BRT-DTH 22965/12	345185	6922965	362.378	6.76
2	BRT-DTH 22965/13	345205	6922965	363.624	6.76
2	BRT-DTH 22965/14	345225	6922965	364.776	6.76
3	BRT-DTH 22915/1	345965	6922915	358.069	not completed
3	BRT-DTH 22915/2	345985	6922915	358.062	not completed
3	BRT-DTH 22915/3	346005	6922915	357.954	not completed
3	BRT-DTH 22915/4	345025	6922915	357.866	18.76
3	BRT-DTH 22915/5	345045	6922915	357.934	15.26
3	BRT-DTH 22915/6	345065	6922915	357.515	13.26
3	BRT-DTH 22915/7	345085	6922915	356.366	11.26
3	BRT-DTH 22915/8	345105	6922915	356.84	11.26
3	BRT-DTH 22915/9	345125	6922915	358.03	9.26
3	BRT-DTH 22915/10	345145	6922915	360.981	12.26
3	BRT-DTH 22915/11	345165	6922915	363.42	9.26
3	BRT-DTH 22915/12	345185	6922915	364.634	9.26
3	BRT-DTH 22915/13	345205	6922915	365.094	7.26
3	BRT-DTH 22915/14	345225	6922915	365.091	6.26
4 (South)	BRT-DTH 22865/1	345965	6922865	359.153	not completed

Line	Drill Hole	UTMX (mE)	UTMY (mN)	UTMZ (m)	Depth (m)
4 (South)	BRT-DTH 22865/2	345985	6922865	358.57	not completed
4 (South)	BRT-DTH 22865/3	345005	6922865	358.683	18.76
4 (South)	BRT-DTH 22865/4	345025	6922865	358.947	14.26
4 (South)	BRT-DTH 22865/5	345045	6922865	358.029	11.26
4 (South)	BRT-DTH 22865/6	345065	6922865	357.864	11.26
4 (South)	BRT-DTH 22865/7	345085	6922865	359.01	12.76
4 (South)	BRT-DTH 22865/8	345105	6922865	360.966	9.76
4 (South)	BRT-DTH 22865/9	345125	6922865	363.329	11.26
4 (South)	BRT-DTH 22865/10	345145	6922865	367.5	8.26
4 (South)	BRT-DTH 22865/11	345165	6922865	370.491	6.76
4 (South)	BRT-DTH 22865/12	345185	6922865	370.499	5.26
4 (South)	BRT-DTH 22865/13	345205	6922865	370.338	5.26
4 (South)	BRT-DTH 22865/14	345225	6922865	370.083	4.76
				Total:	**585.28**

Figure 10-7. DTH air core grid-based drilling around diamond drill hole BRT-DDH-003. LEFT: Track-mounted air core drill rig set up. RIGHT: Riffle-splitting the sample after it has gone through a cyclone (Ptolemy Technical Services, 2024).

10.2.1 Drilling Process (BRT-DTH-series)

The DTH air core drilling began using a PW MPR5200AT machine, an Ingersoll Rand medium-pressure compressor (later replaced by a high-pressure one). Work was carried out in a 5 x 2 day shift, with a permanent presence of a geologist from PTSS during the drilling.

The field geologist oversaw the verification of the cuttings ejected by the drill through a cyclone and deciding when the machine reached bed rock and should be sampled. Once bedrock was reached, two runs of 1.5 m each are completed, generating two samples. Each of the samples was quartered and half of that sample was bagged and stocked. The other half went through a 2 mm sieve in the field, generating two fractions: a fine fraction, which was bagged and sent for XRF analysis (Ptolemy Mining's XRF lab in Santiago), and a coarse fraction, which is washed and used for geological description (Schubert, 2024a).

Once dry, the coarse fraction was pasted on a board with the corresponding metres of depth, for visual logging. Once the drilling program was complete, the boards with samples from all the DTH holes were hung on the wall to allow for quick hole-to-hole comparison and copper assay results were recorded (Figure 10-8).

Figure 10-8. DTH coarse fraction samples with copper grades (ppm) hung on the wall of the field office for quick comparison between holes (Caracle Creek, 2024).

The geologists logged the coarse fraction, entering the sample description information into standardized logging sheets prepared by the Company (Figure 10-9).

Nombre: BRT-DTH22865/12	Ley Cu: 38 y 27 ppm
Coordenadas: E346185 N6922865	
Descripción: Clastos de **andesita** alterada a jarosita con clastos de hematita (especularita).	

Nombre: BRT-DTH22865/11	Ley de Cu: 49 y 45 ppm
Coordenadas: E346165 N6922865	
Descripción: Clastos de **andesita** alterada a jarosita, con clastos de hematita (especularita).	

Nombre: BRT-DTH22865/10	Ley de Cu: 320 y 237 ppm
Coordenadas: E346145 N6922865	
Descripción: Arena rojiza, se observan clastos de **andesita**, algunos de estos clastos se encuentran alterados a jarosita con presencia de hematita especular.	

Figure 10-9. Example of coarse fraction logging sheets (in Spanish) from the 2024 DTH drilling program (Ptolemy Technical Services, 2024).

10.2.2 Analytical Results

A total of 85 samples were collected and submitted to ALS Laboratory in Santiago. Assay results, ranging from 22 to 12,378 ppm Cu (0.002-1.24% Cu), are provided in Table 10-6. The first entry for each sample run represents the sandy overburden and these were not assayed.

Table 10-6. Assay results from BRT-DTH-series air core holes, Bueno Retiro Project.

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)	Fe (%)	Cu (ppm)
BRT-DTH 23015/5	0.00	29.42	29.42	overburden - not assayed		
BRT-DTH 23015/5	29.42	30.92	1.50	0.18	9.52	1806
BRT-DTH 23015/5	30.92	32.42	1.50	0.18	11.45	1782
BRT-DTH 23015/6	0.00	29.42	29.42	overburden - not assayed		
BRT-DTH 23015/6	29.42	30.92	1.50	0.22	10.16	2239
BRT-DTH 23015/6	30.92	32.42	1.50	0.24	10.35	2388
BRT-DTH 23015/7	0.00	29.42	29.42	overburden - not assayed		
BRT-DTH 23015/7	29.42	30.92	1.50	0.33	9.89	3256
BRT-DTH 23015/7	30.92	32.42	1.50	0.33	10.49	3298
BRT-DTH 23015/8	0.00	29.42	29.42	overburden - not assayed		
BRT-DTH 23015/8	29.42	30.92	1.50	0.38	11.38	3775
BRT-DTH 23015/8	30.92	32.42	1.50	0.22	6.41	2191
BRT-DTH 23015/9	0.00	23.42	23.42	overburden - not assayed		
BRT-DTH 23015/9	23.42	24.92	1.50	0.06	12.34	590
BRT-DTH 23015/9	24.92	26.42	1.50	0.06	12.32	608
BRT-DTH 23015/10	0.00	5.42	5.42	overburden - not assayed		
BRT-DTH 23015/10	5.42	6.92	1.50	0.72	7.70	7214
BRT-DTH 23015/10	6.92	8.42	1.50	1.24	9.47	12378
BRT-DTH 23015/11	0.00	3.92	3.92	overburden - not assayed		
BRT-DTH 23015/11	3.92	5.42	1.50	0.27	19.99	2709
BRT-DTH 23015/11	5.42	6.92	1.50	0.35	11.87	3549
BRT-DTH 23015/12	0.00	2.42	2.42	overburden - not assayed		
BRT-DTH 23015/12	2.42	3.92	1.50	0.07	7.77	712
BRT-DTH 23015/12	3.92	5.42	1.50	0.08	8.08	762
BRT-DTH 23015/13	0.00	2.42	2.42	overburden - not assayed		
BRT-DTH 23015/13	2.42	3.92	1.50	0.07	7.18	652
BRT-DTH 23015/13	3.92	5.42	1.50	0.08	8.99	812
BRT-DTH 23015/14	0.00	2.42	2.42	overburden - not assayed		
BRT-DTH 23015/14	2.42	3.92	1.50	0.00	4.26	44
BRT-DTH 23015/14	3.92	5.42	1.50	0.00	5.91	29
BRT-DTH 22965/5	0.00	29.26	29.26	overburden - not assayed		
BRT-DTH 22965/5	29.26	30.76	1.50	0.08	7.94	819
BRT-DTH 22965/5	30.76	32.26	1.50	0.11	10.99	1091
BRT-DTH 22965/6	0.00	29.26	29.26	overburden - not assayed		
BRT-DTH 22965/6	29.26	30.76	1.50	0.07	6.30	682
BRT-DTH 22965/6	30.76	32.26	1.50	0.01	5.47	145
BRT-DTH 22965/7	0.00	29.26	29.26	overburden - not assayed		
BRT-DTH 22965/7	29.26	30.76	1.50	0.01	9.08	56
BRT-DTH 22965/7	30.76	32.26	1.50	0.00	8.78	46

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)	Fe (%)	Cu (ppm)
BRT-DTH 22965/8	0.00	8.26	8.26	overburden - not assayed		
BRT-DTH 22965/8	8.26	9.76	1.50	0.26	5.27	2630
BRT-DTH 22965/8	9.76	11.26	1.50	0.29	8.63	2939
BRT-DTH 22965/9	0.00	8.26	8.26	overburden - not assayed		
BRT-DTH 22965/9	8.26	9.76	1.50	0.41	9.45	4059
BRT-DTH 22965/9	9.76	11.26	1.50	0.24	11.84	2407
BRT-DTH 22965/10	0.00	5.26	5.26	overburden - not assayed		
BRT-DTH 22965/10	5.26	6.76	1.50	0.37	13.02	3699
BRT-DTH 22965/10	6.76	8.26	1.50	0.62	9.11	6214
BRT-DTH 22965/11	0.00	3.76	3.76	overburden - not assayed		
BRT-DTH 22965/11	3.76	5.26	1.50	0.15	8.73	1528
BRT-DTH 22965/11	5.26	6.76	1.50	0.19	9.45	1946
BRT-DTH 22965/12	0.00	3.76	3.76	overburden - not assayed		
BRT-DTH 22965/12	3.76	5.26	1.50	0.02	8.16	154
BRT-DTH 22965/12	5.26	6.76	1.50	0.02	7.25	242
BRT-DTH 22965/13	0.00	3.76	3.76	overburden - not assayed		
BRT-DTH 22965/13	3.76	5.26	1.50	0.02	7.65	187
BRT-DTH 22965/13	5.26	6.76	1.50	0.02	6.86	247
BRT-DTH 22965/14	0.00	3.76	3.76	overburden - not assayed		
BRT-DTH 22965/14	3.76	5.26	1.50	0.00	4.46	22
BRT-DTH 22965/14	5.26	6.76	1.50	0.00	5.05	26
BRT-DTH 22915/4	0.00	16.76	16.76	overburden - not assayed		
BRT-DTH 22915/4	16.76	17.76	1.00	0.01	5.00	96
BRT-DTH 22915/4	17.76	18.76	1.00	0.01	5.36	103
BRT-DTH 22915/5	0.00	13.26	13.26	overburden - not assayed		
BRT-DTH 22915/5	13.26	14.26	1.00	0.02	4.77	201
BRT-DTH 22915/5	14.26	15.26	1.00	0.01	4.77	111
BRT-DTH 22915/6	0.00	11.26	11.26	overburden - not assayed		
BRT-DTH 22915/6	11.26	12.26	1.00	0.23	23.75	2330
BRT-DTH 22915/6	12.26	13.26	1.00	0.77	10.48	7669
BRT-DTH 22915/7	0.00	8.26	8.26	overburden - not assayed		
BRT-DTH 22915/7	8.26	9.76	1.50	0.20	9.05	1993
BRT-DTH 22915/7	9.76	11.26	1.50	0.31	7.05	3105
BRT-DTH 22915/8	0.00	8.26	8.26	overburden - not assayed		
BRT-DTH 22915/8	8.26	9.76	1.50	0.35	21.16	3460
BRT-DTH 22915/8	9.76	11.26	1.50	0.31	8.74	3053
BRT-DTH 22915/9	0.00	7.26	7.26	overburden - not assayed		
BRT-DTH 22915/9	7.26	8.26	1.00	0.28	15.26	2822
BRT-DTH 22915/9	8.26	9.26	1.00	0.31	13.56	3064
BRT-DTH 22915/10	0.00	9.76	9.76	overburden - not assayed		

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)	Fe (%)	Cu (ppm)
BRT-DTH 22915/10	9.76	11.26	1.50	0.49	7.56	4894
BRT-DTH 22915/10	11.26	12.26	1.00	0.59	8.27	5871
BRT-DTH 22915/11	0.00	7.26	7.26	overburden - not assayed		
BRT-DTH 22915/11	7.26	8.26	1.00	0.01	6.92	92
BRT-DTH 22915/11	8.26	9.26	1.00	0.01	6.95	62
BRT-DTH 22915/12	0.00	7.26	7.26	overburden - not assayed		
BRT-DTH 22915/12	7.26	8.26	1.00	0.01	4.88	75
BRT-DTH 22915/12	8.26	9.26	1.00	0.00	5.11	34
BRT-DTH 22915/13	0.00	5.26	5.26	overburden - not assayed		
BRT-DTH 22915/13	5.26	6.76	1.50	0.00	4.45	38
BRT-DTH 22915/13	6.76	8.26	1.50	0.00	4.72	37
BRT-DTH 22915/14	0.00	4.26	4.26	overburden - not assayed		
BRT-DTH 22915/14	4.26	5.26	1.00	0.01	7.83	70
BRT-DTH 22915/14	5.26	6.26	1.00	0.01	8.41	59
BRT-DTH 22865/3	0.00	15.76	15.76	overburden - not assayed		
BRT-DTH 22865/3	15.76	17.26	1.50	0.02	8.78	206
BRT-DTH 22865/3	17.26	18.76	1.50	0.02	6.69	166
BRT-DTH 22865/4	0.00	13.26	13.26	overburden - not assayed		
BRT-DTH 22865/4	13.26	14.26	1.00	0.68	5.71	6808
BRT-DTH 22865/5	0.00	9.76	9.76	overburden - not assayed		
BRT-DTH 22865/5	9.76	10.26	0.50	0.25	8.60	2511
BRT-DTH 22865/5	10.26	11.26	1.00	0.26	8.41	2560
BRT-DTH 22865/6	0.00	8.26	8.26	overburden - not assayed		
BRT-DTH 22865/6	8.26	9.76	1.50	0.36	10.50	3599
BRT-DTH 22865/6	9.76	11.26	1.50	0.29	9.35	2901
BRT-DTH 22865/7	0.00	9.76	9.76	overburden - not assayed		
BRT-DTH 22865/7	9.76	11.26	1.50	0.27	19.23	2697
BRT-DTH 22865/7	11.26	12.76	1.50	0.47	9.91	4745
BRT-DTH 22865/8	0.00	6.76	6.76	overburden - not assayed		
BRT-DTH 22865/8	6.76	8.26	1.50	0.18	10.73	1847
BRT-DTH 22865/8	8.26	9.76	1.50	0.13	8.66	1332
BRT-DTH 22865/9	0.00	8.26	8.26	overburden - not assayed		
BRT-DTH 22865/9	8.26	9.76	1.50	0.05	11.48	456
BRT-DTH 22865/9	9.76	11.26	1.50	0.05	10.15	477
BRT-DTH 22865/10	0.00	5.26	5.26	overburden - not assayed		
BRT-DTH 22865/10	5.26	6.76	1.50	0.03	7.40	320
BRT-DTH 22865/10	6.76	8.26	1.50	0.02	6.47	238
BRT-DTH 22865/11	0.00	3.76	3.76	overburden - not assayed		
BRT-DTH 22865/11	3.76	5.26	1.50	0.00	10.90	49
BRT-DTH 22865/11	5.26	6.76	1.50	0.00	12.65	45

Drill Hole	From (m)	To (m)	Interval (m)	CuT (%)	Fe (%)	Cu (ppm)
BRT-DTH 22865/12	0.00	2.26	2.26	overburden - not assayed		
BRT-DTH 22865/12	2.26	3.76	1.50	0.00	8.95	38
BRT-DTH 22865/12	3.76	5.26	1.50	0.00	10.86	27
BRT-DTH 22865/13	0.00	3.26	3.26	overburden - not assayed		
BRT-DTH 22865/13	3.26	4.26	1.00	0.00	10.95	29
BRT-DTH 22865/13	4.26	5.26	1.00	0.00	9.73	28
BRT-DTH 22865/14	0.00	2.76	2.76	overburden - not assayed		
BRT-DTH 22865/14	2.76	3.76	1.00	0.00	8.81	34
BRT-DTH 22865/14	3.76	4.76	1.00	0.00	9.89	40

*true widths of mineralization are not known and the interval shown reflects the length of the hole

10.2.3 Significant Results

Results from the shallow drilling around diamond drill hole BRT-DDH-003 are provided in Figure 10-10 and summarized in Table 10-6. Clearly, the DTH chip sample assay results were successful in delineating a target structural corridor around diamond drill hole BRT-DDH-003, confirming the usefulness of DTH drilling in this geological environment.

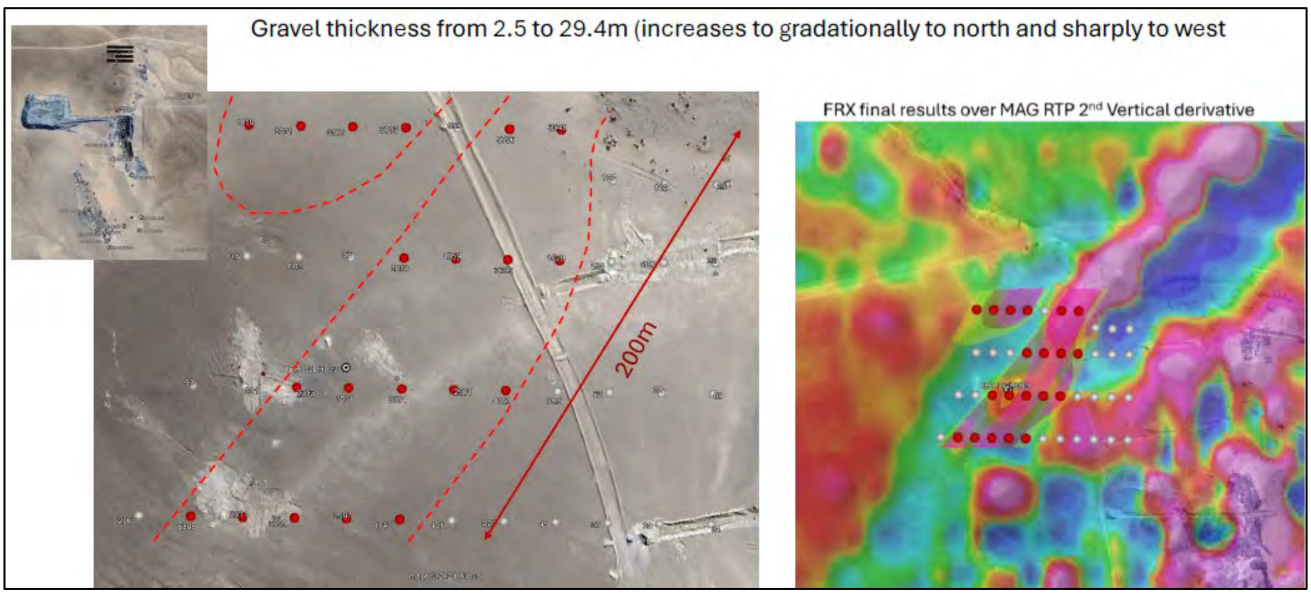


Figure 10-10. LEFT: Results from the DTH shallow drilling on the 50 x 20 m grid around drill hole BRT-DDH003 with the general trend for copper mineralization bounded by the dashed red lines. RIGHT: DTH locations overlain on the magnetics RTP 2nd Vertical Derivative with positive assay results as red dots and negative or not sampled sites as white dots (Schubert 2024a).

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The Issuer, Fitzroy Minerals Inc., has not conducted any sampling or exploration work on the Project. All work reported in this section was completed by the Vendor (PML) through its subsidiary Ptolemy Technical Services SpA (PTSS). This section reviews all known sample preparation, analysis and security as it relates to historical exploration work completed on the Project by the Vendor (PML).

Mr. Gilberto Schubert (P.Geo.), a Qualified Person as defined by NI 43-101, was responsible for the exploration programs implemented by the PML, including QA/QC. The Company has developed procedure manuals for overall operations (rock sampling, core sampling, DTH chip sampling, core storage, QA/QC, analytical techniques, and geological mapping), core sampling (PPE, core measuring, sampling, geotechnical (Recovery, RQD), logging and photography), drill hole surveys, and drill rig safety and clean up; these procedural manuals have been reviewed by the Author.

It is the Author's opinion that the procedures, policies and protocols followed by the Vendor for diamond drilling (core samples), air core drilling (chip samples) are sufficient and appropriate, and that the sampling procedures, sample handling, and assaying methods used, to the extent that they are known, are consistent with good exploration and operational practices such that the data is reliable for the purpose of the Report (*see* Section 2.1 – Purpose of the Technical Report).

11.1 Historical Diamond Drilling (2023-2024)

Using a core cutting diamond blade saw, a total of 4,764.70 m of primary half core samples were collected from the 17 drill holes (Table 11-1) with the remaining half core stored in the original wooden core trays at the rented core storage warehouse in Cuesta Cardones, south of Copiapó (Figure 11-1).

In addition, the Company inserted a total of 154 standards and 228 blanks into the core sample stream and generated 188 duplicate samples (Table 11-1).

A list of the certified standard material used in the QA/QC is provided in Table 11-2. The Company made their own silica blank using white decorative quartz stone purchased from a local hardware store. This blank assayed from <1 to 36 ppm Cu, which is in line with accepted concentrations of copper in a blank (*see* Section 11.1.3 – QA/QC Procedures).

Table 11-1. Summary of sampling and logging for the 2023-2024 diamond drilling program.

Drill Hole	Drilled (m)	Sampled (m)	Geo-Logged (m)	Standards	Blanks	Duplicates
BRT-DDH001	280.00	259.20	280.00	11	13	13
BRT-DDH002	404.00	398.50	404.00	16	19	20
BRT-DDH003	410.00	400.30	410.00	16	19	20
BRT-DDH004	311.00	303.30	311.00	12	15	15
BRT-DDH005	314.70	296.70	314.70	13	14	15
BRT-DDH006	180.00	174.10	180.00	7	9	9
BRT-DDH007	320.00	285.00	320.00	13	14	14
BRT-DDH008	233.00	231.50	233.00	9	12	12
BRT-DDH009	346.50	340.00	346.50	14	17	17
BRT-DDH010	250.00	227.50	250.00	10	11	11
BRT-DDH011	455.10	452.7	455.10	18	22	23

Drill Hole	Drilled (m)	Sampled (m)	Geo-Logged (m)	Standards	Blanks	Duplicates
BRT-DDH012	212.00	207.50	212.00	8	11	10
BRT-DDH013	187.1	181.10	187.10	7	8	9
BRT-DDH014	338.50	283.50	338.50		9	
BRT-DDH014A	530.00	409.00	530.00		20	
SFR-DDH001	250.00	163.00	250.00		8	
SFR-DDH002	401.80	151.80	151.80		7	
Totals:	**5,423.70**	**4,764.70**	**5,173.70**	**154**	**228**	**188**

Figure 11-1. Diamond drill core (2021-2023 program) in covered and labelled wooden boxes, stored at the rented and secure warehouse space south of Copiapó (Caracle Creek, 2024).

11.1.1 Core Handling Procedure

At the drill rig, the recovered drill core was examined by the field geologist and a quick log ("Q-Log") of the core generated. This quick log was sent to Ptolemy Technical Services, along with a report, daily. The boxed and labelled drill core was then transported by the Company, pick up truck carrying maximum of 10 core boxes secured with ropes and slings, to the core warehouse south of Copiapó for unloading and processing.

11.1.2 Core Sampling Procedure

Prior to logging and cutting, the drill core was examined to ensure that the metreage blocks were in place and that all the core was complete. the core was logged and marked by a geologist using paper logging sheets to record the information which were then scanned and stored in the database. All of the drill hole and drill core information was entered into an excel spreadsheet-based database.

As much as possible, core samples were collected over 1.0 m intervals, except for the sections with clearly abrupt contacts between strongly mineralized and sterile areas. A further exception were the SRF scout drill holes, where most of the sampling was at a 2-m support interval. As samples were prepared, they were placed into larger bags, which were labelled and secured using zip ties. A sample submission sheet was prepared which was scanned into the database and a copy put into the larger bag holding those samples.

A total of 4,764.70 m of half core samples and 570 QA/QC standards, blanks and duplicates were driven to the ALS-Patagonia preparation laboratory in Copiapó by Company personnel. Once prepared in Copiapó, the samples were sent by ALS to the ALS Laboratory in Lima, Peru. At ALS, the samples were analyzed (36 element) using ICP analysis (ME-ICP 41), with %Cu(T) and %Cu(S) analysis and any results exceeding 1,000 ppm Cu assayed by Atomic Absorption ("AA") and gold determined by the Fire Assay ("FA") method (Schubert, 2023b; Schubert, 2024a). The Company and the Author are independent of the laboratory ALS Global and ALS-Patagonia.

11.1.3 QA/QC Procedures

High-, medium- or low-grade copper standards (Table 11-2) or a silica blank, were inserted every 20 samples (~20 m); a blank was always inserted immediately after a section with native copper (*see* Table 11-1). Pulp duplicates were randomly chosen proportion to the number of samples per drill hole. The sample identifications were changed and coded by the Company (Schubert, 2024a). The QA/QC samples prepared by the Company represent about 12% of the total primary core samples.

The three (3) copper standards (both oxide and sulphide), acquired from Chilean company Instituto Nacional de Technologia Estandarizacion y Metrologia Ltda. ("INTEM"), all have international standard certification. The certified standards were used to evaluate the accuracy (approximation versus true value) of the laboratory analysis. Blanks were used to evaluate the quality of the laboratory preparation and identify possible contaminations. The pulp duplicates were used to test analytical accuracy (repeatability). No secondary laboratory (referee lab) samples were completed in this round of drilling; however, the next stage and subsequent stages of drilling will put in place laboratory replicate procedures (Schubert, 2024a).

The pulps and rejects of crushed samples were collected from the ALS-Patagonia laboratory in Copiapó every 3 months. The rejects are stocked in closed drums (Figure 11-2), identified with the corresponding batches and sample ranges, while the pulps are stocked in boxes and in shelves inside a container separated for this purpose. Both are located in the same warehouse facilities (Schubert, 2024a).

A visual review of the QA/QC results from the standards and blanks inserted by the Company and the laboratory's internal QA/QC information was completed by the Company and the Author and no significant issues were identified.

Table 11-2. Summary of INTEM certified standards used in the 2023-2024 diamond drilling program.

Standard	Type	Cu(T) (%)	Cu(S) (%)	2 SD (95%)	Min.	Max.
IN-M563-276	Cu-Oxide	-	0.215	0.023	0.192	0.238
IN-M526-238	Cu-Sulphide	0.717	-	0.021	0.696	0.738
IN-M140-61	Cu-Sulphide	0.357	-	0.011	0.346	0.368
IN-M329-165	Cu-Oxide	-	0.658	0.017	0.641	0.675
IN-M470-208	Cu-Oxide	-	0.991	0.077	0.914	1.068
IN-M269-129	Cu-Sulphide	1.196	-	0.030	1.166	1.226

Figure 11-2. Rejects (left) and Pulps (right) from the 2023-2024 diamond drilling program are stored in labelled and weatherproof barrels at the rented warehouse, south of Copiapó (Caracle Creek, 2024).

11.2 DTH Air Core Drilling (2024)

At the drill site, the field geologist oversaw the verification of the sample cuttings ejected by the drill through a cyclone and deciding when the machine reached bed rock and when sampling should begin.

Once bedrock was reached, two runs of 1.5 m each are completed, generating two samples. Using a Riffle-Splitter, each of the samples was quartered and half of that sample was bagged and stocked. The other half went through a 2 mm sieve in the field, generating two fractions: a fine fraction, which was bagged and sent for XRF analysis (Ptolemy Mining's XRF lab in Santiago), and a coarse fraction, which was washed and used for geological description (Schubert, 2024a). Samples were transported from the warehouse to Santiago by bonded and secure Chilean company Starken.

In Santiago, the samples were assayed at Ptolemy Mining's XRF lab using a bench mounted XRF. All samples which were >1,000 ppm Cu in the XRF assay had its integral sample collected and sent to ALS Laboratory in Lima, Peru for assay. At ALS, the samples were prepared and analyzed (36 element) using ICP analysis (ME-ICP 41). The Company and the Author are independent of the laboratory ALS Global and ALS-Patagonia.

12.0 DATA VERIFICATION

12.1 Internal-External Data Verification

The Author (QP) has reviewed historical and current data and information regarding past and current exploration work on the Property, and as provided by the Issuer Fitzroy Minerals, the target company PML, and that available in the public domain. The Author has no reason to doubt the adequacy of historical sample preparation, security and analytical procedures as presented, and have confidence in the historical information and data and its use for the purposes of the Report as described in Section 2.1 - Purpose of the Technical Report.

The Author has independently reviewed the status of the mining claims held by the Issuer through the Government of Chile's online system (Catastro Minero) which is administered by SERNAGEOMIN.

12.2 Verification Performed by the QP

Dr. Scott Jobin-Bevans (P.Geo., PhD), QP for the Report visited the Property on 13 and 14 August 2024. The 13 August was spent at the Manto Negro Mine and area whereas the 14 August was spent reviewing drill core intersections against assay results along with a review of the QA/QC procedures and the core preparation facilities south of Copiapó. The Author was accompanied by Gilberto Schubert (Technical Advisor, Fitzroy Minerals) and two Company Geologists (Felipe Fuenzalida and Ricardo Lobos).

The Personal Inspection of the Project was made as a requirement of NI 43-101 for the preparation of the Report and to observe general access and conditions, to observe surface copper mineralization, to note any historical workings and selected drill hole collars from the 2023-2024 diamond drilling program (*see* Section 2.5 – Personal Inspection).

The Author confirmed the presence of copper oxide mineralization, and the general geology as described by previous operators, PML, and Fitzroy Minerals.

12.3 Comments on Data Verification

It is the Author's opinion that where known, the procedures, policies and protocols for geophysical surveys, geological mapping, rock sampling, geological mapping, diamond drilling (core sampling) and DTH drilling (chip samples) are sufficient and appropriate and that the assay procedures and assay results are consistent with good exploration and operational practices, such that the data and information is reliable for the purposes of the Report (*see* Section 2.1 – Purpose of the Technical Report).

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Issuer Fitzroy Minerals Inc. has not completed any mineral processing and/or metallurgical test work on material derived from the Buen Retiro Copper Project.

14.0 MINERAL RESOURCE ESTIMATES

There are no current or historical mineral resource estimates associated with the Buen Retiro Copper Project.

15.0 MINERAL RESERVES

This section is not applicable to the Project at its current stage.

16.0 MINING METHODS

This section is not applicable to the Project at its current stage.

17.0 RECOVERY METHODS

This section is not applicable to the Project at its current stage.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to the Project at its current stage.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to the Project at its current stage.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable to the Project at its current stage.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to the Project at its current stage.

22.0 ECONOMIC ANALYSIS

This section is not applicable to the Project at its current stage.

23.0 ADJACENT PROPERTIES

The Author (QP) is not aware of any adjacent properties which have an important bearing on the potential of the Buen Retiro Copper Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

The Author (QP) is not aware of any additional information or explanations necessary to make the Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

The objective of the Report was to prepare an independent NI 43-101 Technical Report, capturing historical and current information and data available about the Buen Retiro Copper Project, providing interpretation and conclusions, and making recommendations for future work.

25.1 Property Description

The Buen Retiro Copper Project is located about 50 km south of the City of Copiapó, about 50 km directly east from the coast, with the Pan-American Highway (Ruta 5) cutting through the Sierra Fritis concessions in the eastern part of the Property. The Project is in the Atacama Region III, Copiapó Province and Copiapó Comuna.

The concessions that comprise the Buen Retiro Copper Project comprise 70 mining concessions, covering approximately 13240hectares. The Buen Retiro Property is centred at approximately WGS84 19S 346946mE, 6920447mS (Lat/Long -27.831922°/-70.554139°).

The concessions that comprise the Buen Retiro Copper Project are at the Explotación stage. Property rights associated with Explotación concessions are permanent, and the concessions do not expire once constituted as long as the annual fees are paid. The holding cost for the 78 constituted concessions paid in March 2024 was approximately CLP$182.462.874 (US$193,410); payment is due annually, prior to 31 March.

25.2 Geology and Mineralization

The Buen Retiro Project is in the Atacama Region of north-central Chile and is within the extensive Andean metallogenic iron belt, often referred to as the Chilean Iron Belt (“CIB”) or the Coastal IOCG Belt. The CIB extends from immediately north of the capital City of Santiago through northern Chile, just south of Antofagasta and then continues northward from the southern border of Peru and into the Lima area, a total length of about 2,000 kilometres (Sillitoe, 2003).

The CIB hosts several significant mineral deposits that range from iron oxide-apatite (IOA), IOCG to Manto-type copper deposits. Within the CIB, the Atacama Region is one of the best endowed areas with significant IOA deposits such as Los Colorados or Algarrobo and the Candelaria-Punta del Cobre district, the largest IOCG district of the belt, together with the Mantoverde IOCG/Manto deposit (del Real, 2024; *e.g.*, Sillitoe, 2003).

IOCG deposits comprise a broad and poorly defined set of mineralization styles which, as the name implies, are grouped together chiefly because they contain considerable amounts of hydrothermal magnetite and/or specular hematite in addition to copper oxide and copper sulphide minerals such as cuprite, chalcocite, chalcopyrite, and bornite (*e.g.*, Ray and Lefebure 2000). Besides the copper and by-product gold, the deposits may also contain appreciable amounts of Co, U, REE, Mo, Zn, Ag and other elements. IOCG deposits currently account for <5 and <1%, respectively, of the world’s annually mined copper and gold production, much of it derived from Olympic Dam and Ernest Henry in Australia and Candelaria and Mantoverde in Chile (Sillitoe, 2003).

25.3 Target Deposit Type

There are two deposit types being explored for within the Buen Retiro Copper Project: (1) Andean Iron Oxide Copper-Gold (IOCG) vein systems and (2) deeper-larger porphyry copper deposits (“PCD”).

The Andean IOCG deposit types in the Coastal Cordillera of northern Chile comprise iron oxide copper-gold (sensu stricto), iron oxide-apatite (IOA), and stratabound/replacement Cu(-Ag) deposits, also known as Manto-type Cu(-Ag) deposits (Barra *et al.*, 2017). IOCG and Manto-type deposits constitute the second most important source of copper in Chile after porphyry Cu-Mo systems, whereas IOA deposits are an important source of iron.

IOCG type deposits within the Coastal Cordillera of northern Chile appear to have a strong spatial and temporal relationship with the Atacama Fault System ("AFS"). Defined primarily by their elevated hydrothermal magnetite and/or specular hematite contents, accompanied by chalcopyrite ± bornite and by-product gold, IOCG type deposits constitute a broad, imprecisely defined deposit type that is related to a variety of tectono-magmatic settings. The youngest IOCG belt is in the Coastal Cordillera of northern Chile and southern Peru, where it is part of a volcano-plutonic arc of Jurassic through Early Cretaceous age and closely associated with Mesozoic batholiths and major arc-parallel fault systems (Sillitoe, 2003).

Mineralized systems associated with PCDs commonly include polymetallic skarn, carbonate replacement and stratabound (*i.e.*, Manto-style copper), sediment-hosted gold silver, and high-, intermediate-, and low-sulfidation epithermal silver-gold-base metal deposit types (Sillitoe and Perello, 2005; Sillitoe, 2010).

Porphyry Copper Deposits are typically hosted by intermediate to felsic intrusives, with porphyritic textures and often associated with multiple intrusive events that form composite intrusion centres (Seedorff *et al.*, 2005). A commonly occurring alteration zoning exists in PCDs with potassic alteration (K-feldspar-biotite) at the core, followed by sericitic alteration (muscovite/sericite ± chlorite), and finally clay dominant alteration assemblages distal from the intrusive centre (Seedorff *et al.*, 2005). Mineralization is most commonly vein-hosted and include sulphide-rich veins (*i.e.*, copper sulphides) associated with potassic alteration and pyritic veins with sericite halos; veins may also form stockworks (Seedorff *et al.*, 2005). Ancillary minerals in PCDs which can be of potential economic importance include gold, molybdenum, tungsten, and tin.

25.4 Historical Exploration Work

One of the more significant precious metal and copper producing belts in Chile, the region around the Buen Retiro Copper Project offers an opportunity for the discovery of shallow copper-rich deposits and deeper porphyry copper deposits.

The earliest ownership of at least part of the current Property can be traced to 1963 when CORFO staked what was the referred to as the Sierra Fritis property which covered what was viewed as an important magnetic anomaly.

Since that time the Project and immediate area has seen geological mapping and rock sampling (2004-2005), geophysics (2005), and reverse circulation drilling (2004-2005) by Teck Cominco and JOGMEC, geological mapping (2004), diamond drilling and reverse circulation drilling (2003-2004), trenching (2004), geophysics (2004-2008), and a PEA study (2005).

Post-production, in 2009, additional exploration work included geophysics (2011), diamond drilling (2011-2012), air core drilling (2011), and geophysics (2015).

25.4.1 Historical Production

In January 2005, NCL Ingeniería y Construcción S.A. prepared a conceptual study for Pucobre which examined the feasibility for the mining of the Manto Negro Deposit with a plan to truck the mined ore to Pucobre's

Biocobre SX-EW plant located 70 km by road near Copiapó (NCL, 2005). The economic study considered both open pit and underground extraction models but determined that an open pit mining scenario was much more favourable than underground.

The mining plan called for production of 500,000 tpm and applying a 5% mining dilution calculated that the open pit held approximately 1.065 Mt at 2.17% Cu(T) or 1.80% Cu(S). Pucobre acted on this economic report and put the Manto Negro Mine into production in 2005, producing from an open pit operation through 2009 that totalled 1,311,867 tonnes mined at 1.19% Cu(S) (copper oxide).

25.5 Exploration

Since 2023, Ptolemy Technical Services SpA (PTSS) has completed geophysical surveys (gravity, IP/Resistivity), aero photogrammetric and topographic survey, diamond drilling, DTH air core drilling, research studies (field visit), and petrographic and lithological studies.

25.6 Drilling

In 2023 and 2024, two programs of drilling were completed on the Property by PML, overseen by its subsidiary PTSS, both based in Chile: (1) Diamond Drilling on the Buen Retiro and Sierra Fritis concessions (4,558 m in 15 holes) and (2) Down-the-Hole (DTH) air core drilling on a set grid in the area around diamond drill hole BRT-DDH003 (585.28 m in 43 holes).

Between November 2023 and May 2024, PTSS completed 15 NQ-size diamond drill holes (BRT-series) totalling 4,555.20 m on the Buen Retiro Property and two scout holes on the Sierra Fritis Property (SFR-series) totalling 868.50 metres. A total of 5,423.70 m was drilled, 5,173.70 m was recovered and geo-logged and 4,764.70 m of half core samples were collected.

The diamond drilling program was successful in confirming and identifying the main trend of copper mineralization that extends north and south of the historical Manto Negro Mine. The DTH air core drilling focused around hole BRT-DDH-003 also delivered positive results, confirming that a copper-rich structural corridor exists north of the historical Manto Negro Mine.

25.7 Exploration Potential

The geological characteristics described for the Buen Retiro Project together with its geographic location within the Chilean Iron Belt make the Project an interesting prospect for further IOCG and IOA exploration. The Project shows characteristics typical of IOCG-rich districts, which can be divided into (del Real, 2024):

1. Hydrothermal alteration paragenesis represented by early Na-Ca alteration overprinted by biotite-K-feldspar-magnetite/hematite alteration associated with sulphide mineralization and later chlorite-epidote alteration;
2. Favorable host rocks, where alteration and mineralization in the Project is hosted in the Punta del Cobre Formation (volcanic-volcanic sedimentary), one of the main hosts for IOCG mineralization in the region;
3. Associated magmatism with the main intrusions in the Project being the Barros Luco diorite and the Sierra de Atacama diorite; both intrusive units have ages and a composition associated with IOCG mineralization in the region, suggesting that these intrusions could be the fluid source for mineralization within the Project and area; and

4. Favorable structural control where ground magnetics geophysics carried out over the Property show a strong north-northeast structural control in the area which is host to the Manto Negro Copper Deposit. Deformation with the north-northeast orientation hosts significant IOCG and IOA mineralization in the region (*e.g.*, Filipina-Astillas and Los Colorados deposits), and north-south to north-northeast faulting in the region is associated with the Atacama Fault System which hosts IOCG- and IOA-type deposits.

The Project is also located just west of other IOCG and IOA deposits, such as the San Marcos IOCG skarn (13 km to the east of Buen Retiro) and the Bandurrias IOA deposit (15 km to the east of Buen Retiro).

25.8 Risks and Uncertainties

Risks and uncertainties which may reasonably affect reliability or confidence in future work on the Property relate mainly to the reproducibility of exploration results (*i.e.*, exploration risk) in a future production environment. Exploration risk is inherently high, and in the case of Buen Retiro, the exploration for IOCG and porphyry copper-gold deposits and related mineralization is mitigated by applying the latest surface sampling techniques, geophysical surveys and targeted and efficient drilling programs aimed at developing high-confidence targets.

The Author is not aware of any other significant risks or uncertainties that would impact the Issuer's ability to perform the recommended work program (*see* Section 26.0 - Recommendations) or other future exploration work programs on the Property.

25.9 Conclusions

Based on the Property's favourable location within the prolific Chilean Iron Belt and the exploration potential for copper-gold mineralization associated with IOCG- or PCD-type deposits, the Property presents an excellent opportunity for the exploration and discovery of a copper and copper-gold deposits.

Characteristics and potential of the Buen Retiro Project are of sufficient merit to justify additional exploration work including surface sampling and drilling programs.

26.0 RECOMMENDATIONS

It is the opinion of the Author (QP) that the geological setting and character of the copper mineralization discovered to date on the Buen Retiro Copper Project is of sufficient merit to justify additional exploration and development expenditures. A recommended work program, arising through the preparation of the Report and consultation with Fitzroy Minerals Inc., is provided below.

The Project has seen a significant mount of work within the area around the Manto Negro Mine and Bueno Retiro concessions (geological mapping, geophysical surveys, rock sampling, and diamond and DTH drilling) but there is considerable opportunity for exploration and discovery within the larger area covered by the Sierra Fritis concessions.

The Author recommends a two-phase program with Phase 2 contingent on the success (results) of Phase 1 (Table 26-1). The Phase 1 component is proposed to include data compilation and review, 2D and 3D modelling and targeting, and 2,441 m of diamond drilling targeting high priority targets (approx. C$1.1M). Contingent on the results of Phase 1, Phase 2 (approx. C$2.7M) is proposed to include updated modelling and targeting, followed by 6,481 m of diamond drilling, designed to test any new targets, but also previously developed targets based on geophysical, geochemical, and geological exploration work (Table 26-1).

The Phase 1 exploration program should be able to be completed within a 12-month period. The approximate annual cost to renew the concessions has also been included in the Phase 1 budget.

Table 26-1. Budget estimate, recommended Phase 1 & Phase 2 exploration programs, Buen Retiro Copper Project, Chile.

Item	Description	Unit	No. Units	US$/Unit	C$/Unit	Amount (C$)
Phase 1						
Data and Information Compilation/Review	review of all data and information	hr	32	$160	$216	$6,912
Modelling (2D/3D) and Targeting	drill hole targeting/planning	hr	40	$200	$270	$10,800
Diamond Drilling - priority targets	2,400 m (NQ); all-in costs	m	2,441	$185	$250	$609,640
Assays (multi-element and Au) - drill core	about 85% of total metres sampled (per metre)	ea.	2,075	$35	$47	$98,037
QA/QC	CRMs and duplicates (10% of primary samples)	ea.	207	$75	$101	$21,008
Personnel - drilling program	2 geologists and 2 assistants	day	57	$1,300	$1,755	$100,799
G&A	food, accommodation, vehicles, fuel, supplies, etc. (~10% of program)	ea.	1	$61,025	$82,384	$82,384
Mining Patents	Mining fees for the concessions	ea.	1	$80,000	$108,000	$108,000
Contingency (10%)		ea.	1		$92,958	$92,958
					Phase 1 (C$):	**$1,130,537**
Item	**Description**	**Unit**	**No. Units**	**US$/Unit**	**C$/Unit**	**Amount (C$)**
Phase 2 - Contingent on the results of Phase 1						
Update 2D/3D Models and Targeting	drill hole targeting/planning	hr	16	$200	$270	$4,320

Item	Description	Unit	No. Units	US$/Unit	C$/Unit	Amount (C$)
Diamond Drilling - follow up and secondary targets	6,522 m (NQ); all-in costs	m	6,481	$185	$250	$1,618,630
Assays (multi-element and Au) - drill core	about 85% of total metres sampled (per metre)	ea.	5,509	$35	$47	$260,293
QA/QC	CRMs and duplicates (10% of primary samples)	ea.	551	$75	$101	$55,777
Personnel - drilling program	2 geologists and 2 assistants	day	152	$1,300	$1,755	$267,627
G&A	food, accommodation, vehicles, fuel, supplies, etc. (~10% of program)	ea.	1	$162,025	$218,734	$218,734
Contingency (10%)		ea.	1		$242,538	$242,538
					Phase 2 (C$):	**$2,667,919**

*does not include local taxes, fees, tenement payments, or corporate/management overhead; USD$1 = C$1.35

26.1 Proposed Drilling Targets

The 1,300 m northeast trend, defined by geophysics, the BRT-series diamond drilling and the DTH drilling around diamond drill hole BRT-DDH003 (Figure 26-1), should be drill tested as part of the recommended Phase 1 exploration program which includes 2,441 m of diamond drilling (*see* Table 26-1). Preliminary locations of the diamond drill holes and their attributes (length, Az, dip) are listed in Table 26-2 and shown in Figure 26-1. Exact locations of these drill holes should be determined after a comprehensive review of the data and information; 400 m contingency has been added to the drilling metres.

Table 26-2. Preliminary diamond drill holes for proposed drilling programs, Buen Retiro Copper Project, Chile.

Platform	Phase	*UTMX (mE)	*UTMY (mN)	*UTMZ (m)	Length (m)	Az	Dip
P14	1	345038	6922603	364	450	90	-45
P15(A) or 15(B)	1	344881	6922703	352	317	90	-45
P17	1	345032	6923015	355	470	90	-45
P18	1	345206	6923203	360	370	90	-45
P19	1	345294	6923403	359	374	90	-45
P20	1	345013	6922853	357	460	90	-45
				Total (P1):	**2,441**		
P1	2	345291	6921503	383	155	270	-49
P2	2	345299	6921403	376	176	270	-48
P3	2	345345	6921303	373	269	270	-48
P4	2	345321	6921723	382	265	245	-45
P5	2	344822	6921111	386	255	63	-45
P6	2	344821	6921111	385	193	243	-60
P7	2	344711	6921381	385	250	75	-45
P8	2	344696	6921497	390	169	81	-45
P9	2	344656	6921645	385	420	81	-45
P10	2	345049	6920739	361	282	77	-45
P11	2	345096	6920594	362	250	82	-45
P12	2	345352	6920903	367	270	267	-45
P13	1	345047	6922453	368	348	90	-45

Platform	Phase	*UTMX (mE)	*UTMY (mN)	*UTMZ (m)	Length (m)	Az	Dip
P16	2	345666	6922803	366	363	260	-45
P21	2	344106	6920175	348	400	50	-45
P22	2	345672	6922095	378	400	247	-50
P23	2	345606	6922365	374	300	250	-45
P24	2	344196	6920536	352	290	56	-46
P25(A)	2	345019	6921953	380	270	90	-58
P26	2	346208	6920353	385	530	292	-61
P27	2	345023	6922103	380	227	90	-56
Contingent	-	-	-	-	400	-	-
				Total (P2):	**6,481**		

*WGS84 19S; location of drill holes P15(A) or P15(B) to be determined in the field.

26.2 General Recommendations

As pointed out by del Real (2024), it is important to understand geological controls on mineralization to generate new exploration targets, especially given the large area covered by the Sierra Fritis Property. In addition to drilling, the following recommendations should be considered for the next phase of exploration:

1. Comprehensive Data Compilation and Targeting – compile and review all historical exploration data and information collected on the Project to date and from this design the next field program(s).
2. Detailed Geological Mapping – build on historical geological mapping with targeted detailed mapping and sampling of the Punta del Cobre Formation on and around the Project, with the objective of finding potential permeable horizons favourable for Manto-style replacement mineralization which may exist under cover on the Property. Mapping should focus on mineralization and alteration paragenesis, vein orientation (*i.e.*, preferred vein orientation for sulphide bearing veins versus barren veins), and changes in lithology and structures. Understanding in detail the mineralization controls in the mine and any exposed outcrops within or around the Property could assist in projecting mineralization at depth, along strike, and in looking for potential new targets (del Real, 2024).
3. Diorite Intrusions: del Real (2024) emphasized the importance of understanding and characterizing the diorite unit intercepted by drilling in the Sierra Fritis area. A comparison of the Sierra Fritis diorite with diorite from the Barros Luco and Sierra de Atacama should be made to establish any correlation or similarities between lithologies and potential age and in turn any first order structural control of mineralization. It is possible that, as the Buen Retiro Project is situated between intrusions of both ages, it the Sierra Fritis diorite could host mineralization related to both diorites (del Real, 2024).

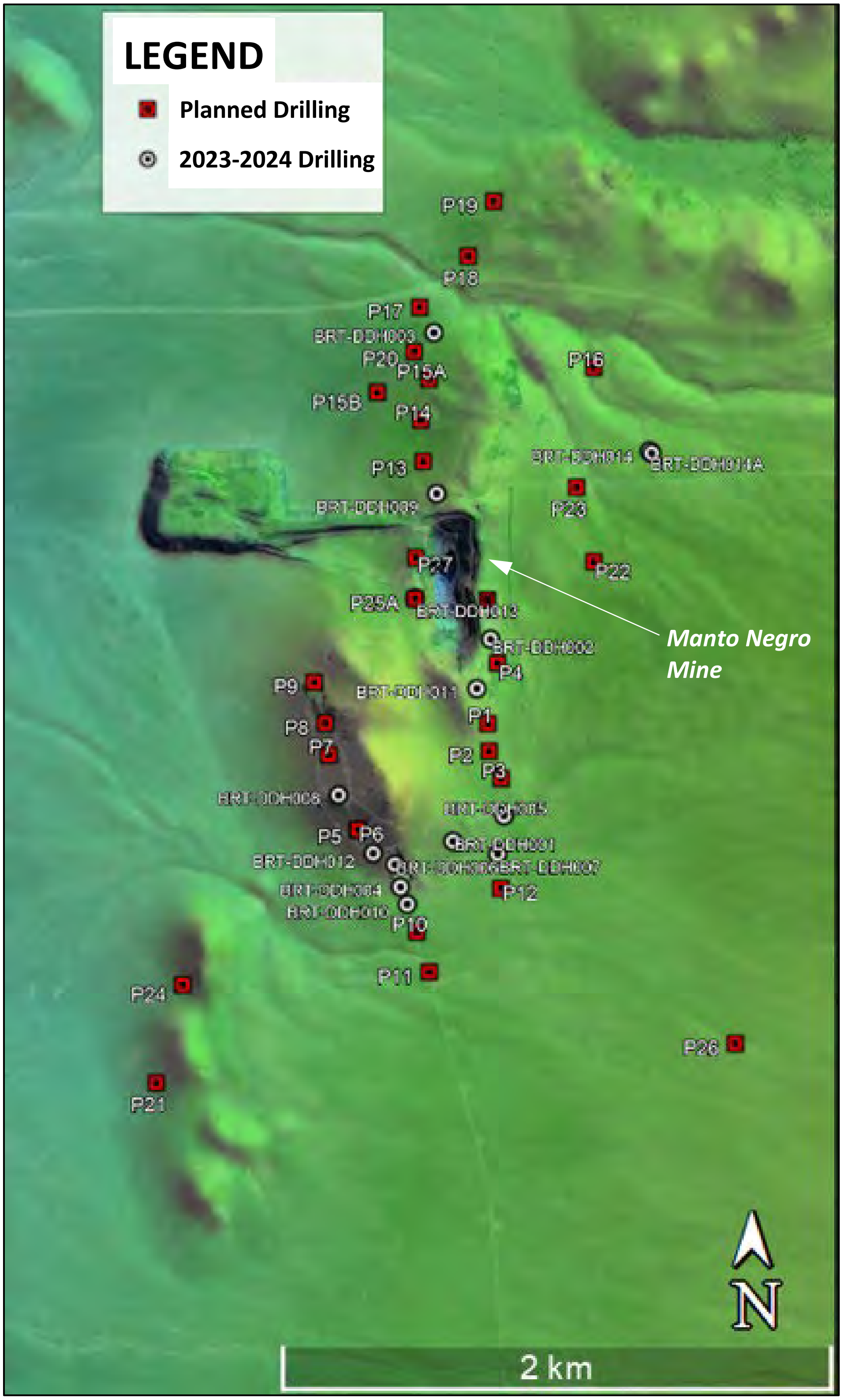


Figure 26-1. Location of the preliminary planned diamond drill holes (red collars, P-series), part of the recommended Phase 1 and Phase 2 exploration programs, for the Manto Negro and Buen Retiro properties; also shown are the locations of historical 2023-2024 drill hole collars (white circles, BRT-series) completed by the Vendor and the location of the Manto Negro open pit (Fitzroy, 2024).

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