

Updated NI 43-101 Technical Report

for the

# Cobrasco Porphyry Copper-Molybdenum Project

Department of Chocó, Republic of Colombia

For

Rugby Resources Limited Suite 1890, 1075 West Georgia Street Vancouver, British Columbia V6E 3C9, Canada

By

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> Effective date: 23 April 2025 Signature date: 6 June 2025

# **Date and Signature Page**

The effective date of this technical report, entitled "Updated NI 43-101 Technical Report for the Cobrasco Porphyry Copper-Molybdenum Project, Department of Chocó, Colombia" is 23 April 2025.

(signed) "Stewart D. Redwood"

Stewart D. Redwood

Dated: 6 June 2025

## **Author's Certificate**

- I, Stewart D. Redwood, BSc (Hons), PhD, FIMMM, QMR, FGS, FSEG hereby certify that:
  - 1. I am a Consulting Economic Geologist with address at P.O. Box 0832-0757, World Trade Center, Panama City, Republic of Panama.
  - 2. I am the author of the technical report titled "Updated NI 43-101 Technical Report for the Cobrasco Porphyry Copper-Molybdenum Project, Department of Chocó, Colombia" (the Technical Report) with an effective date of 23 April 2025.
  - 3. I graduated from the University of Glasgow with a First Class Honours Bachelor of Science degree in Geology in 1982, and from the University of Aberdeen with a Doctorate in Geology in 1986.
  - 4. I am a Fellow in good standing of The Institute of Materials, Minerals and Mining, Number 47017.
  - 5. I have more than 40 years' experience as a geologist working in mineral exploration, mine geology, and mineral resource and reserve estimations on projects worldwide with specialisation in Latin America.
  - 6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional organization (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
  - 7. I made a current personal inspection of the Cobrasco Project on 15 to 17 April 2024.
  - 8. I am responsible for all sections of the Technical Report.
  - 9. I am independent of Rugby Resources Limited applying all of the tests in Section 1.5 of NI 43-101.
  - 10. My only prior involvement with the project was the write a NI 43-101 Technical Report for Rugby Mining (now Rugby Resources Limited) dated 25 August 2014.
  - 11. I have read NI 43-101 and the Technical Report has been prepared in compliance with that instrument.
  - 12. As of 23 April 2025, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
  - 13. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the company files on their websites accessible by the public, of the Technical Report.

Dated 6 June 2025
(signed) "Stewart. D. Redwood"
Stewart D. Redwood

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## **Abbreviations**

A list of the abbreviations used in the report is provided in Table 0.1. All currency units are stated in US dollars, unless otherwise specified. Quantities are generally expressed in the metric International System (SI) of units.

Description	Abbreviation
Agustin Codazzi Geographical Institute (Instituto Geografico Agustin Codazzi)	IGAC
Atomic absorption spectrometer	AAS
National Environmental Licensing Authority	ANLA
West German Federal Institute for Geosciences and Natural Resources ( <i>Bundesanstalt für Geowissenschaften und Rohstoffe</i> )	BGR
Regional Autonomous Corporations	CAR
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Canadian Dollar	CDN\$
Centimetre(s)	cm
General Community Council of the Integrated Campesino Association of the Atrato ( <i>Consejo Comunitario Mayor de la Asociación Campesina Integral de Atrato</i> )	Cocomacia
Regional Autonomous Corporation for the Sustainable Development of Chocó ( <i>Corporación Autónoma Regional para el Desarrollo Sostenible del Chocó</i> )	Codechoco
Republic of Colombia	Colombia
Colombian Geological Survey (Servicio Geológico Colombiano)	SGC
Colombian Institute of Rural Development (Instituto Colombiano de Desarollo Rural)	INCODER
Colombian Peso	СОР
Certified Standard Reference Materials	CSRM
Degree(s)	0
Degrees Celsius	°C
Digital elevation model	DEM
United States' Dollar(s)	US\$
Environmental Impact Study (Estudio de Impacto Ambiental)	EIA
Environmental Management Plan (Plan de Manejo Ambiental)	PMA
Environmental Mining Guide (Guia Minero Ambiental)	GMA
Forestry Reserve Extraction (Sustraccion de Reserva Forestal)	FRE
Geographical information system	GIS
Global satellite positioning system	GPS
Gram(s)	g
Grams per metric ton	g/t
Greater than	>
Hectare (s)	ha
Hertz	Hz
Inductively coupled plasma spectrometer	ICP
Inductively coupled plasma atomic emission spectrometer	ICP-AES

Description	Abbreviation
Inductively coupled plasma mass spectrometer	ICP-MS
International Labour Organisation	ILO
Colombian Institute of Geology & Mining (Instituto Colombiano de Geología y Minería)	INGEOMINAS
International Organization for Standardization	ISO
Sales tax (Impuesto al Valor Aggregado)	IVA
Kilogram(s)	kg
Kilometre(s)	km
Square kilometre (s)	km2
La Muriel Mining Corporation	La Muriel
Less than	<
Meter(s)	m
Meters above mean sea level	masl
MCC Mining Corporation	MCC Mining
Million tonnes	Mt
Million Troy ounces	Moz
Million years old	Ма
Milligram	mg
Millimetre(s)	mm
Mine Plan	PTO
Minimum daily wage (Salario Mínimo Legal Diario Vigente)	SMLDV
Minimum monthly salary (Salario Mínimo Legal Mensual Vigente)	SMLMV
Ministry of the Environment and Sustainable Development (Ministerio de Ambiente y	MinAmbiente
Desarollo Sostenible)	
Ministry of Mines and Energy (Ministerio de Minas y Energia)	MME
Minutes	•
National Aeronautics and Space Administration	NASA
National Mining Agency (Agencia Nacional de Mineria)	ANM
National Mining Registry (Registro Minero Nacional)	RMN
Integral Mining Management System	SIGM
Not available or not applicable	n.a.
Ounces (Troy)	OZ
Parts per million	ppm
Percent(age)	%
Plus or minus	±
Prior Consultation process (Consulta Previa)	СР
Quality Assurance-Quality Control	QA-QC
Rio Tinto Mining and Exploration Colombia	Rio Tinto
Rugby Resources Limited	Rugby
	Resources
Système International d'Unités (International System of Units)	SI
Shuttle Radar Topography Mission	SRTM
Ton (metric)	t
Toronto Stock Exchange	TSX

Description	Abbreviation
United Nations Development Programme	UNDP
United States Geological Survey	USGS
Universal Transverse Mercator	UTM
Volador Colombia SAS	Volador

Table 0.1 List of abbreviations.

## 1 Summary

#### 1.1 Introduction

Dr. Stewart D. Redwood, Consulting Geologist, prepared this independent Qualified Person's Technical Report of the Cobrasco project in the Municipality of Quibdó, Department of Chocó, Republic of Colombia for Rugby Resources Limited (Rugby Resources), a Canadian company based in Vancouver whose shares are listed for trading on the Toronto Stock Exchange's Venture Exchange (TSX:V) with the ticker symbol RUG.V.

The terms of reference were to prepare an updated Technical Report as defined in Canadian Securities Administrators' National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1 (Technical Report) and Companion Policy 43-101CP.

## 1.2 Property Description and Location

The Cobrasco project is located in the Municipality of Quibdó, Department of Chocó, Republic of Colombia at 5°55′58″N, 76°25′5″W and between 230 m and 815 m altitude. The Cobrasco Project comprises one concession contract number IHS-08005X (Cobrasco) with an area of 3000.1076 hectares (ha) (about 30 km²) in two separate blocks. It is owned by Volador Colombia S.A.S. (Volador), a wholly owned subsidiary of Rugby Resources. It was granted on 28 February 2012 and registered on 17 October 2012. The concession is formed of two separate blocks joined along the western side by a nominal centimetre-wide strip.

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

The Cobrasco project is located 35 km NE of Quibdó, the capital of the Department of Chocó and the closest regional centre. The project is located in tropical rain forest with very high rainfall and poor infrastructure. Access is by helicopter or by river and foot trails. It is located in the western foothills or pre-montane zone of the Western Cordillera with hilly topography. The project is centred on the Comita River on the Negua River catchment which drains westwards into the Atrato River, a major river system which is navigable to the Caribbean Sea.

## 1.4 History

The Cobrasco project area was originally defined by a regional exploration programme carried out as a government technical cooperation programme by INGEOMINAS and the West German Federal Institute for Geosciences and Natural Resources (BGR) in 1984-1988, called the Mandé Project. The two-phase project discovered porphyry copper mineralisation over an area of 4 km by 1.5 km by stream sediment and rock sampling at Rio Comita. No drilling or any other follow up work was carried out.

## 1.5 Geology and Mineralisation

The Cobrasco project is located in the Western Cordillera in a belt of porphyry copper deposits of Eocene age which include, from south to north, Andagueda, Cobrasco-Comita, Pantanos-Pegadorcito, Murindo (aka Mandé Norte, La Rica), Acandi and Rio Pito (Panama). The mineralised porphyry intrusion at Cobrasco is located at the contact between the Mandé batholith and volcanic rocks of the Santa Cecilia-La Equis Complex.

The project geology comprises andesites and basalts of the Santa Cecilia-La Equis Complex in the west and granites of the Mandé Batholith to the centre and east, with mineralised porphyries located at the intrusive contact. Six intrusion types occur in the batholith which are diorite-diorite porphyry, intrusive breccia, dacite-rhyodacite porphyry, granite porphyry, granite-granodiorite, and gabbro. These are host to porphyry Cu-Mo mineralisation.

Drill core shows multiple phases of porphyry intrusions with intrusion breccias of early to postmineral age, and three relative ages and styles of Cu mineralisation. The first stage is Cu associated with chlorite-magnetite alteration in an early mineral diorite. The second and third stages of Cu mineralisation are associated with muscovite alteration in quartz porphyry. The second style of Cu mineralisation is disseminated sulphides comprising chalcopyrite, bornite and minor pyrite associated with muscovite alteration. This is developed extensively and has an average grade of about 0.4 to 0.5% Cu. The third stage is late veins and crackle breccias of chalcopyrite with bornite and anhydrite associated with muscovite alteration crosscutting the former with grades of 0.7 to >1% Cu. The presence of high grade hypogene Cu is significant for the economics of the deposit. There is supergene oxidation to saprolite but there is no significant supergene Cu enrichment.

# 1.6 Exploration

INGEOMINAS-BGR carried out geological mapping and geochemical exploration at Cobrasco in 1984-1988. This work defined a north-south trending copper-anomalous rhyodacitic porphyry intrusive unit with an area of approximately 4.0 km x 1.5 km.

Rugby Resources has carried out geophysical surveys by a helicopter magnetic, radiometric and altimetry survey and one IP profile, geological mapping with petrography, and geochemical surveys by stream sediments, soils and rock sampling.

Soil geochemistry defined a soil anomaly >250 ppm Cu in Cobrasco North which is about 2.5 km NS by 1.5 km wide. It is centred on the mapped dacite-rhyodacite stock. It coincides with Mo >4 ppm. Very limited soil sampling in the NE part of Cobrasco South identified additional Cu anomalies but the majority of the block has not been sampled by Rugby Resources.

Rock geochemistry defined an anomaly >1000 ppm Cu in Cobrasco North which is about 2.5 km NS by 1.5 km wide and is coincident with the soil anomaly. It coincides with Mo > 10 ppm.

## 1.7 Drilling

Rugby Resources drilled 3 inclined diamond core holes totalling 2,283.10 m in 2022 on geochemical and geophysical anomalies in the Cobrasco North concession. The holes were drilled from two platforms to depths of 1,036.4 m (CDH-001), 946.1 m (CDH-002) and 300.6 m (CDH-003). The last hole was stopped for the Christmas break with the intention to complete it to 1,300 m when drilling resumed. The results demonstrate Cu mineralisation with Mo and Ag over the length of the holes.

Significant results in hole CDH-001 were 808 m from 184 m depth grading 0.42% Cu, 79 ppm Mo and 1.12 ppm Ag (0.48% CuEq), including 138 m from 768 m depth grading 0.77% Cu, 164 ppm Mo and 2.34 ppm Ag (0.89% CuEq) and 82 m from 774 m depth grading 0.90% Cu, 199 ppm Mo and 3.05 ppm Ag (1.06% CuEq).

Significant results in hole CDH-002 were 70 m from 18 m depth grading 0.29% Cu, 50 ppm Mo and 2.59 ppm Ag (0.35% CuEq) and 754 m from 152 m depth grading 0.47% Cu, 76 ppm Mo and 1.18 ppm Ag (0.52% CuEq) including 172 m from 474 m depth grading 0.74% Cu, 78 ppm Mo and 1.98 ppm Ag (0.81% CuEq), effectively indicating mineralisation from surface.

Significant results in hole CDH-003 were 148 m from 8 m depth grading 0.20% Cu, 65 ppm Mo and 3.5 ppm Ag (0.28% CuEq) including 60 m from 20 m depth grading 0.27% Cu, 57 ppm Mo and 5.6 ppm Ag (0.38% CuEq), and 144.6 m from 156 m depth grading 0.69% Cu, 155 ppm Mo and 1.5 ppm Ag (0.79% CuEq) including 100.6 m from 200 m depth to the end of the hole grading 0.72% Cu, 210 ppm Mo and 1.6 ppm Ag (0.86% CuEq).

## 1.8 Mineral Processing and Metallurgical Testing

No mineral processing and metallurgical testing has been carried out on the Cobrasco Project.

#### 1.9 Mineral Resource Estimates

There are no mineral resource estimates for the Cobrasco Project that are compliant with the current CIM standards and definitions required by the Canadian NI 43-101 "Standards for Disclosure of Mining Projects".

## 1.10 Interpretation and Conclusions

Rugby Resources is the 100% owner of the Cobrasco concession contract (IHS-08005X). This covers a regional-scale base metal stream sediment geochemical anomaly and a mapped porphyry copper-molybdenum deposit as defined by historical exploration by a technical cooperation programme by INGEOMINAS and BGR in 1984 to 1987. Rugby Resources has carried out exploration since 2011 including helicopter magnetic, radiometric and altimeter surveys, mapping, geochemistry and a 3-hole diamond drill programme.

The exploration work has identified a large porphyry copper-molybdenum deposit with three stages of copper mineralisation. The first stage is copper associated with potassic alteration in an early mineral diorite. The second stage of copper mineralisation is disseminated sulphides related to muscovite alteration comprising chalcopyrite, bornite and minor pyrite. This is developed extensively and has an average grade of about 0.4 to 0.5% Cu. The third stage is veins and crackle breccias of chalcopyrite with anhydrite associated with muscovite alteration crosscutting the former with grades of over 1% Cu. The presence of high grade hypogene copper is significant for the potential economics of the deposit. There is supergene oxidation to saprolite but no significant supergene copper enrichment.

The QP concludes that the Cobrasco Project has the potential for the definition a large bulk mineable copper-molybdenum deposit, and that further exploration is warranted to test the economic potential. The exploration carried out to date is considered to supply sufficient information to plan further exploration.

The potential size and grade of the exploration target at Cobrasco is between 1,000 and 3,000 Mt at a grade of 0.42-0.46% Cu or 0.48-0.52% CuEq and containing higher grade zones. The lower limit of the size potential is based on the area tested by the first 3 drill holes of about 800 m diameter to a drilled depth of 800 m with an average specific gravity as measured of 2.5, while the upper limit is based on the size of the coincident soil anomaly >250 ppm Cu and rock anomaly

>1,000 ppm Cu in an oval of about 2,000 m long NS by 1,000 m wide to 800 m depth. The potential grade range is based on the intersections of the first 3 drill holes. The potential quantity and grade are conceptual in nature. There has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.

The target at Cobrasco is primary Cu and Mo sulphides in a porphyry system that would be amenable to mining by conventional open pit shovel and truck operation with beneficiation by crushing, grinding and froth flotation to produce sulphide concentrates.

The technical risk of the project is the inherent risk associated with the early exploration stage; in fact, the technical risk has been reduced by the positive results of the first three drill holes. The main project risks for drilling are delays in environmental permitting risk in the Pacific Forest Reserve, social risk in maintaining the social licence to operate within the Cocomacia Afro-Colombian land reserve, and security risk due to the regional presence of armed criminal organizations. Rugby Resources has implemented strategies to manage these risks.

The Cobrasco Project warrants further exploration by virtue of being a large sized outcropping porphyry Cu-Mo deposit that is mostly untested and is located in one of the few remaining underexplored porphyry belts in the world. Despite the current lack of infrastructure, the project lies only 30 km from a major navigable river which could be used for mine construction, supplies and export of concentrates in the future.

#### 1.11 Recommendations

The QP recommends that an additional drilling programme of 6 diamond holes of 1,000 m each for 6,000 m total is carried out at the Cobrasco Project in order to define the size and limits of mineralisation. Recommended drill holes are shown with Cu geochemistry in Figure 26.1. Prior to drilling it is recommended to carry out structural and geological mapping in order to define optimal hole locations. All new drilling should include the measurement of structures using downhole "televiewer" and orientated core. The estimated cost of the programme based on an all-inclusive cost of \$1,000 per meter is \$6,000,000 and is listed in Table 1.1. The estimated time to carry out the programme is 12 months using one drill rig.

Item Description	Cost (US\$)
Drill pad and access preparation	50,000
Diamond drilling: 6000m including assay costs @ \$325/m	1,950,000
Helicopter transport (12 month airborne support costs)	1,950,000
Camp and labour costs (Cobrasco field camp and Quibdo core yard)	1,500,000
Social development costs in the project area of influence	400,000
Environmental permitting	150,000
Total	6,000,000

Table 1.1. Estimated budget to carry out the recommended-up exploration programme in the Cobrasco Project.

## 2 Introduction

#### 2.1 Terms of Reference

Dr. Stewart D. Redwood, Consulting Geologist, prepared this independent Qualified Person's Technical Report of the Cobrasco Project in the Municipality of Quibdó, Department of Chocó, Republic of Colombia for Rugby Resources Limited (Rugby Resources), a Canadian company based in Vancouver whose shares are listed for trading on the Toronto Stock Exchange (TSX)'s Venture Exchange. The terms of reference were to prepare an updated Technical Report as defined in Canadian Securities Administrators' National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1 (Technical Report) and Companion Policy 43-101CP. The chapter numbers correspond to the Item numbers in Form 43-101F1.

## 2.2 Purpose of Technical Report

The Cobrasco Project is an exploration stage property for copper and molybdenum. The purpose of the updated Technical Report is to summarise the results of exploration and drilling carried out on the Project to date.

#### 2.3 Sources of Information

Most of the historic information for the Cobrasco Project, including geological, geochemical and structural data, was collected by the Colombian Institute of Geology and Mining (INGEOMINAS, Instituto Colombiano de Geología y Minería), now the Colombian Geological Survey (SGC, Servicio Geológico Colombiano) in conjunction with the West German Federal Institute for Geosciences and Natural Resources (BGR, Bundesanstalt für Geowissenschaften und Rohstoffe) in a technical cooperation programme in 1984-1988.

Rugby Resources provided access to all of their exploration data. The author considers that he has seen the most important reports and data and that there are no significant omissions of information. The reports that were consulted, as well as other published government reports and scientific papers, are listed in Item 27.

# 2.4 Current Personal Inspection

The author made a current personal inspection of the property on 15 to 17 April 2024, accompanied by Jon Hermanson, Vice President of Corporate Development of Rugby Resources, and Alvaro Castillo, Senior Geologist. The visit comprised one day at the project with access by helicopter in

order to see the drill platforms and to confirm the local geological setting, and two days in the field office in Quibdó to revise the drill core and review the geology. As of the effective date of this report no new technical work has been carried out on the project and the personal inspection remains current. A previous personal inspection was made in 2014 for the first technical report, when check samples were collected from outcrop.

# 3 Reliance on Other Experts

The author has relied on information supplied by Rugby Resources for the Property Description (Item 4.2) including permits required for exploration and has not carried out independent verifications of these. This includes legal information about the project from Laura Velasquez, Volador's in-house environmental and mining lawyer, and Ignacio Santamaria of Lloreda Camacho, Volador's independent legal counsel.

# 4 Property Description and Location

# 4.1 Property Location

The Cobrasco Project is located in the Municipality of Quibdó, Department of Chocó, Republic of Colombia at 5°55'N, 76°25'W (UTM WGS84, 18N 343026 E 655984 N) (Figure 4.1). The project is located in the western foothills of the Western Cordillera with hilly topography at altitudes between 230 m and 815 m above mean sea level (masl).



Figure 4.1 Location map of the Cobrasco Project, Department of Choco, Colombia.

## 4.2 Property Description

## 4.2.1 Legal Framework

All mineral resources in Colombia belong to the state and can be explored and exploited by means of concession contracts granted by the state. The mining authority is the National Mining Agency (Agencia Nacional de Minería or ANM). The Ministry of Mines and Energy (MME) is in charge of setting and overseeing the Government's national mining policies. Mining is governed by the Mining Law 685 of 2001 and subsequent decrees and resolutions, except for mining titles granted before that law, which are grandfathered by the law in place at the time of their granting (most commonly Decree 2655, 1988). Certain minor amendments to the law have been enacted by means of Laws 1450 of 2011, 1753 of 2015, and 1955 of 2019. Under the Mining Law 685 of 2001, there is a single type of concession contract covering exploration, construction and mining that is valid for 30 years and can be extended for another 30 years.

Mining Law 685 of 2001 was temporarily modified by Mining Law 1382 of 9 February 2010, a short-lived modification which was later ruled unconstitutional by the Colombian Constitutional Court in judgement C-366 of 11 May 2011, due to the failure on the part of authorities in complying with the constitutional mandate of consulting with the indigenous and Afro-Colombian communities as part of its International Labour Organisation (ILO) Convention 169 obligations. A two year extension of Mining Law 1382 was granted to give the federal authorities time to reform the law and consult with the ethnic communities, a task which was not completed. The extension period expired on 10 May 2013, and Mining Law 685 of 2001 regained full force and effect. In addition, the new National Development Plan (Law 1450 of 2011) included some of the changes of the annulled Law 1382, specifically article 108 regarding the extension of exploration periods to 11 years. In lieu of a new mining law, a series of decrees and resolutions were issued in 2013 to regulate mining as follows:

- Decree 935 (9 May 2013) which regulates the free areas, proposal evaluation, estimation of economical investment and rejection of proposals.
- Decree 943 (14 May 2013) which regulates the extensions for stages and concession contracts.
- Decree 1300 (21 June 2013) which defines how to support the execution of exploration works using an estimate for economical investment;
- Resolution 428 (23 June 2013) which adopts the terms of reference, mining environmental guidelines and the minimum exploration program as elements to evaluate the technical and economic contents of the proposal. This was amended by Resolution 551 (August 9, 2013) and subsequently superseded by Resolution 143 (March 29, 2017) as amended by Resolution 299 (June 13, 2018).

Under Mining Law 685 of 2001 there is a single type of concession contract covering exploration, construction and mining which is valid for 30 years and can be extended for a further 20 or 30 years, depending on whether the contract was signed and registered after or before the amendment of the Mining Law 1382 of 2010.

Concession contract areas are defined on a map with reference to a starting point (punto arcifinio) with distances and bearings, or map coordinates. The new application process for a concession contract introduced by the National Mining Agency is as follows:

- 1. Application Process: As of the issuance of Decree 2078 of 2019, the application is submitted through the Integral Mining Management System (SIGM) provided by the National Mining Agency. Applicants are required to purchase a PIN number from the ANM which they can use for a single application over a set period of time. PIN numbers cost one minimum monthly salary (SMLMV, Salario Mínimo Legal Mensual Vigente), which is currently about Colombian Pesos (COP) 1,423,500 (about \$460), plus sales tax (IVA) of 16%. The applicant is required to provide proof of technical and economic capacity, and an exploration proposal and budget for the application area. All documents are submitted digitally through the SIGM ANNA MINERA system. Furthermore, as of January 2023, pursuant to the Council of State's Ruling of 4 August 2022, applicants for a mining concession contract must obtain prior environmental certification confirming the project's environmental viability. This requirement is enforced under Article 34 of Law 685 of 2001 (Mining Code), as amended, in conjunction with the Circular issued by the Ministry of Environment and Sustainable Development on 19 January 2023 and Article 2 of Decree 107 of 26 January 2023. The National Environmental Licensing Authority (ANLA) or the relevant Regional Autonomous Corporations (CAR) are the designated entities responsible for issuing such certification in accordance with statutory provisions.
- 2. Technical Evaluation: The ANM carries out an evaluation of the application to determine compliance with the values of the Minimum Exploratory Program, in accordance with the provisions of Resolution No. 143 of 29 March 2017 and an evaluation of overlap with restricted areas for mining in accordance with Article 35 of Law 685 of 2001.
- 3. Environmental Evaluation: The ANM carries out an evaluation of the Environmental Certification to verify compliance with mining restrictions, particularly in areas excluded or environmentally sensitive under Decree 1076 of 2015 (Article 2.2.2.1.4) and Resolution 40361 of 2018 (which defines excluded zones per Article 34 of Law 685 of 2001). This evaluation ensures alignment with safeguards for protected areas, moorlands (páramos), water sources, and other ecologically critical zones, as mandated by Constitutional Court Ruling C-035 of 2016.

- 4. Financial Evaluation: The ANM carries out a financial evaluation to determine compliance with the documentation required to prove economic capacity in accordance with the provisions of Resolution 352 (4 July 2018) as partially amended by Resolution 1007 (30 November 2023).
- 5. Legal Evaluation: The ANM carries out a legal evaluation of the applicant and the application documentation to ensure all laws are adhered to. If successful the applicant is required to pay the first year's surface tax upfront (described below).
- 6. Mining Public Hearing: Upon successful completion of the technical, environmental, legal, and economic evaluations, the National Mining Agency carries out a Mining Public Hearing in order to make the concession proposal known to the different stakeholders in the territory.
- 7. Once all preliminary requirements are approved, the ANM prepares and signs the concession contract.
- 8. The contract is inscribed in the National Mining Registry (RMN, Registro Minero Nacional). The contract comes into effect on the date of registration.

A surface tax (canon superficiario) has to be paid for concession contracts annually in advance during the exploration and construction phases. The first payment is due when the concession contract is registered in the RMN. The value of the surface tax is defined by the law under which the concession contract was signed. In the case of the Cobrasco (IHS-08005X) concession, it was signed under the Mining Law 1382 of 2010 which defined the surface taxes as one minimum daily wage (SMLDV, Salario Mínimo Legal Diario Vigente) per hectare per year for years 1 to 5 (about \$11.10, 1.25 SMLDV for years 6 to 7 (about \$13.80), and 1.5 SMLDV for year 8 (about \$16.60). The 2010 Mining Law does not define the surface tax for years 9 to 11. A reasonable interpretation could be that the surface tax for years 8 to 9 should be 1.5 SMLDV (about \$16.60), and 1.75 SMLDV for years 9 to 11 (about \$19.40). This interpretation is made on the basis that the surface tax is increased every two years by 0.25 SMLDV per hectare per year. This issue needs to be resolved by the ANM. The minimum daily wage in 2025 is COP 47,450 which at the current exchange rate of COP 4,291.50 to US\$1.00 is about US\$\$11.10. The minimum daily wage is adjusted annually.

Under the Mining Law 685 of 2001, the surface tax varies with the size of the concession contract and is 1 SMLDV per hectare (about \$11.10) for areas up to 2,000 ha, 2 SMLDV per hectare (about \$22.20) for areas between 2,000 and 5,000 ha, and 3 SMLDV per hectare (about \$33.30) for areas above 5,000 ha.

Under the Mining Law 685 of 2001, the concession contract has three phases:

### 1. Exploration Phase:

- Starts once the contract is registered in the National Mining Registry.
- Valid for 3 years plus up to 4 extensions of 2 years each, for a maximum of 11 years.
- Annual surface tax payments required.
- Requires an annual Environmental Mining Insurance Policy (Poliza Minero-Ambiental) for 5% of the value of the planned exploration expenditure for the year. The insurance is taken out with any commercial insurance provider.
- Requires the presentation of a mine plan (PTO) and an Environmental Impact Study (EIA, Estudio de Impacto Ambiental) for the next phase.

#### 2. Construction Phase:

- Valid for 3 years plus a 1 year extension.
- Annual surface tax payments continue.
- Requires an annual Environmental Mining Insurance Policy for 5% of the value of the planned investment as defined in the PTO for the year.
- Environmental License issued on approval of Environmental Impact Study.

#### 3. Exploitation Phase:

- Valid for 30 years minus the time taken in the exploration and construction phases, and is renewable for 30 years.
- An annual Environmental Mining Insurance Policy is required equivalent to 10% of the estimated production in the PTO.
- No annual surface tax.
- Pay a royalty based on regulations at time of granting of the Contract.

## 4.2.2 Royalties and Taxes

Royalties payable to the state are 4% of gross value at the mine mouth for gold and silver and 5% for copper (Law 141 of 1994, modified by Law 756 of 2002). For the purposes of royalties, the gold and silver price is set by the government and is typically 80% of the average of the London afternoon fix price for the previous month.

Surface taxes are described in Item 4.2.1.

Corporate income tax is 25% on net profits. Sales tax (IVA) is 19%.

## 4.2.3 Cobrasco Project Mining Rights

The Cobrasco Project comprises one concession contract number IHS-08005X (Cobrasco) with an area of 3000.1076 ha (about 30 km<sup>2</sup>). It is located in the Municipality of Quibdó, Department of Chocó. It is described in Table 4.1 and is shown in a plan in Figure 4.2.

Concession contracts are identified in the Colombian Mining Cadastre by Claim Numbers (Codigo de Expediente). The first letter refers to the year in which the application was made, I indicating 2007 and J 2008. The concession contracts have not been surveyed in the field as this is not required by law.

Concession contract IHS-08005X is owned by Volador Colombia S.A.S. (Volador), a wholly owned subsidiary of Rugby Resources. It was granted on 28 February 2012 and registered on 17 October 2012. The concession consists of two separate blocks joined along the western side by a centimetre-wide strip.

The concession contract was granted under Mining Law 1382 of 2010. Although this law was subsequently cancelled, the concession contracts granted under this law continue to be governed by it, including the 11-year exploration period, and surface taxes based on the antiquity of the contract.

Claim Number		Date of Registration		Status		Granted Area (hectares)
IHS-08005X	28/08/2007	17/10/2012	16/10/2046	Granted	Volador Colombia SAS	3000.1076

Table 4.1 Description of the Cobrasco Project mining rights.

Table compiled from information supplied by Agencia Nacional de Mineria.

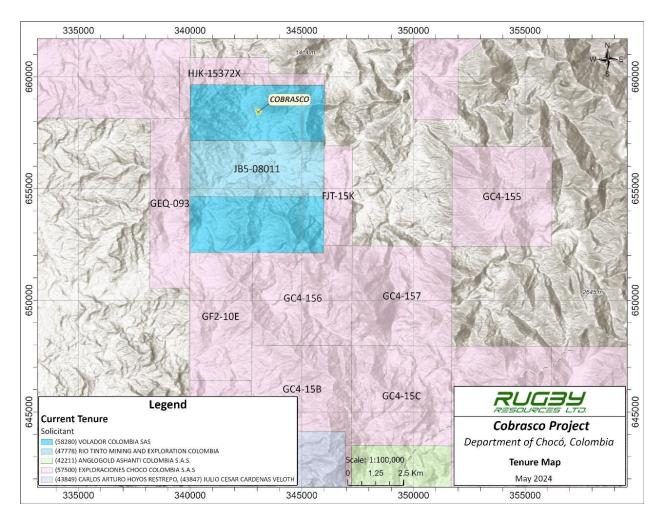


Figure 4.2. Map of the Cobrasco Project mining rights.

## 4.2.4 Environmental Regulations

Mining Laws 685 of 2001 and 1382 of 2010 require an annual Environmental Mining Bond to be posted for each concession contract. This is acquired via a commercial insurance provider. The environmental management of the exploration work is carried out in accordance with the guidelines of the Environmental Mining Guide (GMA, Guia Minero Ambiental) to be lodged with the regional environmental agency.

At the end of the Exploration Phase an Environmental Impact Study (EIA, Estudio de Impacto Ambiental) has to be presented if the concession is to proceed to the Construction Phase. This must be approved and an Environmental License issued before the Exploitation Phase can begin, subject to an Environmental Management Plan (PMA, Plan de Manejo Ambiental). The Environmental License includes all the environmental permits necessary for the development of the project such

as Surficial Water Concession (see Item 4.2.6.3), Forest Use Permit, Certificate of Vehicular Emissions, Emissions Permit, and River Course Occupation Permit.

Under Colombian mining and environmental laws, companies are responsible for any environmental remediation and any other environmental liabilities based on actions or omissions occurring from and after the entry into force and effect of the relevant concession contract, even if such actions or omissions occurred at a time when a third party was the owner of the relevant mining title. On the other hand, companies are not responsible for any such remediation or liabilities based on actions or omissions occurring before the entry into force and effect of the relevant concession contract, from historical mining by previous owners and operators, or based on the actions or omissions of third parties who carry out activities outside of the mining title (such as illegal miners).

The Cobrasco Project has no active or historical mining operations and as such there are no potential environmental liabilities.

#### 4.2.5 Pacific Forest Reserve

The project lies within the Pacific Forest Reserve (Reserva Forestal del Pacifico) which was formed in 1959. The reserve extends over much of western Chocó Department and parts of neighbouring departments. The reserve originally had an area of 111,552 km², but some 31,477 km² have been extracted, resulting in the current area of 80,105 km². It was created to manage the natural resources (water, forestry and mining) and the use of these resources is permitted subject to environmental regulations managed by the regional environmental agency Codechoco (Regional Autonomous Corporation for the Sustainable Development of Chocó or Corporación Autónoma Regional para el Desarrollo Sostenible del Chocó) and the Ministry of the Environment. A Temporary Forestry Reserve Extraction (FRE, Sustraccion de Reserva Forestal) is required prior to conducting sub-surface (drilling) exploration work but this requirement was exempted by Resolution 110 of 2022 (see Item 4.2.6.2).

There are no National Parks over the project area.

## 4.2.6 Permits Required for Exploration

Rugby Resources has been granted the required agreements for surface access and water use to carry out exploration, including drilling, on concession contract IHS-08005X (Cobrasco).

#### 4.2.6.1 Environmental Permits

Rugby Resources has posted an Environmental-Mining Bonds for the concession contract on an annual basis. Rugby Resources filed an Environmental Mining Guide for concession contract IHS-08005X in February 2013. The company filed a comprehensive update on 28 November 2022 incorporating complementary plans for drilling mud, closure /abandonment, and water efficiency.

## 4.2.6.2 Temporary Forestry Reserve Extraction

A Temporary Forestry Reserve Extraction permit is required over the project area prior to conducting sub-surface (drilling) exploration work. In effect this permit temporarily removes the forestry reserve status from a designated portion of the concession thereby allowing drilling to take place. The process requires a detailed social and environmental base-line study to substantiate this request.

Resolution 110 of 2022 allows exploration in Forest Reserves without a FRE subject to three conditions: 1) no forest harvesting, 2) no removal of forest cover, and 3) no fragmentation or degradation of forests. To date, all of Rugby Resources' exploration activities including drilling have been carried out under Resolution 110 with full compliance of its regulatory requirements including pre-activity reporting submitted to Ministry of the Environment.

Resolution R110 was repealed on 11 December 2024. This was accompanied by a new Resolution R1705 which has a prescribed methodology for reporting and applying for "land-disturbing work" within the Forestry Reserves. The Resolution includes the "Terms of Reference" for future FRE applications which describes the methodology that the Environmental Authority requires for future applications and supporting documentation. Future drill permitting in the Exploration phase, along with the ground-disturbing work in the Construction and Mining phases now requires the relevant Forestry Reserve Extraction process in accordance with R1705.

For all practical intents and purposes, the FRE methodology has reverted back to the original concepts of Mining Laws 685 of 2001 and 1382 of 2010 with the exception of submissions made during the period of R110's validity, which are considered grandfathered as it was the law at the time.

#### 4.2.6.3 Water Use Permit

Exploration activities require a Surficial Water Concession (Concesión de Aguas Superficiales) if this natural resource is to be utilised for drilling, camp consumption or other related use. Permits are obtained through the regional environmental authority Codechoco.

Volador applied for Surficial Water Concessions at five sites located across the project area on 2 February 2014. A site inspection was made by functionaries of Codechoco on 7 and 8 April 2014. These were granted on 6 June 2014 by Resolutions 0808, 0809, 0810, 0811 and 0812. Each of these resolutions was renewed on 13 July 2022 by Resolutions 891, 892, 893, 895 and 897 for a term of 5 years effective until 2027.

## 4.2.7 Legal Access and Surface Rights

The granting of a concession contract in Colombia does not include a legal right of surface access, for which permission has to be obtained from the land owners or community. Rugby Resources has made an agreement for land use for mineral exploration in concession contract IHS-08005X (Cobrasco). Rugby Resources does not own any surface rights in the project area.

The Mining Law provides the mining servitudes and the possibility of expropriation of the surface, in case it is required, since the mining activity is considered to be in the public interest.

The Cobrasco Project lies entirely within lands adjudicated to the Afro-Colombian communities of Cocomacia (General Community Council of the Integrated Campesino Association of the Atrato, or Consejo Comunitario Mayor de la Asociación Campesina Integral de Atrato), a non-profit organisation formed to protect and foster the Afro-Colombian culture and administer the territory. Cocomacia is controlled by an elected General Assembly (Asamblea General), Board of Directors (Junta Directiva) and some 122 Community Councils (Consejos Locales). These lands form part of a collective territory of some 800,000 hectares which is split into nine zones for administrative purposes. The project lies entirely within Zone 1 which has 23 local Community Councils, 6 of which are in the project's general area of influence.

The Cocomacia territory is a "collective territory", broadly similar to a North American Indian Reservation, in which the inhabitants have a measure of self-government, autonomy and control, brought about by Law 70 of 1993 and the influence of the ILO Convention 169 which was ratified in 1991. Cocomacia obtained title on 11 February 1998 post-dating the delineation of Indigenous Reserves (Resguardos) by the government agency INCORA.

Under the Colombian Constitution the lands within the collective titles of the Afro-Colombian and Indigenous peoples cannot be sold or acquired by a third party. Whilst it is true that in Colombia

there is no need to have surface ownership to carry out surface and sub-surface exploration, mining and exploration companies are required to obtain the consent of the traditional landowners to explore in their territory. For sub-surface exploration (trenching, drilling and other activities requiring land disturbance) a consultation process known as the Consulta Previa (Prior Consultation) is required by law before the authorities grant the required permits. The Prior Consultation is a process whereby the Indigenous communities are informed and consulted about the exploration work planned, with the social and environmental impacts of this work analysed leading to agreements for the compensation of negative impacts. The Prior Consultation process is conducted in stages throughout the Cocomacia territory and is a collaborative effort between the exploration company and the local communities. The Ministry of the Interior accompanies the process and its functionaries act as mediators in each stage which must be ratified by each of the parties.

Volador conducted this process with the Cocomacia communities and signed an agreement on 24 May 2013 granting the company access for a 10 year period covering the exploration phase within IHS-08005X. This was the first successful ratification of a Prior Consultation by a mining and exploration company in Chocó Department. The Prior Consultation process for the project was formally executed through an agreement in May 2013. However, the implementation of the derived commitments was contractually conditioned to physical access to the project area. As a result of force majeure circumstances (based on Article 52 of the Mining Code), the parties established August 2022 as the effective date of access to the project area and, therefore, the starting date for the fulfilment of the commitments with the ethnic community.

### 4.3 Other Risks

There is a security risk in the region due to the presence of armed "illegal groups" comprising paramilitary groups such as the Clan del Golfo (Gulf Clan), new players such as Mexican drug cartels ("Los Mexicanos") and ideological Marxist-Leninist groups such as the ELN. Rugby Resources' security advisors recommend that the Colombian army be present to secure the project area during periods of exploration activities.

The author is not aware of any other significant factors and risks, other than those described above, that may affect access, title, or the right or the ability to perform work on the property.

# 5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

## 5.1 Accessibility

The Cobrasco Project is located 300 km NW of Bogota, the capital of Colombia; 100 km WSW of Medellin, the capital of the Department of Antioquia and the second largest city in Colombia; and 35 km NE from Quibdó, the capital of the Department of Chocó and the closest regional centre.

Access to Quibdó is by road from Medellin (190 km) or Pereira (215 km), by air from the main provincial capitals, and by river transport on the Atrato River from the Caribbean port of Turbo. There are numerous daily scheduled flights available to Quibdó principally from Medellin and Bogota, with flight times of 30 minutes and 60 minutes respectively. Flights to other regional centres include Cali, Pereira and Bahia Solano on the Pacific coast.

There are three main forms of access from Quibdó to the project, although there is no road or navigable river to the project (Figure 5.1):

- 1. By road via Tutunendo to San Francisco de Icho, then by river transport to Puerto Necora, and then by indigenous walking tracks to the project area. The total travel time is approximately 10 to 12 hours.
- 2. By river transport by the Atrato, Negua and Naurita Rivers to the village of Villa del Rosario and beyond to Playa Alta (Puerto Rio Alto) at the start of the Western Cordillera, and then by walking a track to the project area. This track was constructed by local villagers in a Rugby Resources-funded scheme to improve access routes within the project's area of influence. The total travel time is 18 to 20 hours, requiring an overnight camp stop.
- 3. By helicopter from Quibdó airport (15-20 minutes) or Medellin airport (45 minutes).

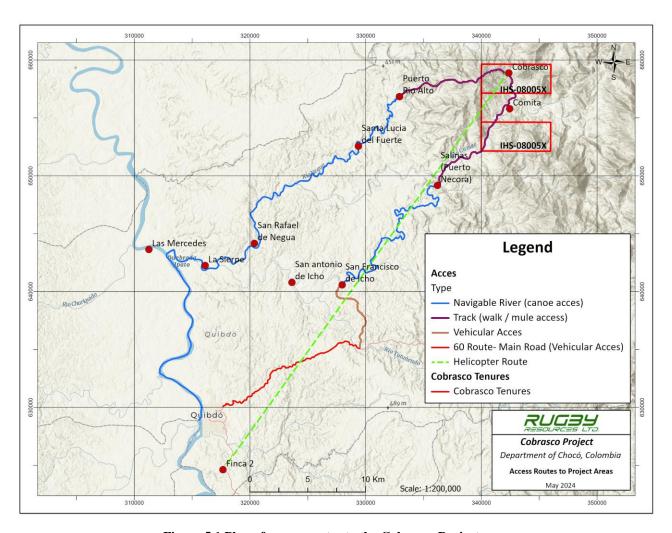


Figure 5.1 Plan of access routes to the Cobrasco Project.



Figure 5.2. Bell LongRanger 206L-3 helicopter at the Cobrasco Main Camp (Photo S. Redwood, 2024).

## 5.2 Climate

Rugby Resources has collected daily temperature and precipitation data since August 2022 from two manual weather stations located at its base/core yard in Quibdo and at the camp in Cobrasco. There is now about over 2.5 years of daily weather statistics (Table 5.1). Quibdo has annual rainfall of 8,237.8 mm with an average of 23.2 mm per day and a daily maximum of 168.5 mm (Figure 5.3). The average maximum and minimum daily temperatures were 34.8°C and 23.5°C and the absolute range was 42.5°C to 13.2°C. Cobrasco has annual rainfall of 7,577.4 mm with an average of 21.6 mm per day and a daily maximum of 182.0 mm (Figure 5.4) The average maximum and minimum daily temperatures were 32.3°C and 22.2°C and the absolute range was 44.0°C to 18.0°C. In summary, Cobrasco is slightly less wet and cooler than Quibdo.

Description (Aug 2022 – Mar 2025)	Quibdo (core yard)	Cobrasco (camp)
Precipitation daily average (mm)	23.2	21.6
Precipitation daily maximum (mm)	168.5	182.0
Precipitation annual average (mm)	8237.8	7577.4
Temperature average high (°C)	34.8	32.3
Temperature average low (°C)	23.5	22.2
Temperature maximum high (°C)	42.5	44.0
Temperature minimum low (°C)	13.2	18.0

Table 5.1. Summary of daily weather data collected by Rugby Resources at Quibdo and Cobrasco (19-09-22 to 30-05-24).

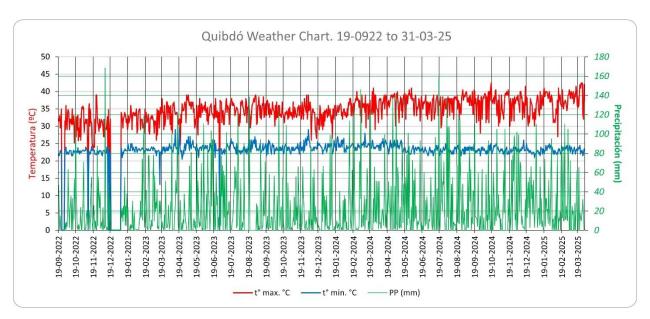


Figure 5.3. Quibdo weather chart, Rugby Resources data (19-09-2022 to 31-03-2025).

Red: daily maximum temperature (°C); blue: daily minimum temperature (°C); green: daily precipitation (mm).

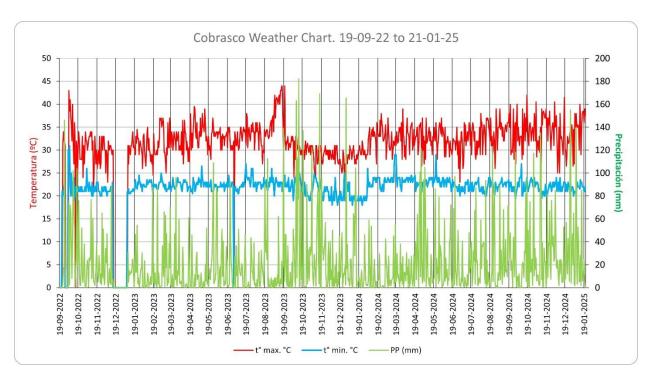


Figure 5.4. Cobrasco weather chart, Rugby Resources data (19-09-2022 to 21-023-2025).

Red: daily maximum temperature (°C); blue: daily minimum temperature (°C); green: daily precipitation (mm).

Government weather data collected at Quibdó airport from 1999 to 2021 is summarized in Table 5.2. The annual rainfall is 8,050 mm which is 9.7% higher than the Rugby Resources data. The driest month is February with 333 mm and the wettest month is October with 871 mm. The average temperature is 24.6°C with little variation between 24.1°C (November) and 25.3°C (March). The relative humidity is 87-92%.

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
T Ave (°C)	24.7	25.2	25.3	25.11.	24.8	24.5	24.4	24.4	24.3	24.2	24.1	24.4
T Min (°C)	22.7	22.9	23.0	23.1	23.1	22.7	22.6	22.6	22.5	22.5	22.5	22.6
T Max (°C)	28.3	29.1	29.3	28.9	28.3	27.8	27.8	27.8	27.8	27.6	27.3	27.7
Ppt (mm)	411.0	333.0	480.0	620.0	751.0	803.0	758.0	813.0	755.0	871.0	837.0	618.0
Hum (%)	89.0	87.0	88.0	90.0	92.0	92.0	91.0	91.0	92.0	92.0	92.0	90.0

Table 5.2 Climate data for Quibdó Airport (1999-2019).

(Source Climate Data, <a href="https://en.climate-data.org/south-america/colombia/choco/quibdo-4618/">https://en.climate-data.org/south-america/colombia/choco/quibdo-4618/</a>)

The Köppen climate classification is tropical rainforest (Af) characterized by constant high temperature and all months with at least 60 mm of precipitation.

The Holdridge life zone is tropical, super-humid rain forest (bmh-T). The vegetation consists of dense tropical forest. There are minor clearings for agriculture on river terraces near indigenous villages.

Field operations can be carried out all year round. Helicopter flying may be restricted by low cloud cover at times.

#### 5.3 Local Resources

The Cobrasco Project is located within the Municipality of Quibdó, which extends over an area of 3,337 km² in the central part of the Department of Chocó. The population of 534,826 (2018 census) is predominantly Afro-Colombian (82.1%, Census, 2005) who are the descendants of Africans from Guinea and Angola introduced to work as miners by the Spanish colonisers in the 16<sup>th</sup> to 18<sup>th</sup> centuries, with a smaller number of indigenous Embera and Wounaan Amerindians (12.7%) and white/mestizos (5.2%).

The history of Chocó and its people is closely related to gold and platinum mining. Placer gold was first mined by Spaniards from 1573-1586 and then on a large scale from 1690 after the region was pacified (West, 1952). Placer platinum, originally discarded as worthless, was mined from 1786 after platinum was discovered as a new element in Choco samples in 1751.

The city of Quibdó was founded in 1648 by Spanish Jesuit missionaries with the name "Citara". In 1690 the town was moved to the current location on the eastern bank of the Atrato River and named "San Francisco de Quibdó". It has a population of 113,124 (2018 Census).

The 9 villages that constitute the project's area of influence are listed in Table 5.3 and are shown on a map in Figure 5.1. The largest is Tutunendo (population 4,650) while the others each have less than 500 inhabitants. They are located along river courses that are tributaries of the Atrato River. Volador's community relations team work in these communities on social development programmes under the Prior Consultation social development obligations. The company census is part of the yearly work undertaken by the social relations team.

Community	Families	Inhabitants
Tutunendo	450	4,650
San Francisco de Icho	147	400
San Rafael de Negua	100	150
Boca de Nemota	52	170
Santa Lucia del Fuerte	92	206
San Antonio de Icho	173	480
Villa del Rosario	45	180
Boca de Naurita	52	152
Las Brisas	20	72

Table 5.3. Population of the communities in the Cobrasco Project's area of influence.

(Rugby Resources unofficial census, 2025).

The economy is centred around an extractive system of natural resources including timber, alluvial platinum, gold and silver, palms, and river and sea products. In the southern part of the Chocó region and in the Andes, agribusiness such as African Palm cultivation, aquaculture, cattle ranching and sugar cane has developed (Ng'weno, 2000). Nevertheless, the main production is on a subsistence level produced through traditional practices.

There is a small community of Indigenous Embera Amerindians on the banks of the Comita River within the Comita Project and near to the Cobrasco Project. This community numbers about 40-100 depending on seasonal factors living in 15 houses who belong to the nearby Rio Negua Indigenous Territory (Resguardo Rio Negua). The community occupy this land under a permit from Cocomacia, the Afro-Colombian landowners.



Figure 5.5. Embera village on the Comita River (Photo S. Redwood, 2014).

#### 5.4 Infrastructure

Quibdó has regional government offices and has the logistics to support field exploration. There is a regional airport at Quibdó serviced by three national airlines (Click, Satena and Avianca), a large army presence of the 15<sup>th</sup> Brigade located adjacent to the airport and a naval presence to patrol the Atrato River. There are several universities and colleges of further education. Quibdó and the region have an ample and suitably trained workforce to administer and carry out field exploration in the project.

The Cobrasco project is located 97 km east of the Pacific Ocean and 222 km south of the Caribbean Sea. The Atrato River is navigable for 500 km for boats of up to 200 tons capacity. The nearest river port is Quibdó, 38 km by air from Cobrasco and 400 km by river to the Caribbean Sea. The nearest ocean ports are Turbo near the mouth of the Atrato River on the Gulf of Uraba, Caribbean Sea, about 400 km by river; and Buenaventura on the Pacific Ocean, 476 km by road from Quibdó.

The infrastructure within the project itself is poor, with no roads, electricity, gas or government services of any kind.

Rugby Resources rents two properties or fincas on the south side of Quibdó, one used as a core logging facility and accommodation, and the other for security and logistics with a heliport. There is a temporary tent camp and helipad at the Cobrasco Project (Main Camp).

### 5.5 Physiography

The Cobrasco Project is located in the western foothills of the Western Cordillera at altitudes between 230 m and 815 masl. To the west lie the flat-lying alluvial flood plains of the Atrato River basin.

The project area is characterised by steep hills and incised valleys with densely vegetated tropical forest. The main Comita River alluvial terrace has been cleared for cultivation by the Embera community, with the remaining terrain remaining virgin forest and utilised as hunting grounds.

The project area is centred on the Comita River, a tributary of the Negua River which drains westwards to the Atrato River. The Atrato is a major navigable river which flows northwards into the Gulf of Uraba of the Caribbean Sea.



Figure 5.6. Aerial view of the physiography of the Cobrasco North concession (Photo S. Redwood, 2024).

The camp and helipad are just left of the photo. View looking east.



Figure 5.7. Aerial view of the physiography looking S over the Comita and the Cobrasco South concessions (Photo S. Redwood, 2024).

Showing the Comita River and alluvial terraces with an Embera village, and mountainous terrain beyond.

### 6 History

### 6.1 Prior owners of the property

The ownership of the property between discovery in 1984-1988 (described in Item 6.4) and 2006 is not known but no significant exploration work was carried out. The current concessions started life in 2006 when Rio Tinto made three concession applications numbers HB9-151 (Comita Central), HB9-152 (Comita North) and HB9-153 (Comita South). The latter two were rejected and the areas were opened up for new applications on 28 August 2007. Several companies submitted applications which led to a protracted process of evaluation by INGEOMINAS. A single concession contract with number IHS-08005X (Cobrasco) was awarded to Lilia Oselia Bejarano on 12 February 2012 and was registered on 17 October 2012. Rugby Resources made an arm's length transaction with Ms. Bejarano and the contract was transferred and registered in the name of Rugby's subsidiary Volador on 18 March 2013.

Application number HB9-151 (Comita Central) was also rejected on 4 February 2008 and a new application for the same area was made by Rio Tinto the next day. It was granted a concession contract JB5-08011 (Comita) on 17 March 2010 and it was registered on 13 April 2010.

Rugby Resources entered into an agreement with Rio Tinto on 21 September 2010 to carry out exploration work on concession JB5-08011 and the Volador application area which was subsequently granted as IHS-08005X. Rio Tinto cancelled the agreement in 2018 due to the slow rate of progress in permitting.

## 6.2 Exploration history summary

The historical exploration of the Cobrasco Project is summarized in Table 6.1 and is described in the following sections.

Method	Year	Contractor	Units	Number
Airborne radar topography 1:220,000	1969	Westinghouse Corporation		
Drainage maps 1:100,000 (derived from radar images)	1984	BGR	Sheets	8
Stream sediment sampling	1984-1986	INGEOMINAS- BGR	Samples	186
Pan concentrates (1 pan)	1984-1986	INGEOMINAS- BGR	Samples	198
Pan concentrates (4 pans)	1984-1986	INGEOMINAS- BGR	Samples	194
Rock-chip samples	1984-1986	INGEOMINAS- BGR	Samples	51
Geological mapping	1985-1986	INGEOMINAS- BGR	Km2	
Petrography thin sections	1985-1986	INGEOMINAS- BGR	Samples	44
Petrography polished sections	1985-1986	INGEOMINAS- BGR	Samples	6

Table 6.1 Summary of historical exploration carried out at the Cobrasco Project.

# 6.3 Regional Porphyry Copper Exploration (1969-1987)

Systematic copper exploration of the Western Cordillera was first carried out in 1969-1972 by the National Geological and Mining Research Institute INGEOMINAS (Instituto Nacional de Investigaciones Geologico-Mineras; now the Servicio Geológico Colombiano, SGC) and the U.S. Geological Survey (USGS, 1970-1972). This comprised 17 geochemical profiles across the Western Cordillera spaced at 10-30 km intervals along east-west trending tributaries of the Atrato, San Juan and Cauca Rivers. The total length of the traverses was 1,600 km and the average length of each traverse was 94 km. A total of 2,939 stream sediment samples were collected (see Henricksen, 2011). This was followed up by INGEOMINAS with funding from several different countries in the 1970s, namely the United Nations Development Programme (UNDP, 1973-1978), the Japanese International Cooperation Agency (JICA) with the Metal Mining Agency of Japan (MMAJ) from 1979-1987, and the West German Federal Institute for Geosciences and Natural Resources (BGR, Bundesanstalt für Geowissenschaften und Rohstoffe) in 1984-1992. These programmes resulted in the discovery of six porphyry copper deposits, which are from north to south, with the date of discovery: Acandí (1975-1976), Murindo (1970-1976), Pantanos-Pegadorcito (1970-1974), Rio Amparado (1984-1985), Cobrasco-Rio Comita (1984-1986) and Andagueda-Dojura (1980) (INGEOMINAS-United Nations, 1977; Sillitoe et al., 1982; Alvarez et al., 1987; Harris, 2021). The exploration method used was regional stream sediment sampling followed up by soil and rock sampling. Drilling was carried out by UNDP-INGEOMINAS at two projects namely Pantanos-Pegadorcito in 1973-1974 and 1983 (total 20 holes for 2,756 m) and Acandi in 1977-1979 (6 holes for 1,100 m).

### 6.4 Mandé Project and discovery of Cobrasco (1984-1988)

In 1984-1988, INGEOMINAS and the BGR carried out a technical cooperation programme in the Western Cordillera called the Mandé Project for precious and base metals. Geological and geochemical exploration was carried out over a 5,000 km² area in two phases between 5°30'N to 6°33'N, and 76°13'W to 76°50'W. The location is shown on a map in Figure 6.1. The project is described in reports by Alvarez et al. (1987) and Feldhaus et al. (1988), a published geological map by Hoppe & Schmidt-Thomé (1990) and a short description by Schmidt-Thomé et al. (1992). This programme resulted in the discovery of porphyry copper mineralisation at Rio Comita, now known as the Cobrasco Project - the subject of this report – and the Comita Project.

Phase 1 of the Mandé Project was carried out between May 1984 and April 1985 (Alvarez et al., 1987). Teams ascended each tributary draining the Western Cordillera by canoe over the navigable sections and then on foot over the physically accessible portions. All drainage catchments were sampled with stream sediment sampling of the active drainage channels, rock chip sampling and some pan-concentrate samples. A sampling density of approximately 0.6 samples per km² was completed with a total 2,704 samples which were analysed for Cu, Zn, Pb, Co and Ni at the INGEOMINAS laboratory in Medellin. The results of this first phase identified several base metal anomalies and occurrences of mineralisation, including porphyry copper mineralisation at Rio Comita.

Phase 2 of the Mandé Project was carried out between October 1985 and August 1986 and was a helicopter assisted programme to follow up the main anomalies detected in Phase 1 (Feldhaus et al., 1988). The helicopter base was in Urrao, 55 km NE of Rio Comita. This follow-up work was conducted at a project-scale level, with stream sediment samples collected at a density of 24 samples/km², along with pan-concentrates, soil and rock chip sampling. A total of 1,170 stream sediments, 917 pan-concentrates and 333 rock chip samples were collected and analysed for Cu, Zn, Pb, and As (streams) and Cu, Zn, Pb, Au, Ag (rocks) at the INGEOMINAS laboratory in Medellin. This work delineated gold and base metal vein-related mineralisation in the vicinity of the La Equis Mine (Rio Cantugado and Rio Icho) and porphyry copper style mineralisation at Rio Comita.

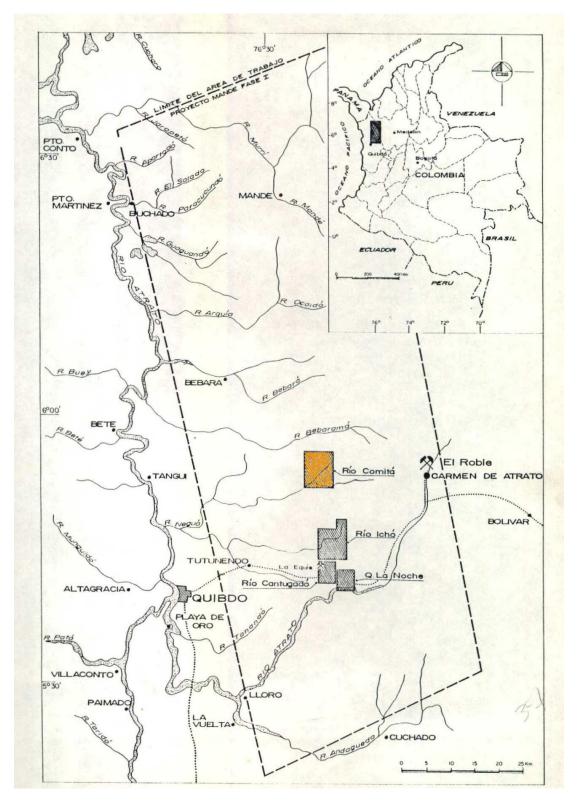


Figure 6.1 Location map of the Mandé Project, 1984-1986.

Phase 1 is shown by the dashed outline and Phase 2 is the smaller cross-hatched zones. (Feldhaus et al., 1988). The Cobrasco Project is the Río Comitá area.

### 6.5 Mandé Project topographic maps

One of the principal problems encountered by the field crews during Phase 1 of the regional exploration programme was the lack of topographic maps and aerial photos from which base maps could be made for the field teams. The Colombian mapping agency IGAC (Agustin Codazzi Geographical Institute, Instituto Geografico Agustin Codazzi) had only partial coverage of 1:100,000 and 1:25,000 scale base maps and aerial photography. Landsat satellite imagery was available at the time, but no fresh capture was possible, and all library images had cloud coverage of 70% to 80% or more. The solution was to use an airborne radar mosaic at 1:220,000 scale produced in 1969 by the Westinghouse Corporation. The BGR enlarged these images to a scale of 1:100,000 from which drainage maps were produced for the eight IGAC sheets included in the project area. These were subject to a high level of lateral displacement errors. INGEOMINAS-BGR field teams plotted the sample and outcrop locations on these maps in the absence of field portable global satellite positioning (GPS) technology at the time.

### 6.6 Mandé Project geochemistry

In the Phase 1 programme all drainage catchments were sampled with stream sediment sampling (sieved in the field to minus 18 mesh (-1 mm) and later screened in the lab to minus 80 mesh) of the active drainage channels, rock chip sampling and some pan-concentrate samples. The stream sediment sampling density was approximately 0.6 samples per km<sup>2</sup>, and a total of 2,704 samples were collected and analysed for Cu, Zn, Pb, Co and Ni. Four main geochemical anomalies were identified at Quebrada La Noche, Rio Cantugado, Rio Icho and Rio Comita.

In the Phase 2 programme, follow-up work was conducted at a project-scale level, with geological mapping, and geochemistry (stream sediments sieved in the field to minus 18 mesh (-1 mm) and later screened in the lab to minus 80 mesh, pan-concentrates soil and rock chip sampling) conducted at a stream sediment density of 24 samples/km<sup>2</sup>. A total of 1,170 stream sediments, 917 pan-concentrates and 333 rock chip samples were collected and analysed for Cu, Zn, Pb, and As (stream sediment samples) and Cu, Zn, Pb, Au, Ag (rock samples).

At the Rio Comita target Phase 2 sampling consisted of 186 stream sediment samples, 198 panconcentrates (1-pan) and 194 pan concentrates (4-pans), 51 rock chip samples, 6 polished sections and 44 thin sections for petrology. Approximately 25% of the Rio Comita samples from the SE part of the area were lost in a helicopter incident when the sling was released for safety reasons during a storm on the return flight to the base in Urrao. The geochemical samples were analysed at the INGEOMINAS laboratory in Medellin (see Item 11.1). The project included the improvement of the laboratory.

INGEOMINAS-BGR processed the stream sediment results by plotting histograms and cumulative frequency curves for each element and each area to determine values of background (mean), standard deviation, variance, and threshold. Anomalies were defined by mean plus one standard deviation and mean plus two standard deviations, shown in Table 6.2. Statistical analysis was also made by rock type in the area of influence of each sample.

The anomalous Cu values coincide with the mapped rhyodacitic porphyry with stockwork copper mineralisation in Quebrada Mariano, which has an area of 4.0 km by 1.5 km, oriented N-S to N10-20°W. It is located on the western margin of the Mandé Batholith at the contact with the La Equis Formation volcano sedimentary andesitic sequence. Weakly anomalous Zn forms a N-S zone on the west side of the Cu anomaly and partly overlaps it. Weakly anomalous As occurs in the west of the area, coincident with silicified pyritic breccias, but does not coincide with either Cu or Zn. The target was recommended for follow-up diamond drilling. (Feldhaus et al., 1988).

Description	Cu (ppm)	Zn (ppm)	Pb (ppm)	As (ppm)
Minimum	2	5	10	1
Maximum	14000	611	51	40
Mean	236	112	16	12
Mean + 1SD	558	212	23	20
Mean + 2SD	880	311	30	29

**Table 6.2 Statistics for INGEOMINAS-BGR stream sediment samples.** (SD = standard deviation)

Gold was semi-quantitatively analysed in the pan concentrates. Of 194 samples, 25% had Au values above the detection limit. Four samples contained >0.1 mg Au. Three of these samples, with values of 0.16 mg to 0.5 mg Au, were from the Comitá River flats and the Au is probably from the alluvial terraces. The highest sample, with 5.87 mg Au, was from the middle of the Cu zone, but nearby samples gave no elevated values.

INGEOMINAS-BGR analysed 45 rock samples in Phase 2 (Feldhaus et al., 1988). Copper values varied from 9 ppm to 194,000 ppm Cu with 15 samples greater than 1,000 ppm Cu, 9 samples greater than 10,000 ppm Cu and a maximum of 194,000 ppm Cu. Molybdenum values were low and varied from <2 ppm to 8 ppm Mo, with one sample of 57 ppm Mo. Zinc varied between 10 ppm and 886 ppm Zn (25 samples analysed), lead from <2 ppm to 42 ppm Pb (25 samples analysed), and silver from <1.0 ppm to 50 ppm Ag (30 samples analysed). Gold analysed by fire assay at INGEOMINAS laboratory in Medellin varied from <0.03 ppm to 0.47 ppm Au, with one

sample of 1.56 ppm Au. However, check assays showed very high variability and the Au assays were shown to be unreliable.

The INGEOMINAS-BGR and Rugby Resources stream sediment sample locations and Cu values are shown in Figure 6.2 to Figure 6.4. Similarly, the INGEOMINAS-BGR and Rugby Resources rock-chip sample locations and Cu values are shown in Figure 6.5 and Figure 6.6.

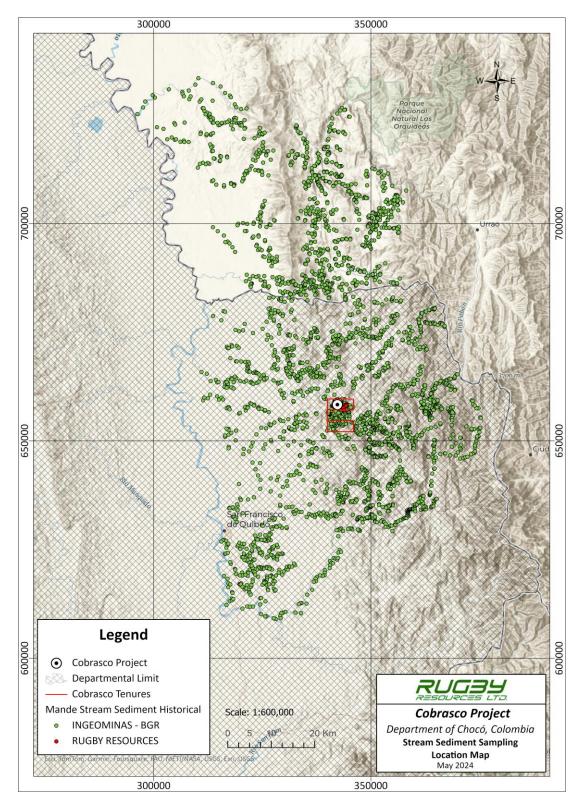


Figure 6.2 Location of historical stream sediment samples from the Mandé Project, 1984-1988.

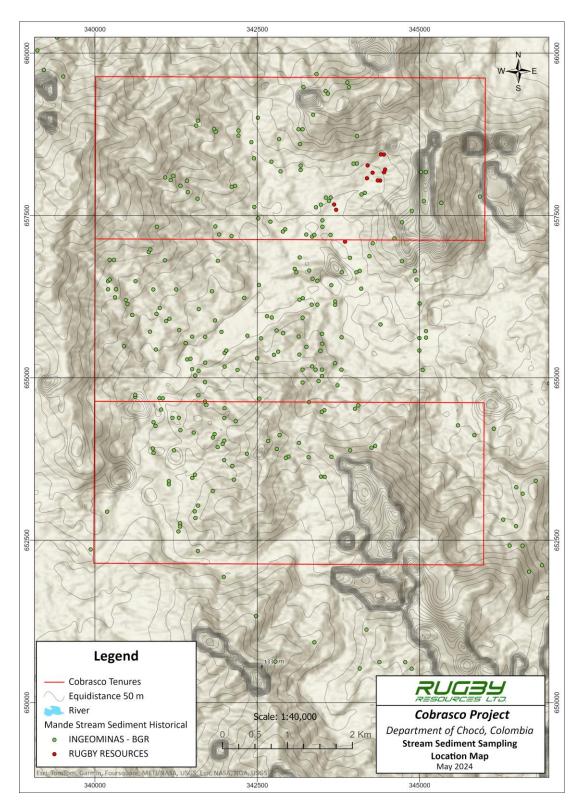


Figure 6.3 Location of historical and Rugby Resources stream sediment samples on the Cobrasco Project.

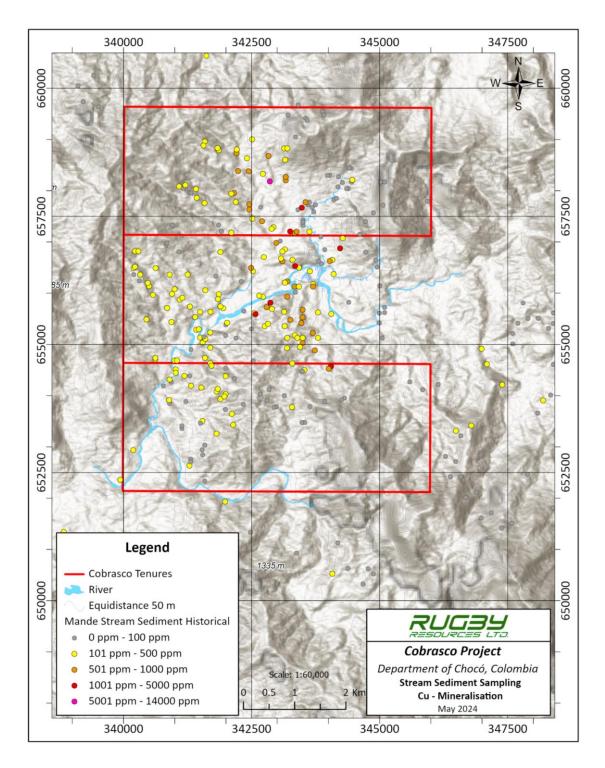


Figure 6.4. Map of historical and Rugby Resources stream sediment samples with Cu grade.

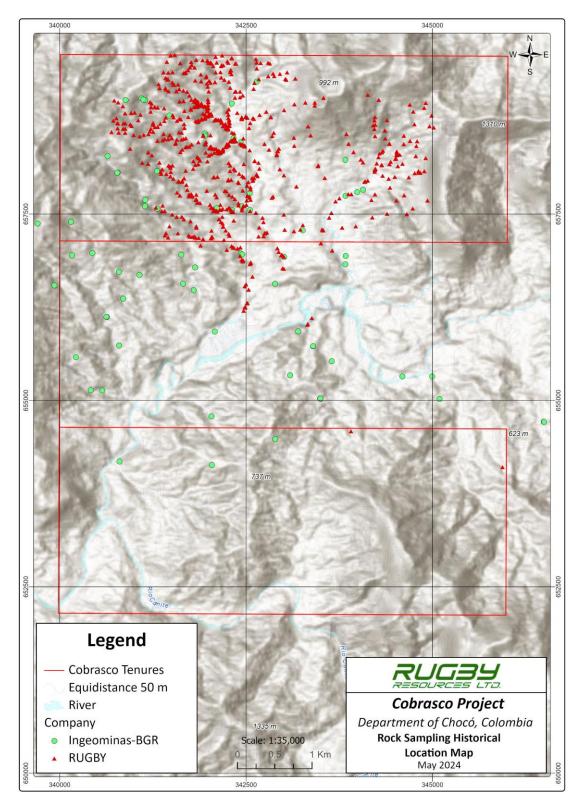


Figure 6.5. Location of historical and Rugby Resources rock samples on the Cobrasco Project.

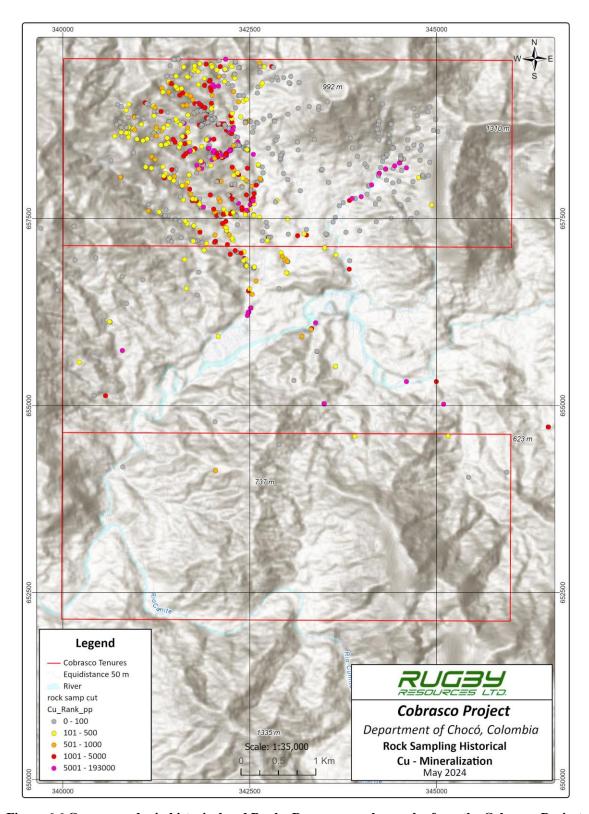


Figure 6.6 Copper grades in historical and Rugby Resources rock samples from the Cobrasco Project.

### 6.7 Historical mineral resource estimates

There are no historical mineral resource estimates for the Cobrasco Project.

# 6.8 Historical production

There has been no historical mineral production from the Cobrasco Project.

# 7 Geological Setting and Mineralisation

### 7.1 Regional Geology

Colombia is formed by four tectonic plates, the South American plate, the Panama-Choco arc, the oceanic Nazca plate to the west, and the oceanic Caribbean plate to the north (Figure 7.1; Cediel et al., 2003). The Northern Andean Block forms a distinct geological segment of the South American Plate in Colombia and is divided into three mountain chains: the Occidental (Western), Central (Central) and Oriental (Eastern) Cordilleras.

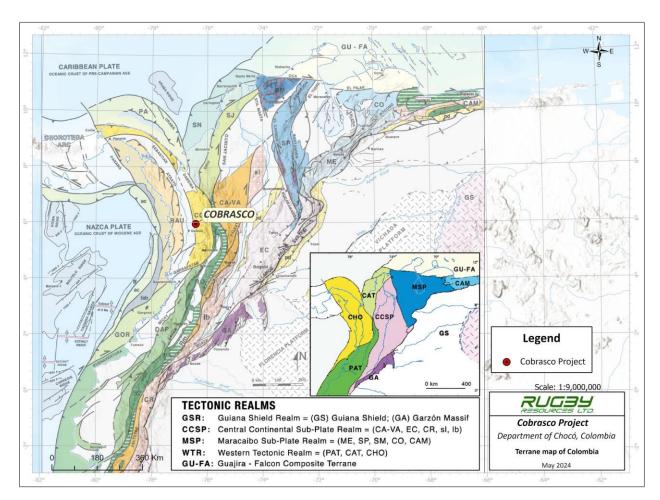


Figure 7.1 The Cobrasco Project location on the terrane map of Colombia.

(Cediel et al., 2003).

The Cobrasco Project lies within the Western Cordillera that is defined as the Western Tectonic Realm and is part of the Panama-Choco arc (Cediel et al., 2003; Redwood, 2019). This is composed of a series of oceanic and island arc terranes accreted to the western margin of the continent during the late Mesozoic and Cenozoic. The Cobrasco Project lies near the western border of the Cañas Gordas Terrane adjacent to the Atrato sedimentary basin. The Cañas Gordas Terrane is intruded

along its eastern boundary by the 99 to 112 million year old (Ma) Sabanalarga Batholith, and on the western margin it is intruded by the 59.0-51.1 Ma Mandé-Acandi magmatic arc. These elongate composite calk-alkaline batholiths of tonalitic to quartz diorite and granodiorite composition are the products of arc magmatism generated on oceanic crust. They were intruded into the Cañas Gordas terrane prior to its accretion to the continent and are thus allochthonous.

### 7.2 Mandé Porphyry Copper Belt

The Cobrasco porphyry Cu-Mo deposit is located at the southern end of the Mandé batholith which is part of an allochthonous arc of porphyry Cu deposits that extends for about 650 km NNW to EW from the Mandé and Acandi arcs in Colombia to the San Blas and Chagres-Bayano arcs in Panama.

The porphyry Cu deposits of the Mandé arc are hosted by the Mandé batholith of hornblende tonalite composition which intrudes the Santa Cecilia – La Equis Complex formed of submarine volcanic rocks and sills of tholeitic basaltic composition overlain by deep water pelagic and turbiditic sediments of Cretaceous age. The porphyry Cu deposits lie on the western side of the batholith. The porphyry deposits are, from NW to SE: Navigandi, Mulatupo, Rio Patikan and Rio Pito in Panama, and Acandi, Murindo (Mandé Norte), Pantanos-Pegadorcito, Urrao, Rio Ampardo, Cobrasco-Comita and Andagueda (Bagado) in Colombia.

Alteration is both sericitic and potassic associated with chalcopyrite and/or bornite and molybdenite. Most of the porphyries contain copper and molybdenum, with only very low gold content. Potassium-argon dating of the porphyries gives minimum ages of  $54\pm1.3$  Ma for Murindo,  $48.1\pm1.0$  Ma for Acandi, and  $42.7\pm0.9$  Ma for Pantanos-Pegadorcito, indicating porphyry emplacement during early and middle Eocene (Sillitoe et al, 1982). These minimum ages date the alteration rather than the emplacement. Intrusion ages determined by zircon U-Pb dating of the batholiths gives ages of 46.2 to 42.7 Ma for the Chagres-Bayano arc and 59.0 to 51.1 Ma for the Mande Batholith (Barbosa-Espitia et al., 2019). Dating carried out at the Cobrasco project by Rugby Resources gave  $40.35\pm0.43$  Ma by U-Pb dating of zircon from the quartz porphyry (P3) and  $42.49\pm0.18$  Ma by Re-Os for molybdenite. These are the youngest porphyry ages in the belt.

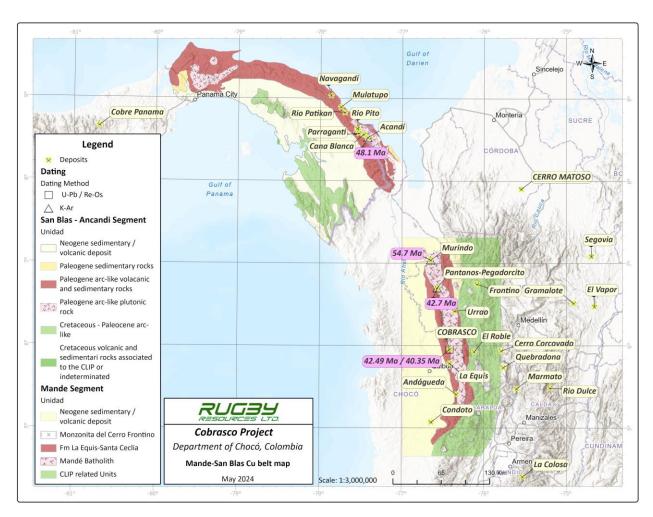


Figure 7.2. Geological map of the San Blas-Acandi and Mande belts showing porphyry Cu deposits and dating.

## 7.3 District Geology

The district geological setting of the Cobrasco project is shown in Figure 7.3 based on mapping by INGEOMINAS and BGR (Calle & Salinas, 1986; Schmidt-Thomé et al., 1992; Zapata & Sepúlveda, 2008).

The geological units in the area consist of intrusive, extrusive and sedimentary rock sequences and range in age from Cretaceous to Quaternary. The oldest rocks belong to the Cañasgordas Group which crop out east of the Mandé Batholith The Cañasgordas Group comprises Upper Cretaceous to Paleogene age flysch sedimentary sequences and basic volcanic rocks. It is represented by the Penderisco Formation in the area of the Mandé Project, which comprises the Urrao Member of mudstones, siltstones and greywackes with local beds of conglomerate, and the Nutibara Member of interbedded limestone and black chert. The latter includes volcanic rocks of the Barroso Formation which form lenticular bodies of basic lavas and dolerite, and hosts the El Roble

volcanogenic massive sulphide copper-gold deposit (Calle & Salinas, 1986; Schmidt-Thomé et al., 1992).

The Santa Cecilia-La Equis Formation or Complex occurs on both the eastern and western sides of the Mandé Batholith, separating it from the Cañasgordas Group to the east. It comprises basaltic, and esitic and dacitic lavas, breccias, agglomerates and tuffs. The volcanic rocks are interpreted to be co-magmatic with the Mandé Batholith which intruded them (Calle & Salinas, 1986; Schmidt-Thomé et al., 1992).

The Mandé Batholith is made up of intrusive rocks of Palaeocene to Eocene age whose composition varies from gabbronorites to granites but are predominantly diorites and tonalities. Locally, subvolcanic rocks including porphyries of dacitic to rhyodacitic composition are present as stocks and dykes. These can host porphyry copper mineralisation.

Clastic and calcareous sedimentary sequences of the Cenozoic age Atrato Group overlie the Santa Cecilia - La Equis Formation in the west. In the area of interest, they comprise the Salaqui, Nappi, Sierra and Uva Formations. The thickness in the centre of the basin is at least 7,000 m. The base of the Atrato Group, the Bebera Formation, is a transitional sequence between the last volcanic events and the beginning of the clastic sediments. The youngest formations are of Quaternary age. They consist of unconsolidated to indurated clastic sediments that form multiple terraces (Calle & Salinas, 1986; Schmidt-Thomé et al, 1992).

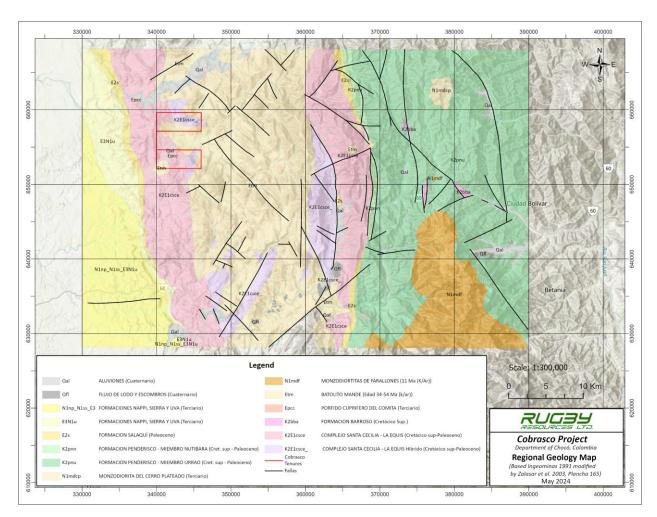


Figure 7.3. District Geological Map of the Cobrasco Project.

Based on INGEOMINAS map sheet 165, Carmen de Atrato, at 1:200,000 scale and memoir by Calle & Salinas, 1986.

## 7.4 Property Geology

The geology of the Cobrasco Project based on mapping by INGEOMINAS-BGR in 1985-86 (Feldhaus et al., 1988) and Rugby Resources is shown in Figure 7.4.

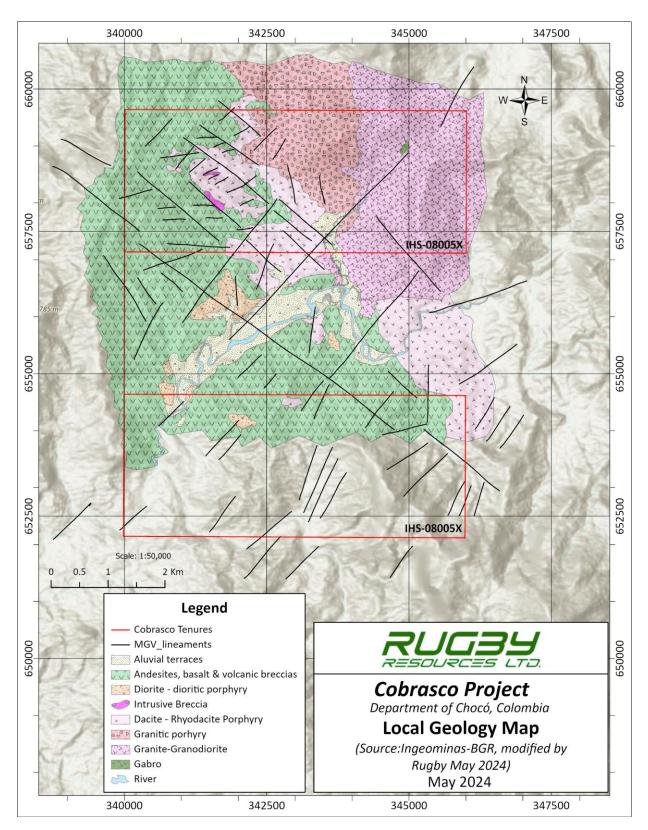


Figure 7.4. Geological map of the Cobrasco Project at 1:50,000 scale.

Based on Feldhaus et al., 1988. Digitized, warped to topography and geology modified by Rugby Resources.

At the project scale, the geology comprises andesites and basalts of the Santa-Cecilia-La Equis Complex that form mountainous terrain in the western and southern parts of the concession, and intrusive rocks of the Mandé Batholith in the central and eastern parts; six intrusion types are mapped which are diorite-diorite porphyry, intrusive breccia, dacite-rhyodacite porphyry, granite porphyry, granite-granodiorite, and gabbro. These are host to porphyry Cu-Mo mineralisation. The Comita River crosses the area from WNW to ESE.

#### 7.5 Alteration and Mineralisation

The INGEOMINAS-BGR geological teams identified a rhyodacite porphyry extending for over 4 km north-south by up to 1.5 km wide, located over the central part of the Cobrasco North concession. Within this unit, mineralisation was observed in the form of copper oxide disseminations, quartz stockwork veining with Cu mineralisation, quartz-sulphide veining, and disseminated pyrite with associated argillic and phyllic alteration (Schmidt-Thomé et al., 1992).

The most common style described was the disseminated Cu-mineralisation, which was found to be restricted to the rhyodacite porphyries, diorites and some granites. In general, the effects of strong weathering have altered the primary mineralisation to iron oxides which appear as stains on outcrops. In various outcrops the wall rocks are covered with a film of Fe-oxides and Cu-oxides (chrysocolla and malachite). The sulphides under the microscope were pyrite, chalcopyrite and bornite with chalcocite, covellite and rare molybdenite. Hydrothermal breccias were described in the west part of the area with up to 10% disseminated pyrite in clasts and silicified or kaolinitised matrix.

### 7.6 Supergene oxidation and enrichment

A thin supergene oxidation and enrichment profile was observed in outcrop in streams in Quebrada Mariano. The weathering profile is about 5.2 m thick and comprises 2.0 m of saprolite, 3.0 m of clay alteration with jarosite, minor malachite, blue kaolinite (Cu oxides absorbed on kaolinite), and a dense quartz veinlet stockwork, and 0.2 m of sooty chalcocite coating fine-grained disseminated pyrite.

There is supergene oxidation to saprolite at the top of each hole to depths of 17.8 to 44.5 m downhole. There is no supergene copper enrichment. There are gypsum and anhydrite fronts (258.0 m in CDH-002) going downhole marking the boundaries of leached gypsum in the upper part, gypsum formed by hydration of anhydrite, and hypogene anhydrite. The leached zone above the gypsum front has low competency, RQD and RMR and it will be important to define this for geotechnical studies and future pit design.

### 7.7 Significant Mineralised Zones

In 2014, the author made two traverses into the Quebrada Mariano area, north of the Comita River in the Comita and Cobrasco North concessions, in the central portion of the mapped rhyodacite porphyry. Field photos are shown in Figure 7.5 and Figure 7.6. The main porphyry observed is a crowded, medium grained, quartz-plagioclase-hornblende porphyry of granodioritic composition. Other porphyries seen are coarser grained granodiorite porphyry with phenocrysts of quartz, plagioclase and hornblende, and an early-mineral fine grained, matrix-rich quartz porphyry which has the strongest veining. Quartz porphyry and quartz-plagioclase porphyry were also observed which may be similar but with texture-destructive alteration. A late mineral microdiorite dyke with disseminated pyrite was also observed.

Two zones of potassic alteration were observed in the lower and central reaches of the Quebrada Mariano. At one locality supergene clay alteration was noted with a stockwork of A and B veinlets with a density of approximately 10 per metre and in places up to 30 per metre. The presence of quartz veinlets indicates hypogene potassic alteration overprinted by supergene clay alteration, leaving relict quartz veinlets. In places remnants of secondary biotite-chlorite were seen replacing hornblende. One 10 cm quartz-pyrite D-type vein was observed, and a boulder of a 30 cm wide banded quartz-magnetite vein.

Propylitic alteration was seen to extend for at least 900 m to the SW of the potassic zone. This is usually grey-green in colour with chlorite, disseminated pyrite replacing hornblende, and often accompanied by disseminated magnetite up to 5%, but with no quartz veinlets. There is often a weak to strong supergene clay alteration overprint.

Jasper boulders up to 2 m in size occur in all of the rivers traversed. These are brown on the outside from jarosite formed by oxidation of pyrite. They are composed of fine grained chalcedony clasts with a matrix of fine grained quartz to chalcedony-opal, with 3% fine grained disseminated pyrite, locally up to 10%, in both clasts and matrix. No in situ outcrops were observed. These boulders may be derived from an eroded lithocap.

In 2024 the author walked the trail from the Cobrasco Main Camp and site of drill platform 1 (hole CDH-001) to drill platform 2 (holes CDH-002 and CDH-003), crossing Quebrada Mirla which is a tributary of Quebrada Mariano which drains into the Comita River. The trail is in quartz-eye porphyry (P3, granodiorite) with pervasive muscovite alteration. Platform 2 is in brown saprolite after P1, early diorite.

In summary, evidence was seen On the field visits for a large porphyry system at Cobrasco with the following characteristics:

- >1.6 km of porphyry traversed, with evidence of at least 2.0 km from historical maps.
- Multiple phases of granodiorite porphyry with phenocrysts of quartz, plagioclase and hornblende, including an early porphyry with a well-developed quartz veinlet stockwork.
- Two zones of potassic alteration with stockworks of A and B quartz veinlets and supergene clay alteration.
- A thin supergene profile of oxidation and chalcocite enrichment.
- Pyrite, chalcocite and Cu-oxides (malachite and blue-stained kaolinite) seen in potassic alteration zones.
- Magnetite is present in potassic and propylitic zones, occurring as disseminations and in veinlets.
- The historical mapping of mineralisation is generally confirmed.

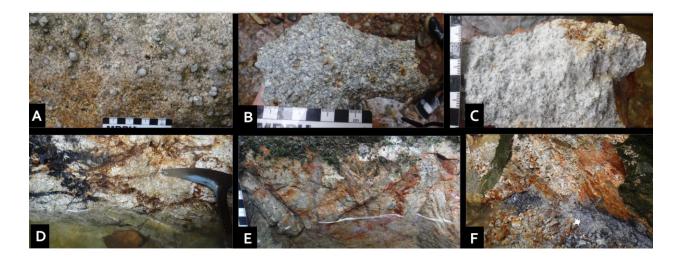


Figure 7.5. Field photos of geology and mineralisation in Quebrada Mariano. (Photos S. Redwood).

- A) Boulder of coarse-grained crowded granodiorite porphyry with bipyramidal quartz and euhedral plagioclase.

  B) Granodiorite porphyry with crowded quartz-plagioclase-hornblende phenocrysts, weak propylitic and supergene argillic alteration. Sample L8700054, 553 ppm Cu.
  - C) Granodiorite porphyry with clay alteration and disseminated pyrite. Sample L870051, 83 ppm Cu.

    D) Granodiorite porphyry with quartz veinlets and supergene clay alteration. Sample L870053, 4,640 ppm Cu.

    E) Granodiorite porphyry with high density quartz vein stockwork.
- F) Thin supergene profile in stream cutting granodiorite porphyry. The upper part is jarosite oxide zone with minor malachite (sample L870059, 1,750 ppm Cu). The lower part is chalcocite coating fine grained pyrite (sample L870060, 1,410 ppm Cu).

Sample locations and analyses in Redwood (2014).

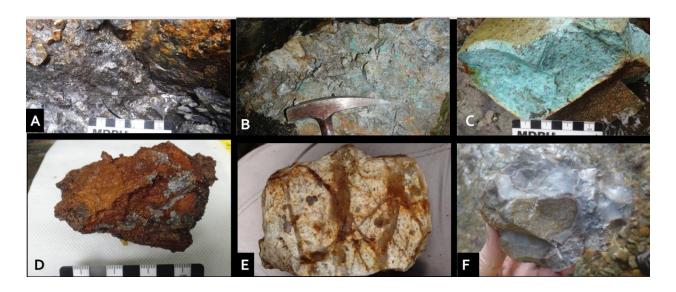


Figure 7.6. Field photos of geology and mineralisation in Quebrada Mariano. (Photos S. Redwood).

A) Supergene chalcocite on fine grained pyrite. Sample L870060, 1,410 ppm Cu.

- B) Malachite on granodiorite porphyry with quartz veinlet stockwork. Sample L8760061, 6,090 ppm Cu.
  - C) Boulder of quartz porphyry stained with copper oxides. Sample L870066, 16,020 ppm Cu.
  - D) Quartz-pyrite D-vein with partial oxidation to jarosite. Sample L870063, 6,950 ppm Cu.
    - E) Pebble of quartz porphyry with a dense stockwork of A and B type quartz veinlets.
- F) Cobble of jasper breccia with rounded chalcedony clasts cemented by opal-chalcedony with fine grained disseminated pyrite in both clasts and matrix.

### 8 Deposit Types

The style of mineralisation at the Cobrasco Project is of the porphyry copper type. Porphyry copper systems were reviewed by Sillitoe (2010) and his model is shown in Figure 8.1, with the interpreted style of the Cobrasco Project mineralisation. Porphyry copper systems may contain porphyry Cu  $\pm$  Mo  $\pm$  Au  $\pm$  Ag deposits of various sizes ranging from a few million tonnes to several billion tonnes. Typical primary porphyry Cu deposits have average grades of 0.5 to 1.5% Cu, <0.01 to 0.04% Mo, and 0.01 to 1.5 g/t Au, and a few gold-only deposits have grades of 0.9 to 1.5 g/t gold but little Cu (<0.1 %) (Sillitoe, 2010).

The alteration and mineralisation in porphyry copper systems can have a volume of many cubic kilometres of rock and are zoned outward from stocks or dike swarms, which typically comprise several generations of intermediate to felsic porphyry intrusions. Porphyry  $Cu \pm Au \pm Mo$  deposits are centred on the intrusions. Carbonate wall rocks can host proximal Cu-Au skarns, distal Zn-Pb and/or Au skarns, and, beyond the skarn front, carbonate-replacement Cu and/or Zn-Pb-Ag ± Au deposits, and/or sediment-hosted, distal disseminated Au deposits. High-sulfidation epithermal deposits may occur in lithocaps above porphyry Cu deposits, where massive sulphide lodes tend to develop in deeper feeder structures and Au ± Ag-rich, disseminated deposits within the uppermost 500 m or so. Less commonly, intermediate sulfidation epithermal mineralisation, chiefly veins, may develop on the peripheries of the lithocaps. The alteration-mineralisation in the porphyry Cu deposits is zoned upward from barren, early sodic-calcic through potentially oregrade potassic, chlorite-sericite, and sericitic, to advanced argillic, the last of these constituting the lithocaps, which may attain >1 km in thickness if not eroded. Low sulfidation-state chalcopyrite ± bornite assemblages are characteristic of potassic zones, whereas higher sulfidation-state sulphides are generated progressively upward together with temperature decline and the resultant greater degrees of hydrolytic alteration, culminating in pyrite  $\pm$  enargite  $\pm$  covellite in the shallow parts of the lithocaps. The porphyry Cu mineralisation occurs in a distinctive sequence of quartz-bearing veinlets as well as in disseminated form in the altered rock between them. Magmatic-hydrothermal breccias may form during porphyry intrusion, with some of them containing high-grade mineralisation because of their intrinsic permeability. In contrast, most phreatomagmatic breccias, constituting maar-diatreme systems, are poorly mineralized at both the porphyry Cu and lithocap levels, mainly because many of them formed late in the evolution of systems.

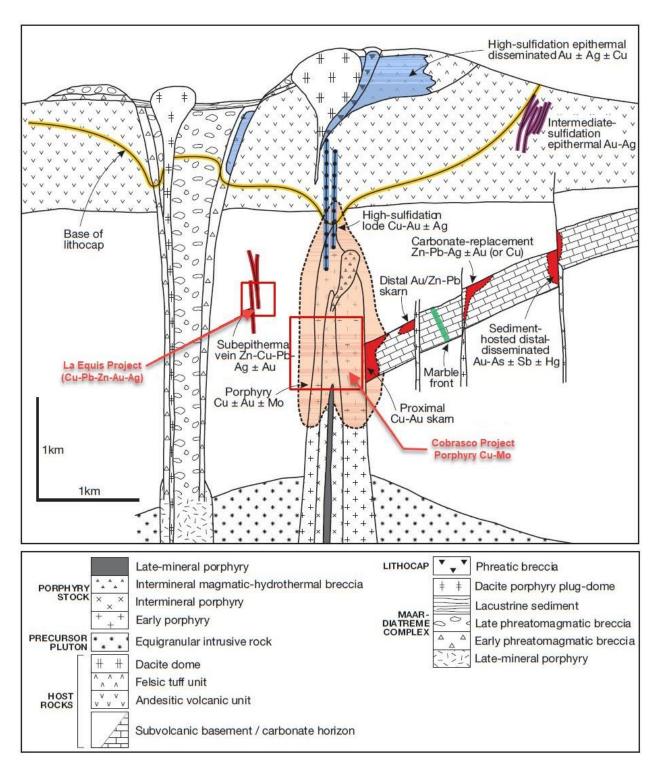


Figure 8.1. Porphyry system deposit model of Sillitoe (2010) showing the interpreted position of the Cobrasco Project.

The observed alteration and mineralisation at Cobrasco indicate that a moderate to deep level in the porphyry system is exposed. There are seven stages of porphyry and intrusion breccia of early to post-mineral age, and three relative ages and styles of copper mineralisation. The first is copper associated with chlorite-magnetite alteration in an early mineral diorite. The second and third are associated with muscovite alteration in quartz porphyry. The second style of copper mineralisation is disseminated sulphides comprising chalcopyrite, bornite and minor pyrite associated with muscovite alteration, followed by chalcopyrite veins with bornite and anhydrite associated with muscovite alteration high grades of 0.7 to >1.0% Cu. Stream boulders of jasper (chalcedony-opal) with pyrite are interpreted as being derived from a lithocap which is probably eroded off but may occur as relics on topographic high points.

# 9 Exploration

## 9.1 Summary

Exploration carried out by Rugby Resources from 2011 to 2025 is summarized in Table 9.1.

Method	Year	Contractor	Units	Number	Notes	
Satellite imagery Landsat 7	2011	Geolmage Pty Ltd, Brisbane	Area km2		Resolution too low	
Satellite imagery Quickbird	2013	Geolmage Pty Ltd, Brisbane	Area km2	57	Resolution 0.6 m (2.4 m multispectral)	
Topo maps 1;10,000, 1:20,000	2011	Rugby Resources	Area km2		NASA STRM DEM 90m pixel	
Helicopter Aeromagnetic Survey	2011	MPX Geophysics Ltd, Markham, ON	Line km Area km2	598 51		
Helicopter Radiometric Survey	2011	MPX Geophysics Ltd, Markham, ON	Line km Area km2	598 51		
Geophysics processing	2011	Zonge Ingeniería y Geofísica (Chile) S.A.	Line km Area km2	598 51	Derivative maps	
Geophysics reprocessing	2013	Arce Geofisicos Sucursal de Colombia	Line km Area km2	598 51	3D modelling	
Helicopter radar altimeter survey	2011	MPX Geophysics Ltd, Markham, ON	Area km2	51	DEM high resolution Topography maps 1:10k & 1:20k	
Rectify historical plans	2011	Rob Mitchell, Santiago			Warp to control points	
IP survey	2022	KTTM Medellin	Lines Line km	1 3 km		
Stream sediment sampling	2023	Rugby Resources	Samples	9		
Soil sampling	2014-18 2022-23	Rugby Resources	Samples	165 799		
Rock sampling	2018-2023	Rugby Resources	Samples	304		
Geological mapping	2022	Rugby Resources	Km2	50		
Petrography (outcrop)	2013	G.Rodriguez, Medellin	Samples	6		
	2022	Geocronos, Chile	Samples	6		
Petrography (core)	2022	P. Cornejo, Chile	Samples	12	CDH001	
	2023	P. Cornejo, Chile	Samples	15	CDH001/ CDH002/ CDH003	
Terraspec	Jun 2022	Geocronos, Chile	Samples	6		
(IR spectroscopy)						
Radiometric dating (core)	2023	ALS	Samples	2	CDH-001	

Table 9.1. Summary of exploration carried out at the Cobrasco Project by Rugby Resources.

### 9.2 Topography, imagery, DEM

Rugby Resources undertook a series of steps to acquire and/or make accurate topographic base maps for their exploration programmes. The only published maps by the Colombian mapping agency IGAC are regional 1:100,000 scale topography plans which are unsuitable for project-scale work. This included the acquisition of high-resolution satellite imagery, production of new topographic plans based on National Aeronautics and Space Administration (NASA) Shuttle Radar Topography Mission (SRTM) 90 m resolution digital elevation model (DEM) data, and the acquisition of detailed DEM by a helicopter-borne survey. The historical data was also rectified to fit the modern imagery and base maps by warping.

#### 9.2.1 Satellite Imagery

GeoImage Pty Ltd of Brisbane was contracted to acquire high resolution satellite imagery over the project area in February 2011. An acceptable Landsat 7 image was found which was suitable for planning purposes but not of sufficient resolution for the forestry studies or for field work.

GeoImage was then contracted to acquire high resolution fresh-capture of the project area. Cloud-free imagery is difficult to acquire as a result of the dense cloud cover. Fresh capture with acceptable (< 20% cloud cover) imagery was obtained on 24 June 2013 via the Quickbird platform. This has 0.6 m resolution in the natural colour and colour infrared bands, plus multispectral 2.4 m resolution. The imagery was delivered in WGS84 UTM projection, has uniform pixel spacing throughout and is radiometrically corrected to the chosen cartographic projection. It covers an area of 7.9 km by 7.2 km (57 km²) covering both the Cobrasco North and Cobrasco South concession areas of IHS-08005X.

### 9.2.2 90 m DEM Topography Plans

Rugby Resources downloaded free, publicly available NASA 90 m DEM data from the Maryland, USA Global Land Cover Facility (GLCF) and produced 1:10,000 and 1:20,000 scale topographic maps using the Landsat satellite imagery to finesse topographic features and creek positions. This produced adequate project-scale topographic maps used in the early field work.

### 9.2.3 Aerial Survey DEM Topography Plans

A helicopter-borne altimeter survey was flown together with magnetic and radiometric surveys in August 2011 over the project area. A total of 598 line-kilometres of data were acquired over an

area of 51 km<sup>2</sup>. The survey was flown at a nominal mean terrain clearance of 70 m along flight lines separated at 100 m, and tie-lines at a line separation of 1000 m.

A FreeFlight TRA 3000 radar altimeter system recorded the ground clearance to an accuracy of + 5% over the altitude range 30.5 m – 152.4 m. The altimeter antennae and receiver were mounted on the forward mounted stinger outside the helicopter and sampled at a frequency of 10 Hz. A Hemisphere R100 GPS navigation system input to a navigation computer and Pilot Guidance Unit (PGU). A digital elevation model channel was calculated by subtracting the filtered radar altimeter data from the GPS elevation defined by the WGS84 ellipsoidal height. The DEM channel was gridded using a minimum curvature algorithm with a grid size of 25 m.

At a flying speed of 60 knots (about 110 km per hour or 30.55 m per second), and altimeter sampling rate of 10 per second, the survey produced 205,000 GPS geo-referenced altitude points, or approximately one point every 3 m along flight lines. A contoured topographic map was plotted using ArcGIS at scales of 1:20,000 and 1:10,000. Rivers, creeks and other topographic features were digitized from the Quickbird imagery.

#### 9.2.4 Historical Data Rectification (Warping)

The rectification of the large lateral displacement errors in the INGEOMINAS-BGR radar-survey based maps used for their Phase 2 project-scale exploration was seen as essential prior to making use of this data.

Chilean-based GIS consultant Rob Mitchell was hired to develop an algorithm by which the various maps could be modified or "warped" in a consistent fashion. He developed a simple technique of warping using a number of identifiable control points found in the scanned historical maps and the ortho-rectified satellite imagery. The process was made with 124 control points within the Cobrasco project area. This work produced new warped stream sediment geochemistry (Cu, Pb, Zn, As), rock chip geochemistry (Au, Ag, Cu, Pb, Zn, Mo) and pan-concentrate (Au) geochemistry maps, shown in Figure 6.2 to Figure 6.6 and a corrected geological map shown in Figure 7.4. These newly digitised sample location points were used for all subsequent evaluation purposes.

In the QP's opinion the procedures used to correct the distortion of historical maps and sample locations are acceptable. The corrected geochemical and geological maps were used as a guide to plan future exploration, and the areas were re-mapped and re-sampled. The QP found that the corrected geochemical samples and geological maps corresponded well to topography and GPS locations in the field.

# 9.3 Geology

# 9.3.1 Geological mapping

Rugby Resources carried out geological mapping of the Cobrasco Project in 2022 (Figure 7.4).

#### 9.3.2 Petrography and Terraspec

Petrographic studies of 39 Cobrasco samples were made in four batches (Table 9.1). The first batch in 2013 was 6 outcrop samples collected on the site visit for the first NI 43-101 report. The Geocronos study in 2022 comprised another 6 outcrop samples to characterise the different lithologies (Rodriguez Bakulic, 2022). The methods used were transmitted light and reflected light petrography and hyperspectral infra-red spectroscopy by Terraspec Halo. The Cornejo (2022) samples (12) were collected from drill hole CDH-001 in order to define the lithologies, alteration, mineralisation and paragenesis. The second batch of Cornejo samples (15) in 2023 were core samples from all three holes.

### 9.4 Geochemistry

### 9.4.1 Stream Sediment Sampling

Rugby Resources has carried out very limited stream sediment sampling (9 samples) in the Cobrasco East target area in 2023. Samples were collected in 2<sup>nd</sup> order streams in the active part of the stream and sieved to -10# (< 2mm) in the field with further sieving to -80# in the laboratory. There were no significant anomalies in the samples. Results for Cu are shown in Figure 6.4. Stream sediment sampling will be used in the upcoming second phase work in the outlying target areas of Cobrasco North and in Cobrasco South.

#### 9.4.2 Soil Sampling

Rugby Resources carried out soil sampling in 2014-2018 (165 samples) and 2022-2023 (799 samples). Samples were collected on a NW-SE grid with reference to a base line with 100 m line spacing and 80 m sample spacing and infill to 100 m x 40 m in the central target area. Sample sites were located and the coordinates recorded by hand-held GPS (±5 m accuracy). Samples of 2.0 kg were collected from the saprolitic B-C horizon soil (in situ weathered rocks and clays).

Sampling in Cobrasco North ( $100 \times 80 \text{ m}$ ) has so far covered ~25% of the concession area, with a further ~5% covered on a wider-spaced  $100 \times 100 \text{ m}$  in the eastern portion of Cobrasco South.

The Cu >250 ppm soil anomaly in Cobrasco North is about 2.0 km NS by 1.0 km wide. It is centred on the mapped dacite-rhyodacite stock (Figure 9.1). It coincides with Mo >4 ppm (Figure 9.2). A second area with soil sampling in Cobrasco South has weaker and patchier Cu anomalies.

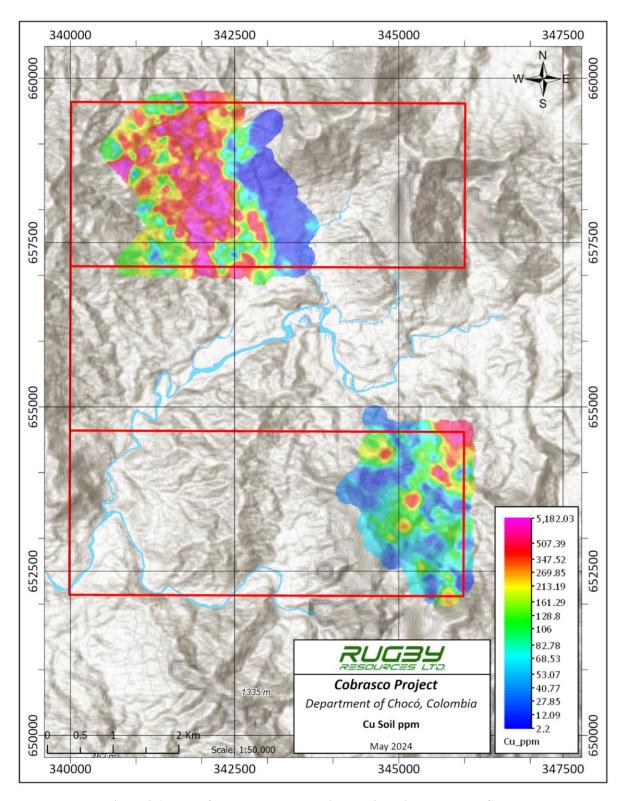


Figure 9.1. Map of Rugby Resources soil sampling with contoured Cu grade.

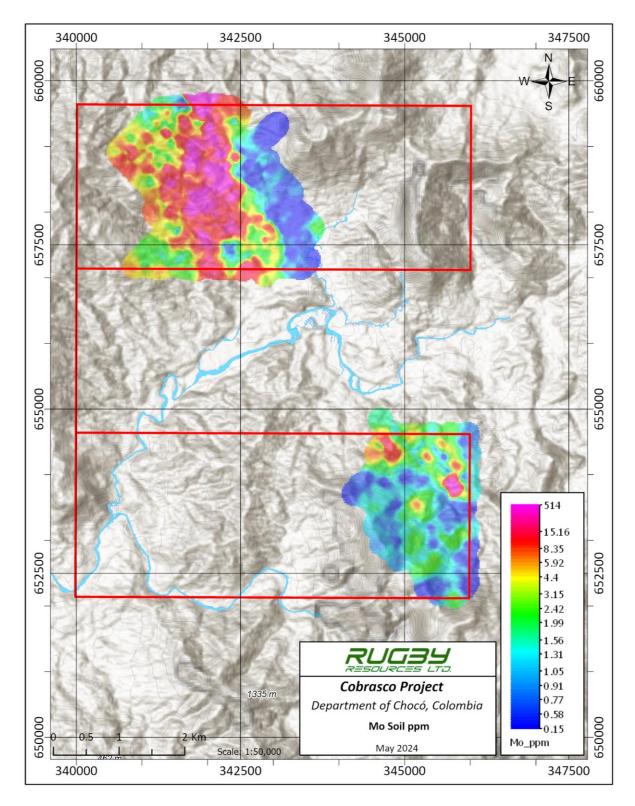


Figure 9.2. Map of Rugby Resources soil sampling with contoured Mo grade.

### 9.4.3 Rock Sampling

Rugby Resources has collected 304 rock samples from 2018-2023. The sample types are rock chips, channel sampling and panel sampling with sample weights of 1-2 kg. About 17% of the concession area has been covered by rock sampling.

The Cu rock anomaly >1000 ppm in Cobrasco North is about 2.0 km NS by 1.0 km wide (Figure 9.3). It is centred on the mapped dacite-rhyodacite stock (Figure 9.3). It extends south into the Comita concession. It coincides with Mo >10 ppm (Figure 9.4).

The Cu anomaly is coincident with a number of multielement anomalies including Ag >0.5 ppm, As >5 ppm, spotty Au >0.01 ppm (Figure 9.4), Bi >0.4 ppm, Co >10 ppm, Cs >0.3 ppm, Li >6 ppm, Mn >600 ppm, Ni >10 ppm, Rb >200 ppm, Sb >0.5 ppm, Se >2 ppm, Sn >1 ppm, Tl >0.2 ppm, and W >1 ppm.

In contrast, Pb >8 ppm and Zn >70 ppm (Figure 9.5) are partly coincident and extend further west as a halo but not to the east, and Sr is negative (<600 ppm) with a high over the granites to the east.

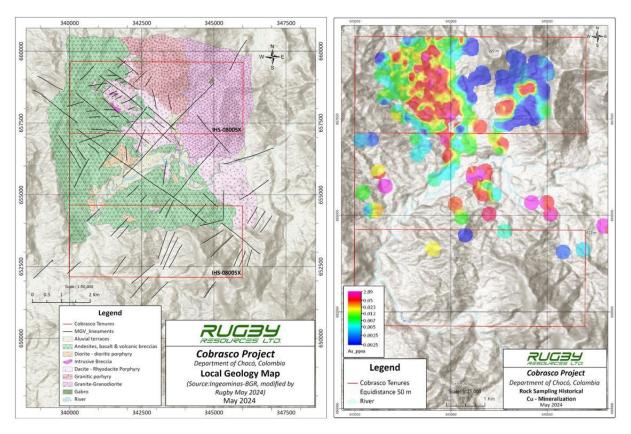


Figure 9.3. Cobrasco geology map and rock sampling map with Cu grade.

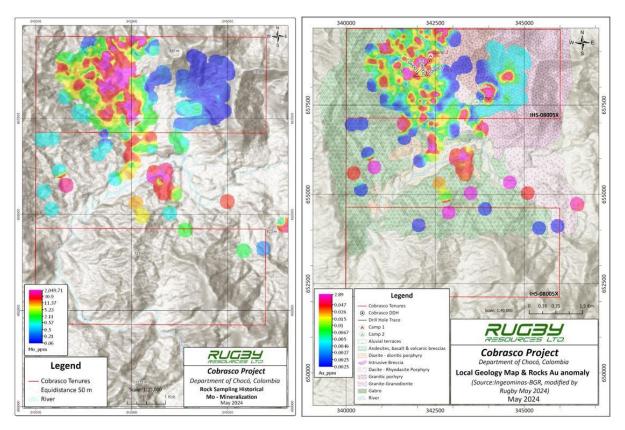


Figure 9.4. Cobrasco rock sampling maps for Mo and Au.

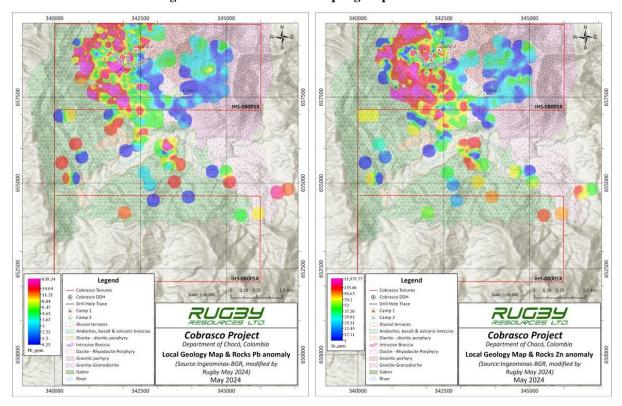


Figure 9.5. Cobrasco rock sampling with Pb and Zn grades.

# 9.5 Geophysics

# 9.5.1 Magnetic and radiometric survey

Rugby Resources carried out a helicopter-borne magnetic and radiometric survey of the Cobrasco Project in 2011 with geophysical contractor MPX Geophysics Ltd. of Markham, Ontario. The survey was flown using a Bell 206 L3 Long Ranger helicopter and totalled 598 line-kilometres over a target area of 51 km<sup>2</sup>. Flight lines were orientated NE-SW (045°) with tie-lines spaced at 1,000 m and orientated SE-NW (315°). The nominal flight height was 70 m at a survey velocity of 60 knots or 110 km/h.

Geophysical data acquisition involved the use of precision differential GPS positioning, a Pico-Envirotec GRS-10 multi-channel gamma-ray spectrometer system and a Scintrex CS-3 high sensitivity caesium magnetometer installed in a single sensor fixed boom. All data was recorded on-board at various rates ranging from 10-1 Hertz (Hz) (i.e. 10 times per second to once per second). Data was displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system.

Daily quality control and archiving of the data were completed by MPX using Geosoft OASIS Montaj software. The flight path was derived from differentially corrected GPS positions from the airborne data. A position was calculated for each second (approximately every 34 m along the flight path). Preliminary processing of the data by MPX included processing to remove noise spikes, correcting for diurnal variation, and network adjustments using flight lines and tie-line information to level the survey data-set. The DEM (position and height data) was used to produce a detailed topographic map.

Data processing was completed by Zonge Ingeniería y Geofísica (Chile) S.A. (now Southern Rock Geophysics S.A.) which produced a variety of magnetic products including total magnetic intensity (TMI), reduced to pole (RTP), first vertical derivative (1VD), ASVI, HorGrad and radiometric products including Total Count, K, Th, Th/K and U plots. Geophysicist Jim Scarbrough carried out a preliminary interpretation of this data in conjunction with the historical geochemical data set. This work was highly useful for delineating the various lithologies and mineralisation-controlling structures. The geophysics was also important for the delineation of the first drill targets and areas for extraction for drill platforms in the Forestry Reserve Extraction process.

A secondary re-interpretation of the geophysical dataset was carried out by geophysical consultant José Arce of Arce Geofisicos Sucursal Colombia SAS in October 2013 (Arce, 2013). This applied new algorithms to the processing of the raw data allowing for a better definition of the structural and geological controls on mineralisation. Arce also modelled the magnetic susceptibility in 3D,

producing a series of horizontal slices at 100 m depth intervals allowing a new interpretation and prioritization of targets. A plot of the MPX aeromagnetic data is shown in Figure 9.6.

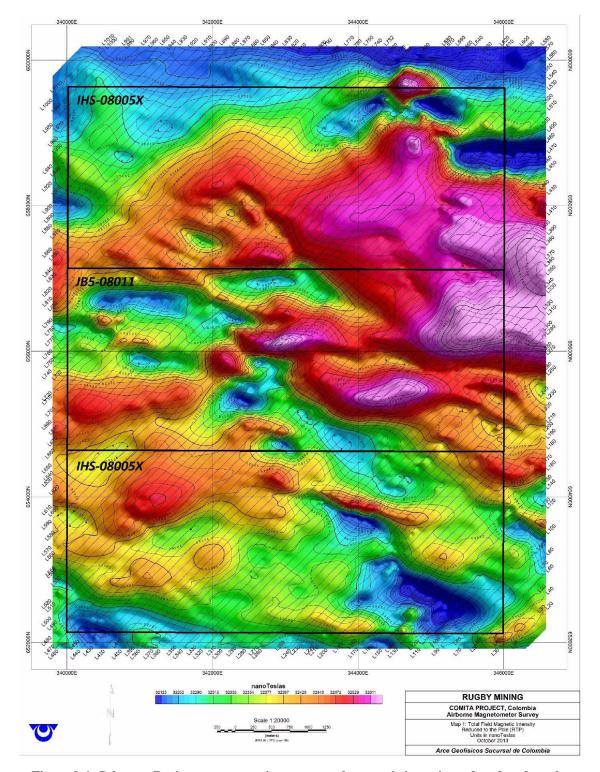


Figure 9.6. Cobrasco Project aeromagnetic survey total magnetic intensity reduced to the pole.

Processed by Arce Geofisicos. The 045° flight lines are shown.

### 9.5.2 IP survey

An induced polarisation (IP) survey was carried out in 2022 by KTTM Geophysics, Medellin and Southern Rock Geophysics, Chile. The survey was a Time-Domain Pole-Dipole IP survey. Receiver dipoles were spaced at 200 m intervals and the station spacing was also at 200 m. Three lines were planned but only one line of 3000 m could be completed during the time window available due to the difficult terrain. The data was collected using an IRIS instrument Syscal Pro receiver and dual GDD-5000W transmitters in a master-slave configuration as a source with 10 KW total power output. The infinity electrode was located more than 2000 m away from the closest receiving electrode along the survey line, i.e., more than 10 times the dipole-lengths of 200 m.

There is a coincident chargeability and resistivity high anomaly over the Cobrasco porphyry centre (Figure 9.7). A large chargeable high feature located to the SW of this is thought to represent a pyrite shell peripheral to the porphyry, mainly within andesitic lithologies.

Drill planning for hole CDH-001 targeted the eastern chargeable IP feature on Line 1 and drilled SW parallel to the soil and IP gridlines at an inclination of -50°. Holes CDH-002 and CDH-003 were drilled oblique to section (Figure 9.8).

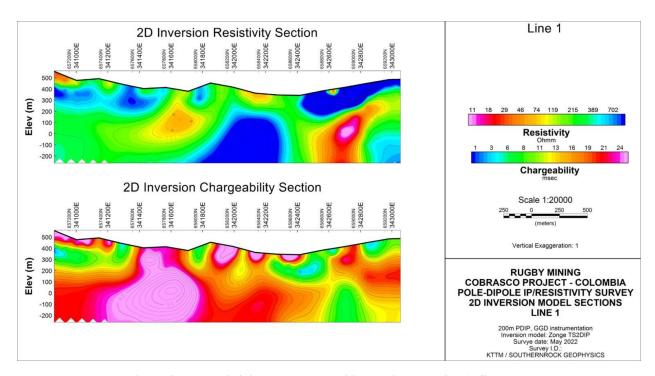


Figure 9.7. IP resistivity and chargeability sections on Line 1 (SW-NE).

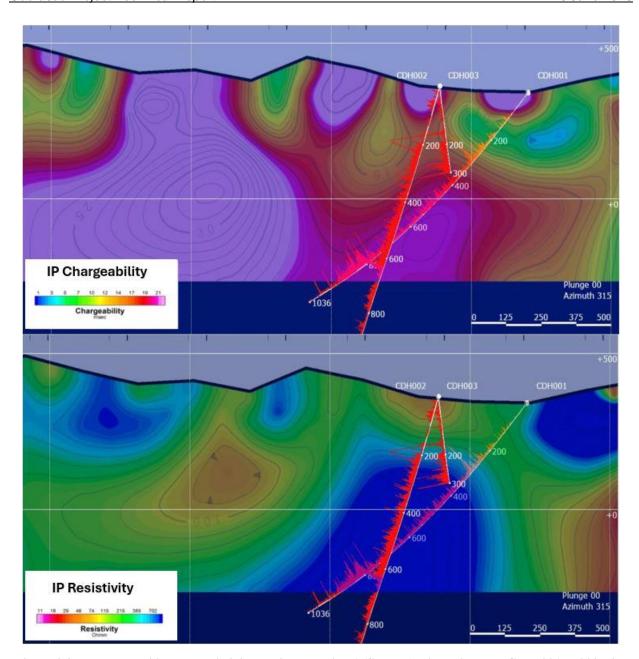


Figure 9.8. IP chargeability and resistivity sections on Line 1 (SW-NE) with drill holes CDH-001 to 003 with histograms of Cu (left) and Mo (right) grades.

# 10 Drilling

# 10.1 Drill programme 2022

Rugby Resources carried out a Phase 1 diamond core drilling programme at the Cobrasco Project from 11 August 2022 to 13 December 2022 that consisted of 3 holes totalling 2,283.10 m drilled from two platforms. Hole CDH-001 was drilled to 1,036.4 m depth, hole CDH-002 to 946.1 m depth, and hole CDH-003 with a planned depth of 1,300 m was stopped early at 300.6 m for the Christmas break, with the intention to complete it when drilling resumes. The contractor was Logan Drilling using a helicopter transportable Duralite 800 model diamond drill rig with core diameters HQ (63.5 mm), NQ (47.6 mm) and BQ (36.5 mm). The rig was mobilized to the project and moved between holes by helicopter. The collar table is given in Table 10.1, a location map in Figure 10.1 and a photo of the drill rig in Figure 10.2.

Hole No.	UTM East (WGS84 Z18N)	UTM North (WGS84 Z18N)	Altitude (masl)	Azimuth (deg)	Inclination (deg)	Hole Depth (m)
CDH-001	342339	658730	340	224	-50	1036.40
CDH-002	342292	658333	361	260	-70	946.10
CDH-003	342292	658333	361	330	-67	300.60
				Total	Depth =	2283.10

Table 10.1 Collar table of diamond drill core holes carried out at the Cobrasco Project by Rugby Resources in 2022.

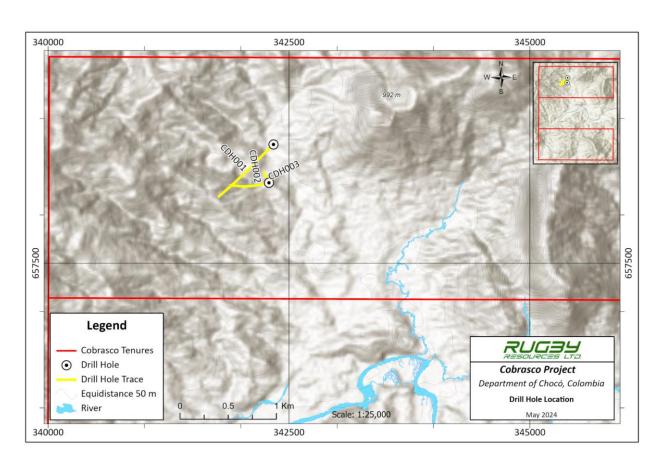


Figure 10.1 Location map of the holes drilled at the Cobrasco Project by Rugby Resources in 2022.



Figure 10.2 Photo of the drill rig on hole CDH-001 in 2022 (Rugby Resources).

# 10.2 Significant intersections

Significant drill intersections are listed in Table 10.2

Hole No.	From (m)	To (m)	Interval (m)	Cu (%)	Mo (ppm)	Ag (ppm)	CuEq (%)	Recovery (%)
CDH-001	184.0	992.0	808.0	0.42	79	1.12	0.48	99.8
Inc.	768.0	906.0	138.0	0.77	164	2.34	0.89	100.0
Inc.	774.0	856.0	82.0	0.90	199	3.05	1.06	100.0
CDH-002	18.0	88.0	70.0	0.29	50	2.59	0.35	66.2
	152.0	906.0	754.0	0.47	76	1.18	0.52	99.2
Inc.	474.0	646.0	172.0	0.74	78	1.98	0.81	100.0
CDH-003	8.0	156.0	148.0	0.20	65	3.5	0.28	76.0
Inc.	20.0	80.0	60.0	0.27	57	5.6	0.38	52.0
	156.0	300.6	144.6	0.69	155	1.5	0.79	100.0
Inc.	200.0	300.6	100.6	0.72	210	1.6	0.86	100.0

Table 10.2 Table of drill intersections in the Cobrasco Project 2022 drill programme.

Copper Equivalent: CuEq % = Cu% + (Mo% \* (Mo price per lb / Cu price per lb)) + (Ag ppm \* ((Ag price per oz/Ag g per oz) / (Cu price per lb \* lb per ton \* 1%))).

Assumes 100% metallurgical recovery and is indicative of the gross in-situ metal value. Assumes metal prices of US\$3.50/lb Cu, US\$20.00/lb Mo and US\$30.00/oz Ag.

Conversion factors are 1 ton = 2204.623 lbs, 1 oz Troy = 31.10348 g, 1% = 10,000 ppm.

The simplified formula is CuEq% = Cu% + (Mo% \* (20/3.50) + (Ag ppm \* ((30/31.10348) / (3.5\*2204.623\*001))). And CuEq% = Cu% + (Mo% \* 5.7143) + (Ag ppm \* 0.0125).

The results demonstrate Cu mineralisation with Mo and Ag over the length of the holes and starting at the top of bedrock in holes CDH-002 and CDH-003.

Significant results in hole CDH-001 were 808 m from 184 m depth grading 0.42% Cu, 79 ppm Mo and 1.12 ppm Ag (0.48% CuEq), including 138 m from 768 m depth grading 0.77% Cu, 164 ppm Mo and 2.34 ppm Ag (0.89% CuEq) and 82 m from 774 m depth grading 0.90% Cu, 199 ppm Mo and 3.05 ppm Ag (1.06% CuEq).

Significant results in hole CDH-002 were 70 m from 18 m depth grading 0.29% Cu, 50 ppm Mo and 2.59 ppm Ag (0.35% CuEq) and 754 m from 152 m depth grading 0.47% Cu, 76 ppm Mo and 1.18 ppm Ag (0.52% CuEq) including 172 m from 474 m depth grading 0.74% Cu, 78 ppm Mo and 1.98 ppm Ag (0.81% CuEq), effectively indicating mineralisation from surface.

Significant results in hole CDH-003 were 148 m from 8 m depth grading 0.20% Cu, 65 ppm Mo and 3.5 ppm Ag (0.28% CuEq) including 60 m from 20 m depth grading 0.27% Cu, 57 ppm Mo and 5.6 ppm Ag (0.38% CuEq), and 144.6 m from 156 m depth grading 0.69% Cu, 155 ppm Mo

and 1.5 ppm Ag (0.79% CuEq) including 100.6 m from 200 m depth to the end of the hole grading 0.72% Cu, 210 ppm Mo and 1.6 ppm Ag (0.86% CuEq).

# **10.3 Cross sections**

Cross sections of the drill holes are shown in Figure 10.3 to Figure 10.5.

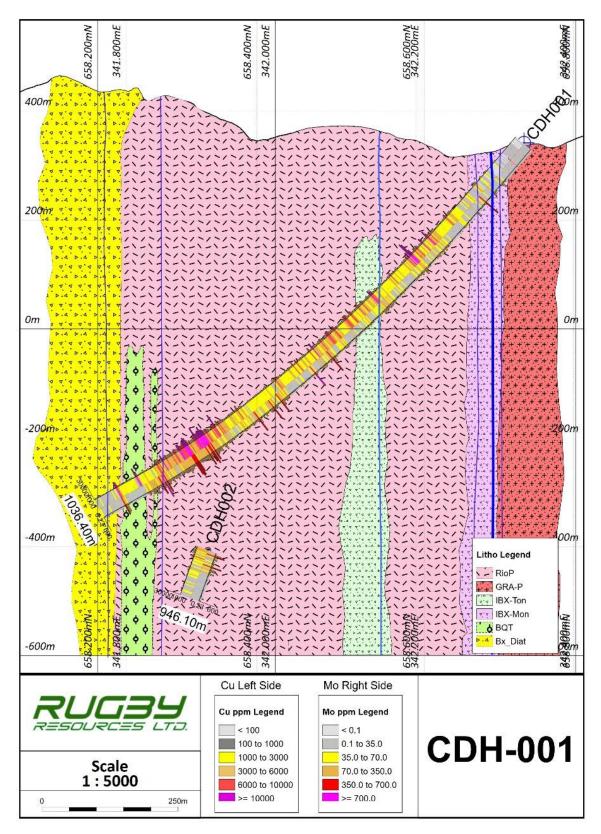


Figure 10.3. Cross section of drill hole CDH-001 showing lithology and Cu-Mo grades.

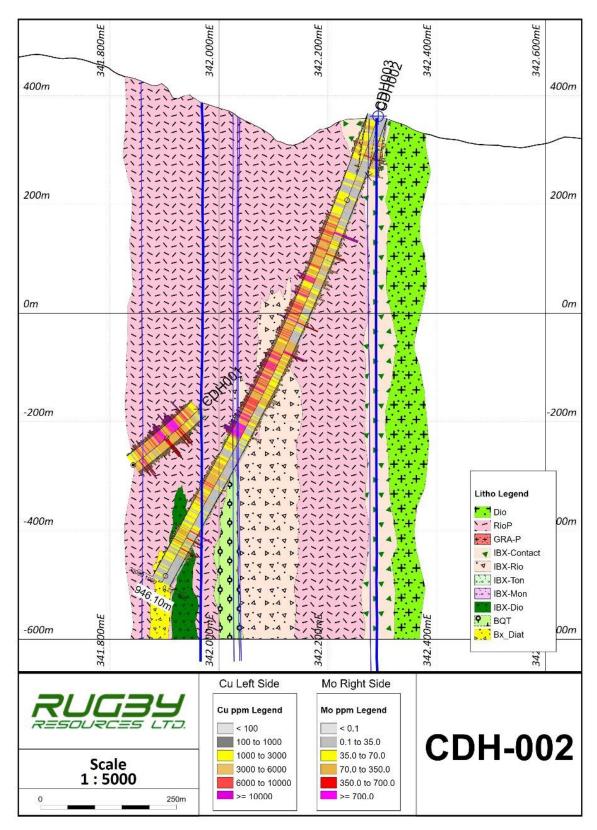


Figure 10.4. Cross section of drill hole CDH-002 showing lithology and Cu-Mo grades.

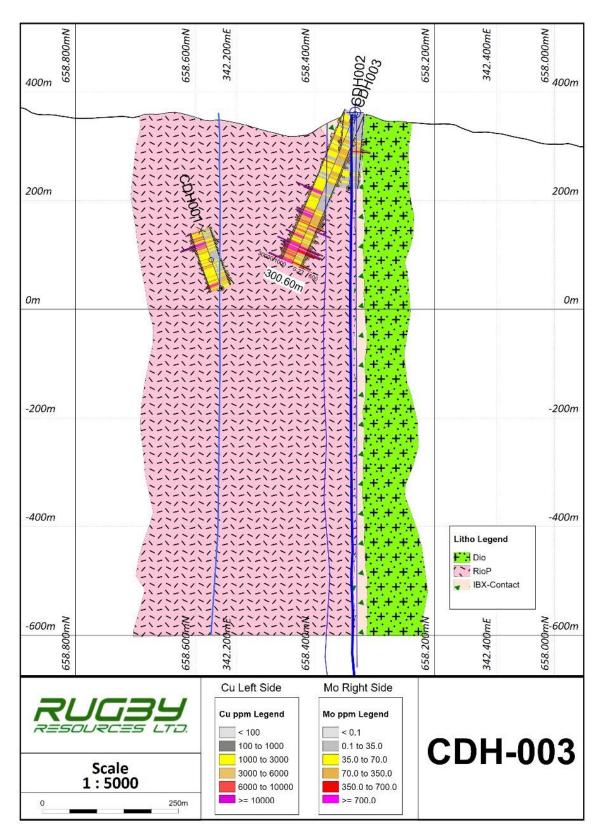


Figure 10.5. Cross section of drill hole CDH-003 showing lithology and Cu-Mo grades.

# 10.4 Geological observations

The geological history of the Cobrasco porphyry based on core logging of three holes by Rugby Resources and observations by the author are described in this section and are summarised in Table 10.3 with core photos in Figure 10.6 and Figure 10.7.

Porphyry*	Log Code	Composition	Relative	Alteration	Veins	Dissem	Breccia	Cu %
			Age					
P1	Dio	Diorite	Pre-min	A1 Mag, chl	V1 Mt, qz A, B, cp			0.2-0.3
P2 xenos	RioP	Granodiorite	Pre-min	Musc	V2 qz, A, B		Xenos in P3,	
		cs qz por					clasts in P3Bx	
P3, P3Bx	BQT	Granodiorite	Pre-min	Musc	qz, A, B	cp, bn, py	Intrusion	0.4-0.5
		cs qz por					breccia	
	BxHyd			Musc	V4 cp-bn-ah	cp, bn, py	Crackle bx,	0.7->1.0
							veinlets	
	Bx-Int-Rio							
P4 dykes	BQT	Granodiorite	Late-min	Musc weak	Minor qz			0.2-0.1
		crowded qz						
		por						
P5 dykes	Tonalite	Diorite	Late-min	Musc weak	Minor qz			0.1
<b>Bx6</b> polymict	Diatreme	Rhyolite fine	Post-min	None	ру	In clasts	Intrusion bx	0.05
intrusion								
breccia								
P7 Ap dyke	DkAp	Aplite or	Post-min	None			Cuts Bx6	0.04
		rhyolite						

Table 10.3 Sequence of porphyry intrusion events, alteration, veining and mineralisation at Cobrasco.

Preliminary interpretation based on core, subject to modification.

The oldest intrusion drilled at Cobrasco is an early diorite (P1) at the top of CDH-002 (28.0-88.8 m) and CDH-003 (22.0-66.0 m) drilled from platform 2. This is medium grained, granular to weakly porphyritic with strong magnetite and chlorite alteration. The chlorite is probably retrograde after secondary biotite. Magnetite veins are crosscut by quartz veinlets with sulphides. The grades are around 0.2-0.3% Cu.

This is crosscut by a quartz eye porphyry (P3) that occurs in almost the complete length of CDH-001 (44.0-942.0 m) and most of CDH-002 (88.8-922.6 m) and CDH-003 (66.0-300.6 m). This is a coarse grained crowded porphyry with large phenocrysts of bipyramidal quartz and feldspar and is generally bleached with muscovite alteration. It has abundant quartz veinlets of A and B type but the veinlets do not have sulphides. In long intervals the porphyry contains abundant xenoliths of earlier quartz veinlets and clasts of a similar looking porphyry (P2) with quartz veinlets and forms an intrusion breccia (P3Bx). P2 has only been seen as xenoliths and clasts. This is evidence for an intrusion (P2) with potassic alteration and A and B quartz veinlets that was then incorporated into a second intrusion of similar composition (P3) with a second phase of potassic alteration and

<sup>\*</sup> Porphyry codes are field codes assigned by Redwood. The Log Codes are those assigned by Rugby Resources.

A and B quartz veinlets, and both were overprinted by texture-destructive muscovite alteration. The muscovite alteration has disseminated sulphides consisting of chalcopyrite, bornite, minor pyrite and reported chalcocite. This has grades of about 0.4-0.5% Cu. The porphyry is cross cut by late veins and crackle breccias of chalcopyrite, bornite and anhydrite which give high grade zones of 0.7 to >1.0% Cu.

The P3 porphyry is crosscut by a few dykes of similar composition but with more crowded phenocrysts which have low-grade of <0.1% Cu and are late-mineral in timing (P4; CDH-001, 914.0-922.5 m; CDH-002, 673.4-690.7 m). There are also dykes of a more dioritic porphyry (P5) that is late-mineral with low-grade of <0.2% Cu seen in CDH-002 (895.0-896.3 m). Finally, there is a polymict intrusion breccia (Bx6) at the end of CDH-001 (992.0-1036.0 m) and CDH-002 (922.6-946.1 m). This has a fine grained igneous matrix with banding in places and clasts of volcanic rocks not seen elsewhere as well as quartz eye porphyry clasts, and has muscovite alteration. The breccia is post-mineral but carries low Cu grades in some of the clasts. It is cut by an aplite or rhyolite dyke (P7Ap).

There is supergene oxidation to saprolite at the top of each hole to depths downhole of 17.8 m (CDH-003), 28.0 m (CDH-002) and 44.5 m (CDH-001). Copper is leached to <0.02% Cu in CDH-001 but low grades mostly <0.13% Cu remain in the goethitic saprolite after P1 diorite in CDH-002 and 003. There is no supergene Cu enrichment. There are gypsum and anhydrite fronts (258.0 m in CDH-002) going downhole marking the start of gypsum formed by hydration of anhydrite, and the start of hypogene anhydrite. Gypsum is absent above the gypsum front in a leached zone with low competency, RQD and RMR and it is important to define these zones for geotechnical studies and future pit design.

In summary there are seven stages of porphyry and intrusion breccia of early to post-mineral age, and three relative ages and styles of Cu mineralisation. The first is Cu associated with chlorite-magnetite alteration in an early mineral diorite. The second and third are associated with muscovite alteration in quartz porphyry. The second style of Cu mineralisation is disseminated sulphides comprising chalcopyrite, bornite and minor pyrite associated with muscovite alteration. This is developed extensively and has an average grade of about 0.4 to 0.5% Cu. The third important stage is chalcopyrite veins with bornite and anhydrite and associated muscovite alteration crosscutting the former with grades of 0.7 to >1% Cu. The presence of high grade hypogene Cu is significant for the economics of the deposit.

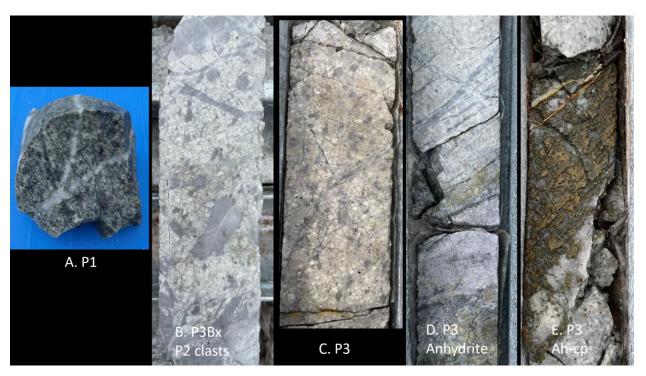


Figure 10.6. Core photos of lithology, alteration and mineralisation (Photos S. Redwood).

A) P1 diorite with magnetite and quartz veinlets (CDH-002, 73.2m, 0.48% Cu). B) P3Bx magmatic breccia with clasts of P2 porphyry and quartz veinlets (CDH-001, 370.4 m, 0.13% Cu). C) P3 granodiorite porphyry (CDH-001, 261.6 m, 1.04% Cu). D) P3 porphyry with anhydrite vein (CDH-002, 426.5 m, 0.69% Cu). E) P3 porphyry with anhydrite-chalcopyrite vein (CDH-001, 949.0 m, 1.65% Cu).

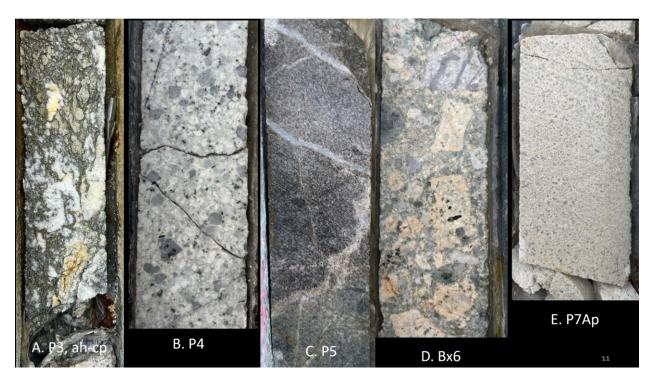


Figure 10.7. Core photos of lithology, alteration and mineralisation (Photos S. Redwood).

A). Anhydrite-chalcopyrite-pyrite vein (CDH-003, 160.0 m, 6.00 m at 2.45% Cu including 2.00 m at 4.81% Cu). B) P4 granodiorite crowded porphyry late-mineral dyke (CDH-001, 916.5 m, 0.08% Cu). C) P5 fine gained diorite late mineral dyke (CDH-002, 805.0 m, 0.09% Cu). D) Bx6 post-mineral polymict intrusion breccia with rhyolite matrix (CDH-001, 992.0-1034.4 m, <0.1% Cu). E) P7Ap post-mineral aplite or flow-banded rhyolite dyke (CH-001, 992.0-1036.4 m, <0.1% Cu).

# 10.5 Core recovery

Average core recovery for whole holes was 98.4% for CDH-001, 96.3% for CDH-002 and 87.5% for CDH-003; the latter is not acceptable and measures should be taken to guarantee high recovery for the next phase of drilling.

Core recovery for the mineralised intersections was 99.2 to 100% except for three short intersections of 8.0-20.0 m length in CDH-002 and CDH-003 with low core recovery of 52% to 76% so that assays for these intervals may not be representative (Table 10.4)

# 10.6 Collar surveying

Drill hole collars are surveyed by handheld GPS with precision of about  $\pm$  3.0 m. This is considered to have adequate accuracy and precision for exploration drilling.

# 10.7 Downhole directional surveys

Downhole directional surveys (azimuth and inclination) were carried out using a Reflex Ez-Trak XTF wireline tool supplied by and operated by Logan Drilling. It is a magnetic and gravimetric digital instrument with three flux-discriminating magnetometers that measure the local geomagnetic field and provide the azimuth corresponding to magnetic north. As a magnetic tool it may be susceptible to error in zones with magnetic minerals. The use of a gyro tool is recommended for future drill programmes.

# 10.8 Drill pad restoration, monuments

Drill pads are recontoured and revegetated after use. No monument or drill pipe is left to mark the collars for environmental reasons. At the time of the site visit, Pad 1 had been restored while Pad 2 was still in use to store the drill and equipment until drilling resumes.

# 10.9 Core logging protocol

The following is the core logging and core sampling protocols. There are written protocols for each procedure.

1. A Quick Log is made on arrival of the core at the core logging facility which is part of the Daily Drilling Report procedure.

- 2. The core is cleaned (washed), reconstituted if fractured or has moved during transport and the metre indicators are marked on each box.
- 3. All core is photographed uncut both wet and dry in the freshly marked core boxes.
- 4. A detailed geotechnical log is made on Excel software using company Toughbooks or tablets.
- 5. A detailed geology and mineralisation log also produced on Excel software using Toughbooks or tablets. A more detailed log is required to log the porphyry types.
- 6. A simplified or semi-detailed graphical strip log is made using appropriate software such as Seequent of Geotic (supplied by ALS).
- 7. Terraspec Terra spectral readings taken to log alteration.
- 8. Magnetic susceptibility measurements are made.
- 9. Specific gravity measurements are carried out.
- 10. Samples are marked in 2.00 m lengths.
- 11. The core is cut in half lengthwise using a diamond saw.
- 12. One half of the sample is bagged, labelled and sealed. The other half of the core is returned to the core box for reference.
- 13. QA-QC samples are inserted in the sample run.
- 14. The cut core in core trays is photographed a second time.
- 15. The core trays are stored.

# 10.10 Specific gravity

Specific gravity is measured at the core logging facility by selecting a solid core sample of about 10-25 cm length, coating the sample in varnish (instead of wax) and weighing it in air and water. Tests were made to determine the optimum drying time and temperature which is 210 minutes at 150°C. There is a written protocol. Measurements are taken every 20 m outside mineralized zones or where there is a change of lithology or alteration, and every 10 m within mineralized zones or where there is a change of lithology or alteration.

A total of 153 measurements were made on the core at an average of 1 per 14.9 m. The average specific gravity is 2.53, the minimum is 2.09 and the maximum is 3.26.

A limitation of this method is that it requires solid core and may introduce a bias against the higher grade mineralisation which tends to be broken by fracturing, veining and/or brecciation.

It is recommended that check samples be carried out at a commercial laboratory for QAQC.

# 10.11 Magnetic susceptibility

Magnetic susceptibility measurements were performed on all drill core using an Android-powered MPP PROBE Model MPP-EM2S magnetic susceptibility meter. The recommended operating procedures for this equipment are detailed in "Work Procedure #20 – MagSus". The main considerations when taking readings is the need to calibrate the equipment in an interference-free (non-magnetic) environment prior to commencing. Measurements were taken at one metre intervals and the measurement drillhole depth was recorded on a spreadsheet. The digital data was downloaded and backed up in .xlsx format for later use in GIS formats.

# 10.12 Petrography

Transmitted and reflected light petrographic studies of core samples were made by Paula Cornejo, Santiago, Chile in 2022 (12 samples) and 2023 (15 samples).

# 10.13 Radiometric dating

Rugby Resources carried out radiometric dating of two sample of drill core from the Cobrasco Project. Dating was carried out by ALS and subcontracted to university laboratories (Table 10.4). U-Pb dating of zircon from the quartz porphyry (P3) gave a date of  $40.35 \pm 0.43$  Ma. Re-Os dating of molybdenite gave a date of  $42.49 \pm 0.18$  Ma.

Laboratory	Sample No.	Hole	Depth (m)	Mineral Dated	ALS Method	Age (Ma)	±2σ (Ma)
CODES (Univ of Tasmania)	L874457	CDH-001	569.7	Zircon	U-ISTP02 U-Pb (LA-ICP-MS)	40.35	0.43
Vancouver	L874456	CDH-001	434.6- 435.0	Molybdenite	Re-ISTP01 Re-Os	42.49	0.18

Table 10.4 Summary of radiometric dating of Cobrasco core samples.

# 11 Sample Preparation, Analysis and Security

#### 11.1 INGEOMINAS-BGR

The geochemical samples from the INGEOMINAS-BGR regional exploration programs between 1984-1988 were analysed at the INGEOMINAS laboratory in Medellin. The project included the improvement of this laboratory. The details of sample preparation and analysis are given in the reports by Alvarez et al. (1987) and Feldhaus et al. (1988). The analytical results are tabulated in these reports but there are no laboratory certificates.

#### 11.1.1 Phase 1, 1984 – 1985

The stream sediment samples were screened in the laboratory to minus 80 mesh. There is no information on sample preparation of the rock samples. All samples were assayed by atomic absorption spectrometer (AAS) for Cu, Zn, Pb, Co and Ni, and a minor number for Mo and Ag. A total of 2,854 samples were assayed, including 2,704 from the Mandé Project (27 samples could not be assayed due to insufficient quantity of sample) and 150 samples from previous INGEOMINAS regional traverses in the Atrato, Beberama and Negua rivers. The BGR assayed 400 of the samples for Mo and As by AAS at their laboratory in Hannover, Germany in order to determine if these constituted pathfinder elements to hydrothermal mineralisation.

#### 11.1.2 Phase 2, 1985 - 1986

The stream sediments samples were screened in the laboratory to minus 80 mesh. There is no information on sample preparation of the rock samples. All analytical work was carried out in the INGEOMINAS Medellin laboratory. Stream sediment samples were assayed by AAS for Cu, Zn and Pb, and for As by colorimetric analysis. Rocks were analysed by AAS for Cu, Zn, Pb, Mo, Au and Ag. The flowsheet of sample type and corresponding analytical techniques is shown in Figure 11.1.

The 4-pan-concentrates were assayed for Au semi-quantitatively by amalgamating the concentrate with mercury and dissolving the mercury in aqua regia, followed by analysis by AAS for some of the samples, and fire assay for the rest. The soil samples and 1-pan-concentrates were archived and not assayed.

Gold was analysed in rock samples by AAS and by fire assay and AAS at INGEOMINAS laboratory in Medellin. Check Au assays were made by AAS by INGEOMINAS in Bogota and BGR in Hannover, and by fire assay at INGEOMINAS in Medellin and X-Ray Laboratory in Ontario, Canada. There are up to 6 gold assays for some samples. The results show very high

variability and poor reproducibility, and are considered to be unreliable (Feldhaus et al., 1988). The reasons given were oxidised surface samples, inadequate sample size, insufficient sample homogenization, and analytical problems.

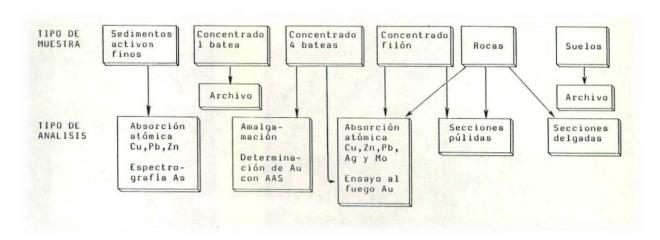


Figure 11.1. Mandé Project Phase 2 sample type and analysis flow-sheet.

(Feldhaus et al., 1988).

## 11.1.3 QP's Opinion

There is no documentation available on the chain of custody and sample security and whether any quality assurance-quality control (QA-QC) measures were carried out. Replicate analyses of Cu, Mo and Au were carried out for many samples listed as second columns of "control analyses". Both INGEOMINAS (now SGC) and BGR are respected research organisations and it is assumed that they applied the sample security, sample preparation and analytical protocols that were standard at the time. The work was carried out before NI 43-101 was introduced and is considered to be historical in nature. Rugby Resources have used the information to guide their exploration to identify areas to carry out new geochemical sampling.

# 11.2 Rugby Resources

# 11.2.1 Sample security and chain of custody

The following is the protocol for security and chain of custody for core samples:

1. The core is placed in galvanised metal core trays by the drillers with depth markers and the trays are numbered.

- 2. The core trays are collected daily from the drill rig by helicopter, carried in a custom-made core box "safe" on a long-line and flown back to the helipad at the camp, from where the core is transferred into an internal load for ease of flight to the company heliport in Quibdo.
- 3. A company vehicle and driver takes the core trays from the heliport to the nearby core logging facility in the outskirts of Quibdo.
- 4. The shipping list is checked on arrival, the core cleaned and reordered if brecciated or fractured, and new metre indicators are marked on the core boxes.
- 5. After logging and sampling, the samples are taken to the ALS laboratory in Medellin by company personnel in a pickup truck with a shipping list and laboratory services submittal sheet.
- 6. After sample preparation the sample pulps are shipped by ALS by air courier to their laboratory in El Callao, Lima for analysis.
- 7. The core trays are stored at the core logging facility.
- 8. The coarse rejects and sample pulps are returned to company custody and are stored at the core logging facility in Quibdo.

A similar protocol for security and chain of custody is used for stream sediment, soil and rock samples.



Figure 11.2. Rugby Resources' core logging facility in Quibdó showing field office and house (left) and core logging patio (right). (Photos S. Redwood, 2024).

### 11.2.2 Sample preparation and analysis

All Rugby Resources samples were prepared and analysed by ALS laboratory. ALS carries out sample preparation in Medellin and analyses in El Callao, Peru using the methods described in Table 11.1 with the detection limits shown in Table 11.2 and Table 11.3. ALS is independent of Rugby Resources and is certified ISO 9001 and ISO 17025 by the IQNet and the Standards Council of Canada respectively.

All samples are assayed for gold by fire assay of a 30-gram charge with AAS finish (method Au-AA23) and 48 element ultra-trace level detection by four-acid digestion with ICP-AES/ ICP-MS finish (method ME-MS61). Over-limits or ore grade elements were assayed by four-acid digestion with ICP-AES finish (method OG62) (Table 11.1).

Laboratory	Method	Code	Procedure
	Preparation stream sediments, pan cons, soils	PREP-41	Dry at <60°C, sieve to -180 $\mu$ m (80 mesh). Retain both fractions.
	Preparation rocks	PREP-31B	Dry at 105°C, crush to P70 <2 mm, riffle split 1000 g, pulverise to P85 <75 μm
	Au	Au-AA23	Fire assay 30 g, AAS
ALS Medellin & El Callao	Au	Au-ICP21	Fire assay 30 g, ICP
Li Callao	32 multielements (soils 2014-18)	ME-ICP61	4-acid digestion, ICP-AES
	48 multielements (ultra- trace level detection)	ME-MS61	4-acid digestion, ICP-AES/ICP-MS
	Ag, Cu, Pb, Zn overlimit	OG62	4-acid digestion, ICP-AES

Table 11.1 Summary of the sample preparation and analyses methods of the Rugby Resources samples.

Abbreviations: P85, 85% passing sieve size; AAS atomic absorption spectrophotometer; ICP, ICP-AES inductively coupled plasma atomic emission spectrometer. ICP-MS inductively coupled plasma mass spectrometer.

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Element	Unit	Method	Lower Limit of Detection	Upper Limit of Detection	Element	Unit	Method	Lower Limit of Detection	Upper Limit of Detection
Ag	ppm	ME-MS61	0.01	100	Na	%	ME-MS61	0.01	10
Al	%	ME-MS61	0.01	50	Nb	ppm	ME-MS61	0.10	500
As	ppm	ME-MS61	0.20	10000	Ni	ppm	ME-MS61	0.20	10000
Ва	ppm	ME-MS61	10.00	10000	р	ppm	ME-MS61	10.00	10000
Be	ppm	ME-MS61	0.05	1000	Pb	ppm	ME-MS61	0.50	10000
Bi	ppm	ME-MS61	0.01	10000	Rb	ppm	ME-MS61	0.10	10000
Ca	%	ME-MS61	0.01	50	Re	ppm	ME-MS61	0.00	50
Cd	ppm	ME-MS61	0.02	1000	s	%	ME-MS61	0.01	10
Ce	ppm	ME-MS61	0.0 1	500	Sb	ppm	ME-MS61	0.05	10000
Со	ppm	ME-MS61	0.10	10000	Sc	ppm	ME-MS61	0.10	10000
Cr	ppm	ME-MS61	1.00	10000	Se	ppm	ME-MS61	1.00	1 000
Cs	ppm	ME-MS61	0.05	500	Sn	ppm	ME-MS61	0.20	500
Cu	ppm	ME-MS61	0.20	10000	Sr	ppm	ME-MS61	0.20	10000
Fe	%	ME-MS61	0.01	50	Та	ppm	ME-MS61	0.05	500
Ga	ppm	ME-MS61	0.05	10000	Те	ppm	ME-MS61	0.05	500
Ge	ppm	ME-MS61	0.05	500	Th	ppm	ME-MS61	0.01	10000
Hf	ppm	ME-MS61	0.10	500	Ti	%	ME-MS61	0.01	10
In	ppm	ME-MS61	0.01	500	TI	ppm	ME-MS61	0.02	10000
K	%	ME-MS61	0.01	10	u	ppm	ME-MS61	0.10	10000
La	ppm	ME-MS61	0.50	10000	V	ppm	ME-MS61	1.00	10000
Li	ppm	ME-MS61	0.20	10000	w	ppm	ME-MS61	0.10	10000
Mg	%	ME-MS61	0.01	50	у	ppm	ME-MS61	0.10	500
Mn	ppm	ME-MS61	5.00	100000	Zn	ppm	ME-MS61	2.00	10000
Мо	ppm	ME-MS61	0.05	10000	Zr	ppm	ME-MS61	0.50	500

Table 11.2. Elements and limits of detection in ALS ICP package ME-MS61.

Element	Unit	Method	Lower Limit of Detection	Upper Limit of Detection
Au	ppm	Au-AA23	0.01	100
Ag	ppm	OG62	1.00	50
Cu	%	OG62	0.00	10000
Pb	%	OG62	10.00	10000
Zn	%	OG62	0.05	1000

Table 11.3. Limits of detection of ALS assays for gold and overlimit base metals.

#### 11.2.3 QA-QC

QA-QC was carried out for stream sediment, soil and rock samples. The protocol for QA-QC for core samples is as follows:

- 1 in 10 QC samples (10%). The actual number of samples was 8.0%.
- Coarse blank of quartz (BLG). The insertion rate was 2 per 100 samples (actual rate 1.9%).
- Certified Standard Reference Materials (CSRM) sourced from OREAS (STD) made from mineralised porphyry (i.e. similar matrix) and certified for multiple elements. The certified values for Cu, Mo, Au and Ag for the 6 CSRM used are listed in Table 11.4. The company monitors Cu and Mo on charts using performance gates, with any samples out with ±2 standard deviations a failure. Examples of the charts are shown in Figure 11.3 and Figure 11.4. The performance of all 6 CSRM for Cu and Mo was satisfactory. The insertion rate was 4 per 100 samples (actual rate 4.2%).
- Preparation duplicates (DUP). The insertion rate for coarse duplicates was 2 per 100 samples (actual rate 1.9%). Three fine duplicates were also submitted.

CSRM	Cu (wt%)	1SD	Mo (ppm)	15	Au (ppm)	1SD	Ag (ppm)	1SD
OREAS 501d	0.272	0.009	95.00	6.9	0.232	0.011	0.664	0.053
OREAS 505	0.321	0.008	66.00	2.1	0.555	0.014	1.530	0.072
OREAS 506	0.444	0.010	87.00	3.6	0.364	0.010	1.880	0.075
OREAS 507	0.622	0.013	114.00	4.0	0.176	0.006	1.340	0.081
OREAS 503d	0.524	0.010	348.00	10.0	0.666	0.015	1.340	0.066
OREAS 153b	0.678	0.015	163.00	10.0	0.313	0.009	1.450	0.090

Table 11.4. Certified values of the OREAS CSRM for Cu, Mo, Au and Ag.

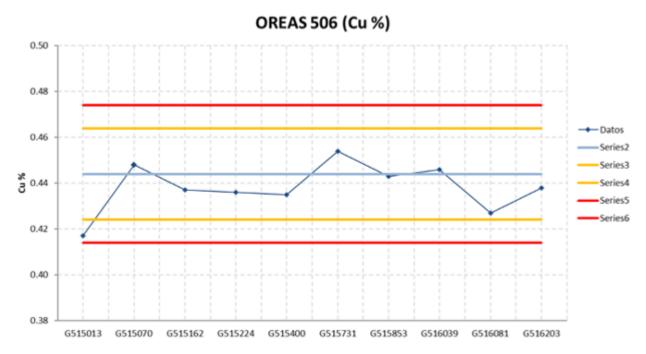


Figure 11.3. Scatter plot of Cu for CSRM OREAS 506.

Shows certified value and performance gates for  $\pm 2$  SD and  $\pm 3$  SD.

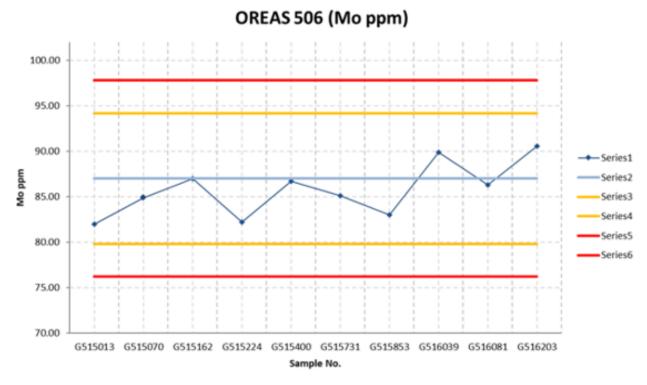


Figure 11.4. Scatter plot of Mo for CSRM OREAS 506.

Shows certified value and performance gates for  $\pm 2$  SD and  $\pm 3$  SD.

### 11.2.4 QP's Opinion

In the QP's opinion, sample collection, security, chain of custody, preparation, analyses and QA-QC are being carried out in accordance with current industry standard practices although some upgrades are recommended.

The chain of custody is complete via authorised company personnel and contractors and ensures adequate sample security. The QP has the following observations and recommendations:

- 1. The metal core trays are rusting rapidly and it is recommended to use plastic boxes.
- 2. The sample number tags should be affixed by glue to the core trays rather than being loose to avoid them getting lost.
- 3. The tray numbers are wearing off rapidly and should be changed to a permanent numbering system to avoid trays losing their identity.
- 4. Although the core logging facility finca or compound is gated and secure, the core trays, samples and coarse and fine rejects should be stored in a secure locked building at the facility. It will also protect them from the weather.

The percentage of QC samples is on the low side. The following recommendations are made:

- 1. Core sample lengths should be prioritised by geology rather than standard 2.00 m intervals in order to avoid smearing grade across contacts.
- 2. The number of QC samples should be increased to the industry norm of 12-15%.
- 3. Only 3 CSRM should be used in future with low, medium and high grade Cu. The 6 current CSRM are all of similar medium grade (0.27-0.68%). The lower number of CSRM but with the same insertion rate is to build up more data for each one in order to monitor trends.
- 4. Core duplicates should only be inserted if the company is prepared to use the other half-core sample as the duplicate. However, most companies prefer to leave core in the box for reference. Normal core duplicates are ½ vs ¼ core or ¼ vs ¼ core, neither of which is statistically meaningful, and it is better not to take core duplicates under these conditions.
- 5. Fine duplicates should be inserted as well as coarse duplicates (each 2 per 100 samples).

- 6. Check analyses should be carried out periodically at a second certified laboratory (5 per 100 sample).
- 7. A written protocol for QA-QC should be produced and include the protocol to investigate any sample failures.

### 12 Data Verification

The QP has verified the data used in this report by the following means:

- Visiting the property to confirm the geology, alteration and mineralisation. Evidence was seen in the field and drill core for a large porphyry system.
- Visiting and checking the locations of the drill platforms.
- Reviewing all of the drill core and assays.
- Checking 10% of drill core assays with the assay certificates, with no discrepancies.
- Reviewing the protocols for drilling, sample security, chain of custody, core logging and sampling.
- Reviewing the geochemistry database.
- Independent check sampling was carried out on the 2014 visit for the previous technical report.

# 12.1 Check samples

A total of 16 rock chip and rock grab samples were collected for check analyses by the QP on the 2014 visit. The samples were prepared by ALS Colombia in Medellin and analysed at the ALS Regional laboratory in El Callao, Peru. The samples were analysed for Au by fire assay with AAS finish on a 30g sample (code AA23) and 33 multi-element geochemical analyses were carried out by a four-acid digestion and ICP-AES analysis (code ME-ICP61). The results of the independent check sampling adequately confirm the presence of anomalous amounts of Cu at the Cobrasco Project in anomalous areas identified by historical work. The results show that Cu grades vary from 56 ppm to 16,020 ppm with 8 samples (50%) over 1,000 ppm Cu; Ag varies from <0.5 ppm to 4.9 ppm; Mo varies from <1 ppm to 53 ppm; Au varies from <0.005 ppm to 0.052 ppm; Zn from 4 ppm to 131 ppm; and Pb from 3 ppm to 24 ppm.

# 13 Mineral Processing and Metallurgical Testing

No mineral processing and metallurgical testing has been carried out on the Cobrasco Project.

### 14 Mineral Resource Estimates

There are no mineral resource estimates for the Cobrasco Project that are compliant with the current CIM standards and definitions required by the Canadian NI 43-101 "Standards for Disclosure of Mining Projects".

#### 15 Mineral Reserve Estimates

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 16 Mining Methods

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 17 Recovery Methods

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 18 Project Infrastructure

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

#### 19 Market Studies and Contracts

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 20 Environmental Studies, Permitting and Social or Community Impact

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 21 Capital and Operating Costs

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 22 Economic Analysis

This item is not applicable to the Property at this stage of exploration (applies to advanced projects).

# 23 Adjacent Properties

#### 23.1 Comita Cu project

A Phase 1 drilling programme was carried out at the adjacent Comita project which is owned by Rio Tinto, between 28 October 2022 and 21 May 2023 by Minera Cobre Colombia S.A.S., a subsidiary of MCC Mining Corporation (MCC Mining), a private British Columbia corporation. The programme was funded by Rio Tinto. Twelve diamond holes totalling 4,597 m were drilled with an average length of 383 m and vertical depths of 200 to 500 m and tested an area of 3 km EW by 2 km wide along the Comita River (Figure 23.1; MCC Mining press release, 17 July 2023). The drill results were not published. MCC Mining wrote in the press release that:

"Most holes returned long intervals of copper mineralisation beginning at or near surface, indicating potentially low stripping ratios. In addition, many holes ended in substantial grades of mineralisation, indicating important untested depth potential. Management concludes that Phase 1 drilling at Comita demonstrates the existence of a very large and complex porphyry copper mineralizing system with ultimate potential to delineate a world class deposit."

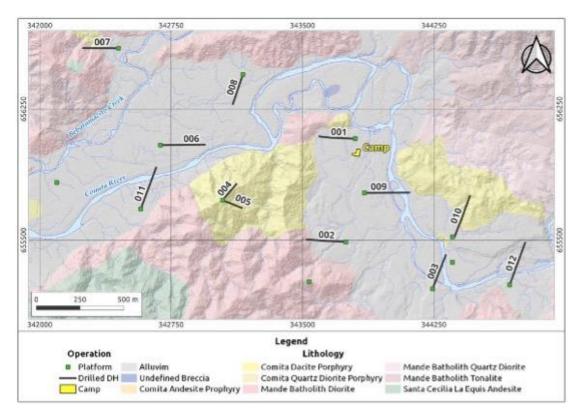


Figure 23.1. Phase 1 drill hole locations and geology of the Comita Project by MCC Mining Corporation, 2022-23.

(MCC Mining press release, 21 July 2023).

#### 23.2 Murindo Cu-Au project

MCC Mining Corporation is currently exploring three other porphyry Cu projects in the Mandé belt in addition to the Comita project: these are the Murindo, Pantanos-Pegadorcito and Urrao projects which are described as follows.

The Murindo porphyry Cu-Au project, also known as La Rica or Mandé Norte, was first identified by anomalous Cu in stream sediment samples in 1970 by INGEOMINAS-USGS. Follow up by INGEOMINAS-UNDP in 1976 defined 5 anomalies of Cu-Mo-(Au) in soils with an area of 10 km NS by 2 km wide on the western side of the Mandé Batholith. The project was explored by Cyprus Amax from 1994-1996 which was acquired by Phelps Dodge in 1999. It sold the project to La Muriel Mining Corporation (La Muriel), a subsidiary of Gold Plata Mining International Corp, in 2000. It optioned the project to Rio Tinto in 2008. La Muriel was acquired by Sunward Resources Ltd in 2011 for which transaction a NI 43-101 technical report was written (Henricksen, 2011). Gold Plata Mining bought the project back in 2012. MCC Mining bought Murindo from La Muriel in 2015 and holds the project in subsidiary company Exploraciones La Rica S.A.S., previously called Minera Cobre de Colombia S.A.S. (Harris, 2021)

### 23.3 Pantanos-Pegadorcito Cu project

The Pantanos-Pegadorcito porphyry Cu project was first identified by anomalous Cu in stream sediment samples in 1970 by INGEOMINAS-USGS with follow up in 1972-1973 which defined anomalous Cu-Mo in soils over an area of 4 km EW by 1 km wide. INGEOMINAS-UNDP drilled 11 short holes in 1973-1974 and 9 deeper holes in 1983, for a combined total of 20 holes for 2,756 m, with a best result of 271 m grading 0.68% Cu and 0.009% Mo. The project was awarded to Glencore plc by public bid in 2007 which formed a joint venture company to explore the project with AngloGold Ashanti called Dowea (51-49% respectively). Dowea carried out an airborne magnetic and radiometric survey and an induced polarisation survey in 2013. MCC Mining acquired Glencore's interest in 2016 and AngloGold Ashanti's interest in 2017 (Harris, 2021). It holds the project in subsidiary company Pantanos Colombia S.A. MCC Mining carried out a drill programme at the project in 2023 but no results were released (MCC Mining press release, 21 July 2023).

# 23.4 Urrao Cu project

The Urrao porphyry Cu project is owned by MCC Mining subsidiary company Exploraciones Chocó Colombia S.A.S.

#### 23.5 El Roble Cu-Au mine

El Roble Cu-Au mine, situated 33 km east of the Cobrasco Project, is owned by Minera El Roble S.A., a subsidiary of Atico Mining Corporation, Vancouver, and is the only operating Cu mine in Colombia. Near-vertical massive sulphide bodies are located on the contact between basalt flows of the Barroso Formation and overlying pelagic sedimentary rocks and sandstone-shale turbidites of the Penderisco Formation. The deposit type is interpreted to be a volcanogenic massive sulphide type. Underground mining commenced in 1990. The production from 1990 to 2013 was 1.6 Mt grading 2.4% Cu and 2 g/t Au, with a plant capacity of 380 tonnes per day, and by current owners Atico from 2014 to 2023 it was 2.5 Mt grading 3.3% Cu and 2.7g/t Au with a plant capacity of 850 tonnes per day (Kelly & Cruz, 2024). The current NI 43-101 compliant measured and indicated mineral resource is 0.881 Mt grading 3.40% Cu and 2.98 g/t Au including proven and probable mineral reserves of 0.828 Mt grading 2.49% Cu and 2.20 g/t Au (Kelly & Cruz, 2024). The qualified person has not been able to verify this information and this information is not considered to be indicative of the mineralisation at the Cobrasco Project, as it is a different type of deposit.

#### 23.6 La Equis Au-Ag-Cu-Pb-Zn mine

La Equis Au-Ag-Cu-Pb-Zn deposit is located 18 km south of the Cobrasco Project and 30 km east of Quibdó. It has a similar structural and lithological setting to Cobrasco being near the contact of the Mandé Batholith with the Santa Cecilia-La Equis Complex volcanogenic sequence. La Equis was first mined in 1920-1923. It was explored in 1978-1983 by Gulf Resources and Colombian Mineral Resources S.A.S. (CMR), and was mined again in 1985-1986 by CMR and Inland Recovery Group until forced to close by the security situation (Barnett, 1984, 1992; Alvarez et al., 1987, p. 59-64.). The current owner is Colombia Minera S.A.S.

Mineralisation at La Equis occurs in three NW-trending veins called El Progreso, Capotero and Jota. Mining was carried out of the El Progreso Vein of 0.1 to 2.5 m width over a length of 350 m and to a depth of 200 m. Total sulphide ore reserves were reported in 1984 of 95,955 t at 8.51 g/t Au, 12.4 g/t Ag, 0.94% Cu, 1.10% Pb and 11.06% Zn (Barnett, 1984; Barnett, 1992). The categories are described as proven reserves, proven reserve blocks projected 15 m below the level, drill hole indicated reserves, and possible reserves. These are historical resource and reserve estimates made before the introduction of NI 43-101 and do not conform to CIM categories or reporting standards. They have not been verified by the qualified person, are not considered to be a current resource, are not considered to be indicative of the mineralisation at the Cobrasco Project, and are included here for information purposes only.

## 23.7 Placer Au mining

There are numerous artisanal placer Au workings west of the Cobrasco Project in the Negua, Icho and Bebarama Rivers. Several other placer Au mines can be seen from the air on the flight from Quibdo to the Cobrasco Project. These operations form the back-bone of the local economy but are illegal mines which the National Mining Agency is attempting to "legalise" in order to control the environmental disturbances and rehabilitation, and tax the production. There are no artisanal placer Au workings on the Cobrasco Project.

# 24 Other Relevant Data and Information

There is no other relevant data and information.

# 25 Interpretation and Conclusions

Rugby Resources is the 100% owner of the Cobrasco concession contract (IHS-08005X). This covers a regional-scale base metal stream sediment geochemical anomaly and a mapped porphyry Cu-Mo deposit as defined by historical exploration by a technical cooperation programme by INGEOMINAS and BGR in 1984 to 1988. Rugby Resources has carried out exploration since 2011 including helicopter magnetic, radiometric and altimeter surveys, mapping, geochemistry and a 3 hole diamond drill programme.

The exploration work has identified a large porphyry Cu-Mo deposit with three stages of Cu mineralisation. The first stage is Cu associated with potassic alteration in an early mineral diorite. The second stage of Cu mineralisation is disseminated sulphides related to muscovite alteration comprising chalcopyrite, bornite and minor pyrite. This is developed extensively and has an average grade of about 0.4 to 0.5% Cu. The third stage is veins and crackle breccias of chalcopyrite with anhydrite associated with muscovite alteration crosscutting the earlier stages with grades of over 1% Cu. The presence of high grade hypogene Cu is significant for the economics of the deposit. There is no significant oxidation or supergene copper enrichment.

The QP concludes that the Cobrasco Project has the potential for the definition a large bulk mineable Cu-Mo deposit, and that further exploration is warranted to test the economic potential. The exploration carried out to date is considered to supply sufficient information to plan further exploration.

The potential size and grade of the exploration target at Cobrasco is between 1,000 and 3,000 Mt at a grade of 0.42-0.46% Cu or 0.48-0.52% CuEq and containing higher grade zones. The lower limit of the size potential is based on the area tested by the first 3 drill holes of about 800 m diameter to a drilled depth of 800 m with an average specific gravity as measured of 2.5, while the upper limit is based on the size of the coincident soil anomaly >250 ppm Cu and rock anomaly >1,000 ppm Cu in an oval of about 2,000 m long NS by 1,000 m wide to 800 m depth. The potential grade range is based on the intersections of the first 3 drill holes. The potential quantity and grade are conceptual in nature. There has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.

The target at Cobrasco is primary Cu and Mo sulphides in a porphyry system that would be amenable to mining by conventional open pit shovel and truck operation with beneficiation by crushing, grinding and froth flotation to produce sulphide concentrates.

The technical risk of the project is the inherent risk associated with the early exploration stage; in fact, the technical risk has been reduced by the positive results of the first three drill holes. The main project risks for drilling are delays in environmental permitting risk in the Pacific Forest

Reserve, social risk in maintaining the social licence to operate within the Cocomacia Afro-Colombian land reserve, and security risk due to the regional presence of armed criminal organizations. Rugby Resources has implemented strategies to manage these risks.

The Cobrasco Project warrants further exploration by virtue of being a large sized outcropping porphyry Cu-Mo deposit that is mostly untested and is located in one of the few remaining underexplored porphyry belts in the world. Despite the current lack of infrastructure, the project lies only 30 km from a major navigable river which could be used for mine construction, supplies and export of concentrates in the future.

#### 26 Recommendations

The QP recommends that an additional drilling programme of 6 diamond holes of 1,000 m each for 6,000 m total is carried out at the Cobrasco Project in order to define the size and limits of mineralisation. Recommended drill holes are shown with Cu geochemistry in Figure 26.1. Prior to drilling it is recommended to carry out structural geological mapping in order to define hole locations. During drilling, structures should be measured downhole using televiewer and using oriented core. This programme would cost approximately \$6 million, inclusive of assay costs, camp costs, helicopter transport and community costs and is listed in Table 26.2. The estimated time to carry out the programme is 12 months with one drill rig.

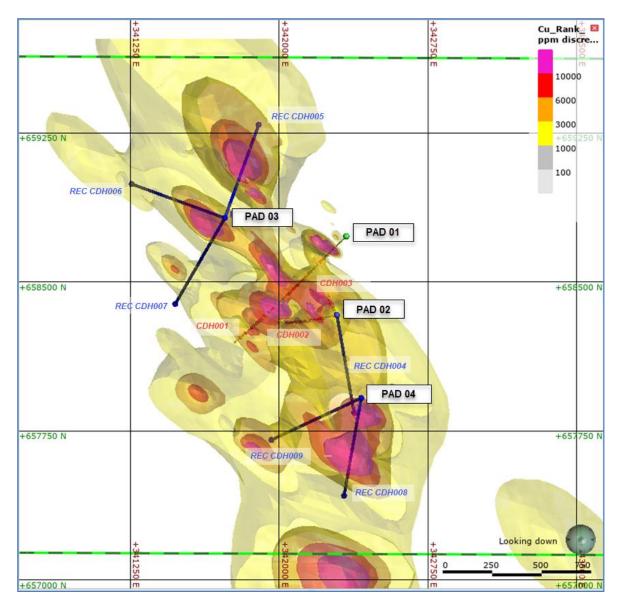


Figure 26.1. Plan view of the recommended drill hole locations with Cu soil geochemistry for the Cobrasco Project.

Item Description	Cost (US\$)
Drill pad and access preparation	50,000
Diamond drilling: 6000m including assay costs @ \$325/m	1,950,000
Helicopter transport (12 month airborne support costs)	1,950,000
Camp and labour costs (Cobrasco field camp and Quibdo core yard)	1,500,000
Social development costs in the project area of influence	400,000
Environmental permitting	150,000
Total	6,000,000

Table 26.1. Estimated budget to carry out follow-up exploration programme in the Cobrasco Project.

#### 27 References

- Acción Social, 2009. Caracterización de las Reservas Forestales de Ley 2/59. Bogotá, report by Agencia Presidencial para la Acción Social (ACCIÓN SOCIAL), Serie Consultorías e investigaciones, Proyecto Protección de Tierras y Patrimonio de la Población Desplazada, 80 p.
- Alvarez, E. & Chakrabarti, A. K., 1980. Prospectos de Porfido Cuprifero en la Cordillera Occidental de Colombia. Instituto Colombiano de Geología y Minería INGEOMINAS, Medellin, Report No. 1832, 81 p.
- Alvarez, E., Feldhaus, L., Salazar, G. & Schmidt-Thomé, M., 1987. Prospección regional de metales básicos y preciosos en la Cordillera Occidental, Departamentos de Antioquia y Chocó. Medellín, Convenio Colombo-Aleman (INGEOMINAS & BGR), Proyecto Mandé (Phase 1), Final Report, 1987, 350 p.
- Arce, J., 2013. Geophysical Survey Reprocessing of Airborne Magnetometry, Comita, Colombia. Report for Rugby Mining Limited by Arce Geofisicos, October 2013, 24p.
- Barbosa-Espitia, A. A., Kamenov, G. D., Foster, D. A., Restrepo-Moreno, S. A., Pardo-Trujillo, A., 2019. Contemporaneous Paleogene arc-magmatism within continental and accreted oceanic arc complexes in the northwestern Andes and Panama. *Lithos*, Vol. 348-349, 105185.
- Barnett, G. S., 1984. Sampling And Exploration Equis and El Roble. Englewood, Colorado, *Society for Mining, Metallurgy & Exploration SME Preprint* No. 84/368.
- Barnett, G. S., 1992. Sampling Techniques & Exploration Results Equis Polymetallic Vein and El Roble Copper-Gold Massive Sulfide Deposits, Colombia. In: *Applied Mining Geology: General Studies Problems of Sampling & Grade Control Ore Reserve Estimation*. Englewood, Colorado, Society for Mining, Metallurgy & Exploration, p. 33-41.
- Calle, B. & Salinas, R., 1986. Geología y geoquimica de la plancha 165, Carmen de Atrato. Escala 1:100,000. Memoria Explicativa. Instituto Colombiano de Geología y Minería INGEOMINAS, Medellin, 157 p.
- Cediel, F., Shaw, R.P. & Caceres, C., 2003. Tectonic Assembly of Northern Andean Block. In Bartolini, C., Buffler, R.T. & Blickwede, J., eds., The Circum-Gulf of Mexico and the Caribbean; Hydrocarbon habitats, basin formation, and plate tectonics. *American Association of Petroleum Geologists Memoir* 79, p.815-848.
- Cornejo, P., 2022. Estudio petrográfico calcográfico [Proyecto Cobrasco]. Report for Rugby Resources Ltd, December 2022, 105 p.
- Feldhaus, L., Muñoz, R., Salazar, G. & Tistl, M, 1988. Prospección en semidetalle para metales preciosos asociados con metales básicos. Cuencas Q. La Noche, Q. Cantagudó, R. Ichó, R. Comitá, Cordillera Occidental, Departamento del Chocó. Medellín, Convenio Colombo-Aleman (INGEOMINAS & BGR), Proyecto Mandé, Fase II, January 1988, 181 p.
- Harris, P., 2021. El potencial de la exploración y la explotación que tiene el cobre en la economía del país. *Pais Minero* website, 28 April 2021:

- https://www.paisminero.com/mineria/oro-y-otros-minerales/23186-el-potencial-de-la-exploracion-y-la-explotacion-que-tiene-el-cobre-en-la-economia-del-pais
- .Henricksen, T. A., 2011. Independent Report. Mandé Norte (Murindo) Prospect, Chocó and Antioquia Departments, Colombia. NI 43-101 technical report for La Muriel Mining Corporation (Sunward Resources Ltd.), 12 April 2011, 128 p.
- Hoppe, P. & Schmidt-Thomé, M., 1990. Mapa Geológico del Flanco Oeste de la Cordillera Occidental Entre Los Rios Andagueda y Murindo. Hannover, BGR & Medellín, INGEOMINAS. Map at 1:250,000 scale.
- INGEOMINAS-United Nations, 1977. Proyecto de metales básicos en las Cordilleras Central y Occidental. Informe técnico: Prepared for the Colombian Government. New York, United Nations, 82 p. (cited by Sillitoe et al., 1982).
- Kelly, T. & Cruz, 2024. El Roble Mine, Updated Mineral Resource and Mineral Reserve Estimates, El Carmen de Atrato, Chocó Department, Colombia. Atico Mining Corporation, NI 43-101 technical report, effective date 12 March 2024, report date 12 June 2024, 173 p.
- Mejia, E., Sanchez, E., Agudelo, A,V., Ramirez, L,M., Henao, A., Cano, N,M., Correa, L,A,. Agudelo, A. A. & Gaviria, L., 2013. Sustraccion Temporal de Area en La Reserva Forestal del Pacifico Contrato de Concesion IHS-08005X. Report for Rugby Mining Limited by EmA Consultores, August 2013, 348p.
- MPX Geophysics Limited, 2011. Helicopter-borne Geophysical Survey, Comita Project, Chocó Colombia. Report for Rugby Mining Limited by MPX Geophysics Ltd, Toronto, Canada, October 2011, 45 p.
- Ng'weno, B., 2000. On Titling Collective Property, Participation and Natural Resource Management: Implementing Indigenous and Afro-Colombian Demands: A Review of Bank Experience in Colombia. Washington D.C. World Bank report, 46 p.
- $http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/590e830e72216ab88525694c00781195/bcde\\50205c210abe85256a370077b14a.$
- Redwood, S.D., 2014. NI 43-101 Technical Report for the Cobrasco-Comita Porphyry Copper Project, Department of Chocó, Republic of Colombia. NI 43-101 technical report for Rugby Mining Limited, Vancouver, 25 August 2014, 111 p.
- Redwood, S.D., 2019. The Geology of the Panama-Chocó Arc. In: Cediel, F. & Shaw, R. P. (Eds.). Geology and Tectonics of Northwestern South America: The Pacific-Caribbean-Andean Junction. Frontiers in Earth Sciences series. Springer International Publishing AG, Cham, Switzerland, p. 901-932.
- Rodriguez Bakulic, M., 2022. Estudio petrografico calcográfico [Proyecto Cobrasco]. Report for Rugby Resources Ltd, by Geocronos, Chile, June 2022, 61 p
- Schmidt-Thomé, M., Feldhaus, L., Salazar, G. & Muñoz, R., 1992. Explicación del mapa geológico, escala 1:250,000, del flanco oeste de la Cordillera Occidental entre los ríos Andágueda y Murindó, Departamentos de Antioquia y Chocó, República de Colombia. Hannover, BGR, *Geologisches Jahrbuch Reihe B: Regionale Geologie Ausland*, [Geological Yearbook, Series B: Regional Overseas Geology], Vol. 78, 23 p.

- Sillitoe, R. H., 2010. Porphyry Copper Systems. Economic Geology, Vol. 105, p. 3-41.
- Sillitoe, R. H., Jaramillo, I., Damon, P. E. & Escovar, R., 1982. Setting, Characteristics and Age of Andean Porphyry Copper Belt in Colombia. *Economic Geology*, Vol. 77, p. 1837-1850.
- Zapata, G. & Sepúlveda, L., 2008. *Diagnostico geologíco-geoquimico de la plancha 165*, Carmen de Atrato. Instituto Colombiano de Geología y Minería INGEOMINAS, Medellin, 36 p.