

**NI 43-101 TECHNICAL  
REPORT ON THE FILO  
SUR PROJECT, SAN  
JUAN PROVINCE,  
ARGENTINA**

**PREPARED FOR: MOGOTES  
METALS INC.**

Effective Date: April 30th, 2023

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## IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report (“**NI 43-101**”) for Mogotes Metals Inc. (“**Mogotes Metals**”) by Cardo Consultants SAC (“**Cardo**”). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Cardo’s services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Mogotes Metals subject to the terms and conditions of its contract with Cardo. This contract permits Mogotes Metals to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*. Any other uses of this report by any third party is at that party’s sole risk.

## FORWARD LOOKING INFORMATION

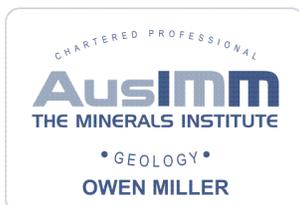
This document contains “forward-looking information” as defined in applicable securities laws. Forward looking information includes, but is not limited to, statements with respect to the costs and expenses of further exploration work; the success and continuation of exploration activities, including drilling; estimates of mineral resources; the future price of copper; government regulations and permitting timelines; requirements for additional capital; environmental risks; and general business and economic conditions. Often, but not always, forward-looking information can be identified by the use of words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “continues”, “forecasts”, “projects”, “predicts”, “intends”, “anticipates” or “believes”, or variations of, or the negatives of, such words and phrases, or statements that certain actions, events or results “may”, “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved. Forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any of the future results, performance or achievements expressed or implied by the forward-looking information. These risks, uncertainties and other factors include, but are not limited to, the assumptions underlying the production estimates not being realized, decrease of future copper prices, cost of labour, supplies, fuel and equipment rising, the availability of financing on attractive terms, actual results of current exploration, changes in project parameters, exchange rate fluctuations, delays and costs inherent to consulting and accommodating rights of local communities, title risks, regulatory risks and uncertainties with respect to obtaining necessary permits or delays in obtaining same, and other risks involved in the copper production, development and exploration industry, as well as those risk factors discussed in Mogotes Metals SEDAR filings from time to time. Forward-looking information is based on a number of assumptions which may prove to be incorrect, including, but not limited to, the availability of financing for Mogotes Metals’ development and exploration activities; the timelines for Mogotes Metals’ exploration and development activities on the property; the availability of certain consumables and services; assumptions made in mineral resource and mineral reserve estimates, including geological interpretation grade, recovery rates, price assumption, and operational costs; and general business and economic conditions. All forward-looking information herein is qualified by this cautionary statement. Accordingly, readers should not place undue reliance on forward-looking information. Mogotes Metals and the author of this technical report undertake no obligation to update publicly or otherwise revise any forward-looking information whether as a result of new information or future events or otherwise, except as may be required by applicable law.

## Certificate of Qualified Person

I, Owen D. W. Miller, Ph.D, FAusIMM(CP), do hereby certify that:

1. I am a consulting geologist and founder and General Manager of Cardo Consultants SAC.
2. I reside at Roca y Bolonia 291/701, Miraflores, Lima, 15073, Peru.
3. The report to which this certificate applies is entitled “Technical Report on the Filo Sur Project, San Juan Province, Argentina” and bears an effective date of April 30th, 2023 (the “**Technical Report**”).
4. I graduated with a B.Sc. (Hons) degree in Geology and Mineralogy from the University of Aberdeen, UK (1989) and a Ph.D. from Aberdeen University (1994).
5. I have practiced my profession continuously since June 1994 and have been involved in exploration and/or mining and/or evaluation on a variety of mineral deposit types, including low and high sulfidation epithermal gold deposits, porphyry copper deposits, copper-gold skarn deposits, massive sulphide-gold deposits, intrusion related gold deposits and sediment hosted/Carlin type gold deposits.
6. I have read the definition of “qualified person” as set out National Instrument 43-101 (the “**Instrument**”) and certify by reason of education, Fellowship of the Australian Institute of Mining and Metallurgy (AusIMM Mem. No. 207275) and relevant work experience I fulfil the requirements to be a “qualified person”.
7. I visited the property on 20<sup>th</sup> of November 2022 and reviewed drillcore from the property on the 23<sup>rd</sup> of November 2022.
8. I am the sole author of this report and responsible for all content.
9. I am independent of Mogotes Metals Inc. and its Argentinian subsidiary, Kopano Cobre and the Canadian JV partner, Golden Arrow Resources.
10. I have no prior involvement of the Property that is the subject of this technical report
11. I have read the Instrument and the Technical Report has been prepared in compliance with that instrument.
12. To the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at Mendoza, Argentina this 30<sup>th</sup> of April, 2023



A handwritten signature in black ink, appearing to read "Owen D W Miller", is written over a light blue horizontal line.

Owen D W Miller, Ph.D. FAusIMM(CP)

## SECTION 1. SUMMARY

### 1.1 INTRODUCTION

This Technical Report was prepared by Cardo for Mogotes Metals Inc. (“**Mogotes Metals**” or the “**Company**”) to provide an initial geological assessment of its Filo Sur Concession Package (the “**Property**”) located on the eastern flank of the Andes Cordillera in the Province of San Juan, Argentina. There are additional licenses across the border in Chile that comprise part of the Property.

The report was written by Owen D. W. Miller, Ph.D, FAusIMM(CP) an independent “qualified person” as defined by National Instrument 43-101.

The claims comprising the Property, approximately 8118 hectares (“**Has**”), were explored by Inversiones Mineras Argentinas S. A. (“**IMA**”) in 2000-2003, by Amera Resources Corporation (“**Amera**”) in 2003-2005, Vale S.A (“**Vale**”) in 2011-2013 and briefly by Anglo American plc (“**Anglo American**”) in 2019.

The Property was visited by Owen Miller on the 20th of November, 2022. The core was reviewed at the company’s facilities in Mendoza, Argentina on the 23rd of November 2022.

Various locations were visited during the field visit to understand the geology and mineralization. Check samples were taken in the field, and the location of drill collars were verified. The review of core focused on mineralized intervals and included additional check samples taken to verify the results reported by previous exploration programs on the property.

### 1.2 THE CLAIMS

The Property is located on the eastern flank of the Andes Cordillera, 350 kilometres northwest of the city of San Juan, San Juan Province, and adjacent to the international border between Chile and Argentina, and the adjacent Atacama region in Northern Chile.

Geographically the area is known as “Macho Muerto – Rio Mogotes” and is covered by the Argentina 1:100,000 Map Sheet “Cerro El Potro” (IGM No. 2969-8). The approximate centre of the property lies at Latitude / Longitude: 28° 35’ 30” South, 69° 38’ West.

The Property is comprised of mineral titles in both Chile and Argentina. Those in Argentina are managed by Kopano Cobre S.A (the wholly owned Argentina subsidiary of the Company) and are referred to as the Argentina Property. Those in Chile are controlled by Mogotes Metals Chile SpA (wholly owned subsidiary of the Company based in Chile) and are referred to as the Chile Property.

In Argentina, the Company has option agreements over 8,118 Has, across 14 licenses. In Chile, the Company owns 121 Has across 5 licenses that are first ranking. The total combined area of the Property is approximately 8,239 Has.

Mogotes Metals has an earn-in agreement with New Golden Explorations Inc, Desarrollo De Recursos S.A and Golden Arrow Resources Corporation (“**Golden Arrow**”). Desarrollo De Recursos S.A currently holds title to the Property.

Under the earn-in agreement, assigned to Mogotes Metals on September 19, 2022, Mogotes Metals has the right, over a five year period, to acquire up to an 85% share of the Property.

The earn-in agreement consists of staged option payments totaling CDN\$1,750,000, of which only CDN\$550,000 remain payable, and exploration expenditure commitments totaling CDN\$5,000,000, all of which have been satisfied as at the date of this report. See section 4.6.3 entitled “*Option Agreement*” in this Technical Report.

### **1.3 ACCESS, LOCAL RESOURCES AND INFRASTRUCTURE**

The majority of the Property is located within the Department of Iglesia in the Province of San Juan, Republic of Argentina. There are 5 small licenses on the Chile side of the border.

The Property is located on the eastern slope of the Andean Cordillera adjacent to the Chile/Argentina border.

The Property can be accessed from the city of San Juan 300 km to the town of Guandacol in La Rioja Province. From here the Property is a further 200 km on graded gravel roads.

Elevations on the Property range from 4,300 to 5,200 metres above sea level with, despite the altitude, rolling to locally steep hills with talus covered slopes, barren rock ridges and alluvium/colluvium filled valleys and low-lying areas.

The climate is typical of the High Cordillera between Chile and Argentina with temperatures from greater than 20°C to less than -20°C. The Property is snow covered from May to October with permanent snow year-round on the highest peaks and ridges.

Natural vegetation is non-existent apart from grasses in a few of the sheltered valleys.

The area is extremely arid with dendritic, small streams fed by snow melt in the summer.

Water supplies should be taken into consideration in planning future exploration.

The nearest supply point where goods and services can be obtained is Guandacol in La Rioja Province, some 5 hours drive from the Mogotes camp. There is no infrastructure on the Property.

### **1.4 HISTORY**

The Property was evaluated by two Argentinian companies, Minera Macho Muerto and Minas Argentina, in the mid 1990’s.

IMA Exploration undertook surface exploration and drilling on the Property from 2000 to 2005 for a total of 4052.4 metres. IMA Exploration completed a corporate reorganization and transferred the Property to Golden Arrow in connection with the reorganization.

Golden Arrow optioned the Property in 2003, completed detailed surface mapping, geophysics, and trenching which confirmed the presence of a mineralized porphyry system below the Filo Este Zone.

The Property was optioned to Vale in 2010. Working from 2011 to 2013, mapping, sampling, petrography and geophysics was completed culminating with a 9 hole program of 3882.1 metres in 2012 and further in an 8 holes totaling 4466.4 metres in 2013.

Golden Arrow determined to cease all exploration and development activity on the Property in 2018, and has made no expenditures on the Property since then (other than costs associated with keeping the concessions and permits in good standing).

In 2022, Mogotes Metals optioned 8064 Ha of the Property, being the only part of the project in which all historical exploration was conducted.

## **1.5 GEOLOGY**

### **1.5.1 Regional Geology**

The Property is part of a larger district, straddling the Chile/Argentina border at a latitude of approximately 28.5° S.

Basement rocks in the region include Late Palaeozoic granites and rhyolites of the Choiyoi Group. These are overlain by Jurassic and Cretaceous sediments. An extensional period in the Palaeocene-Eocene, resulted in faulting, basin development and subsequent infill with terrigenous sediments along with the emplacement of Eocene dioritic intrusive complexes.

Several belts of Late Oligocene to Miocene intrusions and associated volcanic rocks are developed in the central Andes and are responsible for the porphyry Cu-Au and epithermal systems of the Maricunga Belt and the high-sulphidation epithermal systems of the El Indio-Pascua-Lama Belt.

Mineralization in The Maricunga Belt is from Late Oligocene to Miocene whereas the more southerly El Indio-Pascua-Lama Belt is of Middle to Late Miocene age.

It was realized that the area between these two districts was prospective for similar systems and this has been borne out by discoveries such as the Los Helados, Josemaría and the Filo del Sol deposits which are of Late Oligocene to Late Miocene in age.

Intrusive activity in the region, along with associated hydrothermal alteration, has been dated at Mid to Late Miocene and shows similarities to many of the Maricunga-style Cu-Au porphyries.

## 1.5.2 Local Geology

The Property has been subjected to multiple volcanic and intrusive events dating from the Middle Miocene back at least as far as the Permo-Triassic. Oligocene to Early - Middle Miocene age volcanic rocks of the Peñas Negras and Doña Ana Groups overlie a basement of Permo-Triassic Choiyoi Group sedimentary, volcanic and intrusive rocks.

These units are overlain and intruded by Middle to Late Miocene volcanic units that include tuffs, ignimbrites and volcano-clastics of andesitic to rhyolitic composition. These have been intruded and altered by numerous subvolcanic intrusives of dioritic composition.

Structural trends on the Property consist of major NW-SE structures, the most important of these being the Mogotes Fault, while secondary NE-SW structures have played a major role in localizing alteration and mineralization.

There are two main alteration and mineralization assemblages on the Property.

**Porphyry Cu-Au-Ag:** potassic/propylitic alteration associated with porphyry Cu-Au-Ag mineralization is hosted in diorite, micro-diorite and breccias and is a function of quartz vein density. Quartz veins occur as stockworks and sheeted veins with the main hypogene minerals being chalcopyrite, bornite, and pyrite with local hypogene alteration of Cu sulphides to digenite, chalcocite, and covellite.

Surface oxidation has resulted in various sulphates, carbonates, and iron oxides. There is weak to moderate overprinting of anhydrite-carbonate veins.

There are three main porphyry centres at Filo Este, Filo Central and to a lesser extent Stockwork Hills.

**High-Sulphidation Au-Ag:** high sulphidation epithermal alteration consists of silica, clay minerals, disseminated pyrite, alunite and quartz veinlets. The geological setting to the southwest of the Mogotes Fault is thought to represent a higher-level alteration assemblage within the volcanic cover.

There may be the potential for high-sulphidation precious metal mineralization and stockwork Cu-Au mineralization at depth.

The Filo Sur zone is one of the largest untested alteration anomalies in the district.

## 1.6 DEPOSIT TYPES

The mineral deposit types on the Property include both high-sulphidation epithermal Au and Cu-Au porphyry systems. Direct comparison can be made to the Filo del Sol project 2 km to the North.

The Property is situated between the Maricunga Cu-Au porphyry Belt to the north and the El Indio epithermal Au-Ag Belt to the south.

The geological setting at the Property is prospective for both deposits of both types. Fieldwork undertaken to date indicates that both styles of mineralization are present on the Property.

## 1.7 EXPLORATION

Most of the surface sampling and mapping on the Property was undertaken by IMA in the early 2000's with more limited sampling by Vale in 2011-13 and AngloAmerican in 2019. This included rockchip/trench, float/grab talus and, of limited effectiveness, sediment sampling.

Basic summary geochemical information is given in Table 1.1, 1.2 and 1.3 below.

<b>Filo Sur Rockchip</b>	<b>Au g/t</b>	<b>Ag g/t</b>	<b>Cu ppm</b>	<b>Mo ppm</b>	<b>As ppm</b>
Maximum Value	2.99	29.5	6700	84	506
Threshold Average	>0.05	>10	>100	>5	>2-5
Average	0.253	24	1340	16	85
<b>Total Samples</b>	<b>378</b>				

**Table 1.1: Summary of Rockchip/Trench Sampling**

<b>Filo Sur Float/Grab</b>	<b>Au g/t</b>	<b>Ag g/t</b>	<b>Cu ppm</b>	<b>Mo ppm</b>	<b>As ppm</b>
Maximum Value	1.89	196	14500	874	797
Threshold Average	>0.05	>10	>100	>5	>10
Average	0.305	127	1007	42	116
<b>Total Samples</b>	<b>155</b>				

**Table 1.2: Summary of Float/Grab Sampling**

<b>Filo Sur Talus</b>	<b>Au g/t</b>	<b>Ag g/t</b>	<b>Cu ppm</b>	<b>Mo ppm</b>	<b>As ppm</b>
Maximum Value	0.708	899	10000	260	1290
Threshold Average	>0.05	>10	>100	>5	>10
Average	0.150	34	602	25	86
<b>Total Samples</b>	<b>411</b>				

**Table 1.3: Summary of Talus Sampling**

Gridding of the talus sampling is one of the most useful tools in exploring for Cu-Au porphyry systems in the region and defined broad zones of mineralization based on the >500ppm Cu, the >0.1 g/t Au and >25ppm Mo contours.

The main areas outlined by talus sampling are:

**Filo Este:** defined by a 500 ppm Cu contour that extends 2000 m east-west by 700m north-south; a 0.1 g/t Au contour that extends 1600 m east-west by 800 m north-south. There is no appreciable Mo.

**Filo Central:** defined by a 500 ppm Cu contour trending north-west/south-east and 3300 m long by 1200 m wide; a 0.1 g/t Au contour again trending north-west/south-east and 3600 m long by 1000 m wide; a 25 ppm Mo contour extending 1500 m north-south by 1000 m east-west and displaced to the east.

**Zona Colorida:** a 200ppm Cu anomaly displaced to the east; no appreciable Au; a 25 ppm Mo contour trends north-east/south-west and is 1700 m long by 700m wide and displaced to the west.

At Filo Este there is a core of exposed potassic and propylitic alteration with moderate Cu-Au-Ag mineralization hosted in microdiorite, diorite and breccias.

At Filo Central there are two exposed areas of potassic alteration hosted in microdiorite, fine-grained diorite and breccia. There is local moderate to strong sericite pyrite alteration and local high-sulphidation alteration (vuggy silica and alunite).

Zona Colorida is located south-west of the Macho Muerto fault and exposes the upper advanced argillic and quartz-sericite-pyrite levels of a possible diorite porphyry mineral system.

There is mention of geophysics undertaken over Filo Este by IMA in 2003 but there are no details in the dataroom.

In 2011 Vale carried out IP/Resistivity, Ground Magnetism, Radiometrics and DGPS surveys. Magnetic, Radiometrics and DGPS totaled 181.66 Line Kms while IP totaled 23.70 Line Kms.

## **1.8 DRILLING**

Filo Sur was drilled by IMA in 2004 and 2005 with 1475.4 metres of diamond and 2577 metres of reverse circulation concentrating on Filo Este and Filo Central.

MOG-04-1, 1A and MOG-04-2 are three of the better holes and are presented below in Table 1.4.

Drillhole	Year	Total Depth	From	To	Interval	Au (g/t)	Ag (g/t)	Cu (%)
		(m)	(m)	(m)	(ms)	(LWA)	(LWA)	(LWA)
MOG-04-1	2004	71.6	2.0	70.0	68.0	0.43	13.9	0.244
MOG-04-1A	2004	495.3	6.0	495.3	489.3	0.23	2.6	0.170
<b>Including</b>			258.0	424.0	166.0	0.19	2.2	0.243
<b>And</b>			308.0	396.0	88.0	0.20	1.9	0.290
MOG-04-2	2004	315.4	2.0	315.4	313.4	0.16	1.9	0.171
<b>Including</b>			196.0	315.4	119.4	0.21	2.8	0.248

**Table 1.4: Representative Holes from IMA’s Filo Este Drilling**

The IMA drilling is characterized by long intervals of Cu, Ag and Au mineralization ranging from strongly anomalous to sub-economic.

Vale carried out a total of 8348.5 metres of diamond drilling in two campaigns in 2012 and 2013. Their main focus was Filo Central and Zona Colorida.

Selected holes are presented in Table 1.5.

Drillhole	Year	Total Depth	From	To	Interval	Au (g/t)	Cu (%)
		(m)	(m)	(m)	(m)	(LWA)	(LWA)
MGT-DH-04	2012	502	86	206	120	0.01	0.15
MGT-DH-07A	2012	185	52	185	133	0.06	0.13
MGT-DH-09/9A	2013	547.7	6	547.7	541.7	0.06	0.11
MGT-DH-11	2013	542	2	542	540	0.11	0.11

**Table 1.5: Representative Holes from Vale’s Drilling at Filo Central and Zona Colorida**

Results from Vale’s drilling are characterized by long runs of Cu mineralization of similar grades to IMA’s but with lower Au grades and very isolated Ag mineralization.

Results from the drilling confirm porphyry Cu and high sulphidation alteration and mineralization at Filo Sur but the largest alteration zone, south-west of the Mogotes Fault, has yet to be drilled.

## **1.9 SAMPLE PREPARATION, ANALYSIS, SECURITY AND QA/QC**

### **1.9.1 Sample Preparation and Analysis**

Preparation of samples involved drying, crushing to -10 mesh, split to 1kg which was then crushed to 150 mesh and then split again to two 250g and one 500g sample. Talus and sediments were sieved to 80 mesh, pulverized and split to produce a 250g pulp.

All samples, surface and drilling, were analysed by ALS in Mendoza. PDF assay certificates and results spreadsheets are available for some of the samples. Originals are being requested from the relevant original operators.

A total of 980 surface samples were collected during the various campaigns (IMA, Vale and AngloAmerican) and include rockchip, float/grab, talus fines and sediment.

Analytical techniques varied by campaign but were largely similar with 30 or 50g Fire Assay with Atomic Absorption or ICP Finish. Multi-element analysis was carried out with ICP-AES (Inductively Coupled Plasma Atomic Absorption). Digestion was either with Agua Regia or more commonly Four Acid ((HCl-HNO<sub>3</sub>-HF-HClO<sub>4</sub>)).

Drilling was undertaken by IMA in 2004-2005 with 2068 samples while Vale's drilling in 2012-2013 produced 4057 samples (these numbers include standards, blanks and duplicates).

Analysis was carried out by Fire Assay for Au and Multi-Element by ICP-AES for both companies, again by ALS in Mendoza.

## **1.9.2 Security and QA/QC**

The author was not present during the various mapping, sampling and drilling campaigns but considering that the geologists on the Property were experienced professionals with respected mining companies and QA/QC procedures were followed.

### **Surface Sampling**

IMA - QA/QC during the surface sampling (as outlined in the various reports available to the author) indicates that blanks and duplicates were included and made up 6-8% of the samples sent to the lab. 15 samples were selected for check assay in 2003 and showed acceptable variation. Standards do not seem to have been included in the surface sampling, but this is in keeping with standard practice at the time.

Vale - only collected 14 surface samples. No QA/QC was completed.

### **Drilling**

IMA included 60 standards in the approximately 2000 drill samples but there is no mention of blanks or duplicates. The name of the standard is unknown so the author cannot comment on the accuracy of the results, but precision seems to be acceptable.

Vale included approximately 300 standards, blanks and duplicates in the first 8 holes drilled (approximately 2300 samples) which is in line with current practices. Values are consistent for blanks and the standard used (CUOX-001), while values for the field duplicates are within ranges expected from natural variation between samples.

The author does not know why there is no QA/QC for holes MGT-DH-08 to MGT-DH-16 but this will be checked.

Lab originals and certificates are unavailable for some of the surface and drill assays and these are being requested from the original operators.

## 1.10 DATA VERIFICATION

### 1.10.1 Site Visit

The author visited the Property on the 20th of November 2022, in the company of geologist Facundo Flores and operations manager Miguel Claudio Rach.

The objectives of the site visit were to:

- Verify the geology, alteration and mineralization as described.
- Collect samples of mineralization for check assay.
- Verify the locations of drill-collars.

This was carried out to the author's satisfaction. Details are given below.

**Field Samples** - Six samples of representative mineralization and alteration were collected during the site visit. Wherever possible samples were collected from previous sample locations, ideally trench or outcrops.

Sample No	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
2510 - Trench	0.231	1.4	6700	34	20
009904	0.08	<0.5	2647	33	<5
2322 - Trench	0.087	<0.2	1770	29	9
009906	0.04	<0.5	384	53	15
000136 – Grab	0.241	2	1470	6	4
009907	0.12	0.7	1704	12	<5
009908	0.41	<0.5	1581	12	<5
2259 -Trench	0.504	1.3	1810	5	3
009909	0.33	<0.5	1320	11	7
2224 - Trench	0.609	1.7	1805	12	11
009910	0.4	0.7	2440	13	<5

**Table 1.6: Field Sample Check Sample Results and Results of Previous Sampling**

Results from the check sampling agree with the previous sample (allowing for natural variation) and the author is satisfied that the results of the previous sampling are representative of the mineralization developed on the Property.

**Drill Collars** - Using the coordinates given in the reports, a total of 9 platforms were visited.

Collars visited, their field coordinates, coordinates as recorded in the drillhole database and difference in metres north-south and east-west is presented in Table 1.7

HOLE_ID7	RPT_E	RPT_N	FLD_E	FLD_N	DIFF_E	DIFF_N	TYPE
MOG-04-1A	436889	6844450	436888	6844453	1	-3	DH
MOG-04-03	436938	6844681	436939	6844686	-1	-5	DH
MOG-04-04	437407	6844599	437404	6844601	3	-2	DH
MOG-05-08	436325	6844872	436324	6844881	1	-9	RC
MOG-05-10	436640	6841835	436632	6841832	8	3	RC
MOG-05-11	436411	6841945	436411	6841941	0	4	RC
MOG-05-12	436031	6844524	436033	6844521	-2	3	RC
MOG-05-13	436650	6841221	436650	6841218	0	3	RC
MGT-DH-12	436928	6844645	436928	6844645	0	0	DH

**Table 1.7: Collar Locations Checked in the Field**

Errors between values in the database and field checking are within acceptable errors for handhelds GPS units but it is recommended that all collars are resurveyed with a differential GPS.

### **1.10.2 Core Review and Sampling**

The author reviewed selected core intervals at the company's core store in Mendoza on the 23<sup>rd</sup> of November 2022.

Intervals were selected from 6 holes that were felt to be representative of the mineralization from the various previously drilled areas.

5 intervals, that corresponded to previous samples, were marked up, photographed and taken to the laboratory of Alex Stewart by the company's technician where the core was cut again

with one quarter going for analysis while the remaining quarter was returned to the core boxes.

Drillhole, Interval, Original Sample and Check Assays are presented in Table 1.8

Hole ID	From (m)	To (m)	Sample	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
MOG-04-01	62	64	2631	0.197	5.6	2550	7	177
			009911	0.17	3.5	1791	9	105
MGT-DH-07A	152	154	MGT7A-089	0.058	0.9	1210	<2	44
			009912	0.058	<0.5	1272	59	<5
MOG-04-1A	382	384	2830	0.136	0.9	1825	8	16
			009913	0.11	1.1	2286	7	14
MOG-04-02	194	196	2989	0.092	0.8	1130	4	17
			009914	0.11	<0.5	1226	12	32
MGT-DH-11	180	182	MGT-11-105	0.097	1.7	2160	5	15
			009915	0.12	1.8	1864	7	11

**Table 1.8: Check Assays from resampled core**

Results from the check sampling agree with the previous sample (allowing for natural variation) and the author is satisfied that the results of the previous drilling are representative of the mineralization developed on the Property.

## 1.11 ADJACENT PROPERTIES

The Property is located in an emerging porphyry Cu-Au district dominated by the Lundin Group Companies, including Filo Mining Corp. (“**Filo Mining**”), Lundin Mining Corporation (“**Lundin Mining**”) and NGEx Minerals Ltd. (“**NGEx**”) and their respective flagship projects: Filo del Sol, Josemaria and Los Helados.

There are numerous other projects in the area, but these are the most advanced and are each briefly summarized below.

### 1.11.1 Filo del Sol

The Filo del Sol (FDS) project is owned by Filo Mining.

The project has been advanced to the prefeasibility stage (Ausenco, NI43.101, 2019) and the main resource sits just 2km to the north of the Filo Sur northern claim boundary.

The geology is similar to the Property with porphyry Cu-Au and high-sulphidation Au-Ag mineralization contributing to the resources and reserves which currently stand at 259.6 Mt @ 0.39% Cu , 0.34g/t Au, 16g/t Ag (Proven and Probable).

The Filo del Sol resource remains open in several directions and at depth and to date only 3 kms of the approximately 7 km long Filo alteration zone have been drill tested. Filo Sur appears to represent the southern extension of this alteration system.

The property also contains a number of other exploration targets defined by geochemistry, mapping and geophysics. These are early stage and are being advanced by the company.

### **1.11.2 Josemaria**

The Josemaria project is also owned by Lundin Mining and was the subject of a Feasibility study in 2020 (SRK Consulting. Josemaria 43.101, 2020).

It is located 10 km to the north-east of Filo Sur. The Josemaria project is Cu-Au porphyry and measures approximately 1,500 m north-south by 1,000 m east-west and 600 to 700 m vertically from surface. The deposit remains open to the south, beneath a thickening cover of post mineral volcanic rocks and also at depth.

The deposit consists of hypogene and supergene zones and to a lesser extent surficial oxides.

The proposed mine will be a 152,000 tpd open pit operation supplying a floatation plant producing a Cu concentrate, with precious metal credits, that will go by truck to San Juan then rail to the Atlantic coast for export.

The following Reserves (Proven and Probable) are taken from the SRK Consulting 43.101 Feasibility Study: 1,012 Mt @ 0.30 % Cu, 0.22 g/t Au and 0.94 g/t Ag.

### **1.11.3 Los Helados**

The Los Helados project is another porphyry Cu-Au, this time on the Chilean side of the border 135km southeast of Copiapo. It is a 64% NGEEx 36% Nippon Caserones Resources joint venture.

The project is the subject of a NI 43-101 report (Devine et al, 2019).

Los Helados is primarily hosted by a Miocene magmatic–hydrothermal breccia that forms a roughly circular, pipe-like body with minimum dimensions of 1,100 m east west, 1,200 m north south, and at least 1,500 m vertically. The mineralization is open to the north and the system also remains open at depth.

The most recent Mineral Resource (2019) comprises an Indicated 2,099 Mt @ 0.38% Cu, 0.15 g/t Au and 1.37 g/t Ag and an Inferred 827 Mt @ 0.32% Cu, 0.10 g/t Au and 1.32 g/t Ag.

NGEx is currently undertaking extensive metallurgical test work and continues exploration of its earlier stage projects.

Mogotes Metals cautions investors that the mineralization hosted on adjacent or nearby projects is not necessarily indicative of mineralization hosted on the Property.

## **1.12 INTERPRETATION AND CONCLUSIONS**

Mogotes Metals has entered into an earn-in agreement for the 8064 Ha Property on the eastern flank of the Andes Cordillera in the Province of San Juan, Argentina.

The Property is located 2km to the south of Filo Mining's Filo del Sol deposit and is part of an emerging porphyry Cu-Au district located between the Maricunga Belt to the North and the El Indio-Pascua-Lama district to the South.

The Property has been subjected to multiple volcanic and intrusive events dating from the middle Miocene back at least as far as the Permo-Triassic.

Oligocene to early - middle Miocene age volcanics overly a basement of Choiyoi Group sedimentary, volcanic and intrusive rocks. These units are overlain by Middle to Late Miocene volcanic units which have then been by intruded numerous subvolcanic intrusives of dioritic composition.

Structural trends on the Property consist of major NW-SE structures while secondary NE-SW structures have played a major role in localizing alteration and mineralization.

There are two main alteration and mineralization assemblages on the Property.

**Porphyry Cu-Au-Ag:** potassic/propylitic alteration associated porphyry Cu-Au-Ag mineralization is hosted in diorite, micro-diorite and breccias and is a function of quartz vein density.

**High-Sulphidation Au-Ag:** high sulphidation epithermal alteration with silica, clay minerals, disseminated pyrite, alunite and quartz veinlets. The geological setting to the south-west of the Mogotes Fault is thought to represent a higher-level alteration assemblage within the volcanic cover.

The Property has been the subject of various exploration campaigns since the mid 1990's.

The most important are:

**IMA Exploration, 2000-2005:** surface sampling, mapping, geophysics and 1475.4 metres of diamond and 2577 metres reverse circulation drilling.

**Vale, 2011-2013:** sampling, geophysics and 8348.5 metres of diamond drilling.

**AngloAmerican, 2019:** surface sampling and mapping.

**Mogotes Metals Inc, 2022-23:** the company resumed exploration activity on the project in 2022 and this is ongoing. Core relogging, SWIR spectroscopy and geophysics have been completed and mapping and sampling is ongoing.

The author was contracted by Mogotes Metals to write a qualifying report on the Property in November 2022. A site visit and core review were undertaken in November 2022.

Field observations, review of data and sampling of core verify the work carried out by the previous and current operators.

The Property is host to a large hydrothermal system that has led to the development of various mineralized centres.

The author believes the Property is a Property of Merit that justifies the continuation of exploration programs designed to test the deposit models outlined in this report.

### **1.13 RECOMMENDATIONS**

Considering that only about half of the 8118 Has of the concessions comprising the Property have been systematically explored, there are large areas of untested alteration and mineralization (that are currently being mapped and sampled), the preliminary results of the geophysics, the relogging and SWIR analysis, along with the recent discoveries at Filo del Sol open up the possibility that a large porphyry Cu-Au system may exist at depth on the Property.

The author feels entirely justified in recommending the following summarized work program.

#### **Stage 1**

1<sup>st</sup> April 2023 to 31<sup>st</sup> May 2024

- IP Geophysics (TITAN) follow up
- Surface soil and rock sampling
- Diamond Drilling 5000 m

#### **Stage 2 (not contingent on positive results from Stage 1, but targets may change)**

1<sup>st</sup> June 2024 to 31<sup>st</sup> May 2025

- Infill surface soil and rock sampling
- Diamond Drilling 5000 m

	<b>Stage 1</b>	<b>Stage 2</b>
	<b>1st April 2023 to 31st May 2024</b>	<b>1st June 2024 to 31st May 2025</b>
<b>Exploration spend</b>	<b>9,458,373</b>	<b>7,785,723</b>
Management Geologist	133,575	114,493
Consulting Geologists	452,100	387,514
Geologists	146,727	125,766
Assistants	235,500	201,857
Camp personnel	180,596	154,797
Logistics staff	22,194	19,023
Staff Safety and Hygiene	36,168	31,001
Camp construction and rental	232,457	199,249
Maintenance materials	21,920	18,789
Communication	16,646	14,268
Infrastructure investment	75,030	
Catering and food for camp	168,340	144,291
Generator costs	60,554	51,903
Fuel for camp	489,613	419,668
Emergency Service	193,770	166,089
Office and warehouse rental	70,251	60,215
Licences and software office supplies	37,538	32,175
Drilling 5000m	4,118,220	3,529,903
Geochemistry	341,587	292,789
Geophysics (TITAN lines)	300,000	
Truck rental	196,047	168,040
Platform Access	500,000	428,571
Fuel for drilling	1,429,540	1,225,320
	-	
<b>G&amp;A</b>	<b>1,322,302</b>	<b>1,133,402</b>
Environment consultants Argentina	46,580	39,926
Mining claims management Argentina	31,784	27,243
Bank fees and expenses Argentina	499,885	428,473
Legal Argentina	4,453	3,817
Legal Canada	480,000	411,429
Audit	20,000	17,143
CFO/ accounting	55,900	47,914
Management	183,700	157,457
	-	
<b>TOTAL</b>	<b>\$ 10,780,675</b>	<b>\$ 8,919,124</b>

## **SECTION 2. INTRODUCTION**

### **2.1 INTRODUCTION**

In 2022 Mogotes Metals entered into an earn-in agreement over a 8064 Ha mineral property package in the Province of San Juan, Argentina. Additional option agreements and claims were acquired to bring the package up to 8118 Has.

The Property is located in the northern corner of San Juan Province, about 350 km north-west the provincial capital San Juan City and is accessed via sealed and all-weather gravel roads.

The area is the southern extension of the Maricunga Cu-Au belt and part the geological “bridge” to the El Indio Belt.

The Property is located 2 km south of the Filo Mining’s Filo del Sol Project, currently at Pre-Feasibility Stage with a Resource Estimate of 259.1Mt @ 0.39%, 0.33g/t Au, 15.1g/t Ag (Proven and Probable). (Source Filo Mining Website: <https://filo-mining.com/operations/resource-estimate>)

Other major mines in the region include El Indio-Tambo (10 Moz), Pascua-Lama-Veladero (>30 Moz) and Marte-Lobo (6 Moz) while advanced projects include Lundin Mining’s Josemaria and NGEx’s Los Helados.

The area was sporadically explored in the mid to late 1990’s with more extensive exploration being undertaken from 2000-2013.

This report evaluates and provides a geological appraisal of the Property and past exploration work while going on to recommend an exploration plan and budget for the entire Filo Sur claim package.

### **2.2 TERMS OF REFERENCE**

All technical terms of reference regarding resources, reserves or mineralization used in this report conform to standards of practice published by the Canadian Institute of Mining Metallurgy and Petroleum. All geological terms used are in standard use within the geological consulting profession in Canada and the US. All dollar figures cited in the cost estimates are Canadian Dollars unless otherwise stated.

Unless otherwise stated the coordinates for all maps and plans are in SUTM Zone 19, WGS 84 Datum.

### **2.3 PURPOSE OF THE REPORT**

This report was prepared by Cardo at the request of Mogotes Metals for the purpose of evaluating the geologic potential of the Filo Sur porphyry Cu-precious metal project in north-

west San Juan Province, Argentina. The report was written in compliance with the requirements of NI 43-101 in the disclosure of technical information regarding mineral Property owned by publicly traded Canadian companies.

## **2.4 SOURCES OF INFORMATION**

Sources of information are mentioned where relevant in the text and listed in References.

## **2.5 SITE VISIT AND CORE REVIEW**

The Property was visited by the author on the 20<sup>th</sup> of November, 2022. Selected core was reviewed, and check samples were taken at the company's facilities in Mendoza City, on the 23<sup>rd</sup> of November, 2022.

## **SECTION 3. RELIANCE ON OTHER EXPERTS**

This report was prepared by Owen D. W. Miller, Ph.D, Fellow AusIMM No 207275.

The author has read NI 43-101 and its accompanying documents, and this report has been prepared in accordance with NI 43-101.

There are numerous reports supplied by Mogotes Metals, prepared by the previous operators of the concessions and compiled by Mogotes Metals.

The author has relied extensively on these internal reports as further described below where appropriate and where the data remains the most current.

References list any other important data sources which provided background information for the preparation of this report.

The QP has relied upon other expert reports, which provided information regarding mineral rights, surface rights, property agreements, royalties, and taxation as noted below.

### **3.1 OWNERSHIP, MINERAL TENURE AND SURFACE RIGHTS**

The QP has not independently reviewed ownership of the Property area and the underlying property agreements. The QP has also not independently reviewed the Property mineral tenure and the overlying surface rights. The QP has fully relied upon, and disclaims responsibility for, information derived from Mogotes Metals staff and legal experts retained by Mogotes Metals through the following document:

- Basañes y Videla Consultores: Legal Due Diligence Report “Mogotes” Mining Project, San Juan, Argentina owned by “Desarrollo de Recursos S.A. 31<sup>st</sup> of March, 2022

This information is used in Section 4.

### **3.2 ENVIRONMENTAL, PERMITTING AND SOCIAL**

The QP has also not independently reviewed the Property environmental, permitting and social information nor is he qualified to do so. The QP has fully relied upon, and disclaims responsibility for, information derived from Mogotes Metals staff and legal experts retained by Mogotes Metals through the following document:

- Basañes y Videla Consultores: Legal Due Diligence Report “Mogotes” Mining Project, San Juan, Argentina owned by “Desarrollo de Recursos S.A. 31<sup>st</sup> of March, 2022

### **3.3 TAXATION**

The QP has also not independently reviewed the Property tax liabilities nor is he qualified to do so. The QP has fully relied upon, and disclaim responsibility for, information derived from Mogotes Metals staff and legal experts retained by Mogotes Metals for this information through the following document:

“Rodriguez, C. 05-10-22. Internal E-mail: Taxation Regime”

## **SECTION 4. PROPERTY DESCRIPTION AND LOCATION**

### **4.1 PROPERTY LOCATION**

The Property is located 350 kilometres northwest of San Juan City, San Juan Province and adjacent to the international border between Chile and Argentina (Figure 4.1). An additional smaller group of claims is located on the Chile side of the border.

Geographically the area is known as “Macho Muerto – Rio Mogotes” and is covered by the Argentina 1:100,000 Map Sheet “Cerro El Potro” (IGM No. 2969-8). The approximate centre of the property lies at Latitude / Longitude: 28° 35’30”S/ 69° 38’W.



Figure 4.1: Location for the Filo Sur Project

## **4.2 OWNERSHIP OF MINERAL TENURE IN ARGENTINA**

### **4.2.1 Ownership**

The Property area, mineral tenure and surface rights were reviewed and confirmed by Basaños y Videla Consultores in the report: “Legal Due Diligence Report “Mogotes” Mining Project, San Juan, Argentina, as being owned by “Desarrollo de Recursos S.A.” as of the 31<sup>st</sup> of March, 2022.

### **4.2.2 Mineral Tenure**

The Property is located in the Department of Iglesia in the Province of San Juan, Republic of Argentina in the area called “Usos Múltiples”, which is on the margins of the San Guillermo Provincial Reserve where mining activities are fully authorized.

Under the Código de Minería de la Nación passed by law 1919/86 (the “**Argentine Mining Code**”), two types of permits can be granted: exploration permits (cateos and Manifestaciones de Descubrimientos) and exploitation permits (concesiones de explotación or minas).

#### **Exploration Permit (Cateo)**

Cateos are awarded in units of 500 Has, termed the measurement unit. Holders may acquire a maximum of 20 measurement units (10,000 Has) but may not hold any more than 400 measurement units (200,000 Has) in any one Province. An exploration permit gives the holder the right to explore and prospect for a 150 day period within the measurement unit boundary. The term is extended by 50 days for each additional measurement unit that has been granted up to a maximum of 1,100 days. However, after 300 days and where the holding is over four measurement units the holder must relinquish half of the land. At the 700-day point, the holder must relinquish half of the remaining measurement units.

Prior to the grant of an exploration permit, holders must pay a one-off fee of ARS\$400 for each measurement unit, provide a work plan and commit to starting that work program within 30 days of granting of the permit. Compensation must be paid to landowners inconvenienced by any exploration activities. An activities report must be submitted to the regulatory authorities within 90 days after expiry of the measurement unit.

#### **Exploration Permit (Manifestación de Descubrimiento)**

Manifestación de Descubrimiento (MD) is another exploration license and the first step towards obtaining mining rights. Registration of the MD guarantees the holder preference over the area. By petitioning an MD the holder is informing the Mining Authority that they have discovered a potentially economic mineral orebody (irrespective of a prior cateo). The holder has 100 days (that can be extended) from registration to file the “labor legal”, which is the location of the point of discovery within the area. The maximum area of an MD is 3,500 Has. The mining fee (“canon”) is ARS\$3,200 per 100 Ha per year and the obligation to pay begins three years after registration of the MD.

## **Exploitation Permit (Mina)**

Exploitation permits allow for mining activity. Holders must initially apply for a discovery claim (manifestación de descubrimiento) and the application is advertised for public comment.

The measurement unit area for such claims, the pertenencia, will vary depending on the mineralization to be exploited. Claims over Au, Ag, and Cu, and, generally, hard rock minerals deposits (e.g., vein-style and discrete deposits) are typically 6 Has in extent; however, disseminated mineralization style deposits may see claim sizes reach a maximum of 100 Has. Exploitation permits can consist of one or more pertenencias.

An exploitation permit is contingent on a number of factors, including:

- Provision of official cartographic coordinates for the deposit and the area required for operating facilities;
- Provision of a sample of the mineral discovered; and
- Approval of an Environmental Impact Assessment (EIA).

Approval and registration of the legal survey request by the relevant Provincial mining authority constitutes formal title to the exploitation permit. Assuming mining is active, and all other requirements are met, exploitation permits can have an indefinite grant period.

After three years from the date the discovery claim was registered, an annual fee (canon) becomes payable. The amount of the annual canon depends on the pertenencia size, and ranges from ARS\$80 for the 6 Has pertenencias, to ARS\$800 for the 100 Has pertenencias.

A further condition is required of a holder, which is to invest, at a minimum, 300 times the value of the annual canon in fixed assets on the exploitation permit over a five-year period. Twenty percent of the required investment must be made each year for the first two years of the designated investment period. For the final three years, the remaining 60% of the investment requirement is at the holder's discretion as to how it is expended. The exploitation permit can be cancelled if the minimum expenditures are not met in the manner stipulated.

Permits may also be cancelled if mining activity ceases for more than four years and the holder has no plans to reactivate mining within a five-year period.

## **Filo Sur Mineral Tenure**

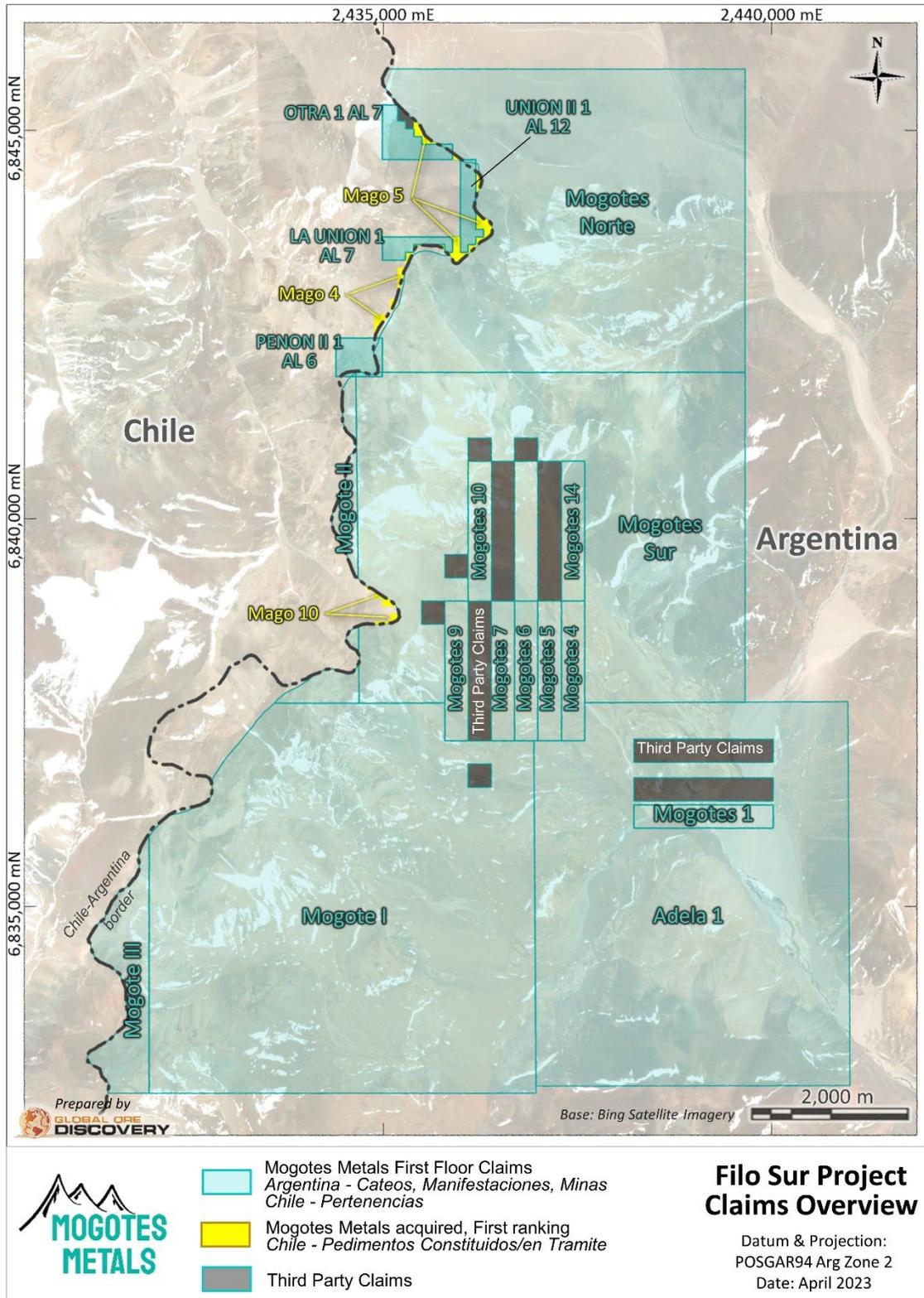
The Company has an interest in 14 concessions in Argentina. The Basañes y Videla Consultores confirms 12 mine concessions and one exploration permit (cateo) registered with the Mining Notary in San Juan and owned by Desarrollo de Recursos S.A. (“**DDRSA**”). These concessions are part of the earn-in agreement between Syndicate Minerals Mogotes Pty Ltd. (“**Syndicate**”), New Golden Explorations Inc., DDRSA and Golden Arrow Resources Corporation (the “**Golden Arrow Option Agreement**”) that was assigned to Mogotes Metals on the 19<sup>th</sup> of September, 2022. An additional mine concession (Mogotes

10) is owned by San Juan Mining S.A. and is under a separate option agreement to earn up to 100% of the concession.

The full concession list is given in the following Table 4.1 and locations are shown in Figure 4.2 Concessions fees are presented in Table 4.2.

<b>Name</b>	<b>File No.</b>	<b>Claim Type</b>	<b>Area (Has)</b>
Mogote I	338.579-R-92	Exploration Permit (cateo)	2288
Mogote II	1124.178-D-19 (before 112-442-I-07)	Manifestacion de Descubrimiento	149
Mogote III	1124.179-D-19 (before 112-443-I-07)	Manifestacion de Descubrimiento (granted)	147
Adela 1	425.098-A-00	Mine	1808
Mogotes Norte	520.0275-V-97	Mine	1654
Mogotes Sur	520.0274-V-97	Mine	1640
Mogotes 1	156.277-S-76	Mine	54
Mogotes 4	156.280-S-76	Mine	54
Mogotes 5	156.281-S-76	Mine	54
Mogotes 6	156.282-S-76	Mine	54
Mogotes 7	156.283-S-76	Mine	54
Mogotes 9	156.285-S-76	Mine	54
Mogotes 14	156.290-S-76	Mine	54
Mogotes 10	156286-S-76	Mine	54

**Table 4.1: Table Showing Full List of the Filo Sur Argentina Concessions**



<b>Name</b>	<b>File No.</b>	<b>Claim Type</b>	<b>Canon (Payable Every 6 months) in ARGS</b>
<b>Mogote I</b>	<b>338.579-R-92</b>	Exploration Permit (cateo)	2293
<b>Mogote II</b>	<b>1124.178-D-19 (before 112-442-I-07)</b>	Manfestacion de Descubrimiento	149
<b>Mogote III</b>	<b>1124.179-D-19 (before 112-443-I-07)</b>	Manfestacion de Descubrimiento (granted)	165
<b>Adela 1</b>	<b>425.098-A-00</b>	Mine	24000
<b>Mogotes Norte</b>	<b>520.0275-V-97</b>	Mine	24000
<b>Mogotes Sur</b>	<b>520.0274-V-97</b>	Mine	24000
<b>Mogotes 1</b>	<b>156.277-S-76</b>	Mine	960
<b>Mogotes 4</b>	<b>156.280-S-76</b>	Mine	960
<b>Mogotes 5</b>	<b>156.281-S-76</b>	Mine	960
<b>Mogotes 6</b>	<b>156.282-S-76</b>	Mine	960
<b>Mogotes 7</b>	<b>156.283-S-76</b>	Mine	960
<b>Mogotes 9</b>	<b>156.285-S-76</b>	Mine	960
<b>Mogotes 14</b>	<b>156.290-S-76</b>	Mine	960
<b>Mogotes 10</b>	<b>156286-S-76</b>	Mine	960

**Table 4.2: Table Showing Full List of the Filo Sur Argentina Concessions and Associated Canons (Title Fees) were applicable**

The permits are current and the mining canons/fees are paid up to date. With the exception of Mogote II, they have reported “legal work”. The corresponding measurements and respective cadastral nomenclature are pending.

In relation to the mine conditions, are some non- compliances identified in relation to mining investments under Art. 217 of the Mining Code- and activity at the mine -Art. 225 of the Mining Code- in certain of the permits. The Concessions require further work done on the ground. Reactivation plans have variously been submitted or are still pending to be submitted to the Ministry of Mines.

Forming part of the Property there is a current exploration permit in the name of DDRSA called Mogote I, recorded by the Graphic Registry. It has to respect the existence within the property of the Mogotes 6, Mogotes 7, Mogotes 9 mines owned by DDRSA and Mogotes 8; and the mine stakes – Files 0800- F18-95 and 0798 –F18-95 which will then be removed from the Graphic Registry. The permit has not yet been granted and the appropriate notifications to the surface owner are pending.

The existence of a royalty contract has been reported, which provides for additional monetary compensation of a 0.5% NSR on certain of the Properties, in relation to the following Mines: Adela 1 (File No. 245.098- A-2000), Mogotes Norte (File No. 520.0275-R-97), Mogotes Sur (File No. 520.0274-R-97); Exploration Permit: File No. 338.579- R-92 called Mogote I, in the event that certain predetermined conditions are fulfilled. The maximum payments under this royalty are \$500,000 USD in total.

The international border line between Chile and Argentina has been under dispute. The border presented in this document is per the Argentina Instituto Geografico Nacional (<https://www.ign.gov.ar/NuestrasActividades/InformacionGeoespacial/CapasSIG>).

The various Properties will be modified as required to comply with the borders as they are currently defined. This will require changes to the cadastre of mining Graphic Registry of the San Juan Government. The Properties are drawn in the figures in this document as they are currently represented on the Government of San Juan Catastro Minero Digital file (<https://datosabiertos.sanjuan.gob.ar/organization/ministerio-de-mineria>), however it must be noted that these boundaries will have to be updated to take into account the changes to the border. In some cases this will reduce the size of the various claims, while in others it may result in an increase in claim size as the claims along the border are bounded by the international boundary line.

### **4.3 OWNERSHIP OF MINERAL TENURE IN CHILE**

#### **4.3.1 Ownership**

There are claims in Chile forming the Chile Property - the area, and mineral tenure were confirmed by Quinzio Abogados in the report: “Legal opinion on Mogotes properties” Santiago, Chile, as being owned by Mogotes Metals Chile SpA (a wholly owned subsidiary of the Company) as of the 5<sup>th</sup> May 2023.

#### **4.3.2 Mineral Tenure**

The concessions comprising the Chile Properties have both rights and obligations as defined by a Constitutional Organic Law (enacted in 1982). Concessions can be mortgaged or transferred and the holder has full ownership rights and is entitled to obtain the rights of way for exploration (pedimentos) and exploitation (mensuras). In addition, the concession holder has the right to defend ownership of the concession against state and third parties. A concession is obtained by a claims filing and includes all minerals that may exist within its area. Mining rights in Chile are acquired in the following stages:

## **Pedimento**

A pedimento is an initial exploration claim whose position is well defined by UTM coordinates which define north-south and east-west boundaries. The minimum size of a pedimento is 100 ha and the maximum is 5,000 ha with a maximum length-to width ratio of 5:1.

The duration of validity is for a maximum period of two years; however, at the end of this period, and provided that no overlying claim has been staked, the claim may be reduced in size by at least 50% and renewed for an additional two years. If the yearly claim taxes are not paid on a pedimento, the claim can be restored to good standing by paying double the annual claim tax the following year.

New pedimentos are allowed to overlap with pre-existing ones; however, the underlying (previously-staked) claim always takes precedent, providing the claim holder avoids letting the claim lapse due to a lack of required payments, corrects any minor filing errors, and converts the pedimento to a manifestacion within the initial two-year period.

## **Manifestacion**

Before a pedimento expires, or at any stage during its two-year life, it may be converted to a manifestacion or exploration concession. Within 220 days of filing a manifestacion, the applicant must file a "Request for Survey" (Solicitud de Mensura) with the court of jurisdiction, including official publication to advise the surrounding claim holders, who may raise objections if they believe their pre-established rights are being encroached upon. A manifestation may also be filed on any open ground without going through the pedimento filing process.

The owner is entitled to explore and to remove materials for study only (i.e. sale of the extracted material is forbidden). If an owner sells material from a manifestation or exploration concession, the concession will be terminated.

## **Mensura**

Within nine months of the approval of the "Request for Survey" by the court, the claim must be surveyed by a government licensed surveyor. Surrounding claim owners may be present during the survey. Once surveyed, presented to the court, and reviewed by the National Mining Service (Sernageomin), the application is adjudicated by the court as a permanent property right (a mensura), which is equivalent to a "patented claim" or exploitation right. Exploitation concessions are valid indefinitely, and are subject to the payment of annual fees. Once an exploitation concession has been granted, the owner can remove materials for sale.

The Company has an interest in five first ranking concessions in Chile comprising the Chile Properties. Four of the concessions were purchased by the Company in a court run public auction and one was acquired by the Company.

## Filo Sur Mineral Tenure

The Company has an interest in 5 first ranking concessions in Chile. There are additional exploration licenses applied for that are not first ranking and thus do not constitute valid mineral title until the overlapping tenure expire.

The full concession list of first ranking concessions is given in the following Table 4.3 and locations are shown in Figure 4.2 previously referenced. Exploitation licenses are in the process of being registered in the name of Mogotes Metals Chile SpA by the courts. Exploration licenses (Mago) are held in trust by a legal representative for Mogotes Metals Chile SpA while being transferred to Mogotes Metals Chile SpA.

Name	Legal Title	File No.	Claim Type	Area (Has)
Otra 1 AL 7	Processing transfer to Mogotes Metals Chile SpA	03203-5852-3	Pertenencia (Exploitation License)	34
Union II 1 AL 12	Processing transfer to Mogotes Metals Chile SpA	03203-5851-5	Pertenencia (Exploitation License)	24
La Union 1 AL 7	Processing transfer to Mogotes Metals Chile SpA	03203-4750-5	Pertenencia (Exploitation License)	17
Penon II 1 AL 6	Processing transfer to Mogotes Metals Chile SpA	03203-5849-3	Pertenencia (Exploitation License)	30
Mago 5	In trust for Mogotes Metals Chile SpA	03203-H442-6	Pedimentos Constituidos (Exploration License Granted)	16
Mago 4	In trust for Mogotes Metals Chile SpA	03203-H474-4	Pedimentos en Tramite	5
Mago 10	In trust for Mogotes Metals Chile SpA	03203-H479-5	Pedimentos en Tramite	4

\*Note: Area for Mago 4, Mago 5, and Mago 10 are approximate.

**Table 4.3: Table Showing Full List of the Filo Sur Chile first ranking Concessions**

#### 4.4 SURFACE RIGHTS

DDRSA is not the owner of the surface rights (and it does not have knowledge of who the owner is), nor does it have any agreements with the surface owners or with the holders of mining easements in respect of the Property.

The Argentine Mining Code sets out rules under which surface rights and easements can be granted for a mining operation, and covers aspects including land occupation, rights-of-way, access routes, transport routes, rail lines, water usage and any other infrastructure needed for operations. In general, compensation must be paid to the affected landowner in proportion to the amount of damage or inconvenience incurred. However, no provisions or regulations have been enacted as to the nature or amount of the compensation payment. In instances where no agreement can be reached with the landowner, the Argentine Mining Code provides the mining right holder with the right to expropriate the required property.

From time to time, a land possessor may dispute the Company's surface access rights and, as a result, the Company may be barred from its legal temporary occupation rights. The Company has been approached by persons claiming to be land owners of the surface rights covering a portion of the Filo Sur Project, however, as at the date of this Technical Report, these persons have been unable to substantiate their ownership of any surface rights. As a result, the Company has posted a bond in lieu of any payment to the persons claiming ownership of surface rights over the Filo Sur Project. Surface access issues have the potential to result in the delay of planned exploration programs, and these delays may be significant. Such delays may have a material adverse effect on the Company.

In general, easements outside the perimeter of a concession are road easements. For their constitution, the corresponding permission or authorization from the authority must be obtained beforehand, and subsequently the corresponding compensation must be paid for the land occupied or the proper bond must be provided. In this case, not only must such permission be sought, but also the legal declaration of public utility must be complemented with a double proof at the concession holder's expense, namely: (i) that the easement in question cannot be constituted within the perimeter of the concession (Art. 151 of the Argentine Mining Code) and (ii) that the work is really beneficial for the mining activities (Art. 13 of the Argentine Mining Code, last paragraph).

A mining road easement application is in process, currently in the name of DDRSA. This easement has been requested in order to access the Mogotes Norte, Mogotes Sur and Adela I claims. It consists of six sections, approximately 44,810 metres long and 5 metres wide. The process is at an initial stage, pending the mining authority's graphic record.

In Chile, work has not yet been undertaken to identify surface ownership as the Chile Properties have been newly acquired.

#### 4.5 ENVIRONMENTAL REGULATIONS IN ARGENTINA

According to the Mining Code, individuals or legal entities, both public and private, that develop mining exploration activities must submit an Environmental Impact Report (IIA in Spanish) to the Enforcement Authority (Mining Ministry of the Province of San Juan) prior to the start of any activity.

The IIA shall be updated every two years at the latest, and a report shall be submitted containing the results of the environmental protection actions carried out, as well as any new events that may have occurred (art. 256 Mining Code).

The Environmental Impact Report, hereinafter 'IIA' (as per its Spanish acronym), for the Exploration stage was processed in File No. 425087-I-2002 and its attached File No. 425399-I-2003 before the Mining Ministry of San Juan.

The Third IIA Update approved through Resolution N° 944 of the Mining Ministry, and notified to Desarrollo de Recursos SA on January 20, 2022, corresponds to the current Environmental Impact Statement or 'DIA' (as per its Spanish acronym). The DIA is the valid environmental permit to perform exploration.

To date, the legal obligation to update the IIA every two years has been fulfilled, with the Fourth Biannual Update submitted on February 6, 2020 and the Fifth Biannual Update on March 16, 2022, neither of which has yet been approved.

The DIA has been approved for the following mining rights "Mogotes Norte Mine", File No " 520-0275-V-1997" " Mogotes Sur Mine " - File No 520-0274-V-1997; "Adela No 1 Mine – Files N° 425-098-A-2000; " Mogotes 1 Mine " \_ File No 156.277-S-1976, ~ Mogote 4 Mine " – File N° 156-280-S-1976; " Mogotes 5 Mine' – File No 156.281-S- 1976; "Mogotes 6 Mine" - File N° 156-282-S-1976; "Mogotes 7 Mine" - File No 156- 283-S-1976; "Mogotes 9 Mine" - File N° 156-285-S-1976; "Mogotes 14 Mine" – File N° 156-290-S-1976. Title Holder: DDRSA. Mogote I, II and III are not included.

The DIA contains 40 conditions or requirements that must be complied with. Total or partial non-compliance with any of the observations and conditions will result in the application of the penalties provided for in the current legal regime, in addition to the suspension of the Environmental Impact Statement.

As important environmental aspects at the time of planning activities, it should be noted that the Argentina Property is located in the San Guillermo Provincial and Biosphere Reserve and in an area where glacial and periglacial environment has been mapped; therefore, compliance with current regulations and the San Juan Provincial Glacier Inventory must be ensured.

In the event of any work of greater magnitude and/or changes in the tasks to be performed with respect to those previously communicated, the report must be expanded and the mining environmental authority must be informed of the situation.

## 4.6 TAXATION, ROYALTIES AND OPTION AGREEMENTS

### 4.6.1 Corporate Income Tax

Corporate tax rate in Argentina of 25% and it is assumed this will be in place if the Property is brought into production.

### 4.6.2 Provincial Mining Royalties

There is a 3% pithead value royalty payable to the Province of San Juan. The royalty value is defined as the value obtained during the first selling stage, less the direct and/or operating costs necessary for taking the pithead mineral to such stage, except for the direct or indirect costs and/or expenses inherent to the extraction (mining) process.

Costs that can be deducted include: transport, freight and insurance costs of concentrate; concentrate selling costs; smelting and refining costs; crushing, milling and beneficiation costs; and administration costs. The cost to mine the material cannot be deducted nor depreciated.

### 4.6.3 Option Agreement

A portion of the Argentina Property is subject to the Golden Arrow Option Agreement. Under an assignment agreement and amendment of the earn-in agreement dated 19<sup>th</sup> of September, 2022, Syndicate assigned its interests in the Golden Arrow Option Agreement to Mogotes Metals.

Under the Golden Arrow Option Agreement, Mogotes Metals has the right, over a five year period, to acquire up to an 80% share of the Property.

The Golden Arrow Option Agreement consists of staged payments and exploration expenditure commitments.

Scheduled payments are due on the 4th of May each year, totaling CDN\$1,750,000 and broken down as follows:

<b>Exploration Expenditures</b> <b>(\$)</b>	<b>Payments</b> <b>(\$)</b>	<b>Completion Date</b>
300,000	150,000	on or before May 4, 2023
500,000	250,000	on or before by May 4, 2024
1,000,000	350,000	on or before by May 4, 2025
1,500,000	450,000	on or before by May 4, 2026
1,700,000	550,000	on or before by May 4, 2027

Mogotes Metals can accelerate the purchase option at any time by making all outstanding payments with 30 days' notice and can also rescind the purchase option at any time, again giving 30 days' notice.

As part of the Golden Arrow Option Agreement, Mogotes Metals also agreed to exploration expenditures totaling CDN\$5,000,000 divided up as follows: first year CDN\$300,000, second year CDN\$500,000, third year CDN\$1,000,000, fourth year CDN\$1,500,000 and fifth year CDN\$1,700,000.

Mogotes Metals can rescind the option to purchase giving 30 days' notice and suspending exploration expenditures. Should Mogotes Metals fail to meet its exploration commitments in any given year it is obliged pay the shortfall to DDRSA.

Golden Arrow exercised its discretion under the Golden Arrow Option Agreement and elected to receive certain scheduled payments in common shares. The Company issued 4,000,000 common shares at a price of \$0.30 per common share to Golden Arrow in satisfaction of the first, second, third and fourth scheduled payments of \$150,000, \$250,000, \$350,000 and \$450,000, totalling \$1,200,000. The only payment remaining to be made is the fifth scheduled payment of CDN\$550,000 on or before May 4<sup>th</sup> 2027, to be paid in cash.

Mogotes Metals has, at the time of this report, completed over CDN\$5,000,000 of exploration expenditures per the agreement, and has no further obligations to meet in terms of exploration expenditures.

Mogotes Metals, after reaching 80% ownership and Golden Arrow Entities are at 20%, Mogotes Metals can earn an additional 5% by delivering a Feasibility Study. At this stage the two parties can enter into a joint venture with contribution or dilution provisions.

If Golden Arrow does not contribute it will dilute its share of the joint venture. If it dilutes below 10%, it's share will be removed and replaced with a 2% NSR over the Property.

Mogotes Metals has a right to repurchase 1% of the NSR for CDN\$2,000,000 and a further 1% of the NSR for CDN\$5,000,000.

## **SECTION 5. ACCESSIBILITY, PHYSIOGRAPHY, CLIMATE, LOCAL RESOURCES AND INFRASTRUCTURE**

### **5.1 ACCESSIBILITY**

The Property is located on the eastern slope of the Andean Cordillera adjacent to the Chile/Argentina border.

The Property can be accessed either from Chile or Argentina but special arrangements need to be made to cross the international border and there are no established crossing points meaning practical access is from the Argentine side. The nearest supply point where most goods and services are available is the town of Guandacol in La Rioja Province. From here, the property is accessible by road during the months of October to April using a 4x4 vehicle. The route from Guandacol is via gravel roads traversing the Laguna Brava Pass, then along

the Rio Salado until the Pena Negra turnoff. From here via Pucha Pecha, Rio Blanco and Rio de Macho Muerto to the project area. Total distance from Guandacol is approximately 200 km, and travel time is approximately 5 hours. A new camp has been constructed at the southeast corner of the Property about 10 km and 30 minutes drive from the centre of the project.

Access from San Juan is as follows:

<b>ROUTE</b>	<b>ROAD CLASS</b>	<b>DISTANCE (kilometres)</b>	<b>TIME</b>
San Juan City to Guandacol	Ruta 40 Highway	303	4 Hours
Guandacol to Mogotes Camp	Graded Gravel Road	200	5 Hours
Mogotes Camp to Center of Filo Sur Claims	Gravel and Drill Roads	10	30 Mins

**Table 5.1: Access to Filo Sur Property, visited by the author**

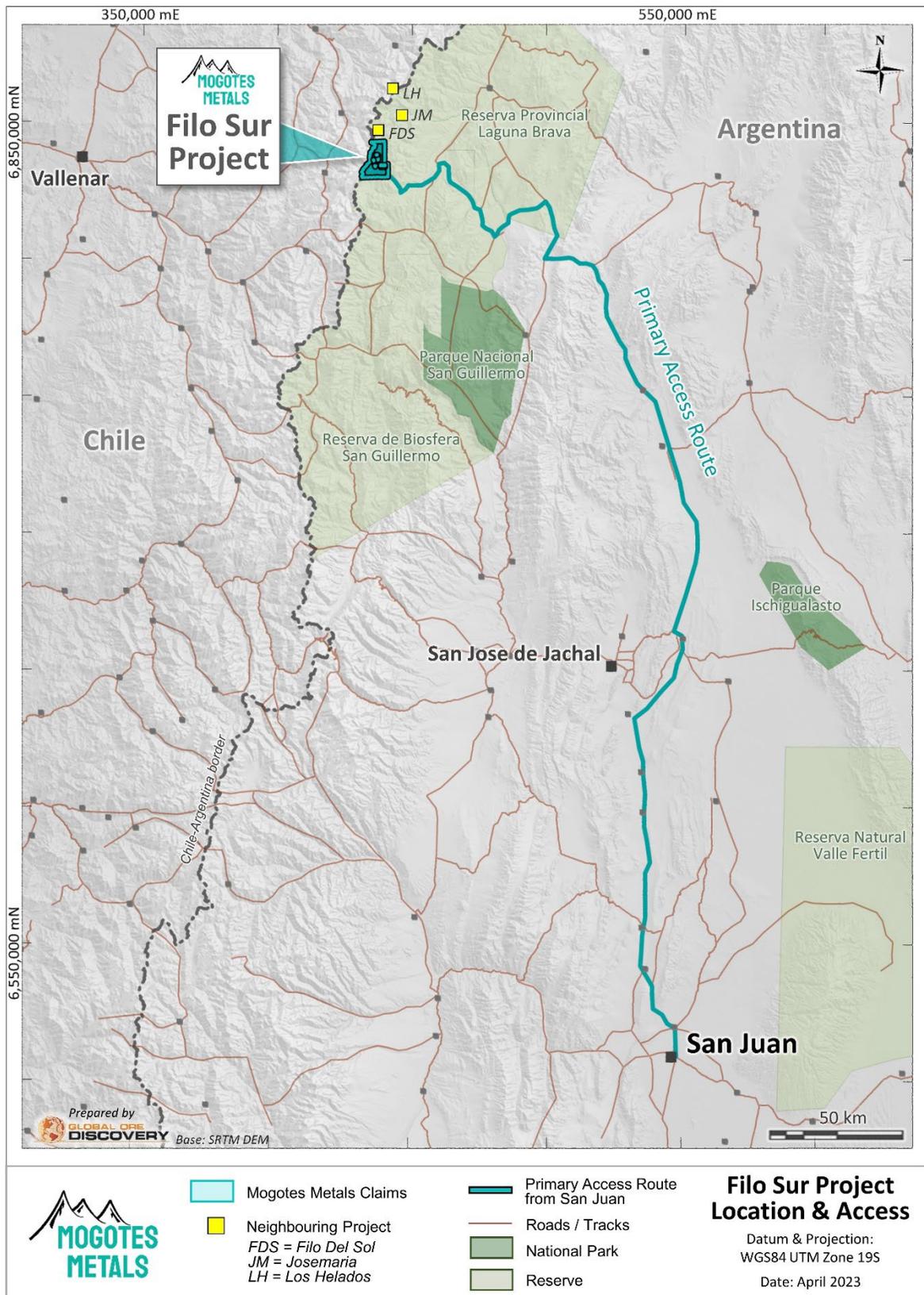


Figure 5.1: Access to Filo Sur Property

## **5.2 PHYSIOGRAPHY, CLIMATE AND VEGETATION**

### **5.2.1 Topography**

Elevations on the Property range 4,300 to 5,200 metres above sea level. Physiographically, despite the altitude, the area consists of rolling to locally steep hills with talus covered slopes, barren rock ridges and alluvium/colluvium filled valleys and low-lying areas.



**Figure 5.2: General view the Property looking Southwest from Filo Este to Zona Colorida**

### **5.2.2 Climate**

Annual temperatures range from greater than 20°C to less than -20°C. The Property is snow covered from May to October with permanent snow year-round on the highest peaks and ridges.

The field season extends from early/mid-November to late April but access can be problematic even in the summer, when sudden storms can block access roads. Previous operators had a bulldozer on standby during periods of extended field work.

### **5.2.3 Vegetation**

Natural vegetation is non-existent apart from grasses in a few of the sheltered valleys.

## **5.3 LOCAL RESOURCES AND INFRASTRUCTURE**

### **5.3.1 Water**

The area is extremely arid with dendritic, small streams fed by snow melt in the summer.

Water supplies should be taken into consideration in planning future exploration.

### **5.3.2 Infrastructure**

The nearest supply point where goods and services can be obtained is Guandacol in La Rioja Province some 5 hours drive from the Mogotes camp.

Other than the exploration camp and access roads there is no infrastructure of any kind on the Property.

### **5.3.3 Labor**

Northern San Juan province is sparsely populated. Some unskilled labour could be supplied from small local towns such as Guandacol (200 km/5 hours from the Property) but realistically personnel would have to be certified both medically and technically for work at high altitude making the provincial capital, San Juan, 500 km/9 hours from the Property, the only viable source of labour.

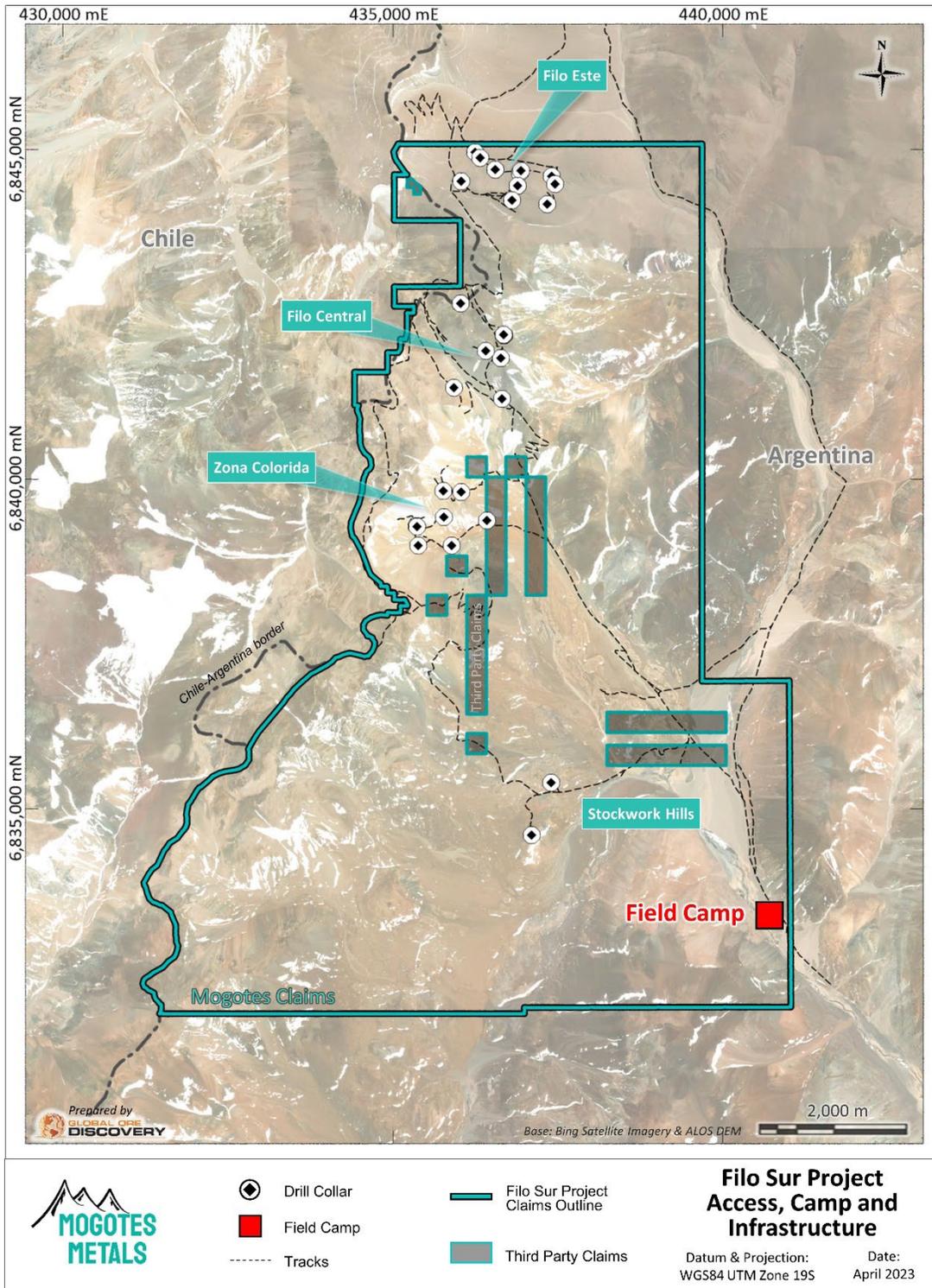


Figure 5.3: Property Infrastructure

While exploration can be undertaken from the Argentinian side of the border, should this prove successful and an economic deposit is discovered, access will need to be facilitated from the Chilean side of the border.

## **SECTION 6. HISTORY**

The Property was evaluated by two Argentinian companies in the late 1990's:

- Minera Macho Muerto in 1996 who mapped and sampled the area and drilled one 134m reverse circulation with values up to 77ppb Au and 1.45% Cu (these values are mentioned in a 2002 IMA Exploration report (Bottomer, L., & Freeze, A.C., 2002) but no substantiating data is available); and
- Minas Argentina worked on the property in 1996/7 with 69 samples collected with a float boulder returning 2.8% Cu, 2.7 g/t Au and 55.7g/t Ag (Bottomer, L., & Freeze, A.C., 2002). Minas Argentinas concluded that mineralization was similar to Au porphyry mineralization at the Marte/Lobo mine in the Maricunga Belt to the north.

In 2000 IMA Exploration undertook surface exploration on the property and entered into a JV agreement with Rio Tinto in March 2001 which ended in December the same year.

Amera optioned the Property in 2003, completed detailed surface mapping, geophysics, and trenching which confirmed the presence of a mineralized porphyry system below the Filo Este Zone. Ground magnetics indicate a size of 1.5km x 800 m. A 600 m trench was excavated returning 510 m of 0.196% Cu and 0.331 ppm Au.

In 2004 a 1,475.4 metre, 5 hole drill program was undertaken at the Filo Este target.

Additional mapping, talus sampling and road/trench construction was carried out and talus sampling identified a 4000 x 800m Cu-Au geochemical anomaly associated with the previously mentioned magnetic anomaly.

A nine hole 2,577 metre, 9 hole drill program was undertaken in 2005 at Filo Este and Filo Central.

The 50m ZCRC01 is a water borehole and was drilled during this campaign.

The Property was optioned to Vale in 2010. From 2011 to 2013 mapping, sampling, petrography and geophysics was completed culminating with a 9 hole program of 3882.1 metres in 2012 and further in an 8 holes totaling 4466.4 metres in 2013.

Mogotes Metals optioned the Property in 2022.

## SECTION 7. GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 REGIONAL GEOLOGY

The Property is part of a larger district, straddling the Chile/Argentina border at a latitude of approximately 28.5° S.

Regional modern day geology is the product of eastward directed sub-duction of the Pacific Plate with associated volcanism and deformation along the western margin of South American continent.

Basement rocks in the region include Late Paleozoic granites and rhyolites of the Choiyoi Group. These are overlain by Jurassic and Cretaceous sediments. Compressional episodes in the middle Cretaceous have resulted in the uplift of the Andes. Extensional periods within the arc, such as is in the Paleocene-Eocene, resulted in extensional faulting, basin development and subsequent infill with terrigenous sediments. Eocene dioritic intrusive complexes are associated with this period.

A compressional regime has dominated from the Late Oligocene to present day and, along with development of the Miocene volcanic arc, there has been inversion of the Paleocene-Eocene extensional faults and related basins. The Property lies on the northern edge of the Chilean Flat Slab subduction zone (Kay and Mpodozis, 2002; Kay et al., 2014). Many of the significant porphyry and epithermal deposits within this belt have formed during the process of slab flattening from 18-5 Ma (Bissig et al., 2001; Mpodozis and Kay, 2003; Y. Kapusta in Rode et al., 2015; Yoshie et al., 2015; Holley et al., 2016; Sillitoe et al., 2016; Astorga et al., 2017)

Several belts of Late Oligocene to Miocene intrusions and associated volcanic rocks are developed in the central Andes and are responsible for the porphyry Cu-Au and epithermal systems of the Maricunga Belt and the high-sulphidation epithermal systems, including the El Indio-Pascua-Lama District.

Mineralization in The Maricunga Belt is from Late Oligocene to Miocene (Vila and Sillitoe, 1991) whereas the more southerly El Indio-Pascua-Lama Belts is of Middle to Late Miocene age (Bissig et al 2002).

Up until the late 1990's, the Maricunga and El Indio belts were the main focus of exploration in the region, but it was recognized that the area between these two districts was prospective for similar systems. This has been borne out by work undertaken over the last two decades with discoveries such as the Los Helados, Josemaría and the Filo del Sol deposits which are of Late Oligocene to Late Miocene in ages.

Intrusive activity in the region, along with associated hydrothermal alteration, has been dated at Mid-Miocene to Late Miocene and shows similarities to many of the Maricunga-style Au-porphyrries. Movement on structures has often led to the juxtaposition, telescoping or overprinting of high-sulphidation epithermal mineralization on these porphyry systems.

Figure 7.1 shows the aerial relationship of the Late Oligocene to Miocene volcanic rocks and associated porphyry and epithermal deposits.

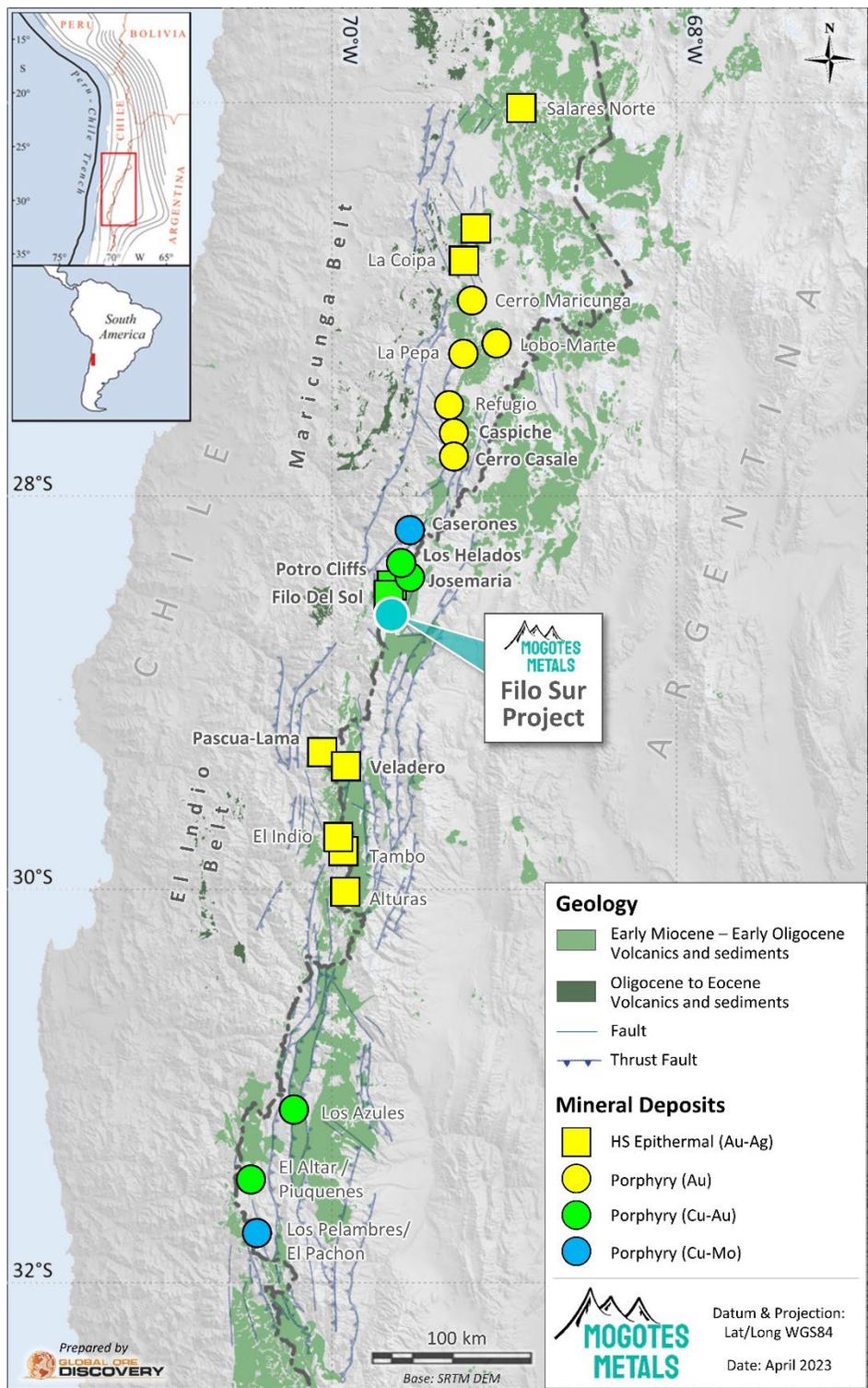


Figure 7.1: The Oligocene to Miocene Porphyry Epithermal Belt in Chile and Argentina. (modified from Sillitoe, R.H., et al 2019)

## **7.2 LOCAL GEOLOGY**

### **7.2.1 Lithology**

The Property has been subjected to multiple volcanic and intrusive events dating from the Middle Miocene back at least as far as the Permo-Triassic.

Oligocene to Early - Middle Miocene age volcanic rocks of the Peñas Negras and Doña Ana Groups overly a basement of Permo-Triassic Choiyoi Group sedimentary, volcanic and intrusive rocks.

These units were subsequently overlain and intruded in the Middle to Late Miocene volcanic units including tuffs, ignimbrites and volcano-clastics of andesitic to rhyolitic composition. These have been intruded and altered by numerous subvolcanic intrusives of dioritic composition. Main lithologies include micro-diorite, diorite and the Tilito breccias (Jones, S.J., and Terry, D., 2008).

Pleistocene glaciation and erosion has resulted in local development of cover units consisting of a variable thickness moraine and alluvial/colluvial gravel deposits mostly developed at lower altitudes and within

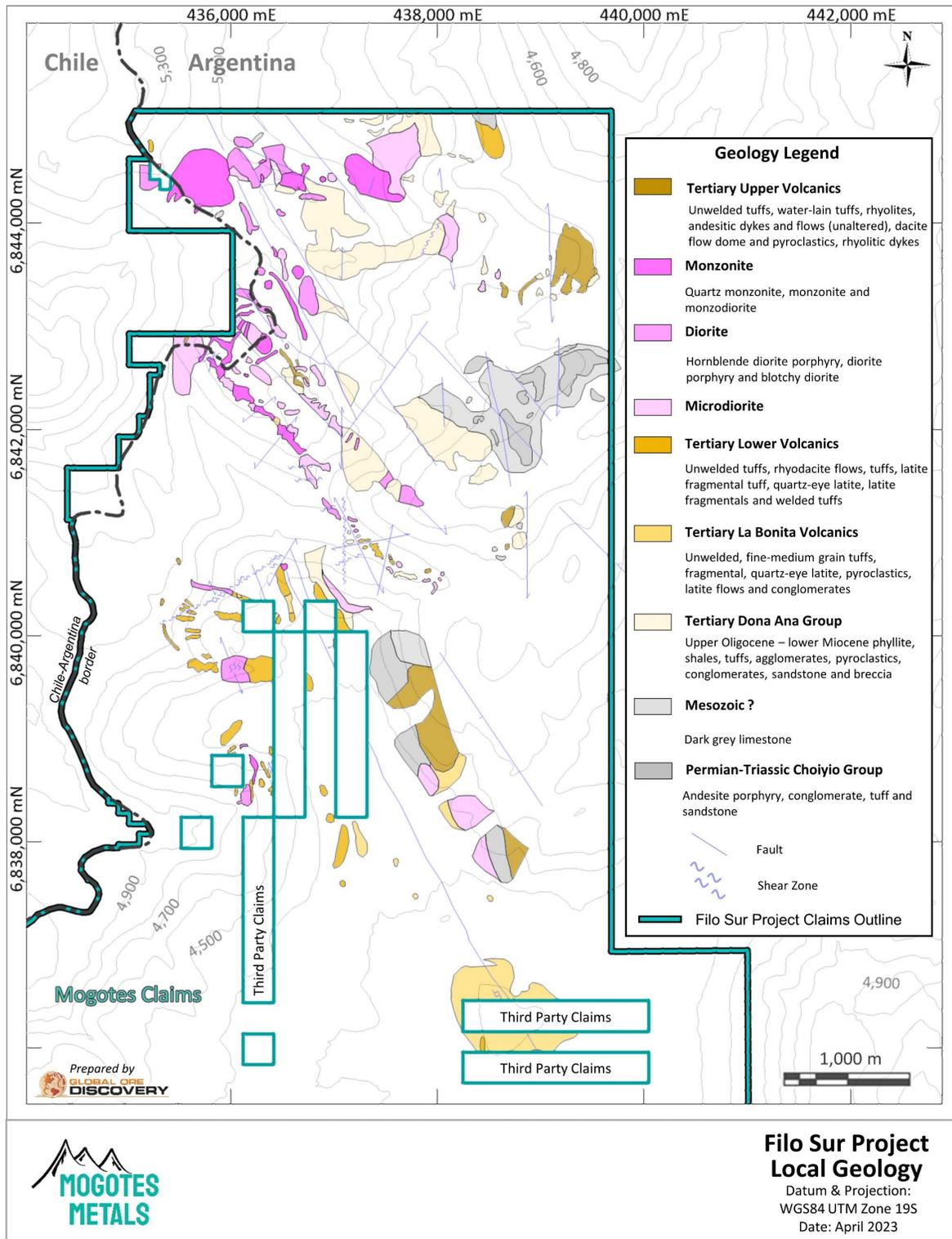
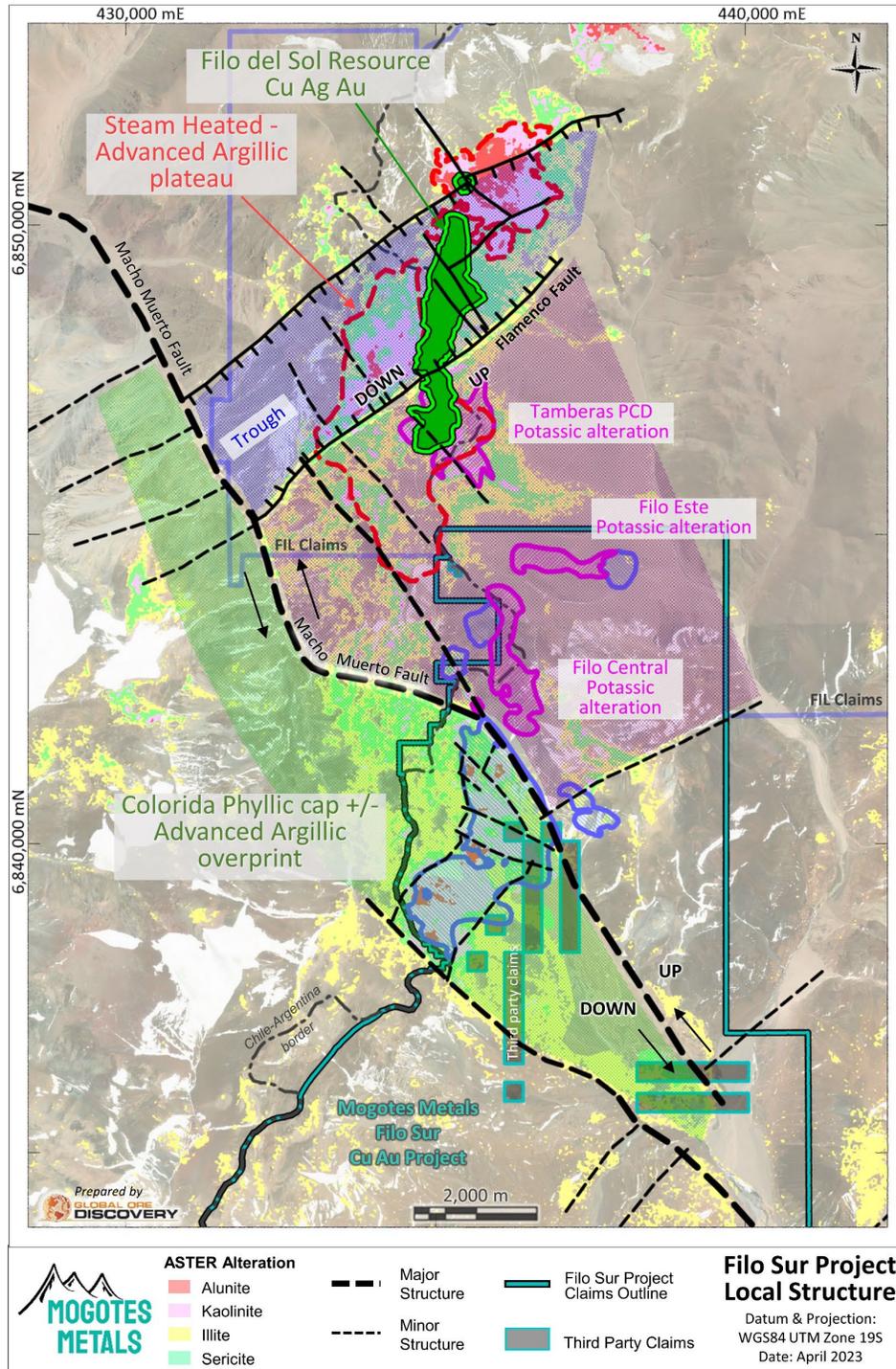


Figure 7.2: Local geology of Filo Sur Concessions from previous exploration mapping

## 7.2.2 Structure

Structural trends on the Property consist of major NW-SE structures, the most important of these being the Mogotes Fault, while secondary NE-SW structures have played a major role in localizing alteration and mineralization.



**Figure 7.3: Interpreted Local Structure and mineralized zones of Filo Sur Project and Filo Mining concessions area**

At Filo Mining's Filo del Sol project 2km to the north faults show considerable vertical displacement and have juxtaposed classic porphyry Cu-Au mineralization, exposed to the south of the Flamenco Fault, with high level high-sulphidation epithermal mineralization to the north.

The NW-SE Mogotes Fault appears to have played a similar role at Filo Sur and will be discussed in further detail in **Section 7.2.3 Alteration and Mineralization**

**7.2.3 Alteration and Mineralization**

There are two main alteration and mineralization assemblages on the Property.

Their distributions along with structure are outlined on the follow ASTER imagery (See Figure 7.5).

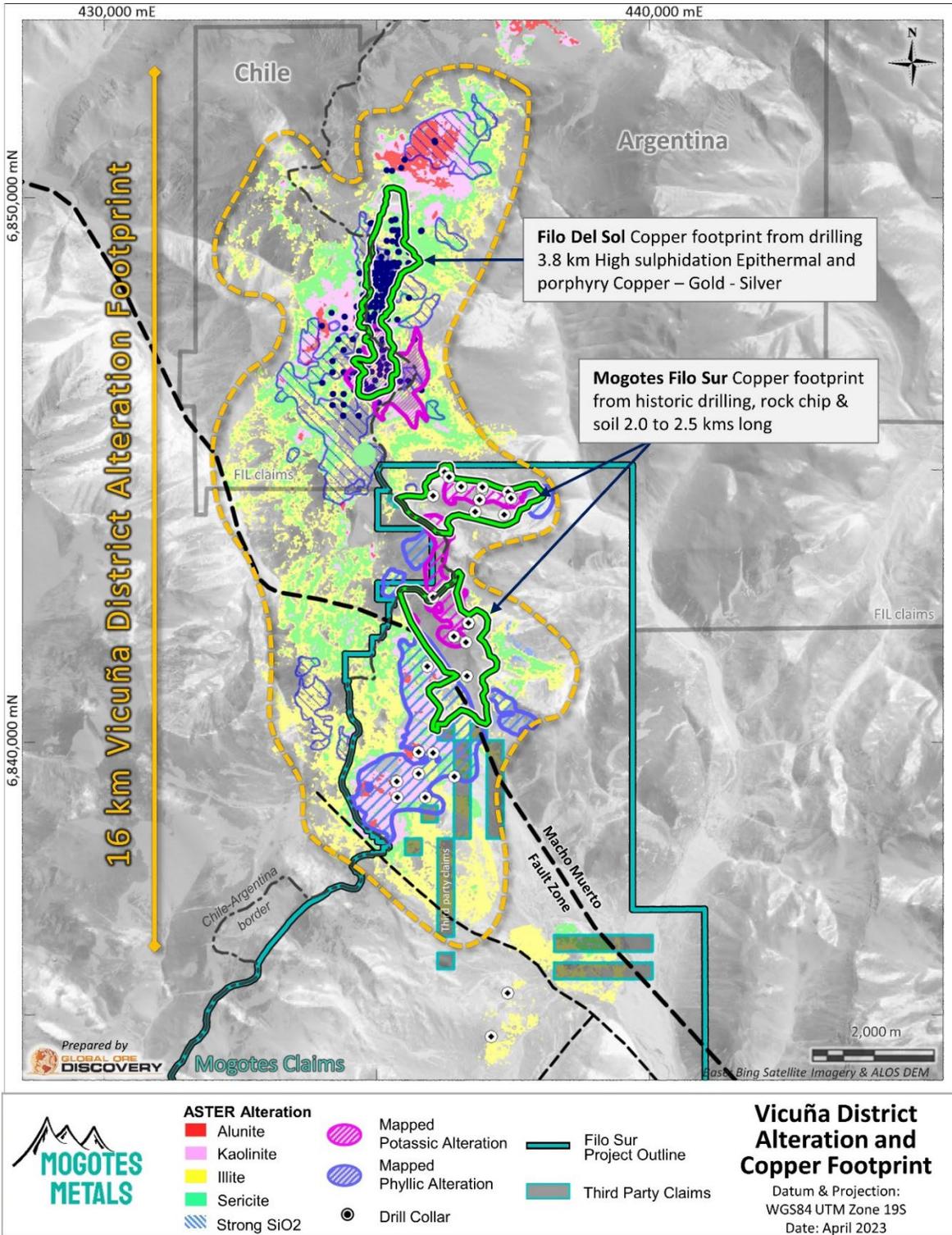


Figure 7.5: Vicuña District alteration and copper footprint from ASTER imagery

## **Porphyry Cu-Au-Ag**

Potassic/propylitic alteration associated porphyry Cu-Au-Ag mineralization is hosted in diorite, micro-diorite and breccias and is a function of quartz vein density.

Quartz veins occurs as stockworks and sheeted veins with the main hypogene minerals being chalcopyrite, bornite, and pyrite with local hypogene alteration of Cu sulfides to digenite, chalcocite, and covellite. Surface oxidation has resulted in various sulfates, carbonates, and iron oxides that include antlerite, brochantite, malachite, azurite, goethite, hematite, and jarosite. There is weak to moderate overprinting of anhydrite-carbonate veins.

There are three main porphyry centers at Filo Este, Filo Central and to a lesser extent Stockwork Hills.

There are remnants of eroded high-sulphidation alteration.

## **High Sulphidation Au-Ag**

High sulphidation epithermal alteration with silica, clay minerals, disseminated pyrite, alunite and quartz veinlets. The geological setting to the south-west of the Mogotes Fault is thought to represent a higher-level alteration assemblage within the volcanic cover.

There may be the potential for high-sulphidation precious metal mineralization and stockwork Cu-Au mineralization at depth.

The Filo Sur zone is one of the largest untested alteration anomalies is in the district.

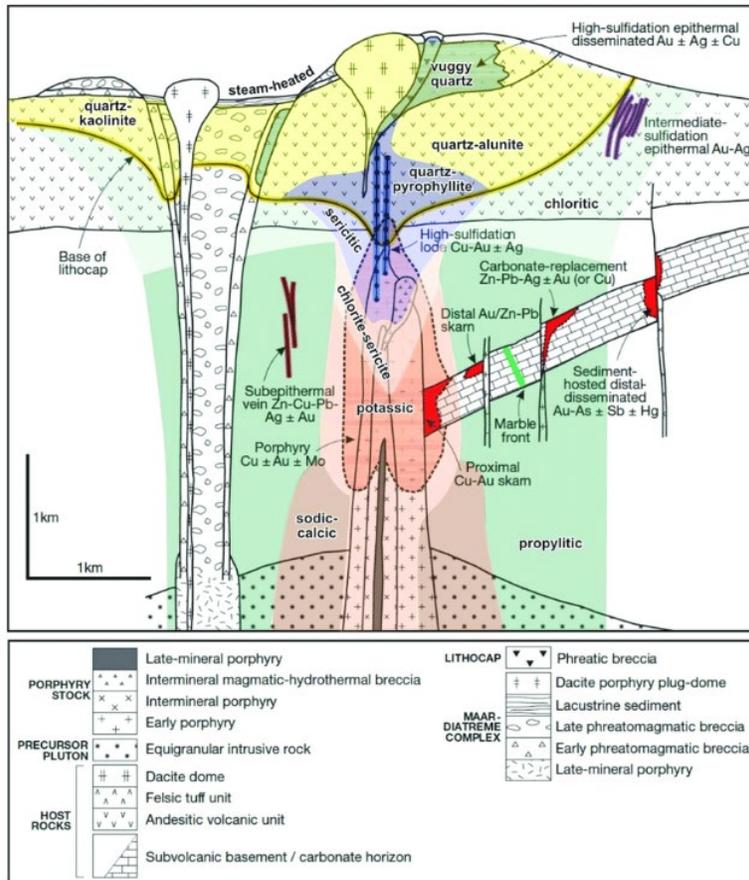
### **7.2.4 Mineralization and Geochemistry**

Mineralized zones, their distribution and characteristics as defined by the surface geochemistry and drilling will be covered in more detail in **Sections 9 and 10**.

## **SECTION 8. DEPOSIT TYPES**

The mineral deposit types on the Property include both high-sulphidation epithermal precious metal systems and Cu – Au porphyry systems. Direct comparison can be made to the Filo del Sol project 2 km to the North.

The Property is situated between the Maricunga Cu – Au porphyry belt to the north and the El Indio-Pascua-Lama epithermal Au-Ag belt to the south. Descriptions for the “type” deposits in each area are given in Vila and Sillitoe (1991) and Jannas et. al. (1999) respectively. See Figure 8.1.



**Figure 8.1: Alteration and Mineralization Associated with Porphyry Cu Systems (Sillitoe, 2010)**

Panteleyev and Cravero (2001) describe the region encompassing Filo Sur as a southern extension of the Late Oligocene and Early to Middle Miocene (26Ma-11Ma) Maricunga Belt.

Veladero to the south may be as old as 14 Ma while a K/Ar age date from dacite sampled as part of a Japanese Mining Engineering Centre study (JMEC, 1999) reported an age of 15.3 Ma. Panteleyev and Cravero describe the mineralized environment at Filo Sur as a “predominantly a deeply dissected cogenetic dome or high-level intrusion and their near surface altered cupolas with potential for porphyry-type mineralization and locally developed or flanking high sulphidation overprints.”

The geological setting at Filo Sur is prospective for both deposits of both types. Fieldwork undertaken to date indicates that both styles of mineralization (Cu-Au porphyry and High Sulphidation Epithermal Au-Ag) are present on the Property.

## **SECTION 9. EXPLORATION**

The Property has been subject various campaigns of surface mapping, sampling and geophysics. The author has relied on technical reports prepared in accordance with 43-101 (Bottomer and Freeze, 2002, Keating and Bottomer, 2003 and Terry and Jones, 2008) and other memos supplied by Mogotes Metals.

Geochemical data has been compiled into summary tables by Petrogaia Consultants and Global Ore Discovery Geoscience Consultancy ("**Global Ore**") and this information has been used for preparation of the following maps and summary tables.

### **9.1 MAPPING AND SAMPLING**

2001 – Rio Tinto briefly entered into a JV with IMA Exploration in March 2001 and collected 47 talus fines and 46 rockchip samples. Rio Tinto withdrew from the joint venture in December 2001.

2002 – IMA Exploration carried out mapping and sampling with a total of 164 rock, 113 talus and 46 sediment samples (Bottomer and Freeze, 2002)

2003 – IMA Exploration expanded mapping (31 sq km at 1:25000) and sampling with 169 rockchip samples and 297 talus samples (Keating and Bottomer, 2003)

2004/5 – There is a summary report (Jones and Terry, 2008) that mentions mapping and sampling carried out in 2004 and mentions “the surface Cu-Au geochemical anomaly of greater than 0.1 ppm Au and 500 ppm Cu to 4,000 x 800 metres. Within this anomaly is a 600 x 400 metre area of greater than 0.5 ppm.” There are no obvious folders in the database relating to surface sampling in 2004.

Amera carried out 2 drill programs in 2004 and 2005 and these will be covered in **Section 10**.

Vale optioned the Property from Amera in 2010 until 2013. The only surface sampling directly attributable to Vale are 14 rock chip samples collected in 2011. Vale carried out 2 diamond drill campaigns that again will be covered in **Section 10**.

2019 – There is a folder titled Geochem Anglo American January 2019 containing Lab Certificates, Assay files and an Excel spreadsheet containing results and coordinates for 138 rock chip samples. Some of these previous samples now plot outside the current Mogotes Metals claim package and those results have not been included in this report due to the confidentiality of proprietary data.

2022-23 – Mogotes Metals restarted exploration on the Property in December 2022 with mapping, sampling, infrared spectrographic analysis, geophysics and relogging of core.

Summaries are presented in the appropriate sections and full reports are cited in REFERENCES.

2022 – Selective relogging of eight holes totalling 4198.40 and Infrared Spectrographic Mineral Analysis of 1970 samples, Via, S.M., 2022.

Geological Mapping – 6500 Ha has been mapped and is currently being compiled. Via, 2023  
Via and Brody, 2023.

Infrared Spectrographic Mineral Analysis – 451 samples analysed by ASD TerraSpec Halo infrared spectrometer focusing on the central Zona Colorida. Via and Brody, 2023.

Core Relogging and Interpretation - In total 20 drill holes totalling 9509.7m drill holes were relogged by Simon Meldrum of CEG. This logging focused on lithologies, alteration facies and mineralization styles. Meldrum, S.J., 2023.

Geophysics – Southern Rock Geophysics carried out Multi-Transmitter (3D) Vector Induced Polarization/Resistivity and Magneto-Telluric Survey in December 2022 through to end January 2023. Scarbrough, J., 2023.

Geochemistry – rockchip (channel and float) and soil sampling program are ongoing with results pending.

## 9.2 SUMMARY STATISTICS AND GEOCHEMISTRY

Geochemical data was compiled into summary tables by Petrogaia Consultants in 2022 and some additional data recovered by Global Ore in 2023. This information has been used for preparation of the following maps and summary tables.

The author has relied on this information for the following tables and maps considering it to be the most reliable and gives the best representation of surface geochemistry across the Property and from the various sampling campaigns undertaken over the last 20+ years.

The author has directly quoted sampling methods where described in detail and has inferred sampling techniques based in standard practice and his experience on similar projects in the region.

**Rockchip** samples are described as composite chips by Bottomer and Keating and provide a representative sample of mineralization and alteration at a given locality.

176 trench samples were collected by in late 2003 by IMA. From field observations and sample plots, it appears that trenches were opened in the talus/soil cover down to bedrock and continuous channel chip samples were collected along 5m intervals. For the purposes of this report chip and trench samples were combined.

**Float** samples are composite chip samples collected over an area of several square metres and are again deemed to provide a representative sample of alteration and mineralization at that locality. In the data room float samples have been labelled as grab/gravel and float. All these files were combined in to one Float/Grab file.

**Talus** samples “were collected at regular intervals along contour lines as controlled by GPS. At each sample site, two holes were dug, not more than 3m apart, to a level below obvious talus into the soil beneath. Fines from both holes were then sieved to –10 mesh in the field, combined into one bag, and sent to the lab where they are handled as a “sediment” samples”. (Keating, L., 2003).

Sediment samples were mentioned in the report Bottomer, L. and Freeze, A.C., 2002.

“Samples collected to date on the Mogote Property have included grab samples of rock from both outcrop and float, talus fines samples, stream sediment samples and pan concentrates.”

There is nothing in the database that indicates which, of the 46 samples collected, 37 on the current claims, were sieved sediment and which were pan concentrate.

From the assay file the samples were assayed for Au, Ag, As, Cu, Hg (Cold Vapor), Mo, Pb, Sb, and Zn.

Due to the limited coverage of the sediment data and uncertainty about sample types the results will not be considered further in this report.

Further details regarding sample preparation, digestion and analytical techniques are covered in **Section 11** and details given in **Appendix 2 Sample Preparation and Analysis**.

<b>SAMPLE TYPE</b>	<b>Number of Samples</b>
Rockchip/Trench	378
Float/Grab	155
Talus	435
Stream Sediment	36

**Table 9.1: Summary Surface Sampling – Sample Type and Number of Samples within Mogotes Metals Claim Blocks**

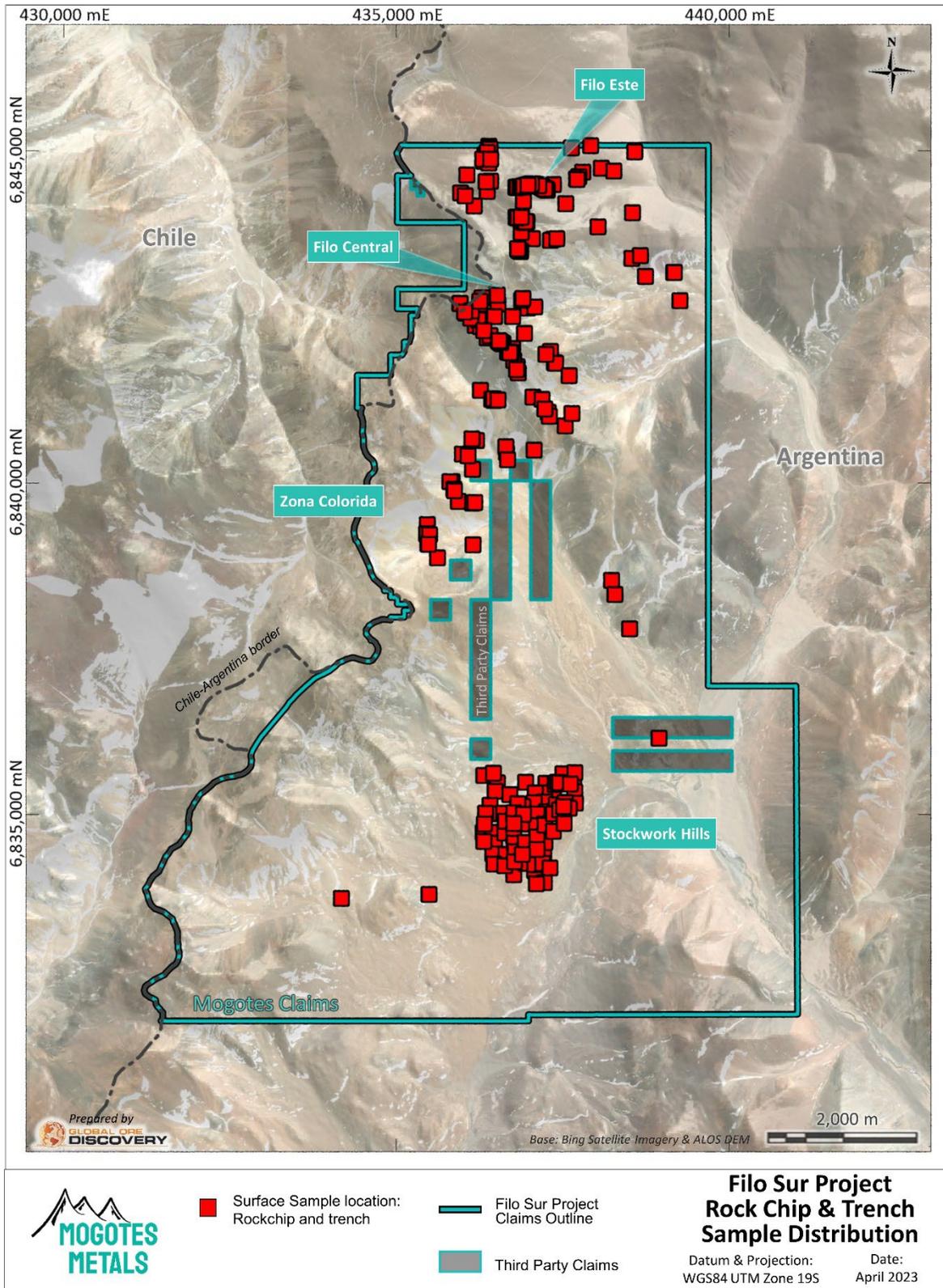


Figure 9.1: Historic Rockchip/Trench Samples

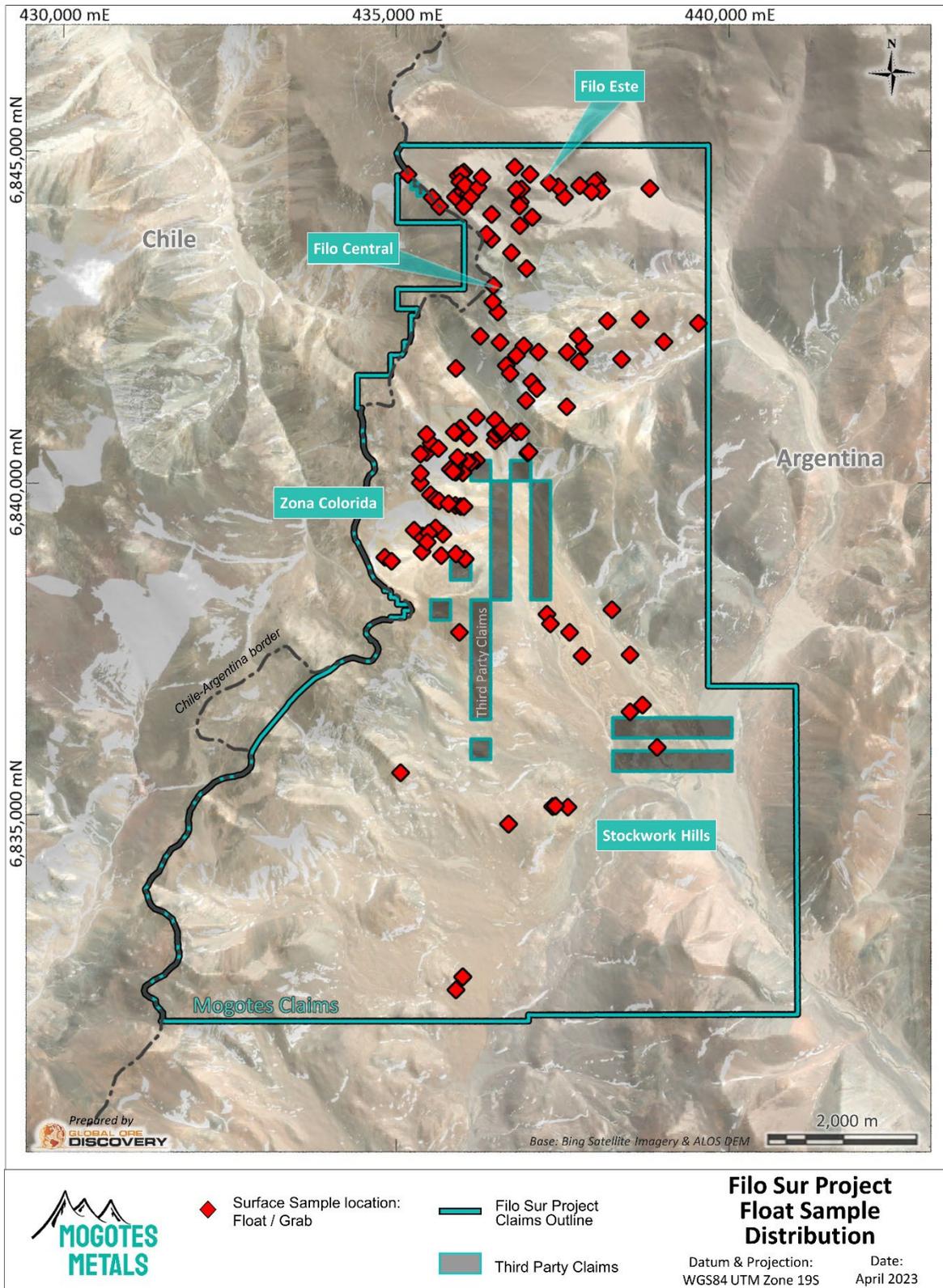
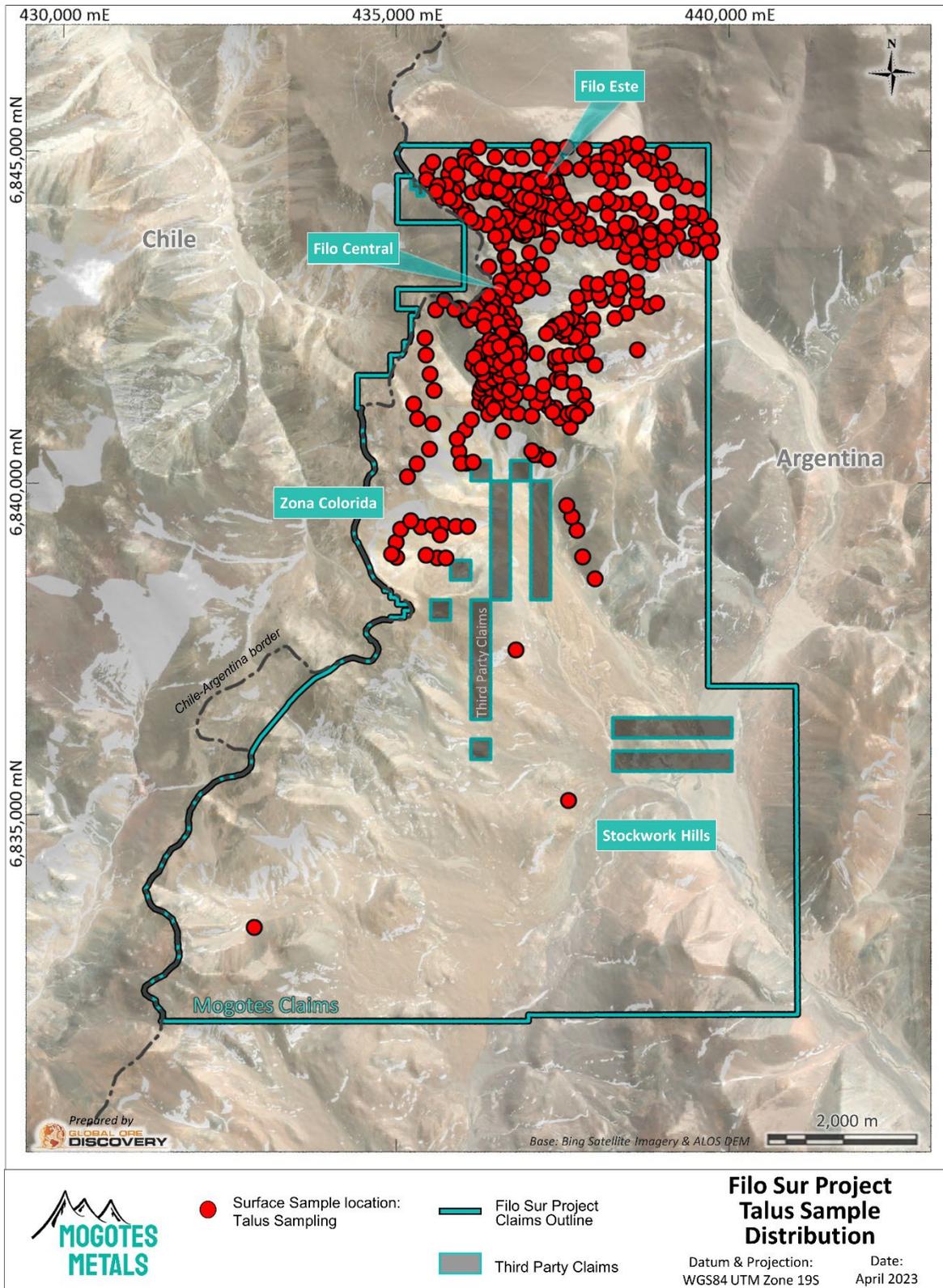


Figure 9.2: Historic Float/Grab Samples



**Figure 9.3: Historic Talus Samples**

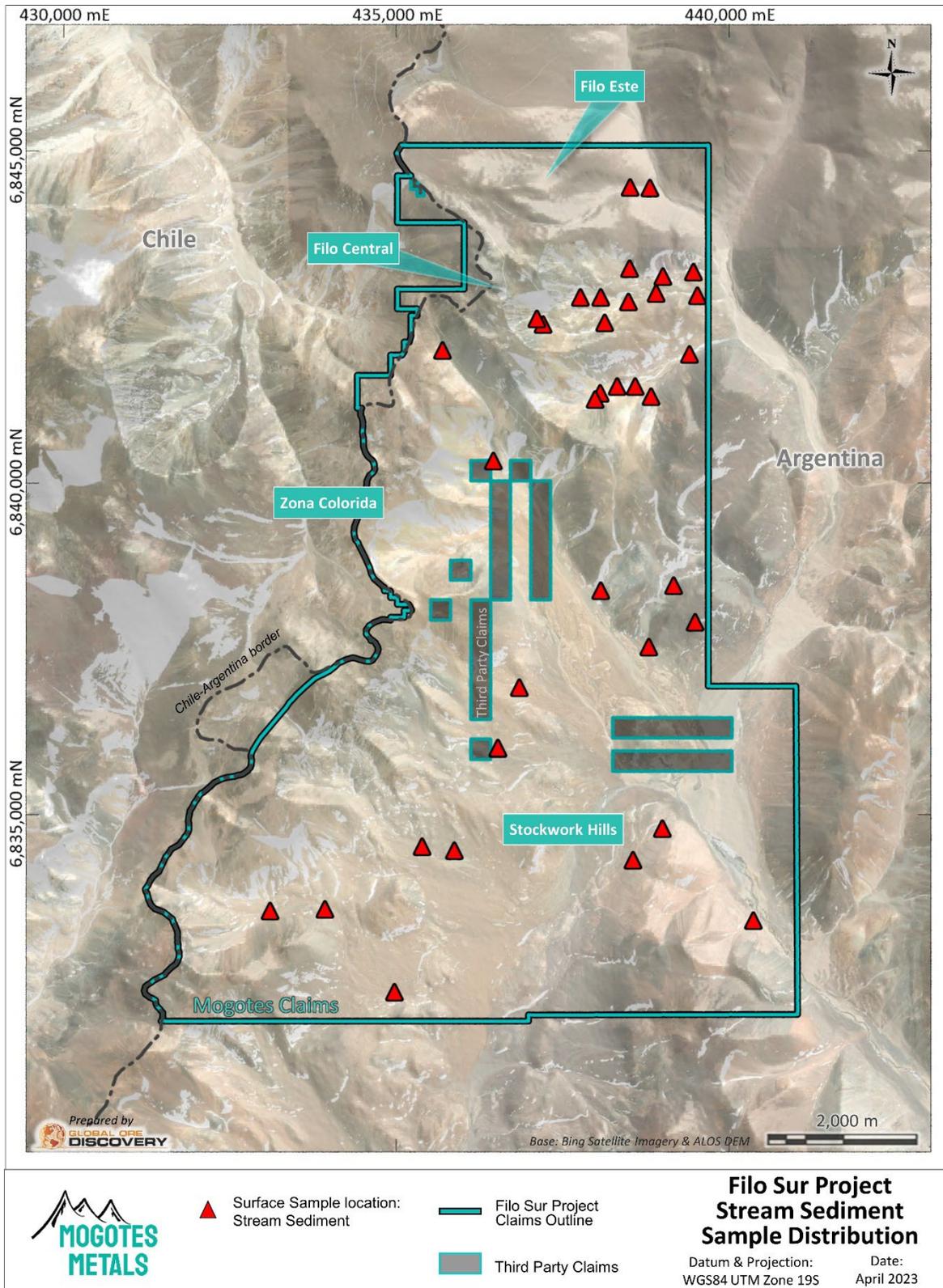


Figure 9.4: Historic Stream Sediment Samples

The following sections shows summary statistics and plots of aerial distributions for Au, Ag, Cu, Mo and As.

### 9.2.1 Rockchip/Trench Samples

**Table 9.2: Rockchip/Trench Geochemistry Summary Statistics – Au**

Description	Value
Maximum Value	2.99 g/t Au
Samples Below Detection <0.001-0.005 g/t	64 samples
Samples Over 0.05 g/t	221 samples
Samples Over 0.1 g/t	173 samples
Samples Over 0.25 g/t	91 samples
Average of Samples over 0.1 g/t	0.253 g/t Au
Total No of Samples	378 samples

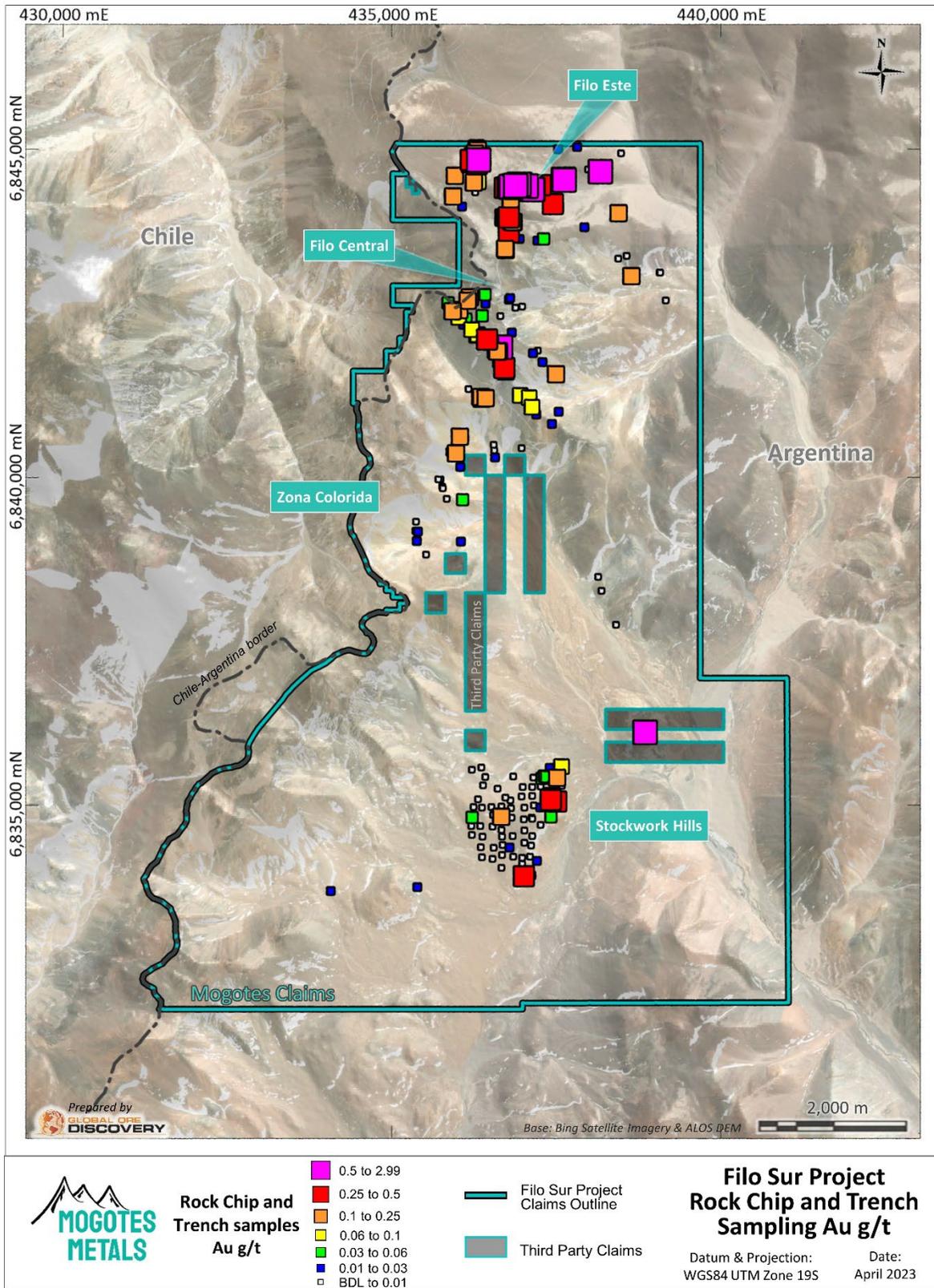


Figure 9.5: Historic Au (g/t) in Rockchip

**Table 9.3: Rockchip/Trench Geochemistry Summary Statistics – Ag**

Description	Value
Maximum Value	29.5 g/t Ag
Samples Below Detection (<0.2-0.5 g/t)	66 samples
Samples Over 10 g/t	4 samples
Samples Over 30 g/t	0 samples
Samples Over 90 g/t	0 samples
Average of Samples over 10 g/t	24 g/t Ag
Total No of Samples	378 samples

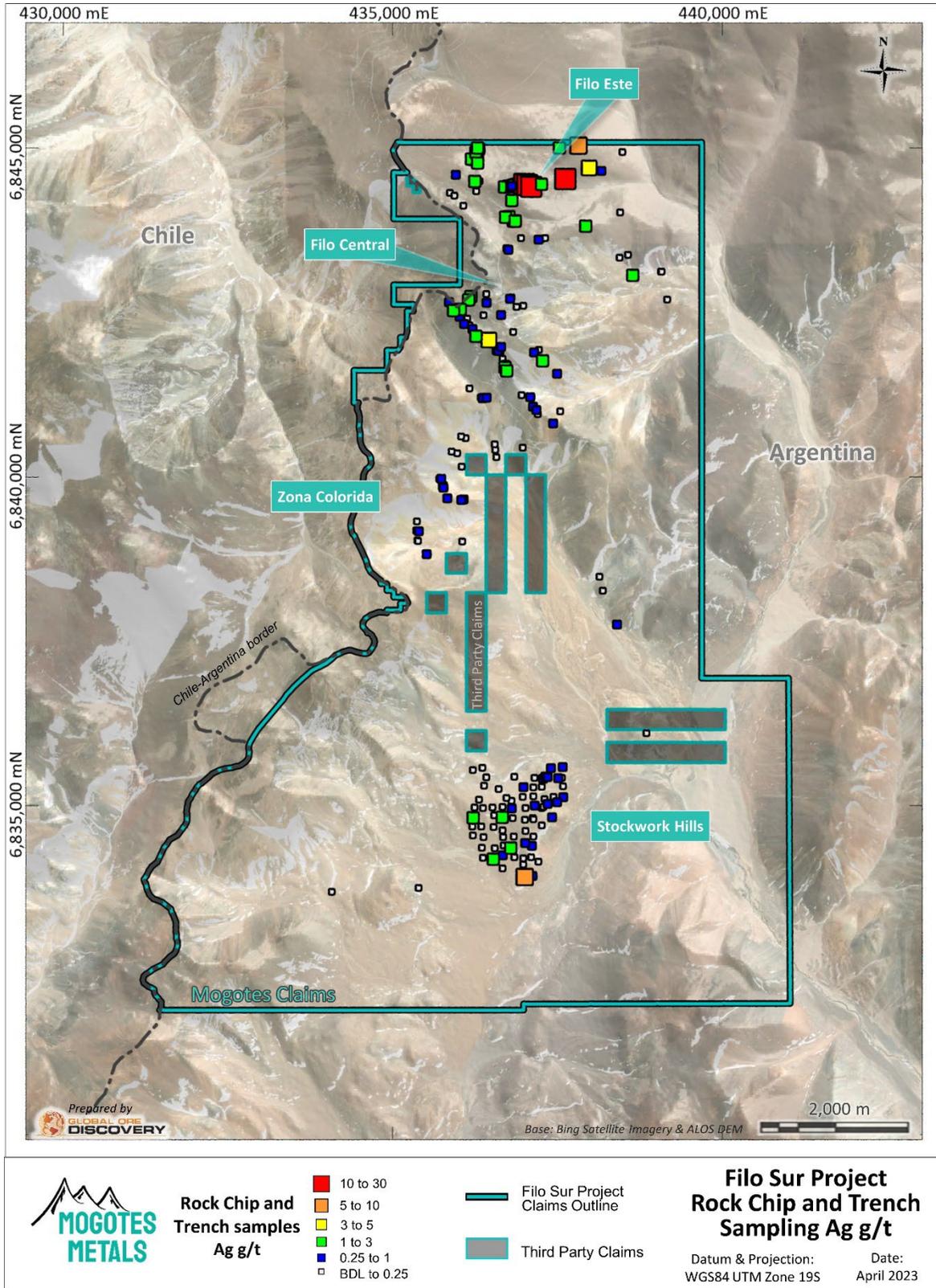


Figure 9.6: Historic Ag (g/t) in Rockchip

**Table 9.4: RockChip/Trench Geochemistry Summary Statistics - Cu**

Description	Value
Maximum Value	6700 ppm Cu
Samples Below Detection (<0.2 ppm)	0 samples
Samples Over 100 ppm	216 samples
Samples Over 500 ppm	161 samples
Samples Over 1000 ppm	121 samples
Average of Samples over 100 ppm Cu	1340 ppm Cu
Total No of Samples	378 samples

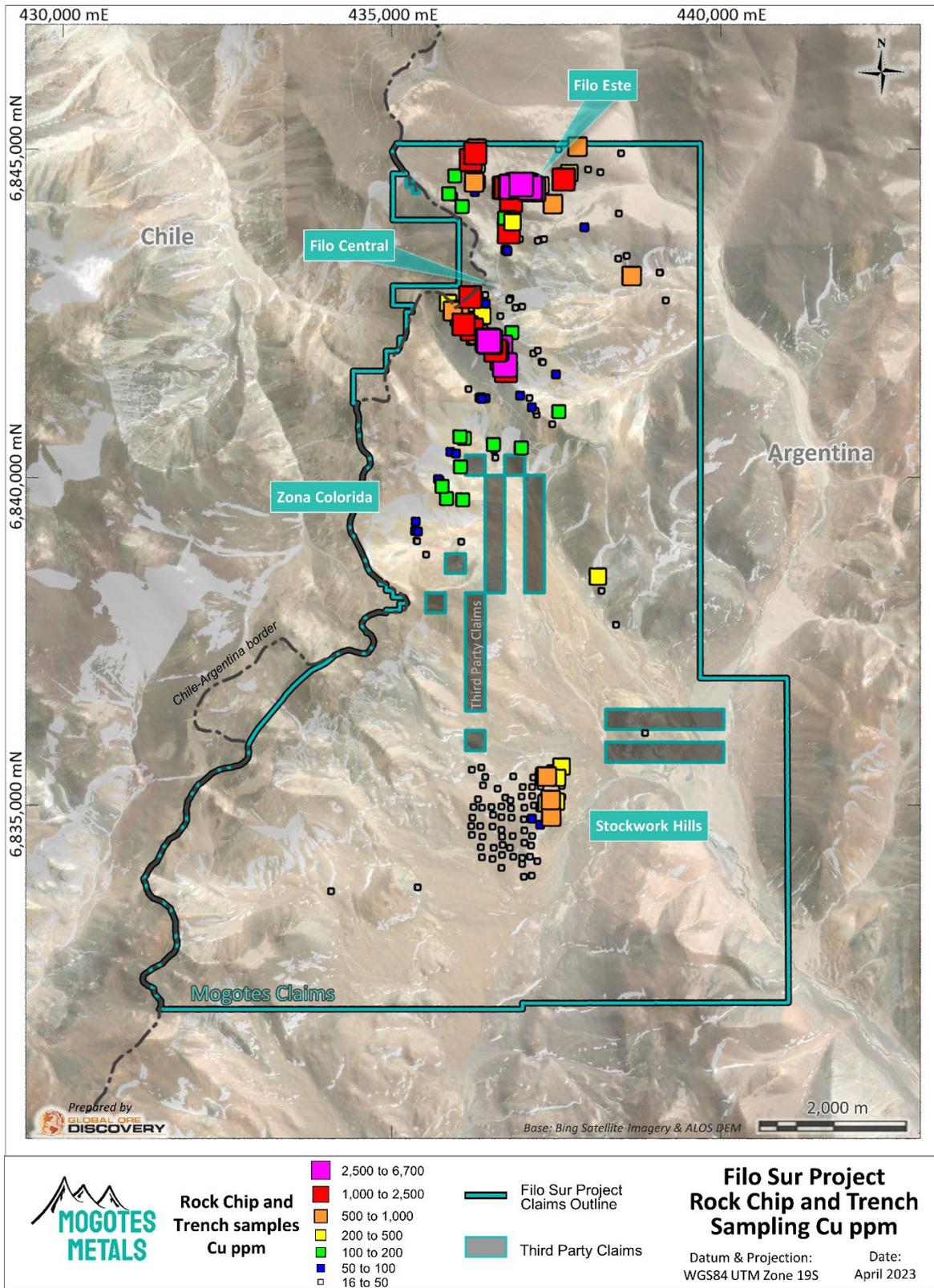


Figure 9.7: Cu (ppm) in Rockchip

**Table 9.5: Rockchip/Trench Geochemistry Summary Statistics – Mo**

Description	Value
Maximum Value	84 ppm Mo
Samples Below Detection (<1ppm)	28 samples
Samples Over 5 ppm	195 samples
Samples Over 10 ppm	113 samples
Samples Over 50 ppm	2 samples
Average of Samples over 10 ppm	16 ppm Mo
Total No of Samples	378 samples

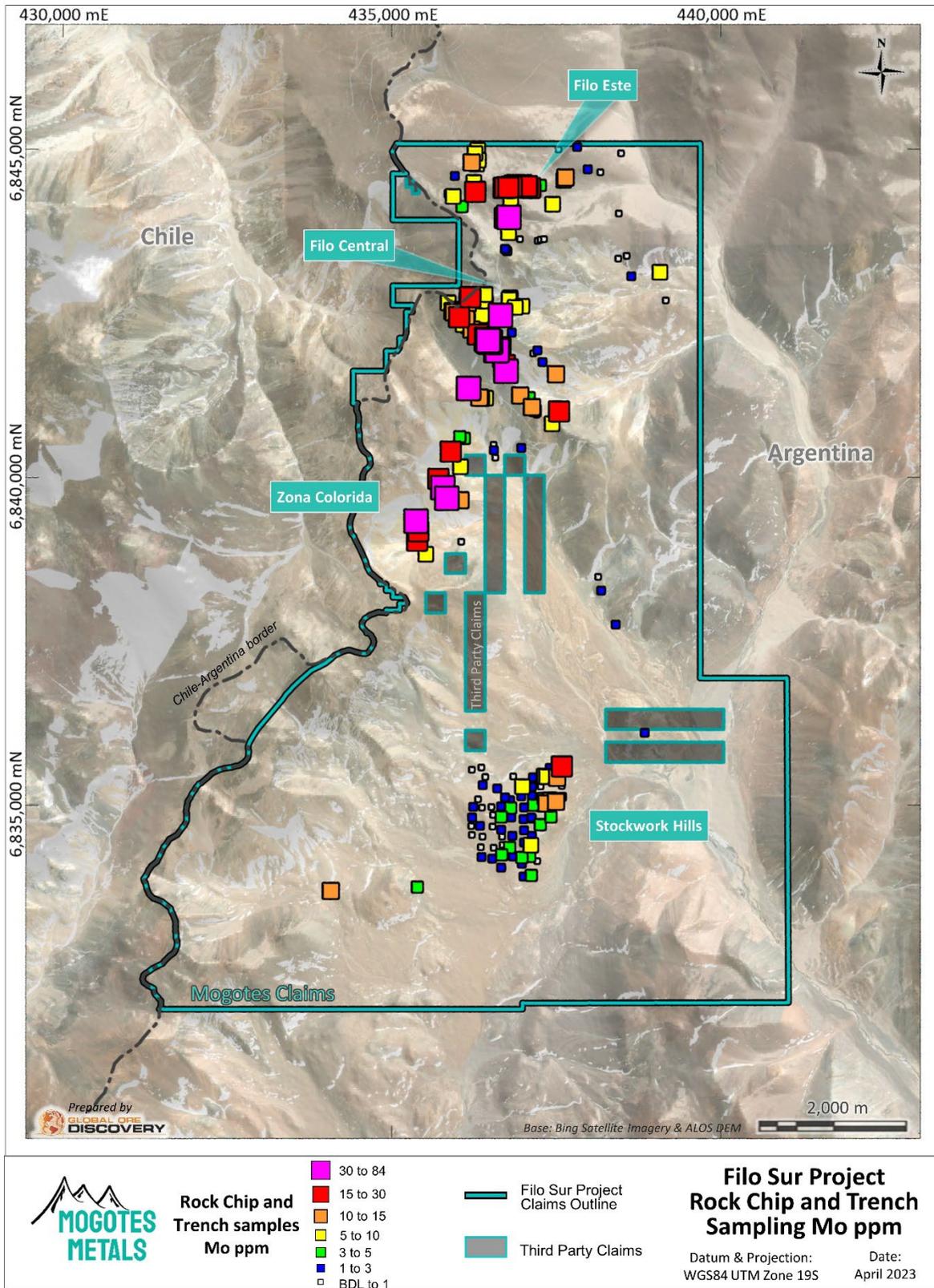


Figure 9.8: Mo (ppm) in Rockchip

**Table 9.6: Rockchip/Trench Geochemistry Summary Statistics – As**

Description	Value
Maximum Value	506 ppm As
Samples Below Detection (<2-5 ppm)	33 samples
Samples Over 25 ppm	37 samples
Samples Over 100 ppm	10 samples
Samples Over 250 ppm	2 samples
Average of Samples over 100 ppm	85 ppm As
Total No of Samples	378 samples

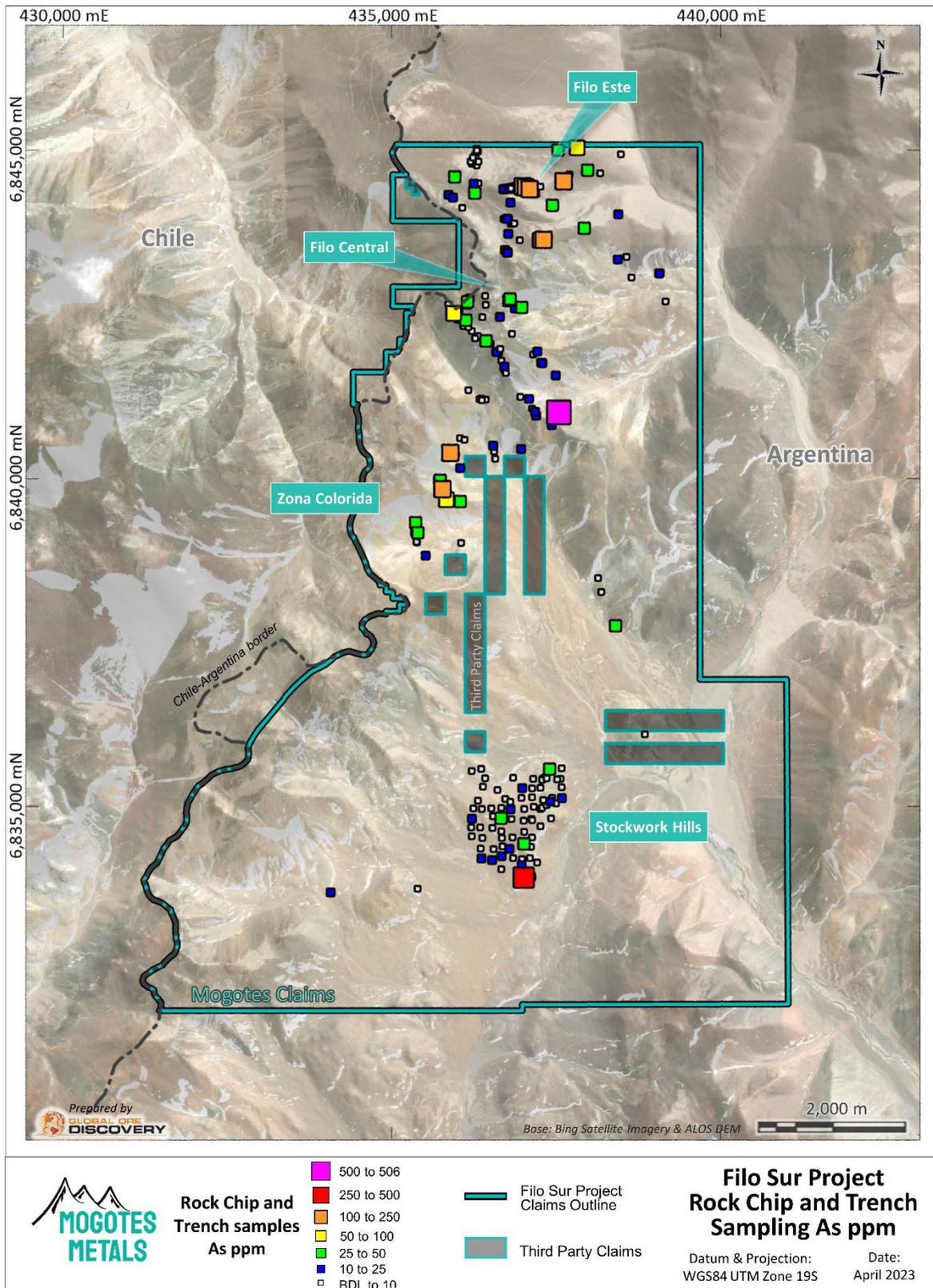


Figure 9.9: As (ppm) in Rockchip

## 9.2.2 Float/Grab Samples

**Table 9.7: Float/Grab Geochemistry Summary Statistics – Au**

Description	Value Au
Maximum Value	1.89 g/t Au
Samples Below Detection (<0.005 g/t)	6 samples
Samples Over 0.05 g/t	60 samples
Samples Over 0.1 g/t	43 samples
Samples Over 0.25 g/t	19 samples
Average of Samples over 0.1 g/t	0.305 g/t Au
Total No of Samples	155 samples

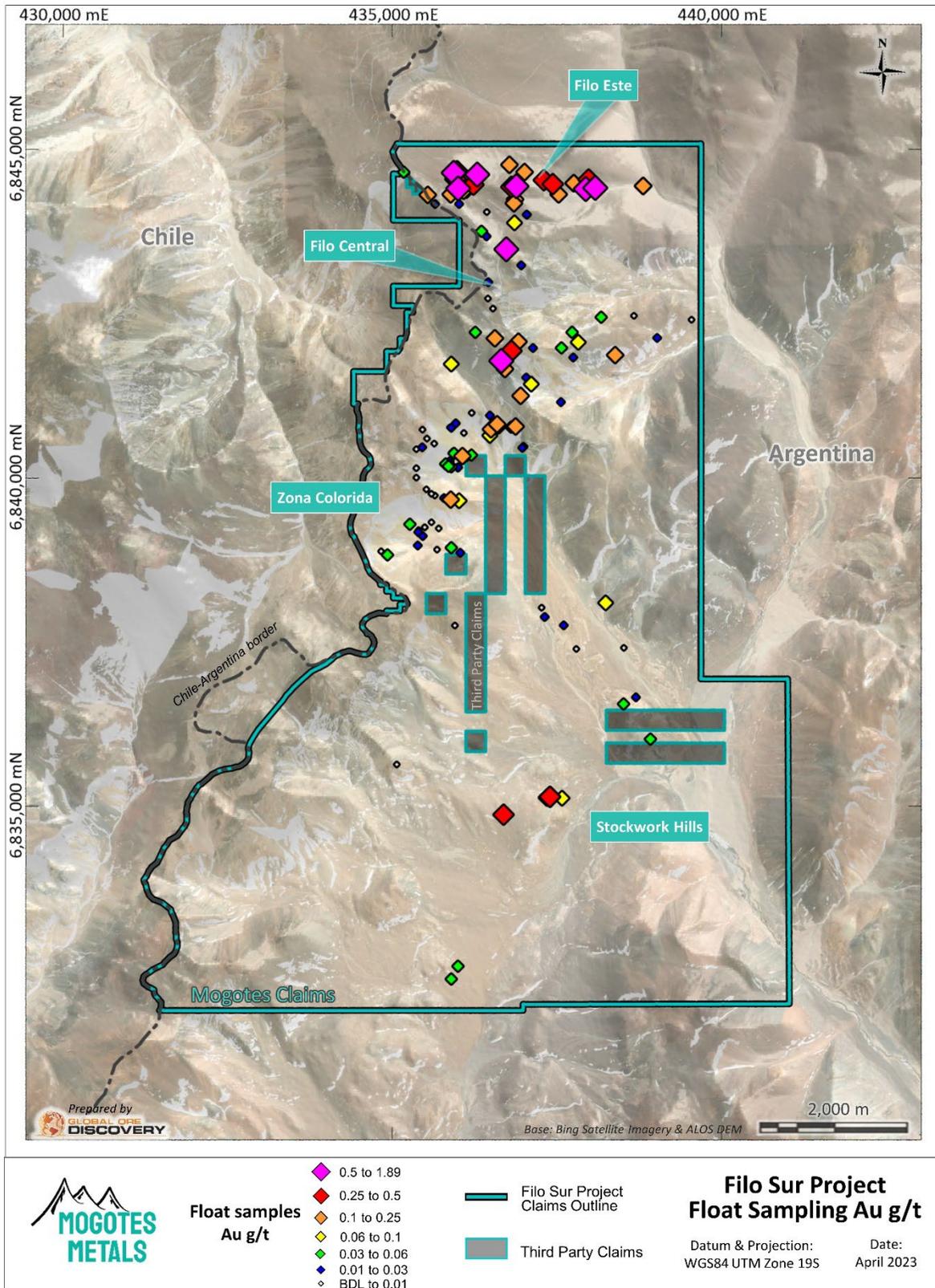


Figure 9.10: Au (g/t) in Float/Grab

**Table 9.8: Float/Grab Geochemistry Summary Statistics – Ag**

Description	Value
Maximum Value	196 g/t Ag
Samples Below Detection (<0.2 g/t)	39 samples
Samples Over 10 g/t	3 samples
Samples Over 30 g/t	2 samples
Samples Over 60 g/t	2 samples
Average of Samples over 10 g/t	127 g/t Ag
Total No of Samples	158 samples

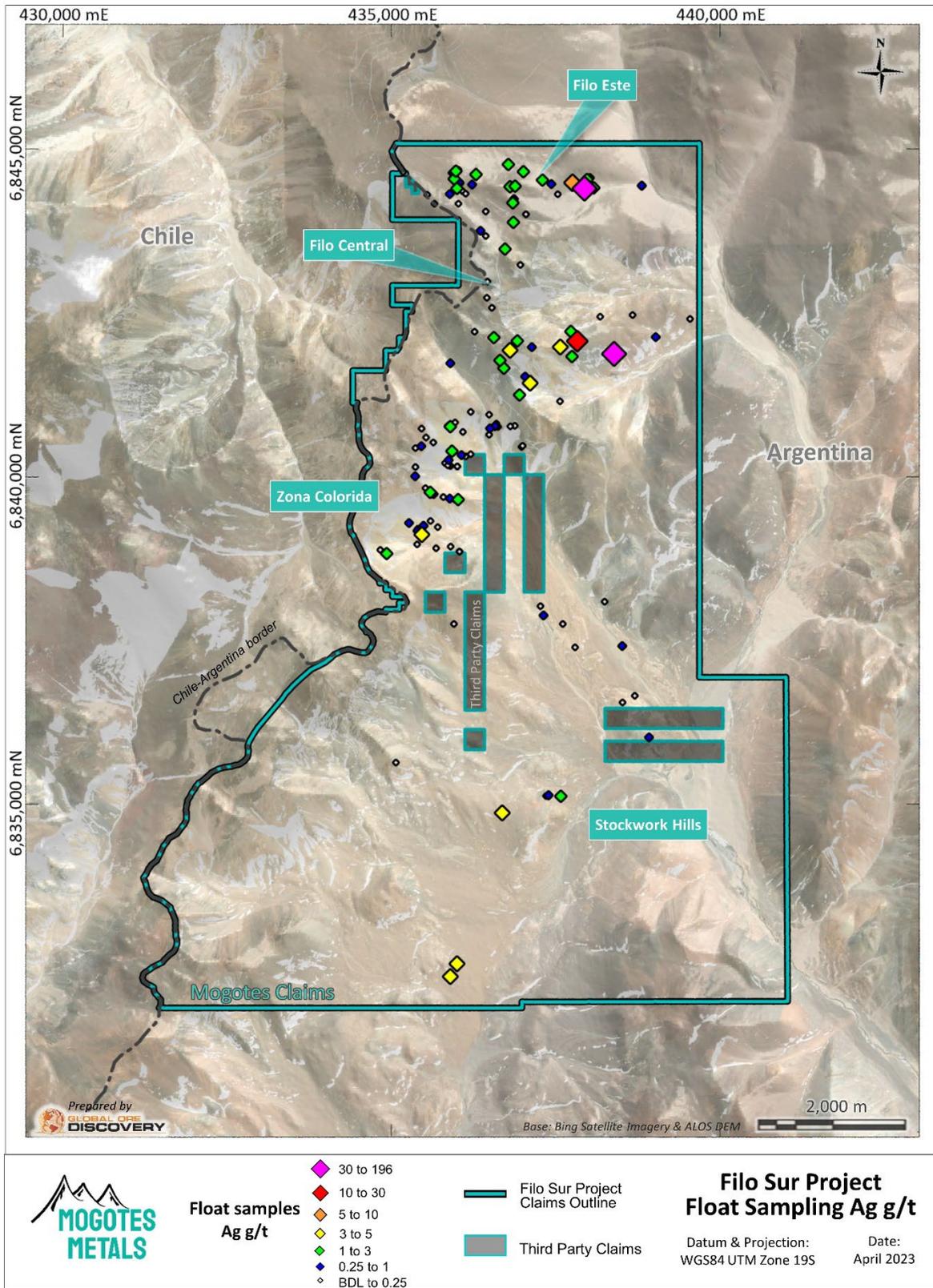


Figure 9.11: Ag (g/t) in Float/Grab

**Table 9.9: Float/Grab Geochemistry Summary Statistics - Cu**

Description	Value
Maximum Value	14500 ppm Cu
Samples Below Detection (<0.2 ppm)	0 samples
Samples Over 100 ppm	63 samples
Samples Over 500 ppm	21 samples
Samples Over 1000 ppm	16 samples
Average of Samples over 100 ppm	1007 ppm Cu
Total No of Samples	155 samples

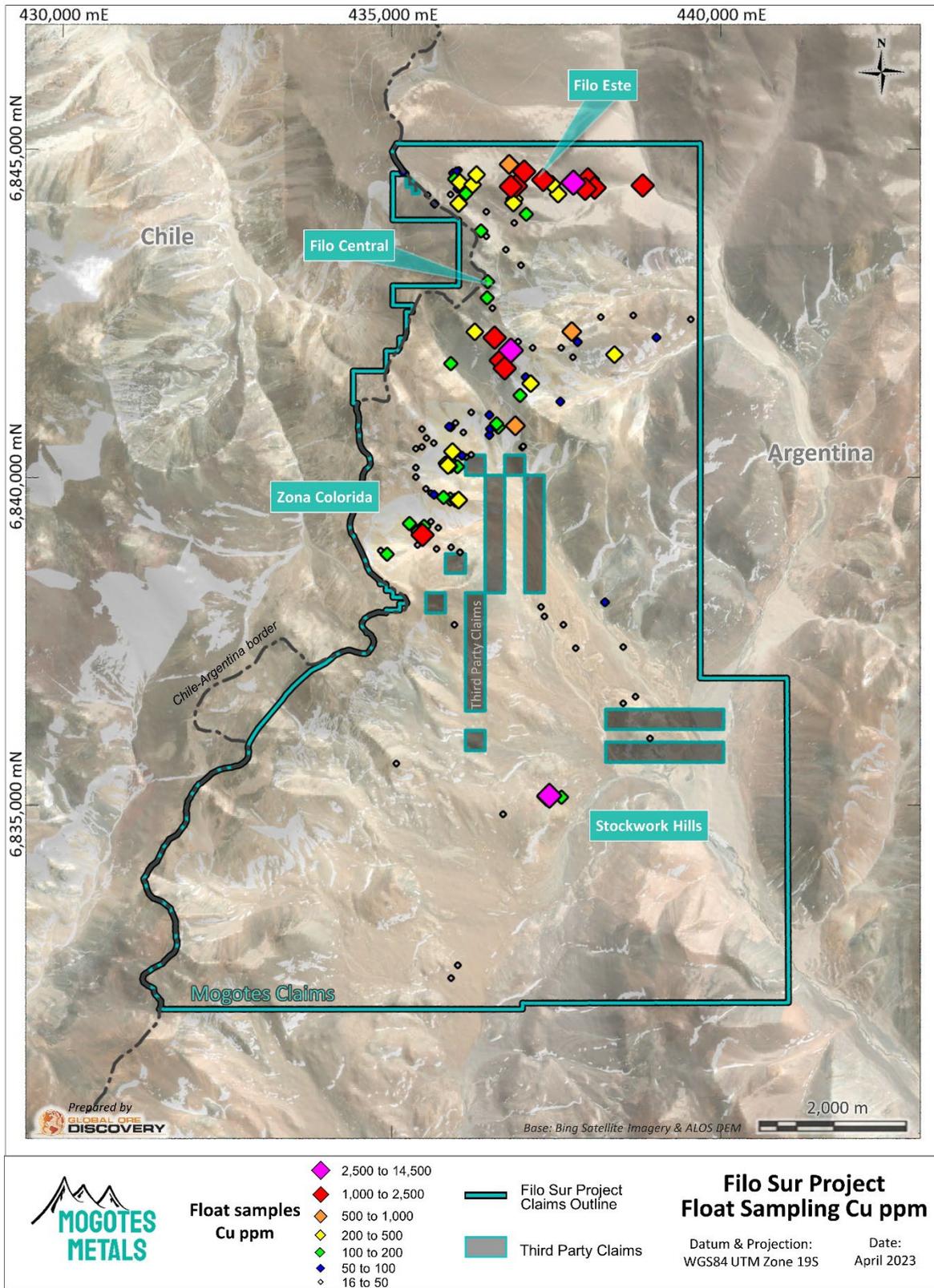


Figure 9.12: Cu (ppm) in Float/Grab

**Table 9.10: Float/Grab Geochemistry Summary Statistics - Mo**

Description	Value
Maximum Value	874 ppm Mo
Samples Below Detection (<1ppm)	20 samples
Samples Over 5 ppm	66 samples
Samples Over 10 ppm	41 samples
Samples Over 50 ppm	6 samples
Average of Samples over 5 ppm	42 ppm Mo
Total No of Samples	155 samples

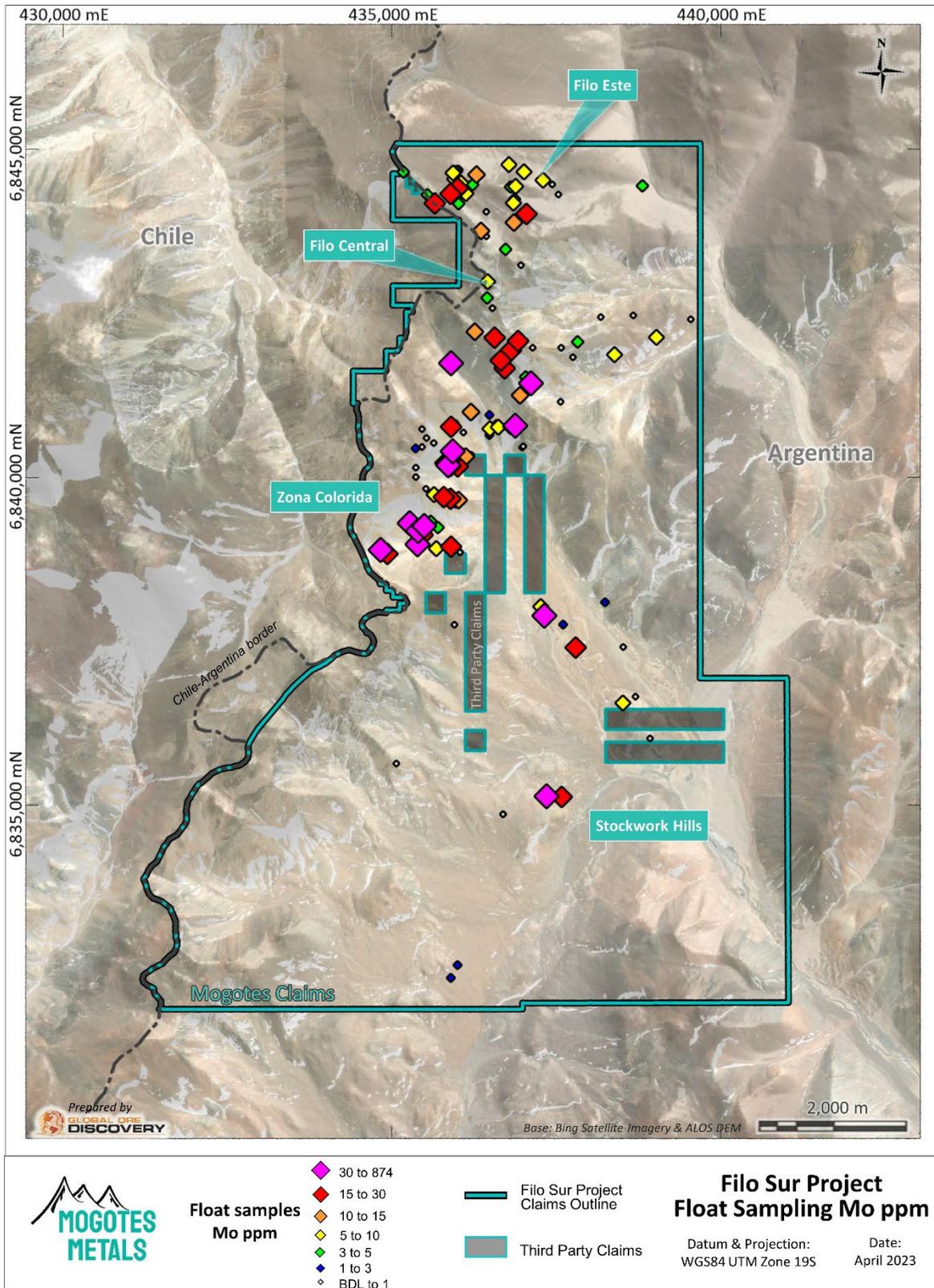
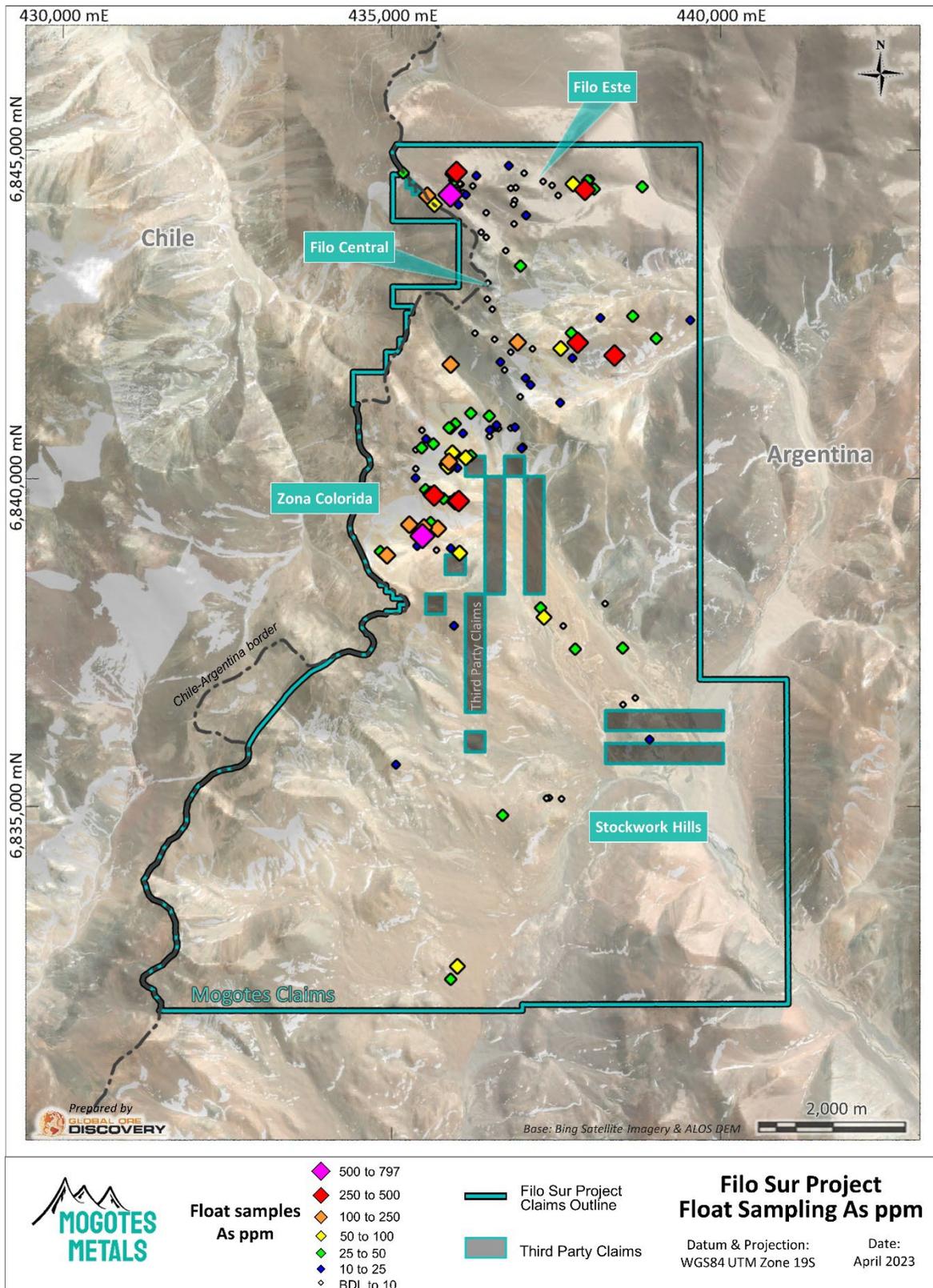


Figure 9.13: Mo (ppm) in Float/Grab

**Table 9.11: Float/Grab Geochemistry Summary Statistics - As**

Description	Value
Maximum Value	797 ppm As
Samples Below Detection (<2-5 ppm)	16 samples
Samples Over 10 ppm	66 samples
Samples Over 50 ppm	20 samples
Samples Over 250 ppm	8 samples
Average of Samples over 100 ppm	116 ppm As
Total No of Samples	155 samples



**Figure 9.14: As (ppm) in Float/Grab**

### 9.2.3 Talus Samples

Table 9.12: Talus Geochemistry Summary Statistics – Au

Description	Value
Maximum Value	1.076 g/t Au
Samples Below Detection (<0.005 g/t)	2 samples
Samples Over 0.05 g/t	266 samples
Samples Over 0.1 g/t	155 samples
Samples Over 0.25 g/t	51 samples
Average of Samples over 0.05 g/t	0.166 g/t Au
Total No of Samples	436 samples

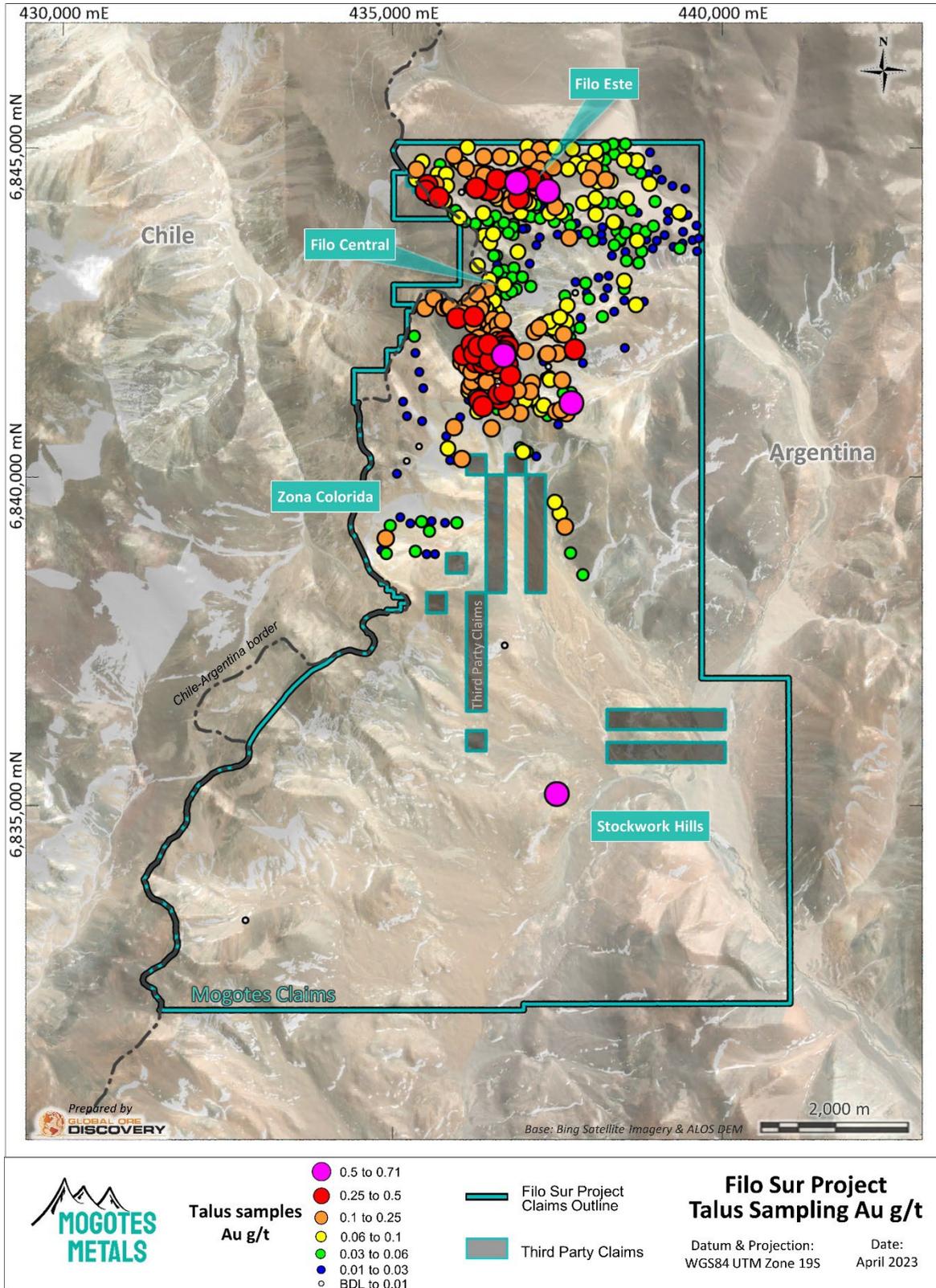


Figure 9.15: Au (g/t) in Talus

**Table 9.13: Talus Geochemistry Summary Statistics – Ag**

Description	Value
Maximum Value	89.9 g/t Ag
Samples Below Detection (<0.2 g/t)	106 samples
Samples Over 2 g/t	123 samples
Samples Over 5 g/t	22 samples
Samples Over 10 g/t	7 samples
Average of Samples over 2 g/t	6.5 g/t Ag
Total No of Samples	435 samples

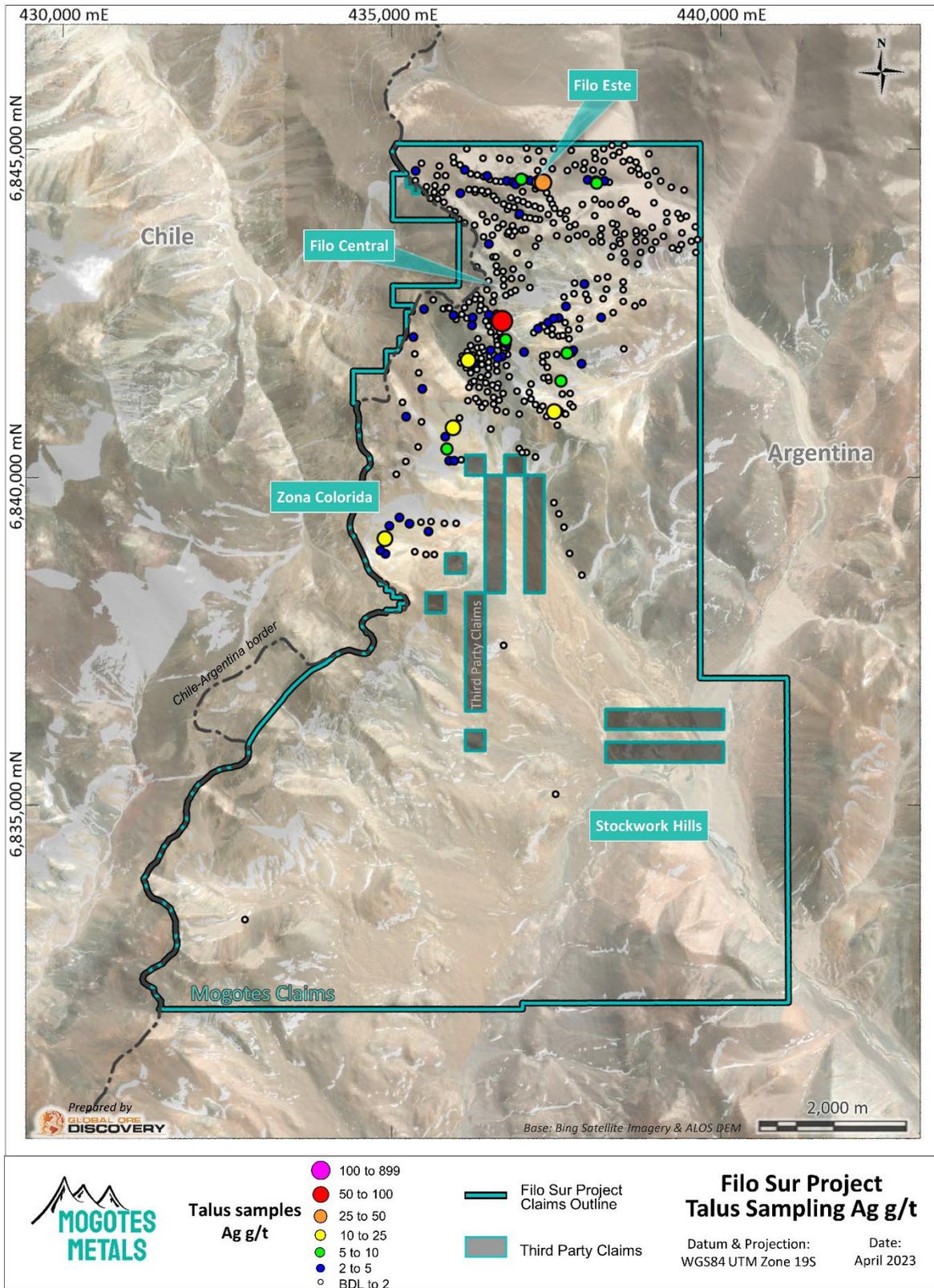


Figure 9.16: Ag (g/t) in Talus

**Table 9.14: Talus Geochemistry Summary Statistics - Cu**

Description	Value
Maximum Value	5650 ppm Cu
Samples Below Detection (<0.2 ppm)	0 samples
Samples Over 100 ppm	316 samples
Samples Over 500 ppm	118 samples
Samples Over 1000 ppm	63 samples
Average of Samples over 100 ppm Cu	668 ppm Cu
Total No of Samples	435 samples

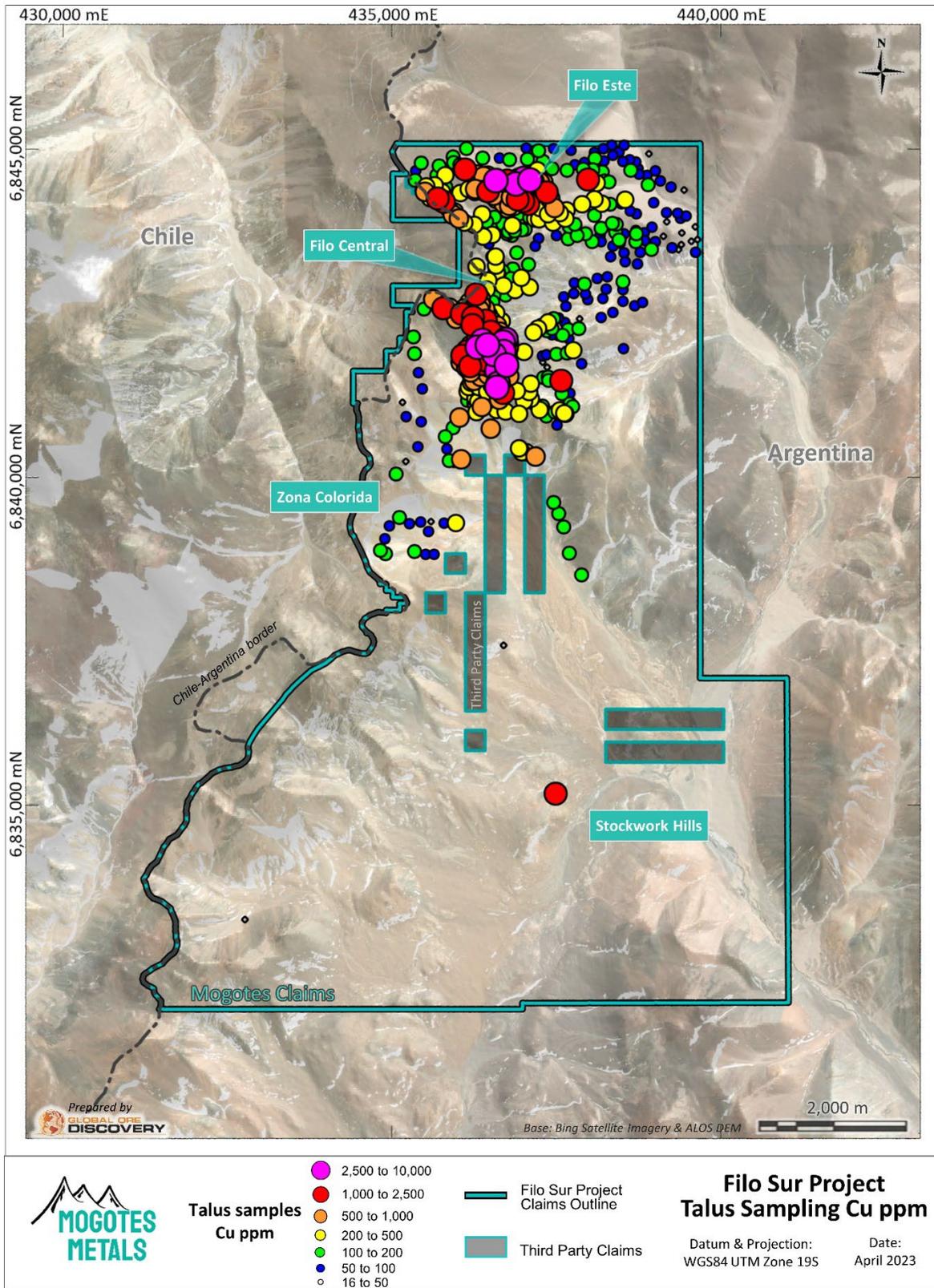


Figure 9.17: Cu (ppm) in Talus

**Table 9.15: Talus Geochemistry Summary Statistics – Mo**

Description	Value
Maximum Value	260 ppm Mo
Samples Below Detection (<1ppm)	27 samples
Samples Over 5 ppm	251 samples
Samples Over 10 ppm	198 samples
Samples Over 50 ppm	31 samples
Average of Samples over 10 ppm	27 ppm Mo
Total No of Samples	435 samples

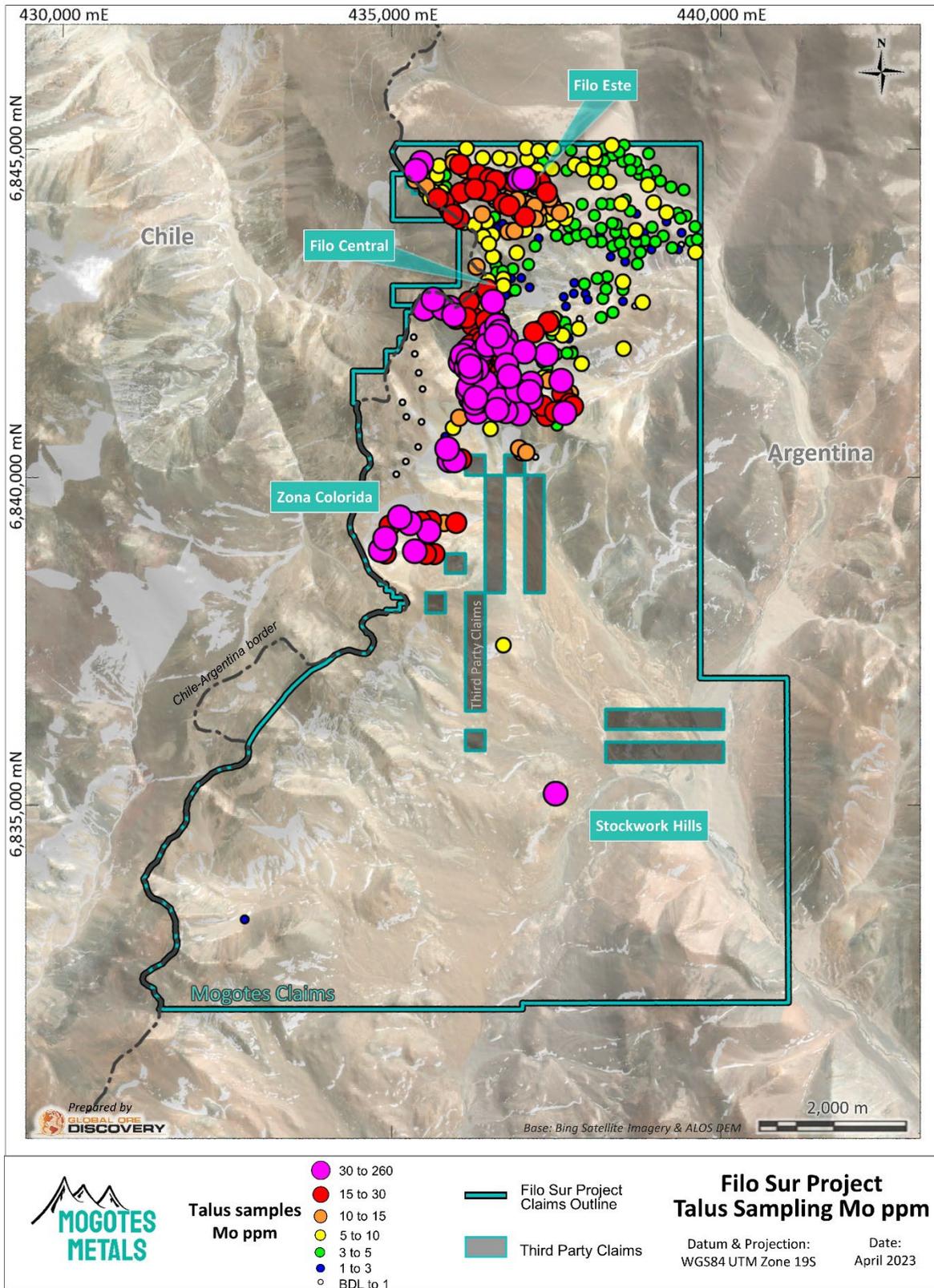


Figure 9.18: Mo (ppm) in Talus

**Table 9.16: Talus Geochemistry Summary Statistics – As**

Description	Value
Maximum Value	1290 ppm As
Samples Below Detection (<2ppm)	0 samples
Samples Over 25 ppm	423 samples
Samples Over 100 ppm	78 samples
Samples Over 250 ppm	24 samples
Average of Samples over 25 ppm	85 ppm As
Total No of Samples	436 samples

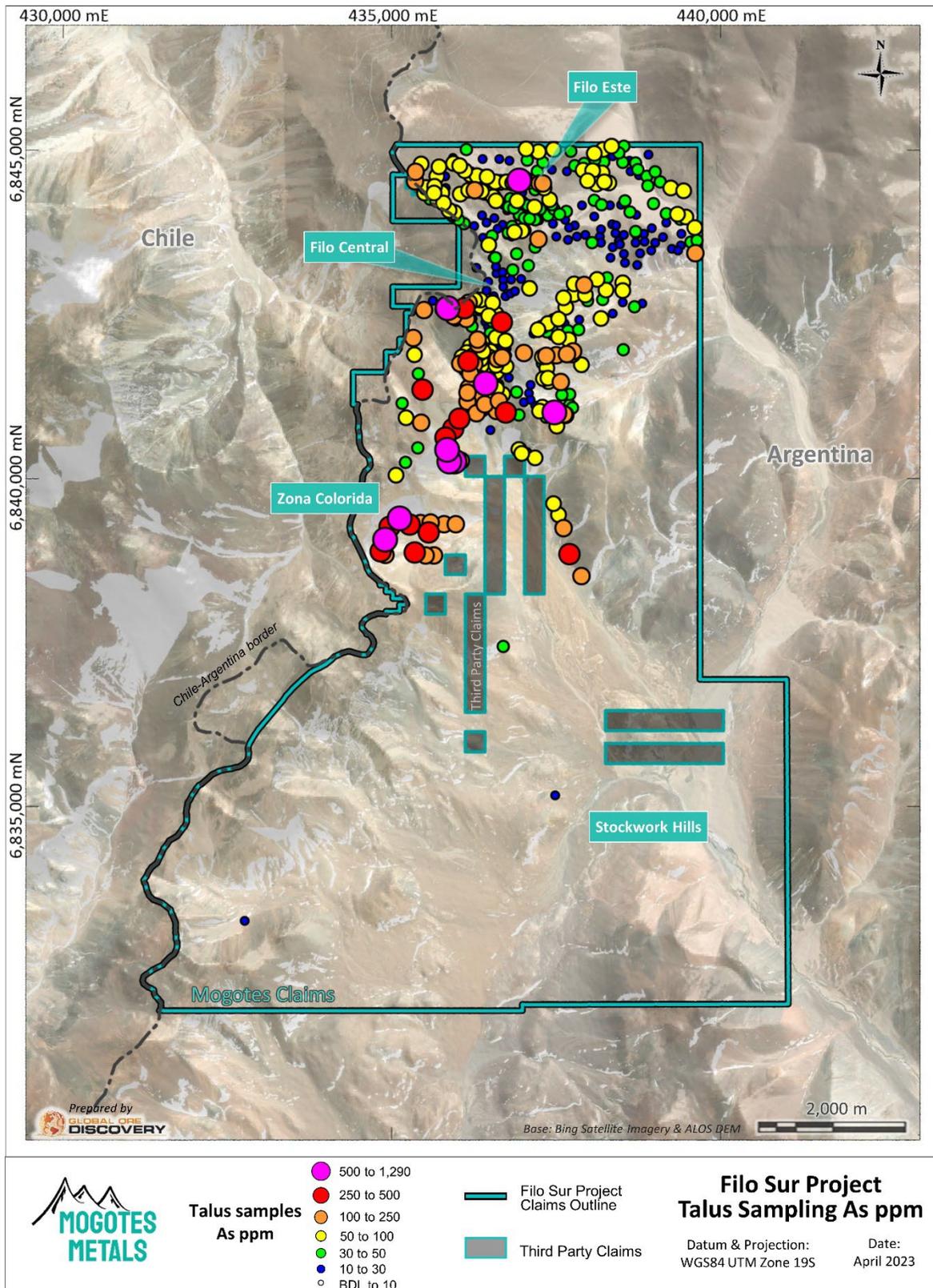


Figure 9.19: As (ppm) in Talus

Results of the Talus sampling were gridded up for Cu, Au and Mo. This method has been highly successful in the exploration of porphyry Cu-Au and high sulphidation epithermal systems the Maricunga and El Indio Belts and in the emerging Filo del Sol/Josemaria district.

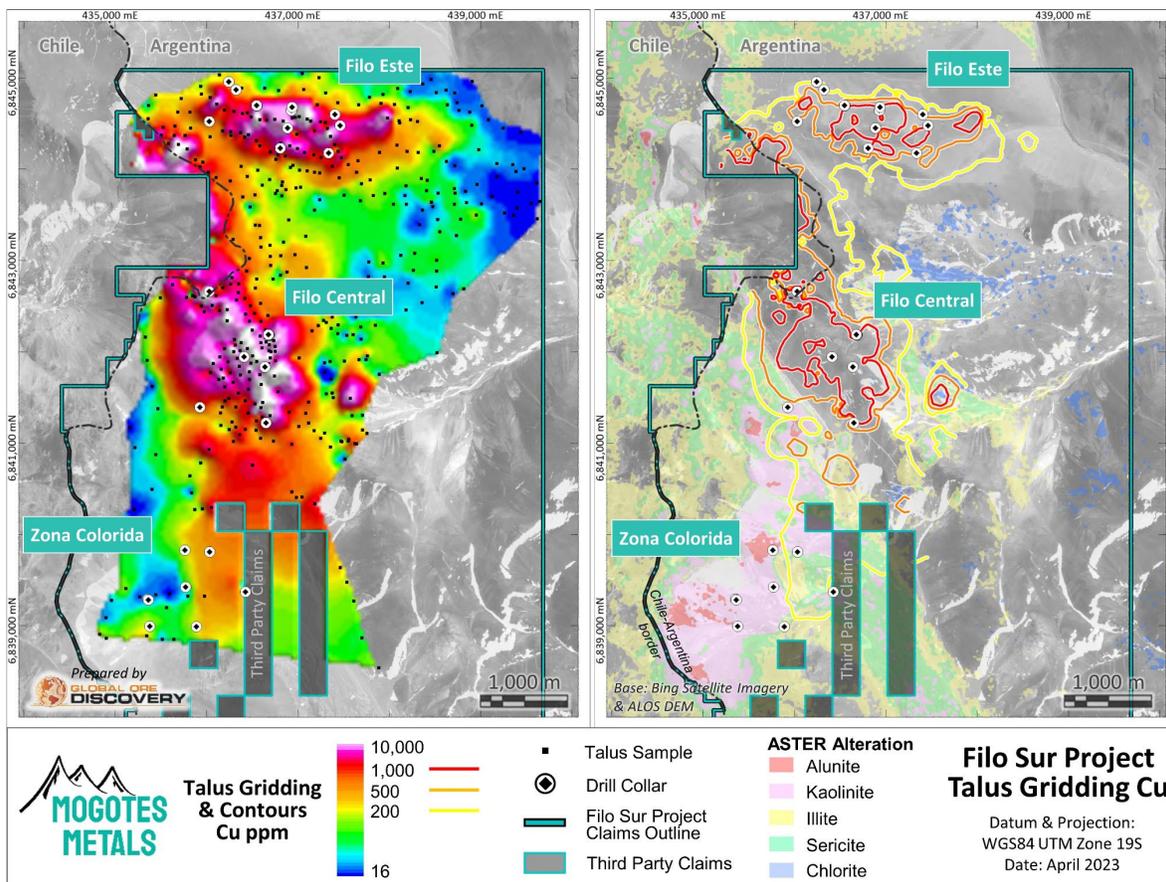


Figure 9.20: Cu in Talus. Grid, 200 ppm, 500 ppm and 1000 ppm contours, claims, collars and mineralized zones.

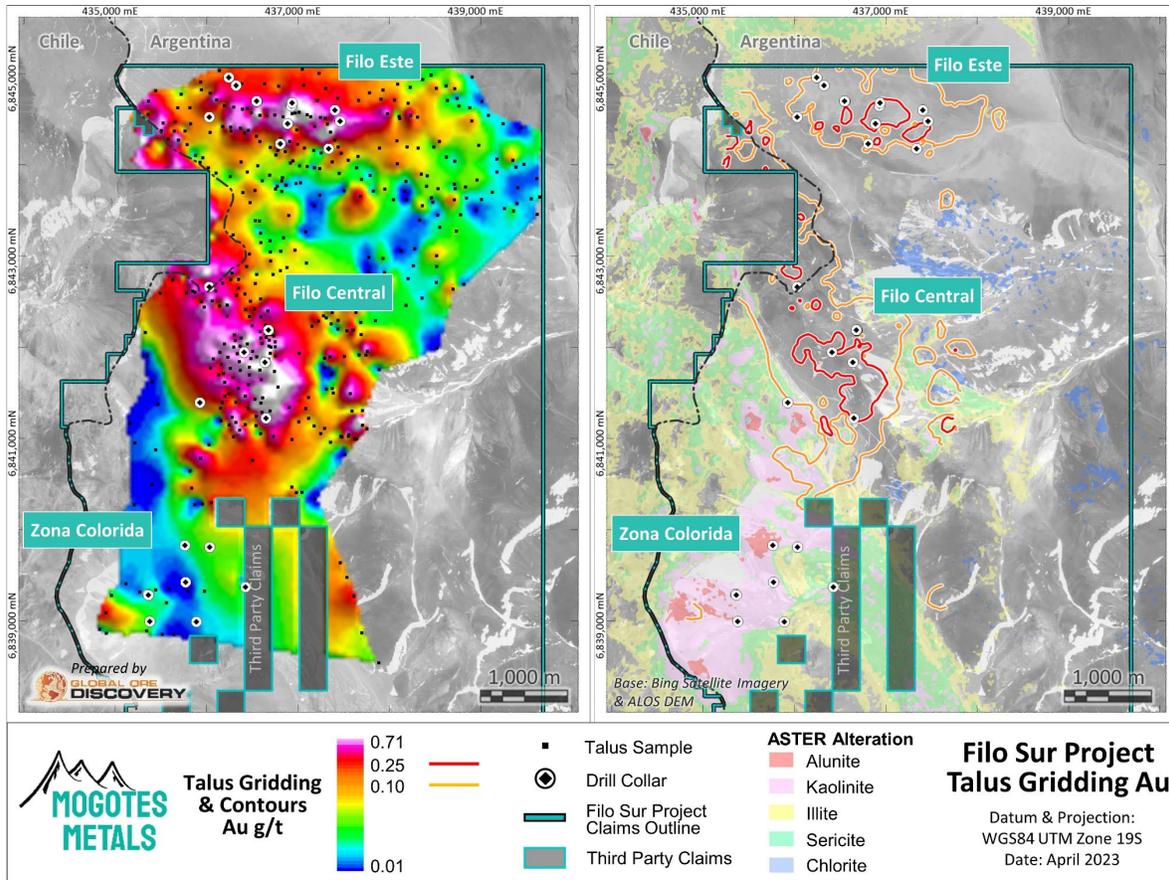
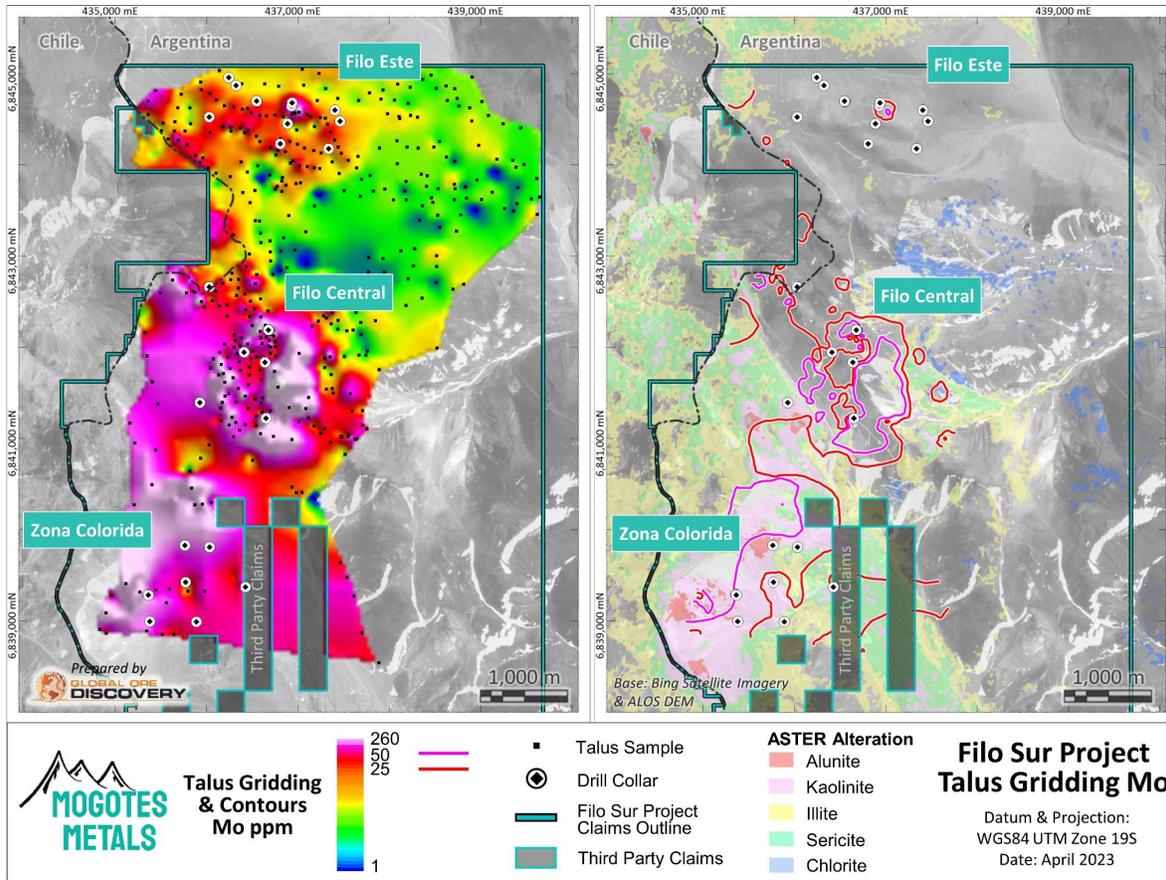


Figure 9.21: Au in Talus. Grid, 0.1 g/t and 0.25 g/t contours, claims, collars and mineralized zones.



**Figure 9.22: Mo in Talus. Grid 25 ppm and 50 ppm contours, claims, collars and mineralized zones.**

The main mineralized zones are well delineated by the results for talus sampling and also serve to differentiate the contrasting characters of the three main areas.

**Filo Este:** defined by a 500 ppm Cu contour that extends 2000 m east-west by 700m north-south; a 0.1 g/t Au contour that extends 1600 m east-west by 800 m north-south. There is no appreciable Mo.

**Filo Central:** defined by a 500ppm Cu contour trending north-west/south-east and 3300 m long by 1200 m wide; a 0.1 g/t Au contour again trending north-west/south-east and 3600 m long by 1000 m wide; a 25 ppm Mo contour extending 1500 m north-south by 1000 m east-west and displaced to the east.

**Zona Colorida:** a 200ppm Cu anomaly displaced to the east; no appreciable Au; a 25 ppm Mo contour trends north-east/south-west and is 1700 m long by 700m wide and displaced to the west.

Filo Este is characterized by Au and Cu mineralization, Filo Central by Au, Cu and Mo while Zona Colorida is defined by non-coincident low grade Cu and Mo mineralization.

## 9.2.4 Sediment Samples

Only 46 sediment samples have been collected on the Property (36 lie within Mogotes Metals current claim blocks) and although summary statistics were calculated they have not been included or plotted up due to the small size of the dataset and uncertainty as to the exact nature of the samples (sediment, pan concentrate).

## 9.3 GEOPHYSICS

### Magnetics

2003 - Terry and Jones 2008 mention magnetics (presumably ground) carried out in 2003 but no data and figures are available.

2011 – Quantec undertook ground magnetics over 40 EW lines spaced at 200m with a 10m sampling interval along the lines totalling 180.3 line kms.

Magnetic survey instrumentation and parameters

- Base and Mobile Magnetometers: GEM Systems GSM-19 ver.5
- Sensor Type: Overhauser PPM, mounted on 2 m staff
- Diurnal Correction: synchronized base station, 3 second cycle
- Measured Parameter: total magnetic field, measure in nanoteslas (nT)

Quantec delivered to Vale

- Raw and final QAQC'd data
- 25 m Upward Continued Pole-Reduced grid
- 1st Vertical Derivative grid
- Analytic Signal grid

2022 - Mogotes Metals consultants RAMA Geoscience reprocessed the original Quantec magnetic data in 2022 producing updated/new 25m Upward continued - TMI, RTP 1VD, Tilt Derivative, Analytic Signal (AS), Vector Residual Magnetic Intensity (VRMI) grids

RAMA also produced 3D Magnetic inversions using the TMI and VRMI filtered information. This inversion information was delivered as

- Block Models (XYZ)
- Iso-Shells(3D-DXF)
- Depth Slice Images
- Elevation Slice Images

## **Radiometrics**

2011 - Quantec collected on 50m stations along 200m space lines. Given equipment malfunction only 18 lines for 61.9 km in the south of the anticipated survey were able to be collected.

Radiometric survey instrumentation and parameters

- Spectrometer: Exploranium Gamma Ray Spectrometer GR 256
- Measured Parameters: Total count, Potassium, Uranium and Thorium
- Survey Specifications: 50 m survey interval, 30 second measurements

Grids were produced for Potassium Count, Uranium Count, Thorium Count and K/Th.

## **Electrical Geophysics**

### **IP Surveys**

2011 - Quantec undertook a 23.7 line km Pole-Dipole (PDP) Survey over 8 x 400m spaced EW orientated lines, with 200m dipoles and n = 6.

IP/Resistivity Survey Instrumentation and Parameters

- Receiver: Iris Elrec-6 (6 channel/Time Domain)
- Transmitter: GDD Txii 5000 (5kW) with 6.5 kW generator
- Transmitted Waveform: Square wave @ 0.125 Hz, 50% duty cycle.
- Receiver Decay Sampling: 240 msec delay, 10 windows of 160 msec width
- Measured Parameters:
  - Chargeability in millivolts/volt (10 time slices + total area under decay curve)
  - Primary voltage in millivolts and input current in amperes for resistivity calculation according to the PDP array geometry factor.
- Electrodes: stainless steel rods with fresh water, aluminium foil pits employed for transmitter contacts with salt water.

Quantec delivered to Vale

- Raw and final QA/QC'd data
- Chargeability and Resistivity Inversions with Raw Pseudosections for all areas.
- Depth Plan Maps – 100m, 200m, 300m, 400m, and 500m for the Mogotes area.

2022 - Mogotes Metals consultants RAMA Geoscience reprocessed the original Quantec data producing updated/new

- Line by Line - pseudo sections, 2D inversion model sections and 3D inversion model sections
- Depth slices through 3D models
- Elevationsectionthrough3Dmodels

- Iso-shells from 3D models (3D-DXF)
- Block model from 3D models (XYZ)

2022/2023 –Southern Rock Geophysics for Mogotes Metals to carry out multi-transmitter 3D Vector Induced Polarization / Resistivity (Vector IP) and spares tensor Magnetotelluric with the objective of characterizing chargeability and resistivity anomalies that may represent concealed sulphide mineralization.

Data acquisition occurred on 95 Vector IP-MT observation sites on a nominal 750m grid spacing was conducted in December 2022 through to January 2023. Vector IP acquisition utilized 18 distinct Vector IP transmitter bipole sources.

#### Vector IP / Resistivity · Survey specifications

Survey mode	Multi-transmitter (3D) Vector IP / Resistivity, full time series acquisition. Nominal Time Domain data acquisition.
Tx Source	50% duty cycle, rectangular wave, monitored with gDAS_C (@ Fs=256Hz) 0.0625Hz base frequency (8s cycle). 3 sets of 6 Tx-bipoles per survey block of nominal 2-3 km in length, over an area of approx. 60km <sup>2</sup>
Tx contacts	Hand-dug pits lined with Al-foil, wetted with salt water. Materials removed and holes back filled on completion of survey.
Survey grid configuration	Vector IP sites on nominal 1km-spaced grids. Each Rx-site comprised of an orthogonal (NS-EW) pair of 200m dipoles forming a cross except where indicated in “Setup” files (see digital archive).
Rx contacts	Porous-pot electrodes (Cu-CuSO <sub>4</sub> ) or stainless-steel spikes in small hand dug pits
Data acquisition	Time series data acquisition of contiguous intervals of 222 samples at a rate of 512Hz (gDAS32 instrumentation), timing provided by internal GPS. Acquisition per current injection stacked over approx. 150 cycles (~20 minutes at 8s cycles).

#### Magneto-Tellurics · Survey Specifications

Survey mode	Natural source sparse tensor broadband Magneto-Tellurics
Survey Configuration	Sparse Tensor MT Ex- and Ey- field setup using the Vector IP array configuration. Sparse local Hx- and Hy- fields. Mutual remote reference magnetic field sensors within survey area. No distal remote reference utilized.
Rx contacts	Porous-pot electrodes (Cu-CuSO <sub>4</sub> ) or

## Data acquisition

stainless-steel spikes in small hand dug pits

gDAS32 time series data acquired with sampling rates ( $F_s$ ) of 128Hz, 2048Hz, and 32768Hz. Multiple time series records of 222 samples for each  $F_s$ , except  $F_s=128\text{Hz}$ . Data acquired over mainly nocturnal intervals of at least 12 hours.

## Vector IP 3D Inversion Modelling

The 3D inversion modelling of the Vector IP / Resistivity data included 932 Ey/Ey combined apparent resistivity / chargeability measurements derived from a total 1216 Receiver-Transmitter pairs from a total 95 observation sites using 18 distinct transmitter bipoles. The resulting 77% of all acquired data passed for 3D inversion modelling represents a reasonably high incidence of recovered data for these types of surveys.

3D inversion was carried out using Geotomo (Loke) RES3DINV v.3.08.03 software with a model space discretised into 200m cells with 3 nodes per cell. Observed data is provided to the inversion algorithm as apparent resistivity and chargeability values for individual transmitter-receiver dipole pairs rather than using the vector parameters themselves.

## MT 1D and 3D Inversion Modelling

1D and 3D smooth model inversion was carried out with Geotools v.3.1.0.12474 software. The 1D inversion used the tensor determinant impedance data (apparent resistivity and impedance phase) given that its rotationally invariant nature is most appropriate with regard to the assumptions of 1-dimensionality of the inversion algorithm, whilst for the 3D inversion with RLM3D all the available components of the tensor impedance were modelled, incorporating the effects of topography.

Full details of the survey can be found in Scarbrough, J., 2023.

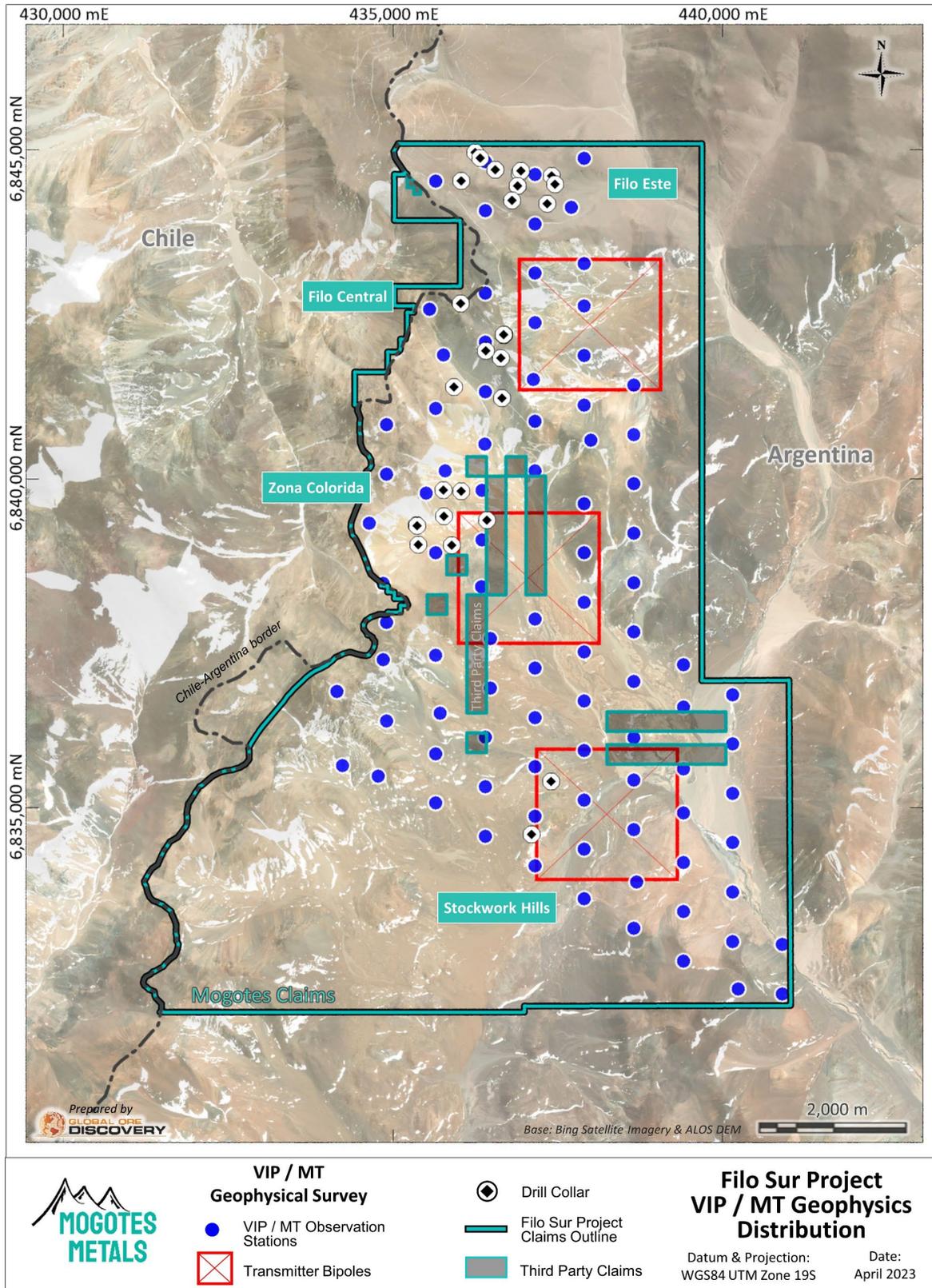


Figure 9.23: Vector IP / MT survey area showing observation stations and transmitter stations.

### 9.3.1 Historic Geophysics

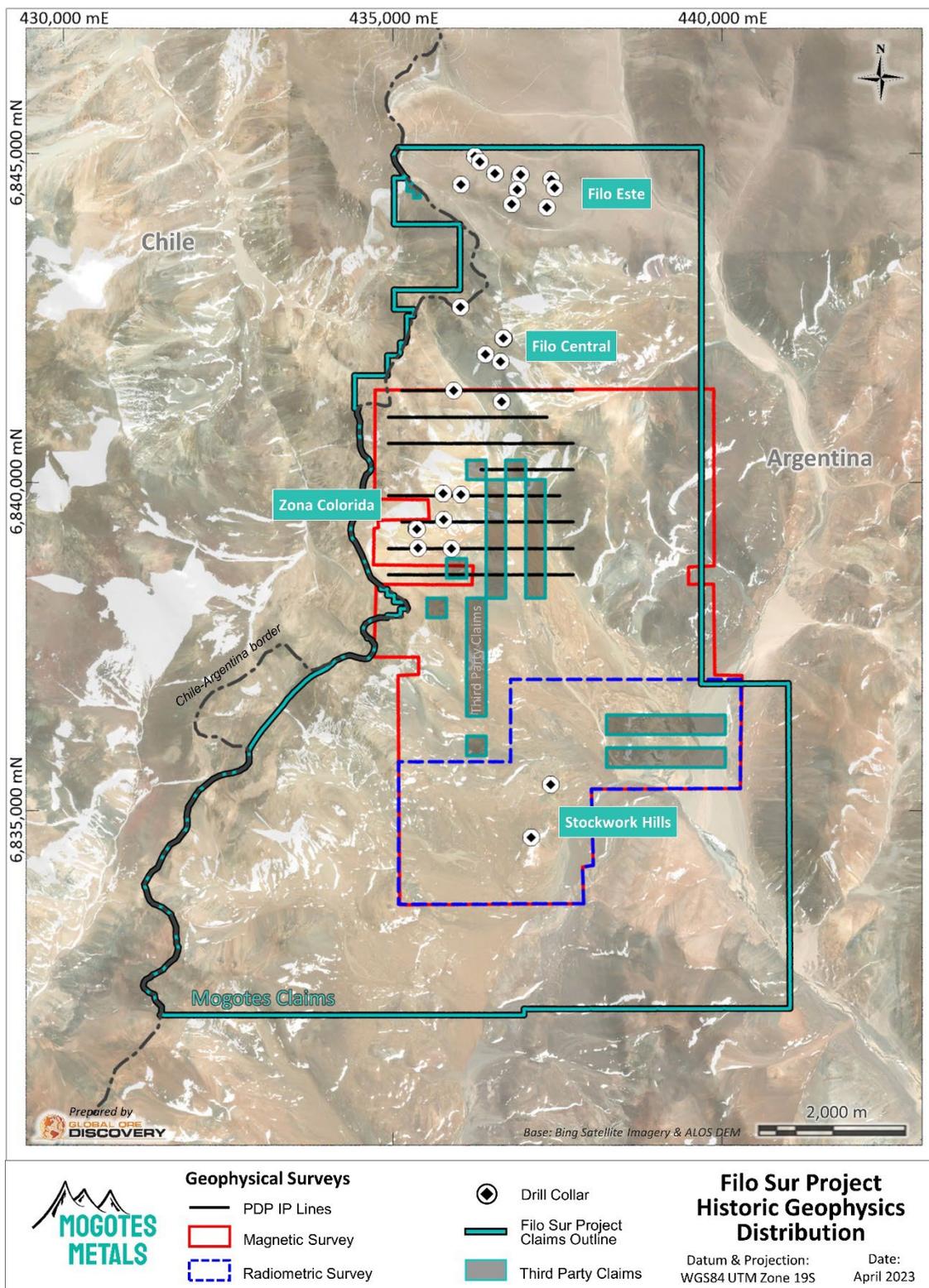


Figure 9.24: Vale Geophysical Coverage

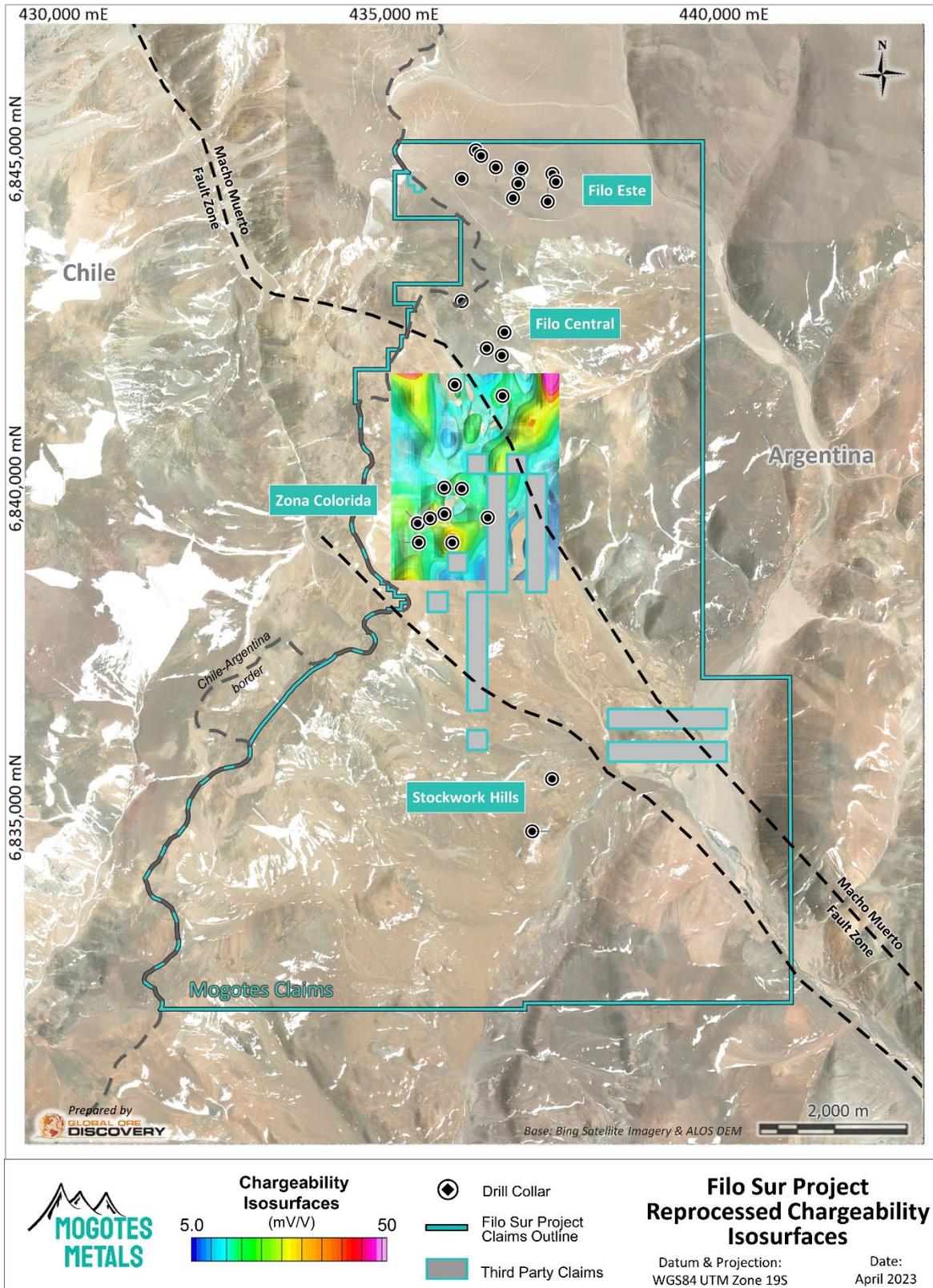


Figure 9.25: IP - Chargeability

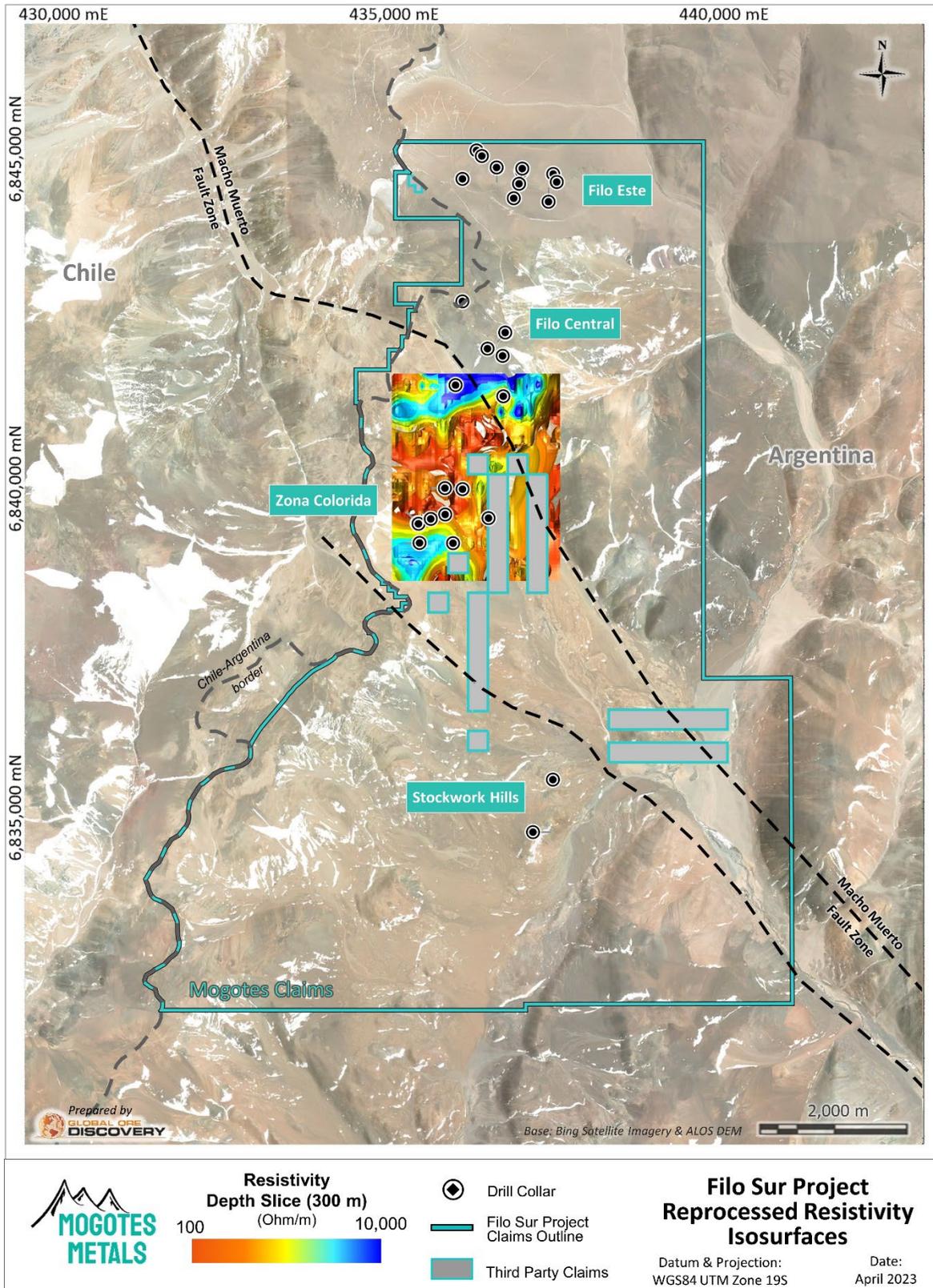


Figure 9.26: IP - Resistivity

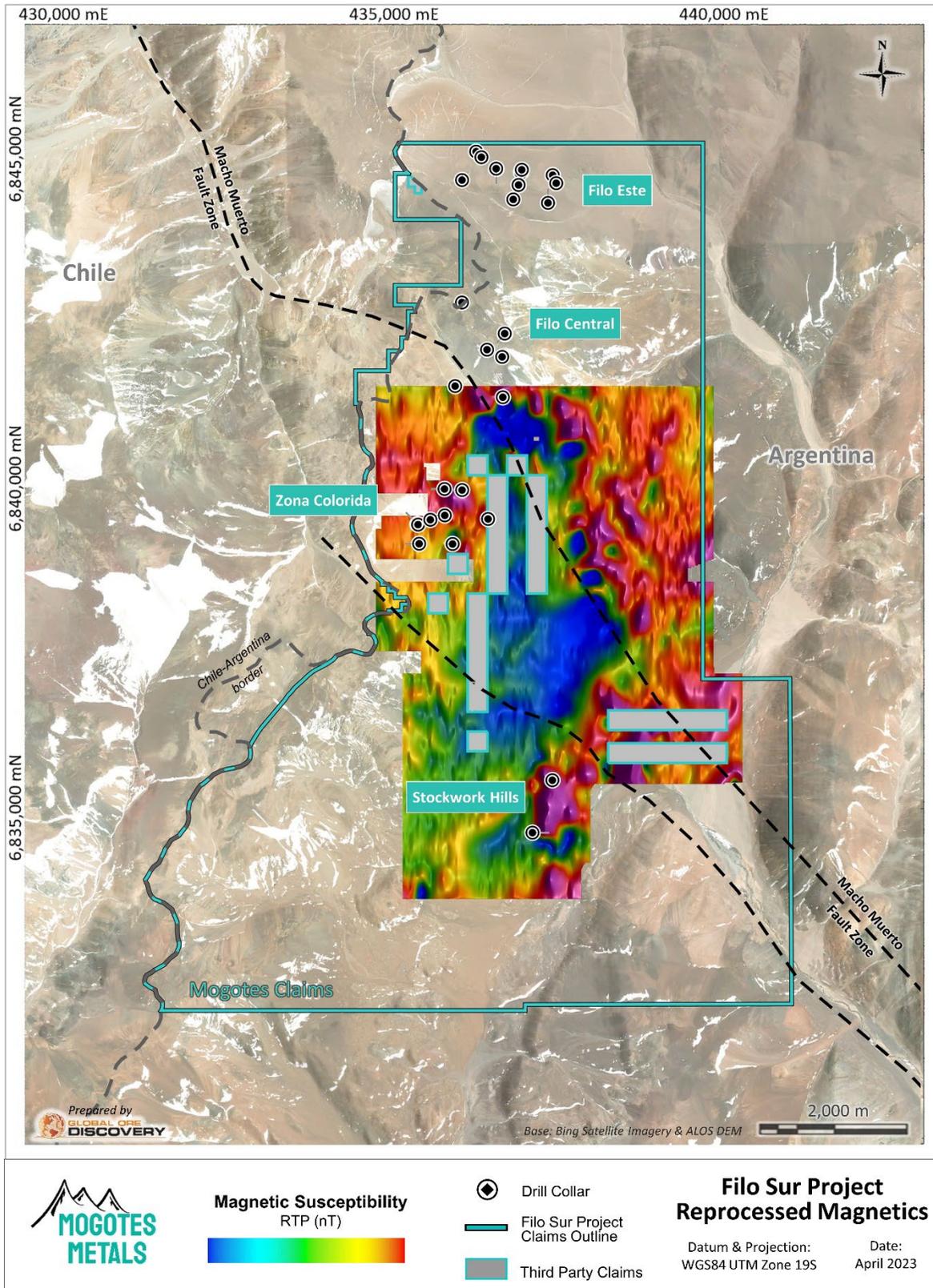


Figure 9.27 Magnetic Susceptibility - Reduced to Pole (nT)

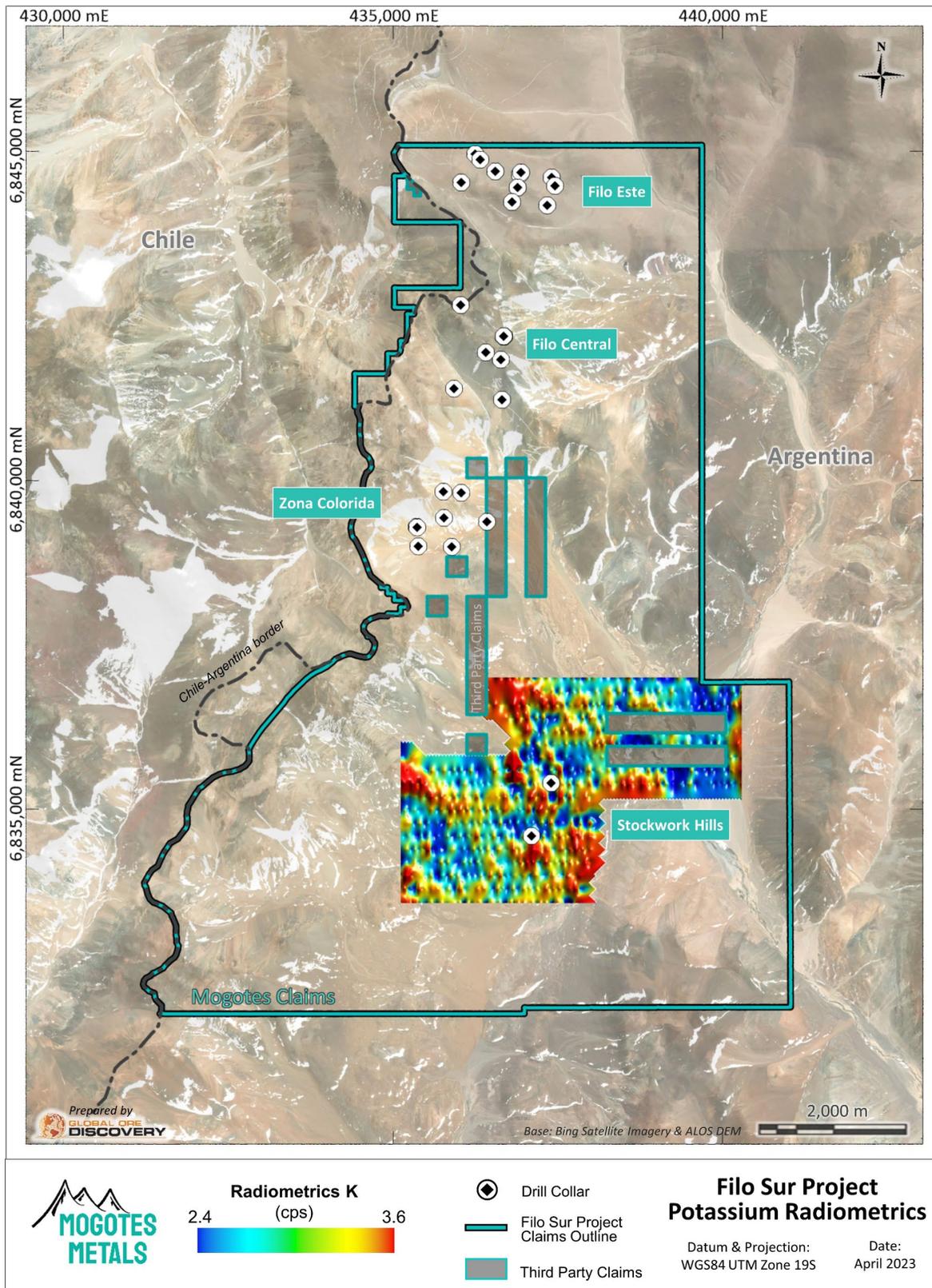


Figure 9.28: Radiometrics - Potassium

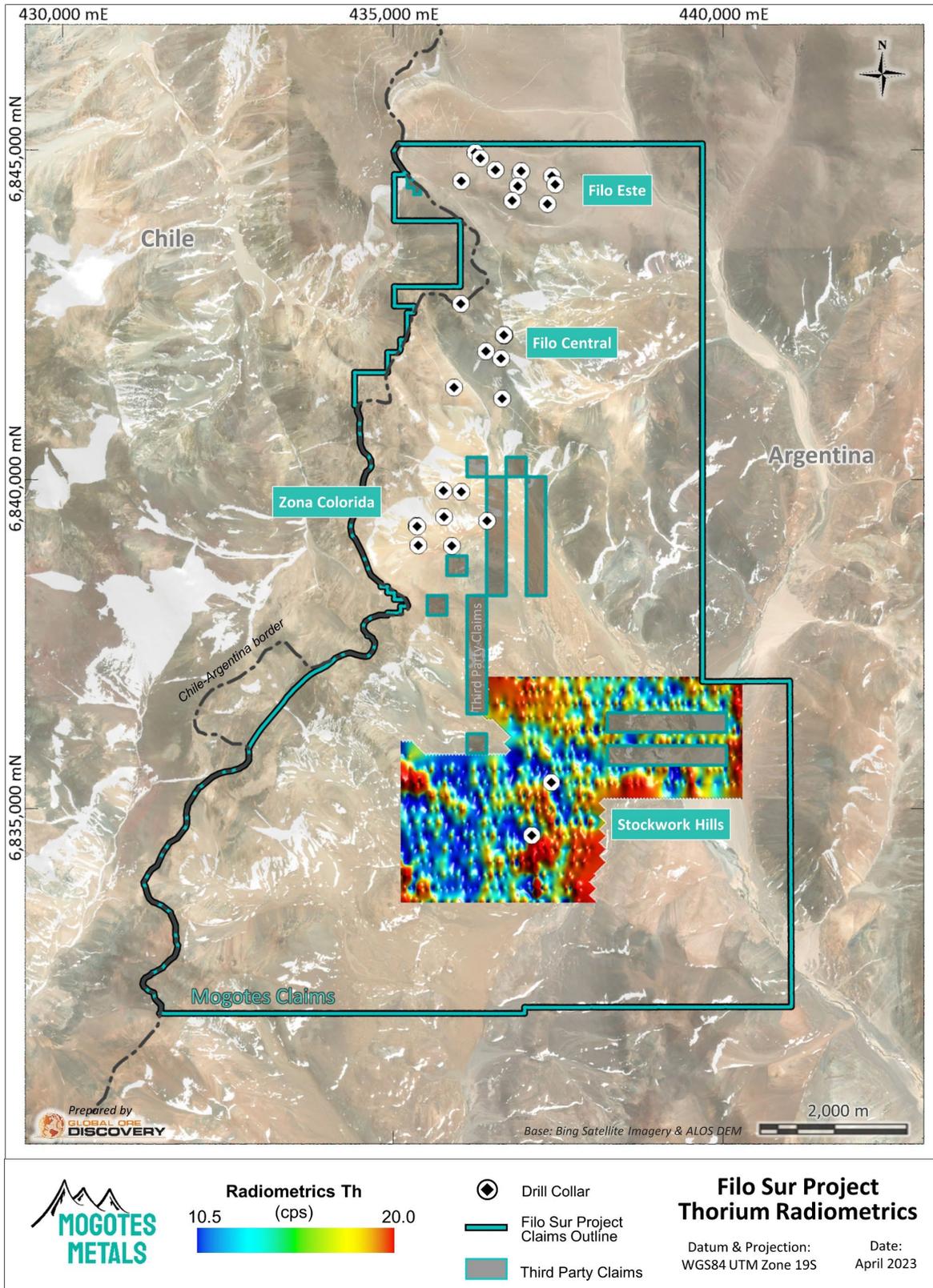


Figure 9.29: Radiometrics - Thorium

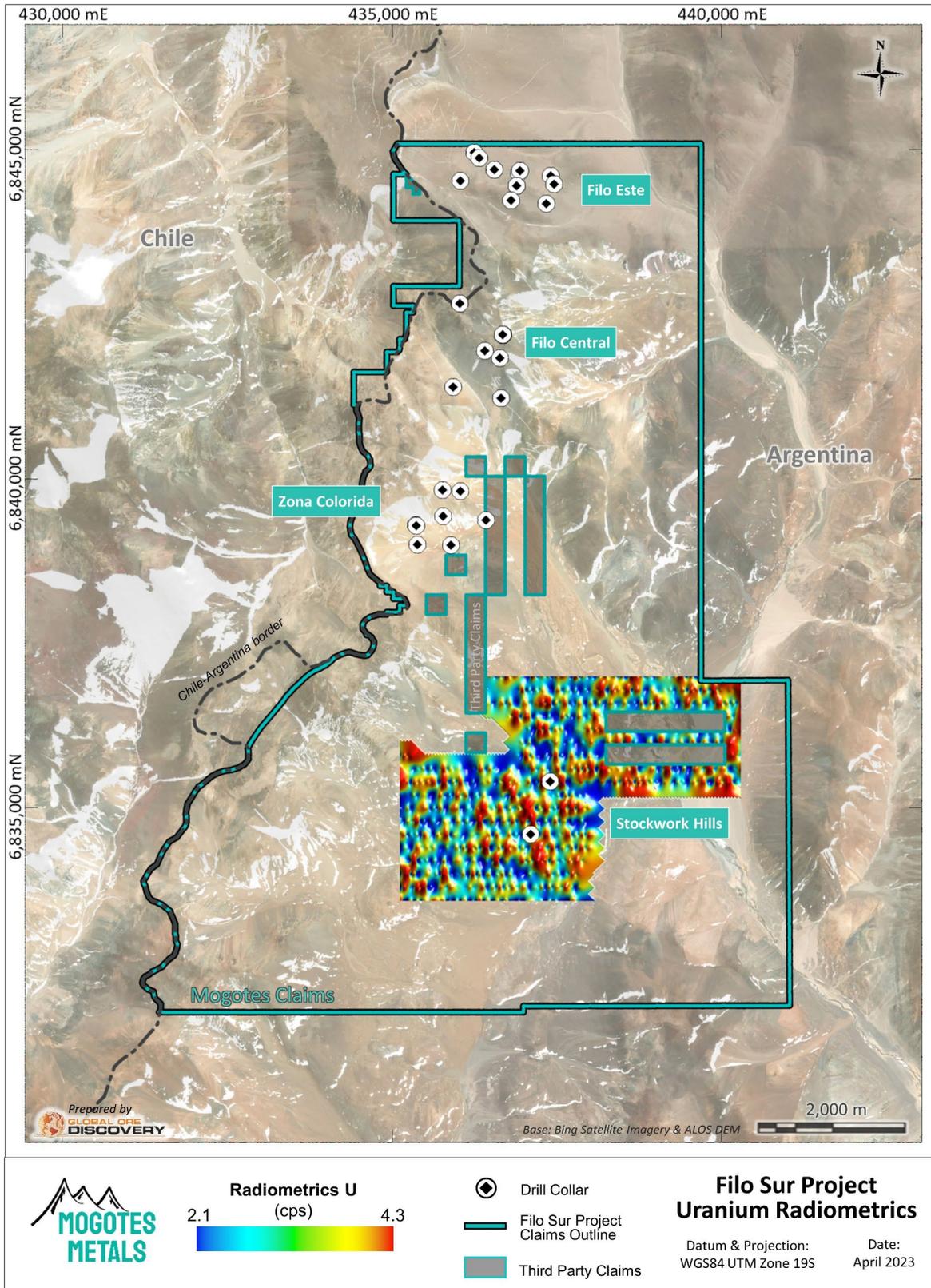


Figure 9.30: Radiometrics - Uranium

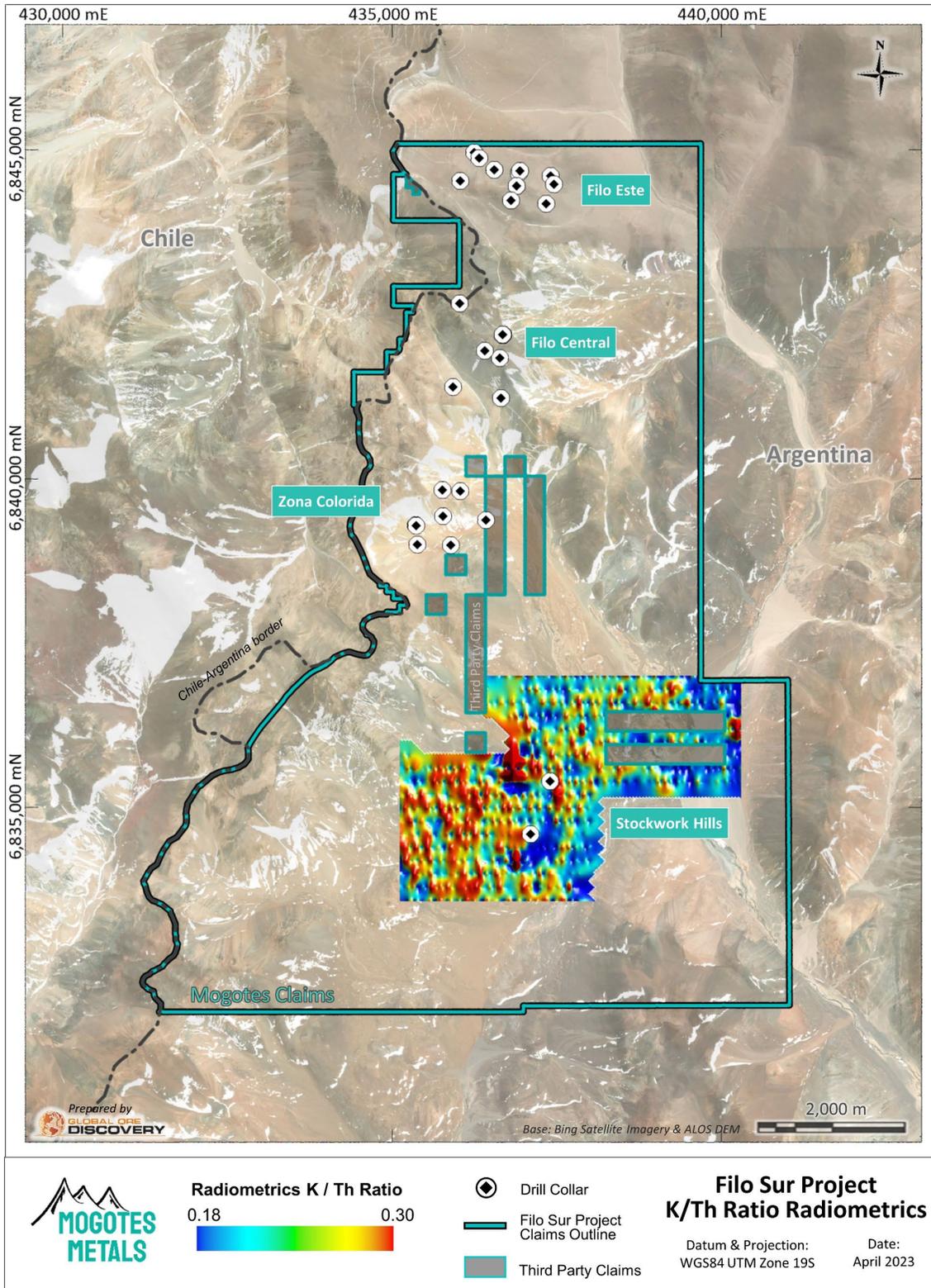


Figure 9.31: Radiometrics - Potassium/Thorium

### 9.3.2 Southern Rock 2022-23 Geophysical Program Results

The following figures show initial results from the Southern Rock geophysical program and are taken from Scarbrough, J., 2023.

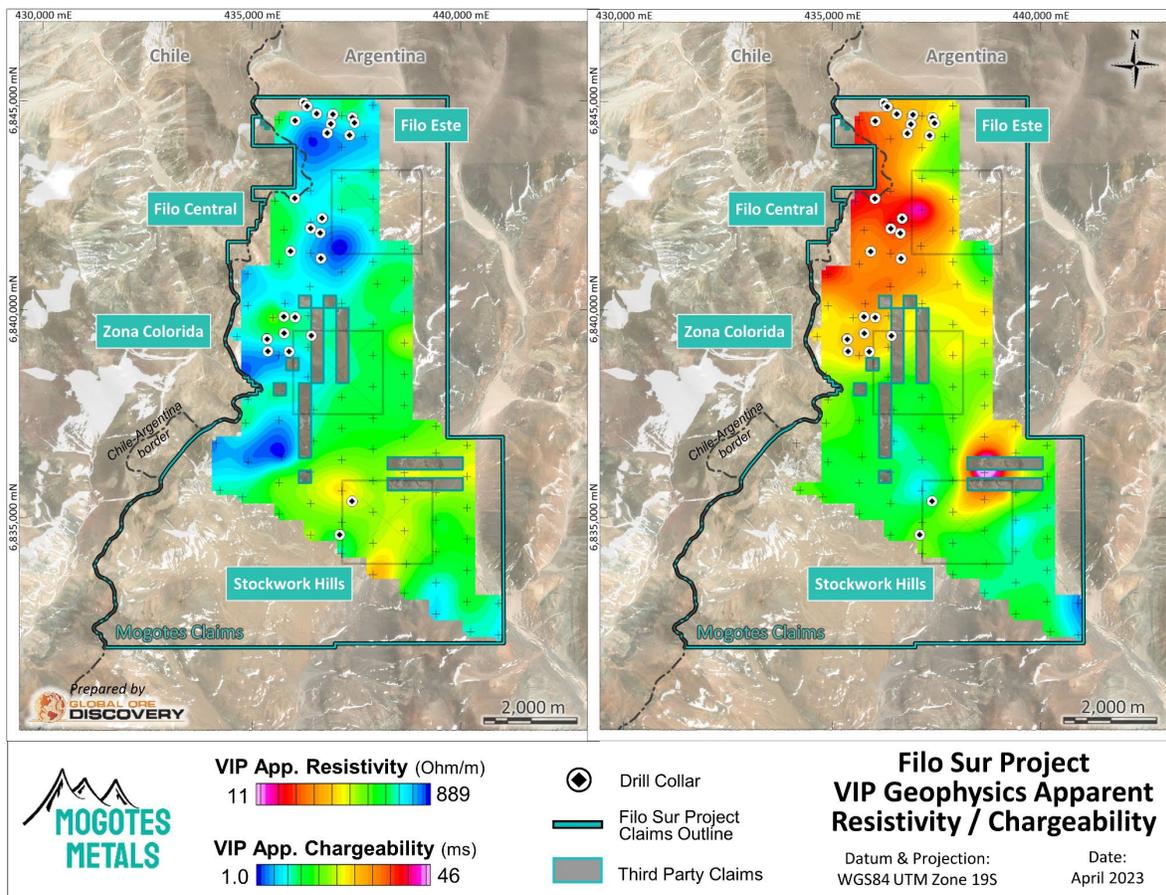
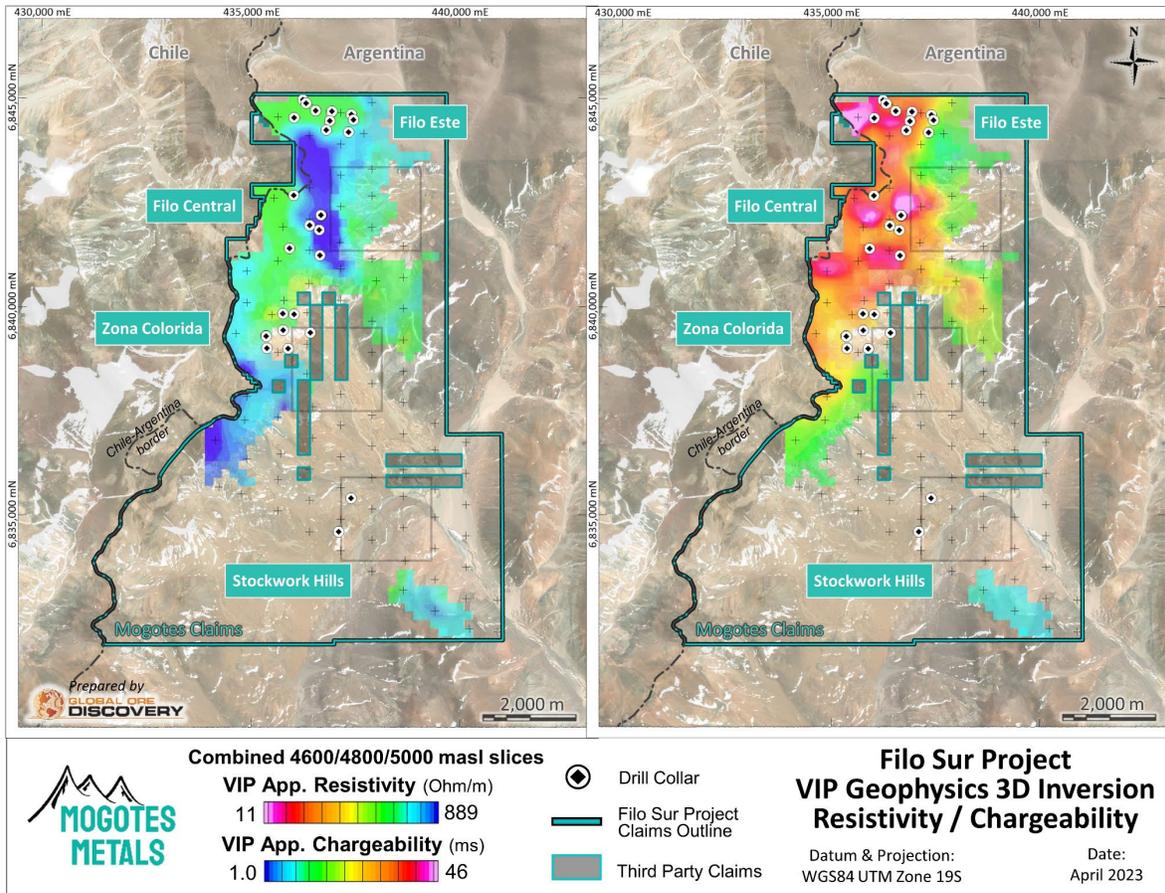
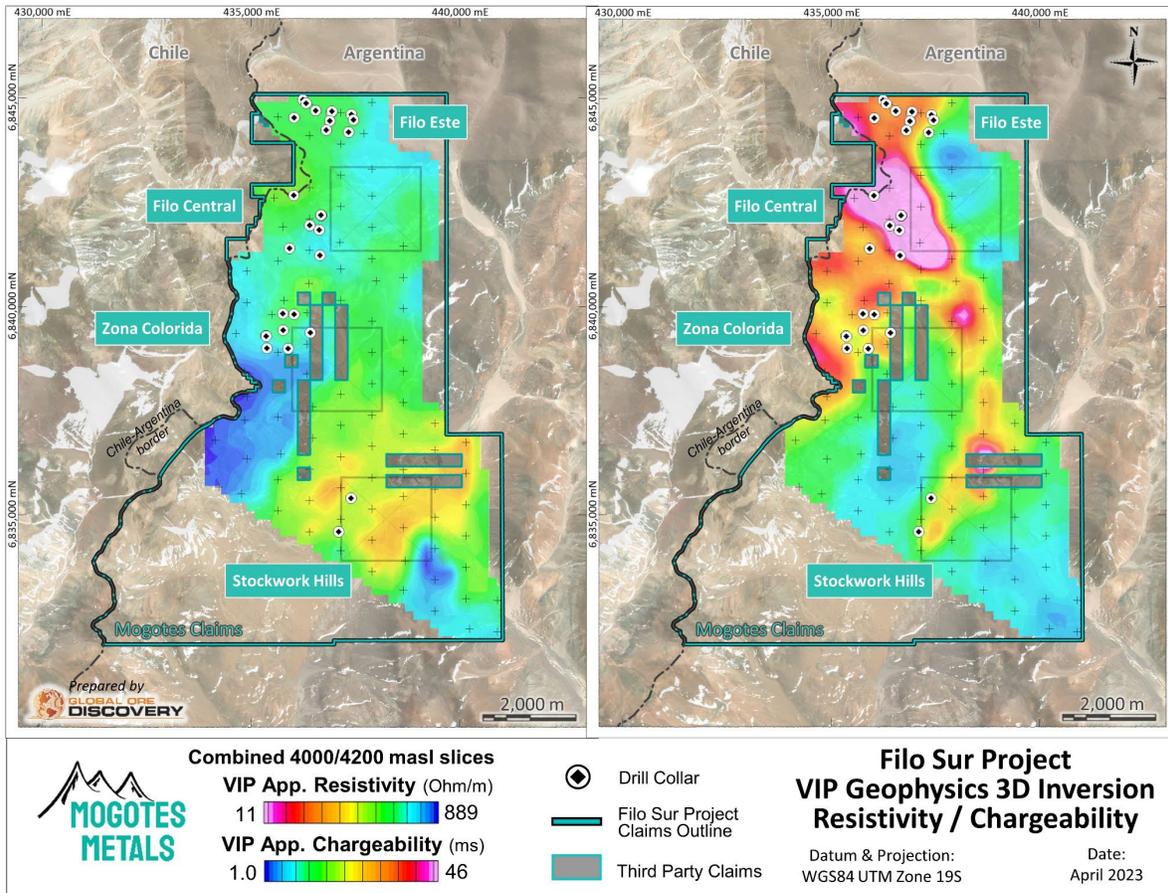


Figure 9.32: Vector IP/Resistivity survey results; average vector resistivity (left) and chargeability (right)



**Figure 9.33: Vector IP/Resistivity survey; 3D inversion model resistivity (left) and chargeability (right). Combined semi-transparent layers from 4600, 4800 and 5000msal**



**Figure 9.34: Vector IP/Resistivity survey; 3D inversion model resistivity (left) and chargeability (right). Combined semi-transparent layers from 4000 and 4200msal**

## SECTION 10. DRILLING

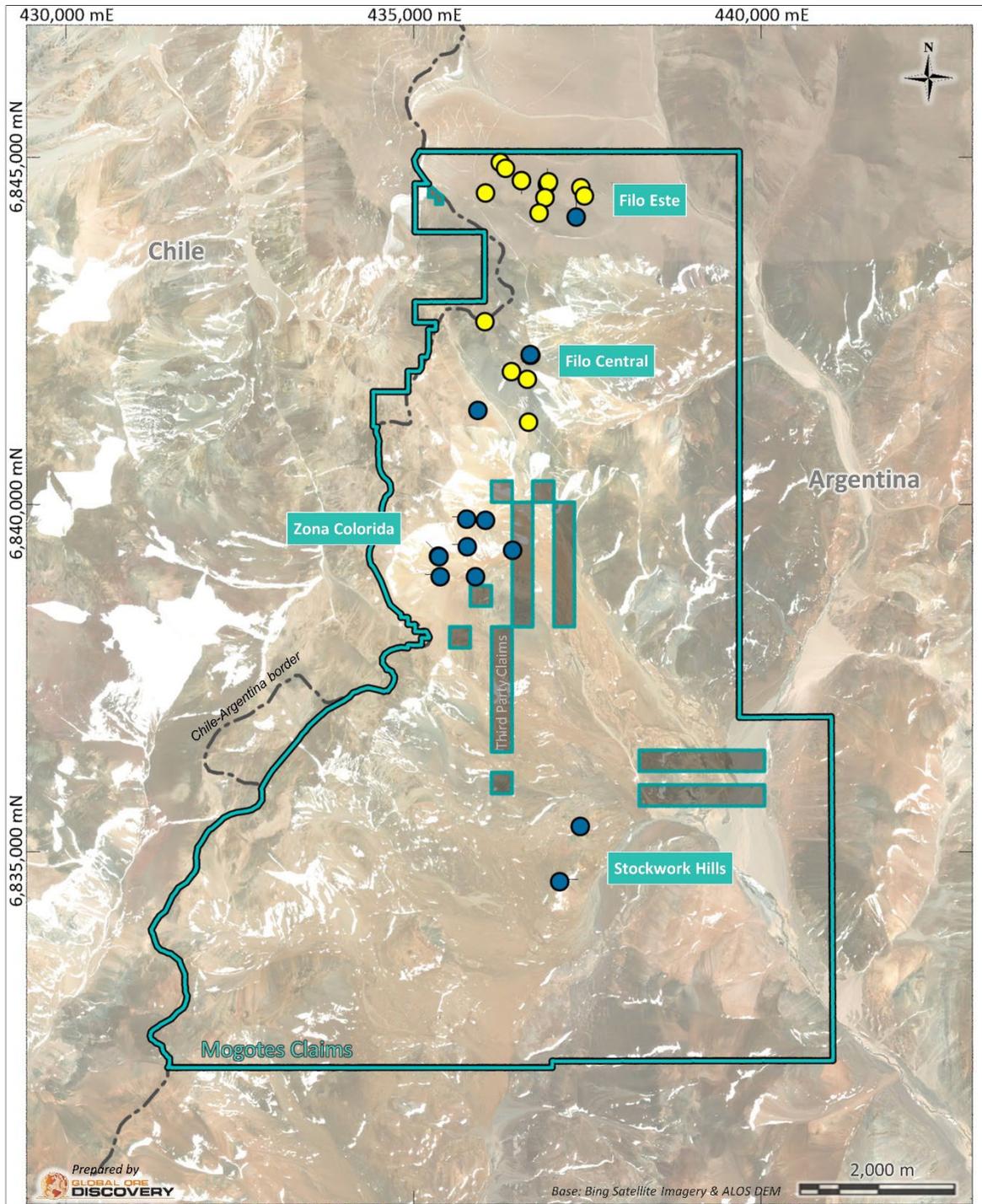
### 10.1 DRILLING CAMPAIGNS

The Property has been the subject of various drilling campaigns between 2004 and 2013. They are summarized in the following table.

COMPANY	YEAR	TYPE	HOLE ID's	TOTAL METRES
Amera/Golden Arrow	2004	Diamond	MOG-04-01, 02, 03, 04, 01A	1475.4
Amera/Golden Arrow	2005	Reverse Circulation	MOG-05-05, 06, 07, 08, 09, 10, 11, 12, 13	2577.0
Amera/Golden Arrow	2005	Water Borehole	ZCRC01	50
Vale	2012	Diamond	MGT-DH-01, 02, 03, 04, 05, 06, 07, 07A, 08	3882.1
Vale	2013	Diamond	MGT-DH-09, 9A, 10, 11, 13, 14, 15, 16	4466.4

**Table 10.1: Filo Sur Drilling Campaigns**

The following figure shows the collars and drillhole traces of the various drill campaigns coded by company and drillhole type.



**Drill Collar**

- Ameria / Golden Arrow 2004-2005
- Vale 2012-2013

Filo Sur Project Claims Outline

Third Party Claims

**Filo Sur Project Drilling Distribution**

Datum & Projection:  
WGS84 UTM Zone 19S

Date:  
April 2023

**Figure 10.1: Map showing Collars, Tenements and Mineralized Zones**

## 10.2 SELECT DRILL RESULTS - IMA

Significant intercepts from the 2004 and 2005 campaigns are presented in the following tables as were previously summarized in Terry and Jones, 2008. Highlighted holes end in mineralization.

Drillhole	Year	Total Depth (metres)	From (metres)	To (metres)	Interval (metres)	Au (g/t) (LWA)	Ag (g/t) (LWA)	Cu (ppm) (LWA)
MOG-04-1	2004	71.6	2.0	70.0	68.0	0.43	13.9	0.244
MOG-04-1A	2004	495.3	6.0	495.3	489.3	0.23	2.6	0.170
Including			258.0	424.0	166.0	0.19	2.2	0.243
And			308.0	396.0	88.0	0.20	1.9	0.290
MOG-04-2	2004	315.4	2.0	315.4	313.4	0.16	1.9	0.171
Including			196.0	315.4	119.4	0.21	2.8	0.248
MOG-04-3	2004	300.0	6.0	300.0	294.0	0.11	1.3	0.078
MOG-04-4	2004	292.9	2.0	292.9	290.9	0.23	3.1	0.104
MOG-6	2005	250	0	250	250	0.22		0.083
including	2005		176	246	70	0.36	3.0	0.158
MOG-7	2005	287	0	287	287	0.25	3.0	0.107
MOG-8	2005	300	4	142	138	0.47	2.0	0.093
MOG-12	2005	300	214	276	62	0.30	1.1	0.140

**Table 10.2: Significant Intercepts from the IMA 2004 and 2005 Campaigns**

The author has analysed the data by campaign, and drillhole by drillhole, and is in agreement that these are the best intercepts from the IMA drilling and, with the difference of a few metres and a few hundredths of a g/t Au or ppm Cu, are representative.

## 10.3 SELECT DRILL RESULTS - VALE

Vale undertook two drill campaigns totaling 8348.5m (7980.1m within the current Mogotes Metals claim blocks). There is very little data from the drilling (only 8 of the 17 holes have been logged) and there appear to be no reports. This information has been requested by from Vale.

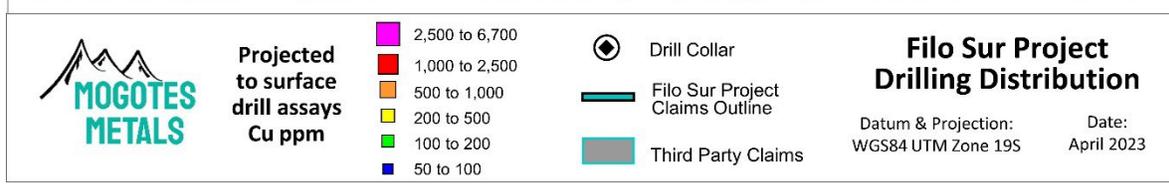
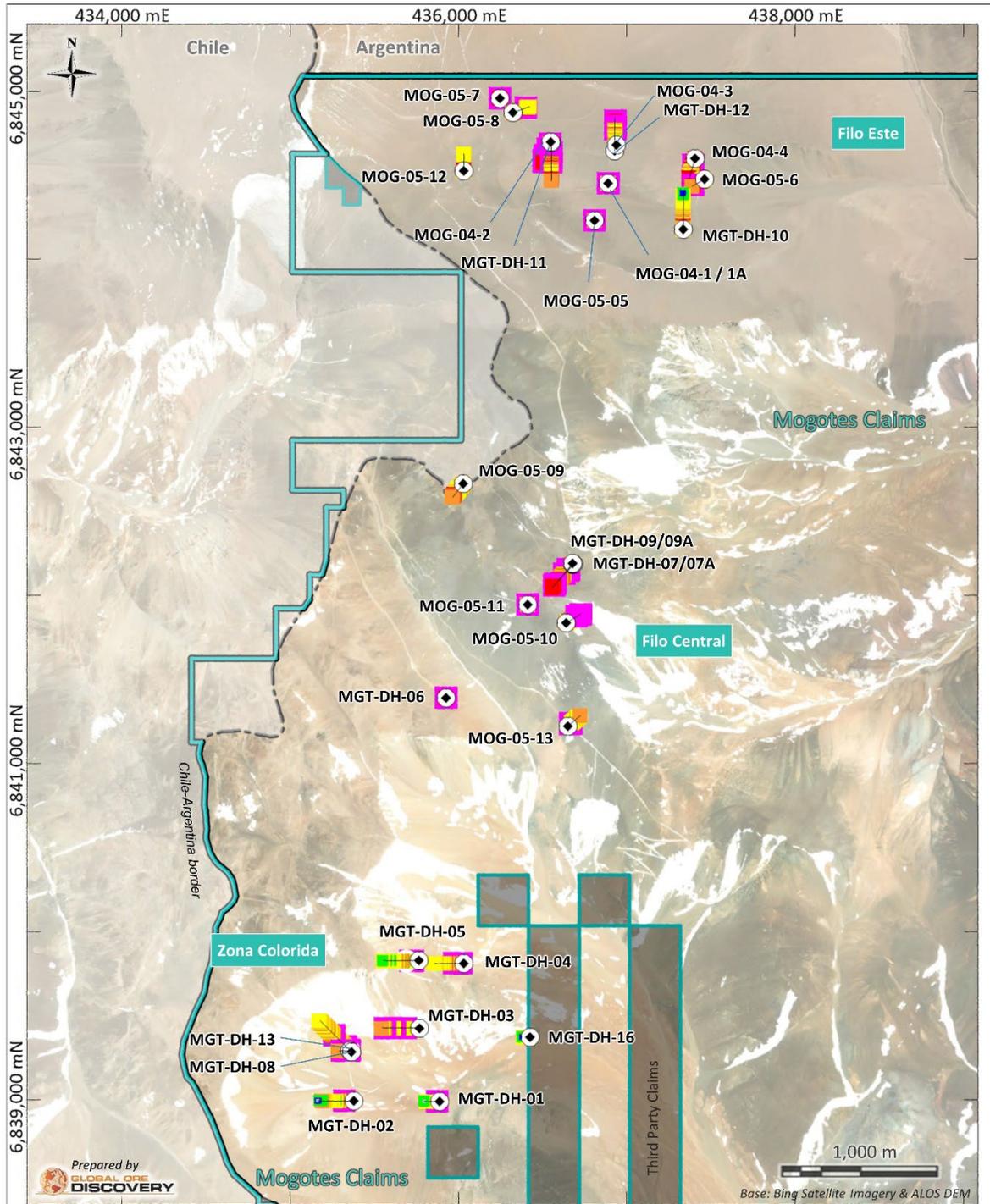
The entire drillhole database was compiled in Access by Jane Capp in 2022. The author exported Au, Ag, Cu, As, Bi and Hg and focused on the Vale drilling paying particular attention to Au and Cu. Ag, although anomalous, rarely occurs other than as occasional high grade narrow intervals.

Significant intercepts from the Vale drilling are shown below. Holes highlighted in yellow finished in mineralization.

Drillhole	Year	Total Depth (metres)	From (metres)	To (metres)	Interval (metres)	Au (g/t) (LWA)	Cu (ppm) (LWA)
MGT-DH-04	2012	502	86	206	120	0.01	0.15
MGT-DH-05	2012	611	66	136	70	0.02	0.18
MGT-DH-07A	2012	185	52	185	133	0.06	0.13
MGT-DH-08	2012	186.5	30	60	30	0.05	0.17
			88	186.5	98.5	0.05	0.14
MGT-DH-09/9A	2013	547.7	6	547.7	541.7	0.06	0.11
MGT-DH-11	2013	542	2	542	540	0.11	0.11
MGT-DH-12	2013	573.2	0	240	240	0.13	0.17
			156	226	70	0.15	0.9
MGT-DH-13	2013	768.8	22	50	28	0.04	0.35
			104	140	36	0.02	0.21
			364	450	86	0.02	0.09

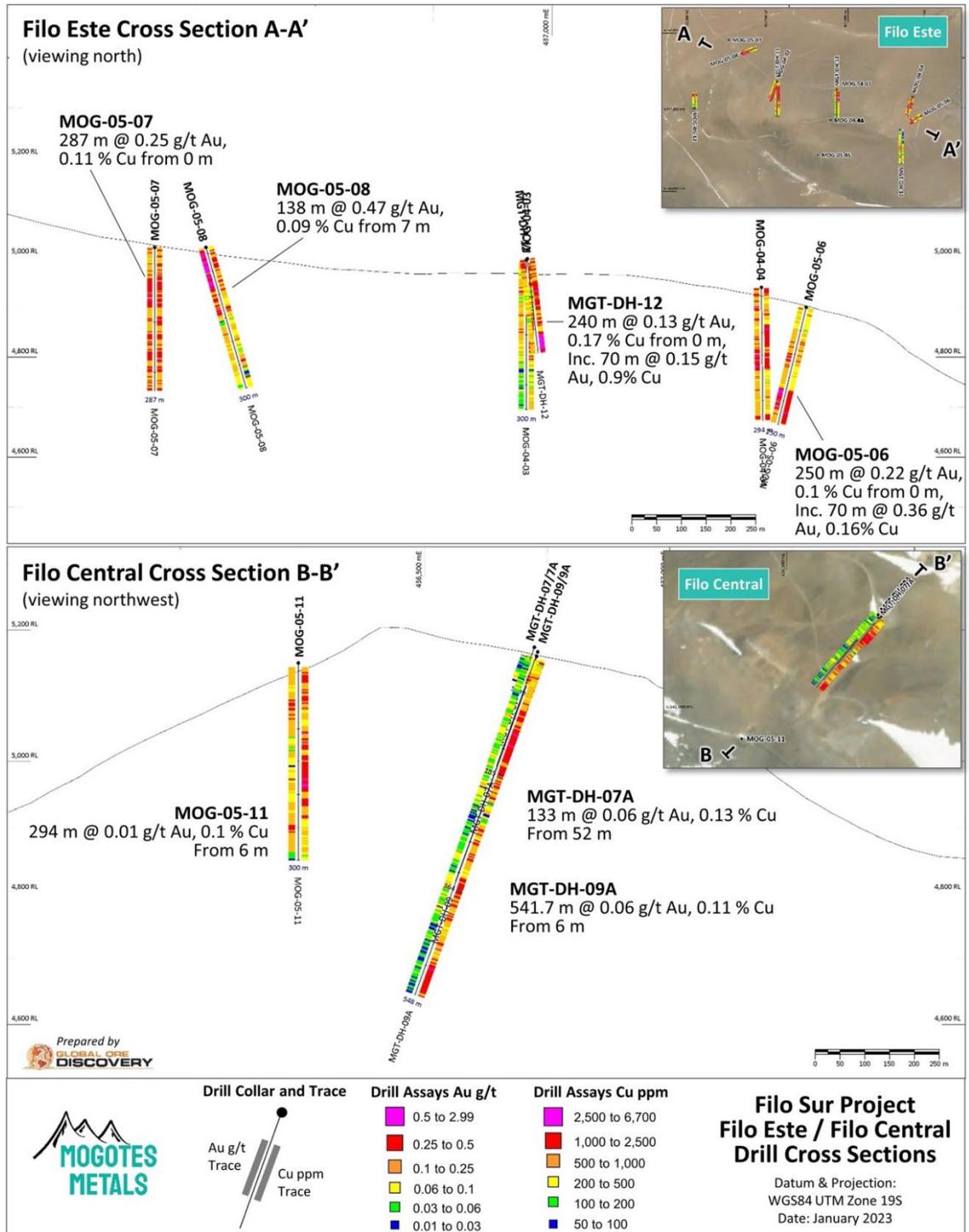
**Table 10.3: Significant Intercepts from the Vale 2012 and 2013 Campaigns**

The following map shows the locations of all the drillholes with assays projected to surface.



**Figure 10.2: Drillholes with assays projected to surface**

Sections through Filo Este, the focus of the IMA drilling, and Filo Central where Vale obtained their best results, are presented below.



**Figure 10.3: Filo Este and Filo Central Sections**

## **10.4 2022 PETROGAIA RELOGGING AND SWIR ANALYSIS**

### **10.4.1 Relogging**

In July 2022, Petrogaia Consulting carried out selective relogging of eight holes totalling 4198.40m (MGT-DH-002, MGT-DH-003, MGT-DH004, MGT-DH-005, MGT-DH-008, MGT-DH-013 and MGT-DH-016) (Via, S.M. July 2022)

Geological information including lithology, alteration, mineralization, structures, were recorded directly into digital format using Field Manager software that has a series of validated pick list codes for rock/alteration/ mineralization/ structure type and intensity to ensure that information is coded consistently. The percentage of sulphides (e.g., sphalerite, galena, chalcopyrite, pyrite, chalcocite etc.) were also recorded into a numerical field. Comments were also recorded for mineralization and alteration separately in free form character fields.

Data was exported from Field Manager into a series of tables for each of the key elements logged e.g. alteration, mineralization and lithology that would allow for information to be easily imported and visualized in the majority of 3D software packages.

### **10.4.2 SWIR Analysis**

In September 2022, a total of 1970 SWIR readings were collected from the historical drill core re-logged in July 2022 (MGT-DH-001, MGT-DH-002, MGT-DH-003, MGT-DH-004, MGT-DH-005, MGT-DH-008, MGT-DH-013 and MGT-DH-016). Full details of the spectroscopy are presented in Via, S.M., October 2022.

The spectroscopy study was carried out using an ASD TerraSpec® Halo infrared spectrometer, collecting readings approximately every two meters for a detailed characterization of mineral species that could be used to determine alteration facies and infer temperature and pH of formation. Each of the measured points noted what type of location the spectra was recorded from, for example veinlets, vein halo, fractures, breccia matrix, breccia clast, groundmass, etc. The “Rockshade” setting of the Halo instrument was set to “light” and the internal white reference was remeasured every 10 minutes to ensure the machine was correctly calibrated.

Mineral species were determined from the acquired spectra using software based spectral matching algorithms provided in The Spectral Geologist (TSG) version 8.1.0.5. May 2022, version 7.

### **10.4.3 Petrogaia Interpretation**

In five of the eight logged holes, a multiphase intrusive porphyry breccia complex was identified, comprising a quartz diorite porphyry (QDP), a microdioritic porphyry (MDP) and an intrusive breccia (BXI), which all intrudes a pre-mineral volcano-sedimentary sequence.

The evidence suggests that the intrusive breccias of the Property are probably related to domes emplaced in shallow zones of a larger Cu-Au porphyry system.

Alteration assemblages are related to porphyry copper and epithermal systems including potassic, phyllic, advanced argillic and argillic alteration. Mineralization is associated with stockwork, disseminated and breccia styles. Hypogene mineralization sulphidation states range from low sulphidation porphyry mineral assemblage through to intermediate sulphidation base metal mineral assemblages and high sulphidation assemblages. Locally, supergene remobilization of mineralization has resulted in secondary enrichment of copper.

Petrogaia interprets that in holes MGT-DH-005, MGT-DH-004, MGT-DH-003, MGT-DH-013 and MGT-DH-008 clear evidence of a later epithermal event overprinting a porphyry copper system is observed.

## **10.5 2023 CEG RELOGGING**

### **10.5.1 Relogging**

In January 2023, Simon Meldrum of CEG was contracted by Mogotes Metals to relog and interpret the historic diamond drilling undertaken by Amera in 2004-05 and Vale in 2012-13.

In total, 20 drill holes were relogged totalling 9509.7 m. Drill holes MGT-DH-07 and 7A were not logged – having failed to reach target depth and then duplicated by drill holes MGT-DH-09/09A which were logged. All of the core has been re-photographed (except hole MGT-DH-07).

The diamond drill core relog was conducted using the standard paper-based logging sheet and codes, a methodology that provides considerable scope for recording the complete variety of lithologies and their variations, alteration and mineralization styles and intensities. Data was entered into excel then validated using software routines in Micromine.

The resulting data set lists 660 logged intervals – intervals over which lithologies, alteration facies etc could effectively be grouped. The raw logged data file includes 18 recognisable lithologies, 28 recognised alteration facies and 26 mineralization styles.

### **10.5.2 CEG Observations and Interpretations**

The CEG relogging and interpretation support the broad hypothesis of mineralized porphyry centres in the property and providing considerable additional detail on lithology, alteration and mineralization styles.

The key features of the various target areas, as observed by CEG, are summarised below.

The **Filo Este** area Au-Cu-Ag mineralization is observed with potassic altered and mineralized volcanics in close proximity to quartz diorite-dykes. The alteration in Filo Este area is summarised as moderate biotite and K-feldspar potassic alteration overprinted by strong intermediate argillic consisting of illite. Au-Cu mineralization is best developed in the dioritic intrusives. It is interpreted that the dispersion of hydrothermal fluids from the quartz-diorite into the wall rock has led to vein related mineralization overprinting and enhancing

grade in pre-existing, weakly developed, disseminated chalcopyrite mineralization. In comparison to the targets further south, the Filo Este drill holes intersected significantly more intermediate and low sulphidation quartz-adularia veins.

At the **Filo Central** target erosion has exposed a quartz-diorite porphyry. Mineralization in the intrusions is weaker than noted at Filo Este. Better Au-Cu mineralization clusters towards the south-eastern eroded end of the target area. Elevated molybdenum values occur across the whole target area. This large-scale target has been scout drill tested with wide spaced holes leaving considerable room for a hidden target. Strong to moderate intermediate argillic has been observed to overprints biotite dominant potassic alteration (weak k-feldspar) affecting the volcanics. The mineralization data notes strong magnetite veining focussed on the quartz-diorite and overprinting clotted pyrite in the diorites. Quartz vein intensities noted are weaker than at Filo Este or Zona Colorida, but geochemically the target sheds stronger molybdenum than to the north.

**Zona Colorida** which broadly straddles the Macho Muerto Fault zone is characterised by a considerably higher proportion of silicic volcanics than the other target areas. Advanced argillic alteration intersected within the initial metres of the holes diminishes significantly below the depth of oxidation. Diorite and quartz-diorite undoubtedly outcrop along the glaciated cirques within this target area where relatively strong quartz veining is noted along with sulphide veins, quartz sulphide veins and gypsum veins and several late intermediate sulphidation veined structures. However, despite the multiple mineralization events, the drilling returned very weak gold and weak copper and silver values - but it is possible that better grades could lie under the crest of the ridge line to the west.

Rock chip sampling in the Stockwork Hills target area located 3.5 km to the south and 500 m lower than Zona Colorida includes a cluster of >0.2 g/t Au values across an area of approximately 500 m x 200 m on the flank of one of the ridges in the area. Two holes in the area intersected syenitic and monzonitic intrusions (southern hole) and a dacitic dome shedding weak gold values (northern drill hole) cutting andesitic volcanics. The drill hole assays from the area returned weak gold values for the dacite dome samples, very weak copper or silver and moderately elevated molybdenum.

Further information and interpretation of the mineralization on the Property can be found in Meldrum, S.J., 2023.

After reviewing the compiled geochemistry, logging/relogging and spectroscopic analysis from the various drill campaigns the author is satisfied that the results are representative of the alteration and mineralization developed at Filo Sur.

## **SECTION 11. SAMPLE COLLECTION, PREPARATION AND ANALYSIS, SECURITY AND QA-QC**

### **11.1 SAMPLE COLLECTION (SURFACE)**

The Property has had a long history of exploration dating from the late 1990's to 2013.

Surface sample and drilling samples will be discussed separately summarizing the best information available to the author. The following has been summarized from Bottomer, L. and Freeze, A.C., 2002 and Keating, L., 2003.

Analysis of surface samples were carried out at ALS in Mendoza. Details of analytical methods are given below and full descriptions of ALS techniques are given in **Appendix 2 Sample Preparation and Analysis**.

#### **11.1.1 Rock Samples**

The author was not present during the sampling campaign but assumes that rock sampling (outcrop, subcrop or float/grab) was designed to be representative of the specific rock unit, style of mineralization, or alteration being sampled at a given locality.

Outcrop in the project is limited with talus slopes covering large areas of the Property.

#### **11.1.2 Float Sampling**

Float samples are composite chip samples collected over an area of several square metres and are again deemed to provide a representative sample of alteration and mineralization at that locality. In the data room float samples have been labelled as grab/gravel and float. All these files were combined in to one Float/Grab file.

#### **11.1.3 Talus Sampling**

Sampling of talus fines has proved a very useful tool in the Argentinian and Chilean Andes and has played a key role in numerous discoveries (Sillitoe, R.H., 1995).

Talus fines samples were collected at regular intervals along contour lines as controlled by GPS. At each sample site, two holes were dug, not more than 3 m apart, to a level below obvious talus into the soil beneath. Fines from both holes were then sieved to -10 mesh in the field, combined into one bag, and sent to the lab where they are handled as a "sediment" sample.

#### **11.1.4 Sediment Samples**

Only 46 sediment samples have been collected on the Property (36 lie within Mogotes Metals current claim blocks) and although summary statistics were calculated they have not been included or plotted up due to the small size of the dataset and uncertainty as the exact nature of the samples (sediment, pan concentrate).

## **11.2. SAMPLE PREPARATION AND ANALYSIS**

### **11.2.1 Surface Samples**

#### **IMA**

Surface samples were analysed at the laboratory of ALS, located in Mendoza, Argentina. ALS is an internationally accepted laboratory that has adopted the quality systems and procedures equivalent to ISO 9002.

Full details of sample preparation and analytical methods are given in Appendix 2 and are summarized below.

Rock samples were dried at 65° C, crushed to minus 10-mesh, split to 1 kg, followed by pulverization of the 1 kg sample to minus 150 mesh. The pulp is divided into two 250 gram and one 500 gram splits. Coarse rejects are saved. Talus fine and stream sediment samples are dried at 65° C, sieved through 80# mesh, pulverized and split to produce two 250 gram pulps (PREP-31).

Sediment (Talus) samples were dried and sieved to 80 mesh (PREP-41).

In early campaigns (up to 2002) analyses were a 50 gram fire assay for Au with AAS (atomic absorption spectroscopy) finish (AU-AA24) while Ag, Cu, Pb, Zn, As, Mo, Sb, and Bi were carried out after a four acid digest (HCL-HNO<sub>3</sub>-HF-HCL04) with AAS finish (AAS-61).

Hg was analysed by aqua regia digestion followed by AAS-Cold Vapor (CV41) with a detection limit of 20 ppb.

The detection limit for Au is 0.01 g/t.

Later surface samples were analysed by a 30g fire assay with AAS finish (AA-23); a 32-element ICP suite (aqua regia digestion – ME-ICP41) was then run to obtain values for: Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Ti, V, W and Zn.

Keating observes that due to differences in analytical techniques there is some variation between the datasets. Considering these samples range from outcrop chip, trench, float/grab and talus samples there is likely to be a natural variation between nearby samples.

#### **Vale**

There is no information available on surface sampling techniques carried out by Vale but only 14 surface samples were collected.

Analytical methods were Au 30 g FA assay with ICP finish (Au-ICP21) and Aqua Regia digest and multi-element by 35 element ICP-AES (ME-ICP41).

## Anglo-American

Analytical methods were Au 30 g FA assay with ICP finish (Au-ICP21) and Four Acid digest and multi-element by 35 element ICP-AES (ME-ICP41).

The author is satisfied that the sampling does demonstrate the key geochemical trends on the Property.

### 11.2.2 Drill Samples

To the best of the author's knowledge the same preparation and analytical methods used for surface samples were applied to the drill samples:

IMA drilling - AU-AA23 and ME-ICP41 packages

Vale drilling - AU-ICP21 and ME-ICP41 packages

SAMPLE ANALYSIS		
ALS CODE	DESCRIPTION	INSTRUMENT
AAS-61	Ag, Cu, Pb, Zn, As, Mo, Sb, Bi	AAS
AU-AA23	Au 30g FA-AA finish	AAS
AU-AA24	Au 50g FA-AA finish	AAS
AU-ICP21	Au 30g FA – ICP finish	ICP-AES
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS

Table 11.1: Analytical Methods Used by IMA, Vale and Anglo-American

### 11.3 SAMPLE SECURITY

Security is often referred to as 'the chain of custody' and refers to sample collection, labelling, transport to the laboratory, and analysis. This is to ensure that the samples are systematically labelled and recorded and handled by trusted people and there is no opportunity to tamper with the samples with a view to altering or falsifying results.

The author was not present during the surface sampling and drill campaigns and cannot comment on whether acceptable chain of custody procedures were employed. The programs

were run by experienced field geologists familiar with adequate chain of custody protocols and the author has assumed these were followed.

## **11.4 QA/QC**

### **11.4.1 Surface Sampling**

#### **Summary of QA/QC**

The following has been summarized from reports available to the author.

#### **Bottomer, L. and Freeze, A.C. 2002.**

“Of the 248 samples collected by IMA personnel during 2000, 15 control samples (blanks and duplicates), or approximately 6% of samples submitted, were included along with the samples collected in the field as part of an on-going quality control program.

Results from the blank samples were all at or below the laboratory detection limit of 10 ppb gold, effectively indicating that no cross sample contamination was taking place.

Two duplicate samples which were submitted returned gold values of 20 ppb versus 30 ppb gold in one case (samples 1025 and 1019) and >10 ppb gold for both samples in the second case (samples 1087 and 1084). Internal standards and duplicate splits were also inserted in the sample stream by the laboratory.”

Rio Tinto also included both blank and internal standards with samples sent to the laboratory. Eight control samples were included with 96 field samples, or approximately 8% of samples shipped. In addition, four samples were reanalyzed. Again, blanks all returned background or near background values. Differences between gold values from duplicate and original analyses ranged from 0% to 66%.

#### **Keating, L. 2003.**

“Of the 467 samples collected by IMA personnel during 2003, 15 samples were chosen at random to be re-assayed as part of the laboratory’s on-going quality control program. Results are summarized in Table 11.2 (author’s numeration) below. Check analyses agree very well with the reported values demonstrating a maximum variation of 12%, with only one exception.

IMA Sample #	Analysis #1 (Au g/t)	Check Analysis (Au g/t)	Variation
000023	0.026	0.025	-0.001 / 4%
000050	0.015	0.016	0.001 / 7%
000073	0.035	0.033	-0.002 / 6%
000202	0.110	0.108	-0.002 / 1.8%
000123	0.006	-0.005	N/A
000248	0.056	0.050	-0.006 / 12%
000256	-0.005	-0.005	0 / 0%
000422	0.372	0.375	0.003 / 0.8%
000448	0.157	0.153	-0.004 / 2.6%
000470	0.026	0.025	-0.001 / 4%
000293	0.205	0.207	0.002 / 1%
000279	0.103	0.083	-0.02 / 24%
000381	0.015	0.014	-0.001 / 7%
000347	0.023	0.022	-0.001 / 4.5%
000329	0.029	0.031	0.002 / 6.8%

**Table 11.2: IMA Comparison of Au Check Assays**

The only information available to the author was from compiled files of surface geochemistry. Original assay sheets and certificates for much of this sampling are unavailable but have been requested from the original operators.

However, the author feels justified in assuming the data used in this report is representative of the mineralization developed at Filo Sur and the conclusions drawn from it are valid (SECTION 25).

#### **11.4.2 Drilling**

Information on drilling QA/QC was compiled by Jane Capp.

The numbers of QA/QC samples (Standards, Duplicates and Blanks) inserted into the following drillholes are outlined in Table 11.3

Hole ID	No of Standards		Blanks	Duplicates
	CUOX-001	UNK		
MGT-DH-01	13		14	14
MGT-DH-02	18		13	17
MGT-DH-03	18		18	18
MGT-DH-04	14		14	14
MGT-DH-05	16		17	17
MGT-DH-06	14		16	16
MGT-DH-07	1		1	1
MGT-DH-07A	5		5	5
MOG-05-05		5		
MOG-05-06		5		
MOG-05-07		6		
MOG-05-08		6		
MOG-05-09		6		
MOG-05-10		7		
MOG-05-11		8		
MOG-05-12		6		
MOG-05-13		7		

**Table 11.3: Number and Type of QA/QC samples by drillhole**

The author can find no information about Standard CUOX-001 either in the database or on the internet. From the name it would appear to be an oxide Cu standard and the average of 103 samples is 4187 ppm Cu.

UNK is an unknown standard with an average of 2461 ppm Cu and 0.448 g/t Au from 54 samples. Two samples are markedly lower than the other samples: No. 4360 - 1228 ppm Cu and 0.071 g/t Au and No. 4610 – 856 ppm Cu and 0.066 g/t Au.

Of 103 Blanks most are in the 5-10 ppm range for Cu (11, 14 and 21 being the exceptions) and at or below detection for Au.

More detailed plots for QA/QC are presented in **Appendix 3**.

As the Property advances original assay lab reports and assay certificates should be compiled and QA/QC brought up to current reporting standards.

Should the results from previous drilling be incorporated into a resource calculation it is recommended that check assays are taken from the existing core.

## **SECTION 12. DATA VERIFICATION**

### **12.1 SITE VISIT**

The author visited the Property on the 20<sup>th</sup> of November, 2022, in the company of geologist Facundo Flores and operations manager, Miguel Claudio Rach.

The objectives of the site visit were to:

- Verify the geology, alteration and mineralization as described;
- Collect samples of mineralization for check assay; and
- Verify the locations of drill-collars.

This was carried out to the author's satisfaction. Details are given below.

#### **12.1.1 Geology and Mineralization**

The field visit concentrated on the northern and central areas of the concessions that were the main focus of the previous sampling and drill programs. Brief summaries of the geology, alteration and mineralization (from Jones, S. and Terry, D., 2008) are presented below with photos taken during the site visit.

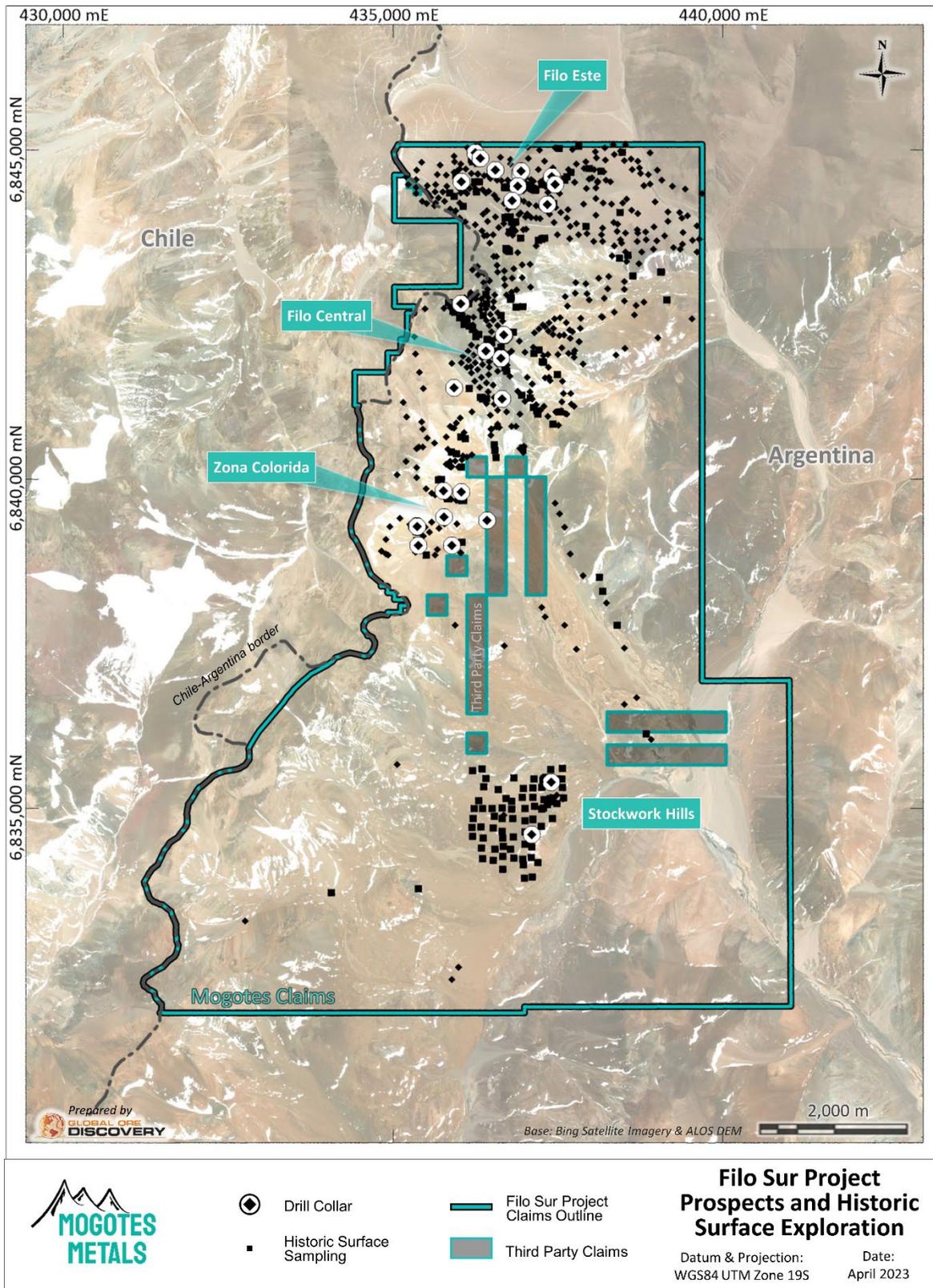


Figure 12.1: Locations of the mineralized centres, previous sampling and drilling

### 12.1.1.1 Filo Este

At Filo Este there is a core of exposed potassic and propylitic alteration with moderate Cu-Au-Ag mineralization hosted in a 15 Ma microdiorite and diorite and 23.1 Ma Tilito breccias.

Surface geochemistry defined by the 500 ppm Cu contour extends 2000 m east-west by 700m north-south; the 0.1 g/Au contour extends 1600 m east-west by 800 m north-south. There is no appreciable Mo.

The mineralization as defined by talus, rock sampling and trenching, ground magnetics, time domain IP led to a 4612.6m of drilling (8 diamond and 5 RC holes).

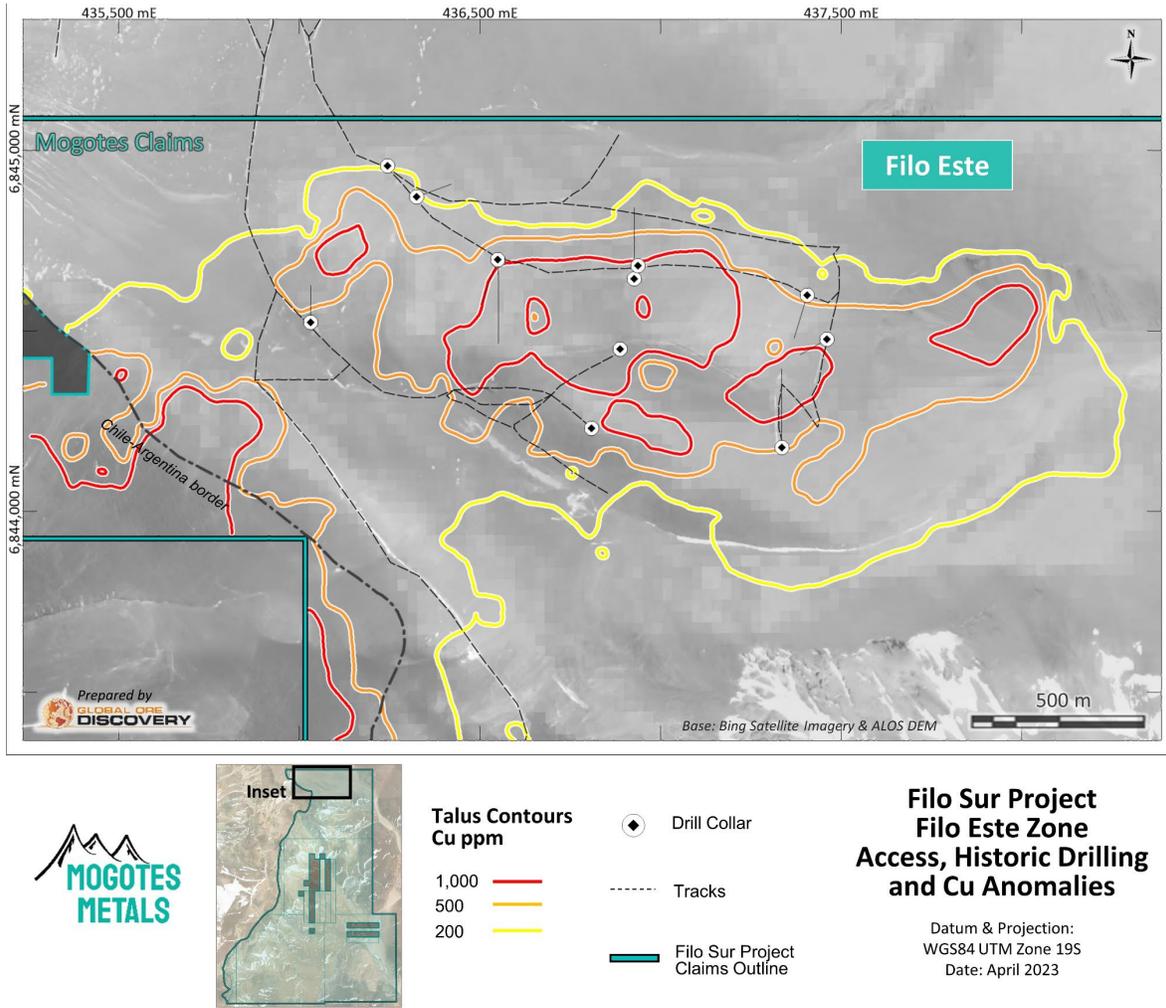


Figure 12.2: Filo Este zone showing drillholes, access roads, 200 ppm, 500 ppm and 1000 ppm Cu contours.



**Figure 12.3: View looking west across Filo Este. E437269 N6844348**



**Figure 12.4: E436884 N6844469. Andesite with moderate pervasive magnetite-sericite-chlorite alteration with quartz veinlets and Cu-oxides**

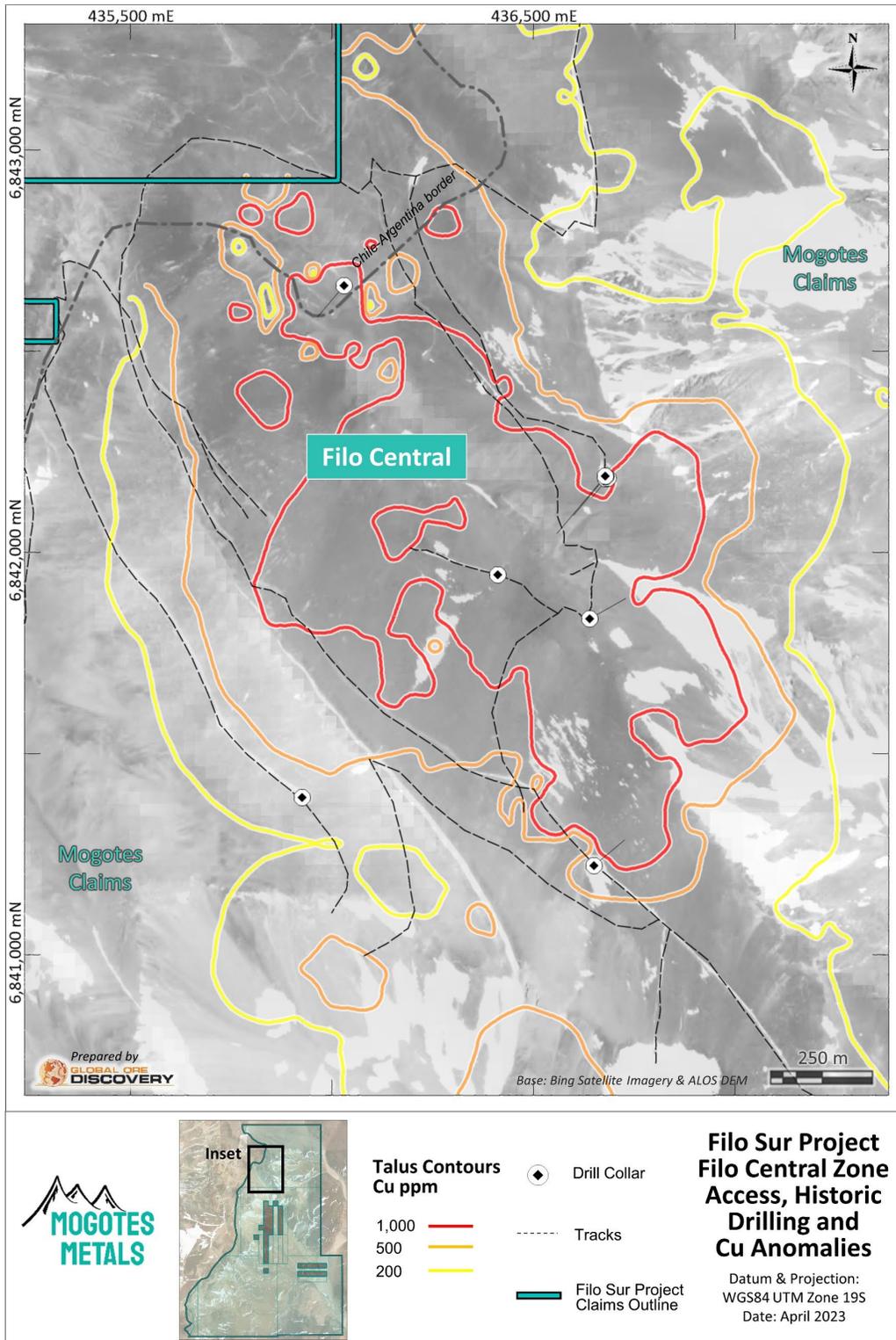
### **12.1.1.2 Filo Central**

At Filo Central there are two exposed areas of potassic alteration hosted in microdiorite, fine-grained diorite, and Tilito Formation breccia.

Alteration consists of mixed potassic and propylitic, and locally moderate to strong sericite-pyrite. There is a strong structural control on sericite pyrite alteration with local high-sulphidation alteration developed as vuggy silica and alunite.

The 500 ppm Cu contour trends north-west/south-east and is 3300 m long by 1200 m wide; the 0.1 g/t Au contour, again trending north-west/south-east is 3600 m long by 1000 m wide; the 25 ppm Mo contour is 1500 m north-south by 1000 m east-west zone and is displaced to the east.

9 drillholes (5 diamond and 4 RC) totaling 2922.2 m were drilled at Filo Central



**Figure 12.5: Filo Central zone showing drillholes, access roads, 200 ppm, 500 ppm and 1000 ppm Cu contours**



**Figure 12.6: E436468 N6842100 View looking north-west along Filo Central**



**Figure 12.7: E436468 N6842100 Dacite porphyry with moderate quartz sercite and weak potassic alteration**

### **12.1.1.3 Zona Colorida**

Zona Colorida is located southwest of the Macho Muerto fault and exposes the upper advanced argillic and quartz-sericite-pyrite levels of a possible diorite porphyry mineral system.

Alteration is hosted in the Tilito Formation and medium grained diorite porphyry.

Surface sampling is more limited but a 200 ppm Cu anomaly is displaced to the east; there is no appreciable Au and a 25 ppm Mo contour trending north-east/south-west extends 1700 m long by 700m wide and is displaced to the west.

A total of 4198.8 metres have been drilled, largely by Vale. The area appears to be dominated by porphyry Cu mineralization with overprinting, poorly anomalous, advanced argillic alteration.

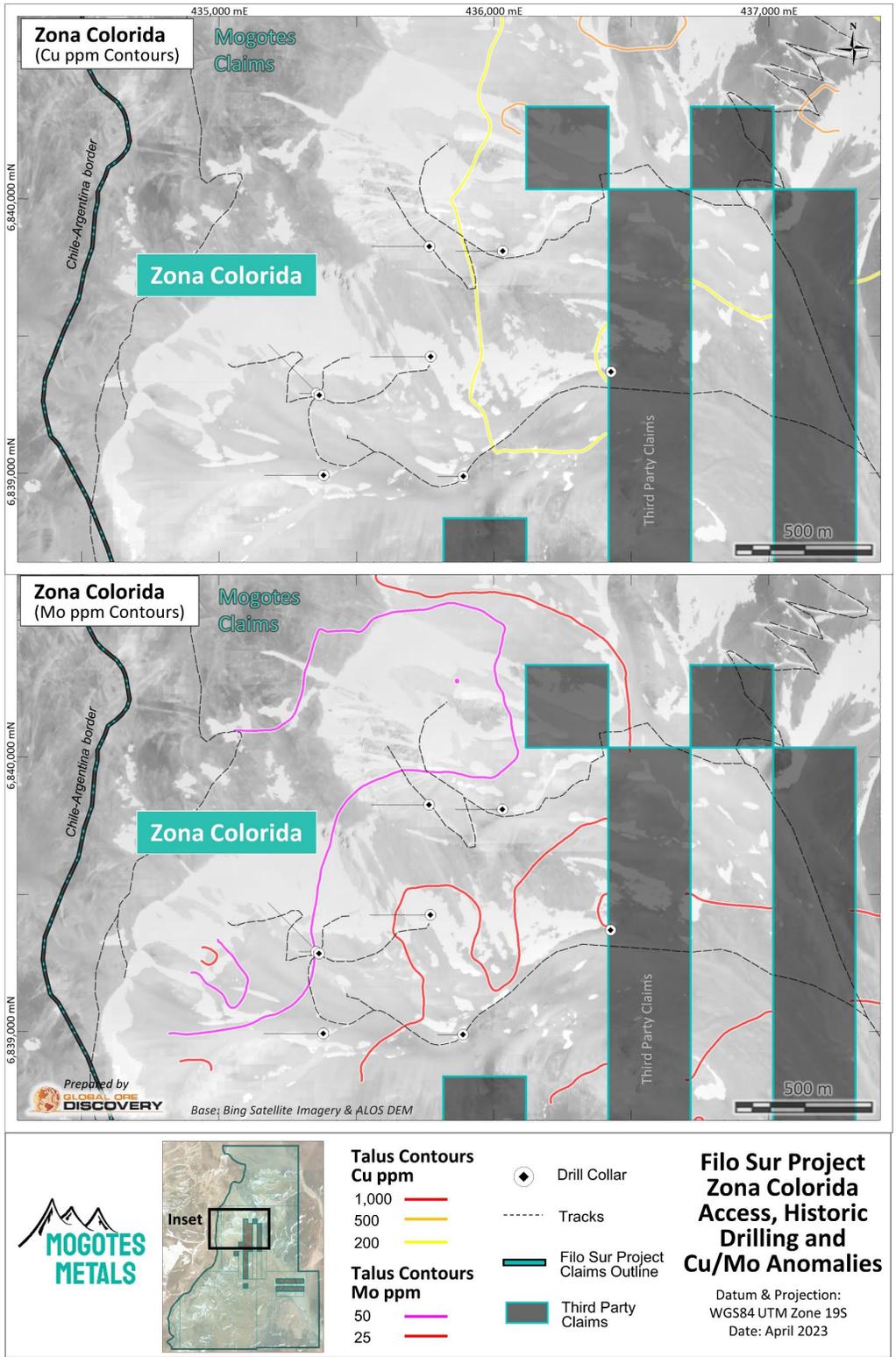


Figure 12.8 and 12.9: Zona Colorida Filo showing drillholes, access roads, 200ppm, 500ppm and 1000ppm Cu and 25 and 50 ppm Mo Contours



**Figure 12.10: E432700 N6837800 View looking north toward Zona Colorado showing advanced argillic alteration**



**Figure 12.11: E435737 N6839945 Stockwork and advanced argillic alteration in tuff**

## **12.2 CHECK SAMPLES**

Samples were analysed at Alex Stewart (International) in Mendoza.

Au and Ag were assayed by 50g Fire Assay with AA Finish and Multi-Element was carried out with Four Acid Digest with ICP-AES Finish.

Full results are given in **Appendix 1** and details Preparation and Analytical Techniques are given in **Appendix 2**.

### 12.2.1 Field Samples

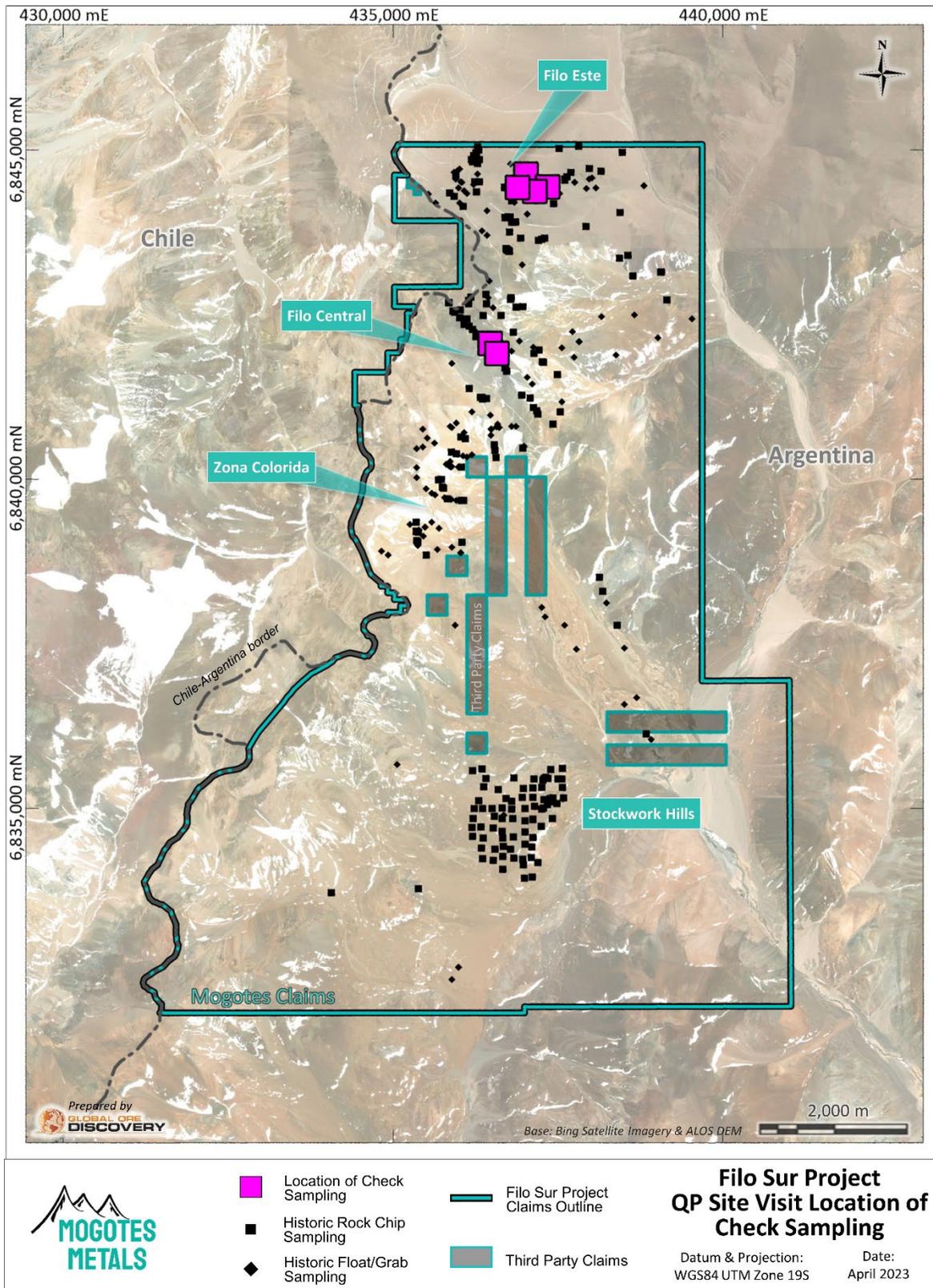
Six samples of representative mineralization and alteration were collected during the site visit. Wherever possible samples were collected from previous sample locations, ideally trench or outcrops.

Sample numbers, coordinates and brief descriptions are given in Table 12.1. Photos of sample locations are included.

Sample No	Easting	Northing	Description
009904	436468	6842100	Dacite porphyry, Mod-St Qtz Ser, Wk Pot, Cu Ox Dis and on Fractures, 0.5%, Mag 2%. Original Trench. Sample 2510? Chip. Outcrop Chip
009906	436572	6841951	Dacite porphyry, pervasive Qtz-Ser, Wk Pot in phenocrysts. FeOx. Flt/Structure Dip Az 000° 1.5m wide. Outcrop Chip
009907	437010	6844676	Andesite with CuOx. Fine Grained. Diss Mag and Cpy. Wk to Moderate Potassic. Float.
009908	437339	6844475	Dacite Porphyry, Mod Qtz-Ser, B-Veins, Cu Ox 0.2-0.3%, Diss Cpy-Cc. Float.
009909	437142	6844408	Andesite? with mag vlts, cpy and CuOx. B veinlets with cpy. Outcrop Chip.
009910	436883	6844469	Andesite with mod-per mag and ser, chlorite, cpy vlts and traces of qtz vts. CuOx. Outcrop chip.

**Table 12.1: Sample Coordinates and Descriptions (Coordinates SUTM 19, WGS84)**

Abbreviations: Wk: Weak, Mod: Moderate, Ox: oxide, Vlts: Veinlets, Diss: Disseminated, Pot: Potassic, Cpy: Chalcopyrite, Cc: Chalcocite, Qtz: Quartz, Ser: Sericite



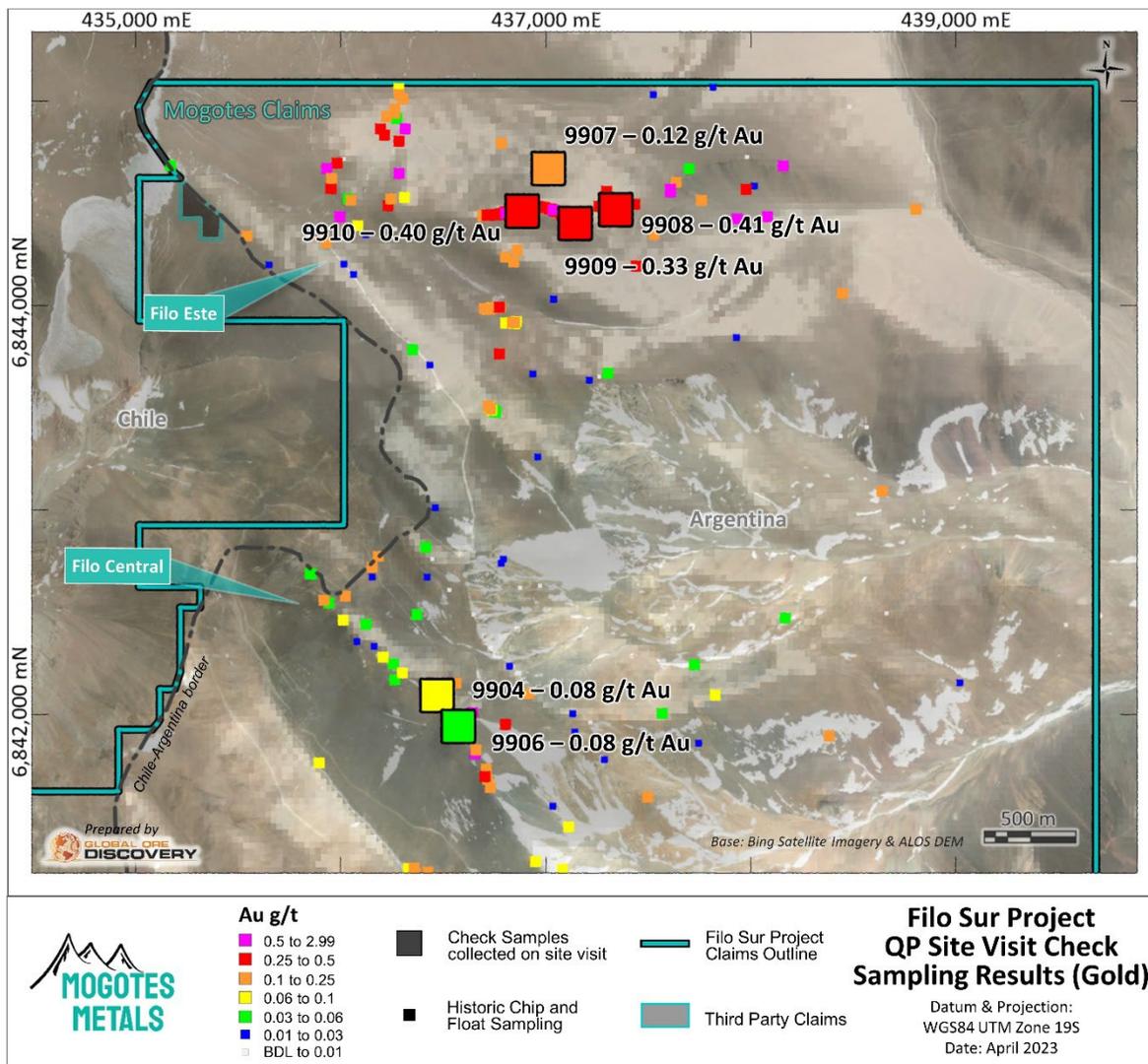
**Figure 12.12: Locations of Check Samples and Previous Rock Chip and Float Grab Surface Sampling**

Results of samples 009904, 009906-009910 for Au, Ag, Cu, Mo and As along with results from previous sampling (where applicable) are shown in Table 12.2.

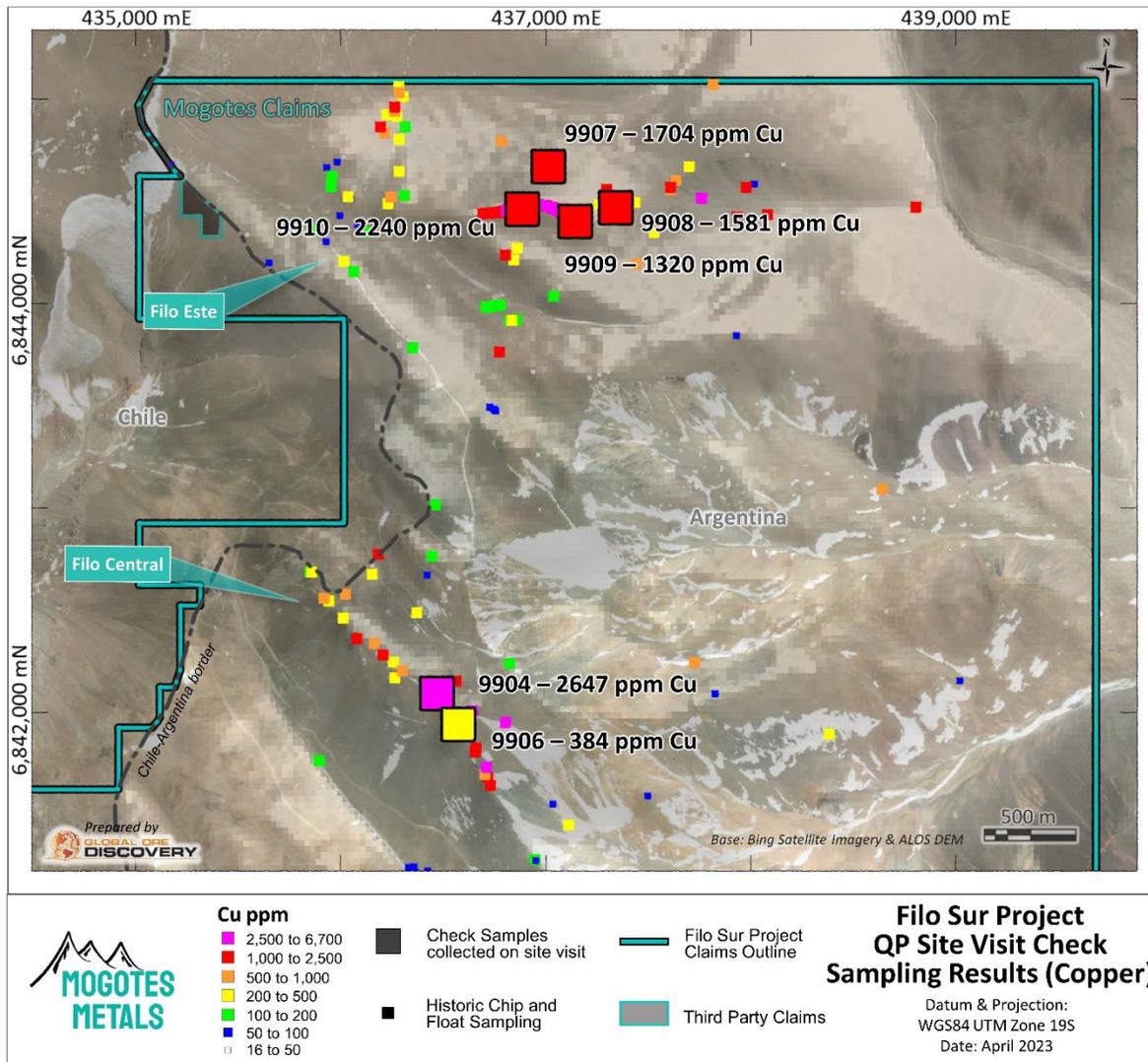
Sample No	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
2510 - Trench	0.231	1.4	6700	34	20
009904	0.08	<0.5	2647	33	<5
2322 - Trench	0.087	<0.2	1770	29	9
009906	0.04	<0.5	384	53	15
000136 – Grab	0.241	2	1470	6	4
009907	0.12	0.7	1704	12	<5
009908	0.41	<0.5	1581	12	<5
2259 -Trench	0.504	1.3	1810	5	3
009909	0.33	<0.5	1320	11	7
2224 - Trench	0.609	1.7	1805	12	11
009910	0.4	0.7	2440	13	<5

**Table 12.2: Field Sample Check Sample Results and Results of Previous Sampling**

Sample 009908 does not coincide with a previous sample but was taken from a mineralized outcrop exposed in road cut that was representative of the alteration mineralization developed at Filo Este.



**Figure 12.13: Au (g/t) from Check Samples (Surface and Drillhole) and Previous Rock Chip/Trench and Float/Grab Surface Sampling**



**Figure 12.14: Cu (ppm) from Check Samples (Surface and Drillhole) and Previous Rock Chip/Trench and Float/Grab Surface Sampling**

**SAMPLE 009904**



**Figure 12.15: E436468 N68942100. Dacite porphyry with moderate quartz sericite, weak Potassic, Cu oxide disseminated and on Fractures 0.5%, Mag 2%**

**SAMPLE 009906**



**Figure 12.16: E436572 N6841951. Dacite porphyry, pervasive quartz sericite, weak Potassic in phenocrysts. Fe oxide. Fault/Structure Dip Azimuth 000o 1.5m wide. Outcrop Chip**

**SAMPLE 009907**



**Figure 12.17: E437012 N6844682. Andesite with Cu oxide. Fine Grained. disseminated magnetite and chalcopyrite. Weak to Moderate Potassic. Float**

**Sample 009908**



**Figure 12.18: E437339 N6844375. Dacite Porphyry, Moderate Quartz-Sericite, B-Veins, Cu oxide 0.2-0.3%, Disseminated chalcopyrite-chalcocite. Float**

**SAMPLE 009909**



**Figure 12.19: E437140 N6844408. Andesite? with magnetite veinlets, chalcopyrite and Cu oxide. B veinlets with chalcopyrite. Outcrop Chip**

**SAMPLE 009910**



**Figure 12.20: E439884 N6844469. Andesite with moderate-per magnetite and sericite, chlorite, chalcopyrite veinlets and traces of quartz veinlets. Cu oxide. Outcrop chip**

### 12.3 DRILL COLLARS

A total of 32 holes, 9 RC and 23 Diamond, were drilled on the Property. There is no mention of the original collars being surveyed and it is assumed they were located using hand-held GPS. Using the coordinates given in the reports, a total of 9 platforms were visited.

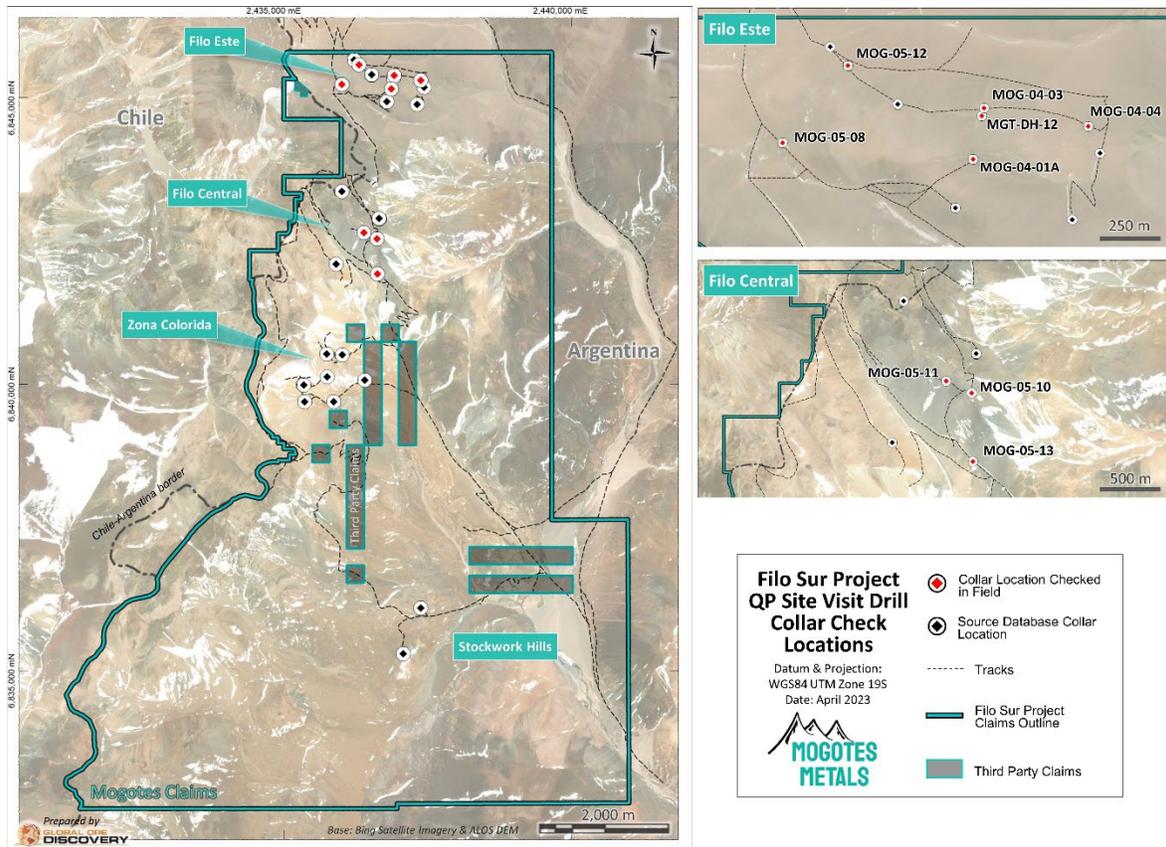
Of the locations visited there were obvious platforms but preservation of the collars varied from platform to platform: some had concrete monuments and plastic pipe, others plastic pipe while others had on open drillhole. One of the platforms was snow covered.

A list of collars visited, with their field coordinates, coordinates as recorded in the drillhole database and difference in metres North-South and East-West is presented in Table 12.3

HOLE_ID	RPT_E	RPT_N	FLD_E	FLD_N	DIFF_E	DIFF_N	TYPE
MOG-04-1A	436889	6844450	436888	6844453	1	-3	DH
MOG-04-03	436938	6844681	436939	6844686	-1	-5	DH
MOG-04-04	437407	6844599	437404	6844601	3	-2	DH
MOG-05-08	436325	6844872	436324	6844881	1	-9	RC
MOG-05-10	436640	6841835	436632	6841832	8	3	RC
MOG-05-11	436411	6841945	436411	6841941	0	4	RC
MOG-05-12	436031	6844524	436033	6844521	-2	3	RC
MOG-05-13	436650	6841221	436650	6841218	0	3	RC
MGT-DH-12	436928	6844645	436928	6844645	0	0	DH

**Table 12.3: Collar Locations checked in the field.**

Errors between values in the database and field checking are within acceptable errors for handhelds GPS units but it is recommended that all collars are resurveyed with a differential GPS.



**Figure 12.21: Drill Collars, Field Checked Collars, Claims and Access Roads**

**HOLE MOG-04-1A**



**Figure 12.22: MOG-04-1A E436888 N6844453**

**HOLE MOG-04-03**



**Figure 12.23: MOG-04-03 E436939 N6844686**

**HOLE MOG-04-04**



**Figure 12.24: MOG-04-04 E437404 N6844601**

**HOLE MOG-05-13**



**Figure 12.25: MOG-05-13 E436650 N6841218**

## HOLE MGT-DH-12



Figure 12.26: MGT-DH-12 E436926 N6844645

## **12.4 CORE SAMPLES**

### **12.4.1 Core Review**

The author reviewed selected core intervals at the company's core store in Mendoza on the 23rd of November 2022.

Intervals were selected from 6 holes that were felt to be representative of the mineralization from the various previously drilled areas.

Previous sampling by IMA and Vale was carried out every 2m regardless of any consideration of lithology, alteration and mineralization. The first hole, MOG-04-1, had been split with a guillotine while all the other core had been cut by a diamond saw.

5 intervals, that corresponded to previous samples, were marked up, photographed and taken to the laboratory of Alex Stewart by the Mogotes Metal's technician where the core was cut again with one quarter going for analysis while the remaining quarter was returned to the core boxes.

### **12.4.2 Core Samples**

The following section details the intervals sampled, description and photographs and previous results tabulated against the authors check assays.

**HOLE MOG-04-01 From 62 to 64m: SAMPLE 009911**

Andesite. Mod fracturing/crackle breccia. Weak to moderate quartz-sericite, weak chlorite, quartz veinlets 1 to 3-4mm. Disseminated sulphide, pyrite 2.3%, chalcopyrite 0.5% on fractures.

Cu oxides 0.2%.



**Figure 12.27: Sample 009911**

Hole ID	From (m)	To (m)	Sample	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
MOG-04-01	62	64	2631	0.197	5.6	2550	7	177
			009911	0.17	3.5	1791	9	105

**HOLE MGT-DH-07A. From 152 to 154m: SAMPLE 009912**

Andesite/Ignimbrite. Moderate quartz-sericite, disseminated magnetite and in veinlets with quartz. Disseminated chalcopyrite. Quartz veinlets 1%.

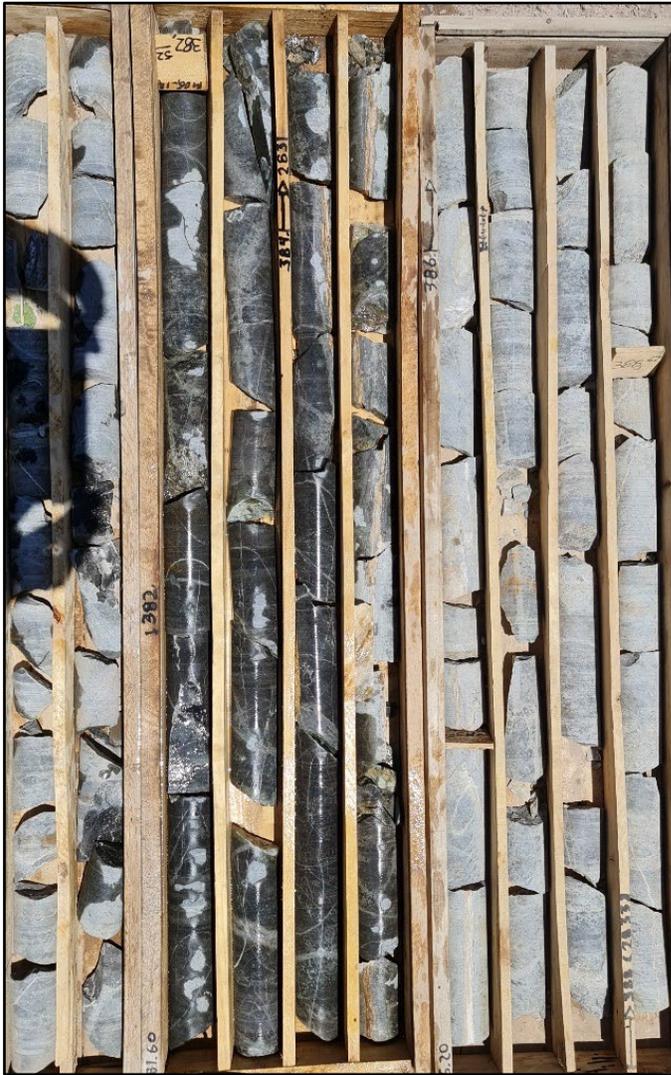


**Figure 12.28: Sample 009912**

Hole ID	From (m)	To (m)	Sample	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
MGT-DH-07A	152	154	MGT7A-089	0.058	0.9	1210	<2	44
			009912	0.07	<0.5	1272	59	<5

**HOLE MOG-04-1A. From 382 to 384m: SAMPLE 009913**

Fine grained andesite. Various generations of stockwork veinlets. 5% magnetite. Local strong silicification. Chlorite/sericite halos to veinlets.



**Figure 12.29: Sample 009913**

Hole ID	From (m)	To (m)	Sample	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
MOG-04-1A	382	384	2830	0.136	0.9	1825	8	16
			009913	0.11	1.1	2286	7	14

**HOLE MOG-04-1A: From 382.52 to 382.70m.**

Close up of veining and silicification.



**Figure 12.30: Hole MOG-04-1A: From 382.52 to 382.70m**

**HOLE MOG-04-02: From 194 to 196m. SAMPLE 009914**

Tuff (original textures destroyed). Strong quartz Sericite, moderate chlorite in veinlets and disseminated. 1 to 2% sulphides – pyrite 70% chalcopyrite 30%.



**Figure 12.31: Sample 009914**

Hole ID	From (m)	To (m)	Sample	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
MOG-04-02	194	196	2989	0.092	0.8	1130	4	17
			009914	0.11	<0.5	1226	12	32

**HOLE MGT-DH-11: From 180 to 182m. SAMPLE 00915**

**Ignimbrite. Moderate to strong Quartz-Sericite. Moderate chlorite. Strong stockwork. Pyrite and Chalcopyrite in veinlets.**



**Figure 12.32: Sample 00915**

Hole ID	From (m)	To (m)	Sample	Au g/t	Ag g/t	Cu ppm	Mo ppm	As ppm
MGT-DH-11	180	182	MGT-11-105	0.097	1.7	2160	5	15
			00915	0.12	1.8	1864	7	11

## **HOLE MGT-DH-11: From 179.80 to 180.20m**

Close Up of stockworking



**Figure 12.33: Hole MGT-DH-11: From 179.80 to 180.20m**

Results from the check sampling agree with the previous sample (allowing for natural variation) and the author is satisfied that the results of the previous sampling and drilling are representative of the mineralization developed on the Filo Sur Project.

### **SECTION 13. MINERAL PROCESSING AND METALLURGICAL TESTING**

Not relevant to this report.

### **SECTION 14. MINERAL RESOURCE ESTIMATES**

Not relevant to this report

## **SECTION 15. MINERAL RESERVE ESTIMATES**

Not relevant to this report.

## **SECTION 16. MINING METHODS**

Not relevant to this report.

## **SECTION 17. RECOVERY METHODS**

Not relevant to this report.

## **SECTION 18. PROJECT INFRASTRUCTURE**

Not relevant to this report.

## **SECTION 19. MARKET STUDIES AND CONTRACTS**

Not relevant to this report.

## **SECTION 20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

Not relevant to this report.

## **SECTION 21. CAPITAL AND OPERATING COSTS**

Not relevant to this report.

## **SECTION 22. ECONOMIC ANALYSIS**

Not relevant to this report.

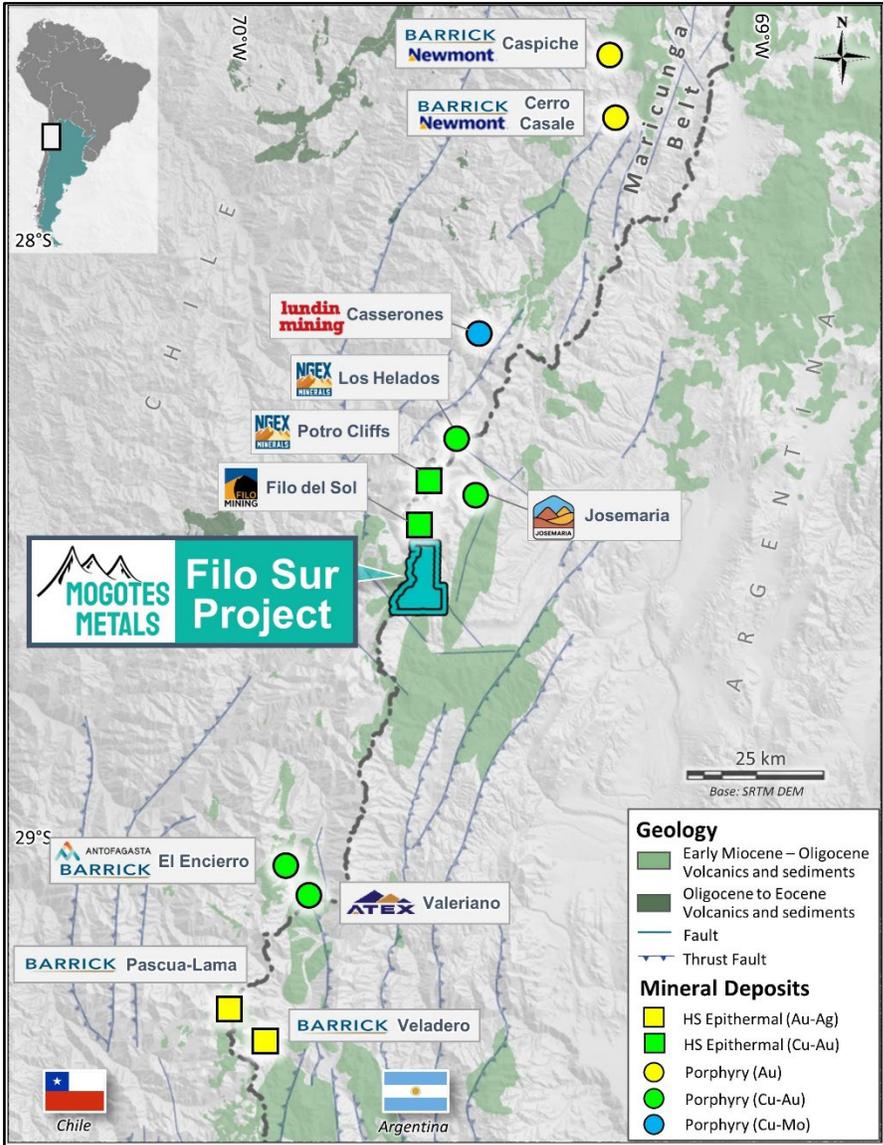
## **SECTION 23. ADJACENT PROPERTIES**

The Property is located in an emerging porphyry Cu-Au district dominated by the Lundin Group of companies and their associated flagship projects: Filo del Sol, Josemaria and Los Helados.

Investors are cautioned that the information set out above with respect to the Filo del Sol Project, the Josemaria Project and the Los Helados Project, including mineral resources and mineral reserves, are with respect to properties adjacent to the Filo Sur Project and were extracted from information that is publicly available. The Technical Report Author has not completed sufficient work to verify the historic information on the adjacent properties, particularly with regards to historical sampling and regional government-mapped geology and is not aware of the code(s) employed in the estimates of the mineral resources and mineral reserves on these adjacent properties. As a result, the Technical Report Author cannot

comment of the differences between those codes and current Canadian Institute of Mining definitions for mineral resources and mineral reserves. The information with respect to the adjacent properties is not necessarily indicative of mineralization on the Filo Sur Project, and should not be relied upon.

The Property is located in an emerging porphyry Cu-Au district dominated by the Lundin Group of companies and their associated flagship projects: Filo del Sol, Josemaria and Los Helados.



**Figure 23.1: Filo Sur and Adjacent Properties**

There are numerous other projects in the area, that straddle the “gap” between the Maricunga Belt to the north and the El Indio-Pascua-Lama Belt to the south, but these are the most advanced and are each briefly summarized below.

**23.1 FILO DEL SOL**

The Filo del Sol project is owned by Filo Mining.

The project has been advanced to the prefeasibility stage (Ausenco NI43.101, 2019) and the main resource sits just 2 km to the north of the Filo Sur northern claim boundary.

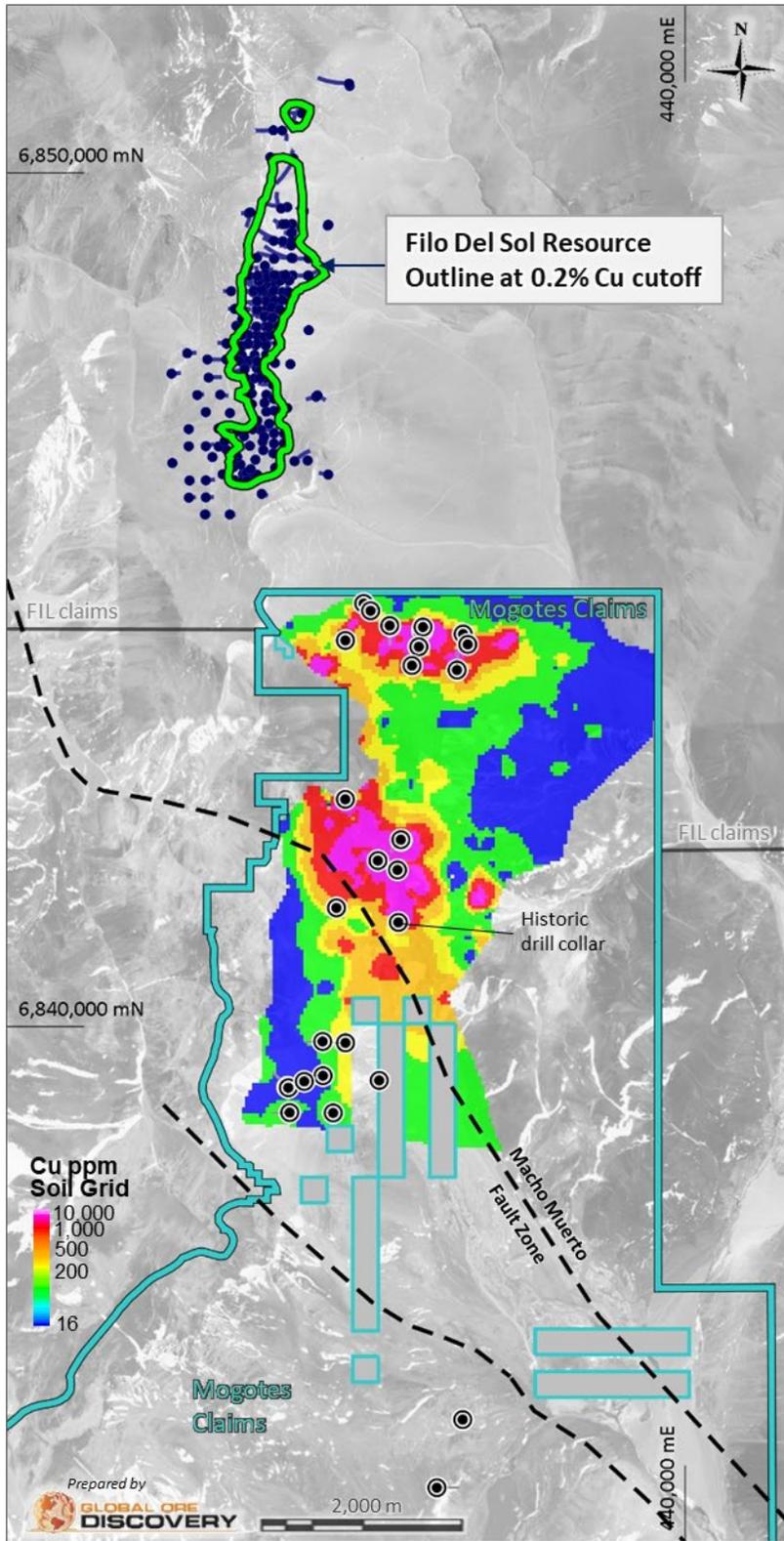


Figure 23.2: Mogotes Claims, mineralized zone and Filo del Sol Resource.

The following Reserves and Resources are taken from the Filo Mining webpage <https://filo-mining.com/operations/resource-estimate/>

### 23.1.1 Reserves (2023)

Category (all domains)	Tonnage	Grade			NVPT (\$/t)	Contained Metal		
	(Mt)	Cu (%)	Au (g/t)	Ag (g/t)		Cu (M lbs)	Au (K oz)	Ag (K oz)
Proven	-	-	-	-	-	-	-	-
Probable	259.6	0.39	0.34	16	32.5	2220	2867	133334
<b>Total (Proven and Probable)</b>	259.6	0.39	0.34	16	32.5	2220	2867	133334

Table 23.1 Filo del Sol Mineral Reserve Statement (@ 0.01 \$/t NVPT cut-off)

### 23.1.2 Resources (2023)

Zone	Cut-off	Category	Tonnes	Cu	Au	Ag	lbsCu	Oz Au	Oz Ag
			Millions	(%)	(g/t)	(g/t)	(millions)	(K)	(K)
Oxide	0.2 g/t Au	Indicated	362.2	0.34	0.33	13.3	2683	3839	1547670
	0.15% CuEq 20 g/t Ag	Inferred	132.7	0.25	0.30	9.9	725	1284	42370
Sulphide	0.3%	Indicated	70.4	0.31	0.35	2.5	473	790	5710
		Inferred	78.9	0.31	0.33	3.1	542	834	7960
<b>Total</b>		<b>Indicated</b>	<b>432.6</b>	<b>0.33</b>	<b>0.33</b>	<b>11.5</b>	<b>3156</b>	<b>4629</b>	<b>160380</b>

Zone	Cut-off	Category	Tonnes	Cu	Au	Ag	lbsCu	Oz Au	Oz Ag
			Millions	(%)	(g/t)	(g/t)	(millions)	(K)	(K)
		Inferred	211.6	0.27	0.31	7.4	1267	2118	50330

**Table 23.2: Filo del Sol Resource**

The geology is similar to Filo Sur with porphyry Cu-Au and high-sulphidation precious Au-Ag mineralization contributing to the resources and reserves.

The Filo del Sol resource remains open in several directions and at depth.

To date only 3 km of the approximately 7 km long Filo alteration zone has been drill tested.

Filo Sur appears to represent the southern extension of this alteration system.

All holes drilled into the deposit, including the deepest holes at 500 metres long, end in mineralization and the potential for porphyry Cu-Au mineralization at depth and lateral to the deposit is considered excellent.

The Filo del Sol property also contains several other exploration targets defined by geochemistry, mapping and geophysics. These are early stage and are being advanced by the Filo Mining.

## **23.2 JOSEMARIA**

The Josemaria project is owned by Lundin Mining and was the subject of a Feasibility study in 2020 (SRK Consulting. Josemaria 43.101, 2020).

It is located 10 km to the north-east of Filo Sur.

Josemaria is a Cu-Au porphyry and presently measures approximately 1,500 m north-south by 1,000 m east-west and 600 to 700 m vertically from surface. The larger alteration halo extends 4 km north-south by 2 km east-west. The deposit remains open to the south, beneath a thickening cover of post mineral volcanic rocks and also at depth.

The deposit consists of hypogene and supergene zones and to a lesser extent surficial oxides.

The proposed mine will be a 152,000 tpd open pit operation supplying a floatation plant producing a Cu concentrate, with precious metal credits, that will go by truck to San Juan then rail to the Atlantic coast for export.

The following Reserves and Resources are taken from the SRK Consulting 43.101 Feasibility Study

### 23.2.1 Reserves

Category	Tonnes (Mt)	Grade			Contained Metal		
		Cu (%)	Au (g/t)	Ag (g/t)	lbs Cu (millions)	Oz Au (millions)	Oz Ag (millions)
Proven	197	0.43	0.34	1.3	1844	2.14	8.43
Probable	815	0.27	0.19	0.85	4861	4.87	22.29
<b>Total (Proven and Probable)</b>	1012	0.30	0.22	0.94	6705	7.02	30.72

Table 23.3: Josemaria Mineral Reserve Statement

### 23.2.2 Resources

Category	Tonnes (Mt)	Grade				Contained Metal		
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	lbs Cu (billions)	Oz Au (millions)	Oz Ag (millions)
Measured	197	0.43	0.34	1.3	0.63	1.9	2.2	8.5
Indicated	962	0.26	0.18	0.9	0.36	5.5	5.6	26.6
<b>Total (M+I)</b>	1159	0.29	0.21	0.6	0.41	7.4	7.8	33.5
Inferred	704	0.19	0.10	0.8	0.25	2.9	2.3	18.6

Table 23.4: Josemaria Sulphide Mineral Resource @ 0.1 % CuEq cut-off.

Category	Tonnes (Mt)	Grade		Contained Metal	
		Au (g/t)	Ag (g/t)	Oz Au (K)	Oz Ag (K)
Measured	26	0.33	1.2	280	994
Indicated	15	0.28	1.3	132	632
<b>Total (Measured + Indicated)</b>	41	0.31	1.2	410	1585
Inferred	0				

Table 23.5: Josemaria Oxide Mineral Resource @ 0.2 % AuEq cut-off.

As of March 2022, drilling has totaled nearly 96,800 m in 228 drill holes. Lundin Mining believes there is significant exploration upside and intends to explore and develop the Josemaria project as their core asset in an emerging porphyry Cu-Au district.

## 23.3 LOS HELADOS

The Los Helados project is another porphyry Cu-Au, this time on the Chilean side of the border 135km south east of Copiapo. It is a 64% NGEX 36% Nippon Caserones Resources joint venture.

The project is the subject of a NI 43-101 report (Devine et al, 2019).

Los Helados is primarily hosted by a Miocene magmatic–hydrothermal breccia that forms a roughly circular, pipe-like body with minimum dimensions of 1,100 m east–west, 1,200 m north–south, and at least 1,500 m vertically. It is dated as approximately 13 Ma

The mineralization is open to the north and the system also remains open at depth. Recent internal NGEx studies have suggested the presence of a discrete, higher-grade breccia phase that remains open for further expansion.

Eight drilling campaigns have been carried out at the Los Helados deposit for a total of 75,634 m in 95 drill holes, of which five holes (1,366 m) are RC and 90 holes (74,268 m) are core.

### 23.3.1 Resource

This information is from the NGEX website <https://ngexminerals.com/projects/los-helados/>.

The most recent Mineral Resource, effective as of April 26, 2019, at a cut-off grade of 0.33% CuEq is comprised of 2.1 billion tonnes at 0.38% Cu, 0.15 g/t Au and 1.37 g/t Ag, containing 17.6 billion lbs of Cu, 10.1 Moz of Au, 92.5 Moz of Ag in the Indicated category, and an Inferred Mineral Resource estimate of 827 million tonnes at 0.32% Cu, 0.10 g/t Au and 1.32 g/t Ag for 5.8 billion pounds of Cu, 2.7 Moz of Au and 35.1 Moz Ag.

The deposit contains a discrete higher-grade core at a cut-off grade of 0.58% Cu Eq. of 531 million tonnes of 0.50% Cu, 0.21 g/t Au, 1.66 g/t Ag for a CuEq. grade of 0.65%

The previous text is summarized in the following table.

Indicated Mineral Resource								
Cut-off	Tonnes (Mt)	Grade				Contained Metal		
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	lbs Cu (billions)	Oz Au (millions)	Oz Ag (millions)
0.58	531	0.5	0.21	1.66	0.65	5.9	3.6	28.3
0.33	2099	0.38	0.15	1.37	0.48	17.6	10.1	92.5
Inferred Mineral Resource								
Category	Tonnes (Mt)	Grade				Contained Metal		
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	lbs Cu (billions)	Oz Au (millions)	Oz Ag (millions)
0.33	827	0.32	0.1	1.32	0.39	5.8	2.7	35.1

**Table 23.6: Los Helados Mineral Resource**

NGEx is currently undertaking extensive metallurgical test work and continues exploration of its earlier stage projects.

Mogotes Metals cautions investors that the mineralization hosted on these adjacent or nearby projects is not necessarily indicative of mineralization hosted on the Property.

## **SECTION 24. OTHER RELEVANT DATA AND INFORMATION**

There is no other relevant data and information.

## **SECTION 25. INTERPRETATION AND CONCLUSIONS**

Mogotes Metals has entered into an earn-in agreement for the 8064 Ha Property on the eastern flank of the Andes Cordillera in the Province of San Juan, Argentina.

The Property is located 2km to the south of Filo Mining's Filo del Sol deposit and is part of an emerging porphyry Cu-Au district located between the Maricunga Belt to the North and the El Indio-Pascua-Lama district to the South.

The Property has been subjected to multiple volcanic and intrusive events dating from the middle Miocene back at least as far as the Permo-Triassic.

Oligocene to Early - Middle Miocene age volcanics overly a basement of Choiyoi Group sedimentary, volcanic and intrusive rocks. These units were subsequently overlain by Middle to Late Miocene volcanic units which have then been intruded by numerous subvolcanic intrusives of dioritic composition.

Structural trends on the Property consist of major NW-SE structures, the most important of these being the Mogotes Fault, while secondary NE-SW structures have played a major role in localizing alteration and mineralization.

There are two main alteration and mineralization assemblages on the Filo Sur property.

**Porphyry Cu-Au-Ag:** potassic/propylitic alteration associated porphyry Cu-Au-Ag mineralization hosted in diorite, micro-diorite and breccias and is a function of quartz vein density.

Quartz veins occurs as stockworks and sheeted veins with the main hypogene minerals being chalcopyrite, bornite, and pyrite. Surface oxidation has resulted in various sulphates, carbonates, and iron oxides. There are three main porphyry centres at Filo Este, Filo Central and to a lesser extents Stockwork Hills.

**High-Sulphidation Au-Ag:** high sulphidation epithermal alteration with silica, clay minerals, disseminated pyrite, alunite and quartz veinlets. The geological setting to the south-west of the Mogotes Fault is thought to represent a higher-level alteration assemblage within the volcanic cover.

The Property has been the subject of various exploration campaigns since the mid 1990's.

The most important are:

**IMA Exploration, 2000-2005:** surface sampling, mapping, geophysics and 1475.4 metres of diamond and 2577 metres reverse circulation drilling.

**Vale, 2011-2013:** sampling geophysics and 8348.5 metres of diamond drilling.

**Anglo American, 2019:** surface sampling and mapping.

**Mogotes Metals, 2022-23:** as detailed in various sections of this report Mogotes Metals resumed work in 2022 with geophysics, infrared spectral analysis of core and surface samples while mapping and sampling are ongoing.

Global Ore Discovery (Global Ore), an international consulting group based in Brisbane, have been directly involved in the design and coordination of the 2022 – 23 exploration program. Global Ore has completed an initial integrated analysis of historic and available new Mogotes 2023 data to interactively focus ongoing exploration at the project and has providing recommendations for further exploration for the 2023 season (Nano S.C. and Parchegani A., 2023).

The resulting target areas are summarized below in **Section 25.1** while recommendations and geophysical programs are given in Section 26. Full details are provided in Nano, S.C. and Parchegani, A. 2023.

Mogotes Metals has completed a large soil grid over the Filo Sur project area and collected rock chip samples of exposed zones of alteration in outcrop and road cuts. Samples from the 2023 Mogotes soil grid and rock chip sampling program will be presented for geochemical analysis to an ISO certified laboratory at the completion of the field season estimated to be late May 2023.

A deep penetrating IP and MT geophysical survey is in progress at the property. This geophysical program is designed to refine the dimensions and depth of the Vector IP anomalies to assist with potential exploration drill hole design.

Worldview 3 satellite borne multispectral spectral imagery has been acquired for the Property. Ground based SWIR alteration measurements will be systematically made of all soil and rock chip samples collected across the Mogotes soil grid including the Meseta target area. Combined this information will be used to provide alteration mineral mapping and vectoring as a component of the planned drill targeting program.

It is the author's opinion that field observations, check sampling of outcrops, review of data and sampling of core verify the work carried out by the previous and current operators and the results confirm the presence of a multiple mineralized altered centers in a large magmato-hydrothermal system.

The author believes that the Property is a Property of Merit that justifies the continuation of exploration programs designed to test the deposit models outlined in this report.

## 25.1 Initial Target Areas for further exploration

### 25.1.1 Filo Sur Target Summary

Seven targets (Figure 25.1) have been outlined by Global Ore as focus areas for further exploration on the basis of an initial integrated analysis (Figures 25.2 and 25.3) of historical talus soils, historic rock chip, historical drillhole geochemistry and the following new data generated from the Mogotes Metals from the 2022 - 2023 field program was also used in the analysis;

1. systematic relogging completed in January, 2023, of twenty core holes that remain from the historical Vale / Golden Arrow drill testing of the Property. Meldrum, S.J., 2023
2. systematic mapping of the surface geology, alteration and structure of the Property. Via and Brody, 2023
3. preliminary 3D modelling of Vector IP surveys completed between 9<sup>th</sup> of December 2022 and the 30<sup>th</sup> of January, 2023. Scarbrough, J., 2023

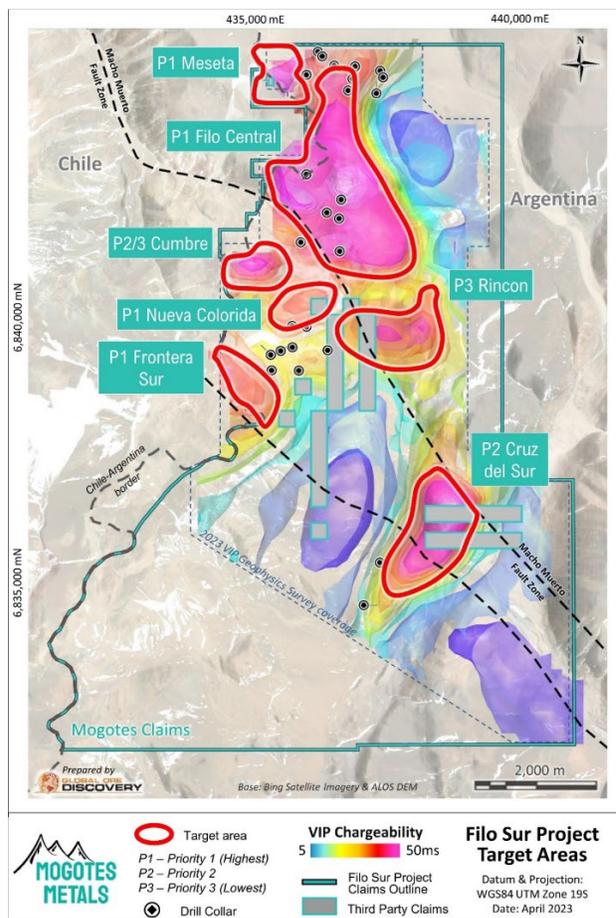


Figure 25.1: Mogotes Claim outline with Vector IP chargeability and initial exploration targets.

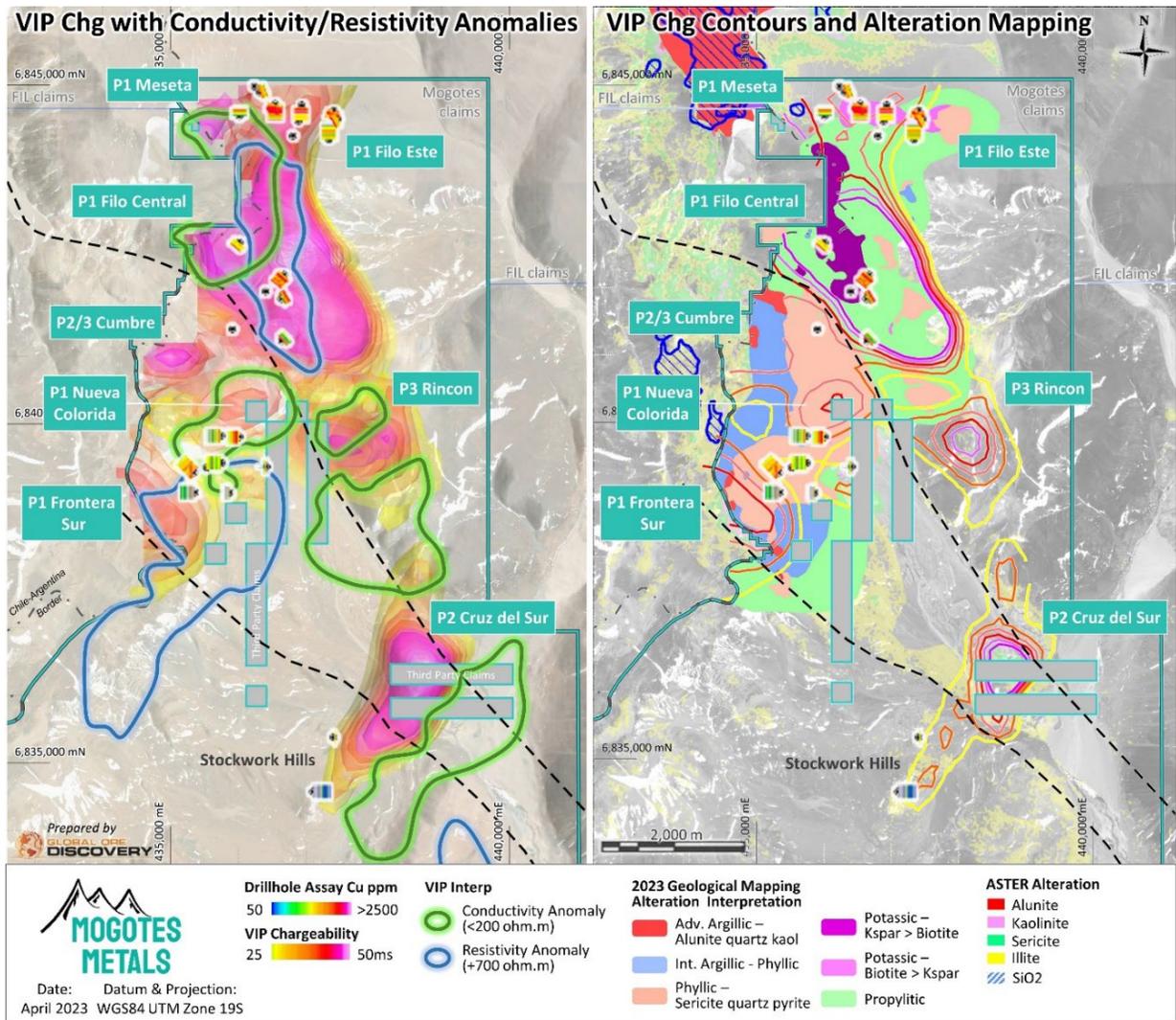


Figure 25.2 a and b: (a) outline of conductivity and resistivity anomalies on Vector IP chargeability anomalies. (b) Contours of Vector IP chargeability on mapped alteration.

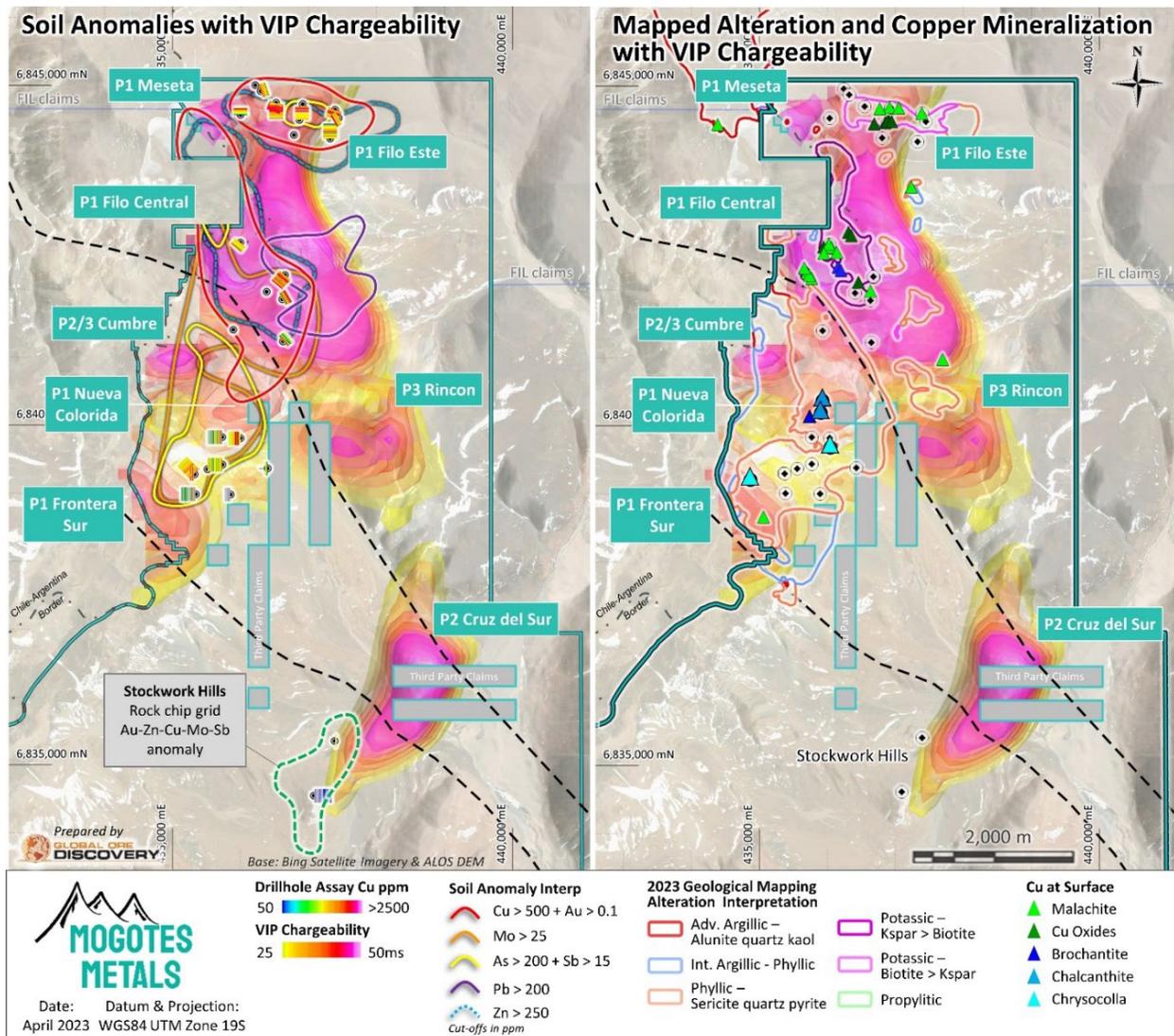


Figure 25.3 a and b: (a) areas of coincident historic talus soil copper, gold, molybdenum, arsenic, lead and zinc on Vector IP chargeability anomalies. (b) distribution of mapped alteration and observed copper minerals on Vector IP chargeability anomalies.

## 25.1.2 Meseta and Filo Central Targets

### Meseta Target – Priority 1

Target concept: High-sulphidation epithermal (HSE) Cu-Au-Ag tabular oxide and deep feeder pipe mineralization as seen at the adjoining Filo Mining, Filo Del Sol project.

Mogotes 2023 geological mapping shows that the advanced argillic steam heated and quartz – alunite alteration evident on the adjoining Filo Del Sol project extends into the northwest corner of the Filo Sur project as a planar plateau (Figure 25.4). Vuggy quartz-alunite alteration with breccia textures and areas of jarosite – hematite where noted (Via, S.M. and Brody, C., 2023). This zone of alteration is interpreted to represent the upper level in high

sulfidation epithermal system of the Miocene age as seen in the Filo del Sol of the adjoining Filo Mining project (Via, S.M. and Brody, C., 2023).

Within the Filo Sur project the eastern face of the advanced argillic alteration plateau is largely obscured by recent scree cover, however exposure of advanced argillic alteration in Mogotes road cuts and isolated outcrops of vuggy silica ledges exposed through the scree cover suggest this alteration zone may extend to the east within the project area.

The 2023 Southern Rock vector IP/MT survey partially covers the interpreted footprint of the advanced argillic alteration zone, showing an open partially defined chargeability anomaly (+50 msec) extending to depth under the alteration zone (Figure 25.1).

A deep penetrating IP and MT geophysical survey has been designed test the Meseta target area to refine the dimensions and depth to anomaly outlined by the Vector IP survey.

There has been no previous soil / rock chip sampled or drilling within this target area. Mogotes Metals has completed a soil grid over the Meseta project area and collected rock chip samples of exposed zones of alteration. Samples from the 2023 Mogotes soil grid and rock chip sampling program will be presented for geochemical analysis to an ISO certified laboratory at the completion of the field season estimated to be late May 2023.

Worldview 3 satellite borne multispectral spectral imagery has been acquired for the Property. Ground based SWIR alteration measurements will be systematically made of all soil and rock chip samples collected and combined with the Worldview 3 alteration processing to map alteration pattern and vector potential drill targeting at Meseta.

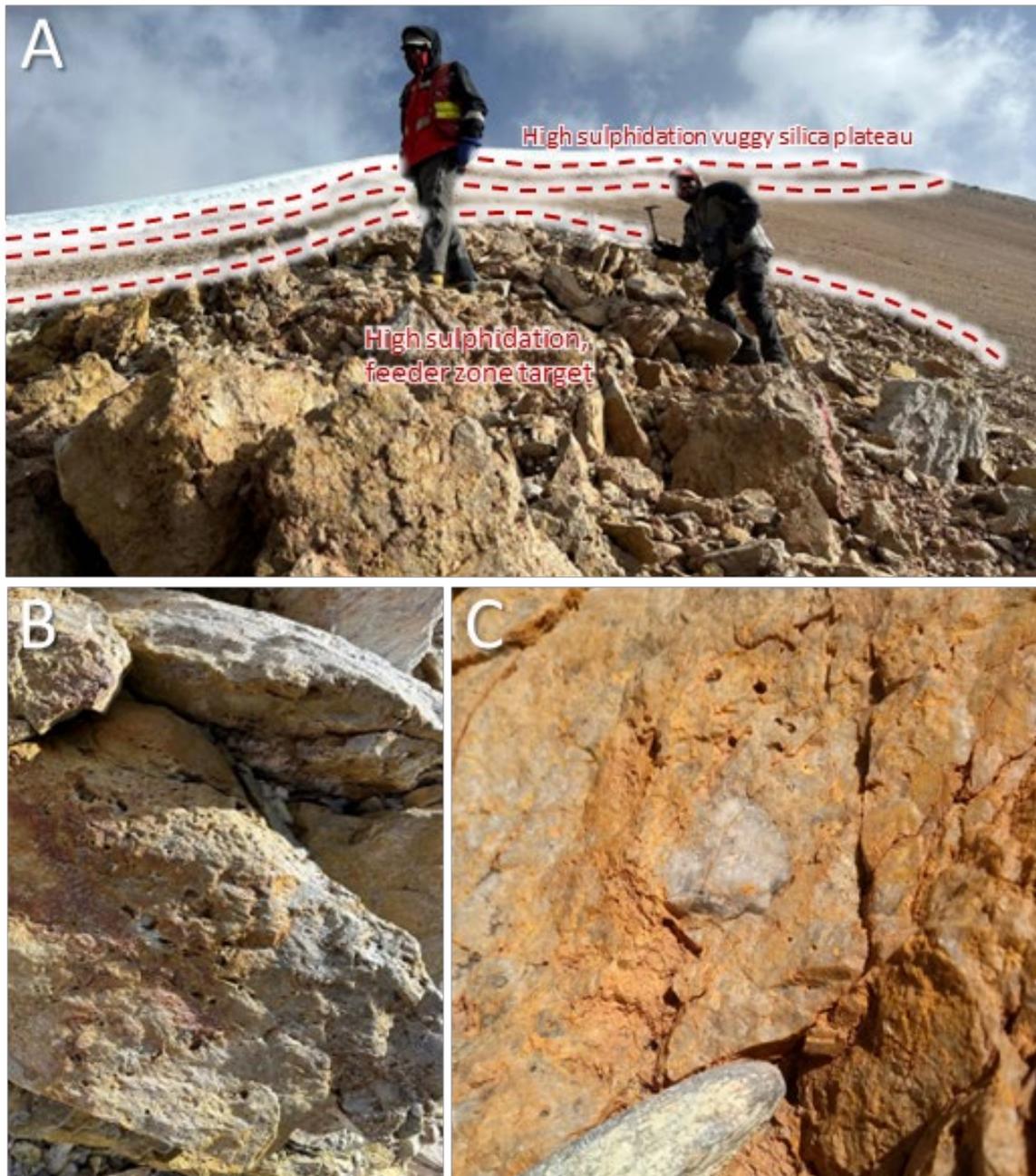


Figure 25.4 a, b and c: (a) Advanced argillic alteration plateau and high sulphidation feeder zone target (b) Vuggy quartz alunite breccia no historic sampling. (c) Meseta: Phreatic Breccia with Silica and Vuggy Silica fragments and pervasive quartz, hematite and jarosite alteration.

### **Filo Central Target – Priority 1**

Target Concept: Concealed Cu-Au-(Mo) porphyry copper mineralization (PCD).

Historic talus soil sampling outlines a large (3.3 x 1.8 km) highly anomalous (+100 to > 2000 ppm Cu and 0.03 to > 0.5 ppm Au) Cu-Au-Zn anomalies that are coincident with a mapped

areas of biotite – K feldspar potassic alteration and secondary copper occurrences at Filo Central and Filo Este (Figure 25.2 and 25.3).

The Vector IP survey has highlighted a large (3.9 x 3.3 km) high order (+40 msec) chargeability anomaly, with long axis aligned to the northwest paralleling the trace of the regional scale Macho Muerto fault zone (Figure 25.2). A “tongue” of the chargeability anomaly extends to the northeast toward and encompassing the historic drilling at the Filo Este prospect (Figure 25.5 and 25.6), suggesting a geophysical link between the two prospects.

The top of the chargeability anomaly at +50 msec lies at approximately 110 to 425 m below surface in the target area at Filo Central prospect. Vector IP also suggests that there may be a conductivity core to the chargeability anomaly. This pattern of a highly chargeable outer zone with a conductive core is a pattern that could be indicative of an outer pyrite shell with inner potentially mineralized core to a porphyry copper deposit.

Analysis of the historic drilling at the Filo Este prospects highlights broad anomalous intervals of copper – gold mineralization related to porphyry style stockwork veins in the wall rock and diorite intrusive including.

Hole MGT-DH-12, 176 m at 0.19% Cu, 0.12 g/t Au from 48 m

Hole MOG-04-1A, 416 m at 0.19% Cu, 0.25 g/t Au from 6 m

The higher-grade copper-gold intersections in historic drill holes MGT-DH-12 and MOG-04-1A correlate to an interpreted younger sericite (phyllic) altered quartz-diorite sill/dyke with porphyry style stockwork. The sill/dyke that is spatially coincident with the outer edge of a Vector IP chargeability “Tongue”.

Historic drill Intersection within the interpreted sill/dyke and immediate wall rock halo include.

Hole MGT-DH-12, 70 m at 0.29% Cu, 0.15 g/t Au from 156 m

Hole MOG-04-1A, 88 m at 0.29% Cu, 0.2 g/t Au from 308 m

These Cu-Au intersections are also spatially associated and often bordered by 1 to 8 m wide zones Zn-Pb-Cu-Ag-Au-Mn mineralization hosted by intermediate to low sulfidation epithermal vein / veinlet zones, typically forming a halo to, but may also overprinting the Cu-Au stockwork (Figure 25.7).

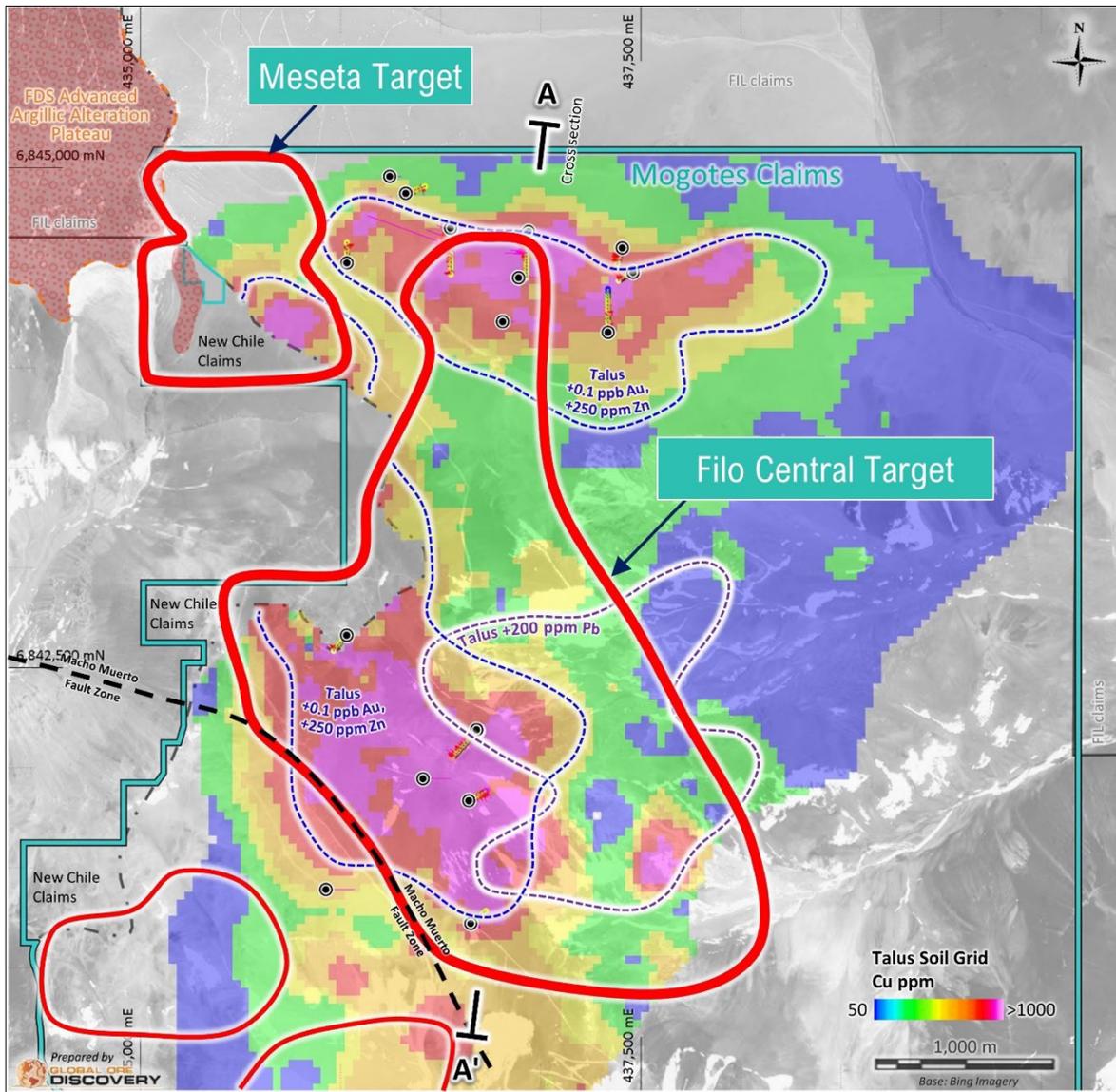
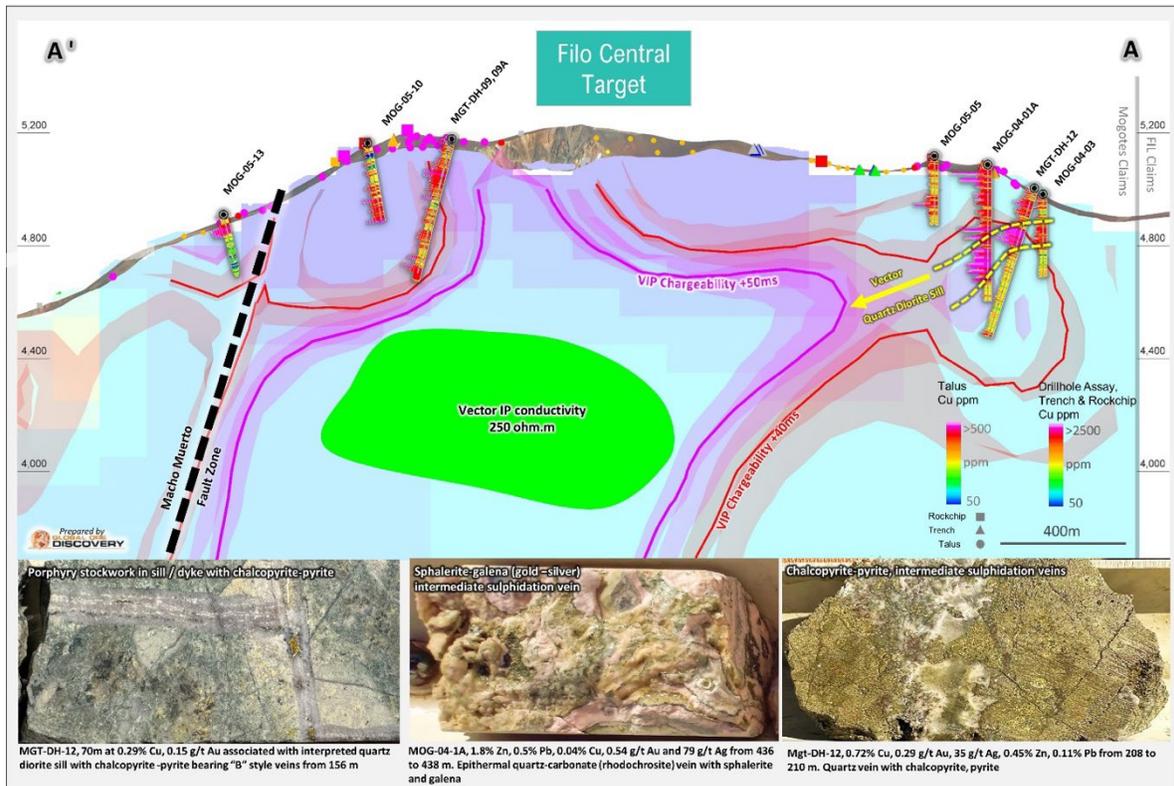


Figure 25.5: Meseta and Filo Central/Filo Este Target Areas including drillholes, Cu (ppm), copper occurrences, alteration, and geophysics.



**Figure 25.6: Cross section Filo Central Vector IP anomaly with historic copper drill intersections with rock chip and soil copper geochemistry.**

There are no radiometric age dates of the two types of mineralization to determine the absolute relative ages, however the spatial association suggests a late stage epithermal “halo” is developed around the stock-worked sill and that this introduces an additional pulse of Cu-Au-Ag and Zn -Pb mineralization.

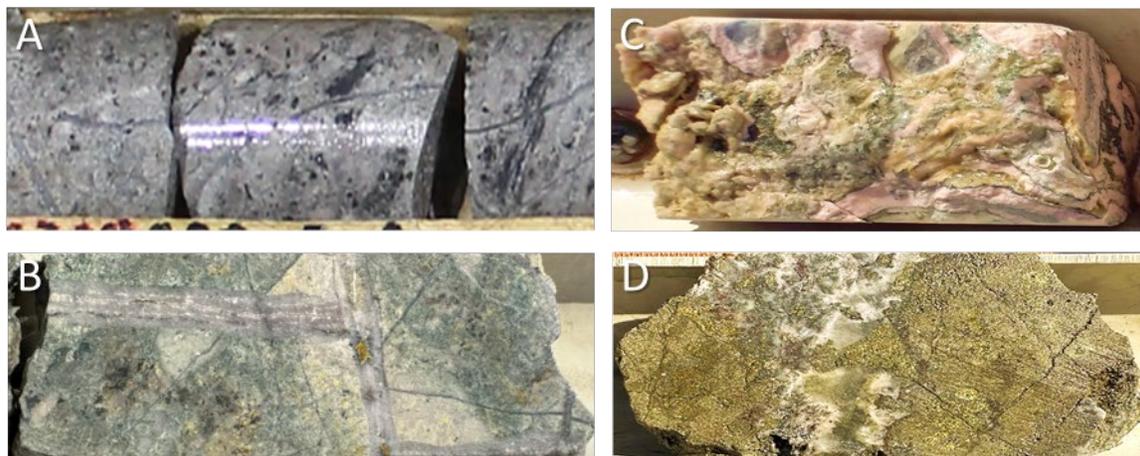
Assay results in the epithermal veining include,

Hole MGT-DH-12, 2 m at 0.72% Cu, 0.45% Zn, 0.11% Pb, 35 g/t Ag, and 0.29 g/t Au from 208 m

Hole MOG-04-1A, 6 m at 0.06% Cu, 1% Zn, 0.25% Pb, 47 g/t Ag, and 0.36 g/t Au from 434 m

The majority of historic drilling at Filo Central is reverse circulation drilling with only diamond core hole MGT-DH-09A surviving to be relogged. This is an inclined hole drilled at -70° toward the SW and was terminated at 547 m down hole to the SW and approximately 105 m above the top of the Vector IP anomaly (at +50 msec). The hole shows quartz-magnetite-chalcopyrite-molybdenite veinlets with sericite alteration halos over printing an earlier pervasive biotite – magnetite alteration.

Within the last 50 m of the hole increasing intensity of strong pervasive sericite – chlorite alteration with elevated Cu-Mo mineralization, relates to increased amounts of disseminated pyrite-chalcopyrite-molybdenite mineralization and low-density quartz-magnetite-pyrite > chalcopyrite veining, that may suggest a grade and alteration vector to depth toward the Vector IP chargeability anomaly.



**Figure 25.7 a, b, c and d: (a) Filo Este: MOG-04-1A, 216 m at 0.15% Cu, 0.31 g/t Au, weak porphyry style stockwork chalcopyrite ( $\text{CuFeS}_2$ )-pyrite mineralization from 6 m. (b) Filo Este: MGT-DH-12, 70 m at 0.29% Cu, 0.15 g/t Au associated with interpreted quartz diorite sill with chalcopyrite -pyrite bearing “B” style veins from 156 m. (c) Filo Este: MOG-04-1A, 2 m at 1.8% Zn, 0.5% Pb, 0.04% Cu, 0.54 g/t Au and 79 g/t Ag, quartz-adularia and rhodochrosite bearing low to intermediate sulfidation epithermal vein with galena (PbS), sphalerite ( $\text{ZnFeS}$ ) mineralization from 436 m. (d) Filo Este: Mgt-DH-12, 2 m at 0.72% Cu, 0.29 g/t Au, 35 g/t Ag, 0.45% Zn, 0.11% Pb, epithermal vein with chalcopyrite-pyrite mineralization from 208 m.**

The widespread indications of significant but to date lower grade Cu-Au, Cu-Mo-Au and Cu-Zn-Pb-Ag-Au mineralization, potential alteration and grade vectors associated with a large scale, undrilled geophysical anomaly, highlight the Filo Central prospect as a priority target area for further exploration.

A deep penetrating IP and MT geophysical survey is in progress at the prospect, designed to refine the dimensions and depth to the Vector IP anomaly to aid exploration drill hole design and potential future drill testing.

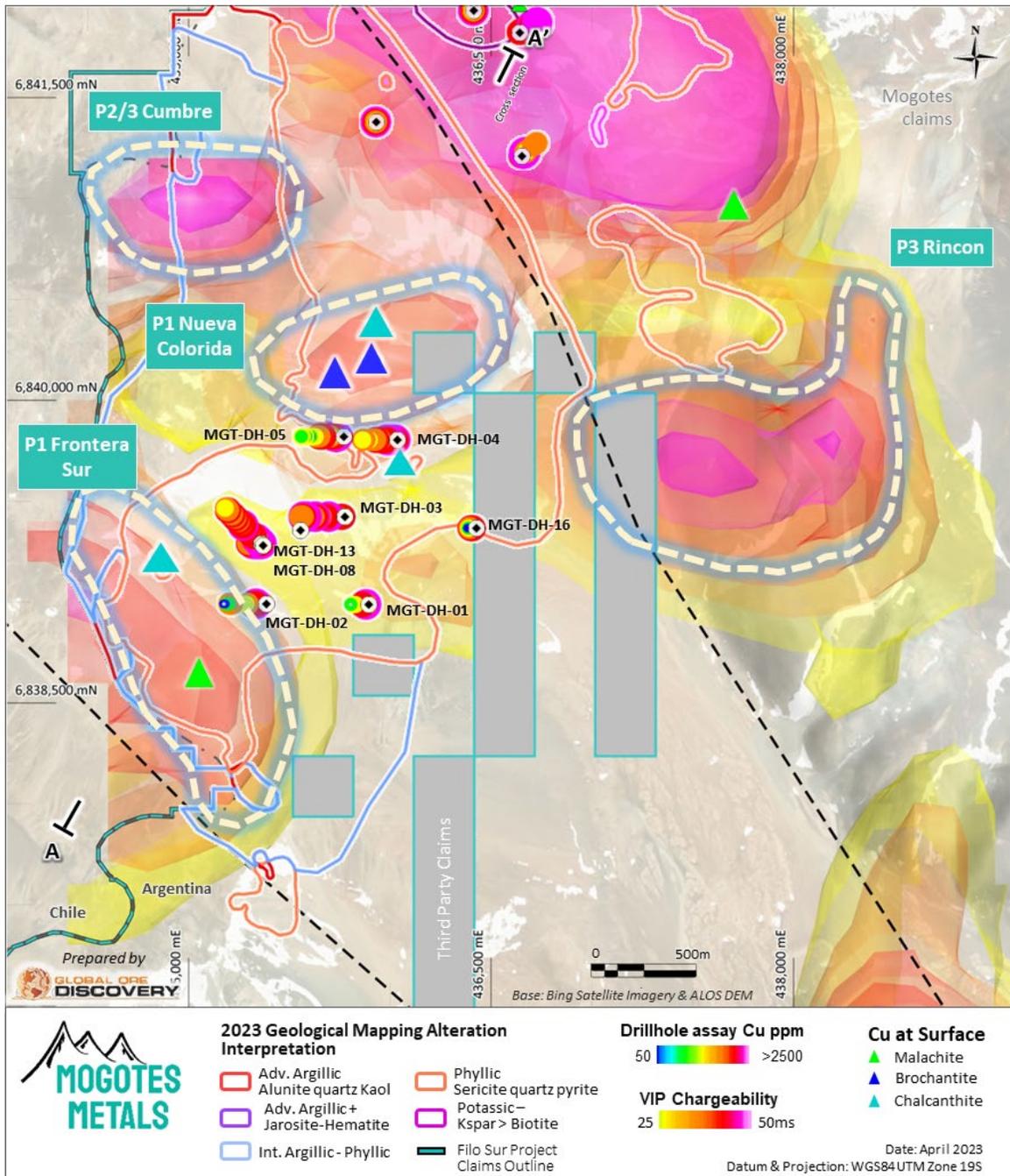
While there is no historic drilling to the depths required to adequately test the Filo geophysical anomaly. The vector IP and new geological interpretation has outlined an intriguing large scale conceptual target. Deep IP / MT lines have been planned over the Filo Central anomaly to better refine the dimensions and depths to target for potential future drill testing.

### **25.1.3 Nueva Colorida, Frontera and Cumbre Targets**

Target Concept: Concealed Cu-Mo-(Au) porphyry copper deposits (PCD).

#### **Colorida Target Cluster**

The Colorida prospect is defined by a large (2.9 x 1.9 km) zone of moderate to intense phyllic, intermediate argillic / argillic alteration. Widespread Fe-oxide anomalies evident in ASTER alteration processing over the prospect correlate to zones of jarosite and secondary Fe-oxides giving the prospect its “Colorida” name. Occurrences of secondary copper minerals have been mapped at the Frontera Sur and Nueva Colorida prospects.



**Figure 25.8. Nueva Colorida, Frontera Sur, Cumbre and Rincon Target Areas including drillholes, Cu (ppm), copper occurrences, alteration and geophysics.**

Vector IP results for the Colorida area suggest that the prospect can be subdivided into three targets that have not been previously drill tested, Nueva Colorida, Frontera Sur and Cumbre that are centered on large Vector IP chargeability +/- conductivity anomalies (Figures 25.1 and 25.2)

A semi-systematic infill MT survey, with data acquisition sites being governed by access, is being conducted over the broader Colorida prospect with the objective of defining

conductivity and resistivity features at depth that could be related to concealed porphyry copper and high sulfidation mineralization.

The broader Colorida prospect has been systematically geologically mapped as part of the Mogotes 2023 program (Via, S.M. and Brody, C., 2023) Mapping shows the Colorida prospect is separated from the Filo Central prospect by the regional scale Macho Muerto fault zone separating potassic, phyllic and propylitic altered, dominantly andesitic and diorite rocks in Filo Central from strong to intensely phyllic > intermediate argillic / argillic altered sequence of dominantly rhyolitic volcanic flows and pyroclastic intruded by younger diorite to quartz diorite stocks. The host rocks for the Colorida prospect have been assigned in the recent mapping to the Permo-Triassic basement sequence.

Limited age dating of the Colorida intrusives has returned 17.1 and 15.3 Ma K/Ar dates (Hiyashi, T., 1999) confirming a mid-Miocene age that overlaps with age of the Tamberas-Filo del Sol mineralization and intrusive age in the adjoining Filo Mining, Filo del Sol project.

Patchy historic talus soil coverage of part of the Colorida prospect highlights well developed soil Mo-As +/- Sb and Cu anomalies (Figure 25.3). Mogotes Metals has completed a systematic soil sampling grid over the complete Colorida prospect. Analytical results from the soil program were pending at the time of this writeup, however the presence of surficial copper mineralization noted during the mapping program, suggest that areas copper soil anomalies will be identified once geochemical results are to hand.

### **Nueva Colorida – Priority 1**

Nueva Colorida prospect is defined by a 0.8 x 1.3 km moderate intensity (40 to 30 ms) Vector IP chargeability anomaly and coincident conductive anomaly (Figure 25.8). Zones of chalcantite ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ) copper “bloom” have been exposed over tens of meters in new Mogotes Metals road cuts directly overlying the geophysical anomaly (Figure 25.9 and 25.10).

Two historic diamond core holes were drilled on the southern edge of the Nueva Colorida prospect (Figure 25.11). Holes MGT-DH-04 and 05 both intersected intervals of anomalous Cu-Mo mineralization. Of significant note is that recent relogging has identified zones of hydrothermal breccia with intense white mica +/- pyrophyllite alteration indicative of high level phyllic alteration. The breccia matrix hosts fine to coarse bladed hypogene covellite ( $\text{Cu}_2\text{S}$ ) – pyrite – native sulphur +/- molybdenite assemblage indicative of high sulfidation copper bearing mineralization (Figure 25.12). This type of alteration and mineralization is caused by upwelling hydrothermal fluids above a cooling magmatically driven hydrothermal system (Sillitoe, 2010, and Hedenquist and Arribas, 2022) and could indicate the presence of a concealed porphyry system at relatively shallow depths below the current drilling at Nueva Colorida.

The better intersection of mineralization in the breccia is:

Hole MGT-DH-04, 122 m at 0.15 % Cu and 13 ppm Mo from 84 m.

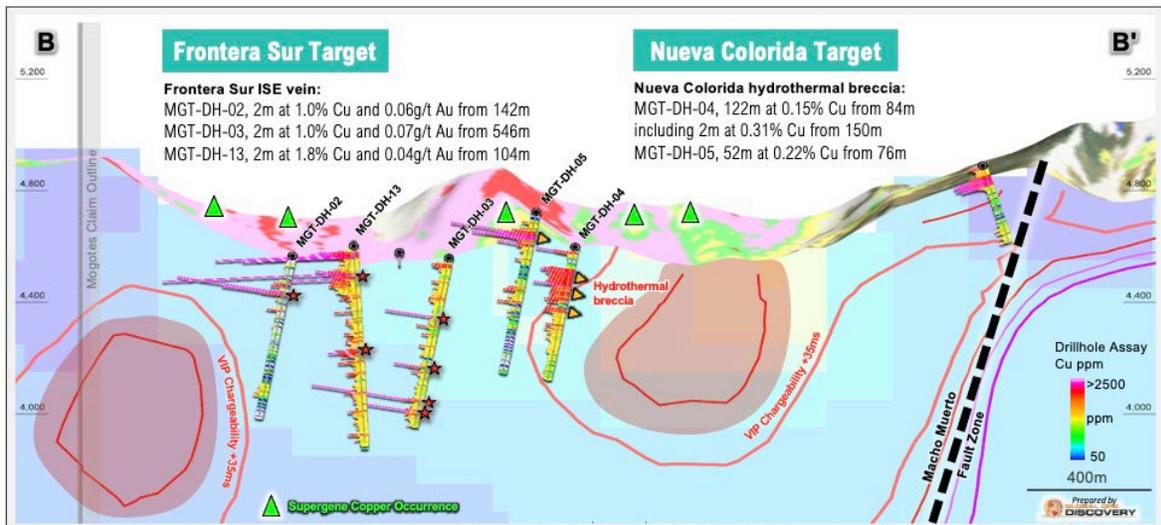


**Figure 25.9: Colorida Target Cluster, panoramic view of Frontera Sur and Nueva Colorida, with projected to surface outlines of the Vector IP chargeability anomalies, secondary copper exposed in road cuts and historic drill hole locations.**

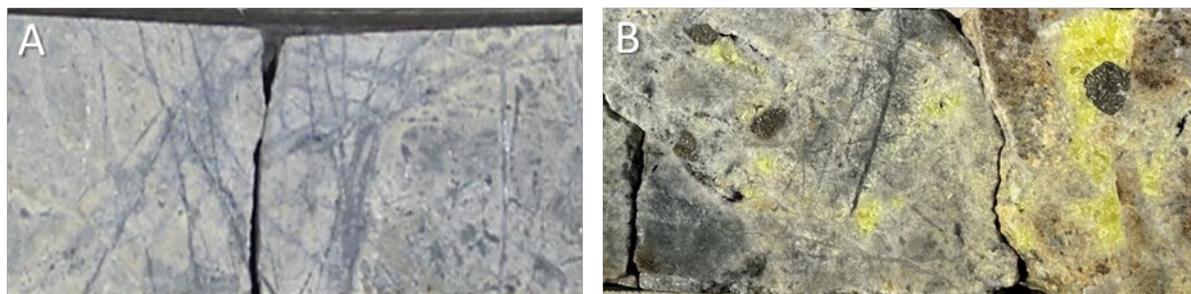


**Figure 25.10: Nueva Colorida – Feldspar Diorite Porphyry with strong phyllic alteration (Quartz-Sericite-Pyrite), quartz fracture stockwork veining. Abundant supergene copper mineral chalcantinite ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ) on fractures**

The presence of anomalous Cu-Mo mineralization with high sulfidation affinities and white mica – pyrophyllite alteration on the margin and overlying the geophysical target highlights Nueva Colorida as compelling porphyry Cu-Mo-Au drill target.



**Figure 25.11: Cross section Nueva Colorida and Frontera Sur, Vector IP anomaly with historic copper drill intersections with rock chip and soil copper geochemistry.**



**Figure 25.12 a and b: (a) Nueva Colorida: MGT-DH-03 from 20 to 640 m, weak widespread porphyry style stockwork with chalcopyrite (CuFeS<sub>2</sub>)-pyrite mineralization averaging +400 ppm Cu. (b) Nueva Colorida: MGT-DH-04 from 84 to 206 m, poly lithic hydrothermal breccia over printing stockwork veining (122 m @ 0.15% Cu including 0.31% Cu from 150 to 152 m) with covellite (CuS) - pyrite ± native sulphur indicative of high sulfidation mineralization.**

### **Frontera Sur – Priority 1**

Frontera Sur prospect is defined by 1.9 x 0.9 km long, 35 to +45 ms Vector IP chargeability anomaly that has not been closed off to the southwest.

The Vector IP anomaly is partially coincident with an open to the south 30-35 mV/V chargeability anomaly within the historic Vale/Quantec PDP survey (Figures 25.8 and 9.25).

Surface mapping has observed a strong pervasive phyllic alteration of quartz diorites and dykes roughly coincident with the anomaly. No historic soils have been collected over this target area.

Three historic holes MTG-DH-03, MGT-DH-08 and MTG-DH-13 are drilled 630, 390, and 350 m respectively from the edge of the Vector IP chargeability anomaly. All holes intersected porphyry style stockwork veining and with low grade Cu mineralization.

Better intersections are:

Hole MGT-DH-13 28 m at 0.35 % Cu and 0.04 g/t Au from 22 m from an interpreted supergene enrichment zone, and,

Hole MGT-DH-13 36 m at 0.21 % Cu and 0.02 g/t Au from 104 m associated with porphyry style stockwork veining.

Drillhole MTG-DH-03 and MTG-DH-13 both intersected occasional decimeter scale Cu-As-Ag-Sb bearing veins at 226 m (Figure 25.12), 545 m (hole 3) and 104 m (hole 13) respectively. Logged sulphide minerals in these veins include pyrite with probable tennantite – tetrahedrite and SWIR alteration mineral species indicates an association with moderate to high temperature advanced argillic – advanced argillic alteration assemblage (pyrophyllite – dickite- sericite). Copper grades in these veins typically range between 0.48%-1.78% Cu with other elements of interest included 9.5-33.8 g/t Ag.

Frontera Sur is a compelling target for porphyry style mineralization. No previous surface geochemical sampling or drilling has been completed on the target.



**Figure 25.13: Frontera Sur: MGT-DH-03 from 226 to 228 m (0.48% Cu), 418 to 420 m (0.3%), 546 to 548 m (1% Cu), and 586 to 588 m (0.6% Cu) higher grade Cu, As and Sb veins pyrite with probable tennantite ( $\text{Cu}_6(\text{Cu}_4(\text{Fe},\text{Zn})_2)\text{As}_4\text{S}_{13}$ ) – tetrahedrite ( $\text{Cu}_6(\text{Cu}_4\text{Fe}_2)\text{Sb}_4\text{S}_{13}$ ) copper bearing minerals.**

### **Cumbre - Priority 2/3**

Cumbre targets is defined by Vector IP chargeability anomaly that is open to the west. Vector IP chargeability anomaly at 50 ms has projected to surface dimensions of approximately 400 m x 200 m in an east-west orientation (Figure 25.8).

The Vector IP anomaly is semi-coincident with historic chargeability – resistivity anomalies in Vale/Quantec IP.

There has been no previous surface geochemical sampling or drilling at the Cumbre Target.

### **25.1.4 Rincon Target - Priority 3**

Ricon is a concealed geophysical target consisting of a 1.7 by 0.9 km roughly semicircular south directed Vector IP chargeability anomaly with a halo of conductivity. The Target lies on the northern side of the Macho Muerto fault at the intersection with a pronounced northeast trending structure (Figures 25.1 and 25.8).

A zone of phyllic alteration has been mapped adjacent to the target and partially overlapping with the Vector IP conductivity anomaly.

There has been no previous surface geochemical sampling or drilling at the Rincon Target.

#### **25.1.5 Cruz del Sur Target - Priority 2**

Cruz del Sur target is defined as a 1.5 km long, high order 30-46 msec Vector IP chargeability anomaly that is localized at the intersection of the regional scale Macho Muerto fault zone and a large northeast trending structure. The target is completely concealed by recent colluvium (Figure 25.14).

The historic Stockwork Hills prospect is located on the southwest flank of the Cruz del Sur anomaly where a historic rock chip grid sampling has outlined geochemically anomalous Zn-Mo-Sb-Cu-Au assays that suggest an apparent vector toward the chargeability anomaly.

Mineralization at stockwork hills is associated with an approximately 150 m long zone of sub cropping sheeted and stockwork veinlets in sericite altered fine grain intermediate volcanic.

Two historic shallow core holes drilled at the prospect did not test the outcropping stockwork zone and were drill peripheral to Cruz del Sur geophysics target.

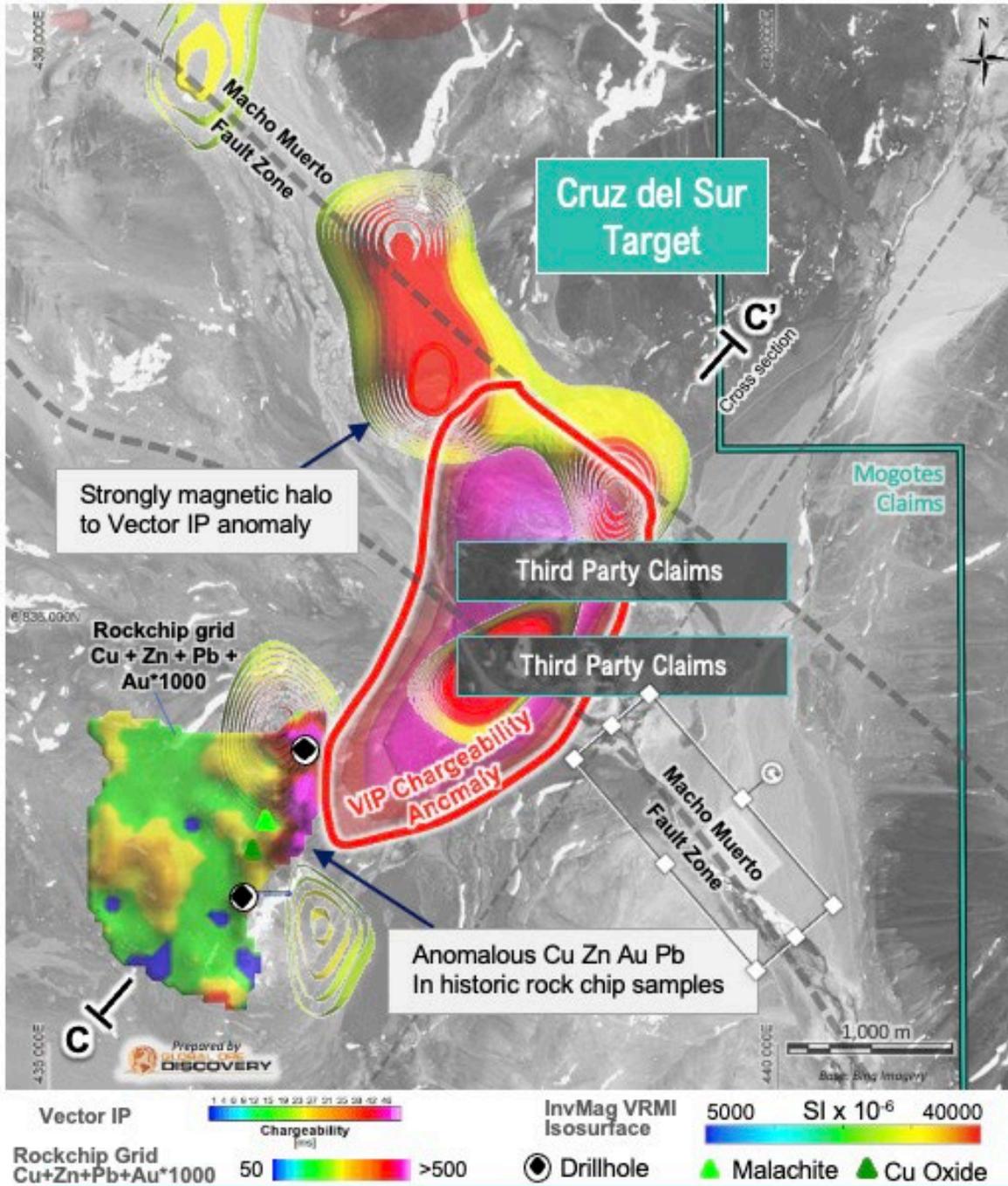


Figure 25.14: Cruz del Sur Target with Vector IP and Magnetic anomalies and grid of historic rock chip geochemistry and drillholes

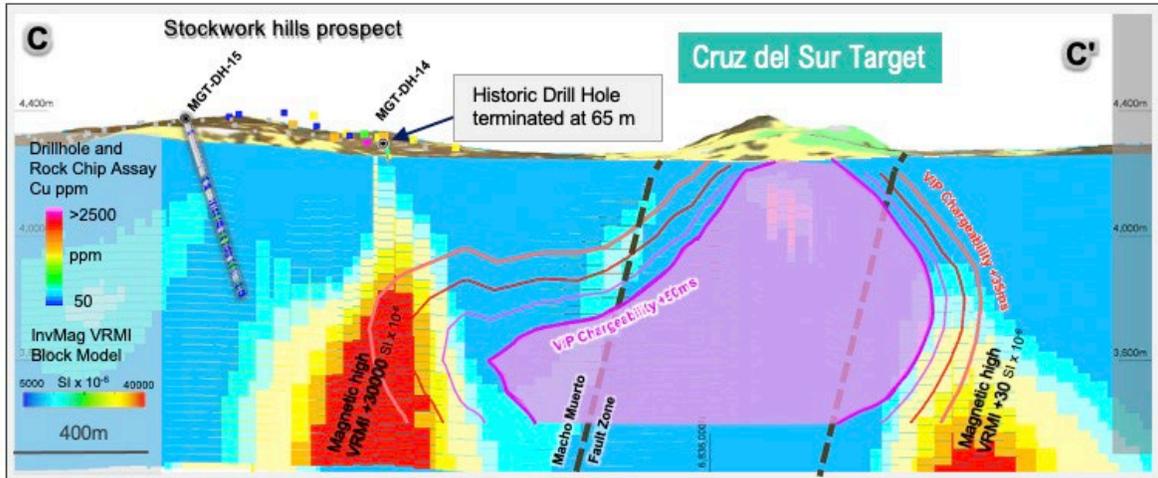


Figure 25.15: Cruz del Sur Target Area Cross section including drillholes, Cu (ppm), copper occurrences, and geophysics.

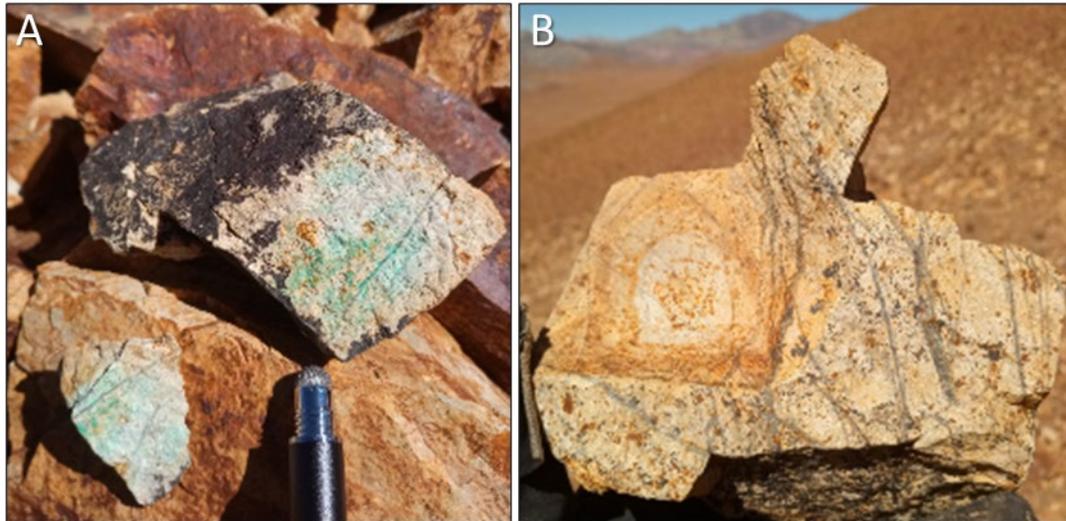


Figure 25.16 a and b: (a and b) Stockwork Hill: fine grained diorite porphyry with sheeted veins with locally secondary copper oxides and malachite ( $\text{Cu}_2\text{CO}_3(\text{OH})_2$ ) on fractures surfaces

## **SECTION 26. RECOMMENDATIONS**

The following follow-up technical recommendations were made by Global Ore

- Follow-up Deep IP / MT survey lines over the key targets to better refine depth and dimensions of the anomalies for re-ranking for targets and drill planning.
- Modify the soil survey and rock sample distribution and density to optimally test the new targets areas defined.
- Core review and field evaluation of the target areas to confirm observations/ target concepts.
- Acquisition of specified other claims to secure control of all targets and target extensions for Mogotes Metals Inc.

### **26.1 DEEP IP/MT FOLLOW UP GEOPHYSICS**

The initial Southern Rock geophysical program outlined 7 high-to-moderate intensity chargeability anomalies that range from approximately 1 km up to 3 km in size. In some cases, chargeability anomalies are associated with co-incident zones of conductivity anomalies.

Two large areas of moderate intensity resistivity were also outlined that are semi-coincident with the chargeability anomalies in the Filo Central and Colorida prospects. (Figure 26.1)

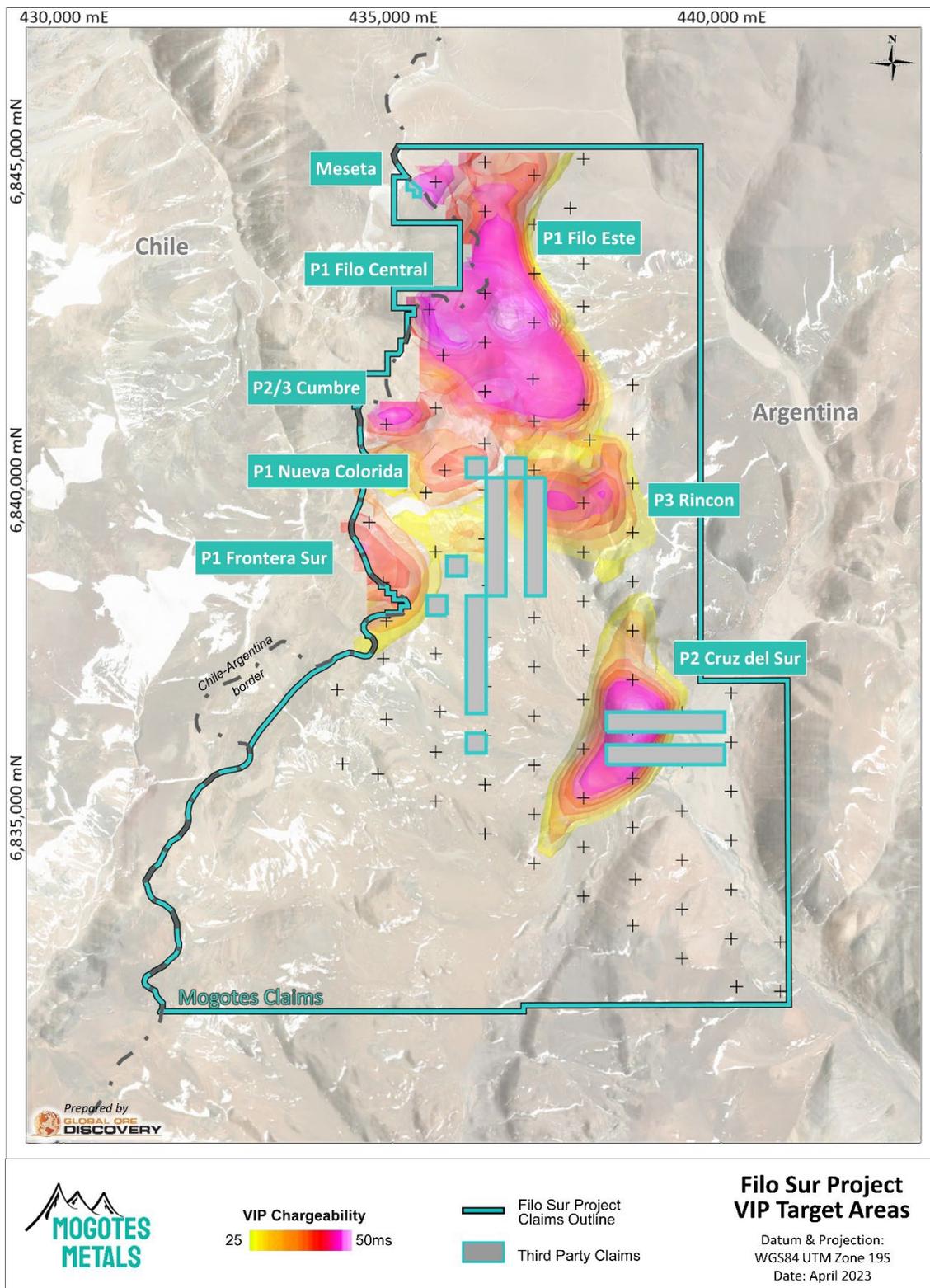


Figure 26.1: Southern Rock Geophysics chargeability anomalies.

It is recommended that Southern Rock Geophysics is engaged to complete a deep IP – MT survey at Filo del Sur to better resolve the depth and geometry of these geophysical anomalies prior to decision to drill test. (Figure 26.2).

To optimise the production rate the survey lines have been designed to follow the existing road network that has been established by Mogotes Metals.

The proposed program totals approximately 22 line km. It is also recommended that Southern Rock Geophysics collect further MT data to infill the coverage at the Colorida prospect.

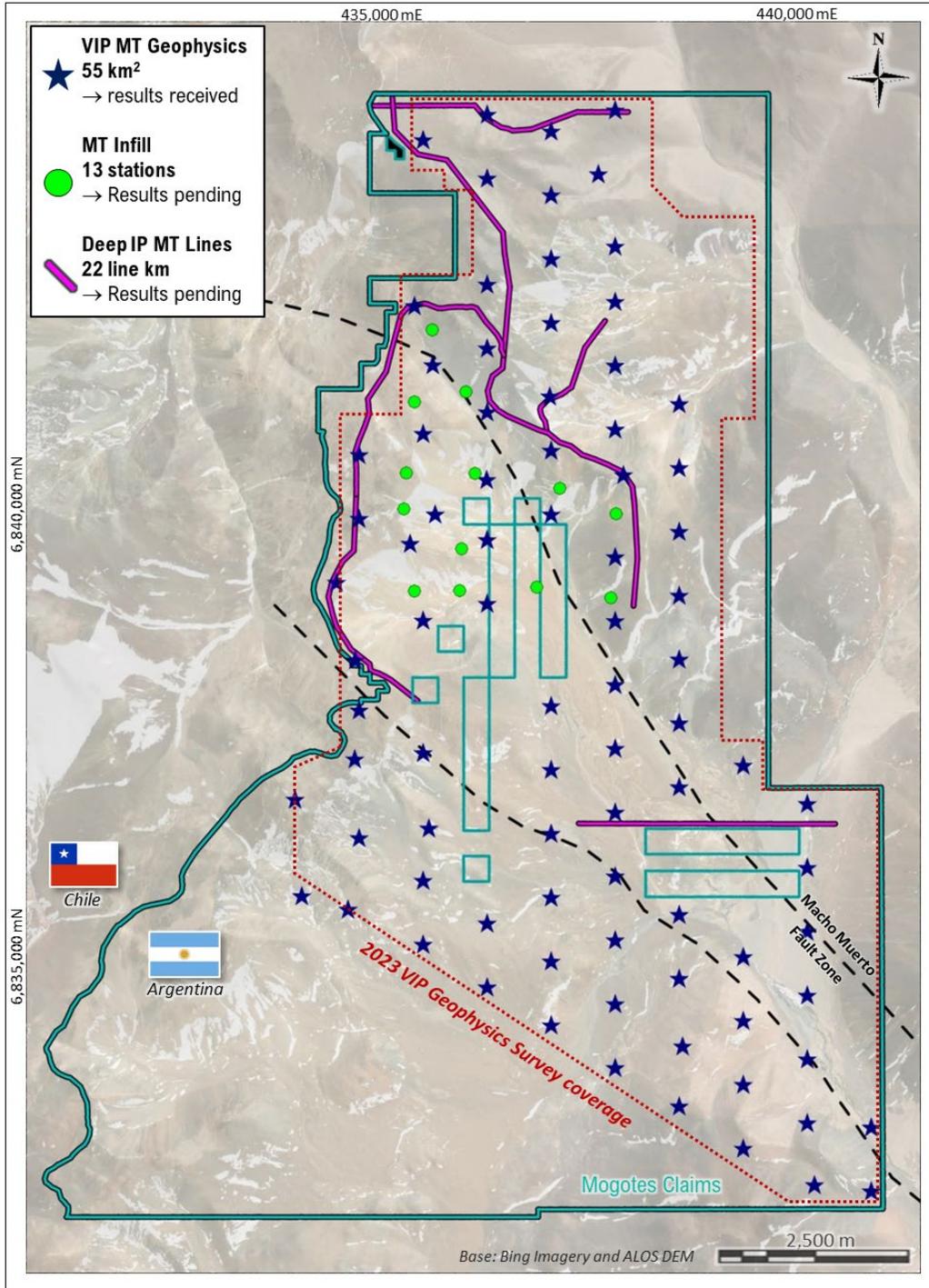
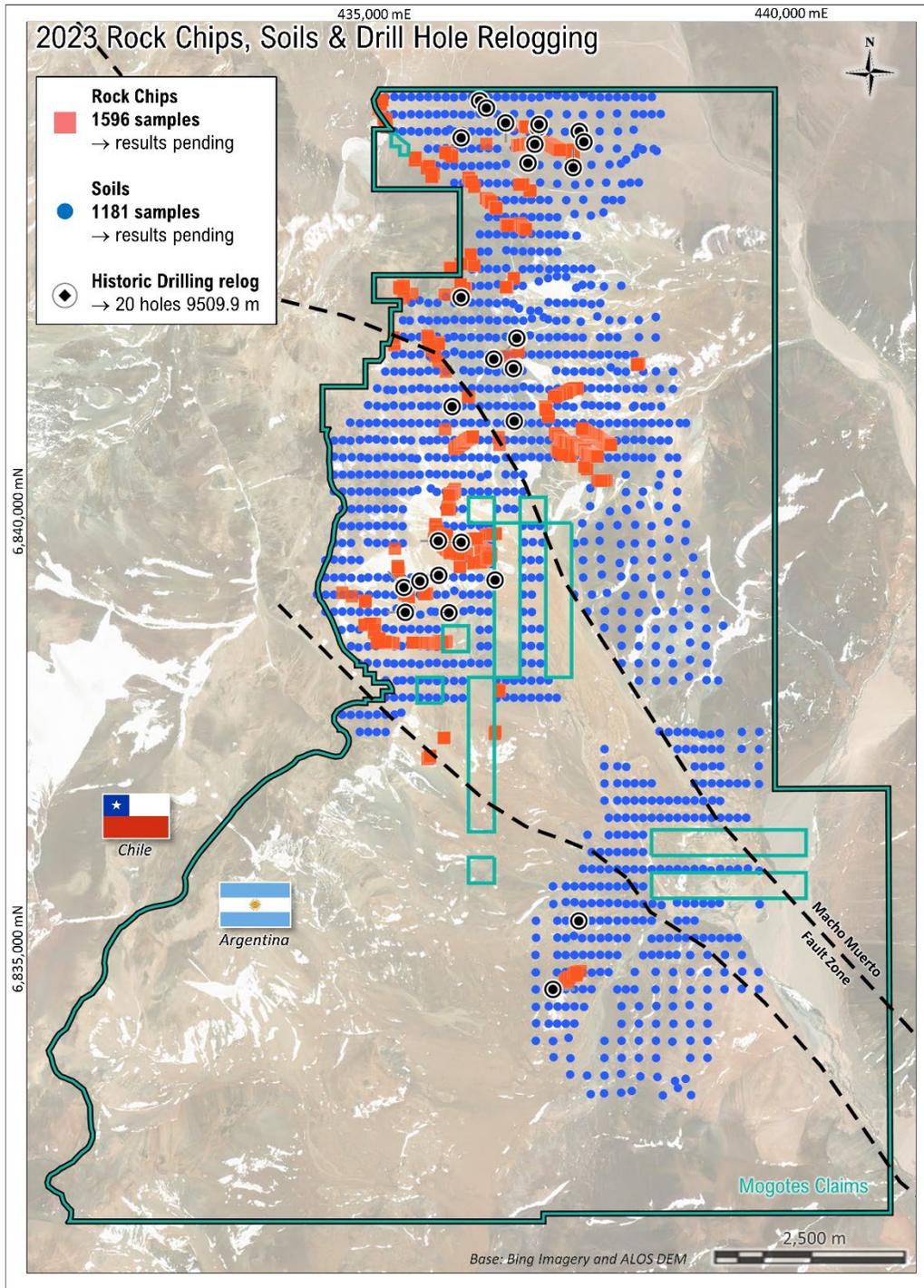


Figure 26.2: Lines for proposed Deep IP/MT survey.



**Figure 26.3: 2023 Proposed surface sampling program**

## 26.2 OTHER RECOMMENDATIONS

Consideration of all the following factors:

- only about half of the 8064 Has of the concessions comprising the Property have been systematically explored
- there are large areas of untested alteration and mineralization (that are currently being mapped and sampled)
- the encouraging preliminary results of the geophysics
- the relogging and SWIR analysis
- the recent discoveries at Filo del Sol

opens the possibility that a large porphyry Cu-Au system may exist at depth on the Property.

The author feels entirely justified in recommending the following summarized work program.

## **26.4 PHASES OF WORK**

### **Stage 1**

1<sup>st</sup> April 2023 to 31<sup>st</sup> May 2024

- IP Geophysics (TITAN) follow up
- Surface soil and rock sampling
- Diamond Drilling 5000 m

### **Stage 2 (Not contingent on positive results from Stage 1 but targets may change)**

1<sup>st</sup> June 2024 to 31<sup>st</sup> May 2025

- Infill surface soil and rock sampling
- Diamond Drilling 5000 m

	<b>Stage 1</b>	<b>Stage 2</b>
	<b>1st April 2023 to 31st May 2024</b>	<b>1st June 2024 to 31st May 2025</b>
<b>Exploration spend</b>	<b>9,458,373</b>	<b>7,785,723</b>
Management Geologist	133,575	114,493
Consulting Geologists	452,100	387,514
Geologists	146,727	125,766
Assistants	235,500	201,857
Camp personnel	180,596	154,797
Logistics staff	22,194	19,023
Staff Safety and Hygiene	36,168	31,001
Camp construction and rental	232,457	199,249
Maintenance materials	21,920	18,789
Communication	16,646	14,268
Infrastructure investment	75,030	
Catering and food for camp	168,340	144,291
Generator costs	60,554	51,903
Fuel for camp	489,613	419,668
Emergency Service	193,770	166,089
Office and warehouse rental	70,251	60,215
Licences and software office supplies	37,538	32,175
Drilling 5000m	4,118,220	3,529,903
Geochemistry	341,587	292,789
Geophysics (TITAN lines)	300,000	
Truck rental	196,047	168,040
Platform Access	500,000	428,571
Fuel for drilling	1,429,540	1,225,320
	-	
<b>G&amp;A</b>	<b>1,322,302</b>	<b>1,133,402</b>
Environment consultants Argentina	46,580	39,926
Mining claims management Argentina	31,784	27,243
Bank fees and expenses Argentina	499,885	428,473
Legal Argentina	4,453	3,817
Legal Canada	480,000	411,429
Audit	20,000	17,143
CFO/ accounting	55,900	47,914
Management	183,700	157,457
	-	
<b>TOTAL</b>	<b>\$ 10,780,675</b>	<b>\$ 8,919,124</b>

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## APPENDIX 1. CHECK ASSAY RESULTS

The following table shows the results for the check assay undertaken as part of **SECTION 12. DATA VERIFICATION.**

	Weight	Au	Ag	Cu	Mo	As	Al	Ba	Bi
Sample No.	g	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
9904	2520	0.08	<0.5	2647	33	<5	7.61	769	<5
9906	3380	0.04	<0.5	384	53	15	7.97	606	<5
9907	2520	0.12	0.7	1704	12	<5	8.19	594	<5
9908	1920	0.41	<0.5	1581	12	<5	7.46	800	<5
9909	2760	0.33	<0.5	1320	11	7	7.27	706	<5
9910	4480	0.4	0.7	2440	13	<5	7.4	454	<5
9911	1680	0.17	3.5	1791	9	105	7.41	79	<5
9912	3620	0.07	<0.5	1272	59	<5	6	1056	<5
9913	3120	0.11	1.1	2286	7	14	7.07	775	<5
9914	2480	0.11	<0.5	1226	12	32	4.9	276	<5
9915	4760	0.12	1.8	1864	7	11	5.46	464	<5

	Ca	Cd	Co	Cr	Fe	Ga	Hg	K	La
Sample No.	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm
9904	1.32	2	14	8	2.65	20	<2	2.69	33
9906	2.08	<1	4	31	3.43	23	<2	2.62	20
9907	1.04	4	21	54	4.89	17	<2	2.53	24
9908	1.27	<1	6	36	2.59	20	<2	2.09	22
9909	1.23	<1	8	14	3.64	15	<2	2.52	22
9910	2.03	<1	14	34	4.28	15	<2	1.91	19

9911	1.67	6	17	34	7.52	16	<2	2.1	21
9912	2.62	4	10	27	3.74	10	<2	2.93	25
9913	1.37	<1	17	28	4.01	16	<2	3.68	19
9914	0.13	<1	7	53	2.53	10	<2	2.21	16
9915	0.13	<1	3	7	1.79	12	<2	2.87	6

	<b>Li</b>	<b>Mg</b>	<b>Mn</b>	<b>Na</b>	<b>Nb</b>	<b>Ni</b>	<b>P</b>	<b>Pb</b>	<b>S</b>
<b>Sample No.</b>	<b>ppm</b>	<b>%</b>	<b>ppm</b>	<b>%</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>	<b>%</b>
9904	67	0.58	1413	3.33	<1	5	644	60	0.66
9906	46	0.73	432	3.83	<1	6	830	29	1.71
9907	117	2.67	2339	2.72	8	35	1354	85	0.07
9908	18	0.59	512	3.53	3	7	846	32	0.58
9909	33	0.9	422	2.99	6	6	693	36	0.43
9910	38	1.55	1467	2.63	6	12	624	48	0.12
9911	54	2.11	3178	0.08	7	25	1332	306	3.9
9912	62	0.29	1204	1.47	2	12	514	101	2.3
9913	64	2.18	1161	1.68	6	15	735	41	0.47
9914	30	0.75	1106	0.18	6	9	117	86	0.77
9915	26	0.24	492	0.91	7	4	95	44	0.2

	<b>Sb</b>	<b>Sc</b>	<b>Se</b>	<b>Sn</b>	<b>Sr</b>	<b>Ta</b>	<b>Te</b>	<b>Ti</b>	<b>Tl</b>
<b>Sample No.</b>	<b>ppm</b>	<b>%</b>	<b>ppm</b>						
9904	<5	<5	<10	<20	525	<10	<10	0.21	<5
9906	<5	<5	<10	<20	622	<10	<10	0.2	<5
9907	<5	14	<10	<20	273	<10	<10	0.49	<5
9908	<5	<5	<10	<20	664	<10	<10	0.2	<5
9909	<5	8	<10	<20	335	<10	<10	0.33	<5
9910	<5	12	<10	<20	377	<10	<10	0.34	<5
9911	<5	13	<10	<20	114	<10	<10	0.43	<5
9912	<5	5	<10	<20	306	<10	<10	0.14	<5
9913	<5	11	<10	<20	198	<10	<10	0.41	<5
9914	<5	<5	<10	<20	32	<10	<10	0.06	<5
9915	<5	<5	<10	<20	34	<10	<10	0.03	<5

	<b>V</b>	<b>W</b>	<b>Y</b>	<b>Zn</b>	<b>Zr</b>
<b>Sample No.</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>
9904	58	<20	5	439	15
9906	71	<20	5	162	15
9907	215	<20	19	875	69
9908	59	<20	5	244	13
9909	102	<20	13	303	23
9910	104	<20	14	689	27
9911	118	<20	15	2075	40
9912	66	<20	19	772	30
9913	121	<20	13	295	76
9914	14	<20	6	261	41
9915	9	<20	4	179	21

## APPENDIX 2. SAMPLE PREPARATION AND ANALYSIS

### ALS

ALS in Mendoza were used for the three main exploration campaigns carried out on the Filo Sur property: IMA, Vale and AngloAmerican.

Codes have changed over the 20 plus years, but the following preparation and analytical methods are taken from ALS current catalogue and are essentially the same, with minor variation (meshes, split, detection limits).

Details of which techniques were used by each company are given in **SECTION 11**.

### Preparation

Rock, chip and core samples: **PREP-31** Crush to 70% less than 2mm, riffle split 250g and pulverize to better than 85% passing 75 microns.

Sediment and Talus Samples: **PREP-41** dry at <60°C, sieve sample to -180 microns.

### Analysis

**Au:** 30 or 50g Fire Assay with AA or ICP finish.

CODE	ANALYTE	RANGE (ppm)	DESCRIPTION
<b>Trace Level</b>			
Au-ICP21	Au	0.001-10	Au by fire assay and ICP-AES.
Au-ICP22			30g sample 50g sample
Au-AA23		0.005-10	Au by fire assay and AAS.
Au-AA24			30g sample 50g sample
<b>Ore Grade</b>			
Au-AA25	Au	0.01-100	Au by fire assay and AAS.
Au-AA26			30g sample 50g sample
Au-GRA21		0.05-10,000	Au by fire assay and gravimetric finish.
Au-GRA22			30g sample 50g sample

**Gold by Fire Assay**

An optimal fire assay flux recipe and rigorous quality control program easily handle problem materials including chromite, base metal sulphides and oxides, selenides, and tellurides.

Choice of crushing fineness, splitting technique and pulp size can all affect the analytical outcome of fire assay gold methods. Discuss with your local ALS laboratory for more information.

## Multi-Element: Aqua Regia or Four Acid Digest and ICP-AES Finish

Aqua Regia With ICP-AES Finish		CODE	ANALYTES & RANGES (ppm)						
<p>These methods are economical tools for first pass exploration geochemistry. Data reported from an aqua regia digestion should be considered as representing only the leachable portion of the particular analyte.</p>	ME-ICP41	Ag	0.2-100	Co	1-10,000	Mg	0.01%-25%	Sc	1-10,000
	0.5g sample	Al	0.01%-25%	Cr	1-10,000	Mn	5-50,000	Sr	1-10,000
		As	2-10,000	Cu	1-10,000	Mo	1-10,000	Th	20-10,000
	*ME-ICP41m 1g sample	B	10-10,000	Fe	0.01%-50%	Na	0.01%-10%	Ti	0.01%-10%
		Ba	10-10,000	Ga	10-10,000	Ni	1-10,000	Tl	10-10,000
		Be	0.5-1,000	Hg	1-10,000	P	10-10,000	U	10-10,000
		Bi	2-10,000	K	0.01%-10%	Pb	2-10,000	V	1-10,000
	Ca	0.01%-25%	Li	10-10,000	S	0.01%-10%	W	10-10,000	
	Cd	0.5-1,000	La	10-10,000	Sb	2-10,000	Zn	2-10,000	
	*To include Hg to a lower detection limit of 0.005ppm by a separate method, please request pac								

Four Acid Digestion With ICP-AES Finish		CODE	ANALYTES & RANGES (ppm)						
<p>Four acid digestions are able to dissolve most minerals, but although the term "near-total" is used, not all elements are quantitatively extracted in some sample matrices.</p>	ME-ICP61	Ag	0.5-100	Cr	1-10,000	Mo	1-10,000	Th	20-10,000
	0.25g sample	Al	0.01%-50%	Cu	1-10,000	Na	0.01%-10%	Ti	0.01%-10%
		As	5-10,000	Fe	0.01%-50%	Ni	1-10,000	Tl	10-10,000
	*ME-ICP61m 0.75g sample	Ba	10-10,000	Ga	10-10,000	P	10-10,000	U	10-10,000
		Be	0.5-1,000	K	0.01%-10%	Pb	2-10,000	V	1-10,000
		Bi	2-10,000	Li	10-10,000	S	0.01%-10%	W	10-10,000
		Ca	0.01%-50%	La	10-10,000	Sb	5-10,000	Zn	2-10,000
	Cd	0.5-1,000	Mg	0.01%-50%	Sc	1-10,000			
	Co	1-10,000	Mn	5-100,000	Sr	1-10,000			
	*To include Hg in the suite of elements above, please request method ME-ICP61m								

### Alex Stewart (International) Argentina S.A.

The check assays presented in this report were carried out at Alex Stewart (International) in Mendoza. They are an internationally recognized laboratory operating ISO 9001 protocols.

### Preparation

**P5:** Dried, crushed to 2 mm, 600g split is taken and pulverized to 106 microns (>95%).

### Analysis

**Au:** Au4-50 + Ag4A-50 – 50 g Fire Assay with AA Finish

### Detection Limits

Element	Au	Ag
Units	g/t	g/t
Lower Detection Limit	0.01	2
Upper Detection Limit	100	20000

**Multi-Element: ICP-MA 39** Four acid digest with ICP-AES Finish

Element	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu
Units	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
Lower Detection Limit	0.5	0.01	5	2	5	0.01	1	1	1	1
Upper Detection Limit	200	10	10000	2000	2000	10	2000	10000	10000	10000

Element	Fe	Ga	Hg	K	La	Li	Mg	Mn	Mo	Na
Units	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
Lower Detection Limit	0.01	2	2	0.01	1	2	0.01	1	1	0.01
Upper Detection Limit	10	2000	500	10	2000	10000	10	20000	10000	5

Element	Nb	Ni	P	Pb	S	Sb	Sc	Se	Sn	Sr
Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Detection Limit	1	1	10	2	0.01	5	5	10	20	1
Upper Detection Limit	10000	10000	10000	10000	10	2000	2000	2000	2000	2000

Element	Ta	Te	Ti	Tl	V	W	Y	Zn	Zr
Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
Lower Detection Limit	10	10	0.01	5	1	20	1	1	1
Upper Detection Limit	1000	2000	5	1000	10000	2000	2000	10000	5000

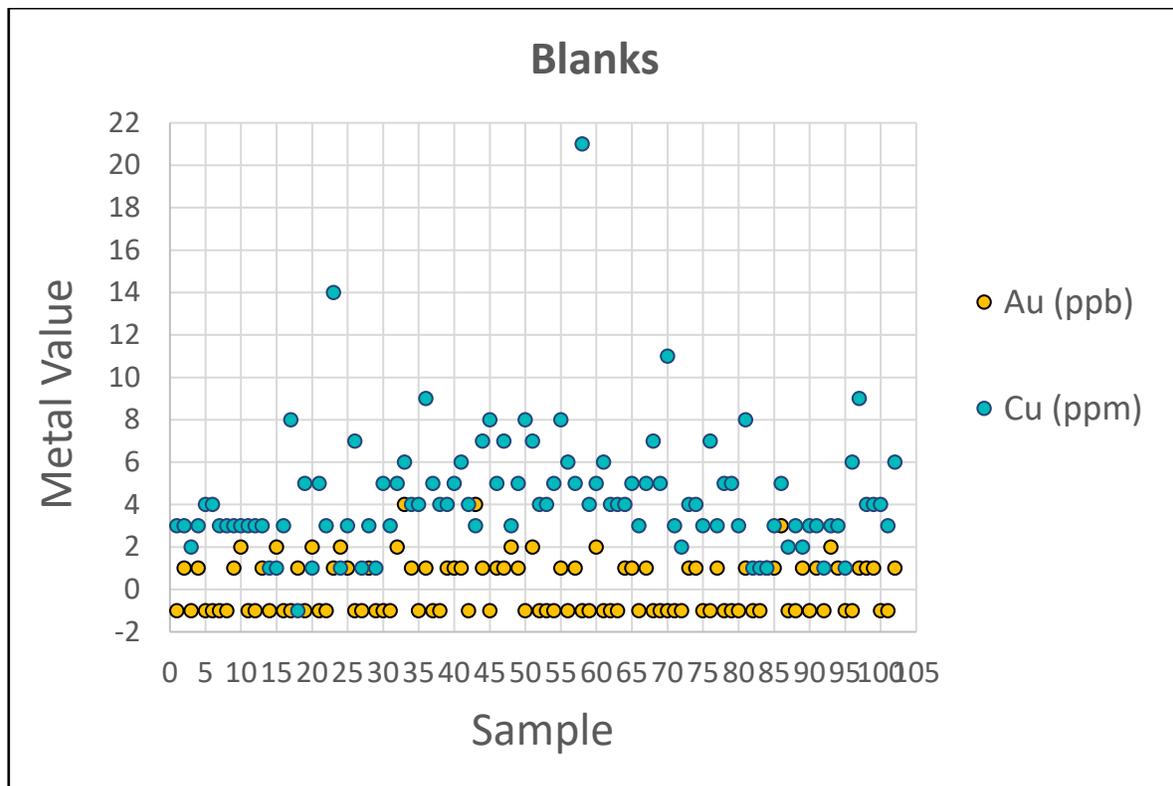
### APPENDIX 3. QA/QC PLOTS

QA/QC on the project varies from unavailable (Vale second round diamond drilling) through sparse (IMA surface sampling and RC drilling) up to standard industry practices (Vale first phase drilling).

The company is in the process of compiling lab originals and certificates from the previous operators.

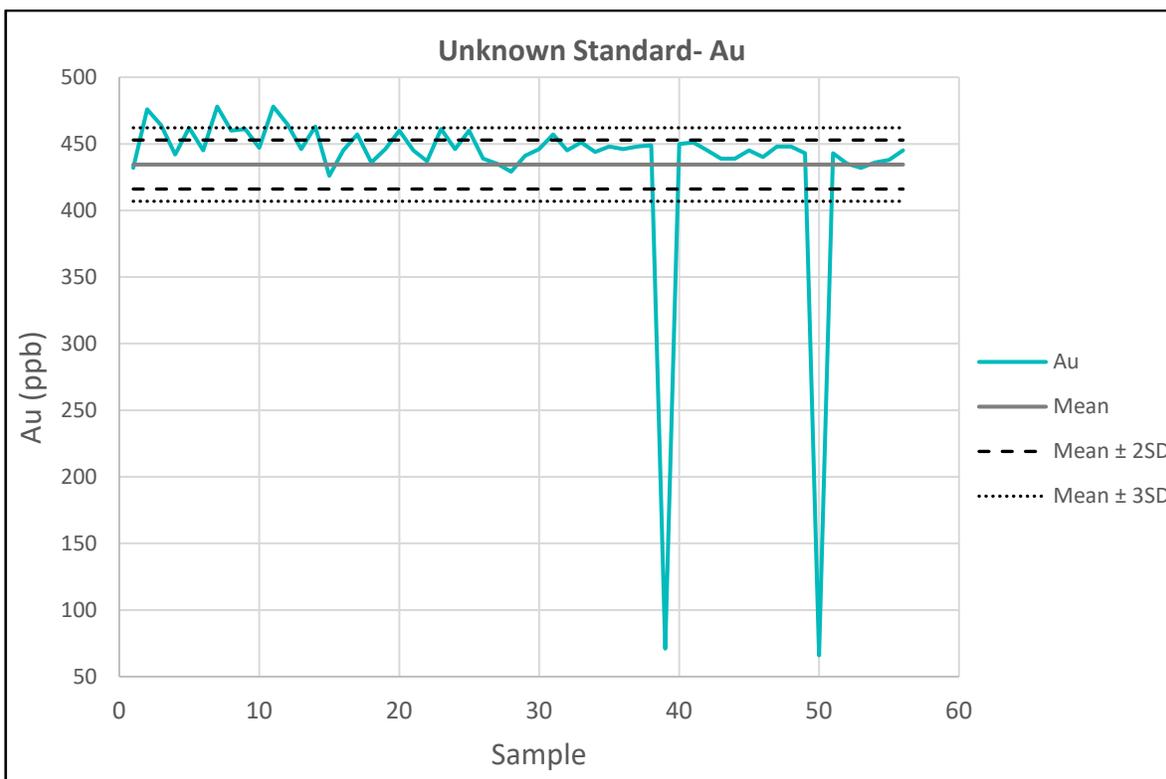
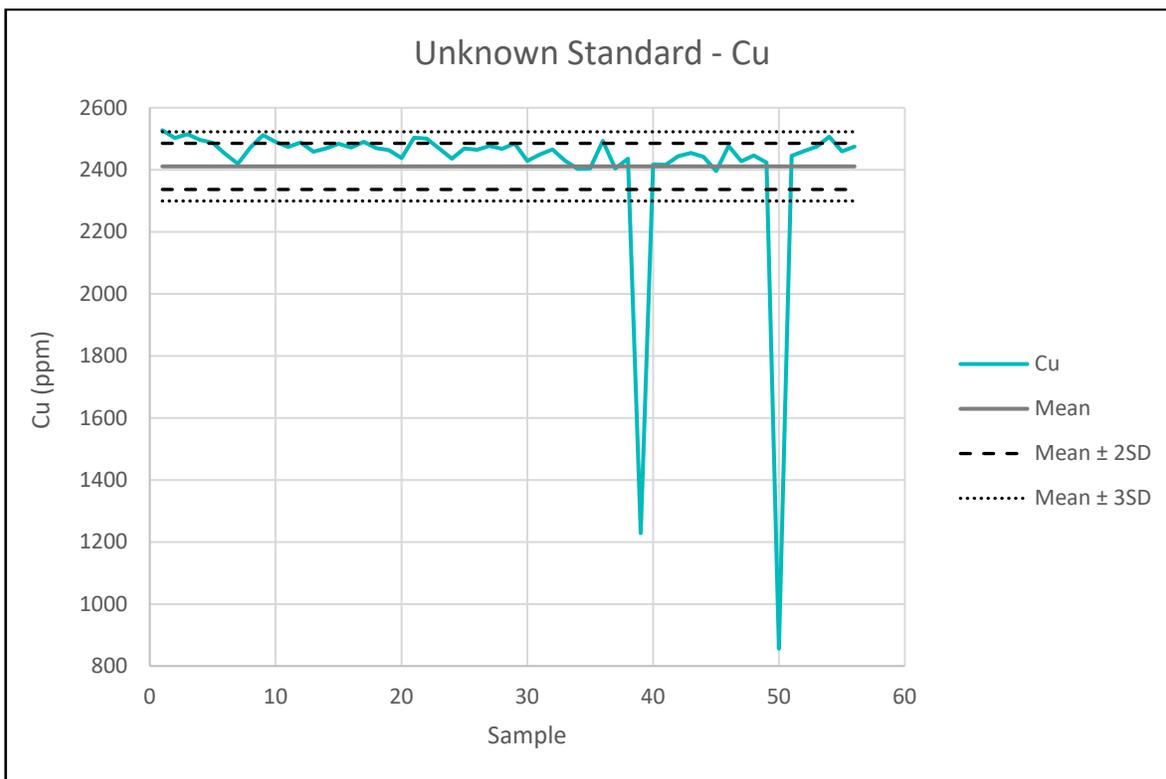
There are some minor QA/QC issues but the author suspects these are related to the nature of the standards, mislabelling and use of non-certified Reference material. Further comments below.

#### BLANK



There is no information regarding what material was used as the blank. Pool sand or quartz gravel are typical, but the range of copper values suggest a poorly homogenized in-house preparation and/or one or more locally sourced commercial sands or aggregates.

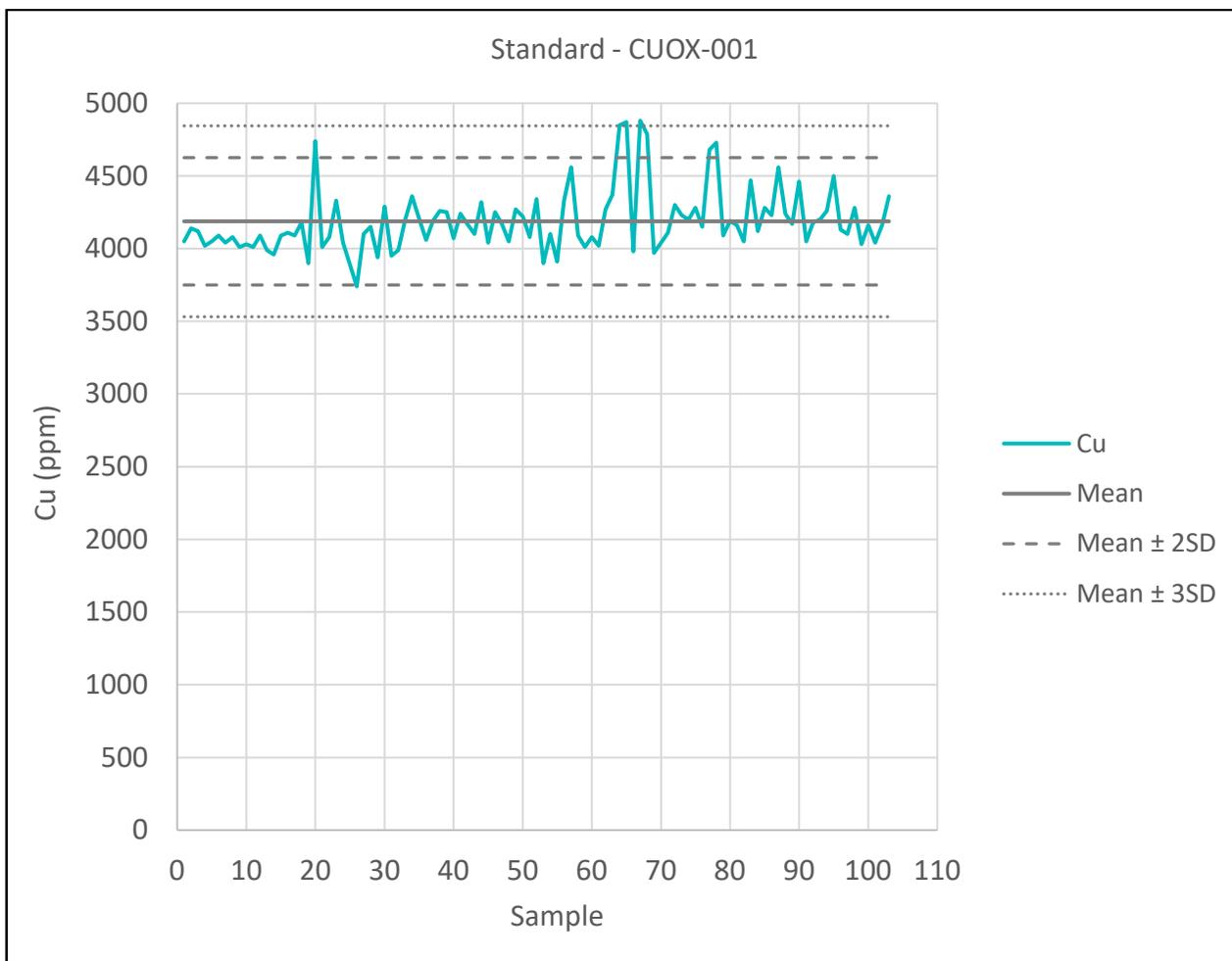
# UNKNOWN STANDARD



**IMA UNK STANDARD** - there is no information regarding this standard. It was used in IMA's second phase RC program. No blanks, other standards or field duplicates were included with samples sent to the lab.

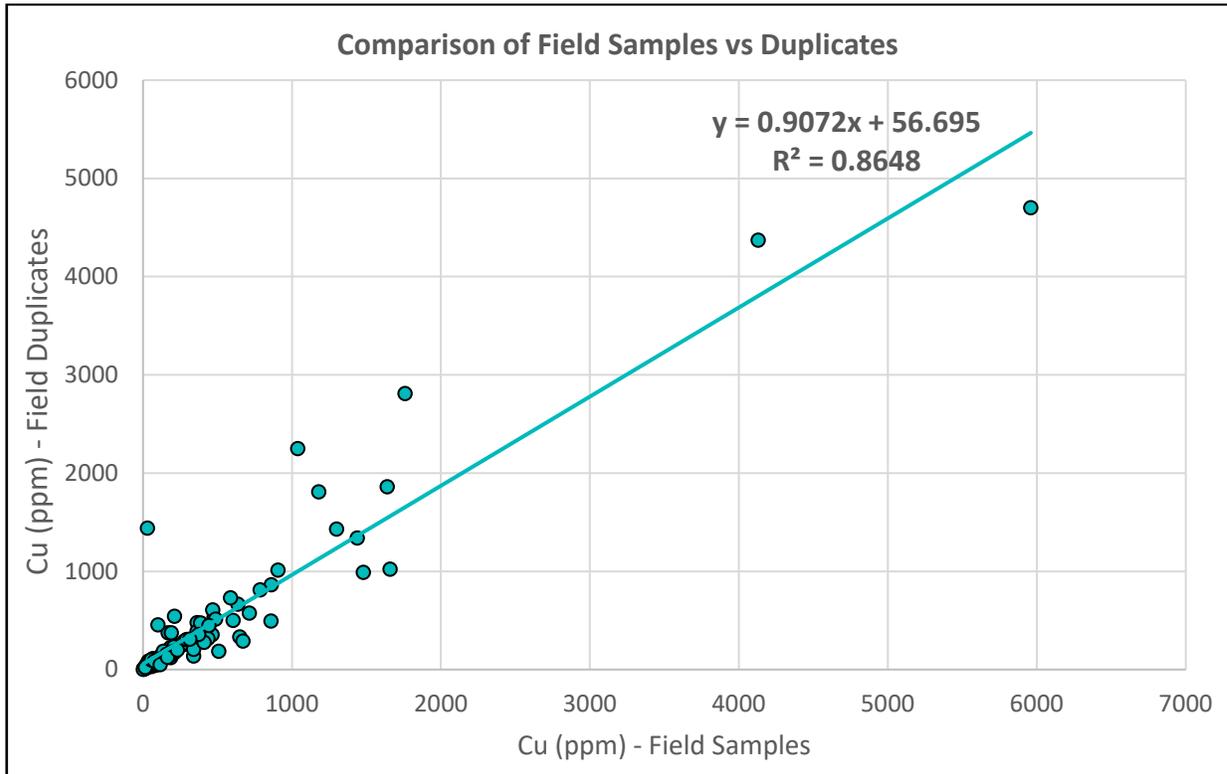
The author cannot comment as to the source of these low values but suspect it may be actual field samples mislabelled as standards.

### CUOX-001



The author looked for information regarding CUOX-001 but no certified reference material exists with this number and copper content. The variation in values (up to +3SD) suggests this is an in-house standard that has been poorly prepared/homogenised.

## FIELD DUPLICATES



Field duplicates show reasonable correlation at low grades with greater spread as grade increases. Considering that much of the mineralization is in stockwork veins this natural variation is to be expected considering vein size/densities and sample size.

## APPENDIX 4. DETAILED BUDGETS

	<b>Stage 1</b>	<b>Stage 2</b>
	<b>1st April 2023 to 31st May 2024</b>	<b>1st June 2024 to 31st May 2025</b>
<b>Exploration spend</b>	<b>9,458,373</b>	<b>7,785,723</b>
Management Geologist	133,575	114,493
Consulting Geologists	452,100	387,514
Geologists	146,727	125,766
Assistants	235,500	201,857
Camp personnel	180,596	154,797
Logistics staff	22,194	19,023
Staff Safety and Hygiene	36,168	31,001
Camp construction and rental	232,457	199,249
Maintenance materials	21,920	18,789
Communication	16,646	14,268
Infrastructure investment	75,030	
Catering and food for camp	168,340	144,291
Generator costs	60,554	51,903
Fuel for camp	489,613	419,668
Emergency Service	193,770	166,089
Office and warehouse rental	70,251	60,215
Licences and software office supplies	37,538	32,175
Drilling 5000m	4,118,220	3,529,903
Geochemistry	341,587	292,789
Geophysics (TITAN lines)	300,000	
Truck rental	196,047	168,040
Platform Access	500,000	428,571
Fuel for drilling	1,429,540	1,225,320
	-	
<b>G&amp;A</b>	<b>1,322,302</b>	<b>1,133,402</b>
Environment consultants Argentina	46,580	39,926
Mining claims management Argentina	31,784	27,243
Bank fees and expenses Argentina	499,885	428,473
Legal Argentina	4,453	3,817
Legal Canada	480,000	411,429
Audit	20,000	17,143
CFO / accounting	55,900	47,914
Management	183,700	157,457
	-	
<b>TOTAL</b>	<b>\$ 10,780,675</b>	<b>\$ 8,919,124</b>