

# **THE COPAQUIRE PROPERTY SULFATO COPPER – MOLY PORPHYRY**

## **NI 43-101 TECHNICAL REPORT**

(REGION I, IQUIQUE PROVINCE - CHILE)



- Prepared for -

# **PBX**

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January 30, 2012

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## 1.0 SUMMARY

This report summarizes exploration results obtained by Minera IPBX to date and presents an inferred resource estimation of the Sulfato zone of the Copaquire property. As no exploration work was carried out on the Cerro Moly zone, the resource estimate prepared by AMEC in 2009 remains unchanged, however, due to changes in the economic variables (commodity prices, escalating mining and processing costs, sales, revenue, and other assumptions and projections) since the writing of the report, the 2009's PA is considered no longer current and therefore should not be relied upon.

Over the past 40+ years, prospectors, geologists and a few exploration companies have focused mainly on the molybdenum-rich porphyry (known as Cerro Moly) stock on the north flank of the Huatocondo Creek. As such, the Copaquire property has been recognized to host mainly molybdenum mineralization with low copper content (0.1-0.2% Cu). But as of 2010, Minera IPBX started re-evaluating the copper potential at the Sulfato South Zone with excellent copper drill results not seen before.

During 2011 IPBX senior porphyry geologists refined the geological model, identifying geological and structural controls on the copper mineralization, its paragenesis and the exploration criteria to be used in an infill diamond drill program in the Sulfato Zone. This new understanding and the drilling that has been carried out, has resulted in the transformation of geological potential into an inferred resource within a small section of Sulfato South. Sulfato South is a separate and independent geological domain from the Cerro Moly Zone (previously estimated by AMEC in 2009).

The Sulfato South resource is an Inferred Mineral Resource presented in Table 1 below, at copper equivalent cut-off grades ranging from 0.1 to 0.7% Copper. The selected base case cutoff grade of 0.20% copper equivalent is considered consistent with other mineral deposits of similar characteristics, scale and location (e.g. INMET's Cobre Panama project, BHPbilliton Spence deposit, Codelco's Minera Gaby and El Abra).

%CUEQ	Tonnage	Copper %	CU%_P	MO %	MO%_P	CuEQ %	CUEQ%_P
Cut-off	T x 1000	Grade	lb Cu	Grade	lb MO	Grade	lb CUEQ
0.70	359.710	0.73	5,809,388	0.023	183,979	0.86	6,821,275
0.60	2,047.902	0.66	29,792,497	0.023	1,056,772	0.79	35,604,742
0.50	7,743.377	0.57	97,786,725	0.021	3,595,197	0.69	117,560,307
0.40	20,085.466	0.49	218,373,939	0.019	8,585,374	0.60	265,593,494
0.30	44,198.812	0.41	399,752,381	0.017	16,968,164	0.51	493,077,285
<b>0.20</b>	<b>103,401.506</b>	<b>0.32</b>	<b>720,252,661</b>	<b>0.016</b>	<b>35,408,432</b>	<b>0.40</b>	<b>914,999,037</b>
0.10	160,605.291	0.26	921,995,275	0.015	53,711,949	0.34	1,217,410,994

**Table 1: Inferred Mineral resource estimate by Copper equivalent cut-off grades.**

These results are reported in metal equivalent data based on US\$ 2.50/lb. copper and US\$13.50/lb. molybdenum. In calculating copper equivalencies 100% metal recoveries have been assumed.

*Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.*

The identified inferred resources are located within an area representing only 30% of the surface alteration area that defines the Sulfato South zone and the ultimate depth of mineralization has not yet been drill tested. PBX considers that additional diamond drilling to the east and south of the current resource block has the potential of incrementing the resources of the Sulfato South Zone.

This report describes geology and exploration of new copper mineralized targets outlined at Copaquire during 2010 and 2011, and presents inferred resource on a relatively small area within the Sulfato South Zone.

Drilling in 2010 and 2011 has resulted in a new geological model for the Sulfato South Zone that can confidently guide future exploration and resource definition. Also, the ZTEM and Titan geophysical surveys have given excellent drill targets in the Marta Zone, the Skarn Zone and the area comprised between Cerro Moly and Sulfato South.

Based on recent geological and geophysical results PBX proposes to undertake a drill program during 2012. The program main priority will be to extend the current inferred resources by drilling the area located to the east of Sulfato South (Sulfato East). The second priority will be to infill the area of drilling in the 2011 Sulfato South drill program to increase the inferred resource category to measured and indicated. Additionally, the author recommends exploration drilling of geophysical (Titan) targets outlined in the Skarn zone and near the Cerro Moly areas.

## **2.0 INTRODUCTION**

### **2.1 TERMS OF REFERENCE**

Diego Charchaflie, M.Sc., P.Geo. an independent consultant geologist was retained by International PBX Ventures on January 14, 2012 with the terms of reference for this assignment consisting of preparing a NI 43-101 compliant resource technical report of the Copaquire property in reference to the most recent exploration work completed during 2010 and 2011.

### **2.2 SCOPE, SOURCES OF INFORMATION AND DISCLAIMER**

In preparing this report, the authors have relied in all the geological reports and maps, miscellaneous technical papers, published government reports and historical documents of the entire Copaquire property listed in the “Selected References” section at the conclusion of this report, public information and the writer’s experience.

This report is based on information known to the writer as of January 15, 2012. All measurement units used in this report are metric, and currency is expressed in US dollars unless stated otherwise. The author received all technical information from PBX Ventures Ltd including reports, drill data, resource information and maps concerning the property.

The results and opinions expressed in this report are conditional upon the aforementioned geological and legal information being current, accurate, and complete as of the date of this report, and that no information has been withheld which would affect the conclusions made herein.

### **3.0 RELIANCE ON OTHER EXPERTS**

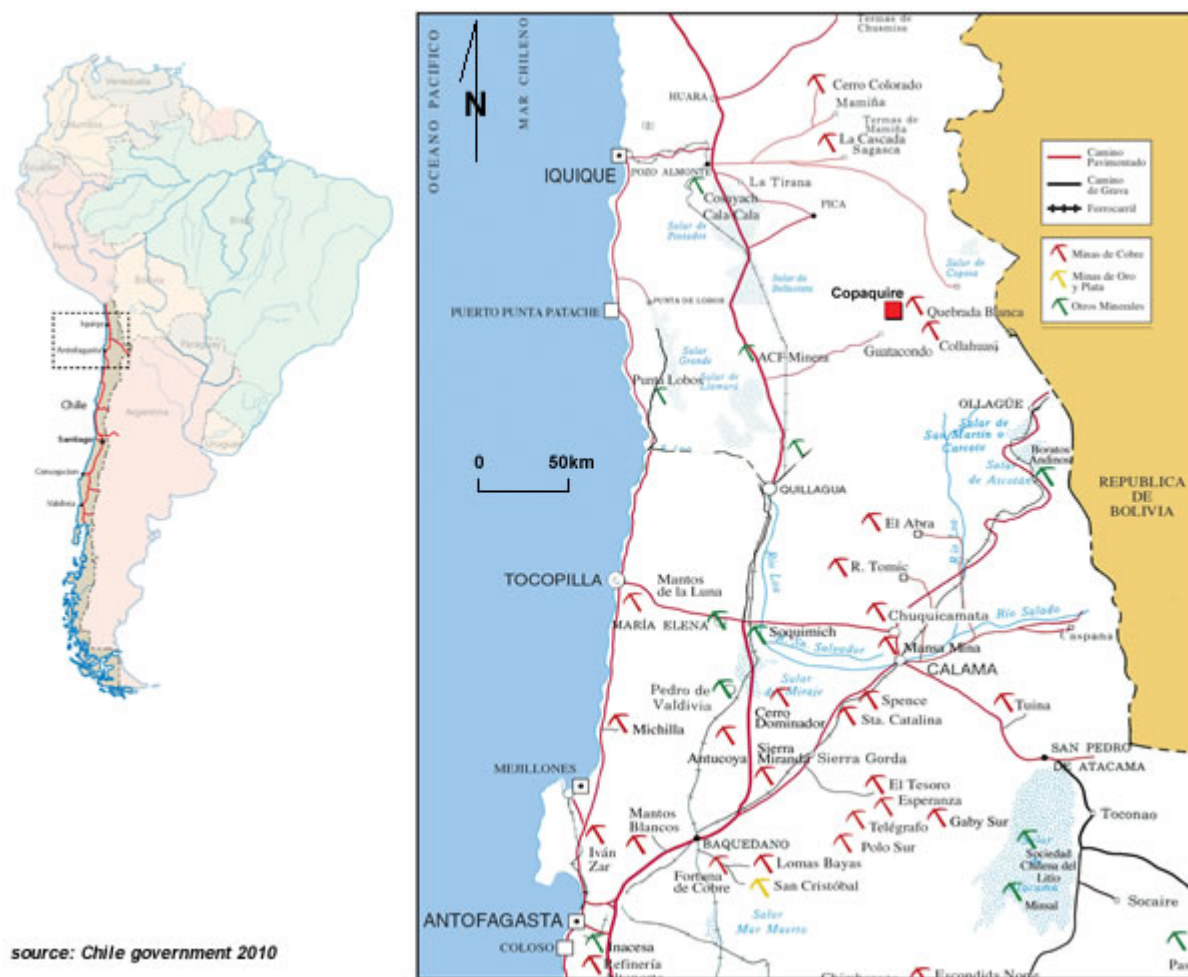
The author has not completed an independent title search of the concessions.

The author is not responsible for verifying the validity of IPBXV's or IPBX's mineral concessions. The author has fully relied upon the opinion of IPBXV's independent legal counsel, Honorato, Russi & Cia. Ltda. (Honorato, 2010) that the title of all mineral concessions is free of defects and not under legal challenge. This opinion: "Legal Opinion on Land Status of Copaquiere properties" is relied upon in Section 4.0 of this Technical Report.

The preliminary resource estimation of the Sulfato South Zone was calculated by Mr. Gino Zandonai Mining Engineer, Msc. SME, AusIMM an Independent Mining Consultant. Mr Zandonai ceased to be a qualified person as defined by National Instrument 43-101 on June 30, 2011 with the application of definition in Part 1.1 of the Instrument. Although Mr Zandonai is in the process of recovering his designation, his current credentials are unsatisfactory as to assume responsibility for the Sulfato South resource estimation. The author (DC) audited the preliminary resource estimation verifying the reasonableness of the data, methods, assumptions and parameters used. Details on the validation are included on the Data Verification chapter.

### **4.0 PROPERTY DESCRIPTION AND LOCATION**

The location of the Copaquiere Property on the pre-Cordillera, a rolling up-land plateau of northern Chile, Region I, Provincia de Iquique, is illustrated on Figure 1. The Copaquiere Property lies about 1,450 km north of Santiago, and 125 kilometres south-east of the city of Iquique. The claim block centre is at approximately 7,687,700N and 510,500E (Grid Reference: UTM Zone 19S, South American (SA) 56 Provisional); geodetic coordinates, with respect to ellipsoid 1924 International, pursuant to the area 1:50,000 topographic maps, are Latitude 20 55° 30" S and Longitude 68 53° 30" W.



**Figure 1: Copaquire Property Location Map**

The property consists of 6 contiguous fully constituted exploitation concessions as listed in Table 2 and illustrated on Figure 3 in UTM grid reference, PSAD 56, Zone 19S. According to Minera IPBX Limitada the concessions have been legally surveyed in accordance with the Chilean Mining Code. These concessions cover an area of 1452 hectares and extend approximately 6.5 km EW and 5.4 km in the NS direction.

The exploitation concessions listed in Table 2 are comprised of concessions, each having an area of 5 hectares, as follows:

- Copaquire 1-950 consists of: “COPAQUIRE 6 to 9, 38 to 51, 68 to 83, 100 to 115, 131 to 147, 162, 179, 193 to 211, 225 to 235, 237 to 243, 258 to 275, 291 to 307, and 324 to 330” for a total of 175 concessions covering an area of 870 hectares and “COPAQUIRE 236” area of 5 hectares.
- Condorito 1 to 995 consists of: “CONDORITO 413, 488, 513, 588, 613, 688, 710 to 722, 779 to 792, 808 to 822, 879 to 894, 906 to 922 and 979 to 990” with a total of 93 concessions and an area of 443.98 hectares
- “DON ANDRES CINCO 1 TO 11” with a total of 11 concessions and an area of 88 hectares, and
- “Tutankhamen 1, 2 and 3”; “Isabel 1, 2 and 3” and “Jorgesito 1, 2 and 3” with a total of

- 9 concessions and an area of 45 hectares.
- 2) 2011 taxes have been paid.
  - 3) All the claims are surveyed, and of the “exploitation-granted” class
  - 4) Claims are identified on Figures 3 by their concession names
  - 5) Total area for the 6 concessions is 1,452 hectares
  - 6) The gap between the north boundary of the Copaquire 1 to 950 and the south boundary of the Condorito 1 to 995 concessions, illustrated on Figures 3 is, according to Minera IPBX Limitada a “survey fraction” and pursuant to the Chilean Mining Code, is owned by the owners of the adjoining exploitation concessions.

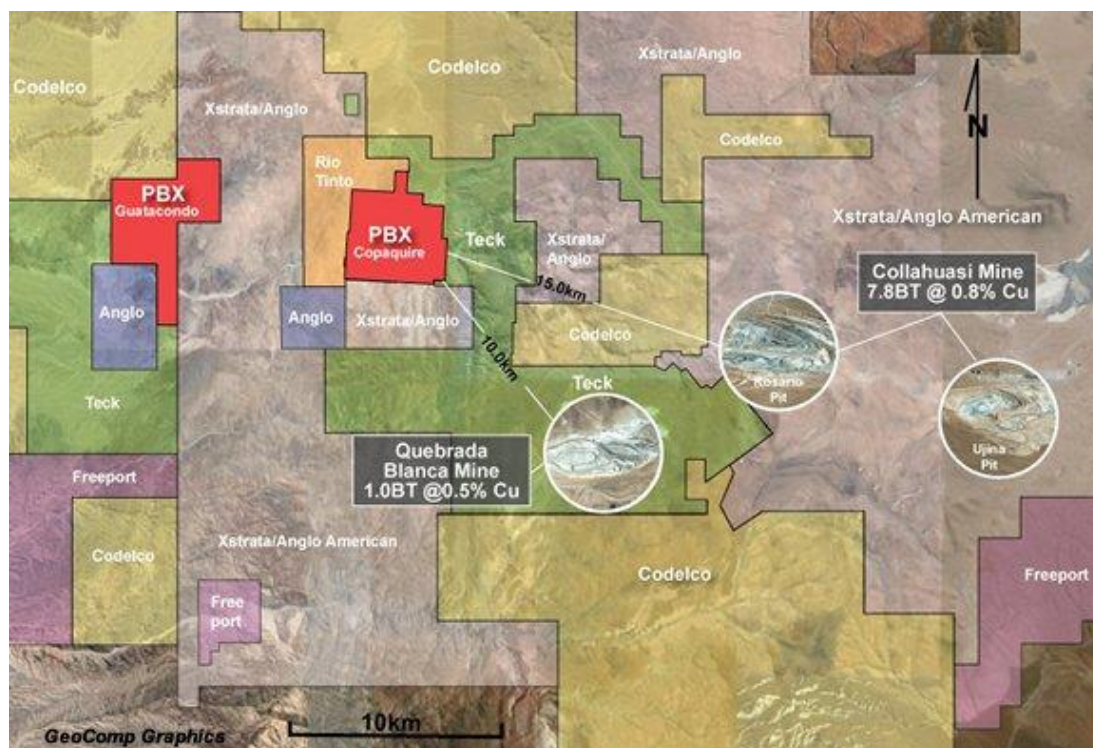


Figure 2: Copaquire Property Claim Area Map

Concession name	Concession Status	Area ha	Concession number (ROL Nacional)	2011 Tax CP
COPAQUIRE 1-950	Mensura Constituida	875	012030004-0	paid
CONDORITO 1-995	Mensura Constituida	443.98	012030001-6	paid
Don Andres Cinco 1 to 11	Mensura Constituida	88	012030378-3	paid
Tutankhamen 1, 2 and 3	Mensura Constituida	15	012030026-1	paid
Isabel 1, 2 and 3	Mensura Constituida	15	012030024-5	paid
Jorgecito 1, 2 and 3	Mensura Constituida	15	012030025-3	paid

Table 2: List of Concessions - Copaquire Property



**Copaquire Exploitation concessions:**

**1) Copaquire 6 to 19, 38 to 51, 68 to 83, 100 to 115, 131 to 147, 162 to 179, 193 to 211, 225 to 235, 237 to 243, 258 to 275, 291 to 307 and 324 to 330.**

**Title Holder:** Minera IPBX Limitada, according to the property certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008. Minera IPBX Limitada exercised the option to buy these claims by public deed dated July 17, 2008, granted before the Notary Public of Santiago, Ms. Antonieta Mendoza Escalas. These properties are registered to the name of Minera IPBX Limitada in page 503 number 112 of the Property Registry of the Mining Registry of Pozo Almonte, corresponding to the year 2008.

**Registrations.** According to the Mortgages, Encumbrances and Prohibitions certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008, these claims are free from any lien, encumbrance and prohibition.

**Technical report.** Mr. Guillermo Contreras prepared a technical report of this area. No development or exploration mining concessions affect this claim as of February 29, 2008.

**Statute of Limitations.** Third parties may not challenge the mining concessions above referred, because the term of four years counted from the date of publication in the Official Mining Bulletin of an abstract of the judgement granting such properties has elapsed.

**2) Condorito 413, 488, 513, 588, 613, 688, 710 to 722, 779 to 792, 808 to 822, 879 to 894, 906 to 922, and 979 to 990.**

**Title Holder:** Minera IPBX Limitada, according to the property certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008. Minera IPBX Limitada exercised the option to buy these claims by public deed dated July 17, 2008, granted before the Notary Public of Santiago, Ms. Antonieta Mendoza Escalas. These properties are registered to the name of Minera IPBX Limitada in page 504 number 113 of the Property Registry of the Mining Registry of Pozo Almonte, corresponding to the year 2008.

**Registrations.** According to the Mortgages, Encumbrances and Prohibitions certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008, these claims are free from any lien, encumbrance and prohibition.

**Technical report.** Mr. Guillermo Contreras prepared a technical report of this area. No development or exploration mining concessions affect this claim as of February 29, 2008. However Mr. Contreras detected that Condorito 922 is considered as an abandoned claim by Sernageomin, information that differs from the certificate issued by the Mining Registrar of Pozo Almonte. This matter is currently being studied by Sernageomin.

**Statute of Limitations.** Third parties may not challenge the mining concessions above referred, because the term of four years counted from the date of publication in the Official Mining Bulletin of an abstract of the judgement granting such properties has elapsed.



**3) Don Andrés Cinco, 1 to 11.**

**Title Holder:** Minera IPBX Limitada, according to the property certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008. Minera IPBX Limitada exercised the option to buy these claims by public deed dated July 17, 2008, granted before the Notary Public of Santiago, Ms. Antonieta Mendoza Escalas. These properties are registered to the name of Minera IPBX Limitada in page 505 number 114 of the Property Registry of the Mining Registry of Pozo Almonte, corresponding to the year 2008.

**Registrations.** According to the Mortgages, Encumbrances and Prohibitions certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008, these claims are free from any lien, encumbrance and prohibition.

**Technical report.** Mr. Guillermo Contreras prepared a technical report of this area. No development or exploration mining concessions affect this claim as of February 29, 2008.

**Statute of Limitations.** Third parties may not challenge the mining concessions above referred, because the term of four years counted from the date of publication in the Official Mining Bulletin of an abstract of the judgement granting such properties has elapsed.

**4) Tutankhamen 1, 2 and 3, Isabel 1, 2 and 3, Jorgecito 1, 2 and 3, and Demasías I and II.**

Holder of Record. Minera IPBX Limitada, according to the property certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008. Minera IPBX Limitada exercised the option to buy these claims by public deed dated July 17, 2008, granted before the Notary Public of Santiago, Ms. Antonieta Mendoza Escalas. These properties are registered to the name of Minera IPBX Limitada in page 506 number 115 of the Property Registry of the Mining Registry of Pozo Almonte, corresponding to the year 2008.

**Registrations.** According to the Mortgages, Encumbrances and Prohibitions certificate issued by the Mining Registrar of Pozo Almonte on September 6, 2008, these claims are free from any lien, encumbrance and prohibition.

**Technical report.** Mr. Guillermo Contreras prepared a technical report of this area. No development or exploration mining concessions affect this claim as of February 29, 2008.

**Statute of Limitations.** Third parties may not challenge the mining concessions above referred, because the term of four years counted from the date of publication in the Official Mining Bulletin of an abstract of the judgement granting such properties has elapsed.

**2) Copaquire 236**

**Title Holder:** Minera IPBX Limitada, according to the property certificate issued by the Mining Registrar of Pozo Almonte on October 10, 2008. Minera IPBX Limitada exercised the option to buy this claim by public deed dated July 17, 2008, granted before the Notary Public of Santiago, Ms. Antonieta Mendoza Escalas. This property is registered to the name of Minera IPBX

Limitada in page 697 number 156 of the Property Registry of the Mining Registry of Pozo Almonte, corresponding to the year 2008.

**Registrations.** According to the Mortgages, Encumbrances and Prohibitions certificate issued by the Mining Registrar of Pozo Almonte on October 10, 2008, this claim is free from any lien, encumbrance and prohibition.

**Technical report.** Copaquire 236 was included in the technical report referring to all the remaining Copaquire claims.

**Statute of Limitations.** Third parties may not challenge the mining concessions above referred, because the term of four years counted from the date of publication in the Official Mining Bulletin of an abstract of the judgement granting such properties has elapsed.

Ownership details of the above mentioned claims were supplied by Minera IPBX Limitada and have not been independently verified by the author. According to documentation from Honorato, Russi & Cia. Ltda, legal counsel to Minera IPBX Limitada, dated November 26, 2008, the claims are 100% owned by Minera IPBX Limitada incorporated in Chile in April 18, 1996, a wholly-owned subsidiary of International PBX Ventures Ltd. a public company incorporated in Canada, with office address at Suite 209, 475 Howe Street, Vancouver, BC, Canada, V6C 2B3. According to Minera IPBX Limitada the only obligations the concessions are subject to are the payment of annual taxes. Taxes have been paid for 2011. Taxes on exploitation concessions in Chile are due annually on March 31st.

In regards to the expiration of the concessions, they can be retained in good standing in perpetuity provided the annual taxes are paid, since they are exploitation concessions.

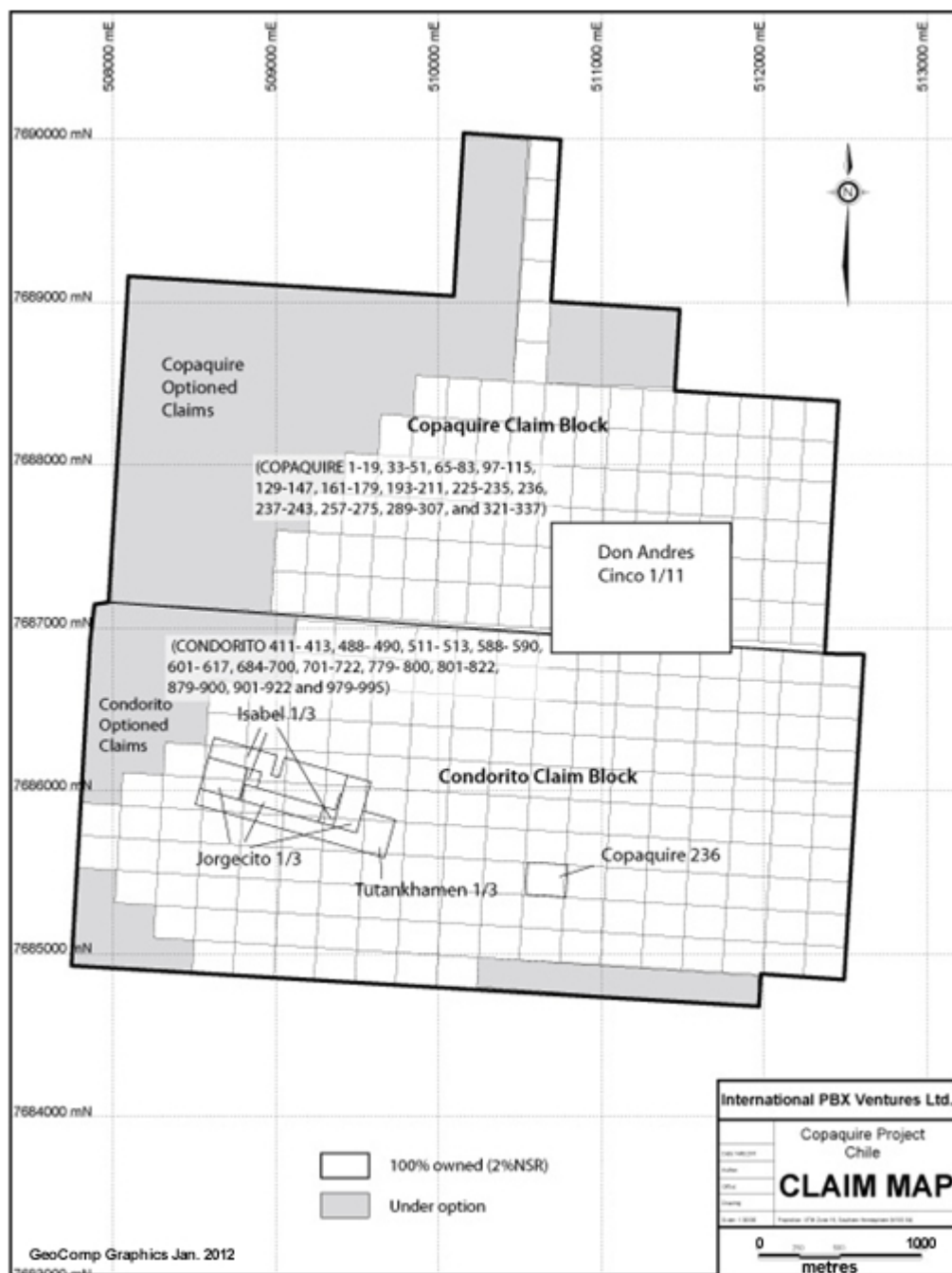
Sociedad Legal Minera Macate Primera de Huatacondo and Companhia Minera Huatacondo Sociedad Contractual Minera, both private Chilean companies owned and controlled by the Escala family of Santiago, Chile, retain a 2% NSR subject to a buyout by Minera IPBX Limitada for US\$2,000,000 or alternatively for US\$1,000,000 per percentage point.

The following structure of payments was made in order to acquire the Copaquire project. The vendors agreed to sell, cede, assign and transfer to Minera IPBX Limitada the abovementioned exploitation concessions to Minera IPBX Limitada and the deal was sealed as follows:

1. On signing of a letter of intent	US\$ 5,000
2. On signing of the formal agreement	US\$ 20,000
3. On July 16th, 2004	US\$ 25,000
4. On January 16th, 2005	US\$ 25,000
5. On July 16th, 2005	US\$ 25,000
6. On January 16th, 2006	US\$ 25,000
7. On July 16, 2006	US\$500,000
8. On July 16, 2007	US\$750,000
9. On July 16, 2008	US\$750,000

**Total US\$2,100,000**

On May 5, 2011 Minera IPBX Ltda. entered into an option de purchase agreement with “Sociedad Legal Minera Macate Primera de Huatocondo” to acquire two block of claims shown in Figure 3 below in solid gray color. There is no NSR included in this option agreement.



**Figure 3: Concession and Optioned Claim Location Map**

The new block of claims comprise the “Copaquire Claims” and the “Condorito Claims” which total a surface area of approximately 560 hectares.

The following structure of payments was agreed in order to acquire these two blocks of claims. The vendors agreed to sell, cede, assign and transfer to Minera IPBX Limitada the above mentioned claims to Minera IPBX Limitada and the deal was sealed as follows:

- On signing of the option agreement	US\$ 196,000
- On the first year anniversary	US\$ 196,000
- On the second year anniversary	US\$ 196,000
- On the third year anniversary	<u>US\$ 196,000</u>
-	TOTAL = US\$ 784,000

With the addition of the above optioned claim block the Copaquire Property now covers an approximate area of **2,012 hectares**.

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

### **5.1 Access, Local Resources and Infrastructure**

The area is well served with roads that branch off the roads servicing the mining operations at Quebrada Blanca and Collahuasi. Several small communities, Pozo Almonte and Guatacondo, with limited goods and services are present within approximately 50 kilometres of the property. The community of Iquique, on the Pacific coast, is 125 kilometres to the northwest and currently serves the Quebrada Blanca and Collahuasi mining operations with supplies personnel and deep sea port facilities for shipping. Iquique is linked to Santiago and other communities in northern Chile by the Pan American highway, a regularly scheduled commercial airline and commercial bus operators.

Some process water is available in the Guatacondo creek (a flow rate of about 30 litres per second has been roughly estimated) however the local area is generally arid. If the local creeks and ground water supply is insufficient for mining and milling then water will need to be piped to site. The property has sufficient size to accommodate a mining operation without any negative impact on the environment. Permanent residents do not live on or within the area of the property.

The Pan-American Highway and three phase high tension electrical power are located 55 kilometres to the west. The historic mining towns of Pica and Pozo Almonte are 50 and 90 kilometres respectively to the northwest and the Collahuasi copper mine is twenty kilometres to the east of the Copaquire property which may be a potential alternate power source.

### **5.2 Physiography and Climate**

The property is located in the Chilean pre-Cordiera, a rolling up-land plateau between 4,000 and 4,500 metres elevation that is locally strongly dissected by large creeks (quebradas) which can give rise to local rough terrain. The eastern half of the property covers the confluence between

the westerly draining Guatacondo-Copaquire creeks and southerly draining El Sulfato creek at elevations between 3,500 and 4,000 metres. The area is desert like; very dry, with minimal rainfall. The property is nearly void of vegetation however, desert cactus vegetation occurs locally on some mountain slopes whereas various grasses and shrubs occur sporadically in stream valleys.

The local climate is generally arid with summer temperatures ranging from 10°C to over 25°C and in winter from a few degrees below zero to 15°C. Rainfall is very sparse and occurs mainly during January, February and March. During some exceptional years there are light snow falls during June and July. Exploration and mining can be carried out on this property throughout the year.



**PLATE 1: Huatocondo Creek with water year round along the Copaquire Property.**

## **6.0 HISTORY**

Exploration and production history of the Copaquire district is well documented on previous reports (Robinson 2005; Simpson 2007, Videla 2009, Henry et al. 2009). The following excerpts modified from previous reports summarize the Copaquire history.

Copaquire is a well mineralized district known to have been worked in the late 1800's with a significant record of copper production estimated to be in the order of 180,000 tonnes grading

about 3.0% copper mainly from high grade veins within the secondary zone.

Mr. Keighley registered the Condorito 1-995 concessions in 1960 and the Copaquire 1-950 concessions in 1961. In 1965 Sociedad Minera del Norte (NORMINA), owned, in part at least, by Mr. Keighley explored the area.

In 1976 the concessions “Condorito 1-995 “ and “Copaquire 1-950” were owned by Sociedad Legal Minera Copaquire Primera de Tetas de Copaquire and the company transferred them to Sociedad Contractual Minera Placermetal de Copaquire on September 29, 1976.

On December 16, 1977 and January 10, 1978, “Sociedad Contractual Minera Placermetal de Copaquire returned the concessions “Condorito 1-995“ and most of “Copaquire 1-950” to the owners of Sociedad Legal Minera Copaquire Primera de Tetas de Copaquire who registered them in the name of the new company “Sociedad Legal Minera Macate Primera de Huatacondo”. Cominco explored the concessions during 1993 however the property was retained in the name of the vendors.

The Sulfato mine situated in Quebrada Sulfato at 511350E, 7686370N (grid reference: UTM Zone 19S, WGS84) was held under lease from 1996 to 1998 by Compañía Minera Temantica. Underground sampling was carried out. A vertical cross-section through the Sulfato mine was obtained from PBX, but because it is not to scale, it can only be used schematically. The mine workings consist of six adits located at the bottom of the quebrada (that could be separated by approximately 20-25 vertical metres, driven horizontally into the side of the mountain for more than 100m each.

The Marta Mine is situated at 509325E and 7685550N (grid reference: UTM Zone 19S, WGS84). According to Minera IPBX Limitada the existence, or possible whereabouts, of historical records for this area has not been determined.

In 1993 Cominco Resources Chile drilled 18 widely spaced, shallow RC drill holes. Ten of these drill holes totalling 1,536 metres were collared on the Copaquire property exploitation concessions, currently owned by Minera IPBX Limitada, and tested a 2 km<sup>2</sup> area of the northeast, Sulfato phyllic core. PBX provided the author with a copy of the drill logs, and compiled assay data.

In 2004 IPBX entered into an option to purchase the property where exploration activities begun in 2005.

In 2009 AMEC Mining and Metals S.A. (Henry et al., 2009) prepared a NI 43-101 compliant Technical Report “Preliminary Assessment on the Copaquire Property, Region I, Chile. National Instrument 43-101, Technical Report(“PA”) dated December 13, 2009. AMEC’s 2009 report provided the NI-43-101 compliant resource estimate of the Cerro Moly zone which can be referenced to chapter 14 of the current report and describes the performed Preliminary Assessment on the Copaquire Property, Region I, Chile.

Due to changes in the economic variables (commodity prices, escalating mining and processing costs, sales, revenue, and other assumptions and projections) since the writing of the report, the 2009's PA is considered no longer current and therefore should not be relied upon.

## **7.0 GEOLOGICAL SETTING AND MINERALIZATION**

### **7.1 REGIONAL GEOLOGY (after Simpson, 2007 and Videla, 2009)**

Early Works of Thomas, 1967, Hollister and Bernstein 1975, Vergara and Thomas, 1984, Arias et al, 1988, Xstrata Copper internal report (no year) and recent and thorough regional work of Tomlinson et al, 2001 have been compiled for this section.

The regional geology around Copaquire Property has been divided by Tomlinson et al, (2001) into the following three major tectono-stratigraphic units:

a) The easternmost zone corresponding to the central Volcanic Zone of the Andes is composed of Tertiary to Quaternary strato-volcanoes and ignimbrites with slight or absent tectonic deformation. It is located geographically close to and along the border between Chile and Bolivia.

b) A central zone named Sierra del Medio, immediately to the west, characterized by predominantly volcanics (andesites to rhyolites) and intrusive batholiths of Upper Carboniferous-Permian age. This segment of Paleozoic Basement has been interpreted (op. cit.) to be the northern continuity of the Cordillera de Domeyko range and affected by important strike-slip faulting of northwest to north south orientation hosting the major copper porphyry deposits of Chuquicamata, El Abra, Quebrada Blanca and Collahuasi. The western limit of this zone is interpreted to be the northernmost projection of the important Falla Oeste (West Fault) system at Chuquicamata deposit, characterized as a major shear zone with predominant strike-slip displacement of several kilometres.

c) The westernmost zone including a block of Paleozoic (and possibly pre-Paleozoic), Mesozoic and Cenozoic rock units. Reverse faulting of almost north-south orientation, uplifts tectonic blocks of Paleozoic and Mesozoic rocks over thrusting Cenozoic rocks. This western zone includes at least part of Sierra de Moreno which connects to Sierra del Medio to the south of the area near quadrangles Cerro Yocas and Quehuaita.

The Copaquire property covers a surface area of approximately 2,012 hectares, is located at the northern end of the Sierra de Moreno range which extends more than 150 km further to the south to the central part of Antofagasta Region with an approximate width of 20 to 25 km (Fig 4). This geological setting encompasses a major Mesozoic sedimentary to volcanic sequence correlated to the Quehuaita Formation of an estimated Calovian-Oxfordian age (Vergara y Thomas, 1984). This transitional marine to continental unit, with a locally north-south strike, dipping 50° to 85° E (Thomas, 1966) is mostly characterized by finely interbedded sandstones, shales and limestones with some carbonaceous horizons. The top of the stratified sequence contains stratified andesitic rocks. The entire unit is partially metamorphosed by the superimposing

effects of regional and local contact metamorphism related with the local porphyry complex intrusion.

An ignimbritic, pyroclastic and partially eroded unit can be recognized on the tops of the present topography which has been described near the confluence of Quebrada Copaquire and Ornajuno. It has an estimated age of 9.4 +/- 0.4 My as per the correlation with the Ignimbrita Ujina informal unit which lies outside of the area (Vergara y Thomas, 1984).

The regional geology and alteration around the area of the Copaquire Project is shown in Figures 6 and 7 below.

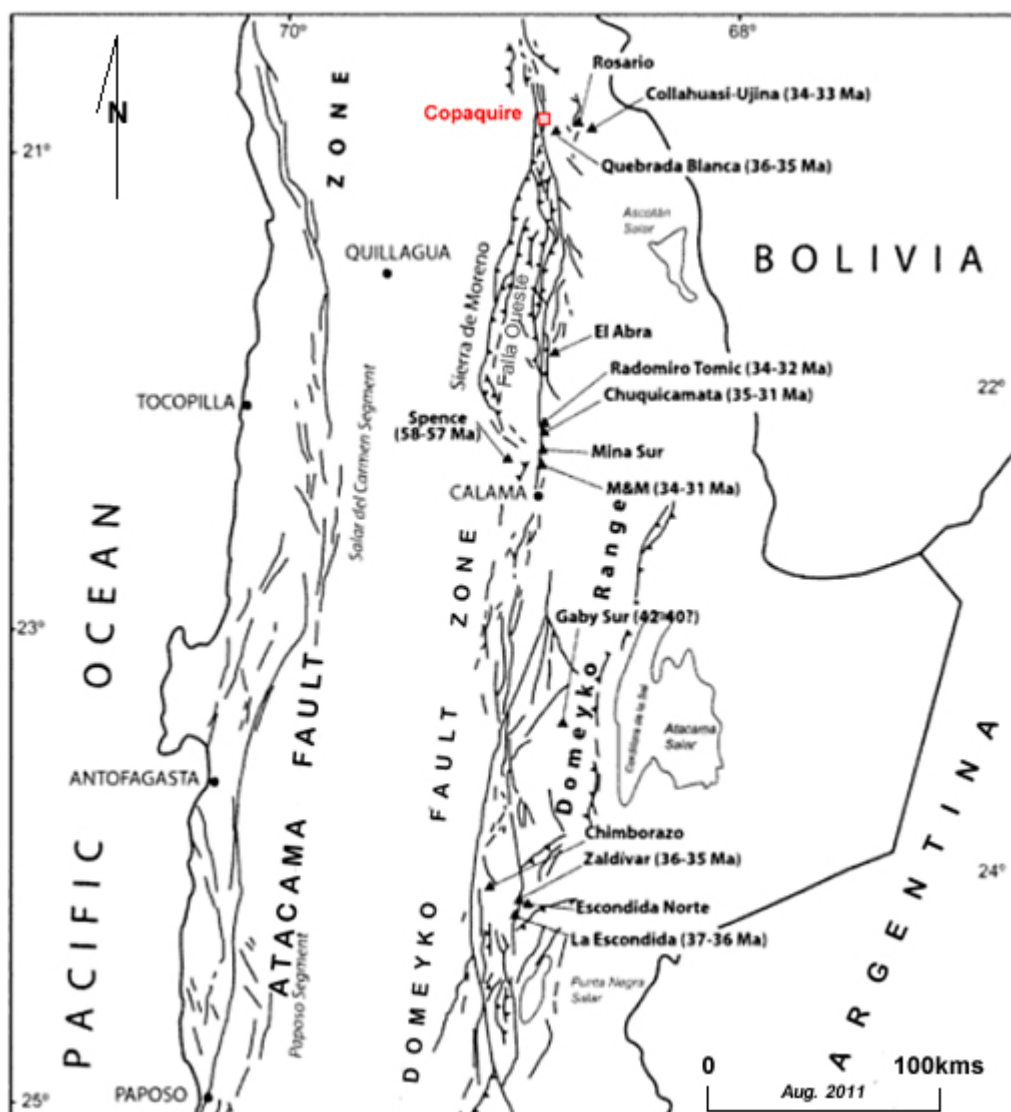


Figure 4: Schematic Structural Map – Northern Chile and associated porphyry copper deposits (Cornejo et al, 1997, Camus, 2003, and Cornejo, 2005)



### 7.1.1 REGIONAL STRUCTURAL SETTING

The Copaquire Project is located at the northernmost extension of Sierra de Moreno, which is characterized by a tectonic horst block containing the most important copper porphyry deposits of northern Chile (Chuquicamata-El Abra-Quebrada Blanca-Collahuasi). See Figure 4. Locally, the eastern border of Sierra de Moreno is interpreted to be the northern extension of the Falla Oeste (West Fault) structural system defined at Chuquicamata district 135 km to the south. It is mainly composed by discontinuous major faults parallel to the Falla Oeste system and minor parallel systems. At a regional scale, minor structures of east-west orientation and up to 20 to 30 km long control the morphology of deep transversal valleys (Quebradas) of the same type as Quebrada Huatacondo. To the south of Copaquire the major structural trend is north-south to N5°W but to the north, an important bending towards an orientation of N20°W takes place. The long axis of the Malta Granodiorite is parallel to this structural system suggesting that its emplacement has been controlled by this major structural trend.

Company geologists have confirmed at least two major structural trends within the property. These are as follows:

- a) Zone 1: A major north-south structural system, having morphological expression along Quebradas Sulfato and Loque.
- b) Zone 2: Is located to west of the area. It is dominantly a fracture trend of N60°W parallel to at least two post-intrusives and post north-south faulting. This is considered to be the structural control for the Molybdenite-Pyrite veins at the Marta Mine. (See Figure 5).

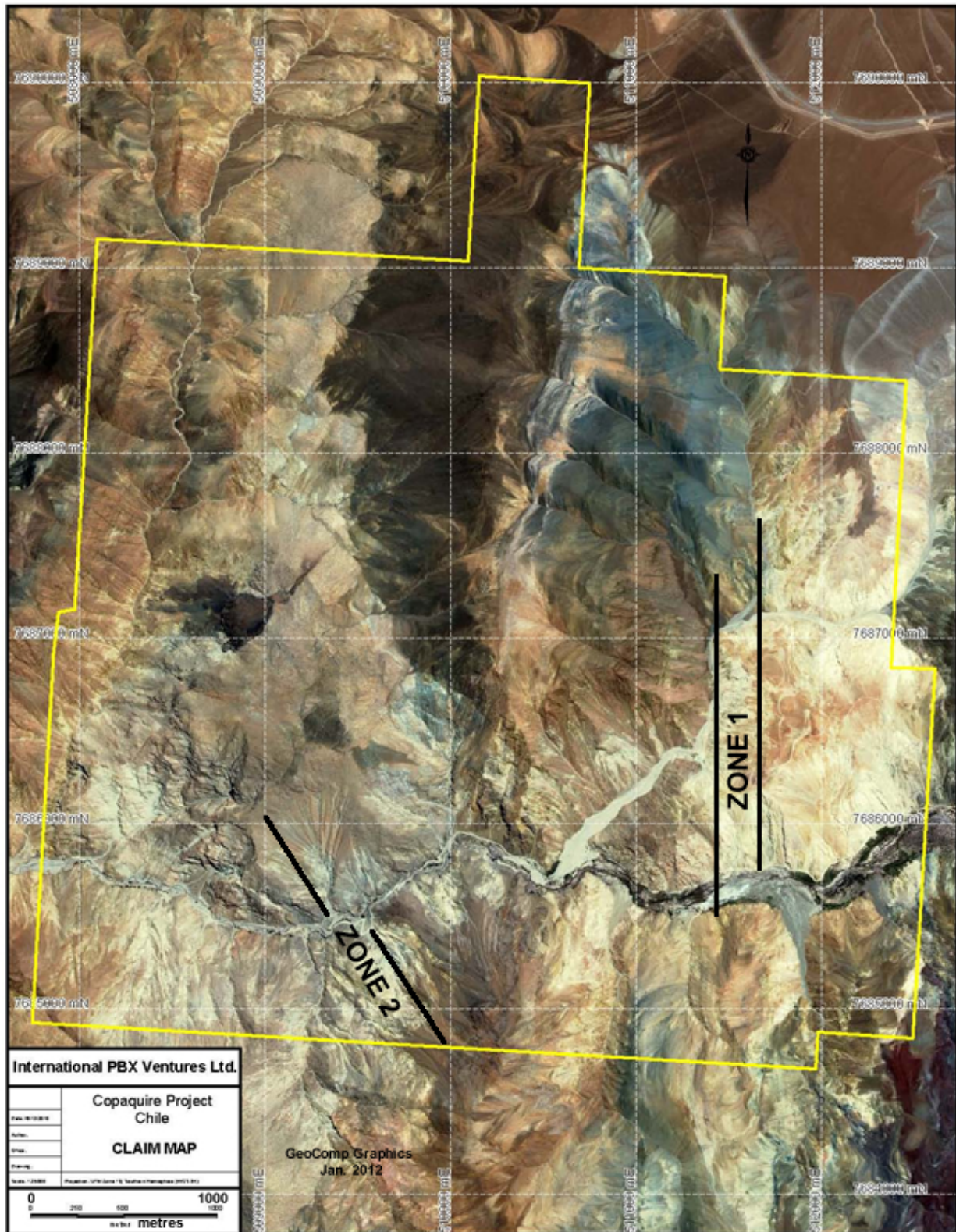
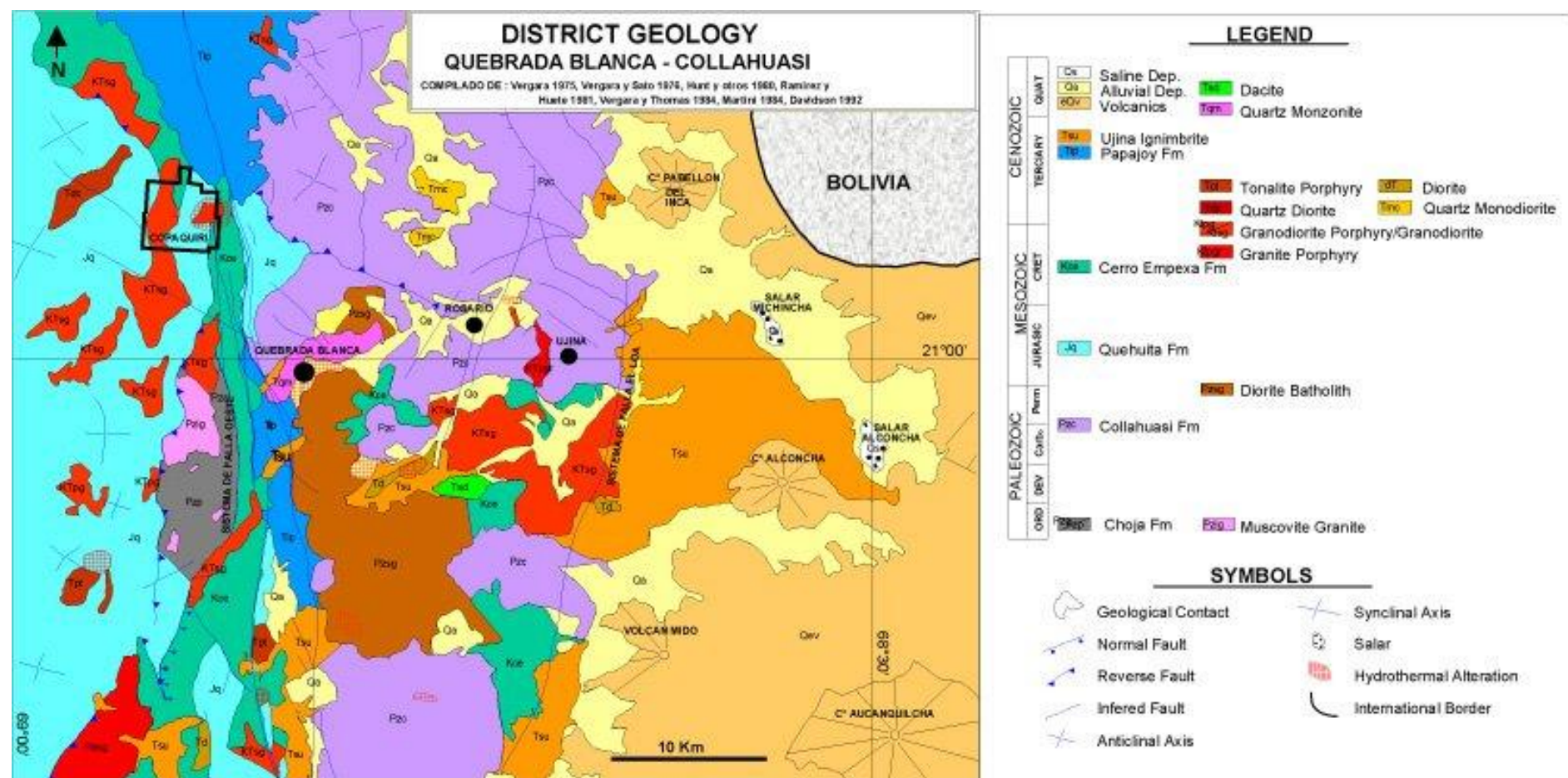


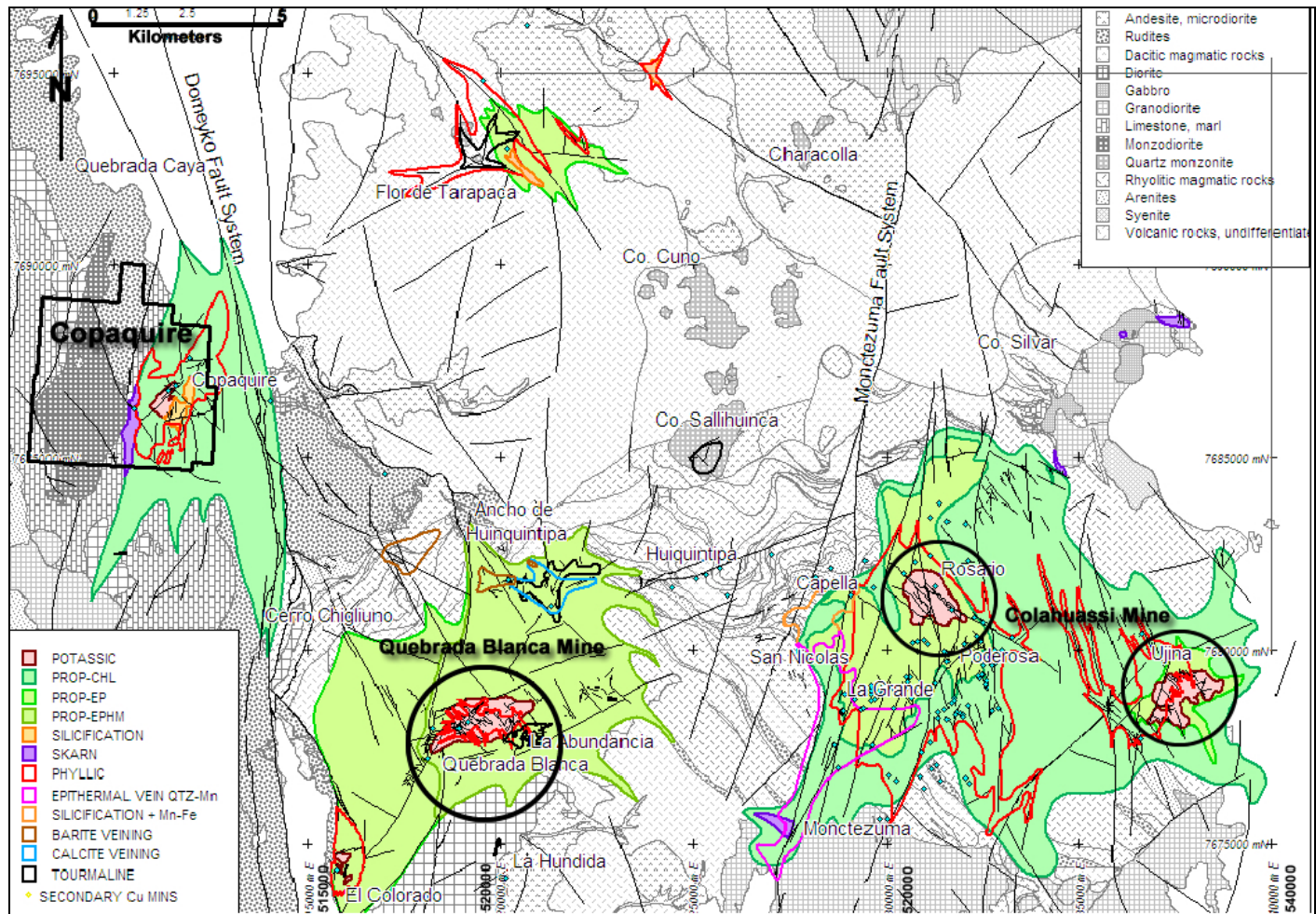
Figure 5: IKONOS Image of the Copaquire Property showing two major structural trends

In the Middle Eocene - Early Oligocene an important deformational event (the Domeyko Fault System) involved continental margin perpendicular shortening and margin-parallel transcurrent movement. The Domeyko Fault System are divided into three segments from N to S; the West Fault (Falla Oeste), Sierra de Varas and Sierra Castillo - La Terna. Each segment of the Domeyko Fault System has its own particular chronology and kinematic. The deformations associated with the formation of the West Fault created the crustal conditions related to the generation of volatile-rich porphyry copper type magmas, as well as channeling their emplacement to shallow crustal levels and focusing their mineralizing fluids. Porphyry copper deposits of 42 to 31My. are associated and located along all segments of the Domeyko Fault System. The West Fault (strike-slip) marks the western edge of the Chuquicamata porphyry deposit (approximately 135 km to the S of the Copacquire property) appears to continue to the N just west of the El Abra deposit (approximately 110 km S of the Copacquire property). This structure is within the central belt and continues at least a further 50 km to the north. The Eocene Challos Fault is sub-parallel to the West Fault. It is a basement-bounding reverse fault that is located a considerable distance to the west of the younger West Fault. However, to the north the fault lies within the West fault zone, probably being reactivated during activity of the West Fault either as a subsidiary fault or as the master strand of it. The Challos Fault appears to continue north through to the Collahuasi district.





**Figure 6: Regional Geology (Vergara 1975, Vergara y Sato1976, Hunt y otros 1980, Ramirez y Huete 1981, Vergara y Thomas 1984, Martini 1984, Davidson 1992)**



**Figure 7: Alteration areas along the Collahuasi Copper Porphyry cluster zone**  
 (After Ireland Tim, et al. Dec. 2006. CODES centre for ore deposit research, University of Tasmania, Hobart, Australia; Hefei University of Technology, Anhui, China ; Lakehead University, Thunder Bay, ON, Canada).

## 7.2 PROPERTY GEOLOGY

The meta-sedimentary rocks underlying the Copaquiere Property are metamorphosed Jurassic pelitic shelf sediments. They consist largely of intercalated banded black shales with quartz silt strata throughout the sequence. Pre mid-Tertiary regional east-west compression produced tight north-south trending folds in these meta-sediments, with some overturning within the Copaquiere concessions.

A sequence of Cretaceous, predominantly unaltered, andesitic lavas, agglomerates and red to purple gray epiclastic mudstones of generally terrestrial deposition are exposed in the eastern part of the property

Several smaller Tertiary plutons have been identified in the Collahausi district. The known porphyry copper deposits in the district are associated with these smaller plutons. The Jurassic meta-sediments in the Copaquiere area are intruded by early Tertiary granodioritic-quartz monzonite porphyry stock(s). The porphyry stock that outcrops on the Cerro Moly ridge contains euhedral to subhedral quartz phenocrysts, altered orthoclase, plagioclase and biotite phenocrysts.

Igneous and hydrothermal copper mineralized breccias have been identified within the Sulfato Zone, north and east of Cerro Moly. See Figure 8 for a generalized geology map of the property, and Table 5 for rock unit descriptions.

The Jurassic meta-sediments that are intruded by granodiorite/quartz Monzonite stocks in the Sulfato Zone exhibit bleaching and incipient biotite hornfelsing developed proximal to the intrusive contacts.

The granodiorite/quartz Monzonite porphyry stock in Cerro Moly is separated from the copper mineralized meta-sediments and breccias (Sulfato South Zone) by a northerly trending younger fault zone (Copaquire Fault) sub-parallel to the regional Sulfato Fault and is probably related to it. Several small dioritic plugs and dykes intrude this sequence east of the fault and produce zones of mostly argillic and phyllic alteration.

Five relatively small intrusive bodies have been locally recognized and classified within the Copaquiere Property by Arias et al, (1988), based on petrographic descriptions and estimations of quartz, K-Feldspar and plagioclase contents. A classification and description of these intrusions is presented below:

### **a. Don Ernesto Porphyritic Diorite:**

It is mostly an isolated outcrop of 0.8 by 0.3 km located at the south margin of Quebrada Huatacondo. It has a composition between diorite and granodiorite with a visual content of 10-14% quartz, 75-80% andesine (An<sub>33-49</sub>), 5-6% augite, 1-3% of alkaline feldspar, 1% biotite and 2% accessory magnetite and apatite. A porphyritic texture of feldspars within a groundmass of microcrystalline quartz and feldspars with minor mafics is characteristic of this rock type. The alteration mineralogy of this rock has been described as sericite, chlorite, undifferentiated clays and calcite. This unit intrudes rocks of the Quehuita Formation. Andesitic xenoliths have been

recognized within this unit which is considered to be the oldest intrusive rock within the area.

### **Marta Granodiorite**

The name is derived from an old adit which follows a Quartz-Moly Vein, locally named the “Marta Zone or Mine” located within this intrusive complex about 3 km west of the Copaquiere Camp site. It is the largest intrusive within the project area and outcrops of this unit cover an area about 4 by 2 kilometres, with a north-south elongation. Dioritic xenoliths and textural changes from granular hypidiomorphic to coarsely porphyritic (finer grained near its contact margin) are characteristic textures of this intrusive. It has been classified as a biotite granodiorite based on petrographic composition of 25-32% quartz, 41-47% andesine ( $An_{26-37}$ ) 8-11% alkaline feldspar 8-13% biotite, 2.5-5.5% hornblende and 3% accessory minerals (magnetite, rutile sphene and apatite). It has weak chlorite-sericite alteration and a contact aureole of a skarn type with the host sedimentary rocks, characterized by banded alternating colors of green and white at the contact. This intrusive rock unit has been interpreted as a differentiated phase from the original magma which generated the Don Ernesto diorite (Arias et al., 1988).

### **The Cerro Moly Quartz-Monzonite Porphyry**

This stock outcrops in the south-eastern area of the Copaquiere Property as a protruding ridge (Cerro Moly), with an exposed surface area of approximately 0.6 by 0.5 km. This porphyry stock contains euhedral to subhedral quartz phenocrysts, altered orthoclase, plagioclase and biotite phenocrysts.

Petrographically, this unit is composed of 24-31% quartz, 60-63% plagioclase ( $An_{24-28}$ ), 1.5-5.5% alkaline feldspar and 7-8% biotite. A Ar/Ar age of 36.3  $\pm$  0.5 My for this Porphyry unit has been estimated by Tomlinson et. al., 2001.

### **Sulfato Porphyry**

This is a intrusive unit outcropping both at Quebrada Sulfato and the southwestern sector of the area. It intrudes older magmatic bodies and it has been interpreted as the last and most differentiated event of the Eocene intrusive period. It has a petrographic composition of a dacitic-rhyolitic porphyry with characteristic “quartz eye” phenocrysts in a fine grained groundmass.

### **Alteration**

Within the Copaquiere Property hydrothermal alteration is observed in the Cerro Moly, Sulfato and Marta areas. The alteration observed in Cerro Moly and Marta is mainly k-spar alteration, whereas in Sulfato South and North the alteration is mostly phyllic, argillic and minor propylitic. These are typical alteration types found in calc-alkalic porphyry copper-molybdenum systems in the Andean region.

### **Potassic Alteration**

Potassic alteration is recognizable principally in the drill core from the Cerro Moly area from the junction of quebradas Copaquire and Guatacondo eastwards to the Sulfato fault and affects the granodiorite/quartz monzonite, hornfelsed Jurassic sediments and the local breccias. The potassic alteration consists of incipient biotisation of hornblende phenocrysts and quartz-potassium feldspar-biotite veinlets and patches. These veinlets are multi-directional and can also contain molybdenite, magnetite and anhydrite.

### **Phyllic Alteration**

Phyllic alteration is recognized from pervasive, veinlet and fracture controlled aggregates of sericite and quartz and is generally accompanied by pyrite, chalcopyrite and molybdenite. It has been identified in outcrop and drill core mainly in the Sulfato South Zone. Quartz-molybdenite veins in this zone can reach widths of 5-10 cm.

### **Argillic Alteration**

Argillic alteration is identified from kaolinisation of feldspars in the porphyritic intrusive and local pervasive matrix alteration. This alteration occurs mainly in structures within and near surface areas of the Sulfato South and North areas. Supergene weathering has also produced a significant pervasive argillic overprint. Pyrite is a common accessory mineral in this alteration, particularly in the northern Sulfato area.

### **Propylitic Alteration**

A propylitic alteration is characterized by the development of chlorite, pyrite and subordinate epidote in patches, dissemination and veinlets.

### **Calc-silicate hornfels and skarn**

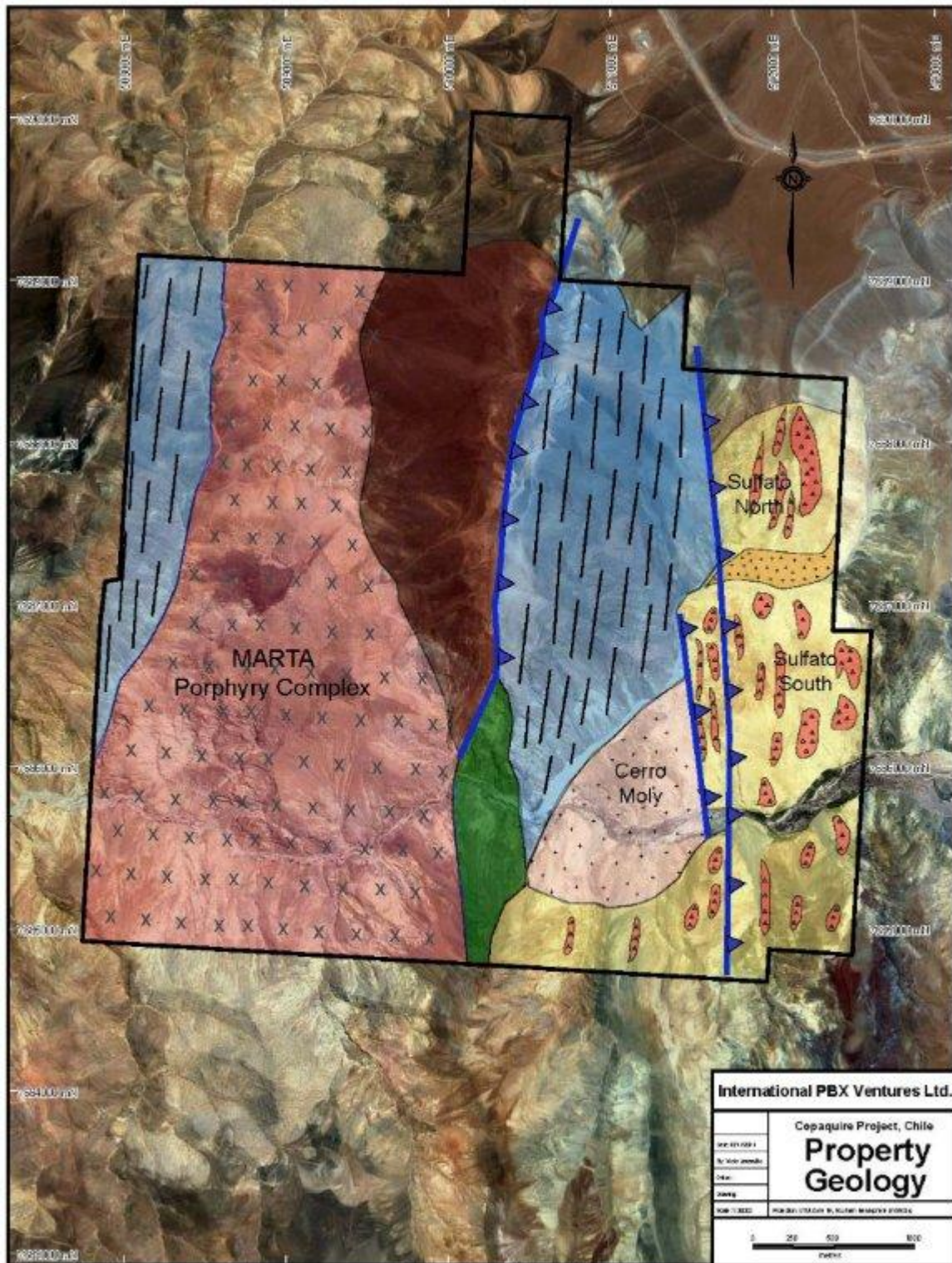
Calc-silicate hornfels and skarns are developed in the Jurassic sediments occurring as roof pendants in the granodiorite/quartz monzonite of the Cerro Moly and Sulfato areas and along the south and southwest flanks of Cerro Moly. This alteration type varies from biotite hornfelsing in the more pelitic sediments to quartz-potassium feldspar hornfels to incipient pyroxene-garnet skarns. The intensity of alteration increases towards the intrusive.

The constant changes between the propylitic, phyllic and potassic alteration logged in drill core suggests that the overall alteration of the area is of moderate to high pH and temperature on the junction of the three alteration fields.

### **Structure**

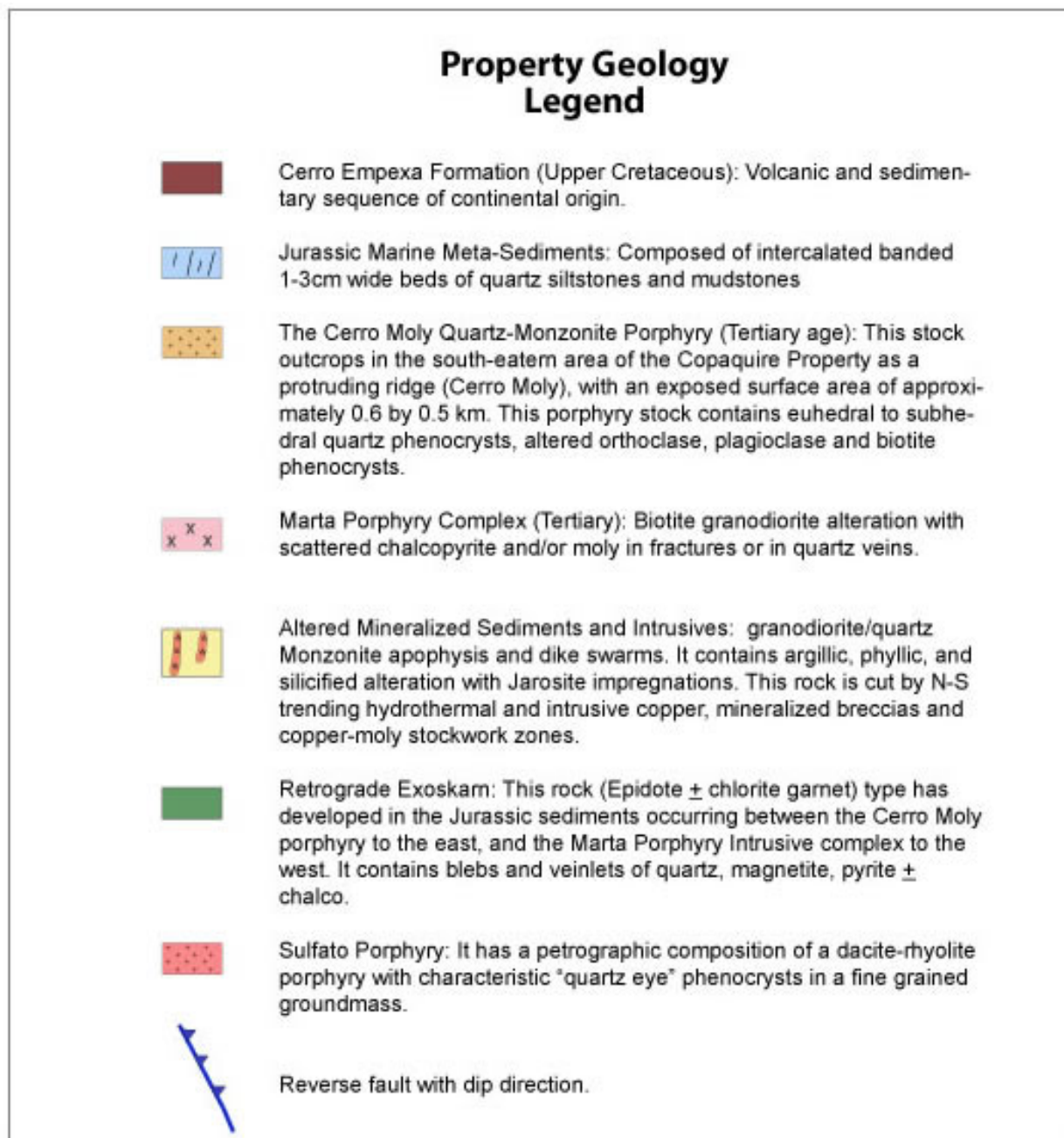
The dominant fault system on the Copaquire Property are the north-south trending and essentially easterly dipping right lateral Sulfato and Copaquire faults that cut all rock types (Figure 8). Other smaller sub-parallel faults with similar sense of movement has developed an





**Figure 8: Generalized Property geology map (after Victor Jaramillo, Dec. 2011)**

acutely bifurcated and anastomosed system. Conjugate northeasterly trending tensional faults, joints, veins and veinlet swarms attend the Sulfato fault system, particularly in the Cerro Moly area.



**Table 5: Property Geology Map Legend (See figure 8 above)**

### 7.3 MINERALIZATION

Over the past 40+ years, prospectors, geologists and a few exploration companies have focused mainly on the molybdenum-rich porphyry (known as Cerro Moly) stock on the north flank of the Huatocondo Creek. As such, the Copaquire property has been recognized to host mainly molybdenum mineralization with low copper content (0.1-0.2% Cu). But as of 2010, Minera IPBX started re-evaluating the copper potential at the Sulfato South Zone with excellent copper drill results not seen before.

During 2011 IPBX senior porphyry geologists have refined the geological model, identifying geological and structural controls on the copper mineralization, its paragenesis and the exploration criteria to be used in an infill diamond drill program in the Sulfato Zone. This new understanding and the drilling that has been carried out, has resulted in the transformation of geological potential into an inferred resource within a small section of Sulfato South.

Geologically the Copacquire Property includes several mineralized targets (Cerro Moly, Sulfato South and North, the Marta Zone and the Skarn Zone) all which are related and correspond to a large porphyry copper system (of Tertiary age) intruded into Jurassic and Cretaceous rocks within dominant structural controls (such as faults, fractures, dikes and breccias) that are located immediately west of the regional West Fissure Fault (Domeyko System). See Figure 9 below.

The main rock types that outcrop in the Sulfato area correspond to a group of Jurassic marine meta-sedimentary rocks and Cretaceous volcanics. These rocks are intruded by a series of Tertiary acid intrusive rocks of which the main ones are the Marta Granodiorite Porphyry, and the Cerro Moly Quartz Monzonite Porphyry.

The structural-morphological setting of these rocks and their characteristics is given by the following sequence of events:

- Strong folding of the pre-tertiary rock units.
- The development of large north-south trending regional faults (with 60-70 degree east dips) and with inverse-dextral movements. These faults limit and control the emplacement of the large tertiary rock units.
- Later development of igneous and hydrothermal breccias.

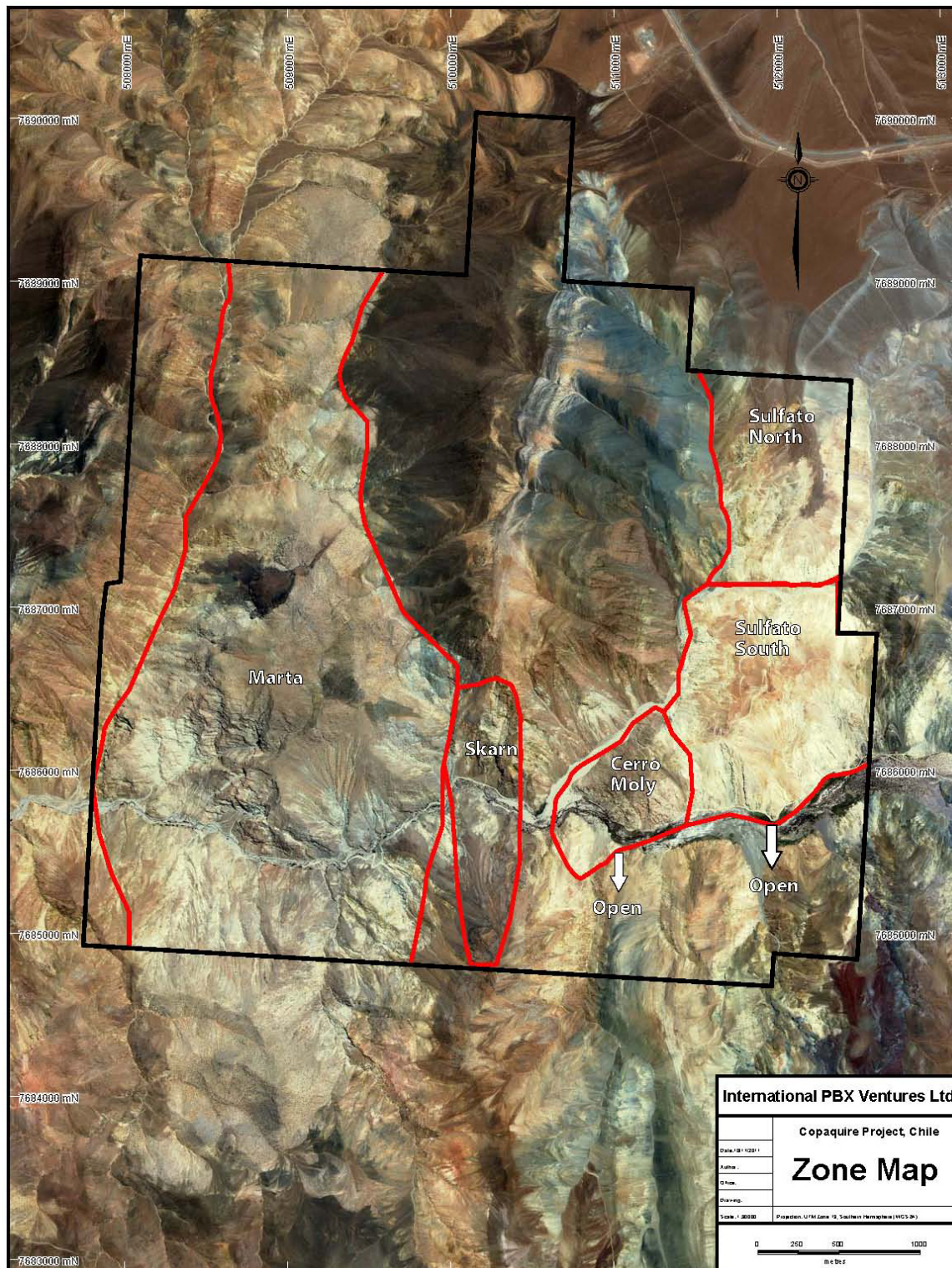
### **7.3.1 Mineralization at Sulfato South:**

The sequence of the main geological events and their relationship to the copper mineralization at the Sulfato South Zone are as follows:

1. Host rock (Jurassic sediments and Cretaceous volcanics)
2. Tectonic Cretaceous deformation, generation of folding and subsequent uplift of the Sierra de Moreno Mountains with the generation of inverse north-south faults.
3. Emplacement of Tertiary intrusive rocks (36 – 39 m.y.) which generated areas of hornfels and skarnification near the contacts of the intrusions with Jurassic sedimentary rocks.
4. First mineralization event composed of mainly molybdenite veinlets (minor chalcopyrite) with phyllic alteration overprinting an earlier potassic phase.
5. Second mineralization event characterized by mainly chalcopyrite-pyrite (magnetite-tourmaline) mineralization with continued ascending flow of hydrothermal fluids along structurally weak zones (fractures-faults) generating intrusive and hydrothermal breccias in wall rocks (intrusives and meta-sediments) with chalcopyrite-pyrite mineralization in the matrix.
6. Third mineralization event characterized by the formation of mineralized stockwork type veinlets adjacent to breccia zones.
7. Later tectonic mineralized block displacement along faults allowed the Sulfato South Zone to be preserved with near surface leached areas (jarosite and goethite), followed by low concentrations of copper oxides (copper sulfates with less chrysocolla, azurite and



malachite) and below by copper secondary enriched zones of mainly chalcocite and covellite, and at deeper levels hypogene copper mineralization.



**Figure 9: Mineralized Target Zones at the Copaqure Property**  
(After Victor Jaramillo Dec. 2011)

8. Finally the uplift of Cerro Moly takes place followed by the erosion of the overlaying Jurassic and Cretaceous rock units, and thus exposing the quartz Monzonite porphyry that contains mainly pyrite-molybdenite with scarce chalcopyrite (See Figure 10).

The lithological and structural schematics are the basis of the zonation and distribution of the copper grades in the Copaquire and Sulfato fault system. The main copper mineralized body identified to date is hosted within diverse rock types. As such, the overall mineralized body within the zoned copper envelope has a north-south elongated shape with dips to the east; its dimensions are approximately 1.3 km long by 500 meters wide and with an approximate recognized width that ranges from 300 to 350 metres.

Based on over 10,000 metres of diamond drill holes completed in the Sulfato areas, it is concluded that the main hypogene mineralization controls in Sulfato South, are similar to the mineralogical controls found in the giant copper porphyry deposits in northern Chile.

Particular similarities have been observed in the geological framework of Sulfato South and that of the Spence Mine (BHP), as the sequence of intrusions in both cases penetrate similar folded sedimentary units of Jurassic and Cretaceous age. The main mineralization event (chalcopyrite and pyrite) in Spence has many similarities with the mineralization style observed in Sulfato.

In the case of Sulfato, a nucleus of high grade copper hypogene mineralization (Bornite-Chalcopyrite) has not yet been recognized, probably due to the shallow depth of drill holes. As in the case of Spence, this high grade nucleus has been recognized. This makes it necessary to drill deeper holes in the Sulfato area or nearby areas.

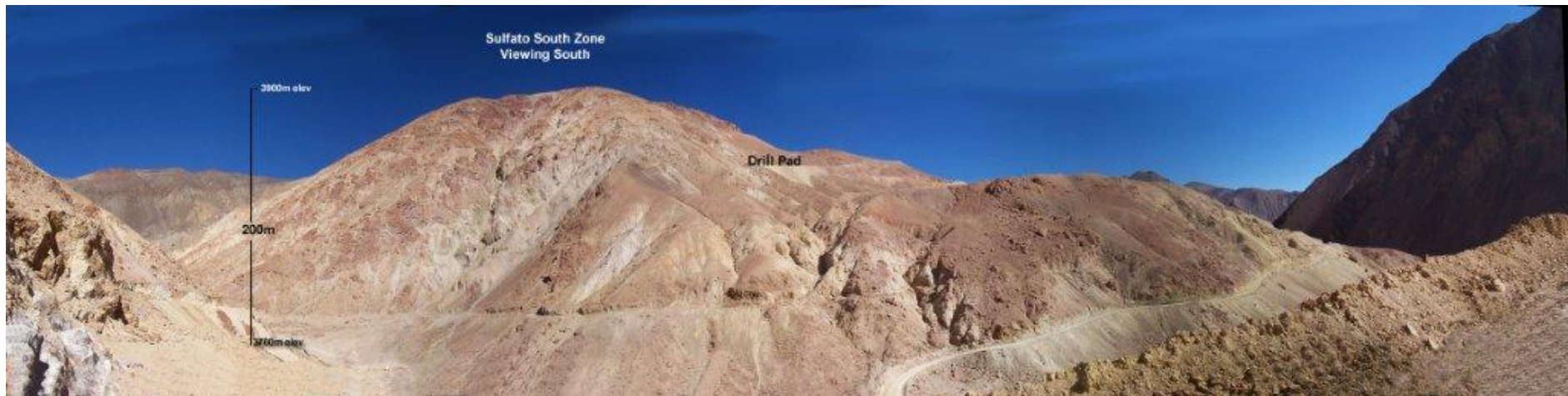
### **7.3.2 Mineralization at Sulfato North:**

The sequence of geological events and their relationship to the copper mineralization at the Sulfato North zone are believed to be similar and related to that observed in the Sulfato South Zone. This is based on similar surface geology, alteration, data from previous RC drilling and this year's diamond drill hole CQ-110 drilled in Sulfato North, which contained copper mineralized intrusive and hydrothermal breccias as those observed in Sulfato South.



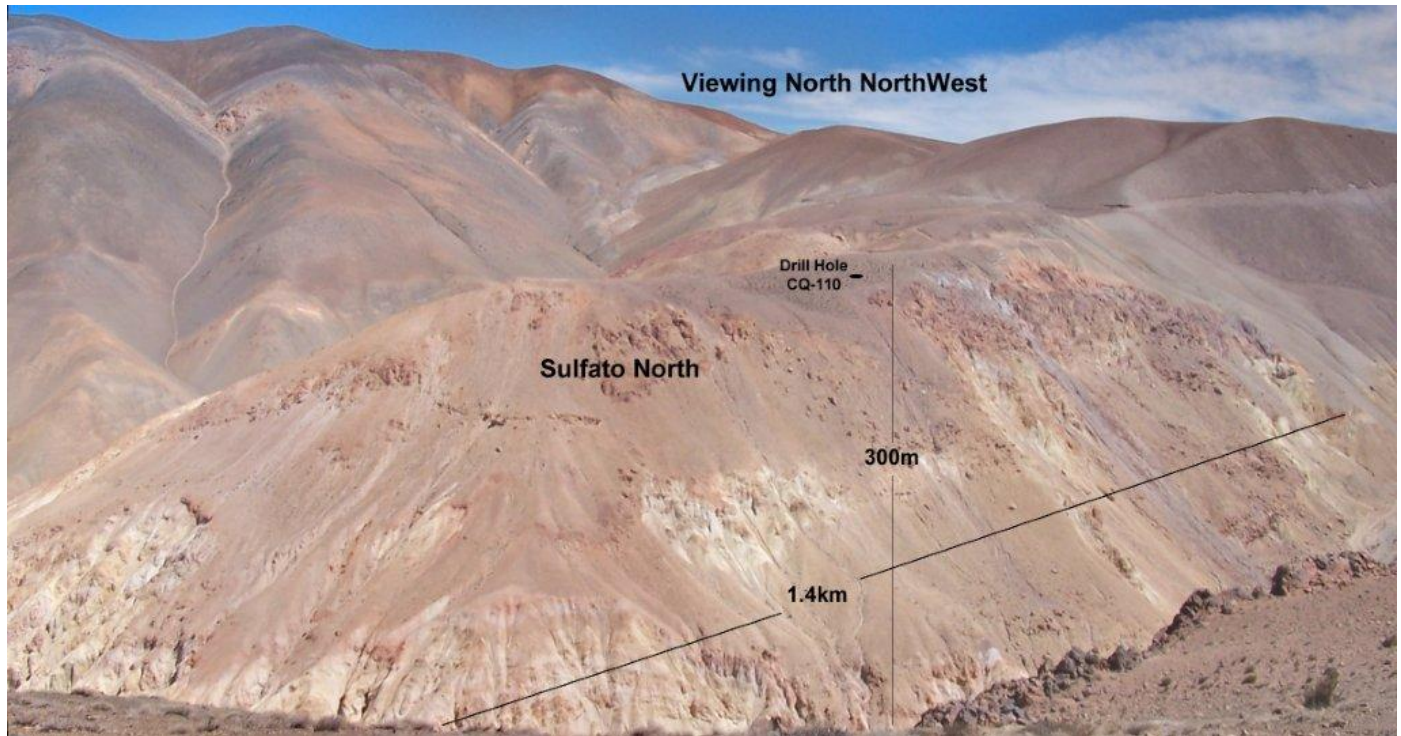


**PLATE 2: View of Cerro Moly, Sulfato South & North, looking south**



**PLATE 3: Sulfato South (View Looking SSW)**





**PLATE 4: Sulfato North (View looking NNW)**



**PLATE 5: Sulfato South (looking SW). The road cut is on leached and silicified rock, with clay-sericite alteration, and impregnations of Jarosite.**





**PLATE 6: Massive chalcopyrite in breccia matrix (CQ-100)**



**PLATE 7: Crackle breccia with massive chalcocite in matrix**



**PLATE 8: Core fragment from Sulfato South with covellite**



**PLATE 9: Chalcopyrite-quartz vein from CQ-100 (Sulfato South)**



**PLATE 10: Hydrothermal breccia with quartz-chalcopryite in matrix from CQ-107A (Sulfato South)**

### **7.3.3 Mineralization at Moly Hill (Cerro Moly):**

Moly Hill is a distinct and separate porphyry Stock. It is mainly composed of quartz-monzonite that hosts molybdenum rich mineralization with subordinate copper. Sulphide mineralization is mainly composed of quartz-molybdenite veins and stockwork type veinlets. Minor chalcopryite has been observed in quartz-pyrite-chalcopryite veinlets. This quartz-monzonite intrusive is mostly with potassic alteration which can be seen as veinlets of k-spar and secondary biotite. This intrusive also has disseminated pyrite and magnetite.



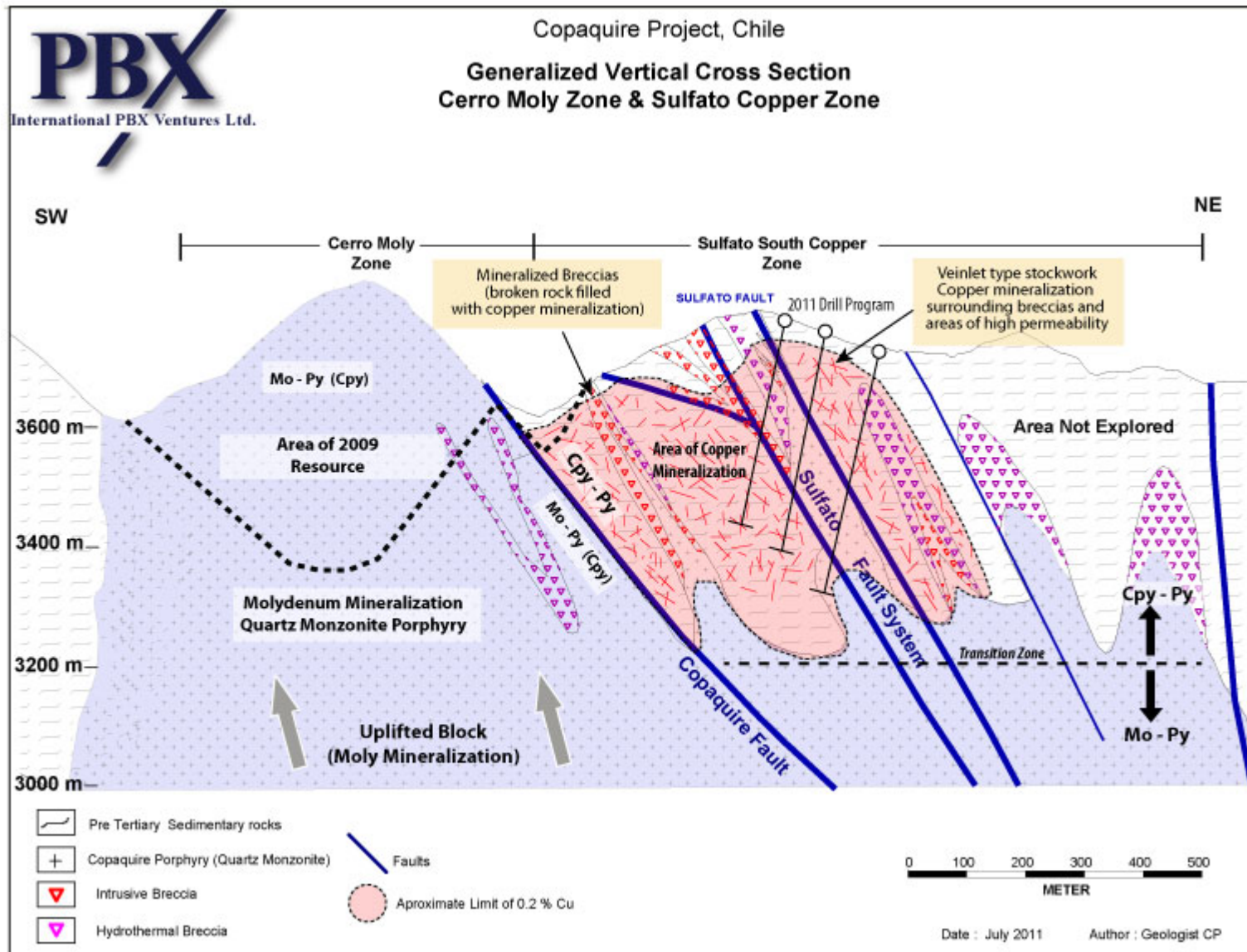


Figure 10: Schematic Geological Model Cross Section – looking NW (Hugo Becerra, 2011 internal report)



**PLATE 12: View of Cerro Moly and Sulfato South**



**PLATE 11: Typical quartz-molybdenum vein in quartz monzonite porphyry at Cerro Moly**

### **7.3.4 Mineralization at Marta:**

The Marta porphyry zone is located approximately 2 kms west of camp. It is a granodiorite intrusive complex that has an elongated shape and measures approximately 4 km long (N-S trend) with an approximate width of 2 km (E-W).

Previously the Marta Porphyry zone was known by local villagers as “the Malta Mine” as in the early 1900’s from an old adit along a quartz-molybdenum vein, molybdenite was mined at a very small scale. The plate above is the area where this vein and stockwork zone is located. The vein in question strikes NW and dips approximately 50 degrees NE and has an average width of approximately 2.5 meters.

Surrounding the area of molybdenum mineralization, several zones with copper oxides and chalcopryite on fracture surfaces have been identified. The Marta Zone is believed to be an intrusive complex in which the host rock has been observed to be mainly an equigranular granodiorite with pottassic alteration.





**PLATE 12: Chalcopyrite-Quartz Vein in CQ-108 (Marta)**



**PLATE 13: Chalcopyrite on fracture surface (south Marta)**

In Marta, south of the Huatocondo creek, systematic rock chip panel samples returned copper assays ranging from 0.1 up to 1.04% copper. Copper mineralization was mainly composed of Copper Wad and Atacamite (copper oxides). Table 6 below are assay highlights for this area.

<b>SAMPLE</b>	<b>Sample</b>	<b>Cu</b>
<b>Number</b>	<b>Type</b>	<b>%</b>
107628	Panel (2x1m)	<b>0.39</b>
107631	Panel (2x1m)	<b>0.22</b>
107640	Panel (2x1m)	<b>0.25</b>
108645	Panel (2x1m)	<b>0.63</b>
108860	Panel (2x1m)	<b>0.38</b>
108861	Panel (2x1m)	<b>0.47</b>
108862	Panel (2x1m)	<b>0.79</b>
108863	Panel (2x1m)	<b>0.29</b>
108870	Panel (2x1m)	<b>0.47</b>
108871	Panel (2x1m)	<b>0.32</b>
108874	Panel (2x1m)	<b>1.04</b>
108875	Panel (2x1m)	<b>0.31</b>

**TABLE 7: Copper Assay highlights from Marta South**

Company geologists believe the granodiorite exposed in Marta is the outer shell of an older intrusive that has been intruded by a younger age porphyry copper intrusive. The Marta intrusive complex is the largest target at Copaquire and the least explored. During 2010 a Titan survey identified anomalous areas that have yet to be drill tested. In 2011 a ZTEM survey that was conducted over the Copaquire Property outlined very well this large intrusive complex. Also, this year two drill holes south of the Huatocondo creek identified low grade copper mineralization mainly as quartz-chalcopyrite veinlets. It is believed the main copper porphyry source intrusive is yet to be found.

### **7.3.5 Skarn Mineralization:**

During 2010 a significant skarn zone was identified in the south central area of the Copaquire Property. The skarn trends N-S for approximately 800 meters and remains open in both directions. Along the Huatocondo road it has an exposed width of approximately 300 meters. It is bound to the east by the Moly Hill intrusive and to the west by the Marta intrusive complex.

The skarn is observed to have undergone significant retrograde alteration, as evidenced by the replacement of lower temperature minerals such as epidote, from higher temperature ones as garnets. Still visible in outcrop are areas that show the skarnified banded sediments to have a North-South strike and subvertical to vertical dips.

The term retrograde alteration refers to an alteration stage in which higher temperature; generally anhydrous minerals are replaced by lower temperature, generally hydrous minerals. Retrograde skarn mineralogy, in the form of epidote, amphibole, chlorite, and other hydrous phases, typically is structurally controlled and overprints the prograde zonation sequence as seen in Copaquire. Epidote and amphibole group minerals are indicative of relatively low temperature: around <400 Celsius. At Copaquire the retrograde skarn minerals show replacement, and are also contained in vein structure. In general, retrograde alteration is more intense and more pervasive in shallower skarn systems. In some shallow, porphyry copper-related skarn systems, extensive retrograde alteration almost completely obliterates the prograde alteration mineral assemblage.

The skarn is mainly composed of epidote, chlorite, actinolite, magnetite and remnant garnet. Sulphide mineralization has been observed in quartz-pyrite-chalcopirite veinlets, also as irregular blebs or concentrations. In outcrop along some fracture surfaces stains of chalcanthite and thin layers of chrysocolla have been observed.

It is not uncommon to find copper skarn mineralization associated with porphyry copper-molybdenum systems. It is well known in the scientific community that large copper deposits can occur associated with mineralized porphyry copper intrusives.

At Copaquire, Skarn mineralization (proximal type skarn) occurs at/or near the periphery between two intrusive contacts with non-calcareous meta-sediments. It is known that higher copper concentrations may only result in districts with multiple intrusive episodes and fluid pulses as those observed at Copaquire. Proximal skarns lacking hydrous, retrograde overprints are unlikely to host significant copper deposits.

Non-calcareous meta-sedimentary host rocks at shallow depths (less than 500 m), as seen at Copaquire, generally tend to deform by fracturing and faulting rather than folding. Faulting and fracturing are more likely to control hydrothermal activity accompanied with the formation of skarn and sulphide minerals.

To date no exploration work has yet been done in this mineralized target.





**PLATE 14: Skarn Zone looking east**



**PLATE 15: Massive epidote fragment from Skarn zone, with clusters of Magnetite, impregnations of chrysocolla, veinlets of pyrite and blebs of chalcopyrite**

## 8.0 DEPOSIT TYPES

The Quebrada Blanca and Collahuasi mines are within 15 km of the Property. Although the Copaquire deposit forms part of the Collahuasi cluster of porphyry copper deposits, this does not imply that at Copaquire there will be a similar world class type deposit.

The Copaquire deposit has similar features to Andean-style porphyry copper-molybdenum deposits. This type of mineralization system covers tens of square kilometres of large masses of altered rocks, sulphide-bearing veinlets and disseminated mineralization, quartz veins and stockworks. Alteration zones are commonly coincident with shallow intrusives and/or dike swarms and hydrothermal or intrusive breccias.

Intrusives, hydrothermal breccias and zones of intensely developed fracturing are often coincident and commonly contain the highest metal grades. Weathering commonly modifies the distribution of mineralization. The oxidation of pyrite commonly generates acidic meteoric water which leaches the copper minerals.

The copper rich solution re-deposits the copper as secondary minerals such as chalcocite and covellite immediately below the water table in a supergene and blanket shaped enrichment zone. The phenomenon produces a copper-poor leached cap lying above a relatively thin higher-grade zone of supergene enrichment. The latter overlies a thicker zone of lower-grade primary (hypogene) mineralization at depth.

Porphyry systems may also exhibit hypogene enrichment. The process of hypogene enrichment relates to the introduction of late hydrothermal copper-rich fluids along structurally prepared pathways. In some cases leaching and re-deposition of hypogene copper can occur. Such enrichment processes can result in elevated hypogene grades.

## 9.0 EXPLORATION

The Copaquire Property has been explored since 1965. However, little information regarding the results is available. Efforts to explore the Property have been carried out by Sociedad Minera del Norte (Normina), Compañía Minera Placermetal (Placermetal) and Cominco Resources Chile (Cominco). In 2005, Minera IPBX Limitada (IPBX) began exploring the property.

### **Historic Exploration:**

#### **A. Normina**

In 1965, Normina evaluated the Copaquire Property. Two chip samples, over 2,700 feet and 1,100 feet, respectively, were collected some 2,000 feet apart on opposite sides of an identified mineralized zone. The properties “Copaquire 1 to 950” and “Condorito 1 to 995” were first registered between 1960 and 1961 (Lindley, 1965).

## **B. Placer Metal**

During 1976 and 1977, Placer Metal carried out a stream sediment and rock chip sampling program. Additionally nine diamond holes were drilled in the Cerro Moly zone.

## **C. Cominco**

In 1993 Cominco drilled 18 widely spaced, shallow RC drill holes. The program tested the Sulfato phyllic alteration zone.

## **Recent Exploration:**

### **Minera IPBX Limitada:**

During 2005 a stream sediment survey and talus sampling was completed by IPBX. Also that year a total of 12 diamond drill holes were completed in the Cerro Moly and the Sulfato areas (CQ-01 to CQ-12).

In 2006 IBPX completed 18 RC drill holes in the Sulfato Zone (CQ-13 to CQ-30) totaling 4,596 metres and 7 diamond drill holes in the Cerro Moly Zone (CQ-31 to CQ-37) totaling 1,813 meters.

During 2007 and 2008 a total of 62 diamond drill holes (CQ-38 to CQ-99) totaling 18,737 meters were completed in the Sulfato and Cerro Moly zones.

During 2010 a total of 9 drill holes were completed for a total of 2,586.47 metres in Sulfato South.

During 2011 a total of 16 diamond drill holes were completed for a total of 5,495.20 metres. Of these 2 drill holes (CQ-106 and CQ-108) were done in Marta, 13 in Sulfato South and one in Sulfato North.



## Geophysics:

### IP Survey

During 2005 IPBX completed a 5.7 km IP geophysical survey in the Sulfato and Moly zones (See figures 11 and 12). This survey outlined very well the mineralization at Cerro Moly and most of Sulfato North and South as chargeability anomalies ranging from approximately 15 to 35 millivolts/volt (mV/v) seen as areas of light orange to red colors. Interesting is the strong anomaly west of the Sulfato zones which needs follow-up work.

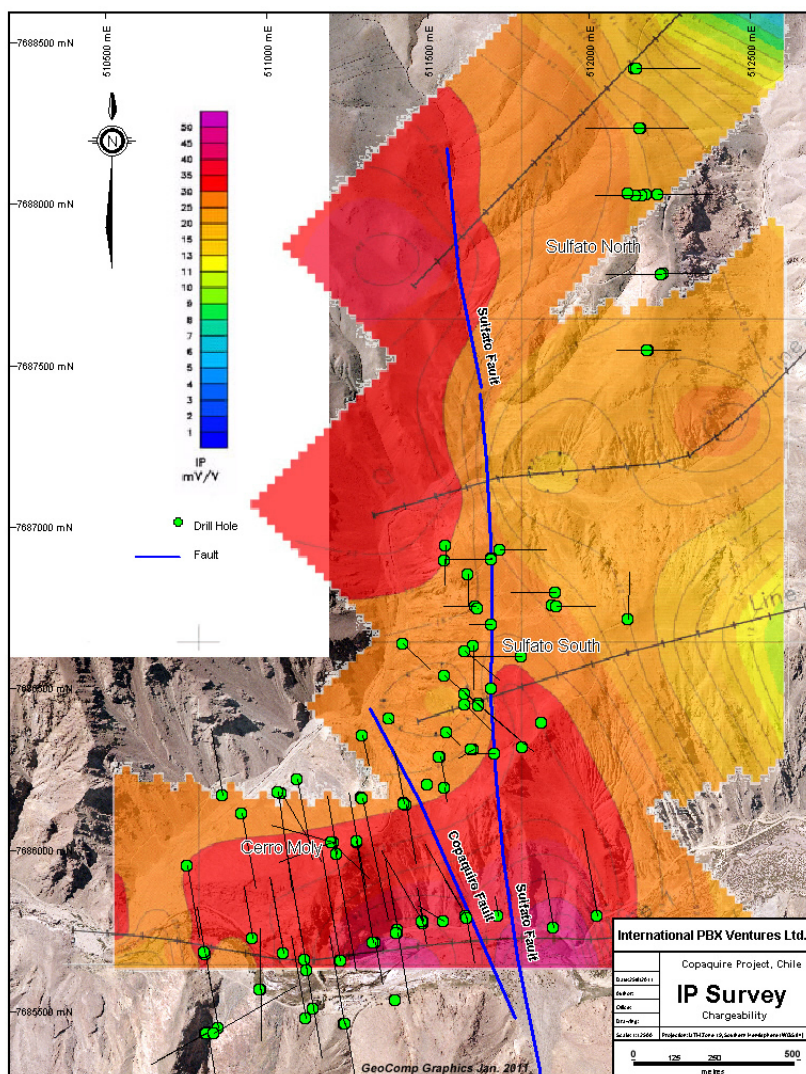


Figure 11: IP survey completed in 2005

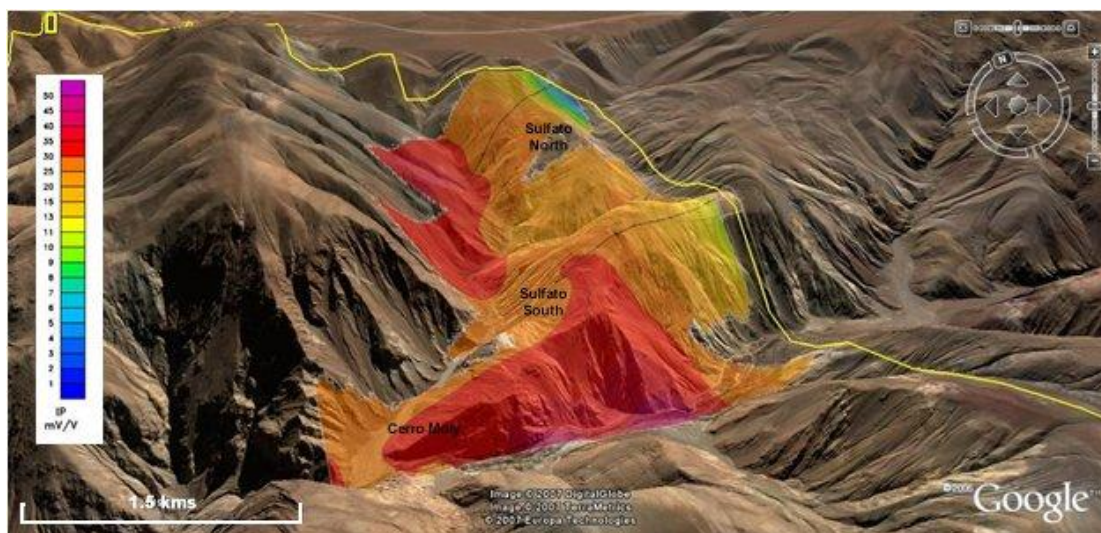


Figure 12: IP survey completed in 2005 in 3D Image (*GeoComp 2011*)

### **Titan Deep Penetration IP Survey**

In mid-2010 IPBX retained the services of Quantec Geophysics to complete a 4.3 km east-west line using magneto-tellurics (Titan MT) along the Huatocondo Creek. This survey was done in order to detect deep mineralized areas (See figures 13 and 14). Quantec in their report dated June 2010 recommended the following drill hole targets:

The PBX Breccia has a coincident low resistivity zone to a depth of 250m. There is also a smaller zone that may be part of the Breccia to the west. This zone does not appear to outcrop.

The Moly Stock appears to be coincident with a conductive feature, and this extends to about 450m depth. The Moly Stock and the Intrusive Breccia may be part of the same body, and have coincident conductive zones.

Two vertical conductive structures approach the surface to the west of the Skarn and interpreted fault near the center of the line. The Cerro Moly Resource is defined at surface by a high conductivity area. There are 3 potential high conductivity feeder structures that appear to be connected to the surficial resistivity zone.

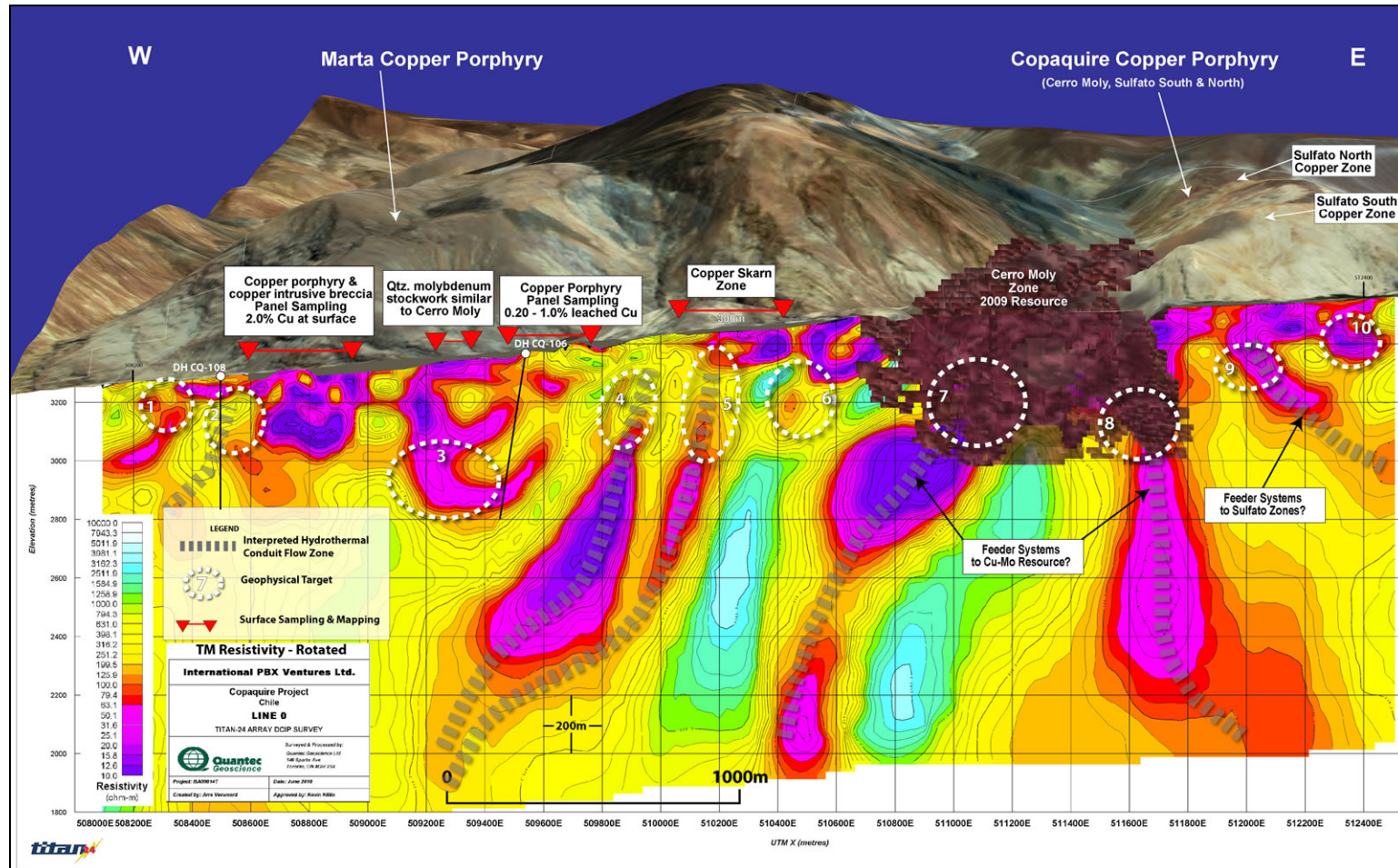
The Chargeability data was referenced to the MT resistivity. Targets have been chosen based on coincident high chargeability/low resistivity zones. Each of the known zones of interest has a coincident resistivity low and chargeability high. There are numerous targets that have been selected in areas where PBX has not drilled. Possible drill orientations are illustrated and discussed. Known targets are not discussed.

Targets 1 and 2 are chosen to test the possible extension of the Intrusive Breccia to the west. These targets appear to dip to the west, and may represent dipping mineralization. Target 1 appears to have a surface chargeability high, and may possibly outcrop. This signature would be similar to the Breccia showing. Target 2 is the top a chargeable anomaly that may be a deeper continuation of the Breccia mineralization. There is also an indication that the Breccia may extend to 250m depth. The coincident resistivity low is a good target area which has already been selected by PBX.

Target 3 is broken into three (3) possible drill orientations to test the depth extent and lateral extents of the Moly Stock. This area (to the authors knowledge), has not been explored at depth. There is a large target area that extends to a depth of approximately 500m vertically. The highest chargeability zone is at depth and is coincident with a resistivity low. There are two possible extensions that extend to a shallower depth. These could be tested after evaluation of the deeper target.

Two chargeable targets are coincident with the top of vertical conductors in the center of the line. These are considered lower priority, although these may be indicative of a westerly dipping conductive structure that is related to the Skarn and Fault zone.





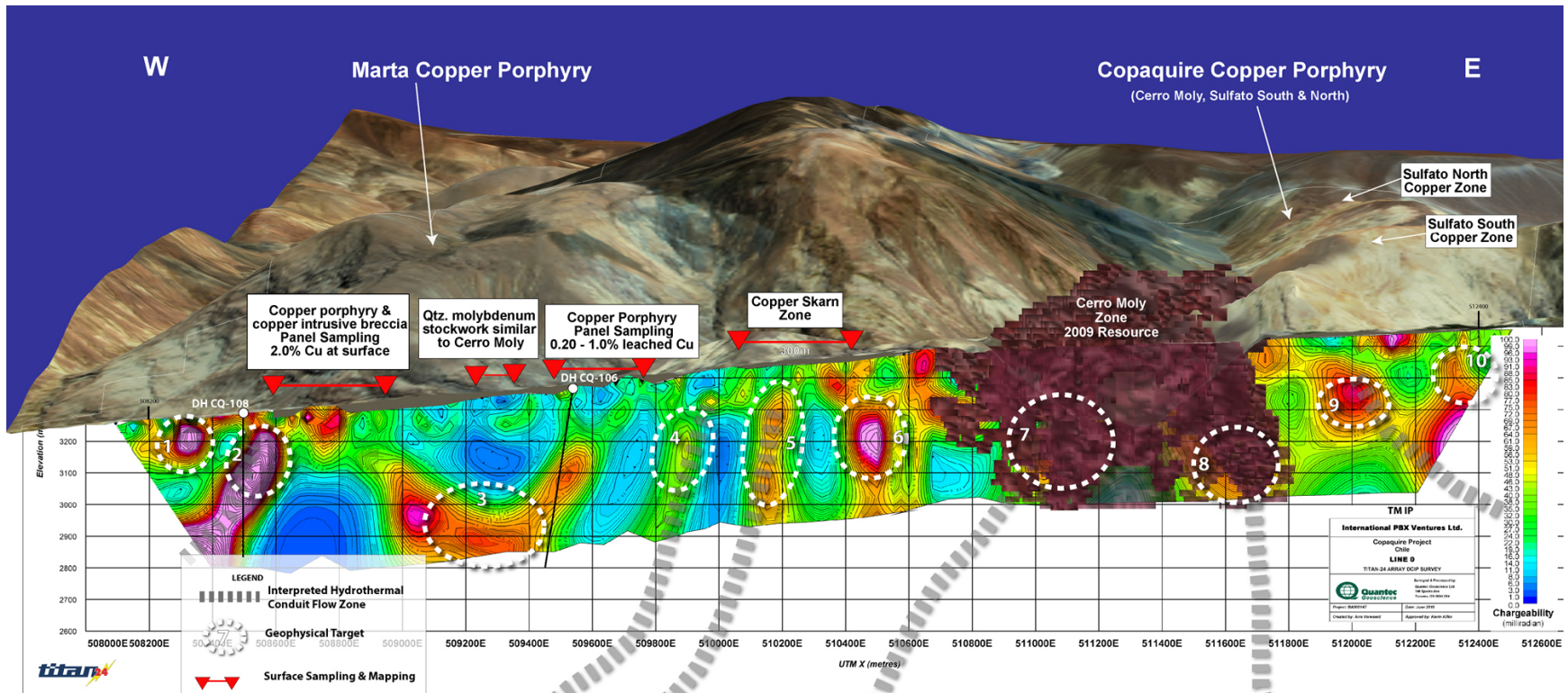


Figure 14: Chargeability Model with interpretation overlay (anomalies are red, pink and orange areas). Circled areas are Quantec recommended drill targets. (GeoComp 2011)

Targets 7), 8 and nine 9 are related to the known mineralized zone at Cerro Moly. Target 8 is a lower priority, resistivity only target. Target 7 is a very interesting target as it is at the top of a potential “deep feeder”. The recommended hole has been oriented in a way to intersect the chargeable anomaly and test the deep conductor. If this target proves positive, deeper drilling will be required to explain the large conductor defined by the MT resistivity. Target 9 is similar to target 8. This is also a high priority target.

Target 10 is east of the Resource study. This is very important to explain, as they could extend the resource under the area that has been chosen as the possible mill location. Deep trenching may explain the surface conductor, but condemnation drilling is recommended.

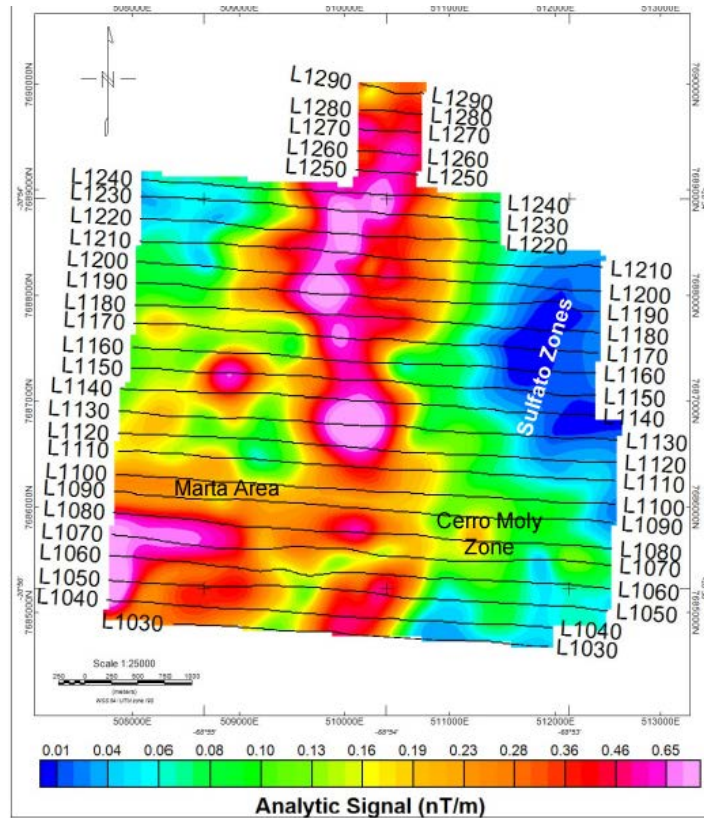
### **ZTEM Airborne Geophysical Survey**

In December 2010, Geotech Ltd conducted a ZTEM helicopter-borne geophysical survey for International PBX Ventures Ltd (Vancouver, BC) on its Copacquire Project, in northern Chile. The objectives of the ZTEM survey over Copacquire were: a) to map the known porphyry deposits and potential prospects from surface to depth, based on resistivity contrasts, b) as a survey comparison against previous ground MT results obtained on the property. ZTEM surveys have proven particularly useful in porphyry copper exploration for their ability to map resistivity contrasts associated with geologic structures and alteration that accompany these large mineral deposits – particularly between the potassic-altered core of the porphyries, which tend to be resistive, and the surrounding phyllic and/or propylitic alteration halos, which are more conductive (Lo and Zang, 2008; Paré and Legault, 2010; Sattel et al., 2010).

The ZTEM results over Copacquire appear to map the resistive potassic alteration associated with known Marta and Cerro Moly porphyries, below the surficial secondary enrichment layer and extending to depth. These are in turn surrounded by more conductive, barren pyrite-rich phyllic and propylitic alteration. Over the other two known mineralized prospects, at Sulfato North and South, the ZTEM results are different, with more resistive rocks at surface becoming more conductive at depth – perhaps reflecting a different geologic setting. Overall, these results are consistent with ZTEM results obtained over other, similar calc-alkaline porphyry systems and also agree with the known geology.

The magnetic analytic signal map (Figure 15) obtained from the aeromagnetic data collected during the ZTEM survey, shows Marta area inside a magnetic regional high with localized bull-eye anomalies. Cerro Moly is located over a moderate magnetic high, while the Sulfato Zones are represented by a regional magnetic low. These observations provide evidence that points to potential differences in magnetic mineral content resulting from the hydrothermal alteration processes responsible for mineral accumulation at Copacquire.

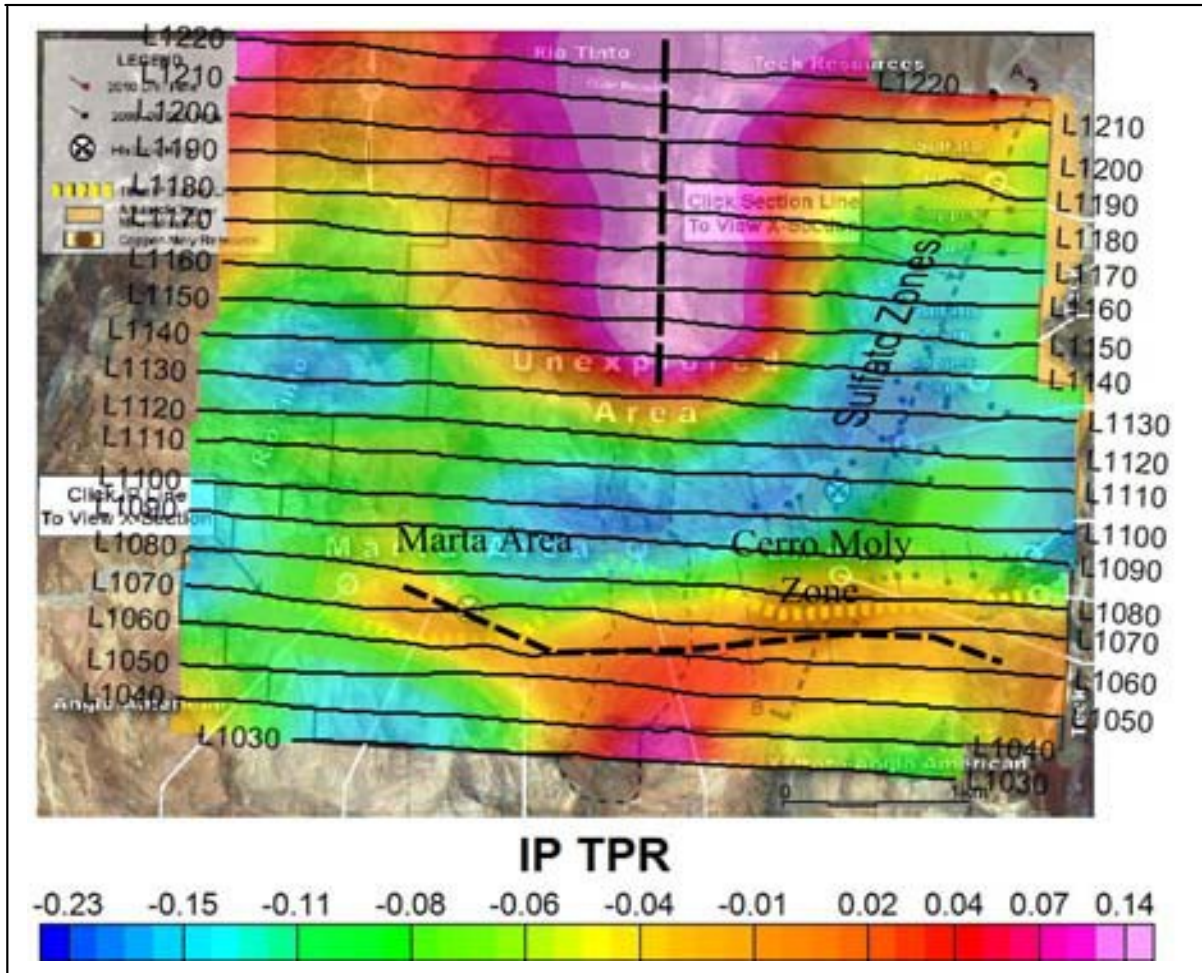




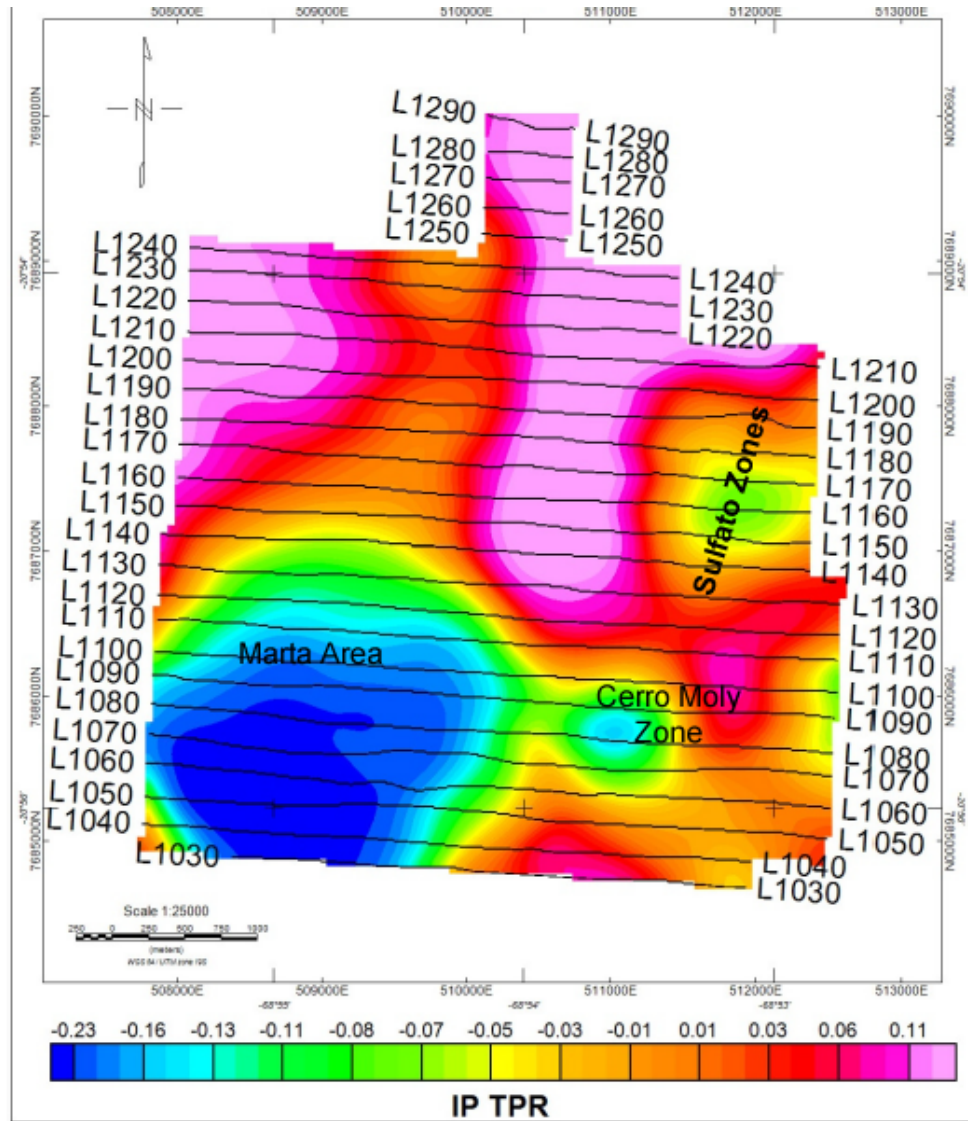
**Figure 15: Analytic signal of total magnetic intensity contour plan map, showing the known mineralized zones and with flight lines clipped to the property extents.**

*After Carlos Izarra, Jean Legault (Geotech Ltd.), Cristiano Fontura (Geotech Aerolevamento Ltda. Aug. 2011)*

In the TPR image, warm colours represent conductive structures and contacts; cool colours represent more resistive units. Cerro Moly and Marta areas appear associated with an east-west conductive trend as shown in the 600Hz frequency results (Figure 16), potentially relating to the argillic/phyllitic alteration and supergene enrichment blanket and skarns at shallow depth levels. Whereas in the deeper, lowest frequency 37Hz image (Figure 17), both Cerro Moly and Marta are better contrasted and more resistive than the surrounding rocks. This is consistent with the potassic altered core of these porphyry systems relative to the surrounding phyllic/propylitic altered rocks. In contrast, the Sulfato zones (South and North) display the opposite geoelectrical pattern: At higher frequency, they exhibit clear high resistivity contrast; whereas at greater depth they become moderately conductive and adjacent to more conductive parallel trends. This suggests that the Sulfato zones may be responding to a surficial potassic alteration zone and a surrounding pyritic phyllic-propylitic altered halo and/or geological structures at depth.



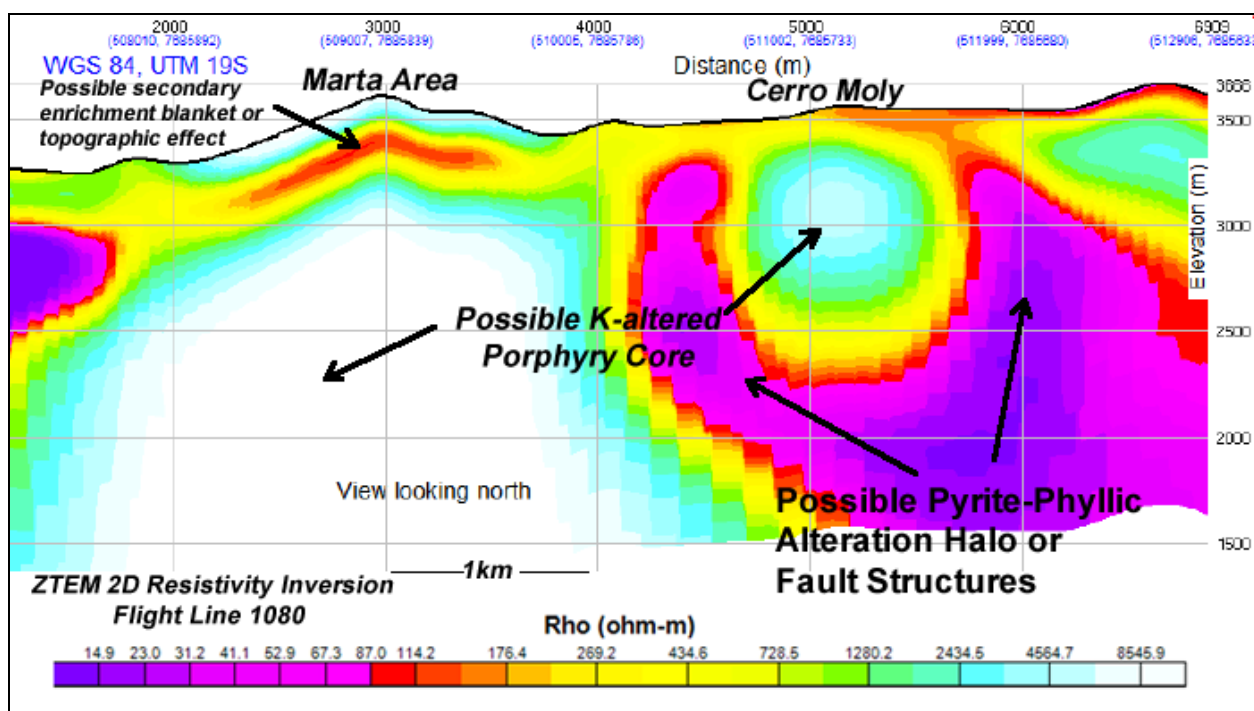
**Figure 16: ZTEM high frequency (600Hz) Total Phase Rotated In-Phase tipper contour plan map, showing the known Copaquire mineralized zones and with flight lines clipped to the property extents. After Carlos Izarra, Jean Legault (Geotech Ltd.), Cristiano Fontura (Geotech Aerolevamento Ltda. Aug. 2011)**



**Figure 17: ZTEM low frequency (37Hz) Total Phase Rotated In-Phase tipper contour plan map, showing the known Copaquiere mineralized zones and with flight lines clipped to the property extents.** After Carlos Izarra, Jean Legault (Geotech Ltd.), Cristiano Fontura (Geotech Aerolevateamento Ltda. Aug. 2011)

Figure 18 shows the 2D resistivity cross-section obtained from the inversion of a line directly over the Cerro Moly and Marta Area. As indicated, both the known porphyry centers coincide with well-defined resistivity highs that are surrounded by lower resistivity rocks, which is consistent with the known geology. The thin near-surface conductive layer that is imaged above the deposits could either represent the secondary enrichment blanket or else is possibly caused by 2D inversion artifacts due to topography. Although less detailed than the corresponding MT 2D inversion model, the ZTEM section appears to map similar resistivity structures and trends – albeit possibly to lesser depth extent.





**Figure 18: 2D ZTEM inversion results for In-line Tzx component (25-600Hz) directly over Cerro Moly and Marta Porphyry zones at Copaquire.** After Carlos Izarra, Jean Legault (Geotech Ltd.), Cristiano Fontura (Geotech Aerolevamento Ltda. Aug. 2011)

### ZTEM Survey Conclusions

Airborne ZTEM surveys over the Copaquire porphyry property have defined possible alteration and structural features, based on resistivity contrasts. The ZTEM results appear to map the resistivity highs relating to mineralized potassic altered cores of the Marta porphyry and the smaller Cerro Moly zone, to great depth. These porphyry centers are in turn surrounded by more conductive rocks, which is consistent with either the barren pyrite-rich phyllic and propylitic alteration or else fault structures. In addition, the ZTEM appears to map a surficial conductive layer, possibly the secondary enrichment blanket that lies above the deposits. Comparisons with the Titan MT survey results suggest that ZTEM is mapping similar geology, though less detailed and to lesser depth-extent (<2km). Over the other two known mineralized prospects, Sulfato North and South, the ZTEM results differ somewhat, with the resistive, potassic altered rocks at surface becoming more conductive at depth. Hence the results appear to indicate a different mineralization style. These findings are consistent with ZTEM results obtained over other, similar calc-alkaline porphyry systems and also agree with the known geology.

## 10.0 DRILLING

RC and diamond drilling was completed on the Copaquire project by PBX through the company's wholly owned Chilean subsidiary Minera IPBX since 2005. The initial diamond drilling phase was carried out on both the Cerro Moly and Sulfato North zones between February and May 2005 with 12 holes (8 on Cerro Moly and 4 on Sulfato North) for a total of 3884.7 m. The next phase was reverse circulation drilling and was completed between August and October 2006 when 18 holes were drilled in Sulfato South and North totaling 4596 m.

More aggressive diamond drilling began on Cerro Moly in October 2006, and by the end of 2008, a total of 72 drill holes had been completed for a total of 23,160.1 metres.

More recently during 2010 and 2011 diamond drilling was focused in the Sulfato South Zone. During 2011 two spaced out drill holes were completed at Marta.

Table 8 is a summary of the drilling carried out by IPBX on the Copaquire project since 2005 to the present day. Earlier drilling by Placer Metal and Cominco have not been used in the Sulfato South resource estimate.

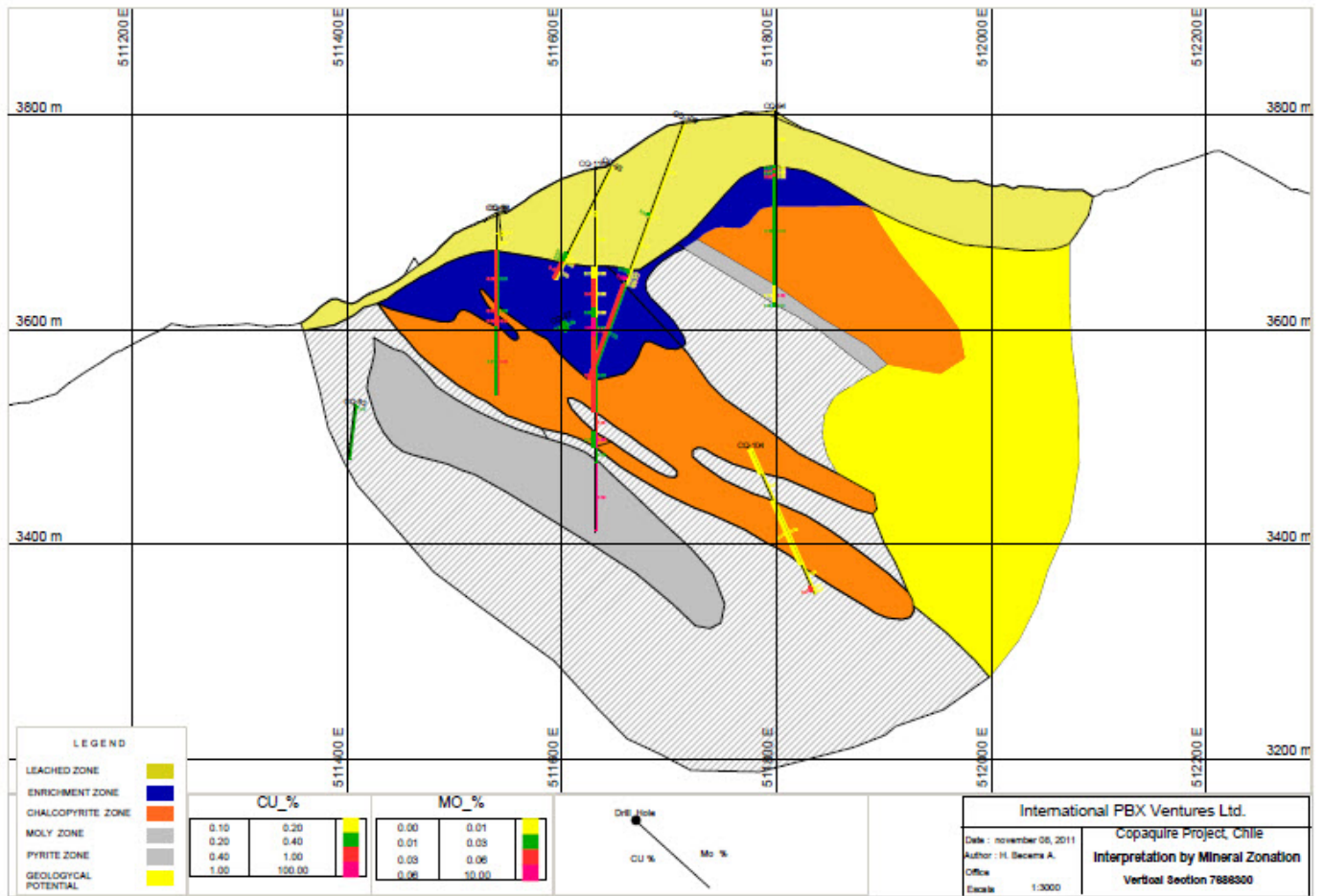
	Cerro Moly Zone		Marta Zone		Sulfato Zone		Total	
Year	Holes Drilled	Total Metres	Holes Drilled	Total Metres	Holes Drilled	Total Metres	Holes Drilled	Total Metres
2005	8 DDH	2,609.9	-----	-----	4 DDH	1,274.8	12	3,884.7
2006	7 DDH	1,813.0	-----	-----	18 RC	4,596.0	25	6,409.0
2007	57 DDH	18,704.4	-----	-----	-----	-----	57	18,704.4
2008	1 DDH	32.8	-----	-----	4 DDH	656.3	5	689.1
2010	-----	-----	-----	-----	9 DDH	2,586.47	9	2,586.47
2011	-----	-----	2	1,400	14 DDH	4,095.20	16	5,495.20
Total	73	23,160.1	2	1,400	49	13,208.77	124	37,768.87

**TABLE 8: Drilling completed by IPBX from 2005 to 2011 at Copaquire**



Sulfato South 2010-11 Drill Results Highlights								
Drill Hole Number	Area	From meters	To meters	Length meters	Length feet	% Copper	% Moly	%Copper Equivalent <sup>1</sup>
<b>2011</b>								
CQ-118	Sulfato South	264.0	274.1	10.1	33.0	0.41	0.01	0.43
CQ-117	Sulfato South	139.0	276.0	137.0	449.4	0.32	0.01	0.37
	includes	184.0	222.0	38.0	124.6	0.39	0.02	0.46
	includes	262.0	276.0	16.0	52.5	0.49	0.03	0.60
CQ-116A	Sulfato South	104.0	228.0	124.0	406.8	0.58	0.02	0.66
	includes	136.0	198.0	62.0	203.4	0.70	0.02	0.78
	includes	136.0	160.0	24.0	78.7	0.90	0.02	0.98
CQ-115	Sulfato South	82.0	147.1	65.1	213.6	0.32	0.01	0.35
CQ-114A	Sulfato South	72.0	107.0	35.0	114.8	0.39	0.02	0.47
CQ-113	Sulfato South	94.4	208.0	113.6	361.3	0.29	0.02	0.37
	includes	94.4	148.0	53.6	170.4	0.34	0.02	0.42
	includes	94.4	113.7	19.3	61.4	0.44	0.03	0.56
CQ-112		34.0	85.1	51.1	167.4	0.57	0.04	0.71
	includes	34.8	56.0	21.2	69.5	0.82	0.05	1.02
CQ-111		131.4	176.0	44.6	146.3	0.53	0.01	0.55
CQ-110	Sulfato North	90.0	137.0	47.0	154.2	0.52	0.01	0.54
	includes	114.0	137.0	23.0	75.4	0.77	0.06	1.01
		338.0	552.9	214.9	704.7	0.17	0.01	0.20
	includes	378.0	414.0	36.0	118.1	0.23	0.01	0.26
CQ-109	Sulfato South	162.7	248.0	85.3	279.8	0.53	0.02	0.61
	includes	211.3	242.0	30.8	100.9	0.78	0.04	0.94
CQ-107A	Sulfato South	84.0	384.0	300.0	984.0	0.37	0.03	0.48
	includes:	102.0	252.0	150.0	492.0	0.51	0.02	0.60
		119.0	160.0	41.0	134.5	0.57	0.03	0.70
<b>2010</b>								
CQ-105	Sulfato South	abandoned	15.0	-	-	-	-	-
CQ-104	Sulfato South	104.0	138.0	34.0	111.5	0.51	-	0.51
CQ-103	Sulfato South	12.0	414.0	402.0	1,318.6	0.23	0.04	0.39
including		18.5	52.0	33.5	109.9	0.70	0.06	0.94
and		236.0	272.0	36.0	118.1	0.22	0.11	0.66
CQ-102	Sulfato South	28.0	285.4	257.4	844.3	0.31	0.04	0.47
including		28.0	150.0	122.0	400.2	0.46	0.04	0.62
including		28.0	94.0	66.0	216.5	0.62	0.03	0.74
including		28.0	76.0	48.0	157.4	0.71	0.03	0.83
CQ-101	Sulfato South	4.0	46.0	42.0	137.8	0.39	0.02	0.47
including		12.0	34.0	22.0	72.2	0.55	0.02	0.63
CQ-100	Sulfato South	43.4	311.0	267.6	877.7	0.57	0.02	0.65
including		43.4	183.0	139.6	457.9	0.82	0.02	0.90
including		117.0	131.0	14.0	45.9	2.00	0.04	2.16
<sup>1</sup> Copper Equivalent = %Cu+(4*%Mo)								
based on \$2.50/lb Cu & \$10.00/lb Mo								

TABLE 9: 2010-11 drill Program assay highlights in Sulfato South



**Figure 19 : Sulfato South Cross Section 7686300-N showing mineral zones (looking north) (Hugo Becerra Senior PBX Senior Geologist 2011)**



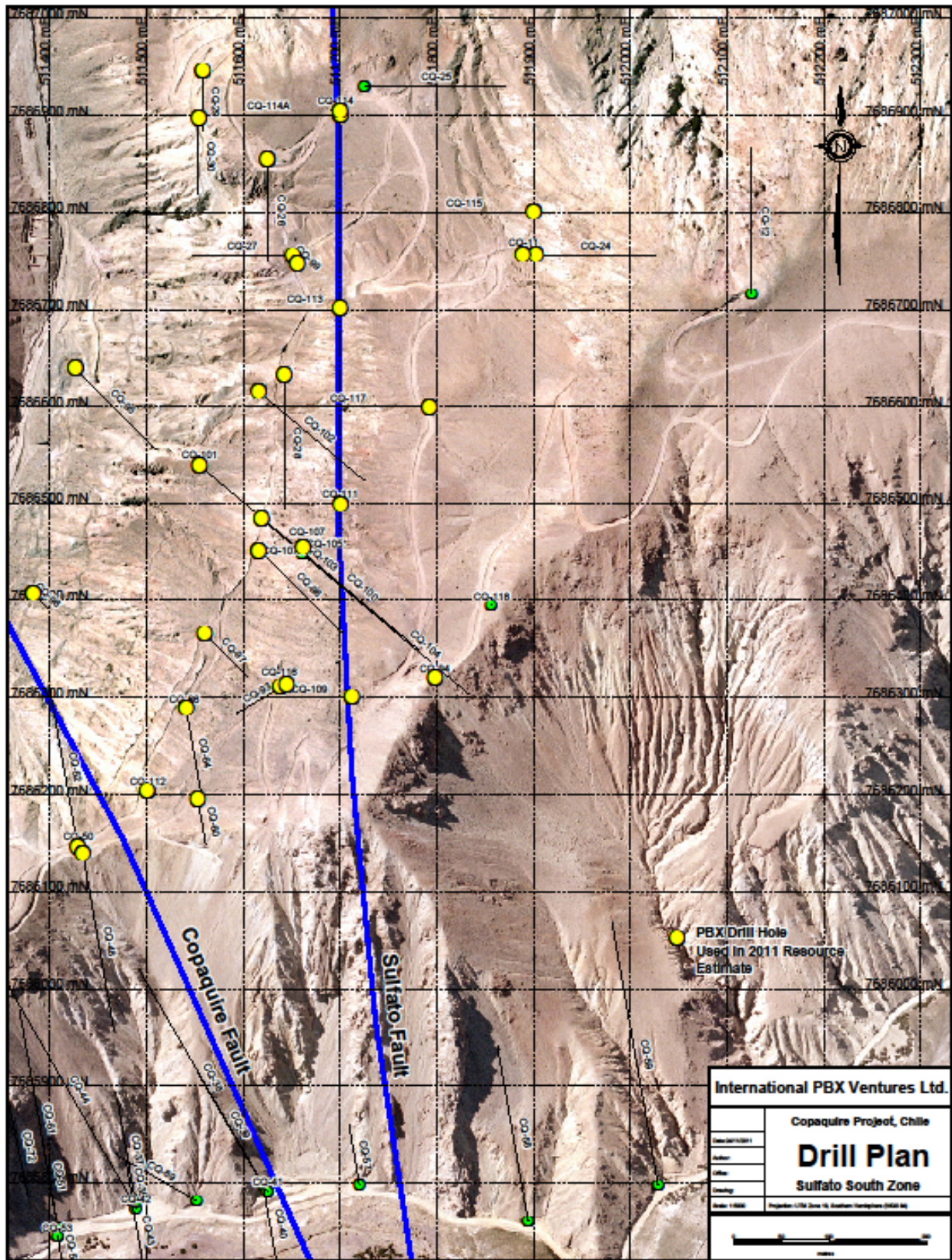


Figure 20 : Sulfato South Drill Holes (2007,08,10 and 2011 programs) (GeoComp Dec. 2011)



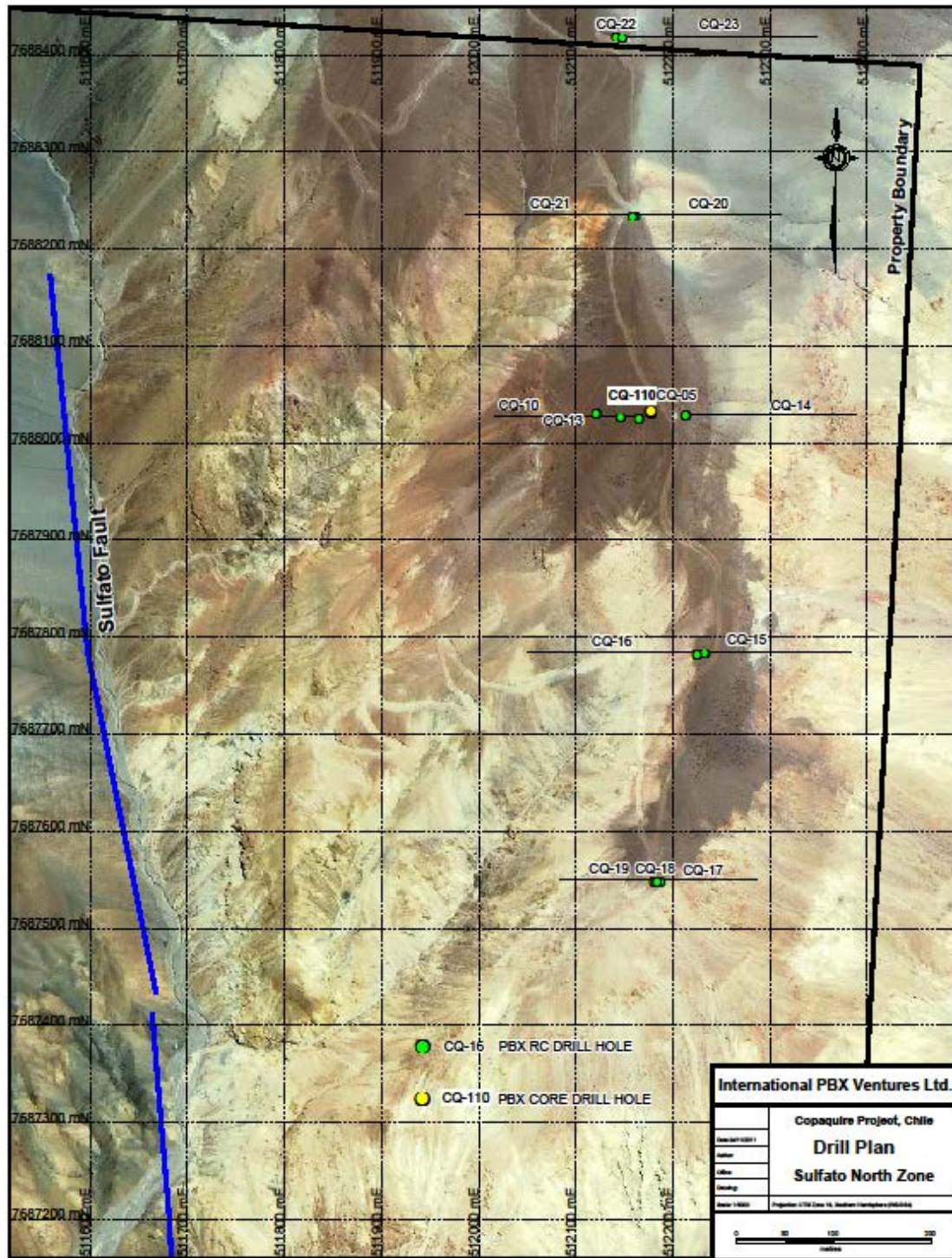


Figure 21 : Sulfato North Drill Holes (2006 and 2011 programs) (GeoComp Dec. 2011)

## 11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

All of the samples included in the Sulfato South resource estimation were obtained from diamond drill core. Samples were taken generally at two-meter regular intervals with average core recoveries exceeding 90%. Abrupt changes in mineralization are rare at the Sulfato zone, justifying regular length sample intervals. During 2010 and 2011 drill programs meterage blocks placed in the core boxes were routinely checked for accuracy by IPBX drill controller staff by measuring the core in the core tube at the end of each run.

Core boxes were delivered to the core shack secure facility near camp by IPBX senior staff and placed on large wooden tables where the following procedures were implemented:

- a. First, geotechnical core logging was completed by IPBX geotechnicians.
- b. Senior geologists logged the core and marked sample intervals, with their corresponding sample number in the box, the core and in the corresponding sample book.
- c. The core was then taken to an area specially prepared for photography.
- d. Following, the core boxes were taken to a room beside the core logging area to be split by trained personnel with a diamond saw or a hydraulic splitter in case the core was highly broken. After each piece of core was split, one half was returned to the core box and the other half placed in a strong plastic sample bag previously numbered. This process was always supervised by a trained geologist.

Core sample duplicates involved first sawing the core sample in equal halves, and then quarter sawing or splitting the other half so as to take two ¼ sized fractions of the sample interval for analysis. During sampling blank and standard samples were inserted to every batch of approximately 20 samples. The sampling program was carried out under the supervision of Victor Jaramillo, P. Geo., and Project Manager for International PBX Ventures Ltd.

Drill core samples were prepped at the ALS Chemex Lab facility in Antofagasta-Chile and shipped to the ALS Chemex Lab in La Serena, Chile for analysis. All work was conducted following the procedures and standards outlined under NI 43-101. All sample batches sent to the lab included standards, blanks and duplicate samples.

The author believes that the sampling methods employed are of good quality and are representative.

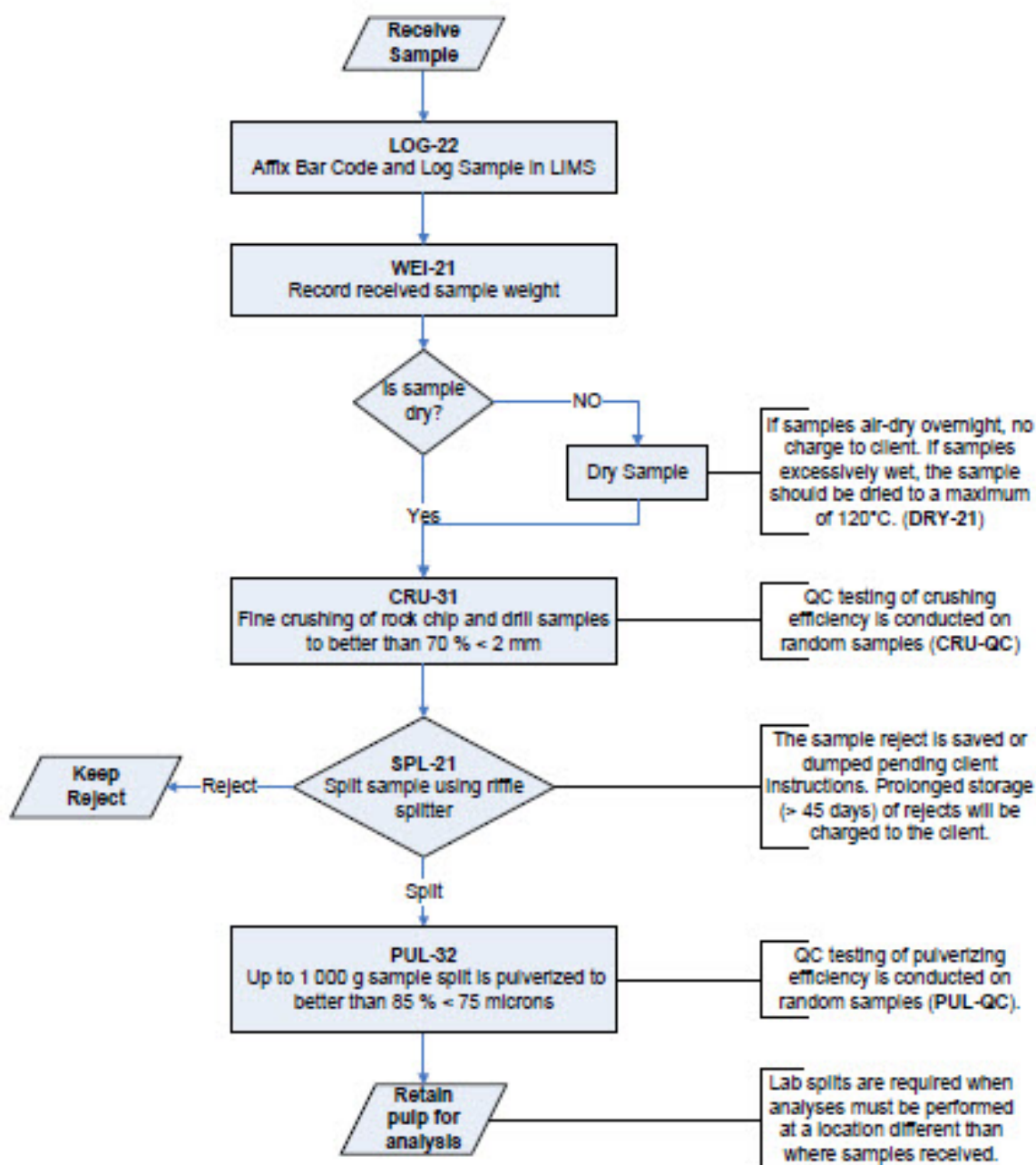
ALS-CHEMEX is a Canadian-Australian based laboratory with an excellent international reputation. Their quality system complies with ISO 9001:2000 and ISO 17025:1999.

Samples were assayed for copper and molybdenum by 33 elements Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES, Code ME-ICP61) with four acid digestions.

ALS CHEMEX sample preparation procedures are as follows:



**Flow Chart - Sample Preparation Package – PREP- 31B**  
**Standard Sample Preparation: Dry, Crush, Split and Pulverize**



Samples were assayed for copper and molybdenum by 33 elements Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES, Code ME-ICP61) with four acid

digestions. A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral inter-element interferences.

See details below (not all 33 elements are shown):

### ME- ICP61

#### Trace Level Methods Using Conventional ICP- AES Analysis

##### Sample Decomposition:

HNO<sub>3</sub>-HClO<sub>4</sub>-HF-HCl digestion, HCl Leach (GEO-4ACID)

##### Analytical Method:

Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP – AES)

A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral interelement interferences.

NOTE: Four acid digestions are able to dissolve most minerals; however, although the term “near-total” is used, depending on the sample matrix, not all elements are quantitatively extracted.

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Silver	Ag	ppm	0.5	100	Ag-OG62
Aluminum	Al	%	0.01	50	
Arsenic	As	ppm	5	10000	
Barium	Ba	ppm	10	10000	
Beryllium	Be	ppm	0.5	1000	
Bismuth	Bi	ppm	2	10000	
Calcium	Ca	%	0.01	50	
Cadmium	Cd	ppm	0.5	500	
Cobalt	Co	ppm	1	10000	Co-OG62
Chromium	Cr	ppm	1	10000	
Copper	Cu	ppm	1	10000	Cu-OG62
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10000	

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10000	
Magnesium	Mg	%	0.01	50	
Manganese	Mn	ppm	5	100000	
Molybdenum	Mo	ppm	1	10000	Mo-OG62
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10000	Ni-OG62
Phosphorus	P	ppm	10	10000	
Lead	Pb	ppm	2	10000	Pb-OG62
Sulphur	S	%	0.01	10	
Antimony	Sb	ppm	5	10000	

## 12.0 DATA VERIFICATION

Sample data collected by Minera IPBX is considered to be accurate and reliable, based on the author's knowledge of the exploration work conducted at Copaquire.

Quality control procedures and methodology were implemented by Minera IPBX during the 2010 and 2011 core sampling programs. This work included the insertion of duplicates, blanks and standards during sample submittal to ALS CHEMEX Labs in Chile.

Duplicate, standard and blank samples were inserted into batches of approximately 20 samples. All these sample batches were picked up on site by ALS CHEMEX personnel and transported to their prep facility in Antofagasta, and later sent by them to their lab in La Serena for analytical work.

Collar locations were surveyed by the IPBX survey team after drill hole completion. Down hole directional surveys were done by the drill contractors using a Reflex instrument. An electronic data file was generated for merging into the database. No irregularities in the data were noted. Original assay certificates are available on site and in the Vancouver PBX office. Each electronic file includes ALS Chemex internal check results. The assay data is merged electronically into a database by matching sample numbers from the assay certificates with those entered into the database.

### Quality Control during 2010

During the 2010 drill program a total of **1,348** samples were taken, these included 58 standards which were commercially prepared by CDN Resource Laboratories Ltd., with an office at 10945-B River Road, Delta, B.C., V4C 2R8 in Canada. Four standards were used: CDN-CM-4, CM-2, CGS-12 y MoS-1.

For each standard an average value was calculated (**AV**), the standard deviation (**SD**) and the outliers were defined as the **average+2SD**. The **% Bias** was calculated considering the recommended value (**RV**) and the average without the outliers.

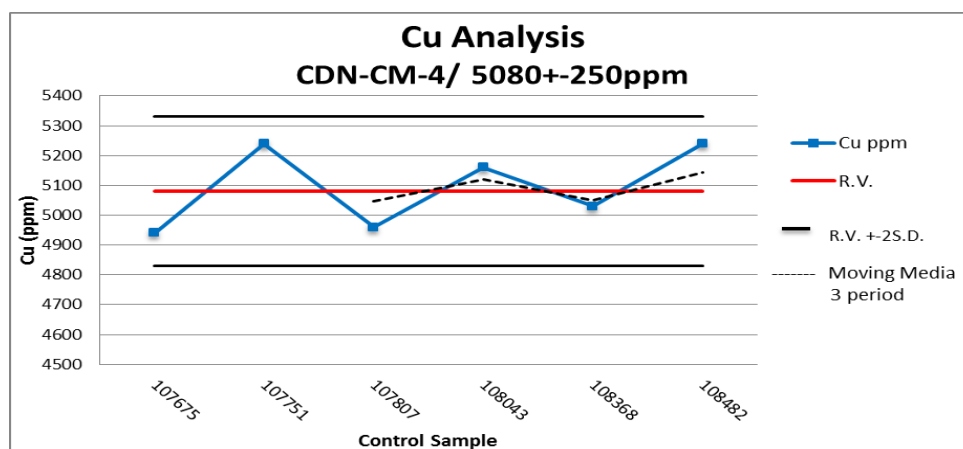
**Recommended Values (RV)** are the average values that are provided in each CDN Resource Lab Standard certificate, that was established by assaying at multiple labs. The following tables and figures show lab results and the statistics:

Copper							
Standard ID	Count	R.V. (ppm)	AV (ppm)	S.D.(ppm)	Outliers	AV (without outl.)	BIAS (%)
CDN-CM-4	6	5080	5095	136	0	-	0.3
CDN-CGS-12	17	2650	2575	107	1	2593	-2
CDN-CM-2	9	10130	9871	246	0	-	-3

**Table 10: Statistical Summary of Standards used for copper during 2010**

Molybdenum							
Standard ID	Count	R.V. (ppm)	AV (ppm)	S.D.(ppm)	Outliers	AV (without outl.)	BIAS (%)
CDN-CM-4	6	320	306	8	1	308	-4
CDN-CM-2	9	290	282	10	0	-	-3
CDN-MoS-1	11	650	656	30	0	-	1

**Table 11: Statistical Summary of Standards used for molybdenum during 2010**



**Figure 22: Copper variogram for standard CDN-CM-4**



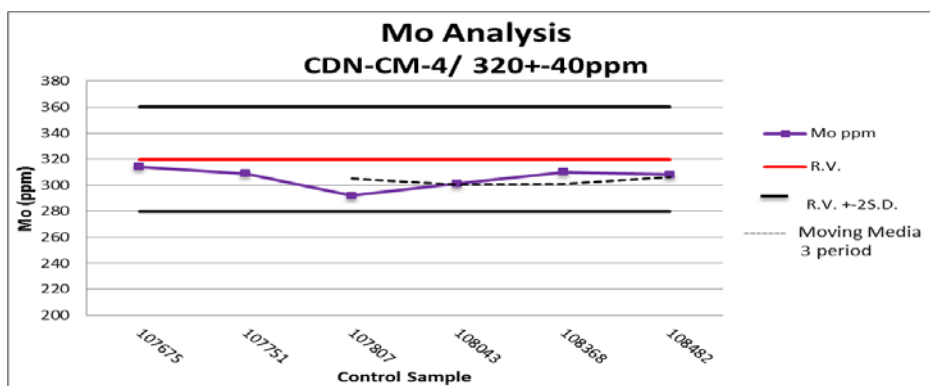


Figure 23: Molybdenum variogram for standard CDN-CM-4

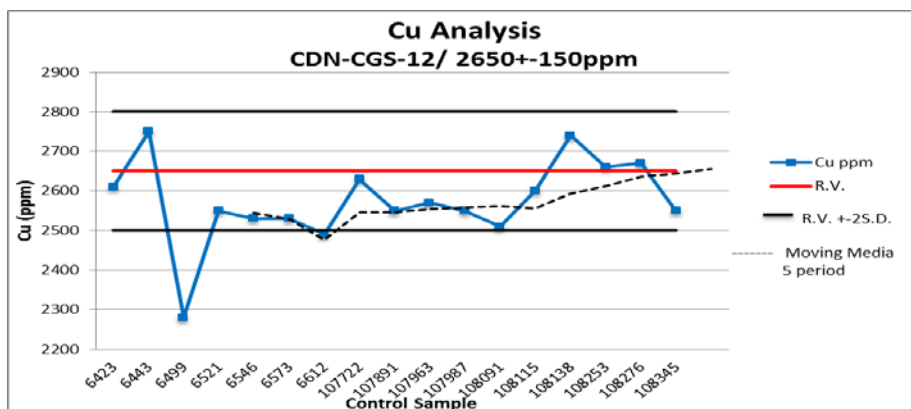


Figure 24: Copper variogram for standard CDN-CGS-12

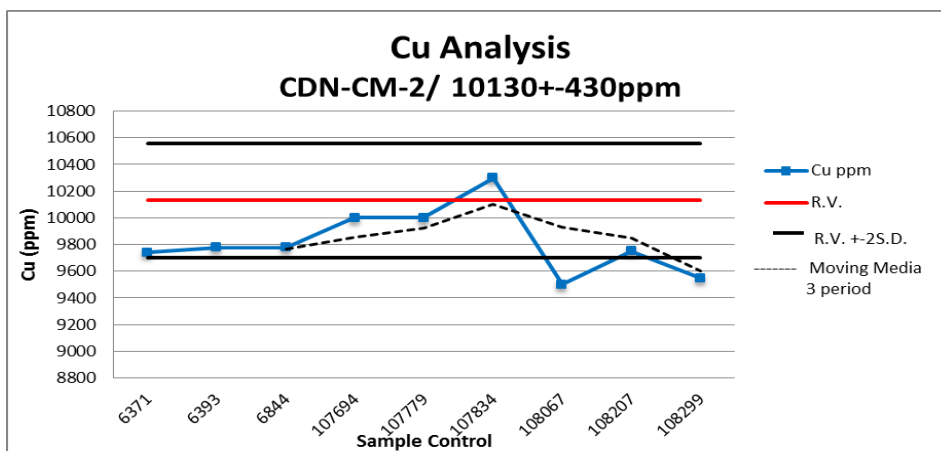
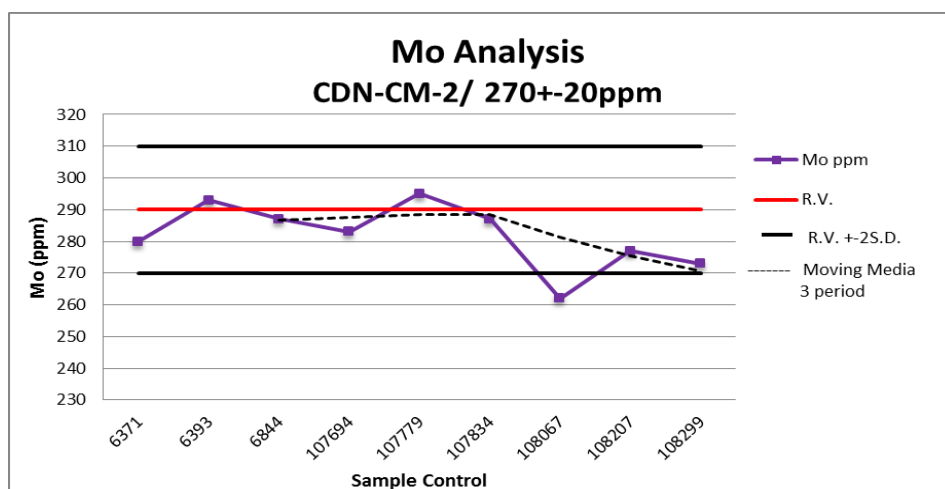
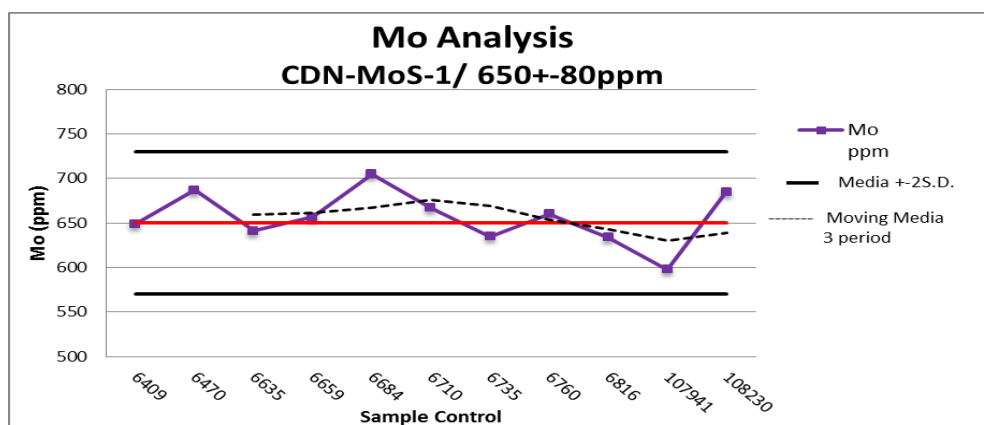


Figure 25: Copper variogram for standard CDN-CM-2



**Figure 26: Molybdenum variogram for standard CDN-CM-2**



**Figure 27: Molybdenum variogram for standard CDN-MoS-1**

Considering the following % BIAS ranges:

**Good or Acceptable:** -5 to 5%

**Questionable:** -5 to -10% or 5 to 10%

**Unacceptable:** below -10% or over 10%

It can be concluded (Tables 10 and 11), that all the values lie within the “good or acceptable” range. As such, the sample results do reflect a good level of precision.

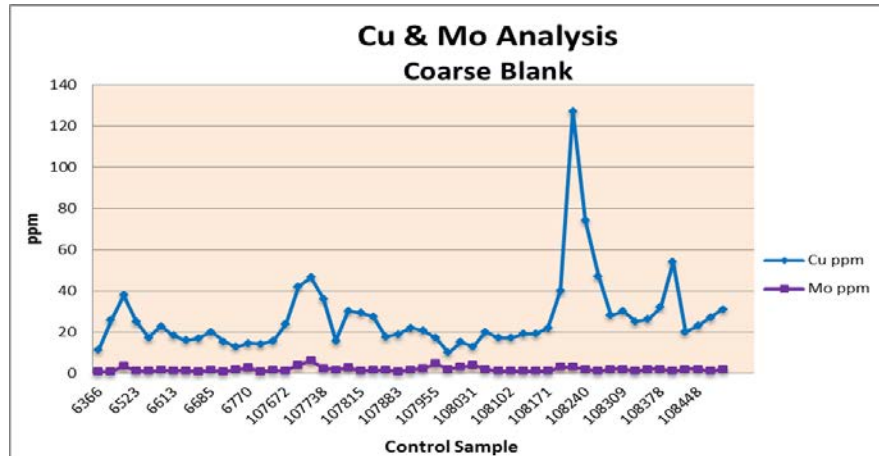
To control any possible contamination, two blank type samples were inserted, a coarse quartz blank and a standard blank CDN-BL-6 prepared by CDN Resource Laboratories of Vancouver.

Table 12 below gives the basic statistics for these blank samples.

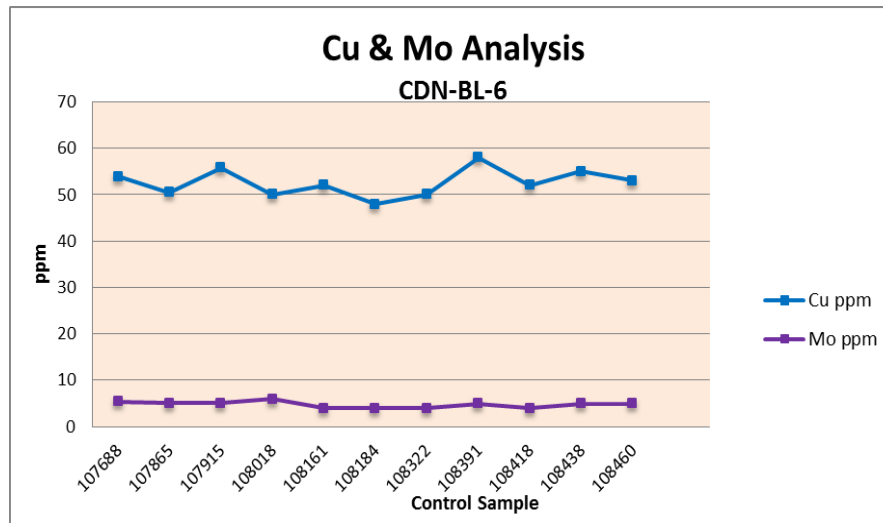
Coarse Blank		CDN-BL-6	
Cu ppm	Mo ppm	Cu ppm	Mo ppm

<b>Count</b>	<b>51</b>	<b>51</b>	<b>11</b>	<b>11</b>
<b>Minimum</b>	<b>10</b>	<b>0.56</b>	<b>48</b>	<b>4</b>
<b>Maximum</b>	<b>127</b>	<b>6.03</b>	<b>58</b>	<b>6</b>
<b>Mean</b>	<b>27</b>	<b>2</b>	<b>53</b>	<b>5</b>
<b>Standard Deviation</b>	<b>19</b>	<b>1</b>	<b>3</b>	<b>1</b>

**Table 12: Statistical summary for coarse blank and CDN-BL-6**



**Figure 28: Cu-Mo variogram for coarse blanks (2010)**



**Figure 29: Cu-Mo variogram for CDN-BL-6 (2010)**

Based on the above results (Table 12, Figures 28 and 29) it can be concluded that sample contamination was not present or was minimal, this due to the very low levels of Cu and Mo, as none of the samples assayed above 130 ppm Cu and 7 ppm Mo. The table below provides statistical results for duplicate samples.

	Cu ppm			Mo ppm		
	Original	Duplicate	Difference	Original	Duplicate	Difference
Count	52	52	52	52	52	52
Max	13350	13750	82	1295	1010	149
Min	54	38	-54	2	1	-97
Mean	1969	1961	8	196	171	26
Standard Deviation	2492	2576	701	246	208	153
BIAS (%)			0,4			14

Table 13: Statistical summary of duplicate samples taken during 2010

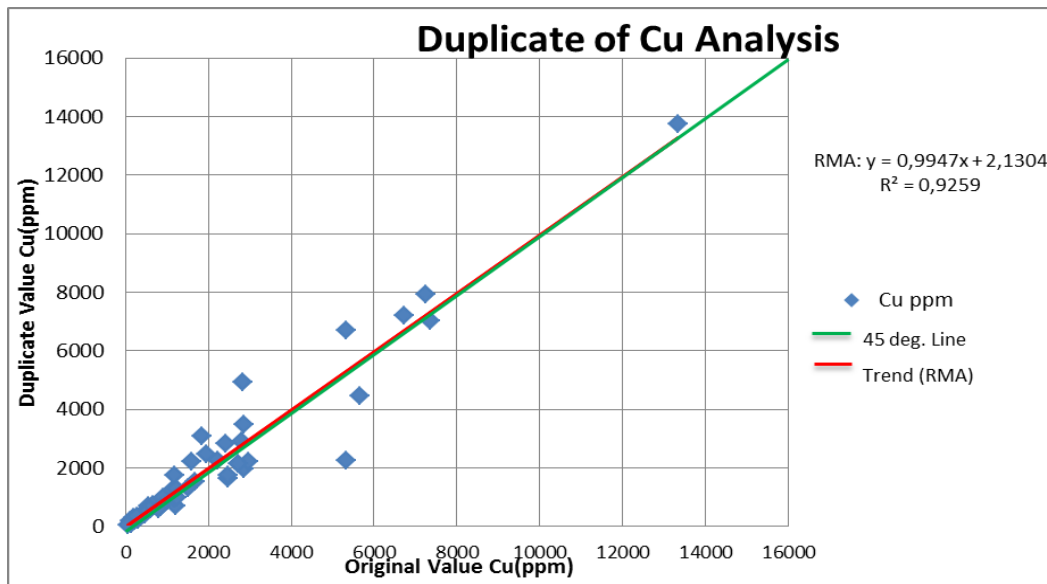


Figure 30: Copper variogram of duplicate samples (2010)

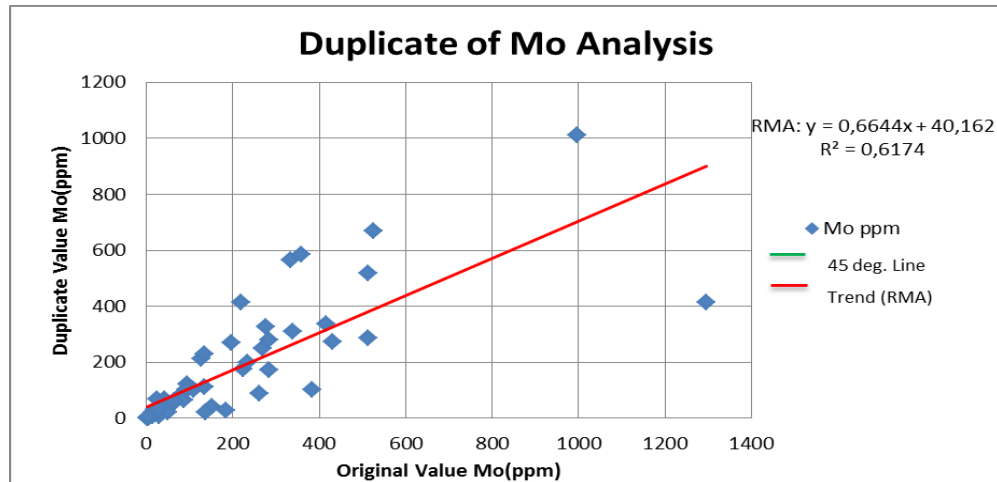


Figure 31: Molybdenum variogram of duplicate samples (2010)



Duplicate sample results (Table 13, Figures 30 and 31) show good correlation for copper as the trend line is very similar to  $x=y$ , and the % BIAS is only 0.4%. For molybdenum the situation is different as the % BIAS is 14%. This could be due to the mineral distribution which in the case of molybdenum appears to be different than that of copper.

### **Quality Control during 2011**

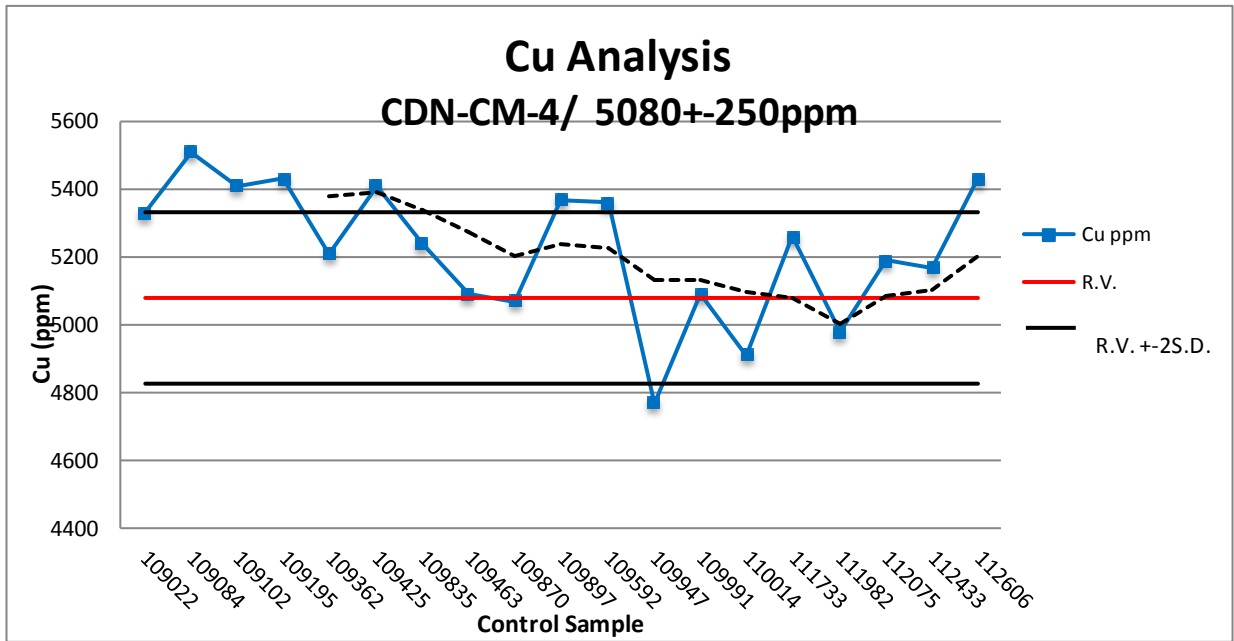
During the 2011 drill program a total of **3,115 samples** were taken. These included standards, duplicates and blanks. The standards were acquired from CDN Resource Laboratories in Vancouver. A total of **141 standards** were used and statistical results are provided as follows:

<b>Copper</b>							
<b>Standard ID</b>	<b>Count</b>	<b>R.V. (ppm)</b>	<b>AV (ppm)</b>	<b>S.D.(ppm)</b>	<b>Outliers</b>	<b>AV (without outliers)</b>	<b>BIAS (%)</b>
<b>CDN-CM-4</b>	<b>19</b>	<b>5080</b>	<b>5223</b>	<b>200</b>	<b>1</b>	<b>5241</b>	<b>3.0</b>
<b>CDN-CGS-12</b>	<b>39</b>	<b>2650</b>	<b>2621</b>	<b>98</b>	<b>1</b>	<b>2615</b>	<b>-1.3</b>
<b>CDN-CM-2</b>	<b>13</b>	<b>10130</b>	<b>10065</b>	<b>296</b>	<b>1</b>	<b>10004</b>	<b>-1.2</b>
<b>CDN-CM-6</b>	<b>19</b>	<b>7370</b>	<b>7503</b>	<b>281</b>	<b>0</b>	<b>-</b>	<b>2.0</b>
<b>CDN-CM-7</b>	<b>17</b>	<b>4450</b>	<b>4482</b>	<b>195</b>	<b>0</b>	<b>-</b>	<b>0.7</b>

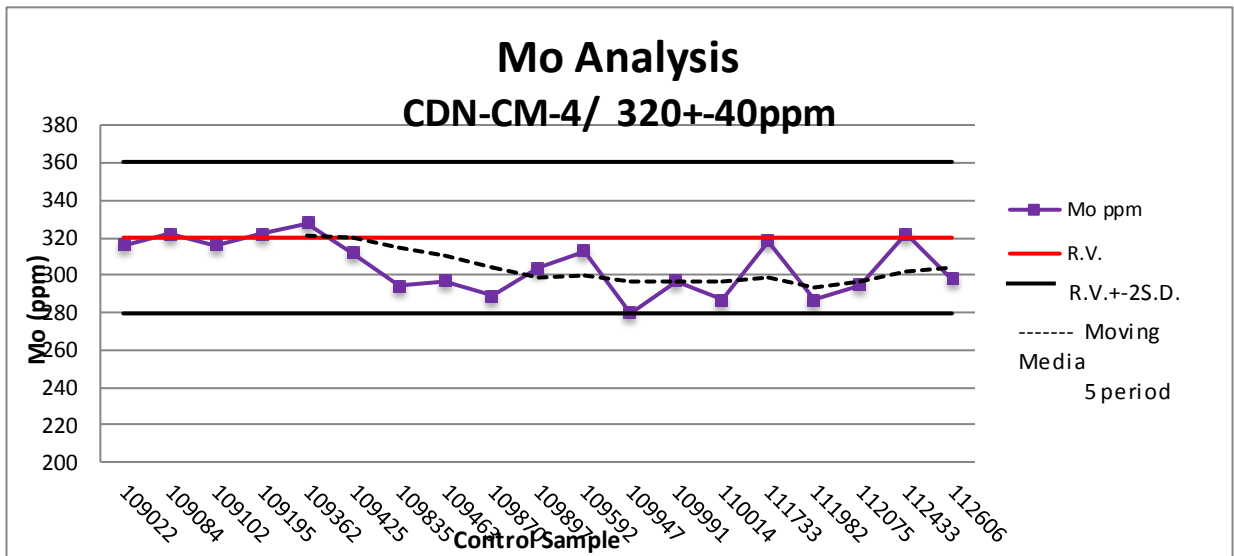
**Table 14: Statistical Summary of Standards used for copper during 2011**

<b>Molybdenum</b>							
<b>Standard ID</b>	<b>Count</b>	<b>R.V. (ppm)</b>	<b>AV (ppm)</b>	<b>S.D.(ppm)</b>	<b>Outliers</b>	<b>AV (without out)</b>	<b>BIAS (%)</b>
<b>CDN-CM-4</b>	<b>19</b>	<b>320</b>	<b>305</b>	<b>15</b>	<b>0</b>	<b>-</b>	<b>-5.0</b>
<b>CDN-CM-2</b>	<b>13</b>	<b>290</b>	<b>285</b>	<b>10</b>	<b>1</b>	<b>283</b>	<b>-2,4</b>
<b>CDN-MoS-1</b>	<b>9</b>	<b>650</b>	<b>668</b>	<b>34</b>	<b>0</b>	<b>-</b>	<b>2,1</b>
<b>CDN-CM-6</b>	<b>19</b>	<b>830</b>	<b>836</b>	<b>36</b>	<b>1</b>	<b>831</b>	<b>0.1</b>
<b>CDN-CM-7</b>	<b>17</b>	<b>270</b>	<b>266</b>	<b>16</b>	<b>0</b>	<b>-</b>	<b>-1,6</b>

**Table 15: Statistical Summary of Standards used for molybdenum during 2011**



**Figure 32: Copper variogram for Standard CDN-CM-4**



**Figure 33: Molybdenum variogram for Standard CDN-CM-4**

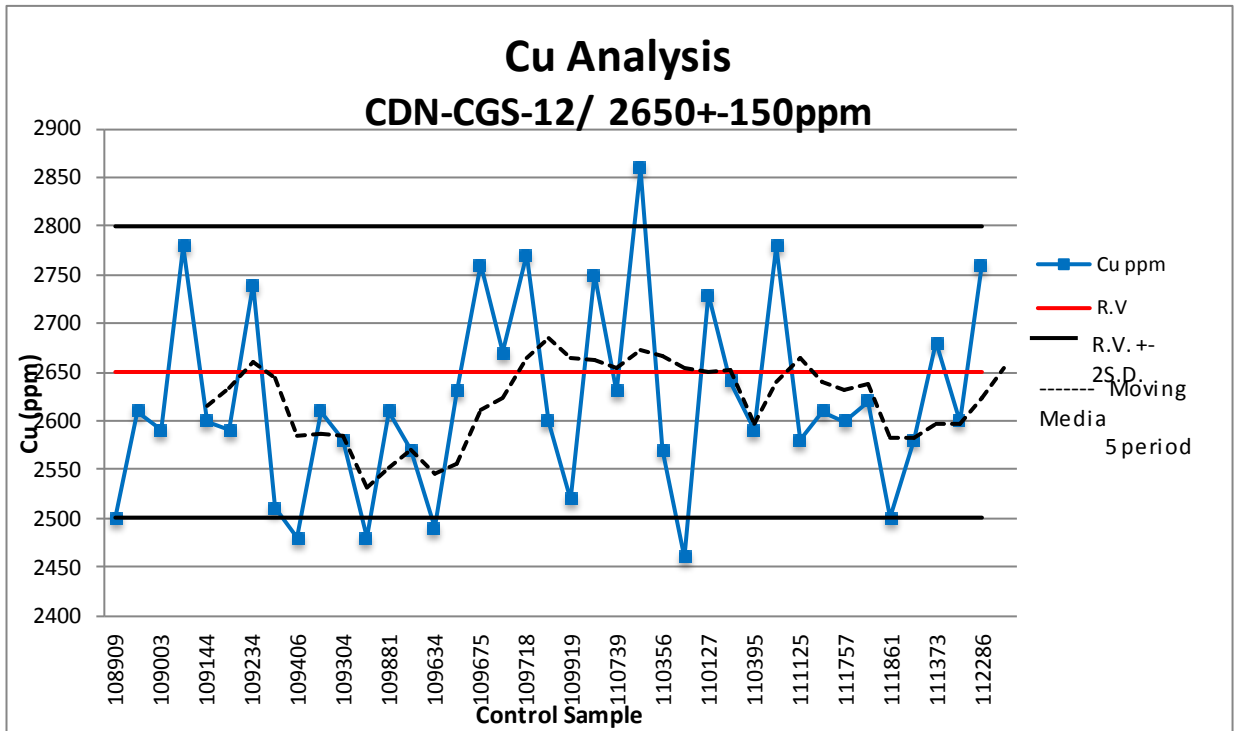


Figure 34: Copper variogram for Standard CDN-CGS-12

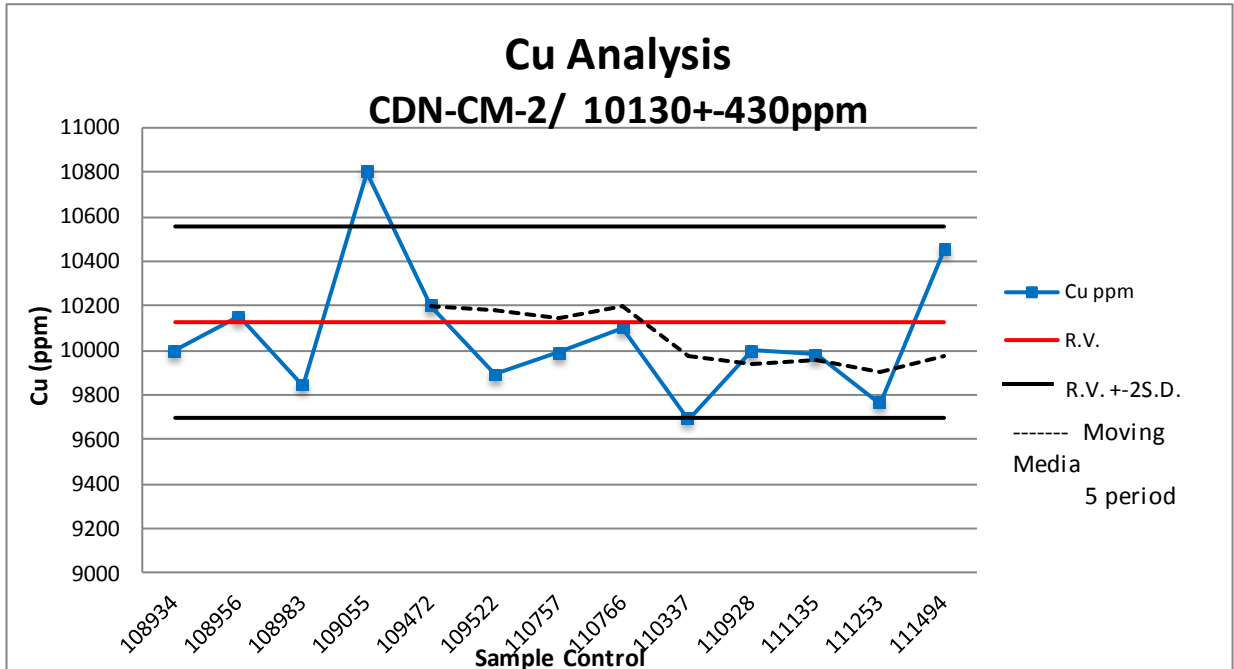


Figure 35: Copper variogram for Standard CDN-CM-2

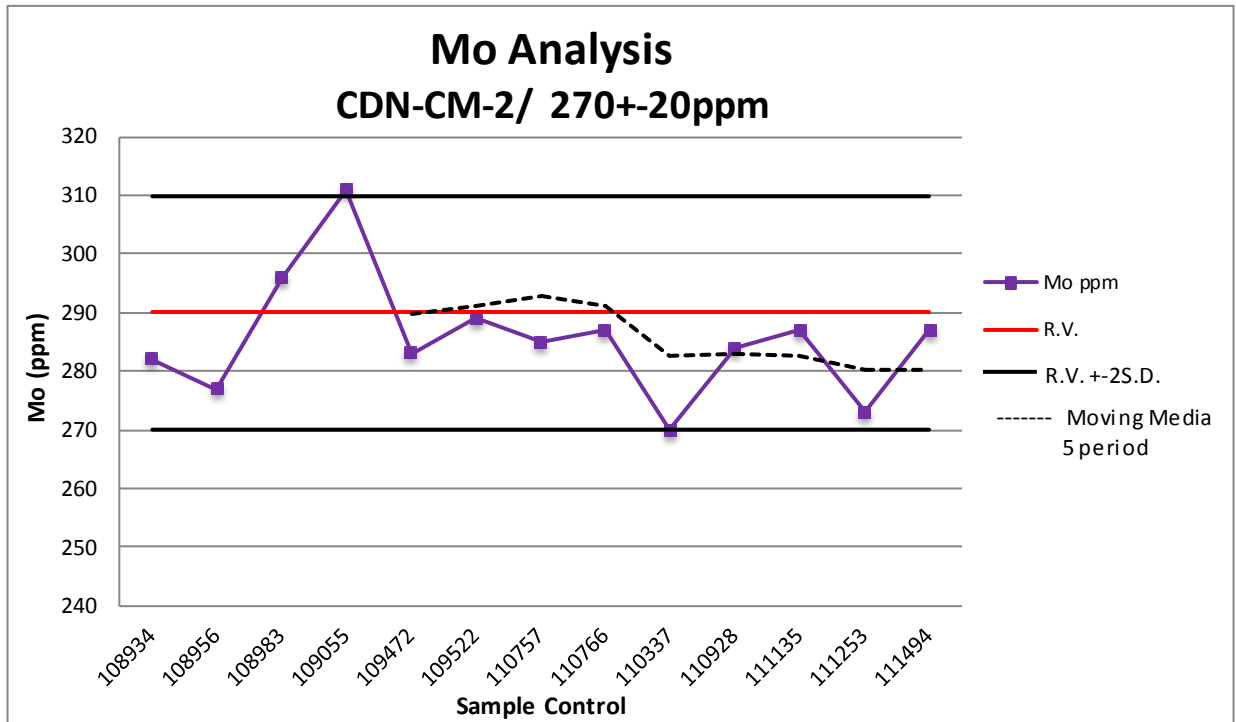


Figure 36: Molybdenum variogram for Standard CDN-CM-2

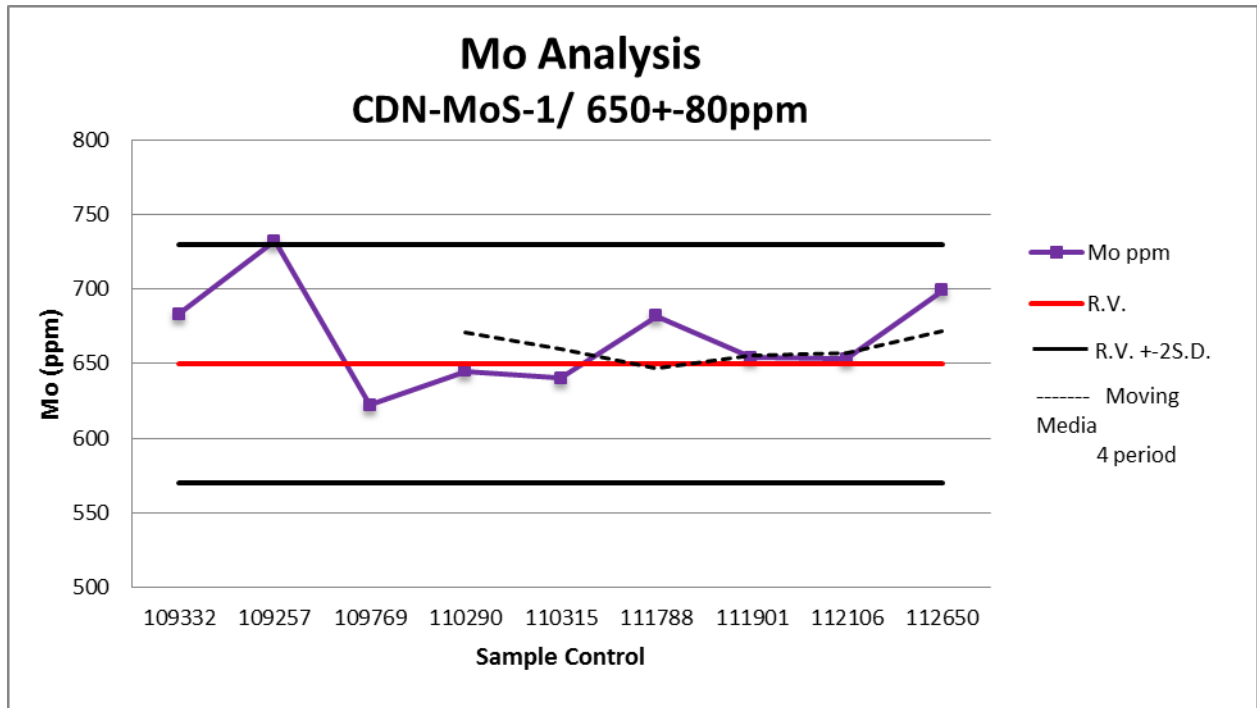


Figure 37: Molybdenum variogram for Standard CDN-MoS-1



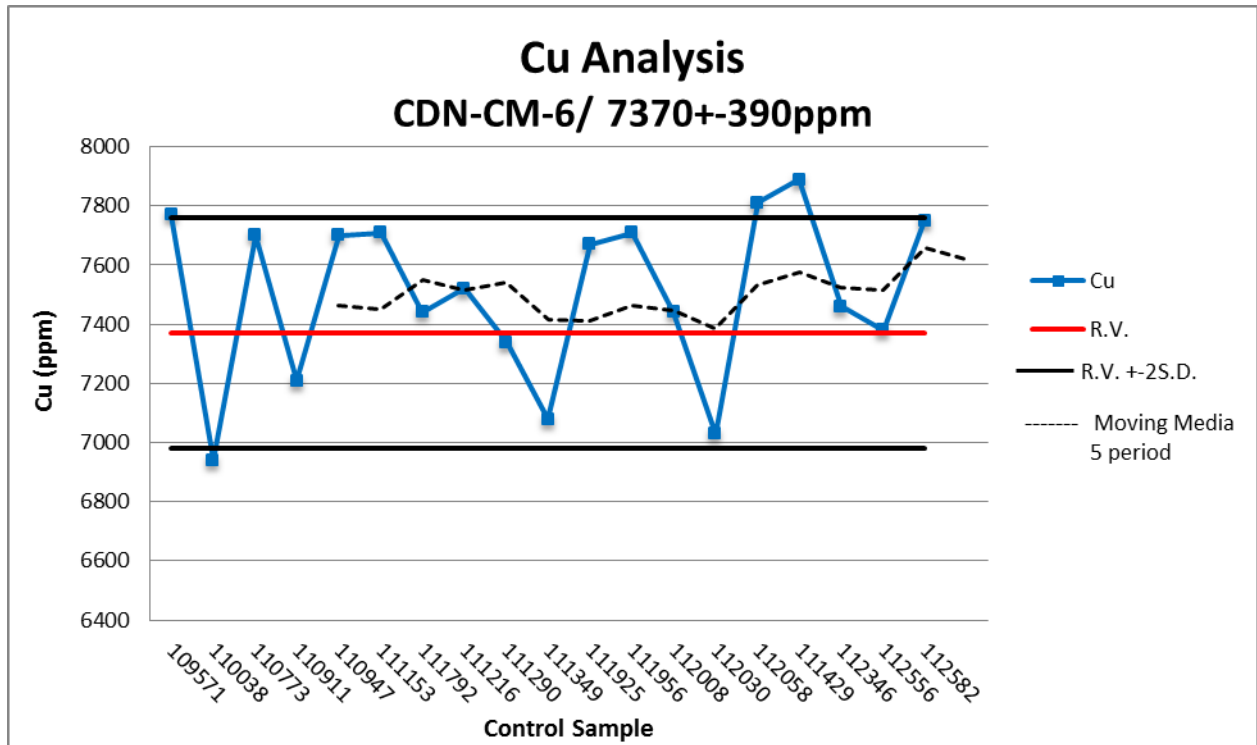


Figure 38: Copper variogram for Standard CDN-CM-6

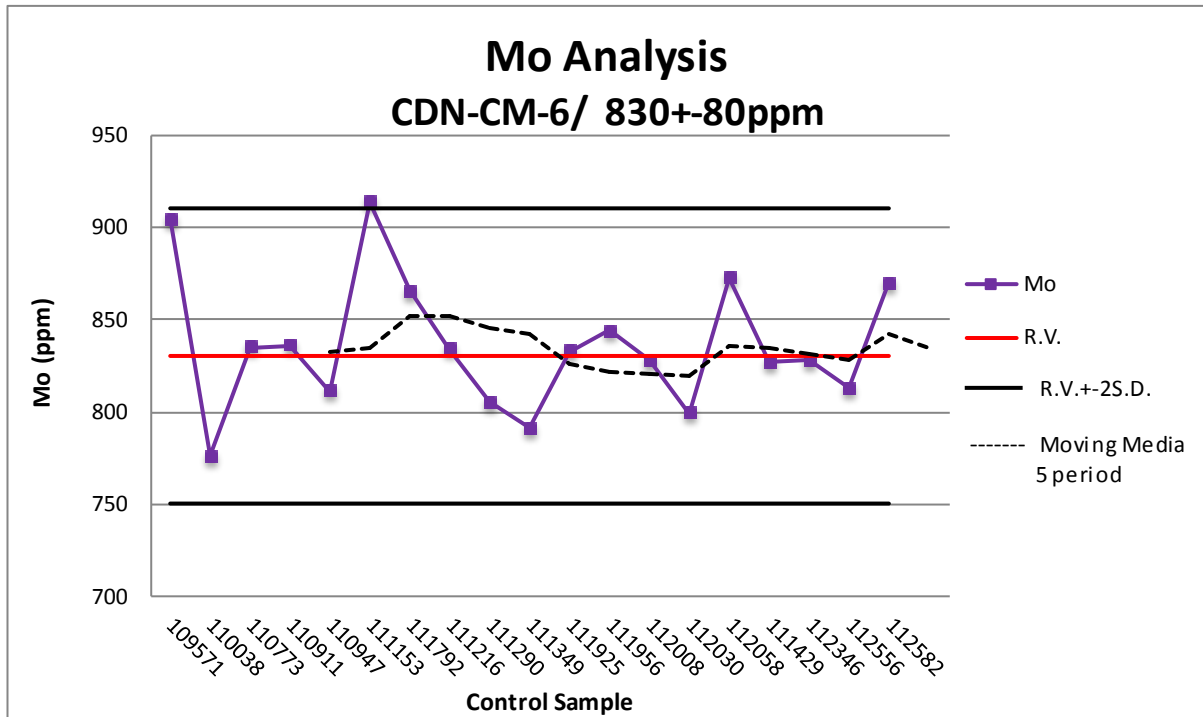


Figure 39: Molybdenum variogram for Standard CDN-CM-6

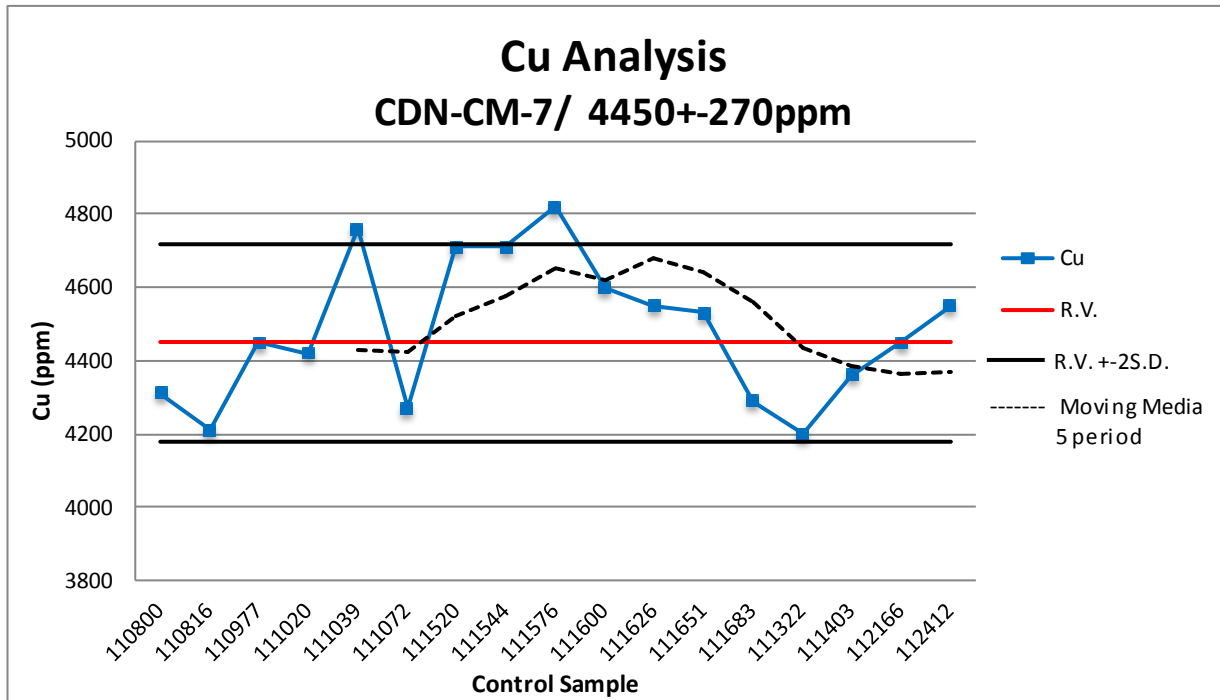


Figure 40: Copper variogram for Standard CDN-CM-7

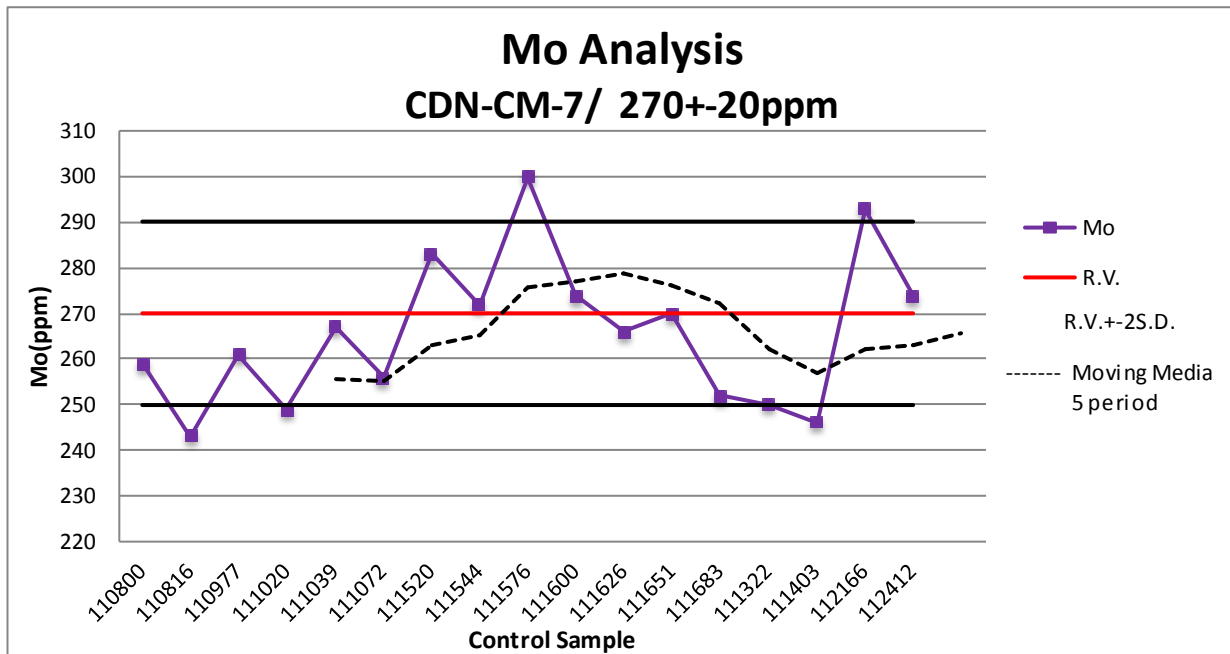


Figure 41: Molybdenum variogram for Standard CDN-CM-7

Considering the following % BIAS ranges:

**Good or Acceptable:** -5 to 5%

**Questionable:** -5 to -10% or 5 to 10%

**Unacceptable:** below -10% or over 10%

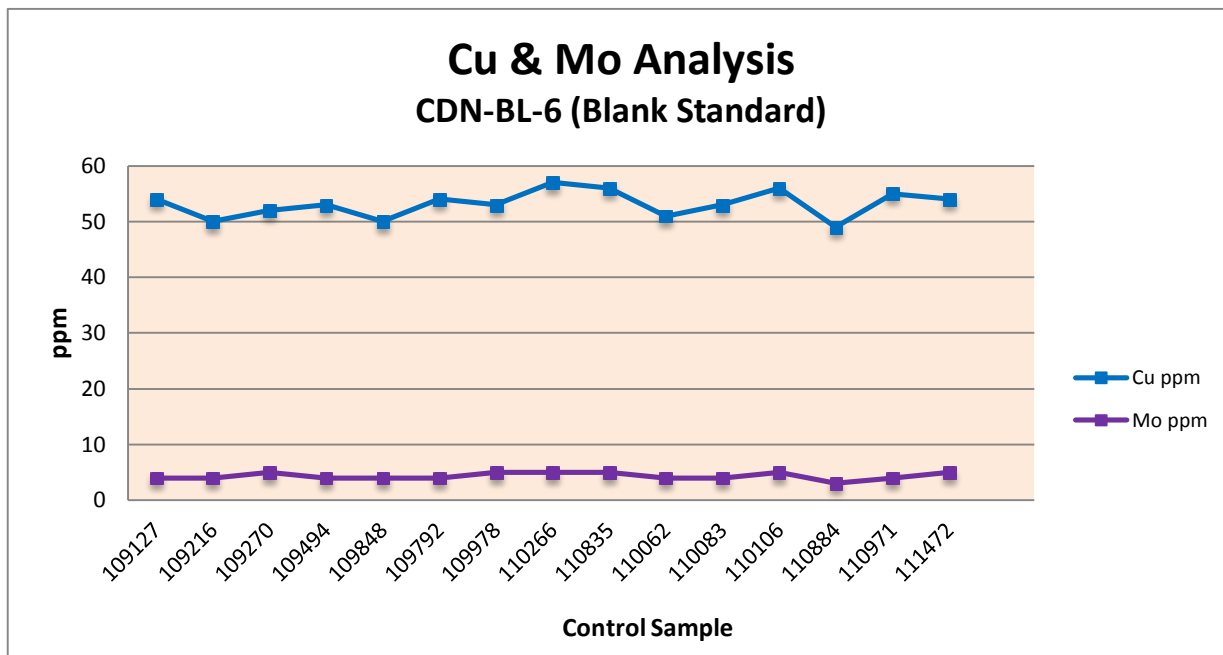
It can be concluded (Tables 14 and 15), that all the values lie within the “good or acceptable” range. As such, the sample results do reflect a good level of precision.

To control any possible contamination, two blank type samples were inserted, a coarse quartz blank and a standard blank CDN-BL-6 prepared by CDN Resource Laboratories of Vancouver.

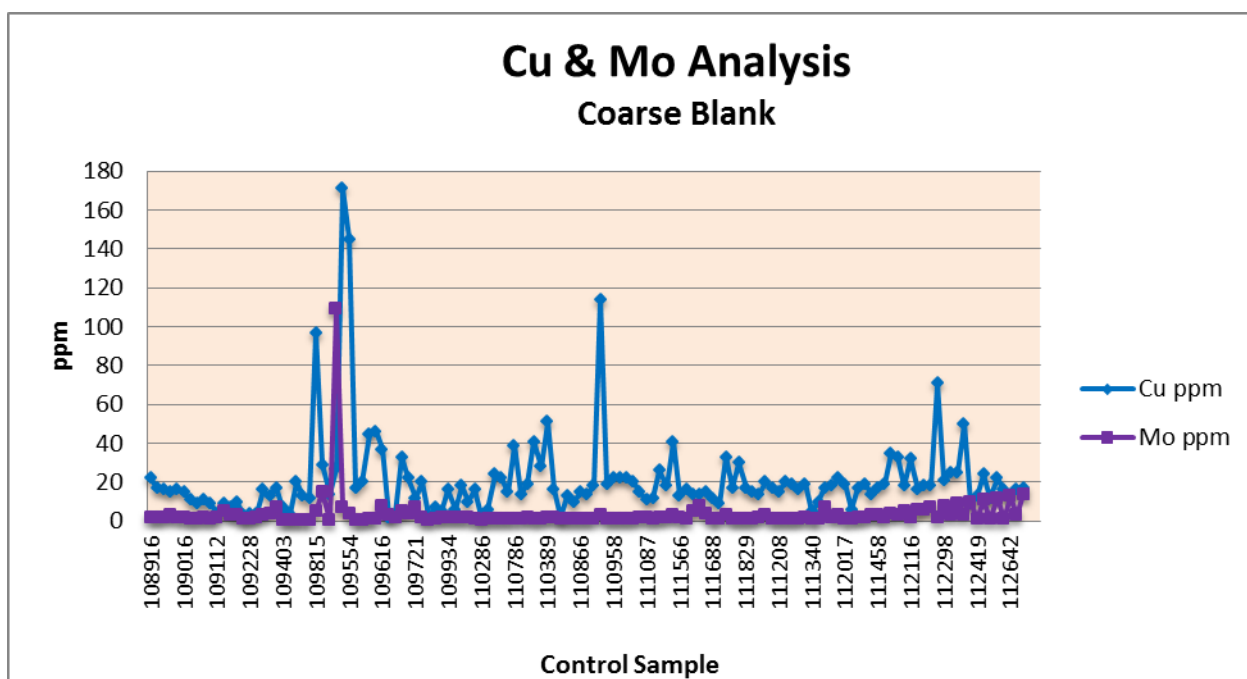
Table 16 below gives the basic statistics for these blank samples.

	Coarse Blank		CDN-BL-6	
	Cu ppm	Mo ppm	Cu ppm	Mo ppm
<b>Count</b>	<b>133</b>	<b>133</b>	<b>15</b>	<b>15</b>
<b>Minimun</b>	<b>2</b>	<b>1</b>	<b>49</b>	<b>3</b>
<b>Maximun</b>	<b>171</b>	<b>109</b>	<b>57</b>	<b>5</b>
<b>Mean</b>	<b>21</b>	<b>4</b>	<b>53</b>	<b>4</b>
<b>Standard Deviation</b>	<b>23</b>	<b>10</b>	<b>2</b>	<b>1</b>
<b>Coefficient of Variation</b>	<b>107</b>	<b>272</b>	<b>4</b>	<b>14</b>

**Table 16: Statistical summary of coarse and standard blanks used during 2011**



**Figure 42: Copper and Molybdenum variogram for Standard CDN-BL-6**



**Figure 43: Copper and Molybdenum variogram for Coarse Quartz Blank**

The possibility of contamination of the samples, as per the above results, show that there has been minimal to no contamination. This is observed in the the low copper and molybdenum grades from the lab assay results, where non of the samples gave > than 200 ppm for both elements.

Duplicates samples of core where taken in order to establish the precision of the assay data. Results are as follows:

	<b>Copper ppm</b>			<b>Molybdenum ppm</b>		
	<b>Original</b>	<b>Duplicate</b>	<b>Diference</b>	<b>Original</b>	<b>Duplicate</b>	<b>Diference</b>
<b>Count</b>	<b>134</b>	<b>134</b>	<b>134</b>	<b>134</b>	<b>134</b>	<b>134</b>
<b>Max</b>	<b>12750</b>	<b>10950</b>	<b>3670</b>	<b>2320</b>	<b>2150</b>	<b>450</b>
<b>Min</b>	<b>23</b>	<b>19</b>	<b>-970</b>	<b>0,5</b>	<b>1</b>	<b>-214</b>
<b>Mean</b>	<b>1380</b>	<b>1321</b>	<b>59</b>	<b>153</b>	<b>142</b>	<b>10</b>
<b>Standard Deviation</b>	<b>2001</b>	<b>1460</b>	<b>541</b>	<b>330</b>	<b>267</b>	<b>63</b>
<b>BIAS (%)</b>			<b>4.36</b>			<b>7.30</b>

**Table 17: Statistical summary of duplicate samples taken during 2011**



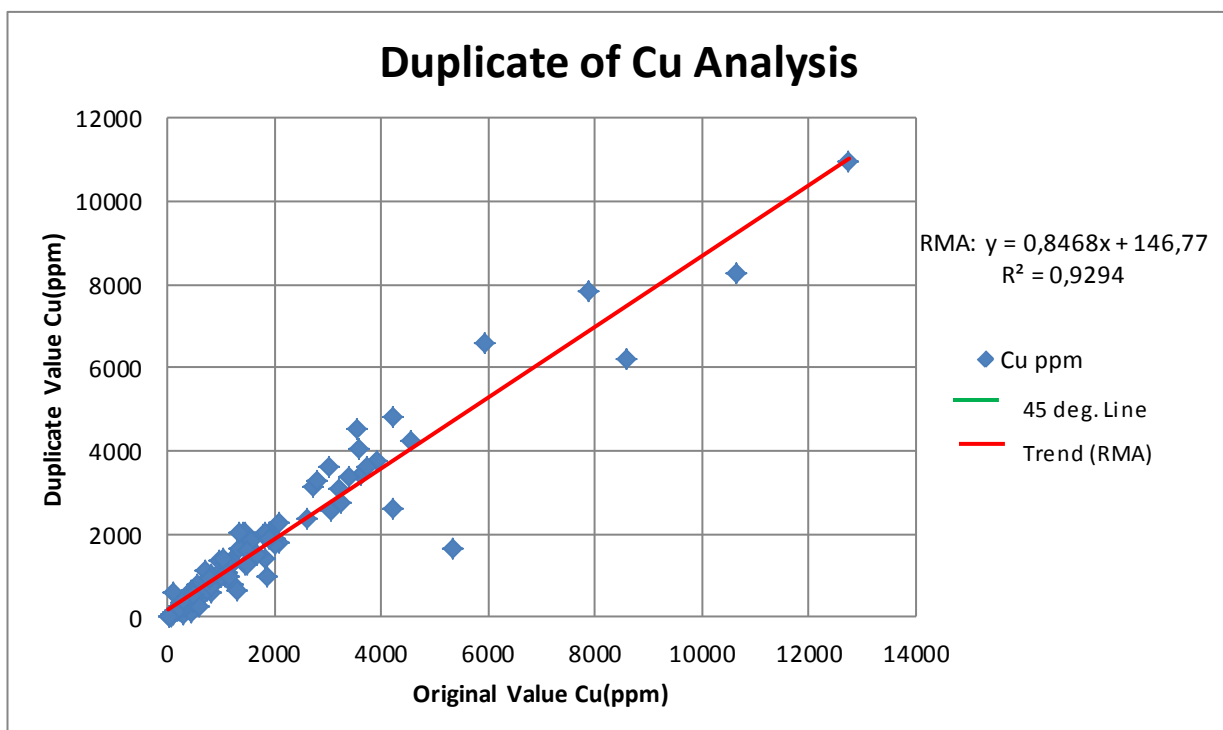


Figure 44: Copper variogram for duplicate samples

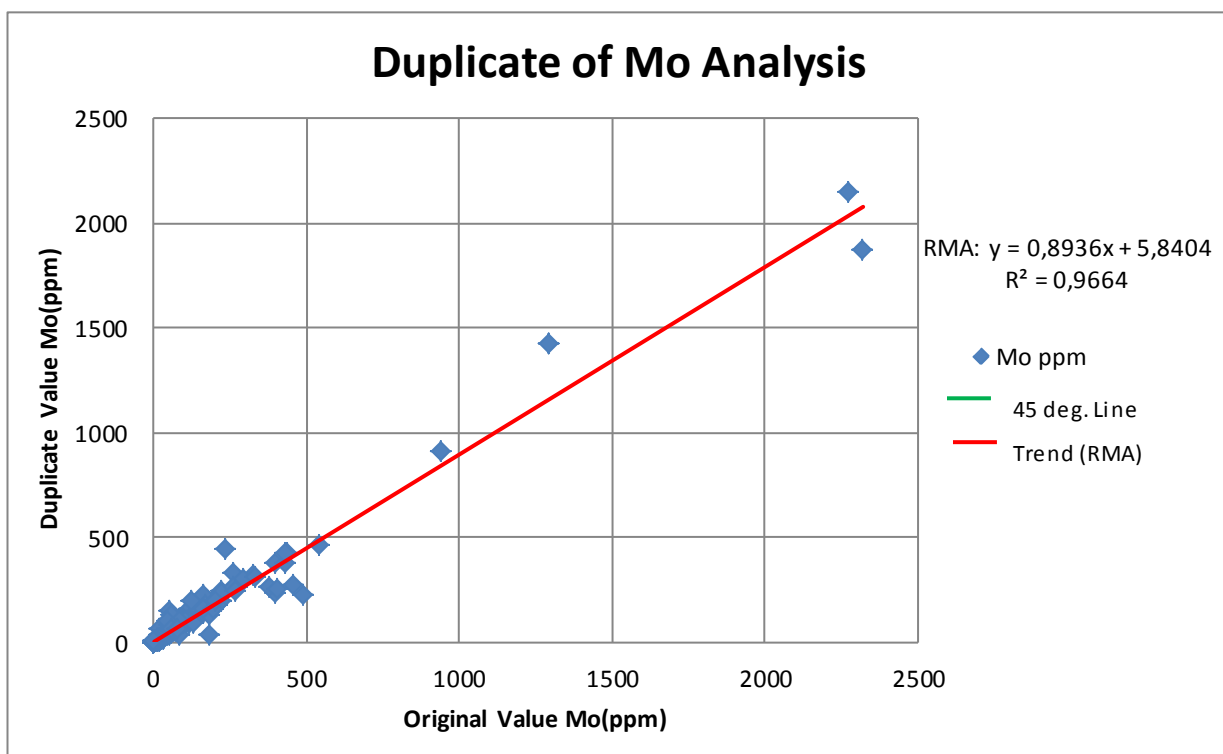


Figure 45: Molybdenum variogram for duplicate samples

The duplicate sample precision (Table 17) can be considered as acceptable within industry standards. Though there are a few differences between the original and the duplicate samples as the % bias is 4.36 for copper and 7.3 for molybdenum. This can be due to the nature of the mineralization such as irregular dissemination and veinlets of sulphides. In terms of the average difference between the original and duplicate sample, this is very low (copper = 59 and molybdenum = 10).

### **Sulfato South Resource Estimate**

The Sulfato South Resource Estimate supported on chapter 14 was initially prepared by Mr. Gino Zandonai (see section 3). The author of this section (D. Charchafie) performed a two-day site visit as to confirm mineralization styles, lithologic units, local geology as well as drillhole collar location and audited both dataset and methodology employed by Mr. Zandonai.

During the field revision of the Property the author visited the area of drilling and located a number of drillholes with a hand-held GPS. In general, the agreement in eastings and northings with respect to the database is reasonably good given the accuracy of the instrument.

Drill core inspection confirmed lithology, alteration and mineralization described in PBX reports. Given the time constraints, none of the holes has been re-logged in detail. However, the upper leached section, the secondary enrichment zone (with chalcocite) and the copper (chalcopyrite) mineralized breccias were identified on the Sulfato South drillhole core.

A brief reconnaissance of the Property also confirmed that porphyritic rocks are exposed in Sulfato and in Marta Zones.

Dataset auditing comprised the verification of Copaquire Master.xls, the spreadsheet that contains all compiled results for the project and the starting point for the resource estimate. The verification included comparing data to original assay and density reports from the lab (provided by PBX), drillhole location and lithological/mineralogical codes from the originals provided by PBX. No inconsistencies were detected.

The methodology outlined on section 14 was repeated obtaining the same results as Mr. Zandonai.

In summary, the author of this section considers that the data, methods and parameters used on the estimation are reasonable and adequate to classify the resource under the definition of Inferred Mineral Resource for the purpose of a NI 43-101 report.

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

Preliminary metallurgical test work has been carried out on the Cerro Moly Zone of the Copaquire property by F.Wright Consulting Inc. on samples provided by PBX and detailed in a report “Copaquire Molybdenum Copper Project, Preliminary Metallurgical Study, March 10, 2008”. The metallurgical sample selection criteria, sampling procedures, and the Testwork were not observed or verified by the author. Even the very low grade samples exhibited a favourable flotation response at relatively coarse grinds. The Cerro 1 composite sample that was blended to represent the current estimated resource head grade achieved 91.7%

molybdenum recovery and 89.7% Cu recovery. Depending on the head grade, the metal content in the combined molybdenum copper bulk concentrate varied up to 10% Mo, and up to 24% Cu. Further upgrading likely can be achieved by producing separate molybdenum and copper products, but this will require additional metallurgical tests to confirm. The existing process data and mineralogical information indicates that the separation of copper and molybdenum into separate flotation products should be able to follow standard procedures. The test program showed that all of the composites that were tested responded well to conventional froth flotation procedures, and supports undertaking further metallurgical evaluation with the ongoing project development.

Minera IPBX Ltda. has not conducted any metallurgical or related tests on any copper-molybdenum mineralized rock from the **Sulfato South Copper-Moly Zone**.

## 14.0 MINERAL RESOURCE ESTIMATES

As shown in figures 8 and 10; and plate 12, a major fault (the Copaquire fault) juxtaposes Cerro Moly and Sulfato South Zones advocating that, at least, these two zones are treated as independent domains. Previous mineral resource estimation and revision conducted on the Property (AMEC, 2009) were focused on the Cerro Moly zone.

### Cerro Moly Zone

In 2009, IPBX reported an Indicated Mineral Resource of 229 Mt with an average grade of 0.039% Mo and 0.11 % Cu a cut-off grade of 0.028% MoEq, and an Inferred Mineral Resource of 194 Mt with an average grade of 0.026% Mo and 0.15 % Cu and using a cut-off grade of 0.03% MoEq (AMEC, 2009).

The mineral resource was presented in the following table 19 and reported at molybdenum cut-off grades ranging from 0.028 to 0.036%. Although this range of cutoff grades are representative of possible recovery scenarios, the base case Mineral Resource estimate was based on a 0.028% Mo cutoff as the most reasonable prospect for economic recovery at that time.

Case	Cut-Off MoEq (%)	Category	Tonnage (kt)	Mo (%)	lb Mo	Cu (%)	lb Copper	Re (ppm)	MoEq (%)
<b>Base Case</b>	<b>0.028</b>	<b>Indicated</b>	<b>229,474</b>	<b>0.039</b>	<b>197,246,671</b>	<b>0.111</b>	<b>561,394,373</b>	<b>0.104</b>	<b>0.069</b>
		<b>Inferred</b>	<b>193,888</b>	<b>0.026</b>	<b>111,105,580</b>	<b>0.146</b>	<b>623,900,562</b>	<b>0.063</b>	<b>0.066</b>
	0.032	Indicated	181,374	0.042	167,894,284	0.118	471,702,989	0.116	0.074
		Inferred	141,595	0.027	84,260,353	0.162	505,562,116	0.065	0.071
	0.036	Indicated	141,848	0.045	140,684,846	0.126	393,917,570	0.125	0.079
		Inferred	105,675	0.028	65,214,156	0.179	416,904,783	0.068	0.077

**Table 19: Cerro Moly Sensitivity Analysis of Resources to cut-off grades**

*Note: AMEC designated the 0.028 as the base case based on the economic conditions at that time.*

*Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral*

*Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.*

The author has reviewed and validated AMEC's resource statements and there are no discrepancies with the technical report prepared by AMEC in 2009. Therefore, there are no changes on Cerro Moly's resources.

### **Sulfato South Zone**

Mineral resources are summarized at a series of copper cut-off grades in Table 25. The base case cut-off grade of 0.20% Cu is considered to be appropriate based on assumptions derived from deposits of similar type, scale, and location.

Due to the fact that Sulfato Zone does not have any metallurgical assessment and the resources were classified as inferred, the resource has not been limited within a pit shell. This step will be evaluated in the near future once the resources are categorized as indicated and the metallurgical assessment is addressed.

### **Database – General Description**

Data from the 2008-2011 Copaquire drilling programs in the Sulfato South zone has been compiled in a Microsoft Excel file called Copaquire Master.xls from the original certificates provided by ALS Chemex, (La Serena and Antofagasta labs). They were audited and then imported into a Microsoft Access database used by Gemcom Software for geological modelling and resource estimation and SuperVisor Snowden's software for geostatistics and variography analysis. The database consists of collar location data, down-the-hole surveys, and interval tables for lithology, alteration, mineralization, structure and assays. The Sulfato South database used for the present resource estimate contained 4,575 analyses for Cu and Mo.

Lithological/mineralogical codes used in the database are tabulated in Table 20.

**Table 20: Lithological and mineralogical codes**

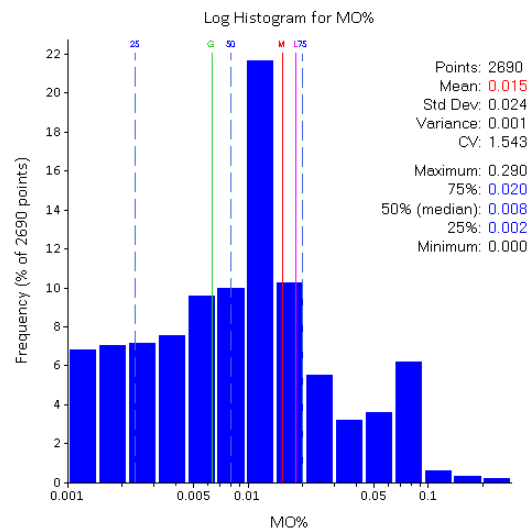
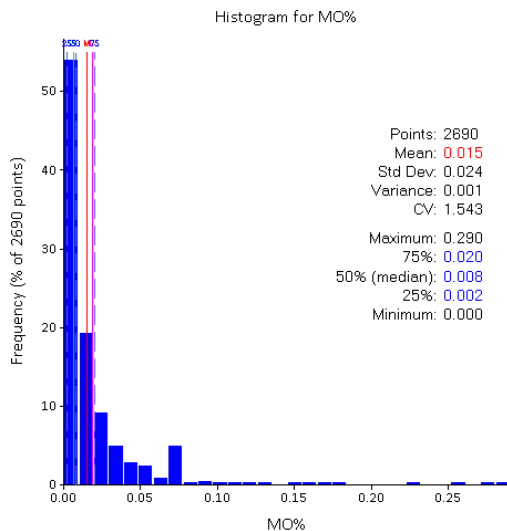
<b>Code</b>	<b>DESCRIPTION</b>
LEACH	Leached upper zone - Barren
ENRICHM	Enriched zone mainly Chalcocite
PYCPY	Hypogene pyrite-chalcopyrite zone

The descriptive statistics for the analyzed intervals within the Sulfato zone by lithological/mineralogical domain used in the present resource model are shown in Table 21. Frequency distributions of copper and molybdenum for all rocks are illustrated in Figure 46 and 47.

The histogram for molybdenum (Figure 46) approaches log normal distribution with no poly-modality evidence. Histograms for Cu (Figures 47) also show log normal distributions with no polymodal character.

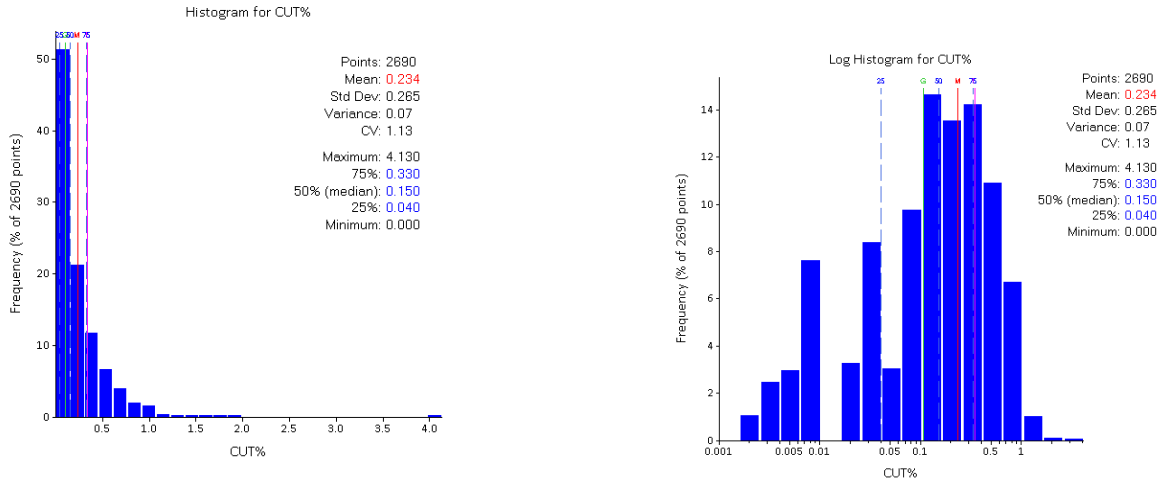
**Table 21: Statistics of assays within Sulfato zone: Cu\_T% & MO%**

Statistic	Cu_T%	Domain PCPY	Domain LEACH	Mo%	Domain PCPY	Domain LEACH
Assay		CUT%	CUT%		Mo%	Mo%
Samples	2690	2120	570	2690	2120	570
Imported	2690	2690	2690	2690	2690	2690
Minimum	0.0001	0.0001	0.00171	0	0.0001	0
Maximum	4.13	4.13	0.79	0.29	0.29	0.07
Mean	0.234	0.291	0.025	0.0155	0.0184	0.00458
Standard deviation	0.265	0.27	0.0591	0.0239	0.0257	0.00956
CV	1.13	0.93	2.365	1.543	1.395	2.087
Variance	0.0701	0.0731	0.00349	0.00057	0.000658	0.0000914
Skewness	2.84	2.885	7.95	4.077	3.823	5.032
Log samples	2690	2120	570	2687	2120	567
Log mean	-2.237	-1.639	-4.46	-5.069	-4.74	-6.301
Log variance	2.337	0.962	1.177	2.158	1.754	1.749
Geometric mean	0.107	0.194	0.0116	0.00629	0.00874	0.00183
10%	0.01	0.05	0.00307	0.000826	0.0015	0.0003
20%	0.03	0.1	0.00454	0.0018	0.003	0.000591
30%	0.07	0.13	0.0061	0.00317	0.0052	0.001
40%	0.11	0.16	0.00945	0.0052	0.008	0.0012
50%	0.15	0.2	0.01	0.00801	0.01	0.00178
60%	0.2	0.27	0.01	0.01	0.01	0.00244
70%	0.28	0.34	0.02	0.01	0.02	0.00397
80%	0.39	0.45	0.03	0.02	0.03	0.006
90%	0.58	0.65	0.05	0.04	0.05	0.01
95%	0.75	0.81	0.09	0.07	0.07	0.01
97.50%	0.93	1	0.12	0.07	0.07	0.03
99%	1.11	1.16	0.25	0.1	0.11	0.07



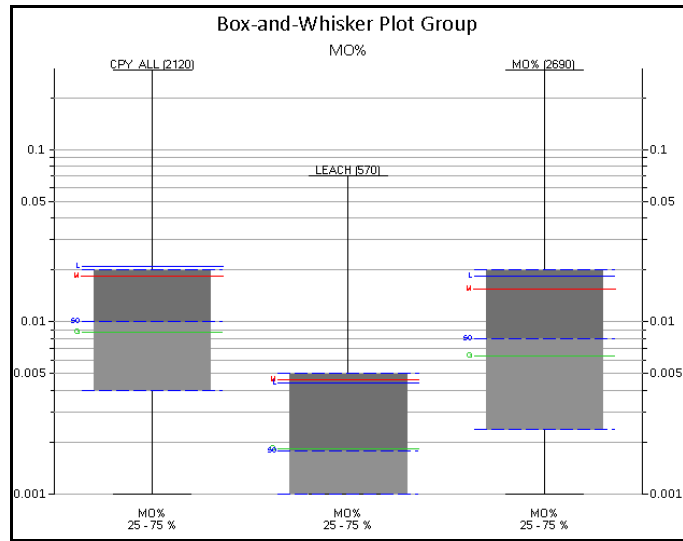


**Figure 46: Frequency distribution of Mo in assay intervals**

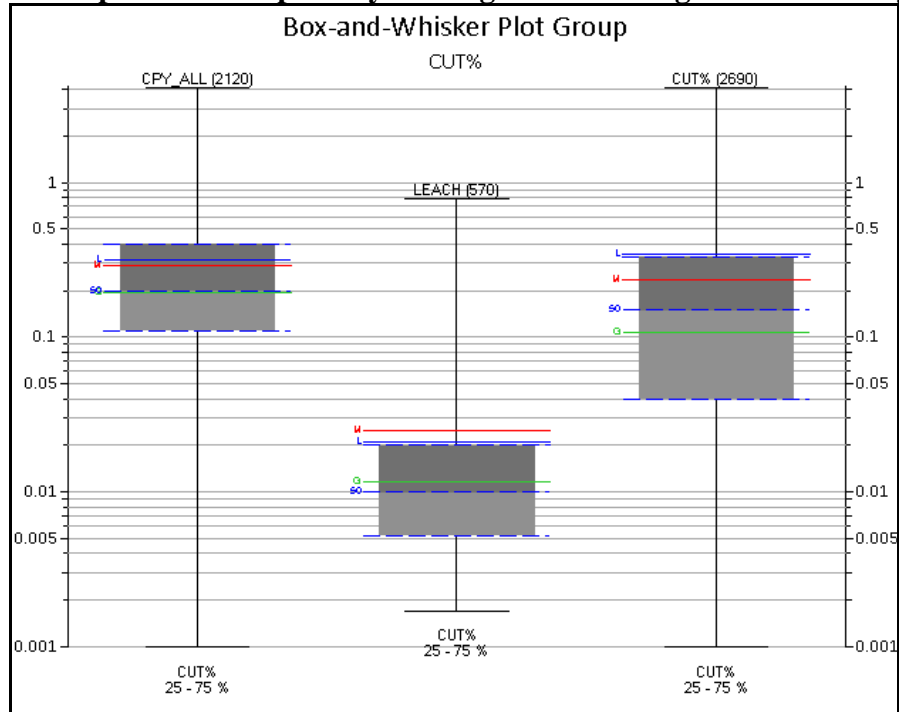


**Figure 47: Frequency distribution of Cu in assay intervals**

Statistics for raw assay data within the Sulfato zone are broken down by major lithological/mineralogical zones and are illustrated as comparative box plots (see figures 48 and 49). Following the lithological interpretation, the molybdenum shows preferential concentration in the PCPY unit, while in the LEACH unit the concentration of molybdenum has markedly declined in a transitional manner to almost absence of Mo. In the case of Cu the trend is similar, although the transition of concentration between the LEACH and PCPY units is more marked and relatively abrupt. Copper appears to be unrelated to Mo mineralization, as shown in the correlation analysis below.

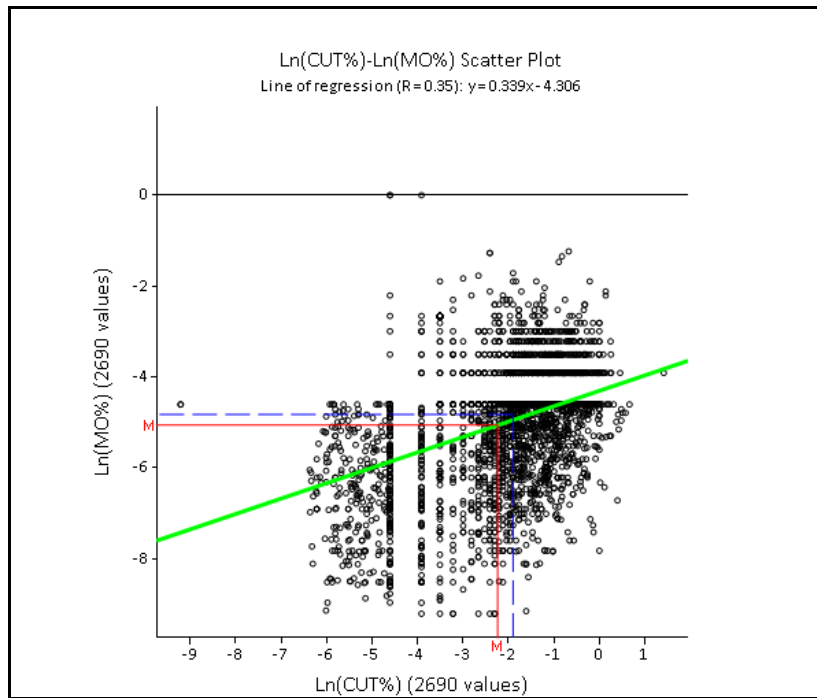


**Figure 48: Comparative box plots by lithological/mineralogical zone – Molybdenum**

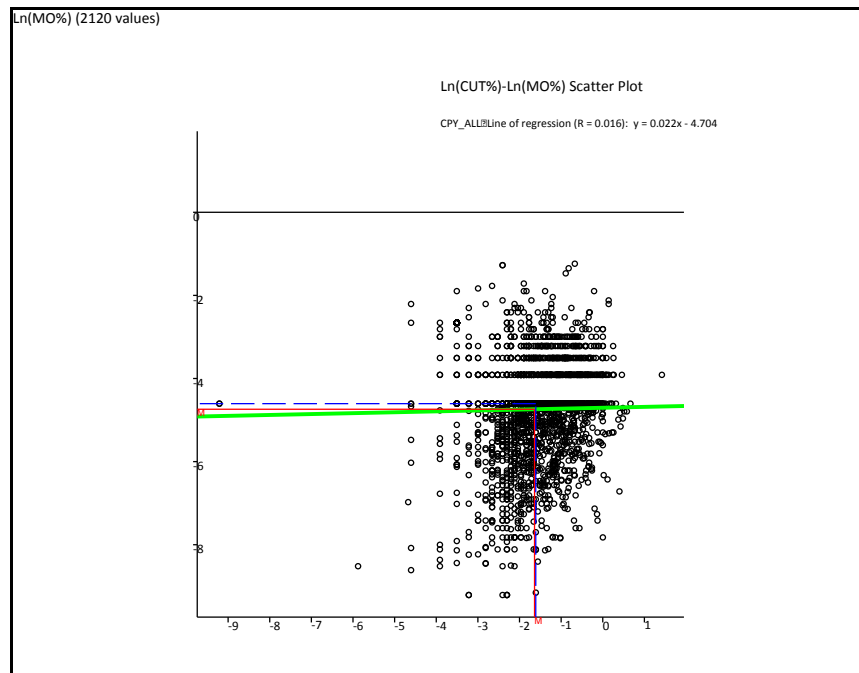


**Figure 49: Comparative box plots by lithological/mineralogical zone – Copper**

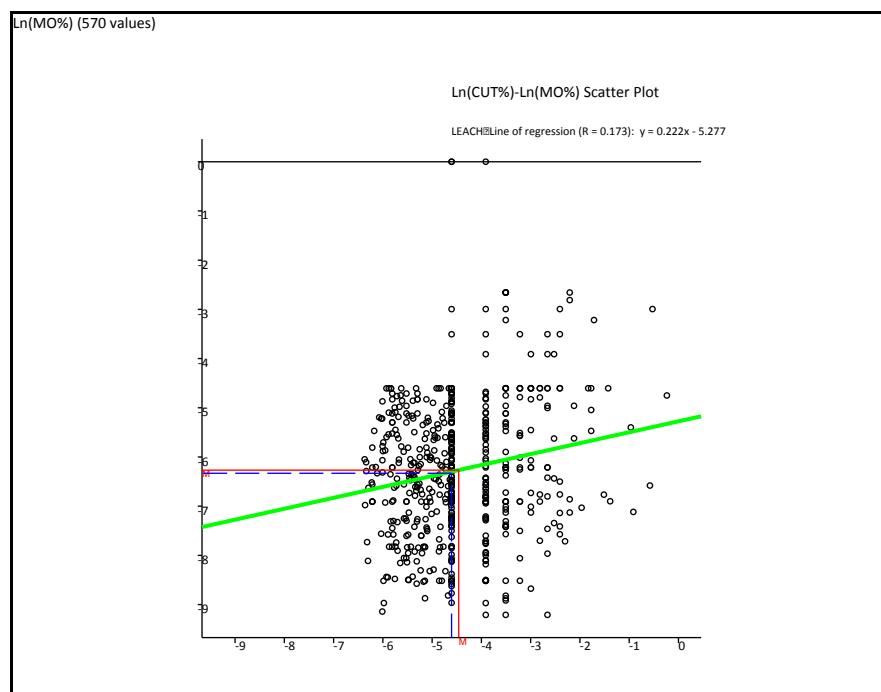
The elements analyzed in this estimate, Mo and Cu do not show significant correlation within the Sulfato deposit. Figures 50 to 52 show correlation graphs of Mo-CU for the entire domain and by lithological/mineralogical units LEACH and PCPY.



**Figure 50: Correlation Cu% vs Mo% for all domains**



**Figure 51: Correlation Cu% vs Mo% for PCPY domain**



**Figure 52: Correlation Cu% vs Mo% for LEACH domain**

## **Topography**

The base topography used for the present study was obtained from Minera IPBX Limitada. In September 2007, Eagle Mapping was contracted to produce a detailed topographic map based on new aerial photographs.

## **Density**

A total of 118 core samples were systematically analyzed for specific gravity for the 2008-2011 drilling program, for which specific gravity was measured at ALS Chemex using the water immersion method. Samples were coated with paraffin prior to measurement. The statistics for the major rock units are shown in Table 22.

**Table 22: Specific Gravity Statistics**

Statistics	SG	Domain LEACH	Domain PCPY
Samples	118	18	47
Minimum	1.62	1.62	2.4
Maximum	3.9	3.1	3.9
Mean	2.6	2.41	2.68
Median	2.62		
Standard deviation	0.23	0.26	0.2

The median values were selected as representative of the major lithological/mineralogical units

## Geological Model

The geological interpretation of the Sulfato deposit was outlined by Hugo Becerra, Senior IPBX Geologist, as described in chapter 7 of this report. The interpretation of the contacts between different lithological/mineralogical units, were digitized in Gemcom Software© from cross sections and plan maps. The codes described on Table 18 were assigned to the different domains by initializing the blocks inside the wireframe of each unit. The block model was created in Gemcom with the axis orientated following the northern trend of the mineralization. Specific gravity values corresponding to each unit were then assigned to the blocks. Lithological/mineralogical domains from which the blocks were coded are illustrated in Figure 53.

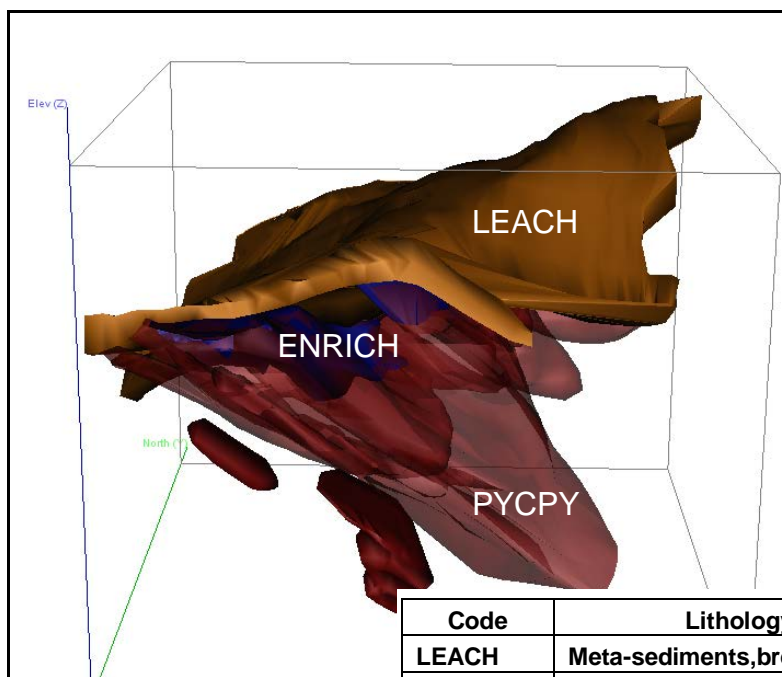


Figure 53: Block model coding

Code	Lithology/Mineralogy
LEACH	Meta-sediments,breccias/Fe oxides
ENRICH	Meta-Sediments,breccias,Qtz-Monzonite/Chalcocite
PYCPY	Meta-Sediments,breccias,Qtz-Monzonite/Pyrite-Chalcopyrite

## Zone Constraints

The Molybdenum and Copper mineralization overlaps the LEACH/PCPY contacts, being the ENRICH unit considered fully included in the PCPY unit. However, a distinct continuity can be recognized for each defined domain. Following the re-interpretation of the lithological/mineralogical domains and the geochemical signature of the Mo/Cu for each domain, hard boundaries were used between the different units during the estimation.

## Compositing

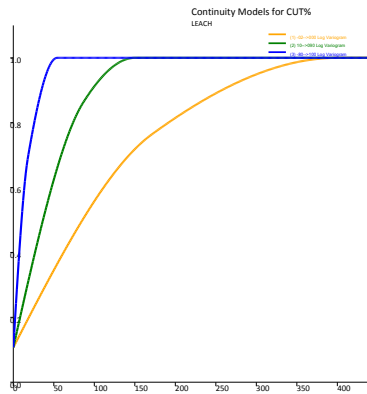
Statistical analysis of the Raw assay interval lengths, show a significant majority of 2 m samples (~90% of the population), while less than 10% having a length > or < 2 m. The 2 m length was selected as the most adequate for the compositing for molybdenum and copper.



## Variogram Analysis

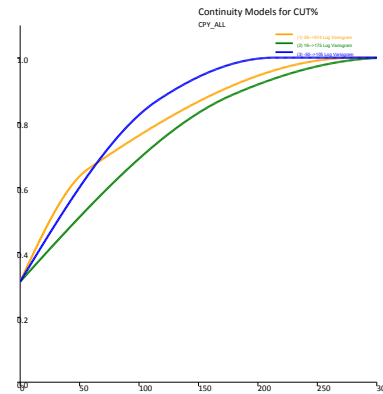
Directional semi-variograms and variogram maps for molybdenum and copper were generated from the composite data and analysed for spatial anisotropy using the SuperVisor V8 software from Snowden. The log transformation shows the best variograms, with omni directional variograms displaying spatial continuity of the variables Mo and Cu (Figures 54 and 55). Maximum variogram ranges were 352 m. for Mo and 311 m for Cu. Directional variograms showing nested spherical models were fitted to the log transformed data for all elements. The resulting nugget effect and sill component of the experimental semi-variogram models were then back transformed to real scores before being used in the estimation by Ordinary Kriging.

Gamma (1.177)



**Figure 54: Semi-variogram model for Cu**

Gamma (0.962)



**Figure 55: Semi-variogram model for Mo**

Variogram model parameters are summarized in Table 23.

**Table 23: Semi-variogram models by domain**

Domain	Item	Direction	Type Sph=spherical	Nugget effect	Sill 1	Range 1	Sill 2	Range 2
LEACH	Cu	-02->000	sph	0.11	0.30	171	0.59	400
		10->090	sph	0.11	0.30	86	0.59	150
		-80->100	sph	0.11	0.30	18	0.59	54
	Mo	44->321	sph	0.05	0.44	17	0.51	159
		19->212	sph	0.05	0.44	29	0.51	302
		40->105	sph	0.05	0.44	13	0.51	109
Domain	Item	Direction	Type	co	c1	a1	c2	a2
PCPY	Cu	36->074	sph	0.31	0.20	57	0.49	281
		16->175	sph	0.31	0.20	178	0.49	311
		-50->105	sph	0.31	0.20	115	0.49	214
	Mo	65->280	sph	0.16	0.19	36	0.65	350
		00->190	sph	0.16	0.19	36	0.65	352
		25->100	sph	0.16	0.19	14	0.65	90

## **Block Model and Grade Estimation Procedures**

### **Block size optimization**

Continuing with the rationale used in the block size optimization of the Cerro Moly deposit located immediately south of Sulfato, the optimal block size was set at 20m x 20m x 20m for a 4x4x4 discretization and a 2-50 min-max number of samples used in estimating a block.

A block model was created in Gemcom Software using a block size of 20 x 20 x 20 meters. The model extents are shown in Table 24.

**Table 24: Block Model Extents**

	Origin	Dist	size	# blocks
<b>X</b>	511,200	1100	20	55
<b>Y</b>	7,686,000	1100	20	55
<b>Z(top)</b>	3,920	720	20	36
<b>Rotation</b>	NIL (AZ 0)			

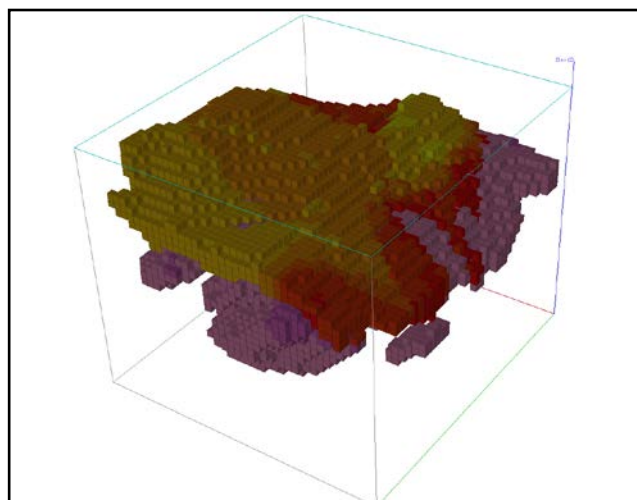
Blocks were estimated by ordinary kriging in a single pass. Search parameters are summarized in Table 25. Grades were estimated in the 20m × 20m x 20m block model using ordinary kriging for the Mo% and Cu%. To assign a grade to a block, composites were sourced within a search ellipsoid of dimensions similar to the anisotropies from the ranges of the directional variograms calculated for each domain.

The minimum number of composites used to estimate a block was set at 2 and the maximum was 50, with a block discretization of 4x4x4 in accordance with the optimization of the kriging efficiency criteria used in Cerro Moly. Only blocks that remained not estimated after the first pass were estimated with a search equivalent to one and a half the initial search in all directions, maintaining unchanged the remaining parameters.

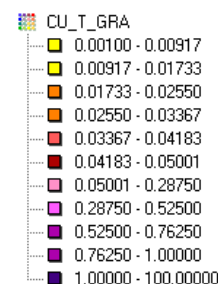
**Table 25: Block Model search parameters**

GRADE CU	Ellipse Rotation Gemcom ZYZ	Search Anisotropy X	Search Anisotropy Y	Search Anisotropy Z
LEACH	-10,-10,-80	400	150	54
PCPY	-15,-40,155	281	311	214

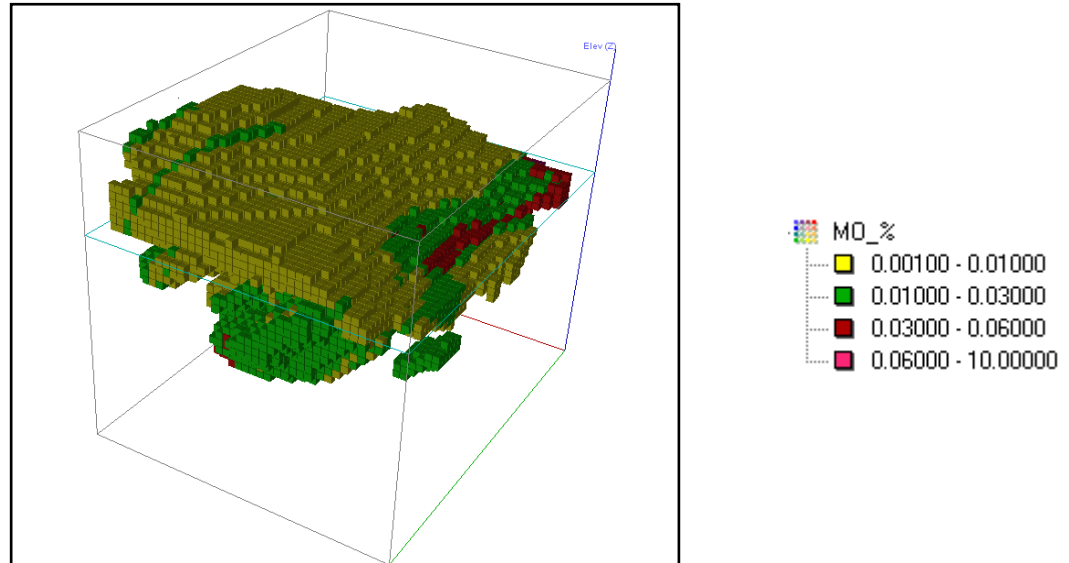
Figures 56 and  
distribution for  
perspective



57 illustrate the grade  
Cu and Mo, and  
views.

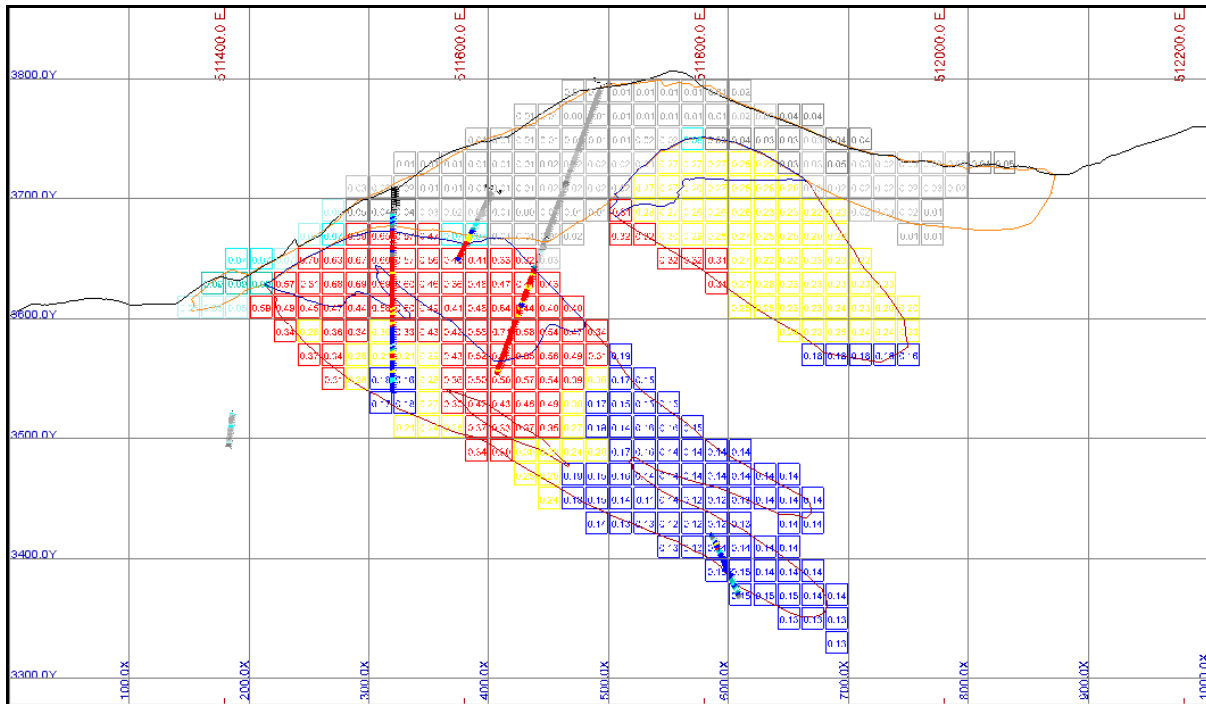


**Figure 56: Block model view -copper grades**



**Figure 57: Block model view - Molybdenum grades**

Figure 58 illustrates the grade distribution for Copper on the cross section 7,686,290 N and the comparison with the composite grades.



**Figure 58: Comparison of block model and composite Copper grades – SECTION 7,686,290 N**

## Mineral Resource Classification

Resource classifications used in this report conform to the definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”), which are prescribed by NI 43-101:

### **Measured Mineral Resource**

*A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.*

### **Indicated Mineral Resource**

*An ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.*

### **Inferred Mineral Resource**

*An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.*

*Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.*

As the Sulfato South study is a first pass resource estimate based on a limited and widely spaced grid of drill holes, the estimated resource produced in this study falls within the definition of **Inferred Mineral Resource** for the purpose of the NI 43-101 report.

## Model Validation

Verification of the geologic block model created in Gemcom Software© was done in vertical sections where both the model and the source information (from drillhole logging) were displayed. Contacts between lithological/mineralogical units of the geologic block model match both drillhole logs and the interpretation done by Mr. Becerra.

Model verification was carried out by visual comparison of blocks and sample grades in plan and section views. The estimated block grades showed good correlation with adjacent composite grades.

The mean of the global block grades at zero cut-off compare fairly well with the global means of the composites and raw assay data (Table 26).

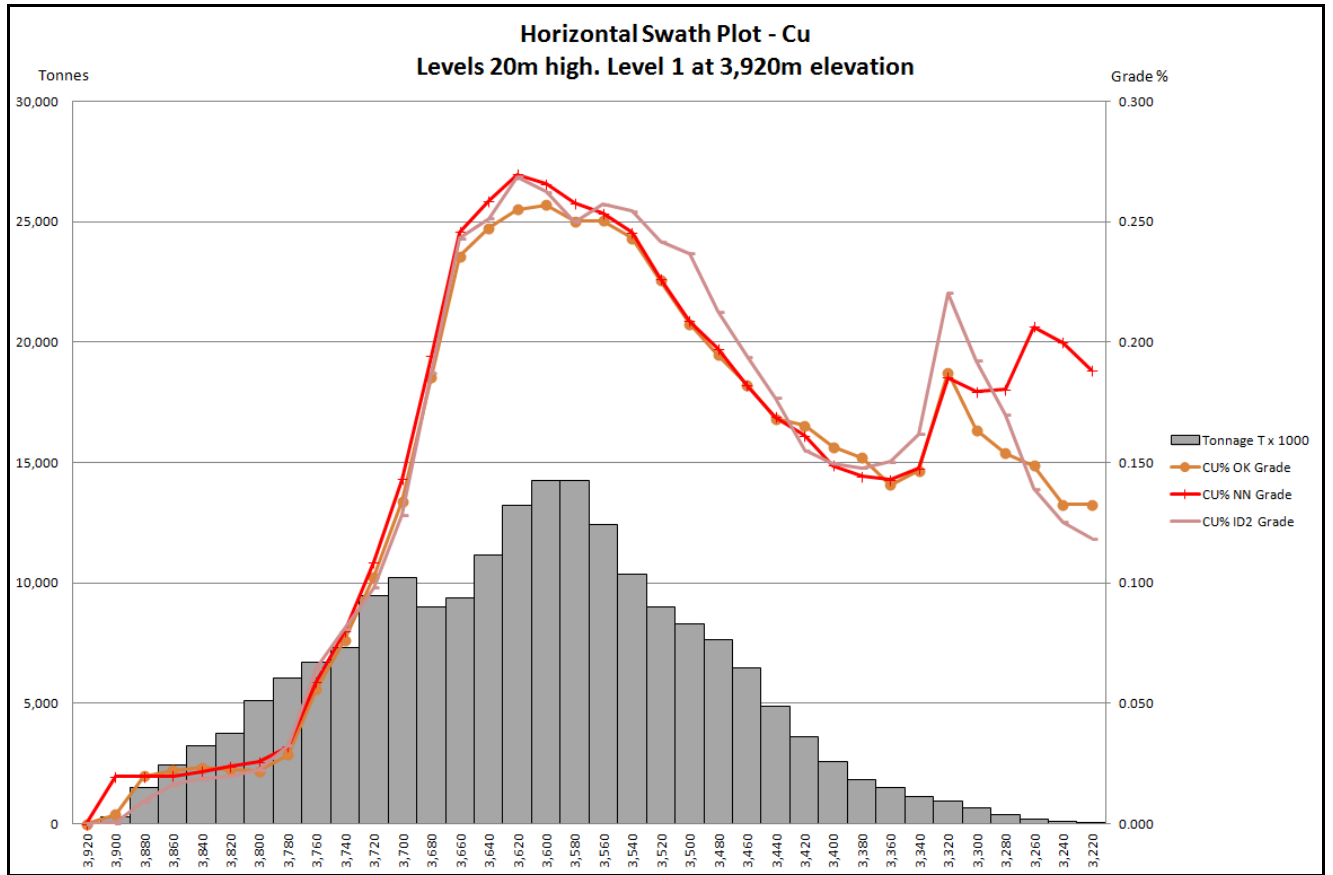
**Table 26: Global mean grade comparison**

Domain	Mean Composite Grades	Kriged Mean	Mean Composite Grades	Kriged Mean
	Mo%	Mo%	Cu%	Cu%
LEACH	0.007	0.007	0.027	0.027
PCPY	0.016	0.022	0.29	0.25

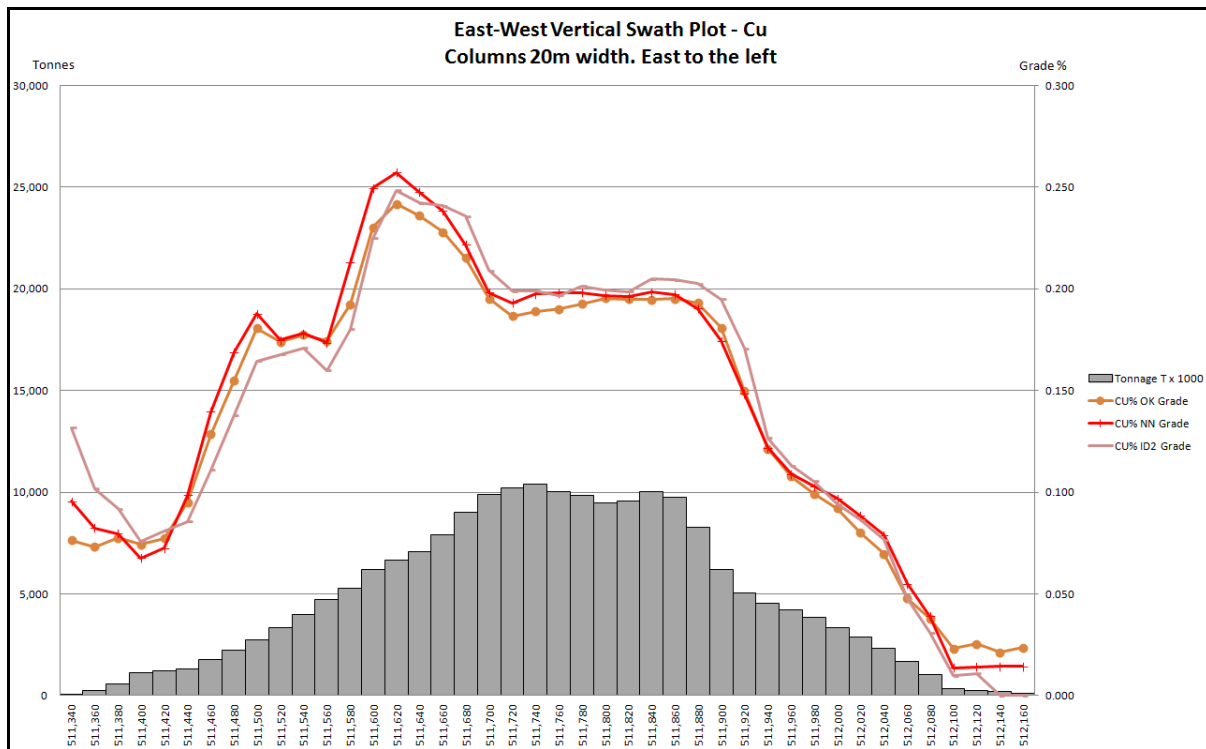
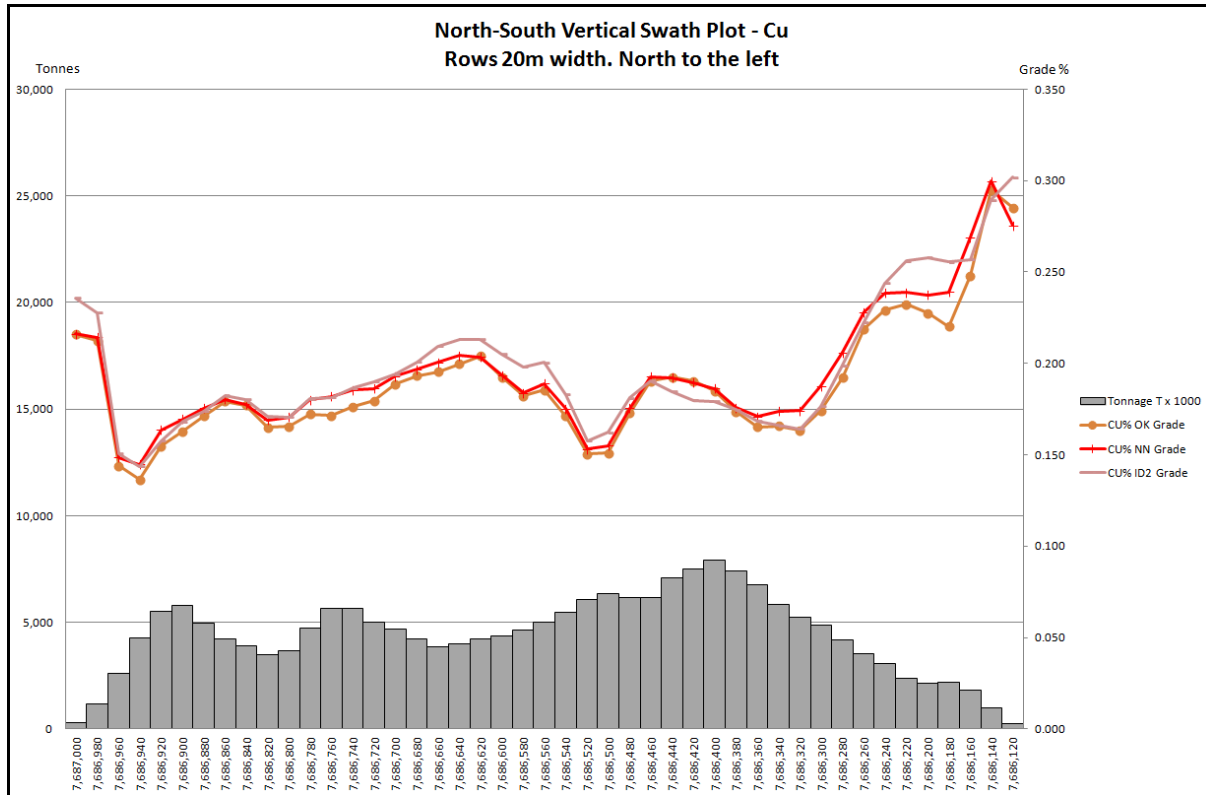
The Model verification included a comparison of krigging to nearest neighbour (NN) and Inverse of Distance Square (ID2) estimates by columns, rows and levels.

Swath plots were generated to assess the model for global bias by comparing Kriged values with nearest neighbour estimates and blocks estimated using ID 2 on the three directions of the block model through the deposit. Results show a good comparison between the kriged and nearest neighbour; whereas expected kriging has smoothed the data against the ID2 and nearest neighbour estimates. (Figures 59 to 61). The resource model is not constrained by a pit shell.





**Figure 59: Swath plot for Cu – Tonnes per vertical meter by level**



## **Sulfato Mineral Resource Summary**

Sulfato Resource classification used in this study conforms to the definition from National Instrument 43-101. As such, the Sulfato South resource is an **Inferred Mineral Resource**. Details and results are presented in tables 27 and 28 below.

The results are reported in copper equivalent cut-off grades ranging from 0.1 to 0.7% copper. The selected base case cutoff grade of 0.20% copper equivalent is considered to be appropriate based on assumptions derived from deposits of similar type, scale, and location (e.g. INMET's Cobre Panama project, BHPbilliton Spence deposit, Codelco's Minera Gaby and El Abra).

<b>%CUEQ</b>	<b>Tonnage</b>	<b>Copper %</b>	<b>CU%_P</b>	<b>MO %</b>	<b>MO%_P</b>	<b>CuEQ %</b>	<b>CUEQ%_P</b>
<b>Cut-off</b>	<b>T x 1000</b>	<b>Grade</b>	<b>lb Cu</b>	<b>Grade</b>	<b>lb MO</b>	<b>Grade</b>	<b>lb CUEQ</b>
0.70	359.710	0.73	5,809,388	0.023	183,979	0.86	6,821,275
0.60	2,047.902	0.66	29,792,497	0.023	1,056,772	0.79	35,604,742
0.50	7,743.377	0.57	97,786,725	0.021	3,595,197	0.69	117,560,307
0.40	20,085.466	0.49	218,373,939	0.019	8,585,374	0.60	265,593,494
0.30	44,198.812	0.41	399,752,381	0.017	16,968,164	0.51	493,077,285
<b>0.20</b>	<b>103,401.506</b>	<b>0.32</b>	<b>720,252,661</b>	<b>0.016</b>	<b>35,408,432</b>	<b>0.40</b>	<b>914,999,037</b>
0.10	160,605.291	0.26	921,995,275	0.015	53,711,949	0.34	1,217,410,994

**Table 27: Sulfato Inferred Mineral resource estimate by Copper equivalent cut-off grades.**

Metal equivalent data are based on US\$ 2.50/lb. copper and US\$13.50/lb. molybdenum. In calculating copper equivalencies 100% metal recoveries have been assumed. The contained metal figures shown are in situ.

*Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.*

Table 28 shows Inferred Mineral Resource estimate by rock type and cut-off grades. It must be noted that, although the average copper equivalent grade is higher on the Enriched zone (ENRICH), the estimated total metal content of the Hypogene pyrite-chalcopryrite zone (PCPY) is 3.5 times higher supporting the exploration for a bulk-tonnage target.

ROCKGROUP	GRADEGROUP	Volume	Density	Tonnage	CU%	CU% P	MO%	MO% P	CUEQ%	CUEQ% P
	CUEQ%	M**3 x 1000	T per M**3	T x 1000	Grade	lb CU	Grade	lb MO	Grade	lb CUEQ
LX	0.7	3.454	2.680	9.256	0.72	146,640	0.029	5,824	0.876	178,670
	0.6	15.923	2.680	42.675	0.67	632,171	0.025	23,560	0.810	761,753
	0.5	53.285	2.680	142.804	0.59	1,855,045	0.022	68,330	0.709	2,230,860
	0.4	122.423	2.680	328.095	0.51	3,673,077	0.020	145,736	0.619	4,474,624
	0.3	215.652	2.680	577.948	0.44	5,588,757	0.019	240,662	0.543	6,912,397
	0.2	410.959	2.680	1,101.371	0.35	8,533,591	0.015	360,927	0.433	10,518,690
	0.1	487.263	2.674	1,303.128	0.32	9,211,886	0.014	391,041	0.396	11,362,611
PCPY	0.7	70.416	2.680	188.715	0.75	3,099,893	0.020	83,894	0.856	3,561,308
	0.6	360.485	2.680	966.101	0.66	14,071,330	0.021	451,398	0.777	16,554,022
	0.5	1,634.297	2.680	4,379.915	0.57	54,623,250	0.020	1,935,888	0.676	65,270,634
	0.4	4,561.278	2.680	12,224.224	0.49	131,211,093	0.020	5,351,800	0.596	160,645,990
	0.3	11,462.505	2.680	30,719.515	0.40	269,649,596	0.018	11,885,619	0.495	335,020,501
	0.2	30,858.505	2.680	82,700.796	0.30	548,826,020	0.016	28,544,966	0.387	705,823,333
	0.1	51,777.153	2.680	138,762.774	0.24	746,390,234	0.015	46,545,533	0.328	1,002,390,665
ENRICH	0.7	60.351	2.680	161.739	0.72	2,562,854	0.026	94,262	0.864	3,081,297
	0.6	387.734	2.680	1,039.127	0.66	15,088,995	0.025	581,813	0.798	18,288,967
	0.5	1,201.738	2.680	3,220.658	0.58	41,308,429	0.022	1,590,979	0.705	50,058,812
	0.4	2,810.876	2.680	7,533.147	0.50	83,489,769	0.019	3,087,838	0.605	100,472,880
	0.3	4,813.936	2.680	12,901.349	0.44	124,514,028	0.017	4,841,883	0.531	151,144,387
	0.2	7,313.186	2.680	19,599.339	0.38	162,893,050	0.015	6,502,539	0.460	198,657,014
	0.1	7,664.791	2.680	20,539.388	0.37	166,393,154	0.015	6,775,375	0.450	203,657,718

**Table 28: Sulfato Inferred Mineral resource estimate by rock type and Copper cut-off grades**

## 15.0 ADJACENT PROPERTIES

There are no adjacent properties to Copaquire, only staked ground by others.

## 16.0 OTHER RELEVANT DATA AND INFORMATION

### Permits & Environmental Liabilities

Adits, pits and trenches were excavated on many mineralized zones on the property prior to involvement by Minera IPBX Limitada. Also, previous operators completed limited RC drilling during the 80's and early 90's. Minera IPBX Limitada has re-cleared some access roads in order to carry out diamond drilling. According to Minera IPBX Limitada, under the Mining and Environmental Laws of Chile, all mining activity that occurred on the property prior to the involvement of the current operator does not carry any environmental liability to the current operator. Despite some existing shallow ground disturbances, the author is not aware of any existing specific environmental liabilities. Given that the area is very dry, practically void of vegetation, of little value for agricultural or farming uses and lacks permanent residents there is very little for exploration or development to impact upon.

Arcadis Geotecnia Ltda (AG) was approached by IPBX in 2005 to undertake a baseline field of the flora, fauna and archaeological resources (Arcadis, 2005). AG did not evaluate the impact of the exploration or the future mining activities in the environment or archaeological sites.

### Work permits

According to Minera IPBX Limitada under the Chilean Mining Code, normal exploration activities such as soil sampling, geophysical surveys, mapping, trenching, drilling, etc., do not require work permits. A "Statement of Activity" has to be filed with the Servicio Nacional de Geología y Minería ((National Service of Geology and Mining or "Bureau (Servicio)") before drilling commences. Prior to commencing exploitation permitting is required.

### **Chilean Regulations**

The following summary is based upon Chile's Environmental Law and the regulations regarding environmental impact studies, as posted on the web site of Chile's Regional Commission for the Environment (CONAMA) 2. Chile's Environmental Law (Law N° 19,300), which regulates all environmental activities in the country, was first published on 9 March 1994 (CONAMA, 1994). Subsequently, an exploration project or field activity could not be initiated until its potential impact to the environment was carefully evaluated. This is documented in Article 8 of the environmental law, and is referred to as the *Sistema de Evaluación de Impacto Ambiental* (SEIA).

The SEIA is administered and coordinated on both the regional and national levels by the *Comisión Regional del Medio Ambiente* (COREMA) and the *Comisión Nacional del Medio Ambiente* (CONAMA), respectively. The initial application is generally made to COREMA, in the corresponding region where the Property is located. However, in cases where the property might affect various regions, the application is made directly to the CONAMA.

Various other Chilean government organizations are also involved with the review process, although most documentation is ultimately forwarded to CONAMA, who is the final authority on the environment and the organization that issues the final environmental permits.

There are two types of environmental reviews: an Environmental Impact Statement (*Declaración de Impacto Ambiental*, or DIA), and an Environmental Impact Assessment (*Evaluación de Impacto Ambiental*, or EIA). As defined in the SEIA, one of these must be prepared prior to starting any mining and/or development project (including coal, building materials, peat or clays) or processing and disposal of tailings and waste.

A DIA is prepared in cases when the applicant believes that there will be no environmental impact as a result of the proposed activities. Areas of potential impact include health risks, contamination of soils, air and/or water, relocation of communities or alteration of their ways of life, proximity to "endangered" areas or archaeological sites, alteration of the natural landscape, and/or alteration of cultural heritage sites.

The DIA will include a statement from the applicant declaring that the project will comply with the current environmental legislation, and a detailed description of the type of planned activities, including any voluntary environmental commitments that might be completed during the project.



## 17.0 INTERPRETATION AND CONCLUSIONS

Over the past 40+ years, prospectors, geologists and a few exploration companies have focused mainly on the molybdenum-rich porphyry (known as Cerro Moly) stock on the north flank of the Huatocondo Creek. As such, the Copaquire property has been recognized to host mainly molybdenum mineralization with low copper content (0.1-0.2% Cu). But as of 2010, Minera IPBX started re-evaluating the copper potential at the Sulfato South Zone with excellent copper drill results not seen before.

During 2011 IPBX senior porphyry geologists refined the geological model, identifying geological and structural controls on the copper mineralization, its paragenesis and the exploration criteria to be used in an infill diamond drill program in the Sulfato Zone. This new understanding and the drilling that has been carried out, has resulted in the transformation of geological potential into an inferred resource within a small section of Sulfato South.

The identified inferred resources are located within an area representing only 30% of the surface alteration area that defines the Sulfato South zone (See Figure 62) and the ultimate depth of mineralization has not yet been drill tested. PBX expects that with more diamond drill holes to the east and south of the current resource block, the probabilities of incrementing the current resources are excellent.

Drilling in 2010 and 2011 has resulted in a new geological model for the Sulfato South copper deposit that can confidently guide future resource definition. Also, the ZTEM and Titan geophysical surveys have provided excellent additional drill targets in the Marta Zone, the Skarn Zone (located between Cerro Moly and Marta zones).

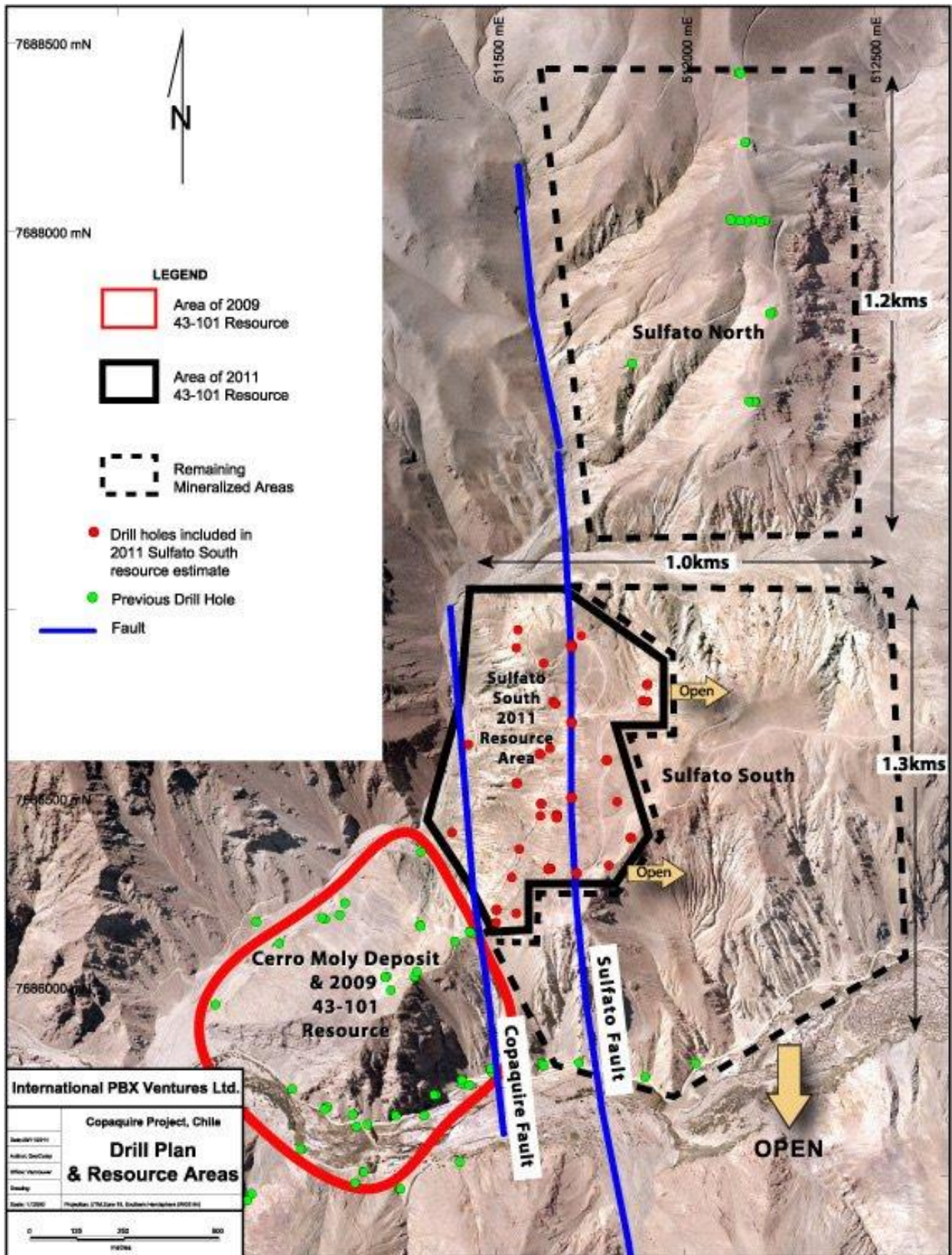


Figure 62: Drill Plan and resource areas (GeoComp Dec. 2011)

## **18.0 RECOMMENDATIONS**

Drilling in 2010 and 2011 has resulted in a new geological model for the Sulfato South copper deposit that can confidently guide future resource definition.

The author recommends based on the more recent geological results and data, that International PBX Ventures Ltd. undertake a drill program during 2012 prioritized in:

### **The Sulfato South Zone:**

Infill drilling: 5 drill holes for a total of 3,000 metres in the Sulfato South zone with the objective of increasing resource category to measured & indicated.

### **The Sulfato East Zone:**

The identified inferred resources are located within an area representing only 30% of the surface alteration area that defines the Sulfato South zone and the ultimate depth of mineralization has not yet been drill tested. Based on the current geological model PBX expects that with more diamond drill holes to the east (Sulfato East) of the current resource block, the probabilities of incrementing the current copper resources are excellent. A drill program is proposed, consisting of 12 drill holes for a total of 6,000 metres.

### **The Skarn Zone:**

At Copaquire, Skarn mineralization occurs at/or near the periphery between two intrusive contacts with non-calcareous meta-sediments. It is known that higher copper concentrations may only result in districts with multiple intrusive episodes and fluid pulses as those observed at Copaquire. Sulphide mineralization has been observed in quartz-pyrite-chalcopyrite veinlets, also as irregular blebs or concentrations in the skarn. A 2 drill hole program to test for mineralization at depth is proposed for a total of 1,000 metres.



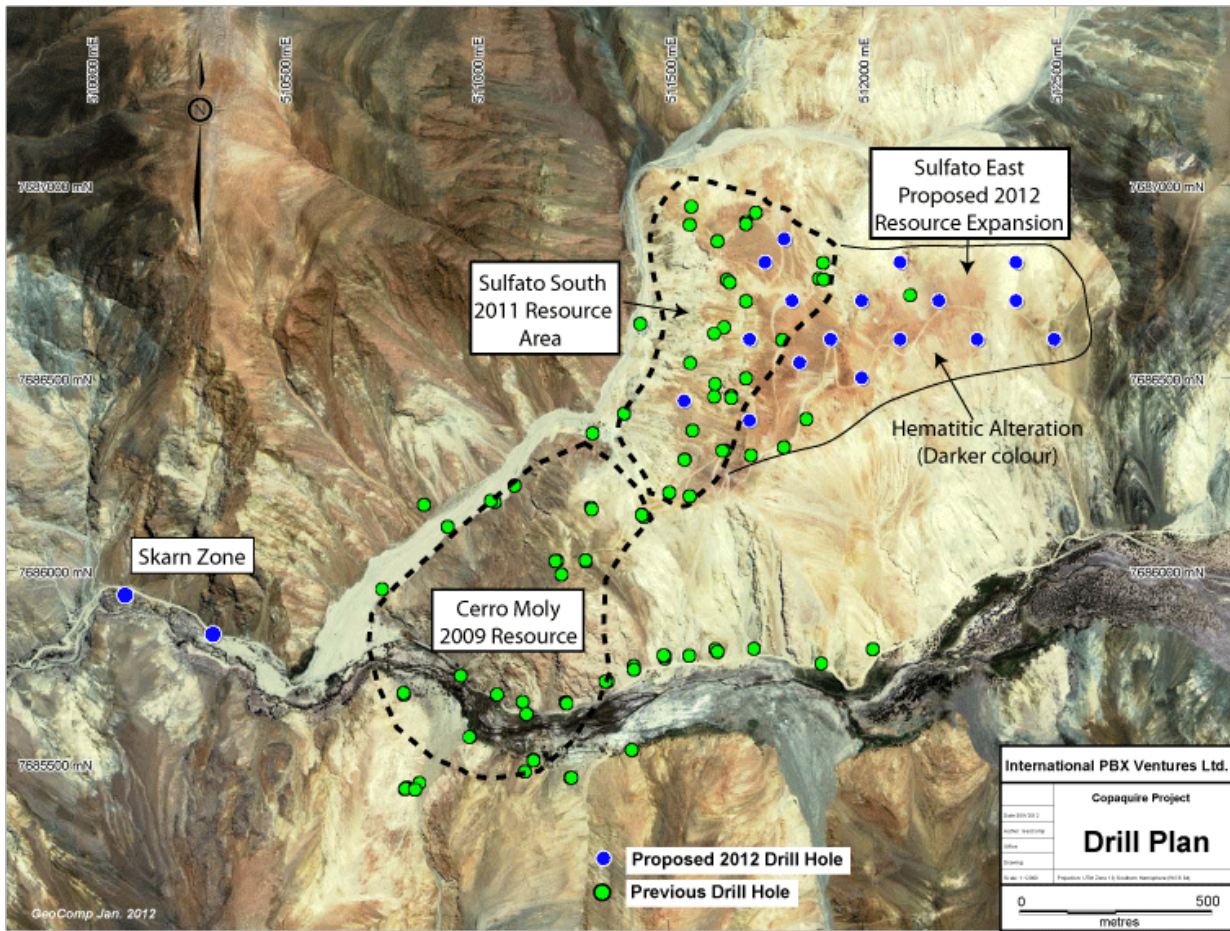


Figure 63: Copaquire Property Proposed Drill Program (GeoComp Jan. 2012)

Table 29: Proposed 2 Phase Program Drill Budget for Sulfato South, East & Skarn Zone

<b>Phase I</b> 3,000m infill @ Sulfato South & 2,000m @ Sulfato East		
1.0	Diamond Drilling 5,000m @ \$500/m (inclusive) (+19% Tax)	\$3,000,000
2.0	Personnel (wages, food & board)	\$800,000
3.0	Drill Core Analysis 2,500 @ \$35/samp (+19% Tax)	\$100,000
4.0	Equipment Rental (bulldozer & trucks)	\$400,000
	contingency (10%)	\$475,000
	<b>Total of Phase I</b>	<b>\$4,775,000</b>
<b>Phase II</b> 3,000m @ Sulfato East & 1,000m @ Skarn Zone		
1.0	Diamond Drilling 5,000m @ \$500/m (inclusive) (+19% Tax)	\$3,000,000
2.0	Personnel (wages, food & board)	\$800,000
3.0	Drill Core Analysis 2,500 @ \$35/samp (+19% Tax)	\$100,000
4.0	Equipment Rental (bulldozer & trucks)	\$400,000
	contingency (10%)	\$475,000
	<b>Total of Phase I</b>	<b>\$4,775,000</b>
	<b>Total of Phase I &amp; II</b>	<b>\$9,550,000</b>

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## 20.0 DATE AND SIGNATURE PAGE

The undersigned prepared this technical report titled “The Copaquire Copper-Moly Porphyry Property, Region I, Iquique Province Chile, National Instrument 43-101, Technical Report”, Effective date January 30, 2012.

“Signed and sealed”

Diego Charchaflie, M.Sc., P.Geo.  
Independent Consultant  
January 30, 2012

“Signed and sealed”

Victor Jaramillo, M.Sc., P. Geo.  
Discover Geological Consultants Inc.  
January 30, 2012

## 21.0 CERTIFICATES OF QUALIFIED PERSONS:

**Diego Charchafie, M.Sc., P.Geo.**

I, **Diego Charchafie**, certify that:

I am an independent geologist with business address in Av. Del Libertador 6966 10D (C1429BMP), Ciudad Autónoma de Buenos Aires, Argentina., tel :+[54] (11) 4784 8063, email dc@lpfconsulting.com.

This certificate applies to the report titled “The Copaquire Property Sulfato Copper – Moly Porphyry NI 43-101 Technical Report”, dated January 30 of 2012.

I graduated in geology from the University of Buenos Aires with degrees of Licenciado en Ciencias Geológicas (B.Sc) in 1994, and from the University of British Columbia with a M. Sc. in geology in 2003.

I have been a member of the Society of Economic Geologists since 1999, and a Professional Geoscientist (#152198) in good standing with the Association of Professional Engineers and Geoscientists of British Columbia since 2008.

I have worked as a geologist for a total of 17+ years since my graduation from university. I have been involved in mineral exploration for various commodities including base and precious metals, rare-earth elements and uranium in South America.

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI-43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purpose of NI 43-101.

I made a personal inspection of the property that is the subject of this report from January 21 to 22, 2012.

I am responsible for the preparation of sections 1, 2, 3, 6, 13, 14 and the subsection “Sulfato South Resource Estimate” of section 12 of the technical report titled The Copaquire Property – Sulfato Copper-Moly Porphyry NI 43-101 Technical Report dated January 30, 2012 relating to the Copaquire Property.

According to the test of independence in section 1.5 of NI 43-101, I am independent of International PBX Ventures Ltd.

I have had no prior involvement with the Property.

I have read NI 43-101, and this report has been prepared in compliance with NI 43-101 and Form 43-101F1 (effective date June 30, 2011).

As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading with regards to the Copaquire Property.

Dated this 1st day of March, 2012

“Signed and sealed”

Diego Charchafie, M.Sc., P.Geo.  
Independent Consultant Geologist

**CERTIFICATE OF QUALIFIED PERSON**

**Victor Jaramillo**

**Discover Geological Consultants Inc**

I, Victor Jaramillo, P. Geo., as co-author of the technical report titled The Copaquire Copper-Moly Property Technical Report dated January 10, 2012, do hereby certify that:

I am a President of Discover Geological Consultants Inc., Suite 1705 - 289 Drake Street, Vancouver, BC Canada, V6B 6A7

I graduated with a Bachelor of Science Degree in Geology from Washington and Lee University (U.S.A.) in 1981. In addition, I obtained a Master of Science Applied Degree in Mineral Exploration in 1983 from McGill University (Canada).

I am a professional geoscientist, registered with the Association of Professional Engineers and Geoscientists of British Columbia (License No. 19131).

I am a Fellow of the Geological Association of Canada (GAC), a Fellow of the Society of Economic Geologists (SEG), a member of the Geological Society of Nevada and a member of the Geological Society of America.

I have worked as a geologist for a total of 30 years since my graduation from university. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI-43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purpose of NI 43-101.

I am responsible for the preparation of sections 4, 5, 7 to 12 and 15 to 19 of the technical report titled The Copaquire Copper-Moly Property Technical Report and dated January 10, 2012 (the "Technical Report") relating to the Copaquire Property. I visited the Property from February 2010 to October 2011.

I have had prior involvement with the property that is the subject of the Technical Report, during 2010 and 2011 as former Project Manager for Copaquire project.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

I am not independent of the issuer as defined in Section 1.5 of NI 43-101.

I have read National Instrument 43-101 and Form 43-101 F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 1st day of March, 2012

“Signed and sealed”

Victor Jaramillo, M.Sc., P. Geo.

Discover Geological Consultants Inc.