



**NI 43-101 TECHNICAL REPORT  
On The  
ALICIA COPPER GOLD PROJECT**

District of Capacmarca and Colquemarca,  
Province of Chumbivilcas,  
Department of Cusco, Peru

Centered at Approximately  
Latitude 14° 06' South by Longitude 71° 59' West

- Report Prepared For -

**MONTAN Capital Corp.**

And

**STRAIT MINERALS INC.**

- Report Prepared By -

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Effective Date:  
December 29, 2014

## **IMPORTANT NOTICE**

This report was prepared as a National Instrument 43-101 Technical Report for Montan Capital Corp. and Strait Minerals Inc. by James A. McCrea, P.Geo. The quality of information and conclusions contained herein are consistent with the level of effort involved in Mr. McCrea's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions and qualifications set forth in this report. This report is intended to be used by Montan Capital Corp., subject to the terms and conditions of its contract with Mr. McCrea. This contract permits Montan Capital Corp. to file this report as a Technical Report to satisfy TSX Venture Policy requirements pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

Cover Page: View west along the north contact with the limestones

**DATE and SIGNATURE PAGE****CERTIFICATE OF QUALIFIED PERSON**

I, James Albert McCrea, am a professional geologist residing at 306 - 10743 139 Street, Surrey, British Columbia, Canada, do hereby certify that:

- I am the author of the "NI 43-101 Technical Report on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru", dated December 29, 2014;
- I am a Registered Professional Geoscientist (P. Geo.), Practising, with the Association of Professional Engineers and Geoscientists of British Columbia, (Licence # 21450). I graduated from the University of Alberta, Canada, with a B. Sc. in Geology in 1988.
- I have worked as a geoscientist in the minerals industry for over 25 years and I have been directly involved in the mining, exploration and evaluation of mineral properties mainly in Canada, the United States, Mexico, Peru, Argentina and Colombia for gold, silver, copper, molybdenum and base metals;
- I visited the Alicia Copper Gold Project on December 11<sup>th</sup>, 2014 and the core storage facility on December 12<sup>th</sup>, 2014.
- I had no prior involvement with the property before I visited it in December of 2014;
- I am responsible for all sections of the "NI 43-101 Technical Report on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru", dated December 29, 2014.
- I am independent of Montan Capital Corp. and Strait Minerals Inc. as independence is described by Section 1.5 of NI 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Montan Capital Corp. or Strait Minerals Inc.
- I was retained by Montan Capital Corp. to prepare an exploration summary on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru, in accordance with National Instrument 43-101. The report is based on my review of project files and information provided by Strait Minerals Inc. and discussions with company personnel;
- I have read National Instrument 43-101 and Form 43-101F1 and, by reason of education and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101. This technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 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.
- I, the undersigned prepared this report titled "NI 43-101 Technical Report on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru", dated December 29, 2014, in support of the public disclosure of technical aspects for the Alicia Copper Gold Project by Montan Capital Corp.

Effective Date: December 29, 2014

*Signed By James A. McCrea*

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James A. McCrea, B. Sc., P. Geo.  
(signed and sealed original copy on file)

Dated this 29<sup>th</sup> day of December, 2014

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Technical Report on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca,  
Province of Chumbivilcas, Department of Cusco, Peru

James A. McCrea, P.Geo.

December 29, 2014

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## 1.0 SUMMARY

### 1.1 Introduction

The Alicia Project is a copper-gold exploration project in the Department of Cusco, Peru and is held 100% by Minera Strait Gold Peru S.A.C. (Strait Gold) a wholly owned subsidiary of Strait Minerals Inc. (Strait Minerals)

At the request of Montan Capital Corp. ("Montan"), James A. McCrea, P. Geo., carried out an independent review of the Alicia Copper Gold Project, District of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru. The report is intended to support of Montan's qualifying transaction with Strait Minerals as described in the press release dated December 3, 2014. Strait Minerals Inc. was formerly Strait Gold Corp. (News Released August 1<sup>st</sup>, 2012): any reference to Strait Gold in company reports is regarded as interchangeable with Strait Minerals for the purposes of this report. The author conducted a property examination, reviewed available exploration results and prepared this independent technical report (the 'Report') in accordance with the formatting requirements of National Instrument 43-101 ('NI 43-101') and Form 43-101F1 (Standards of Disclosure for Mineral Properties) to be a comprehensive review of the exploration activities on the property, and to provide recommendations for future work, if warranted.

Information and data used in this report consists of field observations made by the author during the site visit on December 11 and 12<sup>th</sup> of 2014; data collected by Strait Gold in the field including drill hole and trench data; and technical and company reports from previous authors including Moss (2011a, 2011b, 2012, 2014), Wober (2007) and Weston (2009).

### 1.2 Property Description and Ownership

The Alicia Project consists of four contiguous mining concessions or mining rights totalling 2,593.46 ha. The concessions are known by the names of Valeria Uno 2003, Valeria Siete 2003, Alicia 3 and Alicia 4. The mining rights are listed in Table 1.1 and are shown in Figure 4.2. The property is subject to a 2% NSR in favour of Panoro Minerals Ltd.

**Table 1.1: Alicia Project Mining Concession Titles**

Mining Registry No.	Name	Holder of Record	Granted Area (ha)	Expiration Date
01-00149-03	Valeria Uno 2003	Minera Strait Gold Peru S.A.C.	603.73	30-June-2015
01-00430-03	Valeria Siete 2003	Minera Strait Gold Peru S.A.C.	1,000.00	30-June-2015
01-02358-99	Alicia 3	Minera Strait Gold Peru S.A.C.	600.00	30-June-2015
01-00873-01	Alicia 4	Minera Strait Gold Peru S.A.C.	389.73	30-June-2015

Note: Title information effective December 29, 2014

#### 1.2.1 Description of the Transaction

On December 3, 2014, Montan Capital Corp. ("Montan") announced a qualifying transaction (the "Qualifying Transaction") whereby Montan proposed to combine with Strait Minerals Inc. ("Strait"). An Amalgamation Agreement (the "Amalgamation Agreement") was entered into on among Montan, Strait and ("Newco"), a wholly owned subsidiary of Strait incorporated solely for the purpose of completing the Qualifying Transaction.

Pursuant to the Amalgamation Agreement, Montan will amalgamate with Newco to form a new company ("Amalco") and Strait will acquire all of the issued and outstanding shares of Amalco and issue common shares of Strait (the "Strait Shares") to the former shareholders of Montan. Upon completion of the Qualifying Transaction, the current Strait shareholders will own approximately 43.6% of the Straits Shares (39.9% on a fully diluted basis) and the current Montan shareholders will own approximately 56.4% of the Strait Shares. The Qualifying Transaction will constitute a reverse take-over of Strait, as the former shareholders of Montan will own a majority of the outstanding Strait Shares. Completion of the Qualifying Transaction is subject to the satisfaction of certain closing conditions as set out in the Amalgamation Agreement. Strait will be a Tier 2 mining issuer listed on the TSX Venture Exchange.

### **1.3 Accessibility and Physiography**

The project is located 166 km south of the city of Cusco and road access is on the gravel or dirt Cusco – Santo Tomas highway passing over the Tincoc Bridge on the Apurimac River 100 km from Cusco. The total travel time from Cusco to the Project, in dry season, is about four hours. The City of Cusco, the capital of the department of Cusco with a population of 510,000 (2009, Wikipedia), can be accessed via numerous daily flights from Lima or other centres around the country. Flight time from Lima to Cusco is 1 hour and 15 minutes.

The Project is situated in the eastern flank of the Cordillera Occidental of the southern Peruvian Andes. The Alicia property is located between 4,000 and 4,700 metres above sea level. The terrain is mountainous with relatively gentle topographic relief and numerous hills and valleys where the drainage is often controlled by faults and drains east into the Amazon Basin. Vegetation is also typical of the Peruvian altiplano with slopes mainly covered with grasses and brush. At higher elevations, the slopes are dominantly talus. The grass-covered slopes over most of the property are used for grazing.

### **1.4 History**

Historical work on the Alicia property, carried out mostly by Cordillera de la Minas S.A. between 2000 and 2003, they identified weak porphyry style mineralization and alteration associated with porphyritic intrusions and skarn mineralization situated at the contact between a porphyry intrusive and the surrounding limestone of the Arcuquina Formation. In addition, silver-lead-zinc veins were reported approximately 1.5 km to the southeast of the porphyry. Trenching and sampling of the skarn zones returned high copper values and moderate gold and silver values over significant widths. Three diamond drill holes were drilled in 2003, two in the porphyry and one in the limestone to the north. The holes drilled in the porphyry intersected weakly altered porphyry containing weakly disseminated pyrite and chalcopyrite. The hole in the limestone did not intersect any mineralization (Moss, 2011b).

### **1.5 Geological Setting and Mineralization**

The Alicia property is situated in the Andahuaylas-Yauri belt of porphyry copper and skarn mineralization associated with intrusive rocks of the Andahuaylas-Yauri Batholith (AYB). The belt extends for approximately 300 km in a northwest–southeast direction, and has a maximum known width of 130km (Perelló et al., 2003).

The dominant rock types on the property are chemical sedimentary rocks of the Arcurquina Formation composed of grey limestone with horizons of chert nodules intruded by porphyritic stocks. The Arcurquina Formation is the equivalent of the Ferrobamba Formation, which is the most important unit for the formation of porphyry associated skarn deposits elsewhere in the AYB (CDLM, 2000).

## 1.6 Exploration and Drilling

Strait Minerals began exploration on the property and initially focussed on assessing the potential of the skarn zones, which had not been previously drilled. A program of detailed mapping and sampling was carried out over the intrusions and an induced polarization/resistivity survey and ground magnetic survey was carried out over the area covered by the quartz-feldspar porphyry intrusions.

A 2,000 metre drilling program targeting skarn zones around the western intrusion and associated chargeability anomalies was carried out between October 2010 and March 2011. In addition to better defining the copper-gold silver content of the skarn zones, the drilling program provided further indications of porphyry copper style mineralization.

Subsequent exploration during 2011 focussed on detailed mapping and sampling to better understand the distribution of, and controls on, porphyry style mineralization. In addition, airborne magnetic, radiometric and ZTEM surveys were flown over the entire property to test for the presence of other intrusions that may have potential to host porphyry and/or skarn style mineralization.

During 2012, detailed mapping and channel sampling of the Alicia Porphyry Complex was undertaken that resulted in the identification of additional porphyry intrusions and a better understanding of the control on mineralization. Property wide mapping and sampling was also carried out with more detailed work in the area of the polymetallic zone (Moss, 2012).

During 2013 a nine hole drill program was scheduled to test the potential for porphyry copper mineralization at the Alicia project. A total of 4,002 metres was drilled, including 508.3 metres in a tenth hole (ALC-13-28) to test for continuation of mineralization, observed in Hole ALC-13-23, under cover to the west. A second step out hole, ALC-13-26, drilled 500 metres east of the easternmost section (178293E), was terminated at 61.2 metres in barren limestone.

The drilling program tested for porphyry style mineralization at depth, below previously identified surface mineralization, over an east-west strike length of 900 metres. Holes in the central portion of the porphyry intrusion were drilled along north-south sections spaced approximately 200 metres apart. Low grade mineralization was intersected over varying widths in nine of the ten holes including hole ALC-13-28. Porphyry style alteration, quartz veining and stock work were also intersected in the nine mineralized holes (Moss, 2014).

The Alicia Project is prospective for the discovery of new contact skarn or distal skarn mineralization.

## 1.7 Mineral Processing and Metallurgical Testing

There are currently no metallurgical studies for this property.

## 1.8 Mineral Resources

There are currently no 43-101-compliant Mineral Resource estimates for this property.

## 1.9 Interpretations and Conclusions

The Alicia Project displays styles of mineralization characteristic of the Andahuaylas-Yauri belt of porphyry copper and skarn deposits. Mineralization associated with intrusive rocks of the Andahuaylas-Yauri Batholith and in this case, Late Cretaceous marine clastic and carbonate rocks of the Arcurquina Formation.

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Exploration on the property to date has identified porphyry copper mineralization in the porphyry complex, skarn mineralization along the porphyry intrusive contacts with the surrounding limestone and polymetallic replacement/skarn or epithermal mineralization 1.5 km south of the porphyry complex.

Exploration of these three targets is still at an early stage, with only 7,012 metres drilled on the property to date. Of this total, 1,956 metres predominantly targeted the skarn mineralization in the 2010-2011 drilling campaign and 4,799 metres targeted the porphyry with two historical holes and the nine holes in the 2013 campaign. The remaining 256 metres was from the two holes AL-03 and ALC-13-26 drilled into limestone.

The 2010-11 drilling that targeted the skarn mineralization was successful in defining high grade (>1%) copper mineralization in seven of eight holes over approximately 600 metres of strike length along the northern intrusive/limestone contact. The best intersections came from Holes ALC-10-04 (1.26% Cu over a true width of 20.4m) and ALC-10-05 (1.27% Cu over a true width of 21.2m) drilled from the same platform. The intersection in hole ALC-10-05 went to the bottom of the hole which had to be abandoned due to poor ground conditions and has not yet been followed up (Moss, 2014). The skarn mineralization is open along the intrusive contact and there is potential for replacement mineralization down dip in limestones.

The porphyry intrusives on the Project were explored with mapping, geochemical sampling, geophysics and drilling. The drilling intersected low-grade copper mineralization (0.11 to 0.17% Cu) over 80+ metre widths where evidence suggesting that deeper drilling may be rewarded with higher grades (Moss, 2014). The observed alteration zoning from primarily sericite-chlorite-clay near surface to potassic at depth suggests that the core of the porphyry system may be at depth. In addition, the barren nature of many of the quartz veins and stock works suggests the possibility that the ascending hydrothermal fluids may have lost copper before precipitating the quartz. This copper may have been precipitated at depth or have migrated to the contact zones to form skarn mineralization (Moss, 2014).

During 2012, mapping and sampling of the polymetallic zone, located approximately 1.5 kilometres south of the porphyry complex, outlined an area of 1,500 metres by 1,000 metres of altered limestone containing mineralized mantos (up to 8 metres wide) and breccias (up to 6 metres wide). Channel samples from the mantos and breccias contained high grades of lead (35 of 70 samples >1% Pb), zinc (16 samples >1% Zn), silver (17 samples >100 g/t Ag) and gold (19 samples >1 g/t Au) as well as significant copper. This zone remains open to the south and goes undercover to the northeast (Moss, 2014).

The description of the system in breccias and mantos with the mineralogy of the samples suggests a possible distal skarn or replacement deposit or possible epithermal system. Limited work has been completed on the prospect with some grade discovered, however the potential of the area is unknown.

The Alicia Project warrants further exploration for skarns, carbonate replacement deposits and epithermal polymetallic systems with the strength and higher prices returning to the metal markets, the demand for this type of small-scale project should be high.

## 1.10 Recommendations and Proposed Exploration Budget

The recommended exploration and work programs for the Alicia Project are as follows:

Phase I \$250,000

- Structural mapping and prospecting \$30,000  
Detailed structural mapping and sampling to identify additional skarn or manto showings on the property.
- Soil sampling \$50,000  
Grid geochemical sampling to identify gold, silver or copper anomalies that could be associated with other mineralization not visible on the surface.
- Geophysics, IP/Mag survey \$85,000  
Induced polarization/magnetometer survey to identify possible skarn or manto targets.
- Trenching program \$85,000  
Surface trenching to check geochemical and geophysical anomalies.

The Phase II program is contingent on positive results from the Phase I program and following a thorough compilation and review by a qualified person the following Phase II program is recommended:

Phase II \$450,000

- 1500m Diamond drill program \$450,000  
Diamond core drilling to verify the down dip extensions of known veins and geophysical and geochemical anomalies.

## 2.0 INTRODUCTION

### 2.1 Introduction and Terms of Reference

At the request of Montan Capital Corp. ("Montan"), James A. McCrea, P. Geo., carried out an independent review of the Alicia Copper Gold Project, District of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru. The report is intended to support of Montan's qualifying transaction with Strait Minerals as described in the press release dated December 3, 2014. Strait Minerals Inc. was formerly Strait Gold Corp. (News Released August 1<sup>st</sup>, 2012): any reference to Strait Gold in company reports is regarded as interchangeable with Strait Minerals for the purposes of this report. The author conducted a property examination, reviewed available exploration results and prepared this independent technical report (the 'Report') in accordance with the formatting requirements of National Instrument 43-101 ('NI 43-101') and Form 43-101F1 (Standards of Disclosure for Mineral Properties) to be a comprehensive review of the exploration activities on the property, and to provide recommendations for future work, if warranted. The Report is intended to be read in its entirety.

### 2.2 Site Visit

The author, an independent qualified person according to NI 43-101, visited the Alicia Copper Gold Project on December 11<sup>th</sup> and the core storage facility on December 12<sup>th</sup> of 2014. The author examined several mineral showings, trenches, artisanal mine workings, drill pads within the Project area, and collected five verification samples from artisanal workings or surface trenches and three verification samples from drill core. The Project is considered to be an exploration stage property with 28 diamond drill holes.

### 2.3 Sources of Information

The sources of information for this technical report are the property examination during the site visit; Sedar filed technical reports by Strait Minerals Inc. and previous operators, internal company reports of Strait Minerals as well as other published government reports and scientific papers such as papers published by Instituto Geologico, Minero y Metalurgico (INGEMMET), Peru's government geological library. Information concerning mining concessions comes from Peru's mining claim registry: *Instituto Nacional de Concesiones y Catastro Minero* (INACC). Population statistics, weather and local information on the Project was also obtained from Wikipedia (<http://www.en.wikipedia.org/wiki/cusco>). A detailed list of references and sources of information is provided in the References section of this report.

## 2.4 Abbreviations and Units of Measure

Metric units are used throughout in this report and currencies are in United States Dollars (US\$) unless otherwise stated. Market gold or silver metal prices are reported in US\$ per troy ounce. A list of abbreviations that may be used in this report is provided below.

Abbreviation	Description	Abbreviation	Description
%	percent	li	limonite
AA	atomic absorption	m	metre
Ag	silver	$m^2$	square metre
AMSL	above mean sea level	$m^3$	cubic metre
as	arsenic	Ma	million years ago
Au	gold	mg	magnetite
AuEq	gold equivalent grade	mm	millimetre
Az	azimuth	$mm^2$	square millimetre
b.y.	billion years	$mm^3$	cubic millimetre
CAD\$	Canadian dollar	mn	pyrolusite
cl	chlorite	Mo	Molybdenum
cm	centimetre	Moz	million troy ounces
$cm^2$	square centimetre	ms	sericite
$cm^3$	cubic centimetre	Mt	million tonnes
cc	chalcocite	mu	muscovite
cp	chalcopyrite	m.y.	million years
Cu	copper	NI 43-101	National Instrument 43-101
cy	clay	opt	ounces per short ton
°C	degree Celsius	oz	troy ounce (31.1035 grams)
°F	degree Fahrenheit	Pb	lead
DDH	diamond drill hole	pf	plagioclase
ep	epidote	ppb	parts per billion
ft	feet	ppm	parts per million
$ft^2$	square feet	py	pyrite
$ft^3$	cubic feet	QA	Quality Assurance
g	gram	QC	Quality Control
gl	galena	qz	quartz
go	goethite	RC	reverse circulation drilling
GPS	Global Positioning System	RQD	rock quality description
gpt	grams per tonne	sb	antimony
ha	hectare	Sedar	System for Electronic Document Analysis and Retrieval
hg	mercury	SG	specific gravity
hm	hematite	sp	sphalerite
ICP	induced coupled plasma	st	short ton (2,000 pounds)
kf	potassic feldspar	t	tonne (1,000 kg or 2,204.6 lbs)
kg	kilogram	to	tourmaline
km	kilometre	um	micron
$km^2$	square kilometre	US\$	United States dollar
l	litre	Zn	zinc

## 2.5 Acknowledgements

The author wishes to thank the officers and directors of Montan Capital Corp. for providing the technical materials and the assistance required to prepare this report.

The management and personnel of Minera Strait Gold Peru, a subsidiary of Strait Minerals, provided the author with assistance during the site visit.

## 3.0 RELIANCE ON OTHER EXPERTS

The author has relied on Peruvian government sources for information relating to mineral titles and the respective annual fees and penalties required to maintain the respective titles. This information is used in sections 4.2 and 4.5

On December 29, 2014, the author confirmed the status of the subject mineral tenures with information available through Instituto Geologico, Minero y Metalurgico (INGEMMET) the Peruvian government geological library and Peru's mining claim registry: *Instituto Nacional de Concesiones y Catastro Minero* (INACC) which is available on the INGEMMET website (<http://www.geocatmin.ingemmet.gob.pe/geocatmin/>).

The author is not an expert in legal matters, such as the assessment of the legal validity of mining claims, mineral rights, and property agreements. The author did not conduct any detailed investigations of the environmental or social-economic issues associated with the Project, and the author is not an expert with respect to these issues. The author has relied on Montan Capital Corp. and Strait Minerals Inc. to provide full information concerning the legal status of mineral tenures, material terms of all agreements, and material environmental and permitting information that pertain to the Property. The author has relied on information contained in the Montan, December 3<sup>rd</sup>, 2014, press release and the reports of Roger Moss (2012, 2014) relating to underlying agreements, permitting and community agreements as reported in sections 4.3 and 4.4 of this report. This information is the only sources used regarding underlying and community agreements.

## 4.0 PROPERTY DESCRIPTION and LOCATION

### 4.1 Property Location

The Alicia project is located on the eastern flank of the Cordillera Occidental approximately 60 km south of the City of Cusco and ten km south of the village of Ccapacmarca in the Districts of Capacmarca and Colquemarca, Province of Chumbivilcas, Department of Cusco, Peru. The geographic coordinates near the centre of the Project are approximately 14° 06' South latitude by 71° 59' West longitude, or in the local UTM PSAD 56 coordinate system, Zone 19S, at 8,440,000 m North by 178,000 m East (see Figure 4.1). The property is within Peruvian National Topographic System (NTS) map area Livitaca 29-s and Santo 29-r. The property crosses the boundary of 2 UTM zones, 18 and 19 south.

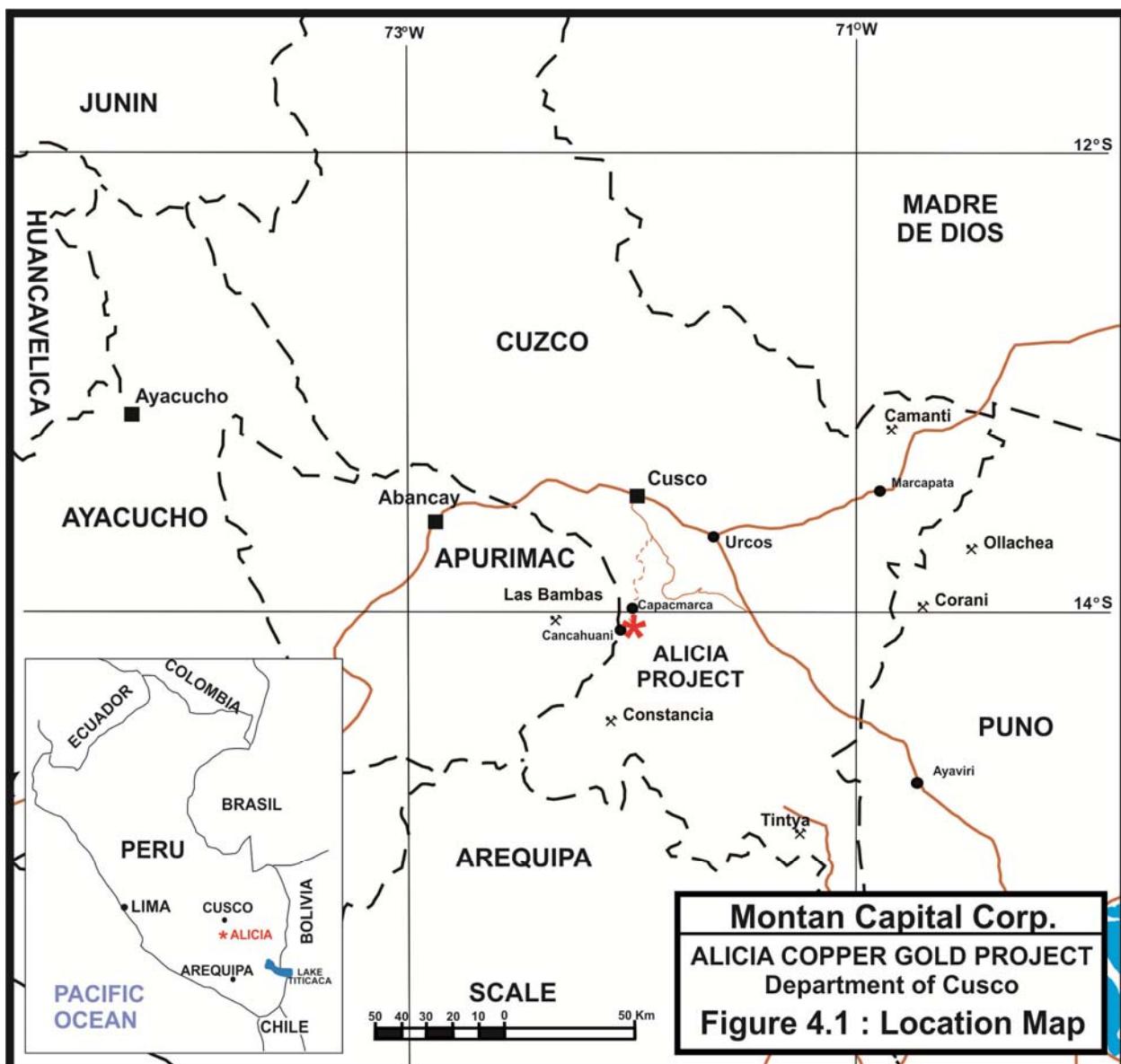


Figure 4.1: Location Map of the Alicia Project

## 4.2 Property Description

The Alicia Project consists of four contiguous mining concessions or mining rights totalling 2,593.46 ha. The concessions are known by the names of Valeria Uno 2003, Valeria Siete 2003, Alicia 3 and Alicia 4. The mining rights are listed in Table 4.1 with the expiration date for the payment of annual term royalty or canons (vigencia). The mining rights are shown in Figure 4.2.

**Table 4.1: Alicia Project Mining Concession Titles**

Mining Registry No.	Name	Holder of Record	Granted Area (ha)	Expiration Date
010014903	Valeria Uno 2003	Minera Strait Gold Peru S.A.C.	603.73	30-June-2015
010043003	Valeria Siete 2003	Minera Strait Gold Peru S.A.C.	1,000.00	30-June-2015
010235899	Alicia 3	Minera Strait Gold Peru S.A.C.	600.00	30-June-2015
010087301	Alicia 4	Minera Strait Gold Peru S.A.C.	389.73	30-June-2015

Note: Title information effective December 29, 2014

The concessions are registered in Superintendencia Nacional de Registros Publicos (SUNARP), to Minera Strait Gold Peru S.A.C. Strait Gold, a wholly owned subsidiary of Strait Minerals, is a private Peruvian company with offices in the Santiago de Surco Municipality of Lima.

There are no known environmental liabilities within the property limits.

The Valeria Uno 2003, Valeria Siete 2003, Alicia 3 and Alicia 4 concessions were originally registered on January 17, 2003, March 3, 2003, December 14, 1999, and August 27, 2001 respectively and have since been transferred by public deed to Strait Gold.

The property is 100%-owned by Strait subject to a 2% NSR in favour of Panoro Minerals Ltd.

## 4.3 Underlying Agreements

On December 3, 2014, Montan Capital Corp. ("Montan") announced a qualifying transaction (the "Qualifying Transaction") whereby Montan proposed to combine with Strait Minerals Inc. ("Strait"). An Amalgamation Agreement (the "Amalgamation Agreement") was entered into on among Montan, Strait and ("Newco"), a wholly-owned subsidiary of Strait incorporated solely for the purpose of completing the Qualifying Transaction.

Pursuant to the Amalgamation Agreement, Montan will amalgamate with Newco to form a new company ("Amalco") and Strait will acquire all of the issued and outstanding shares of Amalco and issue common shares of Strait (the "Strait Shares") to the former shareholders of Montan. Upon completion of the Qualifying Transaction, the current Strait shareholders will own approximately 43.6% of the Straits Shares (39.9% on a fully diluted basis) and the current Montan shareholders will own approximately 56.4% of the Strait Shares. The Qualifying Transaction will constitute a reverse take-over of Strait, as the former shareholders of Montan will own a majority of the outstanding Strait Shares. Completion of the Qualifying Transaction is subject to the satisfaction of certain closing conditions as set out in the Amalgamation Agreement. Strait will be a Tier 2 mining issuer listed on the TSX Venture Exchange.

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On December 8<sup>th</sup>, 2011, Strait Minerals signed a binding agreement with Teck Peru S.A. ("Teck Peru"), a wholly owned subsidiary of Teck Resources Limited ("Teck"), giving Teck Peru an option to earn up to a 75% interest in the Alicia property. As part of the earn-in Teck Peru funded all work on the project during 2012 and 2013. Strait Minerals announced on February 13, 2014 that Teck Peru had terminated the agreement and did not intend to exercise its option to acquire the 75% interest in the Project (2014, Strait Minerals).

#### **4.4 Surface Rights**

Surface rights at the Alicia Project belong to the community of "Comunidad Campesina de Cancahuani" of the district of Capacmarca in the Province of Chumbivilcas, Department of Cusco. In February of 2013, the community signed a one-year surface access agreement with Strait Gold. The agreement allowed land access for the exploration activities on the property until February of 2014. The community has been consulted about the next access agreement but by the time of writing the agreement had not been finalized. Community members were informally extracting mineral from the property during the author's site visit. The author is unaware of any other significant factors or risks that could affect the title or access to perform work on the property.

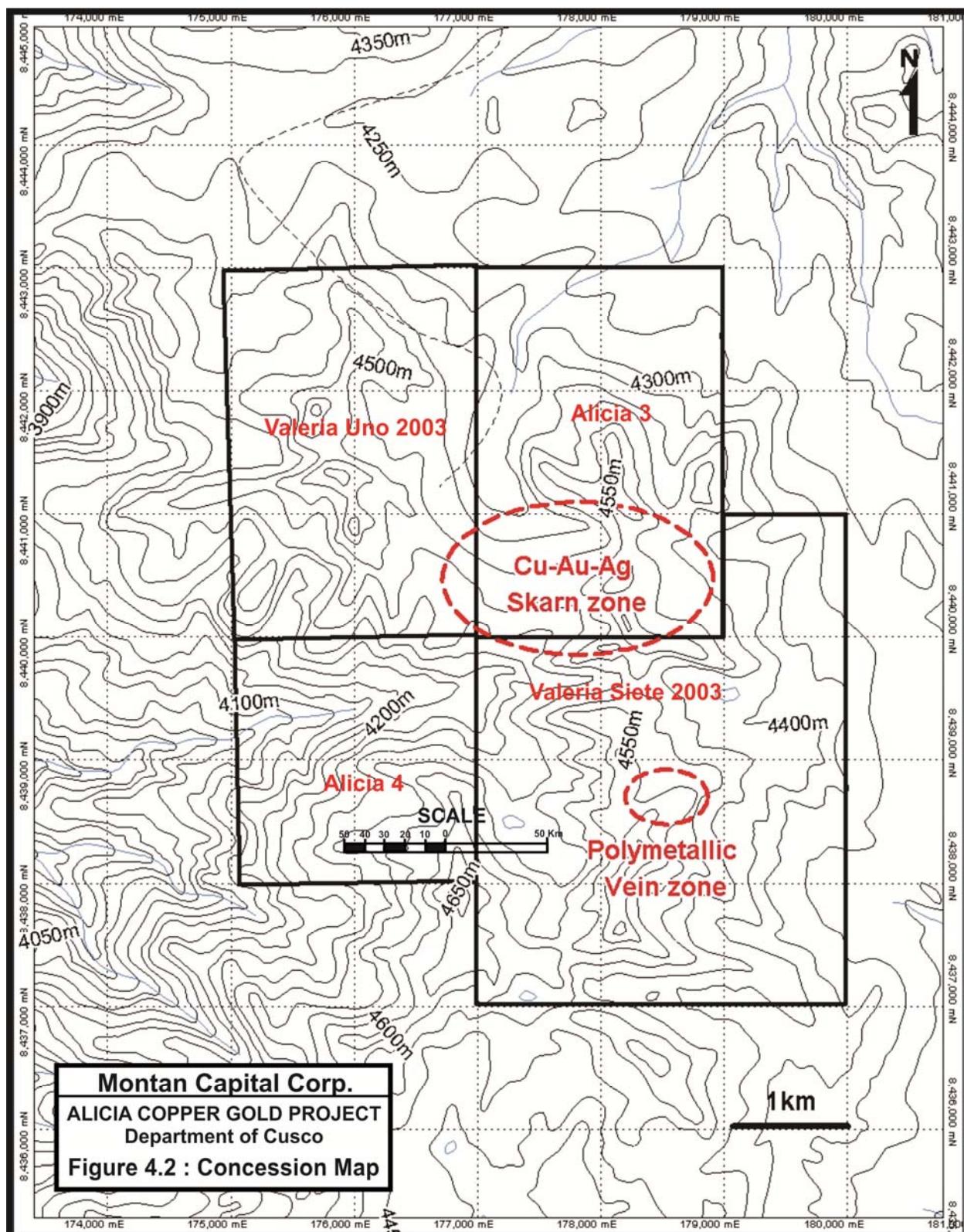


Figure 4.2: Mineral Concession Map of Alicia with mineralized zones

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#### 4.5 Mineral Rights in Peru

The ‘General Mining Law of Peru’ defines and regulates different categories of mining activities, ranging from sampling and prospecting to development, mining, and processing. The General Mining Law of Peru was changed in the mid 1990s to foster the development of the country’s mineral resources. The law defines and regulates different categories of mining activities according to stage of development (prospecting, exploitation, processing, and marketing). Titles over mineral claims are controlled by INGEMMET (Geological, Mineral and Metallurgical Survey of Peru). Mining titles (mining concessions) are granted using UTM coordinates (PSAD56) to define areas in hectares. New mining concessions shall be at least of 100 ha in size (1 km<sup>2</sup>), and must be oriented in a north-south or east-west direction. Pre-existing concessions, based on the old system (“punto de partida” or starting point system), can be at any orientation.

The old framework, which has been in force since 1992, establishes that mining concessions are irrevocable. If the concession titleholder complies with the annual payment of US\$ 3.00 of validity-fee per hectare and reaches a minimum production of US\$ 100.00 per hectare within six years following the year in which a mining concession is granted. Otherwise, the titleholder must pay a US\$ 6.00 penalty per hectare per year as of the first semester of the seventh year until such production is reached (penalties increase to US\$ 20 from the 12<sup>th</sup> year).

Current regulations establish that the holder of mining concessions shall achieve a minimum production of at least one Peruvian Tax Unit (approximately US\$ 1,900) per hectare per year, within a 10-year term following the year in which the mining concession title is granted. If the minimum production is not reached in the referred term, the mining concession holder shall pay penalties equivalent to 10% of the Peruvian Tax Unit per hectare.

If minimum production within a 15-year term from the day in which the mining concession was granted is not achieved, the mining concession will be cancelled unless, a qualified force majeure event occurs and is approved by the Mining Authority. The titleholder may also maintain the title by paying the applicable penalties and providing evidence of a minimum investment of at least ten times the amount of the applicable penalties. In this last case, the mining concession will not be cancelled up to a maximum term of five additional years (total term 20 years). If minimum production is not reached in the 20-year term, the concession title will be inevitably cancelled. According to these rules, the Project must reach production no later than 2014 or, should the minimum required investment be spent or penalties paid, 2019 before the oldest concession is cancelled. The term royalties (vigencia) and penalties are listed in Table 4.2 for 2015. Vigencias are payable by June 30<sup>th</sup> each year.

**Table 4.2: Alicia Project Mining Concession Royalties and Penalties**

Mining Registry No.	Name	Granted Area (ha)	Derecho de Vigencia (US\$)	Penalty (US\$)
010014903	Valeria Uno 2003	603.73	1811.19	12074.58
010043003	Valeria Siete 2003	1,000.00	3000.00	20000.00
010235899	Alicia 3	600.00	1800.00	12000.00
010087301	Alicia 4	389.73	1169.19	7794.62

Note: Title information effective December 29, 2014

While the holder of a mining concession is protected under the Peruvian Constitution and the Civil Code, it does not confer ownership of land and the owner of a mining concession must deal with the registered landowner to obtain the right of access to fulfill the production obligations inherent in the concession grant. It is important to recognize that all transactions and contracts pertaining to a mining concession must be duly registered with the Public Registry in the event of subsequent disputes at law.

#### **4.6 Royalties and Obligations**

Peru established a sliding scale mining royalty late in 2004. Calculation of the royalty payable is made monthly and is based on the gross value of the concentrate sold (or its equivalent) using international metal prices as the base for establishing the value of metal. The sliding scale is applied as follows:

- First stage: up to US\$60 million annual revenue; 1.0 percent of gross value;
- Second stage: in excess of US\$60 million up to US\$120 million annual revenue; 2.0 percent of gross value; and
- Third stage: in excess of US\$120 million annual revenue; 3.0 percent of gross value.

#### **4.7 Environmental Regulations & Exploration Permits**

The General Mining Law, administered by the Ministry of Energy and Mines (MEM), may require a mining company to prepare an Environmental Evaluation (EA), an Environmental Impact Assessment (EIA), a Program for Environmental Management and Adjustment (PAMA), and a Closure Plan prior to mining construction and operation.

The Supreme Decree Nº 020-2004-EM classifies the environmental requirements for mining and exploration programs as follows:

*Category I: this category includes mining projects involving small scale drilling programmes up to and including a maximum 20 drill pads, a disturbed area of less than 10 hectares considering drilling platforms, trenches, auxiliary facilities and access means or the construction of tunnels with a total maximum length of 50 metres. These projects require the preparation of an Environmental Impact Declaration ("Declaración de Impacto Ambiental –DIA-"). Category I permits require, prior to their submittal to the Ministry of Energy and Mines, water-use permits from the Ministry of Agriculture, if required, and land-use agreements with the surface rights owners in the form of a registered agreement resulting from a town-hall meetings in the local community(s).*

*Category II: this category includes mining projects involving more than 20 drill pads, a disturbed area of more than 10 hectares considering drilling platforms, trenches, auxiliary facilities and access, or the construction of tunnels over a total length of 50 metres, require an authorisation called an Environmental Impact Study-semi detailed ("Estudio de Impacto Ambiental-semi detallado", or EIA-sd) and is approved by the Ministry of Energy and Mines. Category II permits, which include mining projects involving more than just drilling, must include, prior to their submittal to the Ministry of Energy and Mines, water-use permits from the Ministry of Agriculture, land-use agreements with the surface rights owners and evidence of having held town-hall meetings in all nearby communities. Additionally, the EIA-sd must include a detailed reclamation program once the drilling phase ends.*

Permits are usually granted within 3 to 6 months of submittal of an application. No permit is required for general exploration such as surface mapping, sampling or geophysics. Permission of the surface rights owner is required for access to the property and for any kind of surface disturbance such as trenching or the construction of trails.

#### **4.8 Environmental Considerations**

Strait Minerals is not subject to any outstanding environmental liabilities on the concessions. Strait Minerals has no environmental responsibility for historic exploration and operational

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activities prior to their involvement in the project. Strait Minerals has completed a semi-detailed environmental impact study for the Alicia property as part of their current Category II permit, which allows up to 50 drill pads to be constructed on the property (pers. Comm., Strait Minerals, 2014).

To the best of the author's knowledge there are no other significant factors or risks that may affect access, title, or the right or ability to perform work on the property.

## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE and PHYSIOGRAPHY

### 5.1 Accessibility

The project is located 166 km south of the city of Cusco and road access is on the gravel or dirt Cusco – Santo Tomas highway passing over the Tincoc Bridge on the Apurimac River 100 km from Cusco. The total travel time from Cusco to the Project, in dry season, is about four hours. The City of Cusco, the capital of the department of Cusco with a population of 510,000 (2009, Wikipedia), can be accessed via numerous daily flights from Lima or other centres around the country. Flight time from Lima to Cusco is 1 hour and 15 minutes. Cusco can also be reached by paved highway from Lima. Road distances from Lima to Cusco and the Project are listed in Table 5.1.

**Table 5.1: Road Distances to Access the Alicia Project**

Segment	Kilometres	Hours	Road Surface
Lima to Nasca	450	6.0	Paved
Nacas to Puquio	157	3.0	Paved
Puquio to Abancay	348	7.0	Paved
Abancay to Cusco	198	3.5	Paved
Cusco to Project	166	4.0	Paved/Gravel/Dirt

### 5.2 Climate

The climate of the region is typical of the Southern Peruvian altiplano in which the seasons are divided into a wet season between December and March with slightly higher temperatures and a dry season during May to August with colder temperatures. Although the entire rainy season can be more than four months in duration, the climate is summarized as temperate, cool and dry. The area receives an average of 736 mm of precipitation per year with about 70% of that falling in summer (December to March). Temperatures can dip below -20° C and rise to 20° C. High altitudes on the pampa may receive snow during the rainy season. Average daily temperature range is from 4°C at night to a daily high of almost 20°C; the yearly daily average is 12.5°C (Wikipedia). Exploration activities can be carried out throughout the year on the Alicia property.

### 5.3 Local Resources and Infrastructure

The population of the District of Capacmarca, where the concessions are located, is 4,813 (2005) and the province of Chumbivilcas has a population of 77,721 (2005). These nearby communities can provide local unskilled labour and some skilled labour but sources of skilled labour would most typically come from Cusco, the department capital, or from outside the area (Wikipedia).

Most supplies for exploration can be obtained in Cusco, the nearest major centre and a drive of 4 hours from the property. Some food and basic supplies can be obtained locally in the town of Ccapacmarca, approximately 10 km north of the property but major purchases would be made in Cusco. Casual labours can be available from the nearby community of Cancahuani, 5km west of the property.

The power lines follow the highway that cuts across the northeast side of the property and water sources are available, year round, at various locations on the Property. The surface rights,

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owned by the local community, cover the entire property and provide sufficient area for future mining operations.

#### **5.4 Physiography**

The Project is situated in the eastern flank of the Cordillera Occidental of the southern Peruvian Andes. The Alicia property is located between 4,000 and 4,700 metres above sea level. The terrain is mountainous with relatively gentle topographic relief and numerous hills and valleys where the drainage is often controlled by faults and drains east into the Amazon Basin. Vegetation is also typical of the Peruvian altiplano with slopes mainly covered with grasses and brush. At higher elevations, the slopes are dominantly talus. The grass-covered slopes over most of the property are used for grazing (after Moss, 2014).

## 6.0 HISTORY\*

\* - Modified after Moss, (2014).

Historical exploitation of high-grade copper skarn mineralization took place in at least two adits (>30m long) in Skarn Zones 1 and 9 (refer Figure 6.1). The age of these workings are not known but the limited waste piles and lack of any infrastructure suggest they were informal in nature.

Known exploration on the Alicia property dates from the 1960s to 1970s: Cerro de Pasco Copper Corporation constructed access roads and trenched the higher-grade areas of skarn mineralization. No results of this work are known to the author (Moss, 2014).

Early nineties: Cambior Inc. is reported to have carried out geological and geophysical surveys (Wober et al., 2007), although no record of the work is known to the author (Moss, 2014).

2000: Minera Anaconda Peru S.A. ("MAP") started work on the property and reported the presence of a skarn with considerable dimensions, without identifying any relationship to the porphyry system. Thereafter, Alberto Zarate, a MAP geologist, recognized the presence of a large porphyry intrusive stock with weak quartz veining. A detailed work program, including mapping and trenching, was initiated (Wober et al., 2007).

November to December of 2000: Cordillera de las Minas S.A. (CDLM) a corporation beneficially owned in equal parts by Campania Vale do Rio Doce of Brazil ("CVRD") and Antofagasta Minerals S.A. of Chile ("Antofagasta") undertook Exploration. This exploration included detailed geological mapping over a two-km<sup>2</sup> area at a scale of 1:2000; excavation and sampling of 12 trenches with a total length of 608 m on outcrops of skarn mineralization; rehabilitation and sampling of 16 older trenches with a total length of 758m. A total of 101 samples were taken in the new trenches and 139 samples in the old trenches for a total of 240 samples. The sample length was 4m in skarn and 10m in porphyry intrusive (CDLM, 2000).

The trench sampling successfully identified skarn-related mineralization over mineable widths in nine zones at the contact of the porphyry intrusive and limestone of the Arcuquina Formation (Figure 6.1). For example, trench Huanca-5, in Zone 8 on the northern contact of the intrusive returned values of 4.9% Cu, 0.42 g/t Au, 29.2 g/t Ag and 0.009% Mo over 20m.

From October 30 to November 8 of 2002, a geophysical survey was carried out consisting of 110 TEM soundings and 74 line kilometres of ground magnetometer readings (Figure 6.2). The results of the surveys were mixed. The magnetic data clearly delineates the earlier of the two porphyritic intrusions (named Porphyry P by CDLM geologists) likely due to the presence of magnetite in the matrix, an association recognised in potassic alteration zones elsewhere in the belt (Perelló et al., 2003). In addition, two smaller magnetic highs that may represent smaller satellite stocks are visible to the northeast and southwest of the main intrusive phases.

A resistivity map generated from the TEM data is shown in Figure 6.3. There is no apparent anomalous response over the skarn zones or the early porphyry P. There does appear to be a moderate resistivity low associated with the late porphyry.

The TEM survey further identified apparent chargeability (chargeability "highs") spatially associated with possible depth extensions of skarn mineralization observed at surface and in areas not associated with surface skarn mineralized locations. Figure 6.4 shows selected pseudo-sections of chargeability for lines 177,100E and 177,300E (N-S survey lines approximating UTMs in PSAD56) in which inversion modeling of chargeability suggests high potential for sub-surface (down-dip), possibly skarn-associated metal-sulphide mineralization that may occur along strike from known contact skarns. Some of the chargeability anomalies may comprise high interest targets for drill testing.

2003: A drilling program consisting of three diamond drill holes was carried out in 2003. AL-01 was collared in the porphyry P and drilled to the south at an inclination of -60°. AL-02 was collared in porphyry P near the southern contact with the surrounding limestone, and drilled to the south, presumably to intersect the skarn mineralization in Zone 1. AL-03 was collared to the north of the intrusive in limestone. Drill holes listed in Table 6.1.

**Table 6.1: 2003 Diamond Drill Hole Data (after Moss, 2014)**

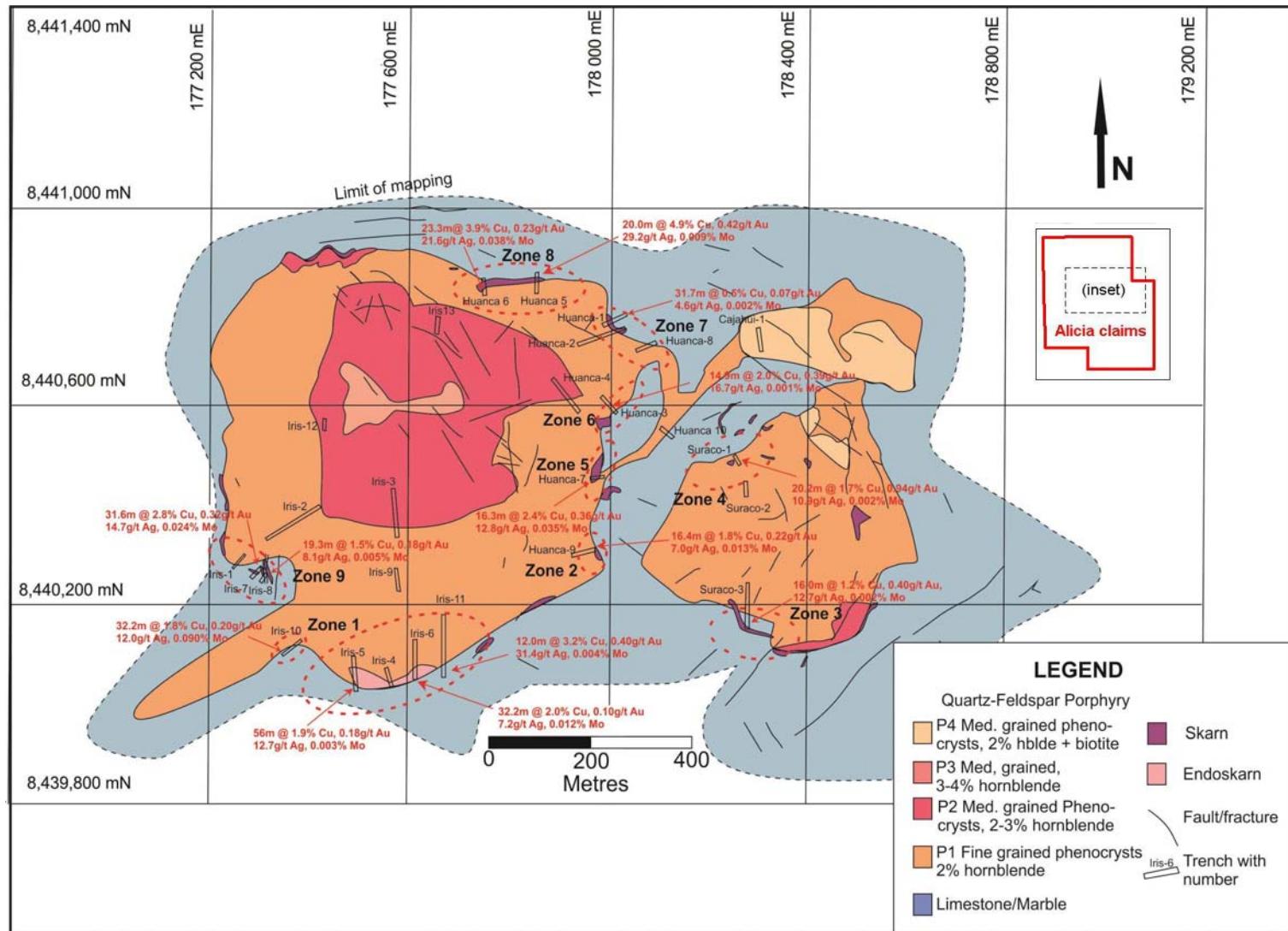
DDH	UTM East	UTM North	Collar Elev.	Dip	Az.	Depth
AL-01	177500	8440200	4485	-60	180	300.00
AL-02	177800	8440600	4520	-70	180	558.60
AL-03	177200	8441200	4390	-60	0	195.10
Total meters drilled						1,053.70

Results of the drilling were generally disappointing, although two of the holes showed anomalous copper in altered porphyry. The following descriptions are summarized from the CDLM logs for the three holes.

Hole AL-01 intersected weakly to moderately altered porphyry across the entire length (300 metres). Potassic (biotite with minor K feldspar) alteration is the dominant alteration type with weak chloritization in places. Disseminated pyrite and chalcopyrite are the main sulphides observed. Magnetite was fairly consistent throughout the hole, and is the likely cause of the positive magnetic anomaly referred to above. The best intersection was 0.24% Cu over four metres between 148 and 152 metres down-hole.

Hole AL-02 intersected the porphyritic intrusive over the entire length of the hole, and did not intersect skarn mineralization despite drilling to a depth of 558.60 metres. The porphyry contained similar alteration to that encountered in Hole AL-01 and pyrite and chalcopyrite are present at levels typically less than 1%. Magnetite was also observed throughout much of the hole. A 100 metre interval between 52 and 152 metres graded 0.11% Cu, and 0.05 g/t Au that included 0.46% Cu, 0.1 g/t Au and 3.2 g/t Ag over 10 metres.

Hole AL-03 intersected unaltered limestone over the entire length of the hole. Weak disseminations of pyrite were the only sulphides reported. No samples were chosen for assay in this hole.

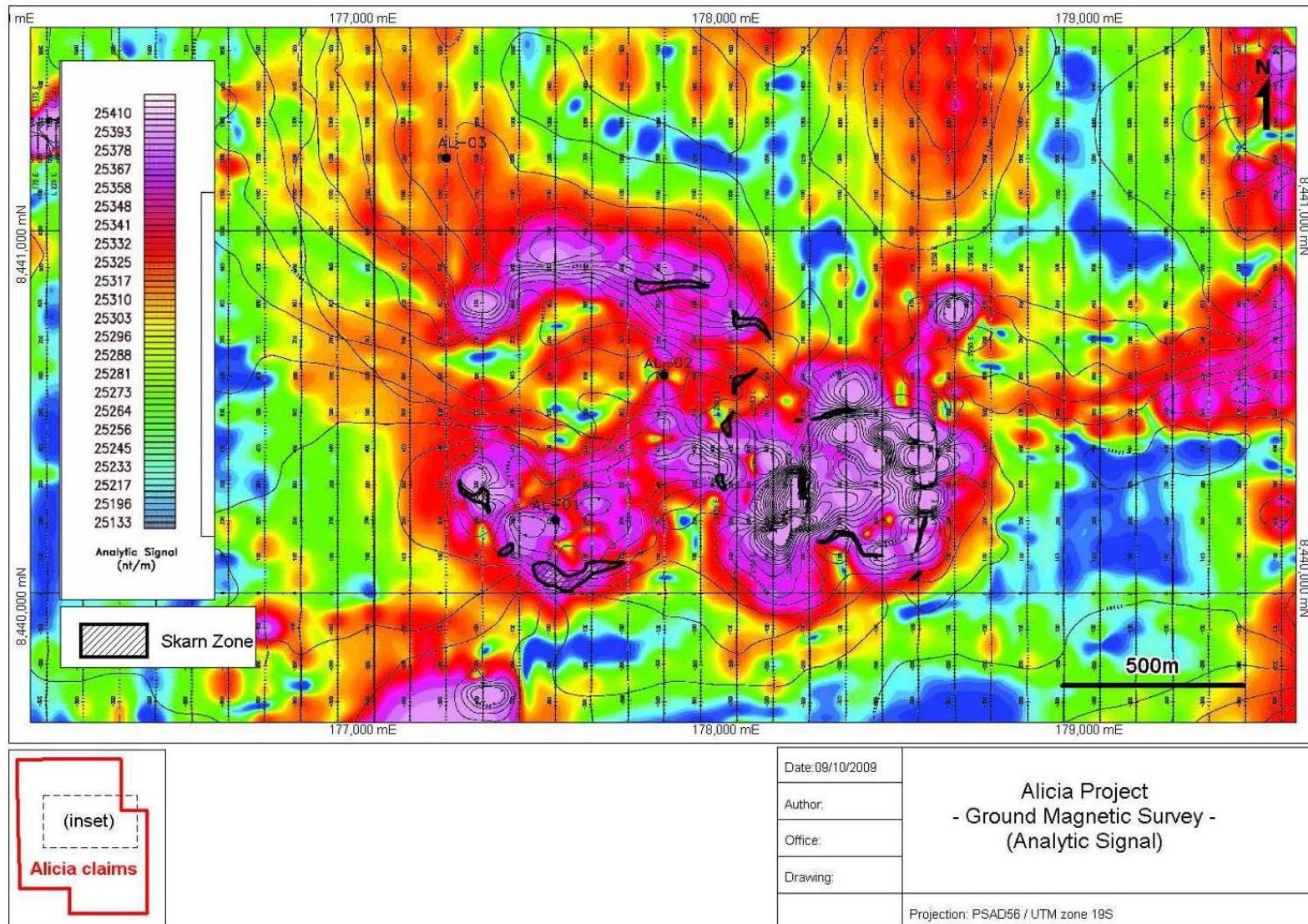
**Figure 6.1: Plan Showing Main Intrusions and Skarn Zones with CDLM Trench Sampling\***

\*(Modified after Moss, 2014)

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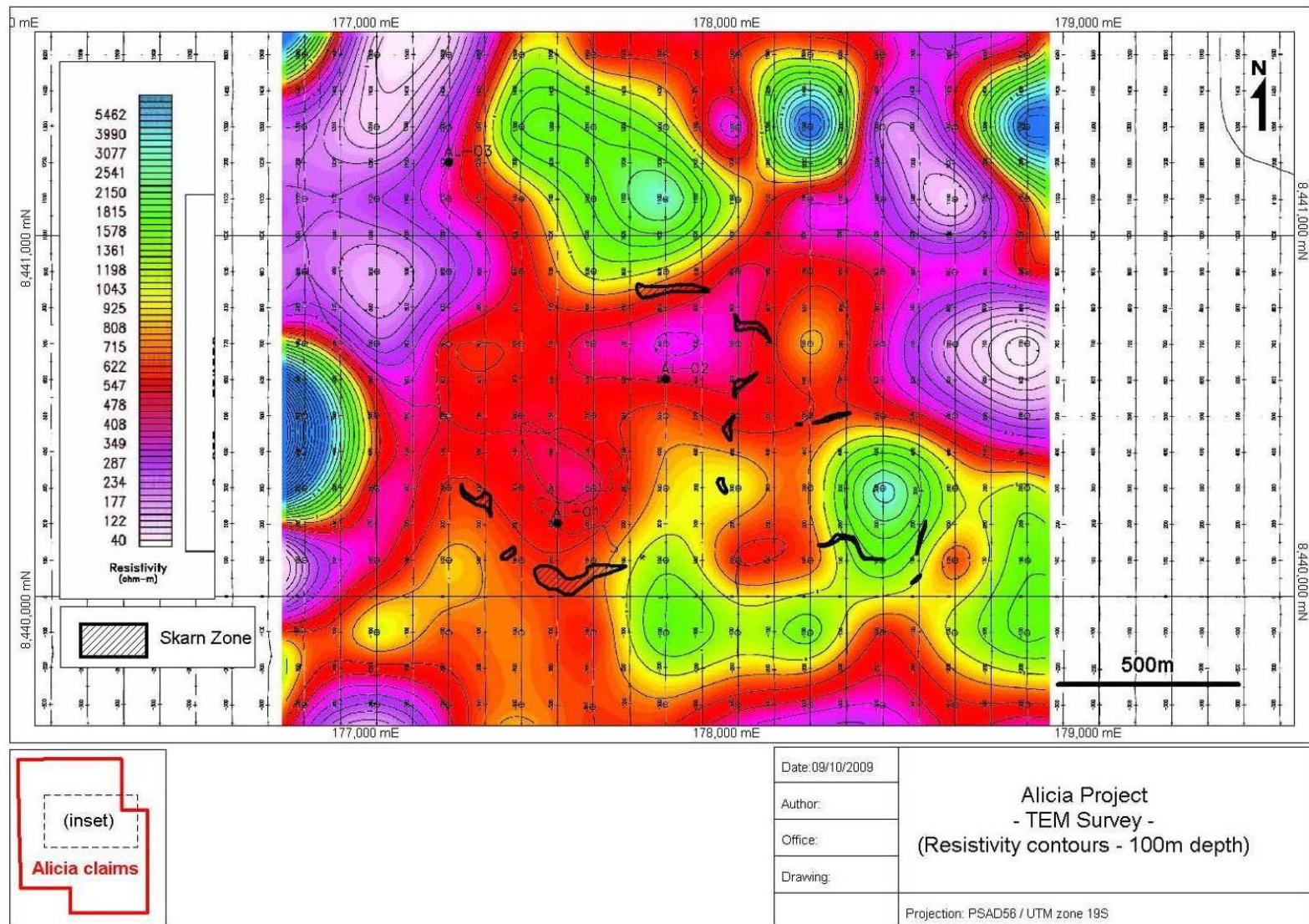
**Figure 6.2: Plan Showing Results of Ground Magnetics Survey, central Alicia Property\***

\*(Modified after Moss, 2014)

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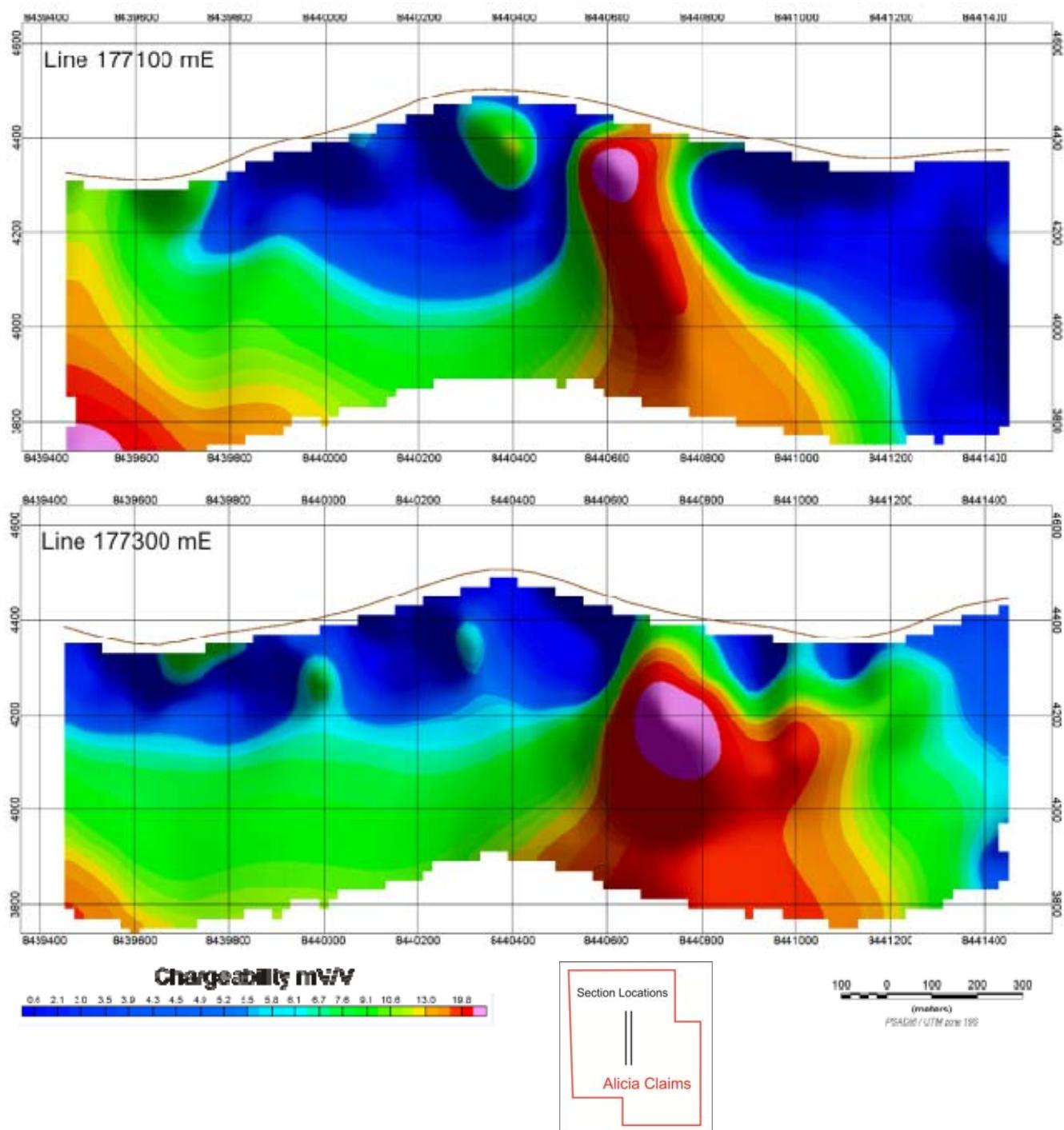
**Figure 6.3: Plan Showing Results of TEM Survey, central Alicia Property\***

\*(Modified after Moss, 2014)

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**Figure 6.4: Pseudosection Showing Chargeability Results of TEM Survey, central Alicia Property**

(from Alicia Project Magnetics And Induced Polarisation & Resistivity Surveys Acquisition and Processing Report for Strait Gold, G2492, April – May 2010, Fugro Ground Geophysics, Calle Ignacio Merino 711, Miraflores Lima 18 Peru).

## 7.0 GEOLOGICAL SETTING and MINERALIZATION

The Alicia Project is located in the Peruvian National Topographic system on map sheet 29-s Livitaca and on 29-r Santo, in the Department of Cusco. INGEMMET completed regional geologic mapping on the map sheets in 1960 to 61 and the corresponding Bulletins, A 035 and A 052, were completed in 1983 and 1994 respectively.

### 7.1 Regional Geology\*

\* - Modified after Moss, (2014).

The Alicia property is situated in the Andahuaylas-Yauri belt of porphyry copper and skarn mineralization associated with intrusive rocks of the Andahuaylas-Yauri Batholith (AYB). The belt extends for approximately 300 km in a northwest–southeast direction, and has a maximum known width of 130km (Perelló et al., 2003).

It is believed that several distinct deformation events may have contributed to the emplacement of the AYB and subsequent uplift in at least two main events at 48 to 43 million years ago (Ma) and 40 to 32 Ma. K-Ar age dates reported by Perelló et al. (2003) for intrusive phases of the AYB range from 31.6 to 43.2 Ma. The main phases of the batholith range in composition from gabbro/diorite near the base to granodiorite near the top.

The AYB was emplaced into a Mesozoic-Cenozoic environment of sedimentation occurring in two principal basins: the Western (Arequipa) Basin and the Eastern (Putina) Basin separated by the Cusco-Puno basement high (Perelló et al, 2003). The Western Basin consists of turbidites, quartz arenite and limestone comprising a sedimentary sequence more than 4,500 m thick. The Eastern Basin consists of Late Cretaceous marine clastic and carbonate rocks forming a sedimentary sequence approximately 2,600m thick (Perelló et al., 2003).

Porphyry style mineralization and alteration has been identified at 31 prospects and deposits in the belt, and many more magnetite-rich iron-copper skarn occurrences are known (Figure 7.1). Many of the porphyry and porphyry-related skarn deposits in the belt are world-class deposits (Table 7.1).

Most of the porphyry stocks related to mineralization in the belt appear to have been emplaced around the edges of the main intrusive phase of the AYB, only in a few cases did the porphyry stocks intrude the main phase of the AYB. The porphyry stocks are typically multi-phase porphyritic intrusions of calc-alkaline composition that range in areal extent from about 0.25 to 0.6 km<sup>2</sup> and can have dike-like (e.g. Las Bambas) or cylinder-like (e.g. Alicia) geometries (Perelló et al., 2003).

The porphyry deposits and occurrences known in the AYB have metal contents ranging from gold-only (e.g. Morosayhuas) through gold-rich, molybdenum-poor copper deposits (e.g. Cotabambas) and copper deposits with both gold and molybdenum (e.g. Tintaya) to relatively molybdenum rich, gold-poor end members (e.g. Lahuani). Bornite and chalcopyrite are the dominant copper-bearing minerals, typically occurring in A - and B – type quartz veins associated with the potassic alteration zones of the porphyry mineralization (Perelló et al., 2003).

Both proximal and distal skarn-type mineralization has been observed in the belt. Proximal skarns contain endoskarn – and/or exoskarn - related mineralization: both prograde and retrograde skarnification events are recognized. The bulk of the copper mineralization is thought to have been introduced during prograde events at Tintaya and Las Bambas (Perelló et al., 2003).

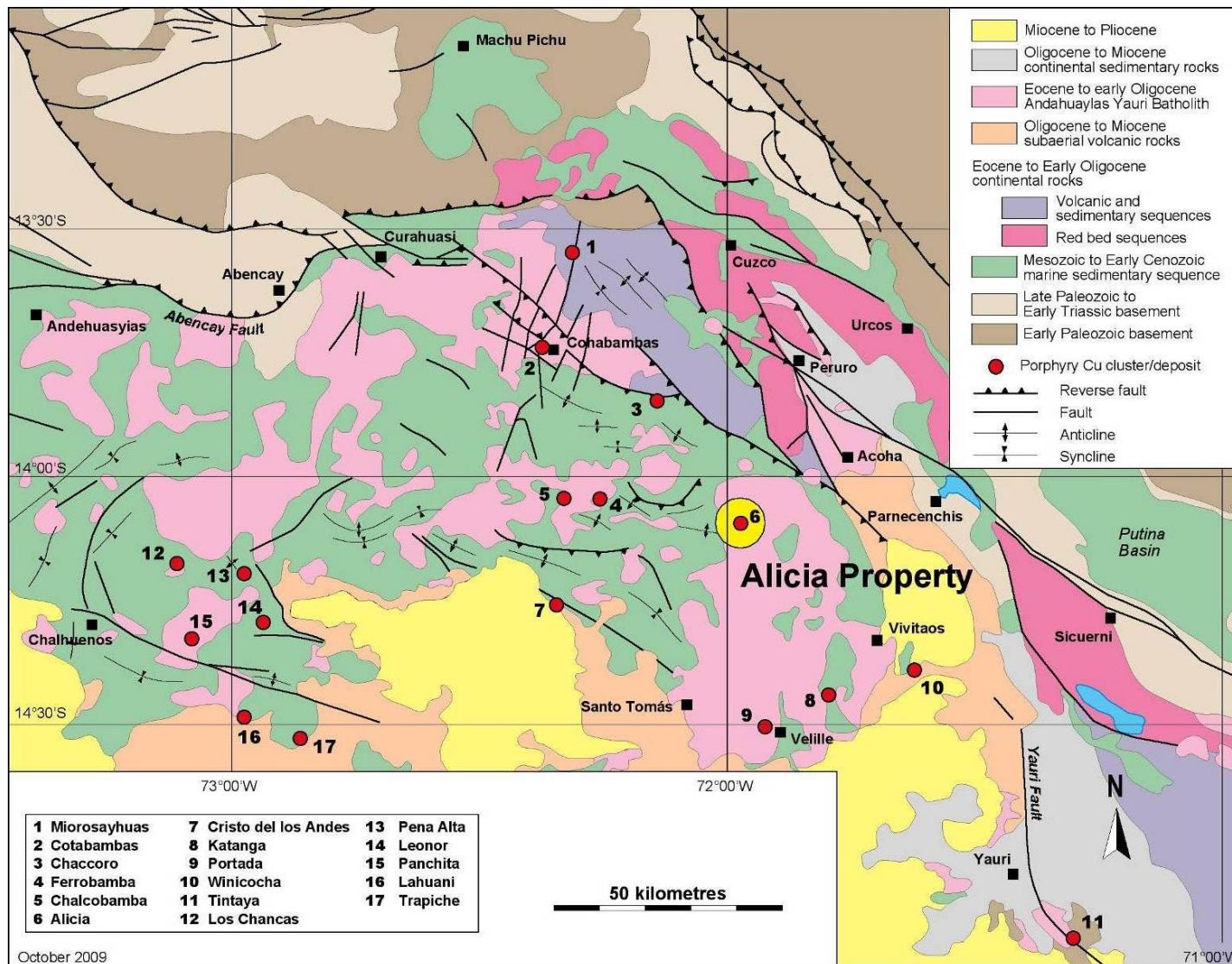
Distal skarns, richer in lead and zinc than the proximal skarns, have been identified associated with all deposits at distances of up to 3 km from their proximal counterparts, typically occurring in roof pendants of Ferrobamba Formation limestones and equivalent formations (Perelló et al., 2003).

The alteration associated with the mineralized porphyries of the belt is typical of porphyry systems elsewhere in the world, consisting of potassic, propylitic, sericitic and advanced argillic facies. In addition, calc-silicate alteration assemblages of garnet, diopside, epidote and actinolite are commonly associated with many of the deposits that exhibit skarn-type mineralization. Such mineralized skarns are well developed where porphyry stocks intrude carbonate rocks of the regionally extensive Ferrobamba Formation or equivalents (Perelló et al., 2003).

**Table 7.1: Mineral Resources of Selected Porphyry /Skarn Deposits of the AYB\***

Deposit	Tonnage (Mt)	Cu (%)	Au (g/t)	Mo (%)	Reference
<b>Tintaya District</b>					
Antapaccay	383	0.89	0.16	na	Jones et al., 2000; Fierro et al., 2002
Corroccohuayco	155	1.57	0.16	na	BHP, 1999
Ccatun Pucara	24	1.44	na	na	BHP, 1999
Quechua	300	0.68	na	na	Perelló et al. 2003
Tintaya	139	1.39	0.23	na	Perelló et al., 2003
<b>Cotabambas Area</b>					
Azulccacca	24	0.42	0.39	<0.01	Perelló et al., 2002
Ccalla	112	0.62	0.36	<0.01	Perelló et al., 2002
Las Bambas	860	0.93	na	0.02	Xstrata <a href="http://www.xstrata.com">http://www.xstrata.com</a>
Cotabambas	90	0.77	0.42		Wober, 2007
Constancia Measured and Indicated	463	0.21	0.035	0.006	Hudbay Minerals Website <a href="http://www.hudbayminerals.com">http://www.hudbayminerals.com</a>
Constancia Inferred	219	0.19	0.032	0.005	Hudbay Minerals Website <a href="http://www.hudbayminerals.com">http://www.hudbayminerals.com</a>

\*(after Moss, 2014)



**Figure 7.1: Regional Geological Map of the Andahuaylas-Yauri Belt\***

\*(Modified after Perelló et al., 2003, after Moss, 2014)

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## 7.2 Property Geology\*

\* - Modified after Moss, (2012 & 2014).

### 7.2.1 Lithology

The dominant rock types on the property are chemical sedimentary rocks of the Arcurquina Formation composed of grey limestone (Figure 7.2) with horizons of chert nodules intruded by porphyritic stocks. The Arcurquina Formation is the equivalent of the Ferrobamba Formation, which is the most important unit for the formation of porphyry associated skarn deposits elsewhere in the AYB (CDLM, 2000).



**Figure 7.2: Folded limestone of the Arcurquina (Ferrobamba) Formation**

Two phases of porphyritic intrusions were recognized by early workers (CDLM, 2000, Moss, 2011), but recent work by Strait Minerals has documented the presence of four porphyry phases, visible in outcrop, and a potential fifth phase that has only been observed as float and in drill core (Figure 7.3).

The central intrusive complex at Alicia consists of a multi-phase porphyry intrusive that intrudes the surrounding Arcurquina Formation limestone near the centre of the property. There appears to be a structural control on the emplacement of the porphyry intrusions.

Prior to drilling four types of porphyry intrusives (P1, P2, P3, P4) were identified at surface with a potential 5<sup>th</sup> type (P5) identified from float. Of these, porphyry P1 appears to be the most extensive, comprising up to 80% of the drill core in the latest drilling program. The classification of the different porphyry types is based mainly on the size, shape and composition of phenocrysts and the proportion of phenocrysts relative to the matrix as follows:

---

Porphyry P1 (Photo A, Figure 7.3) is coarse grained with plagioclase (60%), quartz (30%) hornblende and fine black biotite phenocrysts in a fine grained grey groundmass. The phenocryst:groundmass ratio is typically greater than 80:20

Porphyry P2 (Photo B) is dominated by a gray groundmass with a phenocryst:groundmass ratio from 20:80 to 40:60. Phenocrysts include plagioclase (60%) up to 4mm, quartz (35%) up to 2mm and hornblende 5%. Blocks of porphyry P1 are observed in P2, most likely trapped during intrusion of P2.

Porphyry P3 (Photo C) occurs as windows or dikes between P1 and P2. It has a fine-grained grey groundmass with 5-10% phenocrysts that are dominated by plagioclase over quartz with 2% hornblende.

Porphyry P4 (Photo D) occurs in the easternmost part of the porphyry complex. It is medium grained with plagioclase and irregular shaped quartz phenocrysts, 2% hornblende and minor to trace amounts of biotite.

Porphyry P5 (Photo E) was only observed as dikes cutting porphyry P1 in holes ALC-13-23 and -28 on the north western side of the complex. It has a grey-brown groundmass with 10% plagioclase and orthoclase phenocrysts.

Hydrothermal crackle breccias are often located at the borders of the porphyry intrusives. The clasts are porphyritic and contain quartz veins which suggests that brecciation occurred later or immediately following the formation of at least the first stage of quartz veining. Copper mineralization is located in the matrix of the breccia.



**Figure 7.3: Intrusive Rocks Mapped on Alicia**

A. Porphyry P1 ALC-13-22 @ 333m; B. Porphyry P2 ALC-13-20 @ 177m; C. Porphyry P3, hole ALC-13-22, @ 33m; D. Porphyry P4, hole ALC13-25, @ 256m; E. Porphyry P5, hole ALC13-23, @ 510.1m; F Hydrothermal breccia in outcrop.

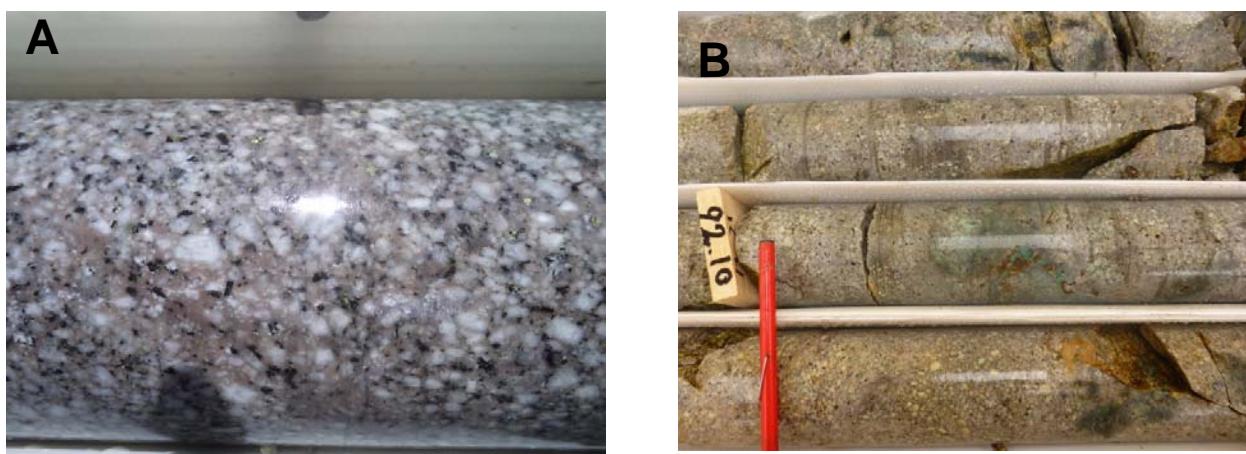
### 7.2.2 Alteration

The two dominant styles of alteration at Alicia are potassic and sericite-chlorite-clay (SCC), with lesser chlorite alteration. There appears to be a zonation of alteration with SCC more prominent near surface and potassic alteration dominating at depth.

Potassic alteration consists of secondary biotite and K-feldspar and is typically accompanied by magnetite. The K-feldspar occurs in porphyry P1, mainly as halos to quartz veinlets but also as veins and groundmass replacement at depth. Secondary biotite is dark brown to black in colour, and occurs dominantly as replacement of hornblende and to a lesser extent as veinlets. Biotite is subordinate to K-feldspar in porphyry P1 and dominant in porphyries P2, P3 and P4 where it is associated with mineralization (Figure 7.4).

SCC alteration often appears to replace potassic alteration, mostly secondary biotite, but also with local replacement of plagioclase. It occurs in all the porphyry types, but is most intense in porphyry P1. SCC alteration is accompanied by pyrite in the P4 porphyry.

Chlorite alteration is mostly accompanied by clay and hematite-specularite and contains only traces of sulphides. It occurs in a concentric zone around the central part of the west side of the porphyry complex.



**Figure 7.4: Alteration Styles Observed at Alicia**

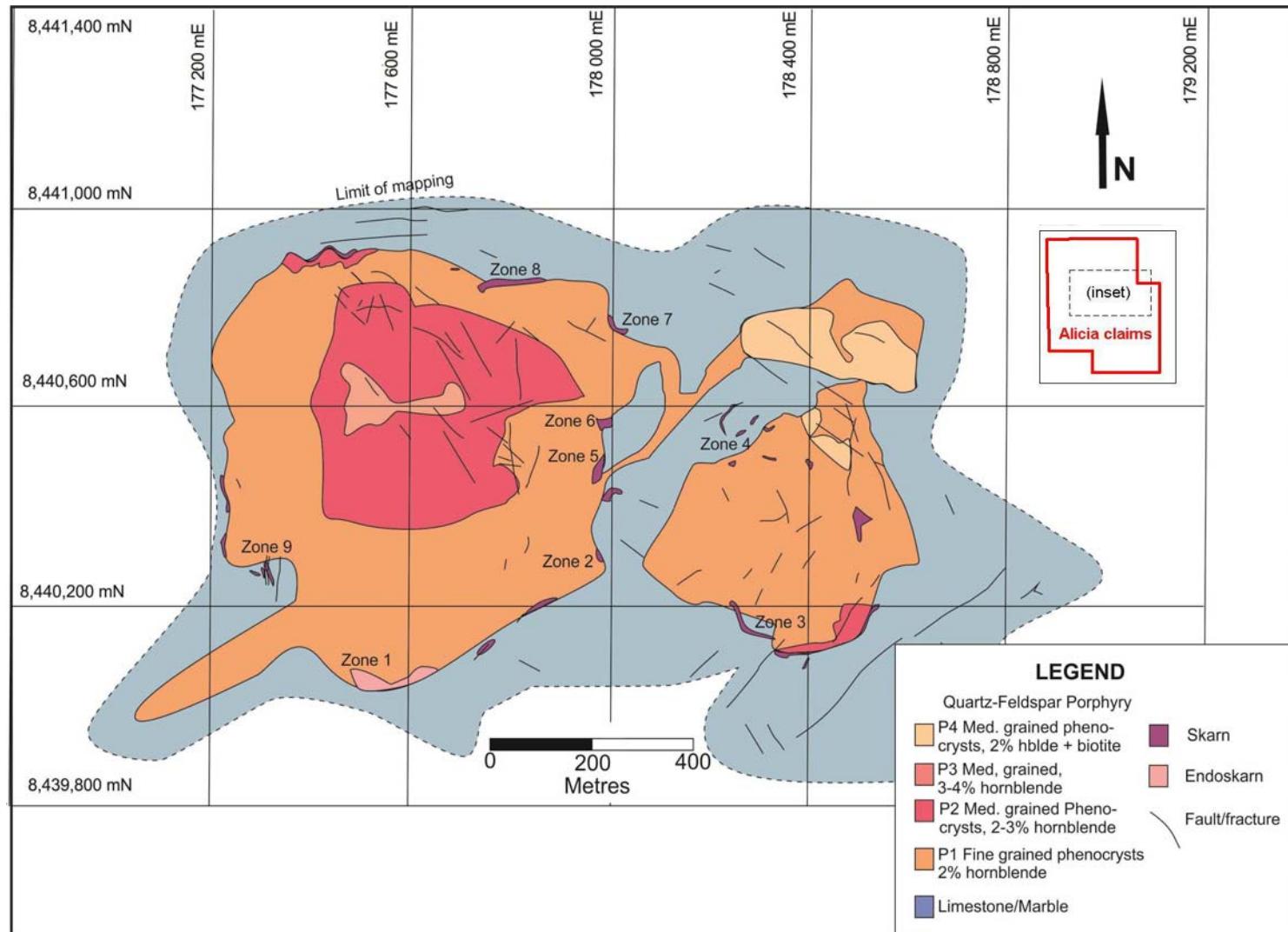
A. Hole ALC-13-23 @541m pervasive potassic alteration biotite-kfspar; B. Hole ALC-13-21 @ 92m strong SCC Alteration

### 7.2.3 Mineralization

Three distinct styles of mineralization are present at Alicia:

1. proximal copper-gold skarn;
2. porphyry copper and
3. possible low sulphidation epithermal mineralization located approximately 1.5 km south of the porphyry complex.

Proximal skarn-type mineralization is located at the contact between the porphyry intrusive and the surrounding limestone. Nine main skarn zones and several smaller zones, occurring intermittently along the contact, have been identified to date (see Figure 7.5).



**Figure 7.5: Simplified Geological Map of the Alicia Intrusive Complex\***

(after Moss, 2014)

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The mineralization occurs as densely veined bornite-rich quartz-poor stockworks and disseminations that cross cut earlier garnet skarn (Wober, 2007). Lesser chalcopyrite mineralization accompanies bornite in most places. Secondary copper minerals include malachite, azurite and lesser chalcocite and native copper (CDLM, 2000; Perelló, 2003). Minor molybdenite occurs as fine-grained disseminations, typically associated with chalcopyrite.

While widths of skarn mineralization vary between individual zones from 10's of centimetres up to 56 metres (Zone 1), individual zones often show good strike continuity (>100 metres). The zone of skarn mineralization follows the northern contact of the intrusive complex and limestone over a distance of 600 m with numerous surface showings and drilled intercepts. Skarn mineralization exposed in trench Huanca-6 (Zone 8) is shown in Figure 7.6 and 7.7.



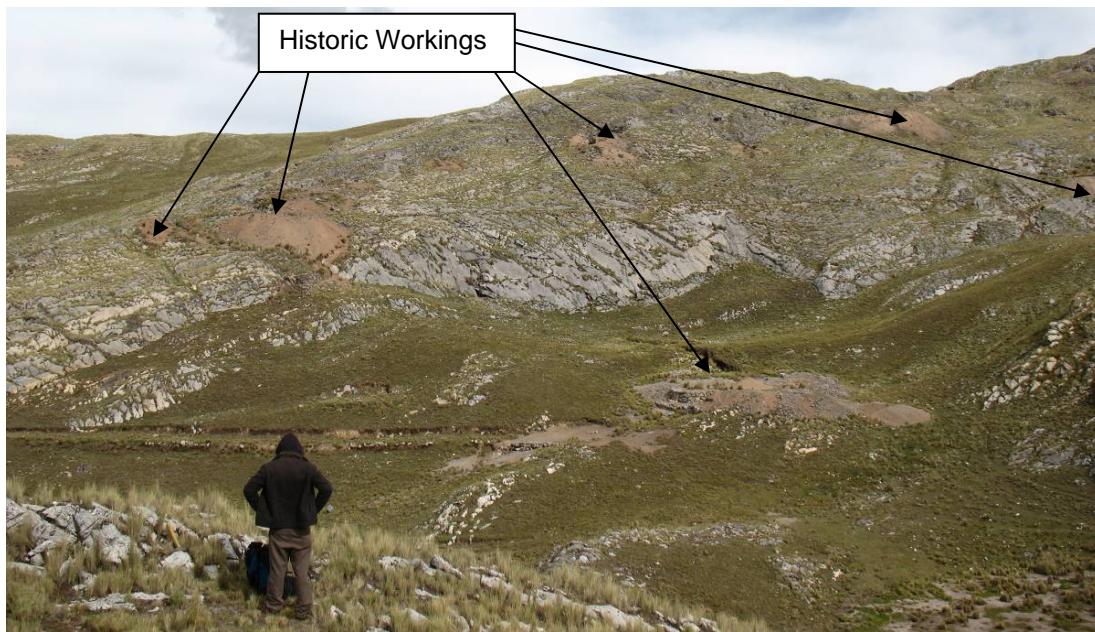
**Figure 7.6: Typical skarn mineralization at Alicia**  
(grey-purple bornite and green malachite in a matrix of garnet-skarn)  
(after Moss, 2014)



**Figure 7.7: Chip sampling of skarn mineralization along Huanca-6 trench (Zone 8)**  
(after Moss, 2014)

Porphyry style mineralization is characterized by weakly disseminated pyrite with lesser chalcopyrite. The porphyry also shows typical porphyry copper alteration, including weak to moderate potassic alteration ( $\text{biotite} \pm \text{K feldspar}$ ) and moderate argillization. Quartz veins form stockworks of up to 20-30 veins per metre in places and both A- and B-type veins have been recognized. Average values obtained from sampling trenches through the porphyry are much lower than those in skarn mineralization at 347 ppm Cu, 3 ppb Au and 520 ppb Ag (CDLM, 2000).

Located approximately 1.5 kilometres to the southeast of the main intrusive complex at Alicia are a number of historic workings consisting of narrow adits and open cuts within gently dipping limestone of the Ferrobamba Formation (Figure 7.8). The age of these historical workings is unknown, however they appear informal in nature with very limited development. Waste piles from the workings display a polymetallic assemblage of coarsely crystalline galena-sphalerite+/-chalcopyrite-pyrite within a druzy to granular quartz matrix. Eight samples taken by CDLM in this area (six from individual veins, two from waste piles) confirm the high-grade polymetallic (Ag-Pb+-Zn-Au-Cu) nature of the mineralization in this area. Of the eight samples collected by CDLM, the average reported values are Pb (11.5%), Ag (91.1 g/t), Zn (6.8%), Au (1.3 g/t), Cu (0.3%), with up to 27.8% Pb, 227 g/t Ag, 5.0 g/t Au, 15.9% Zn and 1.0% Cu in a single sample collected from one waste pile. Elevated values of Sb (up to 200 ppm) are associated with the mineralogy, geochemistry, texture, and strong structural-control of these vein showings suggest a low-sulphidation epithermal association upon initial observation, however further work is required to confirm this hypothesis, as well as to define the strike and width potential of individual structures.



**Figure 7.8: Historic workings in polymetallic Ag-Pb+-Zn-Au-Cu veins**

- South of main skarn zone (after Moss, 2014)

Porphyry style mineralization is most consistently developed in porphyries P1 and P4. Mineralization is associated with quartz veinlets and open fractures and typically increases with increasing density of veinlets and fractures. At surface the mineralized quartz veinlets-fractures-stockworks are located around the edge of the porphyry complex towards the contact with the calcareous host rock.

Two zones of mineralization occur at Alicia, oxide dominant mineralization at shallow depth and primary sulphide mineralization which is dominant at deeper levels: this relationship is what adds interest to the observed deeper chargeability (refer section 9.3, and figure 6.4). The oxide zone consists mainly of jarosite-goethite-Mn oxide after pyrite and magnetite. Lesser glassy limonite±malachite-Cu sulphates after chalcopyrite also occur in places.

Sulphide mineralization is dominantly chalcopyrite, pyrite and bornite and is strongest in areas of dense quartz veinlets but also occurs as infill of open fractures. Bornite is most commonly observed in the deeper potassic alteration zone associated with chalcopyrite and pyrite. Pyrite appears to be restricted to a zone extending from the central part of the intrusive complex toward the south. Minor molybdenite occurs in type B quartz veinlets.

## 8.0 DEPOSIT TYPES

The following deposit types section is quoted from the technical report by Moss (2014).

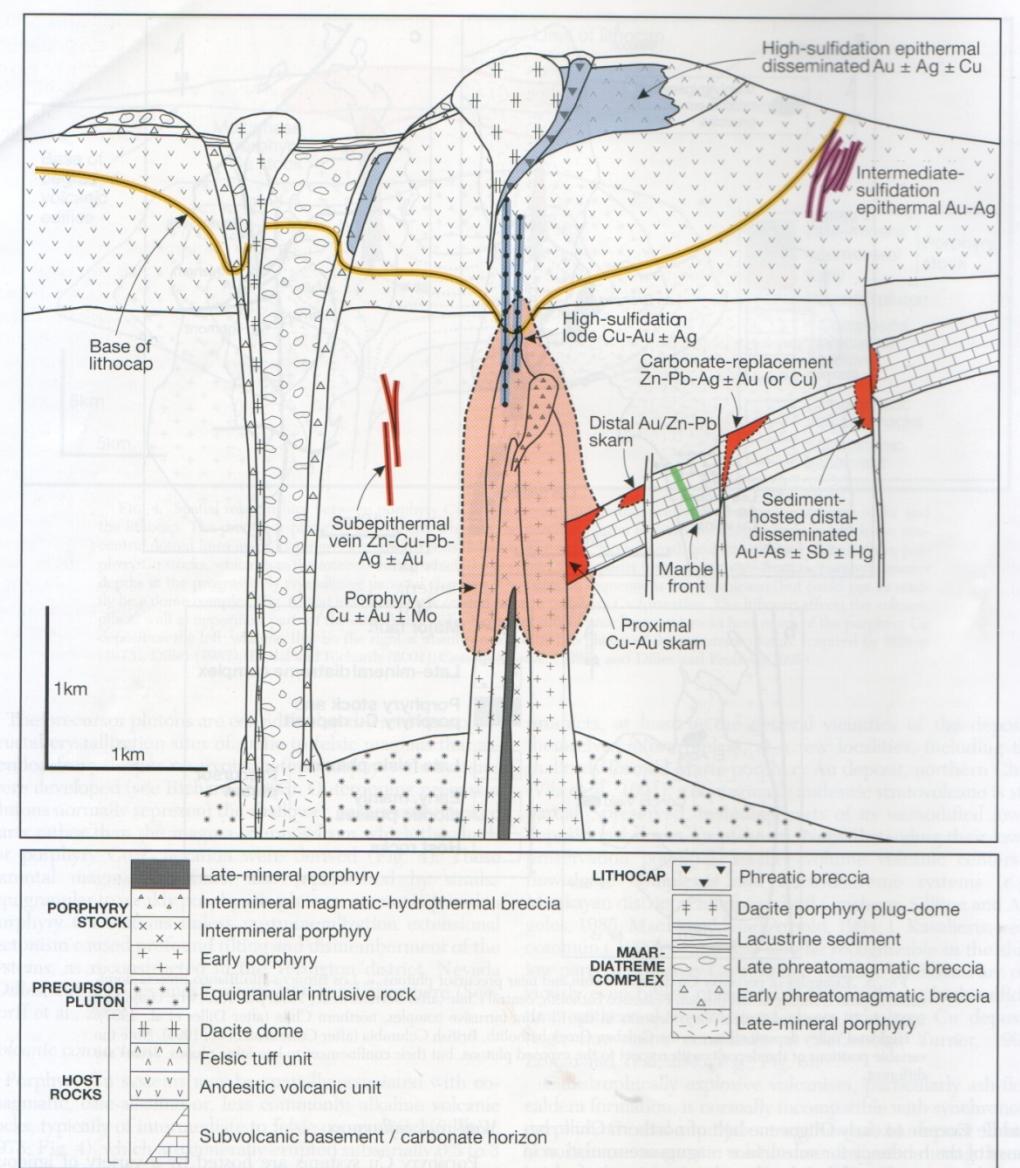
*The principal deposit types outlined to date on the Alicia property are copper ( $\pm$ gold  $\pm$ silver) skarn, porphyry copper and possible intermediate sulphidation epithermal deposit. All three deposit types are believed to be related to magmatic activity leading to the emplacement of the Central Intrusive Complex into Arcurquina limestone.*

*Porphyry copper systems commonly host skarn, carbonate replacement, sediment-hosted gold and high and low epithermal deposit types in addition to the porphyry deposit (Figure 8.1). These deposit types are centred on plutons that form at convergent plate boundaries (Sillitoe, 2010). Porphyry copper deposits are an important source of copper supply and commonly rank among the largest copper deposits in the world.*

*The intrusive rocks that host porphyry copper deposits are typically intermediate to felsic in composition, porphyritic in texture and are often associated with multiple intrusive events that form composite intrusion centres (Seedorff et al., 2005). There is a typical alteration zoning that exists in porphyry copper deposits with potassic (K-feldspar- biotite) at the core followed by sericitic (muscovite/sericite  $\pm$  chlorite) and clay dominant assemblages with distance from the centre (Seedorff et al., 2005). Much of the mineralization in porphyry deposits is contained within veins that include veins with sulphides associated with potassic alteration and pyritic veins with sericite halos (Seedorf, 2005). Veins may also form stockworks, which are a common feature of porphyry style mineralization. In addition to copper, porphyry deposits commonly contain gold, molybdenum, tungsten and tin.*

*Copper skarns are one sub-type of a diverse group of deposits formed dominantly through the metasomatism of carbonate rocks. The degree of metasomatism involved in skarn formation can vary from negligible, in the case of metamorphism of carbonate to produce calc-silicate hornfels, to complete, resulting in the formation of a metasomatic, coarse grained skarn (Meinert, 1993a). It is this high degree of metasomatism, where the composition of the metasomatic fluid controls the resulting skarn and ore mineralogy that often results in the most economic skarn deposits (Meinert, 1993a). Copper skarns are the most abundant skarn type, and include some of the world's largest skarns (Einaudi et al., 1981; Meinert, 1993b).*

*Epithermal deposits form at shallower depths (<1.5km) and lower temperatures (<300°C) than porphyry deposits (Simmons et al., 2005). Various classification schemes have been used for epithermal deposits, but three types are generally recognized. High sulphidation deposits are formed from acidic, dominantly magmatic fluids and are associated with alunite, kaolinite, pyrophyllite and residual (vuggy) quartz. Low sulphidation deposits are associated with near neutral, primarily meteoric fluids and are associated with a quartz-adularia $\pm$ illite-calcite assemblage. Intermediate sulphidation deposits are associated with quartz-calcite with minor chalcedony and adularia, manganese carbonate fluorite, gypsum/anhydrite. Gold or silver may be the dominant economic metal, although gold may be minor in some deposits. Zinc and lead are commonly around 1% and copper and minor tin may increase at depth (White, 2011).*



**Figure 8.1: Porphyry Copper System showing related deposit types\***

\* - (After Sillitoe, 2010).

## 9.0 EXPLORATION\*

The following exploration section is quoted from the technical report by Moss (2014).

### 9.1 2010 to 2011 exploration program

*During 2010 and early 2011, Strait Minerals carried out a two phase exploration program primarily aimed at assessing the potential of the copper-gold skarn zones on the property. In addition, the possibility of porphyry style mineralization was noted and tested in the last two drill holes of the program. The results of this two phase exploration program outlined below are summarized from Moss (2011a).*

*Re-sampling of three historical trenches was undertaken to confirm the historical results. Zone 1 was sampled in two locations, in the vicinity of trenches Iris 4 and Iris 5 and Zone 5 was sampled along the remains of historical trench Huanca 7 (Moss, 2011a). The re-sampling of the trenches excavated by CDLM confirmed the grade of the mineralization, but over typically narrower widths. It is believed that the sampling undertaken by Strait Minerals more closely reflects the true width of the mineralization.*

*The skarn zones were also sampled more extensively during the detailed sampling program that accompanied the geological mapping. Samples were either in the form of chip channel samples or chip panel samples. Several outcrops of skarn were found in areas that had no previous record of skarn mineralization and were also sampled. These newly recognized outcrops indicate that the skarn mineralization is more extensive than previously known. Figure 9.1 summarizes the results of the sampling of the skarn zones. Details of the results can be found in Moss (2011a).*

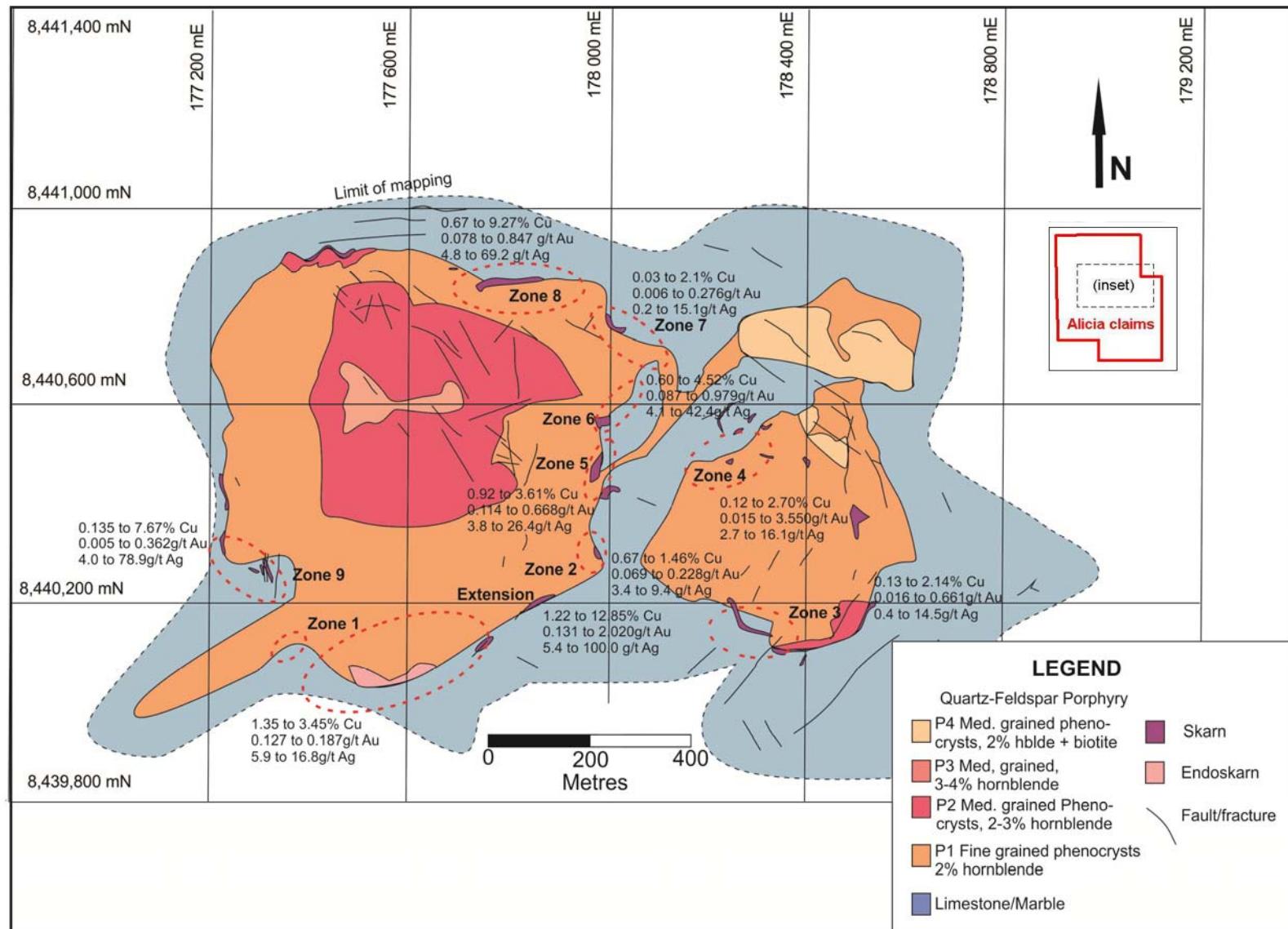
*A ground magnetic survey and a pole-dipole induced polarization (IP)/resistivity survey was undertaken by Fugro Ground Geophysics during April and May 2010. The surveys were conducted over 10 lines at a spacing of 200 metres for a total of 16.8 line kilometres that covered the intrusive rocks and immediately surrounding area.*

*The result of the magnetic survey indicated magnetic anomalies associated with skarn zones 3, 4, 5 and 7. Zones 3 and 4 are partly associated with magnetite skarns, and there are smaller scattered outcrops of magnetite skarn within the eastern lobe of the intrusion that give rise to the strong signal over that part of the intrusion (Figure 9.2).*

*The IP/resistivity survey resulted in a significant chargeability anomaly extending along the northern contact between the intrusion and the surrounding limestone. Additional anomalies occur associated with Zone 5 and to the north of Zone 9 (Figure 9.3).*

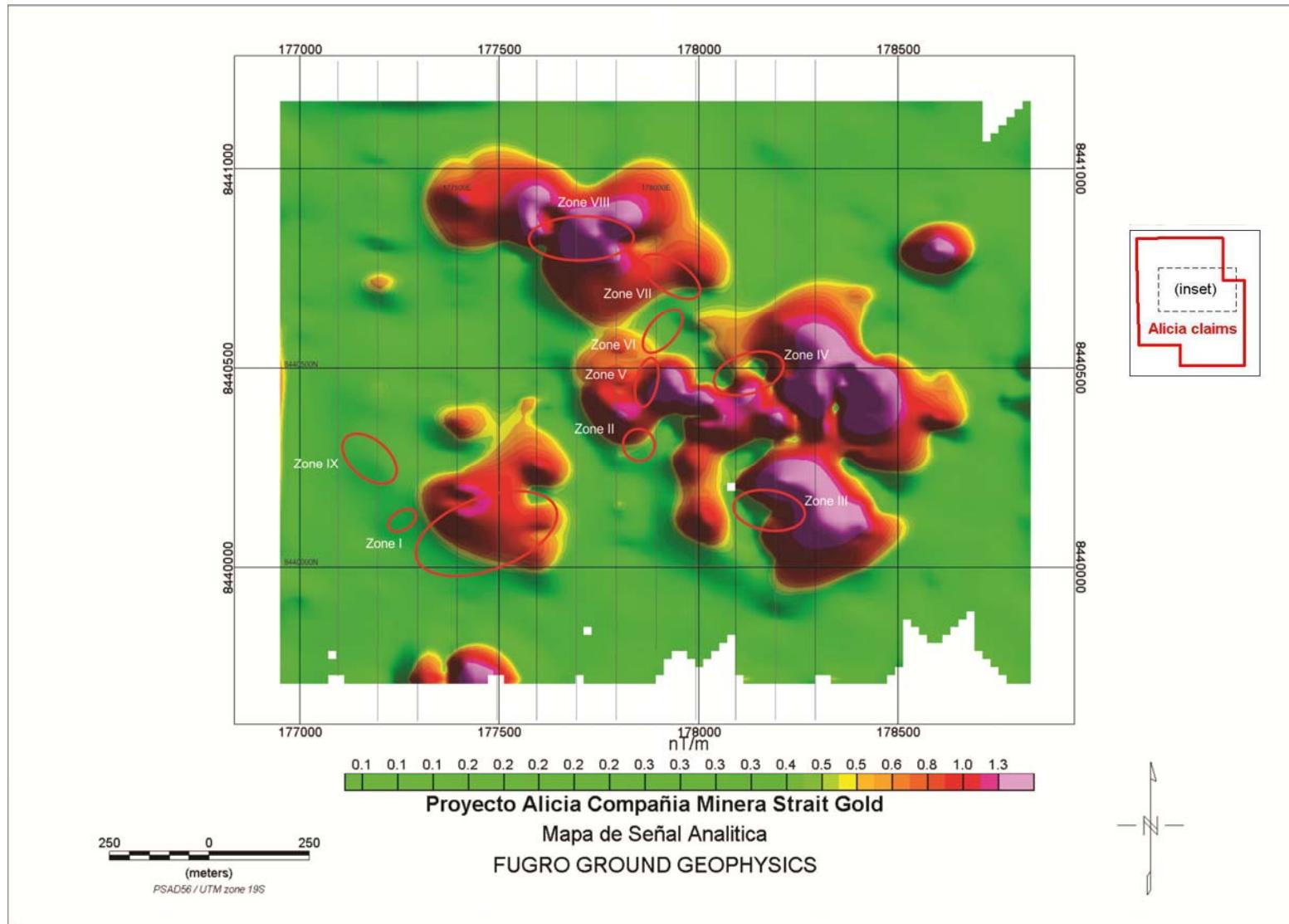
### 9.2 Follow up 2011 exploration program

*Results from drillholes ALC10-08 and ALC11-17 and 18 from the 2010-11 drill program (See Section 10 Drilling), together with AL-01 and AL-02 from historical drilling, indicated the potential for porphyry mineralization at Alicia. Following completion of the 2010-11 drilling program this potential was examined in more detail. An exploration program involving detailed mapping and sampling in the vicinity of the intrusive outcrop and airborne geophysics over the entire property was carried out during the remainder of 2011. Details of this work are given in Moss (2011b) and are summarized below.*



**Figure 9.1: Summary of Cu-Au-Ag content for the significant skarn zones at Alicia\***

\*(after Moss, 2014)



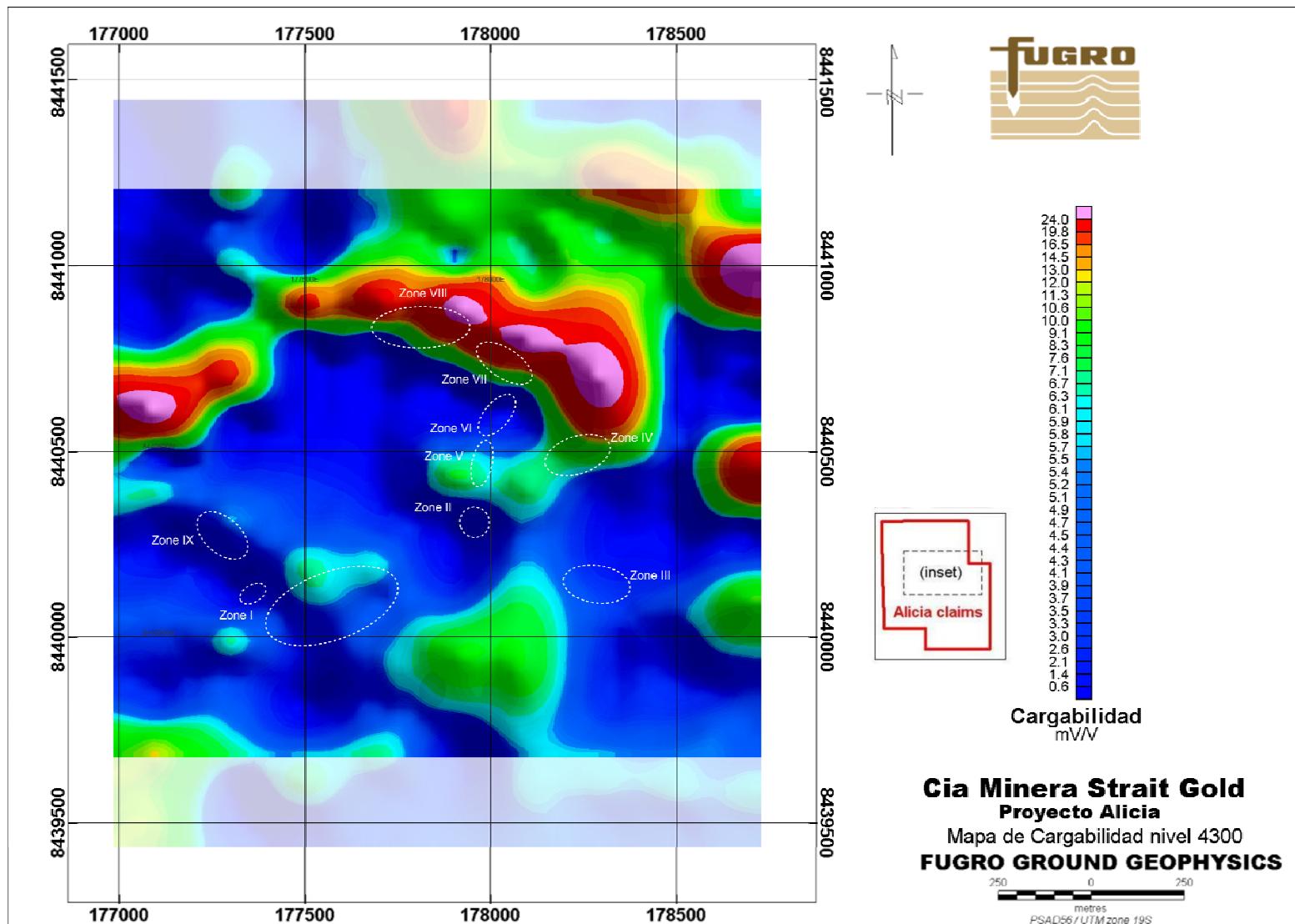
**Figure 9.2: Magnetics - Analytic Signal showing outline of skarn zones\***

\*(after Moss, 2012)

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**Figure 9.3: Chargeability depth slice at the 4300 level**

\*(after Moss, 2012)

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### 9.2.1 Mapping

Detailed mapping of the intrusive, revealed the four different types of porphyry as described in Section 7. Porphyry P1 is the most aerially extensive, covering much of the outcrop area and at surface appears to be split into an eastern lobe and a western lobe (See Figure 7.5, 9.1). It is suspected that these two lobes are joined at depth but this hypothesis would need to be tested by drilling. Porphyry P2 occurs both within P1 and along the northwestern and south eastern contacts with the surrounding limestone (Figure 9.1). Outcrop of porphyry P3 is relatively minor, and is wholly contained within the western lobe of porphyry P1. Porphyry P4 has only been found associated with the eastern lobe of porphyry P1.

### 9.2.2 Rock Sampling

The rock sampling program that began in 2010 was completed in 2011 and covered the porphyry outcrop with samples approximately every 100 metres. The sampling density increased in areas of significant porphyry style mineralization. A total of 394 samples were collected and covered the area of the porphyry outcrop. The results of the rock sampling define a copper anomaly with values greater than 500 parts per million (ppm) that stretches over approximately 800 metres in a northwest-southeast orientation (Figure 9.4).

The most significant copper mineralization is associated with northwest-southeast oriented structural zones defined by quartz veinlets, stockwork, fractures and brecciated zones within the porphyry intrusive. The mineralization appears to continue under cover to the east and west.

### 9.2.3 Soil sampling

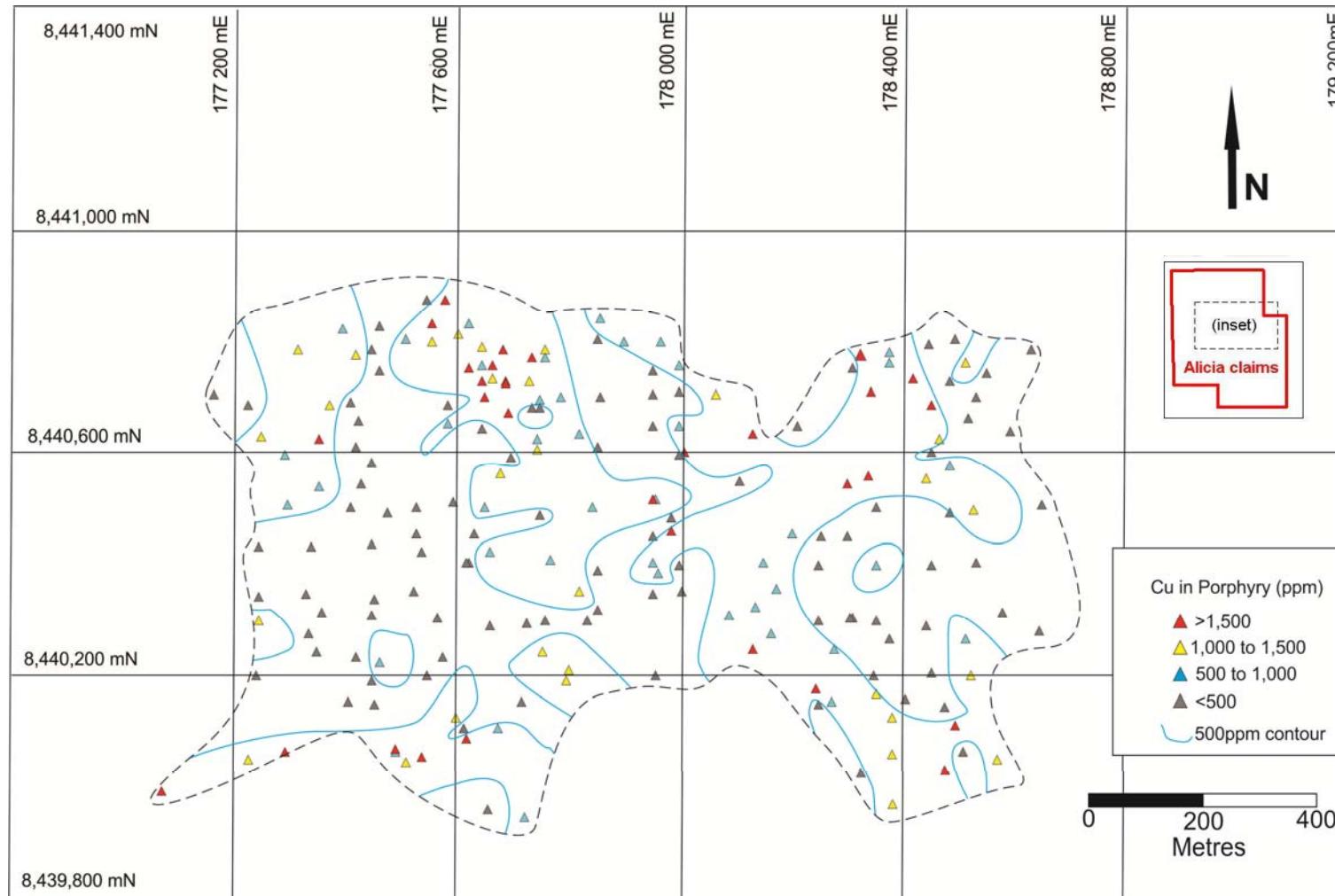
A soil sampling program, comprising 150 samples taken on 200 metre centres to the east and west of the main intrusive outcrop resulted in an anomaly, defined by copper values greater than 1,000 parts per million, that extends for 3.4 kilometres in an east-west direction (Figure 9.5).

### 9.2.4 Airborne geophysics

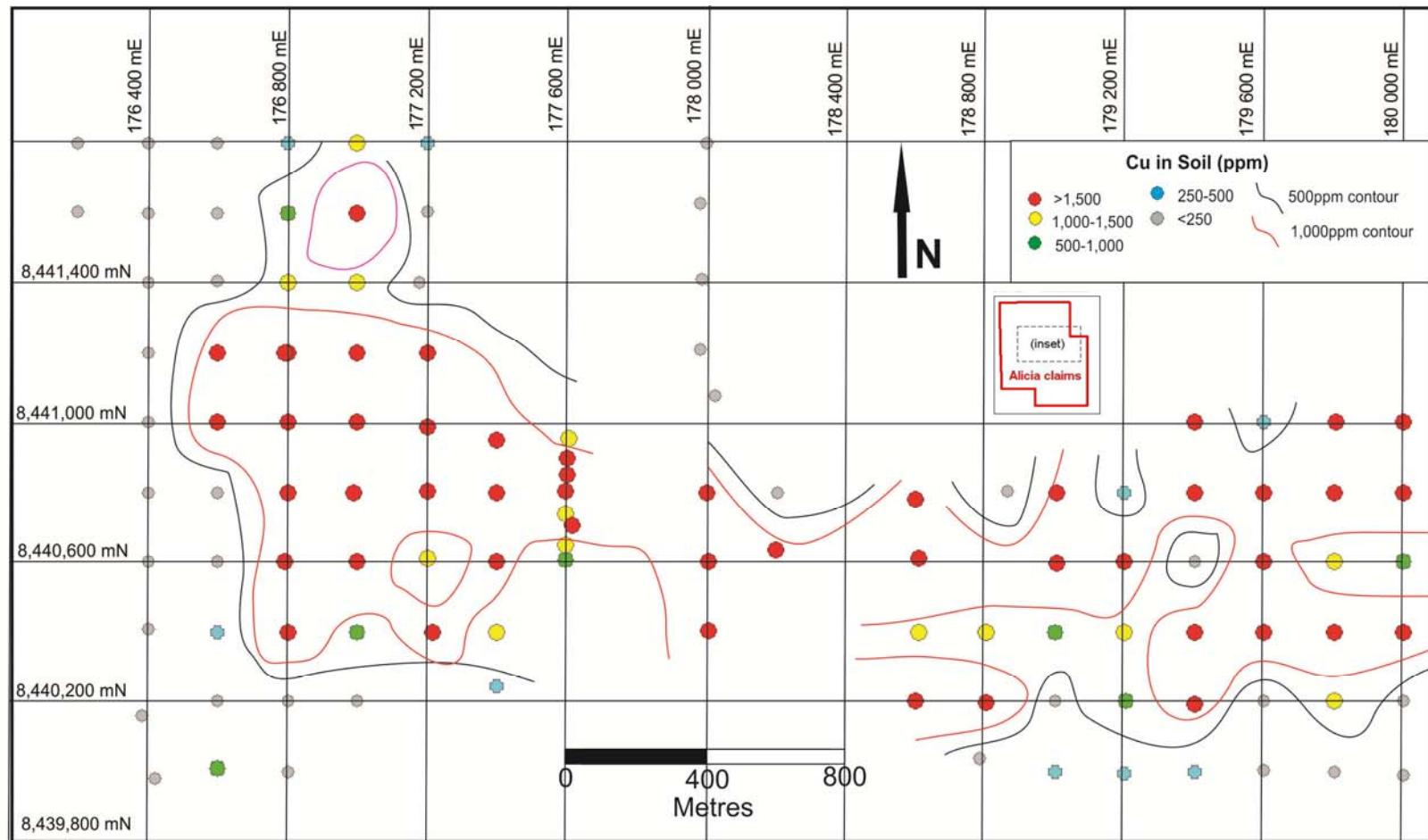
Two airborne geophysical surveys were flown over the Alicia Project during 2011. A detailed aeromagnetic/radiometric survey flown by New-Sense Geophysics in May and a ZTEM resistivity survey flown by Geotech in August. Both surveys were designed to assist in mapping lithology, structure and alteration associated with copper-gold rich skarn and porphyry mineralization in the prospect area. Details of the surveys are given in Moss (2011b) and summarized below.

#### 9.2.4.1 Magnetic and Radiometric Surveys

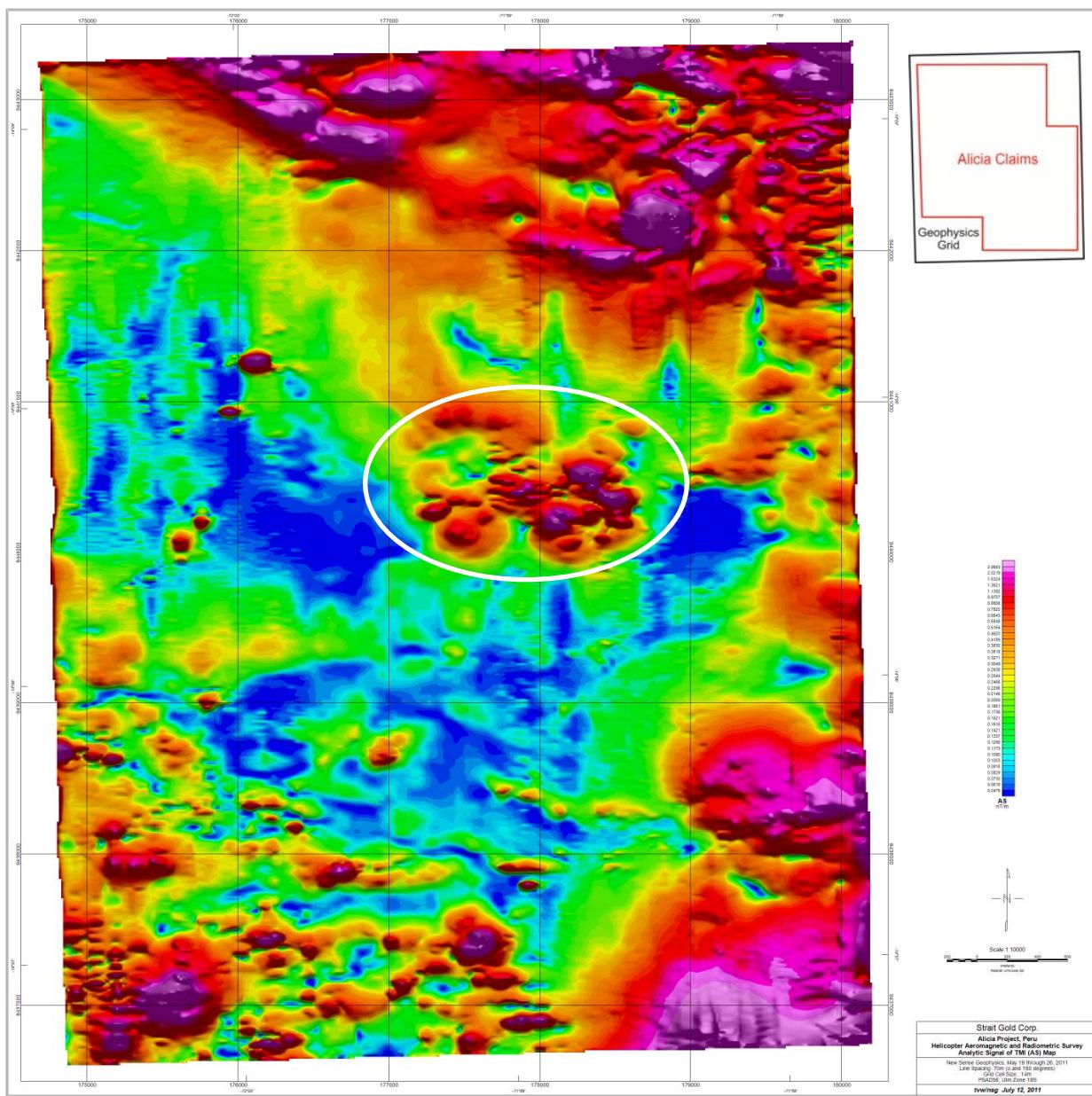
New-Sense Geophysics Limited collected 555 line kilometres of helicopter aeromagnetic and radiometric data over flight lines oriented N-S and spaced 70 meters apart. Results of the survey are best seen on a map of the analytic signal of the TMI (Figure 9.6) which clearly shows the area of skarn mineralization around the edge of the porphyry.

**Figure 9.4: Copper values in Alicia porphyry rock samples\***

\*(after Moss, 2014)

**Figure 9.5: Copper values in soil samples**

\*(after Moss, 2014)

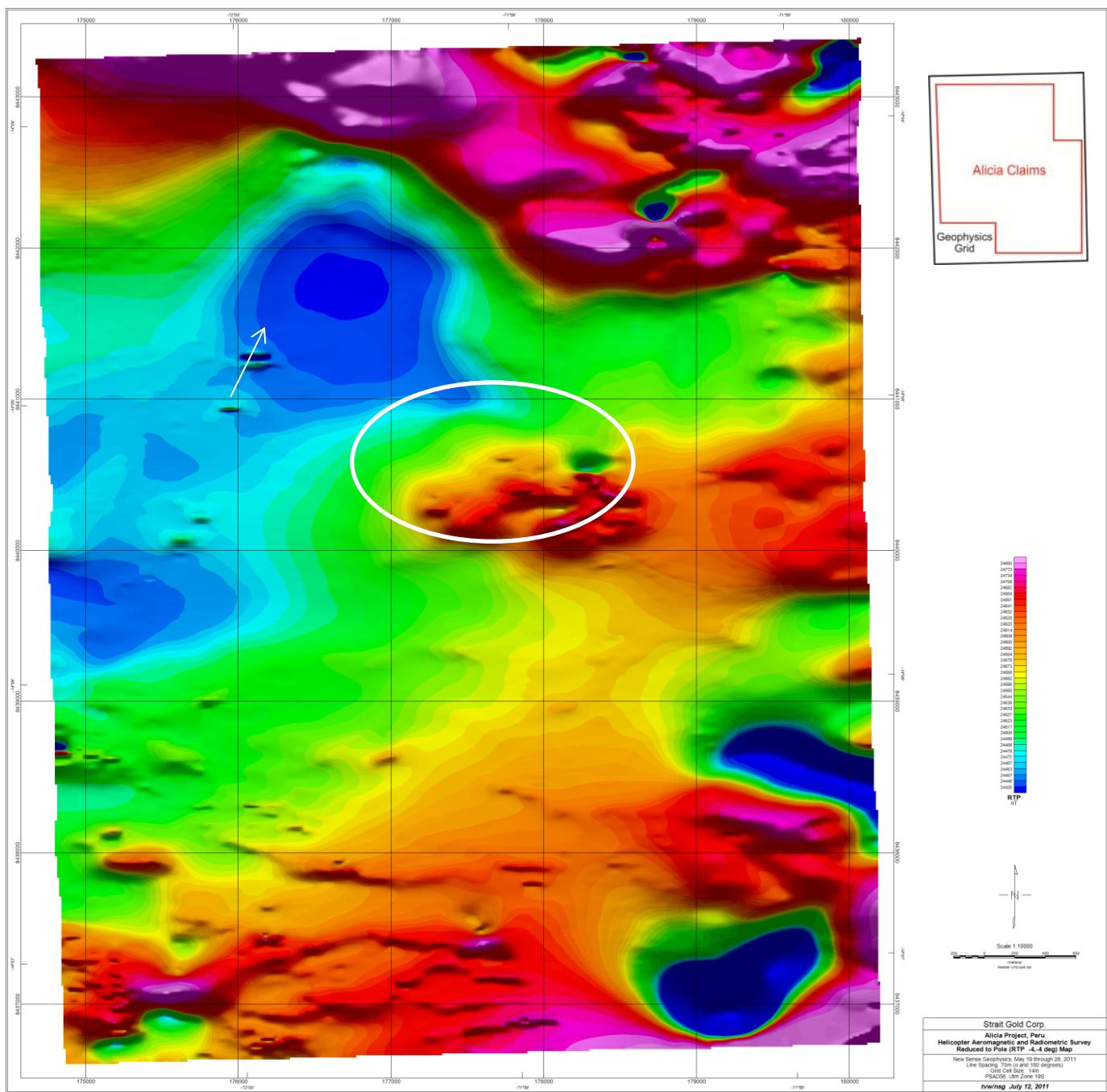


**Figure 9.6: Analytic Signal of the TMI field\***

\*(after Moss, 2014)

\*\*Note the individual skarn bodies are defined by the analytic signal highs (white ellipse).

A reduced to pole map shows deeper anomalies that are filtered out by the analytic signal. Positive magnetic anomalies are directly above magnetic source rocks. The reduced to pole map (Figure 9.7) also indicates the area of skarn mineralization and the magnetic anomaly is interpreted to be caused by the numerous skarn bodies and not by the porphyry intrusive at the center of the zone. A magnetic low to the northwest of the skarn zone is interpreted to be a non-magnetic or reverse remanent intrusive or tilted block of non-magnetic sediments. 3D magnetic modeling confirms the presence of a dipping source for the low. Anomalous copper in soil geochemistry runs from the skarn zone towards the low to the northwest.



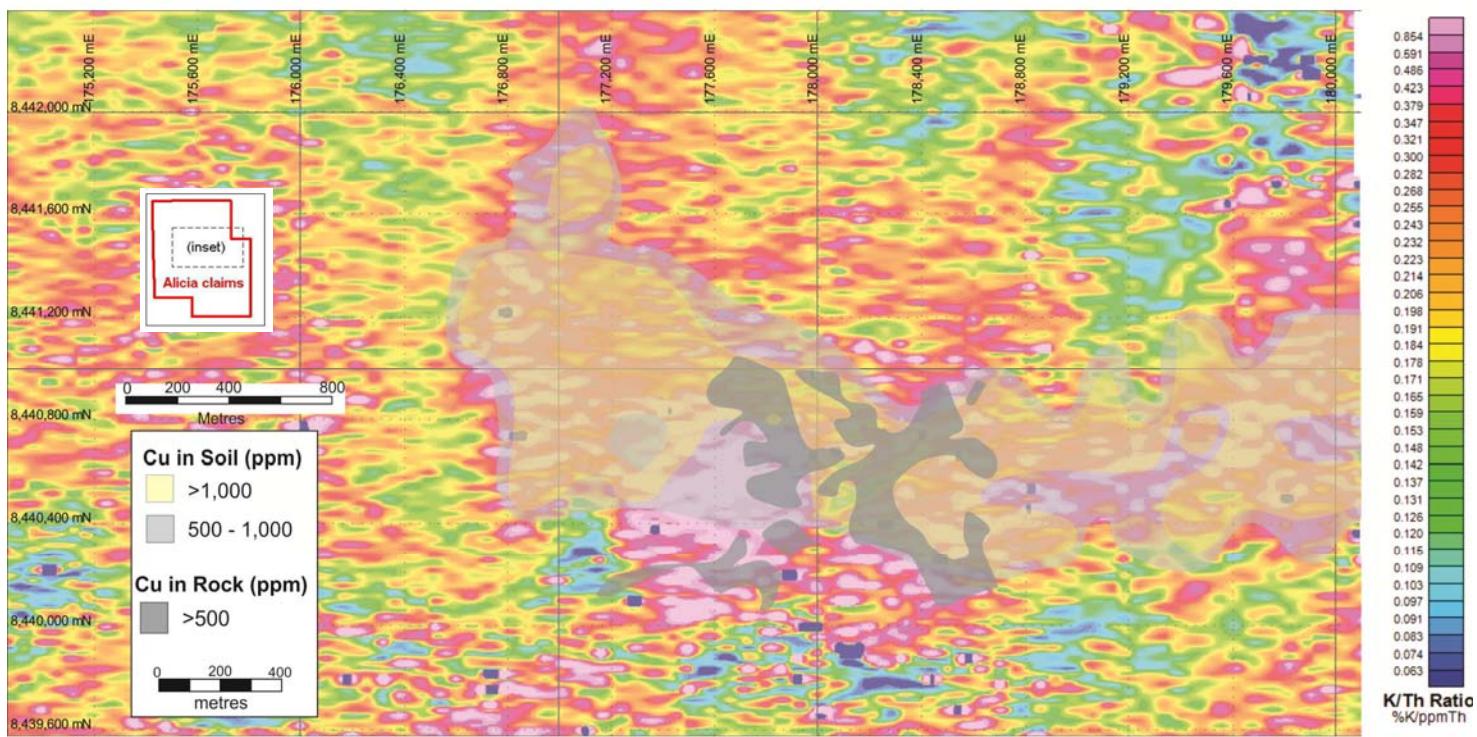
**Figure 9.7: Reduced to pole magnetic field\***

(\*after Moss, 2014)

White ellipse indicates area of skarn mineralization. A magnetic low to the NW of the skarn zone (see white arrow) is interpreted to be a non-magnetic or reverse remanent intrusive or tilted block of non-magnetic sediments.

*The results of the radiometric survey are used to map potential potassium alteration that may be associated with porphyry style mineralization. The K/Th ratio is generally used to highlight areas of potential alteration, since the Th filters out changes due to rock composition. A map of the K/Th*

ratio indicates that alteration is associated with the skarn/porphyry system and extends to the east and northwest of the known mineralized zone. The K/Th anomaly shows a very good correlation with the copper in soil anomalies described above (Figure 9.8) suggesting another target for future exploration.

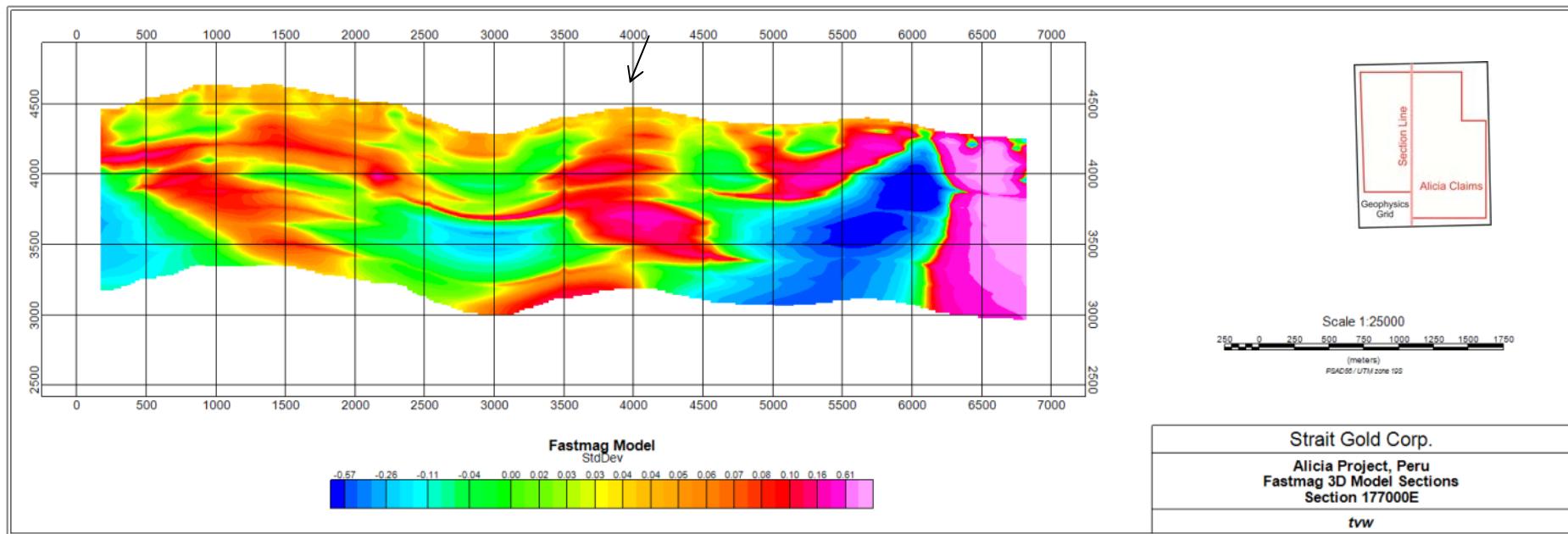


**Figure 9.8: Compilation map of copper in soil and rock overlain on K/Th radiometrics\***  
\*(after Moss, 2014)

#### 9.2.4.2 ZTEM Resistivity Survey

Geotech Limited flew 373 line kilometres of ZTEM survey over the project area. The line direction was north south with a spacing of 100 meters over the target zone opening up to 200 meters in the surrounding area. The flight lines are longer than the aeromagnetic flight lines because the minimum ZTEM line length is 10 kilometres to allow signal statistics to be adequate for calculating earth resistivity.

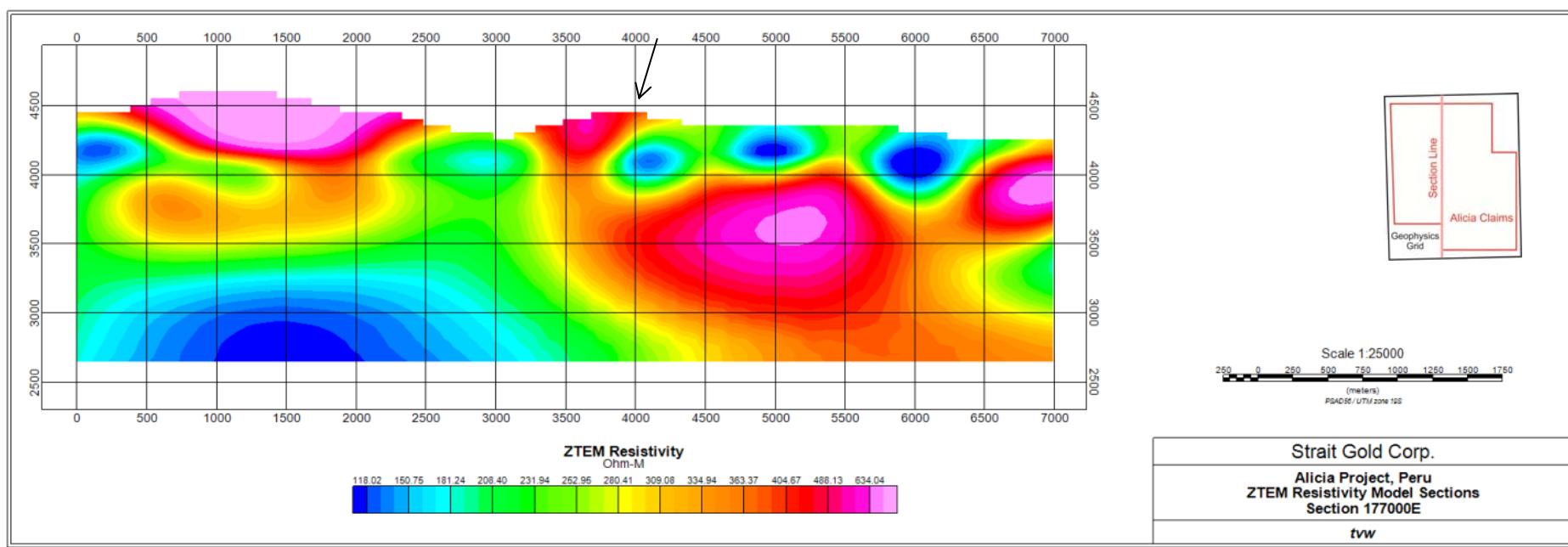
Several features are evident from a comparison of the resistivity depth sections with depth sections from the magnetic survey. The large magnetic low to the northwest of the porphyry-skarn area appears to be an inclined body, and is interpreted as an intrusive cutting through resistive limestone (Figure 9.9). A magnetic high (bright pink/red zone) above it may be indicating the presence of skarn mineralization. On the equivalent resistivity depth section (Figure 9.10) a high resistivity layer of massive limestone is indicated by the red colours. A gap at approximately 6000 on the section is interpreted to be the intrusive cutting through the limestone layer.



**Figure 9.9: Magnetic depth section from NS section 177000E\***

\*(after Moss, 2014)

(north-south coordinates are in meters from the beginning of the extracted lines. 0 is located at approximately 8,436,500N and 7000 is located at 8,443,500N).



**Figure 9.10: Resistivity depth section from NS section 177000E\***

\*(after Moss, 2014)

(Coordinates as for Figure 9.9).

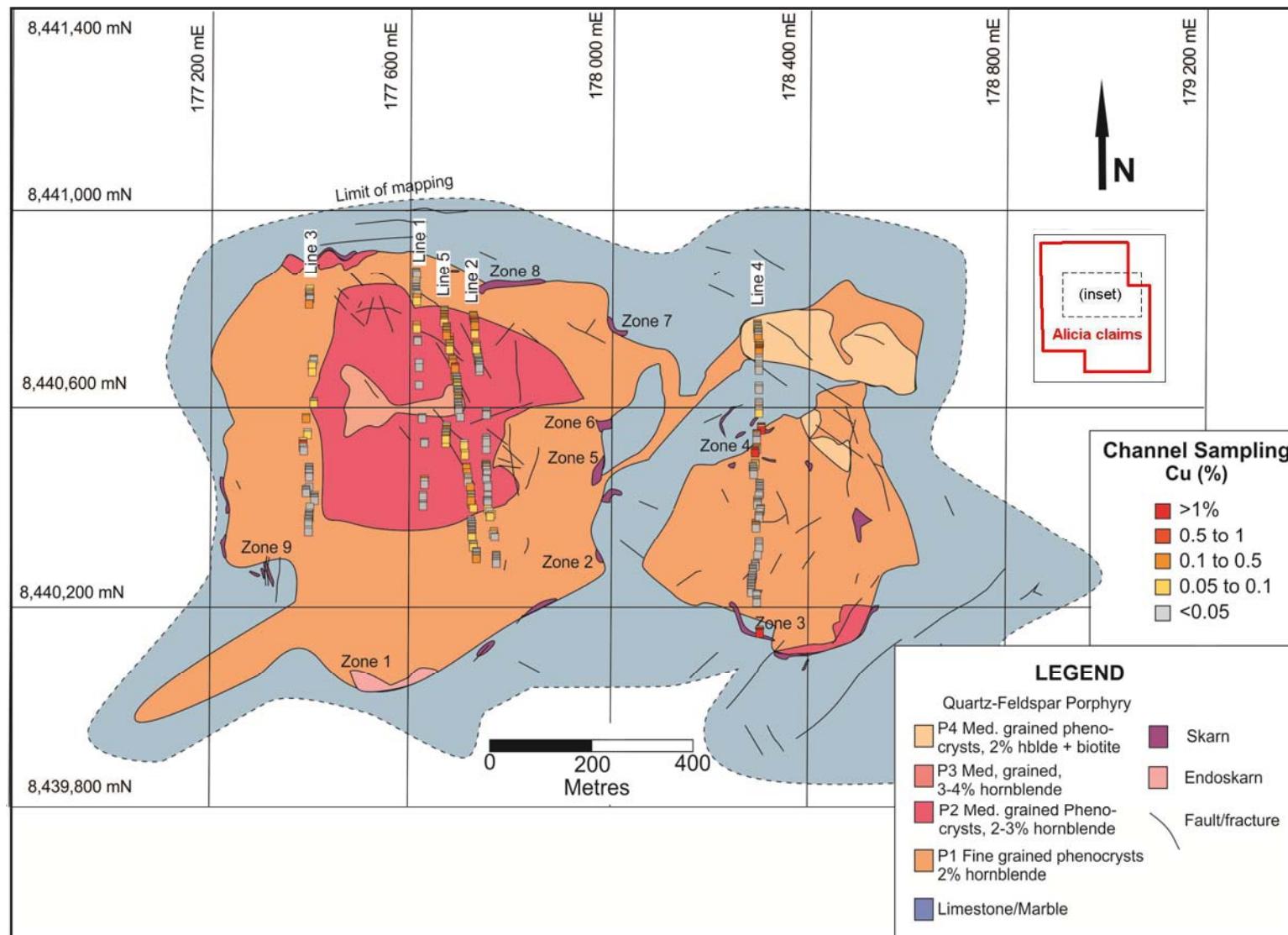
### **9.3 2012 Exploration Program**

*Exploration in 2012 focused on detailed channel sampling along north south lines corresponding to the profile lines of the proposed drill sections and regional sampling and mapping of the entire property. During the regional mapping and sampling, the polymetallic zone was sampled in greater detail.*

#### **9.3.1 Channel Sampling**

*Channel sampling was undertaken along five north-south lines across the Alicia Porphyry Complex and a total of 521 samples were collected over areas of outcrop. Most samples (93%) were two metres in length. Longer samples, typically four metres in length were taken in areas of weak mineralization.*

*Results of the sampling are summarized in Tables 9.1 and 9.2 and the distribution of the samples is shown in Figure 9.11.*



**Figure 9.11: Simplified geology of the Alicia Porphyry Complex showing copper values along channel sample lines\***  
\*(after Moss, 2014)

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Highest average values for copper, gold, molybdenum and silver are found in the skarns and breccias (Table 9.2). Among the four types of porphyry, P2 and P4 have the highest copper values (1.06 and 1.90%, respectively) as well as the highest averages (0.12 and 0.13%, respectively). Molybdenum, while generally low overall shows the highest average (1.3ppm) and the highest value (15ppm) in porphyry P1. Silver and gold show low values (<5 to 122 ppb Au and <0.3 to 7.6ppm Ag) in all porphyry types.

The porphyry style mineralization is associated with a system of structurally controlled quartz veinlets and open fractures. These veinlets and fractures are concentrated near the contact of porphyries P1 and P2 in the west, and near the P1-P4 contact in the east, which may explain the higher copper values associated with the P2 and P4 porphyries. The breccias are also found close to the P1-P2 and P1-P4 porphyry contacts.

**Table 9.1: Summary of gold, copper, molybdenum and silver values for the five channel sample lines across the Alicia Porphyry Complex.**

Channel No.	Approx Easting	No. Samples	Au (ppb)			Cu (ppm)			Mo (ppm)			Ag (ppm)		
			Avg	Max.	Min.	Avg	Max.	Min.	Avg	Max.	Min.	Avg	Max.	Min.
1	177620	41	5	40	<5	430	3,173	7	<1	<1	<1	<0.3	<0.3	<0.3
2	177750	91	15	141	<5	882	8,345	46	1.8	15	<1	0.25	2	<0.3
3	177400	68	7	132	<5	634	10,000	25	0.5	1	<1	0.17	0.6	<0.3
4	178300	152	50	1,666	<5	1,986	30,630	6	2.2	27	<1	1.53	37.3	<0.3
5	177700	169	23	301	<5	1,098	10,650	70	1.2	14	<1	0.33	7.6	<0.3

**Table 9.2: Summary of copper, gold, molybdenum and silver content of the main lithologies of the Alicia Porphyry Complex.**

Rock Type	No. Samples	Au (ppb)			Cu (ppm)			Mo (ppm)			Ag (ppm)		
		Avg	Max.	Min.	Avg	Max.	Min.	Avg	Max.	Min.	Avg	Max.	Min.
Porph. P1	269	8	85	<5	468	2,830	7	1.3	15	<1	0.2	6.1	<0.3
Porph. P2	144	23	301	<5	1,254	10,650	16	0.8	14	<1	0.3	7.6	<0.3
Porph. P3	23	4	18	<5	285	867	7	<1	<1	<1	0.2	0.3	<0.3
Porph. P4	34	11	122	<5	1,305	19,020	6	0.9	7	<1	0.4	4.7	<0.3
Skarn	17	412	1,666	<5	12,259	30,630	6	10.5	27	<1	10.5	37.3	<0.3
Breccia	18	35	396	<5	2,555	16,180	349	1.2	16	<1	0.7	12.8	<0.3
Limestone	16	3	14	<5	194	1,556	22	1.5	5	<1	0.2	1.5	<0.3

### 9.3.2 Polymetallic Zone mapping and sampling

The Alicia polymetallic zone (APZ) is located approximately 1.5km south east of the central intrusive complex (see Figure 4.2) and consists of a series of mantos and breccias with high lead, silver and zinc values and significant copper and gold values. A number of historic workings (see Figure 7.8) consisting of narrow adits and open cuts occur within gently dipping limestone of the Ferrobamba Formation. Material from the waste piles of these workings display a polymetallic assemblage of coarsely crystalline galena-sphalerite+-chalcopyrite-pyrite within a druzy to granular quartz matrix.

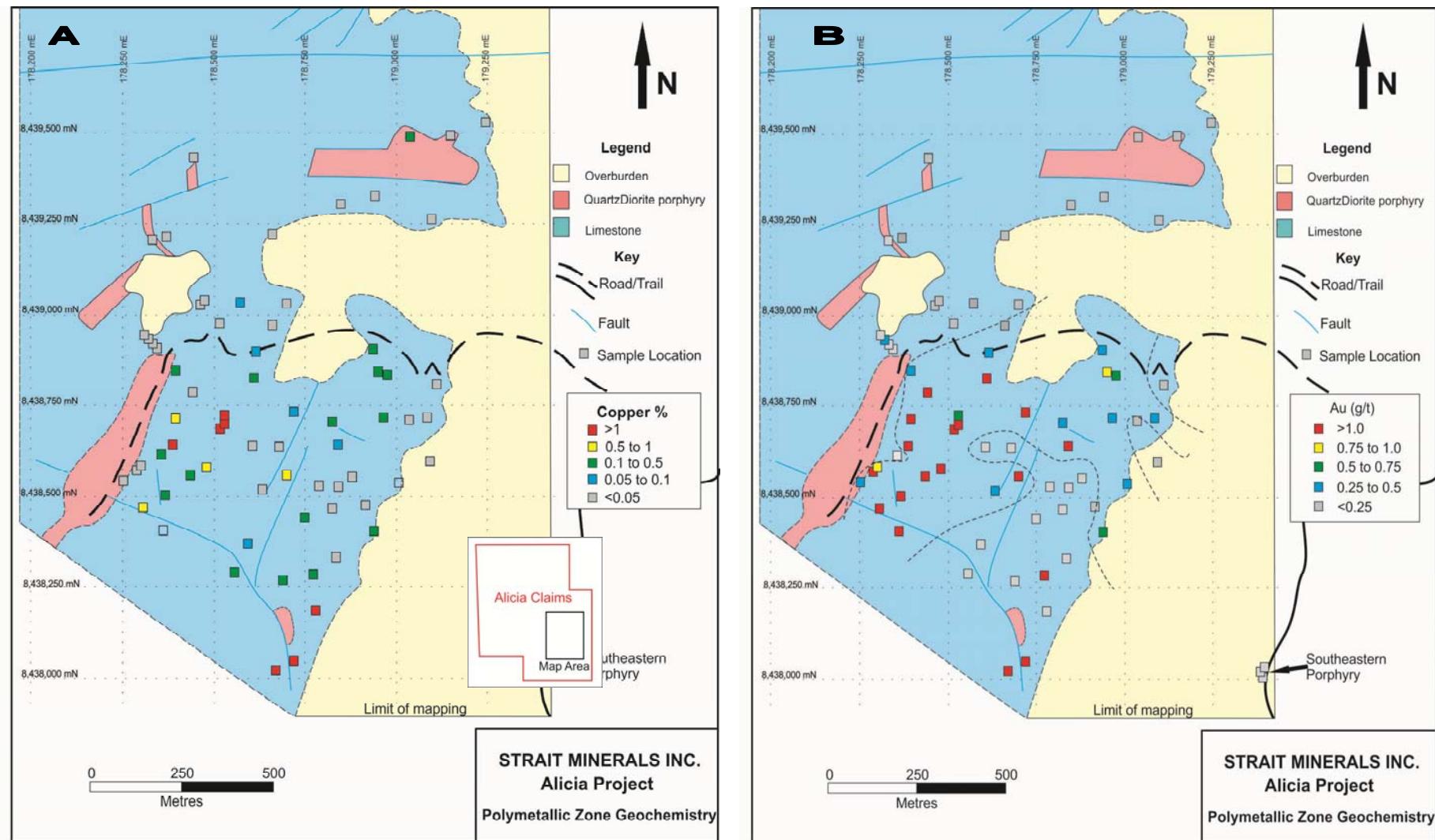
Initial results of regional scale exploration by Strait Minerals over the APZ during 2012 were encouraging. A 1,500 metre by 1,000 metre area of altered (dolomitization and recrystallization with minor garnet) limestone was outlined that contains mineralized mantos (up to 8 metres wide) and breccias (up to 6 metres wide). The density of mantos and breccias varies within the host limestone. In the better areas, the mantos are spaced less than 6 meters apart and thin bands/veins occur between them. The spacing increases to 10 (more) meters in places, with thin bands/veins between them too. There are also areas of vein breccias with regular density and areas of stockwork with veins in several directions.

A clear structural control is determined by a regional scale east - west fault whose multiple movements created a system of reverse faults in the polymetallic area that affect the host limestone. A second fault system transverse to the first system is also seen in the area.

The mantos and breccias are composed of granular silica, chalcedony and jasper, with realgar and well-crystallized barite locally associated with the chalcedony. While the mineralization observed in outcrop is mostly oxidized, the old adits expose a mixed oxide-sulphide assemblage suggesting limited depth of oxidation.

Sampling focused on the mantos and vein breccias and consisted of regular rock chip channel samples across the units on an approximate 100x100 meter grid with no sampling of the space between the mantos. A total of 75 samples were taken, 73 in mantos and breccias and two in the porphyry dykes and sills. The porphyry dikes and sills were barren. Results of the sampling are given in Table 9.3. Samples of the mantos and vein breccias show high values of gold (<0.01 to 3.27 ppm), silver (0.3 to 989ppm), copper (<0.01 to 5.8%), lead (<0.01 to >30%), and zinc (0.01 to 15.12%). There is also strong manganese to >1%, moderate arsenic typically 200ppm but up to 2,418ppm, mercury typically 4ppm but up to 28ppm and barium up to 6,180ppm. Results are shown on figure 9.12.

The mineralogy, geochemistry, texture, and strong structural-control of these showings suggest a low-sulphidation epithermal association upon initial observation, however further work is required to confirm this hypothesis, as well as to define the potential of the area.

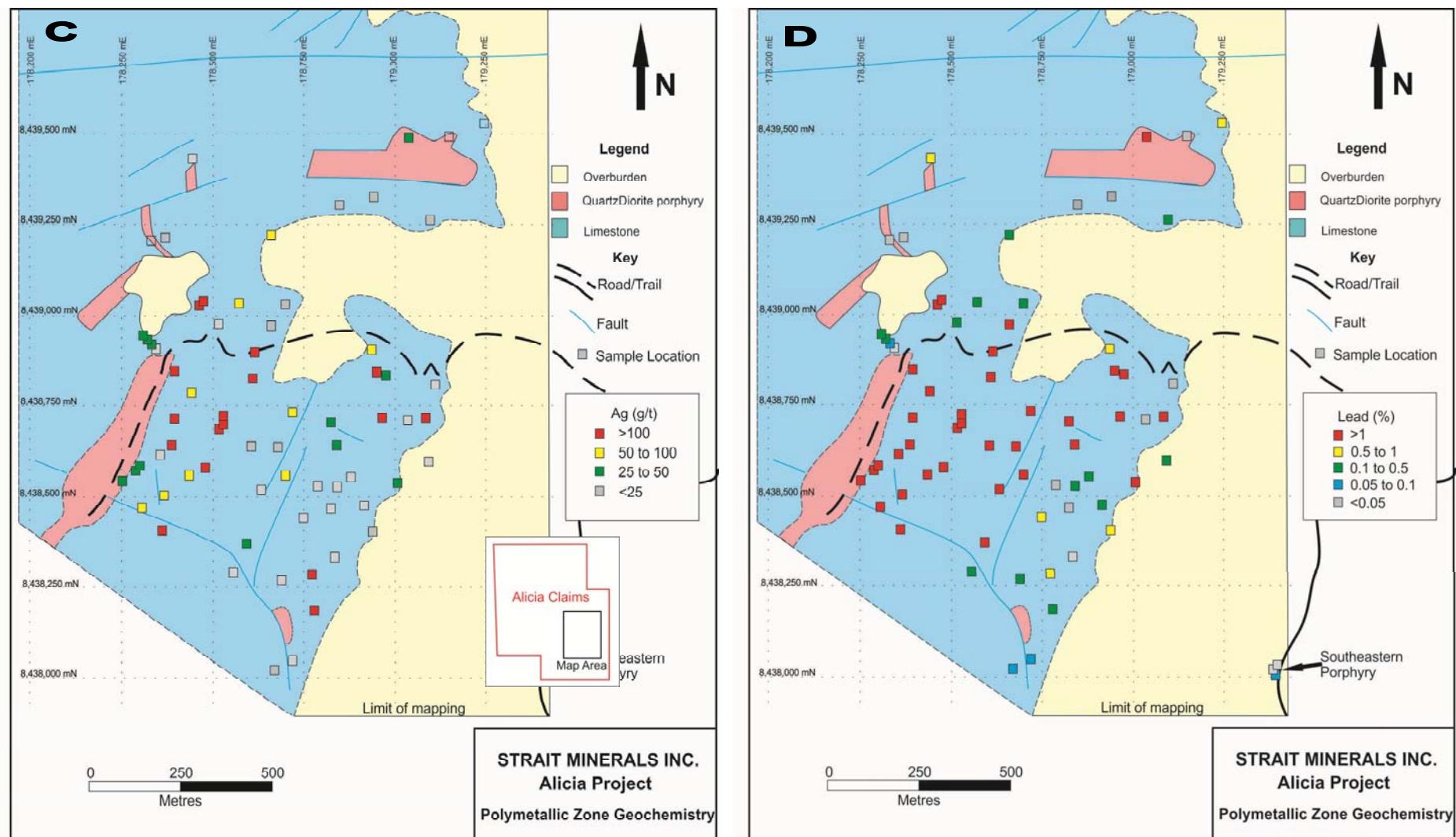
**Figure 9.12a: Geochemical plots of polymetallic zone sampling\***

A. Copper, B. Gold,  
\*(after Moss, 2014)

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**Figure 9.12b: Geochemical plots of polymetallic zone sampling\***

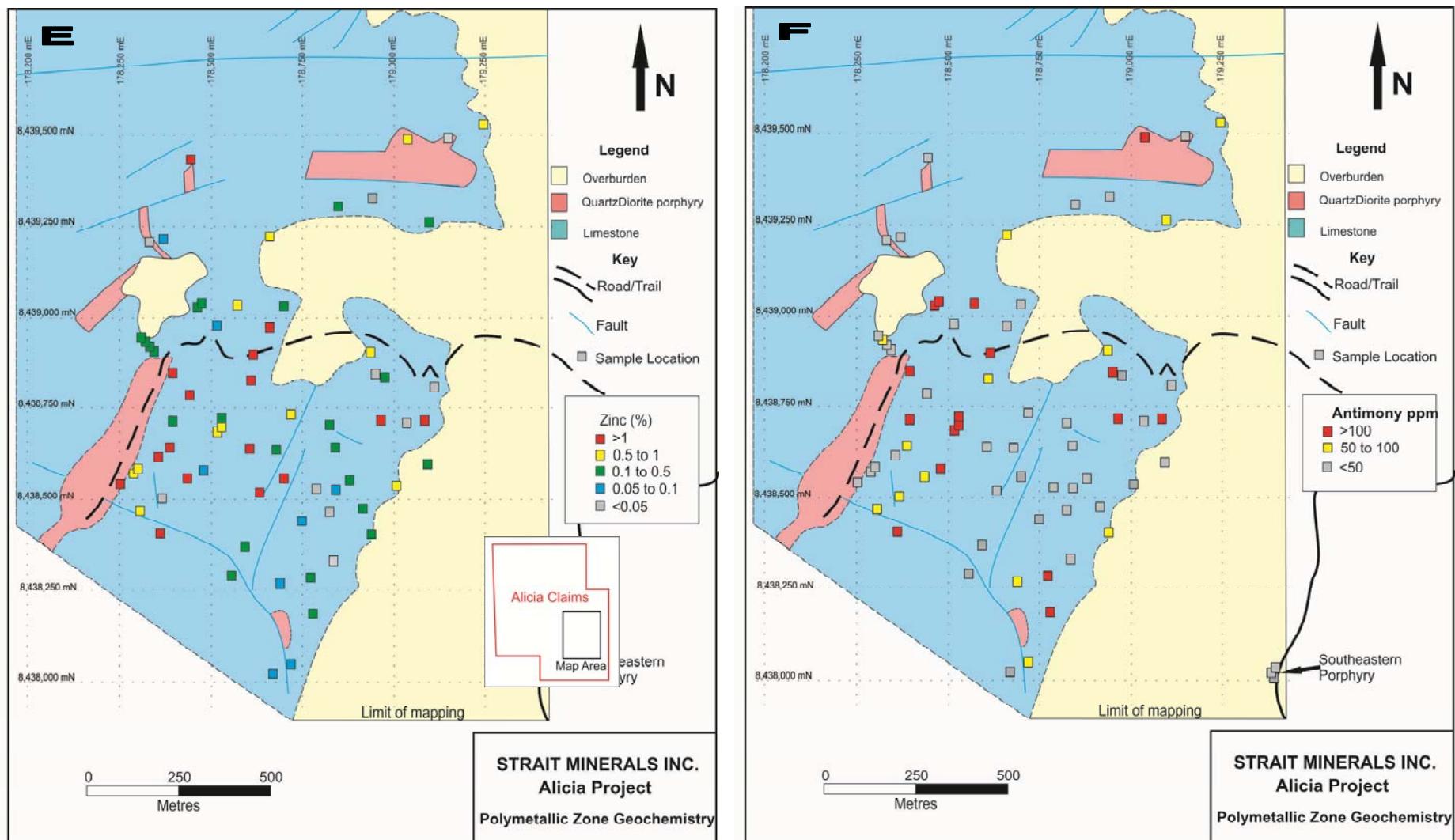
C. Silver, D. Lead

\*(after Moss, 2014)

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**Figure 9.12c: Geochemical plots of polymetallic zone sampling\***

E. Zinc F. Antimony  
 \*(after Moss, 2014)

**Table 9.3: Results of chip channel sampling of mantos and breccias in the Alicia polymetallic zone.**

Sample #	UTM Coordinates		width	Au	Ag	Pb	Zn	Cu
	easting	northing	m	g/t	g/t	%	%	%
R10711	179030	8439508	2.00	0.239	36.0	2.36	0.62	0.36
R10712	178434	8439447	2.00	0.008	12.0	0.65	2.31	0.01
R10714	178328	8438938	4.00	0.128	30.4	0.26	0.15	0.01
R10715	178330	8438934	4.00	0.316	45.3	0.27	0.19	0.01
R10716	178332	8438930	3.00	0.222	34.6	0.08	0.06	0.00
R10717	178334	8438924	4.00	0.178	2.7	0.03	0.11	0.00
R10719	178227	8438560	2.20	0.254	25.4	2.33	1.70	0.05
R10720	178275	8438585	3.00	1.255	42.6	2.23	0.83	0.05
R10721	178279	8438586	2.00	0.817	26.1	2.89	0.96	0.03
R10722	178291	8438471	3.00	1.545	93.6	9.03	0.96	0.55
R10723	178351	8438503	1.00	2.598	74.2	14.76	0.03	0.37
R10724	178355	8438410	2.00	2.625	110.0	11.75	5.37	0.50
R10725	178544	8438309	3.00	0.136	6.9	0.13	0.35	0.26
R10726	178678	8438273	2.00	0.080	4.7	0.12	0.06	0.35
R10730	180422	8437291	3.00	0.078	0.5	0.01	0.02	0.73
R10731	179403	8438019	2.00	0.070	0.5	0.02	0.04	0.01
R10732	179396	8438000	2.00	0.121	0.8	0.05	0.03	0.02
R10733	178427	8438570	0.90	1.617	63.4	9.66	6.74	0.38
R10734	178477	8438576	0.60	1.292	199.0	28.18	0.10	0.73
R10735	178347	8438628	1.60	0.178	18.2	2.84	0.84	0.02
R10736	178359	8438632	2.50	2.174	20.8	3.26	1.25	0.11
R10737	178378	8438646	0.80	1.333	147.0	15.46	4.53	2.40
R10739	178388	8438722	1.50	1.297	148.0	23.88	0.33	0.69
R10740	178374	8438857	2.50	0.250	877.0	4.47	3.51	0.16
R10741	178440	8438793	1.20	2.299	50.8	7.23	7.32	0.04
R10742	178512	8438696	1.20	3.179	201.0	8.96	0.90	2.30
R10743	178517	8438708	1.50	1.541	989.0	18.24	0.57	2.85
R10744	178513	8438712	1.00	0.728	319.0	>30.00	0.23	1.48
R10745	178606	8438828	2.50	2.085	169.0	16.11	12.66	0.39
R10746	178720	8438737	1.00	1.049	68.4	10.00	0.50	0.06
R10747	178600	8438640	0.80	0.025	14.4	1.59	1.11	0.01
R10749	178617	8438506	1.00	0.385	19.2	2.82	1.93	0.03
R10750	178577	8438370	0.50	0.220	26.4	6.36	0.11	0.09
R10751	178719	8438050	0.50	3.272	8.2	0.06	0.24	2.01
R10752	178670	8438025	0.80	3.164	17.7	0.09	0.12	5.80
R10753	178672	8438640	0.80	0.032	21.0	1.89	0.15	0.01
R10754	178701	8438562	1.20	1.266	89.4	12.56	2.64	0.87
R10755	178831	8438675	3.00	0.401	49.3	4.83	0.11	0.20

Sample #	UTM Coordinates		width	Au	Ag	Pb	Zn	Cu
	easting	northing	m	g/t	g/t	%	%	%
R10756	178970	8438722	3.00	0.342	268.0	5.40	1.96	0.27
R10757	178985	8438839	1.00	0.523	38.7	1.52	0.15	0.10
R10759	178941	8438901	2.40	0.435	51.5	0.61	0.82	0.15
R10760	178790	8438536	6.00	0.024	0.4	<0.01	0.01	<0.01
R10761	178780	8438190	1.00	0.209	390.0	0.18	0.22	1.38
R10762	178771	8438293	2.00	1.347	124.0	0.93	0.28	0.47
R10763	178746	8438435	0.80	0.158	13.2	0.62	0.07	0.36
R10764	179098	8438716	2.00	0.351	187.0	3.34	15.12	0.09
R10765	179040	8438709	2.50	0.003	1.0	0.01	0.02	<0.01
R10766	179100	8438600	0.15	0.050	4.8	0.18	0.16	<0.01
R10767	179006	8438544	0.70	0.378	25.6	2.64	0.76	0.18
R10769	178925	8438478	2.00	0.106	1.8	0.13	0.24	0.03
R10770	178880	8438552	3.00	0.234	5.6	0.30	0.31	0.04
R10771	178945	8438405	0.80	0.669	10.4	0.78	0.33	0.17
R10772	178830	8438335	0.60	0.003	0.3	0.01	0.02	<0.01
R10773	178820	8438461	1.20	0.007	3.5	0.01	0.01	0.01
R10774	178841	8438525	1.50	0.010	1.0	0.06	0.07	0.01
R10775	178840	8438650	0.80	1.132	30.2	2.81	0.26	0.06
R10776	178965	8438844	1.00	0.911	885.0	2.38	0.03	0.14
R10777	179120	8438810	0.80	0.003	1.9	0.01	0.01	<0.01
R10779	178516	8439000	2.20	0.003	1.9	0.07	0.08	<0.01
R10780	178455	8439034	3.00	0.213	107.0	0.69	0.38	0.02
R10781	178456	8439038	3.00	0.024	145.0	1.21	0.32	0.04
R10783	178364	8439216	0.60	0.009	1.1	0.03	0.05	<0.01
R10784	178566	8439035	0.50	0.098	74.7	0.21	0.80	0.05
R10785	178655	8438972	0.80	0.039	15.9	1.94	1.85	<0.01
R10786	178610	8438900	1.50	0.42	149	7.37	6.42	0.07
R10787	178695	8439032	2.00	0.04	13.0	0.42	0.48	0.02
R10788	178655	8439222	2.00	0.085	51.8	0.30	0.68	0.01
R10789	178843	8439305	2.00	0.01	2.3	0.02	0.17	0.02
R10790	178937	8439330	2.00	<0.005	1.0	<0.01	0.03	<0.01
R10791	179091	8439264	2.00	0.052	19.5	0.16	0.13	0.02

(after Moss, 2014)

## 10.0 DRILLING

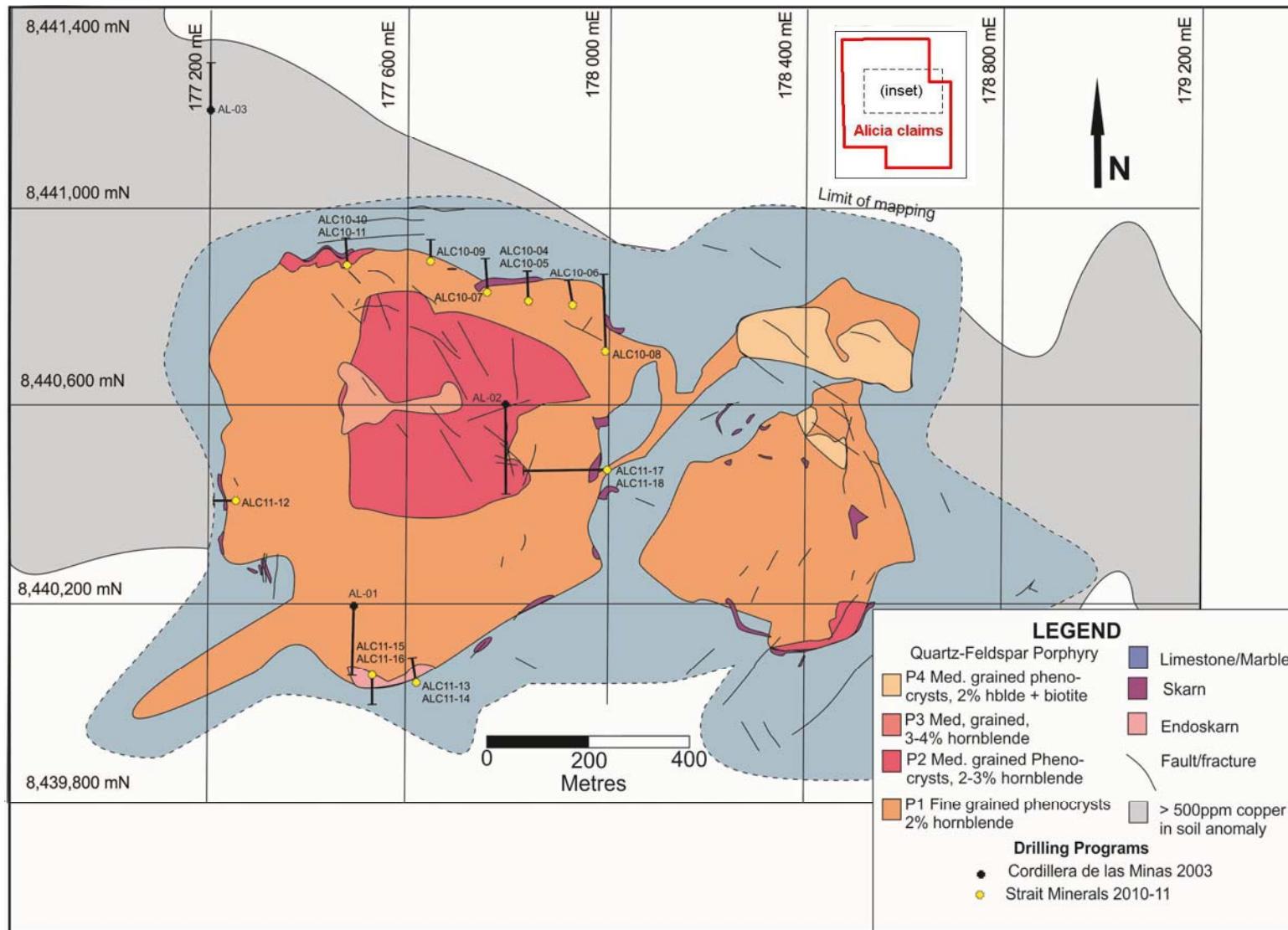
### 10.1 2010-2011 Drill Program

(from Moss 2011b)

The first drilling program undertaken at Alicia by Strait Minerals started in October 2010 and continued through to March 2011 (Moss, 2011). The main aim of the program was to test for the continuity of surface skarn mineralization along strike and at depth. A total of 1,958.85 metres of diamond drilling in 15 drill holes was carried out during the program (Table 10.1; Figure 10.1). Figure 10.1 shows the drill hole locations from the 2010/2011 program and the drill sections shown in Figures 10.2 to 10.11 follow the drill hole traces as shown on Figure 10.1.

Table 10.1: Summary of drill hole parameters.

Hole ID	Easting	Northing	Elevation(m)	Azimuth	Inclination	Length (m)
ALC10-04	177844	8440804	4418	357	-45	83.50
ALC10-05	177844	8440804	4418	357	-65	88.70
ALC10-06	177932	8440796	4429	350	-60	101.55
ALC10-07	177763	8440821	4414	357	-50	107.30
ALC10-08	177996	8440706	4496	360	-55	266.50
ALC10-09	177652	8440884	4401	360	-50	65.50
ALC10-10	177486	8440876	4398	360	-50	95.50
ALC10-11	177486	8440876	4398	360	-65	110.00
ALC11-12	177267	8440409	4503	270	-50	73.20
ALC11-13	177623	8440049	4424	350	-45	71.10
ALC11-14	177623	8440049	4424	350	-70	54.30
ALC11-15	177536	8440064	4426	180	-40	74.70
ALC11-16	177536	8440064	4426	180	-60	153.60
ALC11-17	178000	8440470	4544	270	-60	335.00
ALC11-18	178000	8440470	4544	270	-90	278.40
<b>TOTAL</b>						<b>1958.85</b>

**Figure 10.1: Drill hole location plan 2011\***

\*(after Moss, 2014)

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Eight of the fifteen holes were drilled along the northern contact, which is roughly coincident with the chargeability anomaly that runs east-west in this area. High grade ( $>1\%$ Cu) mineralization was intersected in seven of the eight holes over a strike length of approximately 600 metres. All holes along the north contact were collared in the intrusive, and drilled northwards through the skarn and into the limestone. A summary of the significant intersections is given in Table 10.2.

Hole ALC10-04 was drilled to the north at an inclination of  $45^\circ$  and intersected approximately 45 metres of weakly altered quartz feldspar porphyry, before hitting skarn mineralization at 45.7 metres (Figure 10.2). Copper mineralization in the skarn is dominantly in the form of bornite and chalcocite, with minor malachite and graded 1.26% Cu over a true width of 20.4 metres. The hole intersected limestone at 65.3 metres, and was stopped at 83.5 metres.

Hole ALC10-05 was drilled to the north at an angle of  $65^\circ$  from the same collar as ALC10-04, and intersected 65.8 metres of quartz feldspar porphyry prior to reaching the target skarn mineralization (Figure 10.2). The mineralization, comprised of bornite, chalcocite and minor malachite, and grading up to 4.35% copper, 0.71 g/t gold, and 33.2 g/t silver over 1.2 metres, was intersected over a true width of 21.2 metres before the hole was abandoned while still in the skarn mineralization, due to poor ground conditions.

Hole ALC10-06 intersected 60 metres of weakly altered (chlorite-sericite) quartz feldspar porphyry with quartz veinlets and traces of chalcopyrite prior to 30 metres of alternating quartz feldspar porphyry and skarn before ending in limestone (Figure 10.3). The best interval of skarn mineralization graded 5.42% Cu, 0.79 g/t Au, 75.3 g/t Ag and 0.062% Mo over 2.06 metres (0.87 metres true width) in diopside-garnet skarn. A wider interval of 16 metres (11.89m true width) graded 0.58% Cu, 0.05 g/t Au, 4.1g/t Ag and 0.028% Mo.

Hole ALC10-07 intersected 63 metres of quartz feldspar porphyry with minor quartz veining and a trace of malachite before 14 metres of mostly garnet skarn mineralization followed by alternating diopside skarn and marble and finally limestone (Figure 10.4). The skarn mineralization graded mostly less than 1% copper with the exception of a narrow zone between 63.6 and 64.6 metres.

Hole ALC10-08 intersected 0.11% copper between 19.5 metres and 74 metres in altered quartz feldspar porphyry before entering the skarn (Figure 10.5). The main copper mineral in the porphyry is malachite, which is associated with quartz-sericite alteration with variable magnetite. Skarn mineralization between 78 and 82 metres contained massive malachite and native copper. Skarn mineralization, interbedded with marble persisted until 153 metres, the longest interval of skarn drilled to date.

Hole ALC10-09, did not intersect high grade mineralization, but did intersect 0.38% copper, 0.11 g/t gold and 7.1 g/t silver over a true width of 1.54 metres (Figure 10.6), indicating continuity of mineralization across the entire 600 metres that have been drill tested along the north contact.

Holes ALC10 and 11 were collared from the same platform and drilled to the north (Figure 10.7). ALC11-12 was collared to test outcropping skarn mineralization on the western contact of the intrusion approximately 500 metres south of the most westerly holes drilled in the 2010 program. It intersected 1.07% Cu, 0.23 g/t Au, and 6.2 g/t Ag over 12.5 metres (8.71 metres true width).

ALC11-13 and -14 were drilled from the same platform on Zone 1 along the south porphyry/limestone contact, approximately 500 metres southeast of hole ALC11-12. Hole ALC11-13 intersected 0.80% Cu and 1.8 g/t Ag over 5.8 metres (3.88 metres true width). ALC11-14 intersected 0.73% Cu, 3.4 g/t Ag and 0.029% Mo over 7.9 metres (5.59 metres true width) in the same skarn zone (Figure 10.8). This intersection, the first hole on the project to indicate significant molybdenum content, included 0.16% Mo over one metre of brecciated garnet skarn.

ALC11-15 was collared approximately 100 metres west of ALC11-13 and -14 and intersected 0.36% Cu, 2.0 g/t Ag with anomalous gold and molybdenum over 10.05 metres (6.72 metres true width). Hole ALC11-16 was drilled from the same platform as ALC11-15, and intersected two skarn zones from 32.7 to 78.5 metres and 92.9 to 94.3 metres as well as a brecciated skarn zone between 127.5 and 132.5 metres (Figure 10.9). This breccia zone contained strong copper mineralization in the form of bornite with minor chalcocite and assayed 2.42% Cu, 0.36 g/t Au and 19.9 g/t Ag.

Hole ALC11-17 intersected skarn mineralization from 18.5 to 37.0 metres that assayed 1.2% Cu, 0.15 g/t Au, 13.3 g/t Ag and 0.012% Mo. The copper mineralization is dominantly in the form of bornite with lesser chalcocite. Hole ALC11-17 also intersected variably altered quartz feldspar porphyry between 34.2 and 240 metres (Figure 10.10). The porphyry contained quartz veinlets and stockwork, as well as disseminated chalcopyrite with minor bornite and molybdenite.

Hole ALC11-18 intersected weak skarn mineralization between 105.6 and 107.7 metres (Figure 10.11) and a second skarn breccia zone between 215.93 and 230.05 metres. The hole also intersected quartz feldspar porphyry with similar characteristics to that in hole ALC11-17.

Higher grade mineralization is consistently associated with the development of bornite in the skarn. Associated copper minerals present to varying degrees include chalcopyrite, chalcocite and native copper. Where the skarn is well developed, it is typically graded from green-brown garnet skarn at the porphyry contact out through green garnet to green pyroxene - rich skarn closest to the limestone. The highest grades of copper mineralization frequently occur in the garnet skarn.

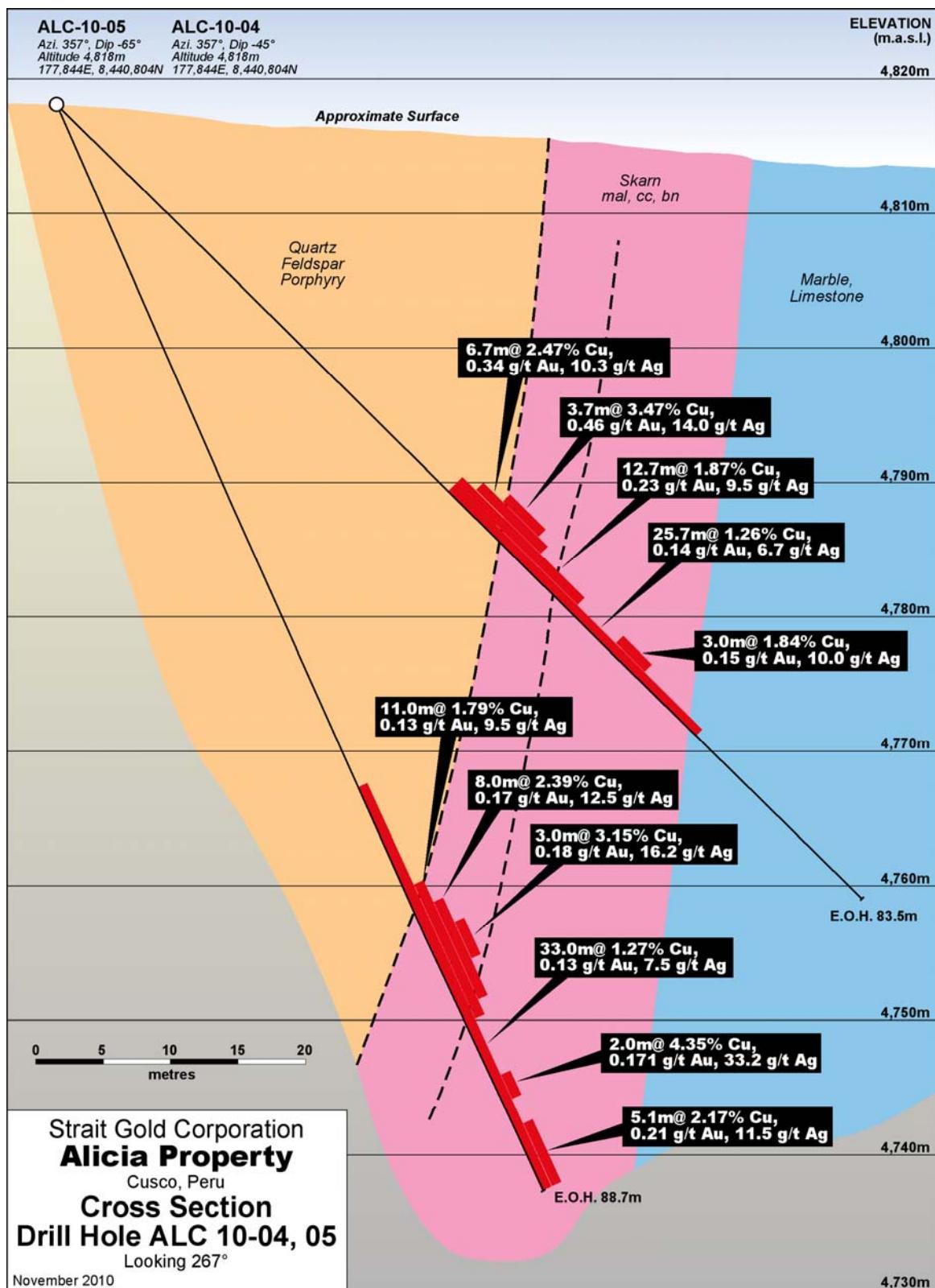
**Table 10.2: Highlights of drill intersections from 2010-11 drill program\***

Hole Id	Depth (m)	From (m)	To (m)	Intersection (m)	True Width (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)
ALC10-4	83.5	40.6	66.3	25.7	20.4	1.26	0.14	6.7	0.005
including		40.6	53.3	12.7	10.3	1.87	0.23	9.5	0.004
Including		42	48.7	6.7	5.7	2.47	0.34	10.3	0.001
including		44	47.7	3.7	3.2	3.47	0.46	14	0.001
ALC10-05	88.7	55.7	88.7	33	21.2	1.27	0.13	7.5	0.019
including		64	75.8	11	7.1	1.79	0.13	9.5	0.024
Including		65.8	73.8	8	5.1	2.39	0.17	12.5	0.029
including		67.8	70.8	3	2	3.15	0.18	16.2	0.001
and		79.6	81.6	2	1.2	4.35	0.71	33.2	0.067
ALC10-06	101.55	57.25	60.15	2.9	2.28	0.49	0.08	2.3	0.007

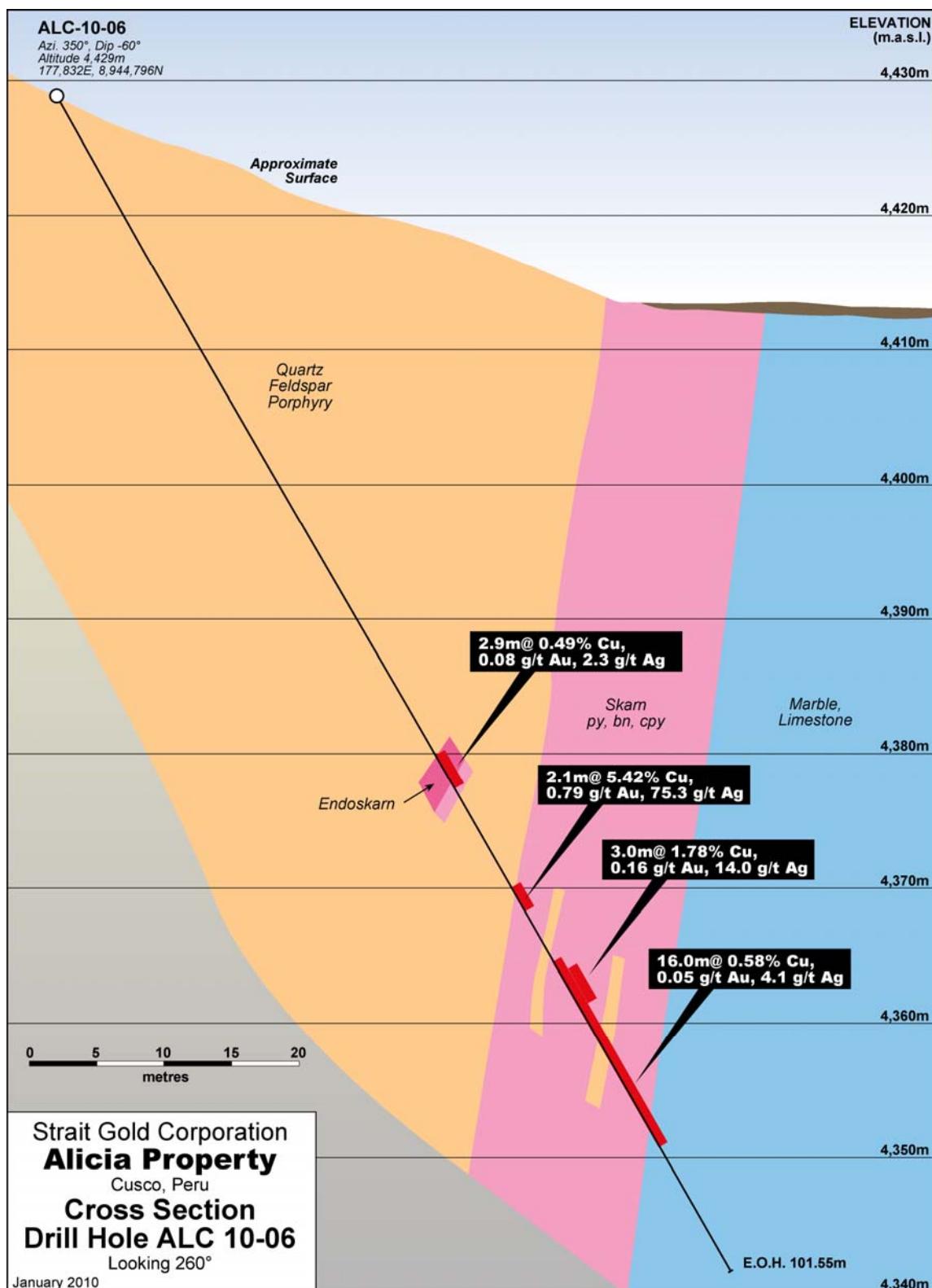
Hole Id	Depth (m)	From (m)	To (m)	Intersection (m)	True Width (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)
		68.64	70.7	2.06	0.87	5.42	0.79	75.3	0.062
		75	91	16	11.89	0.58	0.05	4.1	0.028
including		76	79	3	1.93	1.78	0.16	14	0.099
ALC10-07	107.3	62.65	66.6	3.95	2.09	0.79	0.03	1.3	0.001
including		63.6	64.6	1	0.53	2.09	0.04	1.4	0.002
		75.6	76.6	1	0.77	0.55	0.06	4.7	0.023
		83.6	89	5.4	4.14	0.37	0.03	2.6	0.010
ALC10-08	266.5	43	172.5	129.5	94.25	0.33	0.04	1.8	0.003
including		74	124.5	50.5	37.23	0.64	0.08	3.2	0.002
including		74	83.55	9.55	7.82	1.76	0.21	6.6	0.003
and		104.5	108.95	4.45	2.86	1.16	0.16	7	0.004
		115.5	118.5	3	1.92	0.45	0.07	3.2	0.006
Hole Id	Depth (m)	From (m)	To (m)	Intersection (m)	True Width (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)
ALC10-09	65.5	18.5	20.2	1.7	1.54	0.38	0.11	7.1	0.001
		49	53.5	4.5	2.89	0.19	0.02	32.7	0.002
ALC10-10	95.5	26	41	15	11.15	0.61	0.06	5.4	0.002
including		26	30.5	4.5	2.25	1.09	0.13	5.7	0.002
and		38.5	39.8	1.3	0.97	1.48	0.09	22	0.003
		43.4	62.7	19.3	13.65	0.32	0.04	18.9	0.006
including		43.4	49	5.6	3.96	0.55	0.11	10.5	0.012
ALC10-11	110	31.4	43.5	12.1	10.68	1.32	0.14	6.4	0.007
including		31.4	38.4	7	6.18	2.15	0.22	9.8	0.012
		46.5	56	9.5	8.39	0.13	0.01	4.9	0.003
including		46.5	50	3.5	3.1	0.2	0.01	3.8	0.001
ALC11-12	73.2	55.5	72	16.5	11.59	0.83	0.17	4.8	0.001
including		57.5	70	12.5	8.71	1.07	0.23	6.2	0.001
including		59.5	65.1	5.6	4.38	1.80	0.46	10.5	0.001
ALC11-13	71.1	15.35	27.6	12.25	8.2	0.62	0.03	1.6	0.007
including		21.8	27.6	5.8	3.88	0.80	0.03	1.8	0.009
including		23.8	27.6	3.8	2.54	1.02	0.03	3.5	0.008
ALC11-14	54.3	22	41.5	19.5	13.79	0.60	0.06	2.3	0.021
including		36	38.3	2.3	1.63	1.67	0.10	5.0	0.018
and		23.1	31	7.9	5.59	0.73	0.08	3.4	0.029
ALC11-15	74.7	13.7	15.9	2.2	1.5	0.81	0.08	3.7	0.001
and		22.3	32.35	10.05	6.72	0.36	0.04	2.0	0.007
ALC11-16	153.6	13	145	134	NA	0.29	0.03	1.8	0.004
including		46.25	56	9.75	6	1.27	0.07	3.8	0.032
and		127.5	132.5	5	3.28	2.42	0.36	19.9	NSV

Hole Id	Depth (m)	From (m)	To (m)	Intersection (m)	True Width (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)
ALC11-17	335	13	211.5	198.5	NA	0.16	0.02	1.7	0.002
including		50	65.5	15.5	9.33	0.13	0.02	3.5	0.001
and		18.5	37	18.5	11.13	1.2	0.15	13.3	0.012
including		26.7	33.5	6.8	4.09	2.16	0.24	29.7	0.012
ALC11-18	278.4	216.4	224.5	8.15	5.24	0.47	0.11	4.1	0.098
including		221.4	223.5	2.15	1.38	0.8	0.17	6.3	0.207

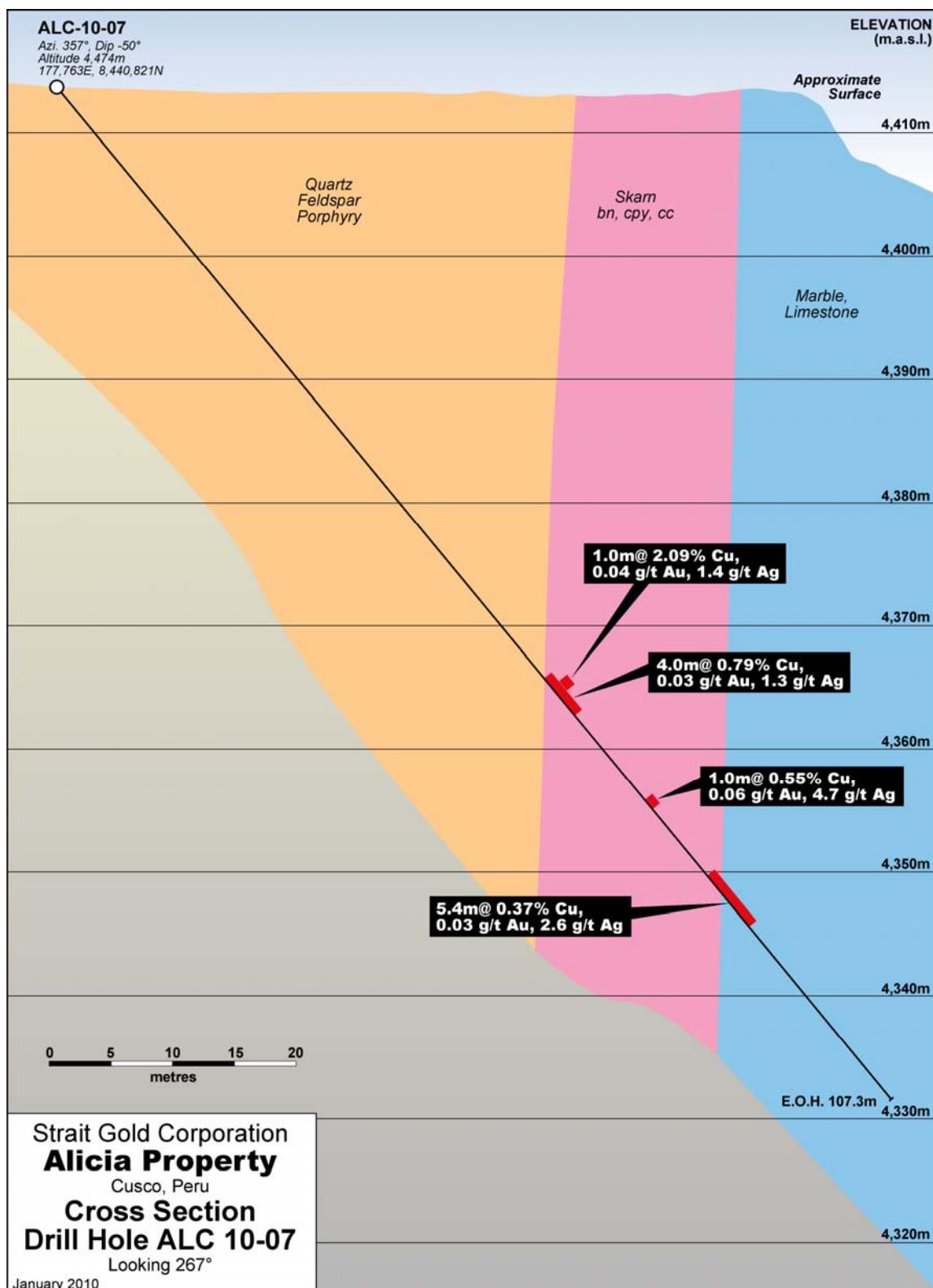
\*(after Moss, 2011b) NA: Not Applicable, NSV No Significant Values

**Figure 10.2: Cross section of Hole ALC10-04 and -05\***

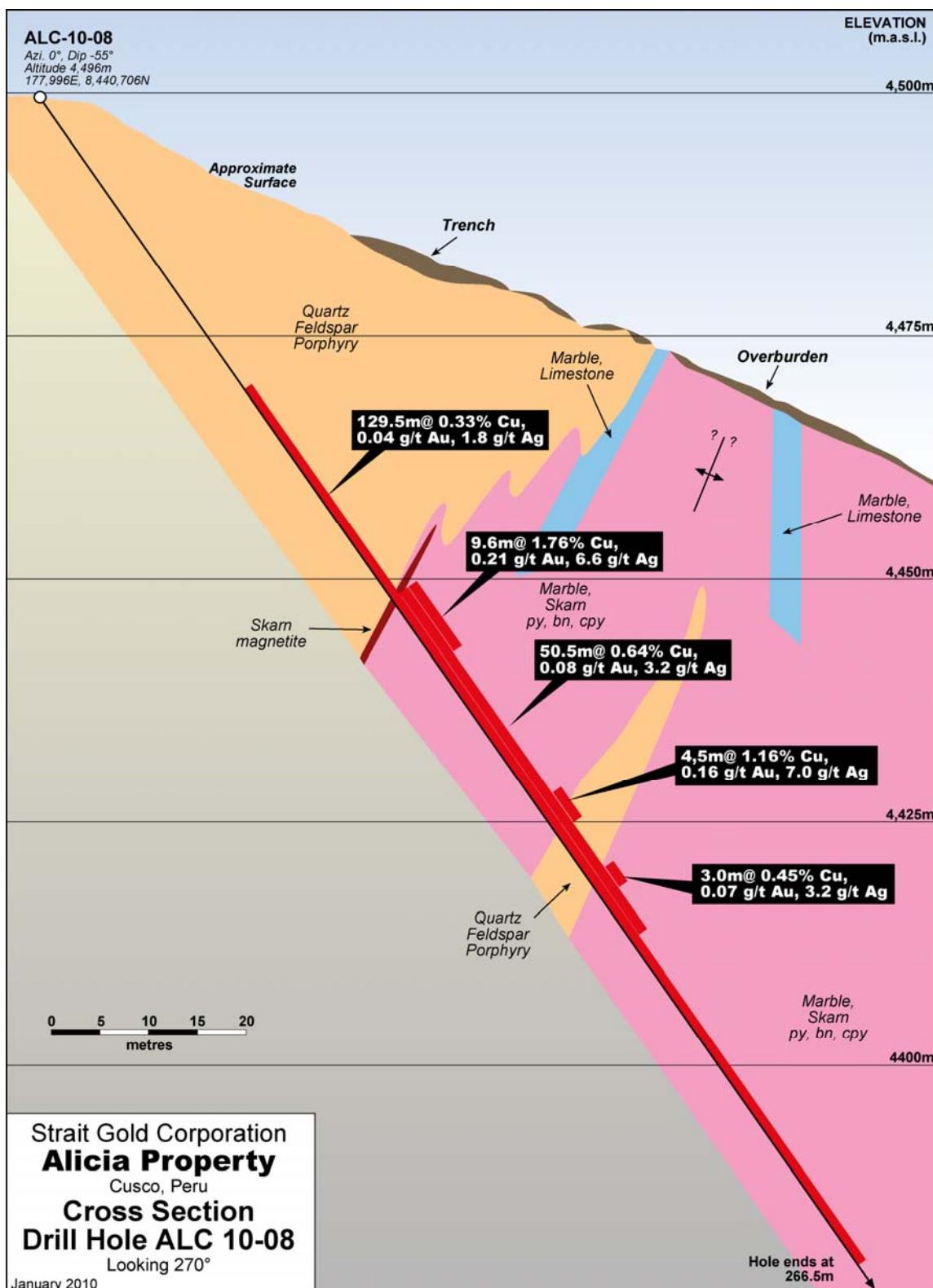
\*(after Moss, 2011)

**Figure 10.3: Cross section of Hole ALC10-06\***

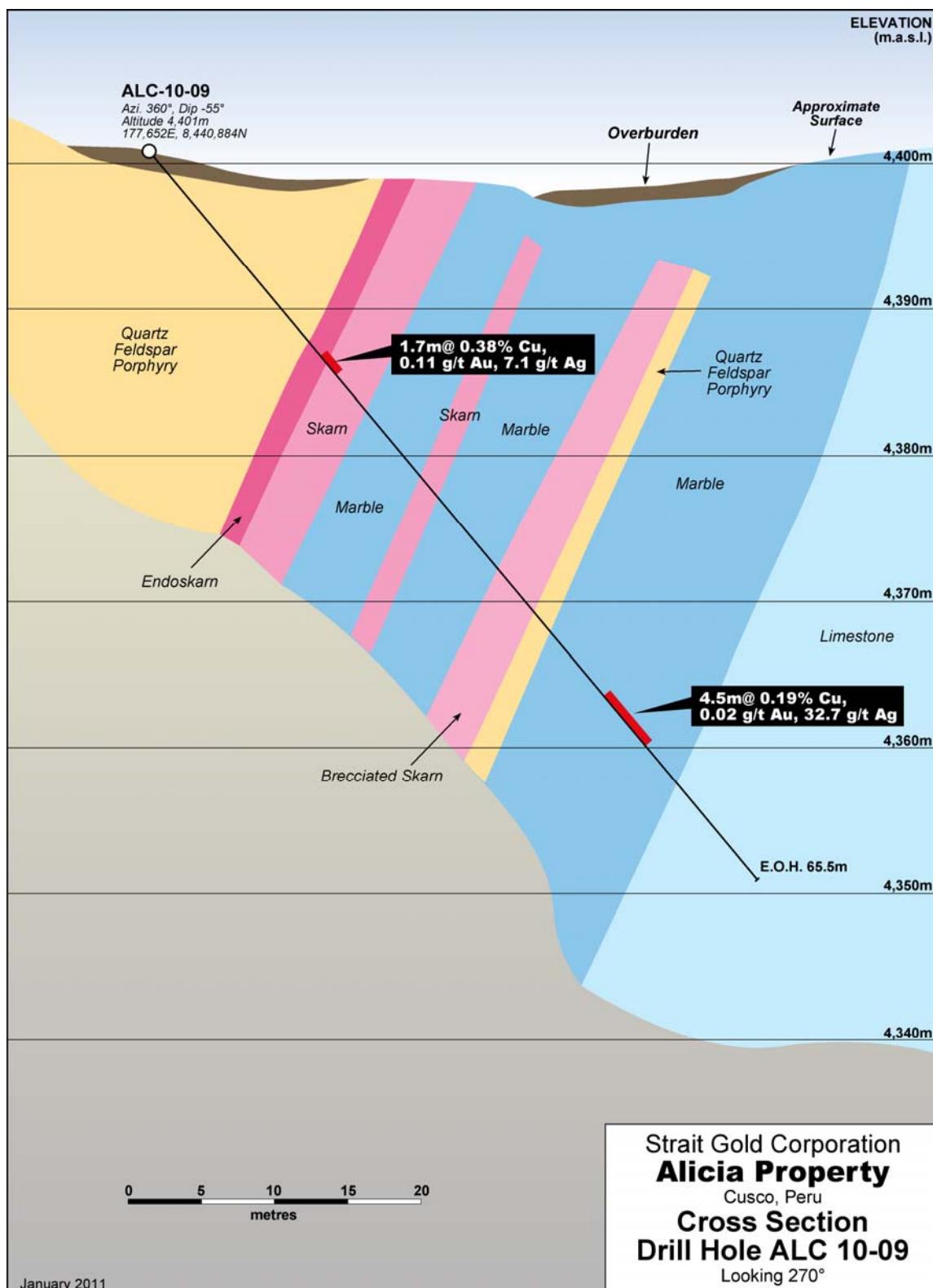
\*(after Moss, 2011)

**Figure 10.4: Cross Section of drill hole ALC10-07\***

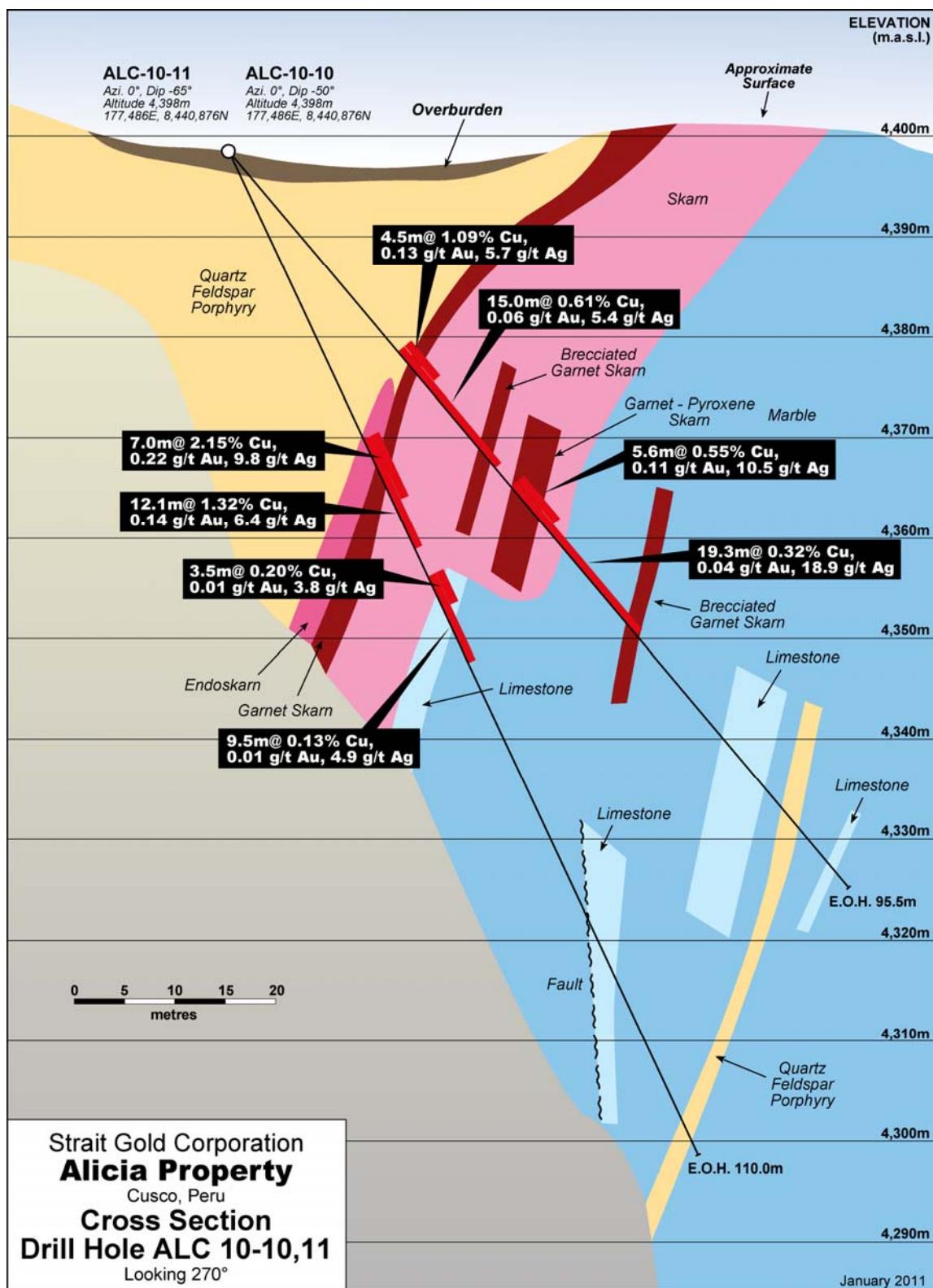
\*(after Moss, 2011)

**Figure 10.5: Cross section of drill hole ALC10-08\***

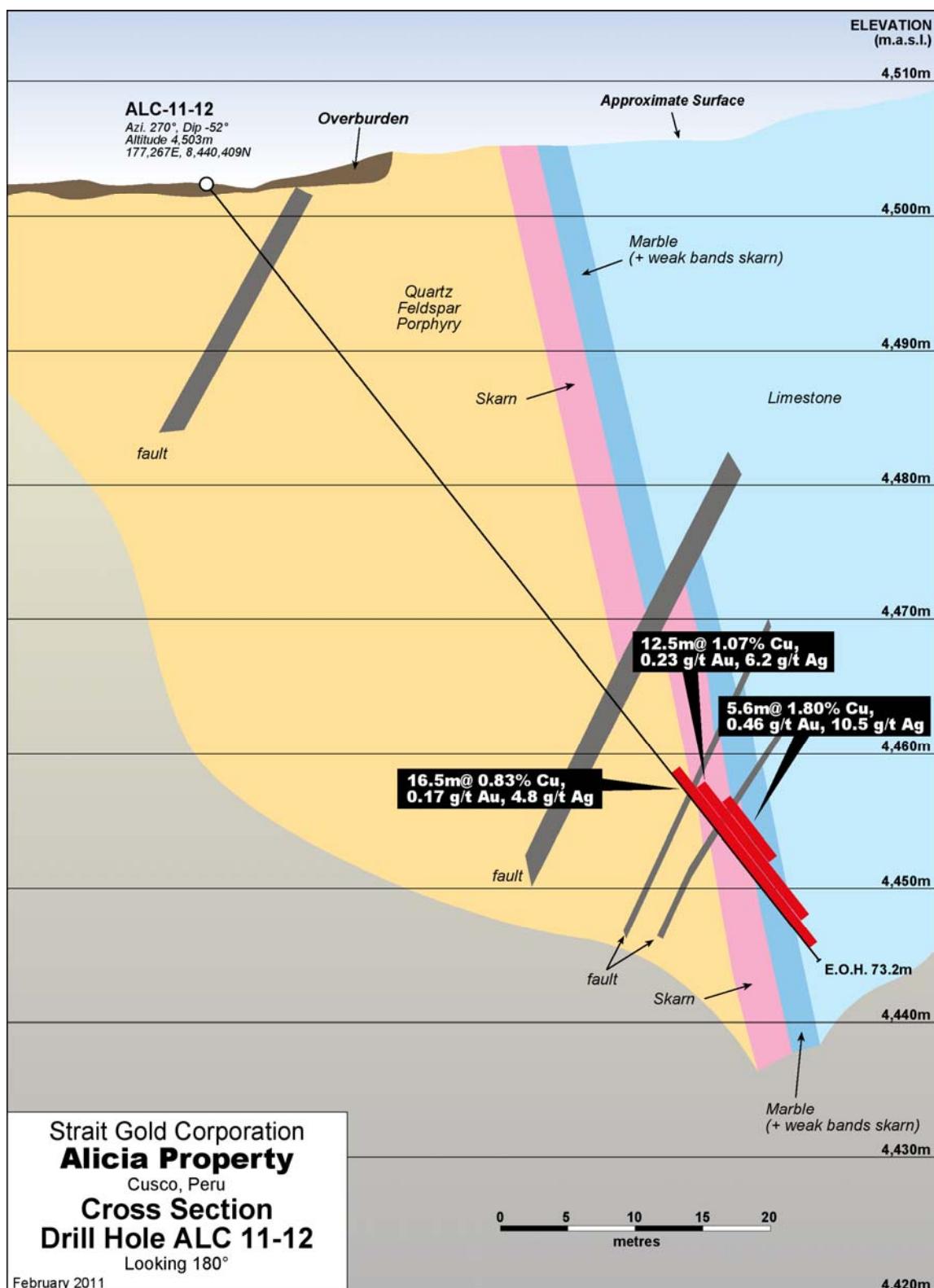
\*(after Moss, 2011)

**Figure 10.6: Cross section of Hole ALC10-09\***

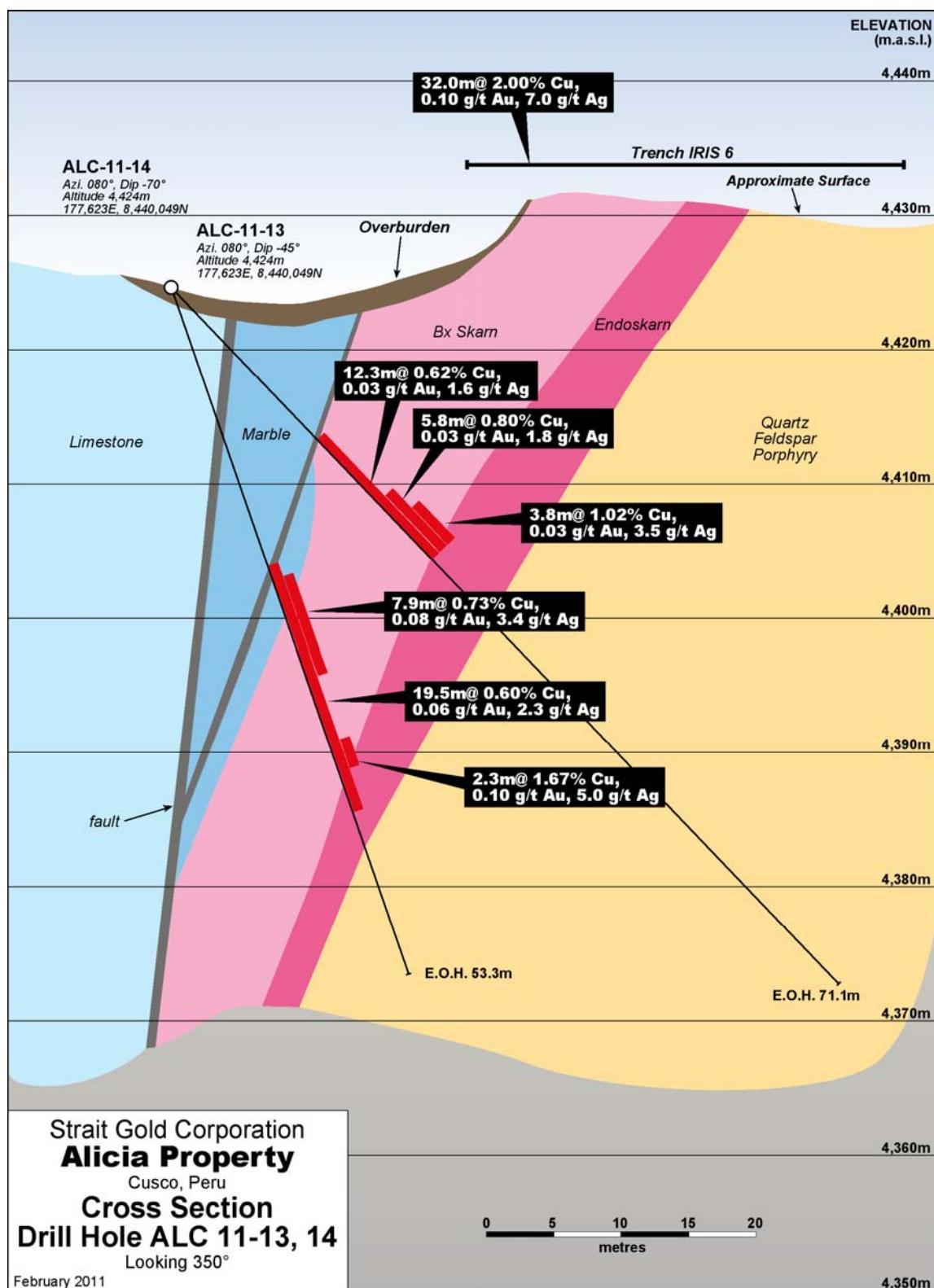
\*(after Moss, 2011)

**Figure 10.7: Cross section of drill holes ALC10-10 and -11\***

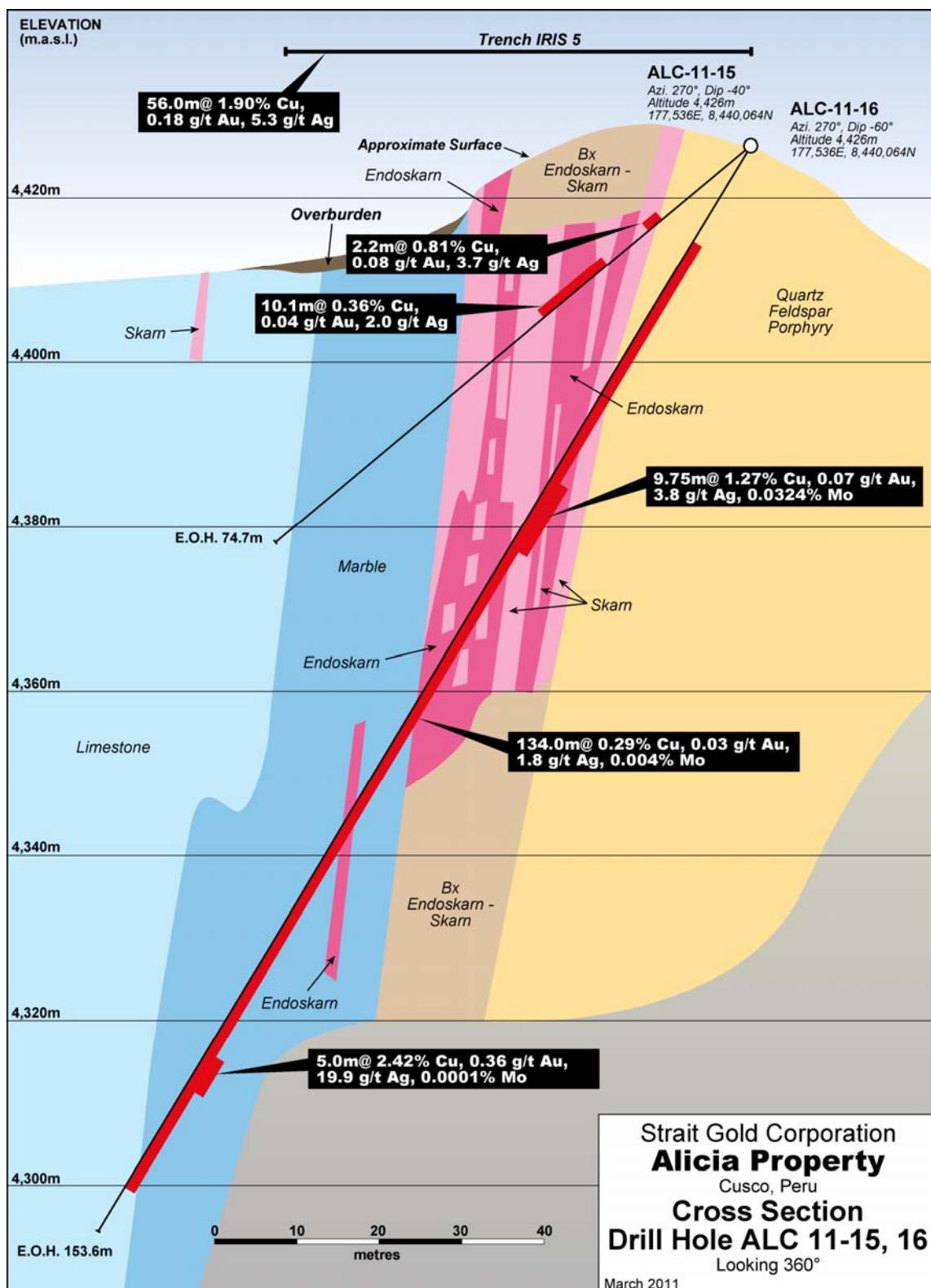
\*(after Moss, 2011)

**Figure 10.8: Cross section of Hole ALC11-12\***

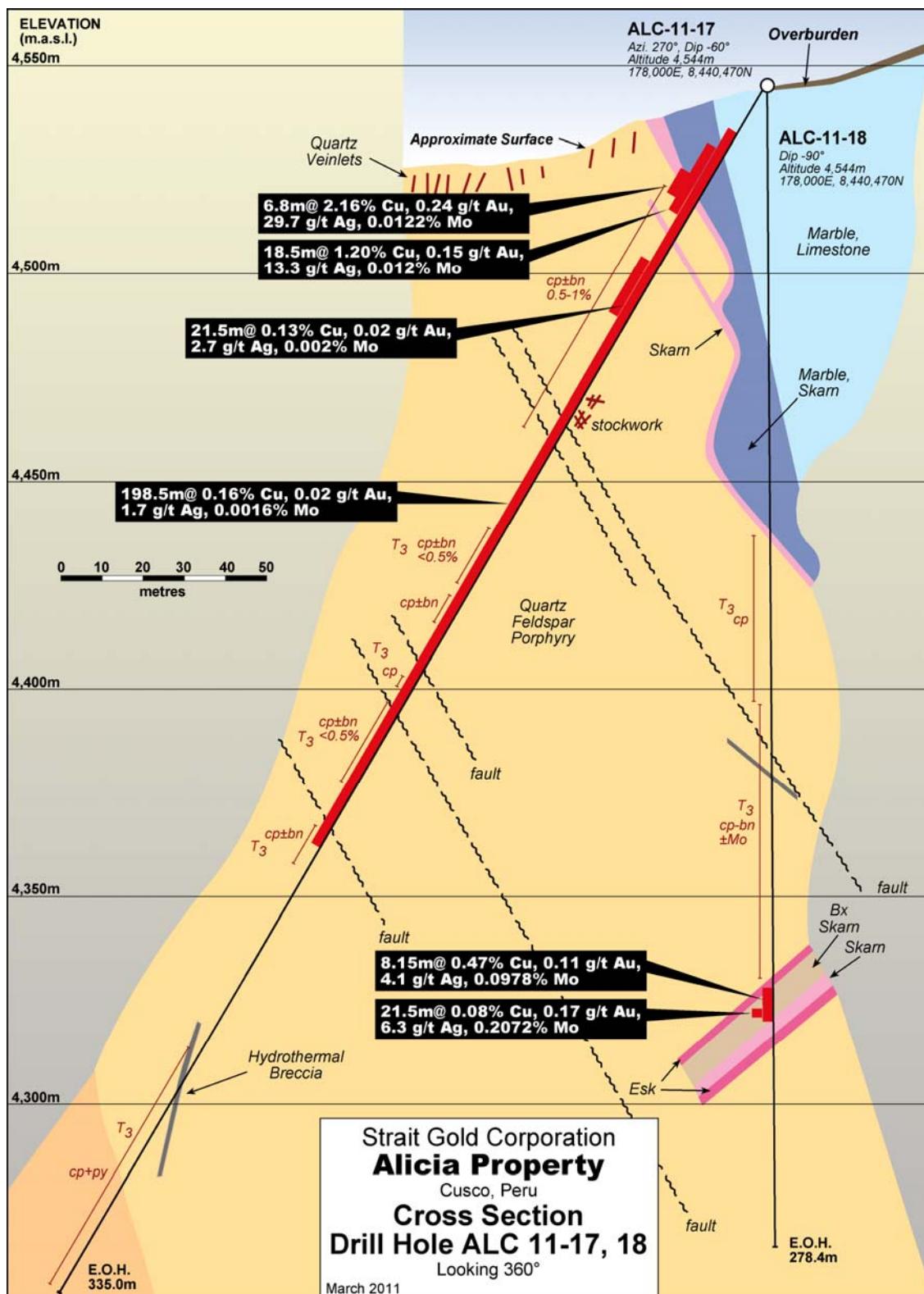
\*(after Moss, 2011)

**Figure 10.9: Cross section of Hole ALC11-13 and -14\***

\*(after Moss, 2011)

**Figure 10.10: Cross Section of drill holes ALC11-15 and -16\***

\*(after Moss, 2011)

**Figure 10.11: Cross Section of drill holes ALC10-17 and -18\***

\*(after Moss, 2011)

## 10.2 2013 Drill Program\*

*\*(after Moss, 2014)*

While the initial drilling program by Strait Minerals was focused on the skarn, several drill holes, including ALC-10-08, -16, -17 and -18, intersected porphyry style mineralization similar to that intersected in the historical hole AL-02. These intersections, combined with the recognition of good porphyry style mineralization and alteration at surface, led to the decision for a second phase drill program at Alicia, specifically targeting the Central Intrusive Complex. A total of nine holes were planned including a large step out hole (ALC-13-26) 500m to the east to test for porphyry mineralization under cover (Table 10.3). Targets consisted of surface geochemical (rock/soil) anomalies, geology and geophysical anomalies (Table 10.4). A tenth hole (ALC-13-28) was added to follow up visible copper mineralization observed in hole ALC-13-23, for a total of 4,002 metres. The collar locations of the holes drilled in the 2013 program, in addition to those from previous drilling programs, are shown in Figure 10.2. The drill hole sections shown in Figures 10.13 to 10.17 follow the drill hole traces shown on Figure 10.12. Figure 10.18 is a schematic west to east section that would plot at approximately 8440800 N on Figure 10.12 showing drill holes 28, 23, 21, 19 and 25.

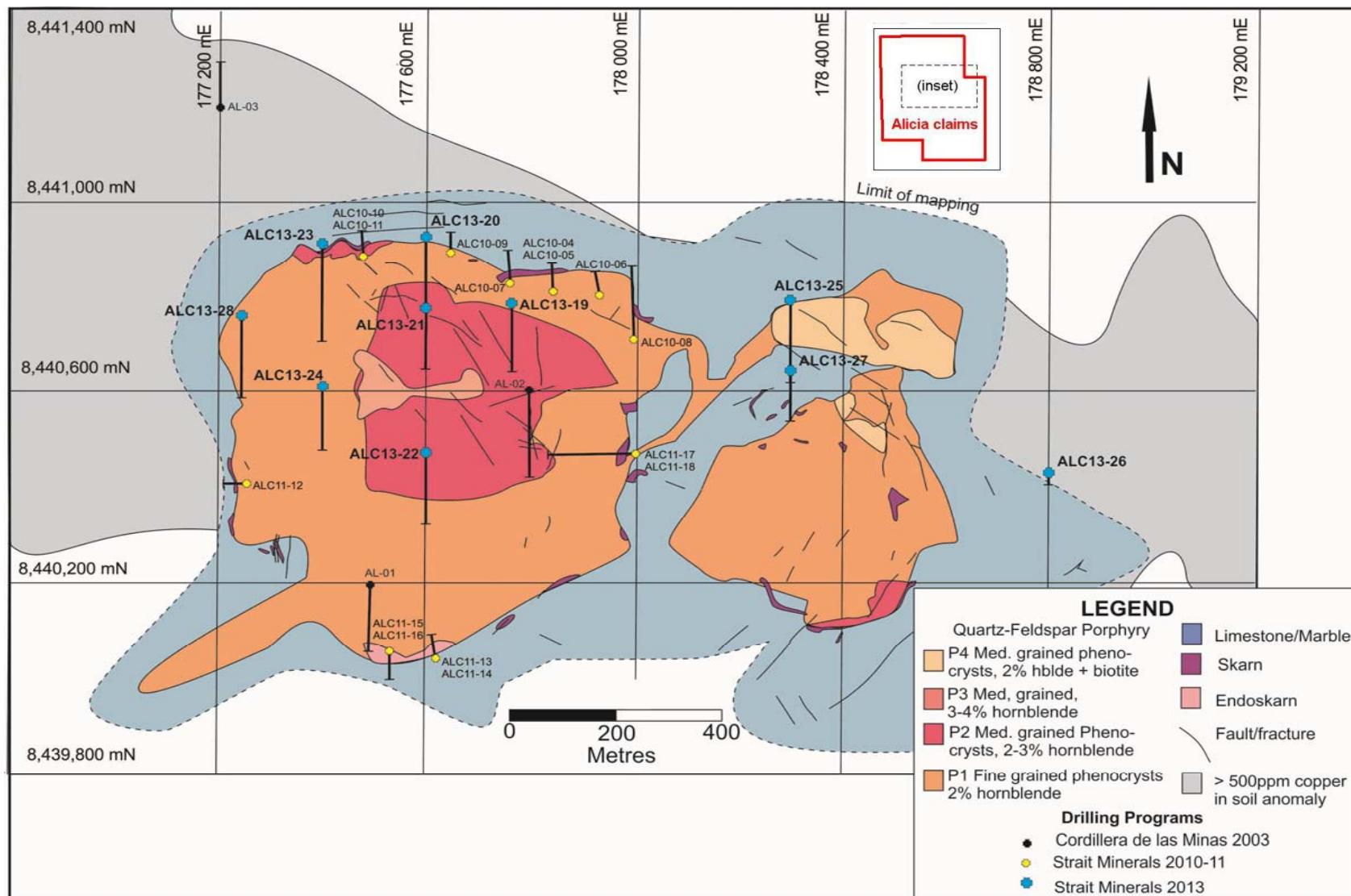
**Table 10.3: Location and attitude of 2013 drill hole collars**

Hole ID	Easting	Northing	Elevation(m)	Azimuth	Inclination	Depth (m)
ALC-13-19	177765	8440790	4408	180	-70	417.95
ALC-13-20	177600	8440930	4382	180	-70	414
ALC-13-21	177600	8440780	4418	180	-70	373
ALC-13-22	177600	8440480	4472	180	-70	432.55
ALC-13-23	177400	8440917	4387	180	-70	601.2
ALC-13-24	177400	8440617	4432	180	-70	386.7
ALC-13-25	178300	8440800	4513	180	-70	500.1
ALC-13-26	178800	8440435	4471	180	-70	61.2
ALC-13-27	178300	8440650	4550	180	-70	306.6
ALC-13-28	177248	8440767	4326	180	-70	508.3

UTM co-ordinate system PSAD56 Zone 19

**Table 10.4: Targets for 2013 Drilling Campaign**

Hole ID	Target	Lithology	Rock Anomalies	Soil Anomalies	Geophysical Anomalies
ALC - 13 - 19	rock	P1/P2, Breccias	8,345 ppm Cu	NA	axis strong chargeability anomaly
ALC - 13 - 20	rock	P1/P2	> 5,000 ppm Cu	NA	strong chargeability anomaly
ALC - 13 - 21	rock	P1/P2/P3, P3 barren	3,173 ppm Cu in P1/P2	NA	axis strong chargeability anomaly
ALC - 13 - 22	rock	P1/P2/P3	282 ppm Cu	NA	low chargeability response
ALC - 13 - 23	rock target	P1/P2	1,553 ppm Cu	3,150 ppm	strong chargeability anomaly
ALC - 13 - 24	rock	P2/P3/P1, Breccias	> 10,0000 ppm Cu	NA	strong chargeability anomaly
ALC - 13 - 25	rock	P4	19,000 ppm Cu,	NA	strong chargeability anomaly
ALC - 13 - 26	East soil	Soil cover, P1 float		3820 ppm Cu	axis strong chargeability anomaly
ALC - 13 - 27	rock	Limestone, P4, Breccias	Cu ppm: Ls to 1,556, skn to 1.4, bx to 1.6	NA	mod chargeability anomaly
ALC - 13 - 28	ALC-13- 23 trend	Soil cover, P1 float	NA	3820 ppm Cu	axis strong chargeability anomaly



**Figure 10.12: Location of holes for 2013 drill program\***

*(after Moss, 2014)*

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James A. McCrea, P.Geo.

December 29, 2014

The drilling program resulted in the intersection of low grade porphyry style mineralization in nine of the 10 holes (Table 10.5) drilled over approximately 1,000 metres east-west and 600 metres north-south. The only hole not to intersect mineralization was hole ALC-13-26, a step out of approximately 500 metres east from section 178293E containing holes ALC-13-25 and -27, which was drilled to test part of the eastern soil anomaly. The hole was stopped at 61.2 metres while still in limestone. The holes were drilled on north south sections, approximately 200 metres apart except for the 500m step out hole ALC-13-26 (Figure 10.2). Cross sections are shown in Figures to 10.3 to 10.7.

The longest intersections included:

80.5 metres grading 0.17% Cu from 40m in Hole ALC-13-21 and

178.6m grading 0.11% Cu and 0.002% Mo from 366m in hole ALC-13-23.

In addition, higher molybdenum values (0.01% Mo over 115.2m from 388.5m) were intersected in hole ALC-13-28 the westernmost hole in the drill program (Table 10.5).

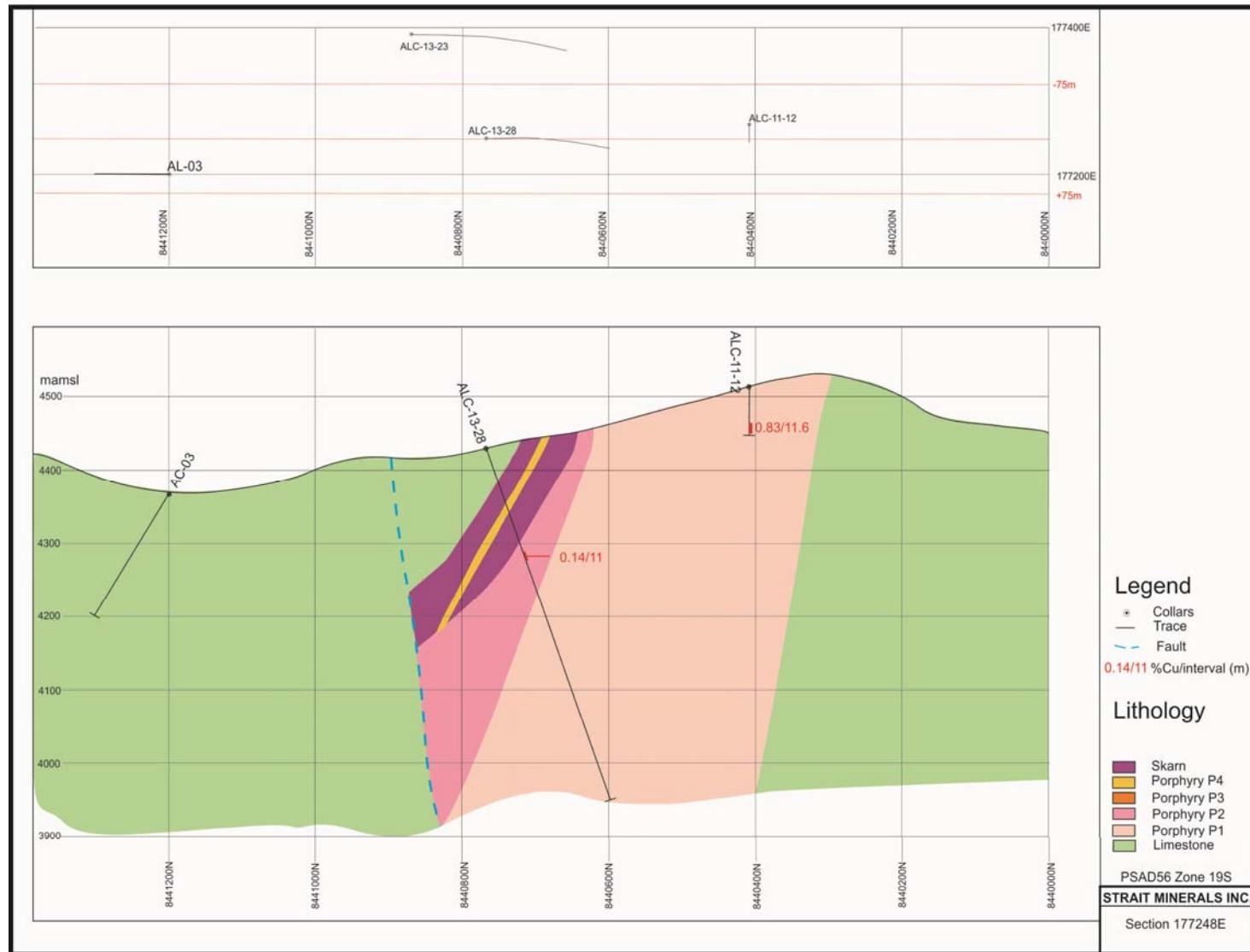
Slightly higher grades were intersected over narrower widths, including:

0.40% Cu over 10m from 64m in hole ALC-13-20

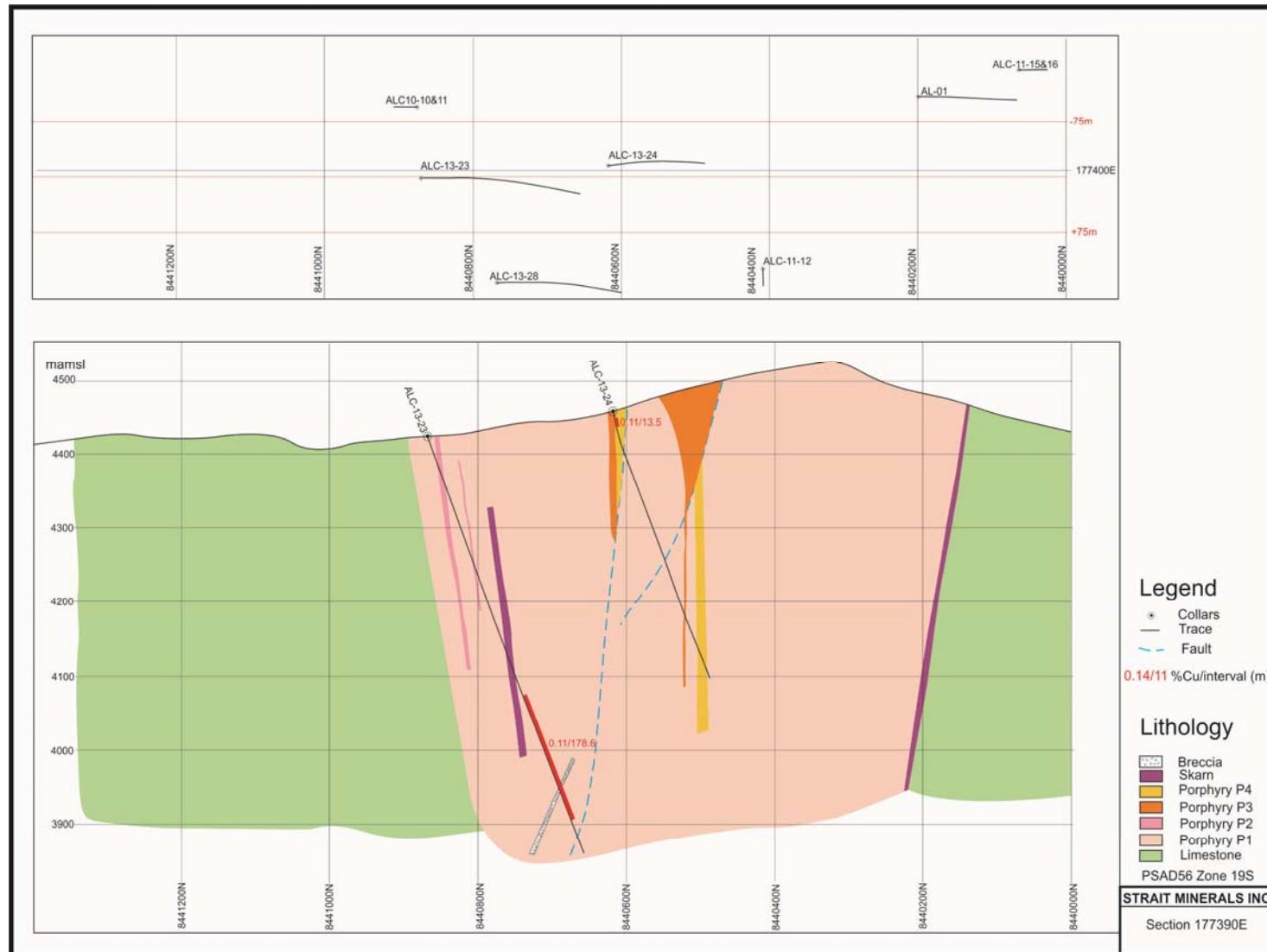
0.29% Cu over 10m from 322.35m in hole ALC-13-22

0.36% Cu over 6m from 370m in hole ALC-13-23

In addition to the mineralization, porphyry style alteration was intersected in all nine of the mineralized holes. Potassic and sericite-chlorite clay alteration are the dominant styles, with lesser chloritic alteration as described in more detail in Section 7.2.2, Alteration. Possible propylitic (chlorite-calcite±epidote) alteration occurs in holes ALC-13-25, -27 and -28. There appears to be a zonation from dominantly SCC alteration closer to surface, to dominantly potassic alteration at depth (Figure 10.8).

**Figure 10.13: Section 177248E looking east\***

\*(after Moss, 2014)

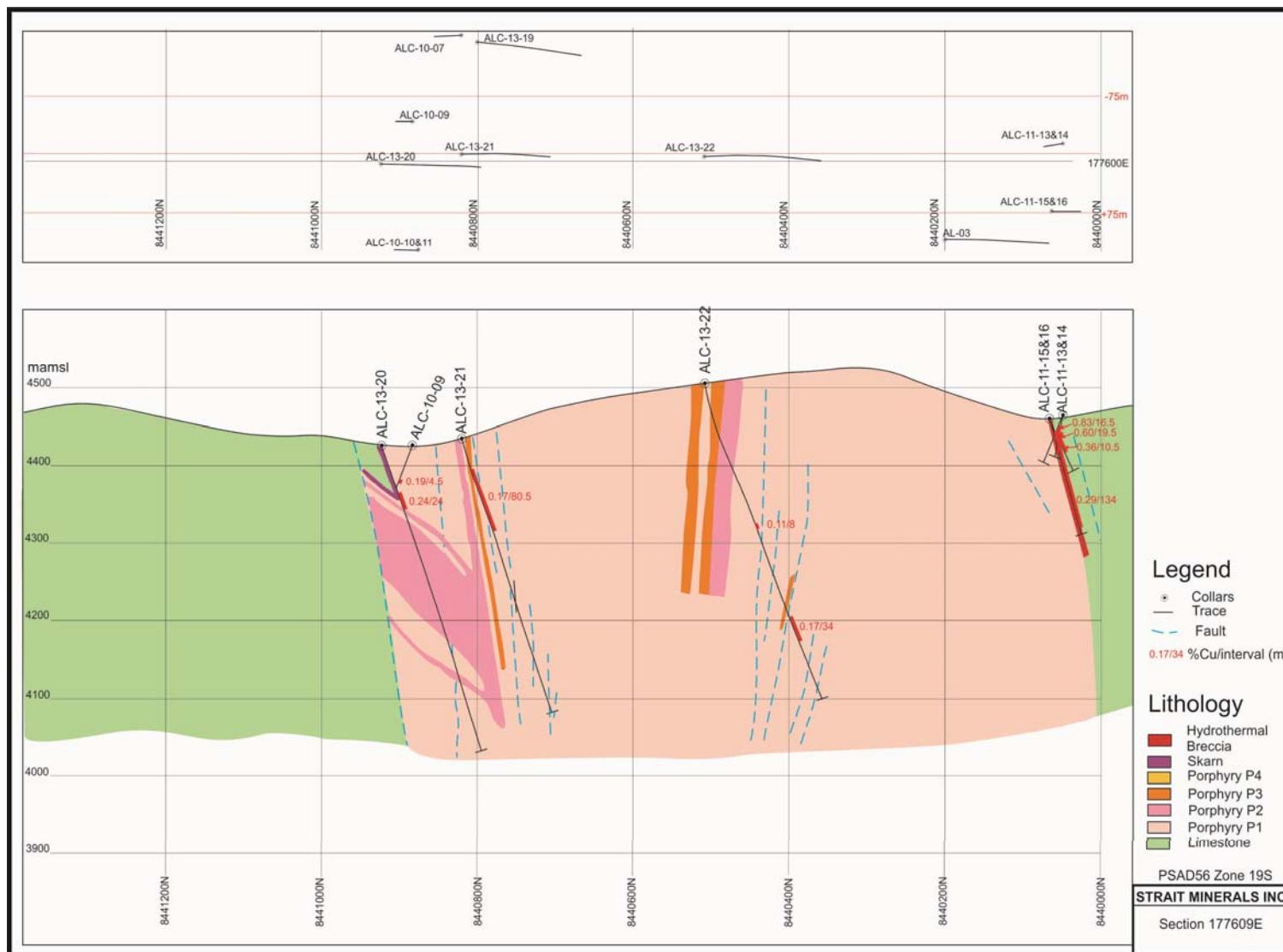
**Figure 10.14: Section 177390 E looking east\***

\*(after Moss, 2014)

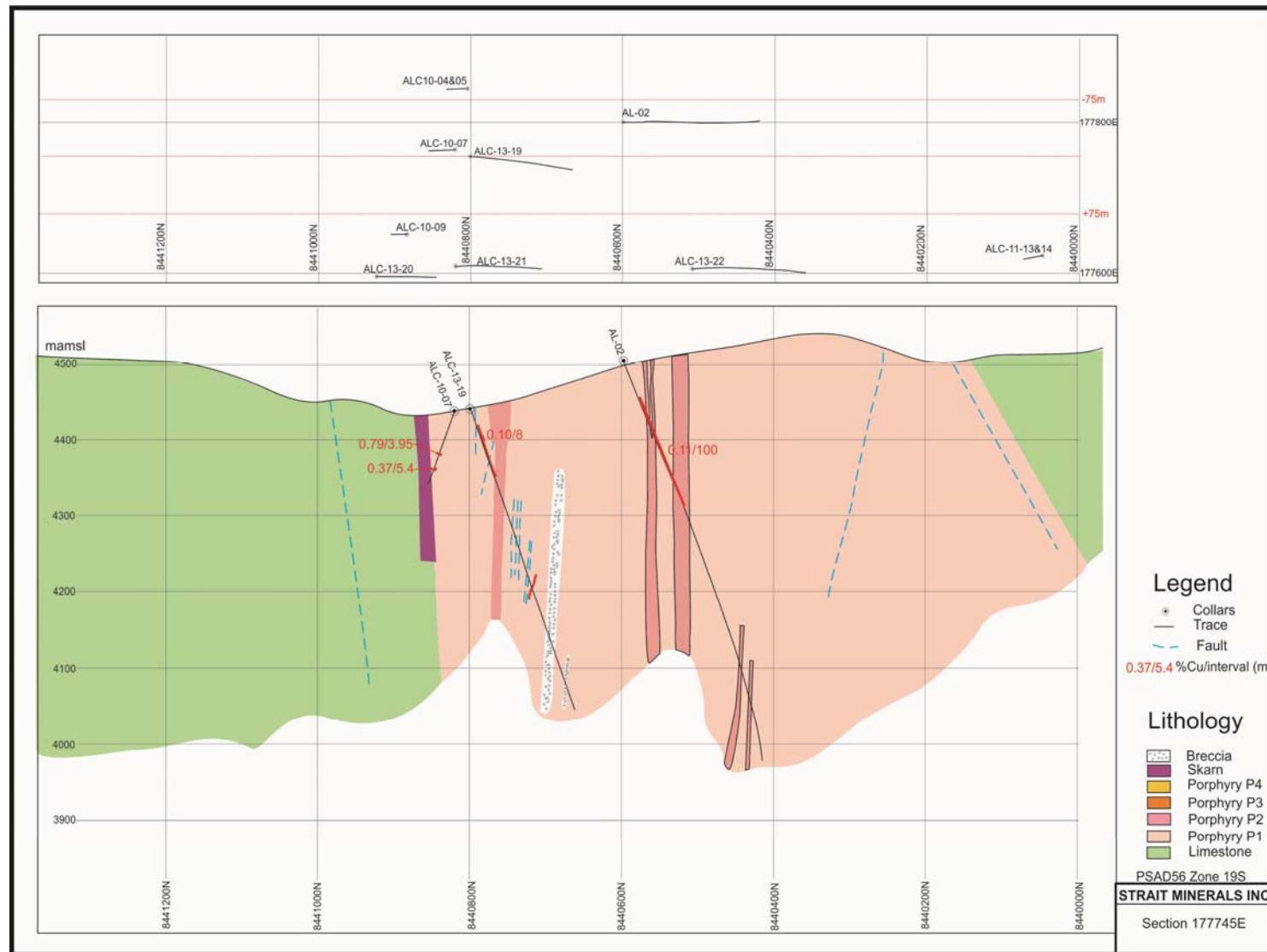
Technical Report on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca,  
Province of Chumbivilcas, Department of Cusco, Peru

James A. McCrea, P.Geo.

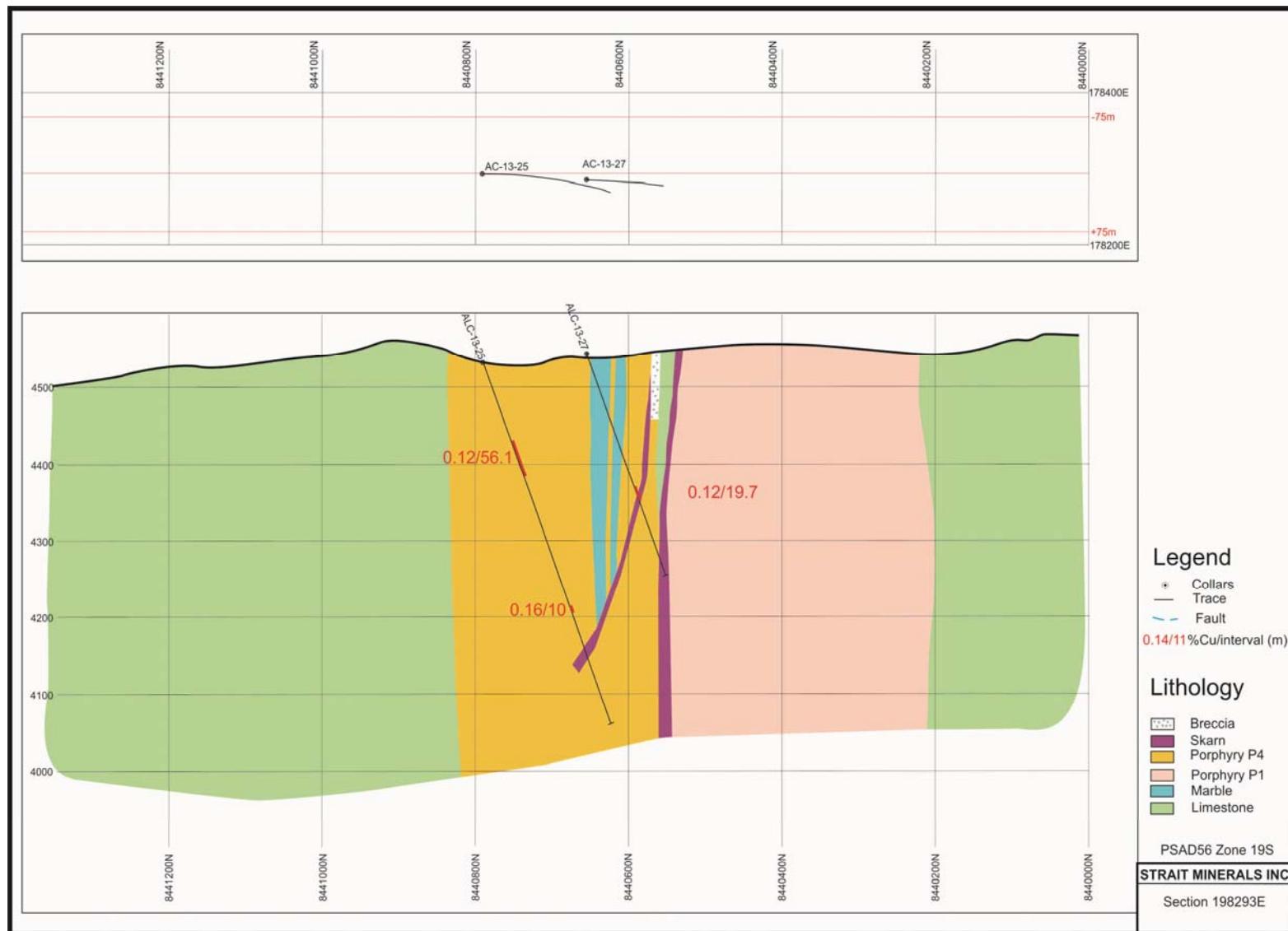
December 29, 2014

**Figure 10.15 Section 177609E looking east\***

\*(after Moss, 2014)

**Figure 10.16: Section 177745E looking east\***

\*(after Moss, 2014)

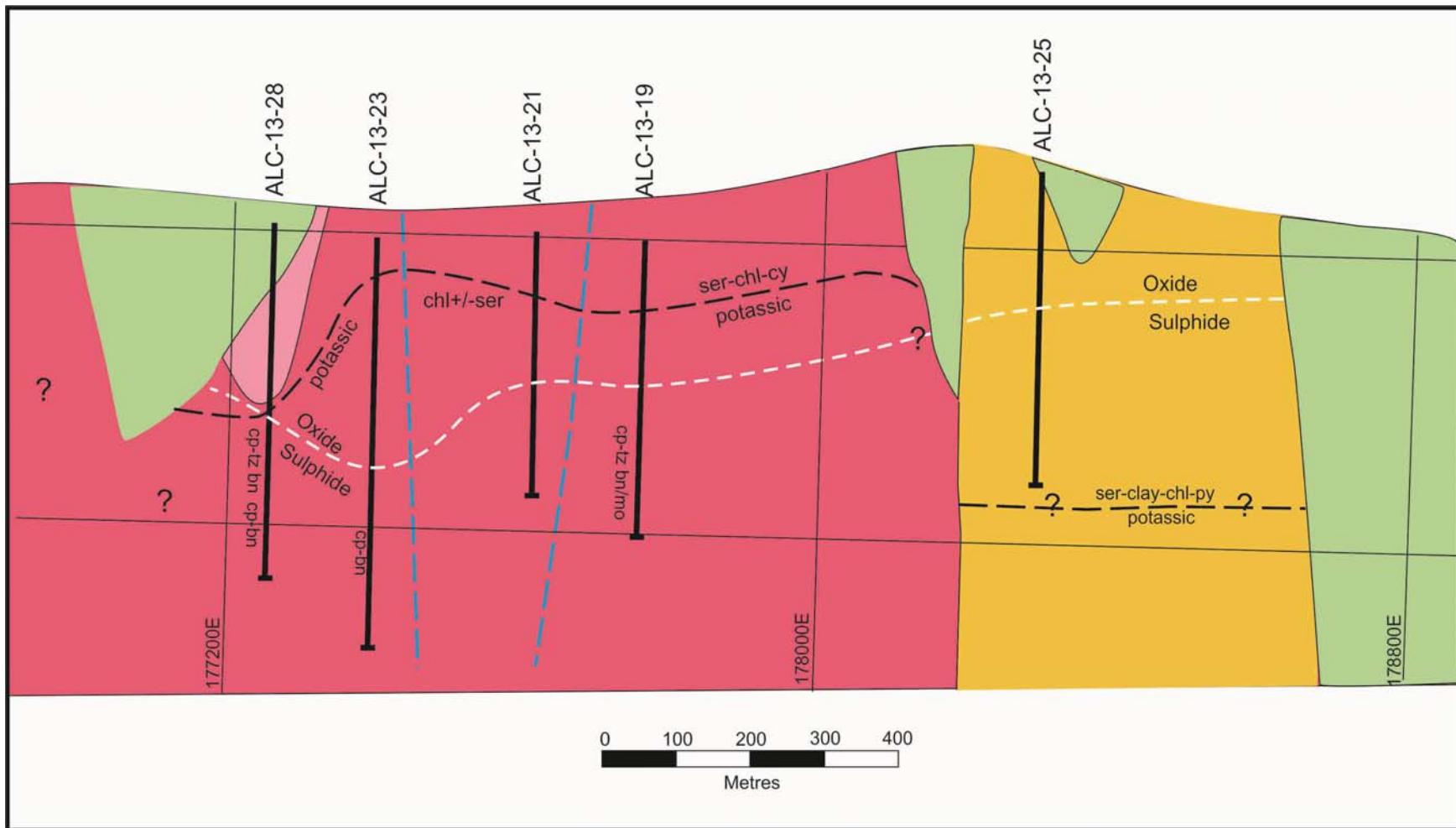
**Figure 10.17: Section 178293E looking east\***

\*(after Moss, 2014)

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**Figure 10.18: Schematic W-E long section looking north\***

\*(after Moss, 2014)

- showing zoning of alteration from near surface sericite-clay chlorite to deeper potassic and the transition from predominantly oxide to predominantly sulphide mineralization

**Table 10.5: Highlights of the 2013 drilling program\***

Hole ID	From	To	Intersection	Cu (%)	Mo (%)
ALC-13-19	38	46	8	0.10	<0.001
ALC-13-20	64	88	24	0.24	0.002
including	64	74	10	0.40	0.006
ALC-13-21	40	120.5	80.5	0.17	<0.001
including	84	94	10	0.25	<0.001
ALC-13-22	190.35	198.35	8	0.11	<0.001
	316.35	350.35	34	0.17	0.001
including	322.35	332.35	10	0.29	0.001
ALC-13-23	161.8	182	20.2	0.10	0.004
	200	252	52	0.10	0.003
including	200	220	20	0.13	0.006
	366	544.6	178.6	0.11	0.002
including	364	378	14	0.22	0.004
including	370	376	6	0.36	0.008
ALC-13-24	6	19.5	13.5	0.11	<0.001
ALC-13-25	11.9	34.55	22.65	0.11	<0.001
	101.9	158	56.1	0.12	0.001
	337.1	347.3	10.2	0.16	0.008
ALC-13-26	No assays - Limestone				
ALC-13-27	184	203.7	19.7	0.12	0.001
	294	300	6	0.10	0.002
ALC-13-28	152	163	11	0.14	<0.001
	388.5	503.7	115.2	0.05	0.010
including	388.5	419	30.5	0.10	0.009

\*(after Moss, 2014)

## 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

### 11.1 Alicia Programs 2010 to 2011\*

\*(after Moss, 2011a, 2011b)

Descriptions of the sampling procedure, security and analysis of samples from the 2010 and 2011 work programs are given below for two phases of the program including drilling and surface soil/rock geochemical analyses.

Strait Minerals personnel completed logging, sampling and splitting of the drill core in the camp at Capacmarca. Following collection of the drill core from the drill, the core was photographed before being split in half using a rock saw. Strait Minerals geologists select one half of the split core for assay with the remaining half kept as a reference. The core sample was put in plastic sample bags and securely closed with single use ties. The samples are securely stored in a locked room prior to transportation to Cusco by Strait Minerals Personnel. Strait Minerals personnel inserted blanks, standards and duplicates into the sample stream in a 1:20 bases for each quality control sample. Quality control materials were inserted in the sample stream prior to shipping the samples to Cusco.

Three different types of surface rock sampling have been used at Alicia to date:

1. Grab samples - chips/pieces of rock taken from outcrop, float or dumps;
2. Panel samples - composite chip samples taken over an area of between 2x2m and 3x3m typically in the porphyry and
3. Channel samples - continuous chip samples taken in a straight line across the strike of the rock of interest, typically used in the skarn zones.

All rock samples are placed into plastic sample bags, labelled and securely closed with single use ties as the samples are taken.

Soil samples were placed in brown paper bags and sealed as taken. Soil samples were air dried before being sent to the lab. All samples were securely stored in a locked room in Capacmarca prior to transportation to Cusco by Strait Minerals Personnel. Samples were delivered to the ALS Minerals (Global) office in Cusco and forwarded by ALS Minerals to Arequipa for sample preparation.

Samples were prepared in the ALS Minerals preparation facility in Arequipa and the resulting pulps were sent to its laboratory in Lima, for analysis. ALS Minerals is an ISO 9001:2000 registered laboratory.

Rock and drill core samples are dried, weighed and crushed until 70% passes <2 mm (#10 mesh) screens and then riffle split into a roughly 250 g sub-sample. The sub-sample is milled in chrome steel equipment until 85% passes <75  $\mu$  (#200 mesh) screens. Soil samples are dried and pulverized to -200 mesh.

Aliquots of 30 g were analyzed for gold by fire assay followed by atomic absorption spectroscopic (AAS) finish. Samples exceeding the upper limit of detection (over limit) were assayed by a gravimetric finish. Copper, silver and thirty-three other elements (including Mo, Pb, Zn) were determined by ICP-AES methods after aqua-regia (partial) dissolution of each pulp. Over-limit samples containing >10,000 ppm Cu and >100 ppm Ag were re-analyzed using ICP-AAS.

## 11.2 Alicia Programs 2012 to 2013\*

\*(after Moss, 2012, 2014)

This description is of the sampling procedure, security and analysis for samples from the 2012 regional sampling program and the 2013 drill program.

Three different types of surface rock sampling have been used at Alicia to date:

1. Grab samples - chips/pieces of rock taken from outcrop, float or dumps;
2. Panel samples - composite chip samples taken over an area of between 2x2m and 3x3m typically in the porphyry and
3. Channel samples - continuous chip samples taken in a straight line across the strike of the rock of interest.

All rock samples are placed into plastic sample bags, labelled and securely closed with single use ties as the samples are taken.

Logging, sampling and splitting of the drill core was conducted at the camp in Capacmarca by Strait Minerals and Teck personnel. Following collection of the drill core, the core was photographed before being split in half using a rock saw. The geologist selects one-half of the split core for assay with the remaining half kept as a reference. The core sample was put in plastic sample bags and securely closed with single use ties.

All samples are securely stored in a locked room in Capacmarca prior to transportation to Cusco by Strait Minerals Personnel. Samples were sent to Acme Labs in Lima for preparation before being couriered to Acme Labs in Santiago for assay. Acme's Santiago facility is an ISO 9001:2000 registered laboratory. Samples are analyzed for gold by fire assay followed by atomic absorption spectroscopic (AAS) finish and by gravimetric finish for samples exceeding the upper limit of analysis (over limit). Silver, copper, molybdenum, lead and zinc, together with 30 other elements, were assayed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) following aqua regia (partial) dissolution of each pulp. Samples with silver, lead, zinc and copper assays above the upper limit for the ICP-AES technique were re-assayed by atomic absorption (AA).

The author (McCrea) knows of no relationship between Acme Labs (now part of Inspectorate) and the issuer other than the procurement of analytical services.

All drill core from the program is now stored in a secure locked facility in Cusco.

## 11.3 Quality Control Measures\*

\*(after Moss, 2014)

Strait Minerals routinely inserts standards, blanks and duplicates into the sample stream to assess the precision and accuracy of the assay results. The number of quality control samples typically amounts to 10% of the total samples assayed.

Blanks are samples taken from an outcrop of barren intrusive rock of the Andahuaylas batholith in the vicinity of Alicia. Assays of 118 blanks submitted with the sample batches showed ranges of <1 to 17 ppm for Cu, and <0.005 to 0.009 ppm for Au. All silver values were <0.3 ppm and all Molybdenum values were <1 ppm. These results indicate that the sample handling, preparation and analysis was free of contamination. Slightly high copper values are likely due to the presence of minor copper mineralization in the Andahuaylas batholith from which the blank samples were taken.

Standard samples included certified reference standards from Ore Research and Exploration Pty Ltd. The standards were selected to cover the main elements of interest and a range of grades. A summary of the standards used is given in Table 11.1 and a summary of the results is given in Table 11.2. An unusually high number (17 of 117) of standards were mislabelled. Fortunately, the assays were sufficiently accurate that the correct standard could be identified.

Assay results for the standards generally show good agreement between the assay result and the recommended value, as indicated by percentage difference with a maximum difference of 6% for silver and copper in OREAS 66a the standard with the lowest copper grade. Assays for the remaining three standards are within 4% of the recommended value for copper, gold and molybdenum, which indicates good accuracy of the assays.

**Table 11.1: Description of standards used for quality control**

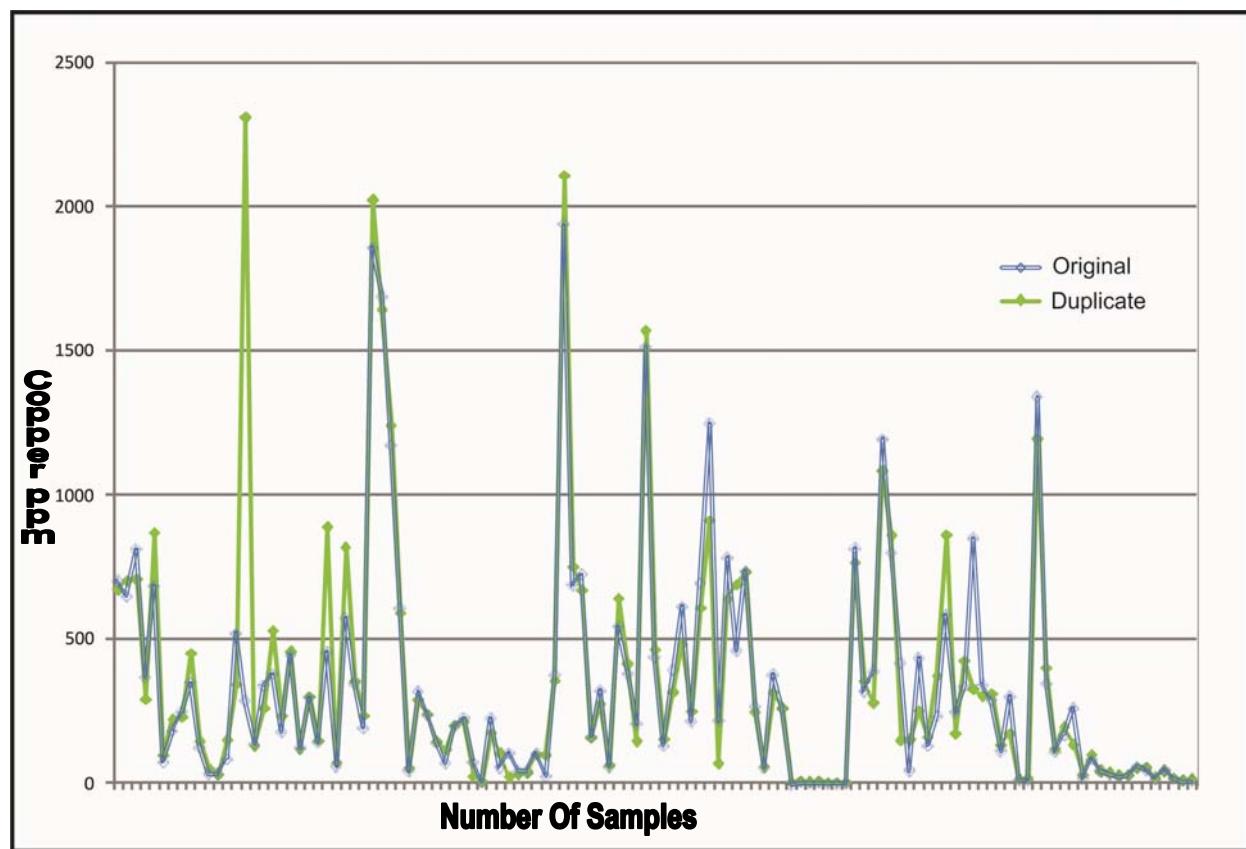
Standard ID	Rock type	Recommended Values			
		Au	Ag	Cu	Mo
OREAS 504	Porphyry with copper and gold	1.499 ppm	NA	1.137 %	624 ppm
OREAS 151a	Porphyry with copper and gold	0.043 ppm	NA	0.166 %	40 ppm
OREAS 52c	Porphyry with copper and gold	0.346 ppm	NA	0.344 %	267 ppm
OREAS 66a	Composite of epithermal gold-silver ore and alkali basalt	1.237 ppm	18.9 ppm	121 ppm	NA

**Table 11.2: Results of assays of certified reference standards**

Standard ID	No. Assays	Percentage difference from recommended value			
		Au	Ag	Cu	Mo
OREAS 504	29	+1	NA	+3	-1
OREAS 151a	32	+1	NA	-3	-4
OREAS 52c	29	+4	NA	-2	+1
OREAS 66a	27	+2	-6	-6	NA

Duplicates of drill core samples were routinely submitted with the sample batches and results of duplicate assays are shown in Figure 11.1. It is apparent that there are a number of discrepancies among the duplicate samples. In these cases, the duplicates tend to be higher, sometimes significantly so, than the original samples. A possible reason for the difference is the sampling of the duplicates, which took the two samples from the same half piece of core, rather than quartering the core and submitting samples from each quarter core, the half core could be crushed and two samples splits submitted. This could account for the heterogeneity seen in the duplicate data, since the samples would not be well homogenized prior to submission to the lab. However, it is recommended that a suite of samples taken from pulps and rejects be re-assayed at a different lab to confirm the results.

Moss, 2014 stated: “All assay results have been reviewed and verified by the author, and in his opinion, the quality control and quality assurance procedures utilized were sufficient to ensure the quality of the sample results, and verify the general grade of mineralization at the Alicia property. While it is recommended that check assays be performed to verify some of the spurious duplicate results, the data is believed to be adequate for the purposes used in this technical report.”



**Figure 11.1: Results of assays of duplicate samples\***

\*(after from Moss, 2014)

#### 11.4 2014 Verification Sampling Preparation

The samples from the 2014 verification sampling were sent to Inspectorate Labs in Lima, formally Acme Labs. Samples were collected in the field by the author as grab samples from the informal miners' stock piles, as chip samples from outcrops or channels and from drill core stored in Cusco. The samples were bagged, labelled and sealed with one-use ties at the time they were taken. The samples remained in the custody of the author until they were shipped by courier to Inspectorate Labs in Lima for analysis.

Samples were sent to Inspectorate Labs in Lima for preparation. Inspectorate's Lima facility is an ISO 9001/2008 No. 39041 registered laboratory. Samples are analyzed for gold by fire assay followed by atomic absorption spectroscopic (AAS) finish and by gravimetric finish for samples exceeding the upper limit of analysis (over limit). Silver, copper, molybdenum, lead and zinc, together with 30 other elements, were assayed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) following aqua regia (partial) dissolution of each pulp. Samples with silver, lead, zinc and copper assays above the upper limit for the ICP-AES technique were re-assayed by atomic absorption (AA).

No quality control measures were used for these eight verification samples.

The author believes the sample handling, preparation and analyses of these samples is adequate for this stage of exploration on the Alicia Project.

## **11.5 Conclusions**

In the opinion of the Author, sample preparation, security, analytical procedures and analyses are consistent with industry best practice and are adequate for the purposes used in this technical report.

Sampling reported by Moss (2011b, 2012) as “channel samples” from the 2011 follow-up program and the 2012 regional program are in fact chip samples. No channel cuts were observed in the field. This sampling is adequate for the purposes used in this report.

## 12.0 DATA VERIFICATION

### 12.1 Verification Sampling Results

The author's verification sample results have been tabulated in Table 12.1. The four surface chip samples, three core duplicate samples and one grab sample confirm the presence of mineralized skarn bodies on the property. The author's verification samples were taken from the skarn zone along the north contact between the porphyritic intrusive and the limestones, from the porphyritic intrusive and from zone 1 on the southern contact between the limestone and intrusive. Three of the samples where taken as duplicates from drill core in holes ALC10-06, ALC10-11 and ALC11-16. The author's verification samples confirm mineralized skarns and porphyry intrusives on the Alicia Property. The author is of the opinion that the data is adequate for the purposes used in this technical report. Sample locations are shown in Figure 12.1 and Photographs 1 and 2. Sample results are listed in Table 12.1.

Data verifications for the report included examination and sampling of the mineral showings on the property, review of previous technical reports, review of the results of previous exploration programs and checking the Peruvian public registry to confirm title to the concessions. The author believes that these data verifications are sufficient for this exploration stage property.

**Table 12.1: Verification Samples from Alicia**

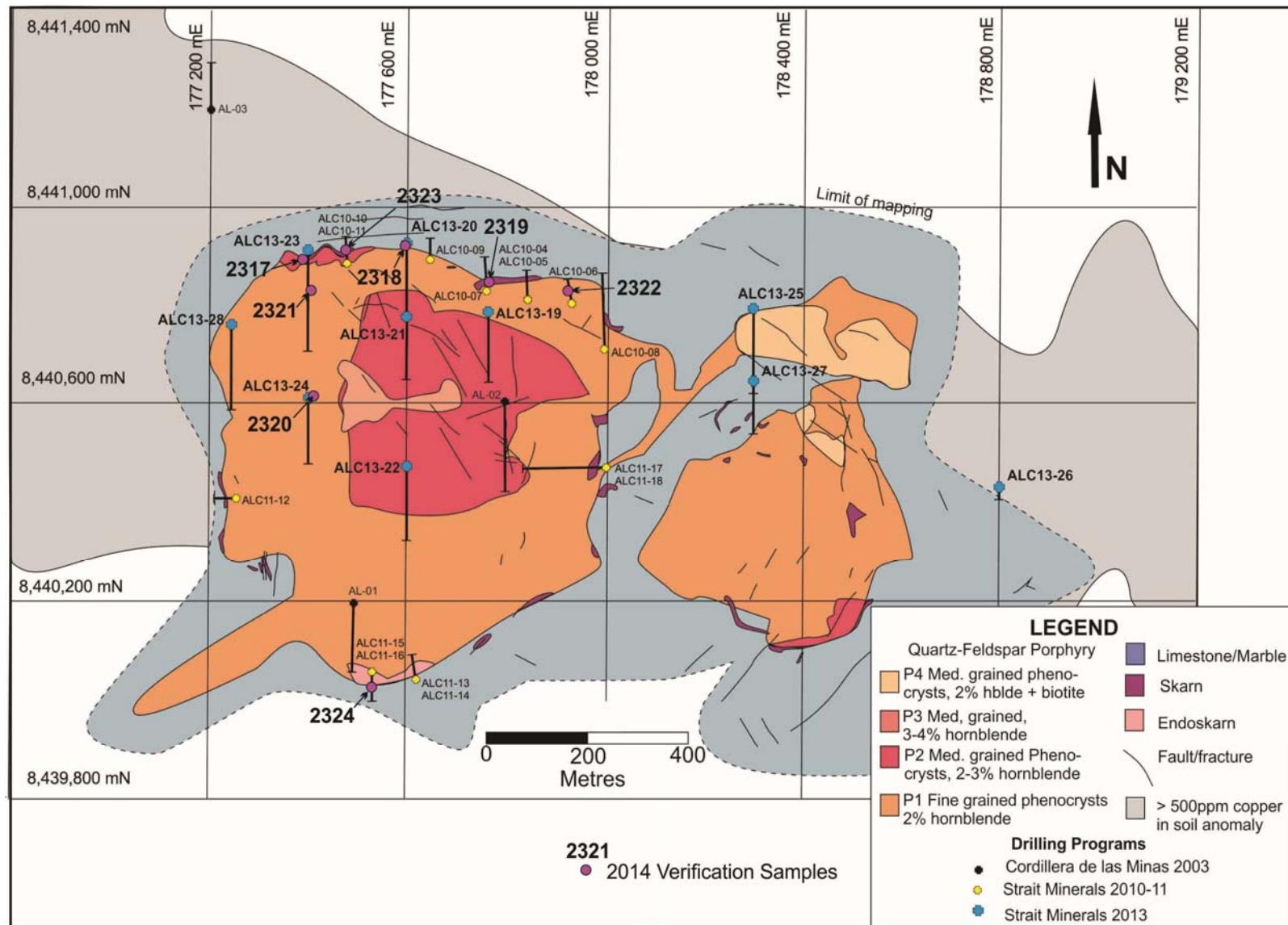
Sample	Au ppm	Ag ppm	Cu %	Width (m)	Description
2317	1.921	76.5	21.393	Grab	Grab sample from stock pile, Carbonate skarn with malachite, bornite, chrysocolla, magnetite and hematite
2318	0.331	22.7	3.037	0.50	Skarn sample from working/trench with malachite, azurite, chrysocolla and magnetite
2319	1.067	46.4	7.774	0.30	Sample of siliceous skarn from working with malachite, magnetite and hematite
2320	<0.005	0.5	0.040	1.00	Sample of leucocratic porphyritic quartz monzodiorite from trench – weak potassic alteration, medium grained and no visible sulphides (P1)
2321	0.018	0.3	0.087	1.00	Sample of leucocratic porphyritic quartz monzodiorite from trench – weak potassic alteration, medium to coarse grained and no visible sulphides (P1)
2322	0.663	27.4	5.007	1.06	Skarn sample duplicate from drill core: ALC10-06, 68.64 to 69.70m 0.690 g/t Au, 32.4 g/t Ag, 4.84 %Cu with malachite, bornite and magnetite.
2323	0.320	7.6	1.586	1.00	Skarn sample duplicate from drill core: ALC10-11, 31.40 to 32.40m 0.328 g/t Au, 15.5 g/t Ag, 3.62 %Cu with malachite, bornite and magnetite.
2324	0.065	2.1	0.303	1.00	Skarn sample duplicate from drill core: ALC10-16, 127.50 to 128.50m 0.085 g/t Au, 4.0 g/t Ag, 0.43 %Cu with malachite, bornite and magnetite.



**Photograph No. 1: Sample 2318, Skarn Mineralization in Trench**



**Photograph No. 2: Sample 2319, Skarn Mineralization in Working**

**Figure 12.1: Surface Verification Sampling\***

\*(after from Moss, 2014)

Technical Report on the Alicia Copper Gold Project, District of Capacmarca and Colquemarca,  
Province of Chumbivilcas, Department of Cusco, Peru

James A. McCrea, P.Geo.

December 29, 2014

## **13.0 MINERAL PROCESSING and METALLURGICAL TESTING**

There are currently no metallurgical studies for this property.

## 14.0 MINERAL RESOURCE ESTIMATES

There are currently no 43-101-compliant Mineral Resource estimates for the subject property.

## 23.0 ADJACENT PROPERTIES

There is no noteworthy adjacent property within 10 km (6 miles) that meets the criteria defined in NI 43-101, Section 1.1.

## **24.0 OTHER RELEVANT DATA and INFORMATION**

To the author's best knowledge, all the relevant data and information has been provided in the preceding text.

## 25.0 INTERPRETATION and CONCLUSIONS

The Alicia Project displays styles of mineralization characteristic of the Andahuaylas-Yauri belt of porphyry copper and skarn deposits. Mineralization associated with intrusive rocks of the Andahuaylas-Yauri Batholith and in this case, Late Cretaceous marine clastic and carbonate rocks of the Arcurquina Formation.

Exploration on the property to date has identified porphyry copper mineralization in the porphyry complex, skarn mineralization along the porphyry intrusive contacts with the surrounding limestone and polymetallic replacement or epithermal mineralization 1.5 km south of the porphyry complex.

Exploration of these three targets is still at an early stage, with only 7,012 metres drilled on the property to date. Of this total, 1,956 metres predominantly targeted the skarn mineralization in the 2010-2011 drilling campaign and 4,799 metres targeted the porphyry with two historical holes and the nine holes in the 2013 campaign. The remaining 256 metres was from the two holes AL-03 and ALC-13-26 drilled into limestone (Moss, 2014).

The 2010-11 drilling that targeted the skarn mineralization was successful in defining high grade (>1%) copper mineralization in seven of eight holes over approximately 600 metres of strike length along the northern intrusive/limestone contact. The best intersections came from Holes ALC-10-04 (1.26% Cu over a true width of 20.4m) and ALC-10-05 (1.27% Cu over a true width of 21.2m) drilled from the same platform. The intersection in hole ALC-10-05 went to the bottom of the hole which had to be abandoned due to poor ground conditions and has not yet been followed up (Moss, 2014). The skarn mineralization is open along the intrusive contact and there is potential for replacement mineralization down dip in limestones.

The porphyry intrusives on the Project were explored with mapping, geochemical sampling, geophysics and drilling. The drilling intersected low-grade copper mineralization (0.11 to 0.17% Cu) over 80+ metre widths: there is some evidence suggesting that deeper drilling may be rewarded with higher grades (Moss, 2014). The observed alteration zoning from primarily sericite-chlorite-clay near surface to potassic at depth suggests that the core of the porphyry system may be at depth. In addition, the barren nature of many of the quartz veins and stock works suggests the possibility that the ascending hydrothermal fluids may have lost copper before precipitating the quartz. This copper may have been precipitated at depth or have migrated to the contact zones to form skarn mineralization (Moss, 2014).

During 2012, mapping and sampling of the polymetallic zone, located approximately 1.5 kilometres south of the porphyry complex, outlined an area of 1,500 metres by 1,000 metres of altered limestone containing mineralized mantos (up to 8 metres wide) and breccias (up to 6 metres wide). Channel samples from the mantos and breccias contained high grades of lead (35 of 70 samples >1% Pb), zinc (16 samples >1% Zn), silver (17 samples >100 g/t Ag) and gold (19 samples >1 g/t Au), as well as significant copper. This zone remains open to the south and goes undercover to the northeast (Moss, 2014).

The description of the system in breccias and mantos with the mineralogy of the samples suggests a possible distal skarn or replacement deposit or possible epithermal system. Limited work has been completed on the prospect with some grade discovered, however, the potential of the area is unknown.

The property is in the exploration stage, the risks, uncertainties associated with this stage of exploration are the continuity of the skarn zones along strike, the discovery of new skarns, and that the individual skarns maintain their width and grade. Additional uncertainty is associated with the need to negotiate a new surface access agreement with the local community; the process has been started, however. The foreseeable impacts of these risks and uncertainties are delays to the exploration program while community agreements are negotiated and the failure to discover additional mineralization would limit the potential of the property.

The Alicia Project warrants further exploration for skarns, carbonate replacement deposits and epithermal polymetallic systems with the strength and higher prices returning to the metal markets, the demand for this type of small-scale project should be high.

## 26.0 RECOMMENDATIONS

The recommended exploration and work programs for the Alicia Project are as follows:

Phase I \$250,000

- Structural mapping and prospecting \$30,000  
Detailed structural mapping and sampling to identify additional skarn or manto showings on the property.
- Soil sampling \$50,000  
Grid geochemical sampling to identify gold, silver or copper anomalies that could be other mineralization not visible on the surface.
- Geophysics, IP/Mag survey \$85,000  
Induced polarization/magnetometer survey to identify possible skarn or manto targets.
- Trenching program \$85,000  
Surface trenching to check geochemical and geophysical anomalies.

The Phase II program is contingent on positive results from the Phase I program and following a thorough compilation and review by a qualified person the following Phase II program is recommended.

Phase II \$450,000

- 1500m Diamond drill program \$450,000  
Diamond core drilling to verify the down dip extensions of known veins and geophysical and geochemical anomalies.

## 27.0 REFERENCES

Benavides-Caceres, V., 1999, Orogenic Evolution of the Peruvian Andes; in Geology and ore Deposits of the Central Andes, Society of Economic Geologists Special Publication Number 7, Skinner, B.J. (ed), pp. 61 - 107

Boletín N° 035 - Geología - Cuadrangulo de Chalhuanca (29p), Antabamba (29q) y Santo Tomás (29r), 1983, by Instituto Geologico Minero Y Metalurgico, 99p.

Boletín N° 052 - Geología - Cuadrangulo de Cusco (28s) y Lilitaca (29s), 1994, by Instituto Geologico Minero Y Metalurgico, 125p.

CDLM, 2000, Informe Geológico preliminary del Prospecto Alicia 3. Unpublished internal Cordillera de las Minas S.A. report 26p.

Dawson, K.M. and Kirkham, R.V., 1996, Skarn copper; in Geology of Canadian Mineral Deposit Types, O.R. Eckstrand, W.D. Sinclair, and R.I. Thorpe; eds. Geological Survey of Canada, Geology of Canada, no. 8, p. 460-476. (also Geological Society of America, The Geology of North America, v. P-1).

Einaudi, M.T., Meinert, L.D., Newberry, R.J., 1981, Skarn deposits. in Economic Geology, Seventy Fifth Anniversary Volume 1905-1980, B.J. Skinner ed. p.317-391.

Fierro, J., Jones, B., and Lenzi, G., 2002, Los pórfidos de Cu-Au de Antapaccay en el distrito mineralizado de Tintaya, Peru. [abs.]. XI Congreso Peruano de Geología, Sociedad Geologica del Peru, Extended Abstracts, Volumen Especial 1, p. 37-39.

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*Instituto Nacional de Concesiones y Catastro Minero (INACC)*

Minerals Yearbook, Vol. III, 2011, Mineral Industries of Latin America and Canada, USGS, Minerals Information, 198 p.

Jones, B., Fierro, J., and Lenzi, G., 2000, Antapaccay Project – geology [abs.]. Seminario Internacional “Yacimientos tipo pórfido de Cu-Au”, Lima 2000: Facultad de Ingenería Geológica, Minera y Metalúrgica, Promoción de Geólogos 2000, Abstracts, v.11, p.1.

Kirkham, R.V., and Sinclair, W.D., 1996, Porphyry copper, gold, molybdenum, tungsten, tin, silver; in Geology of Canadian Mineral Deposit Types, O.R. Eckstrand, W.D. Sinclair, and R.I. Thorpe; eds. Geological Survey of Canada, Geology of Canada, no. 8, p. 421-446. (also Geological Society of America, The Geology of North America, v. P-1).

Meinert, L.D., 1993a, Skarns and skarn deposits. in Ore Deposit Models, Volume II, P.A., Sheahan and M.E. Cherry eds. Geoscience Canada Reprint Series 6, p. 117 to 134.

Meinert, L.D., 1993b, Igneous petrogenesis and skarn deposits. in Mineral Deposit Modeling, R.V. Kirkham, W.D. Sinclair, R.I. Thorpe and J.M. Duke eds. Geological Association of Canada, Special Paper 40, p. 569-583.

Montan Capital Corp. and Strait Minerals, 2014, Montan Capital Corp. and Strait Minerals Inc. announce merger to create Peru-focused exploration and mining company as qualifying transaction for Montan. Press Release dated December 3, 2014, 4p., filed on Sedar.

Moss, R., 2011a, Results of Exploration of the Alicia copper-gold-silver project, Department of Cusco, Peru, prepared for Strait Gold Corporation, 60p, filed on Sedar

Moss, R., 2011b, Results of 2011 Exploration of the Alicia copper-gold-silver project, Department of Cusco, Peru, prepared for Strait Gold Corporation, 57p., filed on Sedar.

Moss, R., 2012, Results of 2012 Exploration of the Alicia copper-gold-silver project, Department of Cusco, Peru, prepared for Strait Minerals Inc., 57p, filed on Sedar

Moss, R., 2014, Results of 2013 Drilling Program and Subsequent Exploration on the Alicia Copper-Gold-Silver Project, Department of Cusco, Peru, prepared for Strait Minerals Inc., 76p, unpublished internal company report.

Perelló, J., Carlotto,V., Zárate, A., Ramos, P., Posso, H., Neyra, C., Caballero, A., Fuster, N., Muhr, R., 2003, Porphyry-style alteration and mineralization of the Middle Eocene to Early Oligocene Andahuaylas-Yauri Belt, Cuzco Region, Peru. Econ. Geol., v. 98, p. 1575-1605.

Peterson, U., 1999, Magmatic and Metallogenic Evolution of the Central Andes, *in* Geology and Ore Deposits of the Central Andes, B. J.Skinner Editor, pp. 114 - 116.

Seedorff, E., Dilles, J. H., Proffett, J. M., Jr., Einaudi, M. T., Zurcher, L., Stavast, W. J.A., Johnson, D. A., and Barton, M. D., 2005, Porphyry deposits; characteristics and origin of hypogene features: Economic Geology 100th Anniversary Volume, p. 251-298.

Sillitoe, R. H., 1985, Ore-related breccias in volcano plutonic arcs: Economic Geology, v 80, pp. 1467 - 1514.

Sillitoe, R. H., 1991, Intrusion related gold deposits. In: Foster, R.P., (editor), Gold Metallogeny and Exploration. Glasgow, Blackie and Son, pp. 165 - 209.

Sillitoe, R. H., 2008, Special Paper: Major Gold Deposits and Belts of the North and South American Cordillera: Distribution, Tectonomagmatic Settings, and Metallogenic Considerations: Economic Geology, v. 103, pp. 663 – 687.

Sillitoe, R. H., 2010, Porphyry Copper Systems: Economic Geology, v 105, pp. 3 - 41.

Simmons, S.F., White, N.C., John, D.A., 2005, Geological Characteristics of Epithermal Precious and Base Metal Deposits: Economic Geology, v 100, pp. 485 - 522.

Strait Minerals Inc., 2012, Strait changes name to Strait Minerals, provides further sampling results from Alicia, Press release by Strait Minerals Inc., August 1, 2012, filed on Sedar.

---

Strait Minerals Inc., 2014, Strait provides update on status of Alicia property in Peru; Press release by Strait Minerals Inc., February 13, 2014, filed on Sedar.

Superintendencia Nacional de Registros Publicos (SUNARP)

Weis, T.V., 2011, Alicia Project, Preliminary Airborne Geophysical Interpretation. Internal Company Report, 17p.

Weston, R.J., and Moss, R., 2009, Geology and mineralization of the Alicia Copper Gold Project, Department of Cusco, Peru, prepared for Strait Gold Corporation, 36p, filed on Sedar.

White, 2011, Reference not found.

Wikipedia, 2010, <http://en.wikipedia.org/wiki/Cusco>

Wober, H.H., Lee, C., Nowak, M., 2007, Independent Technical Report on the Mineral Exploration Properties of Cordillera de las Minas S.A., Andahuaylas – Yauri Belt, Cuzco Region, Peru, prepared by by SRK Consulting (Canada) Inc. for Panoro Minerals Ltd. 125p, filed on Sedar.