ASX Announcement
August 18, 2013

Australian Securities Exchange
Level 8
Exchange Plaza
2 The Esplanade
PERTH WA 6000

Dear Sir/Madam

Llahuin Copper-Gold Project – Technical Report for JORC Resource Upgrade (the "Report")

For disclosure purposes, please refer below for a Report: "Mineral Resource Estimate - Llahuin Copper-Gold Project, Coquimbo Region, Chile" as released in Canada. The resource reported has been prepared in accordance with the Canadian Institute of Mining (CIM) National Instrument 43-101 and complies with the requirements of the JORC Code.

Competent Person's Statement - JORC
The information in this Report that relates to Exploration Results or Mineral Resources is based on information compiled by Mr Brad Ackroyd and Mr Ian Dreyer. Mr Ackroyd is a Principal Consulting Geologist for Andes Mining Services Ltd and is a Member of the Australian Institute of Geosciences. Mr Dreyer is Regional Manager of Andes Mining Services Ltd and is a Chartered Professional Member of the Australasian Institute of Mining and Metallurgy.

Both Mr Ackroyd and Mr Dreyer have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity in which they are undertaking to qualify as a Competent Persons as defined in the December 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Both Mr Ackroyd and Mr Dreyer consent to the inclusion in the Report of the matters based on this information in the form and context in which it appears.

Yours faithfully

Derek Hall
Company Secretary

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Mineral Resource Estimate - Llahuin Copper-Gold Project, Coquimbo Region, Chile

NI 43-101 Technical Report

On Behalf of – **Southern Hemisphere Mining Limited**

Effective Date – **30th June 2013**

Qualified Persons:	Bradley Ackroyd	Consulting Geologist (Andes Mining Services Ltd)	BSc (Geo) MAIG
	Ian Dreyer	Consulting Geologist (Andes Mining Services Ltd)	BSc (Geo) CP MAusIMM
Version / Status:	FINAL		
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1 SUMMARY

1.1 Introduction

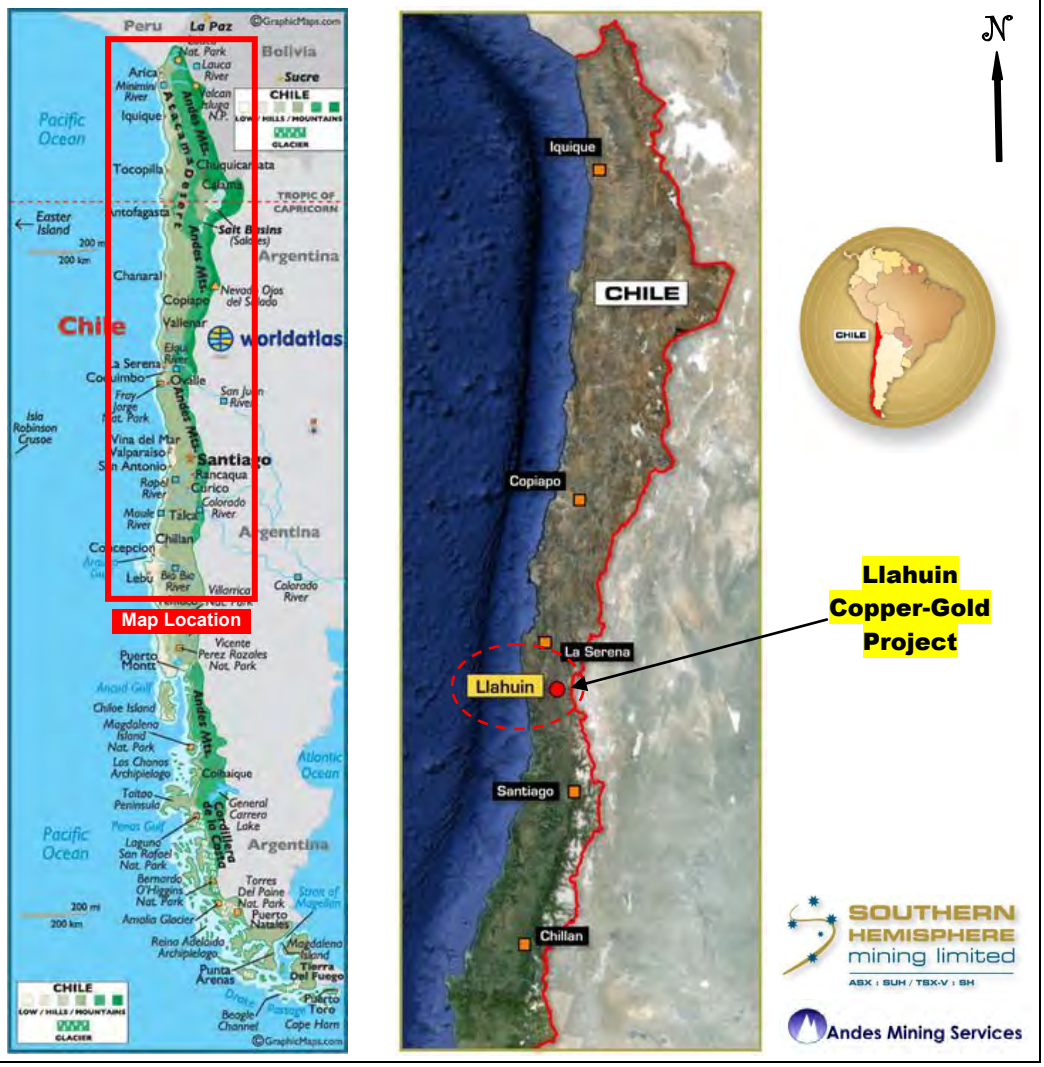
Andes Mining Services Limited (AMS) has been commissioned by Southern Hemisphere Mining Limited (SHM) to prepare an updated Mineral Resource Estimate for the Llahuin Copper-Gold Project, located within the Coquimbo Region of central Chile.

The mineral resource estimate has been prepared under the guidelines of Canadian Institute of Mining (CIM) and National Instrument 43-101 standards of disclosure for mineral projects and accompanying form 43-101.F1 and companion policy 43-101.CP collectively referred to as "NI 43-101". In addition, the reported resource is JORC (2004) compliant.

1.2 Location

The Llahuin Project is located within the Coquimbo Region of central Chile, approximately 240km north of Santiago, and 17km south of the town of Combarbalá (Figure 1.2_1).

Figure 1.2_1
Llahuin Copper-Gold Project Location *(AMS, 30th June 2013)*



The project is located 56km east of the coast and the Pan-American Highway. The topographical coordinates of a central point within the project are East 71º 01' 29" and North 31º 20' 23" (Datum Long/Lat UTM Projection, International Reference Ellipsoid 1924, La Canoa Datum 1956, Time/Area 19).

1.3 Ownership

The Llahuin project is located within the "Amapola" concessions. These concessions have been granted to Minera Llahuin SCM (MLS). MLS is an entity set up to reflect a farm-in arrangement (Farm-in Arrangement) between SHM and Lundin Mining Corporation (Lundin Mining) formalised on 1st November 2012.

Under the terms of the Farm-in Arrangement, Lundin Mining have the option to acquire up to 75% of the equity in MLS and therefore the Llahuin project via staged funding of exploration works up to the value of US$35 million.

As at the date of this report, MLS is 50% owned by Minera Hemisferio Sur (MHS), 49.995% owned by Pan American Mining Pty Ltd (PAM) with the balance of 1 nominal share held by Lundin Mining's Chilean subsidiary.

Both MHS and PAM are 100% controlled subsidiaries of SHM.

MLS is the sole registered and beneficial holder of four contiguous mining licenses covering some 771 ha (covering the Llahuin project area) with an additional eleven exploration permits for a total of 2,600 ha.

1.4 History

Over the years, there have been various exploration campaigns completed across the Llahuin group of concessions. Activities include the drilling of two exploration holes (2004) as well as an artisanal open pit and underground excavation activities (Figure 1.4_1).

Figure 1.4_1
Llahuin Copper-Gold Project - Drilling SE of Historical Open Pit (Central Porphyry)

Results of the historical drilling, exploration and exploitation activities prior to SHM's involvement are not readily available.

This report gives details of exploration undertaken by SHM from June 2011 to May 2013. At the date of this report, further exploration drilling has ceased pending environmental approval processes. However, further infill drilling is planned during the fourth quarter of 2013, and the results of this drilling will be incorporated into future mineral resource estimates.

The work completed by SHM to-date has included:

- Regional reconnaissance, rock chip sampling and geophysics.
- Project scale mapping at 1:2000 scale across the Llahuin Project.
- 59 diamond drill (DDH) holes for a total of 20,787.6m.
- 188 reverse circulation (RC) holes for a total of 33,732.2m, of which a total of 25 holes were drilled as pre-collars to diamond drill holes.

Prior to SHM involvement there had been no material exploration or mining activities undertaken on the project or the region.

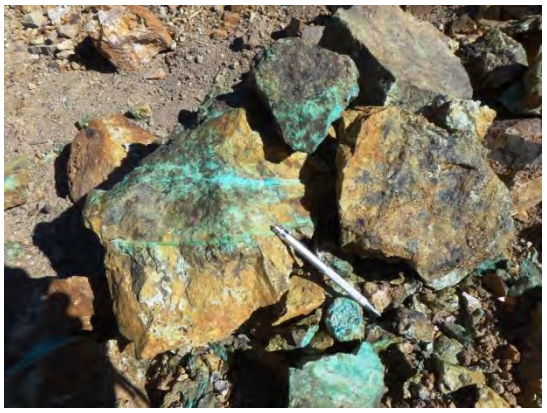
1.5 Geology and Mineralization

The Llahuin Copper-Gold Project is a porphyry copper-gold system with medium sized early dioritic stocks that exhibits propylitic to potassic (biotite) alteration and is emplaced in a north-south trending regional fault system.

Argillic-quartz sericite alteration zones are evident in both the upper zones and margins of the hydrothermal system within the volcanic wall rocks.

At the Llahuin Project, a NNE trending elongated late granodioritic stock intrudes the early dioritic porphyry. Mineralization within porphyry zones is typically related to early dioritic porphyry stock, with abundant stockworks of quartz and variable amounts of magnetite, biotite, tourmaline, actinolite, calcite, copper oxides, iron oxides and some pyrite, chalcopyrite, covelite, chalcocite and molybdenite.

Mineralization is mainly associated with veinlet systems, with copper mineralization present as chalcopyrite (Figures 1.5_1 and 1.5_2).

Figure 1.5_1 **Typical Veining throughout Central Porphyry**	**Figure 1.5_2** **Sulphide Veins and Veinlets**
	

The Llahuin Project consists of the Central Porphyry Zone, the Cerro de Oro Zone and the Ferrocarril Zone as displayed in Figure 1.5_3 below. The Central Porphyry Zone is a typical Cu-Au porphyry system with associated stockwork mineralization. The Cerro de Oro Zone lies almost entirely within volcanic rock and is interpreted as the stockwork cap to an underlying porphyry system. There are explosive breccia style textures associated with this deposit. The Ferrocarril Zone remains underexplored and is not well understood.

Figure 1.5_3
Llahuin Copper-Gold Project - Deposit Locations (Central Porphyry, Cerro De Oro and Ferrocarril)

1.6 Mineral Processing and Metallurgical Testing

SHM completed preliminary metallurgical testwork in late 2012 / early 2013. Bulk samples for metallurgical testwork were collected from only the Central Porphyry zone.

The initial metallurgical testwork program tested the work index and flotation characteristics of the Llahuin Project feed in rougher and cleaner float cells, as well as closed loop flotation tests. The metallurgical test work indicates that the Llahuin Project mineralization is highly amenable to a conventional flotation process.

Recoveries of copper vary between 75% Cu and 91% Cu with the weighted average of the results being 84% Cu, which is a typically acceptable commercial level.

Recoveries of gold vary between 41% Au and 57% Au, which is in line with expectations given the relatively low gold grades within the deposit (Table 1.6_1).

Table 1.6_1
Metallurgical Testwork - Llahuin Copper-Gold Project
Closed Loop Flotation Testwork (Diamond Drill Core Samples)

Sample	% of Resource	Feed Grade % Cu	Feed Grade g/t Au	Cu Recovery %	Au Recovery %	Concentrate Grade % Cu	Concentrate Grade g/t Au
UGM-01	37	0.46	0.142	85	47	32	6.1
UGM-02	11	0.44	0.150	91	57	31	8.8
UGM-03/06	11	0.28	0.067	75	52	16	2.6
UGM-04	13	0.33	0.046	81	41	28	2.3
UGM-09	16	0.33	0.066	88	41	26	3.4
TOTAL/WT AV.	**88**	**0.39**	**0.106**	**84**	**47**	**28**	**4.9**

Work Index testing was completed on six samples to determine possible future power requirements in the crushing/grinding process. Power consumption varied between 11.74 and 14.84 kWhr/t with the majority of the results being below 12.49 kWhr/t, which is generally considered to be low / moderate consumption.

Flotation concentrates produced during testing contained the resource weighted average copper grade of 28% Cu and 4.9g/t Au. They also contained low levels of deleterious materials in the concentrate. Given that these tests were designed to set parameters and were not optimized, the results indicated good flotation process characteristics.

For the next stage, larger scale metallurgical test work is planned to more accurately study the metallurgical parameters, process conditions and a mineralogical analysis of the concentrates so as to optimize the key variables.

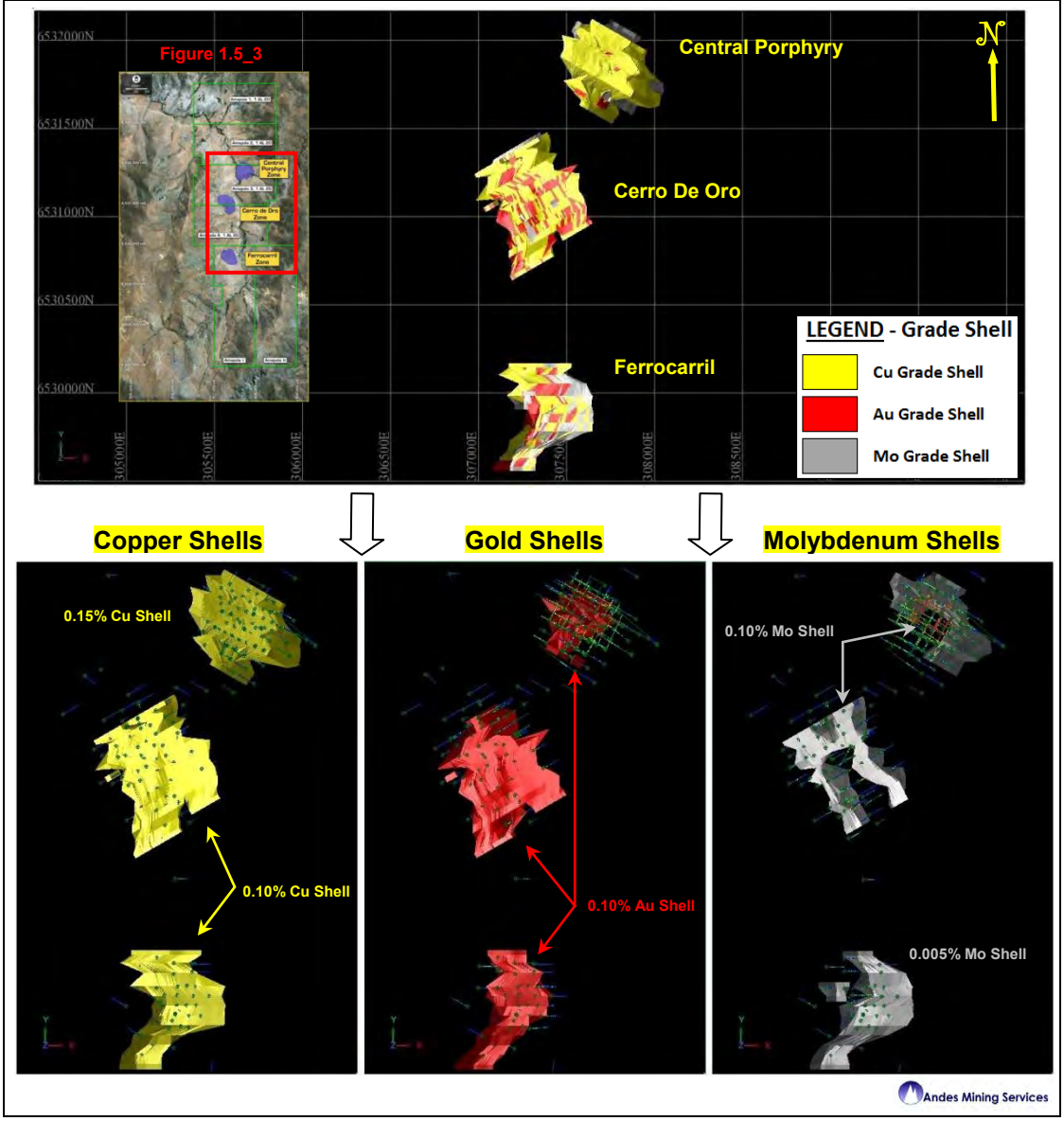
1.7 Mineral Resources

The Llahuin Project Measured, Indicated and Inferred mineral resource estimate is based on 59 diamond holes (20,787.6m) and 188 reverse circulation holes (33,732.2m) drilled at a spacing of between 50m x 50m to 200m x 200m. Only data received as at 31st March 2013 has been used in this estimate. SHM has planned additional extensional and exploration drilling, however drilling is currently on standby while environmental approvals are processed. Infill drilling will commence across the existing resource in the fourth quarter of 2013.

The mineral resource estimate has been constructed within 0.10% grade shells for Cu, 0.10g/t grade shells for Au and a 0.01% grade shells for Mo. Exceptions to this criteria include a 0.15% Cu grade shell for Central Porphyry and a 0.005% Mo grade shell utilized for Ferrocarril (Figures 1.7_1).

Multiple lithological units have been grouped together, based upon statistical properties and a visual review of cross sections.

Figure 1.7_1
Drilling and Grade Shells - Llahuin Copper-Gold Project *(AMS, 30th June 2013)*



An independent mineral resource has been estimated for the Llahuin Project comprising a Measured mineral resource of 112 Mt at 0.42% CuEq and an Indicated mineral resource of 36.91 Mt at 0.37% CuEq. Combined Measured and Indicated mineral resource for the Llahuin Project stands at 148.91 Mt at 0.41% CuEq. A further Inferred mineral resource of 19.93 Mt at 0.36% CuEq has been estimated for the Llahuin Project (Table 1.7_1 below).

The mineral resource has been reported at a cut-off grade of 0.28% CuEq, although not within an optimised open pit shell. The resource has been reported to the base of drilling which is approximately 400m vertical depth below surface.

The mineral resource statement has been classified by Qualified Person Bradley Ackroyd (Member -MAIG) in accordance with NI 43-101, and accompanying documents 43-101.F1 and 43-101.CP. The statement is also JORC (2004) compliant. It has an effective date of 30th June 2013.

Figure 1.7_2
CuEq Grade Distribution for Resource Estimate - Central Porphyry Zone *(AMS, 30th June 2013)*

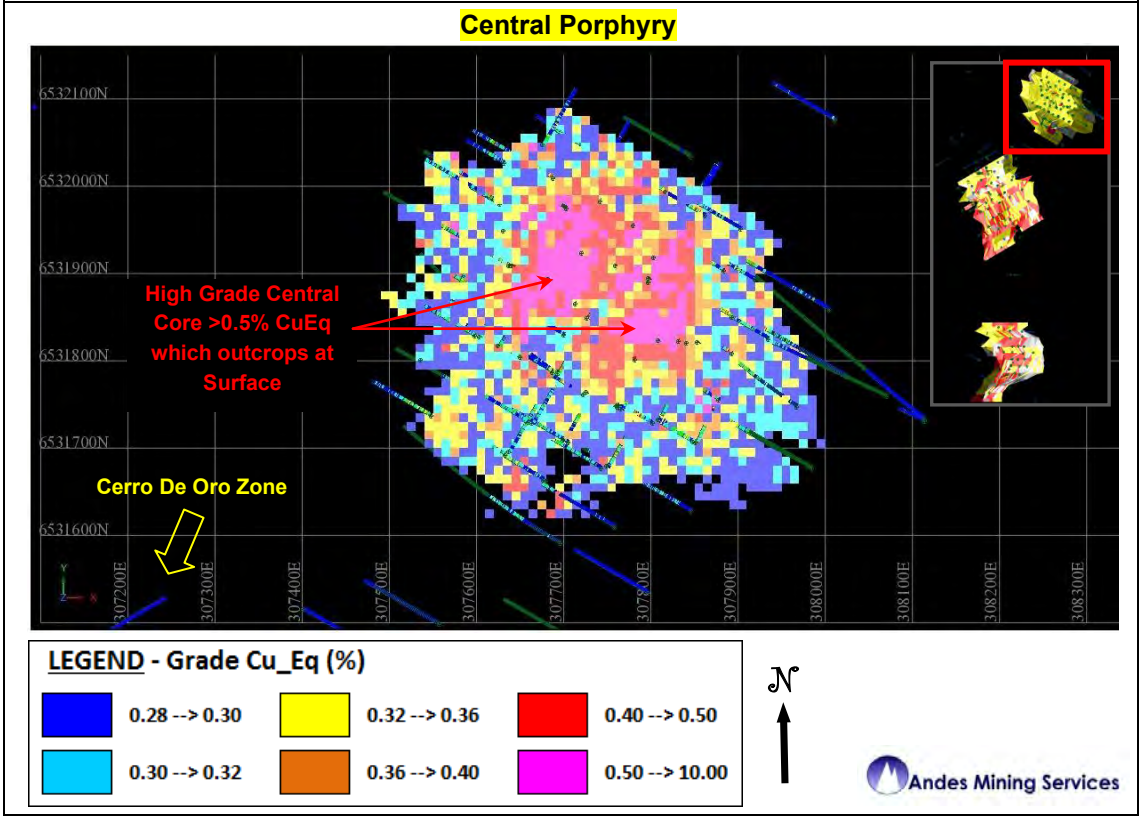


Figure 1.7_3
CuEq Grade Distribution for Resource Estimate - Cerro De Oro Zone *(AMS, 30th June 2013)*

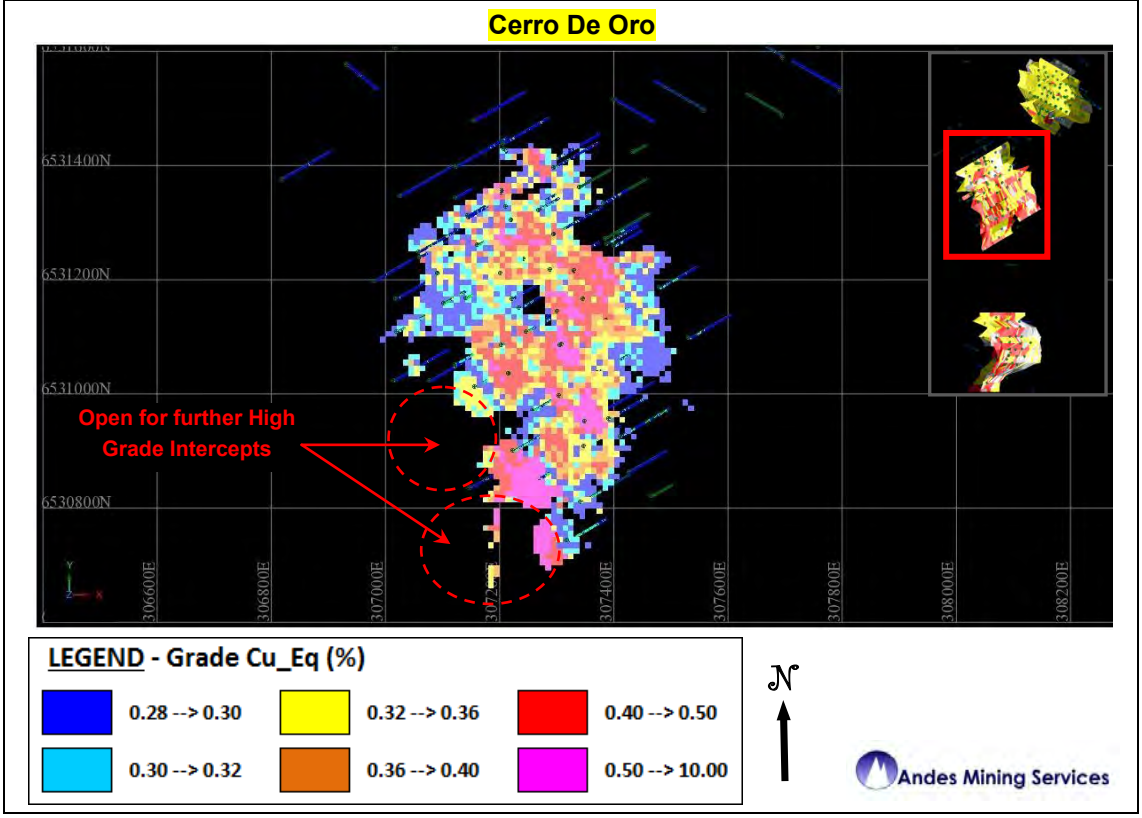
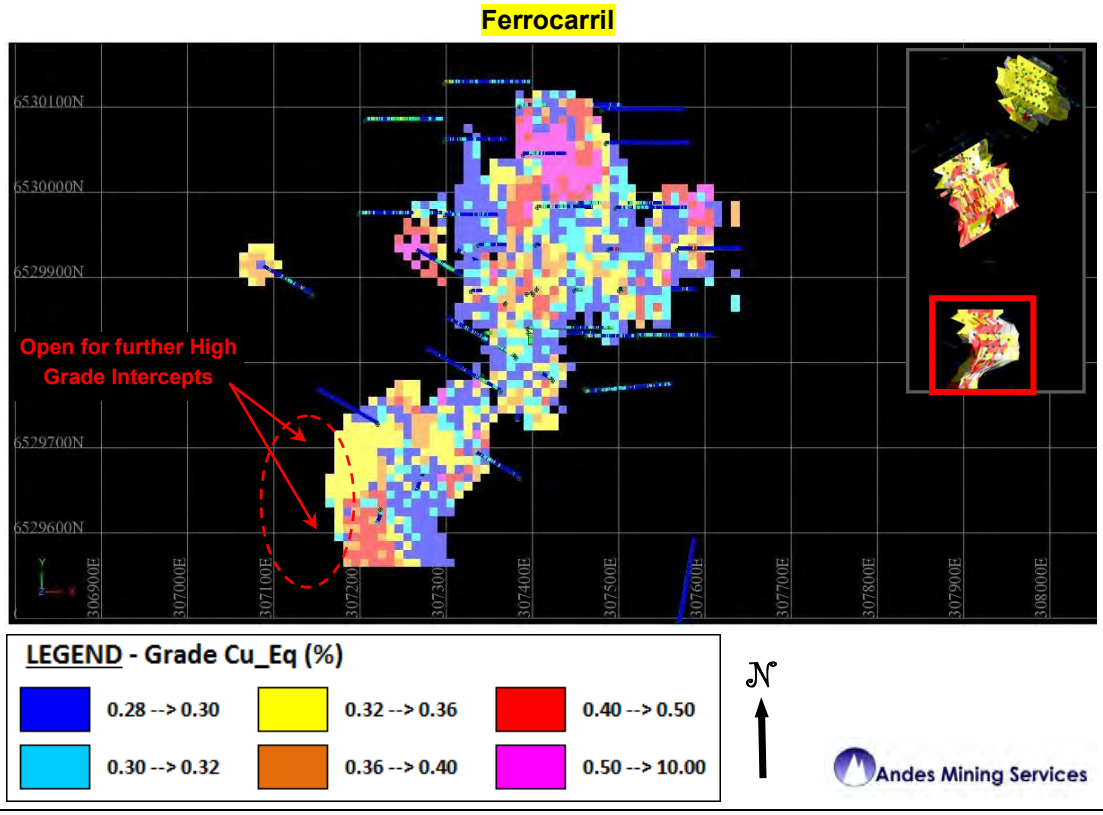


Figure 1.7_4
CuEq Grade Distribution for Resource Estimate - Ferrocarril Zone *(AMS, 30th June 2013)*



Mineral resources that are not mineral reserves do not have demonstrated economic viability.

AMS and SHM are not aware of any factors (environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors) that may materially affected the Mineral Resource Estimate.

Table 1.7_1
SHM - Llahuin Copper-Gold Project
Measured, Indicated and Inferred Mineral Resource Grade Tonnage Report - 30th June 2013
Ordinary Kriging (OK) - (0.28% CuEq Cut-Off Applied)
(Block Model – 10mE X 10mN X 10mRL)

Area	Million Tonnes	Measured Resource			
		Cu (%)	Au (g/t)	Mo (%)	CuEq (%)
Total Project	112.00	0.307	0.120	0.008	**0.422**
		Indicated Resource			
Total Project	36.91	0.232	0.139	0.007	0.369
		Measured and Indicated			
Total Project	**148.91**	**0.288**	**0.125**	**0.007**	0.408
		Inferred Resource			
Total Project	**19.93**	**0.199**	**0.186**	**0.005**	**0.362**

Appropriate rounding has been applied to Table 1.7_1.
Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

1.8 Copper Equivalent Calculation

The copper equivalent (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage.

These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result. There has been no allowance made for the relative metallurgical recovery of each of the three elements (Cu, Au and Mo).

It is the qualified person's opinion that the elements considered have a reasonable potential to be recovered as evidenced in similar porphyry copper mines in Chile. Copper equivalent conversion factors and long-term price assumptions used are stated below:

CuEq Formula= Cu % + Au (g/t) x 0.77203 + Mo (%) x 3.906

Price Assumptions: Cu (US$3.20/lb), Au (US$1,700/oz), Mo (US$12.5/lb)

1.9 Conclusions and Recommendations

- The project is being systematically explored and drilled.
- The level of geological understanding across the project area is considered strong.
- Cerro de Oro and Ferrocarril zones are targets which remain open in all directions. Central Porphyry is open with depth, however has been adequately drill tested along strike.
- AMS note that resource estimations have been completed without any restriction placed upon the number of drill holes required to make a block estimate. Portions of the Central Porphyry, Cerro De Oro and Ferrocarril deposits have been estimated with sample support from a single drill hole.
- AMS note two high grade Au and Mo drill hole intercepts at depth within the Ferrocarril deposit (RCLLA-141 and DDLLA-031 respectively) which lack sample support given the depth of the mineralized intercepts. AMS recommend that SHM complete additional drilling in these areas to support the current classification of resources.
- The quantity and quality of standards inserted into the sample stream by SHM has improved since the previous resource estimate completed in late 2012. AMS recommend that SHM initiate a standard procedure for QAQC which includes the submission of standards, blanks and field duplicates into the sample stream.
- Preliminary metallurgical testwork indicates that mineralization from the Central Porphyry zone is highly amenable to a conventional flotation process. Recoveries of copper vary between 75% Cu and 91% Cu with the weighted average of the results being 84% Cu which is a typically acceptable commercial level. Recoveries of gold vary between 41% and 57% Au, which was in line with expectations given the

relatively low gold grades within the deposit. AMS note that flotation testwork studies were completed to maximize copper recovery, and subsequently there may be opportunity to improve gold recoveries through the addition of a gravity circuit given known presence of coarse gold.

- Broad spaced (200 x 200m) grid pattern drilling should be undertaken between the Ferrocarril and Cerro De Oro zones in an effort to delineate additional near surface mineralization. A single drill hole has highlighted significant widths of low grade mineralization between the two prospects (RCLLA-122). Follow-up drilling should target the most prospective areas within this zone (100 x 100m spacing).

- Potential to delineate additional near surface resources amendable to open pit mining remains high, and focus should be placed up testing the western extension of the Cerro De Oro and Ferrocarril zones where mineralization remains open (Figures 1.7_3 and 1.7_4).

- Utilize a recent geophysical survey as a first pass exploration tool to help guide regional exploration drilling programs. SHM should endeavour to generate priority targets for drill testing / assessment.

- A budget of US$ 7,000,000 annually that consists of 1 DC rig and 1 RC rig, with appropriate staff, supervision, and technical support, is the appropriate level of expenditure for this project.

AMS recommends that the Project be advanced to a Preliminary Economic Assessment (PEA) level of evaluation and design. The cost estimate for the recommended exploration and evaluation work program is shown in Table 1.9_1 below;

Table 1.9_1
Llahuin Copper-Gold Project
Proposed Resource and Evaluation Expenditure

Activity	**Total (US$)**
DC and RC Drilling (pre-collar)	$ 5,000,000
Assaying and Characterization	$ 300,000
Geophysics	$ 400,000
Geology	$ 300,000
Drill Sites, Vehicles, Setup and Logistics	$ 400,000
Metallurgy	$ 150,000
Preliminary Economic Assessment	$ 250,000
Administration	$ 200,000
Sub-Total	**$ 7,000,000**

2 INTRODUCTION

2.1 Scope of Work

This Report is prepared for SHM, a reporting issuer in the Provinces of Alberta, British Columbia and Ontario, whose common shares are listed for trading on the TSX Venture Exchange (trading as SH) and the Australian Securities Exchange (trading as SUH).

AMS has been commissioned by SHM to prepare an updated Mineral Resource Estimate for the Llahuin Copper-Gold Project, located within the Coquimbo Region of central Chile.

This report is prepared in accordance with disclosure and reporting requirements set forth in National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1, and complies with Canadian National Instrument 43-101 for the 'Standards of Disclosure for Mineral Projects' of December 2005 (the Instrument), and the resource and reserve classifications adopted by CIM Council in November 2004 and updated in 2011. In addition, the reported resource is JORC compliant.

2.2 Forward Looking Information

This report contains "forward looking information" within the meaning of applicable Canadian securities legislation. Forward-looking information may include, but is not limited to, statements related to the capital and operating costs of the Llahuin Project, the price assumptions with respect to copper and gold, production rates, the economic feasibility and development of the Llahuin Project and other activities, events or developments that SHM and AMS expects or anticipates will or may occur in the future. Forward-looking information is often identified by the use of words such as "plans", "planning", "planned", "expects" or "looking forward", "does not expect", "continues", "scheduled", "estimates", "forecasts", "intends", "potential", "anticipates", "does not anticipate", or "belief", or describes a "goal", or variation of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking information is based on a number of factors and assumptions made by the authors and the management of SHM, which are considered reasonable at the time such statements are made, and forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking information. Such factors include, among others, obtaining all necessary financing, licenses to explore and develop the project; successful definition and confirmation based on further studies and additional exploration work of an economic mineral resource base at the project; as well as those factors disclosed in SHM's current Annual Information Form and Management's Discussion and Analysis, as well as other public disclosure documents, available on SEDAR at www.sedar.com.

Although SHM has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking information will prove to be

accurate. The forward-looking statements contained herein are presented for the purposes of assisting investors in understanding SHM's plan, objectives and goals and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. SHM does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

2.3 Site Visit

Mr. Bradley Ackroyd undertook a site visit to the Llahuin Copper-Gold Project between 5th and 8th of May 2013. He inspected the drill sites, drill core and chips, logging, sample collection and storage procedures as well as the office set-up and core processing facilities. Mr. Ackroyd also observed all the available surface exposures of the deposit across the Llahuin project area.

In addition, Mr. Ackroyd undertook a short review of the quality control and assurance procedures employed at the project site.

2.4 Principal Sources of Information

In addition to a site visit undertaken by Mr. Bradley Ackroyd (AMS) to the Llahuin Copper-Gold Project between 5th and 8th of May 2013, the author of this report has relied extensively on information provided by SHM along with discussions with SHM technical personnel and management.

A full listing of the other principal sources of information is included in Section 27 of this report.

AMS has made all reasonable enquiries to establish the completeness and authenticity of the technical information provided and identified. A final draft of this report was provided to SHM, along with a written request to identify any material errors or omissions, prior to lodgement.

The site inspection undertaken by AMS included a review of the geological outcrop, surrounding infrastructure, available drillcore and RC drill chips, historical drillhole collars in the field and the office set-up / core processing facilities.

A full listing of the principal sources of information is included at the end of this report and a summary of the main documents is provided below:

- SHM (September 2012) – Mineral Resource Estimate - Llahuin Copper Project, Coquimbo Region, Chile.

AMS has made enquiries to establish the completeness and authenticity of the information provided and identified.

AMS have taken all appropriate steps in their professional judgement, to ensure that the work, information or advice contained in this report is sound and AMS do not disclaim any responsibility for this report.

2.5 Qualifications and Experience

The “qualified persons” (as defined in NI 43-101) for this report is Mr. Bradley Ackroyd (AMS) and Mr. Ian Dreyer (AMS).

Mr. Ackroyd is a Principal Consulting Geologist for AMS with 12 years experience in exploration and mining geology. Mr. Ackroyd is also a Member of the Australian Institute of Geosciences (MAIG) and has worked in exploration and development stage projects for metallic and non-metallic mineral deposits throughout the world. The author has been involved in mineral resource estimation work on a continuous basis over the past 10 years. Mr. Ackroyd is an independent Qualified Person as per section 1.4 of NI 43-101 and is responsible for all sections of this report.

Mr. Ian Dreyer is a professional geologist with 24 years of international experience in the geology and evaluation of mineral properties. Mr. Dreyer is a Chartered Professional Member of Australasian Institute of Mining and Metallurgy (MAusIMM (CP)) and has the appropriate relevant qualifications, experience and independence as defined in the Australasian VALMIN and JORC codes and is a Qualified Person (QP) as defined in Canadian National Instrument 43-101. Mr. Dreyer is currently employed as a Principal Consulting Geologist with AMS. Mr. Dreyer is responsible for peer reviewing all sections of this report.

2.6 Units of Measurements and Currency

All monetary terms expressed in this report are in United States dollars ("US$") unless specified.

Quantities are generally stated in SI units, including metric tonnes (t), kilograms (kg) or grams (g) for weight; kilometres (km), metres (m), centimetres (cm) and millimetres (mm) for distance; square kilometres (km²) or hectares (ha) for area; and percentage (%) and grams per tonne (g/t) to express grades. Ounces (oz), where used, refer to troy ounces.

2.7 Independence

Neither AMS nor the author of this report has or has had previously any material interest in SHM or related entities or interests. Our relationship with SHM is solely one of professional association between client and independent consultant.

This report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.

2.8 Abbreviations

A full listing of abbreviations used in this report is provided in Table 2.8_1 below.

Table 2.8_1
List of Abbreviations

	Description		Description
$	United States of America dollars	LOI	loss on ignition
“	inches	M	million
µ	microns	m	metres
3D	three dimensional	Ma	thousand years
AAA	Andes Analytical Assay Ltda Laboratory	MAIG	Member Australian Institute of Geoscientists
AAS	atomic absorption spectrometry	MC	Mining Code
AMSA	Antofagasta Minerals S.A.	MHS	Minera Hemisferio Sur SCM
ALS	ALS Group	ml	Millilitre
AMS	Andes Mining Services	MLS	Minera Llahuin SCM
ASL	Above Sea Level	mm	millimetres
ASX	Australian Securities Exchange	Mo	Molydenum
Au	Gold	Moz	million ounces
AusIMM	Australasian Institute of Mining and Metallurgy	Mtpa	million tonnes per annum
bcm	bank cubic metres	N (Y)	northing
CC	correlation coefficient	NPV	net present value
CIM	Canadian Institute of Mining, Metallurgy and Petroleum	NNE	a north-north east direction
CLP	Chilean Pesos	NQ_2	size of diamond drill rod/bit/core
cm	centimetre	NSR	net smelter return
COL	Constitutional Organic Law	ºC	degrees centigrade
CRM	certified reference material or certified standard	OK	ordinary kriging
Cu	Copper	OPEX	operating expenses
cueq	Copper Equivalent	Oz	Troy Ounces
CV	coefficient of variation	P80 -75µ	80% passing 75 microns
DC	diamond core	PEA	preliminary economic assessment
DDH	diamond drillhole	PFS	preliminary feasibility study
DGPS	Differential Global Positioning System	ppb	parts per billion
DTM	digital terrain model	ppm	parts per million
E (X)	easting	PRC	Political Constitution of the Republic
EDM	electronic distance measuring	psi	pounds per square inch
EIA	Environmental Impact Assessment	QAQC	quality assurance quality control
equ	equivalent	QC	quality control
Fe	Iron	QQ	quantile-quantile
G	gram	RC	reverse circulation
g/m^3	grams per cubic metre	RL (Z)	reduced level
g/t	grams per tonne of gold	ROM	run of mine
ha	hectare	RQD	rock quality designation
HARD	half the absolute relative difference	SD	standard deviation
HQ_2	size of diamond drill rod/bit/core	SG	specific gravity
Hr	hours	SGS	SGS Mineral Services Laboratory
HRD	half relative difference	SHM	Southern Hemisphere Mining
ICP-AES	inductivity coupled plasma atomic emission spectroscopy	Si	silica
ICP-MS	inductivity coupled plasma mass spectroscopy	SiO_2	silica oxide
ISO	International Standards Organisation	SMU	selective mining unit
JORC	Joint Ore Reserves Committee (of the AusIMM)	t	tonnes
kg	kilogram	t/m^3	tonnes per cubic metre
kg/t	kilogram per tonne	tpa	tonnes per annum
km	kilometres	TSX	Toronto Stock Exchange
km^2	square kilometres	UC	uniform conditioning
kW	Kilowatts	US$	united states dollars
kWhr/t	kilowatt hours per tonne	w:o	waste to ore ratio
$l/hr/m^2$	litres per hour per square metre		

3 RELIANCE ON OTHER EXPERTS

The author of this report, states that he is a Qualified Person for those areas as identified in appropriate Qualified Person's "Certificate of Author" in Section 29.

Neither AMS nor the author(s) of this report are qualified to provide extensive comment on legal issues, including status of tenure associated with the Llahuin property referred to in this report.

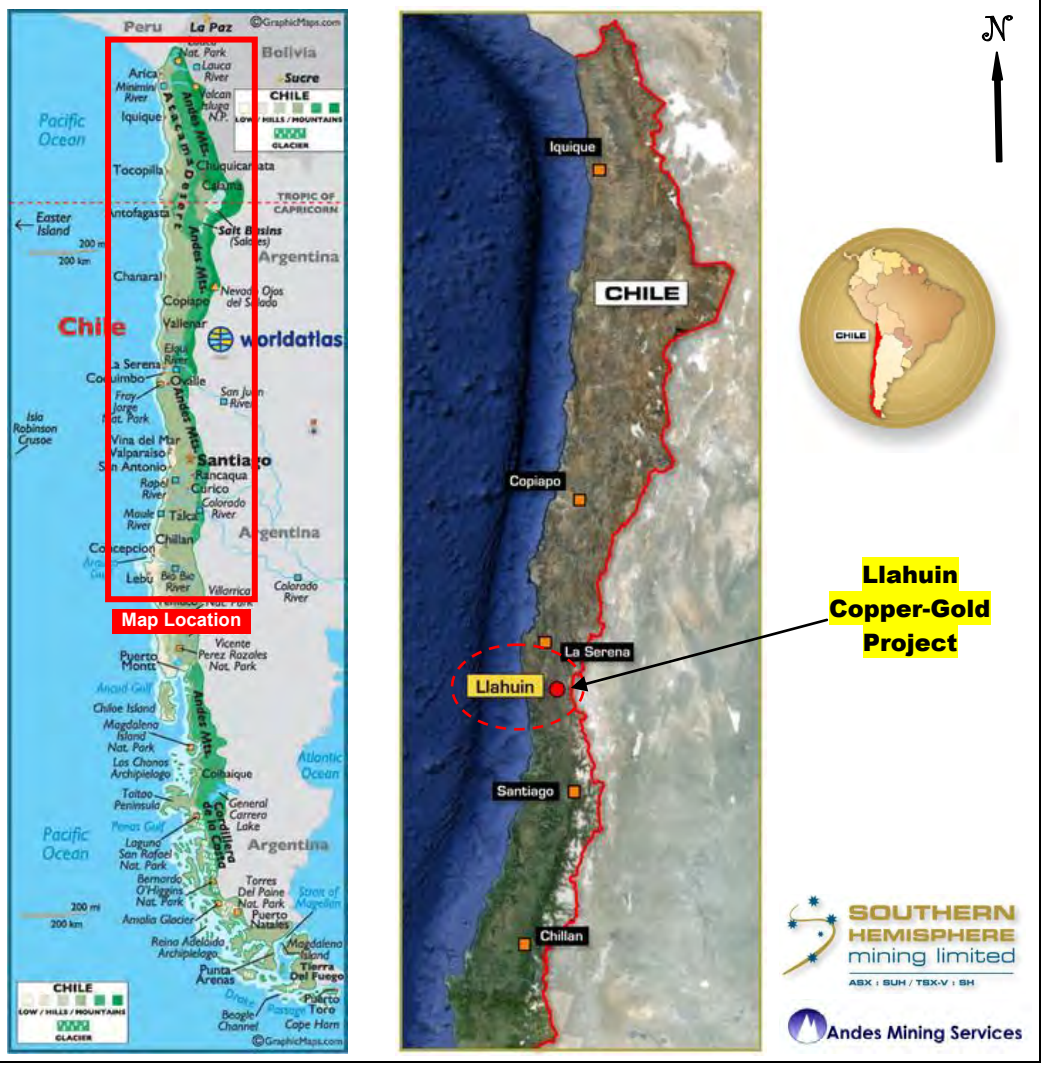
AMS has relied heavily on information provided by SHM, which has not been independently verified by AMS, and this report has been prepared on the understanding that the properties are, or will be, lawfully accessible for evaluation, development, and mining and processing.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Project Location

The Llahuin Project is located within the Coquimbo Region of central Chile, approximately 240km north of Santiago, and 17km south of the town of Combarbalá (Figure 4.1_1).

Figure 4.1_1
Llahuin Copper-Gold Project Location *(AMS, 30th June 2013)*



The project is located 56km east from the coast and the Pan-American Highway, and situation at an elevation of approximately 1,300m ASL.

The topographical coordinates of a central point within the project are East 71º 01' 29" and North 31º 20' 23" (Datum Long/Lat UTM Projection, International Reference Ellipsoid 1924, La Canoa Datum 1956, Time/Area 19).

The capital Santiago is located a short 3.5 hour drive south of the Llahuin project area from which commercial and light aircraft flights are readily available.

4.2 Concession Status and Location

The Llahuin Project is located within the "Amapola" concessions. These concessions have been granted to Minera Llahuin SCM (MLS). MLS is an entity set up to reflect a farm-in arrangement (Farm-in Arrangement) between SHM and Lundin Mining Corporation (Lundin Mining) formalised on 1st November 2012.

Under the terms of the Farm-in Arrangement, Lundin Mining have the option to acquire up to 75% of the equity in MLS and therefore the Llahuin project via staged funding of exploration works up to the value of US$35 million.

As at the date of this report, MLS is 50% owned by Minera Hemisferio Sur (MHS), 49.995% owned by Pan American Mining Pty Ltd (PAM) with the balance of 1 nominal share held by Lundin Mining's Chilean subsidiary.

Both MHS and PAM are 100% controlled subsidiaries of SHM.

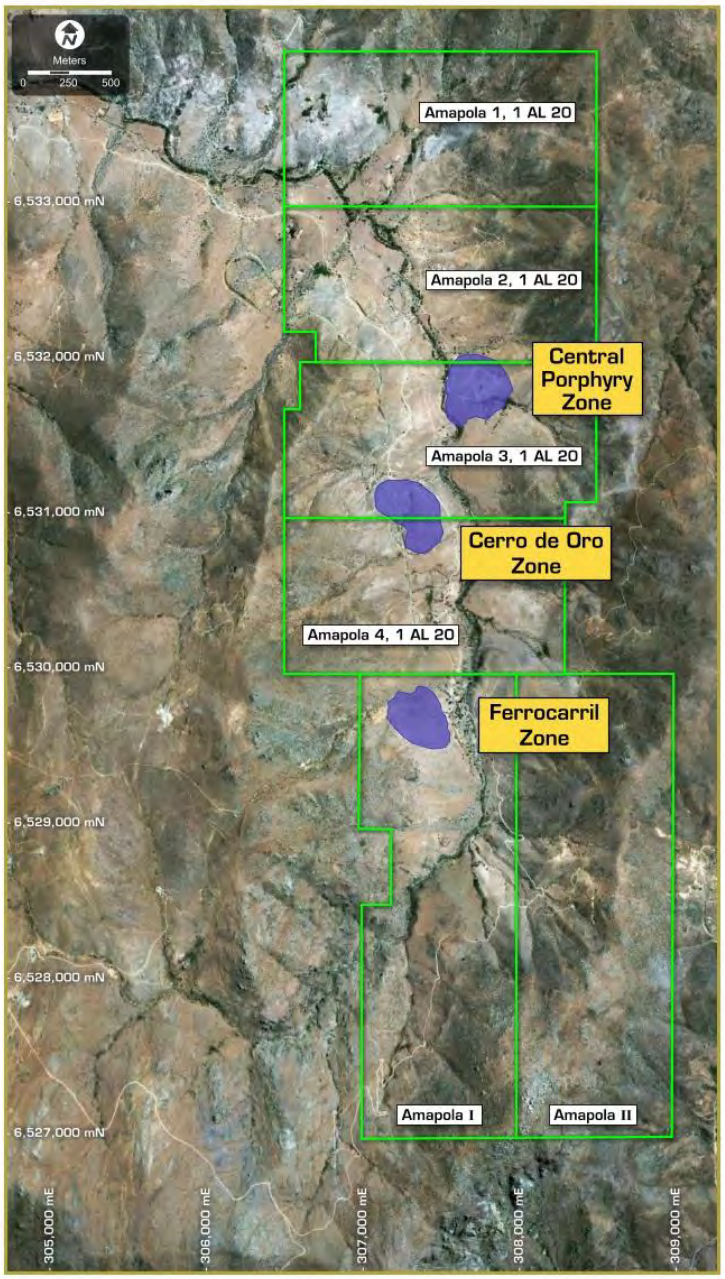
MLS is the sole registered and beneficial holder of four contiguous mining licenses covering some 771 ha (covering the Llahuin project area) with an additional eleven exploration permits under application for a total of 2,600 ha. Details of SHM mining licences and additional exploration concessions are found in Table 4.2_1 and Figure 4.2_1 below.

Table 4.2_1
Llahuin Project - Concession Status

License	Type	Name	Area (ha)	Status	Expiration Date	Initiation Date
SHM MINING LICENSES						
1	Exploitation	Amapola 1, 1 20	200	Constituted	N/A	2008
2	Exploitation	Amapola 2, 1 al 20	196	Constituted	N/A	2008
3	Exploitation	Amapola 3, 1 al 20	195	Constituted	N/A	2008
4	Exploitation	Amapola 4, 1 al 18	180	Constituted	N/A	2008
TOTAL OF 771 Ha HELD FOR MINING (LLAHUIN COPPER-GOLD PROJECT)						
SHM EXPLORATION CONCESSIONS						
1	Exploration	AMAPOLA I	300	Constituted	Sep 25, 2014	2012
2	Exploration	AMAPOLA II	300	Constituted	Aug 30, 2014	2012
3	Exploration	EL ESPINO 1	300	Constituted	Jan 29, 2015	2012
4	Exploration	EL ESPINO 2	200	Constituted	Jan 29, 2015	2012
5	Exploration	EL ESPINO 3	200	Constituted	Jan 29, 2015	2012
6	Exploration	EL ESPINO 4	200	Constituted	Jan 29, 2015	2012
7	Exploration	EL ESPINO 5	300	Constituted	Jan 29, 2015	2012
8	Exploration	EL ESPINO 6	300	Constituted	Jan 29, 2015	2012
9	Exploration	EL ESPINO 7	100	Constituted	Jan 29, 2015	2012
10	Exploration	EL ESPINO 8	200	Constituted	Jan 29, 2015	2012
11	Exploration	EL ESPINO 9	200	Constituted	Jan 29, 2015	2012
A TOTAL OF 2,600 Ha HELD FOR EXPLORATION (LLAHUIN COPPER-GOLD PROJECT)						

Figure 4.2_1 below depicts the mining concession plan of the Llahuin Project area.

Figure 4.2_1
Mining and Exploration Concessions - Llahuin Project *(SHM, 30th June 2013)*



4.3 Nature and Extent of Concession Titles

The only obligations contemplated in Chilean legislation which must be satisfied by a mining concessionaire is the payment of a claim fee, and any negotiated surface rights payments.

AMS has not independently verified, nor is it qualified to independently verify, the legal status of the Llahuin Project concessions, and has relied on information provided by SHM.

In preparing this report AMS has assumed that the tenements are, or will prove to be, lawfully accessible for evaluation.

4.4 Mining Property

4.4.1 Mining Concessions in Chile

The Political Constitution of the Republic (PRC) provides that the State of Chile has the absolute, exclusive, unalienable and imprescriptibly dominion over all the mines, and the mineral substances determined by Constitutional Organic Law (COL) as susceptible of such work may be explored and exploited through mining concessions.

The mining concession is an 'in rem' right on real property different and independent from ownership of surface lands, even if they have the same owner, that is, the separation of the dominion over the mining concession (that gives the right to explore and/or exploit mineral substances) and the ownership of the surface land where it is intended to perform mining exploration and exploitation work is confirmed. The mining concession is transferable and transmissible, susceptible to mortgage and other real rights, and in general, of any act or contract; and is ruled by the same civil laws as the rest of the real estate properties, unless they are contrary to the COL or Mining Code (MC)

The mining concessions are constituted in a non contentious judicial procedure which can be of two kinds: exploration concessions and exploitation (mining) concessions

The exploration concessions have an initial effective period of 2 years but this period can be extended to 4 years by halving the concession surface area.

The exploitation concessions have an indefinite effective period and grants exclusive rights to prospect and mine the concession area, provided the annual patent fees are paid.

4.4.2 Access to the Necessary Lands for the Execution of Mining Work

In view of the separation of the property rights of the mining concession from the surface land, the MC establishes special laws and regulations on this matter. Access to the surface lands is provided during the proceedings carried out for the mining concession.

Once the mining concession is constituted to carry out exploration and/or exploitation work as the case may be, its titleholder must obtain written permission from the titleholders of surface lands and additionally, if this is the case, from some administrative authorities. This is if the performance of the work affects or can affect populated places of public interest or of national security, as detailed in articles 14, 15 and 17 of the MC.

Once the mining concession is constituted, it grants the titleholder the right to impose special mining easements on surface lands after a determination of the indemnifications to be paid to the owner of the land, agreed with it or fixed judicially. The mining easements can be for traffic or access, for electric services and for occupation. In the terms and scopes of article 120 of the MC, easements cannot be imposed in land where permanent constructions exist or which are covered by plantations of forests, vineyards and fruits.

4.4.3 Water Rights

The Mining Concessions grant the concessionary (the holder of the mining concession) the right to use the water resources found while developing exploration and/or exploitation works, only for the purposes of the exploration and/or exploitation works. In case that no water resources are found in the course of the mining works, such resource shall be secured by incorporating and/or purchasing water rights from the State of Chile, through the Dirección General de Aguas by proving both the existence of the water resources requested and the existence of a project justifying the use thereof.

4.4.4 Specific Tax to the Mining Activities

There is a specific tax on the operational income of the mining activity obtained by a mining operator. This progressive tax rate ranges from 0.5%, if the value of the annual sales exceeds the amount equivalent of over 12,000t of fine copper, to 4.5% if the annual sales exceed the value of 40,000t up to the value of 50,000t.

If the sales exceed the value of 50,000t of fine copper, the tax is applied on the mining operational margin and the progressive tax rate ranges from 5% to 14% on operational margin. The operational taxable income on which this tax is applied is determined in a particular way. Certain expenses such as losses from past periods, accelerated depreciation of fixed assets, etc are not allowed for this purpose. The mining operational margin is determined as a ratio of the operational taxable income to the mining operational turnover.

4.5 Royalties / Agreements and Encumbrances

During the exploration phase, the Llahuin project is not subject to any known payments or agreements and encumbrances, other than the Farm-in Arrangement and any negotiated surface rights payments.

On 18th December 2012, SHM signed a 30-year Easement Agreement with the local El Espino Community. Under the terms of the Easement Agreement, SHM is allowed access to all community land for exploration, exploitation, mining, processing, plant, utilities and infrastructure activities within a 2,500 hectare area around the Llahuin project.

A payment of US$57,000 was made to the Community upon signing the Agreement, with a US$50,000 annual payment commencing 12 months thereafter; a US$70,000 annual payment commencing on approval of an Environmental Impact Assessment; and an additional annual payment of US$70,000 commencing two months after the commencement of feeding material to the processing plant.

4.6 Environmental Liabilities and Permits

SHM are awaiting environmental approvals before continuing exploration drilling.

AMS is not aware, nor has it been made aware, of any environmental liabilities associated with the Llahuin Project.

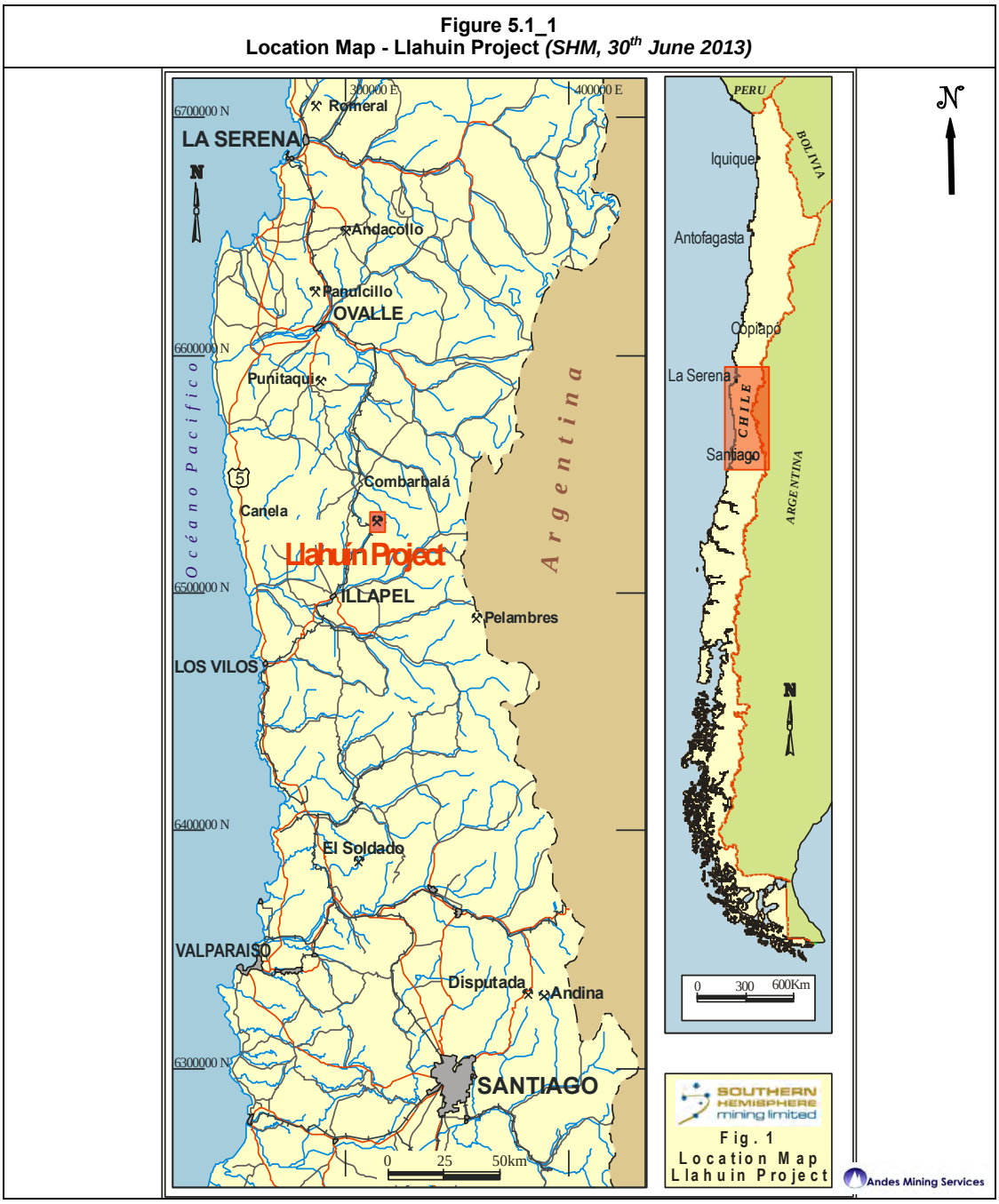
5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Project Access

The Llahuin Project is located in central Chile, approximately 240km north of Santiago, and 56km from the coast and the Pan-American Highway. Access to the project area is via approximately 17km of well maintained, all weather gravel roads south of the established mining town of Combarbalá (population 14,000), as shown in Figure 5.1_1 below.

A central point from within the project area gives UTM coordinates of 6,531,800 N and 307,700 E (Datum Long/Lat PSAD56).

Figure 5.1_1
Location Map - Llahuin Project *(SHM, 30th June 2013)*



5.2 Physiography and Climate

The Llahuin Project is located at an altitude of 1,300m ASL on the flanks of the Llahuin Valley, as displayed in Figure 5.2_1. The area is characterized by a moderate relief depicted by mountain ranges and flat zones with deep ravines and steep slopes, with altitudes ranging from 1,000 to 1,500m above sea level.

Figure 5.2_1
Panoramic View Looking North-East over the Llahuin Project Area *(AMS, 30th June 2013)*

The climate is semi-arid with a relative humidity of around 50%. Summer temperatures range from 24°C to 33°C with cool nights typical of semi-arid climates. Winter temperatures are generally above freezing. Annual rainfall is around 200mm but long periods of drought and heavy rains are not rare in the region. The vegetation found is typical of the semi-arid climate and has adapted to the dryness and low relative humidity of the climate.

5.3 Local Infrastructure and Services

Local infrastructure is considered excellent. Access to the project area is good, and a high tension electricity line is located within 5km of the project which is capable of delivering sufficient power needs for the project and associated infrastructure.

A railway line near the project area extends to two ports (Los Vilos and Coquimbo). In addition, two gravel airstrips in good condition are located within 16km of the project area. The supply of food, water, fuel and communication is available in the towns of Combarbalá and Illapel.

Water is available in the region in surface springs and underground aquifers. Water for exploration purposes is readily available.

Figure 5.3_1
Office Set-Up and Core Storage - Project Site #1

Figure 5.3_2
Office Set-Up and Core Storage - Project Site #2

Figure 5.3_3
High Tension Electricity - 5km to Llahuin Project

Figure 5.3_4
Local Community - Llahuin Project Site

6 HISTORY

6.1 Ownership History

The known history of the project commences with Cominco Resources Ltd, which undertook exploration activities in 1983. Antofagasta Minerals S.A. (AMSA) acquired the project before 2002, and joined the numerous small mining properties generating a unified and simplified area for exploration.

At the beginning of 2011, a subsidiary of SHM reached a commercial agreement required to acquire this project from Mr. Sebastian Astudillo who acquired the project from AMSA on the same date.

6.2 Production History

The area of Llahuin (otherwise known as the El Espino mining district) is an old mining district that has historically been mined for gold and copper mineralization.

The first works date back to Hispanic times when zones of highly amalgamable gold were mined. Since then, mining has continued in an intermittent way, with the development of many small mining scale works that are focused on the oxidized zone of sulphur enrichment and the larger mineralized structures. The primary zone has not been mined due to difficulties working below the phreatic level. Artisanal mining activities have focused mainly upon higher grade, vein-style mineralization near surface (Figures 6.2_1 to 6.2_2).

Figure 6.2_1
Old Working Scattered across Central Porphyry

Figure 6.2_2
Exploration Adit into Central Porphyry

The Llahuin open pit, as displayed below in Figure 6.2_3 is located at the centre of the Central Porphyry Zone. Mining of this zone dates back to the 18th century, with active mining in this area continuing up until approximately 2 years ago.

A vein in the centre of the pit was mined at widths of between 1m to 3m with reported grades between 1% and 10% Cu and between 1g/t and 5g/t Au, although these grades have not been verified by AMS.

No formal records exist of the material and grades mined from this open pit.

Figure 6.2_3
Llahuin Project - Location of Historical Workings (Central Porphyry Zone) *(AMS, 30th June 2013)*

6.3 Exploration History

The Llahuin Project has been the subject of several exploration programs developed by various mining companies over the years that have focused their efforts on the exploration for copper and gold resources.

In 1983, Cominco undertook surface sampling and geophysical profiles of induced polarization along with completing 7 drill holes. Results of these drill holes have not been located by AMS.

AMSA acquired the project in 2004, and amalgamated the numerous small mining properties, generating a unified and simplified area for exploration. The amalgamated extension of the mining concession covers almost 4 km in North-South strike and 2 km in East-West strike.

In 2004, AMSA conducted a prospecting program in the area that included a geological mapping at a scale of 1:2000 and 3 RC and 2 DC holes. The drill holes were concentrated in the area of Llahuin porphyry below the small open pit. These holes identified several zones of Cu, Au and Mo mineralization.

In AMSA's final report, it notes that the project might reach a maximum of 100 million tonnes with 0.2%Cu and 0.1 g/t Au. This was not of sufficient size for AMSA to pursue. The project was then placed for public sale.

Results from this early drilling program have not been located by AMS.

These results were the first results that clearly evidenced the existence of a porphyry style deposit with Cu and Au associated with small magnetite veins accompanying the potassium alteration. This information showed that the mineralization is hosted in a porphyritic intrusive of dioritic composition. The porphyry is cut by minor, late intrusions of granodioritic composition. The volcanic rocks which host mineralization, exhibit copper and gold mineralization i close association with potassium alteration as displayed by secondary biotite which in many cases is obliterated by fine sericitic alteration. It was also observed that there is an alteration phase of epidote + chlorite ± albite ± calcite, which destroys the potassium alteration and the copper mineralization.

SHM commenced drilling at the Llahuin property in June 2011 and as at 31st March 2013 had completed a total of 33,732.2m of RC in 188 holes and 20,787.6m of DD in 59 holes across the Llahuin project area. SHM is continuing an ongoing infill, extensional and exploration drillhole program.

6.4 Recent Exploration (SHM)

SHM commenced exploration activities across the Llahuin Copper-Gold Project in June 2011 with exploration activities continuing to the present day. A number of resource estimations for the Llahuin Project area have been completed over the past 2 years since exploration commenced.

6.4.1 March 2012 - Resource Estimation

In late March 2012, Andes Mining Services (AMS) completed a mineral resource estimate which was based on 17 DC holes (6,991m) and 81 RC holes (14,728m) drilled at a spacing of between 50m x 50m to 100m x 100m. Only data received as at 30th March 2012 was used in this resource estimate.

The mineral resource estimate was constructed within 0.15% Cu and 0.10g/t Au grade shells. Mo grade shells were not considered for this resource estimate. Multiple lithological units were grouped together, based upon statistical properties and a visual review of cross sections.

AMS reported an independent mineral resource estimate which comprised a Measured and Indicated mineral resource of 106.2 Mt at 0.40% CuEq. An addition Inferred mineral resource of 12.2 Mt at 0.36% CuEq was also estimate (Table 1.8_1 below).

The resource was reported above a cut-off grade of 0.24% CuEq.

Table 6.4_1
Grade Tonnage Report - Llahuin Project
Ordinary Kriged Estimate – 30th March 2012
(Block Model – 10mE X 10mN X 10mRL)

Area	Tonnes (Mt)	Measured Resource			
		Cu (%)	Au (g/t)	Mo (%)	CuEq (%)
Total Project	64.9	0.32	0.09	0.007	0.42
		Indicated Resource			
Total Project	41.3	0.28	0.09	-	0.37
Total → Meas + Ind	**106.2**	**0.30**	**0.09**	**0.003**	**0.40**
		Inferred Resource			
Total Project	**12.2**	**0.27**	**0.06**	**0.008**	**0.36**
Total → Inferred	**12.2**	**0.27**	**0.06**	**0.008**	**0.36**

Appropriate rounding has been applied to the Table 6.4_1

The following copper equivalent calculation and price assumptions were used;

CuEq Formula = Cu % + Au(g/t) x 0.72662 + Mo(%) x 4.412

Price Assumptions : Cu (US$3.40/lb), Au (US$1,700/oz), Mo (US$15/lb)

6.4.2 September 2012 - Resource Estimation

In early September 2012, AMS completed an updated mineral resource estimate which was based on 30 DC holes (11,367m) and 124 RC holes (22,445m) drilled at a spacing of between 50m x 50m to 200m x 200m. Only data received as at 17th August 2012 was used for this resource estimate.

The mineral resource estimate was constructed within 0.10% Cu and 0.10g/t Au grade shells. Mo grade shells were not considered for this resource estimate. Multiple lithological units were grouped together, based upon statistical properties and a visual review of cross sections.

AMS reported an independent mineral resource estimate which comprised a Measured and Indicated mineral resource of 144.9 Mt at 0.30% Cu, 0.10g/t Au, and 0.006% Mo. An additional Inferred mineral resource of 16.7 Mt at 0.27% Cu, 0.06g/t Au and 0.004% Mo was also estimated (Table 6.4_2 below).

The resource was reported above a cut-off grade of 0.28% CuEq.

The resource has been reported to the base of drilling which is approximately 400m vertical depth below surface.

Table 6.4_2
Grade Tonnage Report - Llahuin Project
Ordinary Kriged Mineral Resource Estimate – 10th September 2012
(Block Model – 5mE X 10mN X 6mRL)

Area	Tonnes (Mt)	Measured Resource			
		Cu (%)	Au (g/t)	Mo (%)	CuEq (%)
Total Project	88.9	0.33	0.09	0.006	0.42
		Indicated Resource			
Total Project	56.0	0.25	0.11	0.005	0.35
Total → Meas + Ind	**144.9**	**0.30**	**0.10**	**0.006**	**0.40**
		Inferred Resource			
Total Project	**16.7**	**0.27**	**0.06**	**0.004**	**0.33**
Total → Inferred	**16.7**	**0.27**	**0.06**	**0.004**	**0.33**

Appropriate rounding has been applied to the Table 6.4_2

The following copper equivalent calculation and price assumptions were used;

CuEq Formula = Cu % + Au (g/t) x 0.72662 + Mo (%) x 4.412

Price Assumptions: Cu (US$3.20/lb), Au (US$1,700/oz), Mo (US$15/lb)

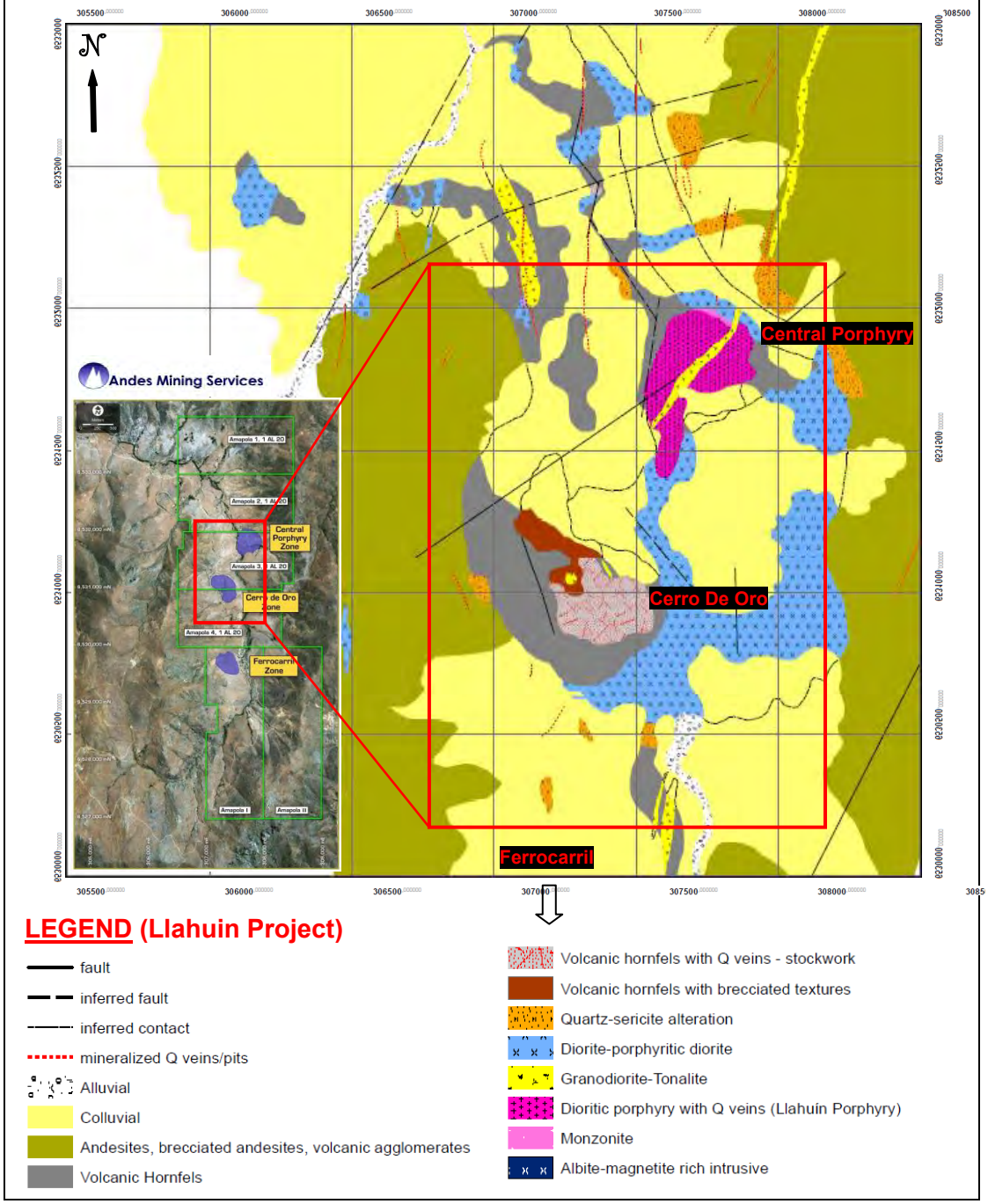
The statement was classified by Qualified Person Ian Dreyer (BSc (Geo) AusIMM (CP)) in accordance with the Guidelines of NI 43-101 and accompanying documents 43-101.F1 and 43-101.CP.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The regional geology of the Llahuin Project area is characterized by a series of stratified volcanic and volcaniclastic rocks, which are part of the Arqueros Formation and Quebrada Marquesa Formation (Aguirre et al., In Rivano et al., 1991) of Neocomian age, and Barremian-Albian, respectively. These formations are intruded by several intrusive stocks as displayed in Figure 7.1_1 below.

Figure 7.1_1
Regional Geology Map - Llahuin Project Area



The Arqueros Formation is represented by a large sequence of volcanic flows and andesitic breccias, with interbedded sandstone and epiclastic breccias, which form a northwest-trending homocline that dips to the east. This formation is concordant, and sometimes occurs as interdigitations within the sedimentary units of the Quebrada Marquesa Formation, including marls, limestones, shales, sandstones, conglomerates, and gypsum. The Arqueros Formation commonly displays ductile deformation with the development of open folds.

Both stratigraphic sequences are intruded by plutons from the Illapel Super Unit and the San Lorenzo Unit. The first is represented mainly by Cretaceous granodiorite and diorite quartzite. The second unit is represented by a Late Cretaceous - Paleogene dioritic porphyry.

The regional structural geological framework has played an important role on the control and distribution of lithologic units. Numerous geological faults are recognized, which may have displaced major blocks of ground, at district and local scale.

These faults have controlled the location of various intrusives, and have been fundamental in the development and control of the mineralization through emplacement of mineralized stocks / vein networks.

There are three sets of faults with orientations N-S, NE-SW and NW-SE as displayed in Figure 7.1_1. Most of the structures are inclined between 70° and 85°, and show oblique movements, with mainly horizontal displacements, and to a lesser extent vertical displacements.

7.2 Project Geology

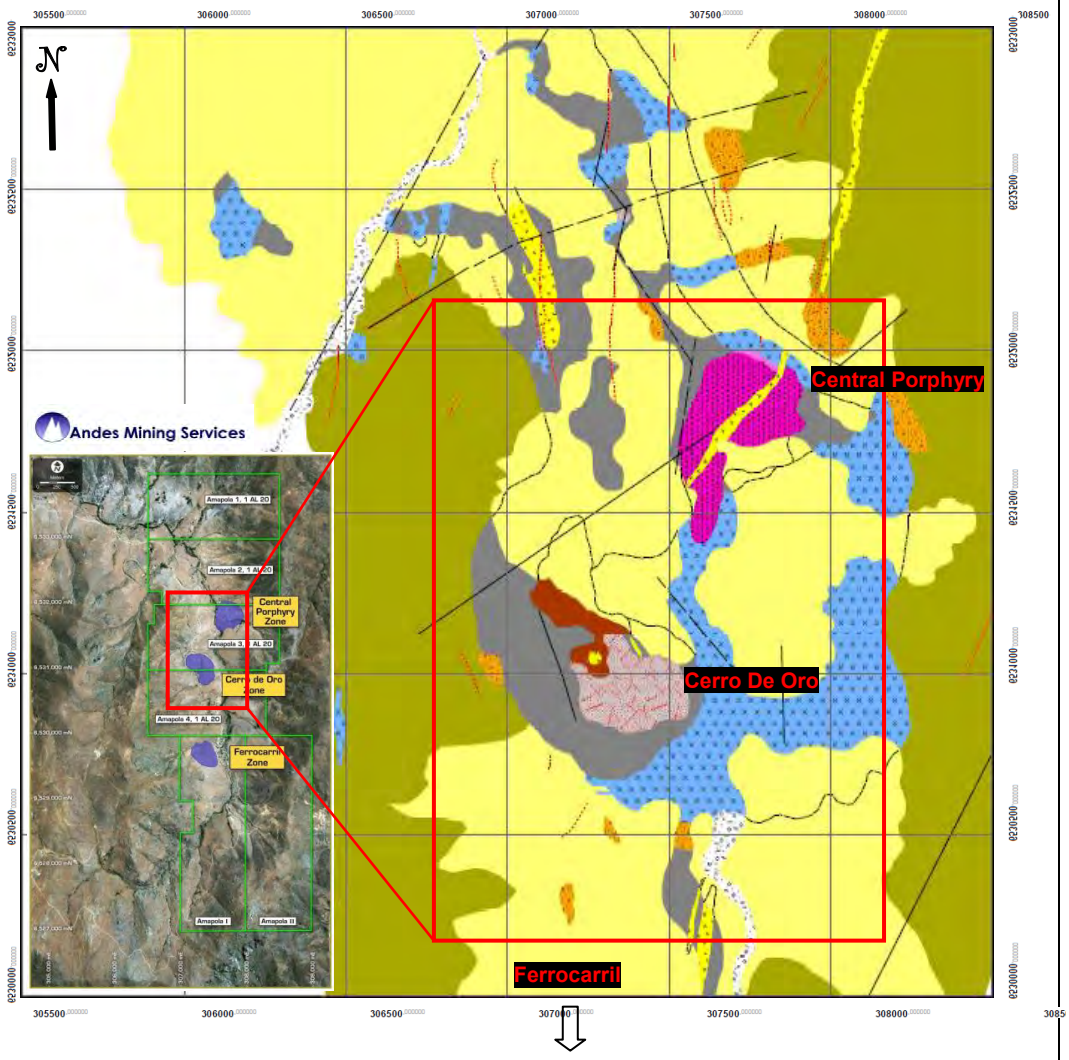
The Cu-Au-Mo porphyries at Llahuin comprise three mineralized bodies of variable extent, namely the Central Porphyry Zone, the Cerro de Oro Zone, and the Ferrocarril Zone as displayed in Figure 7.2_1 below. This figure only covers the Central Porphyry and Cerro de Oro Zones, and has yet to be updated for the Ferrocarril Zone.

The Central Porphyry Zone comprises a series of porphyritic intrusions of medium to fine grained dioritic and monzonitic composition that intrude volcanic rocks of the Marquesa Formation (Cretaceous), which are strongly brecciated, mineralized and silicified as a hornfels unit The higher grade part of the system has intense potassic alteration, as evidenced by intense secondary biotite disseminated and veinlets. The potassic alteration is accompanied by quartz stockwork, and magnetite stockwork. The higher grade mineralization corresponds to chalcopyrite-bornite-molybdenite, in some cases accompanied by pyrite.

Recent drilling has proven that mineralization extends to over 600m in depth within the Central Porphyry Zone.

The mineralization consists of three main zones: the Central Porphyry Zone, the Cerro de Oro Zone (which is located 1km to the south of the Central Porphyry Zone), and the Ferrocarril Zone. The surface expression of the Cerro de Oro Zone has been drilled, but the underlying intrusive has yet to be tested. The Cerro de Oro Zone is seen as the stockwork cap to a potentially larger porphyry deposit that lies predominantly within volcanic rocks.

Figure 7.2_1
Deposit Locations and Project Geology - Llahuin Project Area



7.3 Mineralization

Mineralization consists of three main zones: the Central Porphyry Zone, the Cerro de Oro Zone (which is located 1km to the south of the Central Porphyry Zone), and the Ferrocarril Zone.

The high grade mineralization occurs as disseminations along hairline fractures as well as within larger veinlets. The high grade mineralization typically contains between 0.2 - 1.0% copper, with smaller amounts of other metals such as gold and molybdenum.

The higher grade mineralization is hosted in the central zone of the dioritic porphyry stock, which contains Cu and Au mineralization associated with potassic alteration. The stockwork, which facilitated the alteration, contains chalcopyrite, smaller amounts of bornite, molybdenite, and some minor pyrite. Both quartz stockwork and magnetite stockwork are present.

Lower grade mineralization is found in the volcanic units on the flanks of the Central Porphyry Zone.

Samples of mineralization styles are displayed in Figures 7.3_1 to 7.3_5.

Figure 7.3_1
Hand Specimen – Typical Veining within Central Porphyry Zone

Figure 7.3_2
Central Porphyry - Vein Stockwork at Surface

Figure 7.3_3
Oxidised Sulphide Rich Veins - Central Porphyry

Figure 7.3_4
Secondary Sulphide Veins and Veinlets

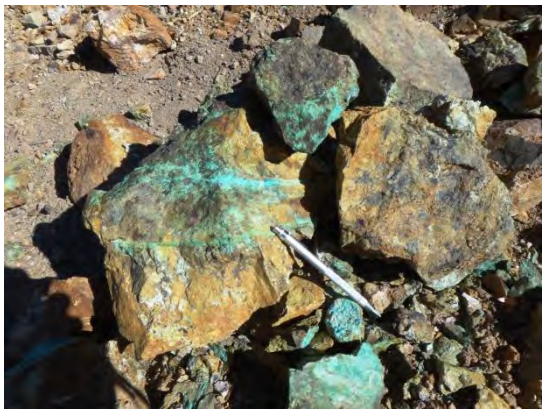


Figure 7.3_5
Molybdenum Crystals in Quartz Vein - DDLLA-045

Figure 7.3_6
Core Specimen – Contact between Central Porphyry and Eastern Diorite - DDH-LLA-043: 429.10m

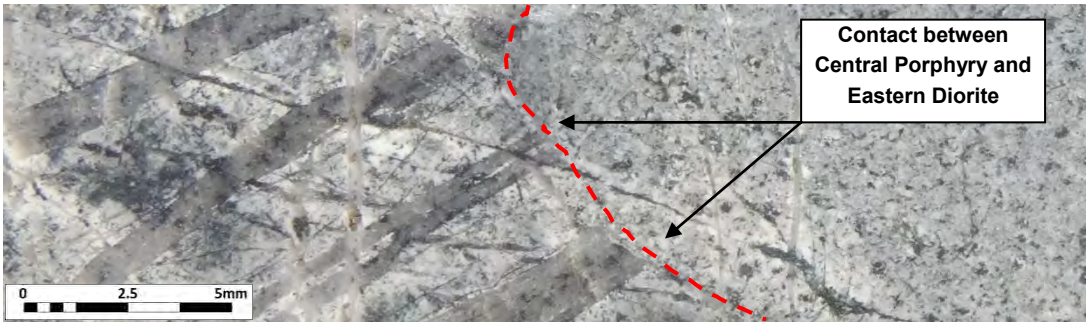
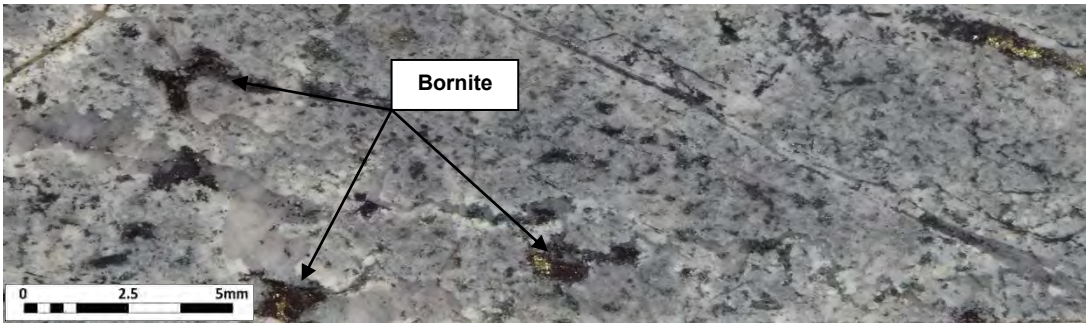


Figure 7.3_7
Core Specimen – Central Porphyry Zone with Disseminated Chalcopyrite - DDH-LLA-043: 429.10m

Figure 7.3_8
Core Specimen – Disseminated Bornite Mineralization in Quartz Veins - DDH-LLA-043: 439.7m

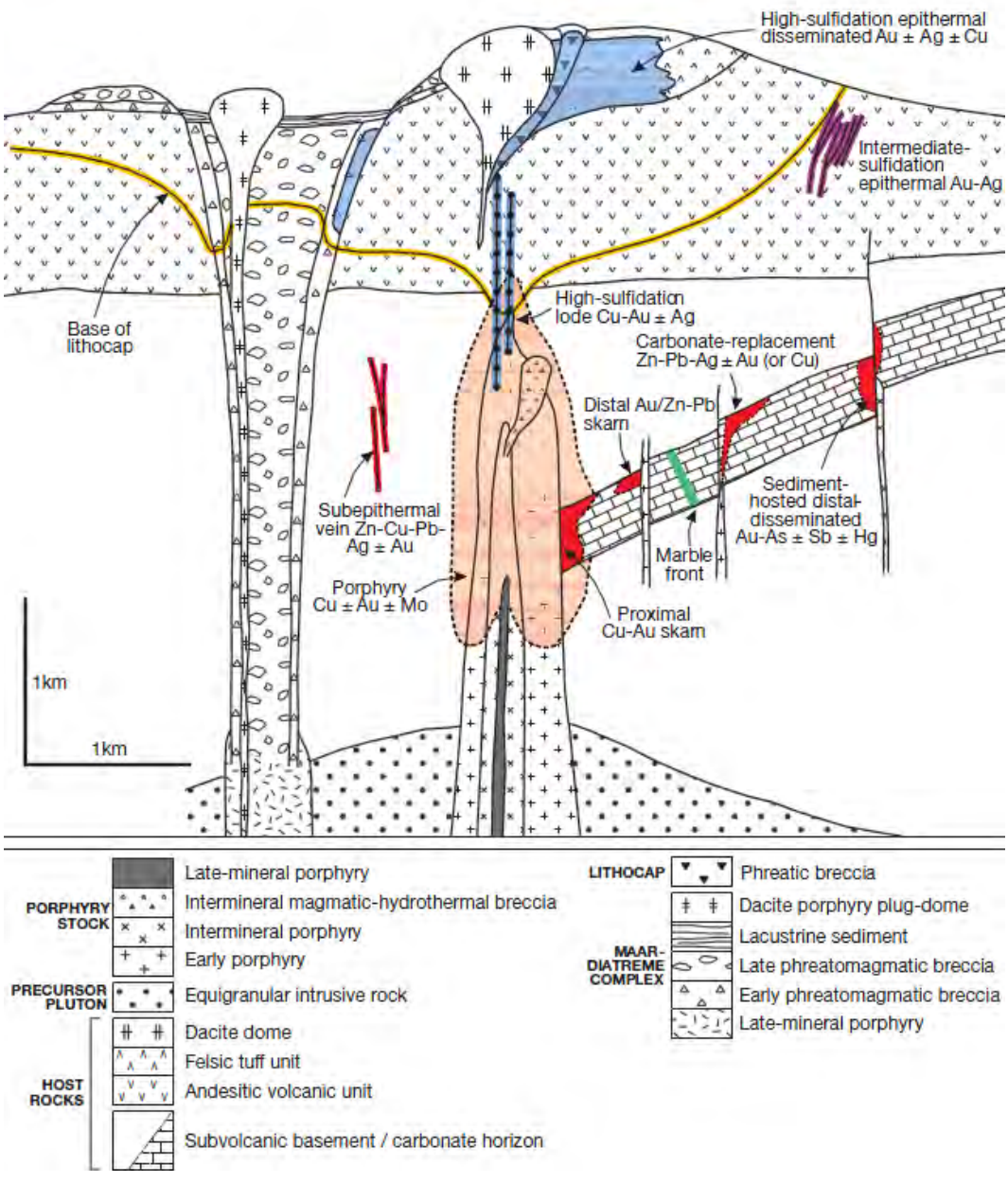


8 DEPOSIT TYPES

This region of Chile is dominated by Porphyry Cu-Au deposits and to a lesser extent vein type and manto type Au deposits. The economic Cu and Au mineralization occurs most commonly in stockwork disseminated mineralization associated with porphyry copper deposits. Mineralization also occurs in both veins and, to a lesser extent, mantos, although there are no observed mantos across the SHM concessions.

This deposit fits well within the genetic model for porphyry copper deposits as illustrated by Sillitoe (2011) (Figure 8_1).

Figure 8_1
Genetic Model for Porphyry Copper Deposits (Sillitoe, 2011)



Porphyry Cu-Au deposits are typically hosted within stratified and intrusive rocks, and have a mineralogy characterized by chalcopyrite, bornite, specularite, magnetite, pyrite, calcite and quartz. Commonly, the associated alteration is rich in epidote, chlorite, sericite and clay.

In general, deposits are of small magnitude, but with significant grades of Cu and Au, which have allowed the development of small-scale mining activities.

The main mining districts in the area are the Farellón Sanchez Farellón Vasquez, Sector Romero - Gloria, Llanos de Llahuin, El Espino and Llahuín Porphyry systems, the latter displaying a strong presence of potassic alteration, given by secondary biotite, accompanied by significant quantities of magnetite, and quartz stockwork.

9 EXPLORATION

SHM commenced exploration across the Llahuin project area in June 2011.

Exploration activities to-date have included project scale mapping, rock chip sampling, geophysical surveys (ground magnetics and IP) along with Reverse Circulation (RC) and Diamond Core (DC) drilling which is covered in more detail within Section 10 of this report.

No updated information on surface sampling is presented since the September 2012 resource estimate. The geophysics has also not been updated in this report for the new Ferrocarril Zone.

9.1 Project Scale Mapping

A number of project scale mapping programs conducted at 1:2000 and 1:5000 scale have been undertaken across the Llahuin project area since SHM acquired the concession in June 2011.

9.2 Rock Chip Sampling

Rock chip sampling has focussed on a small number of visible veins across the northern concessions, as well as other areas where easily constructed roads and tracks have been located.

A total of 223 outcrop samples have been collected by SHM, however results are not presented in this report, given that samples are randomly spaced, and not likely to assist in evaluating the deposit given their poor spatial representation.

The policy of drilling, in preference to surface sampling, is wise in the opinion of the author as it is likely that most of the higher Cu grades within the Cerro de Oro and Ferrocarril Zones are located at depth below the surface.

9.3 Geophysics

There have been no additional geophysical surveys undertaken since the last resource report was prepared in September 2012.

A geophysical survey consisting of ground magnetics and induced polarisation (IP) was conducted by Zonge Ingenieria y Geofísica (Chile) S.A. (Zonge) between September and October 2011. The magnetic survey was conducted on 100m spaced lines and the IP survey was conducted on 200m spaced lines (Figure 9.3_1).

There was a strong correlation between the IP results and mineralization, with the predictive geophysical model suggested that drilling to the south-east of Central Porphyry Zone and at depth is warranted, as displayed in Figure 9.3_2.

Figure 9.3_1
Geophysical Survey - Chargeability and Total Magnetic Intensity (TMI) Maps

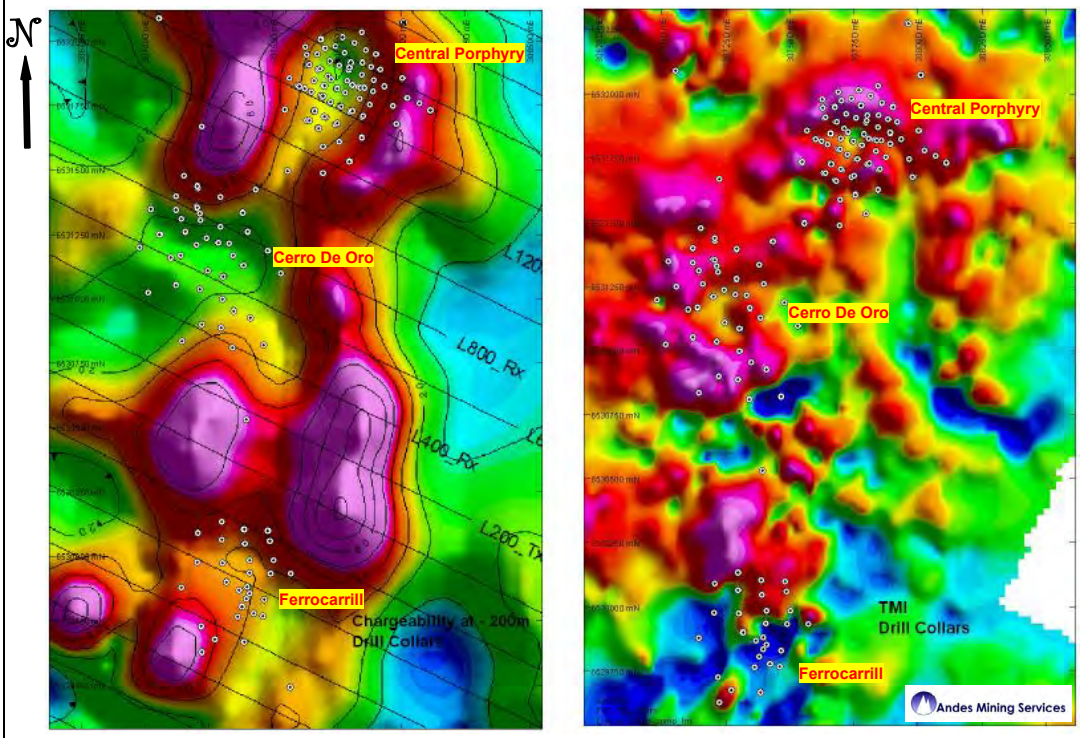
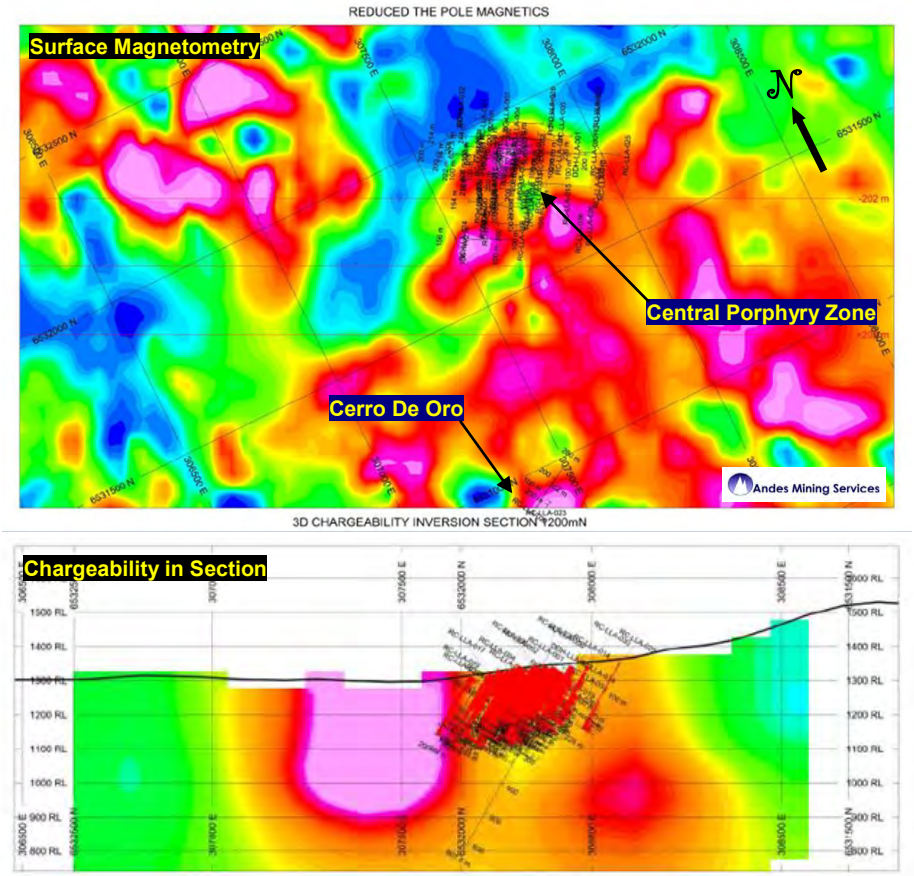


Figure 9.3_2
Llahuin Project - Surface Magnetometry and Induced Polarization (IP) Survey



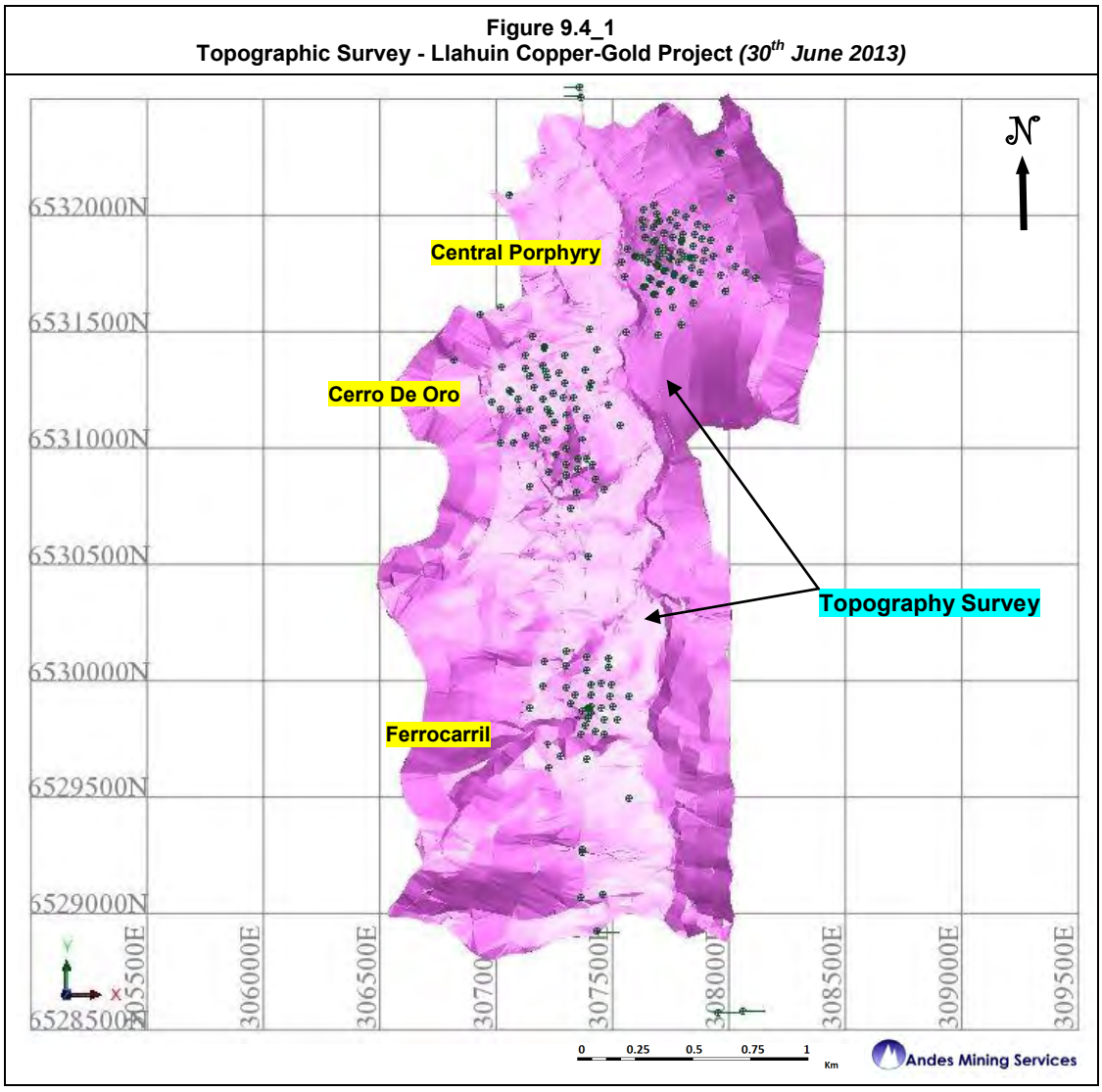
9.4 Topographical Survey

The precision of the standard hand held GPS units is poor in this region of Chile. SHM employed a licensed surveyor to pick up the drill hole locations (both DDH and RC) as well as the surrounding topography.

The survey was generated by linking to the National Geodetic Network, Chile, using DGPS equipment with geodetic dual frequency. The instrument used was an Ashtech ProMark 500. The data was collected in differential mode RTK (Real Time). The survey was performed by Mr. Luciano Alfaro Sanders (Survey Engineer, and Perito Mensurador). A UTM projection was used, the International Reference Ellipsoid is 1924, La Canoa datum 1956, Time/Area 19. The survey is accurate to within 0.1m through use of a base / total station and survey equipment (Figure 9.4_1).

AMS note that the current topographic surface covers the entire area of porphyry style mineralization as illustrated in Figure 9.4_1 below. The drillhole collars tie in well with the topography generated from the survey.

Figure 9.4_1
Topographic Survey - Llahuin Copper-Gold Project *(30th June 2013)*



10 DRILLING

10.1 Introduction

SHM commenced drilling at the Llahuin property in June 2011 and have undertaken substantial programs of reverse circulation (RC) and diamond drilling (DC) across the Llahuin Project area.

As at 31st March 2013 had completed a total of 33,732.2m of RC drilling in 188 holes and 20,787.6m of DC in 59 holes which have been used for resource estimation. Drilling details are summarized below in Table 10.1_1.

Table 10.1_1
SHM Exploration Drilling Summary - Llahuin Copper-Gold Project

Zone	RC Holes	RC Pre-Collar	RC Metres	DC Holes	DC Metres (includes RC pre-collar)
Central Porphyry	50	21	12,804.20	41	16,008.30
Cerro De Oro	59	4	11,149.00	14	3,390.40
Ferrocarril	40		7,576.00	4	1,388.90
Other (Regional)	14		2,203.00	-	-
Total	**163**	**25**	**33,732.20**	**59**	**20,787.60**

The Central Porphyry, Cerro de Oro and Ferrocarril zones have been drilled on a nominal spacing of 50m by 50m in the upper portions and 100m x 100m in the lower portions of the deposits. Drill spacing across the Ferrocarril Zone is slightly more irregular which reflects the lack of opportunity to find suitable drill sites at present.

RC holes are mostly drilled to an average depth of 200m. Some RC holes were extended by diamond drilling to an average depth of 650m on grid spacing of 100m by 100m.

All drilling has been undertaken and/or supervised by SHM technical personnel.

RC and DC drilling and data collection methods applied by SHM have been reviewed by AMS during successive site visits.

10.2 Drilling Procedures

Drilling across the Llahuin Project area has been completed by three different drilling companies. They include HSB Sondajes, Geosupply and Raul Muñoz Ltd.

The water table is generally encountered between 20m and 100m from surface. Where the water table is encountered, a rotary splitter is used to assist with RC sample quality. Approximately sixty percent (60%) of the RC samples are reported to be wet. This issue has been partially remediated by using diamond drilling in preference to RC drilling for all further resource definition drilling.

AMS concluded no significant bias in using the wet RC drill holes and have included all DDH and RC drilling as part of the current resource estimate update.

A full discussion with respect to twin hole drilling (RC vs DDH) is presented below in Section 10.5 of this report.

10.3 Reverse Circulation (RC) Drilling

RC holes have not been downhole surveyed due to magnetic interference. RC holes are commonly drilled to the west at 60 degrees with lengths between 100m to 200m.

AMS considers the locations of the drillholes and surface surveys along with the topographic survey, to be suitable for a global mineral resource estimate, however the local precision of the estimate is likely to be poor given the lack of down hole surveys on the RC drillholes.

AMS make the following observations with respect to RC drilling completed at Llahuin:

- Samples taken and weighed on a two (2) metre basis;
- Cyclone is cleaned on a rod by rod basis;
- Samples split to around 3kg via a single tier splitter;
- Logging of alteration, lithology and weathering;
- Hole collar coordinates picked up utilising a hand held GPS (accuracy +/- 10m) and then resurveyed using DGPS equipment (accuracy +/- 0.1m).

Figure 10.3_1
Preparing RC Samples for Despatch - Llahuin Project *(February 2012)*

A total of 25 RC holes were drilled as pre-collars for additional diamond drilling. A list of drill hole details is presented in Table 10.3_1 below.

Table 10.3_1
RC Pre-Collars Completed with Diamond Drill Hole Tail - Llahuin Copper-Gold Project

Hole_ID	RC Pre-Collar (m)	DDH (m)	Total Length	Location
DDLLA-001	210.00	397.50	607.50	Central Porphyry
DDLLA-002	230.00	233.00	463.00	Central Porphyry
DDLLA-003	232.00	450.25	682.25	Central Porphyry
DDLLA-005	222.00	338.80	560.80	Central Porphyry
DDLLA-006	196.00	520.50	716.50	Central Porphyry
DDLLA-007	158.00	474.40	632.40	Central Porphyry
DDLLA-008	200.00	339.50	539.50	Central Porphyry
DDLLA-009	204.00	319.60	523.60	Central Porphyry
DDLLA-010	170.00	391.70	561.70	Central Porphyry
DDLLA-013	126.00	576.35	702.35	Central Porphyry
DDLLA-014	200.00	357.50	557.50	Central Porphyry
DDLLA-015	200.00	259.65	459.65	Central Porphyry
DDLLA-016	77.00	271.80	348.80	Central Porphyry
DDLLA-017	204.00	442.00	646.00	Central Porphyry
DDLLA-019	208.00	136.50	344.50	Central Porphyry
DDLLA-020	208.00	301.50	509.50	Central Porphyry
DDLLA-022	173.20	399.60	572.80	Central Porphyry
DDLLA-023	174.00	266.50	440.50	Central Porphyry
DDLLA-024	200.00	375.50	575.50	Central Porphyry
DDLLA-025	114.00	482.00	596.0	Central Porphyry
DDLLA-026	150.00	431.50	581.50	Central Porphyry
DDLLA-039	186.00	304.00	490.00	Cerro De Oro
DDLLA-050	194.00	116.10	310.10	Cerro De Oro
DDLLA-053	168.00	232.00	400.00	Cerro De Oro
DDLLA-058	129.00	52.90	181.90	Cerro De Oro

10.3.1 Reverse Circulation Drilling Results and Quality

The water table is generally encountered between 20m and 100m from surface. Where the water table is encountered, a rotary splitter is used to assist with RC sample quality.

A review of the sampling sheets by AMS shows that approximately 60% of all samples are wet / saturated. AMS considers that wet RC samples could be a material issue and that SHM should search for a solution that allows the RC drilling to produce dry material. This issue has been partially remediated by using diamond drilling in preference to RC drilling for all further resource definition drilling.

This could be a material issue to the resource estimate, as wet RC samples can ultimately create a sample bias. AMS has seen examples of fine gold being washed out of the samples which ultimately can result in underestimation of the overall CuEq grade.

A total of 4 twin holes (RC and DC holes within 5 meters) have been undertaken to allow a comparative analysis of the results to determine the precision of the RC versus the DC. Results are presented in Section 10.5 of this report.

AMS considers the wet RC samples should be avoided in RC drilling as this causes both down hole smearing and also washing. In addressing this issue SHM should consider the use of a larger compressor for all RC drilling completed within 200m from surface in an effort to reduce water influx. If the intake of water is unable to be controlled, then RC drilling should immediately stop and further drilling should be conducted by way of diamond drilling. This is standard industry practice for deposits of this nature.

In 2013, SHM decided to no longer utilize RC drilling for resource definition drilling across the Llahuin Copper-Gold Project, and have instead opted to use diamond drilling for all further resource definition drilling programs.

Figure 10.3.1_1
RC Drilling - Llahuin Copper-Gold Project (2012)

10.4 Diamond Core (DC) Drilling

Drill holes have been orientated on two main directions (grid): 060° and 300°. The reasoning behind using two drill directions is to ensure that structures which may not outcrop, or may not be clear on the surface are tested systematically. The change in orientation of much of the new drilling, since the resource update in March 2012 has encountered both high and low grades in the Central Porphyry Zone. The author has observed a number of diamond core holes and has reviewed the core photography of all new holes and is confident that the new high grade intercepts, post September 2012, are not biased by drilling along specific high grade structures. The majority of the new diamond drilling is on the 060° orientation.

The DC recovery is generally greater than 90% and whilst fractured in areas of higher grade mineralization, it is generally competent and intact.

AMS make the following observations with respect to DC drilling completed at Llahuin:

- Storage of all core in plastic / cardboard core boxes at drill site and then transported to the base for logging and sampling;

- Run markers with metal tags indicating drilled depth and recovery;
- Measurement and recording of core recovery for each drilling run;
- Photography and detailed logging of core before splitting (diamond saw);
- Detailed logging of alteration, lithology, structures and sulphides;
- Hole collar picked up utilising initial hand held GPS and then follow-up DGPS unit (+/- 0.1m accuracy).

Figure 10.4_1
Diamond Drilling at Central Porphyry - Llahuin Project (February 2012)

10.4.1 Diamond Drilling Results and Quality

Diamond drill core is stored in plastic / cardboard core boxes at individual drill sites and then transported to a central base location for logging, sampling and finally despatch (Figures 10.4.1_1 to 10.4.1_2).

Figure 10.4.1_1
Core Box Storage in Central Warehouse #1

Figure 10.4.1_2
Core Box Storage in Central Warehouse #2

From observations of logging and drill holes reviewed during the site visit, AMS noted that SHM DC procedures are of high quality with >90% recovery returned from surface in fresh rock material (Figures 10.4.1_3 to 10.4.1_4).

AMS considers the DC drilling procedures to be of an acceptable industry standard.

Figure 10.4.1_3
Field Inspection of Drill Collar (DDHLA-036)

Figure 10.4.1_4
Competent NQ_2 Diamond Drill Core (DDHLA-043)

10.5 Twin Hole Drilling

Prior to March 2012, DDH was performed predominantly as tails at the termination of some of the RC holes. DDH performed from April 2012 has been from the surface with a total of 4 diamond drill holes twinned to pre-existing RC drill holes. Twin hole drilling was completed across the Central Porphyry and Cerro De Oro zones.

A comparison of twin hole data is presented in Table 10.5_1. AMS concludes that there is insufficient data to make a definitive comparison, and that the twins are sufficiently far enough apart to explain some of the grade differences.

The majority of the new diamond drilling is on the 060° orientation. The use of diamond drilling in preference to RC in the modelling is a wise approach as now the sample quality in the deposit is of greater confidence.

Table 10.5_1
Twin Hole Comparison for Central Porphyry and Cerro de Oro Zones

Twin Pair	Zone	Hole_ID	X	Y	Z	From	To	Cu	Au
1	Llahuin	RCLLA-036	307762.2	6531749.0	1326.3	8	210	0.25	0.11
		DDLLA-011	307761.1	6531746.2	1326.5	8	210	0.20	0.09
2	Llahuin	RCLLA-042	307686.7	6531786.7	1317.9	0	190	0.16	0.09
		DDLLA-012	307692.3	6531783.4	1318.0	0	190	0.17	0.07
3	Cerro De Oro	RCLLA-054	307307.8	6531086.9	1359.3	0	200	0.13	0.13
		DDLLA-018	307304.5	6531085.7	1358.8	0	200	0.19	0.20
4	Cerro De Oro	RCLLA-095	307143.1	6531312.4	1359.6	2	210	0.16	0.05
		DDLLA-028	307144.5	6531310.0	1355.9	0	208	0.27	0.07

10.6 Drilling Results

Significant drill results have not been individually reported as this is a mineral resource estimate which would involve an extensive table which is summarised in the mineral resource section of this report.

Drilling was orientated to enable representative intercepts of the main trend of mineralization. Three dimensional modelling combined with multiple drilling orientations has accounted for grade variations within individual mineralized zones.

10.7 Surveying Procedures

10.7.1 Accuracy of Drillhole Collar Locations

The precision of the standard hand held GPS units is poor in this region of Chile so a licensed surveyor was employed to pick up the new drillhole locations and the topography. The survey was performed by Mr. Luciano Alfaro Sanders. The collars picked up to within 0.1m accuracy. This accuracy was not able to be checked, however the relative positions of the drill holes has been confirmed during the site visits.

10.7.2 Down-hole Surveying Procedures

A total of 7 DC holes from the Central Porphyry zone (drilled early 2012) have been down hole surveyed using a non-magnetic gyroscopic instrument (Table 10.7.2_1). The deviation on these holes is minimal. The holes tend to deviate to the north by two to three degrees per hundred metres, and they both steepen and flatten in dip, usually by one to two degrees per hundred metres.

All DC holes completed as part of the 2012 / 2013 campaign have been downhole surveyed, however survey information was not used for the resource estimate given timing constraints.

Table 10.7.2_1
Downhole Diamond Drilling Surveys - Central Porphyry Zone

Hole_ID	Drill Hole Type	EOH Depth	Number of Surveys (Taken Every 10m Downhole)
DDLLA-006	DDH	716.50	Total of 20 Surveys taken from 0m - 200m
DDLLA-007	DDH	632.40	Total of 56 Surveys taken from 0m - 560m
DDLLA-011	DDH	509.50	Total of 51 Surveys taken from 0m - EOH
DDLLA-012	DDH	429.25	Total of 43 Surveys taken from 0m - EOH
DDLLA-013	DDH	702.35	Total of 51 Surveys taken from 0m - 510m
DDLLA-014	DDH	557.50	Total of 50 Surveys taken from 0m - 520m (2 missing)
DDLLA-015	DDH	459.65	Total of 43 Surveys taken from 0m - EOH (3 missing)

RC holes have not been downhole surveyed due to magnetic interference. RC holes are commonly drilled to the west at 60° degrees with lengths between 100m to 200m.

AMS considers the locations of the drill holes and surface surveys along with the topographic survey, to be suitable for a global mineral resource estimate.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

A summary of the current drilling completed by SHM is shown in Table 11_1 below.

Table 11_1
Laboratories Used in Analysing SHM Drilling

Year	Type of Drilling	Drilling Company	Number of Holes	Laboratory Used for Assay Testwork
2011	RC	HSB Sondajes S.A.	57	Laboratory Andes Analytical Assay Ltda.
2011	DDH	HSB Sondajes S.A./Geosupply	5	Laboratory Andes Analytical Assay Ltda.
2012	RC	HSB Sondajes S.A.	83	Laboratory Andes Analytical Assay Ltda.
2012	DDH	Geosupply	35	Laboratory Andes Analytical Assay Ltda.
2013	RC	HSB Sondajes S.A.	48	Laboratory Andes Analytical Assay Ltda.
2013	DDH	Geosupply	19	Laboratory Andes Analytical Assay Ltda.
TOTAL			**247**	

11.1 SHM Sampling Method and Approach

11.1.1 Diamond Core Sampling

DC samples are taken on 2m intervals. In some places, this sample interval overlaps lithological contacts, although contacts are hard to determine in places due to pervasive alteration. Drill core has not been orientated for structural measurements. The core is cut lengthways with a diamond saw and half-core is sent for assay.

The half-core is bagged every 2m and sent for preparation, while the remaining half-core is returned to the cardboard core box, as displayed in Figures 11.1.1_1 and 11.1.1_2 below. A cardboard lid is placed on the box, and it is stored in a newly constructed weatherproof storage facility (warehouse) for future reference.

Figure 11.1.1_1
Core Storage - Cardboard Boxes

Figure 11.1.1_2
Diamond Core Saw for Drillcore Sampling

Blanks and field duplicates are inserted at irregular intervals, at a range of between 1:20 and 1:50. All samples are placed into plastic bags and then larger rice sacks where they are then cable tied for despatch to the laboratory (Figures 11.1.1_3 and 11.1.1_4).

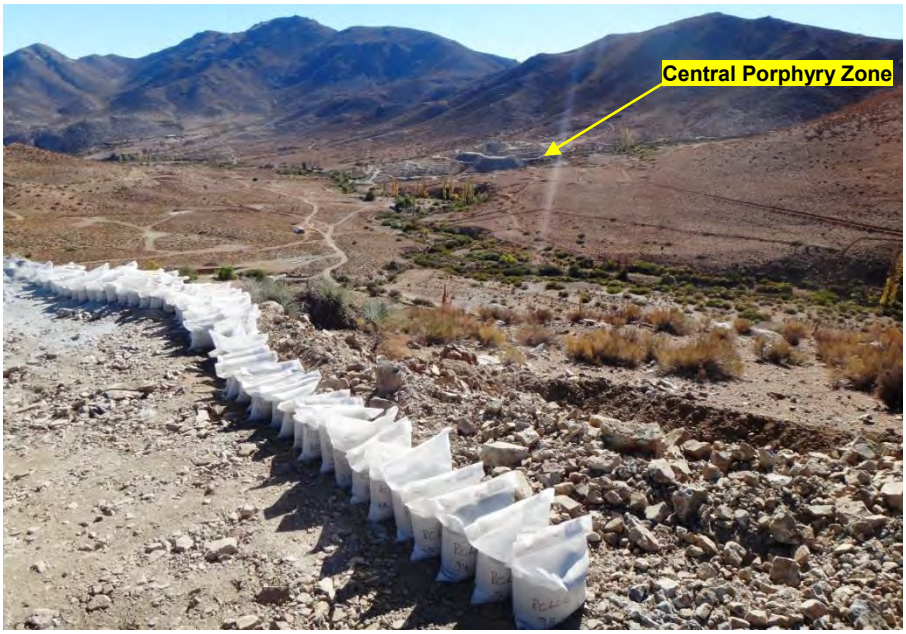
Figure 11.1.1_3 Intermediate Core Storage and Sample Despatch	Figure 11.1.1_4 2m DDH Composites - Ready for Despatch
	

Three DC holes were reviewed by the author (DDLLA-018, DDLLA-043 and DDLLA-047), with no major recovery issues noted which are usually associated with either oxidised or heavily faulted or cavernous ground. The new core photographs, post March 2012, have been reviewed digitally.

11.1.2 Reverse Circulation Sampling

RC samples are collected at 1m intervals from RC-LLA-001 to RC-LLA-014 and then 2m intervals in RC holes numerically thereafter. The samples are processed through a rotary splitter when wet. The samples are quartered in riffle splitters. Sub-samples weigh approximately 5kg and are collected in plastic sample bags. Blanks and field duplicates are inserted at irregular intervals of between 1:20 and 1:50. All samples are placed in plastic bags and cable tied (Figure 11.1.2_1).

Figure 11.1.2_1
RC Samples - Coarse Reject (Cerro De Oro Zone)

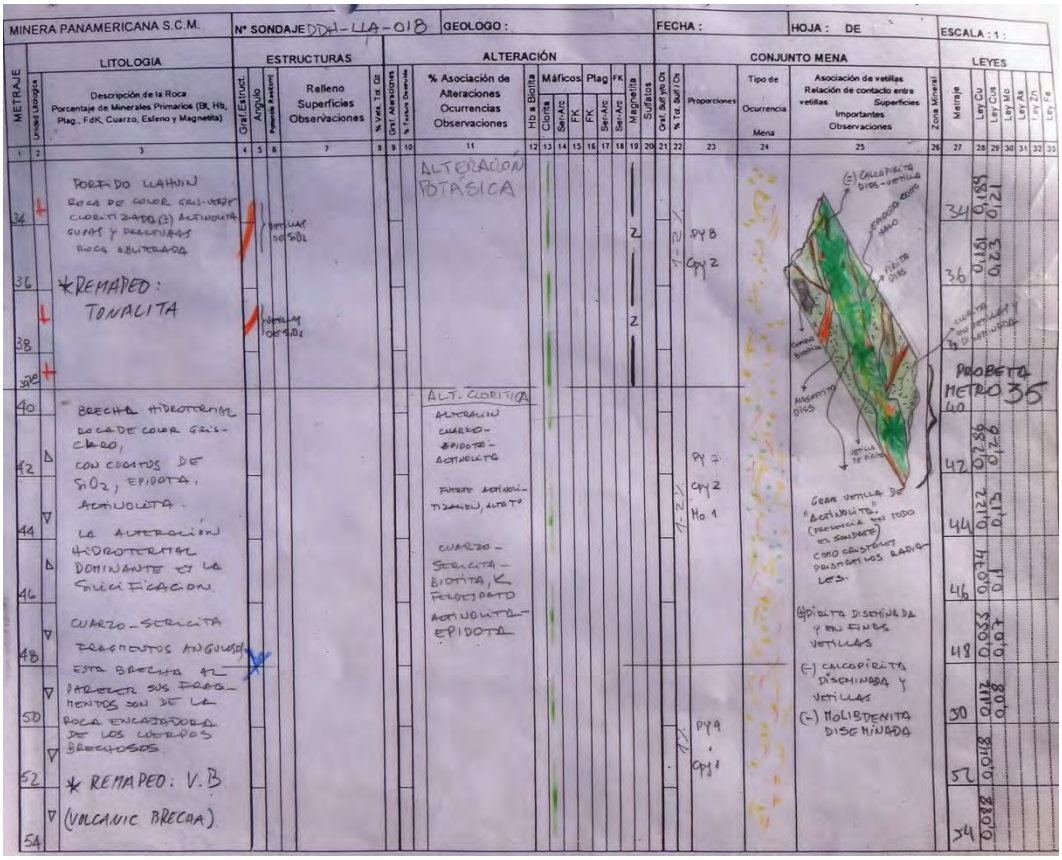


11.1.3 Logging

Diamond core is logged in detail for geological and structural information (Figure 11.1.3_1). Whole core is routinely photographed. The photographs are generally of high quality / resolution.

DC and RC chip logging is conventional and appropriate as illustrated in Figure 11.1.3_1.

Figure 11.1.3_1
Detailed Geological and Structural Logging of Drill Core - Central Porphyry Zone



Core recovery has not been routinely recorded for all drill holes. Observed core recovery is generally 95% or higher and infrequently 70-80% or less. The lower recoveries occur mainly in the heavily faulted zones. AMS recommends that all diamond drill holes have core recoveries routinely recorded.

11.2 Sample Security

DC is currently transported directly to the Llahuin exploration camp (approximately 1km from drilling operations) for core preparation and storage. After logging, core samples are marked for splitting and sampling by SHM geologists. Each core sample is then placed in a plastic bag for transporting via truck to Andes Analytical Assay Ltda laboratory in Santiago.

Reference material is retained and stored on site, including half-core and photographs generated for diamond drilling, and duplicate pulps and residues of all submitted samples. All

pulps are stored in an organized manner at the Llahuin exploration camp (Figures 11.2_1 and 11.2_2).

AMS considers the core sampling security to meet current industry best practice.

Figure 11.2_1 Laboratory Coarse Reject and Pulp Storage	Figure 11.2_2 Returned Pulps - Andes Analytical Assay Ltda.
	

11.3 Laboratory Sample Preparation and Analysis

The entire sample preparation and analysis procedure was performed by Andes Analytical Assay (AAA) Ltda Laboratory in Santiago, Chile. The laboratory has been audited by the author, who is satisfied that the procedures in place are of high quality.

Sample preparation and analysis procedures are:

- Drying and weighing of whole sample, for between 2 and 24 hours depending upon moisture content, at 70 degrees Centigrade (°C);
- Primary crushing of sample to -2mm;
- Sample homogenization and splitting to a 1kg sub-sample;
- Pulverization to 80% passing -150 mesh;
- Splitting of pulverized material to 400 gram pulp;
- Fire assay for Au (1100°C), AAS, if Au is > 3 g/t then the analysis is gravimetric. The quoted detection limit is 0.01 g/t Au;
- Aqua Regia method of analysis for Cu and Mo. Quoted detection limit is 0.001% Cu and 0.001% Mo.

The AAS analytical procedures are ISO 9001:2008 certified and are in accordance with ISO/IEC 17025. The AAA laboratory is independent of SHM.

11.4 Adequacy of Procedures

The sampling methods, chain of custody procedures, and analytical techniques are all considered appropriate and are compatible with accepted industry standards.

12 DATA VERIFICATION

12.1 Geological Database

SHM provided AMS with an excel database, complete with collar, survey, geology and assay information. AMS have validated the database using the Surpac Database Audit tool, with no material inconsistencies noted. In addition, AMS have made a manual check of the database, and any minor inconsistencies noted were promptly rectified by SHM personnel.

The following checks were performed;

- Holes that had no collar data;
- Overlaps in sample intervals;
- Gaps in sample intervals;
- Matching the geological logging length to the drill hole sample length.

There were no material errors noted within the database. The excel database was converted into an Access format database which is compatible with Surpac software, and allows key relationship based changes / modifications to be easily made (for example – application of average density grades across geological boundaries).

Hardcopy assay data from AAA and ALS was made available to AMS, and a comparison of these results with the data supplied in the SHM database was completed as part of the validation checks. AMS checked a total of 5% of the SHM drillholes for validation purposes. No material errors were identified with the original log and the digital database.

The logging was checked on site and it is relatively consistent, except where there are large tracts of strong potassic alteration. Where there are large tracts of strong potassic alteration it can be difficult to differentiate in the core between the volcanics and the porphyry.

Hard copies of original paper drill logs, daily drill reports, core photos, assay results, and various ancillary logging features are stored on site at Llahuin.

12.2 QA/QC

SHM has set in place a Quality Assurance and Quality Control (QA/QC) programme that included the submission of blanks, standards, field duplicates and umpire assays.

SHM undertakes quality control on <5% of the total samples prepared. AMS recommend at least 5% quality control be undertaken given the sensitive nature of the resource estimate to the low levels of mineralization intercepted from drilling.

A total of 462 blanks have been inserted into the sample stream. This is a relatively low proportion of the total samples (3%), although AMS note there are no signs of contamination.

A total of 1,738 laboratory standards have been analysed in a large variety of Cu and Au grade ranges, and there is no apparent bias of any significance. SHM have recently sourced

a number of commercial standards from WCM Minerals (Canada) to ensure that there is no drift in the laboratory results as they are dealing with low grade mineralization.

A total of 1,142 field duplicates have been taken across both RC and DDH holes. The accuracy for Cu is very good. The accuracy for Au is low to moderate, although most of the variance is in samples below 0.05 g/t Au and this is likely to be a combination of both sample and assay error, given the very low grades.

A total of 426 pulp duplicates have been taken from 3 DDH holes in early 2013, and submitted to the laboratory with independent QAQC (SHM blanks and standards) included. Testwork was requested by AMS in order to independently verify laboratory QAQC controls.

A total of 194 umpire assays have been submitted to ALS laboratory (Santiago) in late 2012 due to the non-submission of standards. The repeatability on Cu is very good with no evidence of drift between laboratories. There is more spread in the Au results, with low grades being slightly lower and higher grades being higher at ALS when compared to AAA.

12.2.1 Blanks

A total of 462 blanks have been inserted into the sample stream (RC and DDH). This is a very low proportion of the total samples (<3%), although there are no signs of contamination.

Blanks have been inserted in random batches and show no signs of contamination for Cu and Au, as displayed in Figures 12.2.1_1 and 12.2.1_2 below.

Figure 12.2.1_1
Blank Samples Submitted (Cu %)

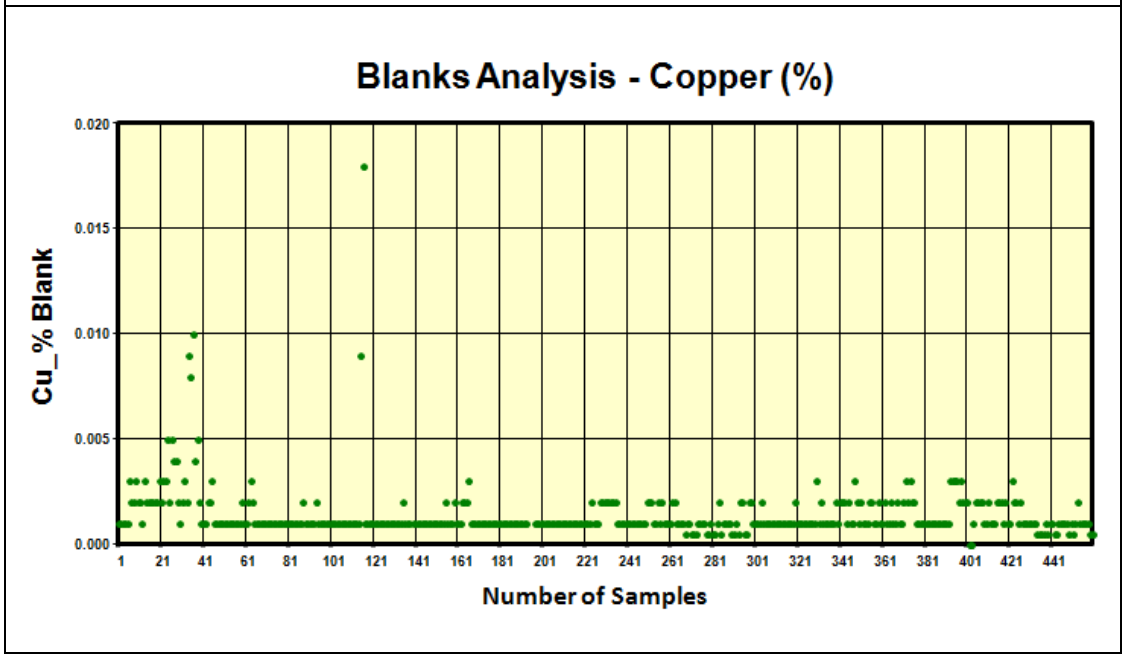
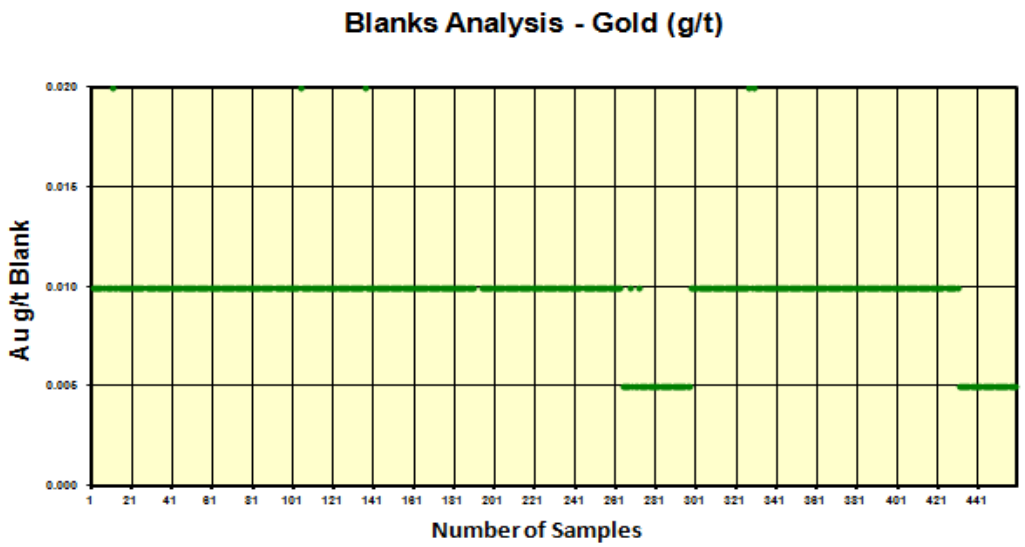


Figure 12.2.1_2
Blank Samples Submitted (Au g/t)



12.2.2 Standards

A total of 1,738 laboratory standards have been analysed in a large variety of Cu and Au grade ranges and there is no apparent bias of any significance.

A total of 7 standards were inserted by AAA laboratory into the sample stream, and are of multiple grade ranges for Cu (4 standards) and Au (3 standards). All results are acceptable. All data sets display >90% of data having a precision within 10%.

Standard analysis results are presented below in Figures 12.2.2_1 to 12.2.2_3.

AMS strongly recommend that SHM should submit commercial standards to ensure that there is no drift in the laboratory results as they are dealing with low grade mineralization.

Figure 12.2.2_1
AAA Laboratory - Internal Standards 30 and 31 (Cu %)

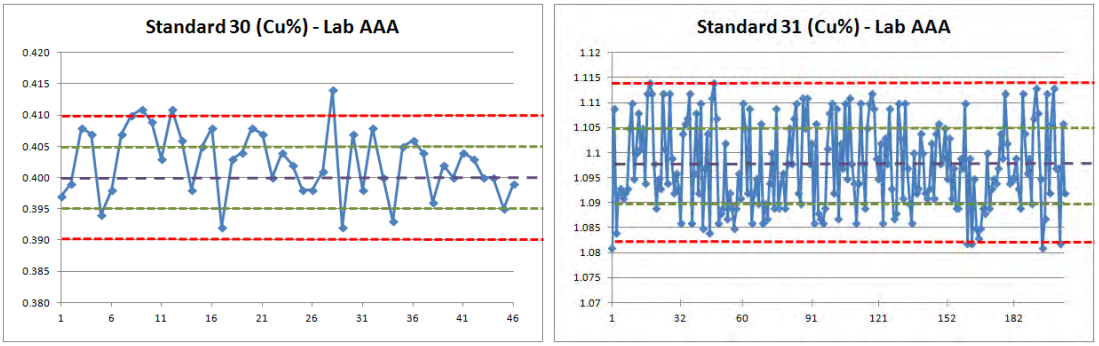


Figure 12.2.2_2
AAA Laboratory - Internal Standards 32 and 33 (Cu %)

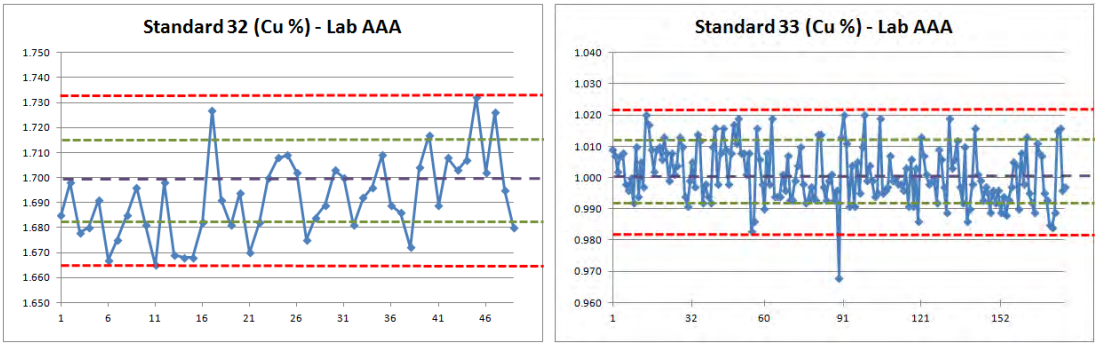
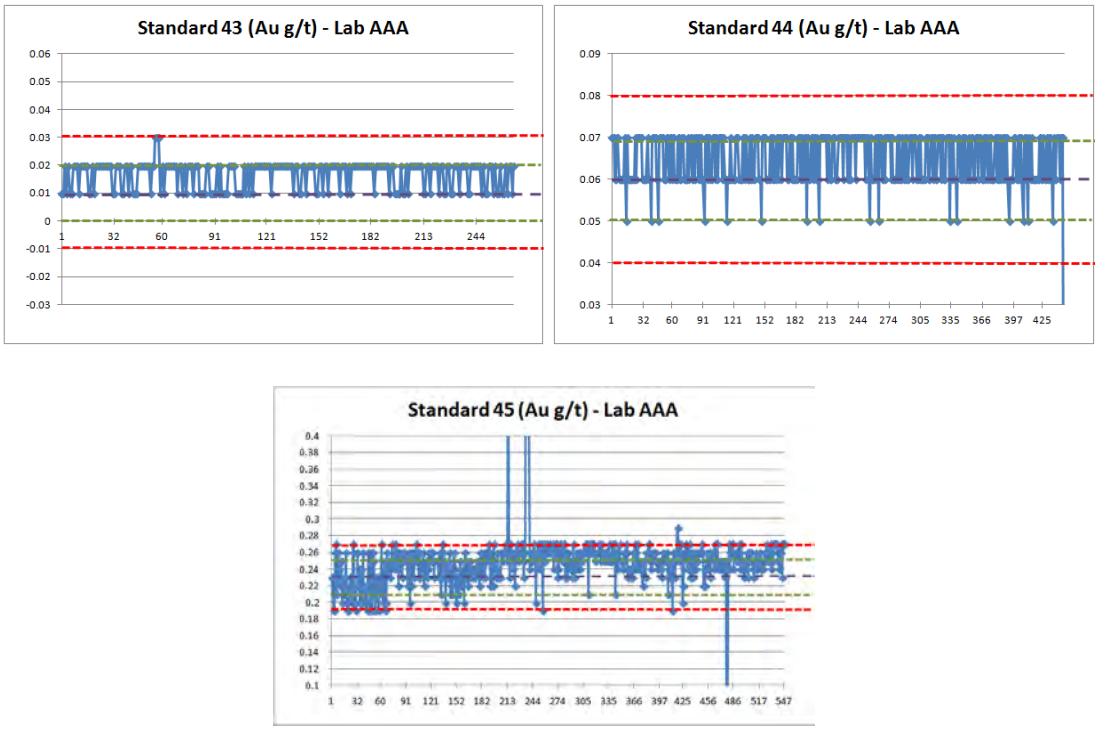


Figure 12.2.2_3
AAA Laboratory - Internal Standards 43, 44 and 45 (Au g/t)



12.2.3 Field Duplicates

A total of 1,142 field duplicates have been taken across both RC and DDH holes.

RC Field Duplicates

RC field duplicates have been collected as a sub-split of the sample mass at the RC rig by riffle splitting. The duplicates are taken at irregular intervals of approximately one duplicate sample for every five samples collected (approximately 20%).

The precision of the field splits is very good for Cu, as displayed in Figure 12.2.3_1, however is poor for Au, particularly below 0.05 g/t, as displayed in Figure 12.2.3_2, although this is a function of very low grades, as well as sample and laboratory detection limits. This variance in Au field duplicate grades, at very low grades, is not seen as material to the resource estimate.

Figure 12.2.3_1
RC Drilling - Field Duplicate Data (Cu %)

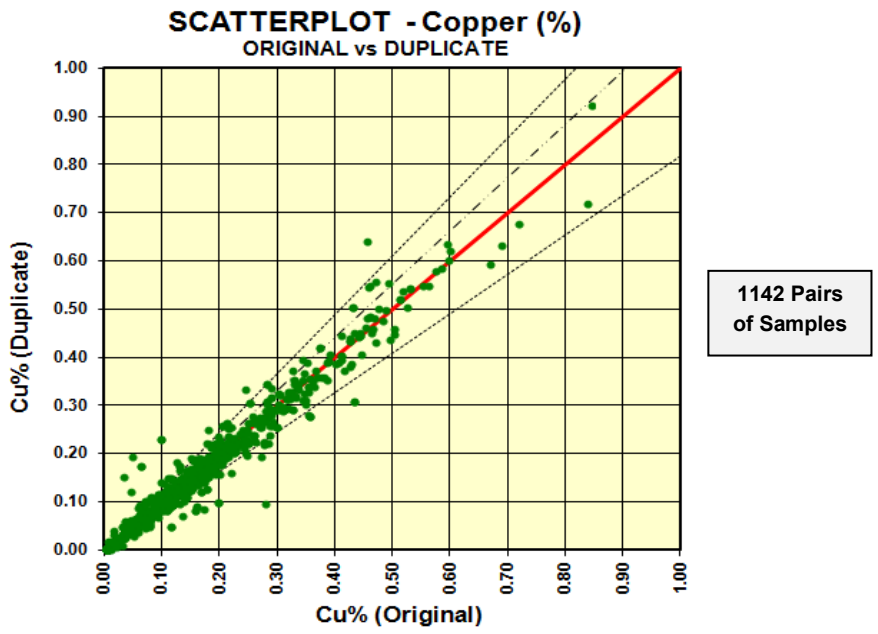
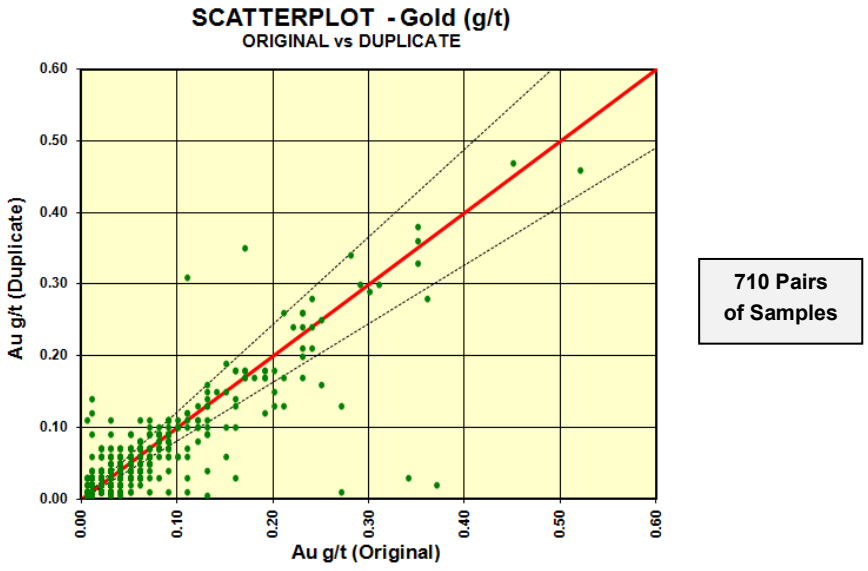


Figure 12.2.3_2
RC Drilling - Field Duplicate Data (Au g/t)



DDH Field Duplicates

DDH field duplicates have been collected from core trays as the half-core split of samples remaining. A total of 394 pairs of samples have been analysed with a number of samples generally collected from each drill hole.

As for RC drilling duplicates, the precision of the field splits is very good for Cu, however is very poor for Au, particularly below the 0.05 g/t grade range as illustrated in Figures 12.2.3_3 and 12.2.3_4 respectively. This is a function of very low grades, as well as sample and laboratory detection limits. This variance in Au field duplicate grades, at very low grades, is not seen as material to the resource estimate.

Figure 12.2.3_3
DDH Drilling - Field Duplicate Data (Cu %)

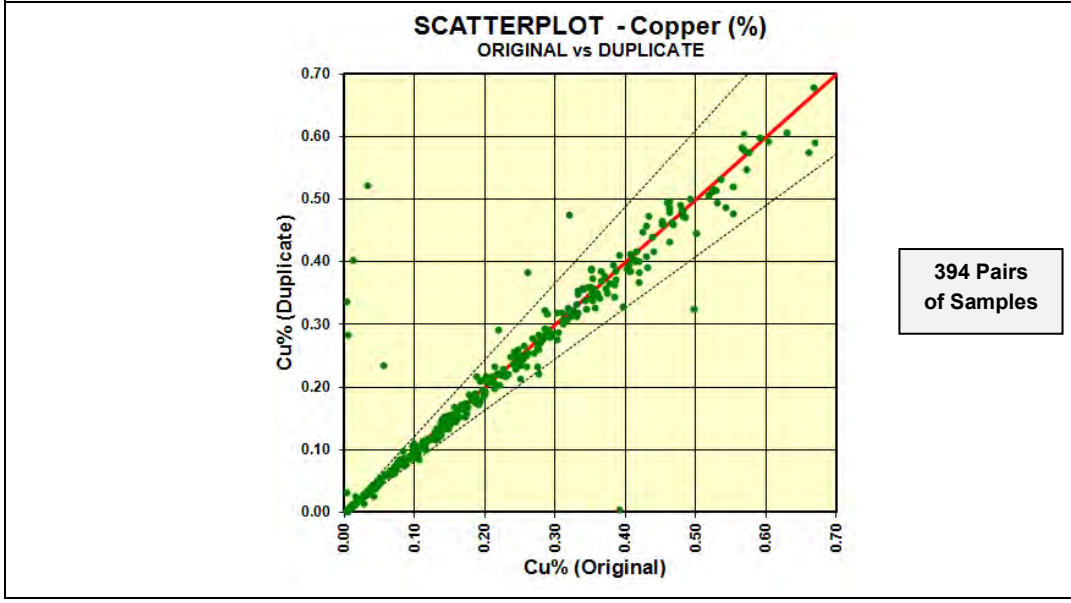
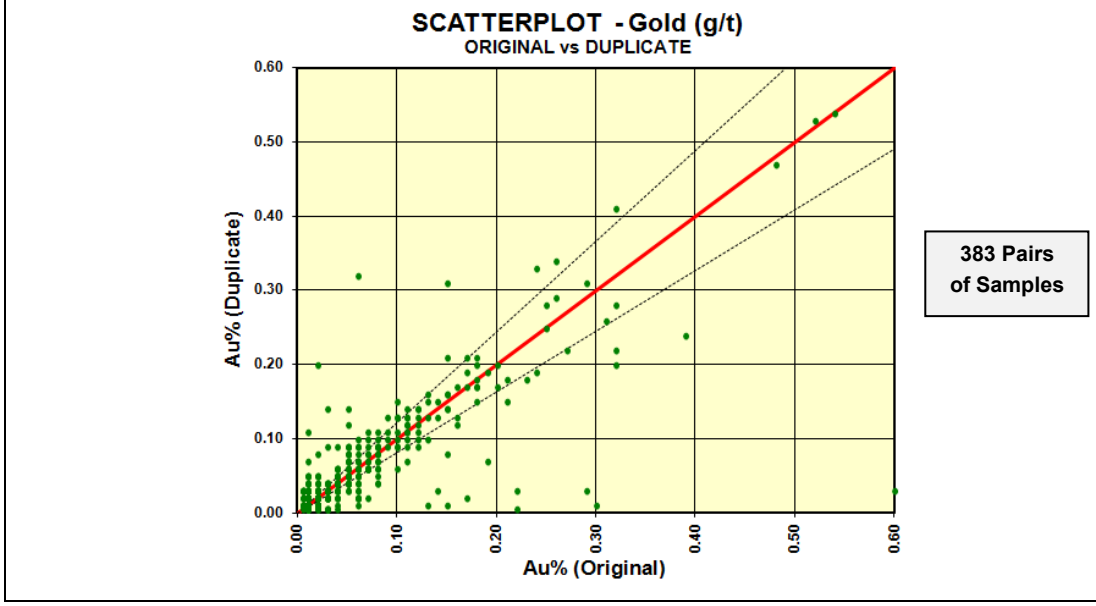


Figure 12.2.3_4
DDH Drilling - Field Duplicate Data (Au g/t)



12.2.4 Pulp Duplicates

Pulp duplicate testwork was requested by AMS in order to independently verify the current laboratory QAQC controls.

In early 2013, a total of 426 pulp duplicates were collected from 3 DDH holes and submitted to AAA laboratory with independent QAQC (SHM blanks and standards) also included.

Results from the 3 DDH's are presented below in Figures 12.2.4_1 to 12.2.4_3.

Figure 12.2.4_1
Pulp Duplicate Assay Testwork - DDH-LLA-001 (Cu and Au)

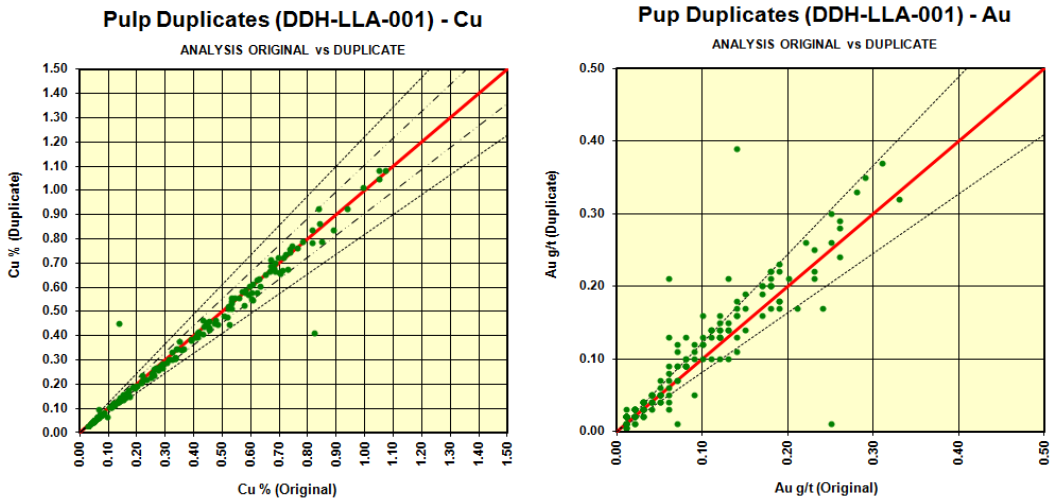


Figure 12.2.4_2
Pulp Duplicate Assay Testwork - DDH-LLA-045 (Cu and Au)

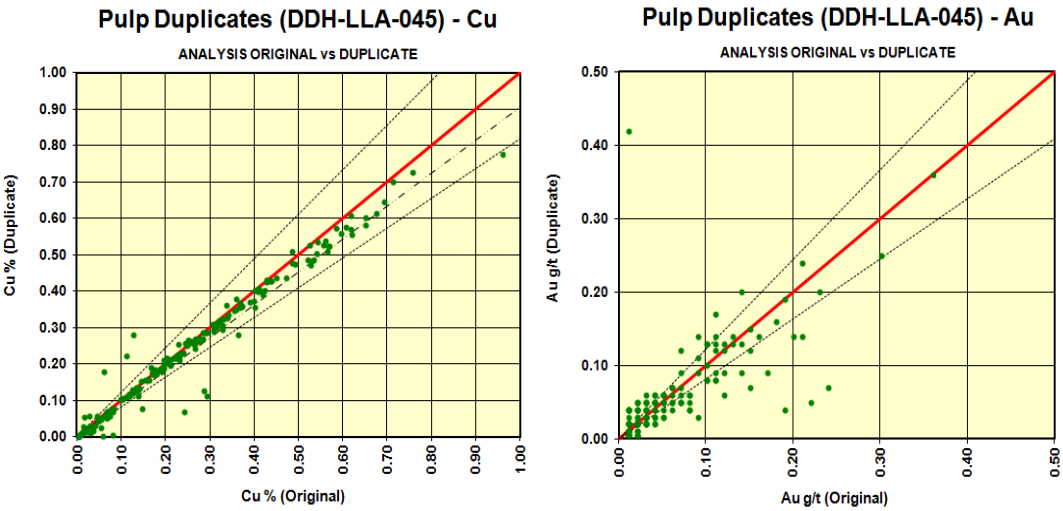
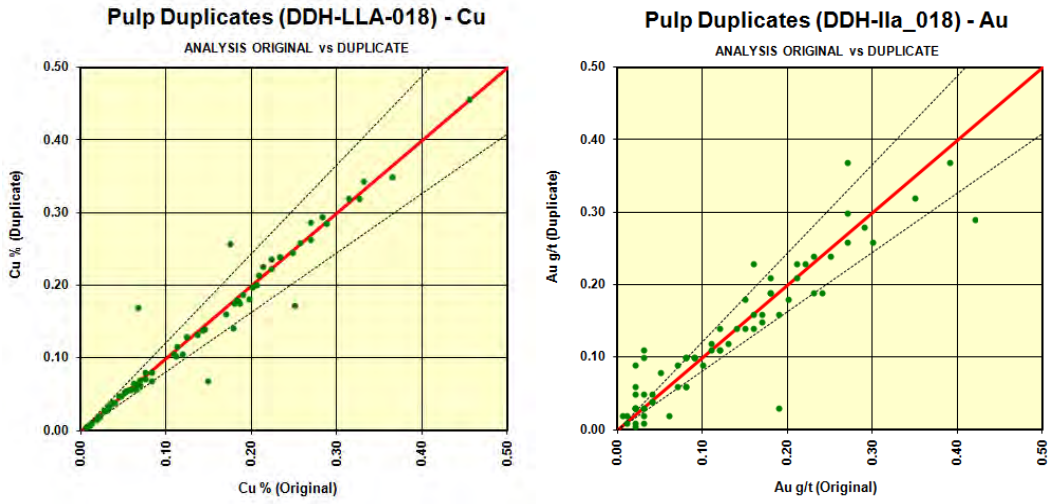


Figure 12.2.4_3
Pulp Duplicate Assay Testwork - DDH-LLA-018 (Cu and Au)



Based upon a very strong correlation of results between pulp duplicate dataset, AMS is satisfied that the dataset is suitable for resource estimation. AMS recommend independent QAQC control is implemented as a matter of priority by SHM for all future drilling undertaken across the Llahuin project area. This was recommended to SHM in late 2012 by AMS.

12.2.5 Umpire Assays

A total of 194 umpire assays were submitted by SHM to ALS laboratory (Santiago) in late 2012 due to the non-submission of independent standards.

Results from the umpire assay testwork are presented in Figures 12.2.5_1 to 12.2.5_2 below.

Figure 12.2.5_1
Late 2012 Umpire Assays - Cu (%)

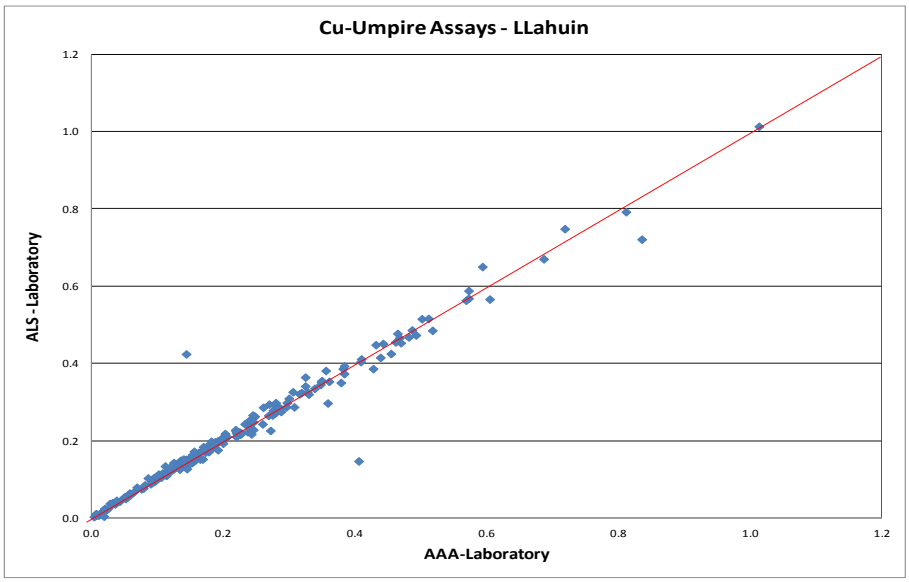
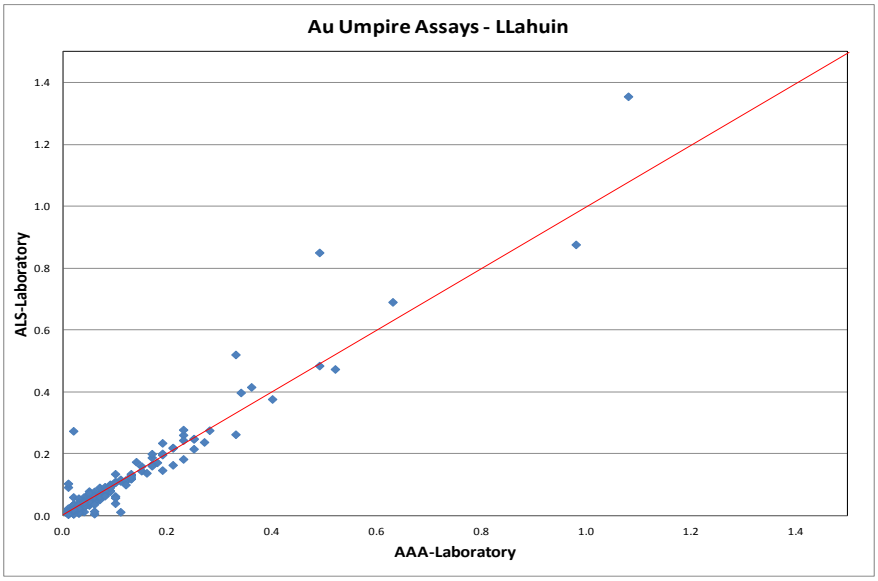


Figure 12.2.5_2
Late 2012 Umpire Assays - Au (g/t)



The repeatability on Cu was very good with no evidence of drift between laboratories. There was more spread in the Au results, with low grades being slightly lower and higher grades being higher at ALS when compared to AAA.

AMS recommended that a further 500 umpire analyses are performed, specifically targeting the low grade Au assays in the RC holes, and to a lesser degree in the DDH holes.

12.3 Bulk Density Determinations

SHM have taken a total of 232 bulk density determinations from both weathered and fresh diamond core samples as part of the recent drilling campaign(s) completed across the Llahuin Project area. AMS have not assigned any oxide boundaries to the updated mineral resource estimate.

Bulk densities assigned to the mineral resource estimates were derived by SHM using the Archimedes method, water-immersion (wax) for all core samples measured. A variety of core samples were selected from individual zones (Central Porphyry, Cerro De Oro and Ferrocarril) as well as different geological units.

Bulk density measurements (used by AMS for the resource estimation) were undertaken by SHM technicians using the following procedure (Figures 12.3_1 and 12.3_2);

- >10cm full core is wrapped in plastic film on the drill rig;
- Sample is weighed wet and then dried in a small oven;
- Dry core sample is weighed on electronic scale to determine mass of dry core and then weighed immersed in water to determine the volume (Archimedes principle);

- Both wet and dry bulk densities are then determined.

Samples collected for bulk density measurements are considered by AMS to be representative of the various geological boundaries defined for the Llahuin Project, with no sampling bias evident.

Figure 12.3_1 Paraffin Wax Coating of Core Samples	Figure 12.3_2 Bulk Density Measurements (Procedure)
	

The dry bulk density values used in the resource estimation are summarized in Table 12.3_1 below. AMS removed outlier data prior to determining the average bulk density. The average values determined for the various lithological domains are within industry standard.

Table 12.3_1
Dry Bulk Density Measurements for the Llahuin Copper-Gold Project

Mineralized Zone	Geological Unit	Number of Samples	Density (g/cm3)
Central Porphyry	Granodiorite	17	2.80
	Monzonite	40	2.80
	Eastern Diorite	12	2.81
	Llahuin Porphyry	83	2.84
	Volcanic Hornfels	24	2.84
Average Density (Central Porphyry)		**176**	**2.82**
Cerro De Oro	Tonalite	3	2.74
	Volcanic Complex	24	2.83
Average Density (Cerro De Oro)		**27**	**2.82**
Ferrocarril	Diorite Porphyry	8	2.80
	Ferrocarril Porphyry	6	2.78
	Volcanic Complex	15	2.82
Average Density (Ferrocarril)		**29**	**2.81**

A single average bulk density value of 2.80 g/cm^3 was used for the mineralised domains. A single value was chosen, given there is very little variation in bulk density between volcanics, porphyry, granodiorite and monzonite, which form the base lithologies for the mineralised domain(s) (Figures 12.3_3 to 12.3_5).

Figure 12.3_3
Bulk Density Measurements - Central Porphyry Zone

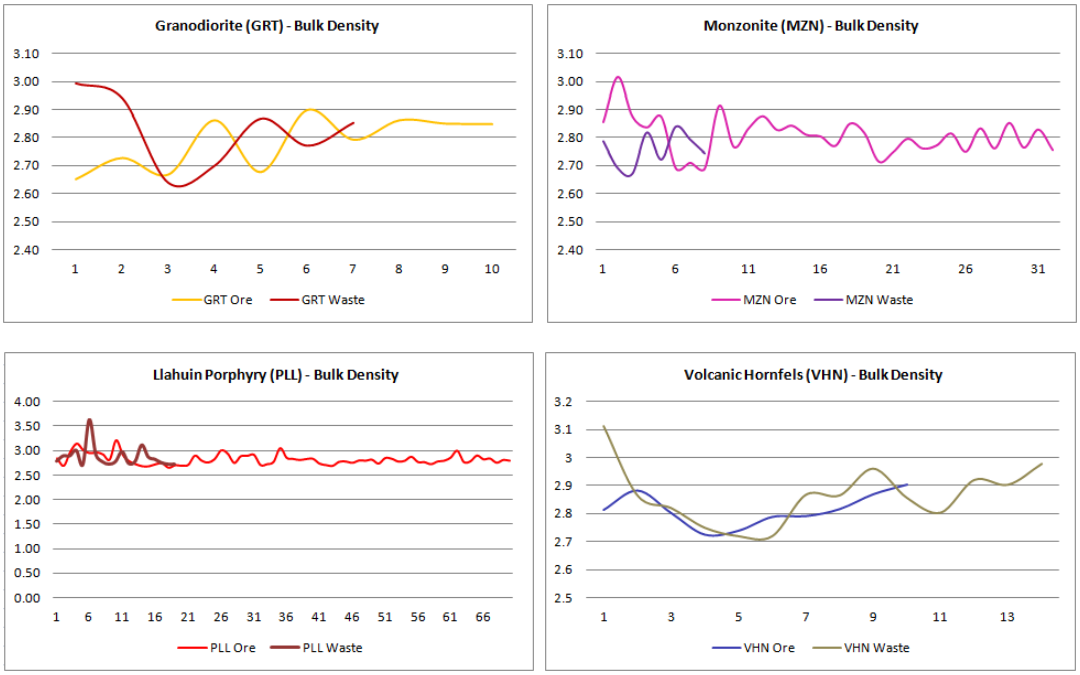


Figure 12.3_4
Bulk Density Measurements - Cerro De Oro Zone

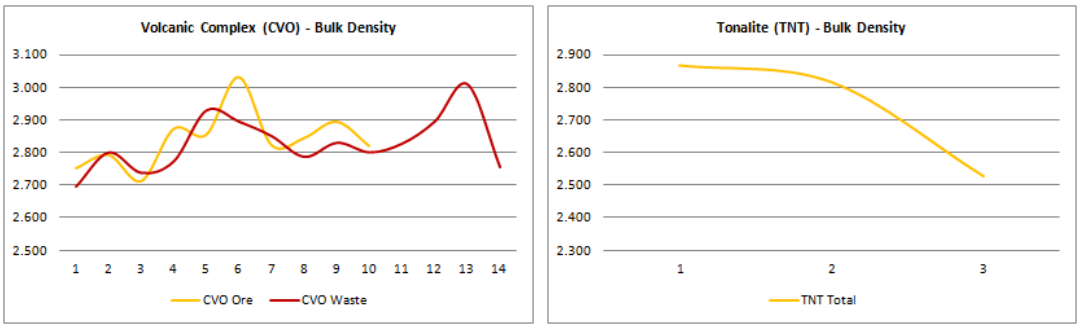
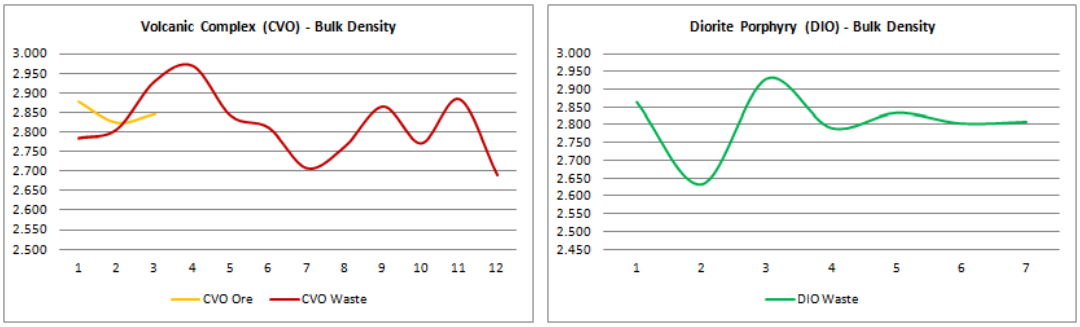


Figure 12.3_5
Bulk Density Measurements - Ferrocarril Zone



12.4 Adequacy of Data

The blanks, standards and field duplicate data returned display acceptable precision and accuracy suitable for mineral resource estimation for Cu, although some questions still exits over the adequacy of the Au grade data. Given the low levels of Au in the estimate, this is not seen as material to the project at this stage.

Future QAQC should be carried out in a more systematic way. SHM should insert their own commercial standards into the sample stream, rather than relying upon laboratories to check their own precision.

12.4.1 Data Quality Summary

The standards data has shown a high accuracy (within 2 standard deviations) as reported by the AAA laboratory. AMS recommend SHM insert their own commercial standards into the sample stream, rather than relying upon laboratories to check their own precision.

The field duplicate data for both RC and DC has returned acceptable precision suggesting that there are no material issues with the sampling method at the point of sample collection.

Umpire assays have returned acceptable precision suggesting no bias between laboratories.

RC versus DC twin holes has returned poor precision. The reason for this could be attributed to the fact that a large number of RC holes were drilled wet, and there is potential for wash-out of mineralization in the RC drilling as a direct result.

AMS have previously noted that this may be a material issue for the resource, and recommended that SHM employ the use of DC drilling for all resource definition drilling going forward. Since late 2011, only DC drilling has been completed across the Llahuin project area, and AMS note suitable recoveries and sample procedures employed.

AMS considers the data of sufficient accuracy and precision for the current mineral resource estimate.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

SHM completed preliminary metallurgical testwork in late 2012 / early 2013.

Preliminary metallurgical testwork was completed by ASMIN Industrial Ltda who are ISO 9001:2008 accredited and based locally in Santiago, Chile.

The initial metallurgical testwork program tested the work index and flotation characteristics of the Llahuin Project feed in rougher and cleaner float cells, as well as closed loop flotation tests. Samples and testwork conditions are considered representative of normal operating conditions for the results obtained.

The metallurgical test work indicates that the Llahuin Project mineralization is highly amenable to a conventional flotation process.

Recoveries of copper vary between 75% Cu and 91% Cu with the weighted average of the results being 84% Cu, which is a typically acceptable commercial level. Recoveries of gold vary between 41% and 57% Au, which was in line with expectations given the relatively low gold grades within the deposit (Table 13_1).

Table 13_1
Metallurgical Testwork - Llahuin Copper-Gold Project
Closed Loop Flotation Testwork (Diamond Drill Core Samples)

Sample	% of Resource	Feed Grade % Cu	Feed Grade g/t Au	Cu Recovery %	Au Recovery %	Concentrate Grade % Cu	Concentrate Grade g/t Au
UGM-01	37	0.46	0.142	85	47	32	6.1
UGM-02	11	0.44	0.150	91	57	31	8.8
UGM-03/06	11	0.28	0.067	75	52	16	2.6
UGM-04	13	0.33	0.046	81	41	28	2.3
UGM-09	16	0.33	0.066	88	41	26	3.4
TOTAL/WT AV.	**88**	**0.39**	**0.106**	**84**	**47**	**28**	**4.9**

Work Index testing was completed on six samples to determine possible future power requirements in the crushing/grinding process. Power consumption varied between 11.74 and 14.84 kWhr/t with the majority of the results being below 12.49kWhr/t, which is generally considered to be low / moderate consumption.

Flotation concentrates produced during testing contained the resource weighted average copper grade of 28% Cu and 4.9g/t Au. They also contained low levels of deleterious materials in the concentrate.

Given that these tests were designed to set parameters and were not optimized, the results indicated good flotation process characteristics.

For the next stage, larger scale metallurgical test work is planned to more accurately study the metallurgical parameters, process conditions and a mineralogical analysis of the concentrates so as to optimize the key variables.

14 MINERAL RESOURCE ESTIMATES

14.1 Introduction

SHM have estimated the Mineral Resource for the Llahuin Copper-Gold Project utilizing recent drilling data completed during the 2011, 2012 and 2013 field campaigns. The database is current to the 31st of March 2013. The final database used to produce the mineral resource estimate totals 247 drill holes which comprise 59 diamond drill holes and a further 188 reverse circulation drill holes of which a total of 25 RC holes were drilled as pre-collars to diamond drill holes.

The mineral resource has been reviewed and check-estimates have been completed by the author, Bradley Ackroyd, BSc (Geo) (Member MAIG), Regional Manager and Principal Consultant for AMS. Mr. Ackroyd is an independent Qualified Person as per section 1.4 of NI 43-101.

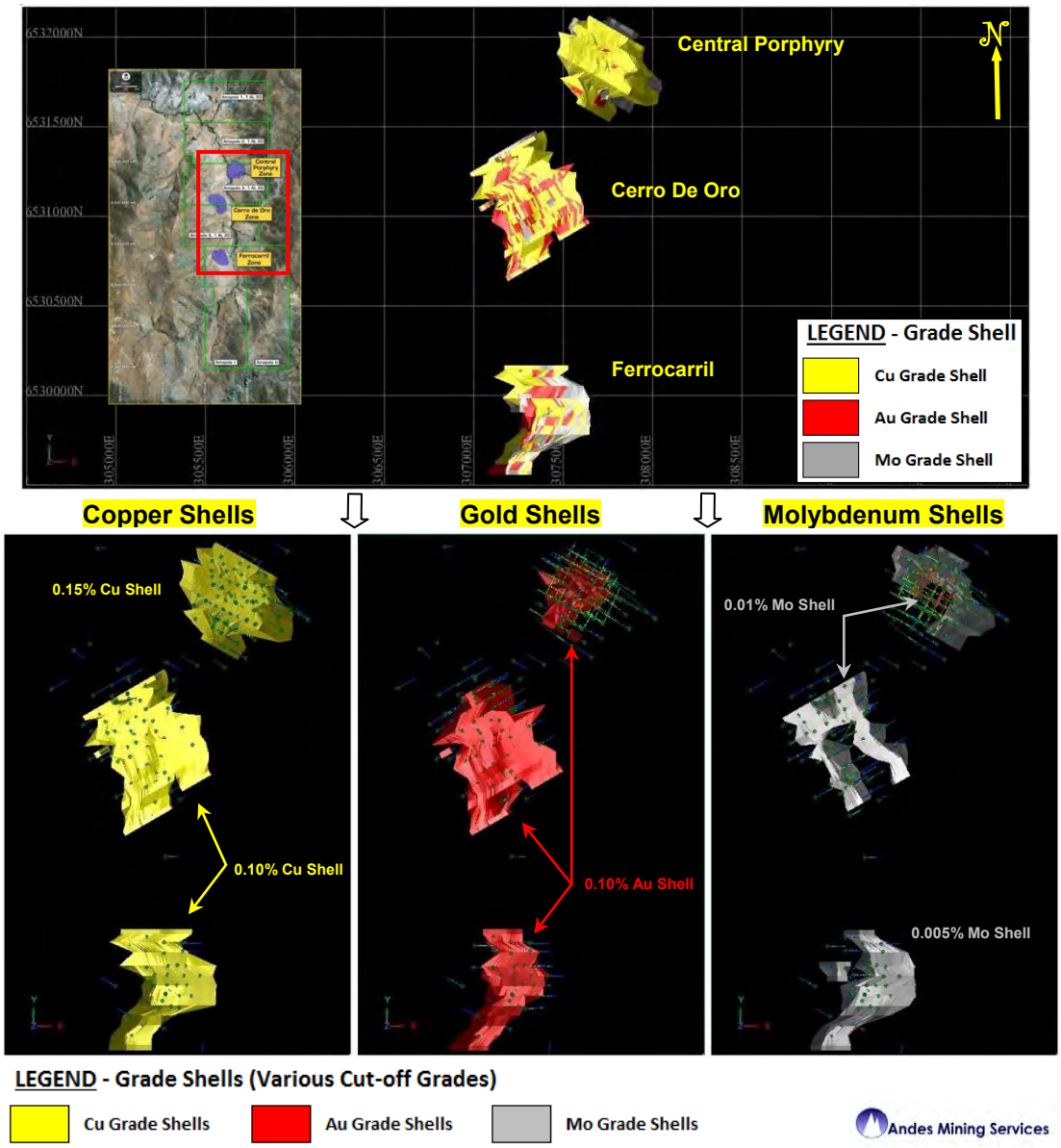
The mineral resource estimate is derived from a computerised resource block model. The construction of the block model started with the modeling of 3D wireframe envelopes of the mineralization using drill hole Cu, Au and Mo analytical data and lithological information. Once the modelling had been completed, the analytical data contained within the wireframe solids was normalised to generate fixed length composites. The composite data was used to interpolate the grade of blocks regularly spaced on a defined grid that fills the 3D wireframe solids. The interpolated blocks located below the topographic surface and inside the wireframe solids comprise the mineral resources. Individual blocks were then classified based on confidence levels using proximity to composites, composite grade variance and mineralised solids geometry. The 3D wireframe modeling was initially interpreted by SHM, and then modified by the author based on final assay results and topographic survey data. The block model and mineral resource estimation were conducted by SHM and reviewed in detail by AMS.

All grade estimation was completed using Ordinary Kriging (OK) for Cu, Au and Mo (Figure 14.1_1). This estimation approach was considered appropriate based on a review of a number of factors, including the quantity and spacing of available data, the interpreted controls on mineralization, as well as the style of mineralization under consideration.

The estimation was constrained entirely within fresh rock domains. Saprolite is poorly developed across the Llahuin Project area, and AMS note that fresh rock outcrops at surface across the entire Central Porphyry Zone. Weathering profiles are slightly better developed across the Cerro De Oro and Ferrocarril zones, however weathering (oxidation) is limited to fractures within the top 10-20m from surface. SHM make no distinction between weathering profiles as part of the current resource update for the Llahuin project area.

The Llahuin Copper-Gold Project mineral resource estimate is based on 247 drill holes drilled at a nominal spacing of approximately 50m by 50m. A total of 59 diamond drill holes (20,787.6m) and a further 188 reverse circulation drill holes (33,732.2m) have been completed across the resource area. A total of 4 diamond drill holes have been completed as twin holes to pre-existing reverse circulation drilling in an effort to provide suitable QA/QC comparison test work.

Figure 14.1_1
Drilling and Grade Shells - Llahuin Copper-Gold Project *(AMS, 30th June 2013)*



Drilling included within the Llahuin Copper-Gold Project resource is listed below in Table 14.1_1 and illustrated in Figures 14.1_2 and 14.1_3.

Table 14.1_1
Llahuin Copper-Gold Project Resource - Drilling Summary Statistics

Year	Drilling Technique	Number of Holes	Metres Drilled (m)
2011	RC	57	10,821
	DDH	5	2,063.75
2012	RC	83	14,587.20
	DDH	35	12,690
2013	RC	48	8,324
	DDH	19	6,033.85

Figure 14.1_2
Plan View - Central Porphyry Domain (Cu) with Drillholes by Type *(AMS, 30th June 2013)*

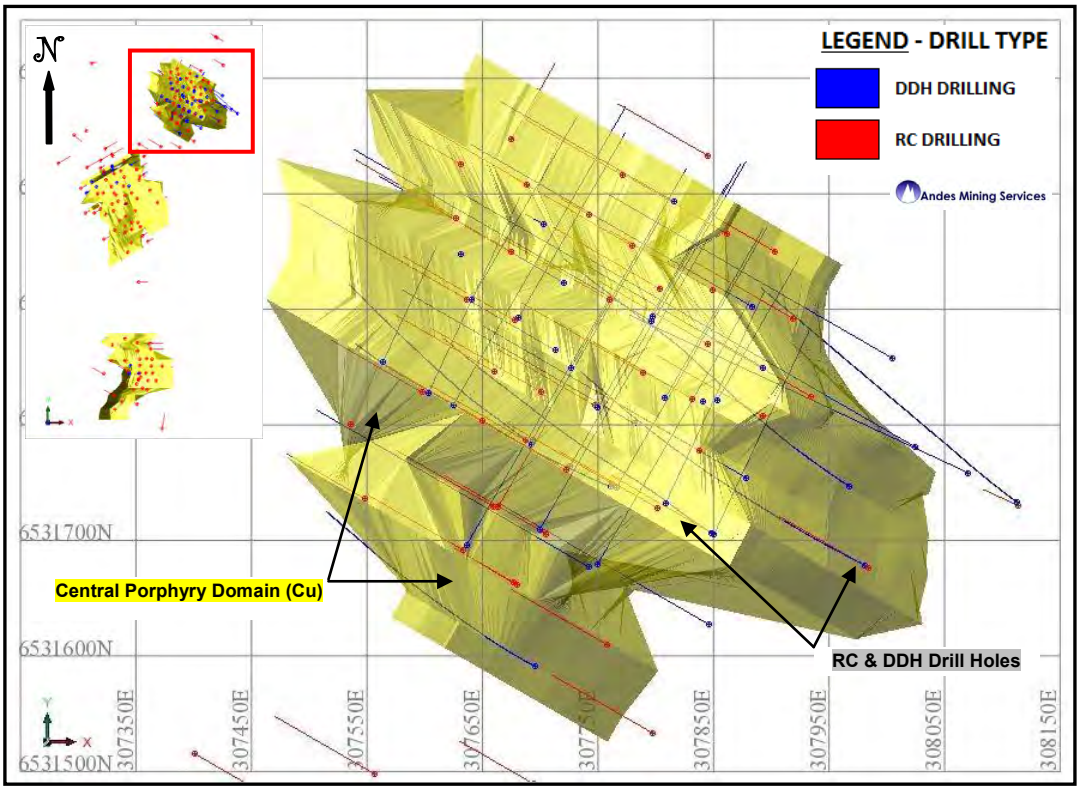


Figure 14.1_3
Plan View - Cerro De Oro Domain (Cu) with Drillholes by Type *(AMS, 30th June 2013)*

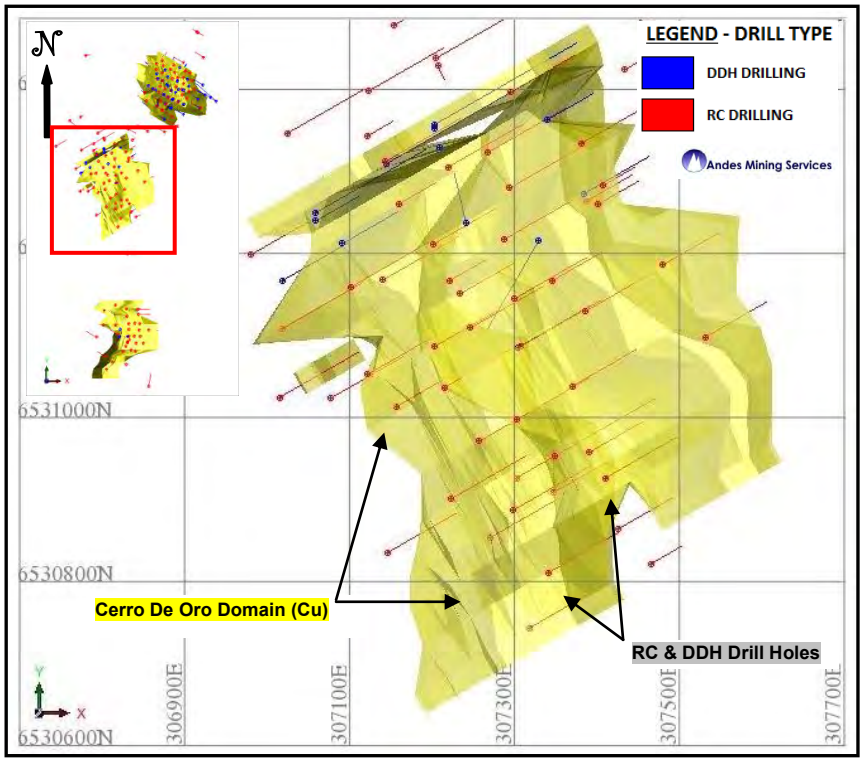
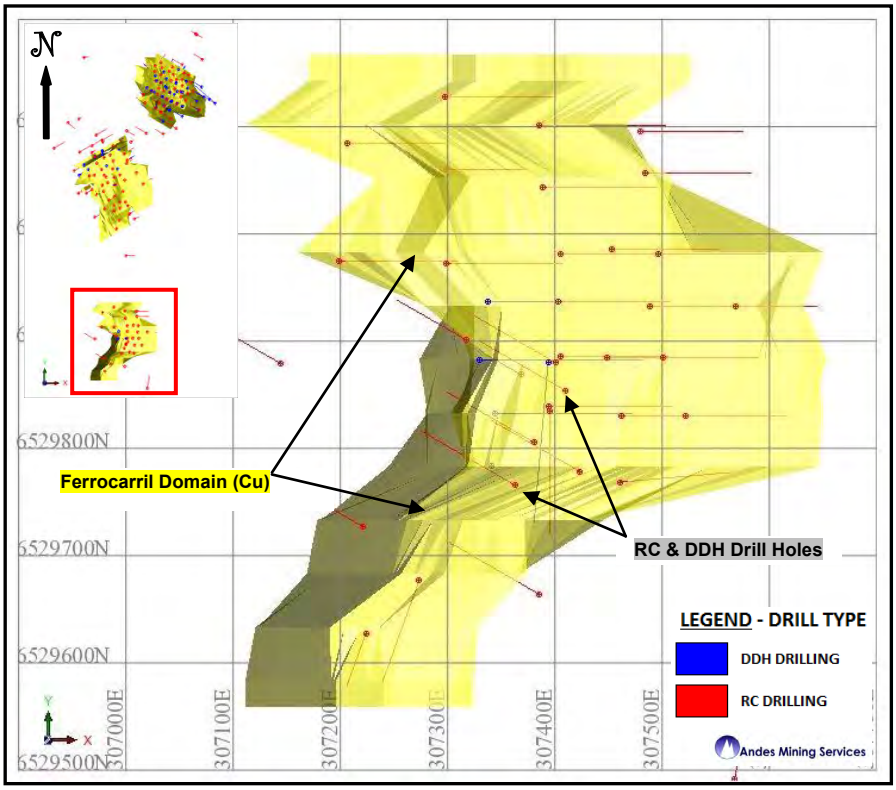


Figure 14.1_4
Plan View - Ferrocarril Domain (Cu) with Drillholes by Type *(AMS, 30th June 2013)*



14.2 Database

A spreadsheet named LLAHUIN DATABASE 01-Abr-2013.xlsx was received from SHM. The following checks were performed:

- Holes that had no collar data;
- Overlaps in sample intervals;
- Gaps in sample intervals;
- Matching the geological logging length to the hole sample length.

There were no material errors noted by the author.

The drillholes were imported into Surpac software and were correlated with the topographic surface provided by SHM. An excellent correlation was noted between collar location points and the topographic surface provided.

AMS note that saprolite is poorly developed across the Llahuin Project area, and that fresh rock outcrops at surface across the entire Central Porphyry Zone. Weathering profiles are slightly better developed across the Cerro De Oro and Ferrocarril zones, however weathering (oxidation) is limited to fractures within the top 10-20m from surface. SHM make no distinction between weathering profiles as part of the current resource update for the Llahuin

project area, and subsequently, no regolith boundary surfaces were generated for the purpose of this resource estimate update.

Statistics for drilling that intersects each mineralized domain (Cu, Au and Mo) across the three mineralized zones are presented below in Table 14.2_1.

The estimation was constrained entirely within fresh rock domains.

Table 14.2_1
Summary Drilling Statistics within Llahuin Mineralized Domains

Domain	Ore Shell	DDH Holes	DDH Intercepts (m)	RC Holes	RC Intercepts (m)
Central Porphyry	Cu	40	16,983.34	43	7,276.00
	Au	36	6,460.32	21	2,138.95
	Mo	35	6,347.52	10	899.78
Cerro De Oro	Cu	14	2,333.22	51	5,712.00
	Au	10	1,369.05	39	4,280.00
	Mo	8	1,244.24	19	1,526.89
Ferrocarril	Cu	5	1,284.40	33	5,330.00
	Au	11	260.72	41	1,276.24
	Mo	5	1,273.15	31	3,469.94

14.3 Geological Modelling

Given the extensive number of drill holes across the Llahuin Project, a detailed geological model has been developed by SHM staff as a basis for resource estimation work.

The lithological units, as displayed in Figure 14.3_1 were interpreted in cross section and then the statistics for each unit were compared for the Llahuin porphyry deposit. Both the Cerro de Oro and Ferrocarril Zones are almost entirely located within volcanics so this approach was not required for these two domains.

A visual review of the logged alteration, found that there was only weak correlation between logged alteration intensity and grade. The relationship is moderate between quartz veining and grade, and a stronger relationship exists between sulphide percentage and grade. Time did not permit the interpretation of these two features. It is suggested that this should be examined in the future as it may have some impact on estimates.

A review of the new core and surface exposures confirmed that there is little or no oxidation present at surface.

For the Central Porphyry Zone, the following four geological units (granodiorite, Llahuin porphyry, monzonite and volcanic hornfels) were grouped together as a single unit named a super-unit for estimation purposes (Figure 14.3_1). Grouping of geological units was based on a statistical study of assay information for each geological unit as well as a review of cross sections across the Central Porphyry Zone (Figures 14.3_2 and 14.3_3).

Figure 14.3_1
Schematic Cross Section Looking North-West Showing Geological Units – Central Porphyry Deposit

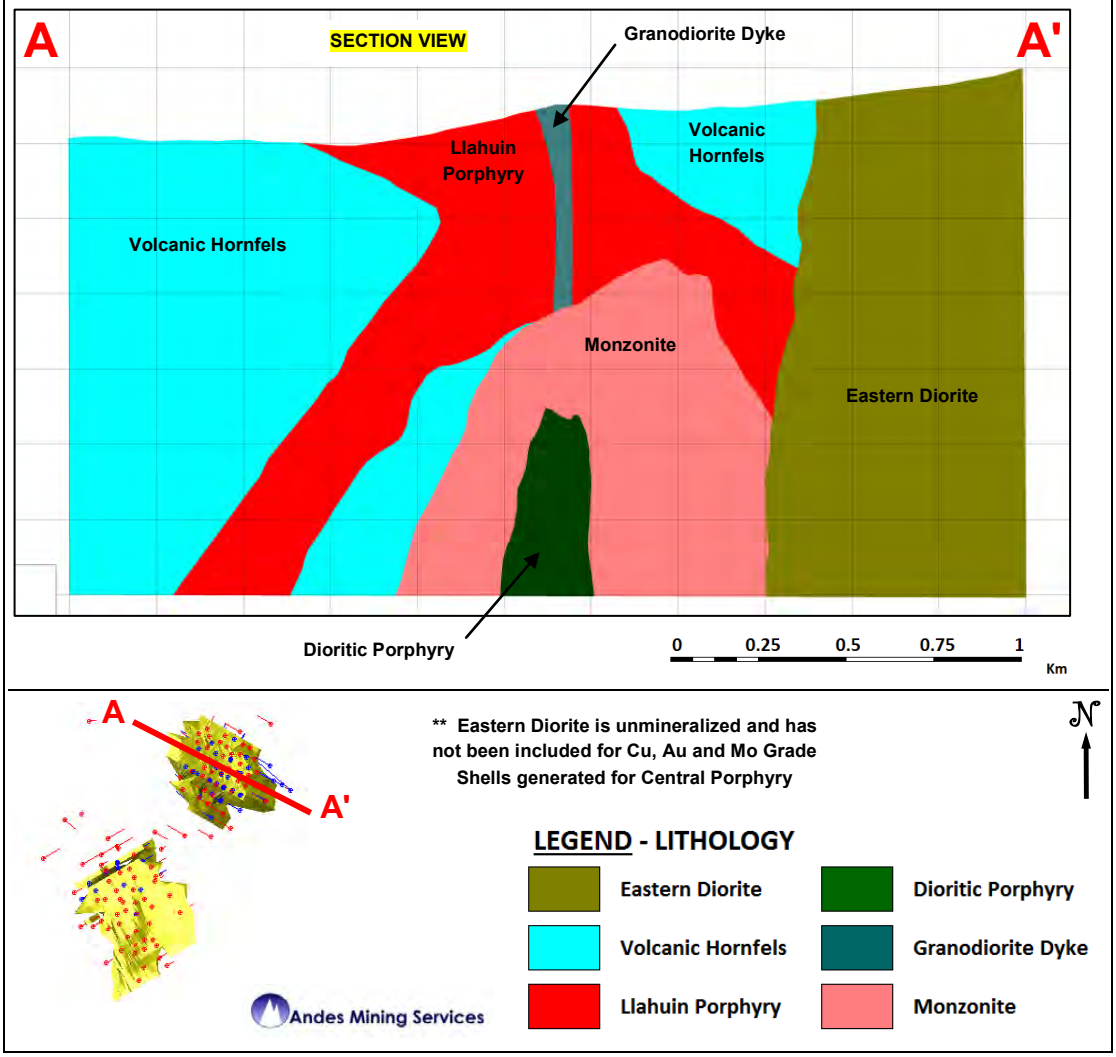


Figure 14.3_2
Major Geological Units (Log Probability Chart for Cu) – Llahuin Porphyry Deposit

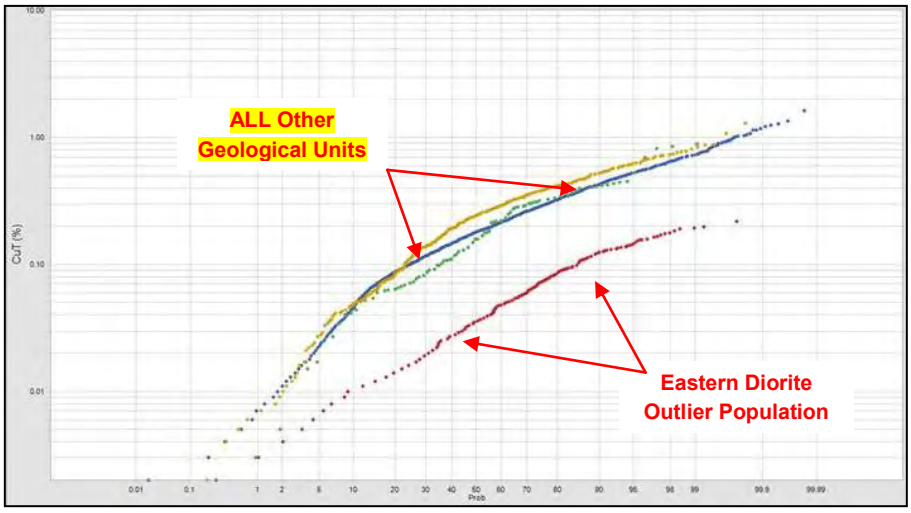
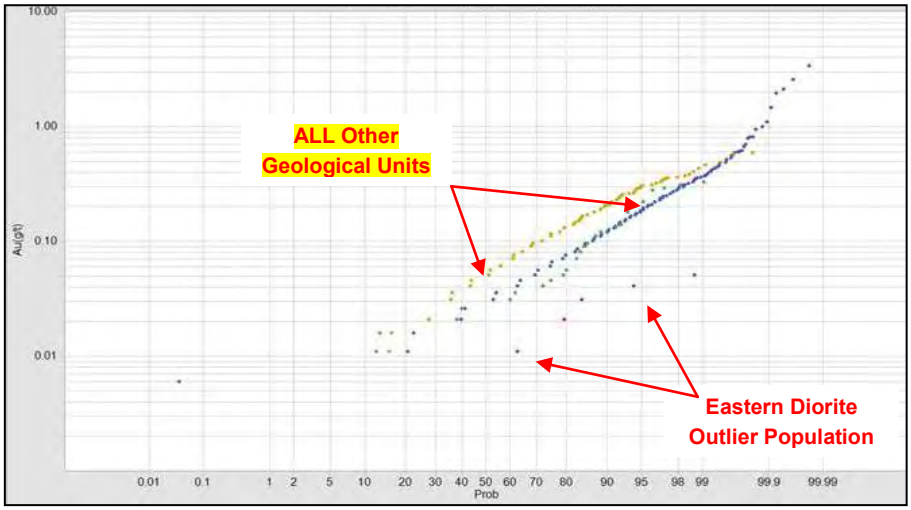


Figure 14.3_3
Major Geological Units (Log Probability Chart for Au) – Llahuin Porphyry Deposit



It is clear that new data presented between September 2012 and May 2013 makes no material difference to the statistical population or visual observations on cross sections. The eastern diorite unit is almost entirely unmineralised, and has subsequently been excluded from the resource estimate.

Separate 0.15% Cu, 0.10g/t Au and 0.01% Mo grade shells were then generated within the super-unit for Central Porphyry based upon population statistics (Figure 14.3_4). The eastern diorite unit was not modelled in this update as it is clearly uneconomic.

The Cerro de Oro Zone and Ferrocarril zones were also modeled within separate 0.10% Cu, 0.10g/t Au and 0.01% Mo grade shells (0.005% for Ferrocarril), mainly for consistency purposes. There have been no strong lithological controls yet established for these zones, with mineralization occurring in both volcanics and intrusive porphyry units.

Cross sectional strings and wireframes have been created on a variety of 50m to 100m spaced sections by snapping to drillholes.

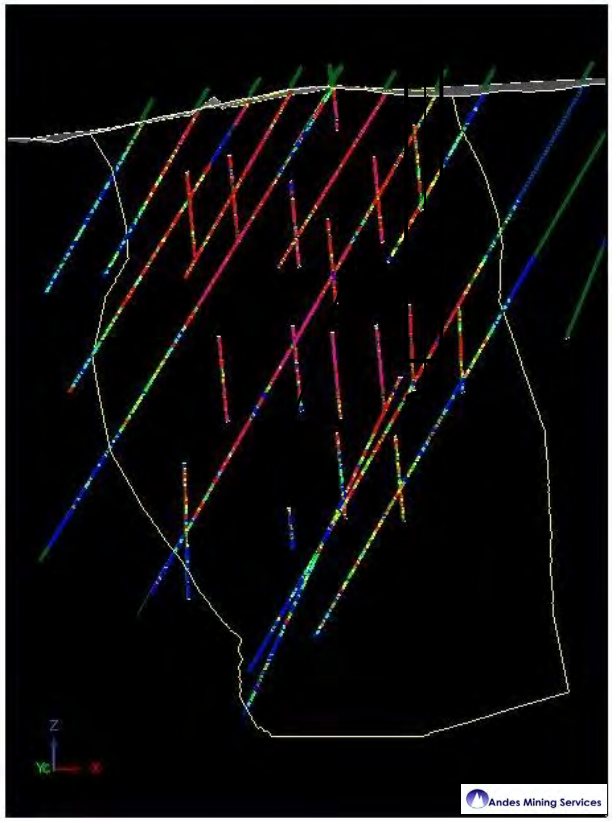
In addition, SHM have utilized a recent detailed topographical survey across the Llahuin Porphyry Project area as an upper boundary surface for the wireframes (grade shells).

The interpretation shows good three dimensional consistency, and generally, a reasonably consistent thickness from section to section. There is, in general, good correlation between diamond core and reverse circulation drilling.

The interpretation and wireframe models have been developed using Surpac 3D resource modelling software package.

Figure 14.3_4
Sectional View of Mineralized Grade Shells (Cu, Au and Mo) with Drillholes - Central Porphyry *(AMS, 30th June 2013)*

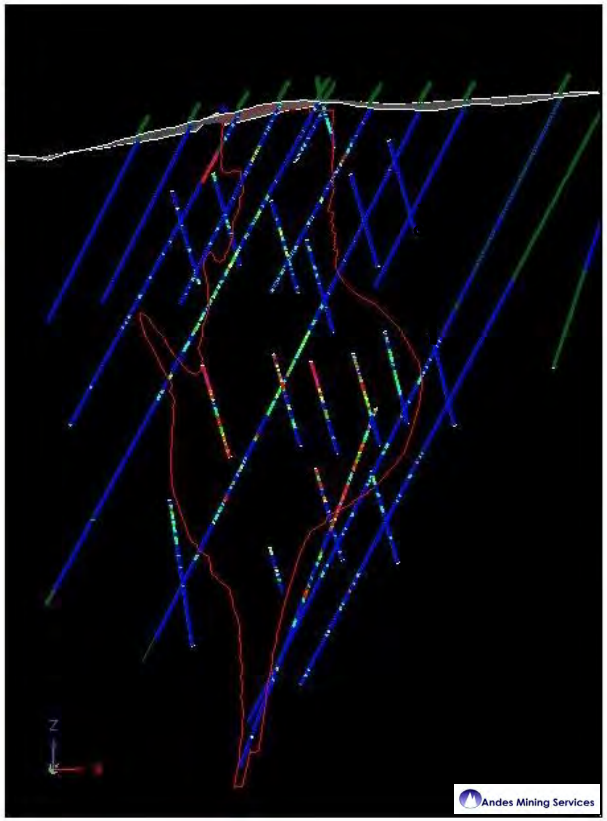
COPPER 0.15% GRADE SHELL



LEGEND - (Cu % Assay)

0.00 --> 0.10	0.25 --> 0.30
0.10 --> 0.15	0.30 --> 0.50
0.15 --> 0.20	0.50 --> 10.00
0.20 --> 0.25	

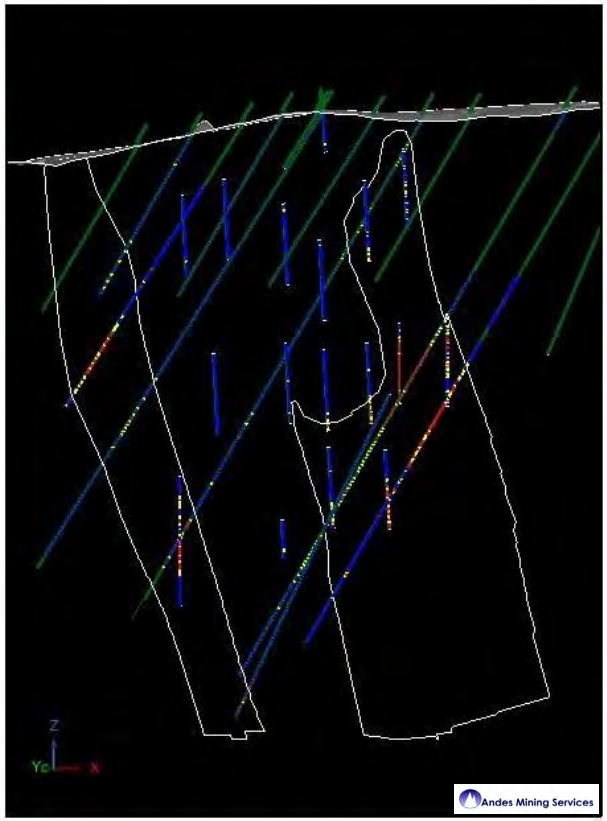
GOLD 0.10g/t GRADE SHELL



LEGEND - (Au g/t Assay)

0.00 --> 0.10	0.25 --> 0.30
0.10 --> 0.15	0.30 --> 0.50
0.15 --> 0.20	0.50 --> 2.00
0.20 --> 0.25	

MOLYBDENUM 0.01% GRADE SHELL



LEGEND - (Mo % Assay)

0.00 --> 0.01	0.02 --> 0.05
0.01 --> 0.02	0.05 --> 10.00

14.4 Sample Selection and Sample Compositing

Samples were selected for the mineral resource estimate as either inside or outside the relevant Cu, Au or Mo grade shells for all three zones (Central Porphyry, Cerro De Oro and Ferrocarril).

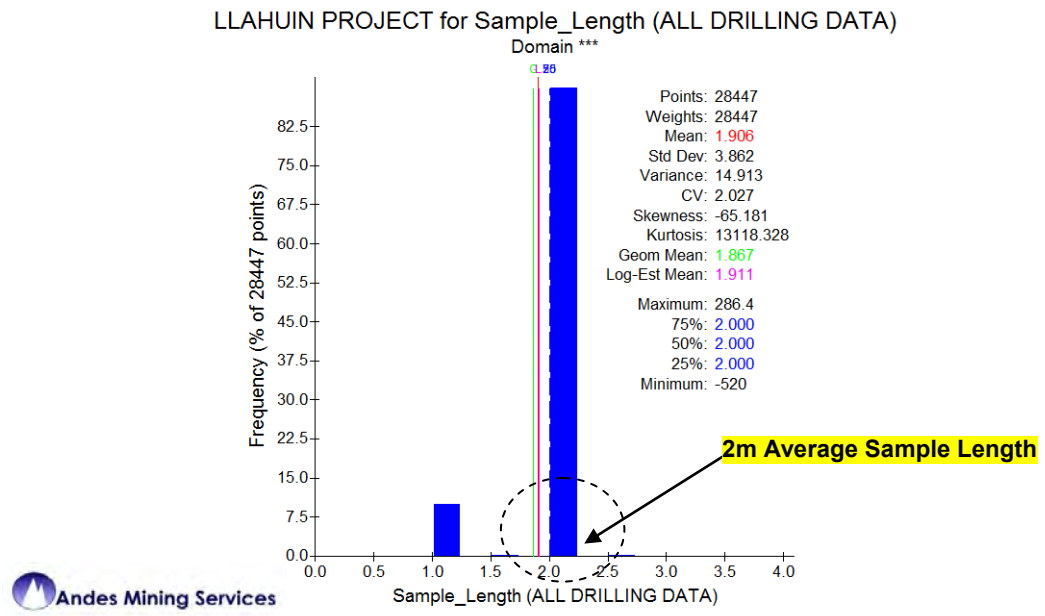
Compositing was completed on 2m intervals, as this matches the majority of the sampling of the deposit as displayed in Figure 14.4_1 below. The minimum sample length used was 1m. Composites were generated to 2m intervals based on a "best fit" approach and hence no residual samples were discarded. Given the bulk mining approach that will be adopted, this method of generating composites was considered appropriate.

SHM decided to retain a 2m composite, rather than a larger composite, in order to mimic some of the grade variability often seen in porphyry copper deposits when they reach the grade control and mining stage.

Selected samples were visually compared back to the interpretations to ensure that the flagging was appropriate.

The composite file was used as the basis for geostatistics and 3D modelling and estimation.

Figure 14.4_1
Average Sample Length Graph – Llahuin Project (All Drilling Data)



14.5 Statistical Analysis

The drill hole database was composited to a 2m down-hole composite interval, with the 2m composite used for all statistical, geostatistical and grade estimation studies.

The statistical analysis was undertaken based on the 2m composites separated into the various mineralized domains (Central Porphyry, Cerro De Oro and Ferrocarril). Data was reviewed for all modelled elements. Statistical analysis of 2m composites separated into various mineralized domain is presented below in Table 14.5_1.

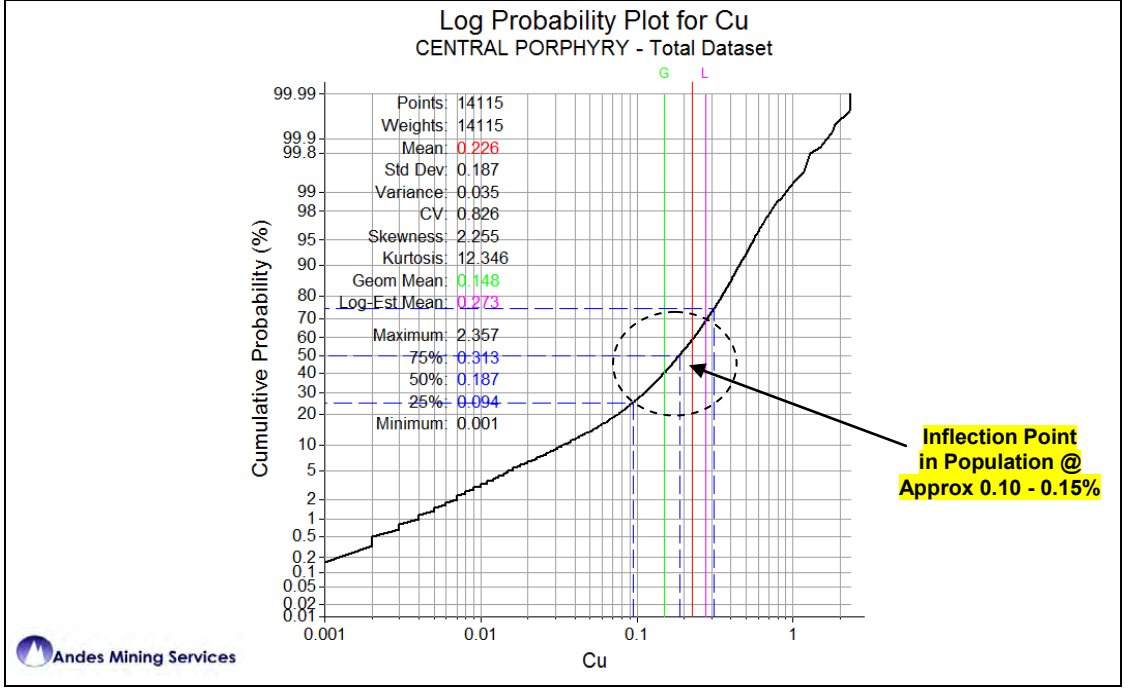
Table 14.5_1
Summary Statistics – 2m Composites within Llahuin Mineralized Domains

MINERALIZED DOMAIN	Grade Shell	Count	Minimum Value	Maximum Value	Mean	Variance	Std Dev	CV
CENTRAL PORPHYRY	Cu (%)	10,548	0.001	2.357	0.268	0.035	0.186	0.695
	Au (g/t)	3,349	0.005	2.48	0.157	0.032	0.179	1.139
	Mo (%)	2,060	0.001	0.402	0.013	0.000	0.019	1.468
CERRO DE ORO	Cu (%)	3,866	0.001	3.143	0.162	0.019	0.137	0.844
	Au (g/t)	2,808	0.01	3.91	0.136	0.028	0.167	1.226
	Mo (%)	1,385	0.001	0.097	0.005	0.000	0.008	1.590
FERROCARRIL	Cu (%)	3,112	0.002	2.556	0.139	0.013	0.114	0.822
	Au (g/t)	2,191	0.005	2.54	0.068	0.006	0.076	1.116
	Mo (%)	2,020	0.001	0.354	0.006	0.000	0.012	2.099

The statistics for each major lithological unit were reviewed as displayed in Figures 14.3_2 to 14.3_3, and then grouped as units previously discussed for the Central Porphyry zone.

The grade shell of 0.15% Cu for Central Porphyry and 0.10% Cu for Cerro De Oro and Ferrocarril was chosen based upon a reasonably clear population break, as displayed in Figure 14.5_1 and inspection of the data on cross sections.

Figure 14.5_1
Log Probability Chart (Cu) – Central Porphyry Zone Composites



The grade shell of 0.10 g/t Au (Central Porphyry, Cerro De Oro and Ferrocarril) was chosen based upon inspection of data on cross sections. The population break for Au is not as clear on log probability plots as it is for Cu.

Figure 14.5_2
Log Probability Chart (Cu) – Cerro De Oro Zone Composites

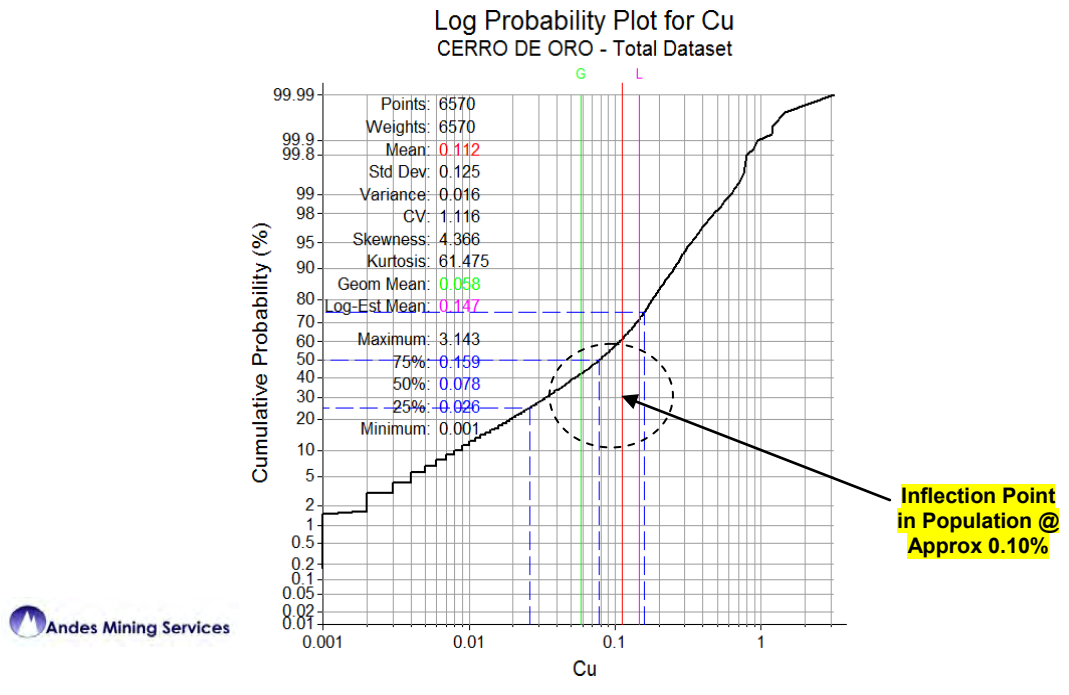
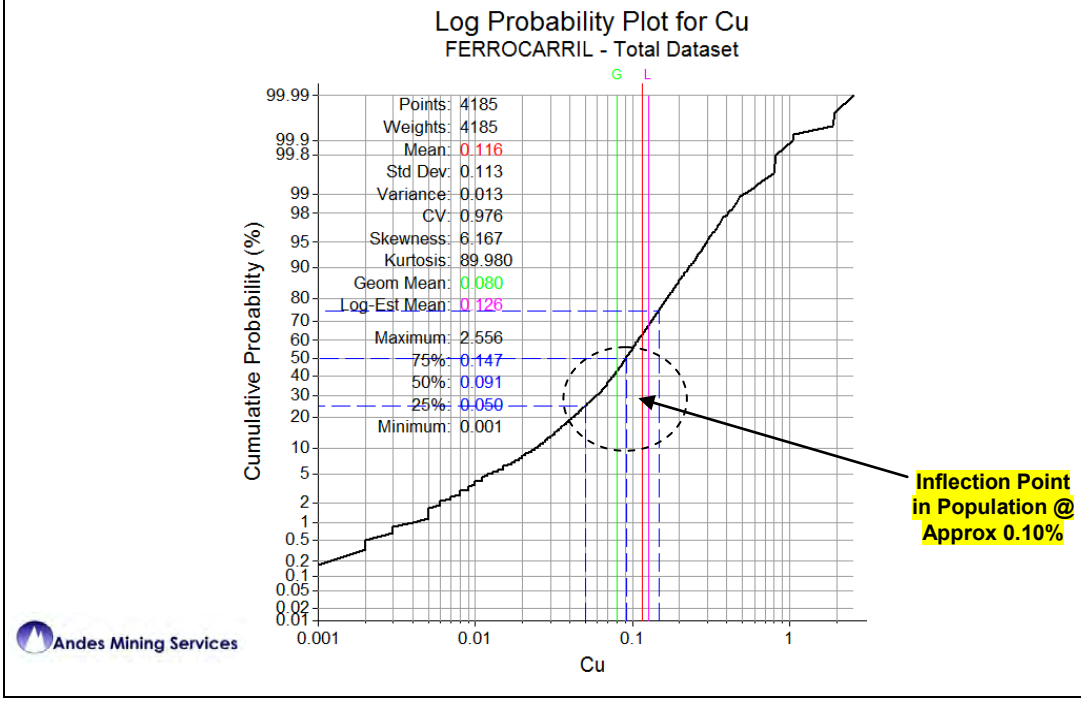


Figure 14.5_3
Log Probability Chart (Cu) – Ferrocarril Zone Composites



An analysis of the data suggests that the use of upper cuts is not warranted. AMS have generated histogram and log probability plots for all elements (Cu, Au and Mo) across grade shells for each mineralized zone (Central Porphyry, Cerro De Oro and Ferrocarril) as displayed in Figures 14.5_4 to 14.5_12 below.

Figure 14.5_4
Histogram and Log Probability Plot – Central Porphyry Zone - Cu Grade Shell Comps (2m)

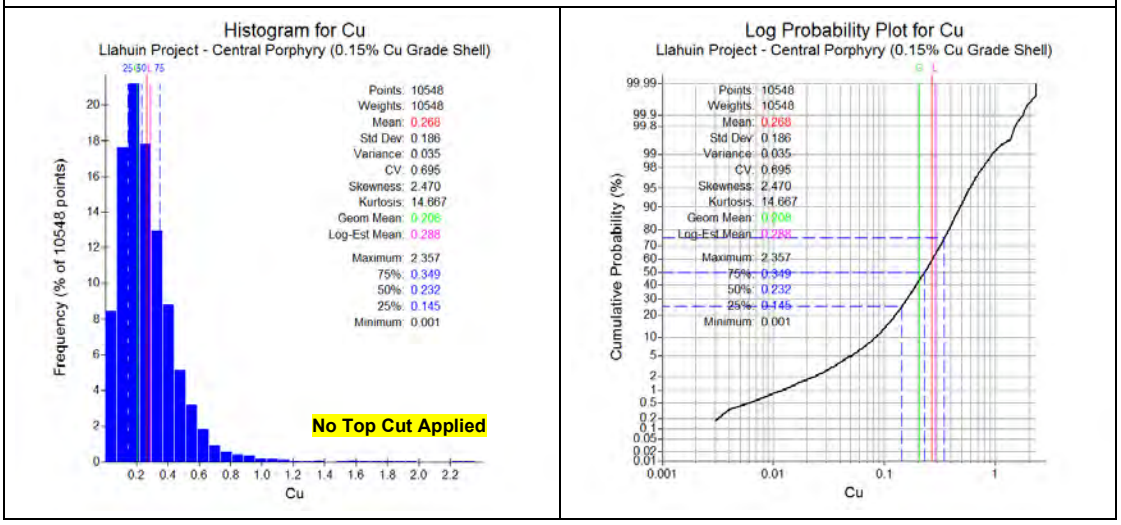


Figure 14.5_5
Histogram and Log Probability Plot – Central Porphyry Zone - Au Grade Shell Comps (2m)

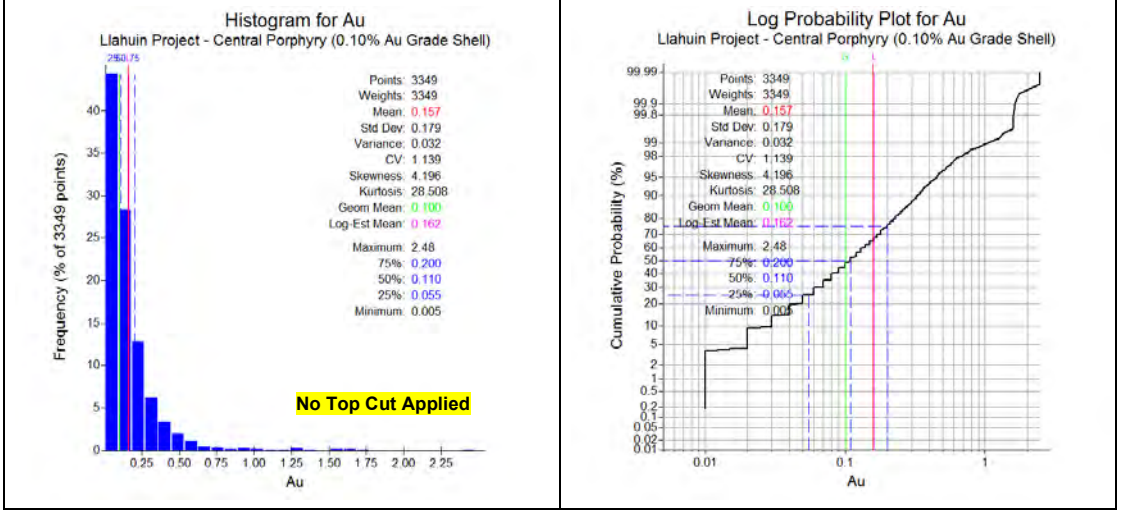


Figure 14.5_6
Histogram and Log Probability Plot – Central Porphyry Zone - Mo Grade Shell Comps (2m)

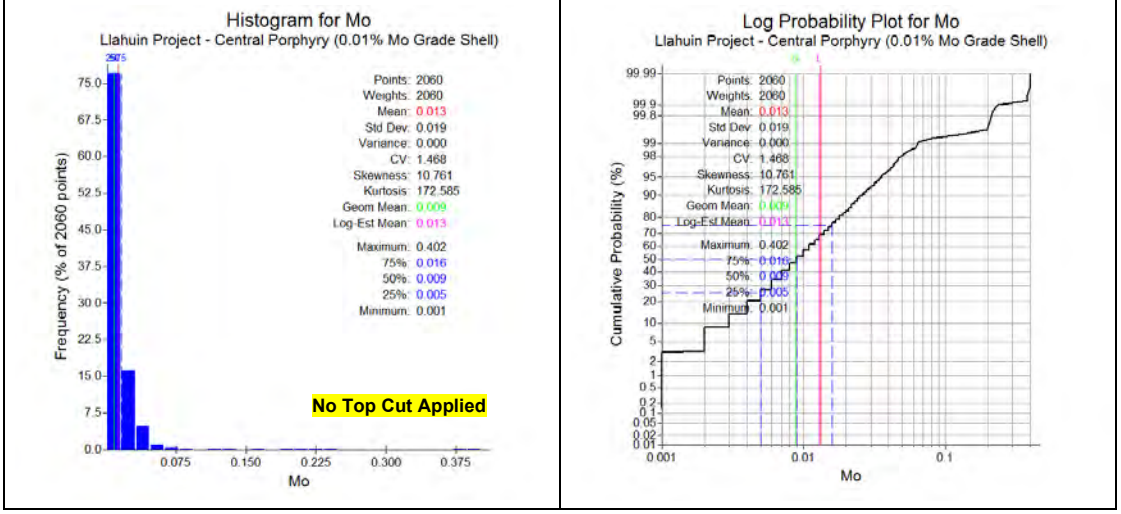
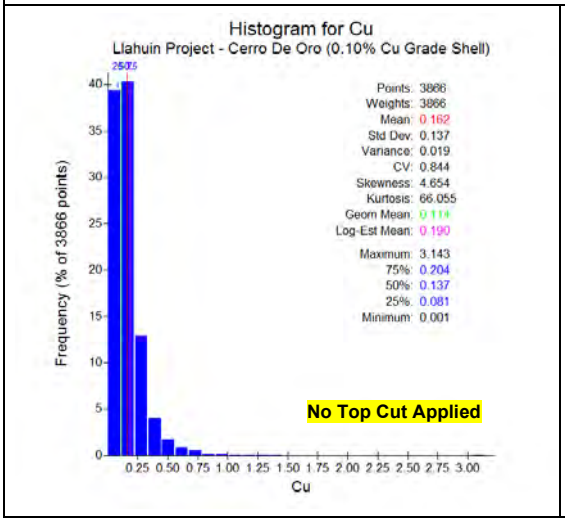


Figure 14.5_7
Histogram and Log Probability Plot – Cerro De Oro Zone - Cu Grade Shell Comps (2m)



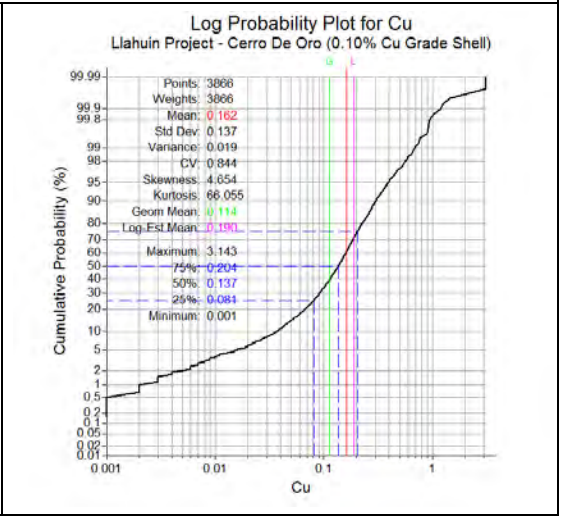
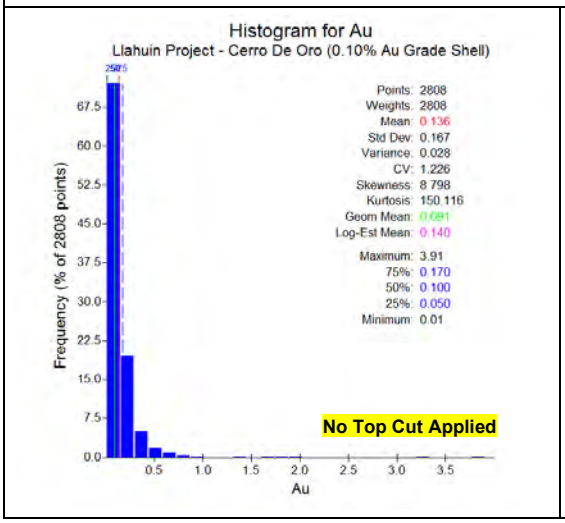


Figure 14.5_8
Histogram and Log Probability Plot – Cerro De Oro Zone - Au Grade Shell Comps (2m)



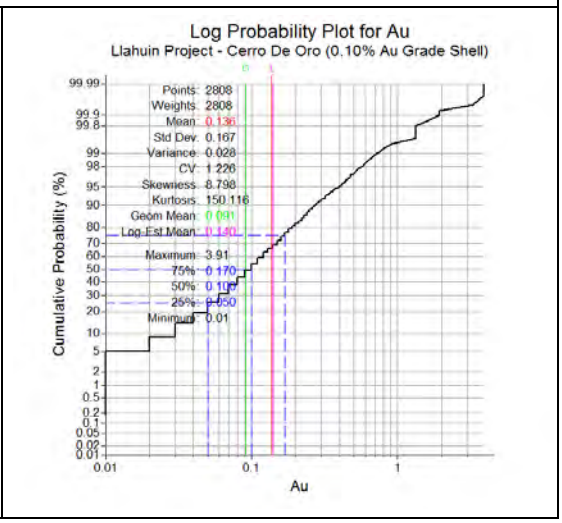
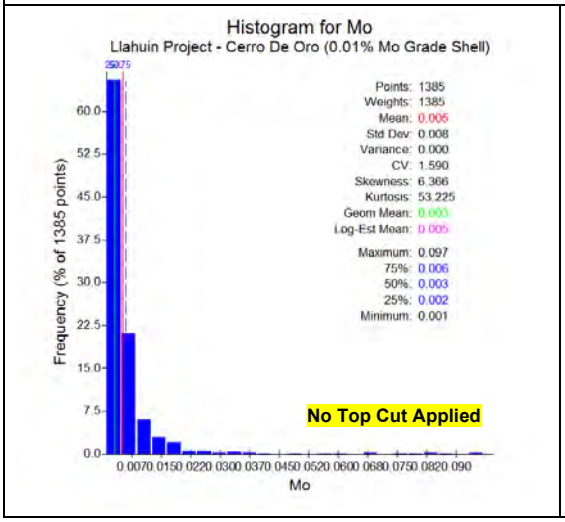


Figure 14.5_9
Histogram and Log Probability Plot – Cerro De Oro Zone - Mo Grade Shell Comps (2m)



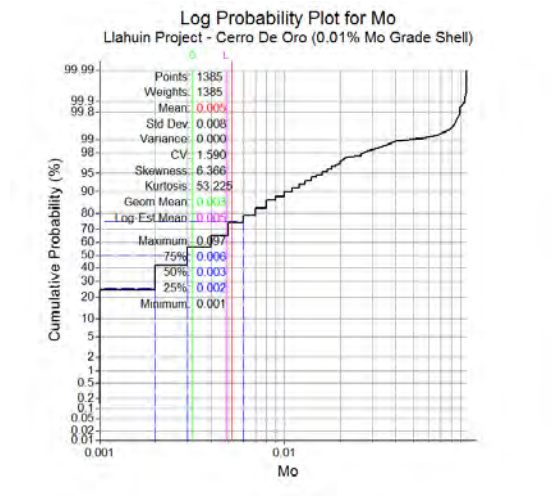


Figure 14.5_10
Histogram and Log Probability Plot – Ferrocarril Zone - Cu Grade Shell Comps (2m)

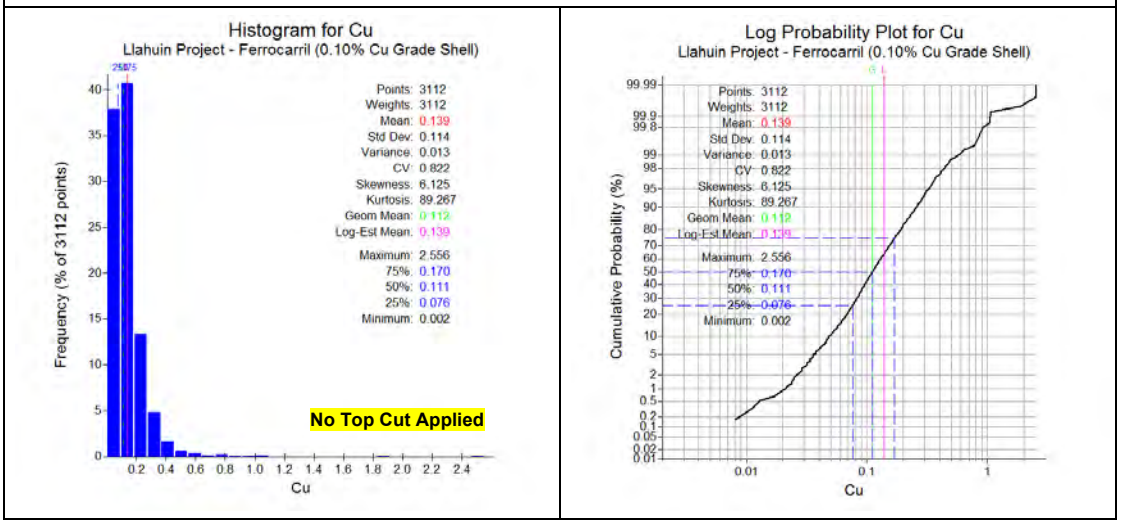


Figure 14.5_11
Histogram and Log Probability Plot – Ferrocarril Zone - Au Grade Shell Comps (2m)

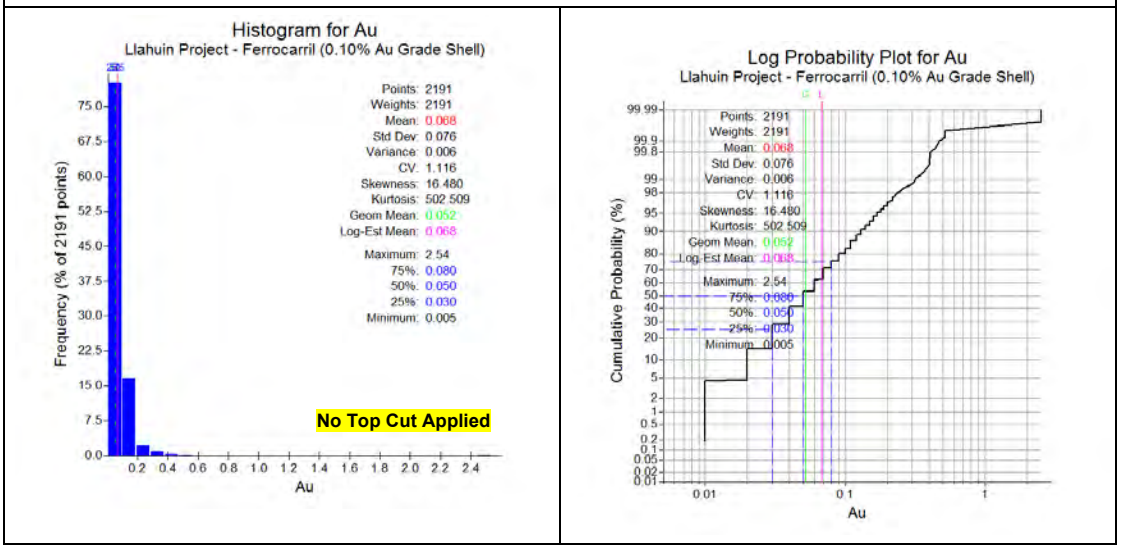
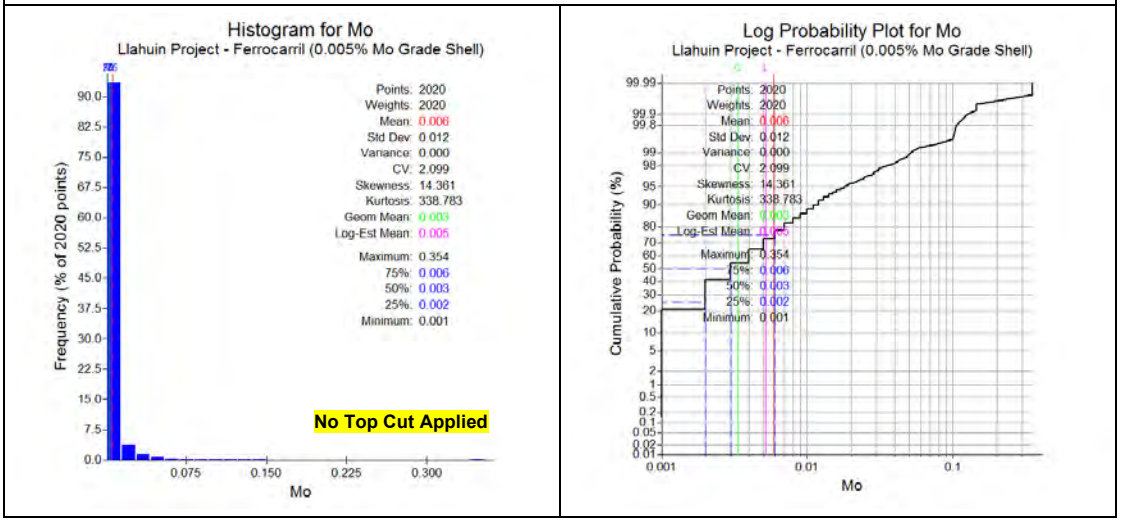


Figure 14.5_12
Histogram and Log Probability Plot – Ferrocarril Zone - Mo Grade Shell Comps (2m)



14.6 Variography

The variography was based on the 2m uncut composited data coded within the mineralization interpretation. The spatial continuity of composite grades for Cu, Au and Mo were assessed by means of a variety of types of variograms. Normal variograms were not stable, therefore pairwise relative variograms were computed and modelled for the 2m composites. Variogram fans were analysed for Cu, Au and Mo in order to identify potential anisotropies in the grade continuity within the modelled mineralised grade envelopes.

The variograms are orientated along the observed strike and dip of each zone. The nugget for Cu accounts for approximately 30% to 40% of the total variance with 70-85% of the variance being encountered within the first 100m. Total ranges for Cu are in the order of 150 - 200m.

The nugget for Au accounts for approximately 25% to 60% of the total variance with 75-80% of the variance being encountered within the first 80m. Total ranges for Cu are in the order of 120 - 170m.

The variograms for Mo are poor for all zones, when compared to the Cu and Au variograms, and therefore the Au variograms were utilised in the Mo estimation.

Table 14.6_1 below presents the variogram models for Cu, Au and Mo. Figures 14.6_1 to 14.6_2 show the pairwise relative variogram graphs for Cu and Au across the Central Porphyry zone.

Table 14.6_1

Variogram Models for Cu, Au and Mo Grade Shells for 2m Composites

Zone	Shell	Nugget Effect	First Spherical Variogram Component							Second Spherical Variogram Component			
			Sill (C1)	Ranges (in metres)			Orientation (in degrees)			Sill (C2)	Ranges (in metres)		
				Max	Interm	Min	Azi	Dip	Spin		Max	Interm	Min
Central Porphyry	Cu	0.15 36%	0.17 40%	95	47.5	23.75	120	-80	0	0.1 24%	220	110	55
	Au	0.32 59%	0.09 17%	85	42.5	21.25	130	-80	0	0.13 24%	165	82.5	41.25
	Mo	0.32 59%	0.09 17%	85	42.5	21.25	130	-80	0	0.13 24%	165	82.5	41.25
Cerro De Oro	Cu	0.12 29%	0.19 45%	76	38	19	0	0	0	0.11 26%	210	105	52.5
	Au	0.11 24%	0.25 56%	63	31.5	15.75	0	0	0	0.09 20%	158	79	39.5
	Mo	0.11 24%	0.25 56%	63	31.5	15.75	0	0	0	0.09 20%	158	79	39.5
Ferrocarril	Cu	0.1 33%	0.15 50%	86	43	21.5	0	0	0	0.05 17%	156	78	39
	Au	0.17 35%	0.22 46%	68	34	17	0	0	0	0.09 19%	128	64	32
	Mo	0.17 35%	0.22 46%	68	34	17	0	0	0	0.05 19%	128	64	32

Figure 14.6_1
Central Porphyry - Pairwise Relative Variogram Graph (Cu)

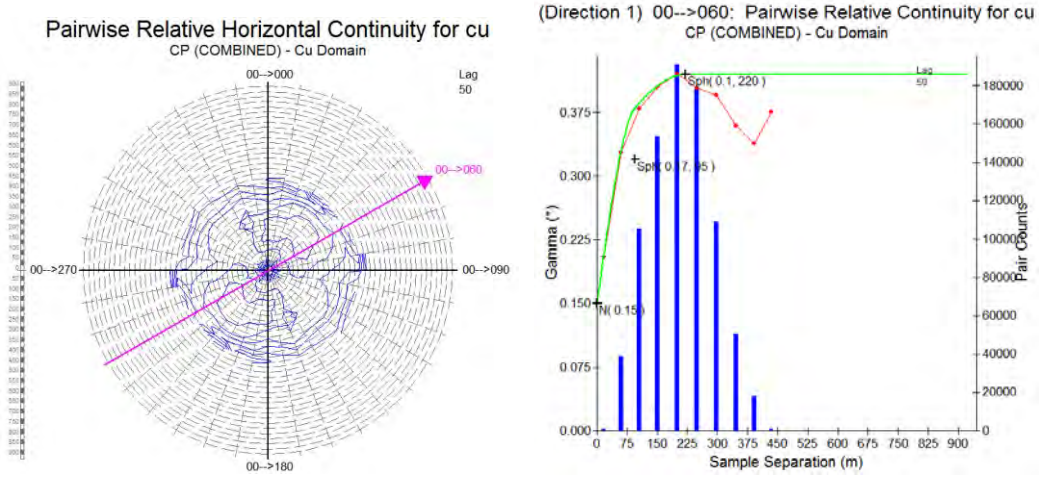
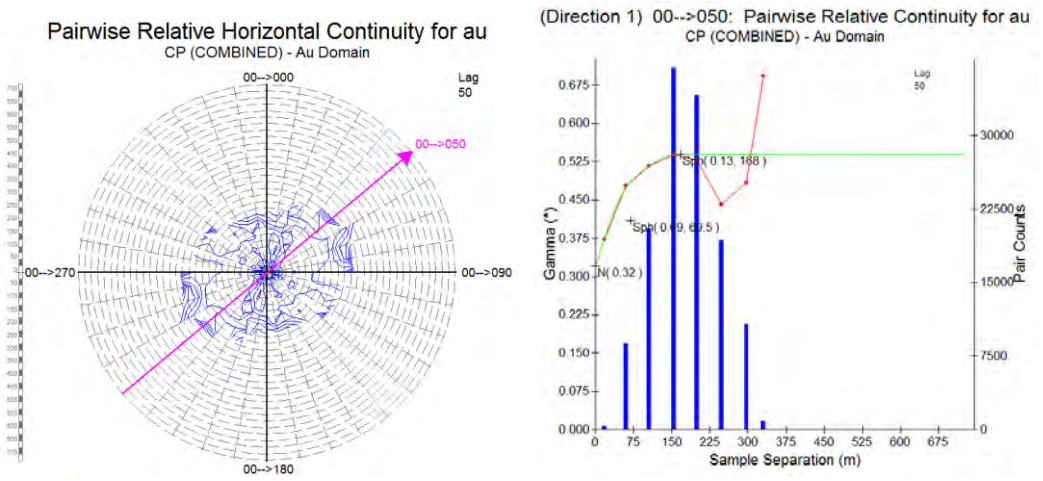


Figure 14.6_2
Central Porphyry - Pairwise Relative Variogram Graph (Au)



14.7 Block Model Development

SHM have defined a three-dimensional block model for the Llahuin Copper-Gold Project, covering the interpreted Cu, Au and Mo mineralized domains. A parent block size of 10 mE x 10 mN x 10 mRL has been used with standard sub-blocking to 2.5 mE x 2.5 mN x 2.5 mRL cell size to improve volume representation of the interpreted wireframe models. Estimation was only carried out into parent blocks, with sub-blocks assigned the parent cell grade estimates.

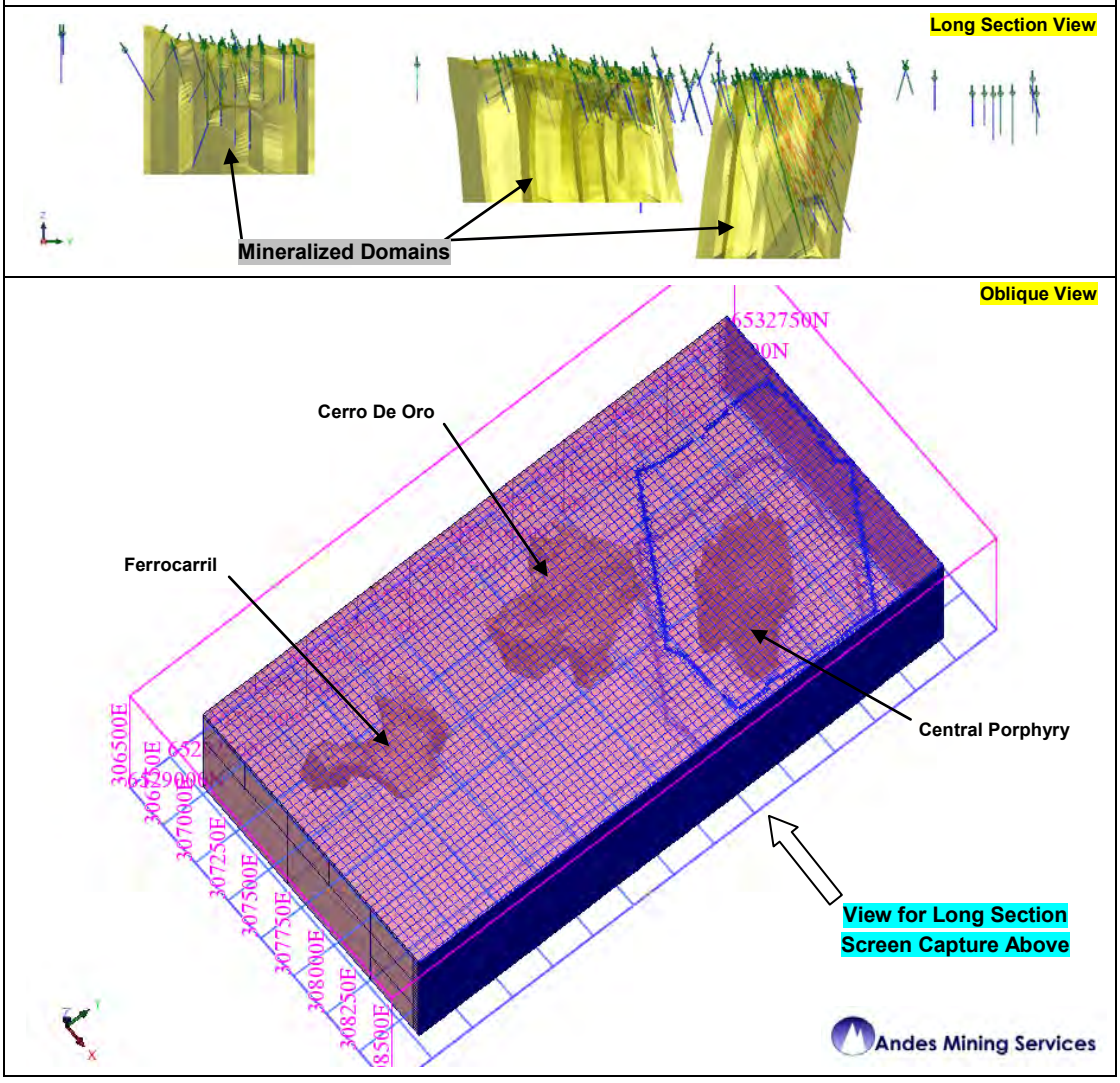
This parent cell size was chosen as it adequately reflects the drilling density and likely mining bench height. All wireframes were checked visually to ensure that there was adequate filling with blocks. The mineralization domain was projected above the topographic surface to ensure that there were no edge effects in volume filling and then it was cut with the surface topography.

Table 14.7_1 below shows the summary of the 3D block model created for the Llahuin Project area. A visual review of the wireframe solids and the block model indicates robust flagging of the block model (Figure 14.7_1).

Table 14.7_1
Block Model Summary – Llahuin Copper-Gold Project

Block Model	Parameter	North (Y)	East (X)	Elevation (Z)
Llahuin Project Area	Minimum Coordinates	6529250	306750	600
	Maximum Coordinates	6532500	308400	1600
	User Block Size	10	10	10
	Sub-Block Size	2.5	2.5	2.5
	Rotation	0	0	0
	No. Blocks	325	165	100

Figure 14.7_1
Block Model for the Llahuin Copper-Gold Project



The attributes coded into the block models include all elements (Cu, Au and Mo), density, topography, weathering, resource category, domain code, as well as a number of kriging attributes and sample variance data.

A full list of attributes coded to the block model are listed below in Table 14.7_2.

Table 14.7_2
Attributes Assigned to 3D Model – Llahuin Copper-Gold Project *(AMS, 30th June 2013)*

Attribute Name	Type	Decimal	Background	Description
cu	Real	6	0	Copper (%)
min_dist_cu	Real	2	-99	Minimum Distance to Find Composites
num_samp_cu	Integer	-	-99	Number of Composites for Estimate
avg_dist_cu	Integer	-	-99	Average Distance to find Composites
kg_var_cu	Real	2	-99	Kriging Variance for Block Estimate
au	Real	6	0	Gold (g/t)
min_dist_au	Real	2	-99	Minimum Distance to Find Composites
num_samp_au	Integer	-	-99	Number of Composites for Estimate
avg_dist_au	Integer	-	-99	Average Distance to find Composites
kg_var_au	Real	2	-99	Kriging Variance for Block Estimate
mo	Real	6	0	Gold (g/t)
min_dist_mo	Real	2	-99	Minimum Distance to Find Composites
num_samp_mo	Integer	-	-99	Number of Composites for Estimate
avg_dist_mo	Integer	-	-99	Average Distance to find Composites
kg_var_mo	Real	2	-99	Kriging Variance for Block Estimate
cu_eq	Real	6	0	Copper Equivalent (%) Grade - Calculated
pass_no_cu	Integer	-	0	Estimation Pass Number for Cu
pass_no_au	Integer	-	0	Estimation Pass Number for Au
Pass_no_mo	Integer	-	0	Estimation Pass Number for Mo
density	Real	6	0	Density Assigned to Geology Units
geology	character	-	waste	Geology Code for Mineralized Zones
weathering	character	-	none	Fresh or Oxidized
zone	character	-	none	FC, CDO or CP
topo	Integer	-	0	Assign 1 if underneath Topography
rescat	character	-	none	Measured, Indicated or Inferred

14.8 Grade Estimation

The grade interpolation for all elements for the Llahuin Project mineral resource block model was estimated using Ordinary Kriging (OK).

Anisotropic search ellipsoids were selected for the grade interpolation process based on the analysis of the spatial continuity of Cu, Au and Mo grades using variography and on the general geometry of the modelled mineralized envelopes. Limits are set for the minimum and

maximum number of composites used per interpolation pass, and restriction are applied on the maximum number of composites used from each hole.

The interpolation process was conducted using 3 successive passes with relaxed search conditions from one pass to the next until all blocks were interpolated. The boundaries used for estimation are hard boundaries. Separate estimates are completed within individual grade shells for Cu, Au and Mo.

Variable search parameters were used for each deposit based upon variography and data density as displayed in Table 14.8_1.

Table 14.8_1
Summary of Search Direction and Parameters for 3 Pass Interpolation (SHM Provided)

Zone				Search Parameters			Expansion Factors	
Zone	**Element**	**Strike**	**Dip / Dip Direction**	Search Strike	Search Down Dip	**Search Orthogonal**	Pass #2	Pass #3
Central Porphyry	**Cu**	**120**	**-70/210**	140	70	35	2	3
	Au	**0**	**-90/090**	66	33	17	2	3
	Mo	**120**	**-70/210**	28	14	7	2	3
Cerro De Oro	**Cu**	**60**	**-80/150**	32	16	8	2	3
	Au	**60**	**-80/150**	58	29	15	2	3
	Mo	**60**	**-90/150**	30	15	8	2	3
Ferrocarril	**Cu**	**270**	**-80/360**	140	70	35	2	3
	Au	**270**	**-80/360**	180	90	45	2	3
	Mo	**270**	**-80/360**	30	15	8	2	3

The following parameters were utilised:

- The orientation of the search axes is identical to the variogram model orientations. In the case of the Cerro De Oro and Ferrocarril Zones, a clear strike and dip of the mineralization was not evident, so an isotropic short range search was applied.
- The maximum number of composites used for any estimate was restricted to 16.
- A maximum of 3 composites were utilised from any one drillhole.
- No restriction was placed on the minimum number of holes required to make a block estimate.
- All estimates were into parent cells and these estimates were discretised down to 2.5m (X) x 2.5m (Y) x 2.5m (Z).

All blocks within the Llahuin Project mineralized domains were estimated as part of the three pass estimate.

Figures 14.8_1 to 14.8_3 below, illustrates grade variations across the block model (individual mineralized zones) for CuEq.

Figure 14.8_1
Ferrocarril Block Model – Coded by CuEq Grades >= 0.28% *(AMS, 30th June 2013)*

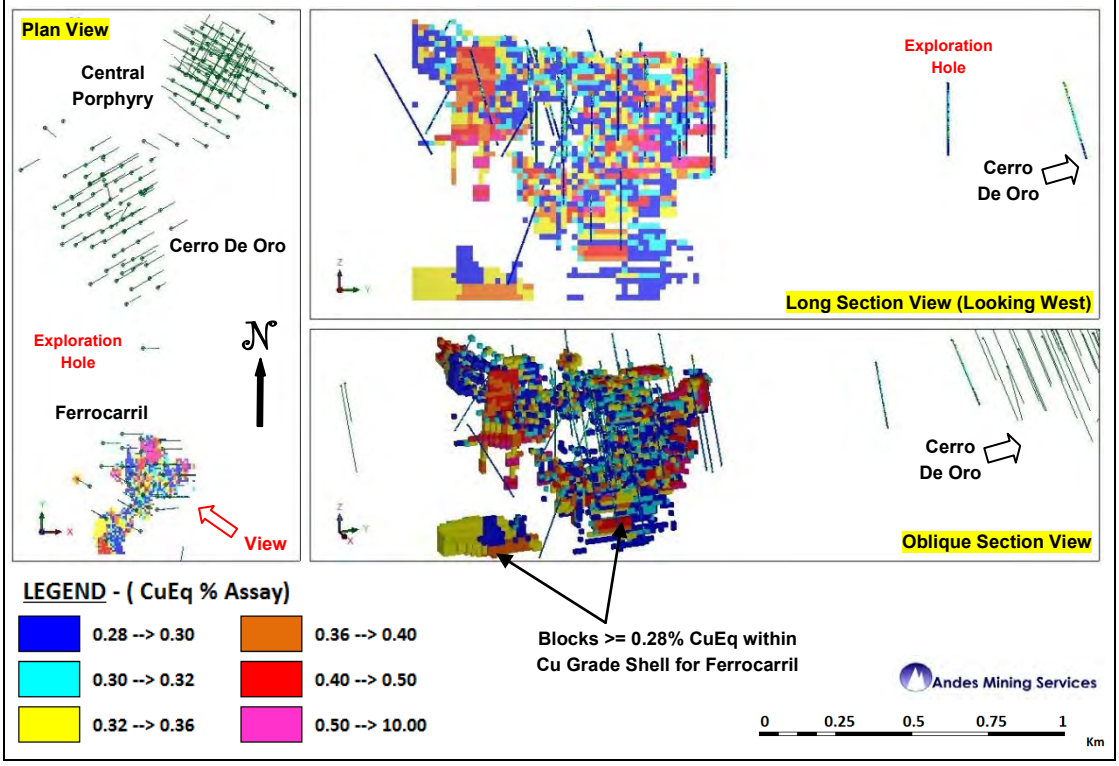


Figure 14.8_2
Cerro De Oro Block Model – Coded by CuEq Grades >= 0.28% *(AMS, 30th June 2013)*

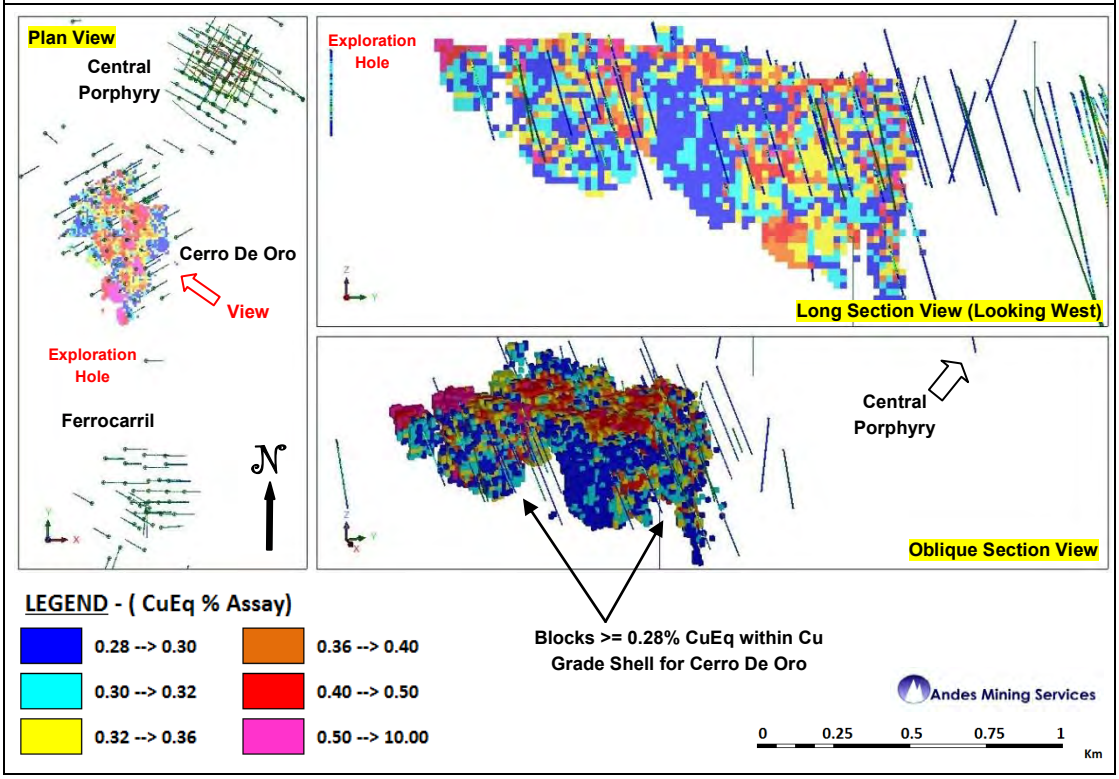
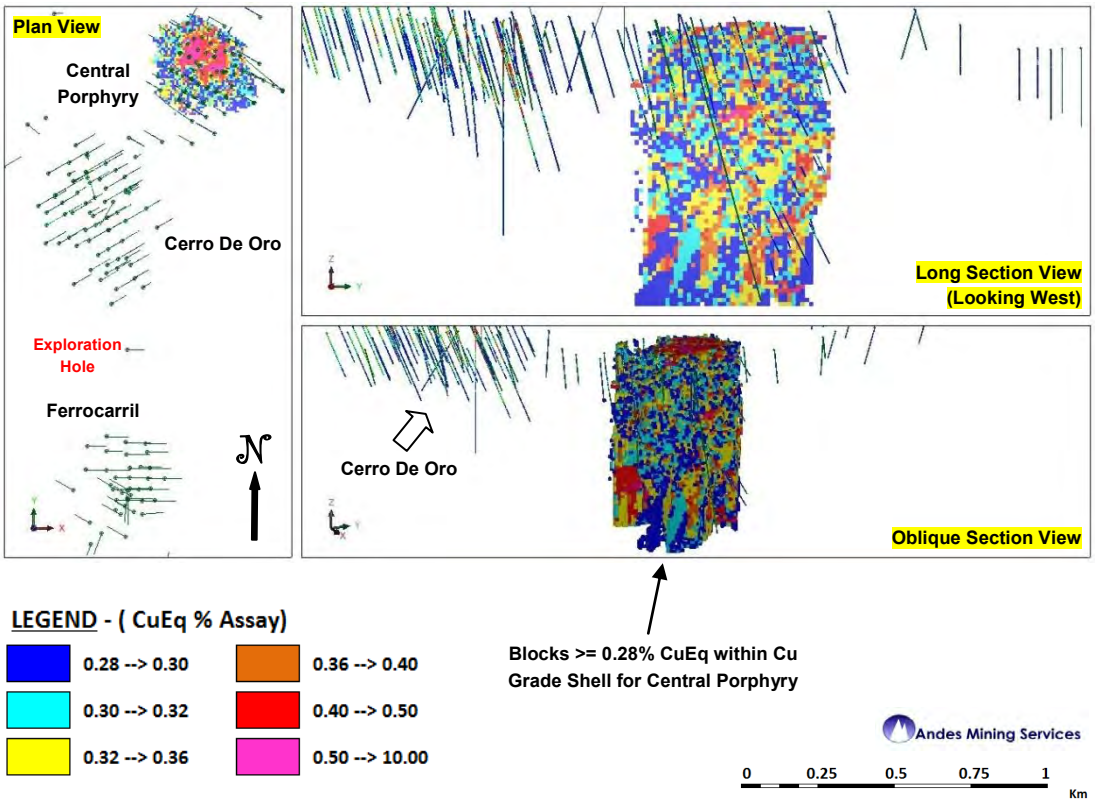


Figure 14.8_3
Central Porphyry Block Model – Coded by CuEq Grades >= 0.28% *(AMS, 30th June 2013)*



14.9 Model Validation

A validation of the mineral resource CuEq grade as well as individual elements (Cu, Au and Mo) was conducted as part of the verification process.

Individual models were validated by reviewing model plots compared to composited data.

The checks performed were:

1) Ensuring that the domain codes were honoured during estimation;

2) Ensuring that the composites were honoured during estimation;

3) Ensuring that individual composites did not have undue weight when only a few composites were used for an estimate.

In order to check that the estimation has worked correctly, the model has been validated through a visual comparison of down hole drilling grades (assays) and estimated blocks in close proximity to those drill holes.

In general, the model honours the data well, as evidenced by Figures 14.9_1 to 14.9_4.

Figure 14.9_1
Central Porphyry Section (Cu) - Block Model Validation against Drilling *(AMS, 30th June 2013)*

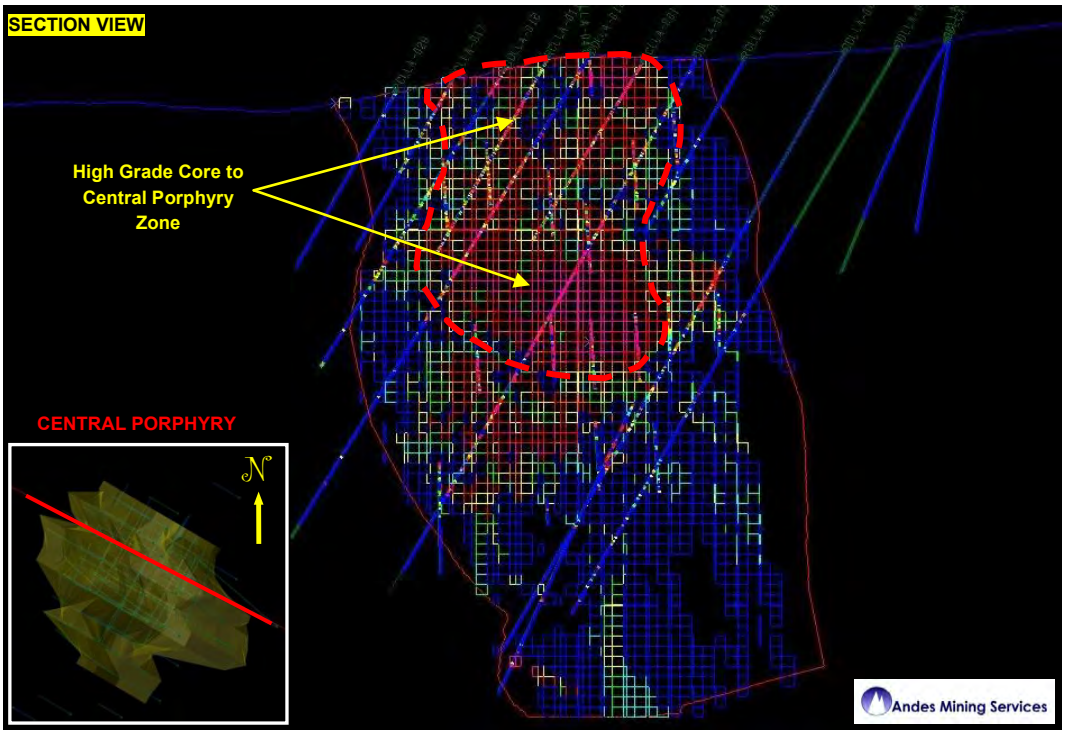


Figure 14.9_2
Central Porphyry Section (Au) - Block Model Validation against Drilling *(AMS, 30th June 2013)*

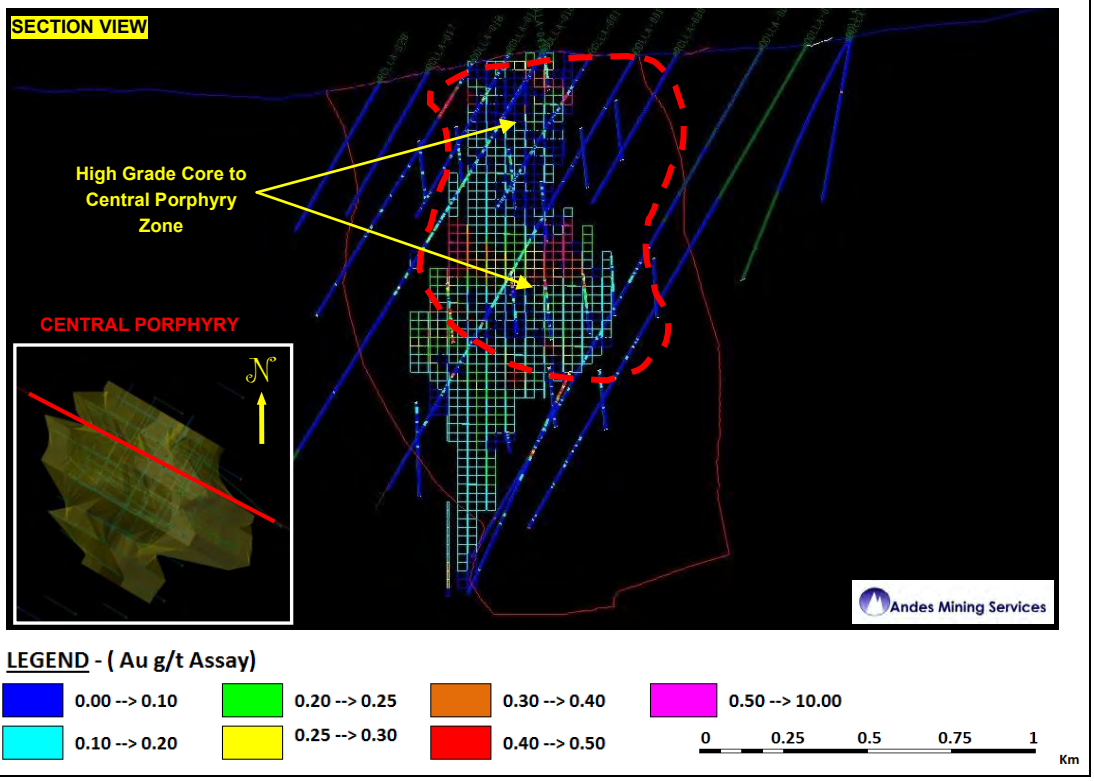


Figure 14.9_3
Cerro De Oro Section (Cu) - Block Model Validation against Drilling *(AMS, 30th June 2013)*

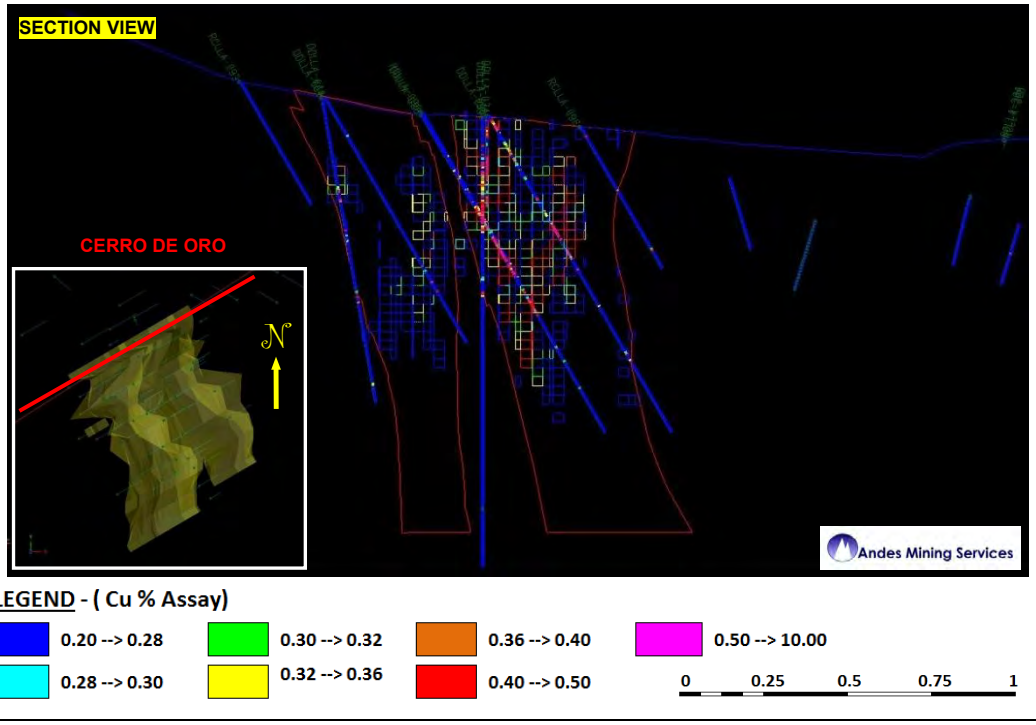
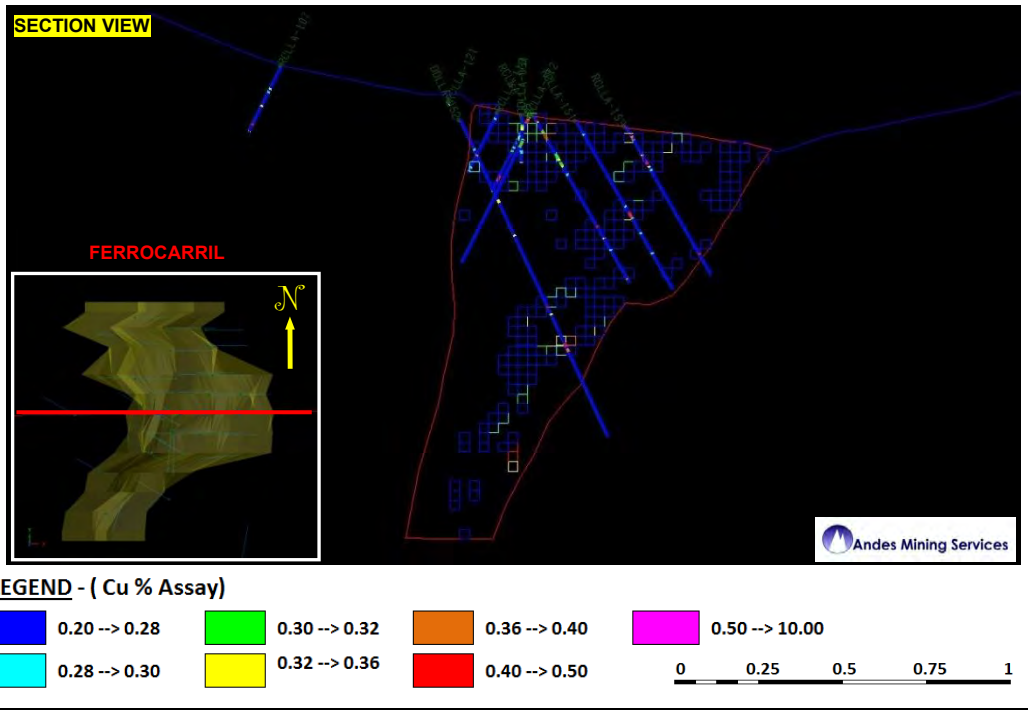


Figure 14.9_4
Ferrocarril Section (Cu) - Block Model Validation against Drilling *(AMS, 30th June 2013)*



14.10 Ancillary Fields

The Mineral Resource Estimate has been depleted to the May 31st 2012 topographic surface.

The bulk densities used in this Mineral Resource Estimate are displayed in Table 12.3_1. There is no obvious oxidation profile and all bulk densities assume fresh rock from surface.

14.11 Mineral Resource Classification

The mineral resources at the Llahuin Copper-Gold Project have been classified as Measured, Indicated and Inferred. The parameters used to determine the mineral resource classification include, but are not limited to; drilling density, estimation pass number, number of composites used to make a block estimate as well as the average distance to find composites to make a block estimate.

Table 14.11_1 below highlights the confidence levels of key criteria used for the mineral resource estimate.

Table 14.11_1
Llahuin Copper-Gold Project - Confidence Levels of Key Categorisation Criteria

Items	Discussion	Confidence
Drilling Techniques	RC and DDH is industry standard with good recoveries and sample return exhibited respectively throughout.	Moderate / High
Logging	Standard nomenclature used.	Moderate to / High
Drill Sample Recovery	Acceptable for all RC and DDH drilling completed.	Moderate / High
Sub-sampling Techniques & Sample Preparation	DC sampling completed on 1m and 2m intervals or to geological boundaries where they exist. All RC sampling was completed on 2m sample intervals. Sample preparation has been completed to industry standards.	High
Quality of Assay Data	Acceptable for standards, blanks and duplicates (2012 / 2013 Programs for AAA and ALS). Recent data available is reliable based on QAQC results and observed and documented practices.	Moderate
Verification of Sampling and Assaying	Umpire assays have returned acceptable results.	High
Location of Sampling Points	Survey of all collars conducted with DGPS by professional surveyors. Topographic surface is detailed. Downhole surveys of reasonable quality; RC drilling has not been down hole surveyed due to magnetic interference; DC has been gyro surveyed for old holes pre-March 2012.	Low / Moderate
Data Density and Distribution	Drilling on a nominal 50m x 50m spacing consisting of RC and DC drilling to establish continuity.	Moderate / High
Audits or Reviews	Logging and mapping checked on site. External reviews completed by joint venture Lundin Mining who confirm veracity of data collection systems in place.	Moderate
Database Integrity	Only DDH and RC holes are considered for the resource. Assay certificates have been checked onsite.	High
Geological Interpretation	Entirely within fresh rock domain. Strong geological understanding with mineralization outcropping at surface across Central Porphyry. Mineralized interpretations are considered robust. A high quality geological team is continually improving the 3D geological model.	Moderate / High
Estimation and Modelling Techniques	Reliable and conservative, due to large block size and composite length of 2m. Ordinary Kriging (OK) utilized which is appropriate given the distributions observed in the data.	High
Cut-Off Grades	Reasonable cut-off grades applied for the proposed mining method.	High
Mining Factors or Assumptions	Parent block size (10mE by 10mN by 10mRL) reflects likely SMU for mining.	High
Tonnage Factors (Insitu Bulk Densities)	Sufficient bulk density work for global averages. In line with industry standard values adopted. Extra bulk densities are required for more confidence.	Medium

Figures 14.11_1 to 14.11_3 show the resource classification across the Llahuin Copper-Gold Project area.

Figure 14.11_1
Central Porphyry Zone – Coded by Resource Category *(AMS, 30th June 2013)*

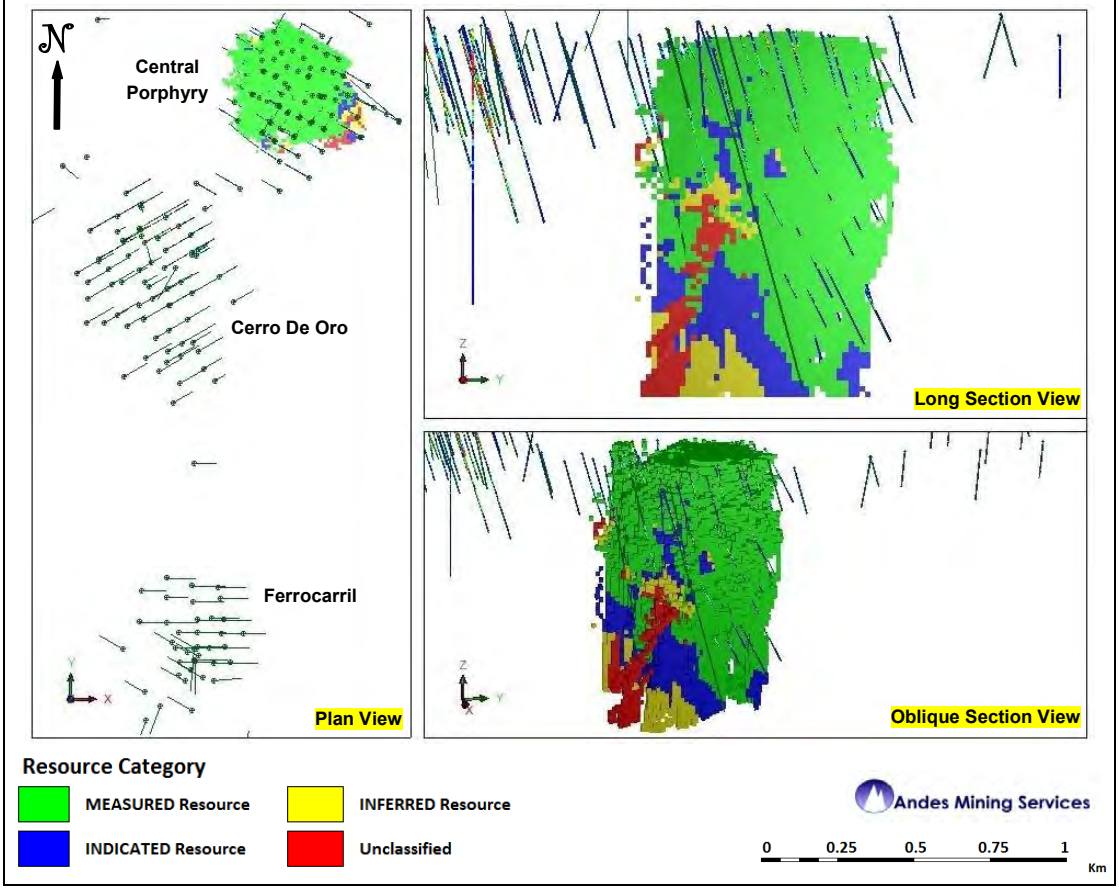


Figure 14.11_2
Cerro De Oro Zone – Coded by Resource Category *(AMS, 30th June 2013)*

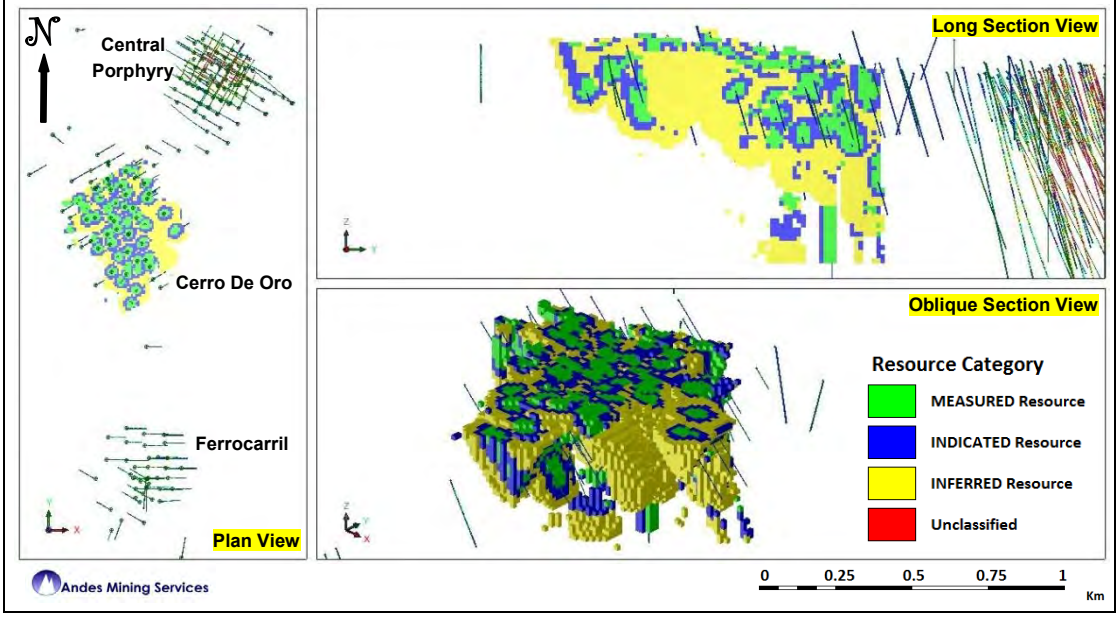
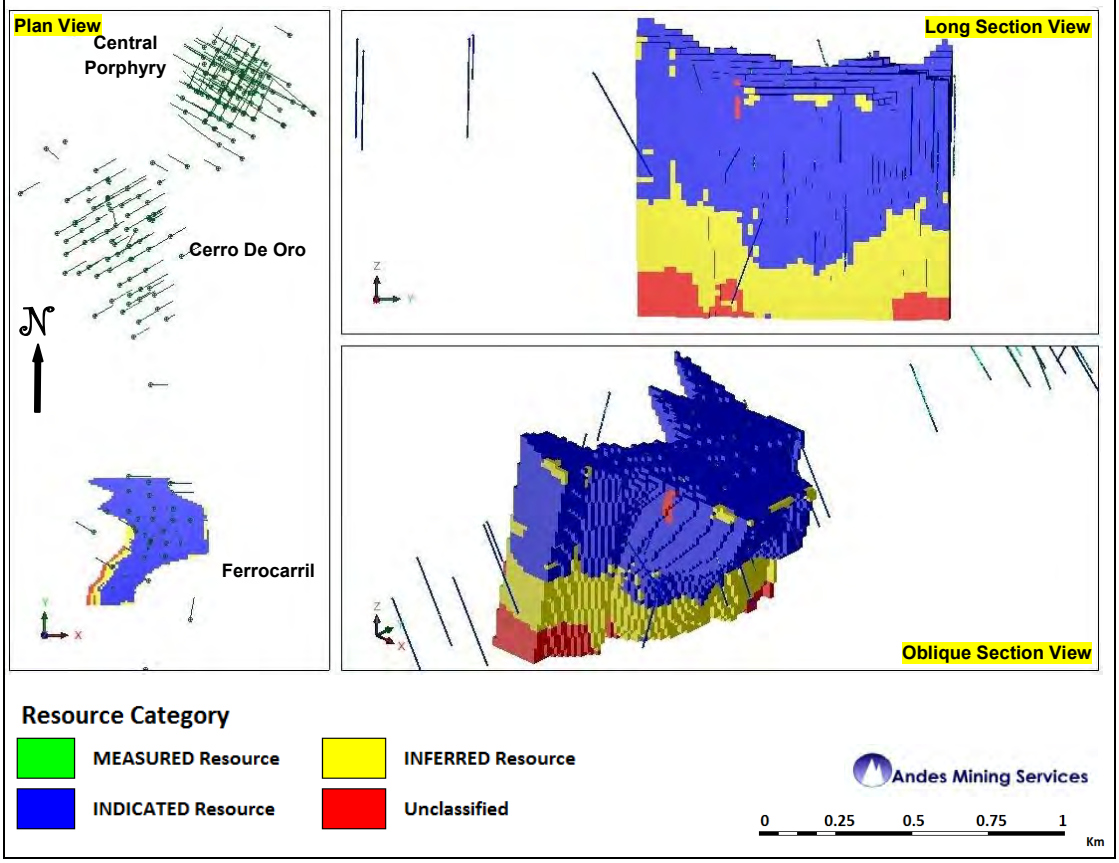


Figure 14.11_3
Ferrocarril Zone – Coded by Resource Category *(AMS, 30th June 2013)*



The majority of the 50m by 50m spaced drilling area has been classified as Measured Mineral Resource for both the Central Porphyry and Cerro De Oro Zone.

There are sections of the Ferrocarril Zone that are drilled on a 50m by 50m grid, but this section of the project is not as well understood as the Central Porphyry and Cerro De Oro Zones, so the mineral resource classification was limited to Indicated Mineral Resource for this area. AMS believe the Ferrocarril zone requires more detailed logging, mapping, and drilling to elevate it to Measured status. In addition, the author has noted two high grade Au and Mo drill hole intercepts at depth within the Ferrocarril zone (RC-LLA-141 and DDH-LLA-031 respectively) which lack sample support from surrounding drill holes. More drilling is required to test the robustness of these high grade intercepts.

The majority of the 100m by 100m spaced drilling area at Central Porphyry and Cerro De Oro zone is classified as Indicated Mineral Resource. The Inferred Mineral Resource is typically projected down dip and along strike a further 50m from the edge of the Indicated Mineral Resource as displayed in Figures 14.11_4 and 14.11_5.

Figure 14.11_4
Central Porphyry Zone Section – Coded by Resource Category *(AMS, 30th June 2013)*

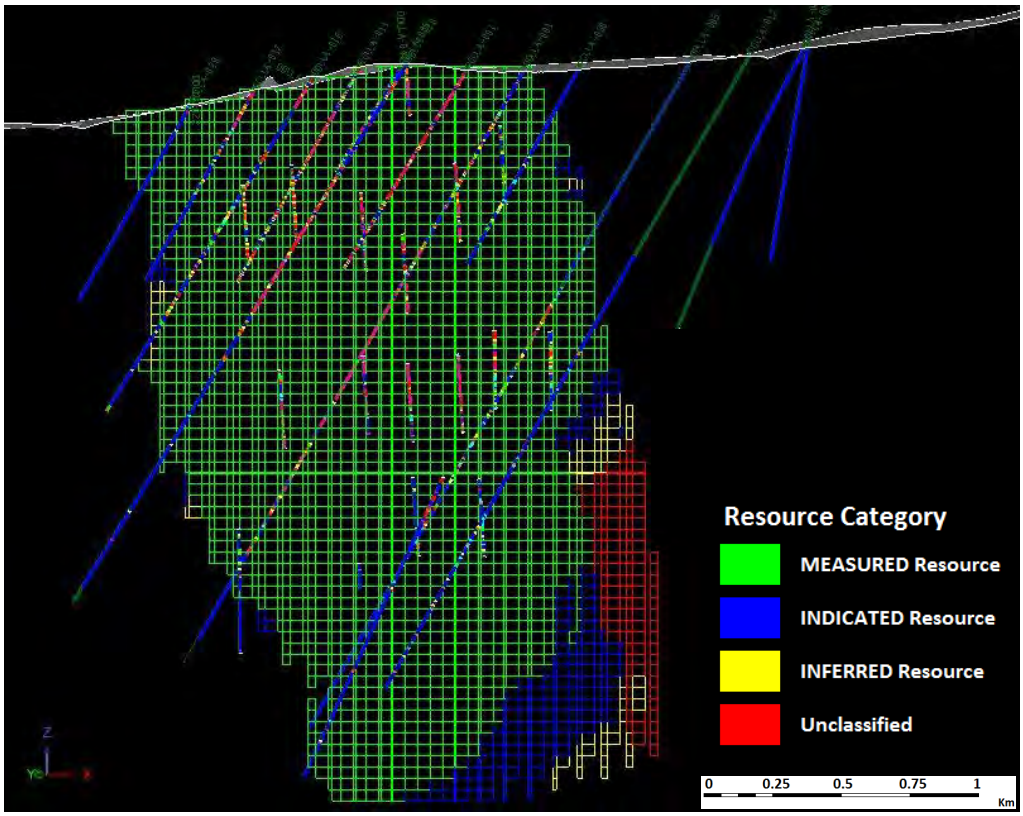
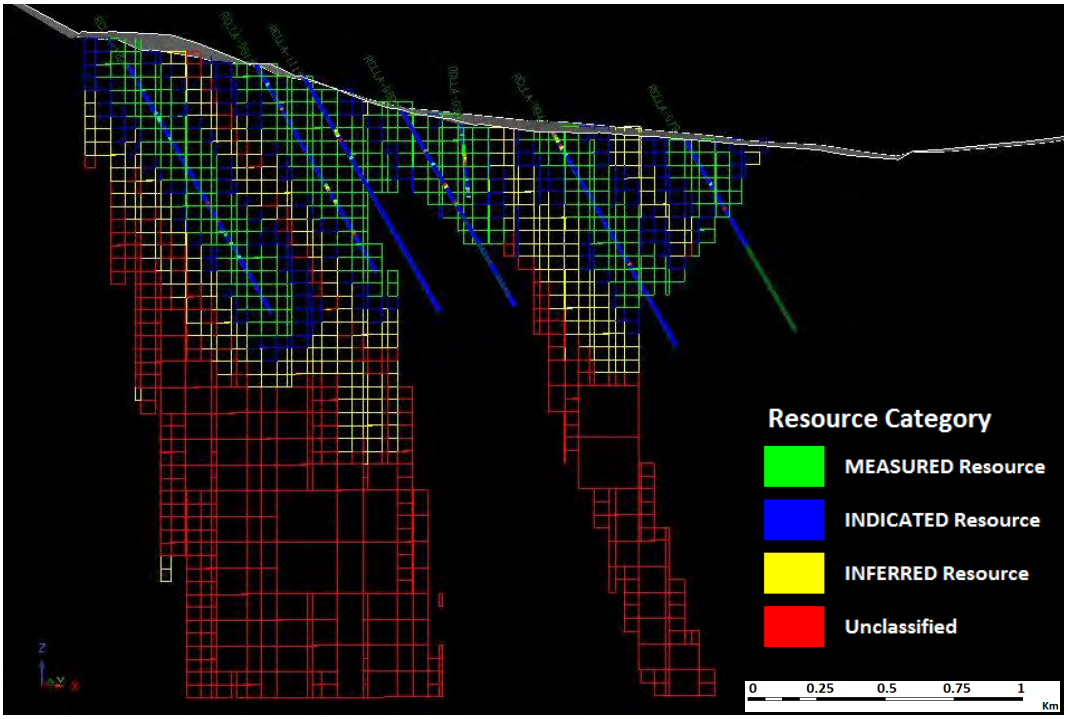


Figure 14.11_5
Cerro De Oro Zone Section – Coded by Resource Category *(AMS, 30th June 2013)*



14.12 Mineral Resource Reporting

The statement has been classified by Qualified Person Bradley Ackroyd (MAIG) in accordance with the Guidelines of National Instrument 43-101 and accompanying documents 43-101.F1 and 43-101.CP. The resource is also JORC compliant. It has an effective date of 30th of June, 2013. A detailed grade tonnage report for the Llahuin Project is presented below in Table 14.12_1.

Table 14.12_1
Grade Tonnage Report - Llahuin Project
Ordinary Kriging (OK) Estimate - 30th June 2013
(Block Model – 10mE X 10mN X 10mRL) (Cut-Off at 0.28% CuEq)

Resource Category	Cut-Off (% CuEq)	Tonnes (Mt)	CuEq (%)	CuT (%)	Au (g/t)	Mo (%)
CENTRAL PORPHYRY						
Measured	0.0	312.44	0.229	0.169	0.054	0.005
	0.28	101.21	0.425	0.308	0.112	0.008
	0.3	89.51	0.443	0.319	0.120	0.008
	0.4	43.89	0.545	0.383	0.171	0.008
Indicated	0.0	146.71	0.113	0.084	0.029	0.002
	0.28	7.25	0.344	0.197	0.140	0.010
	0.3	5.80	0.357	0.197	0.158	0.010
	0.4	1.10	0.459	0.233	0.270	0.005
Inferred	0.0	192.66	0.097	0.072	0.025	0.002
	0.28	2.76	0.323	0.158	0.154	0.012
	0.3	2.04	0.334	0.155	0.185	0.010
	0.4	0.23	0.429	0.202	0.264	0.006
CERRO DE ORO PORPHYRY						
Measured	0.0	131.57	0.101	0.057	0.046	0.002
	0.28	10.79	0.387	0.219	0.199	0.004
	0.3	8.80	0.410	0.231	0.212	0.004
	0.4	3.32	0.520	0.285	0.286	0.004
Indicated	0.0	171.01	0.095	0.054	0.043	0.002
	0.28	15.21	0.380	0.211	0.200	0.004
	0.3	12.55	0.399	0.220	0.214	0.004
	0.4	4.47	0.503	0.260	0.296	0.004
Inferred	0.0	223.27	0.093	0.052	0.042	0.002
	0.28	15.68	0.371	0.198	0.204	0.004
	0.3	12.25	0.394	0.207	0.222	0.004
	0.4	3.96	0.506	0.239	0.326	0.004
FERROCARRIL PORPHYRY						
Indicated	0.0	199.87	0.125	0.095	0.024	0.003
	0.28	14.44	0.370	0.273	0.074	0.010
	0.3	10.87	0.397	0.293	0.078	0.011
	0.4	3.43	0.521	0.394	0.087	0.015
Inferred	0.0	170.61	0.073	0.057	0.015	0.001
	0.28	1.49	0.337	0.286	0.056	0.002
	0.3	0.91	0.369	0.322	0.053	0.008
	0.4	0.16	0.488	0.436	0.044	0.005

** Mineral resources are not mineral reserves and do not have demonstrated economic viability. Appropriate rounding has been applied to Table 14.12_1.*

Mineral resources that are not mineral reserves do not have demonstrated economic viability. AMS and SHM are not aware of any factors (environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors) that may materially affected the viability of the mineral resource estimate.

An independent mineral resource has been estimated for the Llahuin Project comprising a Measured mineral resource of 112 Mt at 0.42% CuEq and an Indicated mineral resource of 36.91 Mt at 0.37% CuEq. Combined Measured and Indicated mineral resource for the Llahuin Project stands at 148.91 Mt at 0.41% CuEq (using a 0.28% CuEq cut-off).

A further Inferred mineral resource of 19.93 Mt at 0.36% CuEq (using a 0.28% CuEq cut-off) has been estimated for the Llahuin Project.

Table 14.12_2
Summary Grade Tonnage Report - Llahuin Project
Ordinary Kriging (OK) Estimate - 30th June 2013
(Block Model – 10mE X 10mN X 10mRL) (Cut-Off at 0.28% CuEq)

Resource Category	Cut-Off (% CuEq)	Tonnes (Mt)	CuEq (%)	CuT (%)	Au (g/t)	Mo (%)
MEASURED RESOURCE						
Central Porphyry	0.28	101.21	0.425	0.308	0.112	0.008
Cerro De Oro	0.28	10.79	0.387	0.219	0.199	0.004
Ferrocarril	0.28	-	-	-	-	-
TOTAL MEASURED RESOURCE		112.00	0.422	0.307	0.120	0.008
INDICATED RESOURCE						
Central Porphyry	0.28	7.25	0.344	0.197	0.140	0.010
Cerro De Oro	0.28	15.21	0.380	0.211	0.200	0.004
Ferrocarril	0.28	14.44	0.370	0.273	0.074	0.010
TOTAL INDICATED RESOURCE		36.91	0.369	0.232	0.139	0.007
TOTAL MEASURED & INDICATED		**148.91**	**0.408**	**0.288**	**0.125**	**0.007**
INFERRED RESOURCE						
Central Porphyry	0.28	2.76	0.323	0.158	0.154	0.012
Cerro De Oro	0.28	15.68	0.371	0.198	0.204	0.004
Ferrocarril	0.28	1.49	0.337	0.286	0.056	0.002
TOTAL INFERRED RESOURCE		**19.93**	**0.362**	**0.199**	**0.186**	**0.005**

** Mineral resources are not mineral reserves and do not have demonstrated economic viability. Appropriate rounding has been applied to Table 14.12_2.*

Grade tonnage curves for the Measured and Indicated portions of the Llahuin Project are shown below in Figures 14.12_1 to 14.12_3 (Central Porphyry, Cerro De Oro and Ferrocarril zones respectively).

Figure 14.12_1
Central Porphyry Grade Tonnage Curve – Measured & Indicated Resource Category

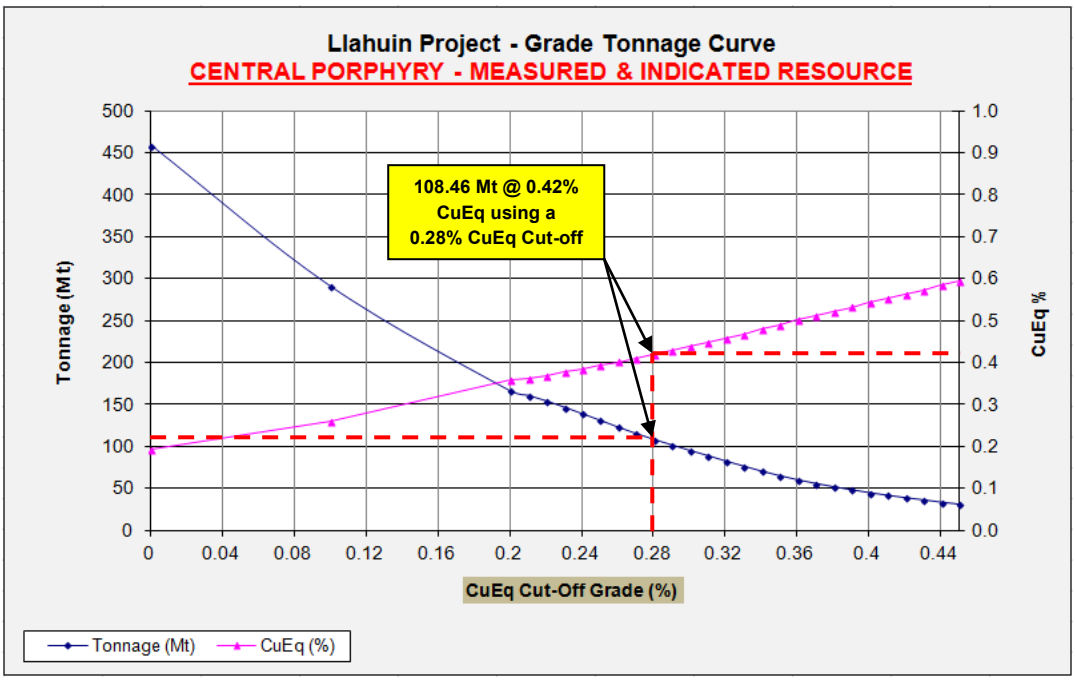


Figure 14.12_2
Cerro De Oro Grade Tonnage Curve – Measured & Indicated Resource Category

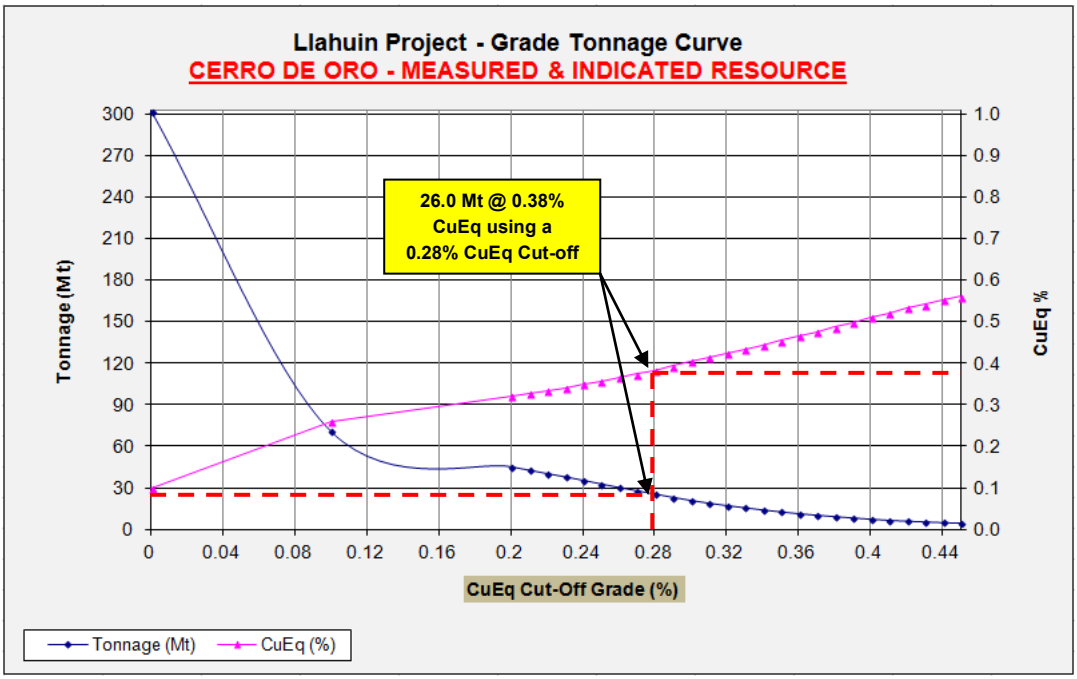
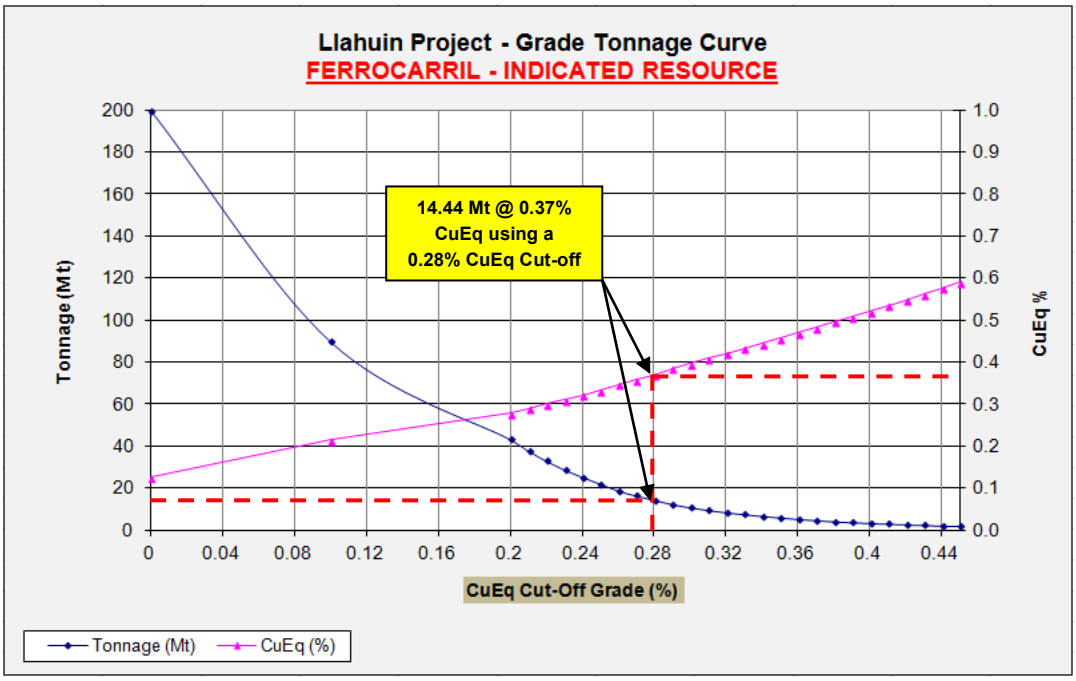


Figure 14.12_3
Ferrocarril Grade Tonnage Curve – Measured & Indicated Resource Category



15 MINERAL RESERVE ESTIMATES

No mineral reserves have been estimated for the Llahuin Project.

16 MINING METHODS

Mining methods have not yet been formally assessed and documented.

17 RECOVERY METHODS

Recovery methods have not yet been formally assessed and documented.

18 PROJECT INFRASTRUCTURE

Project infrastructure has not yet been formally assessed and documented.

19 MARKET STUDIES AND CONTRACTS

These items have not yet been formally assessed and documented.

20 ENVIROMENTAL STUDIES, PERMITTINGS AND SOCIAL OR COMMUNITY IMPACT

Environmental studies, permitting and social / community impact statements have not yet been formally assessed and documented.

21 CAPITAL AND OPERATING COSTS

Capital and operating costs have not yet been formally assessed and documented.

22 ECONOMIC ANALYSIS

An economic analysis has not yet been formally assessed and documented.

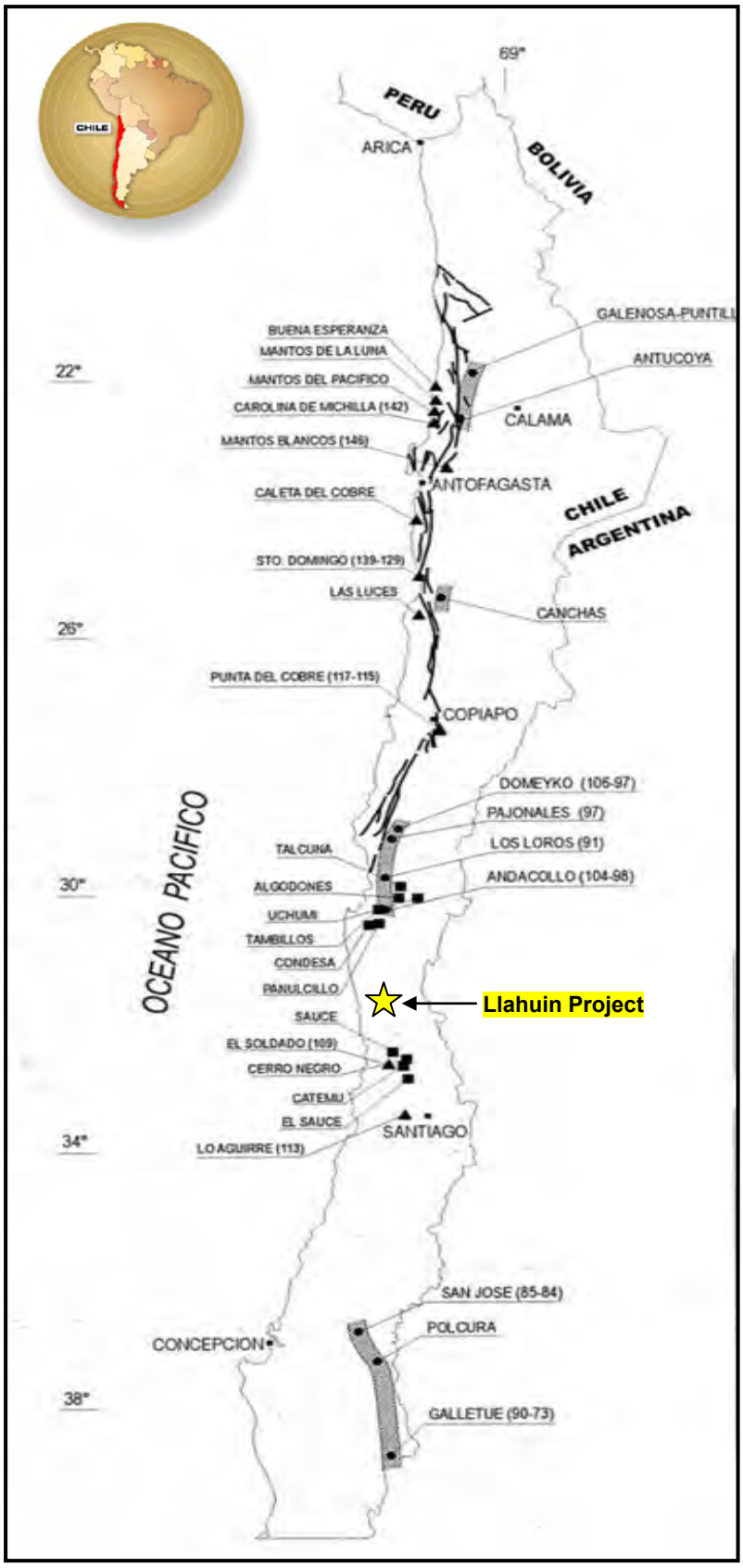
23 ADJACENT PROPERTIES

There are numerous developed properties in the Chilean Copper Belt that surround the Llahuin Deposit as displayed in Figures 23_1 and 23_2 below, although the majority of these deposits are located significant distances from the Llahuin Copper Project.

Chile is well known as the major producer of copper in the world with numerous similar porphyry copper deposits to Llahuin, located in three major regions within the country.

Figure 23_1
Chilean Copper Belt - Location Map for Major Deposits #1 *(AMS, 30th June 2013)*

Figure 23_2
Chilean Copper Belt - Location Map for Major Deposits #2 *(AMS, 30th June 2013)*



24 OTHER RELEVANT DATA AND INFORMATION

AMS is not aware of other relevant data pertaining to the Llahuin Copper Project.

25 INTERPRETATION AND CONCLUSIONS

SHM has undertaken a relatively systematic exploration program in the last year which has been successful in defining significant resources of copper and gold in a region of Chile which contains a prolific number of copper producing mines.

Current drilling has defined a Measured, Indicated and Inferred mineral resource for the Llahuin Project with further infill and extensional drilling planned for the third quarter of 2013 following approval of environmental permits.

AMS is of the opinion that SHM has successfully confirmed the mineral resource potential of the Central Porphyry, Cerro De Oro and Ferrocarril zones based on the 2011, 2012 and 2013 exploration programs. However, there remains significant further upside for addition of Measured and Indicated resource for both of these zones through well planned infill drilling programs.

The Ferrocarril Zone, although outcropping and drilled systematically, has been classified as Indicated and Inferred as this zone requires more detailed logging, mapping, and drilling to elevate it to Measured status. In addition, the author has noted two high grade Au and Mo drill hole intercepts at depth within the Ferrocarril zone (RC-LLA-141 and DDH-LLA-031 respectively) which lack sample support from surrounding drill holes. More drilling is required to test the robustness of these high grade intercepts.

AMS have highlighted key areas across the Ferrocarril prospect below in Figures 25_1 and 25_2.

Figure 25_1
High Grade RCLLA-141 - AMS Proposed Ferrocarril Infill Drilling *(AMS, 30th June 2013)*

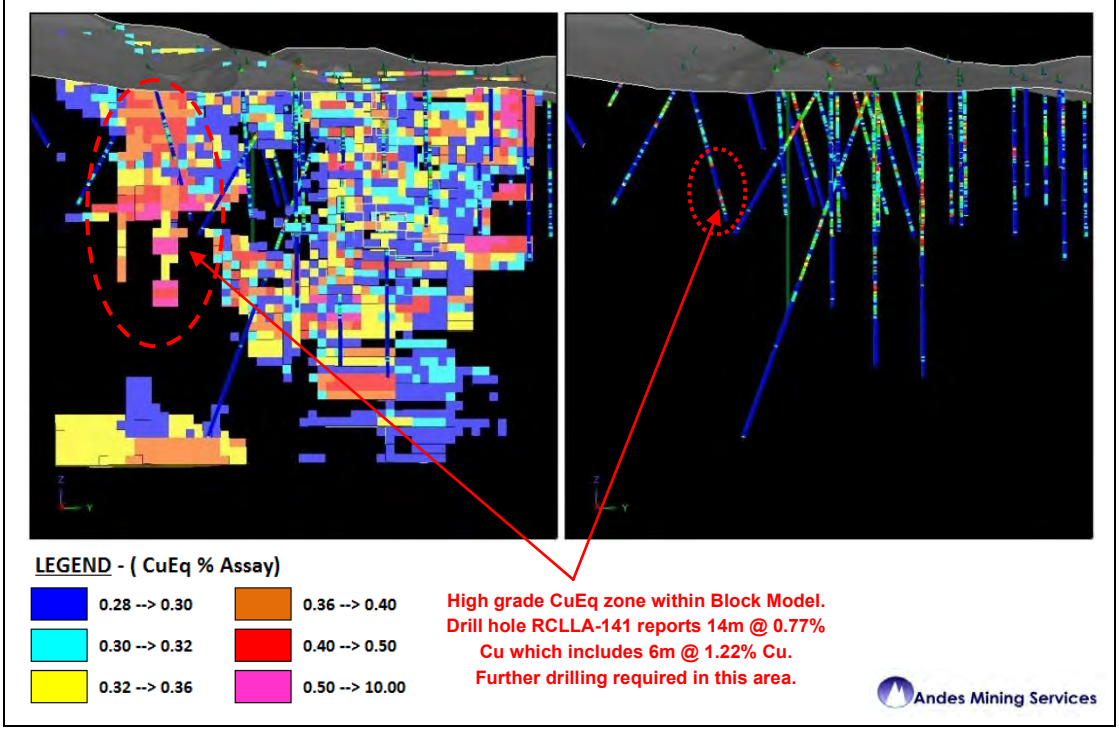
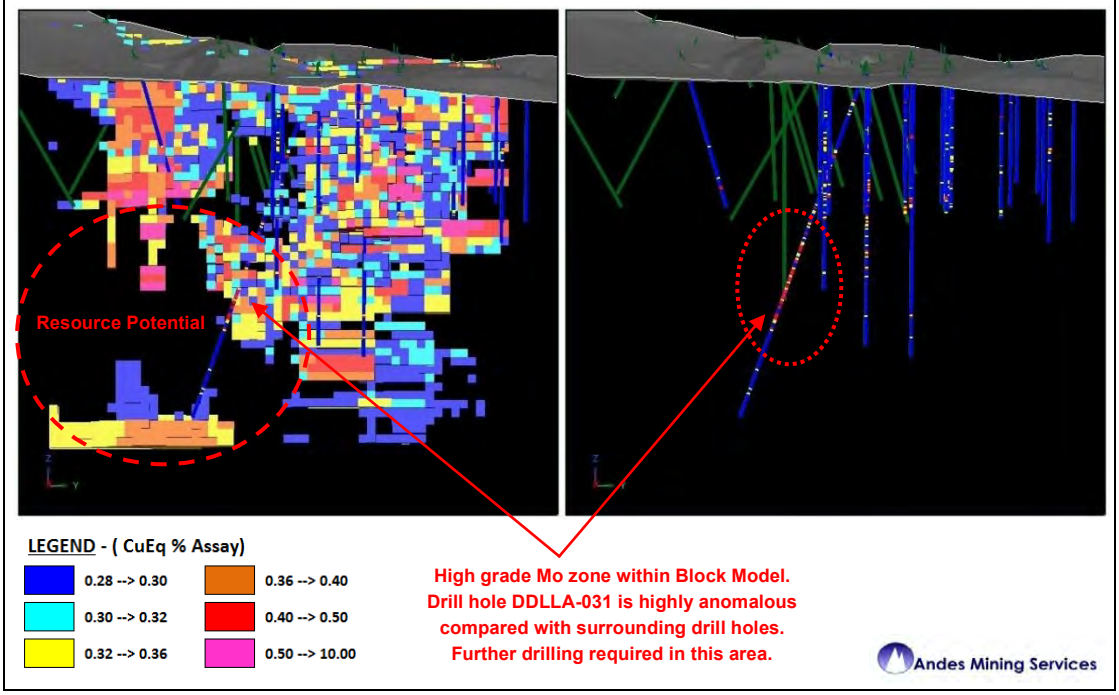
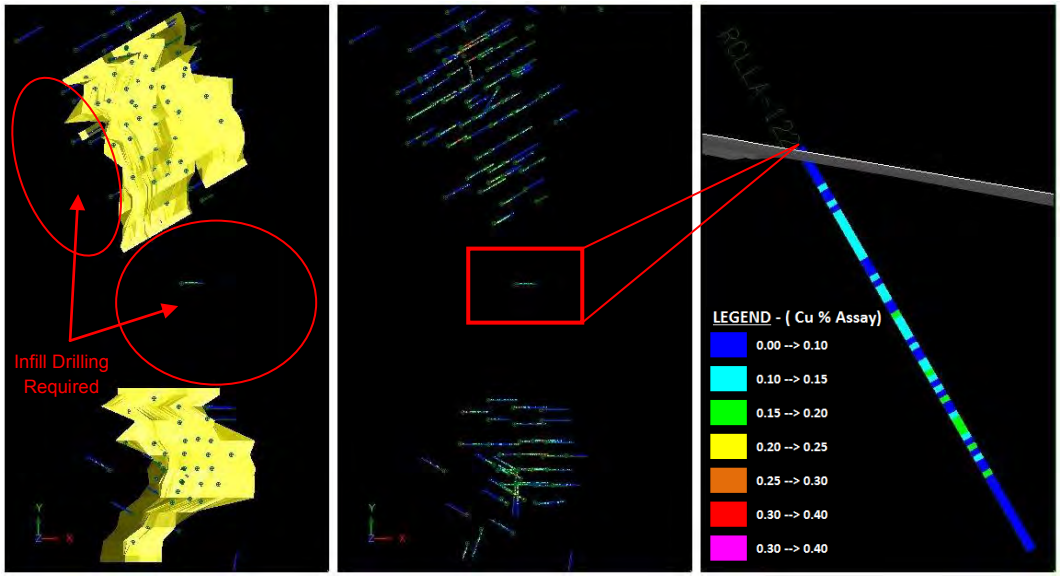


Figure 25_2
High Grade DDLLA-031 - AMS Proposed Ferrocarril Infill Drilling *(AMS, 30th June 2013)*



The Cerro De Oro Zone has been classified as Measured, Indicated and Inferred, with mineralization remaining open both to the west and further south towards Ferrocarril. AMS have highlighted key areas across the Cerro De Oro prospect which require further drill testing (Figures 25_3).

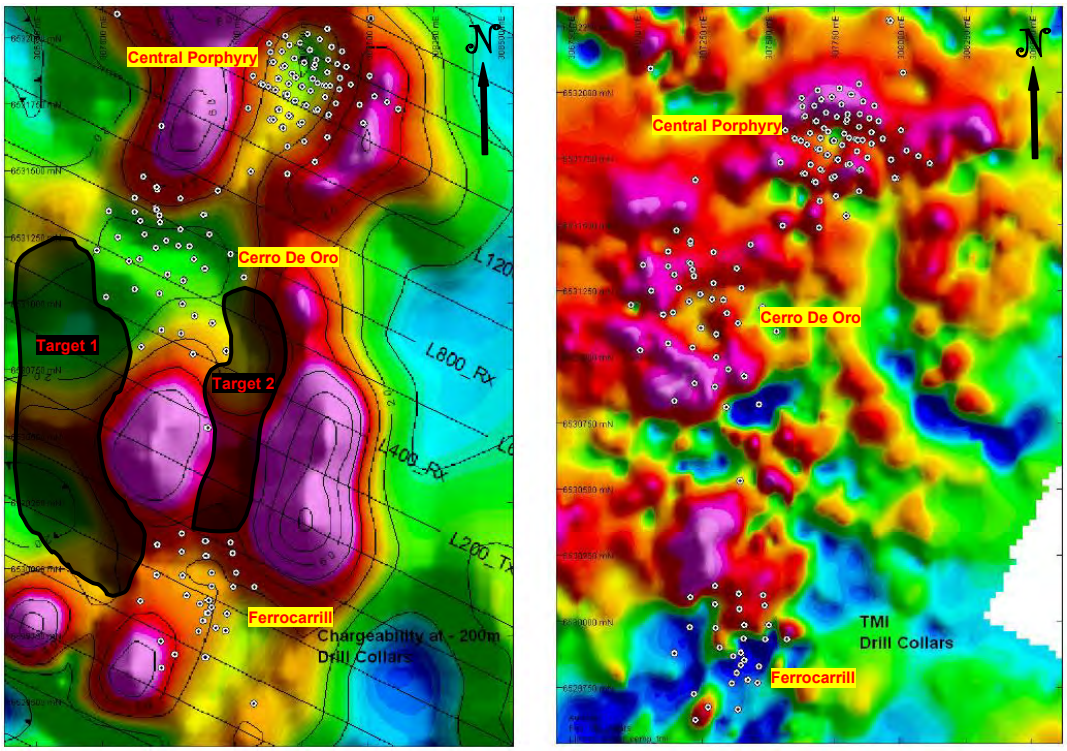
Figure 25_3
AMS Proposed Infill Drilling between Cerro De Oro and Ferrocarril



Future exploration drilling programs across the SHM concessions should be carefully planned, with initial priority given to program of infill drilling across both the Cerro De Oro and

Ferrocarril prospects, followed by more regional programs of exploration drilling targeting a number of anomalous zones recently identified from a ground based geophysics survey (Figure 25_4).

Figure 25_4
Geophysics Survey - AMS Generated Target Areas for Drill Testing



Overall, AMS concludes that there are no fatal flaws in the current mineral resource estimate.

It is not anticipated that there are any reasonable foreseeable risks or uncertainties on the potential viability of this project.

The author considers the project to be sufficiently robust to warrant: 1) completing a PEA of the project for the start-up of an open pit mining operation, and 2) undertaking additional infill and extensional drilling in an effort to augment the confidence level of the current mineral resource and provide additional high grade tonnage (Measured category resource) for the start of open pit mining.

The pertinent observations and interpretations which have been developed in producing this report are detailed in the sections above.

26 RECOMMENDATIONS

26.1 Exploration and Resources

Drilling and studies completed to date have defined a Measured, Indicated and Inferred mineral resource at Llahuin. The data collected is considered to be of moderate to high quality and suitable for resource estimation.

Further scope exists to improve the geological and mineral resource estimation confidence.

AMS makes the following specific recommendations:

- Continue step-out exploration drilling along strike testing both the Cerro De Oro and Ferrocarril zones for further mineralized extensions. Specifically, broad spaced (200 x 200m) grid pattern drilling should be undertaken between the Ferrocarril and Cerro De Oro zones in an effort to delineate additional near surface mineralization. A single drill hole (RCLLA-122) has highlighted significant widths of low grade mineralization between the two prospects. Follow-up drilling should target the most prospective areas within this zone (100 x 100m spacing).
- Potential to delineate additional near surface resources amendable to open pit mining remains high, and focus should be placed up testing the western extension of the Cerro De Oro and Ferrocarril zones where mineralization remains open.
- To initiate a standard procedure for QAQC. SHM sample submission standard procedure must include the submission of standards, blanks and field duplicates into the sample stream. SHM should not rely on the internal QAQC completed by the laboratory.
- Complete a program of umpire assay testwork. A minimum of 500 samples across both high and low grade ranges as well as the various mineralized zones should be selected for testwork.
- Advance to a Preliminary Economic Assessment (PEA) for the Llahuin group of deposits (Central Porphyry, Cerro de Oro and Ferrocarril).
- Utilize a recent geophysical survey as a first pass exploration tool to help guide regional exploration drilling programs. SHM should endeavour to generate priority targets for drill testing / assessment.
- Complete further mapping, soil sampling and geophysics across the concessions.
- Consider the use of a 4WD mounted auger rig for collecting samples at depth (10-20m). This should be undertaken once detailed mapping, sampling and geophysics has been undertaken. This will ensure correct recognition of favourable target areas for follow-up costly diamond drilling.

26.2 Mining and Development

Using the updated mineral resource estimation, which will include a significant proportion of higher confidence Measured and Indicated category resources, a maiden mineral reserve calculation should be undertaken.

With a reserve calculation in place, more detailed mine planning and production schedules should be generated for the open pit, and this will form part of the proposed PEA which AMS have recommended above.

26.3 Mineral resource and Evaluation Budget

SHM has also provided AMS with an ongoing exploration and evaluation budget, summarised in Table 26.3_1 below.

AMS considers this to be an appropriate level of expenditure for the project.

Table 26.3_1
Llahuin Copper Project
Proposed Resource and Evaluation Expenditure

Activity	Total (US$)
DC and RC Drilling (pre-collar)	$ 5,000,000
Assaying and Characterization	$ 300,000
Geophysics	$ 400,000
Geology	$ 300,000
Drill Sites, Vehicles, Setup and Logistics	$ 400,000
Metallurgy	$ 150,000
Preliminary Economic Assessment	$ 250,000
Administration	$ 200,000
Sub-Total	**$ 7,000,000**

The proposed expenditure of US$ 7,000,000 over the next year is considered to be consistent with the potential of the Llahuin Copper-Gold Project, and is adequate to cover the costs of the proposed programs.

27 REFERENCES

2005	AusIMM - Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Expert Reports (The Valmin Code), issued 2005. The Australasian Institute of Mining and Metallurgy.
2011	Zonge Ingenieria Y Ge Ofisica (Chile) S.A (Dec 2011) – Report for Offset pole-dipole Induced Polarisation/Resistivity and Ground Magnetic Surveys at the Llahuin Project, Region 4, Chile.
2012	Mineral Resource Estimate - Llahuin Copper Project, Coquimbo Region, Chile (March 2012).
2012	Mineral Resource Estimate - Llahuin Copper Project, Coquimbo Region, Chile (September 2012).

28 DATE AND SIGNATURE PAGE

The "qualified person" (within the meaning of NI43-101) for the purposes of this report is Bradley Ackroyd, who is a Principal Consultant Geologist with Andes Mining Services Ltd. based in South America

The effective date of this report is 30th June 2013.

(signed by)

Bradley Ackroyd B.Sc Geol. Member (MAIG)
Regional Manager & Principal Consulting Geologist
Andes Mining Services

Signed on the 30th June 2013

29 CERTIFICATES OF QUALIFIED PERSONS

Andes Mining Services Limited

Certificate of Qualified Person

I, Bradley Ackroyd, do hereby certify that:

1. I have been working since 2012 as a Principal Consulting Geologist with the firm Andes Mining Services Ltd. of Avenue Diagonal 550, Departmento 203, Miraflores, Lima, Peru 18. My residential address is Jose Pardo 1030, Miraflores, Lima, Peru 27.
2. I am a practising geologist with 12 years of Mining and Exploration geological experience. I have worked in Australia, Papua New Guinea, Madagascar, West Africa and the Americas. I am a member of the Australian Institute of Geoscientists - Member (MAIG).
3. I am a graduate of the University of Western Australia (UWA) and hold a Bachelor of Science Degree in Geology (Hons) (2000).
4. I have practiced my profession continuously since 2001.
5. I am a "qualified person" as that term is defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (the "Instrument").
6. I have visited the Llahuin Copper Project between the 6th and 9th May 2013.
7. I am responsible for all sections of the technical report dated effective 30th June 2013 and titled "Mineral Resource Estimate - Llahuin Copper Project, Coquimbo Region, Chile"(the "Report").
8. I am independent of Southern Hemisphere Mining pursuant to Section 1.5 of the Instrument.
9. I have read the Instrument and Form 43-101F1 (the "Form") and the Report has been prepared in compliance with the Instrument and the Form.
10. I do not have nor do I expect to receive a direct or indirect interest in the Llahuin Copper Project of Southern Hemisphere Mining and I do not beneficially own, directly or indirectly, any securities of Southern Hemisphere Mining or any associate or affiliate of such company.
11. I have not had any prior involvement with the Llahuin Copper Project of Southern Hemisphere Mining.
12. As of the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated in Lima, Peru, on the 30th June 2013.

(signed by)

Bradley Ackroyd BSc(Geo) Member (MAIG)
Regional Manager & Principal Consulting Geologist

Andes Mining Services