

**PROGRESS REPORT**  
ON THE  
**PINAYA GOLD/COPPER PROPERTY**  
**CAYLLOMA AND LAMPA PROVINCES, PERU**  
FOR  
**AM GOLD INC.**  
Vancouver, British Columbia, Canada

*May 05, 2011*



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**MAY 05, 2011**

## 1 SUMMARY

AM Gold Inc., (the “Company”), is an exploration and mineral development company listed on the TSX Venture Exchange (AMG:TSX.V) as well as the Frankfurt Exchange (AMX). The Company is currently developing exploration projects with associated mineral resources in the Yukon Territory, Canada as well as in southern Peru. This document is restricted to the description of the Pinaya Gold / Copper Property (the “Property”) in Peru. More specifically, this report summarizes scientific and technical information that post-dates the last report for the Pinaya Project filed in 2006. The contents that follow have been previously disclosed by way of press release, but this document represents the first all inclusive discussion post-dating the market downturn in 2009, a name change of the company, and the adoption of an all new corporate management and technical team.



The Pinaya Project area is situated in the eastern portion of the Andean Western Cordillera in south-central Peru. The Property is comprised 19,200 hectares (“ha”) in 35 contiguous concessions, in which the Company holds a 100 percent interest through its wholly owned Peruvian subsidiary, Canper Exploraciones S.A.C. (“Canper”). The Company holds two other properties in Peru: the Minas Lucho Project located 65 kilometres (“km”) southeast of Pinaya, and the La Mamita Project located in northern Peru. Both properties are of grassroots nature with no material mineral resources.

The project is a moderately advanced stage exploration project. A range of opportunities exist, insofar as ten mineralized zones and occurrences have thus far been identified, at least three of

which are significant: the Gold Oxide Skarn Zone (“GOSZ”), the Western Porphyry Zone (“WPZ”) and the North-Western Porphyry Zone (“NWPZ”). Additional exploration work is required to better assess the size, nature, grade and distribution of the mineralization contained in the seven other mineralized occurrences and zones: the Vizcachani, Montaña de Cobre y Oro (“MCOZ”), Antaña Este, Los Vientos and Saitocco Zones, and the Minas Jorge and Pedro 2000 mineralized occurrences.

The metals with economic potential include gold and copper (not listed in order of economic significance). Silver anomalies have also been identified in samples from the MCOZ and Saitocco Zone.

The feature that first garnered the interest of the Company was a historical open cut located on Gold Oxide Skarn mineralized material that was hand-excavated by artisan miners. The Company undertook an initial exploration program shortly after acquiring Canper in 2004. Surface mapping and rock grab sampling programs, geophysical surveys, soil geochemistry programs, trenching programs, and seven surface diamond drilling programs have since been carried out. To date, a total of 160 exploration holes (46,430 metres) have been drilled by the Company on the Project Area.

Of the 160 completed holes, only five had been completed on the MCOZ, ten on the Vizcachani Zone, and two on the Minas Jorge mineralized occurrence. To date, no holes have been drilled on the Antaña Este, Los Vientos, and Saitocco Zones, or the Pedro 2000 mineralized occurrence. The last drilling program was carried out in 2008 when eleven exploration diamond drill holes were completed for a cumulative total of 5,588 metres (“m”).

The author has reviewed the previous mineral resource estimate on the Pinaya Property and is of the opinion that the mineral resource (as disclosed in Table 12) is compliant with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”) and was prepared in accordance with applicable industry standards. The Company is in the process of updating the mineral resource estimate and in the opinion of the author, there is no information which would suggest that the updated resource will be smaller than the resource disclosed in Table 12.

A review of the data available indicates that potentially significant upside potential may reasonably be construed to exist for the project, emphasized by:

- the resource area is open to further expansion with additional step-out drilling;
- the continuing discovery of additional mineralized occurrences across the Project Area (the Antaña Este, Los Vientos and Saitocco Zones were found in 2007 and early 2008, during the Company’s last formal exploration programs);
- the postulated presence of chalcocite cross-trending structures that might result in higher average mineral resource copper grades, but which have not yet been assessed, due to the uniform direction of drilling that has thus far been employed by the Company; and
- finally, outside the scope of the immediate resource area, the property is significantly underexplored.



Recommended work to address these observations would entail additional diamond drilling, both within and proximal to the resource area, as well as exploration activities to assess potential on a property-wide scale. This would include airborne geophysical, stream sediment, and soil surveys. A budget to realize these recommendations is estimated at US\$3.2 million.

*Note: All currency values in this report are quoted in US dollars unless otherwise indicated.*

*All maps are displayed in projection UTM Zone L 19, WGS84 datum.*

## **2 INTRODUCTION**

The Company commissioned the author to review the related data and past work undertaken on the Property, more specifically on the work performed post-2006. The author visited the Property for two days in April 2010, but the site visit was primarily confined to the resource area.

The Company was actively performing exploration on the Property from 2004 till 2008. There was then a hiatus till December 2010, with that work being confined to a brief and general on-site physical assessment of the entire Property for an entirely new technical team.

The author has depended heavily on past work reports related to the Property. In addition, information was also gleaned from other third party data inclusive of information from an assortment of public and private sources.

All sources of information utilized are referenced and listed in Section 21.

## **3 RELIANCE ON OTHER EXPERTS AND DISCLAIMER**

Legal Opinion was expressed on the Property in December 2010 with a minor update in January 2011. This was performed by Dr. Alfonso Javier Alvarez-Calderón, Legal Counsel from Lima, Peru. The findings of Dr. Alvarez-Calderón have been incorporated into this report.

The ownership and legal status of the Property as described in this report are correct to the author's knowledge as of the effective date of this report. However, the author is not an expert in the field of vetting mineral property ownership opinion and disclaims any responsibility made with regards to the particulars of property ownership and standing stated herein.

## **4 PROPERTY DESCRIPTION AND LOCATION**

### **4.1 Ownership**

The Property is controlled through its 100% owned Peruvian subsidiary, Canper Exploraciones S.A.C. ("Canper"). The concessions that makeup the Property are wholly owned by Canper, which acts as the Company's agent in respect of the Pinaya Project.

The Company acquired Canper in May 2004, for a total of 3 million shares over a three year period. An additional 250,000 shares might be issued, as follows:

- if a Probable Mineral Reserve of 750,000 ounces of gold is outlined on the Project Area, 125,000 shares will be issued; and



- if a Probable Mineral Reserve of 2,500,000 ounces of gold is outlined on the Project Area, a further 125,000 shares will be issued.

The Company changed its name from Acero-Martin Exploration Inc. to AM Gold Inc. in early 2010 and also adopted a new corporate management and technical team.

**4.2 Property Location**

The Project Area is located in the eastern portion of the Andean Western Cordillera in south-central Peru, approximately 775 kilometres ("km") southeast of Lima, the capital of Peru, and approximately 110km north-northeast of Arequipa, the second largest city in Peru. The Property

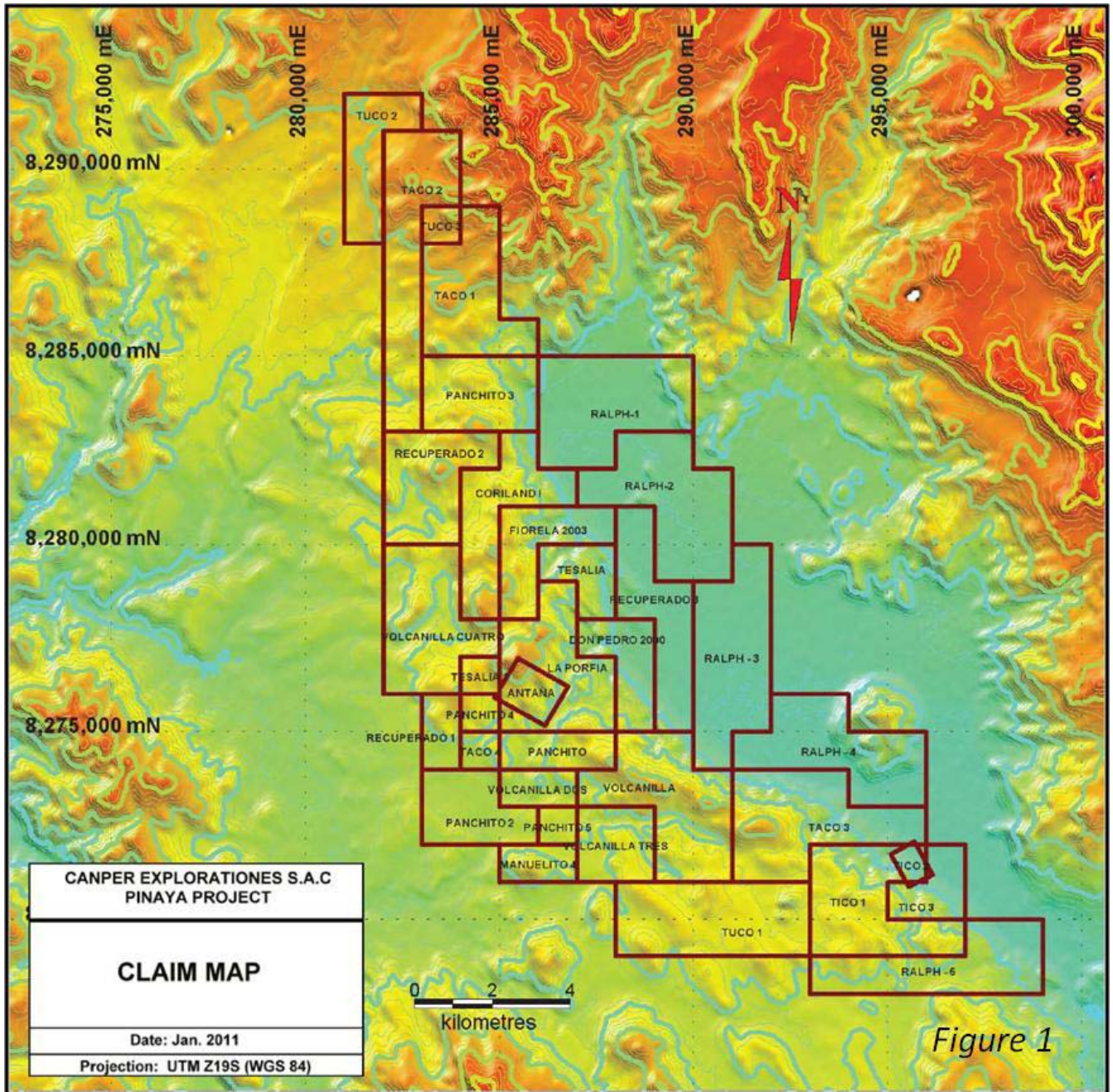
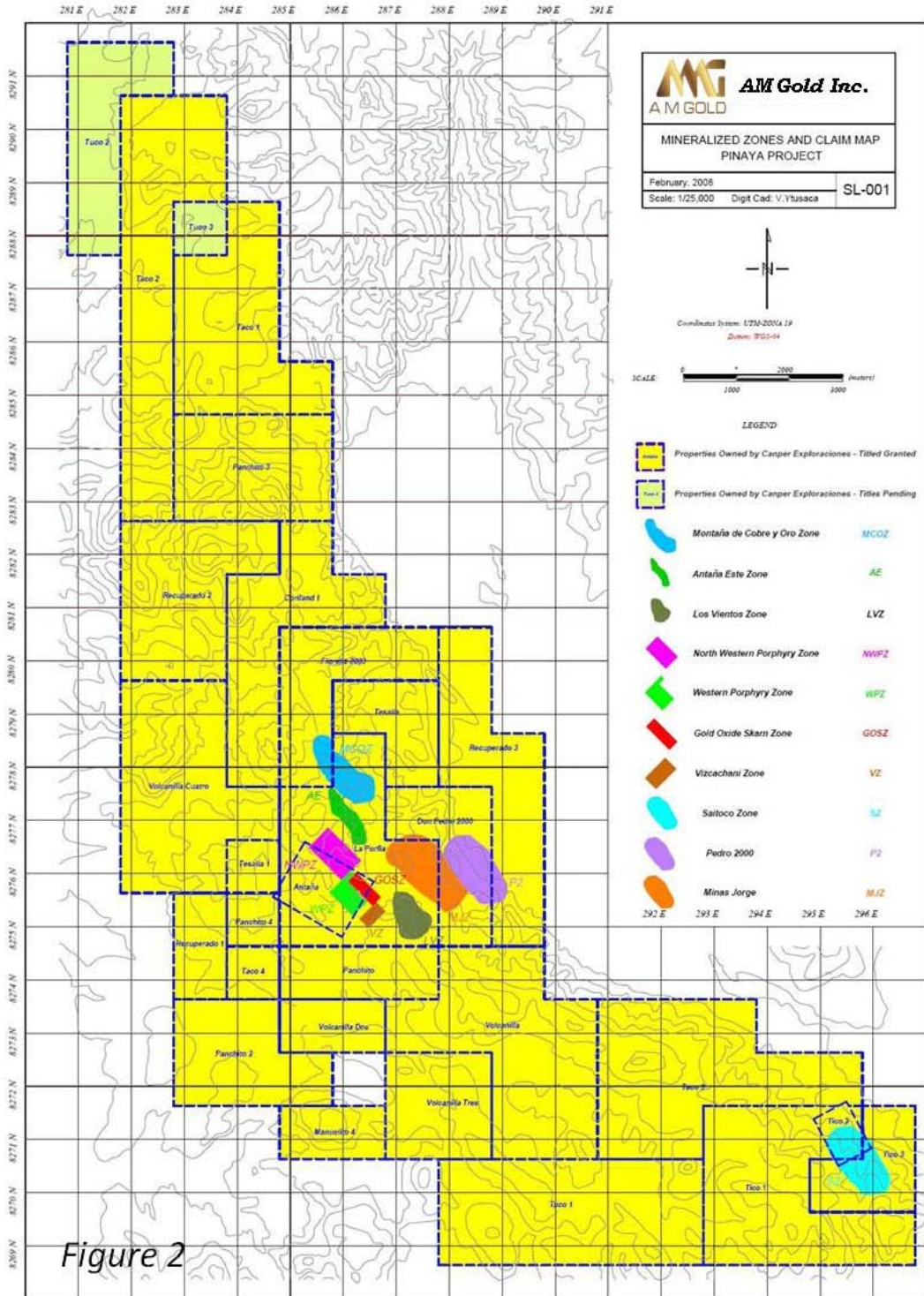


Figure 1





straddles the political boundary between the Departments of Puno and Arequipa, within the Provinces of Caylloma and Lampa, in the Districts of Callalli and Santa Lucia (Peru is divided into 25 Departments that are further divided into 195 Provinces that in turn are divided into numerous Districts).



The geographic co-ordinates at the previously mentioned historical open cut workings, which are located at the approximate centre of the Project Area, are Latitude 15° 35' 43" South and Longitude 70° 57' 42" West. The Project Area may be found on Peruvian National Topographic System (NTS) map Lagunillas 32-U.

### 4.3 Property Description

The Property is comprised of 19,200ha in the 35 concessions listed in Table 1. Figure 1 is a concession plan. Figure 2 illustrates the distribution of the various mineralized zones within the bounds of the Property. The concessions were acquired either directly or by way of option agreement. All terms of the option agreements have been satisfied and no known legacy conditions exist.

Table 2 summarizes the details of the 2011 *derecho vigencia* payments for the concessions listed in Table 1 and detailed in Figure 1. Penalty payments were incurred on the Antaña, La Porfia, and Don Pedro 2000 concessions because the required levels of investment had not been expended on the concessions when title was held by Compañia Minera Aurifera Los Andes de Pinaya S.A. ("COMPAI"), a company controlled by the community at Pinaya that is adjacent to the Project Area. Canper is the 100% holder of the rights and titles to the Antaña, La Porfia, Fiorella 2003 and Don Pedro 2000 concessions. As part of the option agreements with COMPAI and the Company through Canper, the Company took on the penalty debts, which amounts have since been paid by the Company, as required.

According to the aforementioned property opinions expressed by Dr. Alvarez-Calderón, legal counsel in Lima, Peru, all concessions are owned by Canper. In addition, the property opinion states:

1. *Canper Exploraciones SAC (Canper) has been duly incorporated in Lima, Peru and is a valid and subsisting Peruvian closed corporation currently existing under the laws of the Republic of Peru and all the requisite corporate power and authority to own or lease its properties and assets and carry on its business in Peru.*
2. *The authorized share capital of Canper Exploraciones SAC consists of 27,040 common shares with a par value of ten New Soles which have been issued, paid and are outstanding in the capital of the corporation as of the date of this document (the Title Opinion).*
3. *The forms and terms of the definitive certificates representing the Canper Exploraciones SAC shares comply with all legal requirements relating thereto.*
4. *The current shareholders are AM Gold Inc. with 23,040 shares and Alfonso J. Alvarez-Calderón Yrigoyen with 10 shares.*

None of the concessions have been surveyed, to the author's knowledge.

<b>Table 1:</b>					
<b>Property Concessions</b>					
<i>Name</i>	<i>File Number</i>	<i>Area (ha)</i>	<i>Owner</i>	<i>Titled</i>	<i>Resolution Number</i>
Antaño	13008065X01	179	Canper	27/11/1996	7982-96-RPM
La Porfia	01-00191-92	722	Canper	19/02/1999	0873-99-RPM
Fiorella 2003	08-00014-03	500	Canper	25/08/2003	02256-2003-INACC/J
Don Pedro 2000	08-00012-00	400	Canper	15/08/2000	03099-2000-RPM
Coriland 1	01-00242-04	700	Canper	28/04/2004	01522-2004-INACC/J
Volcanilla	01-03652-03	1,000	Canper	10/03/2004	00903-2004-INACC/J
Volcanilla Dos	01-00218-04	200	Canper	14/05/2004	01804-2004-INACC/J
Volcanilla Tres	01-00640-04	400	Canper	03/06/2004	02028-2004-INACC/J
Volcanilla Cuatro	01-00641-04	900	Canper	03/06/2004	02027-2004INACC/J
Panchito	01-01173-04	300	Canper	21/10/2004	03791-2004INACC/J
Panchito 2	01-03345-04	500	Canper	14/01/2005	00168-2005INACC/J
Panchito 3	01-00127-05	600	Canper	09/05/2005	01919-2005-INACC/J
Panchito 4	01-00709-06	99	Canper	27/04/2006	1799-2006-INACC/J
Panchito 5	01-02454-10	100	Canper	20/09/2010	2936-2010-INGEMMET/PCD/PM
Manuelito 4	01-03763-04	200	Canper	09/05/2005	01926-2005-INACC/J
Tesalia	01-01631-04	300	Canper	30/03/2005	01369-2005-INACC/J
Tesalia 1	01-01632-04	100	Canper	28/03/2005	01324-2005-INACC/J
Taco 1	01-03859-06	800	Canper	30/11/2006	5184-2006-INACC/J
Taco 2	01-03860-06	1,000	Canper	30/11/2006	5104-2006-INACC/J
Taco 3	01-04438-06	999	Canper	17/01/2007	0021-2007-INACC/J
Taco 4	01-00440-07	100	Canper	13/12/2007	2672-2007-INGEMMET/PCD/PM
Tuco 1	01-03861-06	1,000	Canper	15/12/2006	5572-2006-INACC/J
Tuco 2	01-05125-07	500	Canper	19/11/2008	4948-2008-INGEMMET/PCD/PM
Tuco 3	01-01357-08	100	Canper	12/08/2008	2742-2008-INGEMMET/PCD/PM
Tico 1	01-03862-06	836	Canper	30/11/2006	5133-2006-INACC/J
Tico 2	01-03916-07	70	Canper	27/11/2007	2414-2007-INGEMMET/PCD/PM
Tico 3	01-03917-07	295	Canper	26/11/2007	2259-2007-INGEMMET/PCD/PM
Recuperado 1	01-04665-06	200	Canper	18/07/2007	0079-2007-INGEMMET/PCD/PM
Recuperado 2	01-04666-06	700	Canper	07/03/2007	0768-2007-INGEMMET/PCD/PM
Recuperado 3	01-03862-06	700	Canper	27/11/2007	2351-2007-INGEMMET/PCD/PM
Ralph 1	01-03366-08	1,000	Canper	23/10/2008	4676-2008-INGEMMET/PCD/PM
Ralph 2	01-03367-08	1,000	Canper	21/10/2008	4433-2008-INGEMMET/PCD/PM
Ralph 3	01-03368-08	1,000	Canper	23/10/2008	4832-2008-INGEMMET/PCD/PM
Ralph 4	01-03369-08	900	Canper	23/10/2008	4643-2008-INGEMMET/PCD/PM
Ralph 5	01-03370-08	800	Canper	21/10/2008	4392-2008-INGEMMET/PCD/PM
<b>Totals</b>	<b>35</b>	<b>19,200</b>	<b>ha</b>		

<b>Table 2 :</b>					
<b>Schedule of Fees for Concessions</b>					
<i>Concession</i>	<i>Area (Ha)</i>	<i>Titled</i>	<i>2011 Taxes (US\$)</i>	<i>Penalties 2011 (US\$)</i>	<i>Totals (US\$)</i>
Antaña	179	27/11/1996	538	3,589	4,127
La Porfia	722	19/02/1999	2,165	4,331	6,496
Fiorella 2003	500	25/08/2003	1,500	3,000	4,500
Don Pedro 2000	400	15/08/2000	1,200	2,400	3,600
Coriland 1	700	28/04/2004	2,100	-	2,100
Volcanilla	1,000	10/03/2004	3,000	-	3,000
Volcanilla Dos	200	14/05/2004	600	-	600
Volcanilla Tres	400	03/06/2004	1,200	-	1,200
Volcanilla Cuatro	900	03/06/2004	2,700	-	2,700
Panchito	300	21/10/2004	900	-	900
Panchito 2	500	14/01/2005	1,500	-	1,500
Panchito 3	600	09/05/2005	1,800	-	1,800
Panchito 4	99	27/04/2006	296	-	296
Panchito 5	100	20/09/2010	300	-	300
Manuelito 4	200	09/05/2005	600	-	600
Tesalia	300	30/03/2005	900	-	900
Tesalia 1	100	28/03/2005	300	-	300
Taco 1	800	30/11/2006	2,400	-	2,400
Taco 2	1,000	30/11/2006	3,000	-	3,000
Taco 3	999	17/01/2007	2,998	-	2,998
Taco 4	100	13/12/2007	300	-	300
Tuco 1	1,000	15/12/2006	3,000	-	3,000
Tuco 2	500	19/11/2008	1,500	-	1,500
Tuco 3	100	12/08/2008	300	-	300
Tico 1	836	30/11/2006	2,509	-	2,509
Tico 2	70	27/11/2007	210	-	210
Tico 3	295	26/11/2007	884	-	884
Recuperado 1	200	18/07/2007	600	-	600
Recuperado 2	700	07/03/2007	2,100	-	2,100
Recuperado 3	700	27/11/2007	2,100	-	2,100
Ralph 1	1,000	23/10/2008	3,000	-	3,000
Ralph 2	1,000	21/10/2008	3,000	-	3,000
Ralph 3	1,000	23/10/2008	3,000	-	3,000
Ralph 4	900	23/10/2008	2,700	-	2,700
Ralph 5	800	21/10/2008	2,400	-	2,400
<b>Totals</b>	<b>22,600</b>		<b>57,300</b>	<b>13,319</b>	<b>70,619</b>

The Property is sufficiently large enough to support mining operations.



#### 4.4 Peruvian Mining Law

The General Mining Law of Peru is administered by the Ministry of Energy and Mines (*Ministerio de Energía y Minas*, or “Ministry”). The law was changed in the 1990s to encourage the development of the country’s considerable resources. Details of the law were consolidated in the ‘Single Revised Text of the General Mining Law’ of 1992 (government document D.S. No. 014-92-EM, 19926). It defines and regulates different categories of mining activities, ranging from sampling and prospecting to development, exploitation and processing.

##### 4.4.1 Concessions

Under Peruvian mining law, the right to explore for and exploit minerals is granted by way of mining concessions that are established using UTM co-ordinates to define the corners of an area of interest, measured in hectares. New concessions have to be orientated in a north-south direction; concessions that pre-date 1992 are based on the *punto de partido* system and can be of any orientation.

Up to 2007, any and all transactions and contracts pertaining to mining concessions had to be entered into a public deed and registered as a separately identifiable entry in the Public Registry of Mining (a legal entity that falls under the Public Registry of Peru, or SUNARP) at the National Institute of Mining Concessions (*Instituto Nacional de Concesiones Minero*, or “INACC”) to be enforceable. Since 2007, title (or *Resolución de Presidencia*) has been awarded by, and registered at, the Geological Institute of Mining and Metallurgy (*Instituto Geológico Minero y Metalúrgico*, or “INGEMMET”). The owner of a concession registered at INACC or INGEMMET is the legal owner of that concession.

The holder of a Peruvian mining concession is entitled to all the protection afforded to holders of private property rights under the Peruvian Constitution, the Civil Code, and other applicable laws. However, a Peruvian mining concession is a property-related right that is distinct and independent from the ownership of land on which it is located, even when both a mining concession and the land on which it is based belong to the same person or entity. If the holder of a concession does not also own the land, access to the concession must be negotiated with the land owner. The rights granted by a mining concession are defensible against third parties, are transferable and chargeable and, in general, may be the subject of any transaction or contract.

Mining titles are irrevocable and perpetual, as long as the required annual maintenance fees (*derecho vigencia*) are up to date and fully paid to the Ministry, by 30 June each year following granting of a concession. The fees are paid in advance. The annual fee for metallic mineral concessions is, initially at least (see below) US\$3.00 per hectare for each concession that is either actually acquired or pending (*petitorio*). Peruvian Mining Law also requires the holder of a mining concession to:

- develop and operate his/her concession in a progressive manner, in compliance with applicable safety and environmental regulations, and in so doing take all necessary steps to avoid damage to third parties; and
- at all times, allow free access to his/her concessions by those authorities responsible for assessing whether the concession holder is meeting all his/her obligations in law.

A concession will terminate if:

- the annual rental (*derecho vigencia*) is not paid either for three years in total or for two consecutive years over the period the concession is held;
- or the penalties outlined above are not paid.

#### 4.4.2 Exploitation

A concession holder must sustain a minimum level of annual commercial production greater than US\$100 per hectare in gross sales before the end of the sixth year following the granting of the concession. If a concession has been put into production within the six year period, the annual maintenance fee (*derecho vigencia*) remains US\$3.00 per hectare, up to the beginning of the ninth year subsequent to the granting of the concession, when it increases to US\$4.00 per hectare for years 9 to 14. The annual rental rises to US\$10.00 per hectare for each year thereafter.

If a concession has not been put into production within a six year period, the annual rental increases from the first semester of the seventh year to US\$9.00 per hectare (US\$3.00 for *derecho vigencia*, plus a US\$6.00 penalty), until the minimum production level is met. If, by the start of the twelfth year from granting a concession the minimum production level is not achieved, the annual rental increases to US\$23.00 per hectare (US\$3.00 for *derecho vigencia*, plus a US\$20.00 penalty). A concession holder can, however, be exonerated from paying penalties if he/she can demonstrate that at least ten times the penalty for the total concession was invested during the previous year. The investment must be documented and it must be accompanied by a copy of the relevant annual tax statement (*declaración jurada de impuesto a la renta*) and payment of the annual fees.

#### 4.5 Surface Rights

The issue of land tenure continues to be of significance in Peru, not least because the national cadastral system for agricultural land ownership is not always accurate. Nevertheless, the existing law requires appropriate agreements to be reached with the surface rights owner or owners, for access to a property.

#### 4.6 Permitting

The Company, through Canper, holds a valid Category II Permit that allows up to 23,800m of drilling on the central Project Area, across the main area of mineralized occurrences, inclusive of 30 drill holes of 800m average, as well as the construction of drill pads and access roads. The





original, Category C permit was obtained during October 2005 and expired in 2009. A new Class I permit dated January 28, 2011 has been approved and it is good for 24 months from the date of its issue.

#### 4.7 Taxes and Royalties

Table 3 summarizes the taxes and mandatory contributions that a medium-size company must pay or withhold in a given year in Peru, as well as measures of administrative burden in paying taxes.

<b>Table 3: A Summary of the Peruvian Tax Regime (source: <a href="http://www.doingbusiness.org">www.doingbusiness.org</a>)</b>			
<b>Tax Category</b>	<b>Payments (number)</b>	<b>Statutory Tax Rate</b>	<b>Tax Base</b>
Value Added Tax (VAT)	12	19%	Value added
Corporate Income Tax	12	30%	Taxable income
Social Security Contributions	12	9%	Gross salaries
Property Tax	1	0.2%, 0.6% and 1%	Property value
Industrial Corporations Contribution	12	0.75%	Gross salaries
Financial Transactions Tax	1	0.08%	Transaction value
Vehicle Tax	1	1%	Vehicle value
Local Tax ( <i>arbitios</i> )	1	Various	-

The Peruvian government established a sliding scale of mining royalty in 2005 (the first change to General Mining Law of Peru since 1992), which royalty will be charged from 2018, without exception and to all those companies that will be producing metals. Most companies that were already producing metals were, however, charged royalties from 2007, as their long-standing tax rate pacts with the government expired (source: [www.theminingnews.org](http://www.theminingnews.org)). Calculations of the payable royalties were carried out monthly, based on the value of the concentrate sold (or its equivalent), using international metal prices as the base for establishing the value of contained metal. The sliding scale has been applied as follows (source: [www.zincmetals.com](http://www.zincmetals.com)):

- first stage – 1% up to US\$60 million annual concentrate sales;
- second stage – 2% in excess of US\$60 million and up to US\$120 million annual sales; and
- third stage – 3% in excess of US\$120 million annual sales.

The basis for application of the royalty is in either the gross metal value of concentrate or metal component when the products are commercialized or the gross metal value declared by the owner. In the case of integrated companies transforming their concentrate, the costs of treatment will be deducted. In either case fees, indirect taxes, insurance, transportation costs, warehousing, port fees as well as other costs for exportation and general agreements will be deducted.

Late in 2008, Peru's government approved a law that changed how the mining royalties are distributed in the country (i.e. not the scale of mining royalties, as described above). The law was

passed by the Peruvian Congress, was signed into law by Mr. Alan Garcia, President of Peru, and was subsequently printed in Peru's official gazette. The change had earlier sparked protests in the southern Province of Tacna because it looked like the amount of money Tacna would receive from taxes paid by Southern Copper, a unit of Grupo Mexico, would reduce. The troubles were widely reported but have since died down.

#### **4.8 Metal Sales**

There are no reported Peruvian government restrictions or constraints on the exporting and/or sale of concentrates or metals that do not contain radioactive material.

#### **4.9 Environmental Regulations**

##### **4.9.1 Exploration**

Peruvian legislation is in place that defines the environmental compliance requirements for mining exploration programs and activities (Regulation on Protection of Environment – DSN No. 020-2008-EM). Three exploration categories are defined:

1. exploration activities such as mapping, sampling, geophysics, and geochemical soil sampling that do not require prior authorization (prior to 2008, defined as Category A activities);
2. Category I (prior to 2008, Category B activities) which allows for the drilling of up to 20 holes with related disturbances (drill pads and access roads) within a 10ha area; and
3. Category II (prior to 2008, Category C activities), which allows for the drilling of more than 20 holes with related disturbances (drill pads and access roads) within a 10ha area and/or the development of up to 50m of exploration tunnels.

Category I permitting requires the submission of a suitable Environmental Impact Declaration (*Declaración de Impacto Ambiental*, or "DIA") for approval by the Ministry. Category II permitting requires the submission of a suitable Environmental Impact Assessment (*Estudio de Impacto Ambiental semi detallado*, or "EIAsd") for approval by the Ministry. In either case, surface rights and water use rights are not covered within the scope of Category I or Category II permits.

According to DSN No. 020-2008-EM, a Category I permit will be awarded within 45 days of the submission of a DIA (assuming it is approved) and a Category II permit will be awarded within 55 days of the submission of a EIAsd (assuming it is approved). Prior to any revision of a Category I or Category II permit, the holder must hold a public audience or workshop with the involved, local communities and people.

##### **4.9.2 Mining**

When applying for a new mining or processing concession, which increases the size of an existing processing operation by more than 50% or to execute any other mining project, an EIA must be submitted to the Ministry:

- the purpose of an EIA is to identify environmental problems that might arise as a result of mining or metallurgical activity (an EIA is prepared ahead of a PAMA);
- an EIA must indicate the applying company's intention to spend at least one percent of annual sales on environmental expenditures; and
- the Ministry is required to approve/disapprove an EIA within 45 days of its submission.

In addition to an EIA, the Ministry can require a concession holder to prepare a Program for Environmental Management and Adjustment (*Programa de Adecuación y Manejo Ambiental*, or "PAMA"), which establishes a company's environmental compliance plan. Included within the scope of environmental compliance are considerations of the impact on the environment of mining disturbance, capital investments in environmental control, monitoring systems, waste management control and site restoration. The Ministry is required to approve/disapprove a PAMA within 60 days of its submission. If a response is not received within 60 days a PAMA may be assumed to be (automatically) approved. If the Ministry or an interested party can show just cause within the 60 day period, a PAMA may be modified during the first year after its submission.

The Peruvian government enacted its first Mine Closure Law in October 2003; it is unclear as to whether any amendments have been made. In general terms, the 2003 law sets out the obligations of a company with a mine in operation, as regards rehabilitation, closure and post-closure activities. Included within this scope is the requirement for mining companies to prepare and submit closure plans (*Plan de Cierre*) that define the steps to be taken, included costs, to protect the environment from solids, liquids and gases generated by mining work.

The 2003 law mandates the establishment of an Environmental Guarantee at the early stages of a project, to avoid the possibility of a lack of future funds. The Company should ascertain the amount and nature of the required guarantees that are probably payable on an annual basis and probably vary with the size of operation (e.g. operations with mill throughputs of less than 500 tpd are deemed small mine operations, the legal and tax requirements for which differ from operations with larger mill throughputs).

#### **4.10 Liabilities**

Unverified information suggests that the Peruvian government is responsible for the clean-up of pre-existing facilities or assets, unless they are used by a concession holder. As such, the author is not aware of any current environmental liabilities on the Project Area, with respect to pre-existing diggings, trenches or drilling pads. However, the Company is responsible for the remediation of any trenches, access roads, drilling pads and related excavations that have been dug or cut as a result of its exploration activities.

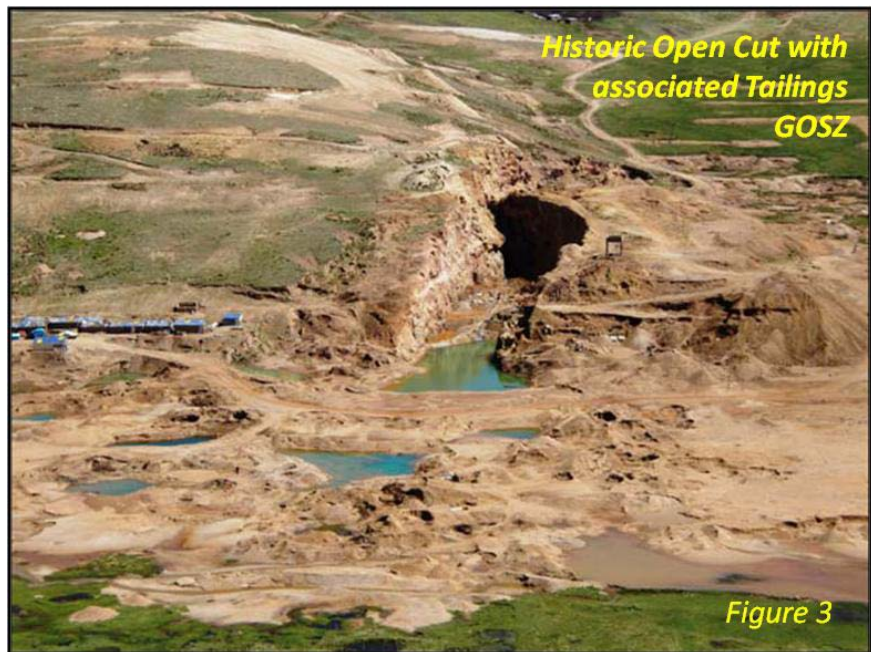
The Company undertook extensive remediation work during the fourth quarter of 2007. This work consisted of filling in trenches, re-contouring drilling platforms, filling in mud pits, plugging drill holes that produced water and replanting grass over disturbed areas. Two D6 cats were used to undertake the work.



To the best of the author's knowledge, no remediation work was carried out after December 2007, by which time:

- 57% of all the trenches, inclusive of those previously cut by Minsur S.A. had been filled in and replanted with local grass species;
- 67% of all drilling platforms had been contoured, close to the original, local topography;
- 75% of all the mud pits had been drained, dried and filled in;
- nine of 12 drill holes that produced artesian water were plugged with rock, clay and cement; and
- where they were cut by surface drainage channels, all major site access roads had culverts installed and rock-lined drainage channels cut.

At some time or possibly multiple times, artisan miners used mercury to extract gold from milled rock extracted from the historical open pit workings. To assess the levels of mercury contained, residual mercury, the Company collected a series of 10 samples of historical gold oxide tailings. Background levels of



mercury were assayed and found to contain mercury with a mean of 0.412ppm mercury (range: 0.055 – 2.231ppm Hg). The protocols of the sampling collection method utilized are not known.

Previously, in July 2004, the miners and the Company reached an agreement whereby all mining activities were formally ceased and all the miners were required to leave the Project Area. The miners, their families and belongings were relocated to nearby communities of their own choice. Each miner was given a severance package equivalent to what they might reasonably have been gained from continued mining of the concession for a period of one year. Following the miners' relocation, their shacks and buildings were dismantled and bulldozed, with the exception of a few structures that were, and are, used to house Canper's on-site security personnel.

Following completion of the Company's last Pinaya Project exploration program in 2008, informal artisanal mining activity resumed at the historical open cut. Since mid-2010, the local

community at Pinaya, as well as various government agencies, have supported the Company's efforts to remove the artisan miners from the Project Area, in a diplomatic manner to ensure continuing good community relations. The Company has a general agreement with the artisan miners, which requires them to leave the Project Area by July 2011.

## **5 ACCESS, INFRASTRUCTURE, PHYSIOGRAPHY, AND CLIMATE**

### **5.1 Accessibility**

Arequipa has an international airport with daily flights to/from the international airport at Lima (flight time approximately 1.5 hours). Arequipa may also be accessed by road from Lima, via the Pan-American Highway and Highway 30B.

Highway access is available to the Pacific Ocean port of Matarani (about 90km to the south of the Project Area). Juliaca, the largest city in the Puno district, can be accessed from Pinaya via a rough dirt track (approximately 45 minutes) and by Highways 30A and 30B (the journey time is approximately 1.5 hours). The cities of Juliaca, Arequipa and Matarani are joined by an active railway system. An airstrip, capable of accepting small jets, exists at the Tintaya Mine that is located approximately 70km to the north of Pinaya.

Access to the Project Area from Arequipa is via the all-weather Highway 30B that is well-maintained and paved. Highway 30B is dominated by much commercial heavy truck traffic. From Arequipa, Highway 30B climbs fairly quickly to an elevation of between 4,000m and 4,400m above mean sea level ("amsl"), from where it drops into a series of wide, open valleys. A turning is made off the highway, directly onto the Tintaya Mine access road, which is a broad, well maintained and cambered gravel road. The access road to the Project Area turns off the Tintaya Mine access road, after about 22km. The access road to the Project Area is a local track about 3m wide cut and maintained by the Company. Road access within the Property is by means of pre-existing and drilling access roads. Four wheel drive vehicles are in general required.

### **5.2 Local Communities and Infrastructure**

The community at Pinaya is to the east of the Pinaya Project exploration camp, on the far side of a broad, flat valley that contains marshy areas/surface ponds and grazing pasture. Pinaya village may be accessed by a rough gravel track. Other local (and small) communities include Coline (about 6km southeast of the exploration camp and outside the Project Area), Atecata and Orduña (that are further removed from the Project Area).

Pinaya Project-related infrastructure consists of an exploration camp and office facilities. The exploration camp facilities include dormitory blocks, a mess, a first aid station, general storage bays, an office block, a diamond saw station and two permanent covered drill core storage facilities, one of which is used for core logging and sampling.

Outside communications from the camp are via satellites; there are main telephone and internet facilities at the exploration camp.







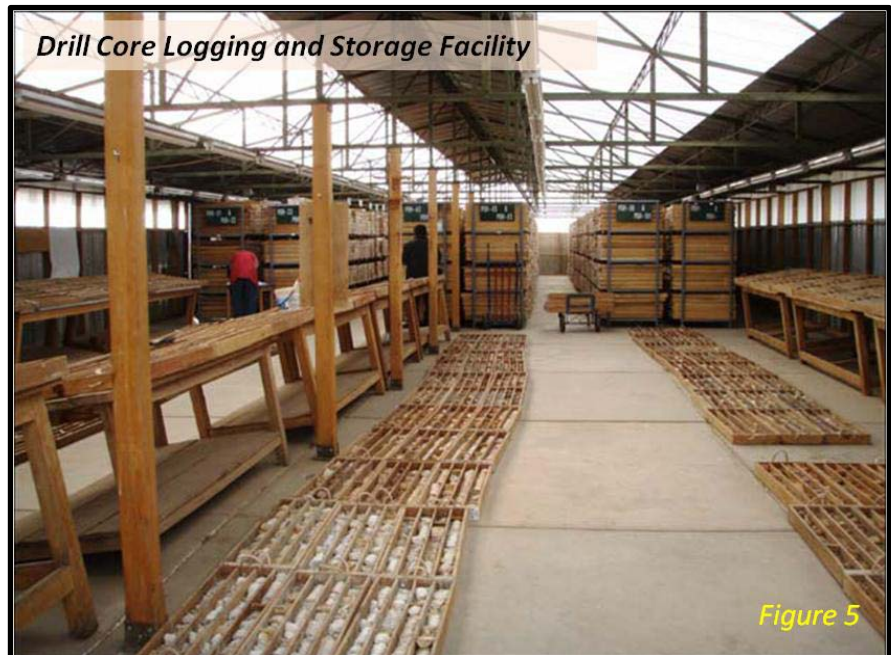
Electrical power on-site is currently provided by diesel powered generators. There is reported to be a 138KV (unverified data) electric transmission line crossing Highway 30A, approximately 50 km west of the Project Area. Future mining and processing activity would probably require power take-off to a Pinaya Project-dedicated sub-station, which would require the construction of power lines across land not owned or rented by the Company. Agreements with landowners would probably be required as to the regards the construction of supply line pylons.

Government permits may also be required.

Potable water is currently extracted from a well at the camp site that is generally held to be safe as long as proper filtration protocols are maintained. Water for drilling is readily available from the many shallow marshes and springs found across the Project Area, as well as from the flooded southern section of the historical open cut excavation.

Future water sources and needs for mining and processing have not been established. Surface water is available nearby; it might be possible to secure a guaranteed supply from nearby lakes that are not on land owned or rented by the Company. Agreements with landowners would probably be required as regards to water extraction and the construction of supply pipelines. Government permits may also be required.

The Company has/is actively employing local workers to help with on-going field work. General labour may readily be obtained in Arequipa



and Juliaca.

Peru has a long history of mining, with the result that mining professionals and machine operators are generally available in most population centres. The communities local to the Project Area are, however, small and can offer only a limited labour force; contractors and/or workers from other areas might in future be required. With Arequipa less than four hours away, the Pinaya Project should be attractive to technical personnel.

### **5.3 Socio-Economic Impact**

The Company is continuing development of the Pinaya Project through good community relations. A community relations plan for the local Pinaya community is already in place and the Company has contracted Social Capital Group of Lima, Peru, to conduct social impact studies for the region surrounding the Project Area, in anticipation of mine production. The planned study reflects the general policy of the Peruvian Ministry of Mines, which requires such studies as part of the mine permitting process.

For the most part, the plan concentrates on a number of key areas covering local infrastructure, education, health and community projects:

- the main emphasis on infrastructure relates to the maintenance of dirt tracks and roads that the local community/communities might use;
- help with education includes the remodelling of classrooms and the donation of computers and the supply of technical support to local schools, in line with the Education Minister's nationwide program of developing school computer facilities in rural communities (the so-called *Huascarán* policy);
- the Pinaya Project doctor visits the health care centre at Pinaya (government run) and the communities at Atecata, Coline and Orduña once every 15 days to provide basic medical treatment and services, at the Company's expense; and
- community projects include the donation of sports equipment, the sponsoring of selected community events, and the editing and printing of a local newspaper.

### **5.4 Topography, Vegetation, and Elevation**

The Project Area is located within the western cordillera of the south-central Peruvian Andes, the topography of which comprises high-elevation, rolling hills surrounded by craggy mountains. Elevations within the Project Area range from approximately 4,400m amsl to approximately 4,750m amsl. Snow covers many of the surrounding peaks that have elevations in excess of 5,100m amsl.

Short grasses cover the valley floors and most of the lower hillside slopes; with the higher elevation talus slopes not vegetated. Bedrock exposures are common along ridgelines and the steeper mountain slopes. Ranching is the primary source of income for the local communities. Herds/flocks of alpaca, llama, sheep and cattle are commonly seen in the general Project Area.

## 5.5 Climate

The local climate is typical of the south-central Peruvian Andes, insofar as wet and dry seasons only occur. The wet season persists from December to April and the dry season from May to November (exploration activity is generally limited to the dry season). The coldest temperatures are experienced during the dry season when they can fall to -20° C. Temperatures rarely rise above 25° C during the wet season when dense fog can be common and significant electrical storm activity can develop. Rain, hail and sometimes snow can fall, usually over limited time periods. Individual rainfall events can sometimes be severe, with up to 2.5 centimetres falling in an hour.

## 6 PROPERTY HISTORY

The Saitocco Zone appears to have been selectively mined for copper by Spanish colonial miners; the remains of an historical mining camp are reported to be present adjacent the Saitocco Zone showings. In a more modern context, there is a documented, intermittent exploration and artisanal mining history on the Project Area that covers a period of approximately 40 years.

### 6.1 Artisan Miners

Small-scale mining appears to have started in the 1960s with a drift that has since been cleaned and sampled for a distance of over 200m. It followed steeply-dipping shear zones containing haematite, malachite, and azurite mineralization hosted in a brecciated quartz-arenite conglomerate, intruded by small dikes of altered porphyritic diorite (McCrea, 2006). More recently (probably since about 1994) artisan miners excavated the present day historical workings.

Both the drift and historical open cut are located on the Antaña concession. Elsewhere there are numerous small pits and excavations where artisan miners exposed copper oxides, specular haematite, barite, pyrite and chalcopyrite associated with quartz veins, shears and/or strongly altered zones (McCrea, 2006). The showings occur between the Pinaya Intrusive Complex and the Pedro 2000 mineralized occurrence to the east, as well across the MCOZ.

### 6.2 Minsur S.A.

Late in 1998, Minsur S.A. ("Minsur"), Peru's largest producer of tin, optioned mineral concessions from the artisan miners and subsequently carried out surface mapping, trenching and drilling programs. Minsur terminated the option late in 2001, for unknown reasons (stated by McCrea the July 2006 Technical Report to be '*unknown mis-communications between Minsur S.A. and the artisan miners*').

### 6.3 COMAPI and Canper

Early in 2003, the concessions were transferred from Minsur to COMAPI. Canper applied for the Volcanilla concessions in 2003 and entered into option agreements with COMAPI in 2004 to acquire 100% interests in the four concessions owned by them.



## 7 GEOLOGICAL SETTING

The Property is situated within a region of various lithotypes that are the product of changing tectonic styles from the late Jurassic to present. The dominant lithotypes include shallow marine to continental (mainly) clastic sediments and volcanic flows, as well as intrusive diorites and monzonites. At the property scale, only Paleocene to recent lithologies are present. East-northeast directed compression during Andean orogenesis resulted in folding and faulting of the lithotypes on the Project Area, which lithotypes dip steeply to near vertical and strike northwest. One of the more recent deposits in the general area is a horizontally layered series of crystal lithic tuffs and ignimbrites (a form of welded tuff) that is associated with a range of dead, dormant and active volcanoes that dominate the Arequipa.

The following regional and property geology descriptions are largely summarized from McCrea (2006), with contributions from Benavides-Caceres (1999), Quang et al (2005), Petersen (1999), Clark et al (1990), Parello et al (2003), Carlotto et al (2005), Camus (2003), Bradley (2004), Coughlin (2005), Caira (2005, 2006) and others:

### 7.1 Regional Geology

Most of the stratigraphy, structure, magmatism, volcanism and mineralization in Peru is spatially and genetically related to the tectonic evolution of the Andean Cordillera of the western sea board of South America. The cordillera was formed by actions related to major subduction events that have continued to the present from at least the Cambrian (Petersen, 1999) or late Precambrian (Clark et al, 1990; Benavides-Caceres, 1999). The formation of the Andean Cordillera is, however, the result of a narrower period stretching from the Triassic to present when rifting of the African and South American continents formed the Atlantic Ocean. Two periods of this later subduction activity have been identified (Benavides-Caceres, 1999): Mariana type subduction from the late Triassic to late Cretaceous; and Andean type subduction from the late Cretaceous to present.

Late Triassic to late Cretaceous, Mariana type subduction resulted in an environment of extension and crustal attenuation that produced, from west to east, an ocean trench, islands arcs and a back-arc basin (Benavides-Caceres, 1999). The back-arc basin is reported to have two basinal elements (the Western and Eastern Basins) that are separated by the Cusco-Puno high, which is probably part of the Marañon Arch. The basins are largely comprised of marine clastic and minor carbonate lithologies of the Yura and Mara groups, overlain by carbonates of the Ferrobamba Formation. The Western Basin, otherwise known as the Arequipa Basin, forms the Western Andean Cordillera of Peru, which is also the site of a Holocene magmatic belt that spans the Andes and was emplaced from the late Oligocene to about 25 million years ago (James and Sacks, 1999).

Termination of Mariana type subduction in the late Cretaceous was followed by Andean type subduction that is distinguishable by intermittent pulses of compression that span the late Cretaceous to early Pleistocene periods (Benavides-Caceres, 1999). It occurred as a result of collisional tectonics where oceanic crust of the Nazca plate was (and still is) subducted beneath the South American continental plate. The resultant compressional and trans-tensional structural



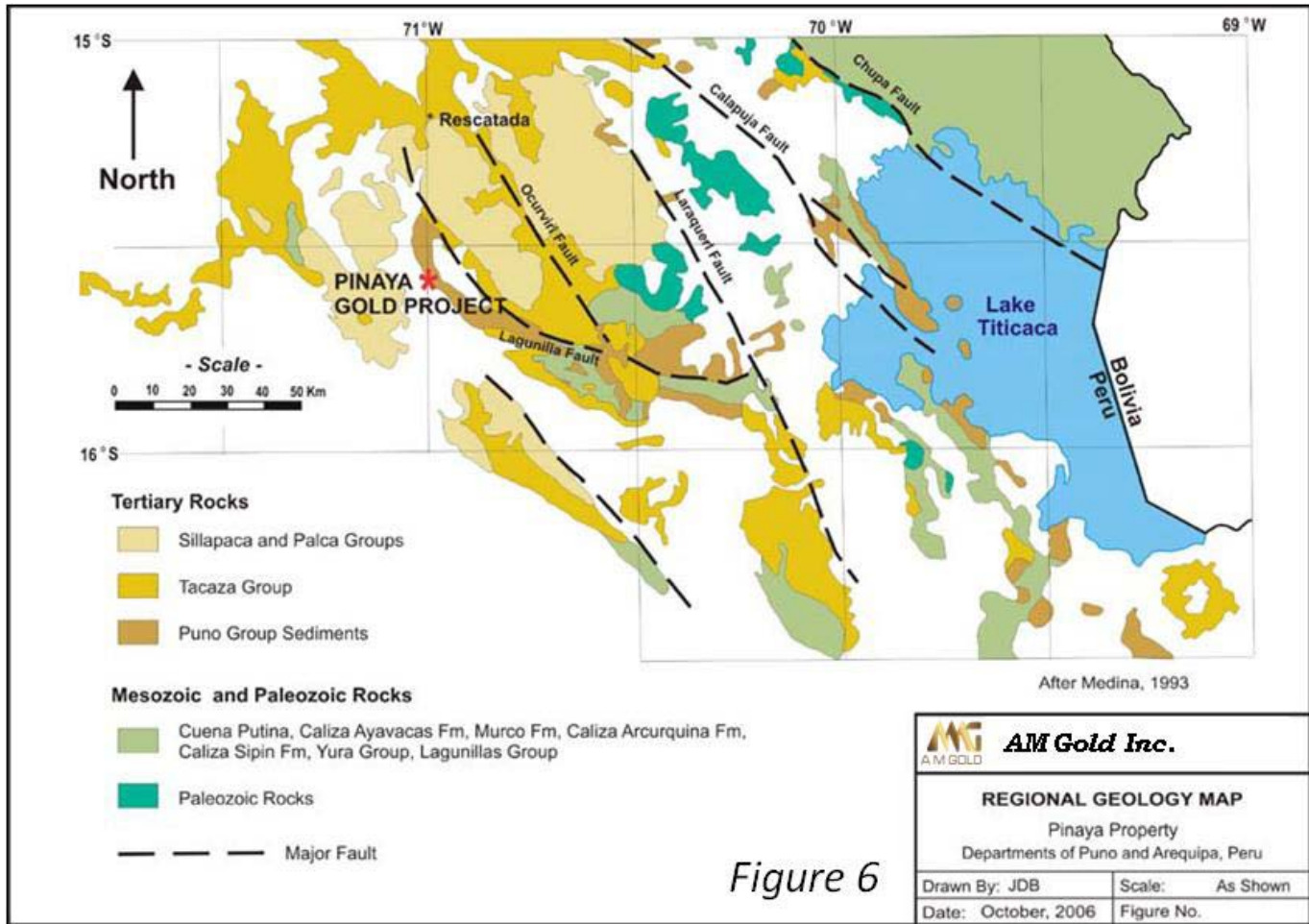


Figure 6

environments caused uplift and unconformable surfaces. During this time, marine sedimentation ceased and continental sedimentation began, mainly in fault-controlled basins. Intense plutonism and magmatism along a continental magmatic arc also produced significant volcanic activity that continues today.

It is the latter (Andean type) subduction interval that is the most important to the metallogenic evolution of the region, due to the magmatic arc emplacement in a convergent plate tectonic environment and the associated hydrothermal processes resulting from intrusive cooling.

Peru may be divided into physiographic regions that correspond to tectonic elements that record the evolution of the Andean Cordillera, since the Triassic. In southern Peru there are, from west to east: the Coastal Belt; Western Cordillera; Altiplano; Eastern Cordillera; and Sub-Andean zones. Heterogeneous, metamorphic Precambrian basement lithologies underlie the Coastal Belt and comprise part of the Western Cordillera that in southern Peru is called the Arequipa Massif. The northern extent of the Precambrian basement corresponds to the termination of the Altiplano and the start of the Nazca Ridge. There is an intervening northeast trending tectonic element, called the Africa deflection or Bolivian Orocline, which is underlain by basement lithologies where the Andes widen and bend in an easterly direction.

During a study by Petersen (1999), 1,800 radiometrically determined age dates from igneous rocks and hydrothermal alteration minerals, which samples covered the Andean Cordillera from Latitude 06° south to Latitude 32° south. He differentiated and correlated the Chalcobamba – Tintaya iron-gold-copper skarn and porphyry belt (30 to 35 million years old) in the main magmatic arch, south to the Santa Lucia district (25 to 30 million years old) and on into Chile. The dates coincide with some of the largest and richest porphyry copper-gold deposits in the world (that are located in Chile, between Latitude 21° south and Latitude 33° south).

The Andahuaylas – Yauri porphyry copper-gold belt, a middle Eocene to early Oligocene, calc-alkaline plutonic belt, is situated along the north-eastern edge of the Western Andean cordillera. Caira (2005) notes that the Pinaya porphyry copper-gold system lies at the south-eastern end of this well known, but newly emerging porphyry copper-gold belt (Figure 6). It extends to the north-northwest of the Project Area, for some 300 km.

A model for the tectonic environment for the emplacement of the Andahuaylas-Yauri belt and its postulated relation to similar deposits in Chile is provided by Perello et al (2003). The following summary was prepared by Caira (2005): Perello et al suggest that *'the calc-alkaline magmas related to porphyry mineralization were generated during an event of subduction flattening which triggered crustal shortening, tectonism and uplift assigned to the Incaic Orogeny. It has also been suggested that this mineralized belt may be continuous with the late Eocene to early Oligocene porphyry copper-gold belt of north Chile where subduction flattening took place in southern Peru and northern Chile between 45 and 35 million years ago.'*

The following summary is from Carlotto et al (2005); it provides a mechanism for porphyry emplacement in Peru and Chile from the middle Eocene to the late Oligocene. *'The emplacement control on giant porphyries in Chile and southern Peru was developed in contractional settings in which the inversion of ancient normal faults played a relevant role in the extraction, transport and accumulation of magmas (Skarmeta and Centilli, 1997). There are the physical models of magmatic intrusion during thrusting that explain the process (Galland et al, 2003). In fact, the structures are geometrically similar to those of the experiments, suggesting that the models are applicable to nature (Cerpa et al, 2004).'* and *'Syntectonic intrusive porphyritic bodies were emplaced along the reversed extensional faults and in conjunction with the deformation and construction of the Domeyko (Camus, 2003), Condoroma-Mollebamba and Cisco-Lagunillas fault system. The emplacement took place during the comprehensive deformation which began around 44 (million years ago) and which lasted until the Oligocene (about 30 million years ago).'*

The Western Andean Cordillera is famous for its world-class base- and precious-metal deposits that are either proximally or distally related to magmatic belts emplaced in a convergent plate tectonic environment. Most of the metal deposits are spatially and genetically associated with metal-rich, hydrothermal fluids generated along magmatic belts that were emplaced along convergent tectonic lineaments.

Porphyry- and skarn-style copper mineralization was emplaced as a result of Andean orogenic events and it may, in many cases, have been greatly enhanced by subsequent Andean orogenic periods that caused secondary, supergene copper mineralization. Secondary enrichment often allows for easier extraction (e.g. the host rocks are often rippable, or at least require only light blasting during open cut operations) and enhanced metallurgical properties.

Quang et al (2005), in a study of porphyry copper-gold mines from Latitude 16° 30' S to Latitude 18° S describe controlling factors for supergene mineralization over the past 30 million years as continuous pulses of compressional events resulting in uplift and the lowering of the water table in a semi-arid environment. Between the pulses were periods of tectonic quiescence that allowed sediment to accumulate and incision causing a rise in the water table and preservation of supergene profiles. Although ignimbrite eruption events, that are present throughout the magmatic arc, terminated surface weathering in some cases, they also capped and preserved the supergene profiles.

## **7.2 Property Geology**

McCrea (2006) notes that shallow marine and continental clastic sediments with intercalated volcanic sediments, belonging to the late Cretaceous to early Tertiary Puno Group, dominate the Project Area. This package of rocks can reach a thickness of 800m; it has been intruded by stocks of dioritic and monzonitic composition and it is overlain by the Tertiary volcanic Tacaza Group. The dominant structural feature, the Lagunillas Fault Zone (the "LFZ"), appears to have controlled the local deposition of continental clastic sediments.

Caira (2005 and 2006) has provided the most comprehensive geological study to date of the Project Area. During three reviews, Caira geologically mapped and sampled parts of the concessions and reviewed the majority of the drill core from holes PDH-001 to PDH-070. The 2005, 2006a and 2006b Geological Reports provide an analysis and review of geochemical, geophysical and aerial photographic data. Figure 7 summarizes the geology of the Project Area.

The following text is a summary of Caira's work, summaries also appear in the April 2006 and October 2006 Technical Reports.

### **7.2.1 Sedimentary and Volcanic Rocks**

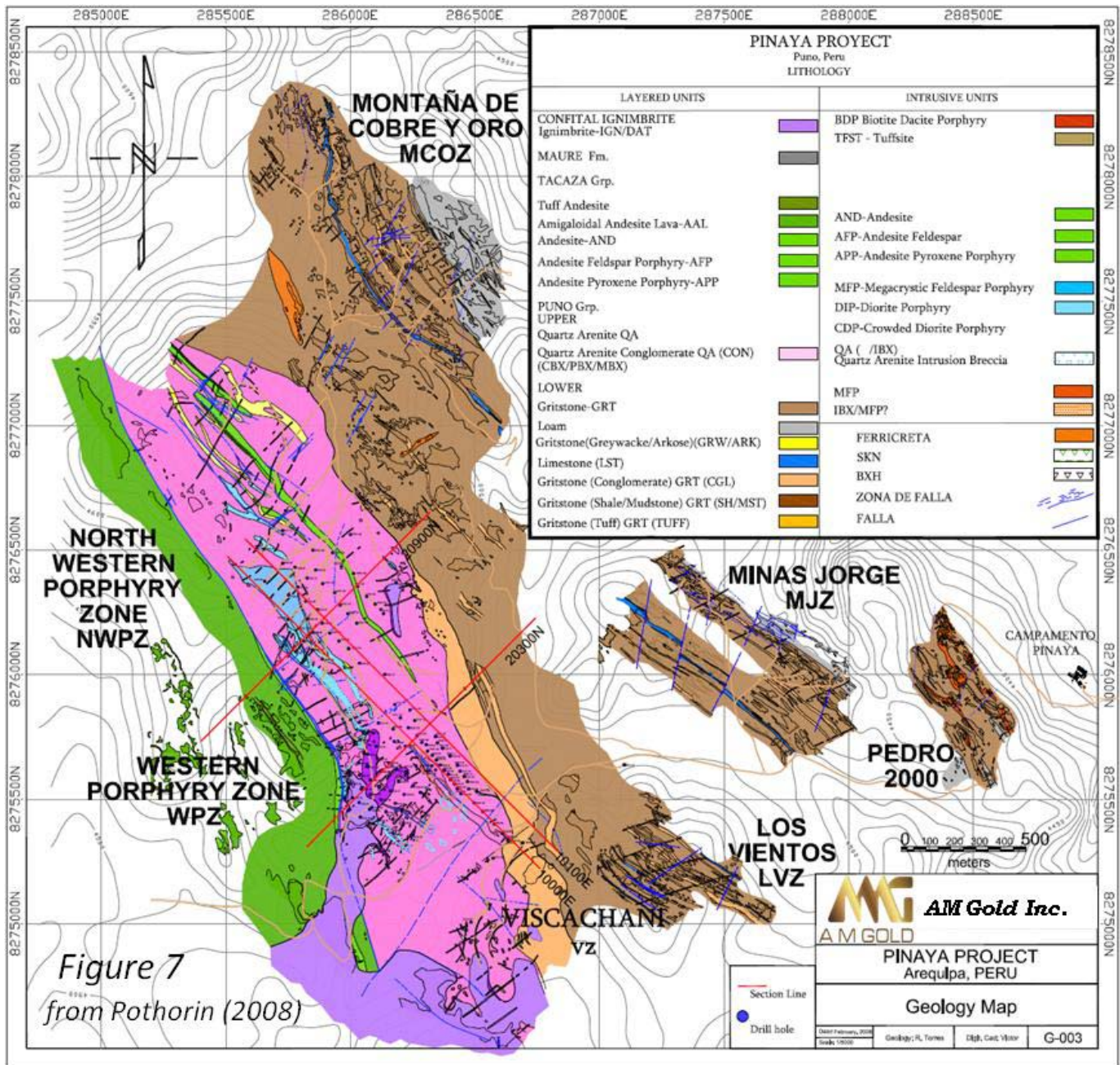
Caira (2005) describes the host rocks found on the Project Area as follows:

A good portion of the Project Area is underlain by steeply dipping to near vertical Puno Group sediments, comprised of quartz arenite, quartz arenite breccias, coarse quartz arenite conglomerate and sandstones. Caira believes that the Puno Group is comprised of quartz arenite conglomerate, variably tectonized massive quartz arenite and a series of erosional remnants in the form of fault scarp debris flows, rather than coarse grained conglomerates as previously defined by Medina (1990).

The conglomerate/fault scarp debris flow related to the emplacement of the LFZ is dominated by rounded, well packed, quartz arenite clasts with lesser, locally recognizable lithologies including:







coarse-grained feldspar porphyry; andesite feldspar porphyry; diorite porphyry; and arkose, the latter representing 'obvious erosional remnants of locally derived stratigraphy'. The breccias are monolithologic quartz arenites with variations in tectonically derived breccia textures that have been subdivided into five distinctive types that define the proximity to major faults: massive quartz arenite (Project code name: QA [mas]); a crackle breccia quartz arenite (QA [cbx]); a puzzle breccia quartz arenite (QA [pbx]); a mill breccia quartz arenite (QA [mbx]); and a quartz arenite conglomerate (QA [con]).

Caira (2005) further describes the host rocks found on the Project Area as follows (presented here in summary): West of the Puno Group sediments, a fault-bound sequence of volcanics



presently assigned to the Tacaza Group volcanics is comprised of basalt-andesite amygdaloidal lava flow (Project code name: AAL). The andesite pyroxene porphyry is seen as narrow dikes intruding the Puno Group sediments and as more extensive sub-volcanic bodies hosting brecciated rafts of amygdaloidal andesite. The presence of shallow dipping extrusive lavas of similar composition also exists.

An emerald green copper clay(?) with haematite occurs parallel to the faulted contact, in a well-defined, sheeted fracture network along the contacts between the amygdaloidal lava and the andesite pyroxene porphyry phase. Further west of the volcanics, mapping has suggested that a fault-bound, shallow, southwest dipping calcareous sedimentary sequence unconformably overlies the Tacaza Group volcanics and is comprised of dirty limestone (Project code name: LST) and green medium- to coarse-grained sandstone interbedded with a red shale-mudstone. West of this sediment sequence is an east dipping extrusive volcanic sequence (Bradley, 2004) that is probably part of the Tacaza Group volcanics.

Caira (2005) goes on to describe the area to the east of the Puno Group sediments; a steep northeast dipping sedimentary sequence is comprised of arkosic sandstone, gritstone, greywacke, pebble conglomerate interbedded with calcareous limey horizons (Project code name: GRT). The grit unit hosts the Don Pedro 2000 tonalite porphyry mineralized occurrence where more extensive limestone horizons also occur (Project code name: U-LST). A series of ignimbrite/ash flow tuffs (code name: IGN) blanket the porphyry mineralization and dominate the south and south-eastern portions of the Project Area.

The sedimentary and volcanic sequences outlined collectively change direction from north-northwest – south-southeast in the north to east-southeast – west-northwest in the south. Caira (2005) speculates that the flexure ‘*may have aided in the overall emplacement and localization of the Pinaya Intrusive Complex*’. The flexure mimics a bend in the regionally extensive LFZ.

### 7.2.2 Intrusive Rocks

The Pinaya Intrusive Complex forms a body that is elongated primarily along a north-northwest – south-southeast axis for a distance of up to 1,500m. It extends for a known depth of approximately 200m. At least six igneous phases and five breccia phases have been identified that vary in both intensity and type of veining in addition to mineralization style (Caira, 2005). The breccia phases include two contact/igneous breccia phases, an intrusive breccia, a series of hydrothermal breccias and a late stage pebble breccia event. Caira (2005) suggests that a coarser breccia, found in the vicinity of the open cut, may be a magmatic hydrothermal or diatreme phase. She describes the igneous phases as including:

- stocks, dikes and sills of fine grained crowded diorite porphyry (Project code name: CDP), coarse grained diorite porphyry (Project code name: DIP);
- a megacrystal feldspar porphyry tonalite (Project code name: MFP), andesite pyroxene (Project code name: AFP) and a fine grained border phase, late-stage red dikes (Project code name: TRD, which is a field term used for a suspected trachyte composition); and

- a post-mineral, biotite phyrac dacite porphyry (Project code name: BDP) that locally exploits a fault zone.

Caira (2005) describes the breccia series as including both:

- contact/igneous breccias (Project code names: IBX 1 and IBX 2) that have an igneous matrix with predominantly wall rock derived clasts; and
- post mineral intrusive breccias (Project code name: BDP/INBX), or tuffsite, that have a variably milled dacite matrix with monolithologic clasts and were formed as a result of magma degassing in the felsic conduit (with some evidence for mixing and upward transport of fragments).

Narrow vein breccias or haematite cemented, hydrothermal breccias (Project code name: HBX) crosscut both igneous and host rock. Terminal breccia events are recognized as pebble breccia dikes (Project code name PBX) and more extensive phreatomagmatic/hydrothermal breccias (Project code name: DIA). This latter breccia type occurs in the vicinity of the historical open cut area and is matrix supported, poorly sorted and hosts well rounded, heterolithologic, altered mega-fragments (greater than 60 centimetres in diameter) in a sand-sized clastic material with numerous well-rounded, pebble size fragments. The pebble breccia pipes tend to be more linear in nature, they are commonly ten to 50 centimetres in width; the rock comprises well-rounded pebble size clasts, that are locally altered, in a sand-size, clay-altered matrix. The pebble breccia locally hosts altered clasts and clasts with reaction rims, which implies that the matrix has seen fluid flow.

Caira (2005) states that the igneous-related breccias are common in the upper parts, or immediately above, the roof rocks of plutons or stocks. They can also be distributed along sloping margins. The small volumes of fine-grained porphyritic intrusive rocks (for example AFP and APP) could be spatially and genetically associated with the brecciation process (Sillitoe, 1985). The pebble breccia phase occurs proximal to (and post-dates) the APP igneous phase and may, therefore, be genetically related. Most igneous-related breccias carry anomalous copper, molybdenum, tungsten, gold and, locally, bismuth values.

The following sequence of intrusive phases has been identified (listed from oldest to youngest, using the Project code names earlier defined): CDP, DIP, AFP and APP. The breccias may be ordered as follows (oldest first): the inter-mineral breccias IBX2 and IBX1; the later mineral breccias PBX and DIA; and finally the post-mineral breccia INBX (BDP).

### 7.2.3 Alteration

Hydrothermal alteration, typical of porphyry copper-gold mineralization, is common within the Project area and Caira (2005) identifies the six most common alteration facies: potassic, intermediate argillic, phyllic, argillic, propylitic and calc-silicate. The following summarizes the alteration facies, as described by Caira (2005, after McCrea, 2006).

**Potassic Alteration** - An early-stage, unmineralized and barren hornfelsing resulted in pervasive biotite alteration in the basement andesite volcanics that is seen in xenoliths in an igneous

breccia phase. This alteration type generally coincides with the most intense copper mineralization, particularly along igneous contacts and where multiple vein events occur. In addition, isolated areas of albite-quartz alteration occur and may be a subset of potassic alteration.

**Intermediate Argillic Alteration** - This is comprised of sericite-illite/smectite-haematite that overprints potassic alteration in most of the drill holes where igneous phases predominate. Locally, isolated remnant islands of darker, biotite-bearing potassic alteration can be seen in an overall softer, lighter coloured texture of enhanced intermediate argillic alteration. In addition, this alteration type is seen in some igneous clasts and in narrow injections of diorite in the historical open cut area.

**Phyllic Alteration** - An extensive phyllic alteration overprint is dominant along structural corridors and at structural intersections. It is generally coincident with elevated induced polarization chargeability that trend north-northwest – south-southeast and east-northeast – west-southwest. This alteration type occurs in copper-gold skarn mineralization and is comprised of pervasive quartz-(sericite)-clay-pyrite-tourmaline assemblages with coincident chalcocite-covellite-digenite mineralization. In addition, thin phyllic veins host pervasive quartz-sericite-pyrite alteration envelopes, locally throughout the Project Area.

**Argillic Alteration** - This occurs in fault zones and variably within the upper leached part of the system where it is intermixed with the phyllic overprint. It is typically comprised of a clay-pyrite-goethite-limonite assemblage.

**Propylitic Alteration** - This is comprised of a chlorite-epidote-pyrite-calcite assemblage. It occurs in the late-stage andesite pyroxene (APP) igneous phase and in veins in the late-stage, fine grained AFP igneous phase, most commonly in the Montaña de Cobre y Oro Zone. In addition, epidote-pyrite-calcite occurs in close proximity and overlaps with calc-silicate alteration and mineralization in the GOSZ.

**Calc-Silicate Alteration** - This coincides with strongly calcareous arenite conglomerate in the vicinity of a series of low-angle and high-angle fault intersections near narrow diorite porphyry sill and dikes. Elsewhere, calcareous cemented conglomerate intervals are unmineralized. Skarn minerals include garnet (andradite – an iron-aluminium garnet), an apple green mineral (Ca-Ma-Fe-Al silicate) that is probably vesuvianite, as well as epidote, chlorite, calcite, manganocalcite, iron oxide, wollastonite, actinolite, tremolite, and quartz (the latter containing variable sulphides including sphalerite, chalcopyrite, pyrite coated chalcocite, silver-rich galena and tetrahedrite-tennantite).

#### 7.2.4 Structure

Coughlin (2005) describes the regional structural setting of the Project Area in an internal Company report. In summary, he states that: *'A major northwest trending fault zone, the LFZ, transects the local Altiplano and passes close to the Project area. The LFZ is characterized by a parallel alignment of high-energy, coarse grained sedimentary rocks of upper Cretaceous age,*





which suggests that the LFZ might have imparted some control over their distribution. The sedimentary sequences have been tightly folded at least once (likely twice in some places) by subsequent, fault-controlled Andean (Tertiary age) deformation, which, as suggested by chronostratigraphy and cooling ages, commenced in the Pinaya region during the middle Eocene (i.e. approximately 34 to 30 million years ago)'.

The Project Area is located at the apex of a major northeast-convex curved and apparently westward verging fault zone that is reflected in the stratigraphy and in regional fold trends. The fault itself is marked by a dip/facies change in the upper Cretaceous clastic sequence and is 'obvious as a zone of locally higher brittle strain in hangingwall' rocks' (Coughlin, 2005). This apparent curvature may either represent a northward bend in the LFZ itself (on published, 1:100k scale maps the LFZ does not appear to continue further westward of this point) or it may have developed due to the linkage and interaction of the LFZ with subsidiary north-south fault zones. Northwest to north-south linkage points or curves along Andean-age fault zones are considered to be important regional-scale, focal points of magmatic centres, strain, uplift and mineralizing fluids, hence the focal points for porphyry and epithermal styles of mineralization.

Bradley (2004), Coughlin (2005) and Caira (2005) completed property-scale structural mapping; Murphy (2006) completed an ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer) image interpretation. The results show that folding is not obvious across the Project Area, except on a regional scale. Minor folding is, however, evident near fault structures.

The country rocks in the northern part of the Project Area strike northwest and have moderate to steep dips. In the southern part of the Project Area they strike west northwest and have steeper dips. Faulting has been repetitively active throughout the local geological history. It cuts all the known lithologies, except the overlying ignimbritic rocks, and both pre-dates and post-dates the known mineralization.

Coughlin (2005) and Caira (2005) both indicate the presence and importance of a northeast-southwest trending set of cross-structures. Caira (2005) points out that 'veins of chalcocite have been observed following this orientation'. Both Coughlin and Caira recommended strongly that the hypothesis should be tested by diamond drilling across the uniform direction of drilling (for example, see Figure 8), but their recommendations were not followed.

The author agrees that potentially enriched mineralized cross-structures might have been missed as a result of the uniform direction of drilling employed across the vast majority of the drilled Project Area. It is, therefore, recommended that the existence of mineralized cross-structures is tested within the scope of any future drilling program.

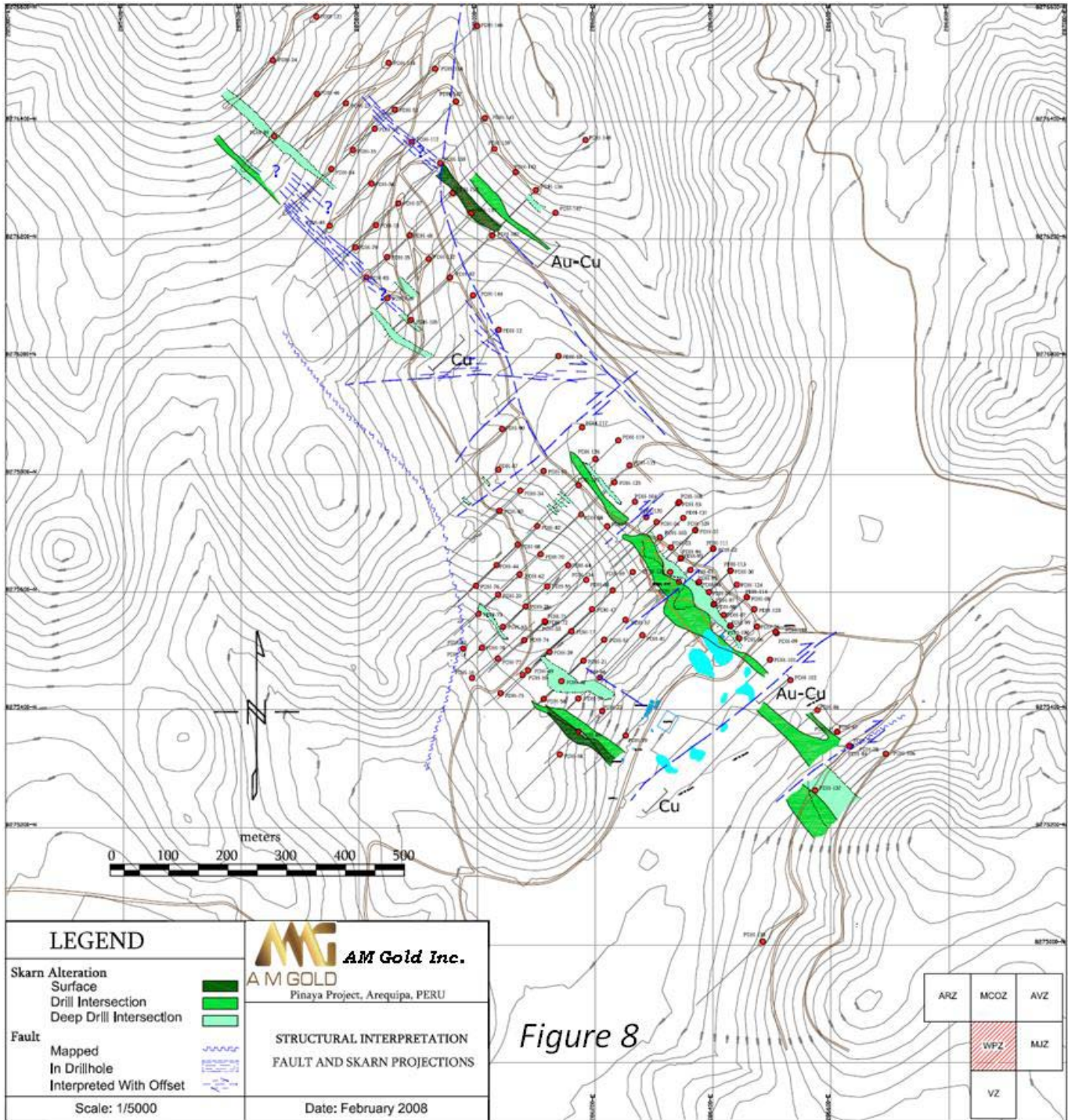


Figure 8

**8 DEPOSIT MODELS**

The mineralized deposits located on the Project Area may be characterized as being of the porphyry copper-gold skarn and supergene types. They are described by Caira (2005 and 2006) as typical of a porphyry environment and similar to some of those found in other parts of south-eastern Peru and in northern Chile as well. They appear to be spatially related to a series of prominent, northwest-



southeast trending faults and shear zones, and genetically associated with metal-bearing hydrothermal fluids related to the emplacement of alkaline intrusions and their associated alteration zones. McCrea (2006) further suggests that the structures might be tectonically related to either the LFZ or a similarly orientated, subsidiary fault. Caira (2005 & 2006) states that the copper-gold tenor with the mineralized centres '*varies according to the associated intrusive phase, structural complexities and alteration overprints*'.

As earlier outlined, the mineral deposits occur in five main zones: the GOSZ; the Pinaya Intrusive Complex (that includes the North-Western Porphyry, WPZ and Vizcachani Zone), the MCOZ, the Pedro Dos Mil Mineralized Complex (that includes the Minas Jorge and Pedro 2000 mineralized occurrences, which might be structurally linked with the MCOZ); the Saitocco Zone; and the Los Vientos and Antaña Este Zones. Little is currently known about the Antaña Este Zone that was identified from the results of an IP survey and into which two trenches only have been cut. The other nine mineralized zones may be classified into three main types: copper-gold deposits associated with skarn zones (mainly the GOSZ); classic porphyry copper-gold deposits; and copper-gold deposits in sheared and oxidized country rocks (mainly in the area of the MCOZ).

### **8.1 Gold Oxide Skarn Zone**

The Gold Oxide Skarn Zone is hosted in faulted and sheared quartz arenite and thermally metamorphosed conglomerate along a northwest-south east trending fault zone with a moderate dip to the northeast. Mineralization is preferentially developed along bedding planes, fractures and shears and is cut by narrow, post-mineral diorite dikes and sills (McCrea, 2006).

### **8.2 Porphyry Copper-Gold Deposits**

The porphyry copper-gold deposits are spatially and genetically associated with multi-phase intrusive events. The main porphyry copper-gold deposits found thus far occur in the Pinaya Intrusive Complex that Caira (2005) describes as being defined by multi-phase diorite to tonalite porphyry and a series of late-stage andesite porphyry dikes. At least six phases and multiple breccias have been identified. Locally, the diorite porphyry phases are truncated by faults that are locally exploited by a post-mineral, biotite phyrlic dacite porphyry plug, which is either a possible intrusive equivalent of the locally preserved biotite dacite ignimbrite blanket or a late-phase of the Pinaya Intrusive Complex. Weathering of the porphyry copper-gold deposits and the skarn centre overlapped with the deposition of the ignimbrite blanket.

Little is currently known about the Pedro 2000 and Minas Jorge mineralized occurrences, due mainly to the fact that to date their exploration has been limited to surface trenching only. The preliminary indications are that, together with the MCOZ, they occur within a broad structural belt and comprise a series north-northwest - south-southeast trending, copper-gold (plus silver) mineralized lenses, that are approximately 800m long and approximately 200m wide.

Initial reconnaissance work carried out across the Saitocco Zone indicates the presence of two intrusive bodies of intermediate composition with strong intermediate argillic alteration. There is

common malachite and chrysocolla staining along with copper oxides in the intrusives, which mineralization appears to be mostly constrained to northeast – southwest and west-northwest – east-southeast trending fracture zones (unverified by the author).

### 8.3 *Montaña de Cobre y Oro Zone*

The MCOZ appears to be part of the upper distal portion of an oxidized magma chamber where fracture filling, copper-gold deposits are apparently controlled by the intersection of north-northwest – south-southeast trending, steeply dipping faults and shears with steeply dipping bedding planes and east-northeast trending, steeply dipping dextral cross-faults (Caira, 2006). The GOSZ is in some respects similar to the oxidized cap of the MCOZ, but it is interpreted as an oxidized skarn that is more proximal to the magma source.

Initial reconnaissance work carried out across the Los Vientos Zone shows that it is developed in greywacke sediments, as seen in seven trenches that were excavated and sampled in 2007. The Zone contains abundant bedding plane structures orientated northwest, that are similar in style to the MCOZ.

## 9 MINERALIZATION

The following was primarily summarized from McCrea (2006), with contributions from Caira (2005 & 2006, and Pothorin (2008):

### 9.1 *Gold Oxide Skarn Zone*

Mineralization in the GOSZ is hosted by an outer, cooler temperature assemblage of specularite-pyrite transitioning with higher temperature andradite garnet skarn, in phyllic alteration, that is dominated by pyrite-chalcopyrite-sphalerite-galena-tetrahedrite. A deeper vesuvianite assemblage exists, below which narrow intermediate argillic altered dikes/sills host chalcocite veins that are up to one centimeter in width. Secondary supergene copper mineralization, including chalcocite and covellite, commonly occurs in association with metamorphosed country rocks and with local andradite garnet to vesuvianite skarn mineralogy.

### 9.2 *Porphyry Copper-Gold Deposits*

Caira (2006) describes at least three igneous phases that host differing intensities of mineralization, quartz veining and resultant copper grades in the Pinaya Igneous Complex:

- the earliest phase (crowded diorite porphyry [CDP], diorite porphyry [DIP] and feldspar porphyry tonalite [MFP]) contains the most intense quartz veining;
- the intermediate phase (andesite feldspar porphyry [AFP] hosts copper oxides and, locally, native copper; and
- the latest phase (biotite dacite porphyry [BDP]) lacks both copper and gold mineralization.

Early potassic alteration is severely overprinted by both an intermediate argillic (illite/smectite) and phyllic (sericite-quartz-pyrite-tourmaline) assemblages. Both of the later alteration events

aided in the supergene and hypogene enriched mineralization transition from chalcopyrite-pyrite to a pyrite-chalcocite-covellite-digenite assemblage that extends for up to 200 metres in depth (McCrea, 2006). Late stage phyllic alteration post dates the skarn mineralization and is probably responsible for most of the supergene copper and gold enrichment zones (Caira, 2005).

The chalcocite-covellite-pyrite mineralization enrichment blanket is both supergene and hypogene enriched. The chalcocite appears to have formed at the expense of pyrite, covellite at the expense of chalcocite and digenite at the expense of covellite. Caira (2005) also notes that the enriched hypogene copper mineralization (typically 0.65% to 8.37% Cu) might result in a series of mineralized bodies that are likely to be amenable to solvent extraction/electro-winning treatment to recover copper. However, given the gold content, conventional milling and flotation might be more appropriate method.

The Pedro 2000 and Minas Jorge mineralized occurrences are dominated by potassic alteration with co-extensive copper mineralization in hypogene chalcopyrite-covellite mineralization in a megacrystic, tonalite porphyry. Sheeted quartz-magnetite-orthoclase veins are common in the area, which are coincident with two magnetic susceptibility anomalies that measure several hundreds of metres in length.

### **9.3 Montaña de Cobre y Oro Zone**

The MCOZ is located within an area of relatively low magnetic susceptibility that is coincident with a magnetite destructive zone with specularite-pyrite-chalcopyrite mineralization in phyllic alteration. According to Caira (2006), the geochemical footprint, that covers an area of 300m by 650m, is defined by gold values of between 0.50g/t and 18.56g/t Au, in addition to tungsten, bismuth and barium. Historic trenches and small mine workings, that are up to 50m deep, are present in the anomaly area. According to Caira (2006), free gold can easily be panned from veins that commonly grade between 1 and 5g/t Au, but can be as high as 18.56g/t Au. Most of the high gold grades are near fault zones, lithological contacts, and at phyllic-propylitic transition zones.

Within the Los Vientos Zone, strong gold values occur in narrow structural zones, with abundant limonite and goethite. Alteration tends to occur as narrow, argillic envelopes to the structural zones. Gold values of up to 10.7g/t have been found along with elevated silver values that commonly exceed 1g/t Ag.

## **10 EXPLORATION**

### **10.1 2004 to 2006 Activities Overview**

The Company's exploration effort commenced in mid-2004 with a number of intermittent programs, including prospecting, property-scale mapping and sampling, ground magnetic geophysical surveys, induced polarization ("IP") geophysical surveys, soil geochemistry, trenching, and diamond drilling.



Prior to 2005, exploration planning was centred on a structurally controlled epithermal model. McCrea (2006) notes that geologist Geoffrey Keyte applied a porphyry copper-gold model in the Company's internal reports that considered the results of the 2004 exploration program. Keyte also concluded, following examination and interpretation of the available data, that a buried porphyry system was a more likely deposit model. It is a porphyry model that has since formed the basis for the Company's exploration work, which work has substantiated Keyte's interpretation and geological model.

#### 10.1.1 *Geology and Rock Sampling*

Surface mapping results are documented by Bradley (2004), Coughlin (2005) and Caira (2005) as property-scale maps and accompanying reports. Key elements of the outcomes of this work are presented in Section 7.2 in which the regional and property structural settings are described.

In December 2005, a geological mapping and rock sampling program was carried out across the MCOZ. A total of 34 rock samples returned gold assay values greater than 300ppb, including 21 samples with gold assay grades greater than 1,000ppb and 11 samples with gold assay grades greater than 5,000ppb. Fire assay results for the 11 anomalous samples returned gold values of between 6.04g/t and 18.56g/t. Locally, gold has been found to be coincident with up to 4,281 g/t Ag, 3.85% Cu, 1.0% Pb and 1.49% Zn.

A total of 71 rock samples were collected from weathered surface exposures within the area of the Pedro 2000 mineralized occurrence, which returned an average grade of 0.30% Cu. To the northwest, nine widely spaced samples collected from outcrops returned an average grade of 0.90 g/t Au and 0.08% Cu.

A total of 2,079 rock samples were collected from surface exposures and outcrops over the WPZ, which returned average grades of 122ppb gold and 739ppm copper.

#### 10.1.2 *Geophysical Surveys*

Four ground geophysical programs were carried out up to and including 2006, by Val D'Or Geofisica del Peru S.A.C. of Lima, Peru ("VDG"), on behalf of the Company (Pineault, 2006 and 2007). The first program consisted of ground magnetics; the second and third programs consisted of IP surveys. The fourth program comprised a limited IP survey that was targeted at testing the potential for a hypogene zone at depth. Summaries of the Company's geophysics programs are presented in McCrea (2006) and Blanchflower (2006).

The following is modified after McCrea (2006):

Grids were established to cover most of the Antaña, La Porfia, Don Pedro 2000 and Panchito concessions, as well as parts of the Fiorella 2003 and Tesalia concession areas (i.e. the central portion of the Company's overall concession area, where the main mineralized occurrences are located).

**Magnetic Survey** - A total of 110.2 line kilometres were surveyed covering an area measuring 4.0km by 4.7km. The lines were orientated east-west and were spaced at 100m intervals, with

reading stations spaced every 50m along the lines. The results showed that the general orientation of the main magnetic trends strike is in a northwest direction. Spikey profiles were found in the central portion of the grid, which were interpreted as being caused by the presence of narrow intrusive sills and dikes.

**Induced Polarization Surveys** – the IP surveys were conducted in a pole-dipole array with a spacing of 50 metres and six separation factors. The first two surveys were read at along 100m spaced lines, at 50m intervals. It was estimated that the penetration depth was about 125m below surface. The drill-defined mineralized zones and the geology-defined sectors of interest were known to extend to greater depths, so the third IP survey was carried out using newly developed, deep survey techniques that allowed for an estimated penetration depth of 300m. In this latter case, the IP survey was read every 50m over selective traverses covering favourable ground, on lines spaced at 200m intervals. The electrode array used for purposes of all three surveys was the Pole-Dipole-Pole array (McCrea, 2006).

Eleven IP anomalies were outlined and the deep IP survey detected an additional five new chargeability anomalies, three of which extend to depths of 200 metres below surface. The three deep IP anomalies were interpreted to represent sulphide occurrences and thereby were considered to constitute excellent drill targets (McCrea, 2006).

### 10.1.3 Soil Geochemistry

Details of the Company's 2004 through 2006 soil geochemistry surveys are presented in Agreda (2006):

Two soil sampling programs were carried out in 2004 and 2005:

- between October and December 2004, 1,569 B-horizon soil samples were collected, including 432 samples on 25m centres around the historical open cut area and 1,137 samples on 50m centres on the Antaña and La Porfia concessions, as well as part of the Fiorella 2003 concession; and
- during June and July 2005, 755 B-horizon soil samples were taken on 50m centres over the Antaña, La Porfia, Don Pedro 2000 and Panchito concessions, as well as part of the Tesalia concession.

The sampling areas took advantage of the grids used for the geophysics surveys earlier outlined. Caira (2005 and 2006) suggests that copper anomalies may best be identified by assuming a 50 to 100ppm Cu. A total of five copper zones were identified from the 2004 to 2006 (Figure 9):

- the northwest trending main anomaly (centred on the Antaña concession) that covers the approximate area of the GOSZ and WPZ – it is approximately 800m wide and about 1,300m long (which anomaly is roughly coincident with an intense and deep IP resistivity anomaly that extends over 2.9km in length from south of open cut to north of the MCOZ);
- a secondary anomaly to the north of the Antaña concession that extends for approximately 700m over an approximate width of 50m to thereby cover the general area of the NPZ;

- a northern anomaly (located in the northern portion of the La Porfia concession) that trends to the northwest for about 900m over an approximate width of 400m and covers the approximate area of the MCOZ (which anomaly is roughly coincident with magnetic and IP chargeability geophysical anomalies);
- an anomaly to the south of the GOSZ (i.e. immediately to the east of the Antaña concession) that covers what is now known as the Vizcachani Zone (the anomaly trends approximately north-south and has an approximate length of 700m and an approximate width of 400m); and
- an anomaly to the east of the GOSZ (in the Don Pedro 2000 concession) that trends north-south, has approximate dimensions of 600m by 400m (width) and is centred on the Minas Jorge and Pedro 2000 mineralized occurrences (which anomaly coincides with a strong, 400m long IP geophysical response).

Caira (2005, 2006) suggests that gold anomalies may best be identified using a 50ppb Au lower assay threshold. On this basis, gold anomalies with similar trends, sizes and distributions to those outlined for copper may be identified, albeit that the Minas Jorge/Pedro 2000 gold anomaly is only weakly defined. The strongest anomaly is clearly centred on the GOSZ and WPZ. The results also identify an anomaly to the east of the Vizcachani Zone (in the eastern portion of the La Porfia concession) that had thus far not been satisfactorily explained, but might be a GOSZ-parallel.

#### 10.1.4 Trenching

The Company undertook two trenching programs between 2004 and 2006, mainly on the WPZ and NPZ: the first between March and July 2005; and the second between June and August 2006. During the first program:

- 37 trenches completed by Minsur in 1999 (2,981m) were rehabilitated and sampled, including seven trenches on the MCOZ (PTR-12, -39, -40, -41, -42, -50 and -54); and
- 44 new trenches were cut (totalling 7,289m), including four trenches (PTR-65 to PTR-68, inclusive, on the MCOZ).

During the second program, a further 12 new trenches were cut (PTR-74 to PTR-85, totalling 2,234m) over the WPZ (PTR-74 and -75), the GOSZ (PTR-76 to -81), the MCOZ (PTR-84) and over ground magnetic anomalies located 1.5km to the east of the GOSZ (PTR-82, -83 and -85).

The objective of each of the trenching programs herein outlined was to discover intersections of porphyry-style, copper-gold mineralization, as well as to facilitate to location of exploration drill holes. Highlights of the trenching results are listed in Table 4:



<b>Table 4:</b>							
<b>Summary of 2005 and 2006 Trench Assay Results</b>							
<i>Trench Number</i>	<i>Sample Length</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Trench Number</i>	<i>Sample Length</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>
PTR-1	70	0.28	0.77	PTR-42	47.5	0.15	0.01
PTR-2a	70	0.25	0.15	PTR-43	27.5	1.03	0.14
PTR-2b	70	0.12	0.14	PTR-45	20	0.09	0.01
PTR-3	72.5	0.09	0.17	PTR-46	36.5	0.13	0.02
PTR-4a	42.5	0.12	0.16	PTR-47	27.5	0.13	0.02
PTR-4b	40	0.23	0.1	PTR-49	35	0.11	0.11
PTR-5a	22.5	0.05	0.01	PTR-50	50	0.25	0.01
PTR-5b	17.5	0.12	0.03	PTR-51	30	0.15	0.15
PTR-6a	45	0.11	0.01	PTR-52a	25	0.15	0.09
PTR-6b-1	60	0.21	0.05	PTR-52b	17.5	0.23	0.04
PTR-6b-2	45	0.13	0.01	PTR-56a	32.5	0.16	0.06
PTR-7a	47.5	0.15	0.24	PTR-56b	27.5	1.16	0.06
PTR-7b-1	67.5	0.15	0.07	PTR-57	40	0.21	0.49
PTR-7b-2	22.5	0.28	0.73	PTR-58ne	50	0.12	0.02
PTR-8	87.5	0.18	0.31	PTR-58sw	70	0.09	0.01
PTR-9	77.5	0.48	0.32	PTR-59	20	0.16	0.36
PTR-10	17.5	0.22	0.02	PTR-60	17.5	0.35	0.66
PTR-13	15	0.18	0.05	PTR-61	12.5	0.46	0.56
PTR-14b	22.5	0.12	0.02	PTR-65a	30	0.27	0.01
PTR-15b-1	25	0.17	0.07	PTR-65b	21	0.21	0.02
PTR-15b-2	27.5	0.13	0.08	PTR-65c	21	0.13	0.01
PTR-16	50	0.35	0.08	PTR-66a	51	0.44	0.06
PTR-19	40	0.12	0.01	PTR-66b	45	0.39	0.02
PTR-22	30	0.56	0.09	PTR-67	48	0.15	0.02
PTR-23	60	0.29	0.1	PTR-68a	42	0.08	0.03
PTR-24a	17.5	0.28	0.03	PTR-68b	36	0.3	0.02
PTR-24b	17.5	0.35	0.11	PTR-73	27	0.11	0.02
PTR-24c	12.5	0.19	0.17	PTR-74	95.99	0.15	0.02
PTR-26	27.5	0.19	0.02	PTR-75	29.43	0.3	0.03
PTR-27	30	0.27	0.06	and	18.39	0.1	0.01
PTR-28	57.5	0.32	0.05	PTR-76	95.23	0.04	0.02
PTR-30	15	0.45	0.02	PTR-77	55.37	0.03	0.03
PTR-32	95	0.16	0.02	and	90.83	0.03	0.02
PTR-34a	27.5	0.23	0.03	and	61.49	0.03	0.02
PTR-34b	80	0.28	0.05	PTR-78	125.31	0.44	0.09
PTR-35	25	0.1	0.02	PTR-79	24.01	0.01	0.01
PTR-37	30	0.05	0.01	and	54.31	0.01	0.01
PTR-38	17.5	0.09	0.01	PTR-82	122.28	0.21	0.03
PTR-39	22.5	0.09	0.02	PTR-83	134.64	0.14	0.01
PTR-40	17.5	0.12	0.02	PTR-85	48.7	0.05	0.01

Table 4: <i>Summary of 2005 and 2006 Trench Assay Results</i>							
<i>Trench Number</i>	<i>Sample Length</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Trench Number</i>	<i>Sample Length</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>
PTR-41	20	0.16	0.03	-	-	-	-

The trenches highlighted in **GREEN** were first cut by Minsur in 1999, on the MCOZ

The trenches highlighted in **RED** were newly cut by the Company, on the MCOZ

The trenches highlighted in **BLUE** were newly cut by the Company in 2006

McCrea (2006) notes that while no difficulties were experienced when identifying rock types in weathered material, alteration presented a more difficult proposition. Pheoncryst-selective secondary biotite is ubiquitous in both trench and drill hole porphyry intersections. Silicification and free quartz veining were observed, but extensive quartz-magnetite stockwork were absent from the porphyritic rocks encountered in the trenches. McCrea (2006) also notes that there is, by contrast, abundant disseminated haematite that also occurs in veinlets and the better intersections were almost always characterized by chrysocolla and malachite. However, the trenches often had to be deepened by two to three metres before these minerals were observed. Occasionally, chalcocite was identified. Pyrite was almost completely absent from the (deepened) level in the exposed weathering profile.

#### 10.1.5 Diamond Drilling

Up to the end of 2006, the Project Area had been tested by an estimated 133 diamond drill holes over eight drilling campaigns completed by Minsur and the Company. Details of the Company's drilling programs are presented in Section 11.

**Minsur** completed a minimum of 41, NQ diameter diamond drill holes on the Project area (metres unknown). According to McCrea (2006), the holes were orientated along an azimuth of 230° to 235° with dips of between -50° and vertical. Canper's personnel have located and surveyed 37 Minsur drill hole collars; DDH-041 has been identified as the highest drill hole number inscribed on the cement collar markers, thereby obviously suggesting that Minsur drilled at least that many holes. The drill core was reportedly stored at Juliaca, Peru, but is unavailable for review (McCrea, 2006). None of Minsur's drill hole data was, therefore, included in either of the Mineral Resource estimates completed to date. None of Minsur's drill holes are considered further.

**Canper** completed 92 diamond exploration drill holes in six drilling campaigns between November 2004 and the end of the 2006 exploration season (drill holes PDH-001 to -092, totalling 21,350.35m). The locations of the holes were based largely on the results of the trenching and geophysical surveys earlier outlined. The majority of the drilling was directed along an azimuth of 225° with dips of -50° to -60°, to 'optimize the intersection of both the stratigraphy and the majority of faulting with which the known mineralization is spatially associated'.

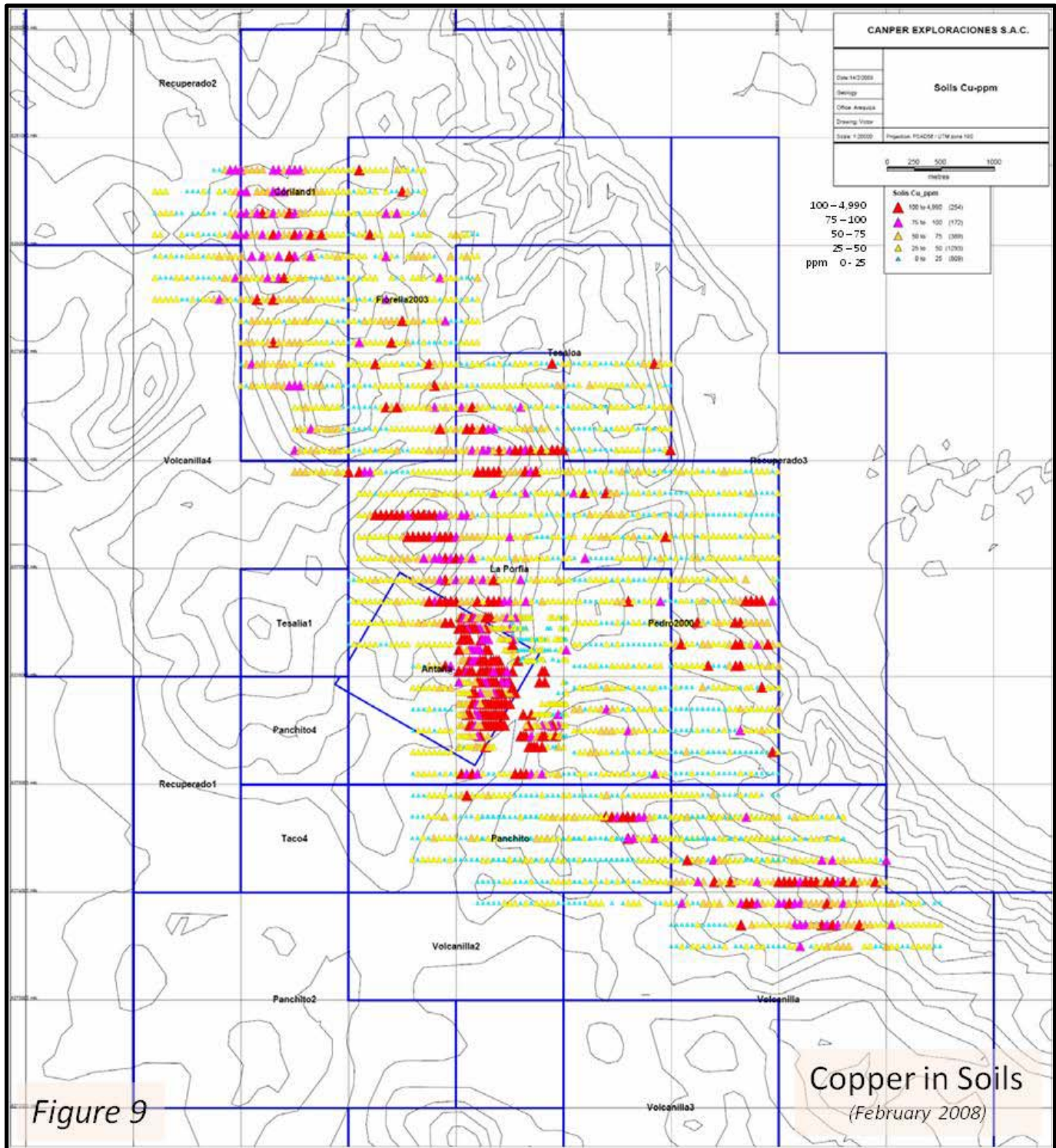
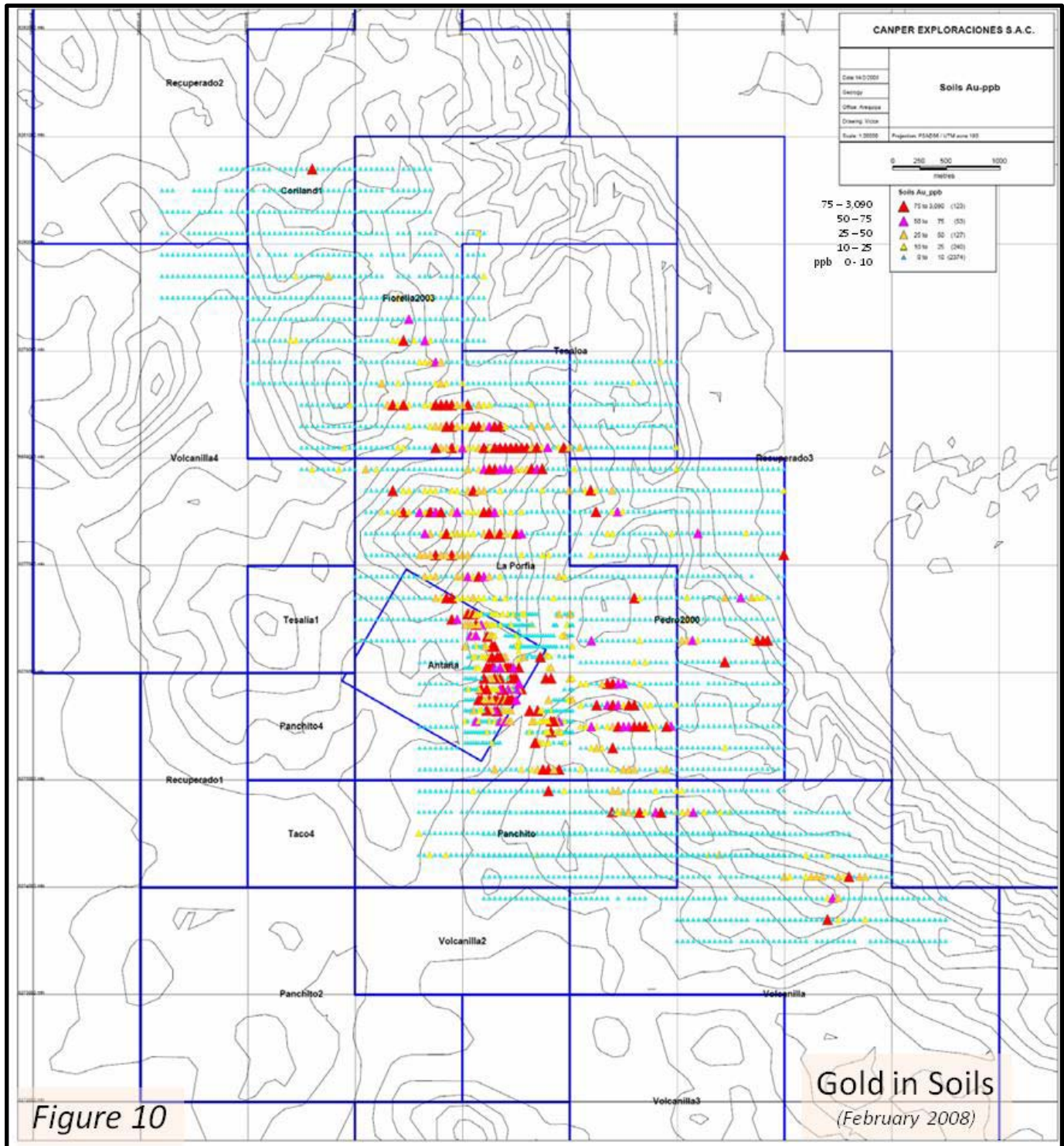


Figure 9







## 10.2 2007 and 2008 Activities Overview

The Company's 2007 and 2008 exploration programs comprised soil geochemistry surveys, a trenching program, and diamond drilling. The 2008 diamond drilling program represents the last exploration program carried out by the Company on the Project Area. Following completion of the 2008 drilling program, a total of 160 holes had been drilled by the Company for a cumulative total of some 46,430m.

### 10.2.1 Soil Geochemistry

Early in 2007, the Company started a geochemical soil survey that covered parts of the Project Area that had not previously been sampled. The pre-existing soil sample grid (approximately 3km by 2km), that covers the Western Porphyry and Gold Oxide Skarn Zones, was extended to the northwest by approximately 2.3km by 800m and to the southeast by approximately 4km by 1.4km. The objective was to extend the grid to cover the northwest and southeast extensions of the Tertiary Puno Group, which hosts the then known copper-gold mineralization.

A total of 991 soil samples were collected from the new grid areas and were assayed for 36 elements by acid digestion (Aqua Regia) followed by an Inductively Coupled Plasma ("ICP") finish:

- the assay results for the north-western grid extension area revealed an anomalous area in copper measuring some 2.8km (length) by 400m to 600m (width) - copper values varied up to 1,513ppm and gold values up to 126ppb; and
- the assay results for the south-eastern grid extension area revealed a strongly anomalous area in copper measuring approximately 2.8km (length) by 200m to 600m (width) that remains open to the southeast - copper values vary up to 1,212.8ppm and a smaller, coincident gold anomaly reported gold values of up to 126ppm Au.

The Company further expanded the soil sampling grid during late 2007 and completed additional sampling and assaying programs, the latter being completed using the same assay methods as described above.

Figures 9 and 10 are the Company's current (dated February 2008) anomalies-in-soil plans for copper and gold, respectively. Anomalies-in-soil plans for lead and zinc are also available. These latter plans are not presented here as they do not materially affect the comments, conclusions, or data presented in this report.

### 10.2.2 Trenching

During 2007, the Company cut an additional 73 trenches (PTR-86 to PTR-158, inclusive for 11.25 km of exposure) and extended a number of earlier. A total of 7,503 channel samples, with an average width of 1.5 metres, were collected and sent to SGS Laboratories in Lima, Peru (SGS del Peru S.A.C., or "SGS Peru", ISO 9002 accredited), for analysis using the same methods as described above for the soil samples. The objective of the program was to extend, and prepare for drilling, some of the emerging target zones, such as MCOZ, Minas Jorge, Don Pedro and

Viscachani Zones. A newly discovered zone, known as Los Vientos, located approximately 700m to the southeast of the GOSZ, was also tested for the first time.

The results showed trenching to be an effective means of generating high-quality drilling targets, as well as a means of discovering of sub-surface mineralization. Field experience showed that due to weathering and leaching of surface rock, gold values in excess of 100ppm Au and copper values in excess of 100ppm Cu may be considered anomalous geochemical values that indicate the potential for potentially significant sub-surface mineralization.

The assay results are summarized in Table 5. Some data from the 2006 trenching program (the results highlighted in blue) has been included in Table 5 to emphasize that the Minas de Jorge mineralized occurrence in particular may reasonably be construed to be highly prospective. As earlier outlined, the MCOZ and the Minas Jorge and Pedro 2000 mineralized occurrences appear to be developed on the same north-northwest – south-southeast structural trend that appears to contain copper-gold (plus silver) mineralized lenses that are up to approximately 800 metres long and 200 metres wide. By 2007, of the three mineralized occurrences outlined, only the MCOZ had been explored by diamond drilling (five holes drilled in 2006).

<b>Table 5:</b>						
<b>Summary of 2007 Trench Assays</b>						
<i>(with some selected 2006 results)</i>						
<i>Mineralized Zone</i>	<i>Trench Number</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Sample Length (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>
Minas Jorge	PTR-82	26.0	98.4	72.4	0.32	0.037
	PTR-83	106.5	120.0	13.5	0.32	0.033
	and	138.0	155.3	17.3	0.46	0.057
	PTR-85	31.5	51.2	19.7	0.07	0.010
	PTR-88 Ext.	7.6	12.3	4.7	6.42	0.031
	and	21.1	30.5	9.4	0.03	0.030
	PTR-90	57.0	110.5	53.5	1.41	0.018
	PTR-91	55.5	77.8	22.3	0.17	0.017
	PTR-92	19.5	43.3	23.8	0.27	0.017
	PTR-93	36.0	63.0	27.0	0.66	0.016
PTR-115	55.9	57.4	1.5	0.29	0.060	
Montaña de Cobre y Oro (MCOZ)	PTR-101	29.4	130.8	101.4	0.08	0.013
	PTR-102	154.1	169.1	15.0	0.09	0.057
	PTR-106	27.0	42.0	15.0	0.28	0.007
	PTR-106	3.0	73.5	70.5	0.31	0.021
	Ext.					
	incl.	16.5	24.0	7.5	1.49	0.028
	incl.	48.0	67.5	19.5	0.44	0.008
	PTR-107	42.1	129.8	87.0	0.17	0.028
	PTR-108	18.0	118.0	100.0	0.17	0.010
	PTR-130	34.5	70.5	36.0	0.08	0.050
PTR-131	30.6	51.6	21.0	0.19	0.013	

<b>Table 5:</b>						
<b>Summary of 2007 Trench Assays</b>						
<i>(with some selected 2006 results)</i>						
<i>Mineralized Zone</i>	<i>Trench Number</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Sample Length (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>
	PTR-133	157.2	199.8	42.6	0.29	0.029
	and	259.9	266.6	6.7	1.35	0.008
	PTR-134	11.1	26.4	15.3	0.25	0.036
	and	34.3	56.0	21.7	0.10	0.028
	and	64.5	94.8	30.3	0.10	0.009
	and	94.8	111.3	16.5	4.13	0.010
	incl.	99.5	101.6	2.1	27.40	0.006
	PTR-135	64.5	109.4	44.9	0.50	0.024
	and	125.9	162.3	36.4	0.20	0.017
	PTR-136	97.3	119.8	22.5	0.79	0.025
	PTR-138	40.2	43.2	3.0	0.20	0.038
	and	64.1	68.3	4.2	0.30	0.014
	PTR-140	67.5	99.5	32.0	0.29	0.022
	PTR-143	51.0	62.5	11.5	0.41	0.035
	PTR-148	74.5	120.5	46.0	0.33	0.005
	PTR-149	25.5	36.0	10.5	0.25	0.006
Viscachani	PTR-76	0.0	82.0	82.0	0.04	0.022
	PTR-77	356.5	403.0	46.5	0.03	0.033
	and	442.1	542.6	100.5	0.03	0.019
	and	633.3	694.8	61.5	0.02	0.017
	PTR-78	0.0	127.3	127.3	0.03	0.024
	including	82.3	95.8	13.5	0.24	0.012
	PTR-96	0.0	52.0	52.0	0.18	0.019
	PTR-99	0.0	45.0	45.0	0.24	0.011
	and	57.0	121.5	64.5	0.11	0.008
	PTR-104	0.0	36.0	36.0	0.48	0.009
	and	52.5	79.9	27.4	0.24	0.012
	PTR-104	0.0	9.0	9.0	1.06	0.029
	Ext.					
	PTR-105	0.0	18.0	18.0	0.13	0.008
	and	50.5	64.0	13.5	0.32	0.051
	and	78.3	122.5	44.2	0.23	0.008
	PTR-120	0.0	86.0	86.0	0.16	0.014
	PTR-121	199.8	223.8	24.0	0.24	0.006
	and	226.8	285.3	58.5	0.14	0.014
Western Porphyry (WPZ)	PTR-74	unknown	unknown	96.0	0.15	0.020
	PTR-75	unknown	unknown	29.4	0.30	0.030
	and	unknown	unknown	18.4	0.10	0.010
	PTR-100	1.5	58.5	57.0	0.05	0.072
	and	98.5	172.0	73.5	0.03	0.038
	PTR-103	0.0	12.0	12.0	0.19	0.030



<b>Table 5:</b>						
<b>Summary of 2007 Trench Assays</b>						
<i>(with some selected 2006 results)</i>						
<i>Mineralized Zone</i>	<i>Trench Number</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Sample Length (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>
	and	128.0	197.0	69.0	0.11	0.055
Los Vientos	PTR-112	25.5	60.0	34.5	0.72	0.020
	incl.	40.5	49.5	9.0	2.09	0.033
	PTR-152	28.5	35.2	6.7	2.05	0.015
	incl.	32.5	33.7	1.2	10.70	0.066
	and	145.8	160.3	14.5	0.33	0.002
	and	178.8	199.6	20.8	0.45	0.017
Pedro 2000	PTR-155	0.0	56.5	56.5	0.01	0.151
	PTR-156	1.5	62.0	60.5	0.02	0.215
	PTR-157	0.0	60.5	60.5	0.02	0.134

### 10.2.3 Diamond Drilling

During 2007 and 2008, the Company completed an additional 68 diamond exploration drill holes (drill holes PDH-093 to -160 for a total of 25,188m). Details of the 2007 and 2008 drilling programs are presented in Section 11.

The locations of the 2007 drill holes were again based largely on the results of the trenching and geophysical surveys earlier outlined. The majority of the drilling was again directed along an azimuth of 225° with dips of -50° to -60° to ‘optimize the intersection of both the stratigraphy and the majority of faulting with which the known mineralization is spatially associated’.

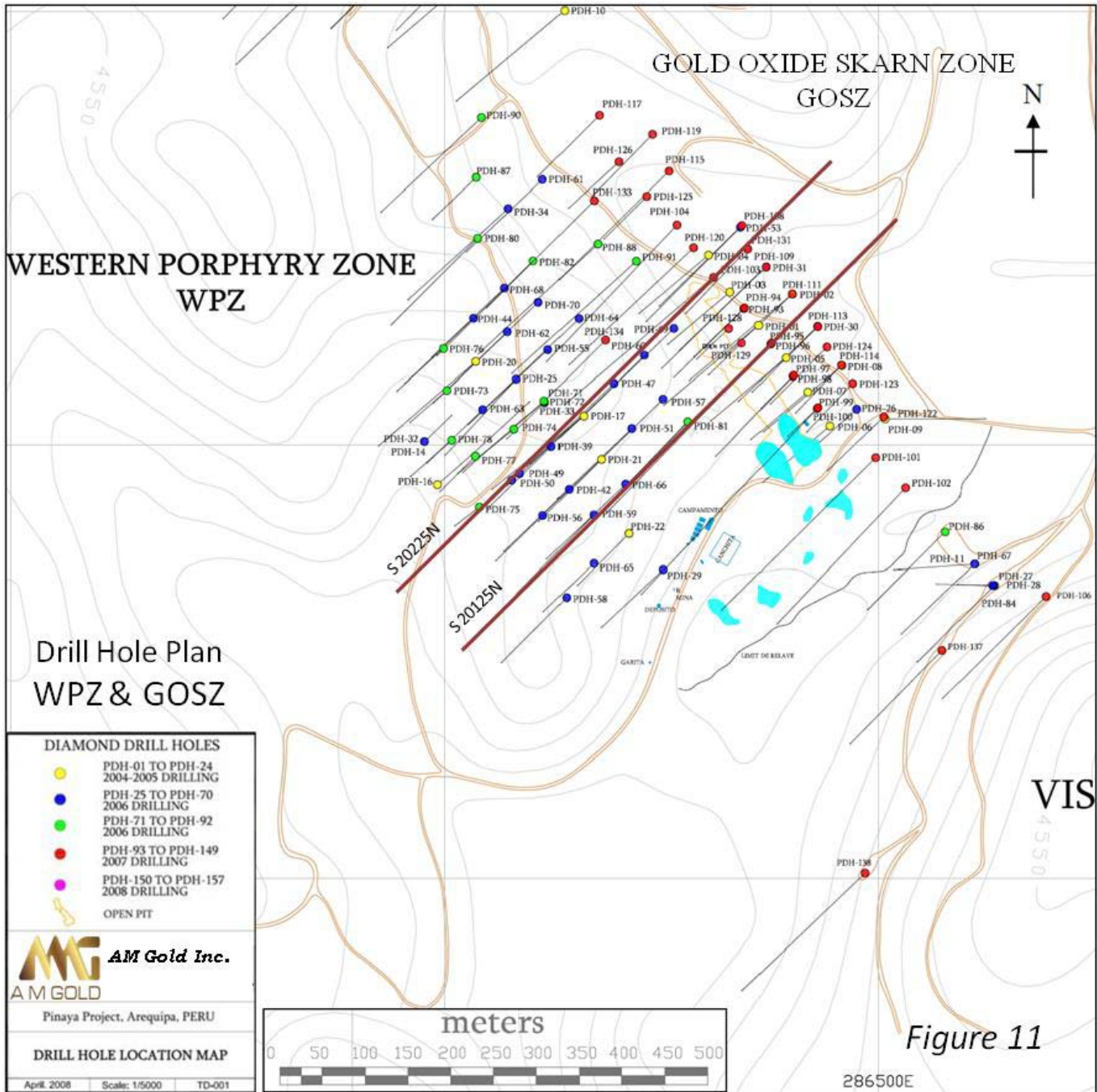
## 11 DIAMOND DRILLING

The Company contracted Geodrill S.A.C. of Arequipa, Peru (“Geodrill”), to undertake each of the 2004 through 2008 surface drilling programs earlier outlined. Geodrill initially provided two truck-mounted, E-44 hydraulic rigs (roughly equivalent to a Longyear 44, but with advanced hydraulic systems) and then an additional two, skid-mounted hydraulic LF70 rigs. The Company’s on-site Caterpillar D6 bulldozer and a small backhoe are used to establish access tracks and drilling pads.

Figures 11 through 14 (inclusive) illustrate drill hole collar locations in the following five mineralized zone areas respectively:

- Gold Oxide Skarn Zone & Western Porphyry Zone
- North-Western Porphyry Zone
- Montaña de Cobre y Oro Zone
- Minas Jorge Zone

Drill hole collars are colour-coded by year of drill program pursuant to the legend on Figure 11.



HQ diameter core was recovered from each of the holes drilled. Standpipes were cemented in place on completion of each hole, the identifying numbers for which are recorded on tin plates adjacent to the drill hole collars. The UTM collar positions and the near surface inclinations of each drill hole were surveyed by a qualified surveyor (Wenceslao Huarilloc of Arequipa, Peru). Downhole surveys were carried out using a calibrated (for magnetic declination) Flexit Smartool; downhole measurements are taken every 100m and at the end of each hole. In the case of shallow holes (those less than approximately 100m in length), measurements are taken near the holes' collars and

ends. The exceptions (for which no survey results are available) include the following (the surveyed results for individual holes were assumed to apply to the entire holes' lengths):

- drill holes PDH-001 to -011 and -013 to 015 in which no downhole surveys were carried out;
- drill holes PDH-012 and PDH-016 to -020 that were surveyed using a Reflex tool; and
- drill holes PDH-021, -022,-097, -098 and -100 to -111 for which no downhole survey instrument was available (surveys were tried at a later date, but they were not successful due to downhole caving).

In all drill programs, all core samples taken were sent to SGS Peru for 30gm fire assay and 35 element ICP analysis, and AA where required.

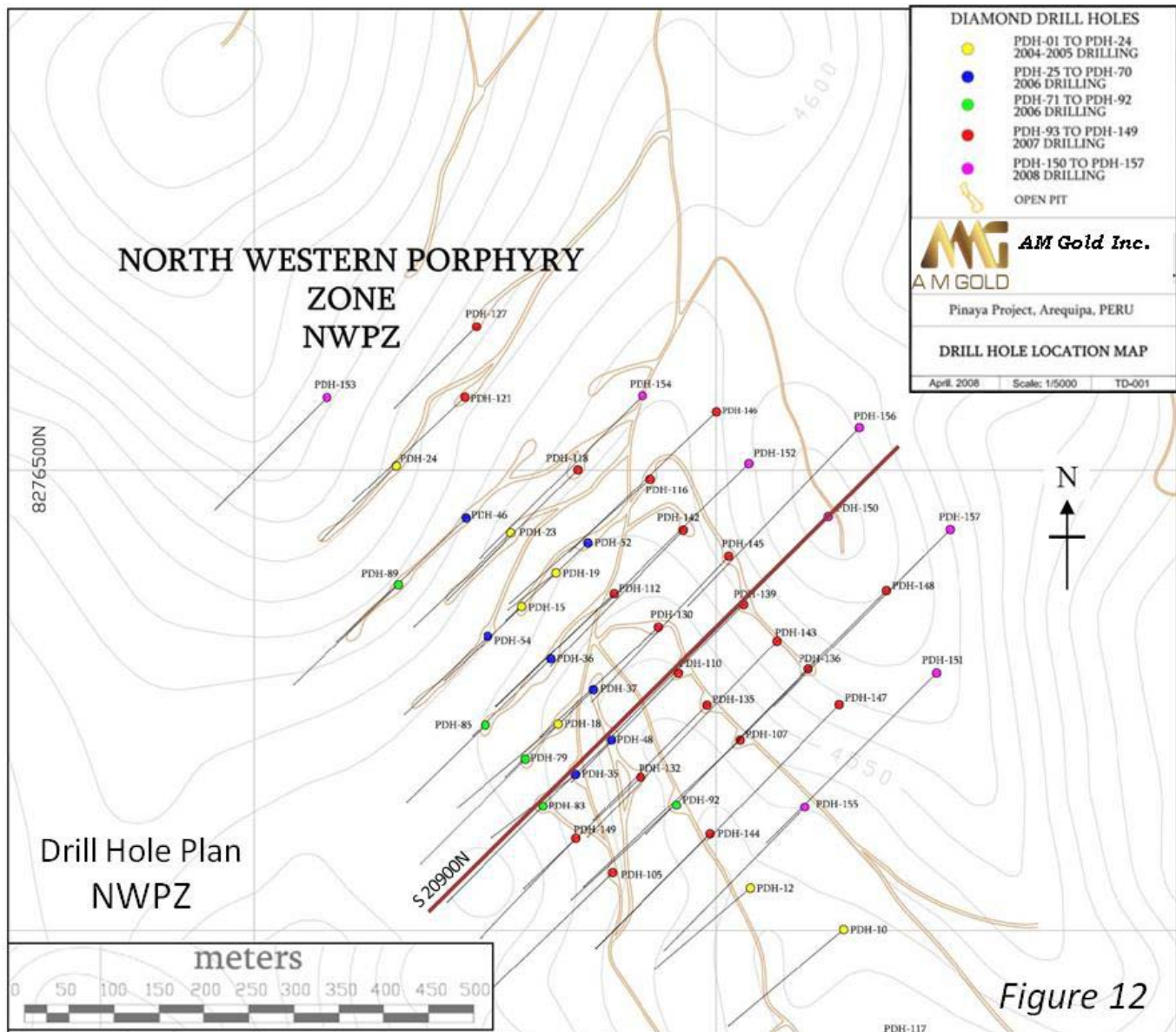
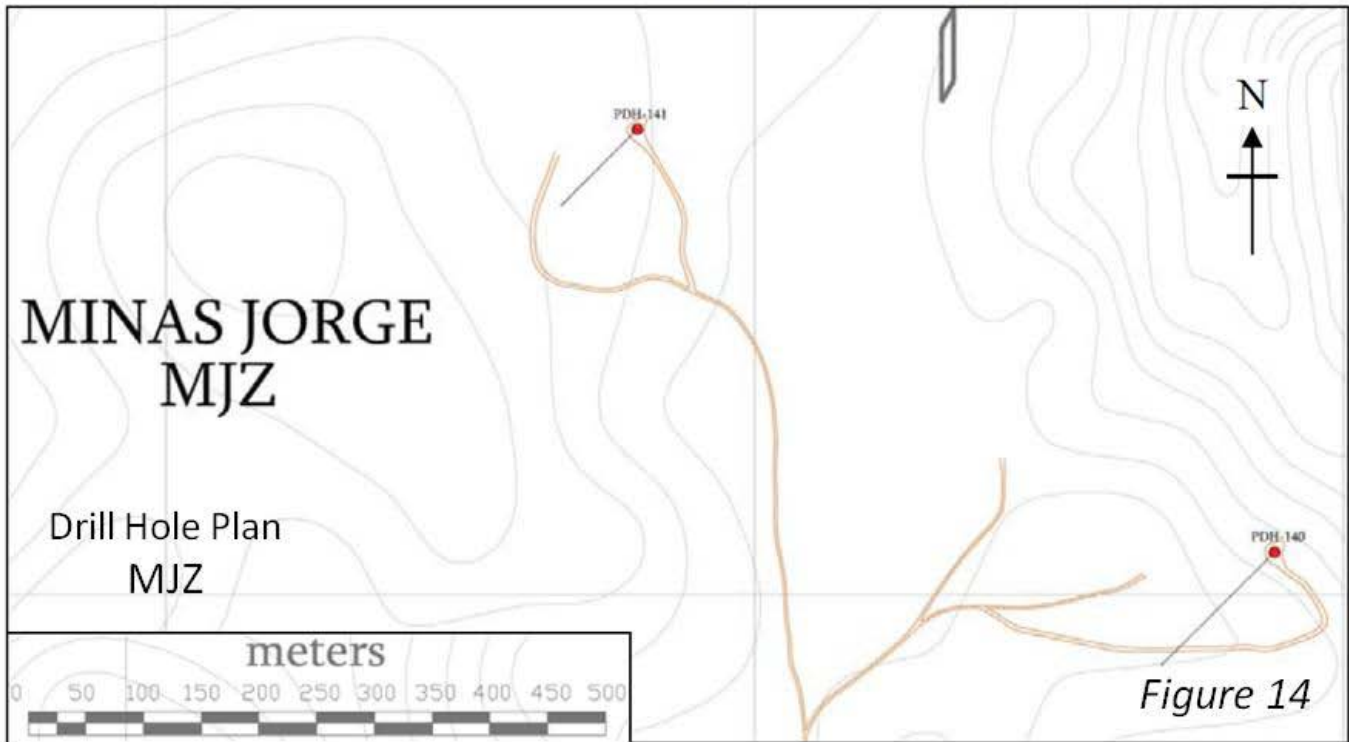
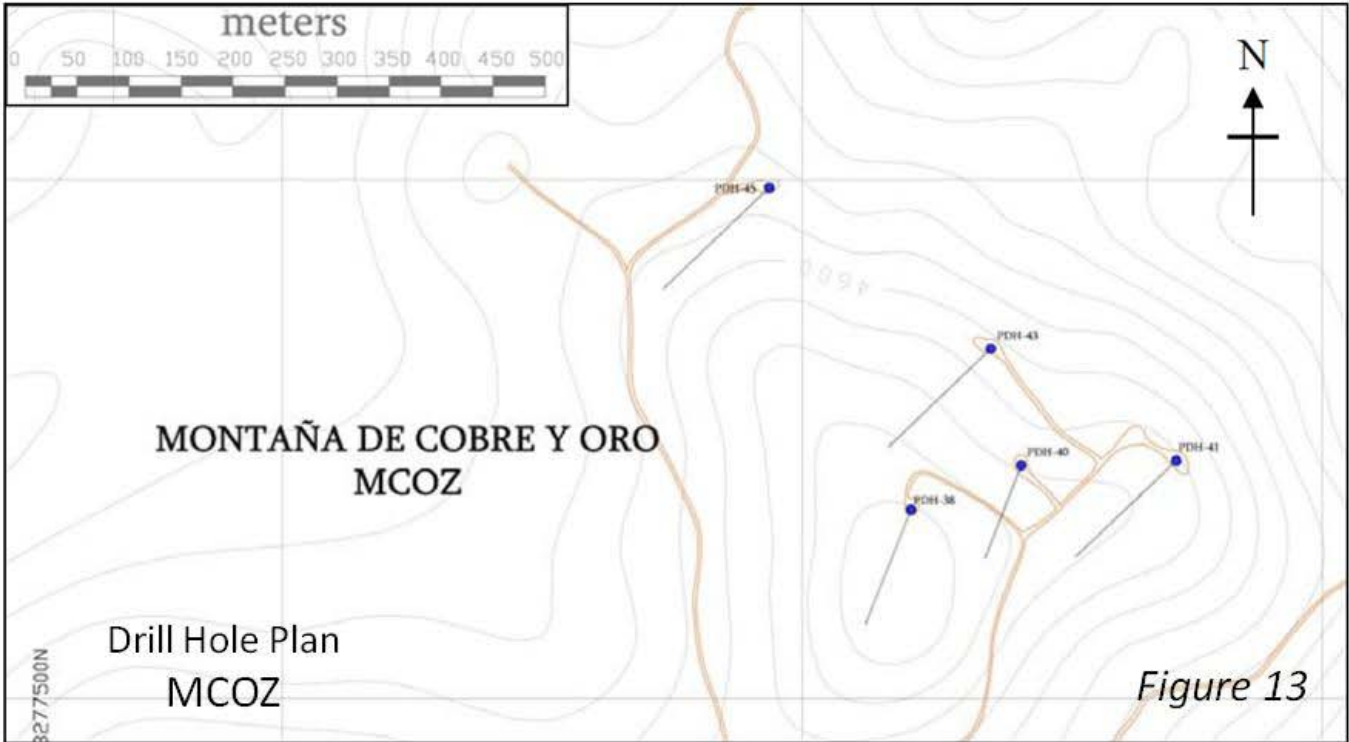


Figure 12



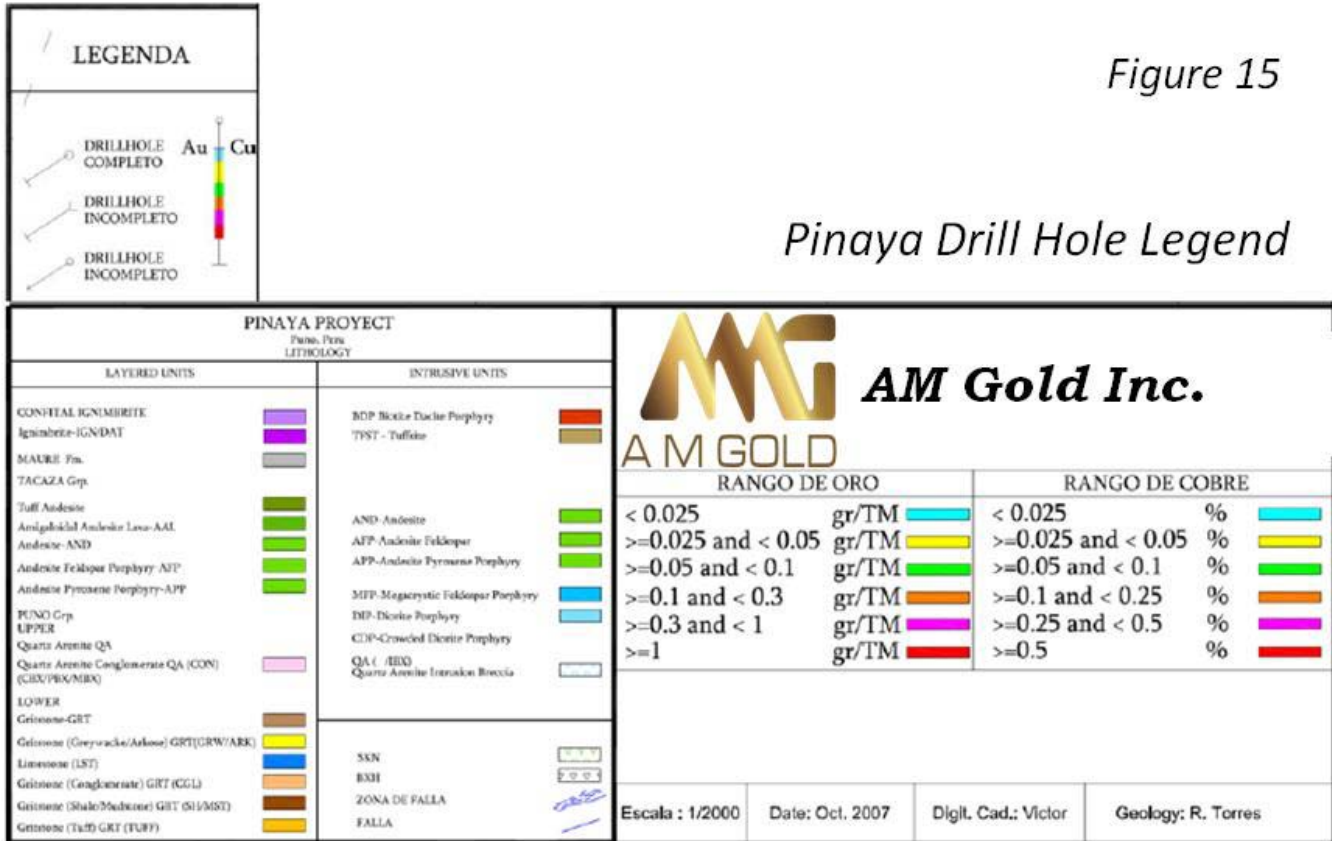


Take note that in the following drill hole intersection tables (Tables 6 through 9), the interval width given is as it is measured down-the-hole, and should not be construed as true width.



Figure 15

Pinaya Drill Hole Legend



Figures 16 – 18 illustrate cross-sections across each of the major mineralized zones. Section lines are

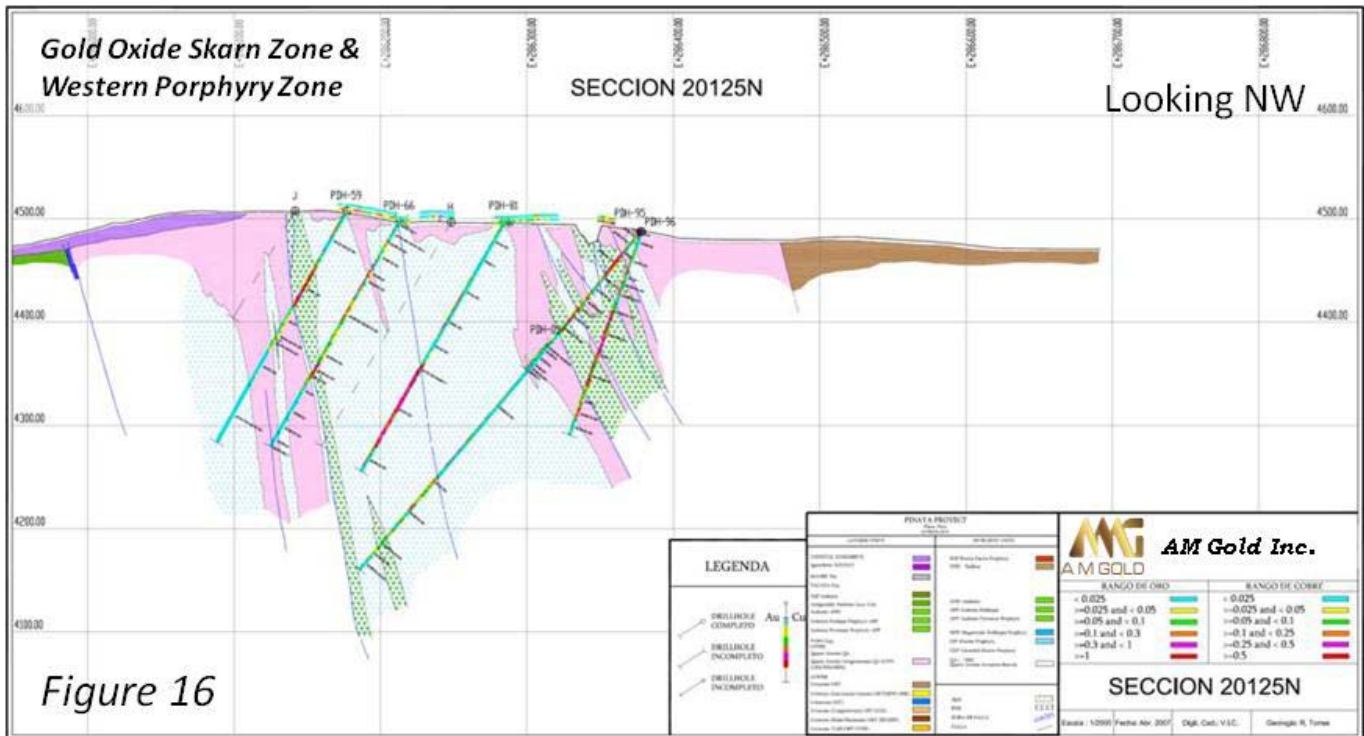


Figure 16



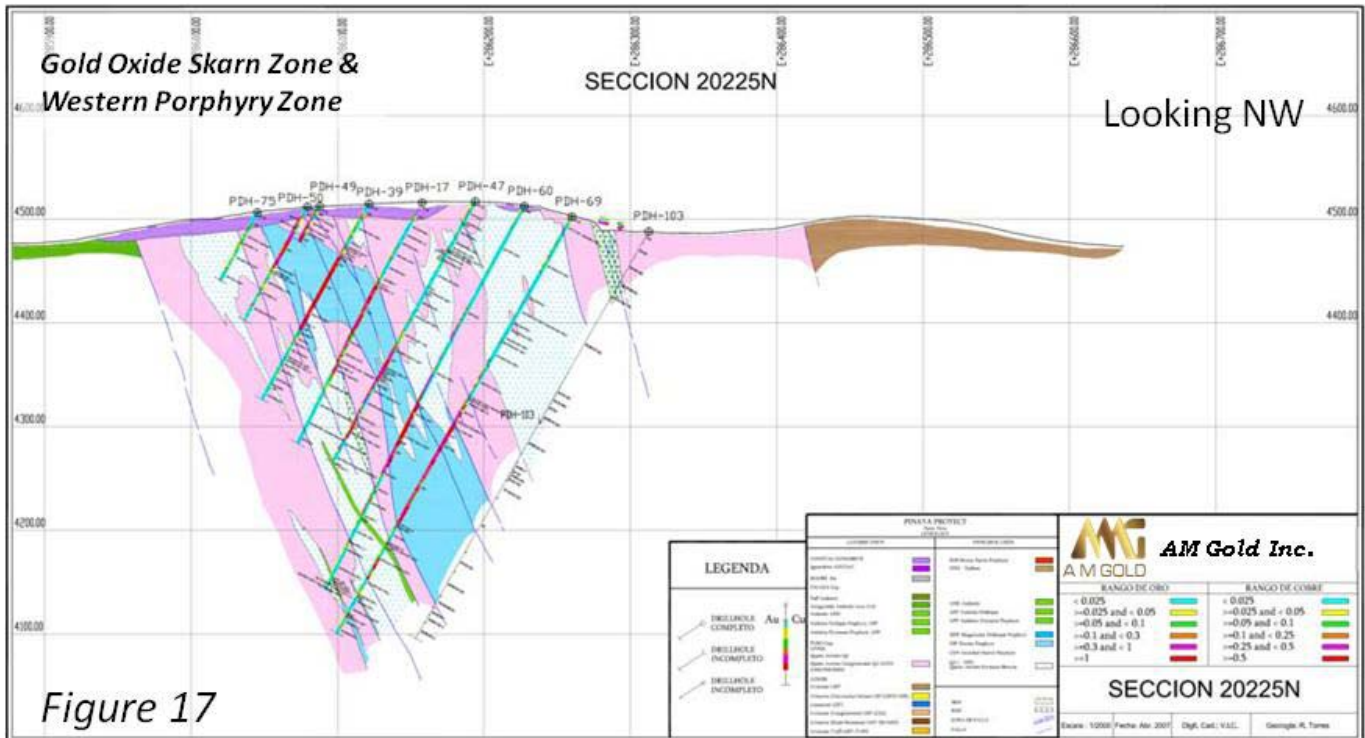


Figure 17

shown on the appropriate drill hole collar plans. Figure 15 depicts the nomenclature utilized.

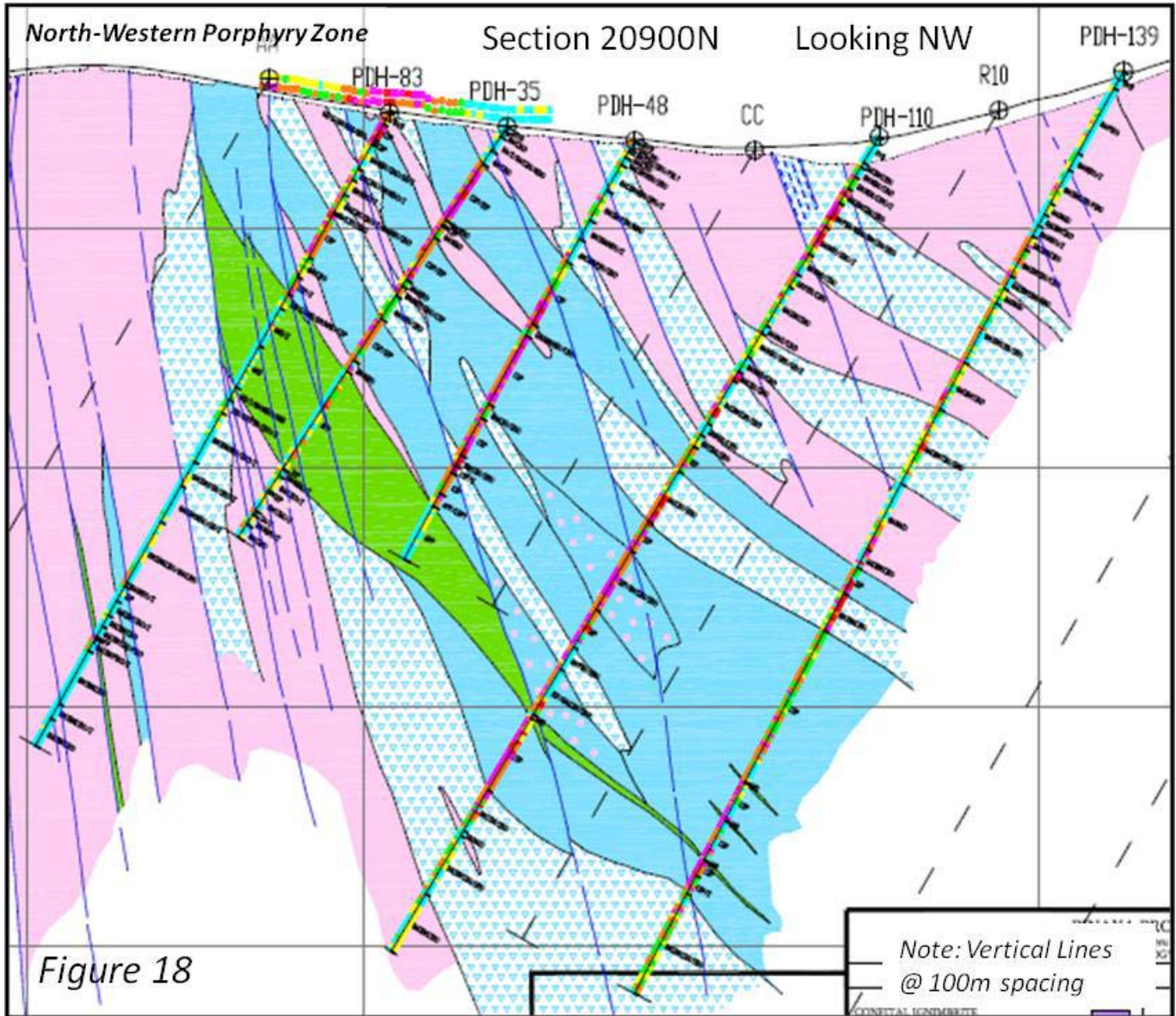
### 11.1 2004 – 2006 Programs

The Company completed nine preliminary exploration diamond drill holes (1,652.8m) on the Project Area in 2004 (PDH-001 to -009), over two drilling programs, to assess the continuity and distribution of the GOSZ mineralization. Drill core samples were taken and sent to SGS Peru for fire assay and 35 element ICP analysis for the remaining elements. The significant mineralized intersections and other relevant data for 2004 are summarized on Table 6.

During the 2005 exploration season, the Company completed a further 15 preliminary exploration diamond drill holes on the Project Area (PDH-010 to -024, totalling 3,488.5m), over two drilling programs. The significant mineralized intersections and other relevant data for 2005 are summarized on Table 7. No significant mineralization was intersected in drill hole PDH-013.

During 2006, the Company completed 68 exploration diamond drill holes on the Project Area (PDH-025 to -092, totalling 16,209.05 metres), over two drilling programs. A total of 13,127 drill core samples were taken.

The 2006 drilling program was results driven, insofar as it was constantly adjusted to accommodate the most recent assay results. Certain drill holes were planned, based on 50m step-outs to define Indicated Mineral Resources, while others were planned on 100m or 200m step-outs to either define Inferred Mineral Resources or to expand known mineralized areas. Throughout the course of the drilling programs, detailed cross-sections were drafted to assist in the understanding of the lithological controls on the mineralized intervals.



The mineralized intersections and other relevant data for 2006 are summarized on Table 8. No significant mineralization was intersected in drill hole PDH-075.

Table 6: <b>Summary of Significant Drill Hole Intersections 2004</b>									
Drillhole	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	Area	Surveyed Azimuth	Surveyed Dip	E.O.H. (m)
PDH-001	49.50	80.50	31.00	4.14	0.26	GOSZ	228.98	-48.74	222.0
and	125.75	152.75	27.00	0.12	0.61	-	-	-	-
PDH-002	146.00	159.50	13.50	2.00	0.08	GOSZ	231.25	-48.99	241.0
PDH-003	0.00	79.30	79.30	0.82	0.12	GOSZ	225.50	-50.00	146.0
PDH-004	58.20	67.20	9.00	1.01	0.11	GOSZ	231.25	-51.12	163.1





<b>Table 6:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2004</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
PDH-005	0.00	89.30	89.30	0.97	0.08	GOSZ	228.98	-51.02	175.0
and	53.20	139.10	85.90	0.77	0.15	-	-	-	-
PDH-006	13.65	27.15	13.50	-	0.19	GOSZ	228.15	-51.34	158.0
and	25.65	41.55	15.90	0.55	0.12	-	-	-	-
PDH-007	0.00	85.50	85.50	1.34	0.12	GOSZ	231.76	-49.74	132.2
PDH-008	99.50	124.00	24.50	0.71	0.17	GOSZ	228.95	-50.22	184.5
PDH-009	0.00	16.00	16.00	0.42	0.05	GOSZ	91.42	-58.99	231.0
and	79.00	88.00	9.00	-	0.19	-	-	-	-

<b>Table 7:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2005</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
PDH-010	105.50	114.50	9.00	0.85	0.1	WPZ	232.16	-49.99	253.3
and	141.50	149.00	7.50	0.09	0.3	-	-	-	-
and	171.50	174.50	3.00	0.03	0.2	-	-	-	-
and	182.00	201.30	19.30	0.53	0.6	-	-	-	-
PDH-011	13.00	29.50	16.50	0.25	0.4	VZ	268.25	-50.56	144.9
and	35.50	40.00	4.50	0.22	0.6	-	-	-	-
and	74.50	88.00	13.50	0.04	0.3	-	-	-	-
PDH-012	37.00	46.00	9.00	0.57	0.1	WPZ	231.09	-50.19	235.0
and	131.50	139.00	7.50	1.27	-	-	-	-	-
PDH-013	-	-	-	-	-	VZ	268.58	-59.43	250.0
PDH-014	13.50	61.00	47.50	0.31	0.3	WPZ	45.50	-50.00	67.9
PDH-015	9.50	56.30	46.80	0.32	1.1	NWPZ	231.07	-57.80	232.4
PDH-016	0.00	61.00	61.00	0.53	0	WPZ	48.82	-58.66	306.0
and	91.00	181.50	90.50	0.87	0.7	-	-	-	-
and	237.00	260.50	23.50	0.93	0.8	-	-	-	-
PDH-017	91.00	188.00	96.50	0.78	0.7	WPZ	231.30	-58.87	261.8
and	92.30	150.00	57.70	1.04	1	-	-	-	-
PDH-018	20.50	55.00	34.50	0.31	0.4	NWPZ	230.32	-48.89	215.8
and	99.60	127.25	27.65	0.17	0.2	-	-	-	-
and	99.60	108.80	9.20	0.19	0.4	-	-	-	-
PDH-019	38.50	56.50	18.00	0.28	0.5	NWPZ	230.07	-61.32	151.4
PDH-020	108.00	161.25	53.25	0.31	0.6	WPZ	229.22	-59.66	309.3
and	128.25	158.25	30.00	0.24	1	-	-	-	-
PDH-021	54.00	76.00	22.00	0.34	0	WPZ	228.42	-61.04	203.7

<b>Table 7:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2005</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	76.00	117.00	41.00	0.81	0.1	-	-	-	-
and	76.00	83.00	7.00	2.34	0	-	-	-	-
and	182.60	196.00	13.40	-	0.2	-	-	-	-
PDH-022	119.30	119.53	0.23	6.2	0	WPZ	227.90	-73.07	326.6
and	137.00	189.60	52.60	0.07	0.7	-	-	-	-
and	144.80	167.60	22.80	-	1.1	-	-	-	-
PDH-023	25.00	62.35	37.35	0.21	0.1	NWPZ	227.92	-58.97	301.0
and	196.80	232.00	35.20	0.07	0.5	-	-	-	-
and	244.00	253.00	9.00	0.93	0.1	-	-	-	-
and	280.00	290.00	10.00	-	0.4	-	-	-	-
PDH-024	150.00	192.47	42.47	0.04	0.7	NWPZ	226.41	-59.88	229.7
and	192.47	204.00	11.53	0.01	0.3	-	-	-	-
and	169.84	172.00	22.63	0.1	1.2	-	-	-	-

**Legend:** WPZ = Western Porphyry Zone VZ = Viscachani Zone  
NWPZ = Northwestern Porphyry Zone E.O.H. = End of Hole

<b>Table 8:</b>										
<b>Summary of Significant Drill Hole Intersections</b>										
<b>2006</b>										
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Ag (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
PHD-025	152.50	213.30	60.80	0.71	-	1.18	WPZ	226.48	-60.65	246.0
and	161.20	171.00	9.80	1.30	-	4.43	-	-	-	-
PDH-026	40.00	113.50	73.50	0.17	-	0.19	GOSZ	228.25	-58.99	150.7
including	89.00	101.50	12.50	0.07	-	0.78	-	-	-	-
including	101.00	113.50	12.50	0.52	-	-	-	-	-	-
PDH-027	10.50	89.00	78.50	0.44	-	0.36	VZ	269.83	-51.61	101.3
including	12.00	37.25	25.25	1.03	-	-	-	-	-	-
including	36.00	57.20	21.20	-	-	1.07	-	-	-	-
PDH-028	29.00	121.05	92.05	0.27	-	0.16	VZ	270.97	-71.02	121.1
including	67.50	105.50	38.00	0.24	-	0.87	-	-	-	-
including	87.00	97.50	10.50	0.62	-	-	-	-	-	-
PDH-029	65.00	110.20	44.40	-	-	0.36	WPZ	230.82	-61.45	202.1
including	88.00	104.50	16.50	-	-	0.97	-	-	-	-
PDH-030	2.00	14.00	12.00	0.26	-	-	GOSZ	225.10	-50.36	200.4
and	79.85	105.70	25.85	0.22	-	-	-	-	-	-
and	105.70	131.50	25.80	0.25	-	0.21	-	-	-	-

<b>Table 8:</b>										
<b>Summary of Significant Drill Hole Intersections</b>										
<b>2006</b>										
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Ag (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	145.00	151.00	6.00	0.10	-	0.60	-	-	-	-
PDH-031	0.00	3.75	3.75	0.50	-	-	GOSZ	229.29	-51.04	216.8
and	73.00	97.00	24.00	0.15	-	0.10	-	-	-	-
and	97.00	127.00	30.00	0.52	-	0.11	-	-	-	-
and	127.00	131.50	4.50	3.20	-	0.28	-	-	-	-
and	131.50	142.00	10.50	0.52	-	-	-	-	-	-
and	176.50	184.00	7.50	0.30	-	0.25	-	-	-	-
and	206.50	212.50	6.00	0.11	-	0.23	-	-	-	-
PDH-032	0.00	4.90	4.90	0.05	-	0.28	WPZ	0.00	-90.00	135.0
and	27.85	66.15	38.30	0.32	-	0.03	-	-	-	-
PDH-033	0.75	10.85	10.10	0.04	-	0.13	WPZ	227.33	-62.02	120.1
and	64.05	86.50	22.45	0.12	-	0.02	-	-	-	-
and	97.00	100.00	3.00	1.16	-	0.07	-	-	-	-
PDH-034	0.00	27.00	27.00	0.35	-	0.12	WPZ	226.30	-47.88	250.5
and	27.00	41.40	14.40	0.73	-	0.28	-	-	-	-
and	111.70	120.10	8.40	0.16	-	0.28	-	-	-	-
and	166.45	177.50	11.05	-	-	0.19	-	-	-	-
PDH-035	18.50	47.00	28.50	0.27	-	0.39	NWPZ	230.51	-53.43	206.5
and	47.00	84.50	37.50	0.31	-	0.15	-	-	-	-
and	84.50	95.00	10.50	0.27	-	-	-	-	-	-
and	95.00	122.00	27.00	0.35	-	0.12	-	-	-	-
PDH-036	154.50	185.00	30.50	0.18	-	0.23	NWPZ	228.55	-58.59	243.0
PDH-037	132.50	213.50	81.00	0.25	-	0.27	NWPZ	230.10	-60.14	266.2
and	233.00	247.50	14.50	0.16	-	0.44	-	-	-	-
PDH-038	55.70	60.77	5.07	0.36	-	0.49	MCOZ	202.22	-51.26	184.2
and	74.60	76.65	2.05	0.16	-	0.21	-	-	-	-
PDH-039	55.15	139.10	83.95	2.11	-	1.11	WPZ	227.06	-58.34	215.1
PDH-040	7.50	9.00	1.50	3.02	-	0.05	MCOZ	198.17	-48.17	146.7
and	45.00	46.50	1.50	1.01	-	-	-	-	-	-
PDH-041	35.30	82.15	46.85	0.79	1.0	0.15	MCOZ	226.59	-49.17	212.4
and	57.80	74.80	17.00	1.72	1.7	0.31	-	-	-	-
and	154.50	180.80	26.30	0.72	-	0.03	-	-	-	-
PDH-042	24.00	129.50	105.50	0.40	-	0.42	WPZ	226.68	-58.99	217.0
including	33.00	78.50	45.50	0.29	25.5	0.03	-	-	-	-
including	86.00	129.50	43.50	0.63	14.2	0.97	-	-	-	-
PDH-043	9.00	65.50	56.50	1.12	-	-	MCOZ	227.17	-48.44	217.3
including	9.00	17.50	8.50	5.45	-	-	-	-	-	-
and	176.00	190.50	14.50	0.39	-	-	-	-	-	-
PDH-044	111.80	160.40	48.60	0.37	-	0.12	WPZ	227.66	-58.88	250.4



<b>Table 8:</b>										
<b>Summary of Significant Drill Hole Intersections</b>										
<b>2006</b>										
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Ag (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
PDH-045	72.60	73.50	0.90	0.35		0.11	MCOZ	224.18	-48.00	224.9
and	201.50	204.50	3.00	0.26		-	-	-	-	-
PDH-046	15.20	23.00	7.80	0.39		0.11	NWPZ	227.42	-60.46	386.5
and	163.00	321.70	158.70	0.13		0.15	-	-	-	-
and	321.70	386.50	64.80	-		1.03	-	-	-	-
PDH-047	156.40	273.20	116.80	0.61		0.33	WPZ	223.08	-58.53	287.1
PDH-048	54.70	174.70	120.00	0.23		0.35	NWPZ	230.11	-58.09	200.0
PDH-049	13.50	39.20	25.70	0.90		0.40	WPZ	224.26	-59.42	39.2
including	23.50	39.20	15.70	1.20		0.63	-	-	-	-
PDH-050	12.50	68.00	55.50	0.51		0.05	WPZ	227.71	-60.73	125.3
PDH-051	89.85	220.00	130.15	0.88		0.24	WPZ	224.26	-59.11	245.9
including	98.60	110.60	12.00	1.31		0.39	-	-	-	-
including	156.00	171.10	15.10	0.65		0.58	-	-	-	-
PDH-052	67.20	80.15	12.95	0.10		0.16	NWPZ	227.18	-59.09	249.2
and	102.50	113.00	10.50	0.48		0.21	-	-	-	-
PDH-053	124.80	141.40	16.60	0.69		0.19	GOSZ	225.58	-49.40	240.0
including	149.00	196.00	47.00	0.10		0.33	-	-	-	-
including	205.50	210.00	4.50	0.06		0.59	-	-	-	-
PDH-054	0.00	25.05	25.05	0.19		0.54	NWPZ	226.92	-61.11	256.7
and	98.50	143.00	44.50	0.20		0.10	-	-	-	-
and	162.50	218.20	55.70	0.48		0.11	-	-	-	-
including	196.50	202.50	6.00	2.73		0.07	-	-	-	-
PDH-055	154.00	240.90	86.90	0.48		0.67	WPZ	226.18	-59.99	261.3
including	209.00	221.45	12.45	1.19		1.36	-	-	-	-
including	233.50	240.90	7.40	0.09		2.45	-	-	-	-
PDH-056	3.70	48.25	44.55	0.73		0.36	WPZ	226.44	-58.63	155.4
PDH-057	124.00	270.00	146.00	0.39		0.26	WPZ	229.64	-59.57	387.8
and	326.00	333.30	7.30	0.40		0.34	-	-	-	-
and	342.00	346.00	4.00	0.09		1.14	-	-	-	-
and	374.00	378.50	4.50	2.44		0.04	-	-	-	-
PDH-058	213.50	216.90	3.40	0.40		0.02	WPZ	225.12	-59.41	216.9
PDH-059	16.50	31.50	15.00	0.20		0.02	WPZ	220.62	-60.50	257.2
and	31.50	62.40	30.90	0.12		0.02	-	-	-	-
and	62.40	106.36	43.96	0.11		1.72	-	-	-	-
PDH-060	131.50	146.50	15.00	0.46		0.07	WPZ	229.61	-60.91	416.5
and	189.00	292.00	103.00	1.28		1.21	-	-	-	-
including	189.00	216.20	27.20	1.12		0.01	-	-	-	-
including	216.20	263.00	46.80	1.86		2.17	-	-	-	-
including	263.00	292.00	29.00	0.51		0.80	-	-	-	-

<b>Table 8:</b>										
<b>Summary of Significant Drill Hole Intersections</b>										
<b>2006</b>										
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Ag (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	325.50	337.50	12.00	0.25		0.01	-	-	-	-
and	337.50	416.50	79.00	0.05		0.12	-	-	-	-
PDH-061	87.50	94.10	6.60	0.46		0.24	WPZ	228.89	-59.63	248.5
and	233.00	238.00	5.00	0.38		0.02	-	-	-	-
PDH-062	108.50	230.60	122.10	0.51		0.41	WPZ	228.29	-62.00	242.5
including	169.00	184.20	15.20	0.15		1.30	-	-	-	-
including	215.50	230.60	15.10	1.75		1.33	-	-	-	-
PDH-063	73.75	140.20	66.45	0.39		0.57	WPZ	230.18	-59.37	176.3
PDH-064	175.30	300.50	125.20	0.54		0.26	WPZ	228.93	-59.79	315.7
PDH-065	0.00	26.00	26.00	0.06		0.90	WPZ	230.15	-60.02	166.2
and	26.00	36.00	10.00	0.27		0.11	-	-	-	-
PDH-066	3.70	48.25	44.55	0.73		0.36	WPZ	226.66	-59.58	252.1
PDH-067	19.60	52.50	32.90	0.13		1.22	VZ	228.08	-59.09	232.1
and	81.40	93.90	12.50	0.05		0.36	-	-	-	-
and	133.30	140.80	7.50	0.55		0.01	-	-	-	-
PDH-068	147.00	195.50	48.50	0.59		0.48	WPZ	225.73	-60.11	240.1
PDH-069	208.50	344.50	136.00	0.79		0.55	WPZ	228.37	-60.66	461.5
PDH-070	171.40	277.50	106.10	0.34		0.23	WPZ	226.26	-60.26	302.7
PDH-071	142.10	183.00	40.90	0.49		0.44	WPZ	228.35	-59.80	277.7
PDH-072	151.50	273.40	121.90	0.54		0.38	WPZ	226.79	-80.17	328.0
PDH-073	17.30	103.00	85.70	0.52		0.54	WPZ	226.93	-61.84	128.3
PDH-074	63.25	130.30	67.05	0.63		0.75	WPZ	226.26	-59.84	174.1
PDH-076	1.50	6.00	4.50	0.16		0.31	WPZ	228.10	-61.75	126.7
and	83.00	100.80	17.80	0.57		0.18	-	-	-	-
PDH-077	19.50	57.30	37.80	0.40		0.82	WPZ	224.97	-61.18	120.3
and	57.30	70.50	13.20	0.28		0.02	-	-	-	-
PDH-078	16.00	51.50	35.50	0.54		0.23	WPZ	228.57	-60.00	127.5
PDH-079	3.00	25.00	22.00	0.28		0.54	NWPZ	221.00	-50.55	202.1
and	35.50	63.05	27.55	0.38		0.07	-	-	-	-
PDH-080	0.00	12.60	12.60	0.68		0.06	WPZ	225.07	-45.13	187.3
and	66.00	96.00	30.00	0.26		0.02	-	-	-	-
PDH-081	87.50	102.50	15.00	0.23		0.02	WPZ	223.85	-60.12	279.8
and	115.50	121.50	6.00	0.43		0.02	-	-	-	-
and	159.00	253.50	94.50	0.43		0.52	-	-	-	-
and	268.50	274.50	6.00	0.35		0.01	-	-	-	-
PDH-082	55.50	61.50	6.00	0.25		0.01	WPZ	225.37	-60.07	312.6
and	157.50	167.50	10.00	0.27		0.04	-	-	-	-
and	167.50	223.20	55.70	0.59		0.38	-	-	-	-
PDH-083	1.85	16.75	14.90	0.51		0.52	NWPZ	225.00	-60.67	303.5

<b>Table 8:</b>										
<b>Summary of Significant Drill Hole Intersections</b>										
<b>2006</b>										
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Ag (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	21.25	25.75	4.50	1.25		0.10	-	-	-	-
and	31.25	69.30	38.05	0.36		0.16	-	-	-	-
and	78.30	89.90	11.30	0.09		0.17	-	-	-	-
PDH-084	40.00	76.00	36.00	0.30		0.31	VZ	226.96	-59.90	318.7
and	84.50	95.00	10.50	0.01		0.33	-	-	-	-
and	104.00	119.00	15.00	0.89		1.00	-	-	-	-
and	158.00	170.00	12.00	0.04		0.20	-	-	-	-
and	241.50	253.50	12.00	0.07		0.54	-	-	-	-
PDH-085	4.50	10.50	6.00	0.32		0.28	NWPZ	225.10	-61.00	303.6
and	40.00	63.00	23.00	0.27		0.05	-	-	-	-
and	74.00	77.00	3.00	0.21		0.16	-	-	-	-
PDH-086	23.00	44.50	21.50	0.15		0.17	VZ	228.39	-60.46	302.0
and	55.00	79.00	24.00	0.04		0.19	-	-	-	-
and	108.50	119.00	10.50	4.12		0.01	-	-	-	-
includes	113.00	116.00	3.00	13.45		0.01	-	-	-	-
and	138.50	162.50	24.00	0.15		0.62	-	-	-	-
and	177.50	179.50	2.00	0.71		0.79	-	-	-	-
PDH-087	6.00	24.90	18.90	0.36		0.04	WPZ	227.60	-59.29	306.3
and	40.00	47.45	7.45	0.33		0.08	-	-	-	-
PDH-088	49.50	51.00	1.50	2.81		0.02	WPZ	227.28	-60.12	414.4
and	103.00	104.50	1.50	4.20		0.01	-	-	-	-
and	143.00	146.00	3.00	1.07		0.01	-	-	-	-
and	201.50	265.00	63.50	0.28		0.22	-	-	-	-
and	280.00	285.60	5.60	0.21		0.15	-	-	-	-
PDH-089	0.50	12.50	12.00	0.02		0.19	NWPZ	226.28	-60.42	328.5
and	143.70	156.00	12.30	0.04		1.16	-	-	-	-
PDH-090	29.00	36.00	7.00	0.51		0.02	WPZ	226.87	-59.56	356.3
and	71.10	87.25	16.15	0.72		0.14	-	-	-	-
and	211.50	218.50	7.00	1.19		0.02	-	-	-	-
PDH-091	7.00	16.05	9.05	0.39		0.02	WPZ	227.84	-58.36	426.6
and	114.00	128.50	14.50	0.51		0.02	-	-	-	-
and	198.00	199.50	1.50	0.67		2.53	-	-	-	-
and	220.50	286.00	65.50	0.33		0.52	-	-	-	-
including	220.50	250.00	29.50	0.31		1.06	-	-	-	-
and	296.50	309.50	13.00	0.37		0.11	-	-	-	-
PDH-092	0.00	13.00	13.00	0.25		0.03	NWPZ	227.56	-61.40	320.2
and	67.00	71.50	4.50	0.81		0.02	-	-	-	-
and	149.45	249.50	100.05	0.64		0.22	-	-	-	-
including	149.45	179.50	30.05	0.77		0.54	-	-	-	-

<b>Table 8:</b>										
<b>Summary of Significant Drill Hole Intersections</b>										
<b>2006</b>										
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Ag (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	272.00	307.10	35.10	0.21		1.20	-	-	-	-
including	285.50	297.50	12.00	0.18		2.21	-	-	-	-

**Legend:** VZ = Viscachani Zone  
WPZ = Western Porphyry Zone

NWPZ = North-Western Porphyry Zone  
E.O.H. = End of Hole

## 11.2 2007 & 2008 Programs

During 2007, the Company, through Canper, completed an additional 57 diamond exploration drill holes (drill holes PDH-093 to -149) for a total of 19,591.7m. A total of 15,923 drill core samples were taken and sent to SGS Peru for fire assay and 35 element ICP analysis for the remaining elements.

The 2007 program was primarily aimed at drilling on 25m centres to upgrade the previously defined Inferred Mineral Resources to the Measured and Indicated categories. Some of the holes were drilled to test dual targets by passing through the GOSZ and into the porphyry copper-gold targets in the WPZ. The secondary drilling objectives were to upgrade the Mineral Resources in the porphyry copper-gold areas of the NWPZ and to extend that zone in all directions.

The mineralized intersections and other relevant data for the 2007 drill hole series are summarized on Table 9.

The Company completed a total of 5,588m in eleven drill holes (PDH-150 to -160) during the early part of 2008, with the purpose of expanding the copper-gold deposit outlined by previous drilling and to test a large, undrilled geophysical anomaly to the east of the main mineralized area. The first eight holes, PDH-150 to -158, were 100m to 200m step-out holes drilled at the NWPZ. PDH-159 was a deep hole, drilled into the NWPZ to a depth of 800m, which bottomed-out in mineralization. It was the first hole ever drilled to test the depth potential of the deposit beyond 550m.

The final hole, PDH-160, was drilled in the Los Vientos Zone, a then recently discovered target located approximately 1km to the southeast of the main deposit with a strong geophysical signature and trenching highlights of 2.0g/t Au over 6.7m, including 10.7g/t Au over 1.2m (trench PTR-152).

The Company did not subsequently report the assay results and for this reason the mineralized intersections are not listed here for the 2008 drilling.



<b>Table 9:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2007</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
PDH-093	0.00	6.50	6.50	0.48	0.04	GOSZ	225.23	-49.47	178.9
and	20.00	71.15	51.15	1.61	0.21	-	-	-	-
and	71.15	109.00	37.85	0.31	0.13	-	-	-	-
and	124.00	154.00	30.00	0.07	0.41	-	-	-	-
PDH-094	0.00	5.50	5.50	0.82	0.05	GOSZ	225.56	-69.74	241.6
and	55.20	122.50	67.30	1.35	0.18	-	-	-	-
and	167.45	172.50	5.05	0.28	0.55	-	-	-	-
and	189.00	208.60	19.60	0.15	0.22	-	-	-	-
PDH-095	0.00	5.50	5.50	0.58	0.19	GOSZ	224.19	-49.40	425.4
and	29.30	53.85	24.55	2.13	0.23	-	-	-	-
and	80.90	124.50	43.60	0.11	0.30	-	-	-	-
and	308.00	316.50	8.50	0.19	0.15	-	-	-	-
and	343.50	351.00	7.50	0.38	0.18	-	-	-	-
PDH-096	0.00	9.00	9.00	0.68	0.02	GOSZ	224.19	-70.51	209.0
and	29.50	44.50	15.00	0.27	0.05	-	-	-	-
and	82.00	158.50	76.50	0.93	0.26	-	-	-	-
and	175.00	191.50	16.50	0.05	0.24	-	-	-	-
PDH-097	0.00	23.10	23.10	0.31	0.05	GOSZ	223.83	-50.16	439.1
and	26.10	55.50	29.40	2.80	0.15	-	-	-	-
and	55.50	96.50	41.00	0.50	0.16	-	-	-	-
PDH-098	0.00	45.00	45.00	0.32	0.02	GOSZ	225.00	-69.90	154.2
and	45.00	105.20	60.20	2.81	0.19	-	-	-	-
and	126.50	136.00	9.50	0.15	0.24	-	-	-	-
PDH-099	34.50	64.00	29.50	2.30	0.16	GOSZ	223.38	-49.71	455.2
and	375.00	391.50	16.50	0.10	0.26	-	-	-	-
PDH-100	0.00	3.00	3.00	0.89	0.07	GOSZ	226.41	-71.31	149.2
and	9.50	20.00	10.50	0.48	0.04	-	-	-	-
and	49.50	79.50	30.00	1.02	0.12	-	-	-	-
PDH-101	24.30	54.00	29.70	0.09	0.22	GOSZ	225.29	-49.78	387.0
and	91.50	126.00	34.50	-	0.44	-	-	-	-
and	129.00	214.50	85.50	0.48	-	-	-	-	-
and	233.50	239.50	6.00	0.26	-	-	-	-	-
and	345.00	384.00	39.00	-	0.60	-	-	-	-
PDH-102	78.00	107.00	29.00	0.58	0.10	GOSZ	223.44	-51.86	406.0
and	152.00	227.50	75.50	0.33	-	-	-	-	-
including	221.50	227.50	6.00	2.13	-	-	-	-	-
PDH-103	18.00	74.50	56.50	1.10	0.08	GOSZ	229.59	-60.04	452.7
including	31.50	46.50	15.00	1.93	0.11	-	-	-	-
including	55.50	63.00	7.50	2.61	0.11	-	-	-	-

<b>Table 9:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2007</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	84.00	191.50	107.50	0.05	0.24	-	-	-	-
and	259.50	311.00	51.50	0.83	0.34	-	-	-	-
including	296.20	303.50	7.30	1.57	0.31	-	-	-	-
PDH-104	6.00	46.00	40.00	0.24	0.03	GOSZ	223.56	-59.57	430.0
and	53.20	89.00	35.80	0.30	0.10	-	-	-	-
and	183.00	207.00	24.00	-	0.43	-	-	-	-
and	262.40	290.50	28.10	0.11	0.32	-	-	-	-
and	307.80	345.00	37.20	0.28	0.12	-	-	-	-
PDH-105	57.30	75.50	18.20	0.36	0.10	NWPZ	225.94	-59.49	306.5
and	90.50	130.00	39.50	0.23	0.14	-	-	-	-
and	207.00	211.50	4.50	0.59	0.02	-	-	-	-
PDH-106	185.50	238.00	52.50	1.55	0.08	VZ	225.26	-58.39	329.0
including	191.50	193.00	1.50	43.00	1.27	-	-	-	-
PDH-093	0.00	6.50	6.50	0.48	0.04	GOSZ	225.23	-49.47	178.9
and	20.00	71.15	51.15	1.61	0.21	-	-	-	-
and	71.15	109.00	37.85	0.31	0.13	-	-	-	-
and	124.00	154.00	30.00	0.07	0.41	-	-	-	-
PDH-094	0.00	5.50	5.50	0.82	0.05	GOSZ	225.56	-69.74	241.6
and	55.20	122.50	67.30	1.35	0.18	-	-	-	-
and	167.45	172.50	5.05	0.28	0.55	-	-	-	-
and	189.00	208.60	19.60	0.15	0.22	-	-	-	-
PDH-095	0.00	5.50	5.50	0.58	0.19	GOSZ	224.19	-49.40	425.4
and	29.30	53.85	24.55	2.13	0.23	-	-	-	-
and	80.90	124.50	43.60	0.11	0.30	-	-	-	-
and	308.00	316.50	8.50	0.19	0.15	-	-	-	-
and	343.50	351.00	7.50	0.38	0.18	-	-	-	-
PDH-096	0.00	9.00	9.00	0.68	0.02	GOSZ	224.19	-70.51	209.0
and	29.50	44.50	15.00	0.27	0.05	-	-	-	-
and	82.00	158.50	76.50	0.93	0.26	-	-	-	-
and	175.00	191.50	16.50	0.05	0.24	-	-	-	-
PDH-097	0.00	23.10	23.10	0.31	0.05	GOSZ	223.83	-50.16	439.1
and	26.10	55.50	29.40	2.80	0.15	-	-	-	-
and	55.50	96.50	41.00	0.50	0.16	-	-	-	-
PDH-098	0.00	45.00	45.00	0.32	0.02	GOSZ	225.00	-69.90	154.2
and	45.00	105.20	60.20	2.81	0.19	-	-	-	-
and	126.50	136.00	9.50	0.15	0.24	-	-	-	-
PDH-099	34.50	64.00	29.50	2.30	0.16	GOSZ	223.38	-49.71	455.2
and	375.00	391.50	16.50	0.10	0.26	-	-	-	-
PDH-100	0.00	3.00	3.00	0.89	0.07	GOSZ	226.41	-71.31	149.2

<b>Table 9:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2007</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	9.50	20.00	10.50	0.48	0.04	-	-	-	-
and	49.50	79.50	30.00	1.02	0.12	-	-	-	-
PDH-101	24.30	54.00	29.70	0.09	0.22	GOSZ	225.29	-49.78	387.0
and	91.50	126.00	34.50	-	0.44	-	-	-	-
and	129.00	214.50	85.50	0.48	-	-	-	-	-
and	233.50	239.50	6.00	0.26	-	-	-	-	-
and	345.00	384.00	39.00	-	0.60	-	-	-	-
PDH-102	78.00	107.00	29.00	0.58	0.10	GOSZ	223.44	-51.86	406.0
and	152.00	227.50	75.50	0.33	-	-	-	-	-
including	221.50	227.50	6.00	2.13	-	-	-	-	-
PDH-103	18.00	74.50	56.50	1.10	0.08	GOSZ	229.59	-60.04	452.7
including	31.50	46.50	15.00	1.93	0.11	-	-	-	-
including	55.50	63.00	7.50	2.61	0.11	-	-	-	-
and	84.00	191.50	107.50	0.05	0.24	-	-	-	-
and	259.50	311.00	51.50	0.83	0.34	-	-	-	-
including	296.20	303.50	7.30	1.57	0.31	-	-	-	-
PDH-104	6.00	46.00	40.00	0.24	0.03	GOSZ	223.56	-59.57	430.0
and	53.20	89.00	35.80	0.30	0.10	-	-	-	-
and	183.00	207.00	24.00	-	0.43	-	-	-	-
and	262.40	290.50	28.10	0.11	0.32	-	-	-	-
and	307.80	345.00	37.20	0.28	0.12	-	-	-	-
PDH-105	57.30	75.50	18.20	0.36	0.10	NWPZ	225.94	-59.49	306.5
and	90.50	130.00	39.50	0.23	0.14	-	-	-	-
and	207.00	211.50	4.50	0.59	0.02	-	-	-	-
PDH-106	185.50	238.00	52.50	1.55	0.08	VZ	225.26	-58.39	329.0
including	191.50	193.00	1.50	43.00	1.27	-	-	-	-
PDH-107	24.70	88.50	63.80	0.45	0.29	NWPZ	226.29	-58.88	453.3
and	234.00	340.50	106.50	0.46	0.25	-	-	-	-
including	271.00	284.50	13.50	0.89	0.30	-	-	-	-
and	354.00	364.50	10.50	0.11	3.17	-	-	-	-
PDH-108	24.60	33.50	8.90	0.19	0.02	GOSZ	225.70	-70.51	491.3
and	203.50	289.50	86.00	0.10	0.26	-	-	-	-
and	345.00	443.50	98.50	0.24	0.15	-	-	-	-
PDH-109	217.50	264.30	46.80	0.12	0.34	GOSZ	225.67	-70.29	497.3
and	316.00	438.50	122.50	0.54	0.25	-	-	-	-
PDH-110	26.50	60.00	33.50	0.47	0.34	NWPZ	224.66	-58.99	397.5
and	66.00	80.50	14.50	0.31	0.04	-	-	-	-
and	114.50	137.00	22.50	0.23	0.27	-	-	-	-
and	175.00	247.00	72.00	0.33	0.44	-	-	-	-

<b>Table 9:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2007</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
and	247.00	275.00	28.00	0.28	0.02	-	-	-	-
and	275.00	333.50	58.50	0.42	0.42	-	-	-	-
PDH-111	113.50	130.00	16.50	0.12	0.19	GOSZ	226.91	-70.18	394.9
and	145.90	160.00	14.10	0.36	0.18	-	-	-	-
and	185.50	199.00	13.50	0.06	0.22	-	-	-	-
PDH-112	40.40	50.70	10.30	0.05	0.19	NWPZ	226.15	-59.70	374.8
and	92.00	104.00	12.00	0.18	0.02	-	-	-	-
and	214.00	223.10	9.10	0.16	0.13	-	-	-	-
and	233.50	247.00	13.50	0.09	0.20	-	-	-	-
and	258.00	267.00	9.00	0.09	0.28	-	-	-	-
PDH-113	64.50	84.00	19.50	0.12	0.36	GOSZ	225.10	-69.64	305.9
and	195.00	201.50	6.50	0.17	0.49	-	-	-	-
PDH-114	142.50	148.00	5.50	0.20	0.21	GOSZ	224.05	-69.98	223.1
and	148.00	159.50	11.50	0.03	0.69	-	-	-	-
PDH-115	29.00	35.00	6.00	2.15	0.03	GOSZ	225.46	-60.81	453.6
and	99.50	116.00	16.50	0.45	0.09	-	-	-	-
and	131.00	157.00	26.00	0.07	0.44	-	-	-	-
and	161.50	176.50	15.00	0.12	0.40	-	-	-	-
and	209.50	251.50	42.00	0.04	0.22	-	-	-	-
and	253.50	357.70	104.20	0.10	0.45	-	-	-	-
and	253.50	320.50	67.00	0.05	0.61	-	-	-	-
PDH-116	27.50	59.00	31.50	0.34	0.05	NWPZ	228.43	-59.46	444.8
and	95.75	123.00	27.25	0.12	1.24	-	-	-	-
and	172.50	196.00	23.50	0.30	0.17	-	-	-	-
and	258.00	347.50	89.50	0.12	0.74	-	-	-	-
and	350.50	362.50	12.00	0.13	0.05	-	-	-	-
and	376.00	410.00	34.00	0.18	0.04	-	-	-	-
PDH-117	96.00	127.50	31.50	0.46	0.25	GOSZ	228.60	-58.79	433.8
and	149.50	154.00	4.50	0.28	0.02	-	-	-	-
and	235.50	240.00	4.50	0.52	0.04	-	-	-	-
PDH-118	347.50	427.50	80.00	0.01	0.39	NWPZ	228.54	-60.70	464.8
PDH-119	140.50	161.50	21.00	0.15	0.22	GOSZ	224.46	-59.60	434.3
and	175.00	182.50	7.50	0.06	0.22	-	-	-	-
and	257.00	325.50	68.50	0.07	0.75	-	-	-	-
PDH-120	22.00	42.00	20.00	0.49	0.03	GOSZ	226.75	-61.53	437.7
and	75.00	343.50	268.50	0.16	0.19	-	-	-	-
including	75.00	103.30	28.30	0.40	0.17	-	-	-	-
including	121.00	169.50	48.50	0.06	0.36	-	-	-	-
including	193.50	226.30	32.80	0.09	0.39	-	-	-	-

<b>Table 9:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2007</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
including	292.50	343.50	51.00	0.36	0.20	-	-	-	-
PDH-122	84.50	186.10	101.60	0.35	0.19	GOSZ	226.33	-58.01	186.1
including	84.50	125.00	40.50	0.11	0.44	-	-	-	-
including	128.00	147.70	19.70	0.73	0.09	-	-	-	-
including	152.00	186.10	34.10	0.49	0.00	-	-	-	-
PDH-123	102.00	132.80	30.80	0.09	0.41	GOSZ	223.61	-59.81	160.4
and	152.00	156.50	4.50	1.73	0.00	-	-	-	-
PDH-124	146.00	169.90	23.90	0.19	0.27	GOSZ	225.09	-59.84	182.7
PDH-125	41.00	72.00	31.00	0.35	0.05	GOSZ	225.29	-60.72	139.0
and	72.00	103.50	31.50	0.06	0.22	-	-	-	-
PDH-126	63.50	89.50	26.00	0.57	0.25	GOSZ	227.56	-61.05	152.3
PDH-127	7.00	13.00	6.00	0.11	0.17	NWPZ	226.16	-60.25	269.7
and	46.50	55.50	9.00	0.41	0.71	-	-	-	-
and	73.50	88.50	15.00	0.33	0.20	-	-	-	-
and	103.50	105.50	2.00	3.82	0.13	-	-	-	-
PDH-128	9.00	76.50	67.50	2.00	0.17	GOSZ	226.51	-51.34	80.0
including	15.00	40.00	25.00	4.90	0.29	-	-	-	-
including	29.50	31.00	1.50	47.80	0.64	-	-	-	-
PDH-129	16.00	70.85	54.85	1.75	0.28	GOSZ	226.01	-49.77	85.0
including	17.80	41.50	23.70	3.07	0.48	-	-	-	-
PDH-130	169.90	172.10	2.20	3.16	0.08	NWPZ	227.05	-60.10	362.6
and	214.00	247.20	33.20	0.12	0.24	-	-	-	-
and	247.20	292.00	44.80	0.19	0.05	-	-	-	-
PDH-131	81.00	102.50	21.50	0.19	0.34	GOSZ	223.84	-59.34	222.1
and	135.50	182.50	47.00	0.46	0.09	-	-	-	-
PDH-132	89.50	196.30	106.80	0.32	0.31	NWPZ	226.19	-60.95	391.6
and	196.30	234.40	38.10	0.33	0.07	-	-	-	-
and	265.50	286.50	21.00	0.06	0.95	-	-	-	-
PDH-133	2.70	15.50	12.80	0.35	0.06	WPZ	223.81	-59.23	374.5
and	220.00	260.40	40.40	0.26	0.53	-	-	-	-
and	321.70	339.95	18.25	0.02	0.17	-	-	-	-
PDH-134	229.50	269.50	40.00	0.84	0.59	WPZ	225.43	-75.32	380.9
and	290.50	314.00	23.50	0.70	0.50	-	-	-	-
PDH-135	204.50	348.00	143.50	0.57	0.15	NWPZ	224.63	-60.80	350.2
including	209.10	248.00	38.90	0.94	0.21	-	-	-	-
PDH-136	127.50	203.00	75.50	0.31	0.07	NWPZ	224.06	-59.43	502.1
and	285.00	297.50	12.50	0.05	1.19	-	-	-	-
and	353.00	421.00	68.00	0.57	0.21	-	-	-	-
PDH-137	9.00	62.00	53.00	0.64	0.12	VZ	224.48	-59.93	327.3

<b>Table 9:</b>									
<b>Summary of Significant Drill Hole Intersections</b>									
<b>2007</b>									
<i>Drillhole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Interval (m)</i>	<i>Au (g/t)</i>	<i>Cu (%)</i>	<i>Area</i>	<i>Surveyed Azimuth</i>	<i>Surveyed Dip</i>	<i>E.O.H. (m)</i>
including	15.50	35.00	19.50	1.16	-	-	-	-	-
and	113.00	191.50	78.50	0.49	-	-	-	-	-
including	113.00	144.50	30.00	0.65	-	-	-	-	-
PDH-138	99.00	106.50	7.50	0.05	0.39	VZ	226.35	-60.66	350.4
and	121.00	122.50	1.50	4.92	-	-	-	-	-
and	181.10	182.50	1.40	4.59	-	-	-	-	-
PDH-139	215.50	266.50	51.00	0.10	0.55	NWPZ	225.77	-59.89	436.7
PDH-140	35.80	72.00	36.20	0.28	-	MJZ	225.09	-50.02	211.3
and	107.00	110.90	3.90	1.19	-	-	-	-	-
and	127.00	156.40	29.40	0.25	-	-	-	-	-
and	157.50	179.00	21.50	0.37	0.10	-	-	-	-
PDH-142	247.00	285.50	38.50	0.04	0.80	NWPZ	224.25	-59.01	409.6
PDH-143	128.50	137.50	9.00	0.83	-	NWPZ	223.93	-60.51	582.7
and	307.70	418.00	110.30	0.63	0.16	-	-	-	-
including	380.00	403.00	23.00	1.08	0.24	-	-	-	-
and	475.00	497.00	21.50	0.04	0.51	-	-	-	-
and	530.00	569.00	39.00	0.05	0.31	-	-	-	-
PDH-144	210.70	268.30	57.60	0.35	0.30	NWPZ	223.59	-59.72	355.6
including	210.70	222.00	11.30	1.11	0.60	-	-	-	-
including	255.00	268.30	13.30	0.07	0.68	-	-	-	-
PDH-145	117.10	130.00	12.90	0.46	0.18	NWPZ	233.19	-60.24	461.3
and	250.70	295.50	44.80	0.22	1.18	-	-	-	-
PDH-146	145.50	153.00	7.50	0.04	0.47	NWPZ	226.27	-60.59	457.9
and	162.50	199.90	32.40	0.54	0.04	-	-	-	-
and	292.00	394.00	102.00	0.18	0.31	-	-	-	-
including	295.00	323.00	28.00	0.08	0.62	-	-	-	-
PDH-147	132.52	145.40	12.90	0.86	0.02	NWPZ	224.12	-60.03	460.9
and	300.00	337.90	37.90	0.02	0.39	-	-	-	-
including	324.00	337.90	13.90	0.03	0.70	-	-	-	-
and	377.50	397.90	20.40	0.06	0.30	-	-	-	-
PDH-148	283.00	310.00	27.00	1.22	-	NWPZ	224.86	-59.35	507.1
including	288.20	298.00	9.80	2.28	-	-	-	-	-
and	318.20	338.00	19.80	0.16	0.37	-	-	-	-
PDH-149	20.20	150.50	130.30	0.16	0.20	NWPZ	223.75	-59.71	312.6
and	159.50	161.50	2.00	3.60	0.08	-	-	-	-

**Legend:** GOSZ = Gold Oxide Skarn Zone      WPZ = Western Porphyry Zone  
VZ = Viscachani Zone      NWPZ = Northwestern Porphyry Zone

## 12 SAMPLING METHOD AND APPROACH

The following is primarily summarized from McCrea (2006) and Blanchflower (2006), plus some other miscellaneous sources. In the opinion of author, the methods, procedures and standards that were applied would allow for high levels of confidence to be placed in the results:

### 12.1 Sampling Methodology

#### 12.1.1 Surface Rock Grab Samples

Surface rock grab samples were taken during mapping and prospecting programs, from surface outcrops. Mineralized, altered and non-mineralized samples were taken: the mineralized samples as they relate to copper-gold grade distribution along lithological boundaries/contacts, fault zones and alteration zones; and the non-mineralized and altered samples to help establish controls on the mineralization.

#### 12.1.2 Soil Samples

Samples totalling approximately 250gm were collected from 30 to 40 centimetre deep holes; a small tin plated screen/sieve was used to obtain clean samples (samples without roots, pebbles, etc). Wet samples were dried on site before being packaged for transport to the assay laboratory.

#### 12.1.3 Trench Samples

From 2006 trenches were excavated to bedrock using the Company's on-site Caterpillar D6 bulldozer; prior to 2006 they were excavated using a backhoe. The trench floors were cleaned and 10cm wide channels were cut along the entire centre lengths of each trench floor. The channels were measured and from 2006 they were sampled every 1.5m (previously 2.5m).

Loose material from each sample point was transferred separately onto individual squares of polyester sacking. Each sample was thoroughly mixed before being cone and quartered (separated into four roughly equal parts, one of which became the assay sample with a typical weight of between 1 to 2kg).

When trenches were cut using a backhoe and the cut depth exceeded 1.5m, the backhoe operator dumped the overburden from individual trenches in continuous piles along one side of each trench being cut and the bedrock in continuous piles on the other side of the same trench being cut. Bedrock piles were then sampled at 15 to 20 different, recorded places. From 2006 this procedure was no longer followed: the trenches were sufficiently wide to allow for safe entry and sampling to excavated depths of 2.5m.

#### 12.1.4 Drill Core

Continuous drill core samples are taken, by a qualified Company geologist, every 1.5m along the entire lengths of each drill core; sample intervals varied only at alteration and lithological transitions or boundaries. Attention was paid to recovery and core size to ensure that material volume was equally represented within a given sample. Samples were measured from the



nearest depth marker, after adjusting for core recovery. The sample intervals were recorded in a sample log along with the type, name and reference sample number of any standards, duplicates and/or blanks.

Sample intervals within each core tray were marked with lumber crayon, aluminum tags were stapled to the ends of each sample-relevant core tray, at the start of each sample length, with the appropriate sample number and sample interval. In addition, the sample numbers and intervals were written on wooden blocks that were inserted into the sample-relevant core trays, at the beginning of each sample interval. To avoid confusion, each drill rig had its own sample tag series. The sample tag books were pre-marked with assay quality control information, assigned to certain sample numbers, for standards and duplicate samples.

Whole core samples of drill core are sawn in half, using a diamond rock saw; two saws were and are available at the Pinaya exploration camp. In cases of deeply weathered core, core splitting was carried out using a knife. Loose/gravel-type core intersections were divided 50:50, by hand. Qualified Company geologists supervised the core samplers and splitters.

Split core halves over individual sample lengths were separately placed into individual, clear plastic rock sample bags and the other core halves were placed in their original core tray positions for reference, with the exception of the core halves selected as field duplicates. A sample tag detailing the sample number and sample-relevant intervals was placed inside each sample bag. Once an entire sample interval has been cut, the plastic sample bags containing the half cores were securely stapled shut, during which process a second sample tag, detailing the sample-relevant number and sample-relevant intervals, was rolled in the top of the sample bag and securely stapled in place, in a manner that ensured the sample-relevant data could clearly be seen. The sample numbers were also written on the sample bags, using a permanent marker.

### **13 SAMPLING PREPARATION, ANALYSIS, AND SECURITY**

The following has also been primarily summarized from McCrea (2006) and Blanchflower (2006) plus some other miscellaneous sources. In the opinion of author, the methods and procedures utilized below would reasonably be expected to result high levels of confidence to be placed in the results:

#### **13.1 Chain of Custody**

Surface rock grab samples, soil samples and trench samples were placed, at individual sample sites, in clear plastic sample bags that were tagged, marked and securely sealed in the same manner as outlined for drill core samples. The sample bags were then transported by Company staff members to the drill core logging, sampling and storage facility located at the Project exploration camp.

Drill core was laid in core trays by the drillers, at the various drill sites from where it was transported in pick-up trucks, driven by Company personnel, to the drill core logging, sampling and storage facility located at the Pinaya Project exploration camp. Wooden lids were not nailed onto the (wooden) core trays prior to their transport.



### 13.1.1 Drill Core Logging

Company staff members unloaded transported drill core trays onto logging benches where the ends of the core trays were labelled with the drill hole number, sequential box number and drill core metreage. Drill core was geotechnically and geologically logged, by a qualified Company geologist, under the supervision of a senior/Project Geologist. Percent core recovery, rock quality designation, number of fractures, fracture frequency, fracture roughness, fracture infill, rock strength (determined by selective point load testing) and rock quality designation, along with lithology, structure, mineralization and alteration were recorded on hard-copy logs. Sample intervals were determined once logging of a drill core section in complete.

Split and sampled core was reviewed by senior Project personnel, to better understand the mineralization controls and to standardize lithology, alteration and mineralization codes. Skeleton drill core logs were composited to summarize the lithology, alteration and mineralization intersected in individual holes. Digital photologs of individual, filled drill core trays were taken and the logged and sampled core was stored on-site at the Project exploration camp, in a dedicated, covered drill core storage facility that was and is monitored by the Company's on-site security personnel.

### 13.1.2 Data Storage

The Company geologists that were responsible for logging were also responsible for in-putting their own geological and geotechnical drill core logging data into matrix-style, spreadsheet logs, prior to their import into commercial geological software. Sample numbers and sampling intervals were also entered into each drill hole spreadsheet log for later collation with analytical and assay results. Digital photographs were downloaded for digital archiving.

### 13.1.3 Sample Bagging

The clear plastic sample bags were placed into rice sacks for transport (ten bags per sack in the case of rock grab samples and trench samples, four to six bags in the case of drill core samples). In the case of drill core samples, individual clear plastic sample bags were cross-referenced with the sample-relevant log and counted carefully before being bagged. Each sample sack was tightly sealed with nylon twine.

Sample shipment forms were prepared by the supervising senior/Project geologist and individual sample sacks were clearly marked with reference numbers (the assay laboratory was not provided with details of samples' drill hole numbers at any time). Sample sacks awaiting shipment were kept in an enclosure adjacent to the drill core logging, sampling and storage facility, prior to being transported to Arequipa, Peru, by pick-up truck, driven by a Company employee. Samples from single drill holes or trenches only were usually transported at any one time. are not discussed in this report.

### 13.1.4 Transport

The samples were transported to a secure sample depository in Arequipa, Peru, that was and is owned and operated by the Peruvian subsidiary of the Mineral Services division of the SGS



Group. A SGS Peru representative checked the shipment form against the numbering on the sample sacks and then forwarded the samples directly to SGS Peru's assay laboratory in Callao, Peru. Shipment confirmations were sent to the Pinaya Project exploration camp, from SGS Peru's Callao facilities. Samples sacks that arrived at SGS Peru's sample repository in Arequipa before 6.00 p.m. were forwarded to the SGS Peru's laboratory at Callao the same day. Later arrivals were stored overnight in the secure depository.

### 13.1.5 Reporting

SGS Peru reported the analytical and assay results to the Company approved list of recipients, by e-mail.

## 13.2 Assay Methods

Soil samples were assayed for 36 elements by four acid digestion (Aqua Regia), followed by an ICP finish. Trench and drill core samples were assayed for gold by 30 gram fire assay fusion with an Atomic Absorption ("AA") finish, as well as for 35 elements by four acid digestion (Aqua Regia), followed by an ICP finish. Any samples that returned copper grades in excess of 1.0 percent were re-analyzed for copper by AA, utilizing four acid digestion.

## 13.3 Assay Validation

Blind standards, random inter-laboratory duplicates and field blanks were submitted for analysis by Canper, along with main stream trench and drill core samples. Approximately every 20<sup>th</sup> trench or drill core sample was a duplicate or blank and every alternate 20<sup>th</sup> sample was a standard, which spacing ensured that every laboratory batch of approximately 40 trench or drill core samples contained at least one standard, blank or duplicate. The qualified Company geologists that logged the drill core were also responsible for supervising the core samplers and for maintaining the established QA/QC program of standards, blanks and duplicates.

### 13.3.1 Standards

The responsible geologist (for logging, sampling, etc) inserted standard reference material into the trench and drill core sampling sequences; sample numbers, which formed part of the main sample numbering sequence, were assigned to the inserted standards. The reference material was recorded in the sample log to allow it to be correlated with its analytical data. The assay results for inserted standards were then compared to the actual values for the reference material. The results were tabulated and checked for consistency and accuracy.

Detailed analyses of the standards assay results for the Company's 2004, 2005 and 2006 drilling programs are presented in the July 2006 and October 2006 Technical Reports. No significant discrepancies were found. Similar analyses of the standards inserted in the Company's 2007 and 2008 drill core sample streams also found no significant discrepancies.

As of June 2007, the Company, has used eight different copper-gold standard reference materials (up from six in 2006), which are purchased from CDN resource Laboratories Limited in Delta, B.C.

### 13.3.2 Duplicates

Field duplicates of trench samples comprised the second of the four, roughly equal parts of bedrock material prepared for purposes of sampling (Sub-Section 14.3). In the case of drill core samples, field duplicates comprising half core samples were used. The same procedures as those outlined for main stream trench and half drill core samples were followed as regards tagging, labelling, storage and transport. Duplicate sample numbers formed part of the main stream sample numbering sequence, so as to conceal duplicate samples in the overall sample stream.

Detailed analyses of the duplicates assay results for the Company's 2004, 2005 and 2006 drilling programs are presented in the July 2006 and October 2006 Technical Reports. No significant discrepancies were found. Similar analyses of the standards inserted in the Company's 2007 drill core sample stream also found no significant discrepancies.

### 13.3.3 Blanks

The Company used quarried barren quartzite as blank material. The material was purchased from a local supplier and was assayed to verify that it contained no significant mineralization. Detailed analyses of the blanks assay results for the Company's 2004, 2005 and 2006 drilling programs are presented in the July 2006 and October 2006 Technical Reports. No significant discrepancies were found. Similar analyses of the standards inserted in the Company's 2007 drill core sample stream also found no significant discrepancies.

## 13.4 Specific Gravity

The Company has taken a total of 670 Specific Gravity ("SG") laboratory measurements which are dispersed throughout the drill hole database. The industry standard paraffin method was used to determine SG values.

## 14 DATA VERIFICATION

### 14.1 Database Description

Project field geologists filed and maintained original records, input the geological, geotechnical and sampling data into computerized spreadsheets and verified all records. Digital copies of the site-verified data were regularly forwarded by e-mail to the Company's nominated recipients, including the geotechnical logs, geological logs, sampling logs, synoptic summary logs and drill core photo logs.

Drill hole cross-sections were hand-drafted on site, while drilling progressed. At regular intervals, the digitized and input survey, geological, geotechnical and assay data were imported into a

computer geological database and vertical cross-sections for all drill holes were generated for re-checking by qualified Company geologists.

#### **14.2 Verification Approach**

Compiled data from the header, survey, assay, geology and geotechnical tables was validated in the Company's Lima offices for missing, overlapping or duplicated intervals or sample numbers, as well as for matching drill hole lengths in each table. Drill hole collars and traces were reviewed on screen by a qualified Company geologist, both in plan and section view, as a visual check on the validity of the location information.

As analytical data was returned from the assay laboratories it was merged with the sample logs and printed out. The copper and gold values were then verified against the original assay certificates provided by the laboratory. Particular attention was paid to laboratory re-runs where the analytical results were revised for QA/QC reasons, not least to ensure the correct data had been applied.

#### **14.3 Check Assays**

Approximately every 20<sup>th</sup> original sample (about 5%) was sent directly from SGS Peru's Calloa laboratory to the ALS Chemex assay laboratory in Lima, Peru (ISO 9001-2000 accredited), for check-assaying. The check-assay procedure did not discriminate between original samples, standards, duplicates or blanks. Detailed analyses of the Company's 2004, 2005 and 2006 check-analysis programs are presented in the July 2006 and October 2006 Technical Reports. No significant discrepancies were found. Similar analyses of the standards inserted in the Company's 2007 drill core sample stream also found no significant discrepancies.

#### **14.4 Independent Site Visit and Data Verification**

The author visited the Pinaya Project on April 08 and 09, 2010. During the visit he walked the GOSZ, WPZ, and NWPZ mineral resource areas, examined the historical open pit workings, and reviewed several representative archived drill cores.

The hole locations checked in the field by handheld GPS (approximately 3%) were consistent with the listed surveyed coordinates and the amount of drill collars seen would be consistent with the level of work described herein.

Assay data was deemed verified if the original, signed assay certificate (or facsimile) was present and the database reflected the assay certificate values accordingly. In addition, a spot check by the author of approximately 15% of the samples from each assay certificate was made and there were found to be no material deficiencies.

Data verification was essentially limited to the written record and physical observations in the field as the work had spanned a number of years as well as the technical staff that had performed the work were no longer with the company.

## 15 ADJACENT PROPERTIES

As earlier noted, the Project Area is located near the south-eastern end of the Andahuaylas-Yauri metallogenic belt of southern Peru, 110km northeast of Arequipa. The Pinaya deposits may be characterized as being of the porphyry copper-gold skarn and supergene type, whose deposit type is widespread throughout the Andahuaylas-Yauri metallogenic belt, as well as in northern Chile. There are a number of similar deposits in the region, perhaps the most significant in terms of the Project are those owned and controlled by Xstrata Plc/Xstrata Copper ("Xstrata"), which include:

- Tintaya copper-gold mine that is host to some 116 million tonnes of Measured and Indicated Mineral Resources grading 1.16% Cu and 0.20g/t Au;
- Antapaccy copper-gold prospect that is host to some 570 million tonnes of Measured and Indicated Mineral Resources grading 0.60% Cu, 0.14 g/t Au, 1.56g/t Ag and 0.005% Mo; and
- Las Bambas copper-gold prospect that is host to some 886 million tonnes of Measured and Indicated Mineral Resources grading 0.79% Cu and 183ppm Mo.

This summary information has been gleaned from the public domain and has been unverified by the author. Also, it is cautioned that similar or better resources may or may not necessary be discovered on the Property.

## 16 MINERAL PROCESSING AND METALLURGICAL TESTING

By mid-2007, a preliminary program of bottle roll tests on 22 drill core composite samples was completed and the results had been published by the Company. The tests were performed by Process Research Associates Limited of Richmond, B.C.; they were aimed at assessing the recovery of copper and gold by cyanide leaching, either in a heap leach environment or in a carbon in pulp (CIP) or carbon in leach (CIL) circuit.

The drill core composites were comprised of coarse rejects from assaying; each sample weighed about 6kg and was composited from a range of intersection depths in individual drill holes. The samples were subjected to 48 hours leaching in a bottle roll test, at an initial concentration of 2.0 grams per litre NaCN (sodium cyanide) and a pH of 10.5. Copper and gold recoveries were measured at regular intervals up to 48 hours. Table 10 summarizes the Batch One results and Table 11 the Batch Two results.

It may be seen from the results summarized on Tables 10 and 11 that:

- the samples yielded an average gold recovery rate of about 70%;
- the headgrades of the Batch One samples varied from 0.05 g/t Au with 1.7% Cu to 1.0g/t Au with 0.3% Cu, which samples yielded gold recoveries of between 20% and 97% and copper recoveries of between 4% and 93% after 48 hours;
- the headgrades of the Batch Two samples varied from 0.09 g/t Au with 1.4% Cu to 2.92g/t Au with 1.2% Cu, which samples yielded gold recoveries of between 37% and 97% and copper recoveries of between 5% and 87% after 48 hours; and

- cyanide consumption was high at 4.3 to 12.8 kilograms per tonne with 0.10 to 1.37 kilograms per tonne of lime for Batch One samples and 3.15 to 13.0 kilograms per tonne with 0.20 to 1.21 kilograms per tonne lime for Batch Two samples (which consumption rates were probably the result of the elevated copper grades in the Western Porphyry Zone samples).

In the author's opinion, the results suggest that cyanide extraction of copper from mineralized material from the porphyry zones is not an appropriate treatment. However, cyanide leaching of gold is appropriate for processing mineralized material from the GOSZ. It may, therefore, be concluded that alternative processing strategies will be required to optimize Pinaya Project potential, including the possibility of identifying and separately defining oxide and sulphide mineralization, with:

- oxide material processed using a heap leaching method, using –
  - an acid leach for copper, followed SX-EW extraction to form copper cathodes, and
  - following washing the heap leach to clean or neutralize the acid, a cyanide leach for gold, followed by ADR/elution plant recovery by electro-winning and then processing through a calcinations furnace to produce doré gold; and
- ordinary flotation processing of sulphide mineralized material to produce a bulk copper concentrate with gold credits.

The need for identifying and separately testing oxide and sulphide material (and possibly a transition zone between the two mineral types) is emphasized by the comments made by Blanchflower in the October 2006 Technical Report: 'It was obvious, both during the property examination and upon inspection of the drillhole assay results, that in many areas near-surface copper mineralization had

Test No	Sample ID	Mineralized Zone	P80 size (mm)	NaCN (g/l)	Calculate		Extraction (%)		Residue		Consumption (kg/t)			
					Head		Au	Cu	Au	Cu	Au	Cu	NaCN	Lime
					Au (g/t)	Cu (%)			(g/t)	(%)				
C1	PDH - 1A	GOSZ	67	2	0.81	0.1	91.4	85.2	0.07	0.02	3.15	0.20		
C2	PDH - 1B	GOSZ	68	2	3.56	0.3	77.2	87.4	0.81	0.04	7.63	0.26		
C3	PDH - 3A	GOSZ	74	2	1.05	0.1	85.7	72.3	0.15	0.03	3.70	0.21		
C4	PDH - 3B	GOSZ	70	2	2.61	0.1	93.1	82.7	0.18	0.02	3.61	0.31		
C5	PDH - 15A	NWPZ	71	2	0.48	0.9	97.9	7.1	0.01	0.86	4.76	0.31		
C6	PDH - 15B	NWPZ	69	2	0.36	0.5	94.4	4.8	0.02	0.47	3.40	0.53		
C7	PDH - 18A	NWPZ	66	2	0.63	0.3	95.2	6.2	0.03	0.30	3.50	0.30		
C8	PDH - 18B	NWPZ	70	2	0.32	0.6	71.6	6.1	0.09	0.56	4.05	0.21		
C9	PDH - 39A	WPZ	61	2	2.39	1.5	37.3	49.1	1.50	0.76	11.48	0.11		
C10	PDH - 39B	WPZ	72	2	2.92	1.2	58.9	45.8	1.20	0.64	11.85	0.26		
C11	PDH - 42A	WPZ	57	2	0.09	1.4	89.3	36.5	0.01	0.92	13.01	1.21		

been leached and there were distinctly different grades between the leached, secondary supergene and hypogene copper mineralization. Gold values are apparently not leached near surface resulting in diverse copper-gold ratios both laterally and vertically, especially in areas of intense shearing and faulting.'

Table 11: Summary of Batch Two Metallurgical Test Results Drill Core Composites												
Test No	Sample ID	Mineralized Zone	P80 size (mm)	NaCN (g/l)	Calculated Head		Extraction (%)		Residue		Consumption (kg/t)	
					Au (g/t)	Cu (%)	Au	Cu	Au (g/t)	Cu (%)	NaCN	Lime
C12	PDH - 42B	WPZ	68	2	0.12	1.30	91.70	34.20	0.01	0.84	11.05	0.86
C13	PDH - 46A	NWPZ	78	2	0.05	1.70	78.30	17.70	0.01	1.41	8.54	1.37
C14	PDH - 46B	NWPZ	67	2	0.05	1.20	77.80	22.10	0.01	0.91	10.40	0.80
C15	PDH - 57A	WPZ	60	2	0.57	0.80	19.90	49.60	0.46	0.40	12.17	0.21
C16	PDH - 57B	WPZ	62	2	0.23	0.40	47.50	93.10	0.12	0.03	12.84	0.25
C17	PDH - 67A	VZ	72	2	0.10	1.40	61.80	47.80	0.04	0.71	12.39	0.26
C18	PDH - 67B	VZ	70	2	0.15	1.70	32.10	37.00	0.10	1.08	11.75	0.16
C19	PDH - 69A	WPZ	84	2	0.65	1.60	32.80	38.10	0.44	0.98	11.48	0.25
C20	PDH - 69B	WPZ	73	2	0.41	0.60	46.30	76.80	0.22	0.14	11.23	0.10
C21	PDH - 73A	WPZ	51	2	0.13	1.80	62.70	23.60	0.05	1.36	11.69	0.32
C22	PDH - 73B	WPZ	64	2	0.99	0.30	97.00	4.20	0.03	0.32	4.31	0.49

## 17 MINERAL RESOURCE ESTIMATES

In October 2006, a mineral resource estimate was performed by J. Douglas Blanchflower, P.Geo., a Consulting Geologist with Minorex Consulting Ltd. of Aldergrove, B.C. (Blanchflower, 2006).

The resource estimate was based on verified data (by the Company) from all relevant diamond drill holes completed by the Company, between November 2004 and August 2006 (drill hole series PDH-001 to PDH-070). Assay data from the various trenches that at the time had been cut on the Project Area were not included in the estimates.

Summaries of the database, methodology, and the assumptions used and/or applied are presented in the following Sections 17.1 to 17.9, inclusive and in the opinion of the author, the aforementioned are all compliant with NI 43-101 and in accordance with industry standards.

Following a review, the author is of the opinion that the stated mineral resource estimates were compiled in accordance with:

- the definitions stated in the Canadian Institute of Mining and Metallurgy and Petroleum Standards on Mineral Resources and Mineral Reserves adopted by the CIMM Council on December 11, 2005; and



- the CIMM Best Practice guidelines for Estimation of Mineral Resources and Mineral Reserves dated November 23, 2003.

The author is also of the opinion the Gross Metal Value model (“GMV”) presented by Blanchflower (2006) best reflects the mineral resource estimate at the time it was prepared. In addition, the author has reviewed the previous mineral resource estimate on the Pinaya Property and is of the opinion that the mineral resource (as described in Table 12) is compliant with NI 43-101 and was prepared in accordance with applicable industry standards. The Company is in the process of updating the mineral resource and in the opinion of the author, there is no information which would suggest that the updated resource will be smaller than the resource disclosed in Table 12.

<b>Table 12:</b>					
<b>Pinaya Resource Summary GMV Model (after Blanchflower, 2006)</b>					
<i>Resource Type</i>	<i>Tonnes (Millions)</i>	<i>Copper %</i>	<i>Gold g/t</i>	<i>Contained Copper (Million lbs)</i>	<i>Contained Ounces Au (Thousand Ounces)</i>
Indicated Resource	29.13	0.42	0.53	269	498
Inferred Resource	12.72	0.41	0.41	115	168

### 17.1 Database

Blanchflower was provided with verified (by the Company) drillhole data in spreadsheet format, from which a Gemcom database was created, which contained 10,500 samples assayed for copper and gold. The lengths of individual samples varied from 0.15m to 6.10m. Approximately 12.5% of the samples had individual sample lengths of less than 1.5m, 77% of the samples had individual sample lengths of 1.5m and 10.5% of the samples had sample lengths of more than 1.5m. Most of the samples lengths exceeding 3.0m occurred in early drill holes where poor surface copper mineralization was encountered, prior to the recognition of porphyry copper-gold-style mineralization and surface leaching.

Tables of collar locations, downhole surveys, lithologies, assays and specific gravity were created in the Gemcom database. The tables were utilized for sectional interpretations during Mineral Resource modelling.

### 17.2 Compositing

Copper and gold assays were initially composited in 1.5m and then 2.0m intervals. After reviewing the correlation of the composites with several geological factors, Blanchflower decided to use the 1.5m composites for purposes of Mineral Resource estimation. This yielded 3,114 composites of which 3,080 were utilized for purposes of Mineral Resource estimation. The

remaining composites occurred in drill holes within the MCOZ that was not included in his Mineral Resource estimations.

### 17.3 Solid Modelling and Gross Metal Values

Blanchflower (2006) states that: *'Only drilling results within the Western Porphyry and Gold Oxide Skarn Zones were modelled for resource estimation. Reconnaissance diamond drilling with the Montaña de Cobre y Oro Zone was too widely spaced and sparse for reliable resource estimation.'* and *'Given the linear distribution of the mineralization within each of the targeted zones and the use of a gross metal value factor to compensate for surface leaching, no geological domaining was utilized during the modelling or resource estimation.'* and *'Since no metallurgical and metal recoveries have been conducted on the known mineralization, it was decided that a Gross Metal Value ("GMV") was most appropriate for purposes of solid modelling and preliminary resource estimations. Long-term metal prices were thoroughly researched resulting in US\$1.25 per pound copper and US\$450 per troy ounce gold being used to calculate the gross metal value for each composited sample.'*

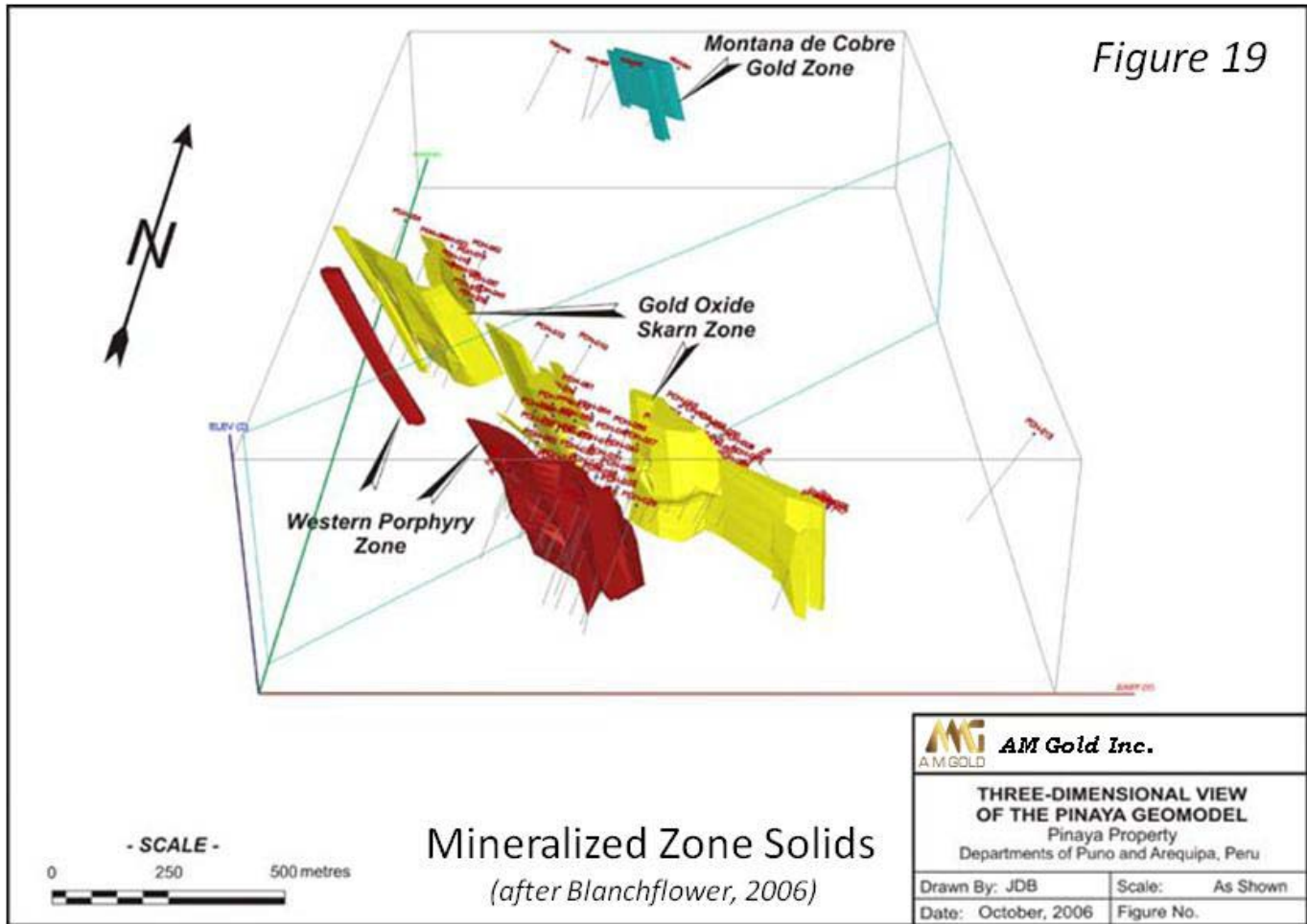
Sectional interpretations of the geology and composited gross metal values were generated in GEMCOM. Sectional polylines of gross metal values exceeding US\$5.50 were plotted on vertical sections orientated at 045°/225° and spaced at 50m intervals. The polylines were stitched together to form solids for the two target zones. The solid models were later utilized to filter copper, gold and gross metal composites and to create the rock type model summarized on Figure 19.

### 17.4 Statistical Analysis

Histogram and percent cumulative normal distribution probability plots for the copper and gold composites, in the GOSZ and WPZ, were generated. Blanchflower (2006) states: *'The log-normal histogram for copper shows a slight skew and a very small high-grade 'tail'. The probability plots for each metal are well formed showing that, although there may be secondary supergene enrichment of some copper mineralization, there is a single population of each element adequate for variogram analysis.'* Histogram and probability plots for copper and gold are contained within Blanchflower (2006); they are not presented here.

Blanchflower (2006) notes *'Of the 421 specific gravity measurements conducted on drill core assay samples, 193 specific gravity measurements occurred, within the solid models. Statistical analyses were undertaken on uncut and cut populations on these measurements resulting in the determination that a common specific gravity of 2.60g/cc should be utilized for the density model and later tonnage calculations.'*

Figure 19



### 17.5 Variogram Analysis

Blanchflower(2006) states that: 'Variogram analyses were undertaken for both copper and gold composites for both the Western Porphyry and Gold Oxide Skarn Zones. Downhole variograms had moderate nuggets (less than 0.3). Correlograms were also plotted for both copper and gold using exponential and spherical models. The modelled variograms produced ellipsoids with long Y and Z ranges and shorter X ranges conforming to the modelled mineralization.'

### 17.6 Block Model

The block model limits were designed by Blanchflower to include all of the drill holes in the series PDH-001 to PDH-070, excluding those holes drilled on the MCOZ that was not considered within the scope of his Mineral Resource estimates. A 5m by 5m block model was selected; the block model limits and parameters are summarized on Table 13. Block models were created for rock type, density, cut copper, cut gold and gross metal value, plus additional models for distance (i.e. distance to the closest composite, true distance model) and classification (i.e. nearest neighbour for resource classification).

<b>Table 13:</b>						
<b>Summary of the Block Model Limits and Parameters</b>						
<i>(from Blanchflower, 2006)</i>						
Co-ordinates				Origin Co-ordinates	Block Size (m)	Number of Blocks
Direction	Orientation	Axis	Nomenclature			
Easting	90°	X	Column	284,700 to 288,000	5	660
Northing	0°	Y	Row	8,274,400 to 8,278,650	5	850
Elevation	Vertical	Z	Level	4,800 to 4,000	5	160

### 17.7 Interpolation

The block model was interpolated in two passes, using an inverse distance squared (ID<sup>2</sup>) method. Interpolation of copper and gold grades into a block required a minimum of three composites with a maximum of 18. The search parameters are summarized on Table 14. The second passes were employed to further fill blocks defined by the solid model. The second passes filled only those blocks containing zero values/those blocks not filled during the first pass. The ellipsoids were modelled based on the orientation of copper and gold mineralization, using the respective composite assays. The interpolations produced grade models with zones of grade continuity consistent with the copper and gold mineralization distributions seen on the vertical sections. Restricted Z axis ranges constrained the interpolation of grade vertically away from areas of low data density.

<b>Table 14:</b>					
<b>Summary of the Block Model Search Parameters</b>					
<i>(from Blanchflower, 2006)</i>					
Metal	X Range (m)	Y Range (m)	Z Range (m)	Azimuth	Dip
Copper					
Pass 1	21.7	193.4	31.9	319°	2°
Pass 2	65.1	193.4	65.1	319°	2°
Gold					
Pass 1	30	180	48.5	316°	-13°
Pass 2	97	180	97	316°	-13°

### 17.8 Grade Capping

Blanchflower (2006) states that: *'Composite sample copper and gold grades were capped to minimize the influence of high-grade samples during grade estimation. Composites were capped during grade interpolation because the composites (were) approximately equal to the assay results. Log normal probability and decile statistical analyses were conducted, and the capping*

levels were determined to be 5% for copper and 7g/t for gold composite grades. These capping levels correspond to approximately 99.7 percentile for copper and 99.5 percentile for gold composite grades.'

## 17.9 Classification

Based on the study summarized herein, delineated GOSZ and WPZ mineralization was classified as a Mineral Resource according to the following definitions from NI 43-101 and from CIM (2005):

*'In this Instrument, the terms "Mineral Resource", "inferred Mineral Resource", "indicated Mineral Resource" and "measured Mineral Resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended.'*

*'A **Mineral Resource** is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.'*

*'The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase "reasonable prospects for economic extraction" implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.'*

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

*'Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to*

*enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.'*

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

*'Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.'*

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

*'Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.'*

Blanchflower (2006) states that: *'The resource model was classified based upon distance (true) from a block to the nearest composite. The distances used for classification were 0 to 48m for Indicated Resources and 48m to 127m for Inferred Resources. Blocks outside the 127m maximum for Inferred resources were not classified or reported in the resource'. None of the estimated Mineral Resources were classified in the Measured category.*

The Indicated and Inferred classifications of the mineral resources were reported individually, under the current topographic surface, with copper as the primary element. In addition, the individual Inferred and Indicated resources for each of the Western Porphyry and Gold Oxide Skarn Zones were at a 0.2% copper cut-off grade or a US\$5.50 gross metal value.

## 18 OTHER RELEVANT DATA AND INFORMATION

To the author's knowledge, there is no additional relevant information.

## 19 INTERPRETATIONS AND CONCLUSIONS

This independent review of the scientific and technical information gathered subsequent to 2006 has established that:

- The Pinaya Project is a moderately advanced stage exploration project. A range of opportunities exist, not least due to the number of known mineralized occurrences and zones that have to date not fully been assessed by means of exploration diamond drilling.
- Potentially significant upside potential may reasonably be construed to exist, which potential is emphasized by:
  - the resource area is open to further expansion with additional step-out drilling;
  - the continuing discovery of additional mineralized occurrences across the Project Area (the Antaña Este, Los Vientos and Saitocco Zones were found in 2007 and early 2008, during the Company's last formal exploration programs); and
  - the postulated presence of chalcocite cross-trending structures that might result in higher average mineral resource copper grades, but which have not yet been assessed, due to the uniform direction of drilling that has thus far been employed by the Company; and
  - finally, outside the scope of the immediate resource area, the property is significantly underexplored.

## 20 RECOMMENDATIONS

Additional work is warranted and recommended:

- There is a need to more clearly identify known or potential lenses or zones of above average grade gold mineralization/skarns should also be incorporated within the scope of any drilling programs, going forward. The scope of related geological work should include mineralogical studies to determine the deportment of both copper and gold mineralization and the details of the distribution and topography of the oxide to sulphide transition. To this end, the Company has proposed a 2,000m diamond drilling program.
- It is further recommended that targeted diamond drilling programs are carried out, initially to better assess the mineralization in the Antaña Este, Los Vientos, MCOZ, Minas Jorge and Saitocco Zones, as well as the Pedro 2000 mineralized occurrence. To this end, the

Company has proposed a 7,000m diamond drilling program, with drill core sample assaying as appropriate.

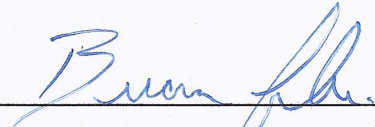
- A refreshed, property-scale exploration program should be carried out, initially with the purpose of better identifying the potential for additional mineralization across the Project Area. To this end, the Company has proposed an airborne geophysical survey, a heavy mineral stream sampling program, backed with soil geochemistry and selective trenching programs on identified potential targets.

The Company has estimated a total budget of US\$3.2 million for the work outlined, including:

- US\$50,000 for updated resource estimation;
- US\$400,000 for an airborne geophysical survey;
- US\$200,000 for heavy mineral stream sampling, trenching, soil geochemistry and related sample assaying;
- US\$2,200,000 for a 9,000m diamond drilling and drill core assaying program;
- US\$200,000 for related geological interpretation and mineralogical work, reporting and related activities; and finally;
- US\$150,000 for landowner compensation, travel, administration and other program related costs.

The author judges the above listed recommendations are commensurate with the stage of the project and the Property exhibits sufficient potential to justify the work. The author also deems the budgetary estimates for the project are in line for the proposed stage of project development as well as the project's geographic location.

Respectively submitted,

  
Brian Cole P.Geo. (HBSGeology)  
Consulting Geologist

May 05, 2011





## 21 REFERENCES

- Acero-Martin Exploration Inc.** Various 2006 and 2007 trenching and drilling data, mineral concession information and assay data.
- Canper Exploraciones S.A.C.** Various 2006 and 2007 maps, plans, and exploration data.
- Agreda, C. (2006)** Pinaya Project Soil Sample Program. Internal Company report prepared for Canper Exploraciones S.A.C. 2006.
- Benavides-Caceres, V. (1999)** Orogenic Evolution of the Peruvian Andes. In *Geology and Ore Deposits of the Central Andes*, Soc. Econ. Geo. Special Pub. No. 7, Skinner, B.J. (Ed), pp 61-107. 1999.
- Blanchflower, D.J. (2006)** Technical Report on the Pinaya Copper-Gold Property, Departments of Puno and Arequipa, Caylloma and Lampa Provinces, Callalli and Santa Lucia Districts, Southcentral Peru. NI 43-101 Technical Report prepared for Acero-Martin Exploration Inc. October 2006.
- Bradley, J.C. (2004)** Geological and Structural Map of the Pinaya Property. Internal Company document prepared for Canper Exploraciones S.A.C. 2004.
- Caira, N. (2005)** A Review of the Pinaya Porphyry Cu-Au and Skarn Property, Peru. Internal Company report prepared for Canper Exploraciones S.A.C. August 2005.
- Caira, N. (2006)** An Update of the Pinaya Porphyry Cu-Au and Skarn Property Exploration program, Peru. Internal Company report prepared for Canper Exploraciones S.A.C. 2006.
- Caira, N. (2006a)** Pinaya: A Gold-Rich Supergene Enriched Porphyry copper-gold and Skarn Deposit in Southern Peru, Summary Report, Drillholes PDH-001 through PDH-070. Internal Company report prepared for Canper Exploraciones S.A.C. December 2006.
- Camus, F. (2003)** Geología de Los Sistemas Porfiricos en Los Andes de Chile. SERNAGEOMIN, 267 pp. Santiago, Chile. 2003.
- Carlotto, V. (2005)**, Cerpa, L., Cárdenas, J., Quispe, J. and Carlier, G. Paleographic, Structural and Magmatic Evidences for the Existente of Different Lithospheric Blocks in the Central Andes: Simples from Southern Peru and Northern Chile. 6<sup>th</sup> Int. Symp. Andean Geodynamics (ISAG 2005, Barcelona), Extended Abstracts: pp. 146-149. 2005.
- Cerpa, L., Carlotto, V., Perelló, J. Cárdenas, J. (2004)** Características Estructurales en la Región de Andahuaylas-Yauri (Sur de Perú) y la Relación con la Cordillera de Domeyke (Norte de Chile). Curso Latinoamericano de Letaligénia UNESCO-SEG-2004. Vol. Resúmenes Extendidos. 15-19. Mendoza-Argentina. Augusto 2004.
- Clark, A.H., Farrar, E., Kontak, D.J., Langridge, R.J., Arena, F., Francem L.J., McBride, S.L., Woodman, P.L., Wasteneys, H.A., Sandeman, H.A. and Archibald, D.A. (2005)** Geologic and Geochronological Constraints on the Metallogenic Evolution of the Andes of Southern Peru. *Econ. Geo.*, Vol. 85, pp. 1520-1583. 2005.
- Galland, O., Bremond d’Ars, J., Cobbold, P. and Hallot, E. (1999)** Physical Models of Magmatic Intrusion During Thrusting. *Terra Nova*, 15, pp. 405-409. 1999.
- James, D.E. and Sacks, I.S. (1999)** Cenozoic Formation of the Central Andes: A Geophysical Perspective.; in *Geology and Ore Deposits of the Central Andes*, Soc. Econ. Geos. Special Pub. No. 7. Skinner, B.J. (Ed.), pp. 1-25. 1999.

- Keyte, D.E. and Castillo, A. (2005)** Report on the Trenching Program, Pinaya, Southern Peru. Internal Company report prepared for Canper Exploraciones S.A.C. 2005.
- McCrea, J.A. (2004)** Summary Report on the Pinaya Gold Property, South-Central Peru. NI 43-101 Technical Report prepared for ASC Industries Ltd. 2004.
- McCrea, J.A. (2006)** Technical Report on the Pinaya Copper-Gold Property, South Central Peru. NI 43-101 Technical Report prepared for Acero-Martin Exploration Inc. July 14, 2006.
- Medin, A. (1993)**, Palacios, O., De La Cruz, N., Klinck, B.A., Allson, R.A. and Hawkins, M.P. Geologica de la Cordillera Occidental y Altiplano al Oeste del Lago Titicaca – Sur del Perú. Boletín No. 42, Serie A: Carta Geológica Nacional, Republica Del Perú, Sector Energia y Minas, Instituto Geológica Minero y Metalurgico. 1993.
- Murphy, F. (2006)** Structural Interpretation of the ASTER Imagery for the Pinaya District, Southern Peru. Internal Company report prepared by Murphy Geological Services for Canper Exploraciones S.A.C. 2006.
- Perelló, J., Carlotto, V., Zárate, A., Ramos, P., Posso, H., Neyra, C., Caballero, A., Fuster, N., Muhr, R. (2003)** Porphyry-Style Alteration and Mineralization of the Middle Eocene to Early Oligocene Andahuaylas-Yauri Belt, Cuzco Region, Peru. In Econ. Geo., Vol. 98, pp 1575-1605. 2003.
- Petersen, U. (1999)** Magmatic and Metallogenic Evolution of the Central Andes. In Geology and Ore Deposits of the Central Andes, Soc. Econ. Geos. Special Pub. No. 7. 1999.
- Pineault, R. (2006)** Geophysical Report on Induced Polarization and Magnetic Surveys, Pinaya Project. Internal Company report prepared by Val D'Or Geofisica Del Peru S.A.C. for Canper Exploraciones S.A.C. January 2006.
- Pineault, R. (2007)** Geophysical Report on Induced Polarization and Magnetic Surveys, Pinaya Project. Internal Company report prepared by Val D'Or Geofisica Del Peru S.A.C. for Canper Exploraciones S.A.C. February 2007.
- Pothorin, C. (2007)** Pinaya 2006 Work Program, Acero-Martin Exploration Ltd., Pinaya, Peru. Internal Company report. January 2007.
- Pothorin, C. (2008)** Pinaya 2007 Work Program, Acero-Martin Exploration Ltd., Pinaya, Peru. Internal Company report. February 2008.
- Quang, C., Clark, A., Lee, J. and Hawkes, N. (2005)** Response of Supergene Processes to Episodic Cenozoic Uplift, Pediment Erosion and Ignimbrite Eruption in the Porphyry copper-gold Province of Southern Peru. Econ. Geo. Vol. 100, pp. 87-114. 2005.
- Skarmeta, J. and Centilli. (1997)** Intrusión Sintectónica del Granito de las Torres del Paine, Andes Patagónicos de Chile. Reviste Geológica de Chile. Vol. 24, No. 1, pp. 55-72. 1997.
- Sillitoe, R.H. (1985)** Ore-Related Breccias in Volcanoplutonic Arcs. Econ. Geo. Vol. 80, pp. 1467-1514. 1985.
- Sillitoe, R.H. (2000)** Role of Gold-Rich Porphyry Models in Exploration. S.G. Hagerman and P.H. Brown (Eds.). Gold in 2000, Reviews in Econ. Geo., Vol. 13, pp. 311-346. 2000.
- Sillitoe, R.H. and Gappe, I.M. (1984)** Philippine Porphyry copper-gold Deposits: Geologic Setting and Characteristics, UNESCO Asia-Pacific, Comm. Coord. Joint Prospecting Mineral Resources Asian Offshore Areas Tech. Pub. No. 14. 1984.

## 22 CERTIFICATE OF QUALIFICATIONS AND DECLARATION

I, Brian Leslie Cole, P.Ge., do hereby certify that:

I currently have a business address at 3979 Victoria Ave, Vineland, Ontario, L0R 2C0, Canada.

I am a graduate of Lakehead University, Thunder Bay, Ontario, with an Honours Bachelor of Science degree – Geology, completed 1978.

I have worked as a geologist for a total of 31 years since my graduation, both domestically and internationally. Experience has been primarily focused in gold exploration and to a lesser degree in base metal, diamond, uranium exploration, and geothermal. More specifically, I have reviewed or performed mineral resource estimations of gold intermittently over the last 20 years. These have mainly dealt with epithermal, porphyry-related, and lode gold deposit types in South America and the Caribbean.

I am a Practising Member in good standing with the Association of Professional Geoscientists of Ontario, (APGO member #0165), the Professional Engineers and Geoscientists of Newfoundland and Labrador (#04830), as well as the Association of Professional Geoscientists of Nova Scotia (APGNS #0155).

I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I fulfill the requirements of a “qualified person” for the purposes of NI 43-101.

I am responsible for all sections of the technical report titled “**Progress Report on the Pinaya Gold/Copper Property, Caylloma and Lampu Provinces, Peru**” and dated effective **May 05, 2011** (the “Technical Report”) relating to the **Pinaya Project** in Peru. I visited the aforementioned property on April 08-09, 2010 for two days.

I have had no prior involvement with the property that is the subject of the Technical Report.

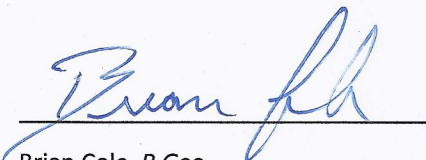
To the best of the author’s knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading. .

I am independent of the issuer as described in section 1.4 of NI 43-101.

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

I consent to the filing of the Technical Report by **AM Gold Inc.** with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electron publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 05<sup>th</sup> day of May, 2011



Brian Cole P.Ge.

