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SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

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Form 6-K

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16 of
the Securities Exchange Act of 1934

For the month of: April, 2005 Commission File Number: 1-9059

BARRICK GOLD CORPORATION
(Name of Registrant)

BCE Place, Canada Trust Tower
Suite 3700
161 Bay Street, P.O. Box 212
Toronto, Ontario
Canada M5J 2S1
(Address of Principal Executive Offices)

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Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F ___ Form 40-F _X_

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): _X_

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ___ No _X_

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): N/A

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BARRICK GOLD CORPORATION

Date: April 4, 2005

By: ______________________
Name: Sybil E. Veenman
Title: Vice President, Assistant General Counsel and Secretary

EXHIBIT INDEX

Exhibit	Description of Exhibit
1	Technical Report Pascua-Lama Project Region III, Chile San Juan Province, Argentina March 30, 2005
2	Technical Report Veladero Project San Juan Province March 30, 2005

EXHIBIT 1

Technical Report

Pascua-Lama Project

Region III, Chile

San Juan Province, Argentina

Rene Marion, P. Eng, Vice President, Technical Services

Alex Davidson, P. Geo, Executive Vice President, Exploration

Barrick Gold Corporation

March 30, 2005

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Disclaimer

Certain statements included herein, including those regarding estimated construction costs, estimated operating costs, estimated recovery rates and timing and amount of production, constitute "forward looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results to be materially different from future results, performance or achievements expressed on implied by such statements. These risks, uncertainties and other factors include, but are not limited to: changes in the price of gold, silver and certain other commodities; legislative, political or economic developments in Chile or Argentina; operating or technical difficulties in connection with development or mining activities; and the risks involved in the exploration, development and mining business.

1.0 Summary

1.1. Project Overview

Introduction

This Technical Report has been prepared for filing pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators in connection with reserve and resource estimates and certain other information relating to Barrick Gold Corporation's (Barrick) Pascua Lama property as of 31 December 2004. The format and content of this report are intended to conform to Form 43-101F1, Technical Report.

Unless stated otherwise, all quantities are in metric units and currencies are expressed in constant 2004 US dollars. The mineral resource and mineral reserve summaries are reported in both imperial and metric units. The following metal prices and currency exchange rates were used as a basis for this report:

Table 1-1: Pascua-Lama Metal Prices and Exchange Rates

Metal Prices for Reporting (US$)	
Gold	375.00
Silver	5.50
Copper	0.90
Exchange Rates (US$)	
Chile Peso	675.00
Argentina Peso	3.00

The Qualified Persons responsible for preparation of this report are Rene Marion, P. Eng, Vice President, Technical Services and Alex Davidson, P. Geo. Executive Vice President, Exploration of Barrick. This report has been prepared by employees of Barrick under the supervision of Mr. Marion and Mr. Davidson. Information in this report is based on work conducted by Barrick geologists, engineers, and metallurgists as well as third party consultants retained by Barrick.

Property Description and Location

The Pascua-Lama property straddles the Chilean-Argentine border in the "Cordillera de Los Andes". The Pascua portion of the deposit, which contains the majority of the gold/silver mineralization, is situated on the Chilean side of the border in Region III, approximately 150 km southeast of the town of Vallenar. The Lama portion of the property is located within the Province of San Juan, Argentina, 380km northeast of the provincial capital city of San Juan. The entire project is encompassed by a defined "Protocol Area" that allows free passage of persons involved with the project across the border between the two countries.

Title

The Pascua-Lama property consists of various mineral and exploration concessions granted by the Republic of Chile to Compañía Minera Nevada (CMN), Barrick's wholly owned Chilean subsidiary and by the Republic of Argentina to Barrick Exploraciones Argentina S.A. (BEASA), Barrick's wholly owned Argentinean subsidiary. The topography on the property is steep and rugged, and is characterized by high sierras and deep valleys with natural slopes of 20 to 40 degrees. Elevations on the property range from approximately 4300 m to 5250 m above sea level.

Environmental Permits

In May 2001, The Regional Commission of Environmental Protection, Region of Atacama, Republic of Chile, issued Resolution No. 39 approving the Environmental Impact Statement (EIS) and cleared the way for CMN to apply for sector permits. In October 2004, Barrick submitted a second EIS in respect of subsequent modifications to the project.

The Environmental Impact Statement (IIA) relating to the portion of the mine, mill and tailings storage facility for the project located in Argentina was originally submitted in August 2000 and was subsequently updated to incorporate the cumulative impacts of the construction and development of Barrick's nearby Veladero project. The updated IIA for Pascua Lama was submitted in December 2004.

1.2. History

Pre-Barrick

To date no significant mining activity has taken place in the general vicinity of the Pascua-Lama project area. Following discovery of the El Indio deposit 45 km to the south in the mid-1970's, exploration efforts by St. Joe Minerals' (St. Joe) Compañia Minera San Jose (CMSJA) and other companies to locate similar high grade gold vein systems intensified in the surrounding region. This increased activity resulted in the discovery in 1977 of anomalous levels of gold mineralization in what was at that time identified as the Nevada Sector (synonymous with the Pascua project area). On the Argentina side, St. Joe Minerals conducted exploration in the Lama sector through its subsidiary, Compañia Minera Aguilar S.A.

From 1977 to 1980, mapping and chip sampling were performed at Pascua, as well as a broad geochemical sampling program. Diamond drilling started during the 1980-1981 field season, and three tunnels were developed the following season, for a total of 818m. Surface drilling and underground development continued through 1984 with a joint venture between CMSJA, Anglo American, and Compañia Minera Mantos Blancos. In 1984 Anglo American withdrew from participation in exploration of the Pascua Project and no field work took place until late 1987 when Bond Gold International Inc. (Bond), following its acquisition of St Joe Minerals Ltd., resumed drilling. During the next 2 years, until late 1989, a series of 37 conventional and RC holes, 14 diamond core holes and 142m of underground development took place, mostly targeting the Esperanza area. From late 1989 to 1994, LAC Minerals Ltd. (LAC) drilled a total of 159 RC holes, almost exclusively in Esperanza.

Barrick

From 1994 to present, Barrick, following its acquisition of LAC in September 1994, added 1,081 RC holes and 540 core holes for ore definition, geotechnical and hydrology purposes and condemnation drilling. Core holes were drilled both from surface as well as from the Alex tunnel. The Alex tunnel, totaling 4300 m, started in 1996 and broke through on the Argentina side of the border in 1999. The 438 meters Geomet (or 4810) tunnel was started in 2001 and finished in early 2002, to further test metallurgy.

1.3. Geology

Regional Geology

The Pascua-Lama deposit is situated at the crest of the high cordillera of Region III, along the international border between Chile and Argentina and on the northern edge of a major mineralized trend known as the El Indio belt. This trend, along which a number of major precious metal deposits are located (including the nearby Veladero deposit), stretches 47 km. south of Pascua-Lama to the El Indio deposit and adjacent Tambo deposit.

The geology in the region is dominated by extrusive volcanic rocks that are locally intruded by hypabyssal stocks of varying size and numerous dikes and sills, while the regional structure in and around the gold deposits and prospects in the El Indio belt is dominated by northerly-trending high angle reverse faults, normal faults and fold belts oriented parallel to the major structural grain. Pascua-Lama is positioned near the center of a northerly trending graben that contains nearly the entire Tertiary volcanic sequence that is distributed along the spine of the cordillera in Chile and Argentina.

Deposit Geology

Locally, the Pascua-Lama area has been the center of repeated intrusive and volcanic activity, beginning with a sequence of dacite and rhyolite ignimbrite ash flows deposited in the early Permian. The flows were then intruded during Late-Permian/Triassic time by a granite batholith, which comprises the Pascua-Lama granite intrusive complex and occupies the central and eastern portions of the district, the dominant host lithology for the deposit. After a long hiatus that extended into the Oligocene, numerous small diorite stocks and dikes were intruded into the granite complex and volcanics. Dike emplacement continued into the Miocene, followed by deposition of Upper Middle Miocene dacite ash flows. This Miocene intrusive activity was the precursor to the magmatism and associated hydrothermal activity around 8.78-8.79 Ma that produced the Pascua deposit. In the waning stages of mineralization the emplacement of rhyodacite porphyry dikes concluded the magmatic activity at Pascua-Lama.

Numerous breccia bodies are also present in the Pascua-Lama area. In surface outcrop, these breccias vary in dimension from centimeters up to hundreds of meters in diameter. Typically the breccias show a strong correlation to zones of intersection of two or more major structural zones, as described in the following section. Brecha Central in the Quebrada de Pascua area is a good example of a matrix-supported breccia pipe that formed as a result of an explosive hydrothermal event related to the emplacement of the main portion of the Pascua deposit.

Structure

Most faults in the Pascua-Lama deposit are wider in surface outcrop and contain more gouge and breccia than in the subsurface where the same structures are intersected by underground workings. Individual faults tend to be narrower in width when hosted by silicified rock as opposed to argillized rock. There is also a tendency for the faults to bifurcate into multiple splays close to and within mineralizing centers, whereas single structures are more the norm peripheral to and outside of these centers. The seven main structural sets are referred to as Pedro (345° - 010°), Esperanza (010° - 030°), Pascua (280° - 315°), José (315° - 345°), Raul (030° - 065°), Escondite (065° - 100°), and Flats (360° - 030°).

1.4. Deposit Type

The gold, silver, and copper mineralization and alteration assemblages at Pascua-Lama are associated with a structurally controlled acid sulfate hydrothermal system hosted by intrusive and volcanic rock sequences of Upper Paleozoic and Middle Tertiary age. Alteration and mineralization is of the high-sulfidation, epithermal type. Throughout the Pascua-Lama district, the alteration and mineralization appear to have been strongly controlled by structure. This control is most evident along the Esperanza, Pedro and Quebrada de Pascua fault systems. As is typical with high-sulfidation epithermal deposits, the principal metal commodities at Pascua-Lama are gold and silver – the copper content is sub-economic.

1.5. Mineralization

Occurrence

The emplacement of mineralization (as well as development of the breccias which host mineralization) at Pascua was controlled by high angle faults. Six high angle fault sets have been identified, striking west-northwest, north-northeast, north-south, northwest, northeast and east-west. The breccias, which host much of the gold-silver mineralization, occur at the intersections of three or more fault sets. In total, at least 14 major centers of mineralization and a number of smaller centers have been recognized, of which Brecha Central is the most significant.

Precious Metals

Gold occurs primarily as native metal at Pascua-Lama, but it also is found in very minor amounts in gold telluride inclusions within enargite. Silver mineralization grossly mimics the distribution of gold but over a much broader lateral area. In any particular zone, silver typically occurs across widths that are two to three times those of gold. Other than gold and silver, copper is the only metal in the Pascua-Lama deposit that occurs in significant quantities, primarily as enargite and copper sulfates. Although local zones of higher grade copper can be found that are up to one meter wide and run as high as 10 percent copper, most copper values range between 0.1% and 0.4%.

Sulfides

The principal sulfide gangue minerals in the Pascua-Lama deposit include four stages of pyrite and enargite, with very minor amounts of galena and sphalerite (which are found mostly as constituents in quartz veinlets), covelite and chalcocite. Pyrite comprises approximately 88% to 92% of all sulfides, with enargite accounting for the remaining 8 to 12%.

Oxides and Sulfates

Oxide minerals are found across the Pascua-Lama deposit as products of weathering or hydrothermal alteration and include limonite, hematite, jarosite, kaolinite, and dickite. Sulfates are also present in the Pascua-Lama deposit and include the insoluble sulfates barite, gypsum, and anglesite, and an abundant suite of soluble sulfates that include szomolnokite, voltaite, rhomboclase, and coquimbite.

Alteration

Alteration is intimately associated with precious metal mineralization at Pascua-Lama. An early advanced argillic alteration stage consists of quartz-alunite-pyrite haloes that are most intense around mineralizing centers. Superimposed on the advanced argillic assemblage is a steam heated alteration stage, which on the surface consists of an east-west elongated zone centered on Brecha Central, extending eastward to the cliffs that form the surface expression of the Lama fault zone in Argentina.

A silica cap that ranges from 100 m to 325 m thick occupies a position beneath the main body of steam heat alteration. The cap is divided into three zones – an upper silica-gold zone, a middle pyrite-silica zone, and a lower pyrite-szomolnokite zone, which is the most prominent of the three and is where gold contents in the cap are the highest. The blanket of silver enrichment mentioned previously in this section crosscuts all three zones. The cap is generally thickest on the margins of the deposit.

The alteration and mineralization types found in most of the mineralized centers of the Pascua-Lama deposit are similar, but the orientation of the fracture sets that provide the plumbing for the mineralizing fluids at each center can be different. Almost 98% of all structural data collected from the deposit is related to veinlets, and very few structures lack some form of hydrothermal filling.

1.6. Drilling

Drilling at Pascua-Lama has been conducted by four separate companies since discovery of mineralization in 1987. These include St. Joe Minerals (St. Joe) under its Compañia Minera San Jose (CMSA), Compañia Minera Nevada S.A. (CMN) and Compañia Minera Aguilar S.A. subsidiaries, Bond Gold International under its acquired CMN subsidiary, LAC Minerals under its acquired CMN subsidiary, and Barrick Gold Corporation under its acquired Barrick Chile and CMN subsidiaries. Drilling methods used for exploration include conventional down-the-hole (DTH) drilling, conventional rotary drilling, reverse circulation (RC) drilling and surface and underground diamond core drilling.

Much of the upper 300m in the deposit has been drilled from the surface by vertical DDH and RC holes or clusters of angle holes that fan outwards from individual drill sites. This has resulted in more tightly-spaced data just below the drill sites near the surface which grade rapidly into sparser data concentrations in the areas between drill sites. With depth, data spacing becomes more uniform due to the geometry of the overall drill hole pattern. The flatter holes drilled from the Alex tunnel have provided essential definition of the high-angle structures in the deposit, and has greatly improved the interpretation of the geology of the deposit in the third dimension. No drilling has been carried out since 2002.

The drill hole database for the Pascua-Lama property contains 1,173 reverse circulation holes, 562 diamond drill core holes, 22,302 meters of underground tunnel samples and 12,774 meters of surface trench samples. Samples totaling 322,288 meters from reverse circulation holes, 151,265 meters from diamond drill core holes, 22,302 meters from underground tunnels.

1.7. Sampling

Sampling of surface rock outcrops and trenches excavated to expose bedrock was performed manually. No written sampling protocol existed for this sampling, which mainly took place during the early years of exploration prior to Barrick's acquisition of the project. Channel sampling and/or chip sampling was done for nearly all-underground workings driven on the Pascua-Lama project. Little is known about the protocols observed during sampling of the earliest tunnels (Esperanza, Frontera, Maria, Nevada and Alan). The majority of the channel sample data that contribute to the estimation of Pascua-Lama mineral resources comes from the Alex tunnel on the 4860 elevation, which was driven between late 1996 and 1998 after Barrick's acquisition of the project. In addition to providing assay data for estimation of mineral resources, the Alex tunnel channel sampling was critical to the characterization of material types for metallurgical testing. Channel samples also contributed heavily to the make-up of metallurgical composites.

RC Sampling

The first RC drilling on the Pascua-Lama project was under the direction of LAC, and consisted of relatively small-diameter (4.25-inch) holes. The sampling of RC drill cuttings for assay reportedly followed generally accepted industry practices, where samples were taken every 1.0m during drilling, and collected and bagged at the drill rigs after being reduced using either rotary splitters or conventional riffle splitters.

Diamond Drill Core Sampling

Since 1988, most diamond core holes drilled have been HQ or NQ when drilled from the surface and NW or NQ when drilled from underground stations. Core samples were collected on 1.0m down-hole lengths except where geologic contacts or visual breaks in mineralization type were noted, in which case sample lengths could be less than 1.0m or between 1.0m and 2.0m. Initially, drill core was split longitudinally for assay using diamond saws but starting in1998, conventional hydraulic or manual core splitters were used in order to help avoid the possible loss of gold during the core splitting process.

Metallurgical Sampling

At the time of Barrick's acquisition of LAC in 1994, the mineralization that had been identified and partially delineated was situated in the Esperanza area, and consisted of approximately 1.2 million ounces of gold in oxide material. Metallurgical testwork completed in 1994 by LAC used samples from drill holes and bulk samples collected from surface road cuts to investigate both heap leach and mill processing alternatives.

With the discovery of additional oxide and refractory mineralization in the Quebrada de Pascua area, metallurgical sampling and testing requirements became more complex. Work in 1996 continued on oxide material, while preliminary testing on refractory mineralization began to reveal additional complexities, such as higher reagent consumptions (particularly cyanide), lower gold and silver recoveries, and material with very high soluble sulfate content. The growing understanding of the complexity of the mineralization in the deposit indicated the need to identify and characterize ore types to help guide process testwork. A set of 25,800 sample pulps were sent for analysis and based on the results, seven ore types for the deposit were defined at that time. In 1998, several bulk samples were collected and sent to Lakefield Research in Canada as well as Fuller Company for pilot plant testwork.

Material Density

More than 4,000 individual density determinations were done using the water immersion method on wax-covered samples, the majority of which were taken from diamond drill core. Density determinations that are based on the standard waxed core/water immersion method and which were performed on material that does not have a wide range of sulfide content form a solid basis for the assignment of material density values in resource block modeling.

1.8. Sample Preparation, Analysis, Security & QA/QC

Sample Preparation

Exploration drilling, sampling, sample preparation, analyses, and sample security activities were separate and distinct for the Pascua and Lama portions of the deposit until the 2001-2002 field season. Sample preparation and analyses for the Pascua side were managed out of La Serena, Chile, while similar activities for the Lama portion of the deposit were conducted out of San Juan, Argentina.

The sample preparation procedures used by St. Joe/CMSJA and CMN prior to LAC's acquisition of the project are unknown, although all St. Joe/CMSJA samples reportedly were prepared at St. Joe's in-house laboratory facility in La Serena, Chile. During LAC's tenure as owner of CMN and the Pascua project, sample preparation was moved to the exploration camp at the project site.

In 1998, the preparation of Pascua samples was transferred back to Geoanalytica's laboratory in La Serena, where the drying temperatures were lowered to 50°C.

Sample Analysis

No documentation is available regarding the sample analysis procedures used during the tenure of St. Joe/CMSJA/Bond on the Pascua project. During LAC's tenure, all primary analyses were done at the Centro de Investigación Minera y Metalúrgica (CIMM) Santiago laboratory facility, using a combination of aqua regia digestion with MIBK organic back extraction and atomic absorption (AA) finish, and conventional fire assay with gravimetric finish. In some cases where initial aqua regia analysis indicated gold contents in excess of 1.0 g/mt, follow-up fire assays were run. In 1994, approximately 50 percent of the more than 50,000 gold analyses in the Pascua database were fire assay data. After Barrick acquired the Pascua project, all samples were analyzed by fire assay.

On the Lama side, because the exploration activities were run out of the Barrick office in San Juan, Argentina, by different personnel, samples were sent to the laboratory operated by Bondar Clegg (BC) in Santiago for gold, silver, and copper determinations. All gold determinations were by fire assay, with an atomic absorption spectroscopy (AAS) finish. For samples that assayed 5.0 g/mt gold or greater, the samples were rerun by fire assay using a gravimetric finish.

Sample Security

All samples remained in the possession of CMN employees during transport from the drill rigs and/or sample sites (surface trenches and underground workings) to the on-site and third party preparation facilities. Transfer of pulps from the sample preparation facilities to the CIMM laboratory in Santiago was by either common carrier in sealed containers or by CMN, Geoanalytica, or Acme employees. No documentation describing transportation of samples drilled or taken during the St. Joe/CMSJA field seasons exists.

QA/QC

No documentation is available to verify the existence of a standard quality assurance/quality control (QA/QC) program at Pascua prior to LAC's tenure on the project. The earliest record of a program is found in a report issued by an external consultant in November 1994, as part of its review of the Pascua project.

The QA/QC program put in place after Barrick's acquisition of the Pascua-Lama deposit included the submission of pulp duplicates every 20th sample to CIMM in Santiago and Bondar Clegg in La Serena for Lama samples, and to Acme and Bondar Clegg for Pascua samples. Pascua coarse reject duplicates were sent to Geoanalytica for analysis and Lama coarse reject duplicates were sent to CIMM in Santiago. An external consultant reviewed the QA/QC program and confirmed that, except for the lack of submission of blank samples to the sample preparation facility and blank pulps to the primary assay, this QA/QC program was in accordance with accepted North American practices.

On the Lama side, an internal Barrick review of the 1998 Lama Comsur drilling program described the collection of field duplicates every 20th sample for blind submission to the sample preparation facility, the insertion of a field blank every 40th sample, and submission of pulp duplicates to three independent laboratories. The latter procedure, in conjunction with laboratory internal duplicate analyses, was used by Barrick as a substitute for the submission of standard samples, as no standards were available.

QA/QC was reviewed on an ongoing basis by an external consultant during the period 1998-2001. Necessary adjustments to protocols were made as recommended.

1.9. Mineable Reserves and Mine Plan

Design Parameters

The deposit comprises the Pascua, Esperanza, El Morro and Penelope orebodies. All of the orebodies are scheduled as part of the reserve estimate.

Mine planning is based on the 16x16x16m resource model for Pascua Lama, 8x8x8m resource models for Esperanza (Phase 7) and El Morro (Phase 6) and the 12x12x8m model for Penelope.

The pit design reflects geotechnical pit slope recommendations from Barrick's geotechnical consultants together with design reviews by consultants and Barrick geotechnical staff during the planning studies.

Metallurgical recoveries for pit limit analysis are fixed for Refractory ore and set at Au 74% and Ag 80% for NR and NRW, and Au 34% and Ag 45.99% for concentrate. Variable recoveries were applied for Non-Refractory ore and result in average recoveries of Au 87.9% and Ag 77.4%.

Processing costs (including G&A), selling costs and other plant parameters are based on the studies prepared by Barrick during March/April 2004 reflecting underlying exchange rate forecasts and costs of 1st Quarter 2004.

The following metal prices were used for pit limit analysis, base final pit design and reserve reporting.

Table 1-2: Pascua-Lama Metal Prices for Pit Limit Analysis

Case	Gold (US$/oz)	Silver (US$/oz)	Copper (US$/lb)
Limit & Base Design, Reserve Reporting	375	5.50	0.90

Royalties for areas within Chile, Argentina and former Comsur areas within Argentina were considered based on applicable rates and allowances as show below.

Table 1-3: Pascua-Lama Royalties Rates

Royalty Area	Formula
Chile	0.0245 * Au revenues (variable with Au Price)
Argentina	0.03 * (Au credit + Ag credit – Pre-royalty costs)
Comsur	0.05 * Au credit (plus Argentina royalty)

SMU Assumptions, Bench Height, Dilution and Losses

Study results indicated the applicability of the 16x16x16m resource model and identified lower up-side opportunity for greater selectivity than previously used. On this basis, no additional factors were applied for dilution and losses other than that inherently included in the 16m resource model regularization basis.

In the case of Esperanza and El Morro, 8m bench drilling and blasting with a reduced blast pattern and selective excavation with hydraulic excavators is assumed for ore and associated waste.

Pit Limit Analysis Results

Economic pit limits were determined using the Whittle 4X software and confirmed with Earthworks NPVScheduler software using the reserve metal prices.

Pit Design

The pit envelope corresponding to the reserve metal prices was used for the design of the Pascua operational final pit, eliminating the bottom benches smaller than the minimum area required for the operation of the equipment and developing the ramp layout.

Mineable Reserves

Mineable reserves, within the final pit design under Reserve conditions, using a minimum revenue cut-off of 0.00 US$/t for Pascua and 0.50 US$/t for Penelope are:

- 360.8 Mt with an average gold grade of 0.049 oz/t and an average silver grade of 1.783 oz/t, containing 17,615 koz of gold.

Phase Design

For scheduling purposes, the pit has been split into 10 logical mining phases following the sequence determined by the pit limit optimization runs, 7 in the Pascua–Lama orebody, 2 in Esperanza and one in El Morro.

Mine Production Schedule

The mine production schedule is over 17 production years followed by three years of stockpile reclaim. Peak mine capacity is 126.6Mt/a. In addition a total of 60.1 Mt of ore is sent to a long-term stockpile and treated at the end of the mine life. Plant feed is initially at a rate of 33ktpd and expands to 44ktpd (16Mt/a) from year 4 when refractory ore is also scheduled in the plant feed.

Waste Dump Design and Schedule

A total of 1,504 Mt of waste rock will be produced during the life of the mine. Of this, 162 Mt correspond to steam heated material and 1,342 Mt of other rock types. This includes 15 Mt of waste material from the Penelope pits.

Equipment Requirements

The bulk of mining is based on the use of electric rope shovels of 54m^3 capacity, loading 232t trucks. Ore and associated selective waste mining is with 30m^3 hydraulic excavators and support and stockpile rehandle is with 25m^3 front-end loaders.

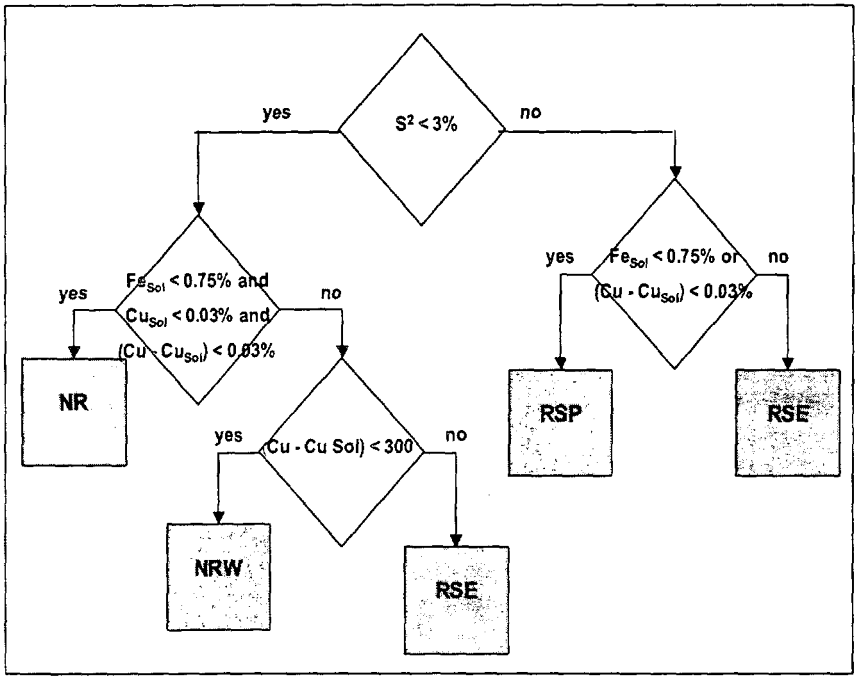
1.10. Mineral Processing and Metallurgy

The Pascua ores are very complex ranging from highly oxidized ore where the gold and silver can be recovered by conventional cyanide leaching, to highly refractory ore where the precious metal recovery is unacceptably low. Significant metallurgical test work was conducted on the Pascua Lama ore between 1996 and 1999. This work included bench-scale testing, pilot plant testing and mineralogical investigation.

Ore Classification

An ore classification system was developed, based on the mineralogy and ore processing requirements. (Figure 1-1)

Figure 1-1: Metallurgical Ore Classification Hierarchy



NR – Non Refractory

This classification describes oxide ore (<3%S=), which contains only small amounts of soluble minerals (< 0.75% Fe(sol) and <0.03% Cu(sol)).

NRW – Non Refractory Wash

This classification describes oxide ore (<3% S=), which contains significant amounts of soluble minerals (>0.75% Fe(sol) and/or > 0.03% Cu(sol)).

RSE – Refractory Sulphide Enargite

This classification describes sulphide ore (>3% S=), which contains significant enargite, the primary copper sulphide mineral of the Pascua deposit (Cu-Cu(sol)>0.03%).

RSP – Refractory Sulphide Pyrite

This classification describes sulphide ore (>3% S=), which contains only small amounts of copper sulphide minerals (Cu-Cu(sol) <0.03%). Pyrite is the major sulphide mineral and gold and silver are associated with it.

Mineralogy

Gold at Pascua occurs in three major mineralized facies:

- Alunite – Pyrite – Enargite (APE)
- Pyrite – Szomolnokite (PS)
- Oxidized rocks (OR)

Recoveries

A review of the recovery estimate was completed by an external consultant in August 2003. Recovery estimates based on this review of the referenced data are presented in Table 1-4.

Table1-4: Estimated Recoveries

Refractory Sulphide Ore			Oxide Ore		Esperanza Ore	
% Au	% Ag	% Cu	% Au	% Ag	% Au	% Ag
73	80	60	90	77	90	39

Processing

The Pascua Lama Process Plant is designed to initially treat 33,000 tpd of ore that contains 2.2 g/t of gold and 80.0 g/t of silver. The process design includes crushing, an overland conveyor, dry grinding, CCD washing and neutralization followed by cyanidation and treatment in a Merrill-Crowe plant and refinery. Tailings will be contained in a facility near the plant.

Based on standard metallurgical leach tests, the Pascua ore can be categorized into two main ore types: non-refractory and refractory.

During Years 1 to 3, the facility is designed to process 33 000 tpd of non-refractory ore, increasing to 44 000 tpd in year 4 with the beginning of refractory ore treatment.

Process Description

Crushing: Run-of-mine ore is dumped by nominal 232 t capacity haul trucks into a 1 370 mm x 1 880 mm gyratory crusher. Crushed ore is removed by a belt feeder and discharged onto a 1 220 mm wide downhill belt conveyor which discharges into an open 170 000 t (20 000 t live) coarse ore stockpile located adjacent to the secondary crushing building.

Dry Grinding: At 33 000 tpd, ore is ground in three parallel dry grinding circuits consisting of an EGL double rotator mill, two cyclones, two classifiers, two baghouses and two repulping tanks. A fourth circuit will be added to increase capacity to 44 000 tpd.

Slurry from the grinding circuit is washed to remove the soluble metals, neutralized and sent to the tailings thickeners.

Copper flotation will be required for the refractory ore, in Year 4.

Leaching: The washed ore (or flotation tailings) is pre-aerated at pH 10.5 for four hours and then leached in leach tanks with cyanide for 24 hours. Extracted metals are recovered in a pregnant solution in a CCD circuit. Solids are then discharged to cyanide destruct while the solution is clarified in preparation for gold and silver recovery.

Merrill-Crowe Circuit: Pregnant solution from the CCD circuit is first clarified in a clarifier and then further cleaned in rotating pressure leaf clarifiers. The polished pregnant solution is de-aerated in M-C towers, zinc dust and lead nitrate are added and the resultant precipitate is collected in recessed plate filter presses. The precipitate discharged into pans and the barren solution from the filter presses is returned to the process.

Refinery Circuit: The precipitate pans are loaded into mercury retorts for removal of the mercury from the precipitate. The dry precipitate from the mercury retort pans is recovered and is conveyed to dry precipitate storage bin. Flux is added to the precipitate and loaded into diesel-fired reverberatory furnaces. The slag is discharged into a slag granulation launder and the doré is poured into 5 000 oz bars.

Cyanide Destruction and Tailings Disposal: The cyanide destruction circuit uses the SO2 / Air process. Sulphur dioxide is generated by burning sulphur. Slurry discharging from the cyanide destruction tanks flows by gravity to the tailings pond.

Ancillary Facilities: The project is supported by Ancillary Facilities. At the plant site there will be offices, metallurgical laboratories, environmental laboratories, warehouses and maintenance shops. The open pit will have a combination facility that will include maintenance facilities for haul trucks and pit equipment as well as offices and warehouses. The tailings disposal facility is located in the Rio Turbio valley.

Power Supply: The Pascua Lama project will buy power from a public utility. Operating the transmission line is included in the unit rate for electric power and is consistent with present electrical contracts of similar energy usage.

Process Design Criteria

The process design criteria were prepared by third party consultants. The development of process design criteria was based on information contained in the reports and memoranda prepared by third party consultants, and Barrick test work performed at SGS Lakefield Research and based on Barrick and third party consultants' experience

The general criteria provided in the following table are the basis of design for the process plant. The annual mine output and plant throughput is 33 000 tpd at the start of the project for the first three years, and then increases to 44,000 tpd or 16,000,000 t/a. The average plant availability has been estimated to be 90%. This is affected by the complexity of the circuit and by the location.

1.11. Mineral Resource and Mineral Reserve Estimates

Introduction

The mineral resource and reserve estimates for Pascua-Lama have been prepared by employees of Barrick under the supervision of Rene Marion, P.Eng. Vice President, Technical Services of Barrick and Alex Davidson P. Geo, Vice President, Exploration of Barrick. Resource and reserve estimates are developed using commercially available VULCAN® software. Whittle 4X®, and QPit® software are used in various capacities to assist in the design and optimization of pits.

The coordinate systems used for the Pascua-Lama model ties to the UTM coordinate system.

Geologic Model

To develop a geologic model of the Pascua area, raw sample data were plotted on vertical cross sections oriented east-west. Sections were constructed every 25 meters. Combined with surface and underground mapping, the sectional samples information was used to develop boundaries for lithology, structure, and alteration.

The raw data and sectional interpretations were then posted in plan every thirty meters and re-interpreted. The thirty-meter sectional interpretations were linked to create final solids and surfaces.

Gold, silver, and copper mineralization were also interpreted on section and plan by constructing grade envelopes for gold (> = 0.40 gram/tonne), silver (> = 30 gram/tonne), and copper (> = 0.05 percent).

Interpretation of the grade envelopes was strongly influenced by the structural and alteration boundaries.

The lithology and alteration solids were loaded into a block model measuring 8m x 8m x 8m. Owing to the detail of the gold and silver grade envelopes, they were loaded into 4m x 4m x 4m blocks. An iterative series of interpolation runs were performed in order to define the mineralized and waste blocks on 4-meter levels between the 30-meter levels. Blocks within these envelopes were then used for gold and silver grade estimation.

A computer routine was developed to calculate directional gold grade continuity for each model block within the gold "pick-up sticks model" along each of eight major mineralized structural trends. These trends were used to create tight anisotropic search strategies for block grade estimation.

Mineral Resource Estimation

Gold grades were estimated for each 4m x 4m x 4m block inside the grade envelopes, using multiple passes and respecting directional controls. Gold grades were estimated by the inverse distance cubed method using multiple passes with each run using progressively longer search ranges.

Block Regularization

Dilution and ore loss studies were done starting with the 4m x 4m x 4m resource model as the underlying grade model. Based on the trade off of mining cost savings and productivity versus dilution and ore loss, a final selective mining unit (SMU) of 16m x 16m x 16m was chosen.

Density

In-situ density values were assigned to the model blocks based on alteration type.

Resource Classification

The resource model blocks were classified based on the distance to the nearest sample data. In addition to distance to data, resource classification was also based on a net revenue function where four basic cases were evaluated:

- Gold and silver revenue were each greater than mining+processing costs
- Only gold generated positive net revenue
- Only silver generated positive net revenue

- Both gold and silver were required to generate positive net revenue

Metallurgical Model

The metallurgical model was constructed using a block size of 8m x 8m x 8m. Because the metallurgical ore types are based on the cutoff grades of five elements or solubility components (see Figure 1-1), an indicator approach was chosen to define populations above and below the cutoff grades that were used for making metallurgical ore type assignments. Metallurgical grades were estimated using an indicator approach that defined two populations based on a cutoff grade. Metallurgical grades were then estimated for each of the flagged populations using a two-pass inverse distance squared strategy. The same isotropic search distances and composite selection criteria that were used for estimating the indicators were also used for estimating metallurgical grades. Copper grades were estimated using a multiple pass estimation strategy.

Mineral Resource and Mineral Reserve Statements

The Pascua-Lama mineral resources and mineral reserves were established using a long-term gold price of US$375/oz. The Pascua-Lama open pit mineral reserves for December 31, 2004 are shown in Table 1-6. Cutoff grades for mineral reserves are $0.0 net profit with the exception of Penelope, which is stated at $0.50 net profit.

Table 1-6: Pascua-Lama Mineral Reserves

	PROVEN			PROBABLE			TOTAL			Silver Contained in Proven and Probable Gold Reserve		
	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)
NR	15,976	0.052	832	126,528	0.040	5,045	142,505	0.041	5,876	142,505	1.477	210,502
NRW	8,972	0.046	409	102,591	0.041	4,158	111,563	0.041	4,567	111,563	2.250	251,060
RSP	1,138	0.084	95	9,158	0.059	537	10,296	0.061	632	92,734	1.760	163,256
RSE	9,038	0.077	699	83,696	0.066	5,506	92,734	0.067	6,205	10,296	1.700	17,508
Penelope				3,661	0.091	334	3,661	0.091	334	3,661	0.235	859
Total	**35,124**	**0.058**	**2,035**	**325,635**	**0.048**	**15,580**	**360,759**	**0.049**	**17,615**	**360,759**	**1.783**	**643,185**

While reserves were developed using a $375/oz, gold price, mineral resources were summarized within pit shells generated at $400/oz . The gold resources are summarized in Table 1-7. All mineral resources are exclusive of mineral reserves.

Table 1-7: Pascua-Lama Gold Resources Exclusive of Reserves

	MEASURED (M)			INDICATED (I)			TOTAL (M) + (I)			INFERRED		
	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)
Pascua	5,724	0.058	333	37,744	0.065	2,464	43,468	0.064	2,797	35,146	0.043	1,496
Penelope										1,582	0.074	117
Total	**5,724**	**0.058**	**333**	**37,744**	**0.065**	**2,464**	**43,468**	**0.064**	**2,797**	**36,728**	**0.044**	**1,613**

1.12. Economic Analysis

Method of Evaluation

The overall economic viability of the Pascua Lama Project has been evaluated by conventional discounted cash flow techniques.

Discounted cash flow analysis requires that reasoned estimates be prepared for all of the individual elements of cash revenue and cash expenditures that will be associated with initial development and construction of the Project, as well as with its ongoing operation up to the end of the projected life. The relevant estimates of production, revenue and cost, including royalties and taxes, have been discussed in the preceding sections of this report and are summarized below.

Initial construction costs for the project are expected to be in the range of $1.4 to $1.5 billion. A further $250 million in investments in the first three years of production will bring the plant capacity to 44,000 tpd and allow for the flotation of the copper concentrate.

All monetary amounts used are in constant US dollars of 1st quarter 2004 value based upon selective budget quotes from vendors, third party engineering firms, escalated costs from the engineering work in 2000, and operating costs based upon experience and bench marketing in Chile and Argentina.

Over the first decade of production, total cash costs are expected to be in the range of $130-140 per ounce of gold produced, based on the prevailing exchange rate in 2004 (subject to exchange rate fluctuations and excluding any applicable export duties).

As the Project matures, operating costs are expected to increase and earnings decline due to the effect of declining silver credits, declining grades, additional costs incurred from stockpile rehandle and the accounting treatment of the deferred stripping charges. Over the mine life it can be reasonably expected that some of this decrease will be offset by cost improvements and new sources of reserves from exploration success.

Reclamation costs are assumed to occur during the last two years of operation and one following the cessation of operations.

Production Schedule

The Pascua Lama Project will generate the majority of its economic value from gold and silver leached or floated from the ore. In gross terms overall average recoveries for gold and silver are estimated to average 83% and 78% respectively though recoveries for specific ore types will deviate substantially. Leach solutions will be recovered on site and processed to produce dore bars with further refining occurring at an off-site refinery. Flotation concentrate will also be produced on site and sold to a smelter for ultimate recovery of the contained metal. 80% of the gold ounces and 62% of the silver ounces will be recovered from Chilean ore and 20% of the gold ounces and 38% of the silver ounces will be recovered from Argentine ore. The processing rate initially will be 33,000 tonnes per day and will rise to 44,000 tonnes per day with the completion of the plant expansion in year 4. Over the first decade of production, an average of 750,000 to 775,000 ounces per annum is expected to be produced.

Revenue Schedule

Silver sales (at Au $375 and Ag $5.50) represents 34% of total revenue generated from the sale of gold and silver produced over the life of Pascua Lama. For economic and financial analysis purposes silver has been treated as a by-product. In accordance with industry standard by-product accounting practices, the revenue generated from the sale of silver is treated as a credit against the cost of producing gold, rather than as a component of Project revenue.

Taxation

The principal element of the tax cost is attributable to an estimate for tax on the cross border component of mining and other taxes imposed in Argentina (bank transaction tax, charge for advance recovery of Value Added Tax, tax on equity).

Because the Argentine government has stated that the export duty (5% on gross sales imposed as a temporary measure in 2002) will be reduced in 2005 and eliminated altogether by 2007, the economic analysis assumes that this will not be applicable on either production mined from Argentina (first significant tonnage in 2015) or Chilean ore processed at the plant from start-up. Royalty legislation proposed to the Chilean Congress on July 5th 2004 is not included in the economic analysis, as the outcome is uncertain and Pascua-Lama may eventually be exempt under the current stability agreement.

1.13. Conclusion

Engineering studies have demonstrated the technical feasibility of producing significant quantities of gold and silver from the Pascua Lama Project. The economic viability of the Project has been evaluated by conventional discounted cash flow analyses, based on the engineering studies and cost estimates discussed herein, coupled with an assessed spot gold and silver price of $375 and $5.50 per ounce respectively.

The projected rate of return in addition to other strategic considerations is considered to demonstrate that the Project is economically feasible.

2.0 Introduction and Terms of Reference

2.1. Introduction

This Technical Report has been prepared for filing pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects, of the Canadian Securities Administrators in connection with reserve and resource estimates and certain other information relating to Barrick's Pascua-Lama property as of 31 December 2004. The format and content of this report are intended to conform to Form 43-101F1, Technical Report. This report was prepared under the supervision of René Marion, P. Eng. Vice President, Technical Services of Barrick and Alex Davidson P. Geo, Executive Vice President, Exploration of Barrick who are the "qualified persons" responsible for the content of the report.

2.2. Terms of Reference

Unless stated otherwise, all quantities are in metric units and currencies are expressed in constant 2004 US dollars. The mineral resource and mineral reserve summaries are reported in both imperial and metric units. The following metal prices and currency exchange rates were used as a basis for this report:

Table 2-1: Pascua-Lama Metal Prices and Exchange Rates

Metal Prices for Reporting (US$)	
Gold	375.00
Silver	5.50
Copper	0.90
Exchange Rates (US$)	
Chile Peso	675.00
Argentina Peso	3.00

2.3. Sources of Information

This report has been prepared by employees of Barrick under the supervision of Mr. Marion and Mr. Davidson. Information in this report is based on work conducted by Barrick geologists, engineers, and metallurgists as well as third party consultants retained by Barrick.

3.0 Disclaimer

This report was prepared by employees of Barrick under the supervision of the authors. Certain information in this report is based on reports prepared by employees of Barrick and its retained consultants. While reasonable care has been taken in the preparation of this technical report, the authors cannot guarantee the completeness or accuracy of supporting studies not prepared under their direct supervision.

4.0 Property Description and Location

4.1. Location

The Pascua-Lama property straddles the Chilean-Argentine border in the "Cordillera de Los Andes" (Figure 4-1). The Pascua portion of the deposit, which contains the majority of the gold/silver mineralization, is situated on the Chilean side of the border in Region III, approximately 150 km southeast of the town of Vallenar. The Lama portion of the property is located within the Province of San Juan, Argentina, 380 km northeast of the provincial capital city of San Juan. The entire project is encompassed by a defined "Protocol Area" (Figure 4-2) that is entitled to enjoy the benefits that are granted to cross-border mining operations that are granted in the Treaty on Mining Integration and Complementation between the Republic of Chile and the Republic of Argentina. The Specific Pascua-Lama Protocol under the Mining Treaty was signed into law by both countries in the third quarter of 2004. The Mining Treaty and the Protocol permits Barrick to control entry into the Protocol Area and allow free passage across the border between the two countries within the Protocol Area of persons involved with the project.

The Pascua-Lama property consists of various mineral and exploration concessions granted by the Republic of Chile to Compañía Minera Nevada (CMN), Barrick's wholly owned Chilean subsidiary and by the Republic of Argentina to Barrick Exploraciones Argentina S.A. (BEASA), Barrick's wholly owned Argentinean subsidiary.

4.2. Title

Barrick, through CMN, owns the surface property and the legal concessions for mineral exploration and exploitation of the "Protocol Area" of the Pascua Lama project in Chile. Title to the mineral concessions has been independently reviewed and verified.

Barrick, through BEASA, owns 90% of the surface property and the legal concessions for mineral exploration and exploitation of the Pascua Lama project in Argentina.

Royalties in Argentina and Chile are described briefly as follows: Pursuant to legislation passed by the government of the Province of San Juan, all gold and silver, among other ores, extracted from the property within the Province of San Juan are subject to a royalty, payable to the government of the Province of San Juan, of 3% of the value of the ore at the "mine mouth". In addition, Barrick is obligated to pay a gross proceeds sliding scale royalty on gold produced from the Pascua-Lama properties located in Chile ranging from 1.5% to 9.8% and a 2% net smelter royalty on copper produced from the properties. In addition, a step-scale 5% or 7.5% gross proceeds royalty on gold produced and a sliding scale net smelter royalty of 0.5% to 6% on all product other than gold and silver is payable in respect of certain portions of the property located in Argentina. The sliding scale and step-scale royalties on gold increase with rising spot gold prices. In Argentina a small portion of the property is subject to an additional 5% gold gross proceeds royalty.

4.3. Environmental Permits

In May 2001, The Regional Commission of Environmental Protection, Region of Atacama, Republic of Chile, issued Resolution No. 39 approving the Environmental Impact Statement and cleared the way for CMN to apply for sector permits. CMN maintains a continuous program and presence at the site to collect and prepare baseline data for the sector permits. In October 2004, Barrick submitted a second EIS in respect of subsequent modifications to the project.

The Environmental Impact Statement (IIA) relating to the portion of the mine, mill and tailings storage facility for the project located in Argentina was originally submitted in August 2000 and was subsequently updated to incorporate the cumulative impacts of the construction and development of Barrick's nearby Veladero project. The updated IIA for Pascua Lama was submitted in December 2004.

Following completion of the EIS processes in Chile and Argentina, Barrick will also need to obtain various sectoral permits for the construction and operation of the project. Based on Barrick's experience with permitting in Chile and the Province of San Juan, Barrick expects such permits to be obtained in the ordinary course.

Figure 4-1: Pascua –Lama Location Map

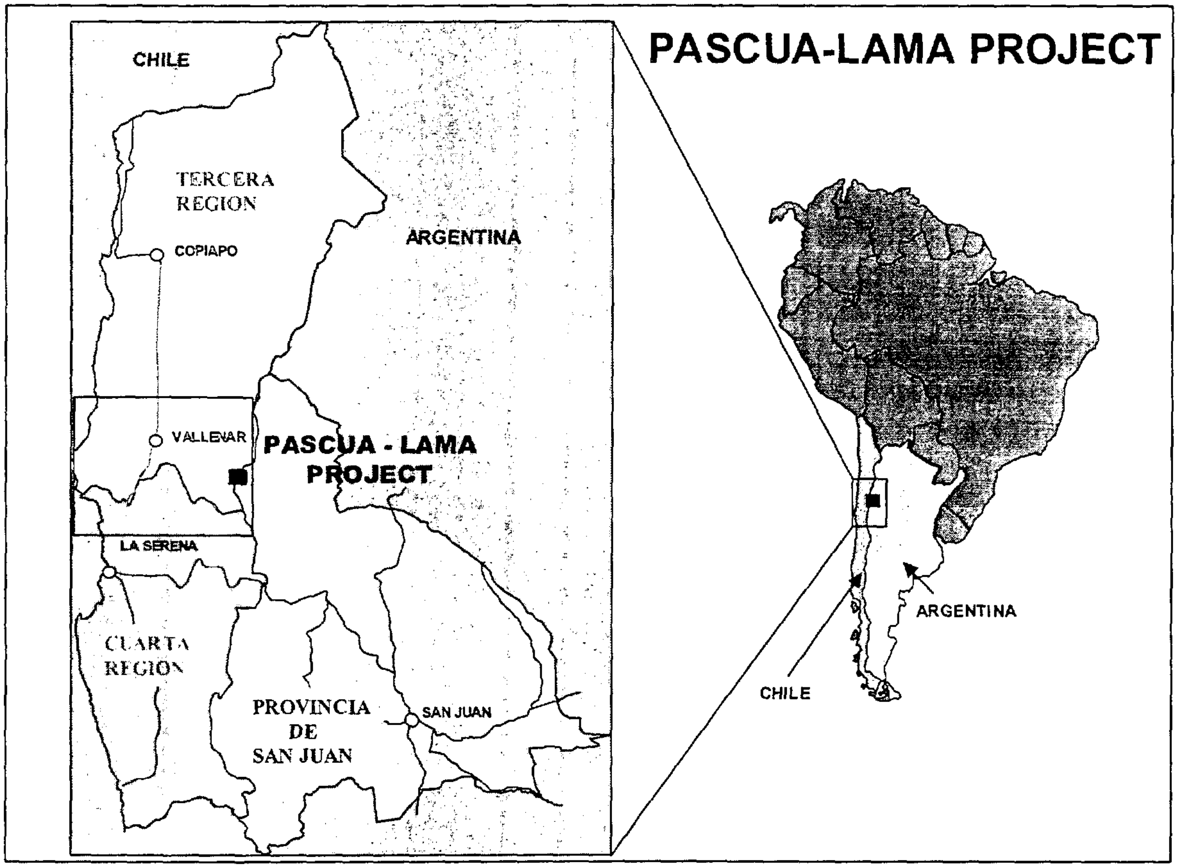
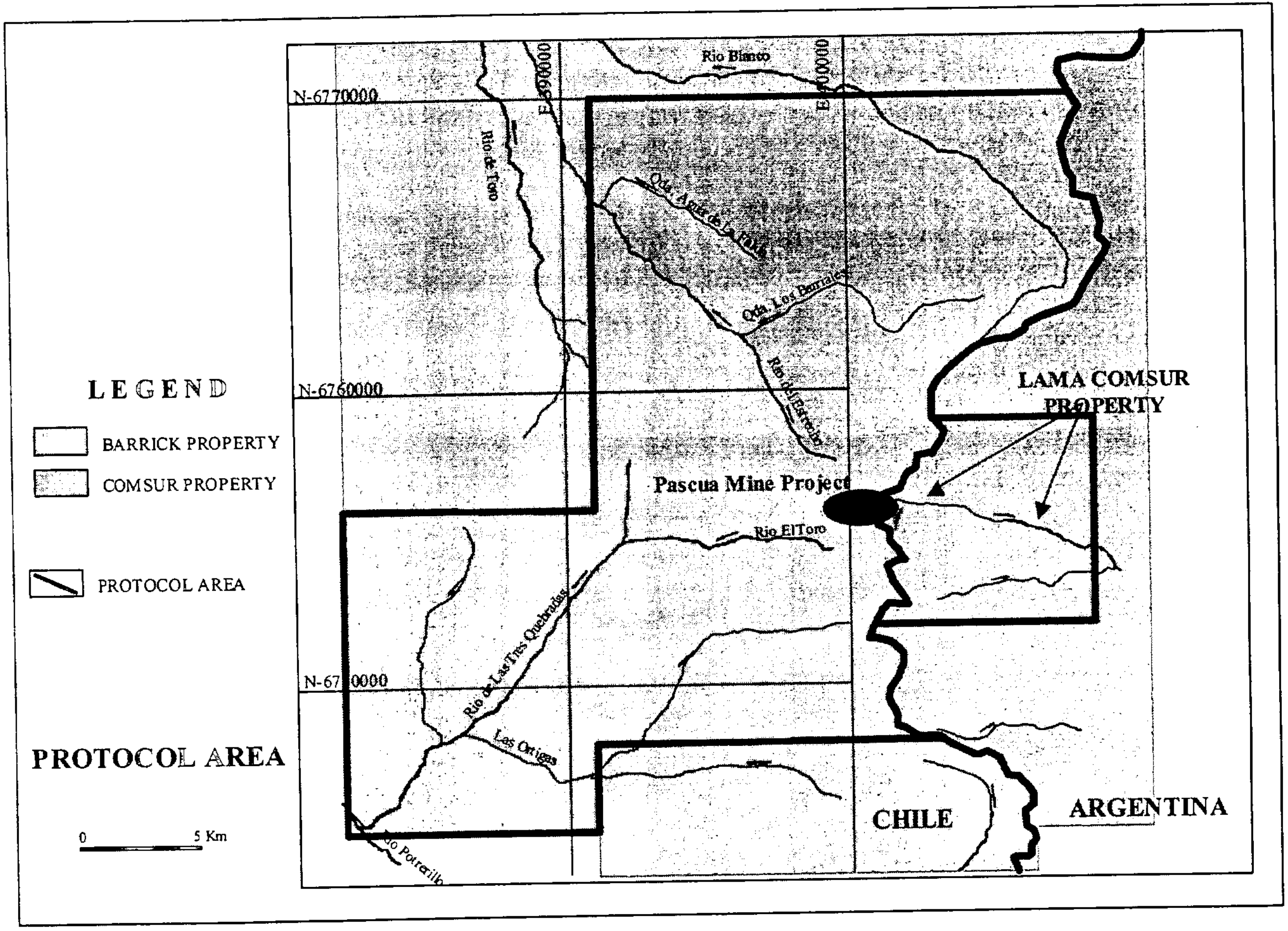


Figure 4-2: Pascua –Lama Protocol Area



5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

In Chile access to the project area is from the city of Vallenar, III Region. Secondary roads C-485 to Alto del Carmen and C-489 from Alto del Carmen to El Corral, Tres Quebradas and El Toro have a total length of about 150 km. The C-489 road will be maintained by CMN.

In Argentina, BEASA will utilize the same access road as that currently used by the Veladero Project (Conconta). The road has a total length of approximately 380 km. Figure 5-1 shows the access road in Argentina.

The topography on the property is steep and rugged, and is characterized by high sierras and deep valleys with natural slopes of 20 to 40 degrees. Elevations on the property range from approximately 4300 m to 5250 m above sea level. Surficial material consists of rock outcrops, talus, scree and colluvium (primarily gravel, sand, silt and clay). Vegetation is sparse. The area is considered to have a sub-arid, sub-polar, mountain climate. During winter months, extreme weather may create a challenging operating environment. The potential impact of possible extreme weather conditions will be incorporated, to the extent possible, into the project's operating plan.

Highest annual temperatures occur from December through February, when maximum daytime temperatures generally range between 10° and 22°C, with lows between 5° and -5°C. Winter months from June through August have daytime highs generally between -10° and 10°C, and nighttime lows of -10° to -30°C. Mean annual precipitation is estimated to be approximately 200 mm at 4,400 m elevation, with most of the precipitation arriving as snow. Winter conditions can be severe, with intense winds, blowing snow, and extreme cold, and can adversely affect mine access and operations. Rocks and gravel airborne by strong gusty winds are a common hazard in mine operations and on access roads.

Public infrastructure is absent in the mine area, and electric power is currently generated on-site. There is no permanent habitation in the area; Vallenar is the nearest city.

6.0 History

Pre-Barrick

To date no significant mining activity has taken place in the general vicinity of the Pascua-Lama project area. Following discovery of the El Indio deposit 45 km to the south in the mid-1970's, exploration efforts by St. Joe Minerals' (St. Joe) Compañia Minera San Jose (CMSJA) and other companies to locate similar high grade gold vein systems intensified in the surrounding region. This increased activity resulted in the discovery in 1977 of anomalous levels of gold mineralization in what was at that time identified as the Nevada Sector (synonymous with the Pascua project area). On the Argentina side, St. Joe Minerals conducted exploration in the Lama sector through its subsidiary, Compañia Minera Aguilar S.A.

From 1977 to 1980, mapping and chip sampling were performed at Pascua, as well as a broad geochemical sampling program. Diamond drilling started during the 1980-1981 field season, and three tunnels were developed the following season, for a total of 818m. Surface drilling and underground development continued through 1984 with a joint venture between CMSJA, Anglo American, and Compañia Minera Mantos Blancos. In 1984 Anglo American withdrew from participation in exploration of the Pascua Project and no field work took place until late 1987 when Bond Gold International Inc.(Bond), following its acquisition of St Joe Minerals Ltd., resumed drilling. During the next 2 years, until late 1989, a series of 37 conventional and RC holes, 14 diamond core holes and 142m of underground development took place, mostly targeting the Esperanza area. From late 1989 to 1994, LAC Minerals Ltd. (LAC) drilled a total of 159 RC holes, almost exclusively in Esperanza.

Barrick

From 1994 to present, Barrick, following its acquisition of LAC in September 1994, added 1,081 RC holes and 540 core holes for ore definition, geotechnical and hydrology purposes and condemnation drilling. Core holes were drilled both from surface as well as from the Alex tunnel. The Alex tunnel, totaling 4300 m, started in 1996 and broke through on the Argentina side of the border in 1999. The 438 meters Geomet (or 4810) tunnel was started in 2001 and finished in early 2002, to further test metallurgy.

7.0 Geologic Setting

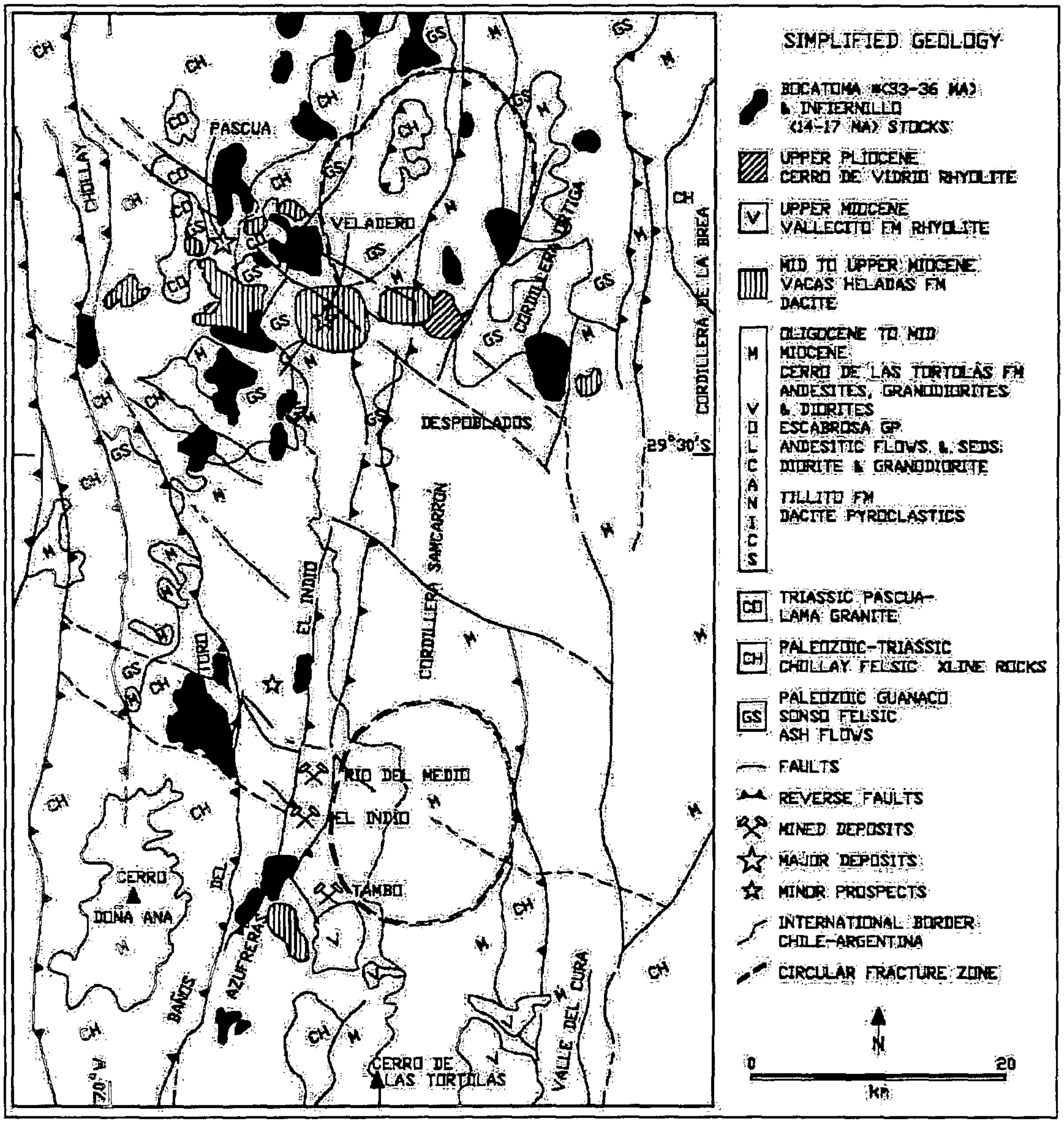
7.1. Regional Geology

The Pascua-Lama deposit is situated at the crest of the high cordillera of Region III, along the international border between Chile and Argentina and on the northern edge of a major mineralized trend known as the El Indio belt. This trend, along which a number of major precious metal deposits are located (including the nearby Veladero deposit), stretches 47 kilometers south of Pascua-Lama to the world-renowned El Indio deposit and adjacent Tambo deposit.

The geology in the region is dominated by extrusive volcanic rocks that are locally intruded by hypabyssal stocks of varying size and numerous dikes and sills (see Figure 7-1). Volcanic activity began with deposition of the Permian Guanaco/Sonso felsic ash flows from a caldera 15 km east of Pascua-Lama and subsequent intrusion of the Permian-Triassic Chollay crystalline felsic rocks along the extent of the El Indio belt. These events were followed by intrusion of the Triassic Pascua-Lama granite complex in the immediate vicinity of the project. Deposition of extrusive volcanic rocks and continued intrusive activity resumed in the Oligocene with the Bocatoma diorite stocks (33-36 Ma), the Tilito dacite ash flows (27.2-17.5 Ma) the Escabroso mafic andesite and andesitic flows (21.0-17.5 Ma), and the Cerro de Las Tortolas I andesites (16.0 ± 0.2 -14.9 ± 0.7 Ma), after which volcanic activity decreased markedly in the vicinity of the El Indio belt. Subsequent activity was confined to the Vacas Heladas intermediate dacitic domes, lava flows and felsic tuffs (12.8-11.0 Ma), and the Late Miocene rhyodacite dikes at Pascua. The most recent activity in the region included deposition of the post mineralization silicic Vallecito rhyolites south of Pascua-Lama in the vicinity of Cerro de Las Tortolas, and the Upper Pliocene Cerro de Vidrio rhyolite. All ages are from Bissig et al., (2000a & 2001) and Martin et al., (1995).

Regional structure in and around the gold deposits and prospects in the El Indio belt is dominated by northerly-trending high angle reverse faults, normal faults and fold belts oriented parallel to the major structural grain of this portion of the Andean Cordillera. Pascua-Lama is positioned near the center of a northerly trending graben that contains nearly the entire Tertiary volcanic sequence that is distributed along the spine of the cordillera in Chile and Argentina. This graben is bounded by two high angle reverse fault zones, the Baños del Toro/Chollay located 10 km west of the deposit and the El Indio zone situated 16 km to the east. The graben is cut at Pascua and El Indio by strong, west-northwest fracture zones, which form loci for mineralization. Large elliptical fracture zones are also present immediately to the east and/or northeast of both El Indio/Tambo and the Pascua-Lama/Veladero deposit areas (see Figure 7-1), and these zones may have contributed to host rock permeability.

Figure 7-1: Pascua –Lama Regional Geology



7.2. Deposit Geology

Lithology

Since the late Paleozoic, the Pascua-Lama area has been the center of repeated intrusive and volcanic activity, beginning with a sequence of dacite and rhyolite ignimbrite ash flows deposited in the early Permian. These units include a sequence of crystal lithic tuff, crystal tuff, quartz-eye tuff and a lithic quartz-eye tuff that is exposed in the central to southwest portions of the Pascua-Lama district. The flows were then intruded during Late-Permian/Triassic time by a granite batholith, which comprises the Pascua-Lama granite intrusive complex and occupies the central and eastern portions of the district. This intrusive complex is the dominant host lithology for the deposit, and it consists of an upper fine-grained, weakly porphyritic aplite overlying a porphyritic granite/granite porphyry, that in turn overlies a coarse-grained granite aplite. Locally, coarse-grained equigranular granite occurs at greater depth.

After a long hiatus that extended into the Oligocene, numerous small diorite stocks and dikes were intruded into the granite complex and volcanics. One of these diorite stocks has an exposure approximately 800 meters in diameter, and this stock will likely occupy a portion of the southern high wall of the eventual Pascua-Lama open pit. Dike emplacement continued into the Miocene, followed by deposition of Upper Middle Miocene dacite ash flows. This Miocene intrusive activity was the precursor to the magmatism and associated hydrothermal activity around 8.78-8.79 Ma that produced the Pascua deposit. In the waning stages of mineralization the emplacement of rhyodacite porphyry dikes concluded the magmatic activity at Pascua-Lama.

Numerous breccia bodies are also present in the Pascua-Lama area. In surface outcrop, these breccias vary in dimension from centimeters up to hundreds of meters in diameter. Typically the breccias show a strong correlation to zones of intersection of two or more major structural zones, as described in the following section. The textures of these breccias range from clast-supported to matrix-supported. The clast-supported breccias frequently contain fragments of only a single rock type, but some of the younger breccias are polymictic. The matrix-supported breccias contain fragments of all lithologies that the breccias cut, and matrices typically consist of quartz, alunite, and clays.

Brecha Central in the Quebrada de Pascua area is a good example of a matrix-supported breccia pipe that formed as a result of an explosive hydrothermal event related to the emplacement of the main portion of the Pascua deposit. In surface outcrop, Brecha Central is about 650 meters long and up to 250 meters in width, with the long axis of the body oriented along an azimuth of ±295°. Between 200 and 400 meters below the surface the pipe narrows to approximately 550 meters in length and up to 130 meters in width. Brecha Central is known to extend at depth to at least 700 meters below the surface.

Other breccias in the Pascua-Lama deposit include Brecha Oeste and Breccia Sur. Brecha Oeste is a post-mineral body that is oriented north-south along the Brecha Oeste fault zone. It measures up to 500 meters in length by as much as 150 meters wide, and extends at least 300 meters below surface. Brecha Sur is also post-mineral. It encompasses two distinct bedded breccia bodies found near the head of Quebrada de Pedro that are elongated in a northeasterly direction and which plunge slightly to the northeast.

Figure 7-2, shows the lithologies exposed on the surface of the Pascua-Lama deposit. Figure 7-3 is a north-northeast cross section showing the relationship of these lithologies at depth in the central portion of the deposit.

Structure

Most faults in the Pascua-Lama deposit are wider in surface outcrop and contain more gouge and breccia than in the subsurface where the same structures are intersected by underground workings. Individual faults tend to be narrower in width when hosted by silicified rock as opposed to argillized rock. There is also a tendency for the faults to bifurcate into multiple splays close to and within mineralizing centers, whereas single structures are more the norm peripheral to and outside of these centers.

The structural framework of the Pascua-Lama deposit has been divided into six principal sets, each of which is characterized by a range of common azimuths. All of these generalized sets contain numerous individually named zones or single faults. For example, the major north-south Central fault zone is part of the generalized north-south Pedro fault set. Also, some fault zones consist of multiple strands with similar names, such as Pedro, Pedro Este and Pedro Este 1, among others.

The principal structure sets (with azimuth ranges shown in parentheses) are summarized as follows:

Pedro (345°-010°)

The Pedro and Esperanza structure sets are the two most abundant and pervasive fracture sets identified at Pascua-Lama. Movement for the Pedro structure set was sinstral, with no dextral offsets recorded. Most of these structures consist of joints, sheeted joints, veinlets and veins that are typically 1 to 5 mm wide, although thicker structures in the 10 to 50 mm range are not uncommon, and wider (0.3 m to 1.2 m) individual structures have been mapped. As a general rule, fracture frequency ranges from 1 to 4 per meter, but frequencies can be up to 5 to 20 per meter in the Esperanza portion of the deposit where some of the wider fractures occur. Pre-mineralization monomictic and polymictic breccias (such as Brecha Central) are locally focused in areas where Pedro structures are intersected by other fracture sets. Thin tectonic breccias have also been observed to be controlled by Pedro structures. Dikes of varying composition (felsic, rhyolitic, andesitic and rhyodacitic) are also found at numerous locations in this fracture system.

Esperanza (010°-030°)

Esperanza structures display either sinistral or no movement. Most are joints or sheeted joints, veinlets, and veins that normally range in thickness from 1 to 5 mm, although like the Pedro system, wider structures with more pronounced widths ranging from 50 to 500 mm occasionally occur, along with large individuals up to 4 to 5 meters. Generally the fracture frequency of Esperanza structures is on the order of one per meter, but in the Brecha Sur portion of the deposit frequencies up to 3 per meter occur around some of the wider fractures. Pre-mineralization monomictic and polymictic breccias with fluidized matrices occur in this set where intersected by north-south structures. Narrow tectonic breccias are also common in this system, along with felsic, andesitic and rhyodacitic dikes.

Pascua (280°-315°)

Structures in the Pascua set (along with Escondite, Raúl and José structures) are among the four less abundant pervasive structural sets. Pascua structures (which display no evidence of movement) typically consist of joints, zones of sheeted joints, veinlets or veins, breccia zones and dikes. The walls of joints and veinlets are normally 1-3 mm apart, but where veins, breccia zones and dikes occur, widths can be up to 10 to 100 mm, with sparse two-meter wide structures occurring locally. As a rule, the joint frequency is 2 per meter, but near Brecha Central structure frequency increases to as much as 6 per meter in and around the wider structures. Pre-mineralization monomictic and polymictic breccia dikes, as well as andesite, diorite, dacite, rhyodacite and silicified fine-grained dikes all occur in the Pascua structural set

Figure 7-2: Pascua- Lama Surface Geology

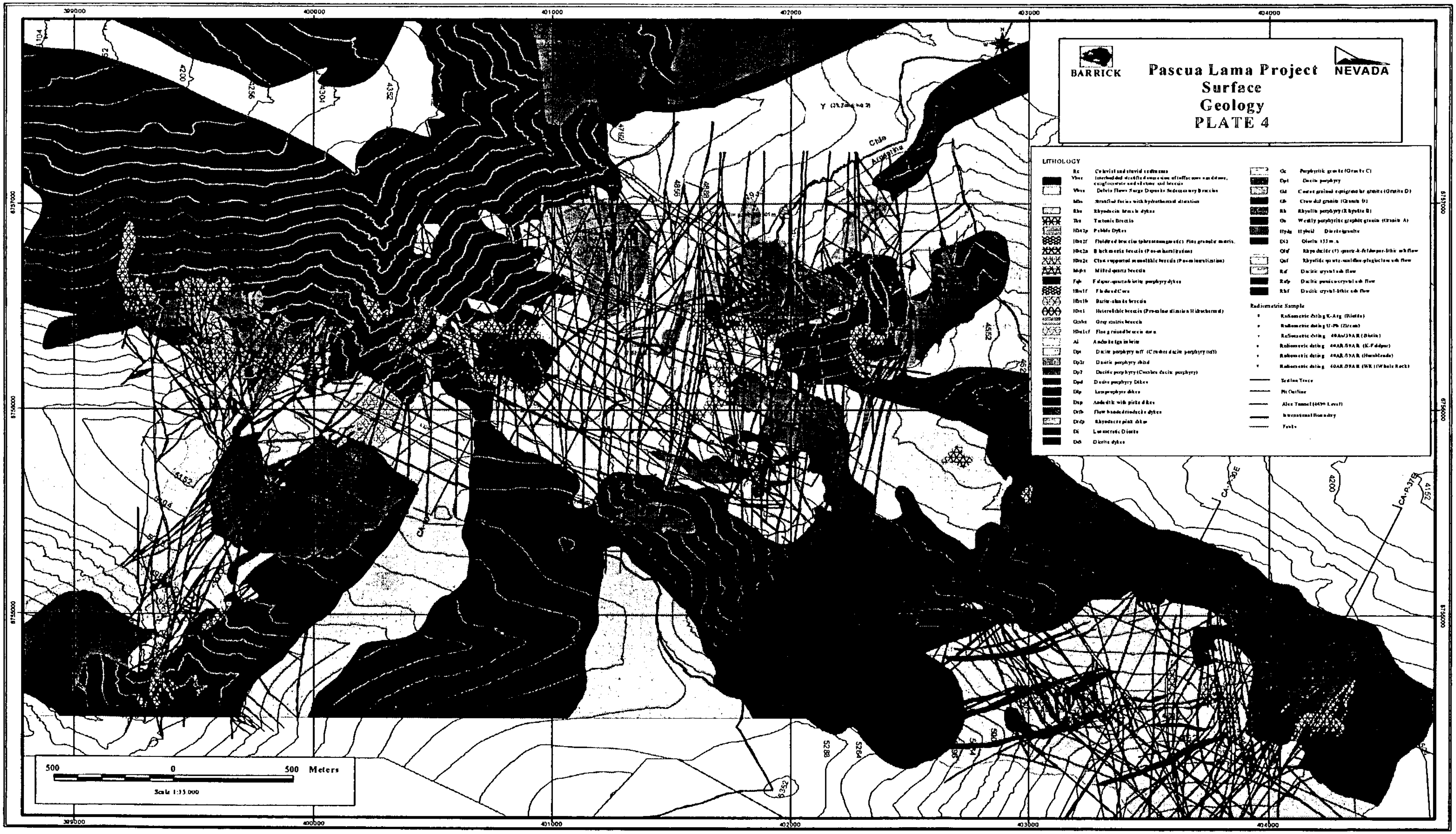
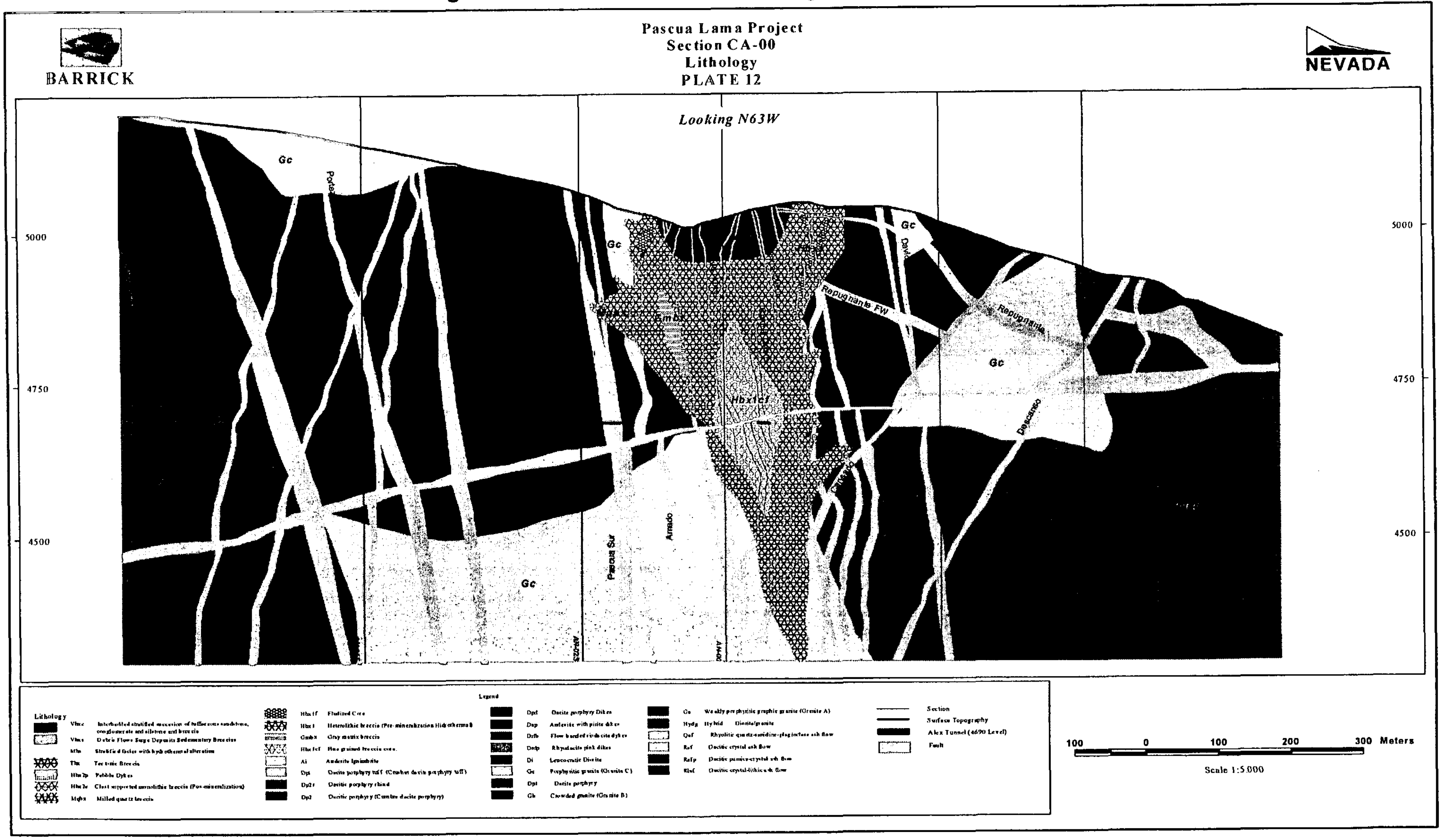


Figure 7-3: Pascua – Lama Geologic Cross Section



as much as 6 per meter in and around the wider structures. Pre-mineralization monomictic and polymictic breccia dikes, as well as andesite, diorite, dacite, rhyodacite and silicified fine-grained dikes all occur in the Pascua structural set

José (315° -345°)

Like Pascua, Raul, and Escondite structures, the José structures fall within one of the four least abundant but pervasive structural sets. Most of the José structures are joints or sheeted joints, veinlets, and veins with widths that typically fall within a broad range (1 to 50 mm wide), with more robust fractures in the range of 100-350 mm and less common exceptional structures as wide as three meters. As a rule, the fracture frequency is around 2 per meter, but this can increase to as high as 4 per meter east of Brecha Central, where the thickest fractures occur. Pre-mineralization monomictic and polymictic breccias like Brecha Central are locally focused at intersections between Jose structures and other sets. Andesite and various silicified fine-grained dikes also occur in this set. The amount of displacement and direction of movement along Jose structures have not been determined.

Raúl (030°-065°)

The less abundant Raúl structures consist of joints, sheeted joints, veinlets and veins that are normally 1 to 5 mm wide, with wider fractures from 15 to 50 mm and less common exceptional structures from 0.5-1.5 m in width. Generally the fracture frequency ranges from 1 to 5 per meter. Locally, polymictic and monomictic breccias up to 4 to 5 meters in width occur in this structure set. These breccias contain sub-angular to sub-rounded fragments of granite and dike material. A few andesite dikes also occupy structures in this set. Both sinstral and dextral movements have been recorded on the Raul structures, although sinistral movement is more common.

Escondite (065°-100°)

The Escondite structure set consists of joints, sheeted joints, veinlets and veins that are typically 1 to 5 mm in width, although more prominent structures can range from 10 to 30mm wide and exceptional ones can reach up to 20 cm wide. Generally, the fracture frequency ranges from 1 to 2 per meter. Locally, polymictic and monomictic breccias as wide as 2 to 4 meters occur in Escondite structures, as well as andesite dikes. No movement has been recorded for Escondite structures.

Flats (0°-30°)

The seventh structural set is composed of low angle structures that include south dipping Escondite, east dipping Pedro and west-northwest dipping Esperanza structures. Flats usually strike parallel to the previously described six sets of fractures, and most consist of weakly developed systems of joints, veinlets and veins that are normally 1 to 5 mm thick but which can reach up to 2 to 10 cm. Generally, the frequency of the flat structures averages about one per meter. Locally, this set controls polymictic and monomictic breccias, but no dikes are known to occupy structures in this set. A maximum low angle reverse movement of 1 to 5 cm has been recorded for these structures, with the hanging wall usually displaced toward Brecha Central.

8.0 Deposit Type

The gold, silver, and copper mineralization and alteration assemblages at Pascua-Lama comprise a structurally controlled acid sulfate hydrothermal system hosted by intrusive and volcanic rock sequences of Upper Paleozoic and Middle Tertiary age. Alteration and mineralization is of the high-sulfidation, epithermal type. Throughout the Pascua-Lama district, the alteration and mineralization appear to have been strongly controlled by structure. This control is most evident along the Esperanza, Pedro and Quebrada de Pascua fault systems. As is typical with high-sulfidation epithermal deposits, the principal metal commodities at Pascua-Lama are gold and silver – the copper content is sub-economic.

9.0 Mineralization

9.1. Occurrence

The emplacement of mineralization (as well as development of the breccias which host mineralization) at Pascua was controlled by high angle faults. Six high angle fault sets have been identified, striking west-northwest, north-northeast, north-south, northwest, northeast and east-west. The breccias, which host much of the gold-silver mineralization, occur at the intersections of three or more fault sets. Here, mineralization is found mainly in veinlets that are hosted by fractures of the intersecting high angle fracture zone sets, although minor mineralization also occurs in the selvage around veinlets. Low angle fractures within the breccias often contain significant gold-copper±silver mineralization, and mineralization occurring within the matrix of breccia bodies is also important. Crosscutting relationships and age dating constrain the bulk of gold and silver mineralization between about 12 and 7.8 Ma, with most of the mineralization likely taking place approximately eight Ma ago.

In total, at least 14 major centers of mineralization and a number of smaller centers have been recognized, of which Brecha Central is the most significant. Other major centers (in order of decreasing importance) include Brecha Pedro and Frontera, which are located approximately 410 meters and 350 meters to the west-northwest and northeast, respectively, of Brecha Central, and Esperanza Norte, Seis Esquinas, Brecha Rosada, Brecha Sur, Central Norte, Esperanza Sur, Morro Oeste, Huerfano, Escondite, Penelope Este, and Penelope Oeste.

9.2. Precious Metals

Gold occurs primarily as native metal at Pascua-Lama, but it also is found in very minor amounts in gold telluride inclusions within enargite. These gold tellurides include calaverite ($AuTe_2$), muthmannite [(Ag,Au)Te], and goldfieldite [$Cu_{12}(Te,Sb)_4S_{13}$]. Economic gold mineralization is centered on the area immediately surrounding and extending slightly south of Brecha Central, and around the smaller Brecha Pedro and Frontera zones. To the west of Brecha Central, gold mineralization extends to the Esperanza structural zone and then runs southward in that zone. To the east of Brecha Central gold mineralization extends to the Lama structural zone, then northward along that zone. Gold tends to occupy a zone of elevation between 4550 and 4850 meters, but eastward in the Frontera area it extends up to as high as 4930 meters, while in the Brecha Central area it can extend down to 4400 meters along strong structural zones.

Silver mineralization grossly mimics the distribution of gold but extends over a much broader lateral area. In any particular zone, silver typically occurs across widths that are two to three times those of gold. Generally, silver also occupies an elevation range that overprints the vertical extent of gold between 4600 and 4880 meters, with local zones along structures extending upwards to 4950-5000 meters. The upper 150 meters of the silver zone tends to average between 50-200 gpt silver while grades in the lower portion of the zone tend to average between 20 to 40 gpt. The higher grade silver content of the upper 150 meters reflects the presence of an enriched blanket of secondary silver mineralization related to a paleo water table, while the lower grade zone beneath the blanket is primary silver mineralization associated with pyrite and enargite. Within the secondary blanket, the silver occurs predominantly as chlorargyrite (AgCl) and lesser amounts of idoargyrite (AgI) and minor amounts of native silver, acanthite (Ag_2S), and muthmannite [(Ag,Au)Te]. The silver blanket cross cuts all other alteration and mineralization zones and is continuous across the top of the gold-silver-copper mineralized centers. In general, silver correlates with mercury (which occurs as calomel in the silver blanket) in the Pascua-Lama deposit, but it does not correlate with gold.

9.3. Sulfide Mineralization

Other than gold and silver, copper is the only metal in the Pascua-Lama deposit that occurs in significant quantities, primarily as enargite and copper sulfates. Although local zones of higher grade copper can be found that are up to one meter wide and run as high as 10 percent copper, most copper values range between 0.1% and 0.4%. Enargite occurs as irregular grains to massive aggregates, commonly with solid inclusions of cassiterite (SnO_2) and locally containing inclusions of native gold, calaverite ($AuTe_2$), pyrite II, stibnite (Sb_2S_3), muthmannite [(Ag,Au)Te], and goldfieldite [$Cu_{12}(Te,Sb)_4S_{13}$].

The principal sulfide gangue minerals in the Pascua-Lama deposit include four stages (I-IV) of pyrite (FeS_2) and enargite (Cu_3AsS_4), with very minor amounts of galena (PbS) and sphalerite (ZnS) (which are found mostly as constituents in quartz veinlets), covelite (CuS) and chalcocite (Cu_2S). Pyrite comprises approximately 88% to 92% of all sulfides, with enargite accounting for the remaining 8 to 12%. Pyrite I, the earliest stage, is characterized by fine grained euhedral to subhedral crystal habits and is texturally homogeneous except for minor solid inclusions, which are most commonly rutile (TiO_2). Pyrite I is most prevalent on the margins of the deposit and is seldom found within the main mineralized zones, as the later pyrite types usually replace it. Pyrite II can be fine to coarse grained with a generally irregular habit, dull to medium in luster and ranging in color from brown-green to the normal pyrite yellow. Pyrite II (an oscillatory-zoned arsenian variety) often contains gold (see Figure 9-1) in amounts much greater than those found in the other pyrite types, with gold contents tending to increase with ncreasing elevation in the deposit. Pyrite III is a brassy, sterile, medium to coarse-grained pyrite that occurs with enargite, but with a distribution that is more widespread. Pyrite IV consists of green to brown greigite (Fe_2S_3) that has a fine grained irregular habit and a dull luster. It typically occurs in botryoidal forms in veins, and it is believed to account for less than 1.0-1.5% of total sulfides in the deposit.

Figure 9-1: Gold Grains (Yellow) included in Pyrite II Grain

iOxide and Sulfate Mineralization

Oxide minerals found across the Pascua-Lama deposit as products of weathering or hydrothermal alteration include limonite, hematite, jarosite $[K_2Fe_6(OH)_{12}(SO_4)_4]$, kaolinite $[Al_2Si_2O_5(OH)_4]$, dickite $[Al_2Si_2O_5(OH)_4]$, diaspore $[AlO(OH)]$, zunyite $[Al_{13}O_4(Si_5O_{16})(OH,F)_{18}Cl]$, pyrophyllite $[Al_2Si_4O_{10}(OH)_2]$, illite $[K(H_3O)Al_2(Si_3AlO_{10})(OH)_2$, smectite $(Na,Ca)_{.33}(Al,Mg)_2Si_4)O_{10}(OH)_2{\cdot}nH_2O)$, chlorite, and scordite $(FeAsO_4{\cdot}2H_2O)$.

A wide variety of sulfates are present in the Pascua-Lama deposit. These include the insoluble sulfates barite $(BaSO_4)$, gypsum $((CaSO_4{\cdot}2H_2O)$, and anglesite $(PbSO_4)$, and an abundant suite of soluble sulfates that include szomolnokite $(Fe^{+2}SO_4{\cdot}H_2O)$, voltaite $[K_2Fe_5{}^{+2}Fe_4{}^{+3}(SO_4)_{12}{\cdot}18H_2O]$, rhomboclase $[HFe^{+3}(SO_4)_2{\cdot}H_2O]$, coquimbite $[Fe_3{}^{+2}(SO_4){\cdot}9H_2O]$, chalcanthite $[CuSO_4{\cdot}5H_2O]$, roemerite $[Fe^{+2}Fe_2{}^{+3}(SO_4)_4{\cdot}14H_2O]$, paracoquimbite $[Fe_2{}^{+3}(SO_4)_3{\cdot}9H_2O]$, alunogen $[Al_2(SO_4)_3{\cdot}17H_2O]$, copiapite $[Fe^{+2}Fe_4{}^{+3}(SO_4)_6(OH)_2{\cdot}20H_2O]$, ferricopiapite $[Fe^{+3}Fe_4{}^{+3}(SO_4)_6O(OH){\cdot}20H_2O]$, and halotrichite $[Fe^{+2}Al_2(SO_4)_4{\cdot}22H_2O]$. Pascua is relatively unique among mineral deposits for its abundance and variety of soluble sulfates. In areas of strong silicification the sulfates predominantly occur within fractures. Where silicification is less intense, sulfates are found both in veinlets and also as disseminated replacements of some combination of sulfide minerals, alunite, illite and orthoclase. Where large volumes of weakly to moderately silicified rock contain soluble sulfate minerals, the sulfate content is locally inversely proportional to the amount of silica present.

The occurrence of the poorly crystalline sulfates that contain high amounts of water (copiapite, alunogen, and rare halotrichite) appears to be a result of exploration activities (water migrating into the rocks from drilling, exposure of rocks on the tunnel ribs and backs to humid air ventilating the workings, the relocation of rock samples to a more humid, near-sea level environment which adversely and sometimes rapidly affects earlier more massive crystalline sulfate species, etc.). In the sulfate assemblage present at Pascua-Lama, soluble sulfates can be divided into low, medium and high categories based on the relative solubility of each mineral. Szomolnokite and voltaite fall into the low-solubility category. The intermediate solubility group consists of coquimbite, chalcanthite and romerite, while the high solubility group contains the varieties that dissolve almost immediately in water (copiapite, alunogen and halotrichite). Because the high levels of soluble sulfates in the deposit have direct implications on metallurgical recoveries (and perhaps also on waste dump stabilities), Barrick project geologists have attempted to document sulfate mineral occurrences and contents during logging of the drill core and reverse circulation cuttings.

9.4. Alteration

Alteration is intimately associated with precious metal mineralization at Pascua-Lama. An early advanced argillic alteration stage (AA I) consists of quartz-alunite-pyrite (QAP) haloes that are most intense around mineralizing centers. These zones coalesce to form a large zone that surrounds all of the mineralizing centers. This early advanced argillic alteration is followed by brecciation and a second stage (AA II) of advanced argillic alteration/mineralization comprised of alunite-pyrite-enargite (APE) that forms a zone nearly coincident with the earlier zone. Moving outwards from an individual mineralizing center, alteration ranges from a central quartz zone through quartz-alunite, quartz-alunite-dickite, quartz-alunite-kaolinite, quartz-illite, illite-smectite zones, and into a propylitic zone in local peripheral diorite bodies. Pyrophyllite is the dominant clay mineral below a depth of 4500-4550 meters, where gold mineralization is rare. It also occurs in narrow tabular structure zones up to an elevation of around 4900 meters.

Superimposed on the advanced argillic assemblage is a steam heated alteration stage, which on the surface consists of an east-west elongated zone centered on Brecha Central and extending eastward to the cliffs that form the surface expression of the Lama fault zone in Argentina (see Figure 9-2). Beneath the surface it persists broadly down to the 4850 m elevation, reaching greater depths along strong structural zones. A second steam-heated zone occurs in an arcuate pattern around the east and north margins of the large silicified zone in the Penelope deposit. This zone, which is up to 90 meters wide, flares out along southwest-trending faults on its southern end. An opaline silica (thought to represent the elevation of the hydrothermal water table in the waning stage of supergene alteration) is found at the lower margin of the steam heat alteration zone, extending to a depth of 4750 m.

A silica cap that ranges from 100 m to 325 m thick occupies a position beneath the main body of steam heat alteration. The cap is divided into three zones – an upper silica-gold zone, a middle pyrite-silica zone, and a lower pyrite-szomolnokite zone, which is the most prominent of the three and is where gold contents in the cap are the highest. The blanket of silver enrichment mentioned previously in this section crosscuts all three zones. The cap is generally thickest on the margins of the deposit.

At the interface between the top of the APE sulfide zone and the overlying silica cap, deposition alternated between sulfides and sulfates due to fluctuating conditions, resulting in precipitation of alternating bands of colloform zoned pyrite and szomolnokite.

Figure 9-2: Pascua-Lama Surface Alteration

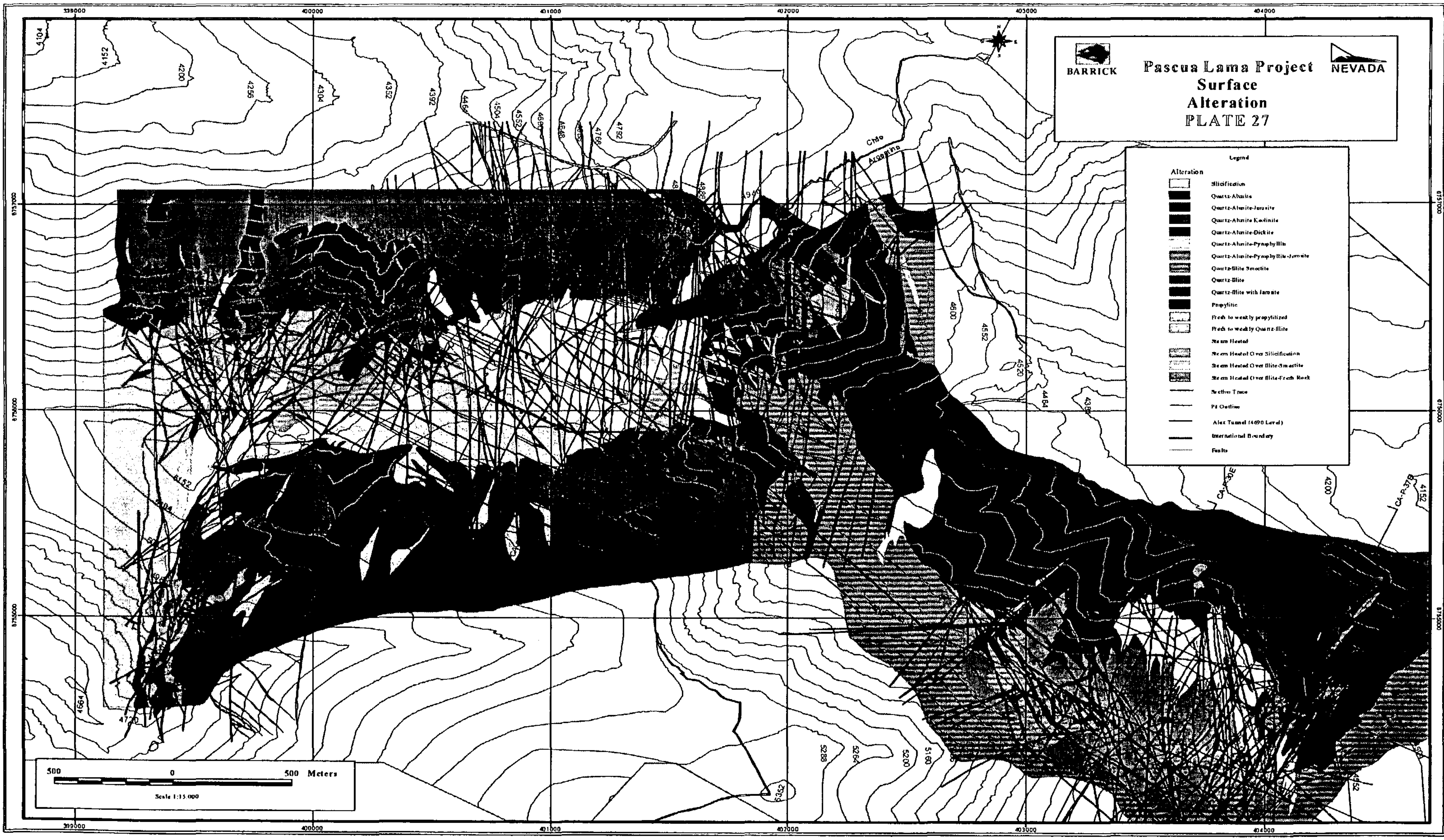


Table 9-1 summarizes the chronology and the relationships between the various alteration and mineralization stages at Pascua-Lama. The assemblages shown in the table progress from older events at the bottom to younger events at the top, except for steam heated alteration, which developed throughout emplacement of the deposit. The areas of the table with a blue background denote pre-mineral alteration, while the yellow background depicts those stages that are associated with emplacement of mineralization. The letter groups (AKF, QAJ, etc.) indicate codes used by Barrick project geologists for mapping and logging of alteration and mineralization.

Table 9-1: Pascua Alteration Types and Chronology

Chronology	**Alteration type**	**Includes assoc. mineralized facies**
Post mineralization	Steam heated (AKF, M)	strong, med alunite-kaolinite
	Alunite-jarosite (QAJ)	Alunite-jarosite±scorodite
Syn-mineralization (post Brecha Central)	Silicic II	1 - Massive (SM). Texture-destructive. 2 - SiO_2 1-5. Not texture-destructive
		1 - Silica-gold 2 – Pyrite
All during AA II		Pyrite-szomolnokite (PS)
	Vuggy silica II	
	Advanced argillic II (AA II)	Alunite-pyrite-enargite (APE). Occurs in stockworks, veins & disseminated in Brecha Central & around the deposit.
Uncertain timing	Silicification	Appears as silica-gold on maps. Lower levels of deposit.
Pre-mineralization (pre Brecha Central)	Silicic I	1 - Massive (SM). Texture destructive. 2 – SiO_2 1-5. Not texture destructive
	Vuggy silica I	
Early	Advanced argillic I (AA I)	Quartz-alunite-pyrite (QAP), early

9.5. Mineralization and Alteration Paragenesis

The alteration and mineralization types found in most of the mineralized centers of the Pascua-Lama deposit are similar, but the orientation of the fracture sets that provide the plumbing for the mineralizing fluids at each center can be different. Almost 98% of all structural data collected from the deposit is on veinlets. Very few structures lack some form of hydrothermal filling. Within each center, veinlets are found representing one or more of the seven structural sets described in the text following Table 9-2.

Table 9-2 outlines the types, age relations, and the paragenetic sequence for the alteration, veining, and mineralization in the Pascua-Lama deposit. Advanced argillic alteration veinlets are shown in blue (early alteration, AA I) and yellow (late alteration and mineralization, AA II). Advanced argillic veinlets do not have alteration halos except where overprinted by cooler, younger silica veinlets with silica halos. The various veinlet types summarized in Table 9-2 are described below, from oldest to youngest:

Table 9-2: Alteration, Veining, and Mineralization Paragenesis

Time	Alteration	Veinlets and their relation to alteration	
		Emplacement (with Halo)	Filling (without halo)
P A R	Propylitic Quartz-illite-kaolinite, (only in Esperaza)	Stockwork of gray silica	
A G	Illite, smectite, white silica	Veinlets of white silica	
E N	Quartz-illite-pyrite, gray silica + pyrite	Veinlets of grey silica (+ sulfides)	
E S I S	QAP Mineralization Weak acid leaching		Veinlets of fine dark pyrite Veinlets of quartz-pyrite
	Pre-mineral breccias (Brecha Central)		
	Mineralization APE I		Veinlets of alunite Veinlets of alunite + pyrite II
	Mineralization APE II		Veinlets of enargite-pyrite II-alunite Veinlets of enargite-pyrite III (brassy)
	Mineralization APE II		Veinlets of alunite-pyrite III (brassy) Veinlets of szomolnokite
	Acid leaching		Veinlets of quartz-Py-Ag (Silver Sulfide, AgCl-AgI)
			Veinlets of jarosite, banded alunite-jarosite
	Supergene		Sulfates (Alunogen), jarosite & alunite

Gray silica veinlets (barren)

Gray silica veinlets are the earliest of the fracture fillings, typically occurring as stockworks barren of sulfides. These are found predominantly in granite A, in and around the Esperanza tunnel (4,764 m elevation), and also sparingly in outcrops of granites B and C at the international border to about 450-500 meters below the surface. These veinlets range up to 2 to 5 mm in width, and local veinlet densities can exceed 25 per meter across zones up to 150 meters wide.

White silica veinlets

These veinlets, which occur principally in the western parts of the deposit in association with illite-smectite alteration. They consist of milky white quartz and are surrounded by irregular haloes of white silica and rare pyrite. Widths typically range from 1 to 5 mm, although locally veinlets up to 15 mm wide can be found. Veinlet frequencies generally range between 1 and 4 per meter, with local occurrences up to 9 per meter.

Gray silica veinlets with minor pyrite

This second type of gray silica veinlet, which occurs throughout the deposit in association with quartz-illite alteration. They consist of minor fine-grained pyrite and are surrounded by irregular haloes of gray silica. Veinlet widths typically range from 3 to 5 mm, but on rare occasions widths can reach 10 mm. Veinlet densities usually range between 1 and 4 per meter, but can be as high as 6 per meter.

Quartz-pyrite and dark pyrite veinlets

These structurally similar veinlets appear to have formed contemporaneously with the quartz-alunite-pyrite (QAP) early advanced argillic alteration. The dark veinlets owe their color to the presence of fine-grained pyrite. Veinlet widths typically range from 1 to 3 mm, with local occurrences up to 30 to 55 mm. Veinlet frequencies usually range from 1 to 4 per meter, but frequencies up to 11 per meter can be found.

Alunite and alunite-silica veinlets

The alunite in these veinlets is generally milky white in color. Widths range from 1 to 3 mm, with rare veinlets as wide as 10 mm. The frequency usually ranges between 1 to 5 veinlets per meter.

Pyrite-alunite veinlets

Pyrite-alunite veinlets (which sometimes contain silica) appear to correlate with the second stage of advanced argillic alteration and mineralization, and are the most abundant and widely distributed veinlets in the Pascua-Lama deposit. These veinlets lack halos, and where the host rock is oxidized they are altered to alunite-jarosite veinlets. Pyrite-alunite veinlets are variable in width, typically ranging from 3 to 10 mm wide, but occasionally reaching 20 to 30 mm, with the largest recorded at 80 mm. Veinlet densities usually range between 1 and 10 per meter, but frequencies can run as high as 21 per meter.

Alunite-pyrite-enargite veinlets

These veinlets, which are part of the mineralizing episode responsible for copper deposition, occupy both steep and flat structures, combining to produce the open enargite stockwork around Brecha Central. Occasionally containing silica and often displaying banded textures indicative of repetitive episodes of emplacement, individual widths for this veinlet group usually fall in the 1 to 5 mm range. However, in places these veinlets widen to 10 to 30 mm, and on rare occasions they can reach 500 to 600 mm in width. Veinlet frequencies range from 1 to 7 per meter.

Enargite-brassy pyrite veinlets

Crosscutting relationships between veinlets containing enargite and brassy pyrite and alunite-pyrite-enargite veinlets are not sufficiently clear to establish whether these two sets are contemporaneous or the enargite-brassy pyrite veinlets supercede the other set. Veinlet widths average 3 to 5 mm, with a few falling in the range of 10 to 40 mm wide. The frequency of occurrence of these veinlets usually ranges between 1 and 4 veinlets per meter.

Brassy pyrite-alunite veinlets

These copper-depleted veinlets, a small portion of which contain silica, complete the suite that comprises the zoned pyrite-enargite-brassy pyrite phase of the alunite-pyrite-enargite (APE) mineralizing period. Brassy pyrite-alunite veinlets range between 1 and 7 mm in width, with veinlet densities of 1 to 5 per meter.

Pyrite-alunite-silver sulfide/silver halide veinlets

These veinlets cut mineralized structures belonging to the earlier APE phase, and are likely crosscut by jarosite veinlets, although this relationship is not clear. Pyrite-alunite-silver sulfide/silver halide veinlets range from 2 to 4 mm in width, with densities running between 1 and 2 veinlets per meter.

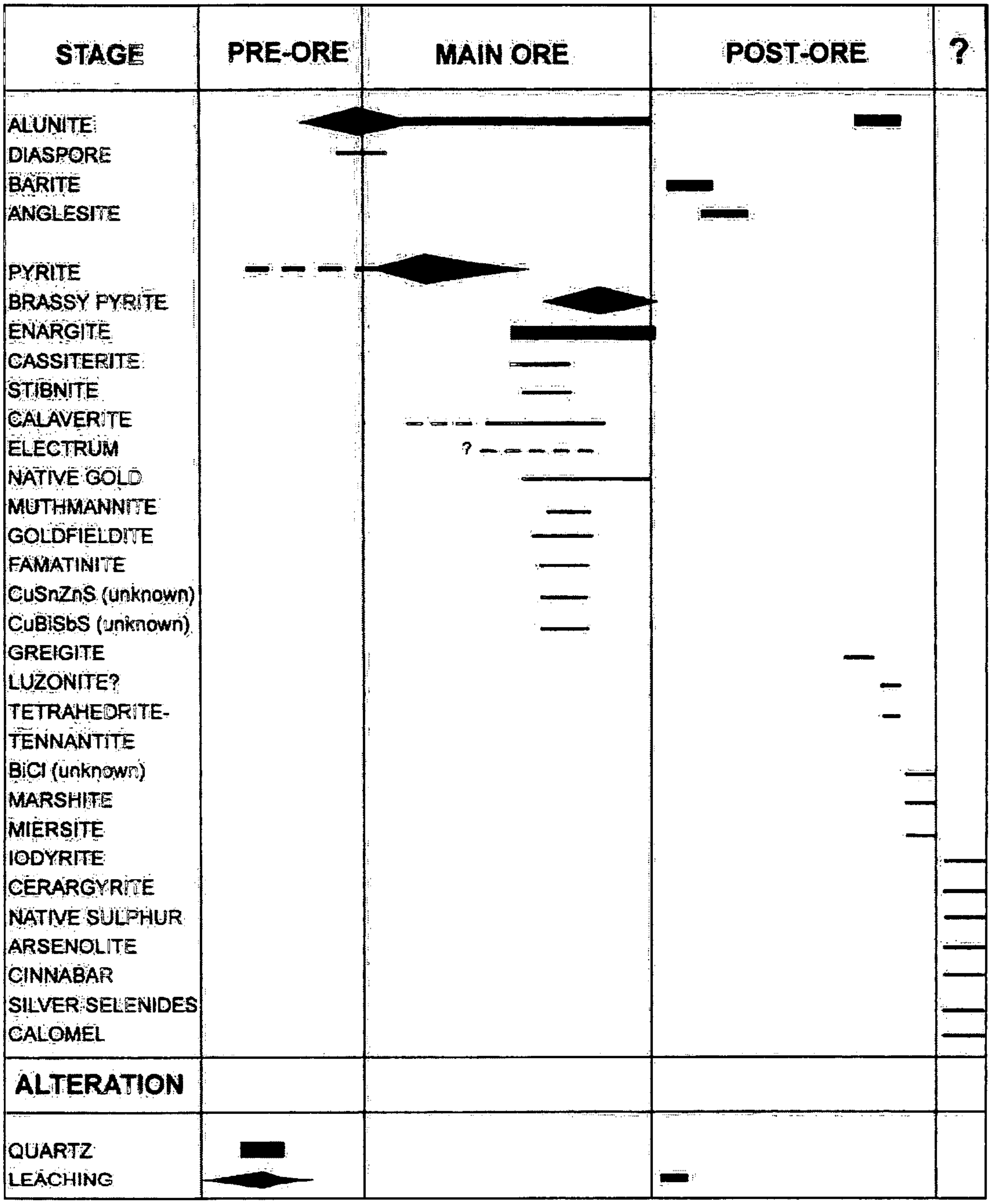
Jarosite and jarosite-alunite veinlets

Jarosite and banded jarosite-alunite veinlets generally occupy larger structures (particularly in the Esperanza center), cutting all previously described veinlets. Jarosite-alunite veinlets that lack banded textures are likely oxidized equivalents of earlier pyrite-alunite veinlets. Average widths for this suite fall between 10 and 30 mm, with individual widths occasionally reaching 50 mm to 250 mm.

Stable isotope studies indicate that alunite at Pascua formed from a magmatic hydrothermal fluid. All samples of jarosite analyzed to date indicate that jarosite is supergene and almost always younger than associated alunite. Jarosite and soluble sulfates do not normally occur together. While jarosite formed in peripheral supergene environments, soluble sulfates were forming at the expense of sulfides and earlier-formed sulfates in the sulfide-bearing zones.

Figure 9-3 provides a more detailed summary of individual mineral paragenesis for the alunite-pyrite-enargite (APE) phase at Pascua-Lama.

Figure 9-3: APE Stage Paragenesis



10.0 Exploration

The history of the exploration work completed on the Pascua and Lama sectors following the discovery of gold, but prior to Barrick's acquisition of the Pascua project is summarized as follows. Because exploration work in the high Andes region typically extends from September to April (corresponding to summer in the southern hemisphere), each annual exploration field season bridges the end of one calendar year and the beginning of the next.

1978-1979

The first full exploration season included preliminary geologic mapping and geochemical sampling which revealed a strongly silicified zone containing anomalous gold, silver, and arsenic. Follow-up surface rock chip sampling in a 6,000-m2 area of Quebrada Pedro produced values as high as 5.0 g/mt gold, 10.3 g/mt silver, and 1.19% copper.

1979-1980

Geologic mapping and fracture analysis developed two major structural trends through the area and revealed anomalous gold, silver, and arsenic mineralization in the area around Brecha Central. Construction of an access road from Conay to the project area also was completed.

1980-1981

The geochemical sampling programs initiated in 1978 were completed and the results compiled on a base map, and 886 outcrop samples were collected. Approximately 4.5 km of roads were constructed in the project area, which allowed access for the drilling of five diamond drill holes by Geotec (holes N-1, N-2, N-3, N-5, and N-6) and Continental Drilling (N-4) totaling 606 meters of NQ and BQ-diameter core. Based on the drilling results and surface outcrop sampling, "mineral reserves" were estimated by CMSA that totaled 50 million tonnes containing 5 to 6 g/mt gold, 75 to 100 g/mt silver, and 0.5 to 1.0% copper. Given the very small number of drill holes, it is not likely that this mineral reserve estimate was made in a manner that is in accordance with current categories set forth in Sections 1.3 and 1.4 of Canada National Instrument NI 43-101.

1981-1982

Underground development of three tunnels (Esperanza, Frontera, and Maria) totaled approximately 818m.

1982-1983

Prior to the 1982-1983 field season, CMSJA formed a joint venture with Anglo American and Compañia Minera Mantos Blancos to focus exploration on high-grade vein-hosted gold mineralization that could be mined by underground methods. Work included sampling of 56 surface outcrops, with the highest grades encountered in Quebrada Negra (29 g/mt gold, 93.5 g/mt silver, 19.94% copper), and 1,103 m of underground drifting along veins in the Nevada, Frontera, and Maria tunnels.

1983-1984

St. Joe formed CMN, and with Anglo American's continued participation, developed the Alan tunnel for a distance of 866m on the 4,360-meter elevation. Work also included the drilling of 20 horizontal small-diameter (AW) diamond core holes totaling 2,583m from underground stations in the Alan tunnel. On the Lama side of the deposit, St. Joe's subsidiary, Compañia Minera Aguilar S.A. (CMA) completed 18 surface diamond core holes.

1984-1987

After the 1983-1984 field season, Anglo American withdrew from participation in exploration of the Nevada (Pascua) project, and no further work took place during the three field seasons between late 1984 and early 1987. In late 1987, Bond acquired St. Joe.

1987-1988

After Bond acquired CMN through its merger with St. Joe, exploration drilling resumed on the Nevada project with the completion of seven BW-diameter core holes from the Nevada tunnel. During this field season, Compañia Minera del Pacifico S.A. performed a geologic evaluation of the project for the purpose of a possible joint venture with CMN, but no agreement was reached.

1988-1989

Nevada project exploration focused on the Esperanza area in an effort to delineate sufficient mineable low-grade material to justify continued work on the project. Drilling from the surface included 28 Failing conventional circulation 4.5-inch diameter rotary holes (2,816m), nine 4.25-inch diameter reverse circulation holes (553m), and 14 BW-diameter diamond core holes (1,159m) drilled from the Esperanza tunnel workings. In addition, 142m of drifting were completed in the Esperanza tunnel.

1989-1990

In late 1989, LAC acquired Bond and its holdings in Chile (CMN) and Argentina (CMA). Drilling at Pascua was limited to one NW-diameter surface diamond core hole in the Esperanza Norte area (DDH-47: 82m) and 8 RC holes (802m), all in the Esperanza Norte area.

1990-1991

Eighteen RC drill holes totaling 2,901m were completed in the Esperanza area. The deepest of these holes reached 200m.

1991-1992

RC and diamond drilling was halted to allow for completion of 662m of roads to provide access to the higher elevations in the Esperanza area, and to begin a geochemical soil sampling program designed to better define the geologic model.

1992-1993

Based on the new geochemical data and revisions to the geologic model, it became apparent that the Nevada area was host to a major epithermal precious metal system. RC drilling resumed in the Esperanza area, with 31 holes completed totaling 6,296m, several of which were drilled to depths between 250m and 300m.

1993-1994

During this last field season of LAC's tenure, RC drilling increased substantially, with 109 holes completed totaling 27,036m. Except for four holes that were drilled in relatively gentle terrain north of what is now defined as the Frontera zone, all holes were drilled in the Esperanza area.

The drill hole database for the Pascua-Lama property contains 1,173 reverse circulation holes, 562 diamond drill core holes, 22,302 meters of underground tunnel samples and 12,774 meters of surface trench samples. Samples totaling 322,288 meters from reverse circulation holes, 151,265 meters from diamond drill core holes, 22,302 meters from underground tunnels.

10.1. Barrick Exploration

After Barrick's acquisition of LAC in September 1994, CMN's exploration activities in the Pascua and Lama sectors of the Nevada project increased significantly. During the 1994-1995 field season, an intensified drilling program commenced to focus on definition of the mineralization in the Esperanza area. A total of 30 surface diamond drill core holes (4,848m) and all but nine of 167 RC holes (31,219m) were drilled into Esperanza. The nine other holes were drilled to the east of Esperanza, and several of these began to test the area along the west and south margins of Brecha Central.

Drilling accelerated in 1995-1996, with the completion 42,690m in 163 RC holes and 2,331m in 18 surface diamond core holes. A total of 126 RC holes and 12 of the diamond core holes were drilled into the Quebrada Pascua area, testing the mineralization in and around Brecha Central, Brecha Sur, and Brecha Pedro. Just before the end of the field season in April 1996, the portal for the Alex tunnel was installed at the 4680m elevation. On the Lama side, Barrick acquired an option to the western portion of the Lama sector in October 1995 from Sociedad Arballo-Pinto, and exercised that option in March 1996. Drilling during this period included two holes (DDH-96-L1 and DDH-96-L2), which together totaled 368m.

The amount of diamond core drilling in the Pascua sector increased substantially during the 1996-1997 field season to approximately 15,500m in 25 holes, which included seven holes drilled for geotechnical purposes. RC drilling totaled 26,800m in 93 holes. While work again focused on the Brecha Central/Brecha Pedro/Brecha Sur areas, some drilling also extended west of Brecha Central to the border with Argentina. No drilling was done in the Lama sector, but plans were formulated for an initial pass of RC drilling totaling 13,000m. Work intensified in the Pascua area in the fall of 1997 and continued through 2000. Surface RC and diamond drilling continued to push east towards the Lama sector and the border with Argentina. The workings on the Alex tunnel level were extended from the portal eastward in a system of drifts and crosscuts for a distance of approximately four kilometers, providing underground exposures of the various mineralized fracture systems, breccia and intrusive bodies, and other mineralized lithologies intersected by surface drilling. Channel sampling and geologic mapping of the underground workings provided data and information for the updating of the geologic interpretations and computer block models used for resource estimation. Drifting in the Alex tunnel resumed in late 1998 from the international border, eventually breaking through on July 7, 1999.

In the Lama sector, surface drilling during the 1997-1998 field season commenced in the portion of the Lama deposit that was controlled by Barrick. In total, 10 surface RC holes totaling 4,124m were completed in what is now known as the Frontera zone. Further to the east, on ground controlled by Empresa Minera Comsur (Comsur), under the terms of an option agreement Barrick drilled an additional 9,540m in 30 surface RC holes. Comsur independently drilled a single hole (DDH-19) in early 1997 to a depth of 63m. The following field season saw drilling activity on both the Barrick and Comsur portions of the Lama sector increase significantly. A total of 23,289m of RC drilling and 6,830m of H- and N-diameter core drilling were completed in the Barrick-controlled portion, with the main focus on the Frontera zone. In the Comsur-controlled area, drilling totaled 23,146m of RC drilling and 4,000m of surface H- and N-diameter core drilling, mostly a kilometer east of Frontera in the Morro Oeste area, and the Penelope area approximately 5 to 6km southeast of Frontera.

Drilling activity in 1999 and 2000 again increased significantly on the project. The driving of the Alex tunnel in 1999 provided year-round underground access and opened up a significant portion of the Pascua-Lama deposit for exploration and delineation by underground diamond drilling. A total of 50,097m of core drilling in 162 holes were completed, with all but 30 holes drilled from underground stations. Fifty-one RC holes totaling 16,619m also were drilled, along with five geotechnical holes totaling 229m. In addition to drilling, underground work included geologic mapping, channel sampling for mineralization characterization, and also channel sampling and bulk sampling for metallurgical testing.

Surface exploration activity in the Lama sector remained high through the 1999-2000 field season with the completion of 40,107m of RC drilling and 25,340m of diamond coring. Zones or targets drilled included Morro Oeste and Norte, Morro Comsur, Frontera and Lower Frontera, the Pascua Fault extension (controlled by Comsur), and the Penelope Este and Penelope Oeste zones. During the 2001-2002 drill season activity was reduced significantly, with a total of 6,246m of RC drilling and 8,351m of diamond core drilling completed. No drilling has taken place in the Pascua-Lama area since 2002.

11.0 Drilling

11.1. Drilling Methods

Drilling at Pascua-Lama has been conducted by four separate companies since the discovery of mineralization in 1987. These include St. Joe Minerals (St. Joe) under its Compañia Minera San Jose (CMSA), Compañia Minera Nevada S.A. (CMN) and Compañia Minera Aguilar S.A. subsidiaries, Bond Gold International under its acquired CMN subsidiary, LAC Minerals under its acquired CMN subsidiary, and Barrick Gold Corporation under its Barrick Chile and CMN subsidiaries. Drilling methods used for exploration include conventional down-the-hole (DTH) drilling, conventional rotary drilling, reverse circulation (RC) drilling and surface and underground diamond core drilling. The breakdown of these methods, by company, is as follows:

St. Joe - Surface diamond drilling (NQ- and BQ-diameter core), and underground diamond drilling (AW-diameter core)

Bond - Underground diamond drilling (BW-diameter core); Conventional Failing DTH drilling (4.5-inch diameter); RC drilling (4.25-inch diameter)

LAC - Surface diamond drilling (NW-diameter core); RC drilling

Barrick - Surface and underground diamond drilling (HQ- and NQ-diameter core); RC drilling

Much of the upper 300m in the deposit has been drilled from the surface by vertical DDH and RC holes or clusters of angle holes that fan outwards from individual drill sites. This has resulted in more tightly-spaced data just below the drill sites near the surface which grade rapidly into sparser data concentrations in the areas between drill sites. With depth, data spacing becomes more uniform due to the geometry of the overall drill hole pattern. Many holes were lost at or near the 4600m elevation, and this difficulty in sampling the lower portion of the deposit contributed significantly to the decision to drive the Alex tunnel at the 4680m elevation. The flatter holes drilled from the Alex tunnel have provided essential definition of the high-angle structures in the deposit, and have aided the interpretation of the geology of the deposit in the third dimension.

11.2. Logging Procedures

The logging procedures and logging quality have evolved over the life of the Pascua-Lama project. During the period of intense exploration activity in 1999-2000 the recording of geologic data between the Pascua and Lama portions of the deposit was standardized.

The logs contain standard descriptions of lithology, structure, alteration, and mineralization, and qualitative estimations of alteration/silicification intensity and sulfide, oxide, and sulfate mineralization content by type. A PIMA infrared spectrometer was used to aid in the identification of alteration mineralogy. Detailed structural logging and geotechnical data collection was done by Barrick technicians and external consultants. Barrick also photographed all core prior to geologic and geotechnical logging.

12.0 Sampling Method and Approach

12.1. Surface Outcrop/Trench Sampling

Sampling of surface rock outcrops and trenches excavated to expose bedrock was performed manually. No written sampling protocol existed for this sampling, which mainly took place during the early years of exploration prior to Barrick's acquisition of the project. The typical sample size (weight) is also unknown. Information in the database used for resource modeling indicates that the sample lengths typically ranged from less than 1.0m to less than 6.0m, and averaged 1.84m. Similarly, because of the early nature of these samples, the procedures for handling, preparation, and analysis of these samples is uncertain.

12.2. Underground Channel Sampling

Channel sampling and/or chip sampling was done for nearly all-underground workings driven on the Pascua-Lama project. Little is known about the protocols observed during sampling of the earliest tunnels (Esperanza, Frontera, Maria, Nevada and Alan). The majority of the channel sample data that contribute to the estimation of Pascua-Lama mineral resources comes from the Alex tunnel on the 4860 elevation, which was driven between late 1996 and 1998 after Barrick's acquisition of the project. In addition to providing assay data for estimation of mineral resources, the Alex tunnel channel sampling was critical to the characterization of material types for metallurgical testing. Channel samples also contributed heavily to the make-up of metallurgical composites.

Channel sampling in the Alex tunnel closely followed advance of the individual headings. Sampling was performed by two-man sampling crews using a pneumatic chipping hammer, with 20cm-high by 10cm-deep channels cut horizontally in both ribs and working faces approximately halfway between the sills and backs of the workings. The resulting samples were approximately 15kg in average weight. ,An external consultant reviewed the methods and approach used for sampling of the Alex tunnel and confirmed that they are in accordance with North American and Australasian mining industry practices, and are acceptable for use in the modeling of mineral resources.

12.3. RC Drill Sampling

The first RC drilling on the Pascua-Lama project was under the direction of LAC Minerals (LAC), and consisted of relatively small-diameter (4.25-inch) holes. The sampling of RC drill cuttings for assay reportedly followed generally accepted industry practices, where samples were taken every 1.0m during drilling, and collected and bagged at the drill rigs after being reduced using either rotary splitters or conventional riffle splitters.

Certain favorable conditions were present during the drilling of most exploration RC holes at Pascua-Lama. Foremost is the fact that drilling of nearly all RC holes was dry, with little groundwater encountered to the depths penetrated by the RC holes. The presence of gold in fines in oxide material at Pascua was noted during crushing of metallurgical sample NRLI (see Section 7.7). It is possible that some (particularly higher grade) gold assays from RC samples could be conservative (biased low), rather than contaminated (biased high). Checking for sampling bias in RC drilling is typically done by drilling diamond drill/RC twin holes and comparing assays interval by interval. Three pairs of RC/DDH twins were drilled at Pascua-Lama, and these are discussed in Section 17.

12.4. Diamond Drill Core Sampling

Diamond drilling has been an integral part of the sampling of the Pascua-Lama deposit since its discovery in the late 1970's. Up until 1988, only diamond drilling was done, with surface holes recovering NW or NQ-diameter core, and underground drilling from tunnels recovering smaller diameter core (AW, BW, or BQ). The use of AW-diameter core (drilled only during the 1983-1984 field season by CMN) was abandoned thereafter due to unacceptable core recoveries. Since 1988, most diamond core holes drilled have been HQ or NQ when drilled from the surface and NW or NQ when drilled from underground stations.

Core samples were collected on 1.0m down-hole lengths except where geologic contacts or visual breaks in mineralization type were noted, in which case sample lengths could be less than 1.0m or between 1.0m and 2.0m. Initially, drill core was split longitudinally for assay using diamond saws. However, this practice was stopped after it was discovered that the cuttings generated while sawing well-mineralized core contained significant amounts of sulfides, and thus possibly also gold, particularly where alunite-pyrite-enargite (APE) veins were present. Additional concerns centered on the loss of water-soluble sulfate mineralization. After hole DDH-182, conventional hydraulic or manual core splitters were used in order to help avoid the possible loss of gold during the core splitting process.

12.5. Metallurgical Sampling

At the time of the Barrick's acquisition of LAC in 1994, the mineralization that had been identified and partially delineated was situated in the Esperanza area, and consisted of approximately 1.2 million ounces of gold in oxide material. Testwork completed in 1994 by LAC used samples from drill holes and bulk samples collected from surface road cuts to investigate both heap leach and mill processing alternatives.

Barrick continued with sampling and testing in the Esperanza area in 1995, using samples from drill holes and surface road cut bulk samples. At the time, testing was geared towards heap leach processing of oxide material and conventional milling with wet grinding at a possible plant site in the Estrecho valley.

With the discovery of additional oxide and refractory mineralization in the Quebrada de Pascua area, metallurgical sampling and testing requirements became more complex. Work in 1996 continued on oxide material, while preliminary testing on refractory mineralization began to reveal additional complexities, such as higher reagent consumptions (particularly cyanide), lower gold and silver recoveries, and material with very high soluble sulfate content. A comprehensive test program was developed to investigate the refractory material, with copper head grades utilized to help distinguish oxide and sulfide materials. For this program, three bulk composite samples were assembled – CHAL (chalcanthite), HSFE (High Soluble Iron), and ENAR (Enargite). These samples were comprised of rejects from individual sample intervals situated within 350m of the surface in 23 RDH holes (see Table 7-2). The head grades for these samples were high, ranging from 2.41 g/mt to 4.97 g/mt Au.

In 1997, as the Alex tunnel advanced into the heart of the deposit and provided access for metallurgical sampling in the deposit's deeper and more refractory portions, additional factors relevant to processing, such as iron and copper soluble salts and total sulfide contents were identified. As a result focus shifted to a proposed plant with refractory and "non-refractory" circuits to be located in the Rio Toro valley. Forty-seven sulfide samples and 23 oxide samples were collected from the ribs of the Alex tunnel in order to identify zones from which bulk samples could be collected for pilot plant testwork. The investigation of heap leaching continued, with the collection of additional oxide samples from the Alex tunnel and road cuts in the Esperanza area.

The growing understanding of the complexity of the mineralization in the deposit indicated the need to identify and characterize ore types to help guide process testwork. As a first pass to address this, approximately 800 drill hole sample pulps were submitted for bottle roll analysis to a laboratory in Chile. These were followed by the submission of approximately 25,000 individual exploration RC (RDH) sample pulps for test tube shake test analyses for gold and silver recovery and multi-element testing (including antimony, arsenic, acid soluble copper, soluble iron, and sulfate sulfur). Based on the results of these analyses, seven ore types for the deposit were defined at that time.

In 1998 in order to determine whether and to what extent some of the approximately 25,000 pulps analyzed for ore characterization had been contaminated by iron as a result of poor castings in certain sample pulverizers during preparation of the original pulps used for gold and silver assay, and to confirm that gold and silver assays were not affected, 41 coarse rejects corresponding to pulps believed to be contaminated were run at Lakefield Research in Canada. Averages of iron analyses for these checks indicated iron contamination (2.27% total Fe in the original pulps versus 0.67% total Fe in the check rejects), but gold and silver assays from the coarse rejects confirmed the pulp assays (see “Progress Report No. 1, Lakefield Project No. LR5244, March 16, 1999). Approximately 2,000 additional drill hole samples were analyzed for mercury, bringing the total close to 27,000.

Also in 1998, four bulk samples totaling between 90 and 100 tonnes were taken from additional channel cuts in the ribs of the Alex tunnel workings. These consisted of two sulfide samples, PP1 and PP2 (2.59 g/mt Au, 21.8 g/mt Ag and 2.99 g/mt Au, 24.2 g/mt Ag, respectively), and sample NRLI of non-refractory oxide material with low iron content (1.66 g/mt Au, 18.2 g/mt Ag). A bulk sample of oxide material was also collected from the surface in the Esperanza area (3.29 g/mt Au, 51.6 g/mt Ag), which was used for two pilot plant runs (PP-4 and PP-5). All pilot plant testwork was done at Lakefield Research in Canada. Portions of these pilot plant bulk samples were also sent to Fuller Company for grinding testwork. In addition, three bulk samples were collected from sulfide stock work mineralization in the eastern portion of the Alex tunnel workings (XC518SE and XC920S). These samples ranged in grade from 1.24 g/mt to 2.46 g/mt gold and 4.4 g/mt to 11.8 g/mt silver.

In order to broaden the metallurgical sample coverage across the deposit, supplemental samples from drill holes were collected for metallurgical testing from the Lama, Moro Este, Moro Oeste, Frontera, Lower Frontera, and Penelope areas in late 1998 and continuing into 1999. Two sulfide composites (6469 and 6469A) were developed from channel sampling in the Alex tunnel for the purpose of conducting ore washing tests prior to milling.

Other sampling in 1999 included an additional 23 channel samples (OA, OB, OC, and OD-series) taken from the Alex tunnel ribs that were used as a guide for selecting additional non-refractory oxide material for vertical roller mill (VRM) testing at Krupp Polysius, FFE Minerals, and Loesche. MinnovEX addressed ore hardness with the collection of 60 samples for SPI and Bond Work Index testwork. Four of these samples were collected from the Esperanza area and 56 from various locations in the Alex tunnel. The Alex tunnel samples used for the hardness testwork were broadly distributed throughout the workings in the Chilean portion of the deposit. Four of the 56 samples were collected from the Alex tunnel workings on the Argentine side of the deposit.

Channel sampling of the ribs of the 4810 tunnel was completed in 2001 for the characterization of material prior to the collection of bulk samples. The bulk samples consisted of one-tonne samples that were collected after the ribs of the tunnel were slashed. As part of this sampling effort, two additional oxide bulk samples were also collected from the surface. The one-tonne bulk samples were placed in drums and sent to Lakefield Chile in Santiago for testing. Grab samples corresponding to each one-tonne samples were also taken and are stored at the project site.

12.6. Material Density

More than 4,000 individual density determinations were done using the water immersion method on wax-covered samples, the majority of which were taken from diamond drill core. Density determinations that are based on the standard waxed core/water immersion method and which were performed on material that does not have a wide range of sulfide content form a solid basis for the assignment of material density values in resource block modeling.

The following density values have been assigned to each sample interval based on the alteration type code for the interval, as follows:

Alteration Type	Alteration Code	Density (g/cm^3)
Unaltered	1	2.50
Propylitic	2	2.50
Sericite	3	2.50
Illite	4	2.57
Illite-Smectite	5	2.57
Kaolinite	6	2.58
Dickite	7	2.58
Pyrophyllite	8	2.58
Alunite	9	2.55
Jarosite	10	2.53
Silica	11	2.47
Opaline Silica	12	2.47
Steam Heated	13	2.29
Ak-Overprint	14	2.29
Others	N/A	2.52

13.0 Sample Preparation, Analysis, Security, and QA/QC

13.1. Sample Preparation

The Pascua-Lama deposit is transected by the Chile/Argentina border that runs along the crest of the Andes. Thus, for logistical and political purposes, exploration drilling, sampling, sample preparation, analyses, and sample security activities were separate and distinct for the Pascua and Lama portions of the deposit until the 2001-2002 field season. Sample preparation and analyses for the Pascua side were managed out of La Serena, Chile, while similar activities for the Lama portion of the deposit were conducted out of San Juan, Argentina.

On the Pascua side, sample preparation initially was done by Geoanalytica in La Serena. The sample preparation procedures used by St. Joe/CMSJA and CMN prior to LAC's acquisition of the project are unknown, although all St. Joe/CMSJA samples reportedly were prepared at St. Joe's in-house laboratory facility in La Serena, Chile.

During LAC's tenure as owner of CMN and the Pascua project, sample preparation was moved to the exploration camp at the project site. The sample preparation protocols in place at the on-site facility were as follows:

RC Samples

1) Samples from drill rigs (~32kg) were dried and split to ~8kg 2)
2) ~24kg coarse reject retained: ~8kg roll crushed to 95% minus-16 mesh, then quartered by passing through ½" riffle splitter to ~500g
3) 250g split from ~500g, dried at 105°, then pulverized to minus-150 mesh for assay

Surface/Underground Channel and Diamond Drill Core Samples

1) Split core and/or 6 to 8kg channel sample (6' maximum size) jaw crushed to 95% minus-½", then roll crushed to 95% minus-16 mesh
2) ~8kg roll crushed to 95% minus-16 mesh, then quartered by passing through ½" riffle splitter to ~500g
3) 250g split from ~500g, dried at 105°, then pulverized to minus-150 mesh for assay

As part of it's a review of geological model and exploration targets undertaken in 1994, an external consultant recommended that CMN revise its sample preparation protocol in response to duplicate sample analysis results that indicated possible issues with the procedures used up to that time, specifically the relatively small amount of material pulverized (250g). CMN subsequently made revisions, resulting in the following protocols.

RC Samples

1) Samples from drill rigs (~32kg) were dried at 60°C, homogenized, and split once to ~16kg, with ~16kg duplicate retained every 20th sample for duplicate analysis;
2) ~16kg primary sample was homogenized and split, retaining one sample (minimum 8kg) for further preparation; Reject was combined with 16kg reject from initial splitting and stored at exploration camp site as ~24g reject ;

3) 8kg primary sample was dried at 60°C and crushed to 95% minus-10 mesh (Rhino-type 5"X7" jaw crusher, cleaned between each sample with compressed air); Crushed sample was then homogenized and split in 4 passes through Jones-type riffle splitter to 1kg; Reject material (~7kg) was retained and stored at exploration camp site;
4) 1kg primary sample was pulverized (LM-2 type unit) to 95% minus-150 mesh (pulverizer cleaned between each sample with sterile quartz sand and compressed air); One 250g split was sent for assay and a 750g pulp reject retained.

Surface/Underground Channel and Diamond Core Drill Samples

1) Channel sample/split core dried at 60°C for 3 hours, then entire sample was crushed to 95% minus-10 mesh (Rhino-type 5"X7" jaw crusher, cleaned between each sample with compressed air); Crushed sample was then homogenized and split to produce 1kg (minimum) primary sample; Reject material was retained and stored at project camp site
2) 1kg primary sample was pulverized (LM-2 type unit) to 95% minus-150 mesh (pulverizer cleaned between each sample with sterile quartz sand and compressed air); One 250g split was sent for assay and a 750g pulp reject retained.

In 1998, the preparation of Pascua samples was transferred back to Geoanalytica's laboratory in La Serena, where the drying temperatures were lowered to 50°C. This change affected all holes drilled after DDH-182

During Barrick's first exploration field season at Lama (1997-1998), RC samples were initially sent to Geoanalytica's laboratory facility in La Serena, Chile, where they were subjected to the same procedures used to prepare samples from the Pascua project. Midway through the season, the primary laboratory was changed from CIMM to Acme Laboratories in order to improve turnaround times. For the remainder of the season, samples were shipped to Acme's facility in Santiago, Chile, for preparation and assay. Then beginning the following field season, a portion of the preparation procedures for Lama samples was shifted to a project site facility run by Acme. Under this arrangement, RC drill samples were first split to 5kg by Barrick employees, then the samples were delivered to the Acme on-site preparation facility, crushed to 95% minus-2mm, and a 1kg split was sent to Acme's facility in Santiago for final preparation, observing the same protocols in place at Pascua.

13.2. Sample Analysis

No documentation is available regarding the sample analysis procedures used during the tenure of St. Joe/CMSA/Bond Gold on the Pascua project. During LAC's tenure, all primary analyses were done at CIMM's Santiago laboratory facility, using a combination of aqua regia digestion with MIBK organic back extraction and atomic absorption (AA) finish, and conventional fire assay with gravimetric finish. In some cases where initial aqua regia analysis indicated gold contents in excess of 1.0 g/mt, follow-up fire assays were run. As reported by MRDI during its 1994 review of the Pascua project, approximately 50 percent of the more than 50,000 gold analyses in the Pascua database were fire assay data. After Barrick acquired the Pascua project, all samples were analyzed by fire assay.

On the Lama side, , samples were sent to the laboratory operated by Bondar Clegg (BC) in Santiago for gold, silver, and copper determinations. The procedures used by BC for all analytical work are described as follows:

All initial gold determinations for all samples submitted were by fire assay, using a 50g charge and an atomic absorption spectroscopy (AAS) finish. For samples that assayed 5.0 g/mt gold or greater, the samples were rerun by fire assay using a gravimetric finish. Samples falling in the >3.0 g/mt gold <5.0 g/mt gold range were rerun using the initial method.

Copper and initial silver analyses were by four-acid digestion followed by AAS finish. For silver analyses returning values >50 g/mt, the analyses were repeated using fire assay with a gravimetric finish.

13.3. Sample Security

All samples remained in the possession of CMN employees during transport from the drill rigs and/or sample sites (surface trenches and underground workings) to the on-site and third party preparation facilities. Transfer of pulps from the sample preparation facilities to the CIMM laboratory in Santiago was by either common carrier in sealed containers or by CMN, Geoanalytica, or Acme employees. No documentation exists describing transportation of samples drilled or taken during the St. Joe/CMSA field seasons.

13.4. QA/QC

No documentation is available to verify the existence of a standard quality assurance/quality control (QA/QC) program at Pascua prior to LAC's tenure on the project. The earliest record of a program is found in a report issued by an external consultant in November 1994, as part of its review of the Pascua project. The program in place at the time consisted of insertion of three blind standards developed from Pascua drill hole rejects every 20 to 30 samples that were submitted to CIMM for assay. No mention is made in the report of the existence or submission of barren pulp standards or other form of "blank" sample.

The QA/QC program put in place after Barrick's acquisition of the Pascua-Lama deposit included the submission of pulp duplicates every 20th sample to CIMM in Santiago and Bondar Clegg in La Serena for Lama samples, and to Acme and Bondar Clegg for Pascua samples. Pascua coarse reject duplicates were sent to Geoanalytica for analysis and Lama duplicate coarse rejects were sent to CIMM in Santiago. In the opinion of an external consultant, except for the lack of submission of blank samples to the sample preparation facility and blank pulps to the primary assay lab, this QA/QC program was in accordance with accepted North American practices.

On the Lama side, an internal Barrick review of the 1998 Lama Comsur drilling program described the collection of field duplicates every 20th sample for blind submission to the sample preparation facility, the insertion of a field blank every 40th sample, and submission of pulp duplicates to three independent laboratories. The latter procedure, in conjunction with laboratory internal duplicate analyses, was used by Barrick as a substitute for the submission of standard samples, as no standards were reported to be available.

QA/QC was reviewed on an ongoing basis by an external consultant during the period 1998-2001. Adjustments to protocols made where necessary as recommended.

The QA/QC results for Pascua have been reviewed under the direction of the authors of this report. Based on this review the authors are of the opinion that sampling and assaying has been performed in a manner acceptable to the industry and are appropriate for use in determination of resources.

14.0 Data Verification

The drill hole data for the period 1993 to 1998 was verified in 2000 and the data for the period 1999 to 2001 vas verified in 2003 both by Barrick/CMN personnel in La Serena, Chile. This work involved the following:

1) a review of all assays within the Pascua database corresponding to the period in question
2) A review of the original assay certificates. Any missing certificates were replaced by the laboratories.
3) A direct check of the database assay values with the corresponding values on the certificates.
4) A report of the results of the cross check

The results of these efforts are reported in internal reports, "Informe Validación Base Datos Control de Calidad", August, 2003, and "Validación de Leyes y Base de Datos Historica", April, 2000. Based on the results reported for the two validation efforts described above, The authors of this report have reviewed the reports listed above and conclude that the assay data were of sufficient quality to be used for resource and reserve purposes.

15.0 Adjacent Properties

The Veladero property, which is wholly owned by Barrick and is currently in development, is adjacent to the Pascua-Lama property.

16.0 Mineral Processing and Metallurgical Testing

The Pascua ores are very complex ranging from highly oxidized ore where the gold and silver can be recovered by conventional cyanide leaching, to highly refractory ore where the precious metal recovery is unacceptably low. Significant metallurgical test work was conducted on the Pascua Lama ore during 1996 to 1999. This work included bench-scale testing, pilot plant testing and mineralogical investigation.

The Pascua ore can be classified into two broad classifications based on the results of the metallurgical test work, the assays, and the mineralogy. Non-refractory ore is subjected to cyanide leach, while the refractory ore is subjected to flotation to produce a low grade copper concentrate. The flotation tailings are then subjected to a cyanide leach for further precious metals recovery.

Most of the Pascua ores contain water soluble sulphates that need to be removed prior to leach or flotation. This is accomplished in a wash circuit where the soluble salts are removed in a wash CCD circuit and then precipitated with lime. Metallurgical test work has also determined that all ores benefit from being washed.

16.1. Ore Classification

An ore classification system was developed, based on the mineralogy and ore processing requirements. It has undergone several revisions as the understanding of the Pascua orebody grew. Presently, the classification system operates on the following criteria:

- is the ore non-refractory or refractory?
- does the ore contain appreciable amounts of soluble minerals?
- does the ore contain significant amounts of sulphide copper?

Based on this information, any sample can be classified into one of four categories, as shown in Figure 16-1.

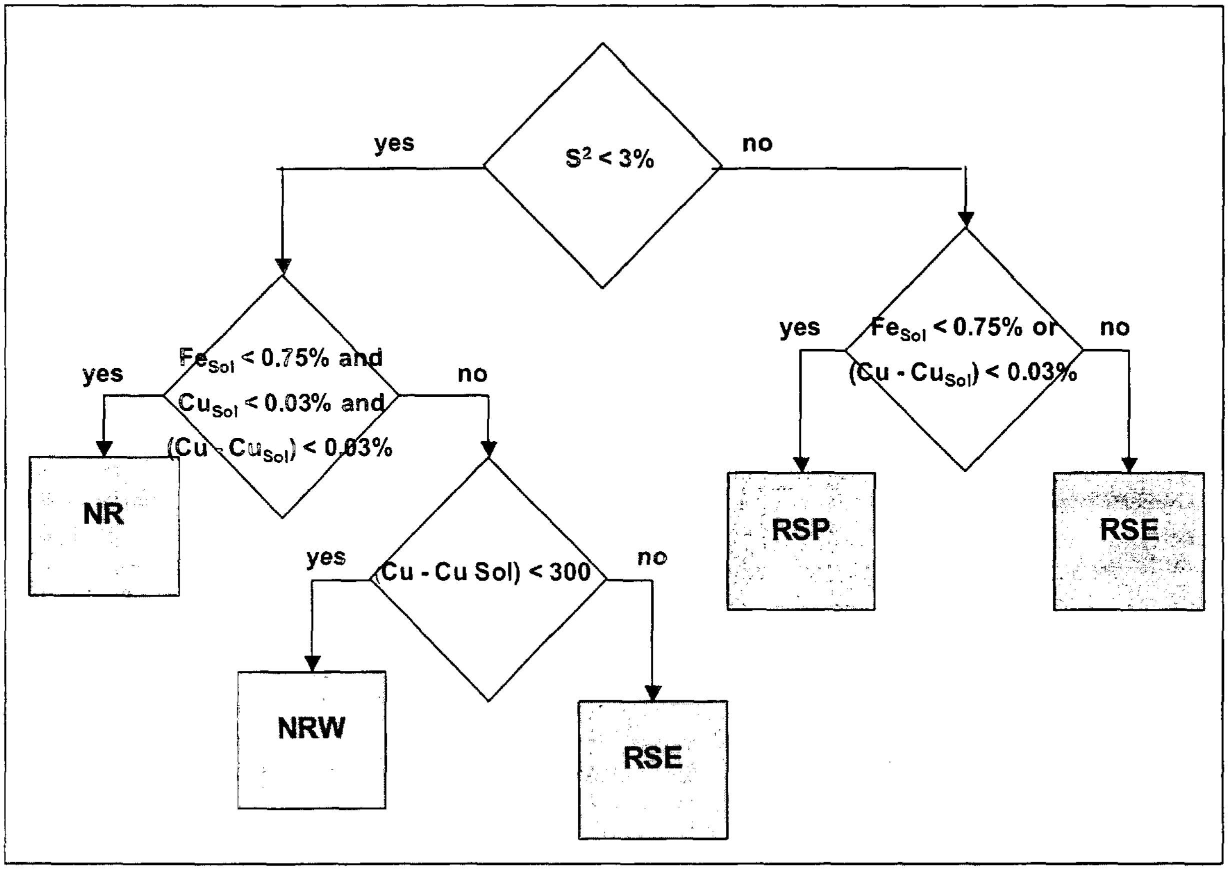
The classifications can be described as follows:

NR – Non Refractory This classification describes oxide ore ($<3\%S^{=}$), which contains only small amounts of soluble minerals (< 0.75% Fe(sol) and <0.03% Cu(sol)). It should respond well to direct cyanidation with reasonable reagent consumptions. Washing is not required to achieve good recoveries, however it may be of economic benefit to the metallurgical efficiency.

NRW – Non Refractory Wash This classification describes oxide ore ($<3\%\ S^{=}$), which contains significant amounts of soluble minerals (>0.75% Fe(sol) and/or > 0.03% Cu(sol)). Washing is required to remove the soluble components prior to cyanidation in order to achieve acceptable metallurgical results.

RSE – Refractory Sulphide Enargite This classification describes sulphide ore (>3% S=), which contains significant enargite, the primary copper sulphide mineral of the Pascua deposit (Cu-Cu(sol)>0.03%). It is termed refractory because gold and silver are associated with the

Figure 16-1: Metallurgical Ore Classification Hierarchy



sulphide minerals and the metallurgical response to cyanidation is poor, in respect both to low precious metal recovery and high cyanide consumption. Soluble sulphate minerals are also associated with this classification. This ore type requires washing and flotation of a copper concentrate to achieve acceptable metallurgical results.

RSP – Refractory Sulphide Pyrite This classification describes sulphide ore (>3% $S^=$), which contains only small amounts of copper sulphide minerals (Cu-Cu(sol) <0.03%). Pyrite is the major sulphide mineral and gold and silver are associated with it. Because a significant portion of the gold is locked up in the pyrite and refractory (low cyanidation recovery), this ore type also requires washing and flotation in its processing. Although a copper concentrate would not be produced from RSP ore, the gold-silver-pyrite concentrate that would be produced is blended with copper concentrate from RSE ore for sale.

16.2. Mineralogy

Gold at Pascua occurs in three major mineralized facies:

Alunite –Pyrite – Enargite (APE)

- Native Gold and calaverite ($AuTe_2$) Most abundant gold minerals

- Most gold and silver occur as sub-microscopic inclusions in pyrite and enargite

Pyrite – Szomolnokite (PS)

- Post Breccia Central and silicification
- Occurs above and surrounding area dominated by alunite-pyrite-enargite mineralization
- Gold and silver occur as sub-microscopic inclusions in pyrite and enargite

Oxidized rocks (OR)

- In the oxidized zone, gold is mostly free or attached to quartz.
- The most abundant silver-bearing minerals in the oxidized and supergene enrichment zone are Chlorargyrite (AgCl) and Idodargyrite (AgI)

Silver also occurs in jarosite/plumbojarosite. Pyrite is the most common sulphide phase. Enargite is the most common sulpho-salt in Pascua.

16.3. Recoveries

A review of the recovery estimate was completed by external consultants in August 2003. Recovery estimates based on this review of the referenced data are presented in Table 16-1. Other external consultants completed a subsequent review of the metallurgical data, with the objective of establishing recovery vs. head grade algorithms for gold and silver for the identified ores types, in June 2004. Algorithms result in average NR gold recoveries of 87.9% and silver recoveries of 77.4%. (Section 11.1)

Table16-1: Estimated Recoveries

Refractory Sulphide Ore			Oxide Ore		Esperanza Ore	
% Au	% Ag	% Cu	% Au	% Ag	% Au	% Ag
73	80	60	90	77	90	39

16.4. Processing

The Pascua Lama Process Plant is designed to treat 33,000 tpd of ore that contains 2.2 g/t of gold and 80.0 g/t of silver. The Process Design Criteria are in Section 12.6. The process design includes crushing, an overland conveyor, dry grinding, CCD washing and neutralization followed by cyanidation and treatment in a Merrill-Crowe plant and refinery. Tailings will be contained in a facility near the plant. Based on standard metallurgical leach tests, the Pascua ore can be categorized into two main ore types: non-refractory and refractory. Both ore types contain sulphates that cause the ore to become acidic when exposed to water. For this reason, the ore is ground dry to reduce corrosion and ball consumption, and is then washed with water to remove the soluble metals prior to recovery of copper, gold and silver.

During Years 1 to 3, the processing facility is designed to process 33 000 tpd of non-refractory ore assaying 2.2 g/t of gold and 80 g/t of silver in a circuit consisting of primary crushing, secondary crushing, drying grinding, ore washing, pre-aeration, leaching, CCD thickening for pregnant solution recovery, cyanide destruction, Merrill-Crowe precipitation mercury retorting and smelting.

The plant is designed to operate 24 hours per day, 365 days per year with an operating availability of 90%.

According to the mine plan, the treatment of refractory ore starts in Year 4, and the plant capacity is increased. On that basis, the process plant is expanded to process 44 000 tpd starting in Year 4. The plant design is also based on the fact that the non-refractory ore and refractory ore will be campaigned through the plant. Extra process equipment, including an additional dry grinding circuit, is installed to accommodate the increase in production. For refractory ore processing, a copper flotation and concentrate dewatering circuit is installed.

16.5. Process Description

Crushing and Conveying

Run-of-mine ore is dumped by nominal 232 t capacity haul trucks into a 1 370 mm x 1 880 mm gyratory crusher. Crushed ore is removed by a belt feeder and discharged onto a 1 220 mm wide downhill belt conveyor, operating at a speed of 6 m/s which discharges into an open 170 000 t (20 000 t live) coarse ore stockpile located adjacent to the secondary crushing building. The conveyor drive is configured to generate power from the ore transport.

Coarse ore is removed from the stockpile by three apron feeders and is conveyed to the secondary crushing plan where it is crushed to minus 38 mm in two cone crushers in open circuit. The crushed ore is conveyed to a 28 000 t live capacity covered stockpile.

Dry Grinding

At 33 000 tpd, ore is ground in three parallel dry grinding circuits. Each grinding circuit consists of a 6 600 mm diameter x 16 250 mm EGL double rotator grinding mill consisting of one drying and two grinding compartments, two 5 500 mm cyclones, two 3 500 mm diameter high efficiency dynamic classifiers, two baghouses and two repulping tanks. Each double rotator is powered by a 12 000 kW wraparound motor. The product from the dry grinding circuit is pulped with water and then discharged to the wash circuit.

To increase the grinding circuit capacity from 33 000 tpd to 44 000 tpd, an additional identical grinding circuit is provided.

Wash CCD Thickening

Slurry from the grinding circuit is washed to remove the soluble metals, predominantly iron and copper, from the ore using a three-stage CCD circuit. The solids from the third thickener are pumped to the leach or flotation circuit, depending on the ore type.

The solution from the wash circuit contains the soluble metals and is pumped to the neutralization circuit, where the metals are precipitated with lime into a hydroxide sludge. The sludge is discharged to the tailings thickeners while the solution is returned to the wash circuit.

Copper Flotation

Copper flotation is not required until refractory ores containing enargite are processed. This is scheduled to occur in Year 4.

The ore is first floated in 160 m^3 rougher flotation tanks to produce a low-grade rougher concentrate, which is then reground to a P_{80} of 25 µm. The reground concentrate is then cleaned in three stages to produce a final copper concentrate with an estimated grade of 12% copper. This concentrate is dewatered in a thickener, and then filtered to approximately 8% moisture in a pressure filter. The concentrate is then conveyed to a 4 100 t capacity storage shed for loading into trucks and transported off site.

Leaching

The washed ore (or flotation tailings) is pre-aerated at pH 10.5 for four hours and then leached in 17 700 mm diameter x 18 600 mm high leach tanks with cyanide for 24 hours. Additional tanks are installed to retain these retention times when the throughput is increased. The extracted metals are recovered in a pregnant solution in a five-stage CCD circuit. The solids are then discharged to cyanide destruct while the solution is clarified in preparation for gold and silver recovery. The CCD thickening circuit is sized to handle the 44 000 tpd capacity.

Merrill-Crowe Circuit

Pregnant solution from the CCD circuit is first clarified in a 57 000 mm diameter clarifier and then further cleaned in 186 m^2 rotating pressure leaf clarifiers. The polished pregnant solution is de-aerated in two 5 200 mm diameter x 7 350 mm M-C towers, zinc dust and lead nitrate are added and the resultant precipitate is collected in recessed plate filter presses. The precipitate discharged into pans and the barren solution from the filter presses is returned to the process.

Refinery Circuit

The precipitate pans are loaded into mercury retorts for removal of the mercury from the precipitate. The retorted mercury is recovered and transported off site periodically. The dry precipitate from the mercury retort pans is recovered by vacuum and is conveyed pneumatically to dry precipitate storage bin. On a batch basis, flux is added to the precipitate and then loaded into one of two diesel-fired 1 m^3 liquid volume reverberatory furnaces. The slag is discharged into a slag granulation launder and the doré is poured into 5 000 oz bars.

During the expansion to 44 000 tpd, one reverberatory furnace will be added to the refinery.

Cyanide Destruct and Tailings Disposal

The cyanide destruction circuit uses the SO2 / Air process with a total retention time of 60 minutes. Sulphur dioxide is generated by burning sulphur. Slurry discharging from the cyanide destruction tanks flows by gravity to the tailings pond. During the expansion to 44 000 tpd, additional tanks will be installed, to maintain the 60 minutes retention time, along with two tailings thickeners to dewater the final tailings prior to deposition in the tailings pond.

Ancillary Facilities

The project is supported by Ancillary Facilities. At the plant site there will be offices, metallurgical laboratories, environmental laboratories, warehouses and maintenance shops. The open pit will have a combination facility that will include maintenance facilities for haul trucks and pit equipment as well as offices and warehouses.

Tailings & Reclaim Facilities

The tailings disposal facility is located east of the processing plant in the Rio Turbio valley, at an elevation of 3,900 m. The location was chosen as the optimum location for several reasons. The valley has a good storage ratio, stable geology and good considerations for closure.

Power Supply

The Pascua Lama project will buy power from a public utility. Operating the transmission line is included in the unit rate for electric power and is consistent with present Chilean electrical contracts of similar energy usage.

16.6. Process Design Criteria

The process design criteria were prepared by Barrick's engineering and construction consultant. The development of process design criteria was based on information contained in the reports and memoranda prepared by external consultants and Barrick, test work performed by an external consultant and based on Barrick and the consultant's experience

The general criteria provided in the following Table are the basis of design for the process plant. The annual mine output and plant throughput is 33 000 tpd at the start of the project for the first three years, and then increases to 44,000 tpd or 16,000, 000 t/a. The average plant availability has been estimated to be 90%. This is affected by the complexity of the circuit and by the location.

The ore is highly variable and the plant has been designed based on a design silver grade of 80 g/t, with short excursions of 2 weeks up to 150 g/t. The silver content will affect the quantity of precipitate produced

The mine plan is also constrained by the lime required for the neutralization circuit. There is a peak lime demand occurring in Years 5 and 6 of the operation.

Gold and silver recovery and the process flowsheet are affected by the ore type. Non-refractory ore is responsive to cyanide leach, while the refractory ore results in lower recoveries. The circuit is modified to include a flotation circuit, and a low grade copper concentrate is produced.

17.0 Mineral Resource and Mineral Reserve Estimates

17.1. Introduction

The mineral resource and reserve estimates for the Pascua-Lama have been prepared by employees of Barrick under the supervision of Rene Marion, P.Eng, Vice President, Technical Services of Barrick and Alex Davidson, P. Geo. Executive Vice President, Exploration of Barrick. Resource and reserve estimates are developed using commercially available VULCAN®. Whittle 4X®, and QPit® are used in various capacities to assist in the design and optimization of pits.

The Pascua-Lama resource model, which includes the spatially related Pascua, Esperanza, Morro Oeste, and Penelope deposits, has evolved from a feasibility study model created in 2000. In 2003, the resource estimation was updated using new estimation parameters to refine local estimates. This model has been used for all subsequent planning.

The coordinate systems used for the Pascua-Lama model ties to the UTM coordinate system.

17.2. Geologic Model

To develop a geologic model of the Pascua area, raw sample data were plotted on vertical cross sections oriented east-west. Sections were constructed every 24 meters. Combined with surface and underground mapping, the sectional samples information was used to develop three sets of boundaries:

1) Lithology

2) Structure,

3) Alteration

The raw data and sectional interpretations were than posted in plan every thirty meters and re-interpreted. The thirty-meter sectional interpretations were linked to create final solids and surfaces.

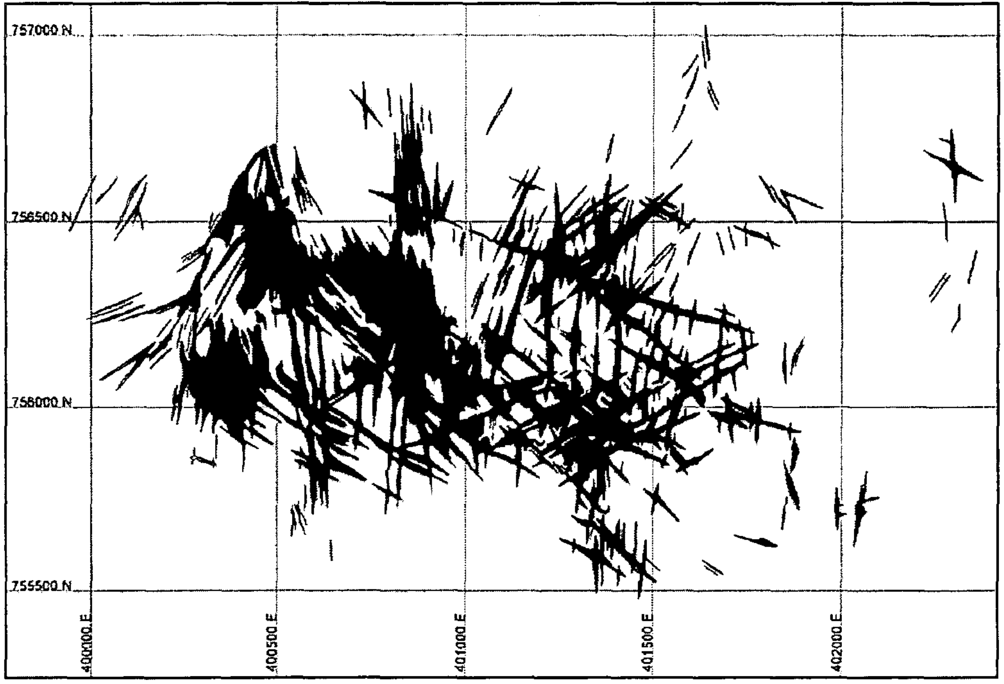
Gold, silver, and copper mineralization were also interpreted on section and plan by constructing grade envelopes as follows:

- Gold > = 0.40 gram/tonne
- Silver > = 30 gram/tonne
- Copper > = 0.05 percent

Interpretation of the grade envelopes was strongly influenced by the structural and alteration boundaries. Figure 17-1 illustrates an example of a 0.40 g/t gold envelope drawn at the 4690 level.

The lithology and alteration solids were loaded into a block model measuring 8m x 8m x 8m. Owing to the detail of the gold and silver grade envelopes, they were loaded into 4m x 4m x 4m blocks.

Figure 17-1: 0.4 g/t Gold Envelope – 4690 Elevation



Because of the complex geometry and distribution of gold and silver grades, internal waste zones within the gold envelopes were also modeled and extruded vertically to represent internal dilution. An iterative series of interpolation runs were performed in order to define the mineralized and waste blocks on 4-meter levels between the 30-meter levels and at a detail equivalent to that on the hand-interpreted levels. Using these interpolated envelopes, a full three-dimensional model of the gold and silver envelopes was created. Often referred to as the "pickup-sticks" models, the blocks within these envelopes were then used for gold and silver grade estimation.

A computer routine was developed to calculate directional gold grade continuity for each model block within the gold "pick-up sticks model" along each of eight major mineralized structural trends. These trends were used to create tight anisotropic search strategies for block grade estimation. In addition to defining the direction of preferential continuity, the routine determined if a block was at a structural intersection where cross-cutting relationships were used to determine the appropriate grade interpolation geometry. The routine also identified areas containing complex stockwork or hydrothermal breccia. In these cases gold grade estimates were not tightly directionally controlled. Directional assignments were made to each model block. An example of the directional block assignments is shown in Figure 17-2.

17.3. Mineral Resource Estimation

Gold grades were estimated for each 4m x 4m x 4m block inside the grade envelopes, using multiple passes and respecting directional controls. Gold grades were estimated by the inverse distance cubed method using multiple passes with each run using progressively longer search ranges. Once the gold grade for a block was estimated it was not over written by subsequent estimation runs.

Figure 17-2: 0.4 g/t Gold Envelope Directional Assignments– 4690 Elevation

Blocks inside of the gold zone were estimated with a maximum of three composites with the added constraint that only one composite was allowed from each drill hole. Composites above a 0.40 g/t gold cutoff grade that were located outside of the gold zone shape were also eligible to be used to estimate gold grades for blocks that were located inside of the gold envelope.

Gold grades were estimated in a hierarchical manner starting with the milled core of Breccia Central working out towards the outer portions of the breccia body, then for blocks with well-defined directional continuity, then for blocks within blobs that also have a strong directional component. A series of three runs were run for each grouping that used different search ranges. The anisotropy ratio for the milled core and outer breccia ring units was set at 1:1:1. For all of the other units that were estimated an anisotropy ratio of 1.00:0.50:0.75 for the major, minor, and vertical axes, respectively. This gave more weight to samples along the trend and secondarily to samples up and down dip.

Table 17-1 summarizes all of the gold estimation parameters. The use of distinct anisotropies resulted in a number of blocks that were unestimated because no composites could be found in the relatively narrow search ellipses. BEASA filled these blocks with grades by widening the search. Table 17-2 summarizes the parameters that were used for filling in block grades.

A series of nearest neighbor or polygonal estimation runs were then executed using the same parameters as those shown in Table 6-3 and Table 6-4 for the sole purpose of capturing the distance to the closest drill hole composite. Figure 17-3 shows block gold grades from the 4m x 4m x 4m model.

Figure 17-3: 4x4x4m Block Gold Grades– 4690 Elevation

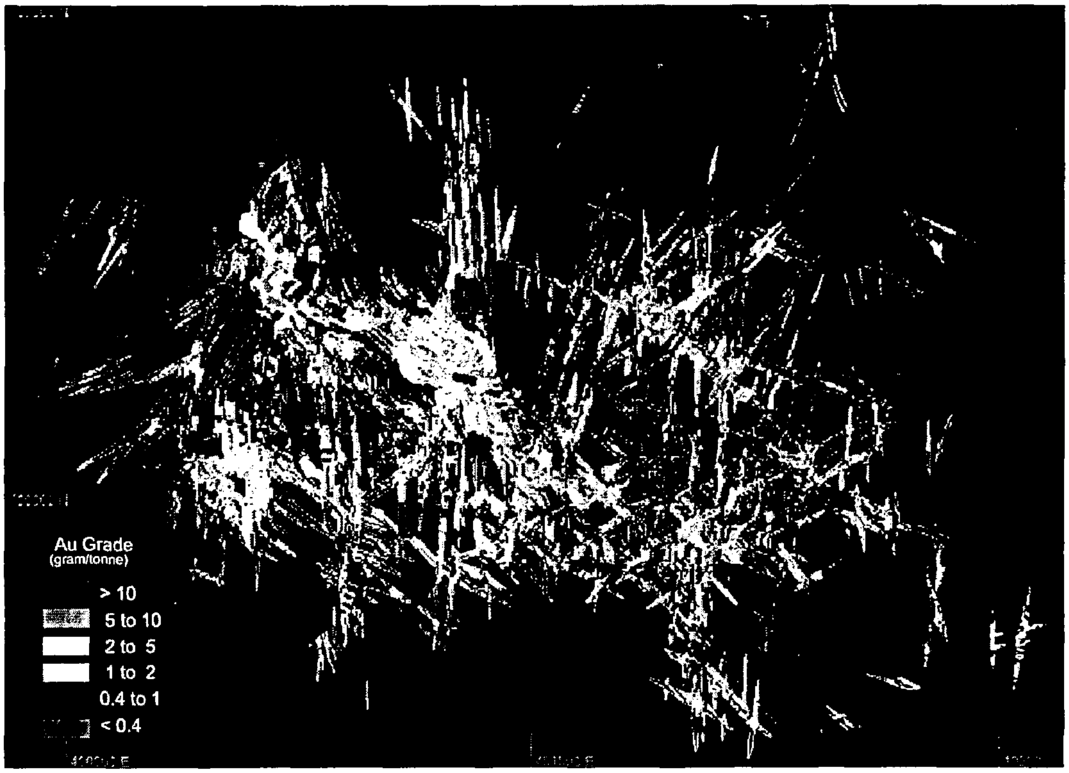


Table 17-1: Gold Estimation Parameters

Estimated Group	Search Ranges (m)			Major Axis	Anisotropy Ratio			Blob	ISDIR
	Major	Minor	Vertical	Orientation	Major	Minor	Vertical	Code	Code
Breccia Cental Milled Core	4	4	4	295	1.00	1.00	1.00	3	0
	50	30	50	295	1.00	1.00	1.00	3	0
	100	60	100	295	1.00	1.00	1.00	3	0
Breccia Cental Outer Ring	4	4	4	295	1.00	1.00	1.00	2	0
	50	30	50	295	1.00	1.00	1.00	2	0
	100	60	100	295	1.00	1.00	1.00	2	0
Strong Anisotropy Breccia Cental Trend	4	4	4	0	1.00	1.00	1.00	0	1
	50	30	50	0	1.00	0.50	0.75	0	1
	100	60	100	0	1.00	0.50	0.75	0	1
Strong Anisotropy Frontera Trend	4	4	4	15	1.00	1.00	1.00	0	2
	50	30	50	15	1.00	0.50	0.75	0	2
	100	60	100	15	1.00	0.50	0.75	0	2
Strong Anisotropy Esperanza Trend	4	4	4	25	1.00	1.00	1.00	0	3
	50	30	50	25	1.00	0.50	0.75	0	3
	100	60	100	25	1.00	0.50	0.75	0	3
Strong Anisotropy Raul Trend	4	4	4	45	1.00	1.00	1.00	0	4
	50	30	50	45	1.00	0.50	0.75	0	4
	100	60	100	45	1.00	0.50	0.75	0	4
Strong Anisotropy Unnamed Trend	4	4	4	60	1.00	1.00	1.00	0	5
	50	30	50	60	1.00	0.50	0.75	0	5
	100	60	100	60	1.00	0.50	0.75	0	5
Strong Anisotropy Pascua Trend	4	4	4	115	1.00	1.00	1.00	0	6
	50	30	50	115	1.00	0.50	0.75	0	6
	100	60	100	115	1.00	0.50	0.75	0	6
Strong Anisotropy David Trend	4	4	4	135	1.00	1.00	1.00	0	7
	50	30	50	135	1.00	0.50	0.75	0	7
	100	60	100	135	1.00	0.50	0.75	0	7
Strong Anisotropy Pedro Trend	4	4	4	170	1.00	1.00	1.00	0	8
	50	30	50	170	1.00	0.50	0.75	0	8
	100	60	100	170	1.00	0.50	0.75	0	8
Inside Blob Breccia Central Trend	4	4	4	0	1.00	1.00	1.00	1	1
	50	30	50	0	1.00	0.50	0.75	1	1
	100	50	75	0	1.00	0.50	0.75	1	1
Inside Blob Frontera Trend	4	4	4	15	1.00	1.00	1.00	1	2
	50	30	50	15	1.00	0.50	0.75	1	2
	100	50	75	15	1.00	0.50	0.75	1	2
Inside Blob Esperanza Trend	4	4	4	25	1.00	1.00	1.00	1	3
	50	30	50	25	1.00	0.50	0.75	1	3
	100	50	75	25	1.00	0.50	0.75	1	3
Inside Blob Raul Trend	4	4	4	45	1.00	1.00	1.00	1	4
	50	30	50	45	1.00	0.50	0.75	1	4
	100	50	75	45	1.00	0.50	0.75	1	4
Inside Blob Unnamed Trend	4	4	4	60	1.00	1.00	1.00	1	5
	50	30	50	60	1.00	0.50	0.75	1	5
	100	50	75	60	1.00	0.50	0.75	1	5
Inside Blob Pascua Trend	4	4	4	115	1.00	1.00	1.00	1	6
	50	30	50	115	1.00	0.50	0.75	1	6
	100	50	75	115	1.00	0.50	0.75	1	6
Inside Blob David Trend	4	4	4	135	1.00	1.00	1.00	1	7
	50	30	50	135	1.00	0.50	0.75	1	7
	100	50	75	135	1.00	0.50	0.75	1	7
Inside Blob Pedro Trend	4	4	4	170	1.00	1.00	1.00	1	8
	50	30	50	170	1.00	0.50	0.75	1	8
	100	50	75	170	1.00	0.50	0.75	1	8

Table 17-2: Directional Fill Parameters – Gold

Estimated Group	Search Ranges (m)			Major Axis Orientation	Anisotropy Ratio			Blob Code	ISDIR Code
	Major	Minor	Vertical		Major	Minor	Vertical		
First Pass									
Breccia Central	100	30	75	0	1.00	0.50	0.75	0	1
Frontera Trend	100	30	75	15	1.00	0.50	0.75	0	2
Esperanza Trend	100	30	75	25	1.00	0.50	0.75	0	3
Raul Trend	100	30	75	45	1.00	0.50	0.75	0	4
Unnamed Trend	100	30	75	60	1.00	0.50	0.75	0	5
Pascua Trend	100	30	75	115	1.00	0.50	0.75	0	6
David Trend	100	30	75	135	1.00	0.50	0.75	0	7
Pedro Trend	100	30	75	170	1.00	0.50	0.75	0	8
Second Pass									
Breccia Central	200	30	150	0	1.00	0.50	0.75	0	1
Frontera Trend	200	30	150	15	1.00	0.50	0.75	0	2
Esperanza Trend	200	30	150	25	1.00	0.50	0.75	0	3
Raul Trend	200	30	150	45	1.00	0.50	0.75	0	4
Unnamed Trend	200	30	150	60	1.00	0.50	0.75	0	5
Pascua Trend	200	30	150	115	1.00	0.50	0.75	0	6
David Trend	200	30	150	135	1.00	0.50	0.75	0	7
Pedro Trend	200	30	150	170	1.00	0.50	0.75	0	8

Waste gold grades were estimated for blocks outside of the gold zone envelopes ("auzonef" code of 0) using composites that were backtagged with that same code. A three-pass inverse distance cubed strategy that used successively longer search ranges was used. The key parameters are outlined in Table 17-3.

Table 17-3: Waste Gold Grade Estimation Parameters

Estimation Pass	Search Distance (m)			Number of Composites			Anisotropy Weighting		
	X	Y	Z	Min	Max	Max/Hole	X	Y	Z
1	4	4	4	1	8	8	1	1	1
2	50	25	50	1	3	1	1	2	1
3	100	100	100	1	5	2	1	1	1

Silver grades were estimated using a similar approach. A 4x4x4m block model of the 30 g/t silver grade envelope was created. Directional controls were not so rigorously applied as described for the gold model. Table 17-4 Summarizes the silver estimation parameters.

Table 17-4: Silver Grade Estimation Parameters

Estimation Group	Search Ranges			Search Orientation			Number of Composites			Anisotropy Weighting		
	Major	Minor	Vert.	Major	Minor	Vert.	Min.	Max	Max/dh	Major	Minor	Vert.
Inside Zone Pass 1	4	4	4	na	na	na	1	8	1	1	1	1
Inside Zone Pass 2	50	25	50	0,0	90,0	0,-90	1	3	1	1	0.5	1
Inside Zone Pass 3	100	100	100	na	na	na	1	3	1	1	1	1
Outside Zone Pass 1	100	100	100	na	na	na	1	5	2	1	1	1

17.4. Block Regularization

Dilution and ore loss studies were done starting with the 4m x 4m x 4m resource model as the underlying grade model. Based on the trade off of mining cost savings/productivity versus dilution and ore loss, a final selective mining unit (SMU) of 16m x 16m x 16m was chosen.

Gold and silver grades from sixty-four 4m x 4m x 4m blocks were averaged into a single 16m x 16m x 16m block. In addition to gold and silver grades, the distance to the closest composite used to estimate each 4-meter block was also regularized. Indicator flags (0's and 1's) were also set in the 4-meter blocks so that the percentage of regularized block above certain cutoff grades would be known.

17.5. Density

Insitu density values were assigned to the model blocks based on alteration type. Table 17-5 summarizes the density values that were used.

Table 17-5: Density Values

Alteration Type	Model Code	SG	% of Total
Default	0	2.52	33.1%
Unaltered	1	2.50	3.5%
Propylitic	2	2.50	8.3%
Illite	4	2.57	19.7%
Illite-Smectite	5	2.57	5.0%
Kaolinite	6	2.58	1.7%
Dickite	7	2.58	3.5%
Pyrophyllite	8	2.58	2.9%
Alunite	9	2.55	11.0%
Jarosite	10	2.53	5.1%
Silica	11	2.47	3.8%
Opaline Silica	12	2.47	0.0%
Steam Heated	13	2.29	1.4%
AK Overprint	14	2.29	1.0%

17.6. Resource Classification

The resource model blocks were classified based on the distance to the nearest sample data. In addition to distance to data, resource classification was also based on a net revenue function where four basic cases were evaluated:

Gold and silver revenue were each greater than mining+processing costs

Only gold generated positive net revenue

Only silver generated positive net revenue

Both gold and silver were required to generate positive net revenue

The metal or metals that were required to generate positive net revenue determined what sample data distances were checked to determine final block classification. In cases where both gold and silver grades were required to generate a positive net revenue, the distances to both gold and silver data were checked and the "worst" category was assigned to the block. If either metal alone generated positive net revenue, both distances were also checked and the "best" category was assigned.

Table 17-6 summarizes the distances that were used for defining each resource category.

Table 17-6: Resource Classification Parameters

Resource Category	Model Code	Blocks Inside Au & Ag Zones		Ag Blocks Outside of Silver Zone	
		Distance to Data (m)		Distance to Data (m)	
		Min	Max	Min	Max
Measured	1	0	8	n/a	n/a
Indicated	2	8	60	0	30[2]
Inferred	3	60	200[1]	30	200[1]
Undefined[3]	0	0	200[1]	0	200[1]

[1] Blocks located inside of the Au or Ag shape and were not classifided as measured or indicated were estimated with long ranges to fill the shape and were then classifed as inferred resources.

[2] High-grade silver blocks that were located outside of the silver zone that generated positive reveune that were within 30 meters of data were classified as indicated resources. This was only done for silver, not gold.

[3] Reserved for unestimated blocks and/or uneconomic blocks

17.7. Metallurgical Model

The metallurgical model was constructed using a block size of 8m x 8m x 8m. Because the metallurgical ore types are based on the cutoff grades of five elements or solubility components (see Figure 16-1), an indicator approach was chosen to define populations above and below the cutoff grades that were used for making metallurgical ore type assignments. Table 17-7 shows the indicator cutoff grades that were used to define the two populations for each element (i.e. populations below and above the indicator cutoff).

Table 17-7: Metallurgical Indicator Cutoffs

Metallurgical Parameter	Indicator Cutoff Grade
Sulfide Sulfur	3.000%
Soluble Iron	0.750%
Total Copper	0.040%
Acid Soluble Copper	0.030%
Cyanide Soluble Copper	0.030%
Arsenic	0.019%
Mercury	4.7 ppm

Metallurgical grades were estimated using an indicator approach that defined two populations based on a cutoff grade. The 0/1 indicators were set in the composite file for each constituent based on the metallurgical thresholds as shown in Table 17-8. Indicator fields were interpolated using a two-pass inverse distance squared estimation strategy. For all values except copper, an isotropic search strategy was used for selecting eligible composites for each interpolation. Table

17-8 summarizes the search and composite selection criteria that were used for estimating the indicators.

Table 17-8: Metallurgical Estimation Parameters

Estimation Pass	Range (m)	Composite Selection		
		Min	Max	Max/hole
First	75	2	5	2
Second	150	3	8	3

After the indicators were estimated, the blocks were flagged into two populations depending upon whether the indicator value was less than or greater or equal to 0.50. The metallurgical composites were then backtagged with the flag code. Metallurgical grades were then estimated for each of the flagged populations using a two-pass inverse distance squared strategy. The same isotropic search distances and composite selection criteria that were used for estimating the indicators were also used for estimating metallurgical grades as shown in Table 17-8.

Copper grades were estimated using a multiple pass estimation strategy as shown below:

Table 17-9: Copper Grade Estimation Parameters

Estimation Group	Search Ranges			Search Orientation			Number of Composites			Anisotropy Weighting		
	Major	Minor	Vert.	Major	Minor	Vert.	Min.	Max	Max/dh	Major	Minor	Vert.
Inside Zone Pass 1	30	15	15	120,0	30,0	30,-90	1	3	1	1	1	1
Inside Zone Pass 2	60	30	30	120,0	30,0	30,-90	2	3	1	1	1	1
Inside Zone Pass 3	120	60	60	120,0	30,0	30,-90	2	3	1	1	1	1
Inside Zone Pass 4	200	100	100	120,0	30,0	30,-90	2	3	1	1	1	1
Inside Zone Pass 5	200	200	200	120,0	30,0	30,-90	1	3	1	1	1	1
Outside Zone Pass 1	100	100	100	120,0	30,0	30,-90	1	3	1	1	1	1
Outside Zone Pass 2	100	100	100	120,0	30,0	30,-90	2	3	1	1	1	1
Outside Zone Pass 3	100	100	100	120,0	30,0	30,-90	2	3	1	1	1	1

Acid soluble and cyanide soluble copper were particularly important in defining the various metallurgical ore types. Soluble copper data were available only in a supplemental data set consisting of about 27,000 samples. All samples were assayed for total copper. Total and acid soluble copper grades were estimated into 8m x 8m x 8m blocks using the supplemental assay data. Then the ratio of soluble copper over total copper was calculated and stored in the model blocks. Acid soluble grades were set equal to total copper grades for those blocks in which the estimated acid soluble grade exceeded the total copper grade. This insured that the acid soluble ratio was never greater than 100%. Then total copper was estimated into the same blocks using the exhaustive total copper data set. A final acid soluble grade was calculated by multiplying the aforementioned ratio by the exhaustive total copper grade. The cyanide soluble grade was then calculated by subtracting the final acid soluble grade from the exhaustive total copper grade. This method assured that the copper grades were normalized relative to an original total copper head grade. Finally, the model blocks were classified into the four metallurgical types shown in Figure 16-1.

17.8. Mineral Resource and Mineral Reserve Statements

The Pascua-Lama mineral resources and mineral reserves were established using a long-term gold price of US$375/oz. The Pascua-Lama open pit mineral reserves for December 31, 2004 are shown in Table 17-8. Cutoff grades for mineral reserves are $0.0 net profit with the exception of Penelope, which is stated at $0.50 net profit.

Table 17-10: Pascua-Lama Mineral Reserves

	PROVEN			PROBABLE			TOTAL			Silver Contained in Proven and Probable Gold Reserve		
	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)
NR	15,976	0.052	832	126,528	0.040	5,045	142,505	0.041	5,876	142,505	1.477	210,502
NRW	8,972	0.046	409	102,591	0.041	4,158	111,563	0.041	4,567	111,563	2.250	251,060
RSP	1,138	0.084	95	9,158	0.059	537	10,296	0.061	632	92,734	1.760	163,256
RSE	9,038	0.077	699	83,696	0.066	5,506	92,734	0.067	6,205	10,296	1.700	17,508
Penelope				3,661	0.091	334	3,661	0.091	334	3,661	0.235	859
Total	**35,124**	**0.058**	**2,035**	**325,635**	**0.048**	**15,580**	**360,759**	**0.049**	**17,615**	**360,759**	**1.783**	**643,185**

The mineral resources were summarized within pit shells generated at $400/oz. The Measured, Indicated and Inferred Mineral Resources are summarized in Table 17-11. All mineral resources are exclusive of mineral reserves.

Table 17-11: Pascua-Lama Mineral Resources Exclusive of Reserves

	MEASURED (M)			INDICATED (I)			TOTAL (M) + (I)			INFERRED		
	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)
Pascua	5,724	0.058	333	37,744	0.065	2,464	43,468	0.064	2,797	35,146	0.043	1,496
Penelope										1,582	0.074	117
Total	**5,724**	**0.058**	**333**	**37,744**	**0.065**	**2,464**	**43,468**	**0.064**	**2,797**	**36,728**	**0.044**	**1,613**

18.0 Other Relevant Data and Information

There are no other relevant data or information to be included in this report.

19.0 Requirements for Technical Reports on Production and Development Properties

19.1. Mining Operations

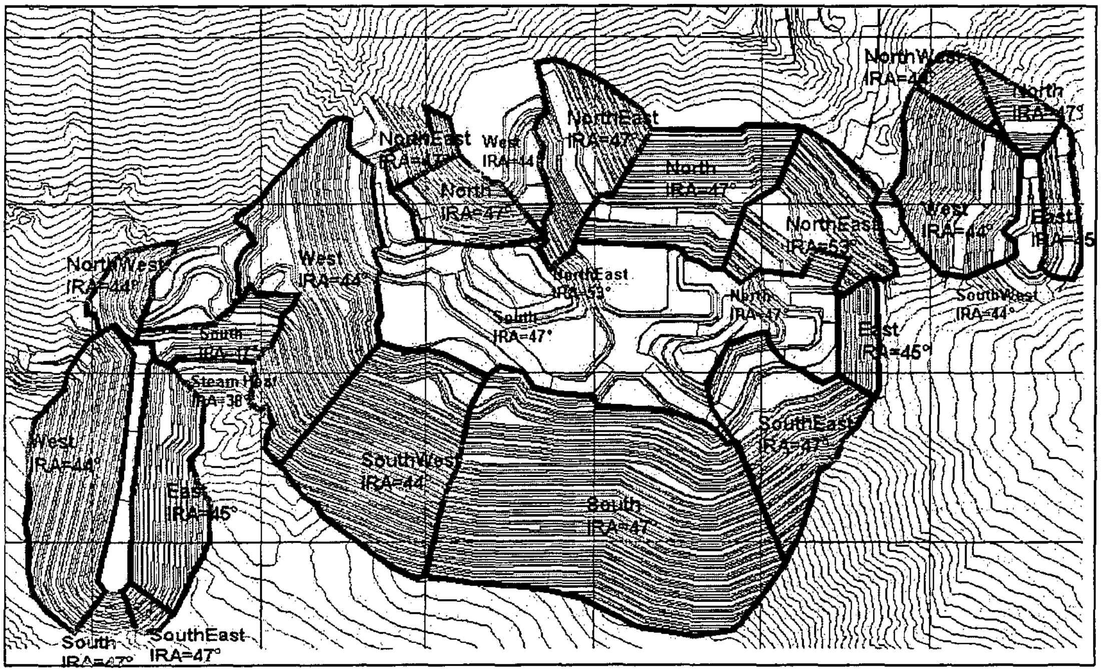
Mine Design Parameters

The deposit comprises the Pascua, Esperanza, El Morro and Penelope orebodies. All of the orebodies are scheduled as part of the reserve estimate. Mine planning is based on the 16x16x16m resource model for Pascua Lama, 8x8x8m resource models for Esperanza (Phase 7) and El Morro (Phase 6) and the 12x12x8m model for Penelope.

The pit design reflects geotechnical pit slope recommendations from Barrick's geotechnical consultant together with design reviews by consultants and Barrick geotechnical staff during the planning studies. Inter-ramp slope angles vary between 44° and 53° depending on the wall orientation (as shown below), except for altered rock (steam heated) that was designed with 38° and walls intercepting high Sulphate zones where 40° to 42.5° were used. Batter angle is 70° in rock and 60 to 65° in Sulphate-altered material.

Global slope angles used in pit limit analysis were based on these angles with provision for the inclusion of final pit ramps based on earlier studies. Main ramps were designed with 40m width in the upper part of the pit with high traffic densities and 35 meters in the lower areas.

Figure 19-1: Pascua Global Slope Angles



Process Design Parameters

Metallurgical recoveries for pit limit analysis are summarized in Table 19-1. Variable recoveries were applied for Non-Refractory ore.

Table 19-1: Pascua-Lama Metallurgical Recoveries

Parameter	Non Refractory	Refractory
Overall Au Recovery (%) NR Ore	((Au-0.095*(Au^0.602))/Au – 0.02) * 100	74
Overall Au Recovery (%) NRW Ore	((Au-0.149*(Au^0.345))/Au – 0.02) * 100	74
Overall Ag Recovery (%)NR Ore	((Ag-0.297*(Ag^0.897))/Ag – 0.02) * 100	80
Overall Ag Recovery (%)NRW Ore	((Ag-0.338*(Ag^0.777))/Ag – 0.02) * 100	80
Au Recovery to Concentrate (%)	-	34
Ag Recovery to Concentrate (%)	-	45.99
Au Payable (%)	99.8	97.51
Ag Payable (%)	99.5	93.53

Maximum Non-Refractory recoveries capped at 93% for Au and 78% for Ag

The variable recoveries applied result in average recoveries within the resulting mine plan of Au 87.9% and Ag 77.4%.

Processing costs (including G&A), selling costs and other plant parameters are based on the studies prepared by Barrick during March/April 2004 reflecting underlying exchange rate forecasts and costs of 1st Quarter 2004.

Metal Price and FX Assumptions

The following metal prices were used for pit limit analysis, base final pit design and reserve reporting.

Table 19-2: Pascua-Lama Metal Prices

Case	Gold (US$/oz)	Silver (US$/oz)	Copper (US$/lb)
Limit and Base Design	375	5.75	0.95
Reserve	375	5.50	0.90

Sensitivities between the base limit and the reserve limit were negligible, permitting use of the base limit for reserve pit design purposes.

Royalties

Royalties for areas within Chile, Argentina and former Comsur areas within Argentina were considered based on applicable rates and allowances as show below.

Table 19-3: Pascua-Lama Royalty Calculations

Royalty Area	Formula
Chile	0.0245 * Au revenues (variable with Au Price
Argentina	0.03 * (Au credit + Ag credit – Pre-royalty costs)
Comsur	0.05 * Au credit (plus Argentina royalty)

19.2. SMU Assumptions, Bench Height, Dilution and Losses

With the updated resource model and associated economic parameters, the selection of selective mining unit was verified with Barrick's estimate of 'ore control dig-lines' reflecting selective mining. In addition, short term production scenarios were evaluated considering the application of ore control with respect to mining width, access and direction. The results of these studies indicated the applicability of the 16x16x16m resource model and identified lower up-side opportunity for greater selectivity than previously reported. On this basis, no additional factors applied for dilution and losses other than that inherently included in the 16m resource model regularization basis.

In the case of Esperanza and El Morro, 8m bench drilling and blasting with a reduced blast pattern and selective excavation with hydraulic excavators is assumed for ore and associated waste.

19.3. Pit Limit Analysis Results

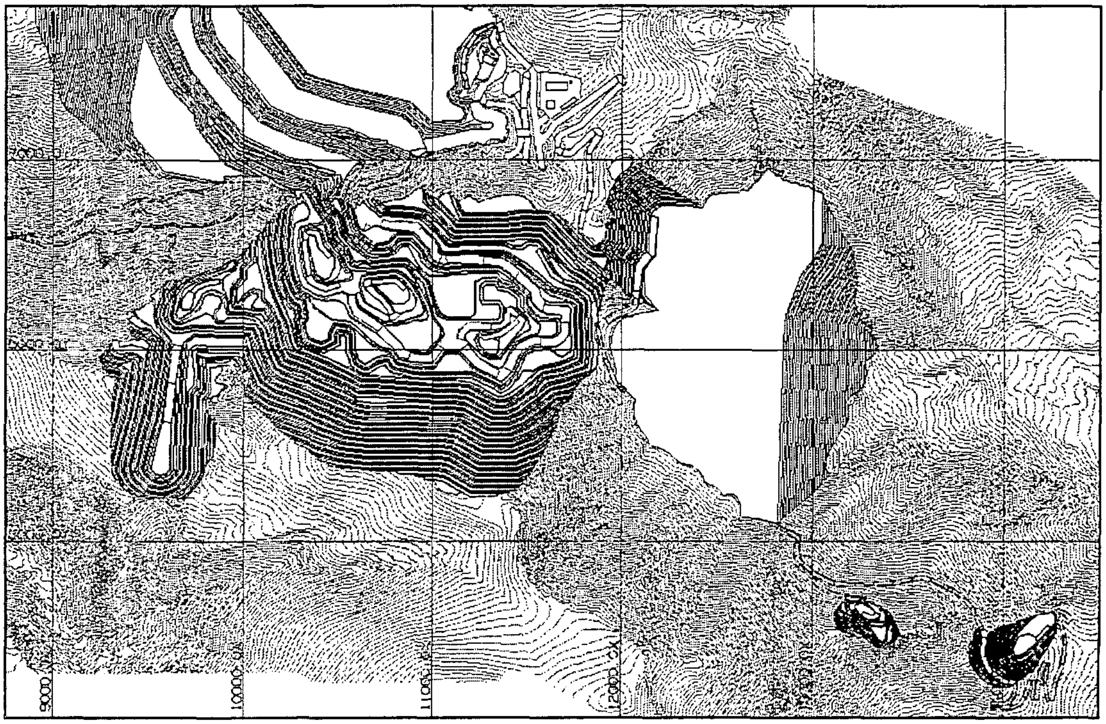
Economic pit limits were determined using the Whittle 4X software and confirmed with Earthworks NPVScheduler software using the Reserve metal prices.

19.4. Pit Designs

The pit envelope corresponding to the Reserve metal prices was used for the design of the Pascua operational final pit, eliminating the bottom benches smaller than the minimum area required for the operation of the equipment and developing the ramp layout.

The Penelope pits, scheduled at the end of the mine life, are approximately 3 km from the main Pascua pit with haul distances to the ore crusher of 5.6 km (of which 41% is uphill) and 1.4 km to

Figure 19-2: Pascua Final Pit and Dump Configuration



the El Morro waste dump. For limit analysis and design, similar parameters to Pascua Lama were adopted with the exception of the following: assumed mining costs using a hybrid owner/contractor fleet, with appropriately higher mining costs, inter-ramp angles of 45 degrees with a single 8m bench configuration, and indicated and inferred material for limit generation but indicated material only for reserve reporting. The final pit and dump configuration is illustrated in Figure 19-2.

19.5. Mineable Reserves

Mineable reserves within the final pit design under Reserve conditions using a minimum revenue cut-off of 0.00 US$/t for Pascua and 0.50 US$/t for Penelope are:

- 360.8 Mt with an average gold grade of 0.049 oz/t and 1.783 oz/t silver containing 17,615 koz of gold.

The distribution between non-refractory and refractory ore types is 71% and 29% respectively. Total rock within the Pascua and Penelope pits is 1,807 Mt.

The Penelope orebody represents 1.1% of ore tonnage scheduled and 2.0% of contained gold. It is scheduled after the completion of the main Pascua pit.

19.6. Phase Design

For scheduling purposes, the pit has been split into 10 logical mining phases following the sequence determined by the pit limit optimization runs, 7 in the Pascua – Lama orebody, 2 in Esperanza and one in El Morro.

Figure 19-3a: Pascua Pit Phases – 5000 Level

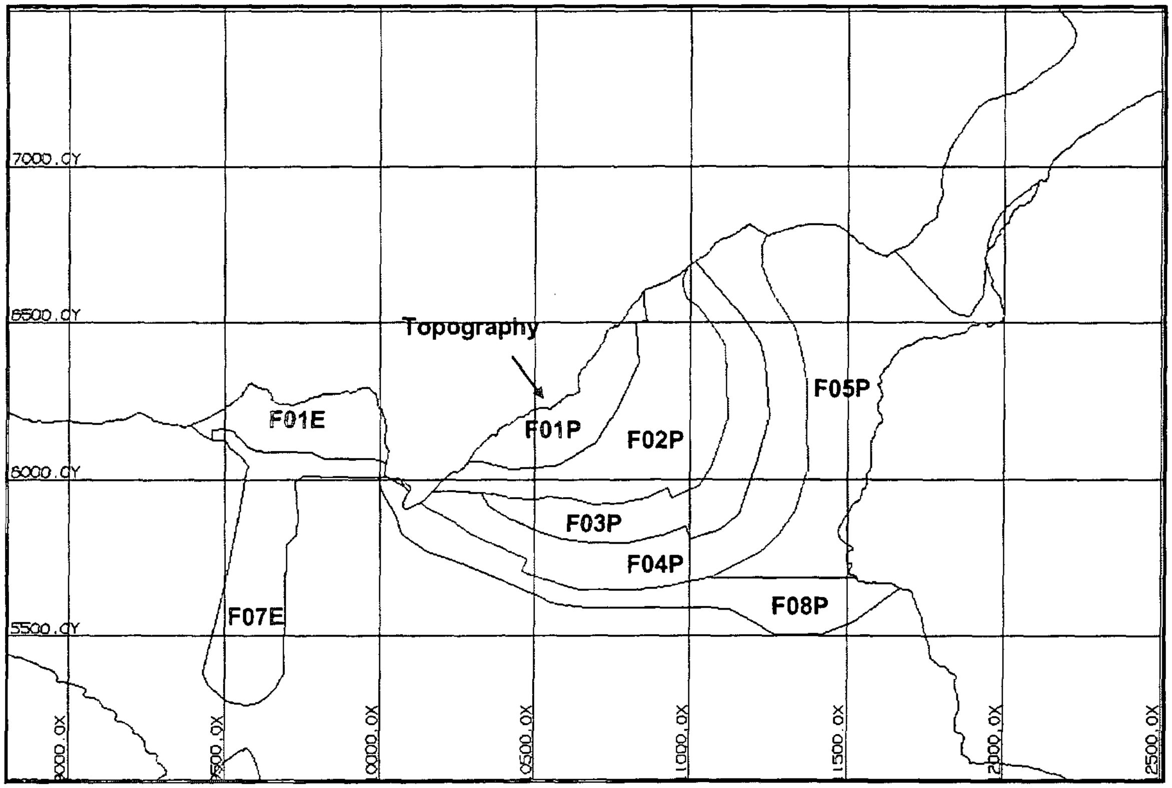
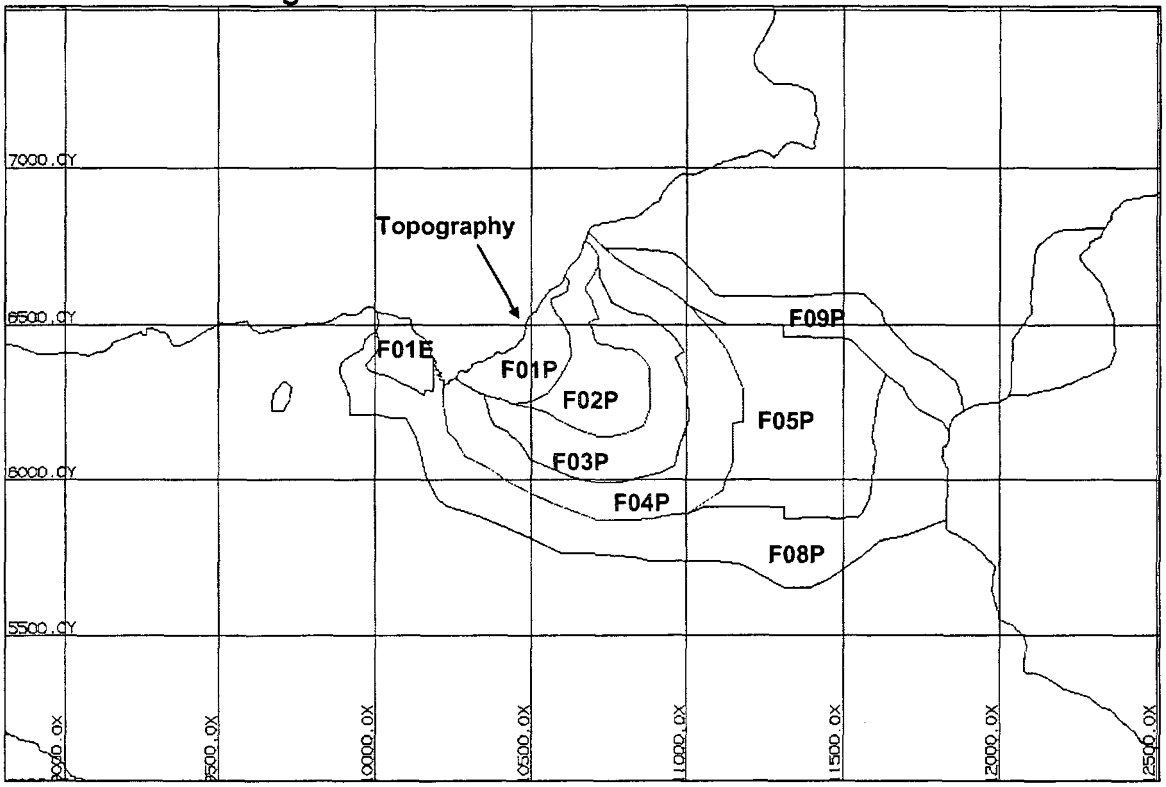


Figure 19-3b: Pascua Pit Phases – 4500 Level



19.7. Mine Production Schedule

The mine production schedule is over 17 production years followed by three years of stockpile reclaim. Pre-stripping (PP) totals 79 Mt of waste. Peak mine capacity is 126.6Mt/a. In addition a total of 60.1 Mt of ore is sent to a long-term stockpile and treated at the end of the mine life. Plant feed is initially at a rate of 33ktpd and expands to 44ktpd (16Mt/a from year 3 when refractory ore is also scheduled in the plant feed.

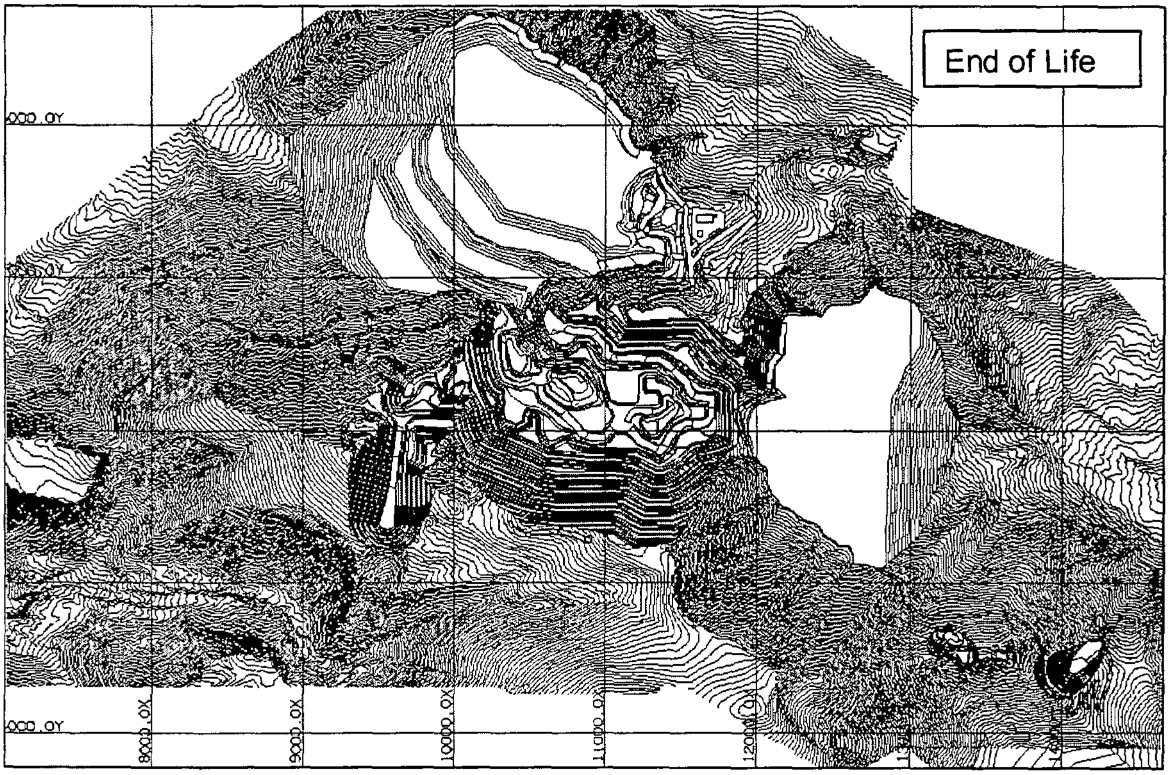
19.8. Waste Dump Design and Schedule

A total of 1,504 Mt of waste rock will be produced during the life of the mine. Of this, 162 Mt correspond to steam heated material and 1,342 Mt of other rock types. This includes 15 Mt of waste material from the Penelope pits. Material is dumped in two dump areas; the main dump in the Estrecho/Nevada Norte dump to the north-west of the Pascua pit and the El Morro dump to the east of the Pascua pit. Penelope waste material is scheduled to the El Morro dump. The final dump configuration is illustrated below.

19.9. Equipment Requirements

The bulk of mining is based on the use of electric rope shovels of $54m^3$ capacity loading nominal 232t trucks. Ore and associated selective waste mining is with $30m^3$ excavators and support and stockpile rehandle is with $25m^3$ loaders.

Figure 19-4: Pascua Final Pit and Dump Configuration



19.10. Economic Analysis

Method of Evaluation

The overall economic viability of the Pascua Lama Project has been evaluated by conventional discounted cash flow techniques.

Discounted cash flow analysis requires that reasoned estimates be prepared for all of the individual elements of cash revenue and cash expenditures that will be associated with initial development and construction of the Project, as well as with its ongoing operation up to the end of the projected life.

All monetary amounts used were in constant US dollars of 1st quarter 2004 value based upon selective budget quotes from vendors, Consultant's in house data, escalated costs from the engineering work in 2000, and operating costs based upon experience and bench marketing in Chile and Argentina.

As the Project matures, operating costs are expected to increase and earnings decline due to the effect of declining silver credits, declining grades, additional costs incurred from stockpile rehandle and the accounting treatment of the deferred stripping charges. Over the mine life it can be reasonably expected that some of this decrease will be offset by cost improvements and new sources of reserves from exploration success. Factors such as permitting, protocol implementation, tax stability, export duties, royalties, rising costs of materials and currency fluctuations may impact the timing and the cost of development of the project.

The basic schedule contemplates an initial period of approximately 18 months from project approval to obtain environmental consents and principal sectoral permits and resolve outstanding tax and protocol issues.

The key objectives for the first 18 months of the Project include:

- Environmental impact assessments submitted in Chile ("EIA") October 2004
- Environmental impact assessments submitted in Argentina ("IIA") December 2004
- Provide support and address concerns raised during the approval period
- Prepare a Request for Quotation, tender, evaluate and award the main EPCM or EPC contract
- Commence detailed engineering and place cancelable orders for long lead equipment
- Negotiate and resolve outstanding issues regarding tax and protocol
- Prepare material required to submit key sectoral construction permits
- Begin construction of access roads

Expenditures during this initial phase will be limited to staff and consultants required to obtain permits, resolve tax and protocol issues and a minimum of pre-construction activities.

The operational phase of the project is planned to commence with a phased start-up of the three lines starting at 33,000 t/d for the first three years treating exclusively non-refractory ore. The expansion to 44,000 t/d and the lime plant will be ready to treat refractory ore starting in year 4. The plant is expected to treat ore for a total of 21 years.

All cash flow projections have been based on the assumption that Pascua Lama Project will be financed entirely by equity. No provision is made for debt financing in the basic economic analysis.

Cost Estimates

Initial construction costs for the project are expected to be in the range of $1.4 to $1.5 billion. A further $250 million in investments in the first three years of production will bring the plant capacity to 44,000 tpd and allow for the flotation of the copper concentrate.

The estimates includes Chile and Argentine peso denominated capital costs (~6% and ~9% of total construction cost respectively) assuming a flat peso to US$ exchange rate of 600:1 and 3.0:1 respectively throughout the projection period.

No allowance for the impact of inflation has been provided.

Reclamation Costs

Reclamation costs have been projected with spending assumed to occur during the last two years of operation and one year following the cessation of operations.

[

Production Schedule

The Pascua Lama Project will generate the majority of its economic value from gold and silver leached or floated from the ore. In gross terms overall average recoveries for gold and silver will average 83% and 78% respectively though recoveries for specific ore types will deviate substantially. Leach solutions will be recovered on site and processed to produce dore bars with further refining occurring at an off-site refinery. Flotation concentrate will also be produced on site and sold to a smelter for ultimate recovery of the contained metal. The processing rate initially will be 33,000 tonnes per day and will rise to 44,000 tonnes per day with the completion of the plant expansion in year 4. It is expected that over the first decade of production, an average of 750,000 to 775,000 ounces per annum will be produced.

Table 19-5: Metal Production by Product

	Doré	Concentrate	Total	%Doré	%Conc.
Recovered Gold ounces	11,734,805	2,224,947	13,959,752	84%	16%
Recovered Silver ounces	414,000,749	80,166,957	494,167,706	84%	16%
Recovered Copper mt		81,004	81,004		100%

Revenue

Silver sales (at Au $375 and Ag $5.50) represents 34% of total revenue generated from the sale of gold and silver produced over the life of Pascua Lama. For economic and financial analysis purposes silver has been treated as a by-product. In accordance with industry standard by-product accounting practices, the revenue generated from the sale of silver is treated as a credit against the cost of producing gold, rather than as a component of Project revenue.

Operating Cost Structure

Mining costs have been calculated using experience and benchmarking in Chile. The main individual components of mining costs are labor (28%), maintenance (16%) and fuel (14%).

Process costs are supported by budget quotes, and the main individual components are power (19%), cyanide (15%) and lime (13%). Lime costs are based on self-production from a deposit owned by Barrick.

Site services and local overhead costs have been developed from Barrick experience in Chile and Argentina, and include synergies with Veladero and the impact of operating in two countries. The major component of site services and local overhead is labor (42%).

The overall component of labor in mining, process and site services and local overhead amounts to 14% of total production costs, before silver credit and amortization. Labor costs are based on market surveys in Chile and Argentina and current actual experience at Veladero. Labor is the principal component of cost that provides exposure to local inflation and currencies.

Royalties in Argentina and Chile are described briefly as follows: Pursuant to legislation passed by the government of the Province of San Juan, all gold and silver, among other ores, extracted from the property within the Province of San Juan are subject to a royalty, payable to the government of the Province of San Juan, of 3% of the value of the ore at the "mine mouth". In addition, Barrick is obligated to pay a gross proceeds sliding scale royalty on gold produced from the Pascua-Lama properties located in Chile ranging from 1.5% to 9.8% and a 2% net smelter royalty on copper produced from the properties. In addition, a step-scale 5% or 7.5% gross proceeds royalty on gold produced and a sliding scale net smelter royalty of 0.5% to 6% on all product other than gold and silver is payable in respect of certain portions of the property located in Argentina. The sliding scale and step-scale royalties on gold increase with rising spot gold prices. In Argentina a small portion of the property is subject to an additional 5% gold gross proceeds royalty.

The silver credit is a fundamental component of the cost structure of Pascua-Lama. Silver is expected to average 30 million oz/year over the first 10 years (25 million oz/year over the LOM). The silver credit is modeled at a price of $5.50/oz.

Estimates of Argentine and Chilean Peso denominated on-site operating costs (~10% and ~5% of operating costs respectively) assume a flat exchange rate of 3.0:1 and 600:1 respectively throughout the projection period.

Over the first decade of production, total cash costs are expected to be in the range of $130-140 per ounce of gold produced., based on the prevailing exchange rate in 2004 (subject to exchange rate fluctuations and excluding any applicable export duties).

Taxation

The principal element of the tax cost is attributable to an estimate for tax on the cross border component of mining and other taxes imposed in Argentina (bank transaction tax, charge for advance recovery of Value Added Tax, tax on equity).

Because the Argentine government has stated that the export duty (5% on gross sales imposed as a temporary measure in 2002) will be reduced in 2005 and eliminated altogether by 2007, the economic analysis assumes that this will not be applicable on either production mined from Argentina (first significant tonnage in 2015) or Chilean ore processed at the plant from start-up. Royalty legislation proposed to the Chilean Congress on July 5th is not included in the economic analysis, as the outcome is uncertain and Pascua-Lama may eventually be exempt under the current stability agreement.

20.0 Interpretation and Conclusions

Engineering studies have demonstrated the technical feasibility of producing significant quantities of gold and silver from the Pascua Lama Project. The economic viability of the Project has been evaluated by conventional discounted cash flow analyses, based on the engineering studies and cost estimates discussed herein, coupled with an assessed spot gold and silver price of $375 and $5.50 per ounce respectively.

The projected rate of return, in addition to other strategic considerations, is considered to demonstrate that the Project is economically feasible.

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<u>TO:</u> The securities regulatory authorities of each of the Provinces and Territories of Canada

I, Rene Marion, do hereby consent to the filing of the technical report titled *Technical Report, Pascua-Lama Project* and dated March 30, 2005 with the securities regulatory authorities referred to above.

Dated this 30th day of March, 2005.

Rene Marion, B.ScE., P. Eng.

R. L. J. MARION

CERTIFICATE OF AUTHOR

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I, Rene Marion, P. Eng., do hereby certify that:

1. I am Vice President, Technical Services of:

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   BCE Place, Canada Trust Tower
   161 Bay St., Suite. 3700
   Toronto, Ontario M5J 2S1

2. I graduated with a B.ScE. degree in Mining Engineering from Queen's University in 1986.
3. I am a member of the Professional Engineers Ontario and the Ontario Society of Professional Engineers.
4. I have worked as a mining engineer for a total of 19 years since my graduation from university.
5. I am a "qualified person" as defined in National Instrument 43-101.
6. I supervised the preparation of the technical report titled *Technical Report, Pascua-Lama Project* dated March 30, 2005 relating to the Pascua-Lama property. I have personally visited the Pascua-Lama property on a number of occasions. My most recent visit was September 21, 2004.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. 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.

Dated this 30th day of March, 2005.

René Marion, B.ScE., P. Eng.

R. L. J. MARION

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<u>TO:</u> The securities regulatory authorities of each of the Provinces and Territories of Canada

I, Alexander J. Davidson, do hereby consent to the filing of the technical report titled *Technical Report, Pacua-Lama Project* and dated March 30, 2005 with the securities regulatory authorities referred to above.

Dated this 30th day of March, 2005.

Alexander J. Davidson, B.Sc., M.Sc., P. Geo.

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I, Alexander J. Davidson, P. Geo., do hereby certify that:

1. I am Executive Vice President, Exploration of:

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   Toronto, Ontario M5J 2S1

2. I graduated with a B.Sc. and M.Sc. (Economic Geology) from McGill University in 1977.
3. I am a member of the Association of Professional Geoscientists of British Columbia.
4. I have worked as a professional geoscientist for a total of 28 years since my graduation from university.
5. I am a "qualified person" as defined in National Instrument 43-101.
6. I supervised the preparation of the technical report titled *Technical Report, Pascua-Lama Project* dated March 30, 2005 relating to the Pascua-Lama property. I have personally visited the Pascua-Lama property on a number of occasions. My most recent visit was May 2001.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. 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.

Dated this 30th day of March, 2005.

Alexander J. Davidson, B.Sc., M.Sc., P. Geo.

A. J. DAVIDSON

EXHIBIT 2

TECHNICAL REPORT

VELADERO PROJECT

SAN JUAN PROVINCE, ARGENTINA

Rene Marion, P. Eng, Vice President, Technical Services

Alex Davidson, P. Geo, Executive Vice President, Exploration

Barrick Gold Corporation

March 30, 2005

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Disclaimer

Certain statements included herein, including those regarding estimated construction costs, estimated operating costs, estimated recovery rates and timing and amount of production, constitute "forward looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results to be materially different from future results, performance or achievements expressed on implied by such statements. These risks, uncertainties and other factors include, but are not limited to: changes in the price of gold, silver and certain other commodities; legislative, political or economic developments in Argentina; operating or technical difficulties in connection with development or mining activities; and the risks involved in the exploration, development and mining business.

1.0 SUMMARY

1.1. Project Overview

Introduction

This Technical Report has been prepared for filing pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects, of the Canadian Securities Administrators in connection with reserve and resource estimates and certain other information relating to Barrick Gold Corporation's (Barrick) Pascua Lama property as of 31 December 2004. The format and content of this report are intended to conform to Form 43-101F1, Technical Report.

Unless stated otherwise, all quantities are in metric units and currencies are expressed in constant 2004 US dollars. The mineral resource and mineral reserve summaries are reported in both imperial and metric units. The following metal prices and currency exchange rates were used as a basis both for reserves and for the financial evaluation:

Table 1.1-1: Veladero Metal Prices and Exchange Rates

Metal Prices for Reporting (US$)	
Gold	375.00
Silver	5.50
Copper	0.90
Exchange Rates (US$)	
Argentina Peso	3.00

The Qualified Persons responsible for preparation of this report are Rene Marion, P. Eng. Vice President, Technical Services and Alex Davidson, P. Geo. Executive Vice President, Exploration of Barrick. This report has been prepared by employees of Barrick under the supervision of Mr. Marion and Mr. Davidson. Information in this report is based on work conducted by Barrick geologists, engineers, and metallurgists as well as third party consultants retained by Barrick.

Property Description and Location

The Veladero Mine is a large open-pit, heap leach gold and silver mine currently under construction in the high Andes Cordillera of central western Argentina. When completed in late 2005, operations will involve open pit mining of gold-silver ore from two separate pits, two-stage crushing, and extraction of precious metals using valley-fill heap leaching and Merrill-Crowe recovery.

The Veladero Mine is located on the east flank of the Andes Cordillera, six kilometers east of the Chile/Argentina border. The mine site is at approximately 29°20' S latitude and 70°00' W longitude in the Department of Iglesia, San Juan Province, northwest Argentina. The closest major population and commercial center is the provincial capital of San Juan, approximately 280 southeast of Veladero. By road the distance is approximately 370 kilometers, via paved National Highway No.40 north from San Juan to Provincial Road No.436 (paved) and the village of Pismanta, and by public gravel road to Tudcum. Barrick's 156 kilometer all-weather gravel road continues from Tudcum over Conconta Pass, through the Valle del Cura, and over Despoblados Pass to Veladero.

Title

Minera Argentina Gold S.A. (MAGSA), holds 100% direct ownership of Mina Ursulina Sur, which is contiguous with and immediately north and east of Mina Veladero. The Instituto Provincial de Exploraciones y Exlpotaciones Mineras de la Provincia de San Juan (IPEEM) owns Mina Veladero. Through its Exploitation Contract and Record of Agreement with IPEEM, MAGSA's rights to exploit Mina Veladero, in conjunction with development of Mina Ursulina Sur, are secured for 25 years. This term is renewable at MAGSA's sole discretion for another 25 years.

Through its ownership of the Campo de las Taguas camp, Barrick Exploraciones Argentina S.A. (BEASA), a subsidiary of Barrick, controls essentially all the surface of Mina Ursulina Sur and Mina Veladero, in addition to other large contiguous surface parcels in the region. As holder of the mining rights through the contract with IPEEM, MAGSA can obtain surface rights-of-way necessary to facilitate development of its mining rights.

Environmental Permits

The Veladero project received environmental impact study approval in November 2003 from the Mining Authority of the San Juan Province. There are no environmental issues recognized which directly affect reserves or resources. Issues which concern the operation as a whole include protecting water quality; mitigating vega (wetlands) destruction caused by construction of the leach facility and waste dumps; and minimizing dust generation.

Key permits have been acquired, although numerous sectoral permits required from local regulatory authorities remain to be issued.

1.2. History

The Veladero area was first explored in the late 1980's by Argentine government geologists, who identified scattered gold anomalies in the Veladero Sur area and surrounding region during field examinations of hydrothermal alteration centers identified through satellite imagery. In 1988 administration of mineral rights in the region was transferred from the Federal to the Provincial government, and in 1989 San Juan Province established IPEEM as the provincial mining entity responsible for holding title to certain of the Province's mineral rights, and for soliciting and administering bids for exploration and mining licenses in the Province.

Following a competitive bidding process completed by IPEEM in 1994, Argentina Gold Corp. (AGC), a Canadian junior exploration company, was awarded exploration rights to Veladero. AGC then entered into a 60:40 joint venture agreement with Lac Minerals Ltd. (40%), which was acquired by Barrick in September 1994.

In 1995 AGC assigned its interest to its subsidiary, MAGSA, and from 1996 through 1998 the MAGSA/BEASA JV explored Veladero. Concurrently, BEASA explored its adjoining 100%-owned Ursulina Sur property as part of the Lama project. In early 1999 Homestake Mining Company (Homestake) acquired AGC, and intensified Veladero exploration; while Barrick advanced definition of the Filo Norte deposit on the Ursulina Sur property. The December 2001 merger of Homestake and Barrick resulted in Barrick gaining 100% indirect control of Veladero through MAGSA and BEASA.

1.3. Geology

Regional Geologic Setting

The Veladero deposit is situated at the north end of the El Indio Gold Belt The belt consists of a Tertiary volcanic rift basin in which volcanic flows and tuffs were deposited and subsequently cut by associated intrusions. Basement rocks in the belt consist of andesitic to rhyolitic tuffs, lava flows, volcaniclastic rocks, and associated intrusions of the Permo-Triassic Choiyoi Formation, which are overlain unconformably by Tertiary igneous and volcanic rocks derived from volcanic centers located both within and outside of the mineralized belt.

The regional structural setting of the El Indio Gold Belt is dominated by fault and fracture sets associated with Tertiary east-west regional compression. Intrusive and volcanic centers are concentrated at structural intersections. North-south reverse faults border the volcanic rift basin. These structural trends are important to the localization of mineralization at Veladero.

Deposit Geology

The Veladero deposit is an hypogene-oxidized, high sulfidation gold-silver deposit hosted by volcaniclastic sediments, tuffs, and volcanic breccias related to a Miocene diatreme-dome complex. Hydrothermal alteration is typical of high sulfidation gold deposits, with a silicified core grading outward into advanced argillic alteration, then into peripheral argillic and propylitic alteration haloes. Gold occurs as fine native grains, and is dominantly associated with silicification and with iron oxide or iron sulfate fracture coatings. Silver mineralization is distinct from gold, and occurs as a broader, more diffuse envelope, probably representing a separate mineralizing event. Copper and other base metals are insignificant, and sulfide mineralization is negligible. Principal controls on gold mineralization are structures, brecciation, alteration, host rocks, and elevation.

Deposit Type

The gold,and silver mineralization and alteration assemblages at Veladero are associated with a structurally controlled and disseminated acid sulfate hydrothermal system hosted by volcanic rock sequences. Alteration and mineralization is of the high-sulfidation, epithermal type. Similar mineralization occurs at the Pierina and Yanacocha deposits in Peru.

1.4. Mineralization

Occurrence

Disseminated gold mineralization forms a 400-700 meter wide × three kilometer long tabular blanket localized between the 3,950 and 4,400 and oriented along a 345°-trending regional structural corridor. Higher grade zones (≥ 3ppm) within this envelope occupy northeast-striking faults and fracture zones.

Geologic Controls to Mineralization

Ore-grade gold mineralization can be hosted by any kind of rock at Veladero, including overburden and steam-heat altered lithologies. Principal host rocks are hydrothermal breccias and felsic tuffs at Filo Federico and Cuatro Esquinas, and pyroclastic breccias and felsic to intermediate tuffs at Amable. Main-stage introduction of gold clearly is younger than diatreme eruption, acid leaching, and major stages of silicification and fracturing. It accompanied or closely followed hypogene deposition of iron oxides and jarosite. Principal controls on localization of gold mineralization are structurally-induced open spaces (fracture zones, structural intersections), favorable host rocks, brecciation, alteration , and elevation.

1.5. Exploration and Drilling

Most of the exploration activity at Veladero has been carried out by MAGSA. Drill targeting initially relied on surface geochemical anomalies (involving rock chip, soil, and screened talus sampling) coincident with a geophysical signature comprising a CSAMT resistivity high with a coincident magnetic low, localized by mapped fault corridors and structural intersections

At year-end, the drill hole database for the Veladero property contained 782 reverse circulation drill holes totalling 208,111 meters; 128 diamond drill holes for 26,557 meters; and 5,153 meters of channel samples from two declines which total 1,147 meters in length. Drill spacing within mineralized zones varies from 30 meters to 100 meters, and averages approximately 35 meters.

Drill hole spacing varies across the deposit. In the central portions of the Amable and Filo Federico pits average drill hole spacing is in the range of 35-40 meters, increasing from 50-70 meters to approximately 100 meters spacing toward the peripheries of the ore bodies. Drilling has not yet closed off mineralization trends at several key locations, including the east and west sides of Filo Federico; northeast and southwest extensions of the 203 Zone; and the north-northeast periphery of the Amable pit.

1.6. Sampling

Sampling has been done with RC and core drill holes and with undergound channels. RC samples were collected on 1 meter intervals. The vast majority of RC meters was drilled dry, and wet sampling was conducted only when groundwater was encountered or when water injection was necessary to avoid sticking the rods. A double cyclone system was used to capture as many fines as possible from RC holes: the exhaust from the first cyclone circulated to a second cyclone to collect the fines, which were then included with all chips recovered from the sample run.

Drill core was sampled on nominal 1-meter intervals, depending on geologic conditions. The maximum length for individual samples from drill core is 2 meters. Core was cut in half using a water-cooled diamond saw; half was bagged and submitted for assay, and half was retained for reference or for metallurgical sampling.

The 509 meter long Amable decline and the 638 meter long Filo Federico decline generated 5,150 meters of channel or chip-channel samples from the workings, mostly from 1-meter long horizontal cuts from each rib and face, taken with a pneumatic chipping hammer. Muckpiles from every round of decline advance were grab-sampled, generating 7,181 individual samples.

1.7. Sample Preparation, Analysis, Security, And QA/QC

Sample Preparation and Storage

Prior to January 2000, drill sample preparation and assaying was performed by CIMM Laboratory. Beginning in January 2000 Bondar-Clegg (and its successor company, ALS Chemex) was contracted as the primary laboratory to replace CIMM, and subsequent RC, core, and rock chip samples were prepped at an on-site facility.

All initial logging of core and RC chips was accomplished at Veladero camp, and split core and RC chip samples were sent to MAGSA's warehouse in San Juan for additional logging if needed, and for archiving. Drill core in wooden boxes is stacked by hole in an enclosed outdoor patio, and covered plastic trays of representative RC chips are organized by hole on storage racks inside the warehouse.

Sample Analysis

Veladero's standard assay protocol for drill samples and rock chips involves initial assaying for gold by fire assay fusion of a 50g pulp and analysis by atomic absorption. For silver, 4-acid ("total") digestion of a 1g pulp is accomplished, followed by AA analysis. Any samples reporting initial results of >3ppm Au or >50ppm Ag are re-analyzed for the overlimit element using 50g fire assay fusion and gravimetric assay. Limits of detection for FA/grav are 0.1ppm Au and 0.35 ppm Ag.

Analytical results are received from the lab in an electronic format and are entered into the database without external manipulations.

CIMM and Bondar-Clegg (ALS Chemex) have been the project's principal analytical labs. Miscellaneous analytical work and check assays on drill samples have been performed by other labs including Alex Stewart, ALS/Geolab, Geoanalítica, Lakefield, McClelland, and Verilab.

Sample Security

Rock chip and drill samples are delivered by MAGSA personnel to the Bondar Clegg/ALS Chemex sample prep facility at camp, where the lab assumes sample custody. Both MAGSA and the lab maintain digital records of sample preparation and analyses.

Sample QA/QC

Veladero's QA/QC program was designed in 1998 by an external consultant and utilizes field blanks to monitor contamination; pulp standards to monitor accuracy; plus field duplicates, preparation duplicates and pulp duplicates to monitor precision. Quality control samples are included with sample submittals from RC chips, drill core, and chip or channel sampling.

Results from quality control samples are evaluated as they are received, and the lab is notified promptly when problems are observed, so that re-assays can be accomplished. A detailed quality control report is prepared at least annually, or after each major sampling program is completed. External QA/QC audits have been conducted periodically. All of these audits and reviews concluded that Veladero's QA/QC procedures and results meet or exceed industry standards.

1.8. Mineral Processing And Metallurgical Testing

Metallurgical Testwork

Metallurgical investigations into gold and silver extraction both by grinding with agitation cyanide leaching and by heap leaching have been conducted. In general, the difference in gold extraction between heap leaching at secondary crusher sizes and agitation leaching at mill grinds of 74 μm is about 10 % less, although the metallurgical response of each zone is variable.

Analysis of Results of Cyanidation Bottle Rolls

The presence of distinct zones with varying metallurgical performance is evident from graphed data when reviewing metallurgical test results. For each metallurgical type, the calculated gold residue was determined for comparison to actual extraction data for each test. A correlation was found between the calculated regressed gold extraction value, assuming a constant residue assay, versus actual gold extraction data from individual tests. Silver extraction is generally constant by zone.

Heap Leach Testwork

The same samples were selected to compile the heap leach composites and the agitation leach test composites. Samples selected for heap leach column testing were chosen from available diamond drill core either as whole HQ-sized core from dedicated metallurgical holes or from split core.

Based on an analysis of the heap leach column test results by zone, seven zones were identified, Filo Federico, Cuatro Esquinas, Amable Types I, II and III and Zone 203 Types I and II. A matrix was produced giving predicted fixed silver recoveries by zone and gold recoveries, which vary with feed grade, as summarized in Table 1.8-1. A recent review has indicated that the recoveries shown in Table 1.-1 may be somewhat conservative, particularly at higher grades.

Gold extraction trends from 28 heap leach columns indicate that similar gold recoveries are achievable at a 32 mm crush size compared with a 19 mm crush size

Run-of-Mine Material Tests

It is currently planned that a significant tonnage of ROM ore, originating from the Filo Federico zone, may go directly to the leach pad or may be crushed depending on the economics and crusher availability at the time of mining. A single large bulk sample of ROM ore was dug from the surface outcrop of the Filo Mario portion of Filo Federico. The material had a top size of 180 mm and 80 % of the particles were smaller than 120 mm. Based on geological and

Table 1.8-1 Gold And Silver Recovery By Ore Zone

	Filo Federico Type 1	Filo Federico Type 2	Amable Type 1	Amable Type 2
Au grade (g/mt)	Au Recovery (%)			
0.0-0.3	60	40	58	40
0.3-0.5	50*Au grade+45	40	20*Au grade+52	40
0.5-1.0	10*Au grade+65	4*Au grade+38	16*Au grade+54	4*Au grade+38
1.0-1.5	10*Au grade+65	14*Au grade+28	10*Au grade+60	14*Au grade+28
1.5-2.0	10*Au grade+65	14*Au grade+28	10*Au grade+60	14*Au grade+28
2.0-2.5	2*Au grade+81	14*Au grade+28	80	56
2.5-3.0	2*Au grade+81	14*Au grade+28	80	56
3	87	70	80	56
	Ag Recovery (%)			
	6.5	6.5	9	9

mineralogical considerations, Filo Mario and Filo Federico are expected to have similar leach characteristics. The single column leach test confirmed this.

Metallurgical Process Selection

The selected process for the Veladero Project is a conventional two stage crushing circuit, with a valley-fill heap leach. The Merrill-Crowe zinc precipitation process has been selected for gold and silver recovery. The results from metallurgical testwork indicate that slightly reduced gold recoveries would be expected, when comparing heap leaching to grinding and agitation leaching, for the majority of the mineralization contained in the Veladero deposit. Despite the lower gold recovery, however, lower construction costs, lower operating costs, and reduced operational, environmental and financial risk, favour the heap leach option, particularly at current gold prices.

Process Design Criteria

The operation is designed to crush 36,000 dry t/d with exess capacity available to crush lower-grade ROM material depending on the economics and crusher availability at the time of mining. The mine and crusher are designed to operate on a 24- hours-per-day, 7-days-per-week and 350-days-per-year basis. The utilization factors used for the calculation of the nominal hourly flow rates are 80 % for crushing and overland conveying and 95 % for the remainder of the process facilities.

An open circuit secondary crushing plant, operating with scalping screens to produce a crush size of approximately 100 % passing 32 mm, has been selected.

1.9. Mineral Resource and Mineral Reserve Estimates

Geologic Modeling

The geologic model is constructed from drill hole log data which originally were recorded in hard copy, then transferred into a digital database. Beginning in 2004, some drill hole logs were recorded digitally using GVMapper software.

Eight master sections and at several orientations four master level plans were constructed through Amable and Filo Federico, and lithologic contacts interpreted from subsurface data were mapped onto these sections and plans and digitized. These were rectified with surface mapping data, and infill sections were then constructed from additional drill data, and contacts again were digitized, then adjusted. At the same time were generated through the deposit and corrected against the sections. Ultimately, 57 vertical east-west lithologic sections at 50 meter spacing were generated in a digital format, so that three-dimensional shapes could be defined for the constituent lithologic units. A similar modeling process involving rectified alteration sections and plans was used to generate the alteration model, allowing construction of three-dimensional alteration shapes.

Assay Capping

The Veladero database was examined for the presence of local high grade outliers that might adversely impact the quality of the resource estimate, and would require the assays grades to be capped. Cumulative frequency distribution curves were created for gold and silver assays in each of the main mineralized zones.

It was determined to cap individual gold assays at 100 g/t Au in the north area and 70 g/t Au in the south area. Capping was conducted on raw data prior to compositing. Individual silver assays were capped at 200 g/t for all Veladero data.

Compositing Methods

Prior to creating assay composites, various composite lengths were reviewed with respect to gold grade, dilution, and metal loss. Total thickness, gold grade, grade-thickness, internal dilution, and metal loss were determined for each composite length at varying gold cutoff grades. As a result, five-meter downhole composite lengths and model block heights were chosen to allow flexibility in selection of block or bench heights during reserve modeling and mine planning.

Mineralization Zones

Mineralized envelopes are defined by the outboard limits of 0.2 g/t Au and 25 g/t Ag, and were generated based on the 5m downhole assay composites and underground sampling. Isolines for gold and silver grades are constructed on plans spaced every 5 meters vertically through model block centers, and the isolines are then wireframed to generate three-dimensional solid bodies.

Grade Interpolation Parameters

Block gold and silver grades are estimated through separate passes using mineralization zones and alteration as controsl. The filter used in the selection of blocks for interpolation is the same one used to calculate composites. Search parameters are determined by variogram analysis, where the range is >60 m. Gold and silver grades are estimated by a weighted average of the selected composite's assays. Weighting is determined using the inverse distance method at a power of two (ID^2).

The geologic resource model uses blocks of 5×5×5 meters. The model is then re-blocked to 10×10×15 meters for reserve modeling and mine planning. Values assigned to each of the large blocks are calculated by averaging grades of the twelve 5×5×5m blocks contained within each larger block.

Mineral Resource Classification Method

Each 5×5×5 meter resource block is coded with distance to the nearest assay composite, along with gold+silver grades and codes for lithology and alteration. Within the defined mineralized envelope, the distance criteria use to classify resource blocks into Measured, Indicated, or Inferred categories are as follows:

Table 1.9-1: Resource Classification Criteria

Resource Class	Criteria for Resource Interpolation within Mineralized Envelope	Criteria Outside Mineralized Envelope
Measured	One comp within 10 m	--
Indicated	Comps from at least 2 holes between 10 & 60 m, or one comp between 10 & 20 m	--
Inferred	One comp between 60 & 120 m	All material within 20 m

1.10. Resource and Reserve Summary

Veladero's Proven and Probable Reserves, and Measured, Indicated, and Inferred Resources at December 31, 2004 are summarized in Tables1.10-1 and 1.10-2.

Table 1.10-1: Veladero Minable Reserves

	PROVEN			PROBABLE			TOTAL			Silver Contained in Proven and Probable Gold Reserves		
	Tons	Grade *(oz/t)*	Ounces	Tons	Grade *(oz/t)*	Ounces	Tons	Grade *(oz/t)*	Ounces	Tons	Grade *(oz/t)*	Ounces
Open Pit												
Open Pit Sub-total	**21,117**	**0.038**	**795**	**375,211**	**0.032**	**12,050**	**396,328**	**0.032**	**12,845**	**396,328**	**0.505**	**200,237**
Stockpiles												
Cartelleone DCF Process Area	52	0.025	1				52	0.025	1	52	0.461	24
Curva Federico	50	0.011	1				50	0.011	1	50	0.329	16
Curva Vizcacha	35	0.037	1				35	0.037	1	35	0.571	20
Lucia	18	0.011	0				18	0.011	0	18	0.329	6
Tunnel Federico	35	0.037	1				35	0.037	1	35	0.571	20
Stockpiles Sub-total	**189**	**0.024**	**5**				**189**	**0.024**	**5**	**189**	**14.131**	**86**
Veladero Total	**21,306**	**0.038**	**799**	**375,211**	**0.032**	**12,050**	**396,517**	**0.032**	**12,850**	**396,517**	**0.505**	**200,323**

Table 1.10-2: Veladero Gold Resources Exclusive of Reserves

MEASURED (M)			INDICATED (I)			TOTAL (M) + (I)			INFERRED		
Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)
1,092	**0.020**	**22**	**20,712**	**0.021**	**427**	**21,804**	**0.021**	**449**	**63,110**	**0.017**	**1,045**

1.11. Mine Design and Economic Analysis

Pit Design and Reserve Estimate

The reserve estimates and mine planning were carried out on the geological block model. Only model blocks with measured and indicated resource classifications have been included in the reserve estimate. Ore losses and dilution are considered to have been accounted for in the geological modeling process.

The in-situ material density is included in the block model. The material was assigned in-situ density by type, with colluvium set to 1.9 t/m3, steam-heated material set at 2.1 t/m3 and rock, including all the ore, set at 2.47 t/m3. All material classified as colluvium was omitted from the resource estimates, regardless of assigned gold grades.

The cut off grade is defined as the zero mineralization (breakeven) value of a block of mined material, excluding the mining cost, that is, material on board a truck at the rim of the pit. If the recoverable metal value exceeds the combined crushing, heap leaching, refining and G&A costs then it is considered ore. The mine plan includes the delivery of some ROM ore directly to the leach pad, without crushing, but this has no bearing on the pit design and reserve estimate.

The final pit limit was derived using an implementation of the Lerchs-Grossman pit optimization system. The final pit limit was established by smoothing the block model solution and superimposing the final ramp design. The final pit limit contains a mineable reserve of 396.5 Mt of ore as summarized in Table 1.10-1.

Production Plan

Mine planning was carried out in annual increments for the life of the property. The mine will accelerate the ore production rate beyond 36,000 t/d during the early years of production.

Ore production in excess of crusher capacity may be placed on the leach pad in ROM form. In order to release the 396.5 Mt of ore, nearly 1117 Mt of waste rock must be mined during the life of the Veladero operations. This requires approximately 675 Mm^3 of storage capacity in the vicinity of the mine. The four primary waste rock disposal sites were selected principally on the basis of efficiency in terms of their proximity to the sources of the waste.

Equipment Selection

The selection of mining equipment for the Veladero Project was based on using an all diesel operating mode, with large hydraulic excavators as the primary loading units. Target equipment availabilities and utilizations were determined by referring to Barrick's worldwide operating experience on similar machines, manufacturer recommendations and/or guarantees as well as adjustments to reflect the planned maintenance policy. It is estimated that 15 days will be lost per year due to adverse climatic conditions, estimated at approximately 4 days per month from June to September.

The mine will operate on the basis of two 12 hour shifts per day, 7 days per week, 350 days per year. Altitude.derating varies by machine and is typically between 5 % and 40 %.

The selection of loading equipment is based on the requirement for bulk excavation in waste areas and selective mining in ore zones and transition areas. Shovels with 37 m3 bucket capacity are being used by the mine for primary loading units.

Primary drilling is based on 15 m benches with 270 mm (10 5/8 in) blast holes using 75,000 lb and 90,000 lb pull down weight diesel rotary drills.

Mine Infrastructure

Mine infrastructure facilities including maintenance shops, equipment parking, mine warehouse and main outside storage yards, washing, lubrication, tire changing and refuelling areas and mine offices have been costed and are built or in the process of being built at the time of this report..

Cost Estimates

The construction cost estimate for the Veladero Project is based on a heap leach facility fed from an open pit mine. The currently estimated cost, from the date of project approval, of bringing the project into production is approximately $540 million The cost estimate is expressed in constant US dollars of fourth quarter, 2004 value.

The mining cost estimates cover mining of ore and waste from the open pit, delivery of ore to the crusher and waste to the dump, maintenance of equipment, construction and maintenance of ramps and haul roads, and ancillary services such as planning, engineering, grade control and surveying. The estimated cost of hauling crushed ore to the pad is reported under processing costs. The mining costs are estimated on a year-by-year basis, since they vary due first to changes in the annual tonnages of material mined and, secondly, to changes in haulage distances for ore and waste.

The process cost estimate covers all onsite ore processing costs, from primary crushing to doré bars, including an allocation backcharged from the mining estimate for haulage of crushed ore to the heap leach pad.

The general and administrative (G&A) estimate includes payroll and accommodation costs for all G&A staff, and transportation to and from site for all employees, in addition to normal administrative expenses.

It is anticipated that during the first three years of full production an average of 700,000 ounces of gold will be produced at an average total cash cost of $200 per ounce (based on contant US dollars and exchange rates prevailing in late 2004, and excluding any potential export duties on metal sold).

Economic Analysis

The overall economic viability of the Veladero Project has been evaluated by Barrick using conventional after-tax discounted cash flow techniques. Input to the cash flow projection has included all of the relevant estimates of production, revenue and cost, including royalties and taxes. These are discussed within the body of the report and have been summarized above. All monetary amounts are expressed in constant US dollars of fourth quarter, 2004 value, and all cash flow projections have been based on the assumption that the project will be financed entirely by equity.

Revenue Schedule

The Veladero Project will produce both gold and silver, but silver accounts for less than 10% of the total revenue. Under these circumstances, silver is regarded as a by-product and, in the cash flow projection, the revenue received from the sale of silver is treated as a credit against the cost of producing gold.

Project revenues have been estimated using prices of $375/oz for gold and $5.50/oz for silver.

1.12. Conclusions

The engineering studies completed to date have demonstrated the technical feasibility of producing significant quantities of gold, together with by-product silver, from the Veladero deposit. The economic viability of the proposed project has been evaluated by conventional discounted cash flow analyses, based on the engineering studies and cost estimates discussed herein. The projected rate of return has been considered sufficient to warrant project development.

2.0 INTRODUCTION & TERMS OF REFERENCE

2.1. Introduction

This Technical Report has been prepared for filing pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects, of the Canadian Securities Administrators in connection with reserve and resource estimates and certain other information relating to Barrick's Veladero property as of 31 December 2004. The format and content of this report are intended to conform to Form 43-101F1, Technical Report. This report was prepared under the supervision of René Marion, P. Eng. Vice President, Technical Services of Barrick and Alex Davidson P. Geo, Executive Vice President, Exploration of Barrick who are the "qualified persons" responsible for the content of the report.

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Gold	375.00
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Exchange Rates (US$)	
Argentina Peso	3.00

2.3. Sources of Information

This report has been prepared by employees of Barrick under the supervision of Mr. Marion and Mr. Davidson. Information in this report is based on work conducted by Barrick geologists, engineers, and metallurgists as well as third party consultants retained by Barrick.

3.0 DISCLAIMER

This report was prepared by the authors using reports prepared under the direction of employees of Barrick and its retained consultants. While reasonable care has been taken in the preparation of this technical report, the authors cannot guarantee the completeness or accuracy of supporting studies not prepared under their direct supervision.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1. Location

The Veladero Mine is located on the east flank of the Andes Cordillera, six kilometers east of the Chile/Argentina border. The mine site is at approximately 29°20' S latitude and 70°00' W longitude in the Department of Iglesia, San Juan Province, northwest Argentina, 370km northeast of the provincial capital city of San Juan.

4.2. Title

Veladero comprises two distinct mining concessions, the Mina Ursulina Sur (6,474 hectares), and the Mina Veladero (11,907 hectares). Details of the Veladero and Ursulina Sur mineral properties are shown on Figure 4.2-1 and Table 4.2-1.

MAGSA, an indirect subsidiary of Barrick, holds 100% direct ownership of Mina Ursulina Sur, which is contiguous with and immediately north and east of Mina Veladero. IPEEM owns Mina Veladero. Through its Exploitation Contract and Record of Agreement with IPEEM, MAGSA's holds the rights to exploit Mina Veladero, in conjunction with development of Mina Ursulina Sur, for 25 years. This term is renewable at MAGSA's sole discretion for another 25 years.

Through BEASA's ownership of the Campo de las Taguas camp, Barrick controls essentially all the surface of Mina Ursulina Sur and Mina Veladero, in addition to other large contiguous surface parcels in the region. As holder of the mining rights through the contract with IPEEM, MAGSA is able to obtain surface rights-of-way necessary to facilitate development of its mining rights.

Royalties to be paid by MAGSA total 3.75% of the value at the pit crest of ore mined at Veladero. This includes separate pit crest royalties of 0.75% payable to IPEEM, and 3.0% payable to San Juan Province.

Federal income taxes in Argentina are levied at the rate of 35%, but a number of provisions exist for reducing taxable income, and the Mining Investment Law provides for various foreign investment protections in the form of stabilization of key elements of fiscal, foreign exchange, and customs regimes. Argentina charges an additional tax of 5% of the gross revenue received from sale of minerals exported from the country. A number of other relatively minor taxes and fees are levied at the federal, provincial, and municipal levels.

Because the Argentine government has stated that the export duty (5% on gross sales imposed as a temporary measure in 2002) will be reduced in 2005 and eliminated altogether by 2007, the economic analysis assumes that this will not be applicable.

Figure 4.2-1: Veladero Mineral Title Map

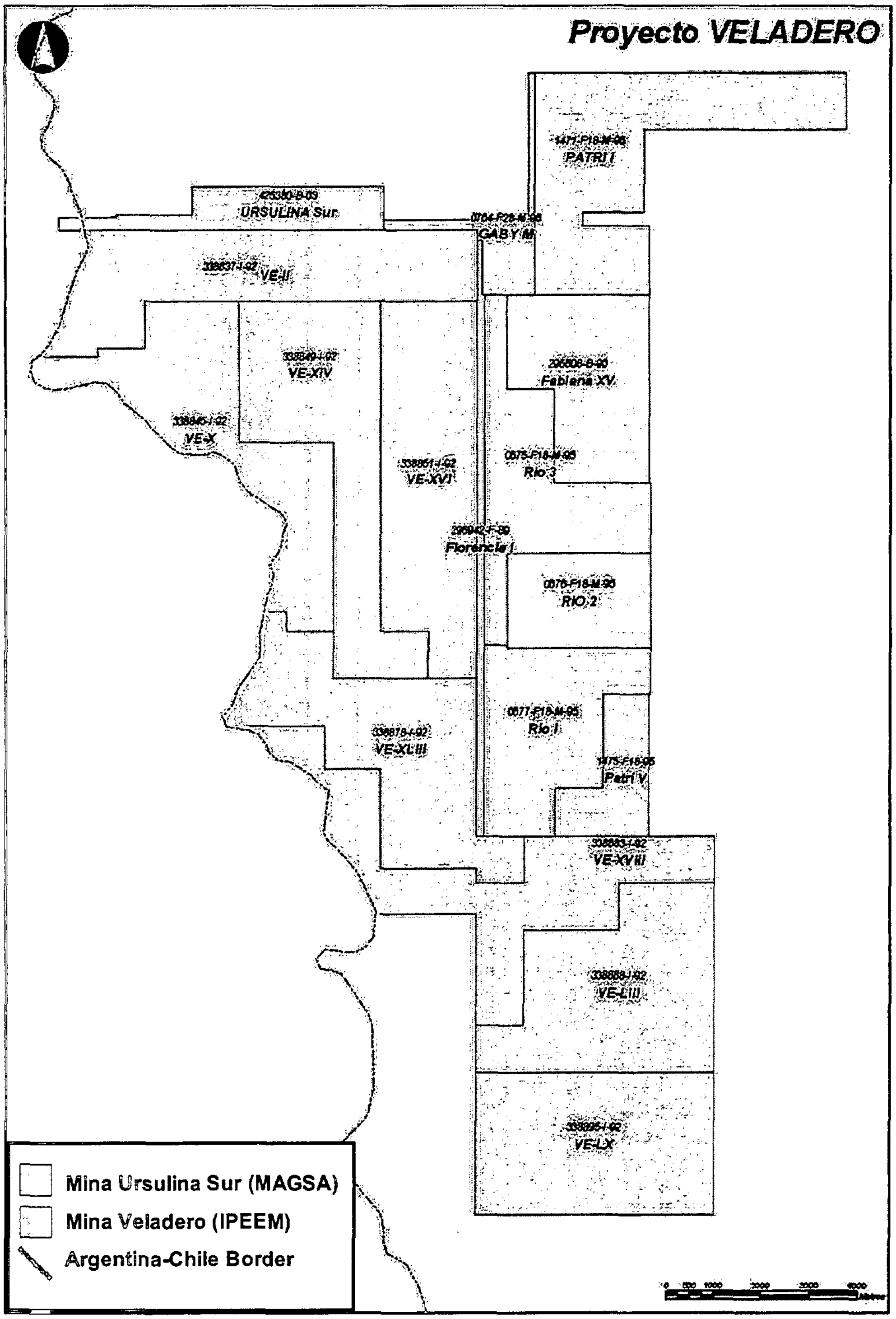


Table 4.2-1: Veladero Mineral Property

	Certificate #	Claim Name	Title Holder	Area (ha)	Status
MINA VELADERO	338837-I-92	VE II	IPEEM	1,492.53	Mina
	338845-I-92	VE X	IPEEM	1,425.00	Mina
	338849-I-92	VE XIV	IPEEM	1,500.00	Mina
	338851-I-92	VE XVI	IPEEM	1,500.00	Mina
	338895-I-92	VE LX	IPEEM	1,500.00	Mina
	338888-I-92	VE LIII	IPEEM	1,500.00	Mina
	338878-I-92	VE XLIII	IPEEM	1,500.00	Mina
	338883-I-92	VE XLVIII	IPEEM	1,489.00	Mina
MINA URSULINA SUR	296608-B-90	Fabiana XV	MAGSA	1,000.00	Mina
	0677-F18-M-95	Rio 1	MAGSA	1,000.21	Mina
	0676-F18-M-95	Rio 2	MAGSA	600.00	Mina
	0675-F18-M-95	Rio 3	MAGSA	998.96	Mina
	1471-F18-M-95	Patri I	MAGSA	1,566.00	Registrada
	1475-F18-95	Patri V	MAGSA	387.40	Mina
	0764-F28-M-96	Gaby M	MAGSA	269.47	Mina
	296942-F-89	Florencia I	MAGSA	196.52	Mina
	425380-B-03	Ursulina Sur	MAGSA	455.30	Mina
			Total hectares:	18,380.39	

4.3. Environmental Permits

The Veladero project received environmental impact study approval in November 2003 from the Mining Authority of the San Juan Province. There are no environmental issues recognized which directly affect reserves or resources. Issues which concern the operation as a whole include protecting water quality; mitigating vega (wetlands) destruction caused by construction of the leach facility and waste dumps; and minimizing dust generation.

Key permits have been acquired, although numerous sectoral permits required from local regulatory authorities remain to be issued.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The closest major population and commercial center is the provincial capital of San Juan, approximately 280 km southeast of Veladero. By road the distance is 370 km, via paved National Highway No.40 north from San Juan to Provincial Road No.436 (paved) and the village of Pismanta, and by public gravel road to Tudcum. Barrick's 156 kilometer all-weather gravel road continues from Tudcum over Conconta Pass, through the Valle del Cura, and over Despoblados Pass to Veladero.

Rugged mountains with deeply incised steep-sided valleys characterize the Veladero Project area. Elevations at the mine range from 4,000 to 4,850 meters, and the alpine climate is cold, dry, and windy. Vegetation is sparse. Rock outcrops and colluvial soils predominate in the valley walls with colluvium, alluvium and moraine till exposed on the valley floors. Overburden thicknesses of up to 170 meters occur in the mine area.

Highest annual temperatures occur from December through February, when maximum daytime temperatures generally range between 10° and 22°C, with lows between 5° and -5°C. Winter months from June through August have daytime highs generally between -10° and 10°C, and nighttime lows of -10° to -30°C. Mean annual precipitation is estimated to be approximately 200 mm at 4,400 m elevation, with most of the precipitation arriving as snow. Winter conditions can be severe, with intense winds, blowing snow, and extreme cold, and can adversely affect mine access and operations. Rocks and gravel airborne by strong gusty winds are a common hazard in mine operations and on access roads. The area is considered to have a sub-arid, sub-polar, mountain climate. During winter months, extreme weather may create a challenging operating environment. The potential impact of possible extreme weather conditions will be incorporated, to the extent possible, int the project's operating plan.

The mine is in the Rio de las Taguas watershed, with Despoblados, Potrerillos, Guanaco Zonzo, and Canito creeks comprising the other major perennial streams in the mine area. Water supplies for Veladero are extracted from surface and groundwater sources in the Rio de las Taguas valley.

Public infrastructure is absent in the mine area, and electric power is generated on-site. There is no permanent habitation in the area; Tudcum is the nearest village.

6.0 HISTORY

The Veladero area was first explored in the late 1980's by Argentine government geologists, who identified scattered gold anomalies in the Veladero Sur area and surrounding region during field examinations of hydrothermal alteration centers identified through satellite imagery. In 1988 administration of mineral rights in the region was transferred from the Federal to the Provincial government, and in 1989 San Juan Province established IPEEM as the provincial mining entity responsible for holding title to certain of the Province's mineral rights, and for soliciting and administering bids for exploration and mining licenses in the Province.

Following a competitive bidding process completed by IPEEM in 1994, Argentina Gold Corp. (AGC), a Canadian junior exploration company, was awarded exploration rights to Veladero. AGC then entered into a 60:40 joint venture agreement with Lac Minerals Ltd. (40%), which was acquired by Barrick in September 1994.

In 1995 AGC assigned its interest to its subsidiary, MAGSA, and from 1996 through 1998 the joint venture involving MAGSA and BEASA explored Veladero. Concurrently, BEASA explored it's adjoining 100%-owned Ursulina Sur property as part of the Lama project. In early 1999 Homestake Mining Company (Homestake) acquired AGC, and intensified Veladero exploration, while BEASA advanced definition of the Filo Norte deposit on the Ursulina Sur property. The December 2001 merger of Homestake and Barrick resulted in Barrick gaining 100% indirect control of Veladero through MAGSA and BEASA.

Exploration by the Veladero JV initially focused on the Veladero Sur gold anomalies, but eventually moved north and encountered strongly anomalous gold mineralization associated with outcropping breccia bodies in the area of what is now the Amable deposit. Initial RC drilling in late 1995 defined a small resource in this zone (Brecha Agostina), and focused the JV's exploration efforts on other breccia exposures on the property.

Drill targeting initially relied on surface geochemical anomalies (involving rock chip, soil, and screened talus sampling) coincident with a geophysical signature comprising a CSAMT resistivity high with a coincident magnetic low, localized by mapped fault corridors and structural intersections.

7.0 GEOLOGIC SETTING

7.1. Regional Geologic Setting and Deposit Types

The Veladero deposit is situated at the north end of the El Indio Gold Belt, a approximately 120km × 25km north-trending corridor of Permian to late Miocene volcanic and intrusive rocks which host a number of hydrothermal alteration zones and epithermal mineral deposits. The belt consists of a Tertiary volcanic rift basin in which volcanic flows and tuffs were deposited and subsequently cut by associated intrusions. Basement rocks in the belt consist of andesitic to rhyolitic tuffs, lava flows, volcaniclastic rocks, and associated intrusives of the Permo-Triassic Choiyoi Formation, which are overlain unconformably by Tertiary igneous and volcanic rocks ranging in age from older (approximately 40 Ma) stocks to more recent (4 Ma) tuffs, lava flows and volcaniclastic rocks. These volcanic rocks within the basin are grouped into five units, which from youngest to oldest are the Vallecito (5 to 7 Ma), Vacas Heladas (9 to 13 Ma), Cerro de las Tortolas (12 to 19 Ma), Escabrosa (17 to 21 Ma) and Tilito (21 to 27 Ma). All of these units consist of felsic and intermediate-to-mafic volcanic rocks derived from volcanic centers located both within and outside of the mineralized belt.

The regional structural setting of the El Indio Gold Belt is dominated by fault and fracture sets associated with Tertiary east-west regional compression and extension. The main fault set is a series of north-south striking reverse faults with associated east-west extensional fracture sets and 030° to 060° and 320° to 300° conjugate shear sets. Intrusive and volcanic centers are concentrated at structural intersections. The north-south reverse faults border the volcanic rift basin. These structural trends are important to the localization of mineralization at Veladero and at other deposits associated with the belt, including the El Indio, Pascua-Lama and Sancarron deposits.

The El Indio Gold Belt hosts both high and low-sulfidation style mineralization over a 55 kilometer strike length, from the Tambo-El Indio mines in the south to the Pascua-Lama project in the north. Epithermal mineralization within this belt is associated with Tertiary structural trends.

7.2. Deposit Geology

The Veladero deposit is an hypogene-oxidized, high sulfidation gold-silver deposit hosted by volcaniclastic sediments, tuffs, and volcanic breccias related to a Miocene diatreme-dome complex. Hydrothermal alteration is typical of high sulfidation gold deposits, with a silicified core grading outward into advanced argillic alteration, then into peripheral argillic and propylitic alteration haloes. Gold occurs as fine native grains, and is dominantly associated with silicification and with iron oxide or iron sulfate fracture coatings. Silver mineralization is distinct from gold, and occurs as a broader, more diffuse envelope, probably representing a separate mineralizing event. Copper and other base metals are insignificant, and sulfide mineralization is negligible. Principal controls on gold mineralization are structures, brecciation, alteration, host rocks, and elevation.

The Veladero deposit comprises three main ore bodies: Amable in the south; Cuatro Esquinas in the center; and Filo Federico in the north. A variety of volcanic explosion breccias and tuffs are the principal host rocks at the two northern ore bodies, where alteration consists of intense silicification. The Amable ore body is hosted within bedded pyroclastic breccias and tuffs which are affected by silicification and advanced argillic alteration. The Filo Federico pit will exploit the Filo Federico and Cuatro Esquinas mineralization, and the Amable ore body will be developed by the Amable pit. Much of the Veladero deposit is covered by up to 170 meters of colluvial and alluvial overburden.

7.3. Deposit Mineralogy

Gold occurs at Veladero as minute native grains disseminated along fracture surfaces, and usually it is associated with silicification and hematite, goethite, or jarosite. Trace gold telluride minerals have been identified petrographically, but are not significant. Gold grains have been found encapsulated by quartz overgrowths, and also by jarosite. Megascopic gold grains to 1mm have been recovered from a number of drill holes, but most Veladero gold is <50μ in size. Metallographic studies indicate that the gold generally is 800-900 fine.

Silver values are consistently anomalous at Veladero. The principal silver-bearing mineral is argentojarosite, and rare grains of native silver and a silver-bearing telluride have been identified in thin sections. Within the ore zone silver and gold exhibit different distributions: some silver mineralization correlates with gold (Ag:Au ratios generally <20:1); some silver has no associated gold; and some gold has little to no associated silver. These observations of silver and gold distributions suggest multiple events of precious metals mineralization.

Goethite, hematite, and jarosite are the dominant gangue minerals in the Veladero ore bodies, occurring as earthy to crystalline fracture coatings, vug linings, breccia matrices, and disseminations. Jarosite is more abundant in the Amable sector, while hematite and goethite predominate at Filo Federico.

Sulfide mineralization within the deposit is negligible, with overall abundances of <1%. Pyrite is the most common sulfide mineral, and locally may reach 3%. Where present, it occurs as fine disseminations encapsulated by or intergrown with quartz, and it is not known to be associated with gold. Other metallic sulfides identified in thin sections are chalcopyrite, sphalerite, bornite, pyrrhotite, arsenopyrite, cinnabar, and molybdenite; all are volumetrically insignificant.

Table 7.3-1 summarizes trace element analytical results from 5-meter downhole sample composites from 109 drill holes distributed across the Amable, Cuatro Esquinas, and Filo Federico sectors. Of the nine elements analyzed, mercury is the most anomalous, followed by arsenic.

Trace element geochemistry shows broad, strongly anomalous concentrations of arsenic, antimony, bismuth and lead in the Amable sector. Mercury is anomalous throughout the property, with highest concentrations at Filo Federico, where Hg exceeds 10ppm over broad areas. In this sector mercury shows a strong correlation with a strongly silicified felsic tuff unit.

Table 7.3-1: Trace Element Geochemistry Results From 5-Meter Composites

N = 7405 5-meter sample composites from 109 drill holes
All values are in ppm

	As	Bi	Cu	Hg	Mn	Mo	Pb	Sb	Zn
Mean	216.2	18.72	19.85	8.43	71.53	12.2	152.21	25.83	14.36
Median	71	4.6	13	1.92	51	10	62	7.7	7
Std Dev	687.56	80.54	66.26	58.31	208.76	9.85	302.52	82.07	37.65
Range	9999.5	1999.9	3850.5	3802	6594	270.5	9999	1999.9	959.5
Minimum	0.5	0.1	0.5	0.01	2	0.5	1	0.1	0.5
Maximum	10000	2000	3851	3802	6596	271	10000	2000	960

8.0 DEPOSIT TYPES

The El Indio Gold Belt hosts both high- and low-sulfidation style mineralization over a 55 kilometer strike length, from the Tambo-El Indio mines in the south to the Pascua-Lama project in the north. Epithermal mineralization within this belt is associated with Tertiary structural trends.

The gold and silver mineralization and alteration assemblages at Veladero are associated with a structurally controlled and disseminated acid sulfate hydrothermal system and are hosted by a volcanic rock sequence. Alteration and mineralization is of the high-sulfidation, epithermal type. Other deposits of this type include the Pierina and Yanacocha deposits in Peru.

9.0 MINERALIZATION

9.1. Overview

Disseminated gold mineralization forms a 400-700 meter wide × three kilometer long tabular blanket localized between the 3,950 and 4,400 meter elevations. The mineralized zone, defined by values of >0.2 ppm gold, is oriented along a 345°-trending regional structural corridor. Higher grade zones (≥ 3ppm) within this envelope occupy northeast-striking faults and fracture zones. A resource block model long section and a plan are shown on Figures 9.1-1 and Figures 9.1-2 respectively. Table 9.1-1 summarizes ore body dimensions.

Within the Amable pit footprint there is a 250 meter gap between the main Amable mineralization and the structurally-localized northeast-trending 203 Zone mineralization to the east. Another gap approximately 250 meter long occurs between the 203 Zone and the shallow Brecha Agostina mineralization located at the east end of the pit.

A barren zone approximately 300 meter long occurs north of Amable before Cuatro Esquinas mineralization is reached. From Cuatro Esquinas north through Filo Federico the gold mineralization envelope is continuous. The Veladero ore envelope lacks recognized roots or high-grade feeder conduits at depth, and exhibits no evidence for significant supergene enrichment of metals.

9.2. Geologic Controls to Mineralization

Ore-grade gold mineralization can be hosted by any kind of rock at Veladero, including alluvial and colluvial overburden and steam-heat altered lithologies. Principal host rocks are hydrothermal breccias and felsic tuffs at Filo Federico and Cuatro Esquinas, and pyroclastic breccias and felsic to intermediate tuffs at Amable. Main-stage introduction of gold clearly is younger than diatreme eruption, acid leaching, and major stages of silicification and fracturing. It accompanied or closely followed hypogene deposition of iron oxides and jarosite. Principal controls on localization of gold mineralization are structurally-induced open spaces (fracture zones, structural intersections), favorable host rocks, brecciation, alteration, and elevation.

9.3. Typical Geologic Sections and Plans

Typical lithologic and alteration sections and plans are presented in Figures 9.3-1 through 9.3-4.

Figure 9.1-1: Resource Block Model Section Looking N72°E

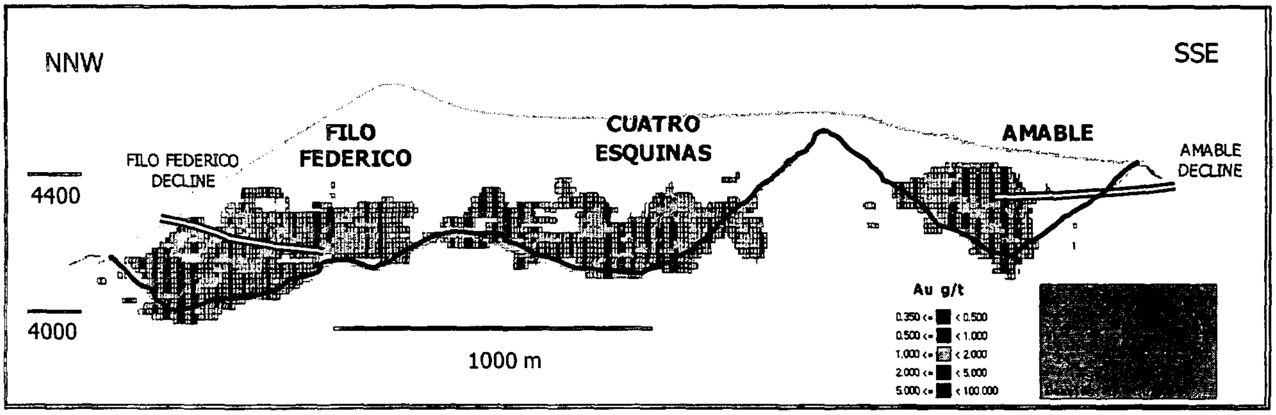


Figure 9.1-2: Resource Block Model Plan - 4200 Level

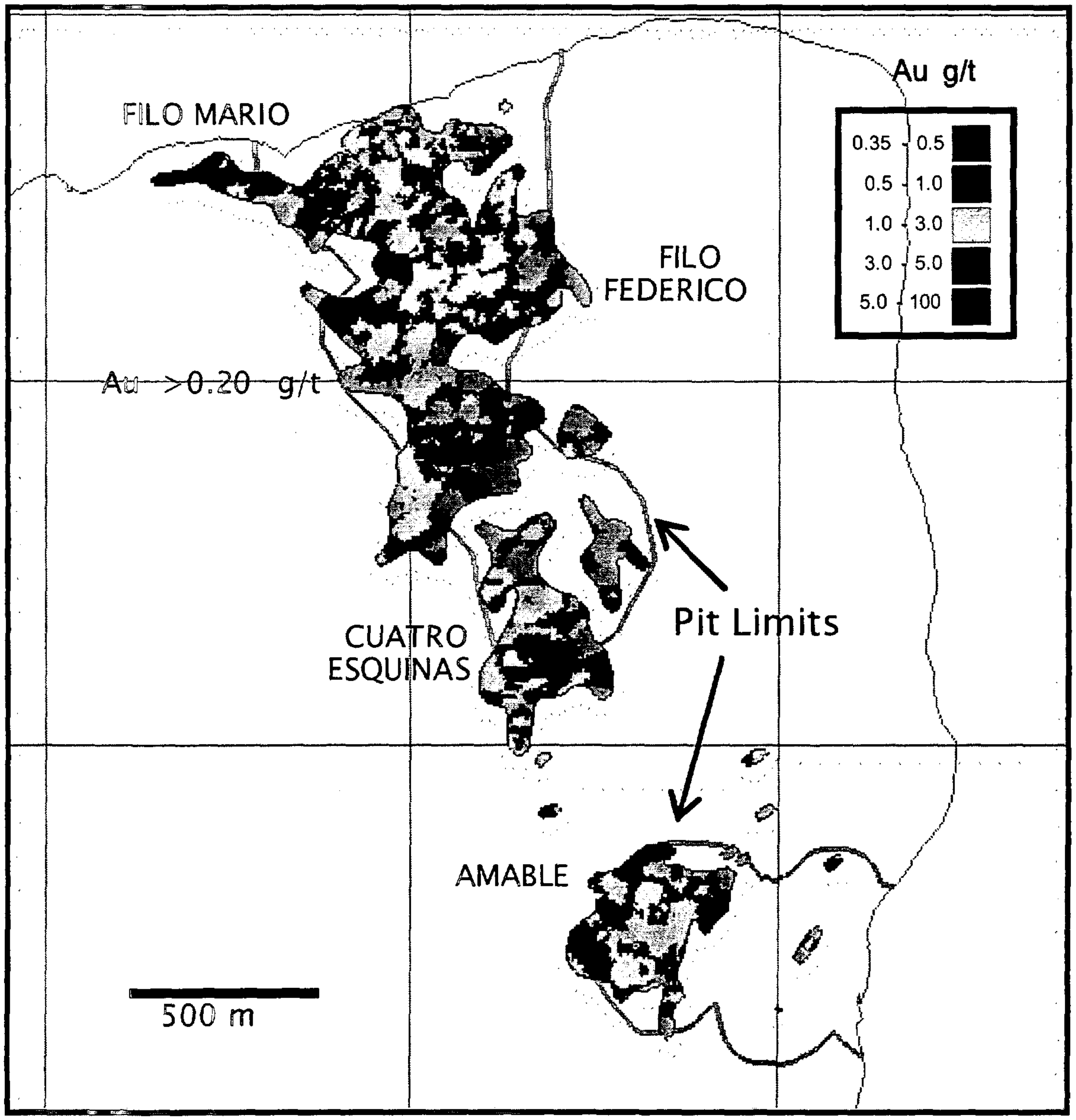


Table 9.1-1: Generalized Dimensions of Ore Bodies

(>0.2 ppm Au)

Ore Body		Depth to Top (m)	Approximate Dimensions (m)		
			Length	Width	Height
AMABLE	Main Zn	50	620	350	360
	203 Zone	80	600	140	200
	Agostina	Crops out	180	60	190
CUATRO ESQUINAS		250 -300	700	430	280
FILO FEDERICO		200	1400	650	400
FILO MARIO		Crops out	360	210	80

Figure 9.3-1: Lithology Section Looking N72°E

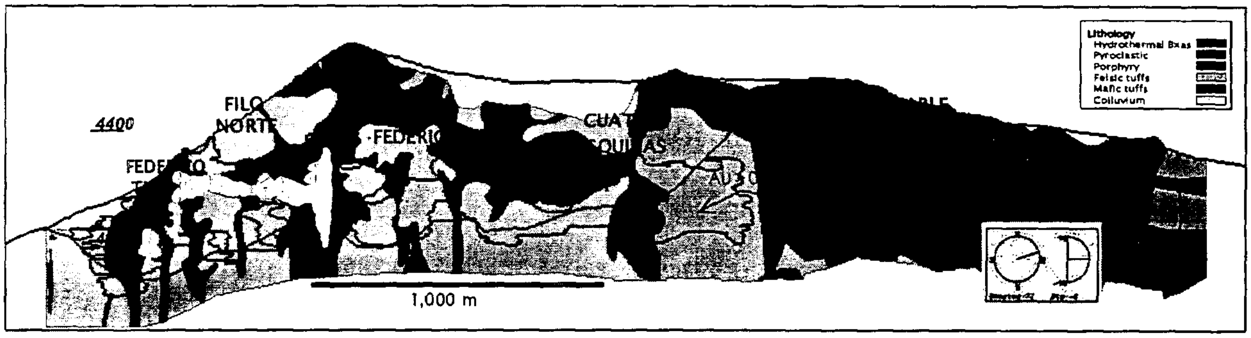


Figure 9.3-2: Lithology Plan 4200 Level

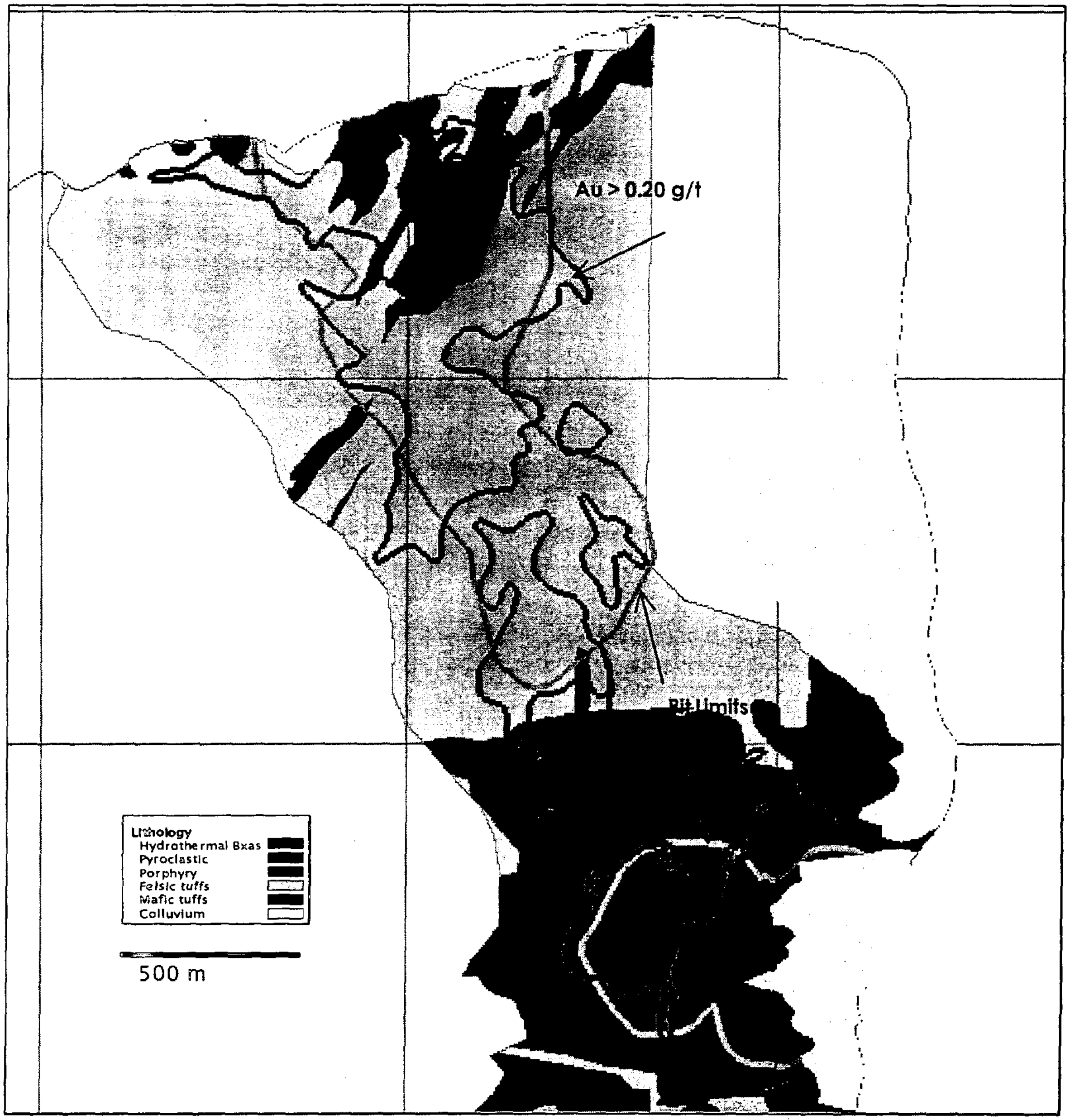


Figure 9.3-3: Alteration Section Looking N72°E

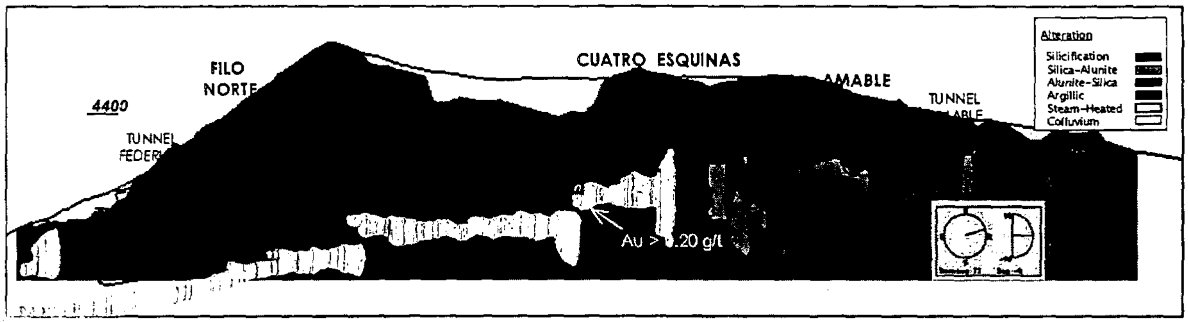
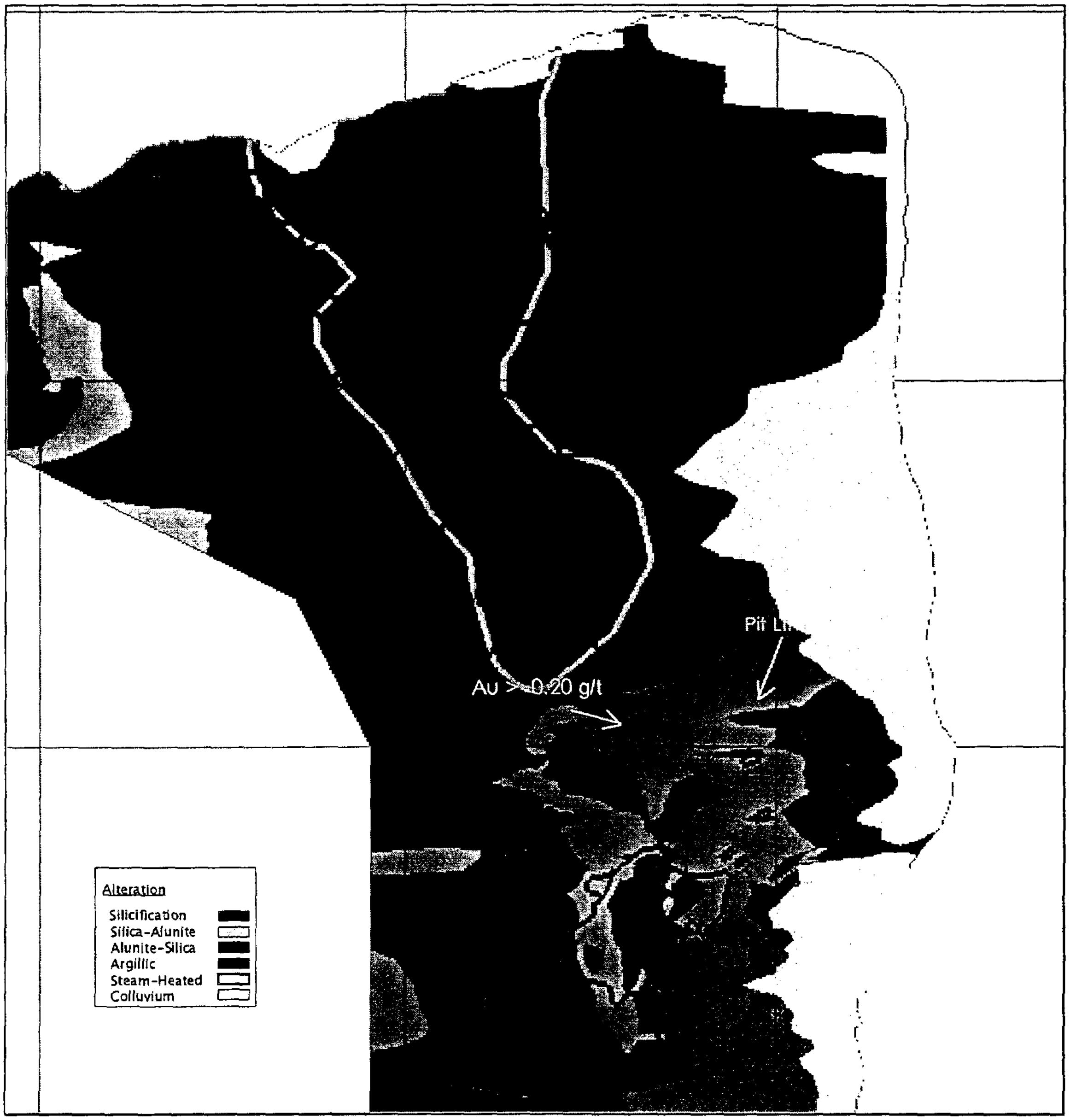


Figure 9.3-4: Alteration Plan 4200 Level



10.0 EXPLORATION

Most of the exploration activity at Veladero has been carried out by MAGSA. Drill targeting initially relied on surface geochemical anomalies (involving rock chip, soil, and screened talus sampling) coincident with a geophysical signature comprising a CSAMT resistivity high with a coincident magnetic low, localized by mapped fault corridors and structural intersections. A summary of the drilling history follows:

1995 – 1996

A total of 39 reverse circulation holes were completed. The Brecha Agostina discovery hole included 158 meters grading 1.4 g/mt Au.

1996 – 1997

A total of 17 reverse circulation holes were completed. The Filo Mario discovery hole included 29 meters grading 3.6 g/mt Au.

1997 – 1998

A total of 28 reverse circulation holes were completed. The Filo Federico discovery hole included 9 meters grading 2.9 g/mt Au. The Amable discovery hole included 190 meters grading 1.5 g/mt Au.

1998 – 1999

A total of 82 reverse circulation holes and 10 core holes were completed. The Cuatro Esquinas discovery hole included 90 meters grading 1.2 g/mt Au.

1999 – 2000

A total of 167 reverse circulation holes and 15 core holes were completed. The program focused on infill and step out drilling.

2000 – 2001

A total of 152 reverse circulation holes and 23 core holes were completed. The program focused on infill and step out drilling.

2001 – 2002

A total of 110 reverse circulation holes and 9 surface core holes were completed. An additional 19 core holes were drilled form the underground tunnels. The program focused on infill and step out drilling.

2002 – 2003

A total of 10 reverse circulation holes and 7 surface core holes were completed. An additional 7 core holes were drilled form the underground tunnels. The program focused on infill drilling.

2003 – present

During the first half of 2004, a program of infill drilling totalling 1,220 meters was completed within the Filo Federico orebody, with the goal of converting inferred resources into reserves. An expanded infill drilling program, begun in fourth quarter 2004, will continue through 2005. It is planned to complete approximately 7,500 meters of reverse circulation drilling in 22 holes in the Filo Federico, Cuatro Esquinas and Amable orebodies.

At year-end, the drill hole database for the Veladero property contained 782 reverse circulation drill holes totalling 208,111 meters; 128 diamond drill holes for 26,557 meters; and 5,153 meters of channel samples from two declines which total 1,147 meters in length. Drill spacing within mineralized zones varies from 30 meters to 100 meters, and averages approximately 35 meters.

11.0 DRILLING

As summarized above, most of the drilling done at Veladero has been reverse circulation (RC). The RC holes were drilled using 5¼ to 6-inch tricone bits. Diamond core holes were collared using HQ, HQ2, or HQ3 size tools. Some core holes were reduced to NQ diameter when conditions warranted. Many of the deeper Many of the core holes incorporate RC precollars, especially in areas of thick overburden. Hole lengths range from 20 to 601 meters. The abundance of intense silicification and fractured/brecciated ground at Veladero results in slow drilling progress, low bit life, and high per-meter drill costs. Core drilling averages approximately 17 meters advance per 24-hour day, and RC progress averages approximately 52 meters per day.

Drill hole spacing varies across the deposit. In the central portions of the Amable and Filo Federico pits average drill hole spacing is in the range of 35-40 meters, increasing from 50-70 meters to approximately 100 meters spacing toward the peripheries of the ore bodies. Condemnation holes outside mineralized areas are drilled on 200 or 400 meter centers to sterilize waste dump areas and other infrastructure sites, but drilling is sparse along the east and west flanks of the pit footprints.

Much of the upper 300m in the deposit has been drilled from the surface by vertical DDH and RC holes or clusters of angle holes that fan outwards from individual drill sites. This has resulted in more tightly-spaced data just below the drill sites near the surface which grade rapidly into sparser data concentrations in the areas between drill sites. The flatter holes drilled from the underground tunnels have provided local definition of high-angle structures in the deposit, and have aided the interpretation of the geology of the deposit in the third dimension.

Drilling has not yet closed off mineralization trends at several key locations, including the east and west sides of Filo Federico; northeast and southwest extensions of the 203 Zone; and the north-northeast periphery of the Amable pit.

12.0 SAMPLING METHOD & APPROACH

12.1. Sample Locations

Drill hole and underground sample locations are shown on Figure 12.1-1 along with surface topography.

Figure 12.1-1: Sample Location Map

12.2. Sample Types and Assay Intervals

Samples from the initial 56 RC holes (6,734 meters) were collected at 2-meter intervals, and all subsequent RC drilling was sampled at 1-meter intervals. The vast majority of RC meters was drilled dry, and wet sampling was conducted only when groundwater was encountered or when water injection was necessary to avoid sticking the rods. A double cyclone system was used to capture as many fines as possible from RC holes: the exhaust from the first cyclone circulated to a second cyclone to collect the fines, which were then included with all chips recovered from the sample run.

Drill core was logged and photographed, then marked by the geologist for sampling on nominal 1-meter intervals, depending on geologic conditions. The maximum length for individual samples from drill core is 2 meters. Core was cut in half using a water-cooled diamond saw; half was bagged and submitted for assay, and half was retained for reference or for metallurgical sampling. Additionally, after every 10 meters of core was sawn, cuttings and saw sludge were collected and submitted for assay.

The 509 meter long Amable decline and the 638 meter long Filo Federico decline generated 5,150 meters of channel or chip-channel samples from the workings, mostly from 1-meter long horizontal cuts from each rib and face, taken with a pneumatic chipping hammer as decline rounds advanced. Some samples were collected from the back or sill also. Nominal sampling height of ribs was 1.2 meters above the sill. Muckpiles from every round of decline advance were grab-sampled, generating 7,181 individual samples.

13.0 SAMPLE PREPARATION, ANALYSIS, SECURITY, AND QA/QC

13.1. Sample Preparation

Prior to January 2000, drill sample preparation and assaying was performed by CIMM Laboratory. The entire RC drill sample was collected and split at the drill site to 8-10kg, and this fraction was delivered to a portable prep facility at Veladero camp, where it was dried at 50°C, jaw-crushed to approximately 5mm, then roll-crushed to -10 mesh. RC sample rejects are stored at Veladero. However, because the portable facility could not consistently meet the prep protocol of 100% -2mm, it was discontinued after the first 3,175 drill samples, and subsequent samples were sent to CIMM's prep facility in San Juan.

At this location the 8-10kg RC samples were crushed to 100% passing -2mm and split to 1.0kg, then pulverized in a single-pass LM-2 ring & puck mill to 95% -150mesh. Pulps were then split to 250g and sent to CIMM's laboratory for assay. The 750g pulp reject was returned to MAGSA for storage.

Beginning in January 2000 Bondar-Clegg (and its successor company, ALS Chemex) was contracted as the primary laboratory to replace CIMM, and subsequent RC, core, and rock chip samples were prepped at an on-site facility. The entire RC sample interval (or half core, for DDH samples) was delivered to the prep lab for weighing, drying at 60°C, and splitting to 8-10kg (~25% of original sample weight). The coarse rejects were stored at Veladero, and the 25% splits were Rhino-crushed to 90% -10 mesh, then split again to obtain a 1.0kg sample. This sample was sent to Mendoza for oven-drying at 60°C, followed by pulverizing to 95% -150 mesh, and riffle-splitting to a 250g pulp for assay.

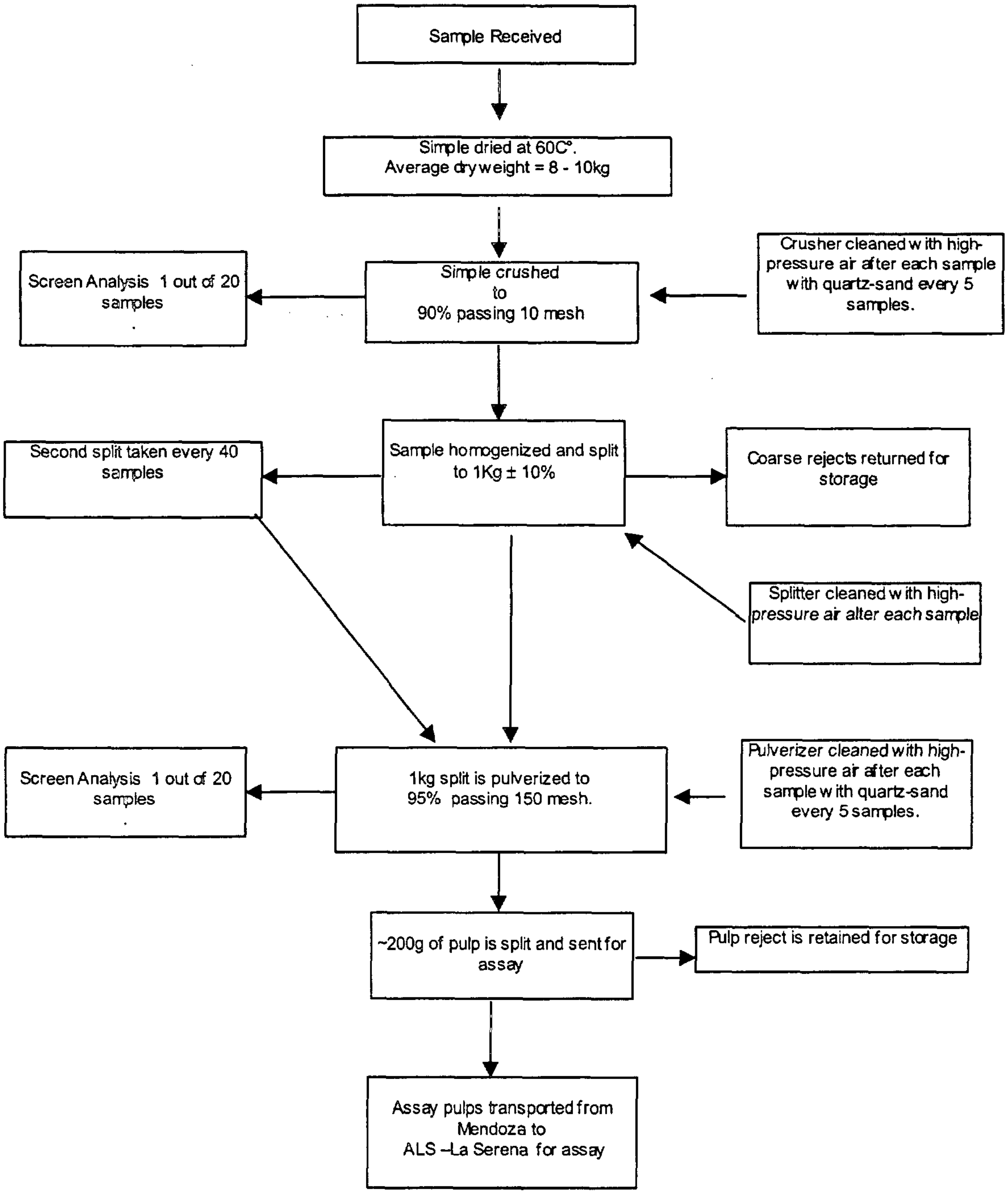
For decline samples, muck from each round (~120 to 150 tonnes) was stockpiled at the portal areas until channel sample assays were obtained. If these results were <0.4ppm Au the muck from that round was discarded. If channel assays were ≥0.4ppm the muck was segregated and deposited at a long-term stockpile for later metallurgical compositing and sampling. At the storage area, 1m long grab sample composites were collected in a radial pattern from each muckpile of mineralized material (9 to 21 samples per muckpile, depending on size of the pile) for comparison with channel sample results. The sample preparation flow sheet is included as Figure 13.1-1.

13.2. Core and Sample Storage

All initial logging of core and RC chips was accomplished at Veladero camp, and split core and RC chip samples were sent to MAGSA's warehouse in San Juan for additional logging if needed, and for archiving. Drill core in wooden boxes is stacked by hole in an enclosed outdoor patio, and covered plastic trays of representative RC chips are organized by hole on storage racks inside the warehouse.

Figure 13.1-1: Sample Preparation Flow Sheet

For Drill Core, RC Chips, Rock Chips, and Channel Samples



All rejects of coarse RC chips are stockpiled in their original sample bags at Veladero, along with some of the -10 mesh crushed rejects. All pulp rejects from the project are boxed, palleted, and archived in the San Juan warehouse.

13.3. Elements Analyzed and Assay Procedures

Veladero's standard assay protocol for drill samples and rock chips involves initial assaying for gold by fire assay fusion of a 50g pulp and analysis by atomic absorption. Results are reported in ppm, with a lower detection limit of 0.005 ppm Au. For silver, 4-acid ("total") digestion of a 1g pulp is accomplished, followed by AA analysis. Results are reported in ppm, with a lower detection limit of 0.10 ppm Ag.

Any samples reporting initial results of >3ppm Au or >50ppm Ag are re-analyzed for the overlimit element using 50g fire assay fusion and gravimetric assay. Limits of detection for FA/grav are 0.1ppm Au and 0.35 ppm Ag.

Ten-element geochemical analyses are made of composited drill samples, with 10g of sample pulp composited from each of five 1-meter drill samples. The pulp composite is homogenized, then analyzed for Cu, Pb, Zn, Cd, Mn, and Mo by ICP methods. Mercury is determined by cold-vapor analysis, and As, Bi, and Sb are determined by hydride generation.

Through 2003, drill samples grading ≥0.4ppm Au had 6-hour cyanide solubility shake tests for Au±Ag performed on a 20g split of the sample pulp.

Analytical results are received from the lab in an electronic format and are entered into the database without external manipulations.

13.4. Laboratories

CIMM and Bondar-Clegg (ALS Chemex) have been the project's principal analytical labs. Miscellaneous analytical work and check assays on drill samples have been performed by other labs including Alex Stewart, ALS/Geolab, Geoanalítica, Lakefield, McClelland, and Verilab.

13.5. Sample Chain of Custody

Rock chip and drill samples are delivered by MAGSA personnel to the Bondar Clegg/ALS Chemex sample prep facility at camp, where the lab assumes sample custody. Both MAGSA and the lab maintain digital records of sample preparation and analyses.

13.6. QA/QC Protocols

Veladero's QA/QC program was designed in 1998 and utilizes field blanks to monitor contamination; pulp standards to monitor accuracy; plus field duplicates, preparation duplicates and pulp duplicates to monitor precision. Quality control samples are included with sample submittals from RC chips, drill core, and chip or channel sampling.

Blanks consist of coarse chips of barren quartz vein material, and are inserted every fortieth sample. If assay results for a blank sample show anomalous gold or silver, the lab re-assays all samples for the batch containing that blank. One in 30 samples is a duplicate, which is inserted at varied frequency so that it is blind to the laboratory. If duplicate results do not agree within acceptable limits (usually ±20%), all samples in that batch are re-run.

Thirteen analytical standard pulps prepared from Veladero material cover a range of grades and are used to monitor lab accuracy. As with duplicates, if the lab's result for a standard falls outside of established control limits, all samples from that batch are re-assayed. Standard pulps are submitted at a frequency of 1:30.

One in 20 crushed samples is checked for granulometry to assure 90% passing 10 mesh, and one in 20 pulps also is checked to meet the standard of 95% passing 150 mesh.

Ten percent of all samples analyzed at the primary lab (Bondar-Clegg/ALS Chemex) are re-assayed at a second lab during or following a drill campaign, as an independent check on accuracy of the primary lab.

13.7. QA/QC Results

Results from quality control samples are evaluated as they are received, and the lab is notified promptly when problems are observed, so that re-assays can be accomplished.

A detailed quality control report is prepared at least annually, or after each major sampling program is completed. This report includes control charts and discussions of QC results for the current reporting period, and compares results to those of prior years. Results for QC monitoring of contamination, precision, and accuracy are all tracked, as is lab turnaround time and comparisons of fire assay vs. atomic absorption results.

13.8. QA/QC Audits

Annual external QA/QC audits of Veladero's sampling and assaying were done from 1998 through 2002. During 2003 the Veladero database was reviewed in conjunction with resource and reserve audits. The database and QA/QC protocols and results also were critically examined in 2003 during an external project audit. All of these audits and reviews concluded that Veladero's QA/QC procedures and results meet or exceed industry standards.

The QA/QC results for Veladero have been reviewed under the direction of the authors of this report. Based on this review, the authors are of the opinion that sampling and assaying has been performed in a manner acceptable to the industry and are appropriate for use in determination of resources.

13.9. Sample Location Survey

The majority of Veladero drill hole collar orientations and surface coordinates are measured during drilling or shortly after completion of the hole, using differential GPS or total station survey instruments. Some drill collar coordinates were determined with hand-held GPS instruments. Locations of underground samples were determined with a total station survey instrument.

For all holes longer than 100 meters within mineralized areas, downhole surveys were attempted using a gyroscopic instrument or Maxibor multishot tools. Gyroscope readings were collected every 10 meters downhole, and Maxibor survey data was taken every 3 meters. Holes drilled in 2004 were surveyed using an electronic multishot, with data recorded every 4 meters. For all downhole surveys, data was taken while running the instrument into the hole, and was compared with data taken on the instrument out-run. If any significant discrepancies resulted, the hole was re-surveyed. In-hole and out-hole surveys were not averaged, but instead, only one of the surveys was used to determine downhole deviation. Some holes could not be surveyed because of caving. In those cases, deviation of the caved hole was estimated from results of a nearby surveyed hole, if that hole was collared at a similar azimuth and inclination of the caved hole.

13.10. Model Topography

Veladero uses the Gauss-Kruger Campo Inchauspe coordinate system. The standard topographic base for the main project has a scale of 1:1000 and contours defined at 1-meter intervals. Outlying sectors of the project use a topographic base at 1:5000 scale with 5-meter contour intervals. Topography was generated from "Veladero 99" color aerial photography flown in 1999 at a scale of approximately 1:5000. Restitution was accomplished by surveyed control points and road locations in the field, and later compared with the UTP2000 restitution of the adjoining Lama Project.

In-pit surveys are accomplished with differential GPS instrumentation. Survey control for the Amable and Filo Federico declines was determined with total station survey instruments. Both decline portals were closed permanently in April 2003, and are no longer accessible.

Topographic control for the Veladero resource model was implemented using a three-dimensional surface generated with Vulcan modeling software, interpreted from the 1-meter contour interval spacing of the topographic base map.

13.11. Density Determinations

Density determinations have been made on 101 lengths of whole HQ drill core, 39 hand samples of muck from Filo Federico and Amable declines, and six hand samples from surface outcrops. Samples selected for density determinations represent a variety of locations, elevations, alteration types, lithologies, and gold grades.

Bulk density determinations were performed by the paraffin- or lacquer-coated, water immersion method, where the rock sample is sealed by wax or lacquer so that the natural vugs and permeability of the rock can be measured and accounted for in the bulk density. The density measurements were performed by Verilab, CIMM Lab, ALS Chemex, and McClelland Lab.

Table 13.10-1 presents summary results from Veladero bulk density data.

Table 13.10-1: Summary of Density Determinations

Mineralization Type	Average Bulk Density
Strongly silicified rock	2.45
Advanced-argillic altered rock	2.44
Average mineralized rock	2.45
Filo Federico mineralized rock	2.45
Amable mineralized rock	2.45
Cuatro Esquinas mineralized rock	2.43

14.0 DATA VERIFICATION

14.1. Methods Used

The Veladero resource database is regularly verified by MAGSA staff using data validation modules of Vulcan and Gemcom software programs to identify any inconsistencies or logical errors in the data. Outside auditors perform spot checks on the electronic database, sample submittal documents, QA/QC records, signed analytical certificates, drill logs, and other geologic records to identify errors, inconsistencies, or statistical anomalies.

Resource modeling is verified through visual comparisons of block model grades with drill hole composite grades; through construction of nearest neighbor model comparisons to check for global bias; and by performing independent grade estimates incorporating MAGSA's raw drill hole data and estimation parameters, but using different resource estimation software.

14.2. Data Verification Quantity and Results

As part of annual external audits of the Veladero sampling and QA/QC program, spot checks are done of data in the electronic database and the signed analytical certificates. These checks failed to find any discrepancies. Sample tag numbers in the original sample books and found good correlation with sample numbers listed in the electronic database.

During 2003 5% of the Veladero assay intervals were checked by external review, comparing assay certificates with the electronic database. The review found an error incidence of <0.5%, which is acceptable. An overall truncation of the third decimal place was reported on some gold assays in the electronic database; this introduced a very slight degree of conservatism (<1%) into the raw assay data. The largest differences were seen in the lowest grade ranges: at a 0.40 ppm cutoff value, the maximum difference is only 2% (0.409 ppm vs. 0.40 ppm), and at higher cutoff grades the difference is negligible (3.009 ppm vs. 3.00ppm, = -0.3%). This problem was corrected, and the entire database was re-checked, specifically seeking any other errors in data formatting. No additional problems were found.

Also in 2003, a suite of procedures was used to check the resource database for statistical anomalies, and results showed a very small number of statistically anomalous records. The small number and magnitude of the statistical anomalies would have no global effect on the Veladero resource estimate.

15.0 ADJACENT PROPERTIES

The Pascua-Lama deposit is located 10 kilometers to the Northwest in both Chile and Argentina. Pascua-Lama is wholly owned by Barrick and is currently being planned for future development.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

16.1. Geology, Mineralogical And Geochemical Investigations

The Veladero deposit is hosted in well-altered and silicified tertiary volcanic rocks. The mineralization is typically low in sulphide content and generally responds well to cyanidation. Gold is present at high purity (fineness) with no low silver content. Silver mineralization occurs as native metal, cerargyrite and insoluble argentojarosite. Silver content in the deposit is variable with silver extraction dependent upon the relative content of argentojarosite to soluble species.

Trace sulphide minerals are present (less than 0.1 % sulphide sulphur) and include chalcopyrite, pyrite, arsenopyrite, pyrrhotite, sphalerite and cinnabar. The major gangue mineral is quartz. No trace elements are present in sufficient concentrations to significantly affect the metallurgy. Mercury content averages in the order of 10 ppm and extraction is low but significant.

16.2. Metallurgical Testwork

Metallurgical investigations into gold and silver extraction both by grinding with agitation cyanide leaching and by heap leaching have been conducted. In general, the difference in gold extraction between heap leaching at secondary crusher sizes and agitation leaching at mill grinds of 74 μm is about 10 % less, although the metallurgical response of each zone is variable.

16.3. Agitation Leach Testwork

Three metallurgical drill holes were completed to provide samples for testing. Further samples were chosen from available diamond drill core and RC cuttings to provide a representation of the deposit model. Composites were formed from these samples.The testwork generally covered the following main areas:

- Grind size versus extraction testwork.
- Direct cyanidation versus CIL: The results indicate that, for the samples tested, there is no advantage offered through the use of activated carbon during leaching versus direct cyanidation.
- Diagnostic leaching: It is concluded that the gold not extracted during the cyanidation testwork was encapsulated in quartz.
- Lead nitrate-cyanide reduction: The addition of lead nitrate in testwork resulted in increased gold dissolution rates and decreased cyanide consumption at fine grind, by limiting iron dissolution. Lead nitrate was not a benefit at coarser crush sizes evaluated in heap leaching, as particle surface area and the effects of soluble iron oxides are diminished.

16.4. Analysis of Results of Cyanidation Bottle Rolls

The presence of distinct zones with varying metallurgical performance is evident from graphed data when reviewing metallurgical test results. For each metallurgical type, the calculated gold residue was determined for comparison to actual extraction data for each test. A correlation was found between the calculated regressed gold extraction value, assuming a constant residue assay, versus actual gold extraction data from individual tests. Silver extraction is generally constant by zone.

In early 2004, 36 new metallurgical composite samples were prepared from 512 individual coarse rejects from Cuatro Esquinas RC holes. The composites were subjected to 96-hour bottle roll leach tests at McClelland Lab in order to provide new data to better define boundaries of Type 1 (higher leach recoveries) from Type 2 (lower leach recoveries) mineralization within the Cuatro Esquinas resource.

Bottle roll test results showed that all 36 composites tended to follow the previously-defined Amable Type 1 recovery curve. Twenty-five percent of the composites (N=9) showed relatively high-grade leached residues, even though their calculated Au recoveries commonly exceed 75

Bottle roll cyanide leach tests on -150 mesh drill pulps resulted in the following criteria used to define Type 1 or Type 2 behavior:

- Type 2 where Au_ppm <0.5 and Au_Rec% < 55%
- Type 2 where Au_ppm >0.5 and Au_Rec% <60%
- Type 1 for other mineralization

In the past, Type 2 material was defined as all material with a leached residue of >0.6 g/t Au. The revised definition permits consideration of a grade basis for determining metallurgical type, and not just recovery basis

16.5. Heap Leach Testwork

The same samples were selected to compile the heap leach composites and the agitation leach test composites. Samples selected for heap leach column testing were chosen from available diamond drill core either as whole HQ-sized core from dedicated metallurgical holes or from split core.

Based on an analysis of the heap leach column test results by zone, seven zones were identified, Filo Federico, Cuatro Esquinas, Amable Types I, II and III and Zone 203 Types I and II. A matrix was produced giving predicted fixed silver recoveries by zone and gold recoveries, which vary with feed grade, as summarized in Table 16.5-1. A recent review has indicated that the recoveries shown in Table 16.5-1 may be somewhat conservative, particularly at higher grades.

Table 16.5-1 Gold And Silver Recovery By Ore Zone

	Filo Federico Type 1	Filo Federico Type 2	Amable Type 1	Amable Type 2
Au grade (g/mt)	Au Recovery (%)			
0.0-0.3	60	40	58	40
0.3-0.5	50*Au grade+45	40	20*Au grade+52	40
0.5-1.0	10*Au grade+65	4*Au grade+38	16*Au grade+54	4*Au grade+38
1.0-1.5	10*Au grade+65	14*Au grade+28	10*Au grade+60	14*Au grade+28
1.5-2.0	10*Au grade+65	14*Au grade+28	10*Au grade+60	14*Au grade+28
2.0-2.5	2*Au grade+81	14*Au grade+28	80	56
2.5-3.0	2*Au grade+81	14*Au grade+28	80	56
3	87	70	80	56
	Ag Recovery (%)			
	6.5	6.5	9	9

A total of 75 heap leach test columns were completed at the end of the 2000/2001 metallurgical program. A number of crush sizes including 6 mm, 19 mm, 32 mm and 50 mm have been evaluated and compared to the cyanidation bottle results at grinds of 1.7 mm (10 mesh) and 74 µm. A series of heap leach column extraction profiles for Amable, Cuatro Esquinas, Filo Federico and Filo Mario were produced.

Gold extraction trends from 28 heap leach columns indicate that similar gold recoveries are achievable at a 32 mm crush size compared with a 19 mm crush size Permeability tests, evaluating solids hydraulic conductivity against increasing stack height, indicate that acceptable hydraulic permeabilities above 0.01 cm/s could be maintained at nominal 19 mm or 32 mm crush sizes and simulated heap heights up to 150 m.

16.6. Run-of-Mine Material Tests

It is currently planned that a significant tonnage of ROM ore, originating from the Filo Federico zone, may go directly to the leach pad or may be crushed depending on the economics and crusher availability at the time of mining. A single large bulk sample of ROM ore was dug from the surface outcrop of the Filo Mario portion of Filo Federico. The material had a top size of 180 mm and 80 % of the particles were smaller than 120 mm. Based on geological and mineralogical considerations, Filo Mario and Filo Federico are expected to have similar leach characteristics. The single column leach test confirmed this.

16.7. Metallurgical Process Selection

The selected process for the Veladero Project is a conventional two stage crushing circuit, with a valley-fill heap leach. The Merrill-Crowe zinc precipitation process has been selected for gold and silver recovery. The results from metallurgical testwork indicate that slightly reduced gold recoveries would be expected, when comparing heap leaching to grinding and agitation leaching, for the majority of the mineralization contained in the Veladero deposit. Despite the lower gold recovery, however, lower capital costs, lower operating costs, and reduced operational, environmental and financial risk, favour the heap leach option, particularly at current gold prices.

Heap leaching in cold climates presents some challenges. By evaluating successful strategies in existing operations, it is believed that the Veladero Project can be successfully constructed and operated. Some key design points include the following.

- Use of valley-fill heap leach
- Use of insulated and self-draining lines.

16.8. Process Design Criteria

The operation is designed to crush 36,000 dry t/d with exess capacity available to crush lower-grade ROM material depending on the economics and crusher availability at the time of mining. The mine and crusher are designed to operate on a 24- hours-per-day, 7-days-per-week and 350-days-per-year basis. The utilization factors used for the calculation of the nominal hourly flow rates are 80 % for crushing and overland conveying and 95 % for the remainder of the process facilities.

An open circuit secondary crushing plant, operating with scalping screens to produce a crush size of approximately 100 % passing 32 mm, has been selected.

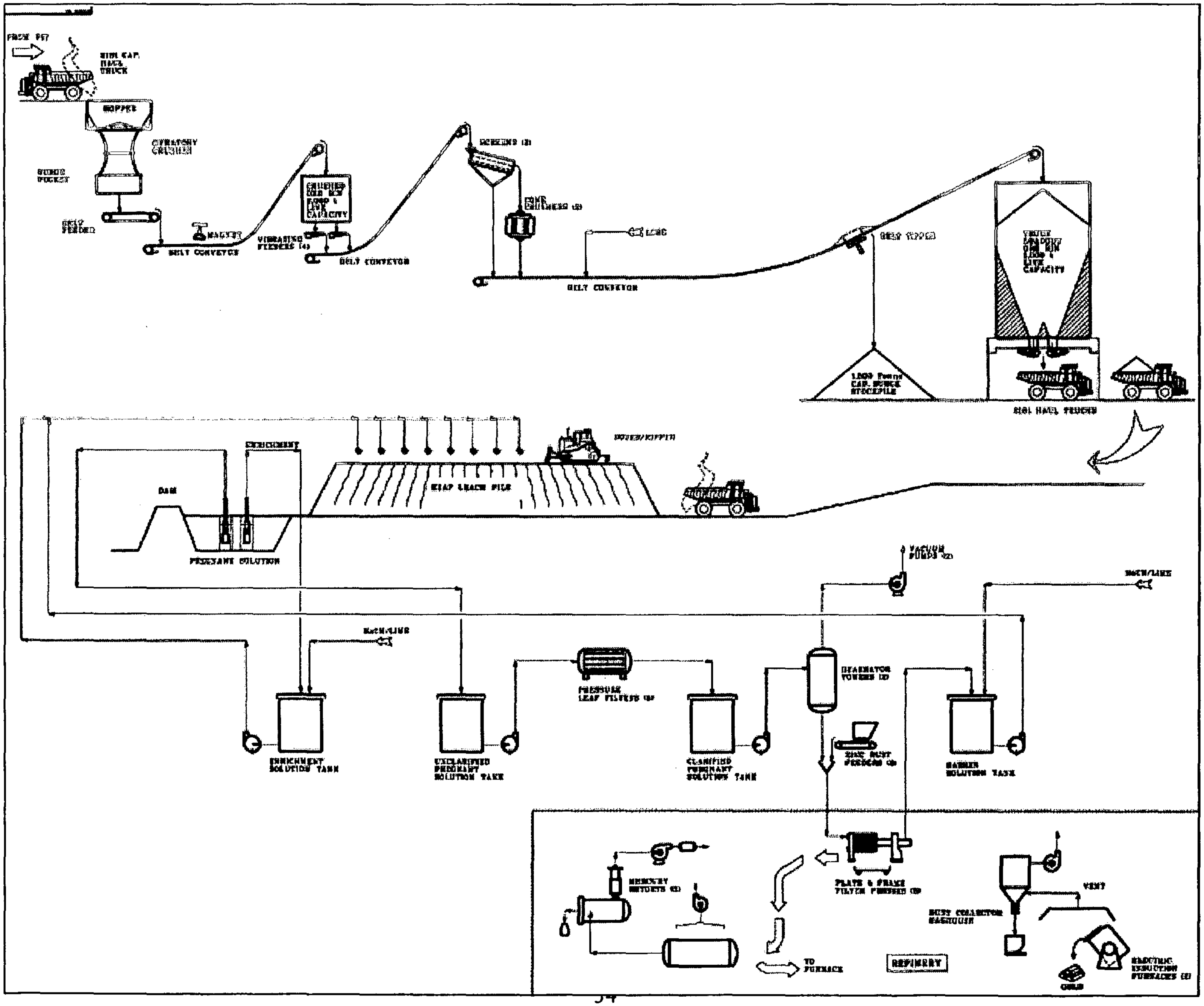
16.9. Process Description

A simplified flowsheet of the metallurgical process selected for the Veladero Project is provided in Figure 16.9-1. ROM ore is transported from the mine by haulage trucks to the crusher plant. The crushed product, dosed with lime for pH control, is withdrawn from a storage bin and fed to haul trucks for transport and direct dumping on the heap leach pad, in a series of 10-m lifts.

Barren solution is applied to the ore. Pregnant solution is collected inside the valley-fill dam wall and pumped to the Merrill-Crowe circuit for processing. The unclarified pregnant solution is filtered, deaerated and pumped to the zinc precipitate filter presses. Zinc dust and lead nitrate are added to the deaerated solution at the delivery lines of the filter press feed pumps. The solution in the barren solution tank is dosed with cyanide and antiscalant and the pH is adjusted with slaked lime after which it is pumped back to the heap leach pile.

The precipitate is transported to the retort area for mercury removal and collection. The retorted precipitate is then mixed with flux and smelted. Molten precious metal is poured into bullion moulds each containing 1,000 troy ounces. The doré bars produced from the bullion moulds are shipped off-site, for refining into saleable gold and silver. Reagents used are sodium cyanide, lime, antiscalant and fluxes. The utilities provided are compressed air, diesel, gasoline and water. The fresh water supply is taken from an infiltration gallery located at Rio de las Taguas.

Figure 16.9-1: Veladero Process Flow Sheet



17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1. Geologic Modeling

Principal components of the Veladero geologic model are lithology, alteration, and mineralization shapes. Details of these modeling parameters are presented in Section 17.12

A structural model exists for Veladero, based on recognition or interpretation of discrete structures or structural zones identified through surface mapping, drill core and chip logging, underground geologic mapping, aerial photo analysis, and inferences from geophysical data. However, confidence in this structural model is low, principally because the predominance of reverse circulation drill information in the database (88% of total meters) and the abundance of primary fragmental rocks (pyroclastic and hydrothermal breccias) at Veladero make it difficult to interpret and correlate structural features from hole to hole or section to section. The structural model will become better developed as bench mapping is accomplished during pre-stripping and mining.

The geologic model is constructed from drill hole log data which originally were recorded in hard copy, then transferred into a digital database. Beginning in 2004, some drill hole logs were recorded digitally using GVMapper software.

Eight master sections at several orientations were constructed through Amable and Filo Federico, and lithologic contacts interpreted from subsurface data were mapped onto these sections and digitized. These sections were rectified with surface mapping data, and infill sections were then constructed from additional drill data, and contacts again were digitized, then adjusted from section to section. At the same time four master level plans were generated through the deposit and corrected against the sections. Ultimately, 57 vertical east-west lithologic sections at 50 meter spacing were generated in a digital format, so that three-dimensional shapes could be defined for the constituent lithologic units. Throughout this process, geologic interpretations were refined, and in some cases varying logged lithologies were lumped or simplified to allow coherent modeling. The most widely-used lithologic logging format in the drill database involved 17 defined lithologies, which were lumped into six units for the lithologic model.

A similar modeling process involving rectified alteration sections and plans was used to generate the alteration model, allowing construction of three-dimensional alteration shapes.

17.2. Assay Data Statistics

Basic statistical summaries for the Veladero drill hole and decline channel assay database are shown in Tables 17.2-1 and 17.2-2. Statistics were calculated separately for mineralization groups and geographic areas. Gold grades have fairly high coefficients of variation (COV, defined as Standard Deviation÷Mean), usually >3.0. Silver grades show less variability, with COVs generally <2.0. Gold and silver grades are noticeably higher at Amable, and are noticeably lower in the Cuatro Esquinas and Agostina areas.

Table 17.2-1: Raw Drill Hole & Decline Channel Assay Statistics: Gold

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation
No Capping						
All Samples	257,980	0.404	0.002	476.00	2.66	6.59
Inside Mineralization Zone	77,579	1.219	0.002	476.00	4.69	3.85
Outside Mineralization Zone	180,401	0.054	0.002	61.60	0.29	5.41
Filo Federico	110,041	0.493	0.002	363.00	2.51	5.09
Filo Norte	30,477	0.243	0.002	241.28	1.61	6.61
Filo Mario	6,578	0.307	0.002	23.58	0.84	2.75
Cuatro Esquinas	18,324	0.221	0.002	50.88	0.90	4.06
Amable	37,890	0.778	0.002	476.00	4.92	6.33
Zone 203	9,314	0.460	0.002	32.88	1.63	3.55
Agostina	5,380	0.211	0.002	14.10	0.67	3.17

Table 17.2-2: Raw Drill Hole & Decline Channel Assay Statistics: Silver

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation
No Capping						
All Samples	257,980	8.23	0.05	4074.1	22.2	2.7
Inside Mineralization Zone	77,579	43.29	0.05	4074.1	48.1	1.1
Outside Mineralization Zone	180,401	4.40	0.05	1650.5	11.6	2.6
Filo Federico	110,041	8.90	0.05	4074.1	21.0	2.4
Filo Norte	30,477	7.62	0.05	1084.9	22.6	3.0
Filo Mario	6,578	12.58	0.05	260.0	18.4	1.5
Cuatro Esquinas	18,324	5.79	0.05	633.1	12.5	2.2
Amable	37,890	13.98	0.05	792.0	26.3	1.9
Zone 203	9,314	8.70	0.05	651.8	27.3	3.1
Agostina	5,380	4.02	0.05	244.0	11.1	2.8

17.3. Assay Capping and Effects

The Veladero database was examined for the presence of local high grade outliers that might adversely impact the quality of the resource estimate, and would require the assays grades to be capped. Cumulative frequency distribution curves were created for gold and silver assays in each of the main mineralized zones. Mineralization in the north area (Filo Federico, Filo Norte, Filo Mario, and Cuatro Esquinas) was analyzed separately from the south area (Amable, Zone 203, and Agostina), and frequency distribution curves are presented in Figures 17.3-1 through 17.3-4.

For gold, the cumulative frequency plots indicate that the population was near lognormal with no obvious population breaks. The grade-frequency trend begins to break up at the highest-grade portion of the distribution, but this occurs above the 99.5th percentile. It was determined to cap individual gold assays at 100 g/t Au in the north area and 70 g/t Au in the south area. Capping was conducted on raw data prior to compositing.

Silver data shows a possible bimodal distribution with a break around 10 g/t is in the north area and 30 g/t in the south area. Based on the cumulative frequency plot, individual silver assays were capped at 200 g/t for all Veladero data. This occurs above the 99.9th percentile.

Tables 17.3-1 and 17.3-2 summarize the raw sample gold and silver assay statistics after applying the high-grade caps. Gold grade capping reduced mean gold grades within the mineralization envelope by 2.5% overall, and by 1% at Filo Federico, 2% at Filo Norte, and 6% at Amable, with other zones showing negligible changes. Silver grade capping reduced the mean silver grade of all

samples within the mineralized envelope by 2.7%, with the largest reductions occurring at Zone 203 (5%) and at Filo Norte (4%).

Tables 17.3-3 and 17.3-4 summarize the raw assays at economic cutoff grades. At these cutoff grades, the higher gold and silver values persisted at Amable. After capping and applying an economic cutoff, gold assay COVs remained fairly high (~2), while silver COVs decreased to <1.

Figure 17.3-1: North Area Raw Assay Cumulative Frequency Plot Gold

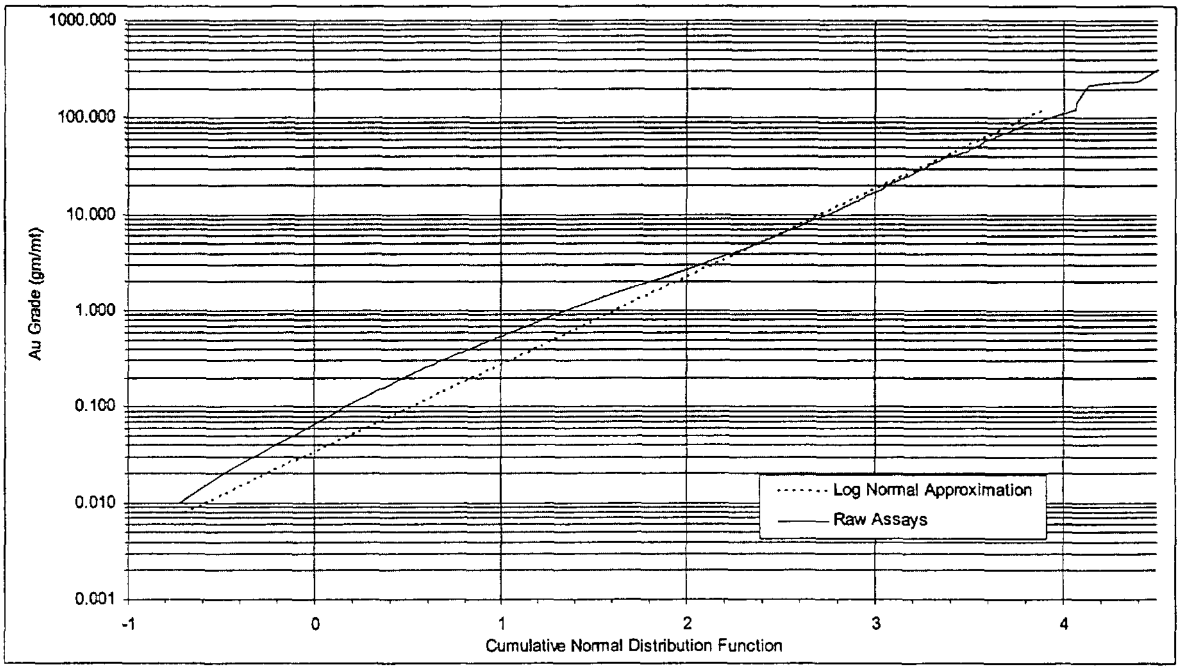


Figure 17.3-2: South Area Raw Assay Cumulative Frequency Plot Gold

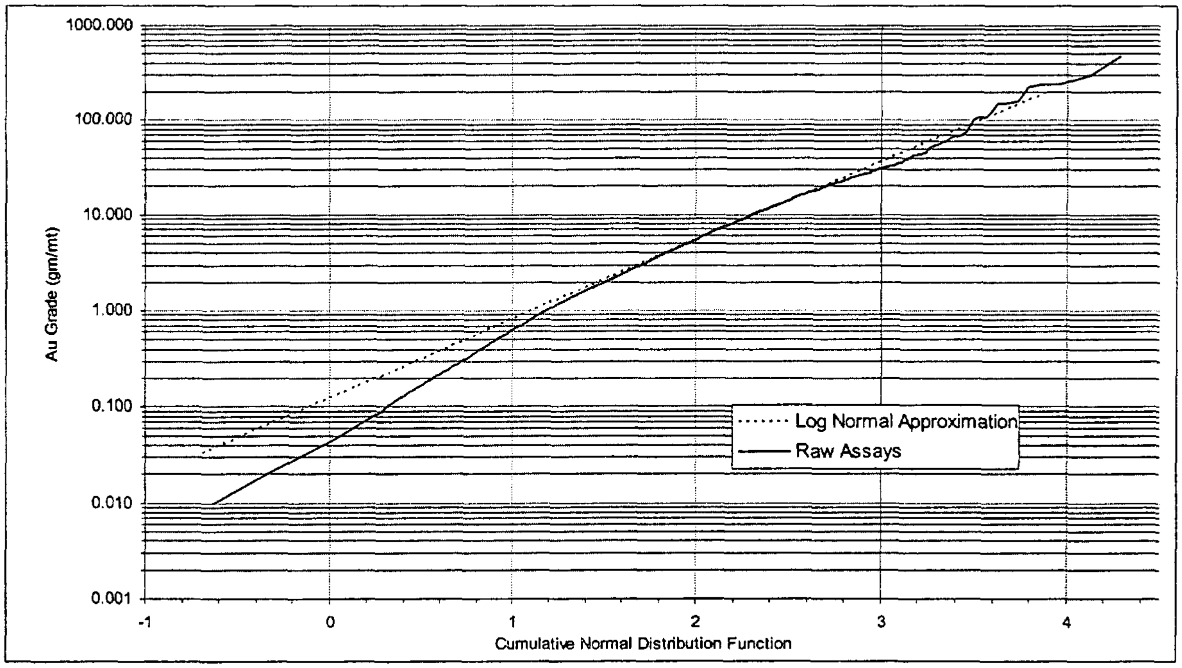


Figure 17.3-3: North Area Raw Assay Cumulative Frequency Plot Silver

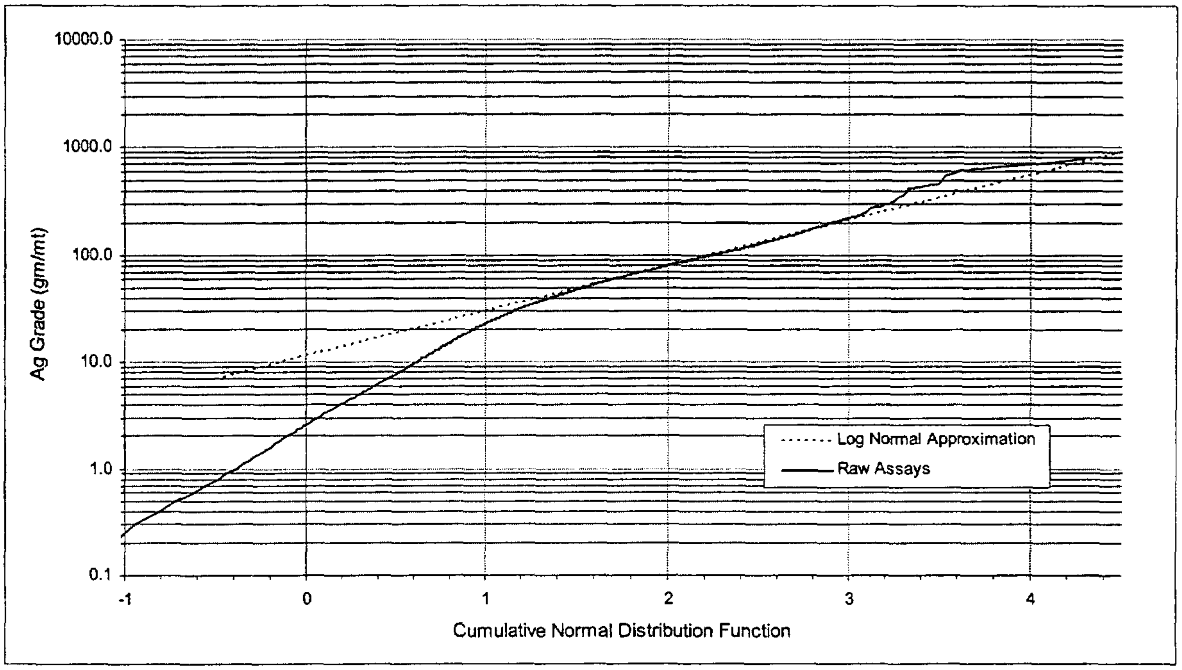


Figure 17.3-4: South Area Raw Assay Cumulative Frequency Plot Silver

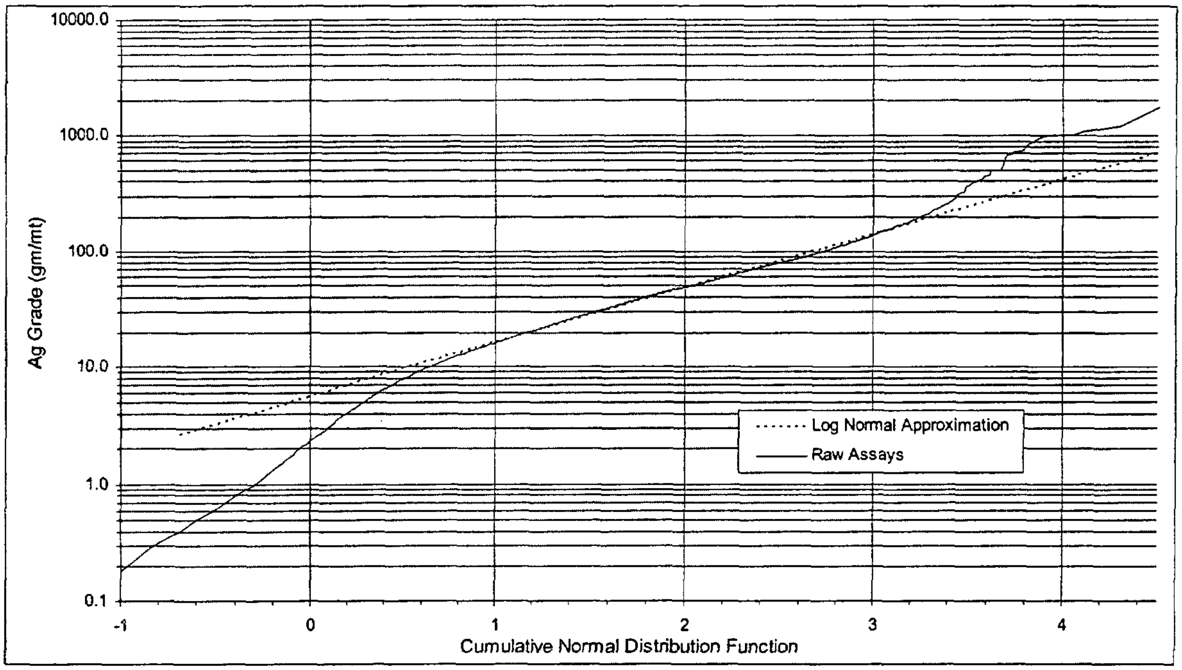


Table 17.3-1: Raw Drill Hole & Decline Channel Assay Statistics Gold

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation	Mean Change %
With Capping							
All Samples	257,980	0.395	0.002	100.00	1.92	4.85	-2.30%
Inside Mineralization Zone	77,579	1.189	0.002	100.00	3.30	2.78	-2.47%
Outside Mineralization Zone	180,401	0.053	0.002	61.60	0.29	5.44	-0.62%
Filo Federico	110,041	0.488	0.002	100.00	2.07	4.24	-1.04%
Filo Norte	30,477	0.238	0.002	100.00	0.96	4.03	-1.93%
Filo Mario	6,578	0.306	0.002	23.58	0.84	2.75	-0.15%
Cuatro Esquinas	18,324	0.221	0.002	50.88	0.90	4.07	-0.02%
Amable	37,890	0.735	0.002	70.00	3.04	4.13	-5.59%
Zone 203	9,314	0.460	0.002	32.88	1.63	3.55	-0.04%
Agostina	5,380	0.210	0.002	14.10	0.67	3.18	-0.24%

Table 17.3-2: Raw Drill Hole & Decline Channel Assay Statistics Silver

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation	Mean Change %
With Capping							
All Samples	257,980	8.01	0.05	200.0	16.3	2.0	-2.68%
Inside Mineralization Zone	77,579	42.12	0.05	200.0	28.7	0.7	-2.72%
Outside Mineralization Zone	180,401	4.28	0.05	200.0	7.6	1.8	-2.64%
Filo Federico	110,041	8.79	0.05	200.0	14.4	1.6	-1.21%
Filo Norte	30,477	7.29	0.05	200.0	16.0	2.2	-4.34%
Filo Mario	6,578	12.56	0.05	200.0	18.2	1.5	-0.12%
Cuatro Esquinas	18,324	5.71	0.05	200.0	10.1	1.8	-1.36%
Amable	37,890	13.78	0.05	200.0	23.4	1.7	-1.44%
Zone 203	9,314	8.26	0.05	200.0	21.6	2.6	-5.05%
Agostina	5,380	4.00	0.05	200.0	10.9	2.7	-0.41%

Table 17.3-3: Raw Drill Hole & Decline Channel Assay Statistics Gold (0.3 G/T Cutoff)

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation	Mean Change %
No Capping							
All Samples	55,602	1.666	0.300	476.000	5.503	3.303	
Inside Mineralization Zone	52,636	1.714	0.300	476.000	5.627	3.283	
Outside Mineralization Zone	2,966	0.810	0.300	61.600	2.099	2.590	
Filo Federico	32,420	1.498	0.300	363.000	4.471	2.985	
Filo Norte	5,502	1.021	0.300	241.280	3.740	3.663	
Filo Mario	1,441	1.202	0.300	23.580	1.519	1.264	
Cuatro Esquinas	2,675	1.192	0.300	50.880	2.101	1.762	
Amable	10,550	2.630	0.300	476.000	9.074	3.450	
Zone 203	1,567	2.486	0.300	32.880	3.288	1.323	
Agostina	596	1.606	0.300	14.100	1.875	1.168	
With Capping							
All Samples	55,602	1.624	0.300	100.000	3.849	2.370	-2.53%
Inside Mineralization Zone	52,636	1.670	0.300	100.000	3.918	2.346	-2.59%
Outside Mineralization Zone	2,966	0.810	0.300	61.600	2.099	2.591	-0.01%
Filo Federico	32,420	1.481	0.300	100.000	3.620	2.445	-1.14%
Filo Norte	5,502	0.995	0.300	100.000	2.133	2.143	-2.51%
Filo Mario	1,441	1.202	0.300	23.580	1.519	1.264	0.00%
Cuatro Esquinas	2,675	1.192	0.300	50.880	2.101	1.762	0.00%
Amable	10,550	2.474	0.300	70.000	5.380	2.174	-5.93%
Zone 203	1,567	2.486	0.300	32.880	3.288	1.323	0.00%
Agostina	596	1.606	0.300	14.100	1.875	1.168	0.00%

Table 17.3-4: Raw Drill Hole & Decline Channel Assay Statistics Silver (10 G/T Cutoff)

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation	Mean Change %
No Capping							
All Samples	58,546	29.68	10.00	4074.10	39.30	1.32	
Inside Mineralization Zone	24,775	44.22	10.00	4074.10	48.38	1.09	
Outside Mineralization Zone	33,771	19.00	10.00	1650.51	25.72	1.35	
Filo Federico	31,521	25.41	10.00	4074.10	33.83	1.33	
Filo Norte	5,494	32.99	10.00	1084.90	46.65	1.41	
Filo Mario	2,975	23.99	10.00	260.00	22.08	0.92	
Cuatro Esquinas	3,341	21.39	10.00	633.09	22.88	1.07	
Amable	12,171	37.88	10.00	792.00	36.02	0.95	
Zone 203	1,560	42.96	10.00	651.82	54.47	1.27	
Agostina	526	33.46	10.00	244.00	28.30	0.85	
With Capping							
All Samples	58,546	28.70	10.00	200.00	24.24	0.84	-3.27%
Inside Mineralization Zone	24,775	43.02	10.00	200.00	28.53	0.66	-2.73%
Outside Mineralization Zone	33,771	18.20	10.00	200.00	12.10	0.66	-4.21%
Filo Federico	31,521	25.03	10.00	200.00	18.50	0.74	-1.48%
Filo Norte	5,494	31.16	10.00	200.00	27.73	0.89	-5.55%
Filo Mario	2,975	23.96	10.00	200.00	21.71	0.91	-0.13%
Cuatro Esquinas	3,341	20.96	10.00	200.00	15.73	0.75	-2.01%
Amable	12,171	37.25	10.00	200.00	29.80	0.80	-1.66%
Zone 203	1,560	40.34	10.00	200.00	38.70	0.96	-6.10%
Agostina	526	33.29	10.00	200.00	27.16	0.82	-0.50%

17.4. Compositing Methods

Prior to creating assay composites, various composite lengths were reviewed with respect to gold grade, dilution, and metal loss. Total thickness, gold grade, grade-thickness, internal dilution, and metal loss were determined for each composite length at varying gold cutoff grades. Trends for various parameters lacked significant breaks in slope, so an optimum bench height could not be identified. As a result, five-meter downhole composite lengths and resource model block heights were chosen to allow flexibility in selection of block or bench heights during reserve modeling and mine planning.

Raw sample assays were grouped into uniform-length downhole composite assays of 5 meters. If the bottom interval of the hole was <5m, or if sample recovery problems resulted in assay gaps or partial composites of <5m, a weighting factor from an adjacent complete composite was assigned to the incomplete composite. This weighting factor was considered in the sample statistics and in the block modeling

Similar to the model block, each assay composite was assigned a code indicating if it was within or outside of the mineralized envelope. A separate code was used to designate a geographic area of the deposit. Gold and silver statistics were calculated for all assay composites and are summarized in Tables 17.4-1 and 17.4-2.

Table 17.4-1: Five-Meter Composite Assay Statistics Gold

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation	Mean Change %
No Capping							
All Samples	257,974	0.404	0.002	133.400	1.915	4.738	
Inside Mineralization Zone	77,115	1.230	0.002	133.400	3.352	2.724	
Outside Mineralization Zone	180,859	0.052	0.002	43.600	0.160	3.075	
Filo Federico	103,764	0.522	0.002	109.252	1.986	3.806	
Filo Norte	19,534	0.351	0.002	50.804	1.079	3.073	
Filo Mario	5,611	0.357	0.002	12.910	0.853	2.390	
Cuatro Esquinas	17,763	0.224	0.002	12.376	0.655	2.928	
Amable	35,415	0.832	0.002	133.400	3.601	4.328	
Zone 203	9,180	0.466	0.002	17.312	1.467	3.145	
Agostina	3,156	0.295	0.002	8.346	0.881	2.988	
With Capping							
All Samples	257,974	0.395	0.002	77.206	1.560	3.946	-2.22%
Inside Mineralization Zone	77,115	1.200	0.002	77.206	2.674	2.228	-2.44%
Outside Mineralization Zone	180,859	0.052	0.002	43.600	0.160	3.075	0.00%
Filo Federico	103,764	0.516	0.002	77.206	1.750	3.389	-1.02%
Filo Norte	19,534	0.344	0.002	22.548	0.800	2.324	-2.06%
Filo Mario	5,611	0.357	0.002	12.910	0.853	2.390	0.00%
Cuatro Esquinas	17,763	0.224	0.002	12.376	0.655	2.928	0.00%
Amable	35,415	0.786	0.002	55.360	2.623	3.337	-5.50%
Zone 203	9,180	0.466	0.002	17.312	1.467	3.145	0.00%
Agostina	3,156	0.295	0.002	8.346	0.881	2.988	0.00%

Table 17.4-2: Five-Meter Composite Assay Statistics Silver

Zone	Total Metres	Mean g/t	Min g/t	Max g/t	Standard Deviation	Coefficient of Variation	Mean Change %
No Capping							
All Samples	257,976	8.23	0.05	4074.10	19.95	2.42	
Inside Mineralization Zone	25,338	43.19	1.62	4074.10	36.89	0.85	
Outside Mineralization Zone	232,638	4.42	0.05	1173.19	12.06	2.73	
Filo Federico	103,764	9.39	0.05	4074.10	17.92	1.91	
Filo Norte	19,534	11.22	0.05	804.60	25.04	2.23	
Filo Mario	5,611	14.68	0.05	176.77	16.74	1.14	
Cuatro Esquinas	17,763	5.94	0.05	254.86	10.43	1.76	
Amable	35,415	14.94	0.05	336.80	23.65	1.58	
Zone 203	9,180	8.80	0.05	345.84	23.56	2.68	
Agostina	3,156	6.56	0.05	128.80	15.07	2.30	
With Capping							
All Samples	257,976	8.01	0.05	200.00	15.35	1.92	-2.68%
Inside Mineralization Zone	25,338	42.08	1.62	200.00	24.71	0.59	-2.57%
Outside Mineralization Zone	232,638	4.30	0.05	200.00	7.40	1.72	-2.80%
Filo Federico	103,764	9.28	0.05	200.00	14.01	1.51	-1.21%
Filo Norte	19,534	10.71	0.05	200.00	18.21	1.70	-4.54%
Filo Mario	5,611	14.66	0.05	169.68	16.59	1.13	-0.12%
Cuatro Esquinas	17,763	5.86	0.05	176.23	9.29	1.59	-1.36%
Amable	35,415	14.73	0.05	200.00	22.23	1.51	-1.44%
Zone 203	9,180	8.36	0.05	196.50	19.65	2.35	-5.06%
Agostina	3,156	6.53	0.05	112.40	14.86	2.27	-0.42%

17.5. Composite Summary Statistics by Geologic Groups

Frequency distribution plots were calculated for gold and silver using 5-meter composites and selecting only those composites within the mineralized zone. These were compared to the gold and silver assay distributions for individual raw assays within the mineralized zone. No bias was observed between the raw assays and the composites (Figures 17.5-1 and 17.5-2)

17.6. Variography

The 5-meter composite assays were used to develop grade correlograms and indicator variograms for gold and silver at Amable and Filo Federico. The correlograms and variograms were calculated using all possible directions and all sample composite data. The resulting correlograms are shown in Figures 17.6-1 through 17.6-4. The correlograms and indicator variograms for gold and silver show fairly good spatial continuity, with low nugget-to-sill ratios and effective ranges greater than 60 meters.

Figure 17.5-1: Frequency Distribution of Raw Assays & 5m Composites Gold

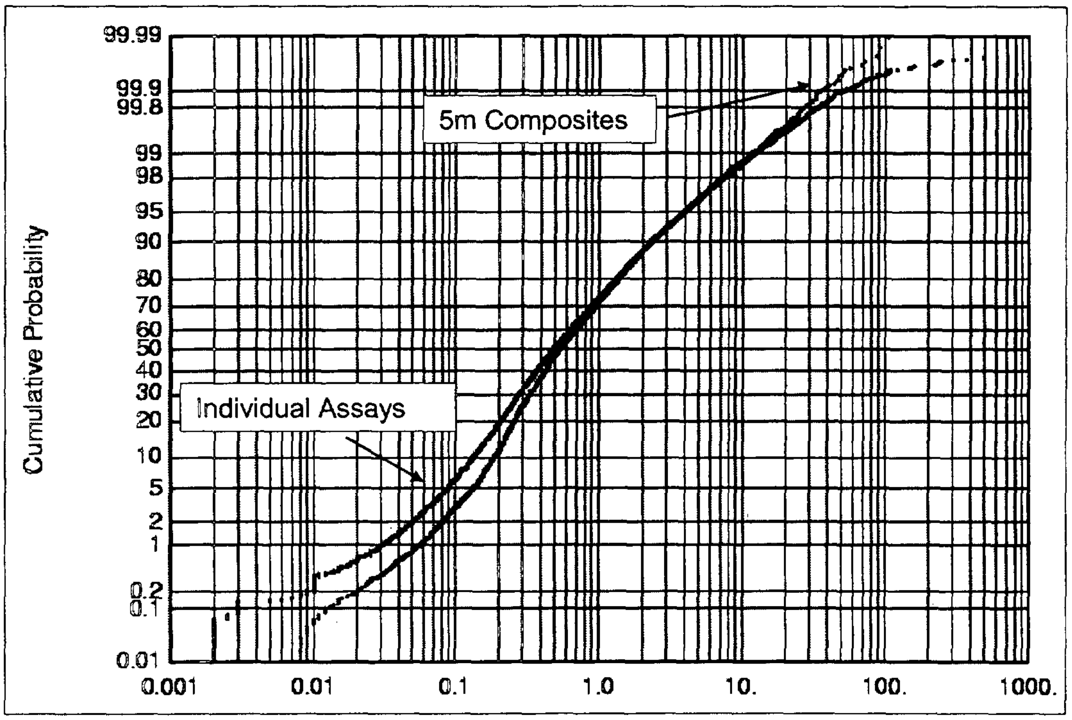


Figure 17.5-2: Frequency Distribution of Raw Assays & 5m Composites Silver

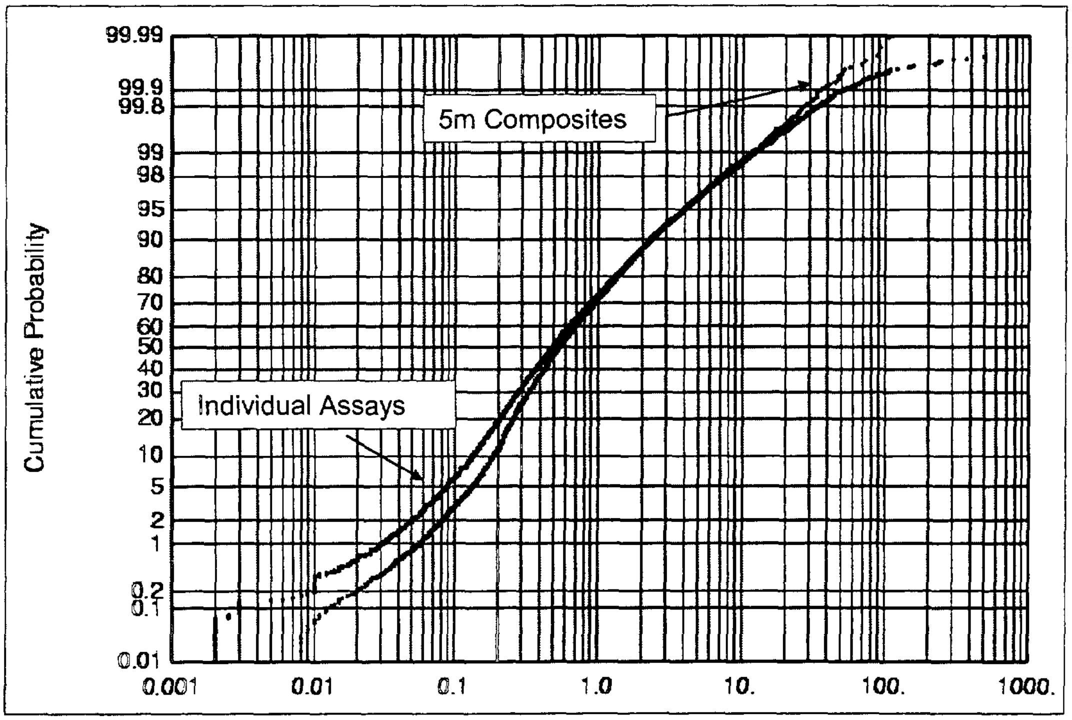
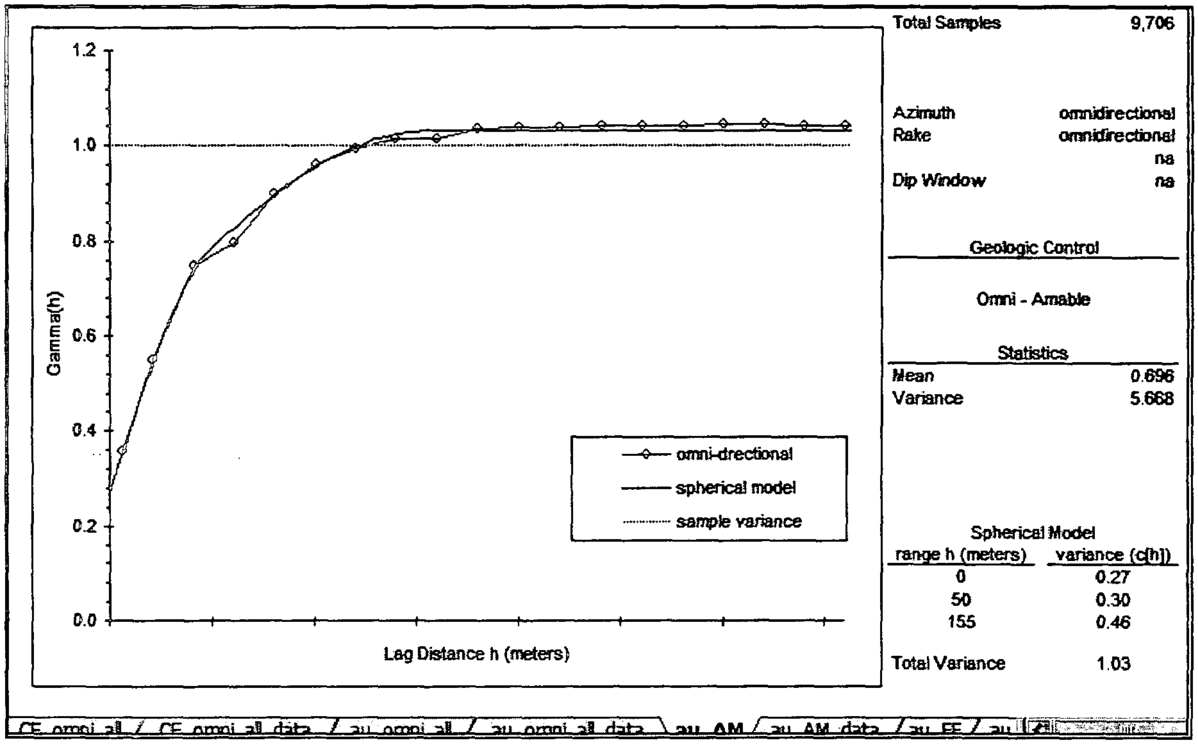


Figure 17.6-1: Amable Gold Correlogram 5m Composites



Total Samples	9,706
Azimuth	omnidirectional
Rake	omnidirectional
	na
Dip Window	na

Geologic Control

Omni - Amable

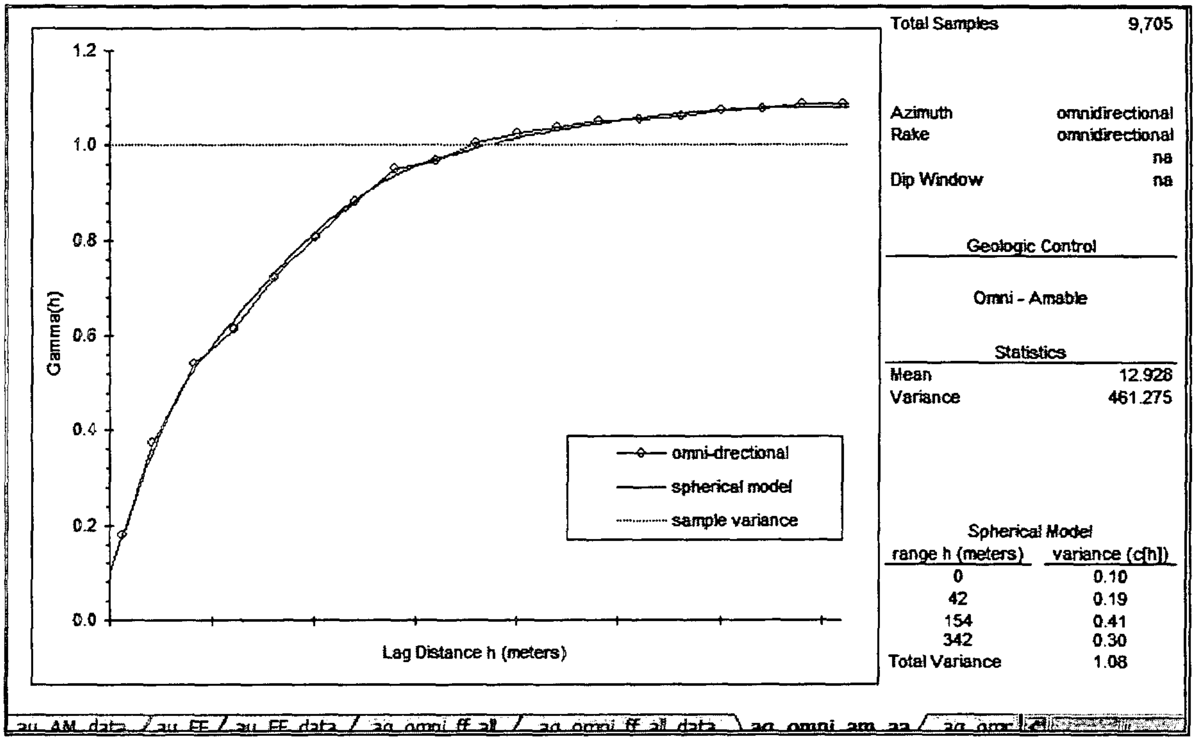
Statistics

Mean	0.696
Variance	5.668

Spherical Model

range h (meters)	variance (c[h])
0	0.27
50	0.30
155	0.46
Total Variance	1.03

Figure 17.6-2: Filo Federico Gold Correlogram 5m Composites



Total Samples	9,705
Azimuth	omnidirectional
Rake	omnidirectional
	na
Dip Window	na

Geologic Control

Omni - Amable

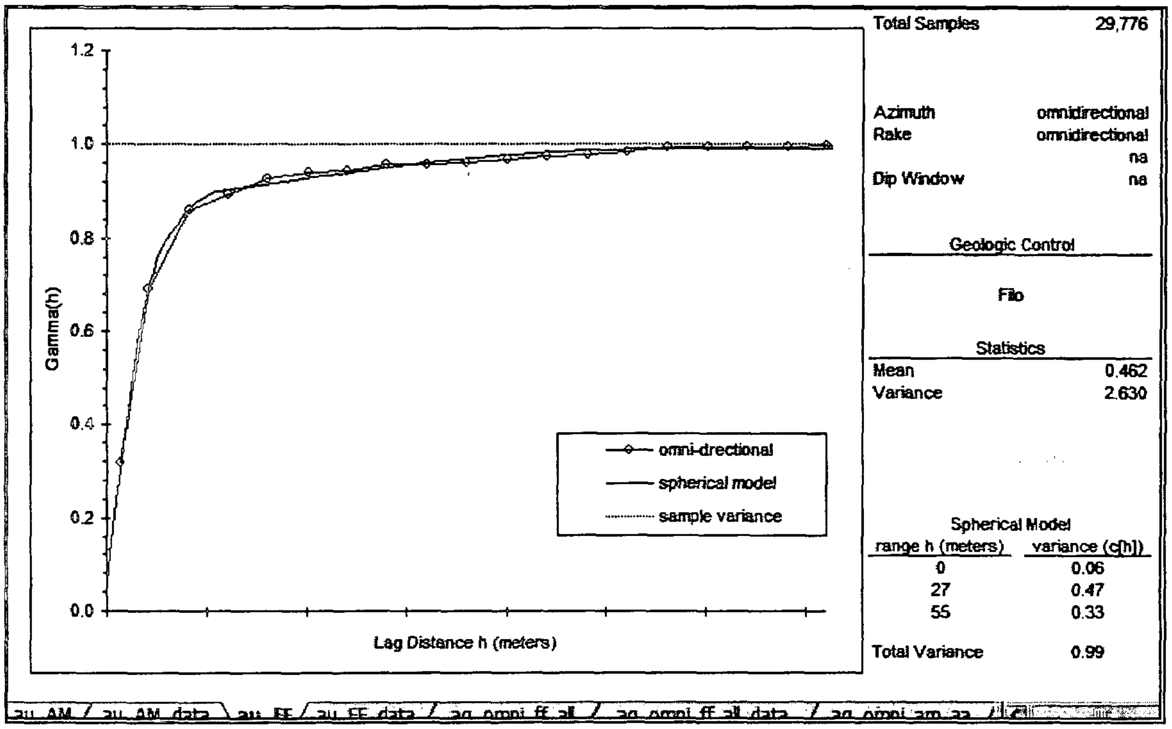
Statistics

Mean	12.928
Variance	461.275

Spherical Model

range h (meters)	variance (c[h])
0	0.10
42	0.19
154	0.41
342	0.30
Total Variance	1.08

Figure 17.6-3: Amable Silver Correlogram 5m Composites



Total Samples	29,776
Azimuth	omnidirectional
Rake	omnidirectional
	na
Dip Window	na

Geologic Control

Filo

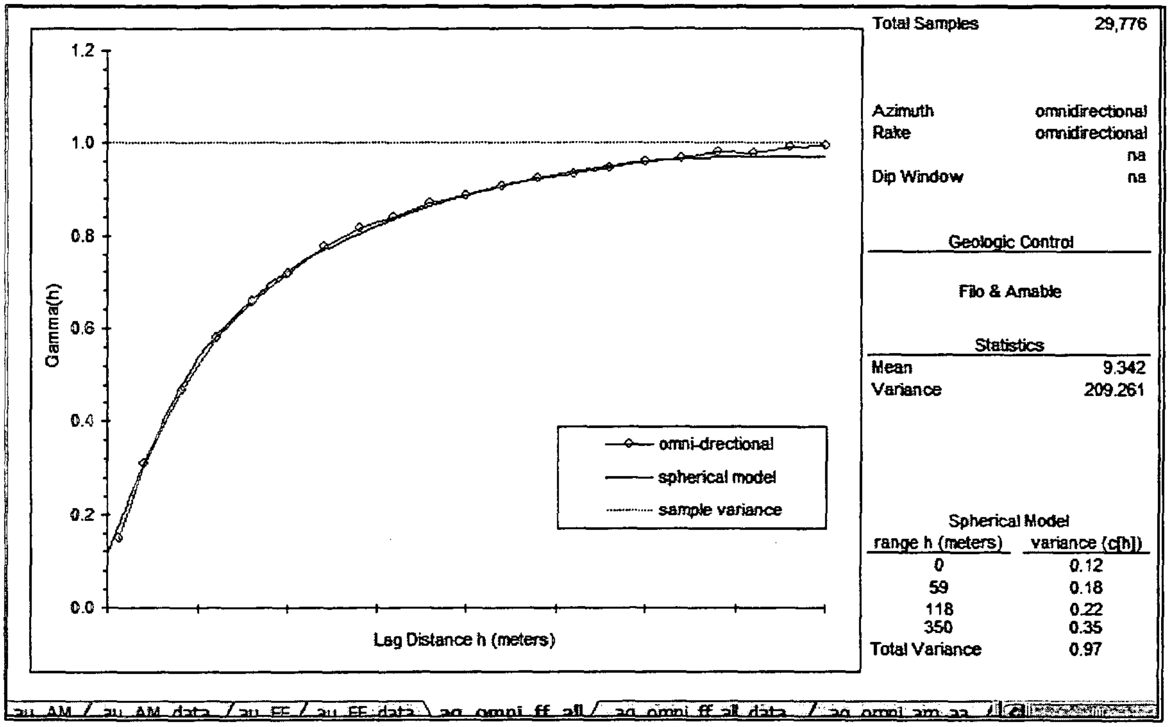
Statistics

Mean	0.462
Variance	2.630

Spherical Model

range h (meters)	variance (c[h])
0	0.06
27	0.47
55	0.33
Total Variance	0.99

Figure 17.6-4: Filo Federico Silver Correlogram 5m Composites



Total Samples	29,776
Azimuth	omnidirectional
Rake	omnidirectional
	na
Dip Window	na

Geologic Control

Filo & Amable

Statistics

Mean	9.342
Variance	209.261

Spherical Model

range h (meters)	variance (c[h])
0	0.12
59	0.18
118	0.22
350	0.35
Total Variance	0.97

17.7. Block Model Geometry

The three-dimensional block model for the Veladero resource was created using the following model limits and block dimensions:

Table 17.7-1: Veladero Block Model Geometry

		Description	
Parameter	Direction	Model 0604_05m	Model 0604_15m
Origin (metres)	East	2405900	2405900
	North	6749596	6749596
	Elevation	3792.5	3792.5
Block Dimensions (metres)	East	5	10
	North	5	10
	Elevation	5	15
Block Length (metres)	East	2900	2900
	North	3800	3800
	Elevation	1160	1200
Rotation (degrees)		None	

17.8. Details of Geologic Model Coding

Project geologists created 3-D solid models to reflect key geological features, grade zones and geographic areas. The geologic solid models were based on sectional interpretations that were digitized and input into Vulcan software for solid modeling.

Lithology

Six lithologic units were modeled, based on lumping or simplification of lithologies noted during drill hole logging or geologic mapping. The lithologic model was developed through construction of control lithologic sections and level plans which were interpolated to interpreted sections spaced at 50m intervals. The modeled lithologic units are summarized in table 17.8-1. The best host rocks for Veladero gold mineralization are pyroclastic breccias, hydrothermal breccia bodies, and felsic tuff units.

Table 17.8-1: Lithologic Classification

SEQUENCE	MODEL UNIT	ROCK TYPE
Overburden	*CO*	***"Colluvium" (Includes actual colluvium, plus soils, talus, landslide debris, glacial deposits, and other overburden)***
Breccia Complex	*B1*	***Stratified pyroclastic rocks and epiclastic sediments***
	B2	***Non-stratified heterolithic phreatomagmatic intrusion breccias occurring as dikes, sills, and irregular pipe-like bodies***
Intrusions	*FP*	***Feldspar porphyry intrusions ± domes; fine-grained equigranular diorite stocks and dik***
Tuffaceous Host Rocks	*FCLT*	***Felsic crystal-lithic tuffs (dacites-rhyolites)***
	MCLT	***Mafic crystal-lithic tuffs with local flow banding (andesites)***

Alteration

Alteration mineralogy is determined qualitatively using a PIMA portable infrared spectrometer, with readings taken every 10 meters on drill core or RC chips. Seven categories of hydrothermal alteration comprise the alteration model, which was generated through interpolation and rectification of control cross sections, longitudinal sections, and level plans to create vertical alteration sections spaced every 25 meters through the deposit. The alteration types and constituent categories are summarized on Table 17.8-2.

Table 17.8-2: Alteration Classification

TYPE	CATEGORY	DESCRIPTION
Steam-Heated Overprint	*STH 1*	***Weak to moderate: quartz, native sulfur ± alunite***
	STH 2	***Strong to intense: quartz, native sulfur***
Silicification	*SIL*	***Massive silicification ± vuggy (residual) silicification ± chalcedony***
Advanced Argillic	*SI-AL*	***Silica-Alunite (quartz>alunite)***
	AL-SI	***Alunite-Silica (alunite>quartz)***
Argillic	*ARG*	***Quartz-illite ± other clay minerals***
Propylitic	*PRO*	***Quartz-chlorite-epidote***

Silicification and advanced argillic alteration are the types of alteration associated with gold mineralization at Veladero. Intense pervasive silicification is the most prominent alteration assemblage in the mineralized zone, and it is best developed at Filo Federico, Cuatro Esquinas, and most of Amable. The advanced argillic alteration assemblage is characterized by presence of silica and alunite in varying proportions, outboard from silicification. Advanced argillic alteration is best developed at Amable.

Steam-heated alteration is a late-stage overprint of powdery to fine-grained massive silica ± native sulfur localized as near-surface tabular zones or isolated patches to continuous haloes around faults or fracture zones. It formed as the result of extreme acid leaching above the paleo water table, and has been subdivided into Regular (STH1) and Intense (STH2). Intense steam-heated alteration is characterized by >30% powdery white silica.

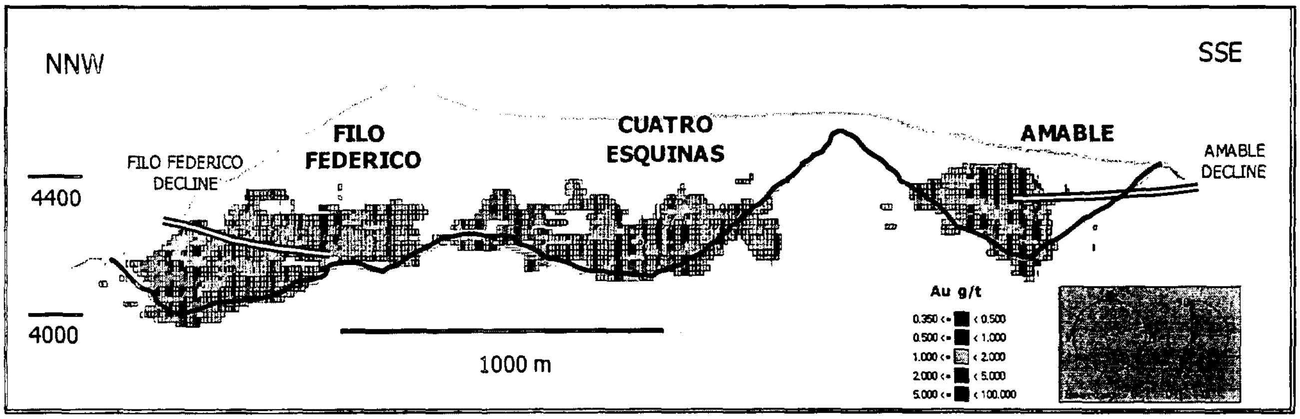
Other hydrothermal alteration types include argillic and propylitic assemblages, which generally are peripheral to the main mineralized zone.

Mineralization Zones

Mineralized envelopes are defined by the outboard limits of 0.2 g/t Au and 25 g/t Ag, and were generated based on the 5m downhole assay composites and underground sampling. Isolines for gold and silver grades are constructed on plans spaced every 5 meters vertically through model block centers, and the isolines are then wireframed to generate three-dimensional solid bodies.

Figure 17.8-2 is a longitudinal section showing the outline of the 0.2 g/t gold envelope and locations of mineralized drill hole composites within the envelope.

Figure 17.8-2: Longitudinal Section Looking N72°E



17.9. Grade Interpolation Parameters

Block gold and silver grades are estimated through separate passes using mineralization zones and alteration as controsl. The filter used in the selection of blocks for interpolation is the same one used to calculate composites. Search parameters are determined by variogram analysis, where the range is >60 m. Search parameters and sample selection criteria for grade estimation are summarized in Tables 17.9-1 and 17.9-2. Gold and silver grades are estimated by a weighted average of the selected composite's assays. Weighting is determined using the inverse distance method at a power of two (ID^2).

Table 17.9-1: Search And Selection Criteria For Grade Estimation Gold

				AXIS (m)			COMPOSITES		Max Composites				
Pass	Bearin (z)	Plunge (y)	Dip (x)	Major	Semi-Major	Minor	min	max	per Drill Hole	Zone	Alteration	Lithologic	Envelope
1	0	0	0	2.5	2.5	2.5	1	99		-	-	-	-
2	330	-10	0	60	60	30	2	3	1	Federico	Silicification Advance Argilic	All units except colluvium	Au Min zone
3				30	30	15	1	3	1				
4				120	120	60	1	3	1				
2	330	-10	0	60	60	30	2	3	1	Federico	Argillic Propylitic	All units except colluvium	Au Min zone
3				30	30	15	1	3	1				
4				120	120	60	1	3	1				
2	45	0	0	60	60	30	2	3	1	Amable	Silicification Advance Argilic	All units except colluvium	Au Min zone
3				30	30	15	1	3	1				
4				120	120	60	1	3	1				
2	45	0	0	60	60	30	2	3	1	Amable	Argillic Propylitic	All units except colluvium	Au Min zone
3				30	30	15	1	3	1				
4				120	120	60	1	3	1				
2	330	0	0	30	30	30	1	5	1	-	All Alteration except Steam headet 2	All units except colluvium	Outside Au Min zone
3													
4													
2	330	0	0	60	60	30	1	3	1	-	Steam Heated 2	-	-
2	330	0	0	30	30	15	2	3	1	-	-	Colluvium	-

Table 17.9-2: Search And Selection Criteria For Grade Estimation Silver

				AXIS			COMPOSITES		Max Composites				
Pass	Bearin (z)	Plunge (y)	Dip (x)	Major	Semi-Major	Minor	min	max	per Drill Hole	Zone	Alteration	Lithologic	Envelope
1	0	0	0	2.5	2.5	2.5	1	99		-	-	-	-
2	45	0	0	60	60	30	2	3	1	-	All alteration except Steam headet 2	All units except colluvium	Ag Min zone
3				30	30	15	1	3	1				
4				120	120	120	1	3	1				
5				300	300	300	1	3	1				
2	45	0	0	60	60	30	2	3	1	-	All alteration except Steam headet 2	All units except colluvium	Outside Ag Min zone
3				30	30	15	1	3	1				
4				120	120	120	1	3	1				
5				300	300	300	1	5	1				
2	45	0	0	300	300	300	1	3	1	-	Steam Heated 2	-	-
2	45	0	0	30	30	15	2	3	2	-	-	Colluvium	-

The official geologic resource model uses blocks of 5×5×5 meters. This model is passed to Engineering, which uses blocks of 10×10×15 meters for reserve modeling and mine planning. Values assigned to each of these large blocks are calculated by averaging grades of the twelve 5×5×5m blocks contained within an individual 10×10×15m block.

17.10. Mineral Resource Classification Method

Each resource block is coded with distance to the nearest assay composite, along with gold+silver grades and codes for lithology and alteration. Within the defined mineralized envelope, the distance criteria use to classify resource blocks into Measured, Indicated, or Inferred categories are as follows:

Measured:	One composite between 0 and 10 m.
Indicated:	One composite each from a minimum of two drill holes within 10 to 60 m, or a single composite within 10 to 20 m.

Inferred: One composite within 60 to 120 m.

Outside of the mineralized envelope, Inferred resources were within 20 meters of a composite. Confidence distances were determined by variogram analysis.

17.11. Basis for Excluding Resources Unlikely to be Mined

The Veladero resource tabulation only considers those blocks which have a reasonable chance of being mined if gold prices should increase or operating costs decrease relative to the reserve parameters being used. Presently this resource tabulation only includes those blocks which are within the $400 pit designed on Measured, Indicated, and Inferred resources.

Resource blocks outside the $400 pit may not be mined, especially if they are deep, or are spatially isolated from other resource blocks. These low-potential resource blocks may be a result of low sample density (widely spaced drill holes), or they may reflect an actual diminution in the quality of mineralization (lower grade and/or continuity).

17.12. Resource and Reserve Summary

Veladero Resources and Reserves at December 31, 2004 are summarized in Tables 17.12-1 and 1712-2.

Table 17.12-1: Veladero Minable Reserves

	PROVEN			PROBABLE			TOTAL			Silver Contained in Proven and Probable Gold Reserves		
	Tons	Grade *(oz/t)*	Ounces	Tons	Grade *(oz/t)*	Ounces	Tons	Grade *(oz/t)*	Ounces	Tons	Grade *(oz/t)*	Ounces
Open Pit												
Open Pit Sub-total	**21,117**	**0.038**	**795**	**375,211**	**0.032**	**12,050**	**396,328**	**0.032**	**12,845**	**396,328**	**0.505**	**200,237**
Stockpiles												
Cartelleone DCF Process Area	52	0.025	1				52	0.025	1	52	0.461	24
Curva Federico	50	0.011	1				50	0.011	1	50	0.329	16
Curva Vizcacha	35	0.037	1				35	0.037	1	35	0.571	20
Lucia	18	0.011	0				18	0.011	0	18	0.329	6
Tunnel Federico	35	0.037	1				35	0.037	1	35	0.571	20
Stockpiles Sub-total	**189**	**0.024**	**5**				**189**	**0.024**	**5**	**189**	**14.131**	**86**
Veladero Total	**21,306**	**0.038**	**799**	**375,211**	**0.032**	**12,050**	**396,517**	**0.032**	**12,850**	**396,517**	**0.505**	**200,323**

Table 17.12-2: Veladero Gold Resources Exclusive of Reserves

MEASURED (M)			INDICATED (I)			TOTAL (M) + (I)			INFERRED		
Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)	Tons (x1000)	Grade *(oz/t)*	Ounces (x1000)
1,092	**0.020**	**22**	**20,712**	**0.021**	**427**	**21,804**	**0.021**	**449**	**63,110**	**0.017**	**1,045**

18.0 OTHER RELEVANT DATA AND INFORMATION

There are no other relevant data or information to be included in this report.

19.0 REQUIREMENTS FOR TECHNICAL REPORTS ON PRODUCTION AND DEVELOPMENT PROPERTIES

19.1. Mining and Mineable Reserves

The mineable reserves, mine design, mine planning, and mine capital and operating cost estimates were prepared by Barrick staff and outside consultants under the direction of Barrick staff, based on the information and design criteria outlined below. The wall slope design recommendations were prepared by an outside geotechnical consulting firm.

There will be two primary operating areas at the mine, the Amable and Filo Federico pits. As shown in the general site layout, Figure 19.1-1, waste will be stored in two valleys, the Potrerillo and Canito valleys, adjacent to each of the primary mining areas, as well as within the Amable pit and part of the Filo Federico pit after their depletion. The open pits cover an area of 240,000 m^2. The area affected by the waste dumps is 490,000 m^2.

The primary crusher site is at elevation 3,980 m in the Potrerillo valley, south of the Amable pit. The secondary crushing facility and the leach pad are located adjacent to the primary crusher. The mine shop and facilities are located to the southeast of the crusher at an elevation of 4,025 m.

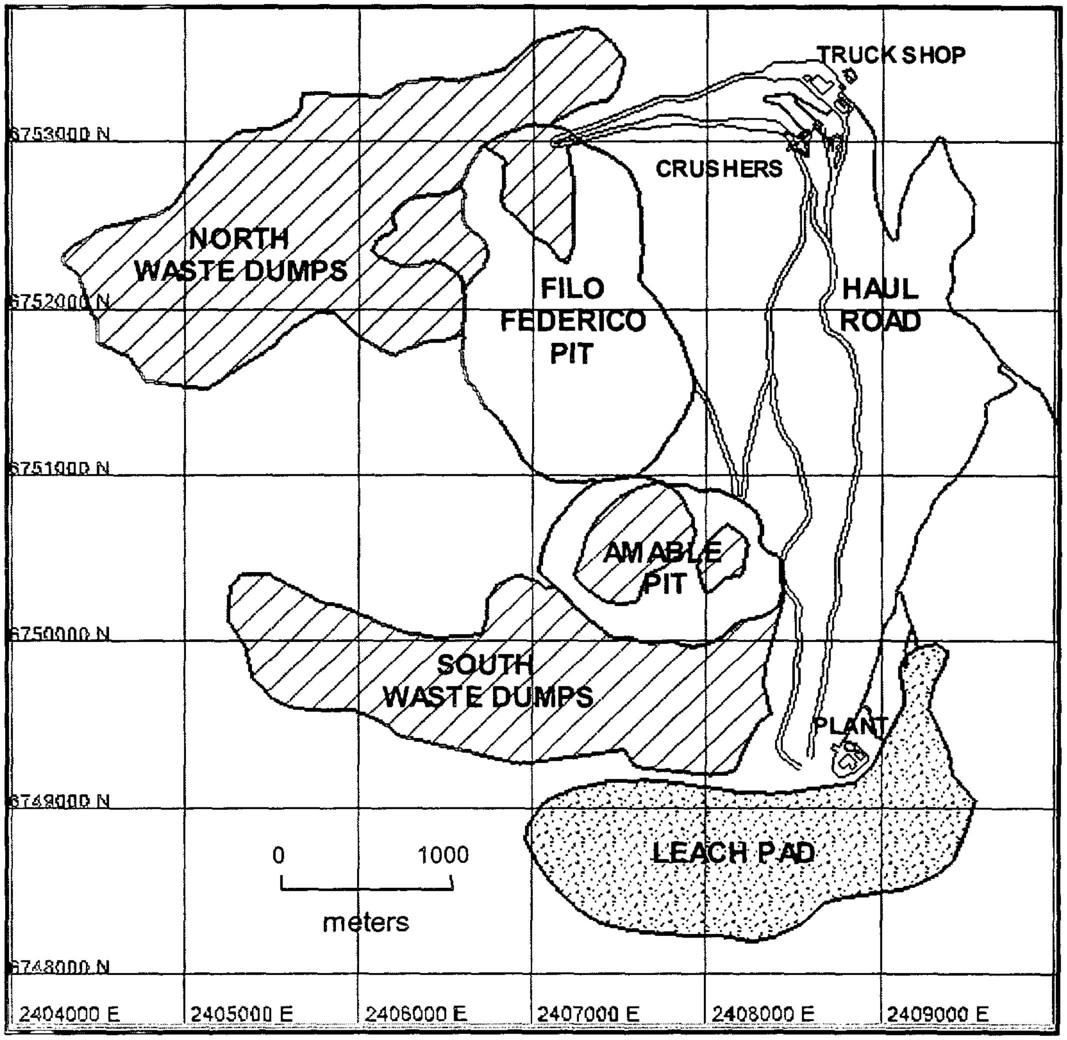
Pit Design and Reserve Estimate

The block size in the geological model is 5 m x 5 m x 5 m, but this was composited for mine planning purposes to 10 m x 10 m x 15 m, to correspond to the proposed 15 m bench height. Thus, the reserves are estimated from 10 x 10 x 15 m mining blocks. The resources provided in the block model are classified as measured, indicated and inferred, but only the measured and indicated resource classifications have been included in the reserve estimate. Ore losses and dilution are considered to have been accounted for in the geological modeling process.

The in-situ material density is included in the block model. The material was assigned in-situ density by type, with colluvium set to 1.9 t/m3, steam-heated material set at 2.1 t/m3 and rock, including all the ore, set at 2.47 t/m3. All material classified as colluvium was omitted from the resource estimates, regardless of assigned gold grades.

The design metal prices for the analysis of the determination of ultimate pit limits were set by MAGSA at $375/oz for gold and $5.50/oz for silver.

Figure 19.1-1: Veladero Overall Project Layout



The cut off grade is defined as the zero mineralization (breakeven) value of a block of mined material, excluding the mining cost, that is, material on board a truck at the rim of the pit. If the recoverable metal value exceeds the combined crushing, heap leaching, refining and G&A costs then it is considered ore. The mine plan includes the delivery of some ROM ore directly to the leach pad, without crushing, but this has no bearing on the pit design and reserve estimate. The slope angles recommended by external consultants and used for mine design are summarized in Table 19.1-1.

The final pit limit was derived using an implementation of the Lerchs-Grossman pit optimization system. The final pit limit was established by smoothing the block model solution and superimposing the final ramp design. Main ramps are 32 m wide (3.5 times truck width) and are limited to a 10 % gradient. Most of the ramps are located outside the computer-generated pit limit. The final pit limit contains a mineable reserve of 396.5 Mt of ore (see Table 17.12-2).

Production Plan

In order to release the 396 Mt of ore, nearly 1117 Mt of waste rock must be mined during the life of the Veladero operations. This requires approximately 675 Mm3 of storage capacity in the vicinity of the mine. The four primary waste rock disposal sites were selected principally on the basis of efficiency in terms of their proximity to the sources of the waste. Waste dump advance is estimated using an angle of repose of 37° and a swell factor of 40% after settlement and compaction.

Table 19.1-1: Veladero Pit Slope Design Recommendations

Unit	Type or Location of Slope	Blasting and Excavation Practices	Max. Inter-Ramp Angle (degrees)	Max. Overall Angle (degrees)
Colluvium	Temporary slopes Slopes of limited height Slopes where periodic shallow failures under static conditions are acceptable Slopes where large displacements under design earthquake loads are acceptable	Free dig Construct catch bench on top of bedrock	35	35
Colluvium	Slopes where shallow failures are acceptable Slopes where large displacements under earthquake loading are not acceptable	Free dig Construct catch bench on top of bedrock	35	30
Colluvium	Slopes where shallow failures are undesirable Slopes where large displacements under earthquake loading are not acceptable	Free dig Construct catch bench on top of bedrock	30	30
Intensely Steam-Heated (SH2)	Slopes of limited height Slopes where periodic shallow failures under static conditions are acceptable Slopes where large displacements under design earthquake loads are acceptable	Free dig Construct catch bench on top of bedrock	35	35
Bedrock	Typical rock quality	Standard operating practices 15 m bench height Single benching	45	45
Bedrock	Typical rock quality	Enhanced operating practices 15 m bench height Single benching	47	47

Equipment Selection

The selection of mining equipment for the Veladero Project was based on using an all diesel operating mode, with large hydraulic excavators as the primary loading units. A constant swell factor of 40 % is used for the equipment sizing and equipment requirement estimates throughout the life of the property.

Target equipment availabilities and utilizations were determined by referring to Barrick's worldwide operating experience on similar machines, manufacturer recommendations and/or guarantees as well as adjustments to reflect the planned maintenance policy. It is estimated that 15 days will be lost per year due to adverse climatic conditions, estimated at approximately 4 days per month from June to September.

The mine will operate on the basis of two 12 hour shifts per day, 7 days per week, 350 days per year. In the selection of the diesel-powered mining equipment, provision was made for engine derating due to altitude. Derating varies by machine and is typically between 5 % and 40 % for the elevations of the Veladero operations.

The selection of loading equipment is based on the requirement for bulk excavation in waste areas and selective mining in ore zones and transition areas. Shovels with 37 m3 bucket capacity are being used by the mine for primary loading units.

Primary drilling is based on 15 m benches with 270 mm (10 5/8 in) blast holes using 75,000 lb and 90,000 lb pull down weight diesel rotary drills. Explosives are being provided by a contractor, on a complete in-the-hole service with Veladero providing design and technical supervision only. The anticipated powder factors range from 0.17 to 0.35 kg/t, depending on the rock type.

Support equipment was selected on the basis of typical fleet sizes used at similar operations.

Mine Infrastructure

Mine infrastructure facilities including maintenance shops, equipment parking, mine warehouse and main outside storage yards, washing, lubrication, tire changing and refuelling areas and mine offices have been costed and are built or in the process of being built at the time of this report.

19.2. Cost Estimates

The currently estimated cost, from the date of project approval, of bringing the project into production is approximately $540 million The cost estimate is expressed in constant US dollars of fourth quarter, 2004 value. The scope of the estimate includes engineering, procurement and construction cost to bring the project into production. Estimated costs start with basic engineering and include pre-commissioning. Facilities include the mine (equipment and pre-production stripping), heap leach facility, process plant and associated ancillary facilities, main access road, diesel power generation and camp (both construction and permanent). Owner's costs and training are also included.

The preproduction expenditure required for the installation of all plant infrastructure and ancillary facilities has been estimated with the assistance of a number of specialist consultants. In estimating the capital cost of these facilities, the respective consultants have obtained budgetary quotations from manufacturers for the major items of equipment and have used their in-house cost databases for those smaller items appearing on the flowsheets. The required quantities of bulk materials have been derived from preliminary engineering designs, general arrangement drawings and schematic piping and instrumentation drawings. The number of personnel hours required for equipment installation and project construction has been estimated on the basis of the international construction experience of Barrick's construction consultants and the other specialist consultants. The productivity of construction labour has been factored from North American standards to account for the productivity of an local labour force working in the high Andes.

Direct cash operating costs for the Veladero Project have been estimated under three functional headings, mining, processing, and general and administration. The estimates are expressed in US dollars of fourth quarter, 2004 value.

The mining cost estimates cover mining of ore and waste from the open pit, delivery of ore to the crusher and waste to the dump, maintenance of equipment, construction and maintenance of ramps and haul roads, and ancillary services such as planning, engineering, grade control and surveying. The estimated cost of hauling crushed ore to the pad is reported under processing costs. The mining costs are estimated on a year-byyear basis, since they vary due first to changes in the annual tonnages of material mined and, secondly, to changes in haulage distances for ore and waste.

The process cost estimate covers all onsite ore processing costs, from primary crushing to doré bars, including an allocation backcharged from the mining estimate for haulage of crushed ore to the heap leach pad.

The general and administrative (G&A) estimate includes payroll and accommodation costs for all G&A staff, and transportation to and from site for all employees, in addition to normal administrative expenses.

It is anticipated that during the first three years of full production an average of 700,000 ounces of gold will be produced at an average total cash cost of $200 pe ounce (based on contant US dollars and exchange rates prevailing in late 2004, and excluding any potential export duties on metal sold).

Economic Analysis

The overall economic viability of the Veladero Project has been evaluated by Barrick using conventional after-tax discounted cash flow techniques. Input to the cash flow projection has included all of the relevant estimates of production, revenue and cost, including royalties and taxes, which are discussed within the body of this report. All monetary amounts are expressed in constant US dollars of fourth quarter, 2004 value, and all cash flow projections have been based on the assumption that the project will be financed entirely by equity.

Revenue Schedule

The Veladero Project will produce both gold and silver, but silver accounts for less than 10% of the total revenue. Under these circumstances, silver is regarded as a by-product and, in the cash flow projection, the revenue received from the sale of silver is treated as a credit against the cost of producing gold.

Project revenues have been estimated using prices of $375/oz for gold and $5.50/oz for silver.

20.0 Interpretation and Conclusions

The engineering studies completed to date have demonstrated the technical feasibility of producing significant quantities of gold, together with by-product silver, from the Veladero deposit. The economic viability of the proposed project has been evaluated by conventional discounted cash flow analyses, based on the engineering studies and cost estimates discussed herein, coupled with an assessed spot gold price of $375 per ounce and a silver price of $5.50 per ounce. The projected rate of return has been considered sufficient to warrant project development.

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Dated this 30th day of March, 2005.

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2. I graduated with a B.ScE. degree in Mining Engineering from Queen's University in 1986.
3. I am a member of the Professional Engineers Ontario and the Ontario Society of Professional Engineers.
4. I have worked as a mining engineer for a total of 19 years since my graduation from university.
5. I am a "qualified person" as defined in National Instrument 43-101.
6. I supervised the preparation of the technical report titled *Technical Report, Veladero Project* dated March 30, 2005 relating to the Veladero property. I have personally visited the Veladero property on a number of occasions. My most recent visit was September 21, 2004.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. 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.

Dated this 30th day of March, 2005.

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Dated this 30th day of March, 2005.

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3. I am a member of the Association of Professional Geoscientists of British Columbia.
4. I have worked as a professional geoscientist for a total of 28 years since my graduation from university.
5. I am a "qualified person" as defined in National Instrument 43-101.
6. I supervised the preparation of the technical report titled *Technical Report, Veladero Project* dated March 30, 2005 relating to the Veladero property. I have personally visited the Veladero property on a number of occasions. My most recent visit was March 1998.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. 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.

Dated this 30th day of March, 2005.

Alexander J. Davidson, B.Sc., M.Sc., P. Geo.

A. J. DAVIDSON