PAN AMERICAN SILVER CORP Form 40-F May 20, 2004 SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 40-F**

# [ ] REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

# [X] ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2003

Commission File Number 0-13727

# Pan American Silver Corp.

(Exact name of Registrant as specified in its charter)

**British Columbia** 

1044

**Not Applicable** 

(Province or other Jurisdiction

(Primary Standard Industrial

(I.R.S. Employer

of Incorporation or Organization)

Classification Code Number)

Identification No..)

#### 1500 - 625 Howe Street

#### Vancouver, British Columbia

#### V6C 2T6

(604) 684-1175

(Address and telephone number of Registrants' principal executive offices)

#### **CT Corporation System**

# 111 Eighth Avenue, 13th Floor

# New York, NY 10011

(212) 894-8940

(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

#### None

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Title of each class Common Shares, No Par Value

# Name of each Exchange on which Registered: The Nasdaq National Market

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

#### None

For annual reports, indicate by check mark the information filed with this Form:

- [X] Annual information form
- [X] Audited annual financial statements

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by this annual report.

# The Registrant had 59,009,851 Common Shares

outstanding as at December 31, 2003

Indicate by check mark whether the Registrant by filing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934 (the "Exchange Act"). If "Yes" is marked, indicate the filing number assigned to the registrant in connection with such Rule.

Yes

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No
$\underline{\mathbf{X}}$
_
Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.
Yes
- -
X No
- 1 -

# **DOCUMENTS FILED UNDER COVER OF THIS FORM**

#### Document No. 1:

Annual Information Form for the year ended December 31, 2003, dated May 19, 2004.

# Document No. 2:

Audited Consolidated Financial Statements for the financial year ended December 31, 2003, prepared in accordance with Canadian generally accepted accounting principles, and reconciled to United States generally accepted accounting principles in accordance with Item 18 of Form 20-F.

Document No. 3:

Management's Discussion and Analysis of Financial Condition and Results of Opera-tions for the year ended December 31, 2003.

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Document No. 1

# Annual

# Information

**Form** 

# For the Year

# Ended December 31, 2003

Dated: May 19, 2004

1500-625 Howe Street

Vancouver, British Columbia

V6C 2T6

Web Site: www.panamericansilver.com

May 18, 2004

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#### **INTRODUCTION**

In this Annual Information Form, the term "Company" refers to Pan American Silver Corp. and the term "Pan American" refers to the Company and its subsidiaries.

# **Reporting Currency**

Pan American's reporting currency is the United States dollar. Unless otherwise indicated, all currency amounts in this Annual Information Form are stated in United States dollars.

# **Accounting Policies**

Financial information is presented in accordance with accounting principles generally accepted in Canada. Differences between accounting principles generally accepted in Canada and those generally accepted in the United States, as applicable to Pan American, are explained in Note 18 to the Consolidated Financial Statements of the Company. These financial statements, set out on pages 20 through 44, inclusive, of the Company's 2003 Annual Report, are incorporated by reference herein.

#### **Conversion Table**

In this Annual Information Form, imperial measures are used with respect to mineral properties located in the United States of America and metric units are used with respect to mineral properties located in Peru, Mexico, Bolivia and elsewhere, unless otherwise indicated. Conversion rates from imperial measures to metric units and from metric units to imperial measures are provided in the table set out below.

<b>Imperial Measure</b>	= <u>Metr</u>	ic Unit Metric Unit	= <u>Imperial Measure</u>
2.47 acres	1 hectare	e 0.4047 hectares	1 acre
3.28 feet	1 metre	0.3048 metres	1 foot
0.62 miles	1 kilome	tre 1.609 kilometres	1 mile
0.032 ounces (troy)	1 gram	31.1 grams	1 ounce (troy)
1.102 tons (short)	1 tonne	0.907 tonnes	1 ton
0.029 ounces (troy)/ton	1 gram/to	onne 34.28 grams/tonn	e 1 ounce (troy)/ton

#### **Glossary of Terms**

The glossary of terms set forth on pages 68 to 72 of this Annual Information Form contains definitions of certain terms used herein.

#### **Classification of Mineral Reserves and Resources**

In this Annual Information Form, the definitions of proven and probable mineral reserves and measured, indicated and inferred resources are those used by Canadian provincial securities regulatory authorities and conform to the definitions utilized by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") in the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted on August 20, 2000.

In this Annual Information Form, the terms "measured" and "indicated resources" are used. The Company advises U.S. investors that while such terms are recognized and permitted under Canadian securities rules, the U.S. Securities and Exchange Commission does not recognize them. U.S. investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves.

This Annual Information Form also uses the term "inferred resources". The Company advises U.S. investors that while such term is recognized and permitted under provincial Canadian securities rules, the U.S. Securities and Exchange Commission does not recognize it. "Inferred resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian securities rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. U.S. investors are cautioned not to assume that any part or all of an inferred resource exists, or is economically or legally mineable.

#### DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Information Form and the documents incorporated by reference herein contain certain forward-looking statements relating to Pan American and its operations. All statements, other than statements of historical fact, are forward-looking statements. When used in this Annual Information Form, the words "anticipate", "believe", "estimate", "expect", "target", "plan", "budget", "may", "schedule" and similar expressions, identify forward-looking statements. Forward-looking statements are necessarily based upon a number of assumptions and estimates that, while considered reasonable by Pan American, are inherently subject to significant uncertainties and contingencies. This Annual Information Form contains forward-looking statements relating to, among other things, the sufficiency of current working capital and anticipated operating cash flow, the sufficiency of mineral reserves and resources at Quiruvilca, Huaron, La Colorada, and Alamo Dorado as well as other properties, the estimated operating costs of Pan American's producing mines, the estimated cost of and availability of funding for ongoing capital improvement programs, the estimated costs of the expansion of the La Colorada and Huaron mine operations and the development of the La Colorada project and proposed development of the Alamo Dorado project, estimated exploration expenditures to be incurred on Pan American's various silver exploration properties and compliance with environmental standards. Management's Discussion and Analysis of Financial Conditions and Results of Operations ("MD&A"), which is set out on pages 6 to 19 in the Company's 2003 Annual Report is incorporated by reference within this Annual Information Form. The MD&A also contains forward-looking statements relating to, among other things, forecast capital and non-operating spending, levels of silver and other metals production, production costs and metal prices. Such statements reflect the current views of Pan American with respect to future events and are subject to known and unknown risks, uncertainties and assumptions. Many factors, both known and unknown, could cause the actual results, performance or achievements of Pan American to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements including, without limitation, the factors identified in this Annual Information Form under the headings "Trends and Uncertainties" and "Competitive Conditions". Other such factors include, whether or not referenced in this Annual Information Form, changes in general economic and business conditions and changes in business strategy. Should one or more of these factors or uncertainties materialize, or should underlying assumptions prove incorrect, actual results, performance or achievements may vary materially from those described herein as anticipated, believed, estimated or expected. Pan American does not intend, and does not assume any obligation, to update these forward-looking statements to reflect changes in assumptions or changes in circumstances or any other events affecting such statements.

#### CORPORATE STRUCTURE

#### **Incorporation**

The Company was incorporated under the *Company Act* (British Columbia) on March 7, 1979 under the name Pan American Energy Corporation. On September 10, 1984 the Company's memorandum was amended to change the Company's name to Pan American Minerals Corp. and on April 11, 1995 the Company's memorandum was again amended to change the Company's name to Pan American Silver Corp.

Since 1979 the memorandum and articles of the Company have been amended on several occasions to increase the share capital of the Company and to update the form of articles.

The Company's head office is situated at 1500 - 625 Howe Street, Vancouver, British Columbia, Canada, V6C 2T6 and its registered and records offices are situated at 1200 Waterfront Centre, 200 Burrard Street, Vancouver, British Columbia, Canada, V7X 1T2. The Company's web site can be found at www.panamericansilver.com. The information on that website is not incorporated by reference into this annual information form.

#### **Subsidiaries**

A significant portion of the Company's business is carried on through its various subsidiaries. The following table shows, as at December 31, 2003, the principal subsidiaries of the Company including their respective jurisdictions of incorporation and the Company's percentage ownership in each such subsidiary:

<u>Name</u>	<u>Jurisdiction</u>	Ownership (%)
Aurifera Tres Cruces S.A. ("Tres Cruces S.A.")	Peru	50
Pan American Silver S.A.C. Mina Quiruvilca ("Mina Quiruvilca")	Peru	100 (voting)/
		99.7 (non-voting) <sup>1</sup>
Cia. Minera Huaron S.A. ("Minera Huaron")	Peru	99.85 (voting)
Corner Bay Silver Inc. ("Corner Bay")	Canada	100
Minera Corner Bay S.A. de C.V. ("Minera Corner Bay")	Mexico	100
Pan American Minerals, Inc. ("Pan American U.S.")	Nevada	100
Pan American Silver (Barbados) Corp. ("Pan American Barbados")	Barbados	100
Pan American Silver (Bolivia) S.A. ("Pan American Bolivia")	Bolivia	100 <sup>2</sup>
Pan American Silver (Cyprus) Corp. Limited. ("Pan American Cyprus")	Cyprus	100
Pan American Silver Peru S.A.C. ("Pan American Peru")	Peru	100
Plata Panamericana S.A. de C.V. ("Pan American Mexico")	Mexico	100
Compania Minera Altivale S.A. ("Altivale")	Argentina	50
Minera Triton Argentine S.A. ("Triton")	Argentina	50

Serebro Magadana ("Dukat")	Russia	20
1		
The Company indirectly owns 99.7% of the total outstands	nding equity of Mina Quiruvilca.	
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Pan American has granted EMUSA, a Bolivian mining company, the right to earn a 49% interest in Pan American Bolivia, by financing \$2.5 million in project expenses on the San Vicente property in Bolivia, including a feasibility study.

#### GENERAL DEVELOPMENT OF THE BUSINESS

#### **Business of Pan American**

Pan American is principally engaged in the exploration for, and the acquisition, development and operation of silver properties.

Pan American: (1) owns and operates the producing Quiruvilca silver mine in Peru; (2) owns a 99.85% interest in, and operates, the producing Huaron silver mine in Peru; (3) owns and operates the producing La Colorada silver mine located in Mexico; (4) mines and sells silver-rich pyrite stockpiles at a small-scale operation in central Peru; and (5) owns a 20% non-operating interest in the producing Dukat silver mine located in Russia. Pan American also either holds an interest in or may earn an interest in non-producing silver resource and silver exploration properties in Peru, Argentina, the United States and Mexico, including the significant Alamo Dorado deposit in Mexico and 50% of the Manantial Espejo deposit in Argentina.

Pan American employs a multifaceted strategy to ensure growth in reserves and production. The first part of Pan American's strategy is to increase its silver production profile through the acquisition of silver mines, silver development projects or silver producing companies. The second part of its growth strategy is to focus on exploration in and around existing properties. Finally, Pan American is also seeking to acquire additional silver properties having

significant silver reserves or resources or significant exploration potential.

#### **Developments over the Last Three Financial Years**

During the last three financial years the Company has undertaken the following:

- In April 2001, Pan American commenced milling operations at the rehabilitated Huaron mine. The Huaron mine reached commercial production levels on May 1, 2001.
- In August 2001, Pan American sold 9,321 hectares of the Huaron property for consideration having a value equal to \$3,700,000 to Volcan Compania Minera S.A.A. ("Volcan"). Such consideration consisted of \$200,000 in cash, \$500,000 in shares of Volcan, the remaining 27.2% interest in Minera Huaron that Pan American did not already own and other consideration. The acquisition of these shares brought Pan American's direct and indirect ownership in Minera Huaron to 99.85%.
- In October 2001, Pan American retired the outstanding balance of the \$12,000,000 Standard Bank loan facility taken out to re-start the Huaron mine. The \$6,300,000 remaining balance was re-paid by a four-year, \$6,500,000 loan provided by Banco de Credito del Peru ("Banco de Credito"). The majority of the assets of Minera Huaron are pledged as security for this loan.
- On January 29, 2002, Pan American updated the feasibility study for production from the La Colorada mine. The updated study indicated that capital costs of \$20.0 million would expand the current operations to 800 tonnes of ore per day to yield approximately 3.8 million ounces of silver per year for a minimum 10-year mine life
- On March 4, 2002, Pan American acquired a 50% interest in the Manantial Espejo silver and gold exploration property in Argentina. Pan American's acquisition cost was \$1,912,000 which consisted of cash in the amount of \$662,000 and 231,511 common shares of the Company valued at \$1,250,000. In addition, Pan American paid 50% of the \$200,000 cost to eliminate a 1.2% net smelter return royalty over the property.

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- On March 11, 2002 Pan American completed a sale of 3.45 million shares to a syndicate of underwriters for net proceeds of \$15,599,000.
- On May 21, 2002 Pan American entered into an agreement to acquire all of the issued and outstanding shares of Corner Bay Silver Inc. ("Corner Bay") which owned the Alamo Dorado deposit in Sonora, Mexico.
- On June 14, 2002 Pan American entered into a \$10,000,000 project debt facility with International Finance Corporation ("IFC"), the funds from which are to be used to expand the La Colorada mine. The Company took its first draw from the facility in March of 2003.
- On November 8, 2002 Pan American acquired silver bearing stockpiles (the "Stockpiles") located in central Peru from Volcan for 636,942 common shares of the Company, \$500,000 in marketable securities owned by Pan American, and \$317,000 in cash.
- In December 2002 Polymetall advised Pan American that they had commenced mine production at Dukat.
- On February 20, 2003 the Company completed its acquisition of Corner Bay and in connection therewith the Company issued 7,636,659 shares and 3,818,329 warrants to former Corner Bay shareholders and granted options to purchase up to 553,847 common shares of the Company to former employees of Corner Bay.

- In July and August 2003 the Company issued \$86.25 million of 5.25% convertible, unsecured senior subordinated debentures (the "Debentures") due July 31, 2009. Each US\$1,000 principal amount of Debentures is convertible into 104.4932 common shares of the Company (subject to adjustment in certain events) at the option of the holder at any time prior to the earlier of the close of business on July 31, 2009 and the last business day immediately preceding any date fixed for redemption, representing a conversion price of US\$9.57. On or after July 31, 2006, the Debentures may be redeemed in whole or in part by the Company, at its option on not more than 60 and not less than 30 days prior notice, at a price equal to par, plus accrued and unpaid interest, provided that the weighted average trading price of the common shares of the Company equals at least 125% of the conversion price. On redemption or upon maturity, the Company may, at its option, elect to satisfy its obligation to repay the principal amount of the Debentures by issuing and delivering freely tradable common shares of the Company. In addition, the interest payable on the Debentures may, at the Company's election, be payable by the application of the proceeds of the sale of the Company's common shares.
- On January 1, 2004 commercial production commenced at La Colorada.
- On January 1, 2004 Pan American assumed the operator role in respect of the Manantial Espejo development project in Argentina.
- On January 20, 2004 Pan American reached an agreement to purchase for approximately \$35 million 92.014% of the voting shares of Compania Minera Argentum S.A. ("Argentum"). Argentum will acquire, through a corporate restructuring undertaken pursuant to Peruvian company law, the Anticona and Manuelita mining units and related infrastructure and processing assets of Sociedad Minera

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Corona S.A. located in Central Peru. On February 24, 2004, Pan American entered into a further agreement to purchase all of the issued and outstanding shares of a corporation organized under Peruvian company law which holds mining concessions and operations that are complimentary to the Anticona and Manuelita mining units (collectively these concessions and mining operations and the Anticona and Manuelita mining units are referred to as the "Morococha property") for \$1.5 million in cash. These acquisitions are subject to regulatory approval and a number of conditions and are expected to close in June 2004.

- On February 27, 2004 the Company issued 3,333,333 common shares at a price of \$16.50 per share for proceeds of \$55 million.
- On March 30, 2004 the Company made a formal offer (the "Conversion Offer") to encourage conversion by holders of the Company's \$86.25 million outstanding principal amount of Debentures. Pursuant to the Conversion Offer, which is open from April 7, 2004 to May 21, 2004 (the "Conversion Period"), each holder who converts all or a portion of his or her Debentures during the Conversion Period will receive \$131.25 in cash plus 106.9290 common shares of the Company per \$1,000 principal amount of Debentures converted. To date, holders of approximately \$73 million principal amount of Debentures have converted their Debentures pursuant to the terms of the Conversion Offer.
- On April 28, 2004 Pan American repaid the \$3.5 million remaining balance on its loan from Banco de Credito relating to the initial development of the Huaron mine and notified IFC of its intention to prepay the \$9.5 million outstanding balance under its project debt facility used to expand the La Colorada mine.

#### **Corporate Strategy**

Pan American's corporate strategy is to become one of the world's leading primary silver mining companies. The key elements of Pan American's strategy are to:

- Increase silver production Until 2001, Pan American's only source of silver production was its Quiruvilca mine. During 2001, Pan American commenced production at its Huaron and La Colorada mines and in 2002 acquired the right to mine and sell the Stockpiles. For the year ended December 31, 2001, silver production was approximately 6.9 million ounces compared to approximately 3.6 million ounces of silver in 2000. For the year ended December 31, 2002 Pan American increased its silver production to 7.8 million ounces. Pan American's silver production increased further during the year ended December 31, 2003 to 8.6 million ounces, an increase of 11% compared to 2002.
- Acquire additional non-producing silver resources One of Pan American's objectives is to hold one of North America's largest inventories of non-producing silver resources as leverage to higher silver prices. Pan American holds or has control over non-producing silver resources at its Manantial Espejo property in Argentina, its Hog Heaven and Waterloo properties in the United States and its San Vincente property in Bolivia. Pan American actively seeks opportunities to increase its silver resource base by acquiring formerly producing silver mines with silver resources that could be re-opened should silver prices increase sufficiently to justify such a re-opening.
- Acquire additional silver exploration properties One of Pan American's objectives is to acquire a portfolio of silver exploration properties. As at December 31, 2003, Pan American retains an option to acquire the San Vicente property in Bolivia. Pan American also owns a 50% interest in the Manantial Espejo exploration property in Argentina and has 100% interest in the Alamo Dorado development Project in Mexico. In addition, Minera Huaron holds approximately 41,280 hectares of exploration

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property in Peru. Finally, in the first quarter of 2004, Pan American entered into an agreement to acquire the Morococha property, which has significant exploration potential. Pan American is actively seeking to acquire additional silver exploration properties with bulk mineable targets that have the possibility of possessing over 50,000,000 ounces of silver mineralization to supplement its existing base of silver exploration properties.

Pan American's current activities are primarily focussed on Peru, Mexico, Bolivia and Argentina, with a secondary focus on the United States and the Americas generally.

#### Outlook for 2004

In 2004, Pan American will continue to take steps towards its stated corporate strategy of becoming one of the world's leading primary silver mining companies. In 2004, Pan American expects to maintain close to the current level of production at the Quiruvilca and Huaron mines, increase production at the La Colorada mine as its new oxide plant reaches designed capacity, add incremental production from the anticipated Morococha acquisition and continue to produce silver from its pyrite Stockpiles in Peru. The combined operations of these mines, assuming the Morococha

property acquisition closes by June 30, 2004, are expected to increase Pan American's silver production to approximately 11.6 million ounces in 2004. Pan American will also advance feasibility studies at the Manantial Espejo and San Vicente projects, complete a mill optimization study at the Alamo Dorado Project and investigate the technical and economic merits of an expansion at Huaron.

Pan American will continue to investigate, evaluate and where appropriate, acquire additional silver production, exploration and development properties.

# NARRATIVE DESCRIPTION OF THE BUSINESS

# **Operations**

Pan American's principal products and sources of revenue are silver rich zinc, lead and copper concentrates. In 2003, the Quiruvilca, Huaron, and La Colorada mines and the Stockpiles accounted for all of Pan American's production of concentrates. Information related to Pan American's segment revenues is set forth in Note 15 to the Consolidated Financial Statements and is referred to in the Company's MD&A.

Consolidated production for the year ended December 31, 2003 was as follows:

	<b>Quiruvilca</b>	Huaron <sup>1</sup>	La Colorada	<b>Consolidated</b>
Tonnes milled	442,093	605,790	99,115	1,146,998
Grade				
Grams/tonne silver	201	251	435	248
% Zinc	3.30	3.75	1.96	3.38
% Lead	1.18	2.64	1.02	1.94
% Copper	0.6	0.38	-	0.43
Production				
Ounces silver	2,493,908	5,155,864	992,142	8,641,914
Tonnes zinc	12,509	18,855	433	31,797
Tonnes lead	4,361	14,246	383	18,990
Tonnes copper	1,811	1,332	_	3,143

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includes 790,803 ounces of silver produced from the Stockpiles.

#### **Operating Mines**

#### Quiruvilca Mine

#### Ownership and Property Description

The Quiruvilca mine is owned by Pan American Peru and operated by Mina Quiruvilca, each a wholly-owned indirect subsidiary of the Company.

The Quiruvilca mine is an underground mine. The Quiruvilca mineral property consists of 158 mining concessions covering 8,581 hectares. Mina Quiruvilca also owns six mining concessions covering 3,472 hectares and holds surface and water rights in the area covering the mill and related workings. On March 25, 2004, Pan American sold mining concessions and surface rights in the vicinity of Quiruvilca mine to Barrick Gold Corporation for \$3,582,575 and for the assumption of \$67,425 of payments owing in respect of these mining concessions.

#### Location, Access, Climate and Infrastructure

The Quiruvilca mine is located in the District of Quiruvilca, Province of Santiago de Chuco, Department of La Libertad in northwestern Peru. The Quiruvilca mine is 76 kilometres east of the coastal city of Trujillo. The mine is centred at approximately 8° 00′ 57″ South Latitude and 78° 20′ 33″ West Longitude. The Quiruvilca mine lies in the Andean mountain range above the tree line. Elevations in the immediate area of the mine range from 3,450 metres to 4,075 metres above sea level.

Access to the Quiruvilca mine is by a 137 kilometre all weather road east from the city of Trujillo. The first 65 kilometres of the road are paved and the remaining 72 kilometres consist of a dirt road. The last major upgrade to the road was in 2003. Trujillo is connected to Lima by a paved all-weather highway.

The relief at the mine site is hilly and uneven with local slopes of more than sixty degrees, typical of the Peruvian Andes. Natural vegetation is mainly grasses, forming meadows. These meadows have permitted development of varied livestock operations.

The climate at the mine site is classified as "cold climate" or "boreal". Average minimum and maximum temperatures in the region range from 5.7 to 14.8 degrees Celsius. One of the characteristics of this climate is wet summers (highest rainfall occurs from January to April) and dry winters. The Quiruvilca mine operates throughout the entire year.

The primary source of power for the Quiruvilca mine is the Peruvian national power grid via a 65 kilometre 138kV line from the city of Trujillo to the Motil substation. A 20 kilometre 33kV line connects the mine site to the Motil substation. Pan American owns and operates a diesel generating system, which provides a back up source of power for the Quiruvilca mine.

Pan American is permitted to pump water from the Los Angeles Lake, to the east of the Andean divide to two dams east of the town of Quiruvilca as well as to other local rivers and streams in the area. Process water is drawn from these dams.

Peru's economy is dependent on mining and there is a sufficient local source of mining personnel and related infrastructure.

#### Royalties and Encumbrances

The Quiruvilca property is not subject to any royalties or encumbrances.

Quiruvilca has undetermined environmental liabilities and in connection therewith the Company has taken a charge against operations of approximately \$12.5 million.

#### **Taxation**

The principal taxes of Peru affecting Pan American include income tax, employee profit sharing taxes, annual fees for holding mineral properties, various payroll and social security taxes and a refundable value added tax. The overall tax burden in Peru is less than the Canadian tax burden.

#### History

Mineralization was first reported in the area of the Quiruvilca mine in 1789. Small-scale silver mining in the area was carried on from the 1870's until 1924. Between 1924 and 1925, Northern Peru Mining and Smelting Co. ("NPMS"), the predecessor to Mina Quiruvilca, which was formed by ASARCO, acquired certain mining concessions in the area and began mining operations. The operation was shut down in 1931. The Quiruvilca mine was re-opened in 1940 and has been in operation since that time. Since 1940 NPMS claimed additional mineral concessions in the area and purchased several adjacent mining concessions as well as surface and water rights in the area.

Initially, mining by NPMS focused on the copper bearing veins in the Enargite Zone (as defined below) but gradually focus was shifted to veins in the Zinc-Lead Zone (as defined below). In March 1967, the mill started to treat complex ores producing copper, lead and zinc concentrates.

#### Geology and Mineralization

The Quiruvilca mine is situated within the eastern edge of a major sequence of volcanic rocks, interpreted as part of the Calipuy Volcanic complex of the Mid-Miocene. This volcanic formation, with a thickness of about 2,000 metres, consists of andesite flows and flow breccias inter-layered with thin basalt flows and occasional tuffaceous lacustrine sediments.

The mineralization at Quiruvilca is contained in a series of narrow veins filling the fractures and faults. Over 130 veins have been identified in the mine area. At least three-quarters have been mined at some point in time. Although narrow, the veins at Quiruvilca tend to have an extensive lateral and vertical continuity with abundant splits, cymoid loops, pinch and swell structures. In some places, the veins show some thick ore shoots connected to thinner diagonal sub-economic to non-economic zones. The width varies up to two metres in the central zone to stringers in the

Zinc-Lead Zone (as defined below). The average width of veins currently being mined is 0.56 metres. The average dip of the veins is  $70^{\circ}$ , but range from vertical to  $40^{\circ}$ .

The mineralization exhibits strong metal zoning. The central copper zone, some 700 metres by 2,800 metres in area, consists of predominately enargite-pyrite, with lesser chalcopyrite, tennantite, tetrahedrite, sphalerite and galena (the "Enargite Zone"). The Enargite Zone is surrounded by a relatively narrow transition zone of tennantite, tetrahedrite, sphalerite and galena (the "Transition Zone"). The Transition Zone is in turn surrounded by a zinc-lead zone of predominately sphalerite and galena, which extends some 500 metres beyond the Transition Zone (the "Zinc-Lead Zone"). In recent years some 70% of the Quiruvilca mine's production has come from the Zinc-Lead Zone. An outer zone consists of stibnite, arsenopyrite and pyrite.

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#### Drilling, Sampling and Analysis

Exploration at the Quiruvilca property is conducted using a combination of diamond drilling and underground drifting. Three diamond drills are in continuous operation at the property, drilling BQ (36.4 mm diameter) sized holes between 50 and 350 meters in length. This is generally followed by underground by pass and cross-cutting at a 70 meter spacing. During 2003, 7,189.50 meters of drilling was done, along with 6,250 meters of drifting for reserve delineation and access.

Diamond drill core is split in half, with one half sent for assaying and one half retained in a secure on-site facility. The veins in the cross-cuts are channel sampled, and a two to three kilogram sample is sent for analysis.

Assaying is done at Quiruvilca's laboratory. The laboratory conducts a routine internal quality assurance/quality control program that includes external check samples and the routine submission of standards.

All sampling, whether diamond drilling or cross-cutting, is done under the direct supervision of the Quiruvilca mine geology department.

#### Mineral Reserves

Pan American's management estimates that proven and probable mineral reserves at the Quiruvilca mine as at December 31, 2003 are 631,000 tonnes with an average grade of 201 grams/tonne silver and 5.0% Zn, details of which are set out in the following table:

# Quiruvilca Mineral Reserves 1, 2, 3

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Reserve		Grams of Silver			
<b>Category</b>	<b>Tonnes</b>	<u>per Tonne</u>	% Zinc	% Lead	% Copper
Proven	407,000	209	4.86	1.70	0.44
Probable	224,000	186	5.26	1.60	0.46
TOTAL	631,000	201	5.00	1.66	0.45

1

Calculated using a price of \$5.00 per ounce of silver and \$900 per tonne of zinc.

2

Estimates of mineral reserves are calculated on the basis of blocks exposed by underground workings on one or more sides and having an in-place diluted value equal to or above the cutoff grade (\$25/tonne). Proven and probable mineral reserves are extrapolated between 15 and 30 metres down dip depending on vein continuity.

3

Mineral reserves were estimated by the engineering and geology staff of the Company's wholly-owned subsidiary, Mina Quiruvilca, under the supervision of an independent "qualified person", Donald F. Earnest, P.Geo. Mr. Earnest has reviewed and tested the information developed by the Company's operating subsidiary and, based upon those tests and reviews, Pan American is satisfied with the accuracy of the reserve calculations.

Management of the Company believes that reserves at the Quiruvilca Mine are sufficient for at least 18 months at current production rates. Management further believes that additional mineral resources will be converted to proven and probable reserves and mining will continue well beyond the 18 month period.

#### Reconciliation of Mineral Reserves

Mineral reserves are adjusted annually by the amount mined, by additions and deletions resulting from new geological information and interpretation and in connection with changes in operating parameters and metal prices. However, proven and probable mineral reserves are not usually revised in response to short-term cyclical price

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variations of metal markets. The following is a reconciliation of the proven and probable mineral reserves at Quiruvilca to December 31, 2003:

# **Reconciliation of Mineral Reserves at Quiruvilca**

	<b>Tonnes</b>
Opening balance, December 31, 2002	2,109,100 1
Additions	585,600 2
Losses	1,579,100 3
Tonnes mined from reserves	285,200
Low grade removed from reserves	<u> 199,400</u>
Closing balance, December 31, 2003	631,000

1

December 31, 2002 reserves were calculated using a price of \$4.75 per ounce of silver and \$900 per tonne of zinc.

2

Additions are from tonnes added through exploration reinterpretation, mostly due to higher metal prices.

3

Losses during 2003 consisted of 1,248,121 tonnes of material that was moved to the resource category due to declining metal prices, 122,897 tonnes of material moved to the resource category due to the north zone shut down, and 314,925 tonnes of material that was moved to the resource category due to reinterpretation.

#### Mineral Resources

Pan American's management estimates that mineral resources at the Quiruvilca mine as at December 31, 2003 are as follows:

# **Ouiruvilca Mineral Resources** 1, 2

		Grams of Silver			
Resource	<b>Tonnes</b>		% Zinc	% Lead	% Copper
<b>Category</b>		<u>per Tonne</u>			
Measured	3,124,000	156	3.88	1.49	1.63
Indicated	900,000	179	4.72	1.77	1.11
Inferred	1,881,000	168	5.11	1.77	0.47

1

These resources are in addition to Quiruvilca mineral reserves.

2

Mineral resources were estimated by the engineering and geology staff of the Company's wholly-owned subsidiary, Mina Quiruvilca, under the supervision of an independent "qualified person" Donald F. Earnest, P.Geo. Mr. Earnest has reviewed and tested the information developed by the Company's operating subsidiary and based upon those reviews and tests, Pan American is satisfied with the accuracy of the resource calculations.

#### Mining

The Quiruvilca mine extends over an area that is four kilometres east/west by three kilometres north/south and from an elevation of 4,050 metres at the top of the mountain down to the 340 level (elevation 3,528 metres). Access to the mine is from four adits driven into the side of the mountain at elevations ranging from 3,648 metres to 3,870 metres.

Battery locomotives are used to haul ore and waste from the stopes and development headings to ore and waste passes. Ore from the upper levels of the mine is delivered to ore passes, which transfer it to the 220 level main haulage level. Trolley locomotives with 120 cubic foot mine cars are used to transport ore from the ore passes on the 220 level to coarse ore bins at the Crushing plant.

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Of the 61 veins presently being mined, 14 contributed approximately 70% of the production during calendar 2003. These 14 veins average 0.56 metres in width.

There are presently 61 active stopes in the mine using the cut and fill mining method, with approximately one-third in the drilling and blasting phase, one-third in the mucking phase and one-third in the filling phase at any given time. Two stoping methods are presently in use at the Quiruvilca mine. In stopes where the vein's mineable width is less than 1.0 metre, and where hydraulic backfill is not available, resuing is employed. In stopes where the vein's mineable width is more than 1.0 metre, the hydraulic backfill is employed.

Tailings from the mill are directed to the sand-fill plant located near the Santa Catalina tailings pond. The fines are removed with cyclones, and the coarse is directed to the storage tanks in the sand-fill plant. The sand-fill is pumped 2,700 metres to the Luz Angelica distribution plant, or a further 1,600 metres to the Central distribution plant through a 76 millimetre HDPE line. The distribution plants are equipped with 170 cubic metre storage tanks. When backfill is required underground, the fill is re-slurried and pumped underground. The monthly hydraulic backfill volume employed at the mine is 5200 m<sup>2</sup>.

#### Milling

The mill flowsheet consists of three-stage-crushing, ball mill grinding and selective flotation of the ore to produce copper, lead and zinc concentrates, followed by thickening and filtering of the concentrates.

Present daily treatment capacity is 1,350 tonnes, with an operative mill working six days a week. Starting September 1<sup>st</sup> and according to the closure of the North zone, the daily treatment tonnage was reduced to the above-mentioned level from the prior 2,000 tonnes daily.

Although the mill equipment (with the exception of the primary and secondary crusher, the primary grinding circuit, the primary lead rougher flotation cells and the zinc and lead circuits) dates from the 1950s, it has been adequately maintained and operates well.

#### Strategic Restructuring

In 2002, the Company wrote down its investment in the Quiruvilca mine by \$25,129,000. This decision was reached after an evaluation of the likelihood of recovering the carrying value of Quiruvilca in light of the mine's recent and expected operating and financial performance. As a result of Quiruvilca's high production costs and low metal prices, a significant turnaround at Quiruvilca would be required to avoid the necessity of a shutdown of the mine in 2004.

Accordingly, a strategy to reduce high cost ore production and increase mine grades was implemented during 2003 in order to drastically lower the mine costs and adapt the mine operation to a low metal prices reality. This plan to reduce high cost tonnage was carried out by closing the north zone of the mine, a zone with higher operating costs and lower geological expectations. All the Quiruvilca permanent workers were relocated in the lower cost south zone of the mine and all mine contractors terminated at the end of August 2003. This action reduced the total mine work force from 1,079 (permanent workers and contractors) to 462 permanent workers without any labor conflict. Average production was lowered by 20% to approximately 30,000 tonnes per month. The mine reduced cash costs from US\$5.51 per ounce of silver to US\$4.11 per ounce of silver. This cost-reduction strategy and improving metal prices have allowed Quiruvilca to generate a positive cashflow from operating activities for the quarter ended March 31, 2004.

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These positive operating and financial results have caused Pan American to modify its plans, which contemplated a shut down of the Quiruvilca mine in June 2004. As of today's date, Pan American intends to continue to operate Quiruvilca as long as there are reserves available.

In addition to the 2004 mine life extension, reoriented exploration and development has provided positive results, such as the confirmation of the high silver grade Union Vein on the 340 level, and new reinterpretation demonstrates continuity up to the surface which should enable the Quiruvilca mine to continue operations indefinitely.

#### Environment, Health and Safety

Environmental regulations are evolving in Peru and it is expected that these requirements will eventually reach North American standards. As part of the developing regulatory framework, mining companies were required to submit

environmental evaluation reports summarizing general environmental conditions at their mines and environmental remediation plans. Mina Quiruvilca filed an evaluation report with the Peruvian Ministry of Energy and Mines in 1995 and filed a Program for Environmental Remediation and Management ("PAMA") in 1996 in compliance with Peruvian regulations. The PAMA addressed, among other things, stabilization of tailings impoundments, tailings reclamation, mine acid water neutralization and other effluent treatment, revegetation and a contingency plan. For each of these issues, Pan American provided an implementation schedule and estimates of capital expenditures. The PAMA was approved by the Peruvian Ministry of Energy and Mines in 1997 and the terms of the PAMA were to have been completed by March 2002, however, based on discussions with the auditors, some projects were re-classified as more appropriate for inclusion in a final closure and remediation plan.

Quiruvilca's PAMA projects and expenditures for the years 1997 to 2003 were audited by independent consultants and reviewed by Peruvian environmental regulators. Overall expenditures were greater than budgeted and considerably more than the 1% of gross sales required under the law. While the PAMA process defined remediation projects, expenditures and time frames to achieve compliance primarily with respect to water quality, it explicitly excluded closure projects, and in many cases did not fully consider remediation of historic liabilities, whether caused by third parties or predecessor companies. In addition, the PAMA process provided no mechanism to review and revise projects based on results achieved to assess whether budgeted programs would still be effective in achieving the results desired. Discussions are currently underway with regulators to better define Pan American's remaining obligations under the PAMA program. In conjunction with this, Pan American sought independent consulting expertise to review closure stategies and options; this work is still underway.

In October 2003, the Peruvian government passed legislation requiring active mining operations to file closure plans within six months of the date of passage of the legislation. To date, accompanying administrative rules that lay out detailed closure requirements, including bonding and tax deductibility of reclamation and rehabilitation expenses are not yet promulgated. Quiruvilca's Closure Plan was filed in early March 2004. Pan American has budgeted \$2.9 million for concurrent reclamation and closure related costs at Quiruvilca in calendar 2004 (including closing of adits, rehabilitation of tailings ponds, rehabilitation of waste dumps and water treatment). In the fourth quarter of 2002, Pan American prepared an estimate of the expected future reclamation costs to be incurred at Quiruvilca and charged operations with a \$10 million provision for future reclamation.

Pan American's operations at the Quiruvilca mine currently comply in all material respects with applicable Peruvian laws. In 1999, Mina Quiruvilca received the National Society of Mining, Petroleum and Energy's highest environmental award and in 2000 the Latin American Organization of Mining's environmental award for polymetallic deposits.

The most significant environmental issues currently associated with the Quiruvilca mine are metal-laden acid water discharge from the mine, acid rock drainage from the mine's tailings deposit areas and the containment

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and stability of mine tailings ponds. During 2003, water quality at the compliance point has generally met pH standards and a majority of metal compliance standards. The review now underway by independent consultants will

define closure and mitigation options for reducing acid water flows and improving the quality of waters exiting the site.

During late 1998 and through early 2002 Pan American implemented a third party safety and training program for employees and contractors; this program was re-started in mid-2003. All mine supervisors completed the first two phases of a multi-phase third party safety program. The safety department was reorganized to provide one dedicated inspector per mine area. All employees are required to undergo safety training and all new underground employees are required to undergo training prior to being assigned to their first position.

From 1998 (when the first third party safety programs began) through 2003 year end, on a cumulative basis, the year-end accident frequency was reduced by 54%, and lost time accidents by 61%.

### Capital Expenditures

Since 1995, Pan American has undertaken a program of capital and non-operating expenditures at the Quiruvilca mine to improve its operations, ensure compliance with its PAMA and reduce operating costs.

During 2003, capital expenditures were approximately \$664,000 and consisted of:

- Reclamation expenses of \$240,000;
- Constancia tailings treatment of \$185,000;
- Civil, electromechanic and mine works at level 340 of \$181,000; and
- Other minor works totalling \$58,000.

During 2002, capital expenditures were approximately \$626,000 and consisted of:

- mine and related structures on the mine's 340 level of \$519,000; and
- tailings dam expansion at a cost of \$98,000.

Pan American has budgeted \$0.4 million for 2004 capital expenditures at the Quiruvilca mine consisting of sustaining capital and mine deepening.

Pan American expects to fund future capital expenditures from cash flow from the Quiruvilca mine. In the event that cash flow from the Quiruvilca mine is insufficient to fund the capital expenditure program, Pan American will fund the remainder of the capital expenditure program from working capital.

#### Marketing

The principal products from the Quiruvilca mine are silver rich zinc, lead and copper concentrates. All of these concentrates are sold under contracts to arm's length metals trading companies or arm's length integrated mining and smelting companies. In 2002, zinc concentrate was sold under the last year of a two-year contract. For 2003, that contract has been replaced with a contract which runs until 2006, which contract has a minimum one-year extension clause at the option of either party. Lead concentrates have been sold under a four-year contract expiring in 2004. In 2003, an agreement with Noranda, one of the metal trading companies to which concentrates are sold, allowed the company to cancel some tonnage that was subsequently sold at market terms in spot contracts to Glencore, Cormin, Doe Run and BHL. Copper concentrate has been sold under a contract

that also expires at the end of 2004. All contracts are at arms length. Mina Quiruvilca receives payment for an agreed percentage of the silver and lead, zinc, or copper contained in the concentrate, after deduction of smelting and refining costs. Existing lead concentrate contract for 2005 and 2006 with a minimum one-year extension beyond the contract period at the option of either party.

During 2003, the revenue per type of concentrate produced by the Quiruvilca mine was as follows:

	Revenue <sup>1</sup>	<b>Tonnes</b>	Average Price per Tonne
Zinc Concentrate	\$5,088,20	59 25,339	\$201
Lead Concentrate	\$2,891,53	6,014	\$481
Copper Concentrate	\$7,389,10	7,188	\$1,028

1

Consists of sales to arm's length customers.

During 2002, the revenue per type of concentrate produced by the Quiruvilca mine was as follows:

	Revenue <sup>1</sup>	<b>Tonnes</b>	Average Price per Tonne
Zinc Concentrate	\$6,018,898	27,408	\$220
Lead Concentrate	\$4,450,154	9,851	\$452
Copper Concentrate	\$4,975,952	4,710	\$1,056

1

Consists of sales to arm's length customers.

The zinc concentrates produced by the Quiruvilca mine are highly marketable as they contain low levels of impurities and low silver content. The lead concentrates have arsenic and antimony as impurities but are attractive to lead smelters due to their high lead, silver and gold content. Although the silver-rich copper concentrate produced by the Quiruvilca mine contains arsenic and antimony impurities, its marketability is not affected because of the high amount of silver contained in the concentrate. To date, Pan American has not experienced difficulty in securing contracts for the sale of the Quiruvilca mine's zinc, lead or copper concentrates.

#### **Huaron Mine**

#### Ownership and Property Description

The Company owns 99.85% of a private Peruvian company, Minera Huaron, which owns and operates the Huaron mine.

The Huaron mine is an underground silver mine and the property consists of exploitation claims covering approximately 17,075 hectares, 70,000 hectares of exploration claims and 473 hectares of surface rights and a lease over 178 hectares of surface rights covering the main workings.

#### Location, Access, Climate and Infrastructure

The Huaron mine is located in the Department of Pasco, Province of Pasco, District of Huayllay in central Peru, 320 km northeast of Lima. The property lies on the eastern flank of the western branch of the Andean mountain range from an elevation of 4.250 metres to 4.800 metres above sea level.

Access to the Huaron property is by a continuously maintained 285 kilometers paved highway between Lima and Unish and a well maintained 35-kilometre gravel road between Unish and the Huaron property.

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The relief at the mine site is hilly and uneven with local slopes of more than sixty degrees. Natural vegetation is mainly grasses, forming meadows. These meadows have permitted development of varied livestock operations.

The climate at the mine site is semi-humid with average annual temperatures ranging from three to ten degrees Celsius. The Huaron mine operates throughout the entire year.

The primary source of power for the Huaron mine is the Peruvian national power grid.

Historically, the supply of water has been abundant and is provided by local lakes and rivers.

Peru's economy is dependent on mining and there is a large local source of mining personnel.

# Royalties and Encumbrances

The Huaron property was subject to a 3% net smelter return royalty, which was payable after 4,300,000 tonnes of ore from the Huaron property has been recovered. In October 2003, Pan American bought back this 3% net smelter royalty on the Huaron mine from a group of Peruvian companies for a total of \$2.5 million in cash. The buyout of the royalty should reduce the mine's cash costs by approximately \$850,000 per year, starting 2006.

At December 31, 2003, substantially all of Huaron's plant, equipment and mining rights were subject to a mortgage and charge in favour of Glencore that was acting as guarantor against Banco de Credito del Peru for the liabilities and obligations of Pan American Silver Peru under a \$6,500,000 loan facility made available to Minera Huaron for

working capital purposes. At December 31, 2003, Pan American's debt balance under this facility was \$3.23 million. In April 2004, Pan American repaid its outstanding debt balance under the Banco de Credito facility.

To the best of Pan American's knowledge, the Huaron property is not subject to any royalties or encumbrances other than those set out above.

Huaron has environmental liabilities that have not yet been quantified. However, to date the Company has taken a charge against operations of approximately \$606,000 as a reclamation accrual.

#### Pan American's Acquisition of Huaron

On March 6, 2000, the Company entered into a Stock Purchase Agreement with Cementos Pacasmayo S.A.A., Mauricio Hochschild & Cia Ltda. S.A.C. ("Hochschild") and Cia. Minera Arcata S.A., three Peruvian corporations at arm's length to Pan American (the "Huaron Vendors"), pursuant to which the Company acquired 71.8% of the common shares of Minera Huaron (which owns 100% of the Huaron property) in consideration for: (i) the issuance of 1,780,389 common shares of the Company; (ii) the issuance of stock options to purchase up to 700,000 common shares of the Company exercisable at \$4.00 per common share (expiring March 6, 2010); and (iii) the grant of the Huaron Royalty to the Huaron Vendors. The 700,000 stock options were issued to a representative of the Huaron Vendors, Hannibal International, Inc., a Panamanian corporation arm's length to the Company. All of these options to purchase common shares of the Company have been exercised.

Included in the liabilities of Minera Huaron at the date of acquisition was \$3,174,000 payable to former majority shareholders of Minera Huaron. This liability was discharged from the sale proceeds of certain assets of Minera Huaron (\$1,980,000) and corporate funds (\$1,194,000).

Between March 6, 2000 and December 31, 2000, the Company increased its ownership of Minera Huaron from 71.8% to 72.6% through the purchase of additional common shares of Minera Huaron from minority shareholders at arm's length to the Company for \$65,000.

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In August 2001, Pan American received an additional 27.2% of the common shares of Minera Huaron, \$200,000 in cash, \$500,000 in shares of Volcan and 33 Million of Kw/h (worth \$1,200,000) to be deliver by two of Volcan's hydroelectric plants in exchange for transferring 9,321 hectares of exploration and exploitation claims to Volcan.

#### History

The Huaron mine is an underground mine with narrow veins of silver-rich base metal sulphides. The mine, mill and supporting villages were originally built and operated by a subsidiary of the French Penarroya company from 1912 to 1987. In 1987 the mine was sold to Hochschild. Prior to its acquisition by Pan American, approximately 22 million tonnes of silver-rich base metals sulphide ore were mined from the Huaron property. Silver was the main constituent, contributing about 49% of the historic sales value, the rest being zinc 33%, lead 15% and copper 3%. Ore from the

mine was processed on-site by crushing, grinding, and differential flotation to produce copper, lead and zinc concentrates.

In April, 1998, a portion of the lakebed of nearby Lake Naticocha collapsed and water from the lake flowed into the adjacent Animon mine, operated by an unrelated company, and through interconnected tunnels the water entered and flooded the Huaron mine, causing its closure.

Before the 1998 closure, between 800 and 1,500 tonnes per day were processed at the Huaron mine, and 700 to 1,200 tonnes per day of tailings were produced. About 60% of the tailings were used as underground backfill. The rest were gravity fed for disposal into tailings containment ponds.

The production rates for the last periods of operation, before the flooding, at the Huaron Mine are set forth in the following table.

	<b>Production Rate</b>			
Year	Tonnes / year	Tonnes / month		
1998 (4 months)	158,000	43,500		
1997	442,000	37,000		
1996	305,000	25,000		
1995	303,000	25,000		

After the April 1998 flooding, the Huaron mine operations were shut down, the labour force was terminated, the village closed, and work was undertaken to clean up the flood damage, drain the workings and prepare for an eventual restart of production. Currently the lake, which provided the source of floodwater, is dry and will not be refilled. There is no threat of further flooding. Chungar, in accordance with a settlement agreement reached with Minera Huaron in September 2000, constructed a channel to route water around the lake to provide water for the Huaron's mine operation and to reduce the water in upstream lakes to prevent agricultural flooding which had created local social pressures.

#### Rehabilitation of Huaron Mine

After Pan American's acquisition of the Huaron mine, a \$12 million credit facility with Standard Bank London Limited was obtained in early September 2000 to provide the funding necessary to place the mine back into production. Pan American commenced construction and rehabilitation in September 2000, which was substantially completed by April 2001.

The steps taken to place the mine back in operation included:

• rehabilitation of underground ramps and access ways;

- rehabilitation of existing, or construction of new, underground services in particular ventilation, hydraulic backfill and electrical distribution;
- stope preparation work for initial mining as well as the commencement of longer term development (access and raises):
- rehabilitation of the mill, with the major areas being the installation of a larger ball mill to allow for finer grinding, electrical upgrades and mechanical overhauls; and
- infrastructure upgrades with the major component being earthwork on the tailings dam.

Milling operations at the rehabilitated Huaron mine were started in April 2001. The mine and mill achieved commercial production in May 2001.

Capital costs of the rehabilitation, including preproduction mining and operations were approximately \$11.1 million.

The \$12 million credit facility with Standard Bank was repaid in 2002, and replaced with the \$6,500,000 loan facility from Banco de Credito.

#### Geology and Mineralization

The main lithology in the Huaron area is a sequence of continental lacustrine "redbeds" consisting of interbedded sandstones, limestones, marls, conglomerates, breccias and limey cherts of the Abigarrada and Casapalca Formations of Upper Cretaceous to Lower Tertiary age. These rocks unconformably overlay massive marine limestones of the Upper Cretaceous Jumasha Formation. To the west of the mine a series of andesites and dacites of the mid to lower Tertiary Calipuy Formation outcrop. A series of sub-vertical porphyritic quartz monzonite dykes, thought to be contemporaneous with the volcanics strike generally north-south and cut across the mine stratigraphy.

The rocks in the central part of the mine and at lower elevations are principally thinly bedded marls and sandstones known as the lower redbeds. In the eastern side of the mine the upper redbeds occur. The upper section of these rocks consists of calcareous Sevilla chert that overlies sandstones and calcareous marls. The bottom of this sequence consists of the Barnabe quartzite conglomerate. In the western side of the mine rocks consist of a series of interbedded conglomerates (San Pedro) and sandstones. The conglomerate contains poorly sorted limestone and quartz clasts in a sandy matrix. Throughout the mine area a series of quartz porphyry monzonite dykes cut the sediments.

The Huaron mine is within an anticline formed by east-west compressional forces. The axis of the anticline is approximately north-south and it plunges gently to the north. There are two series of faults, the principal one formed by a series of compressional faults generally parallel to the axis of the anticline and the secondary tensional faults, which are oriented in an east-west direction. On the western side of the anticline the north-south faults are considered to be reverse faults. The intrusives strike in two principal directions N70°E and S10°E. Later erosion has left most of the area covered with recent soils except where the more resistant cherts and conglomerates form ridges parallel to the flanks of the anticline. These outcrops are discontinuous and frequently offset by the crosscutting east-west faults.

Huaron is a polymetallic deposit (hosting silver, lead, zinc and copper, with silver being the most important) consisting of mineralized structures probably related to Miocene monzonite dykes principally within but not confined to the Huaron anticline. Mineralization is encountered as veins in the north-south and east-west striking fault systems, beds and lenses associated with the calcareous sections of the conglomerates and breccias

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where they are intersected by veins, irregular bodies that occur at favourable stratigraphic horizons, and disseminated bodies in the monzonite intrusives surrounding favorable vein intersections.

The first pulse of mineralization was associated with the emplacement of intrusive bodies and subsequent opening of the structures, during which zinc, iron, tin, and tungsten minerals were deposited. This was followed by a copper, lead and silver rich stage, and finally by an antimony/silver phase associated with quartz.

More than 95 minerals have been identified at Huaron with the most important economic minerals being tennantite-tetrahydrite containing most of the silver, sphalerite and galena. The principal gangue minerals are pyrite, quartz, calcite and rhodochrosite. Enargite and pyrrhotite are common in the central copper core of the mine and zinc oxides and silicates are encountered in structures with deep weathering. Silver is also found in sulfosalts, pyrargyrite, proustite, polybasite and pearceite.

There is a definite mineral zoning at Huaron and the mine has been divided into seven separate zones. There is a central copper core (Zone 5) where the principal economic mineral was enargite. The structures contain copper with pyrite and quartz. This area was extensively mined by previous operators but because of the high arsenic and antimony content and poor metal recoveries mining in this area could be problematic. To the east and west of the central core are Zones 2, 3 and 4 where silver, lead and zinc are found in carbonates principally calcite and rhodochrosite. Zone 1 to the north of the central core contains silver, lead and zinc associated with pyrite. Zone 6 is along the west side of the axis of the anticline and south of Zone 2 is principally lead and zinc with lower silver values within carbonates. Zone 7 is a narrow band running north-south along the general axis of the anticline and to the south of Zone 3 and contains principally yellow sphalerite and sulfosalts with rhodochrosite.

The central core of the district has adularia-sericite alteration overprinted with strong silicification and epidote-pyrite. This core is surrounded by a zone containing epidote-pyrite-quartz that grades outwardly to a zone containing chlorite and magnetite. The mineralized structures are concentrated in the central core of the district but important structures continue into the outer zones.

#### **Drilling, Sampling and Analysis**

Exploration at Huaron is conducted using a combination of underground drilling and drifting. Generally, underground drillholes that intersect promising ore grade mineralization are followed up by drifting for resource and reserve definition. During 2003, 10,091 metres were drilled using four drill rigs. In addition, there was 4,704 meters of underground drifting for resource and reserve definition.

Drill core is split with half remaining on-site for further reference. Assaying, for both drill samples and underground channel samples, is done at the mine laboratory. The quality assurance/quality control program includes checks run at an outside lab and the submission of standards to the mine lab.

All of the geologic activities, including sampling, are conducted under the direct supervision of the Huaron Chief Geologist.

In October 2003, a \$1 million drill program was initiated to upgrade the mine's resources to proven and probably reserves and to identify additional resources.

#### Mine Expansion

In the fall of 2003, Pan American initiated a technical and economic evaluation of a possible expansion of the Huaron mine to increase the mine's production. In September 2003, a feasibility study on the Huaron expansion was launched. This study is expected to be completed in late 2004. As part of the feasibility study, the \$1 million drill program was initiated.

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#### Mineral Reserves

Pan American's management has estimated proven and probable mineral reserves at the Huaron mine, as at December 31, 2003, to be as follows:

<u>Huaron Reserves</u> 1,2					
Reserve	Grams of Silver				
<b>Category</b>	<b>Tonnes</b>	<u>per tonne</u>	% Zinc	% Lead	% Copper
Proven	4,554,000	237	4.22	2.41	0.41
Probable	1,994,000	250	4.06	2.42	0.52
Total	6,548,000	241	4.17	2.41	0.44

1

Calculated using a price of \$5.00 per ounce of silver and \$900 per tonne of zinc.

Mineral reserves have been calculated by the mine staff of the Company's subsidiary, Minera Huaron, under the supervision of an independent "qualified person", Donald F. Earnest, P.Geo. Mr. Earnest has reviewed and tested the information developed by the Company's operating subsidiary and, based upon those reviews and tests, Pan American is satisfied with the accuracy of the reserve calculations.

# Reconciliation of Mineral Reserves

Mineral reserves are adjusted by the amount mined, by additions and deletions resulting from new geological information and interpretation and in connection with changes in operating parameters and metal prices. However, proven and probable mineral reserves are not usually revised in response to short-term cyclical price variations of metal markets. The following is a reconciliation of the proven and probable mineral reserves at Huaron to December 31, 2003:

#### **Reconciliation of Mineral Reserves at Huaron**

	<b>Tonnes</b>
Opening balance, December 31, 2002	5,914,700
Additions <sup>1</sup>	1,097,800
Losses <sup>2</sup>	38,500
Tonnes mined from reserves	426,000
Closing balance, December 31, 2003	6,548,000

1

Additions are from tonnes added through exploration (431,095) or reinterpretation (666,705) mostly due to higher metal prices.

2

Losses are from 38,500 tonnes lost through reinterpretation.

Management of the company believes that reserves at the Huaron Mine are sufficient for at least ten years at current production rates.

#### Mineral Resources

Pan American's management estimates that mineral resources at the Huaron mine, as of December 31, 2003, are as follows:

Huaron Resources <sup>1, 2</sup>					
Resource		Grams of Silver			
<b>Category</b>	<b>Tonnes</b>	<u>per tonne</u>	% Zinc	% Lead	% Copper
Measured	1,810,000	204	4.11	2.37	0.37
Indicated	573,000	228	4.01	2.40	0.47
Inferred	2,341,000	245	3.97	2.46	0.37

1

Calculated using a price of \$5.00 per ounce of silver and \$900 per tonne zinc.

2

Mineral resources have been calculated by the mine staff of the Company's subsidiary, Minera Huaron, under the supervision of an independent "qualified person", Donald F. Earnest, P.Geo. Mr. Earnest has reviewed and tested the information developed by the Company's operating subsidiary and, based upon those reviews and tests, Pan American is satisfied with the accuracy of the resource calculations.

#### Mining

The Huaron mine is located under a mountain range with development from elevation 4,250 metres above sea level to 4,650 metres above sea level. Initially, Pan American's mining activities will extend over an area of two kilometers by two kilometers.

The main mine access is by a four metre by four metre ramp which is used for truck haulage of ore out of the mine. There are two existing shafts on the property but these have not been used since the late 1980's.

In 2004 it is expected that stopes from 15 different veins will be mined with approximately 45 stopes active at any time. The mining method is 100% mechanized cut-and-fill using mill tailings as the backfill material.

The second half of the year 2004, Pan American will assume mining of 20 stopes from one of the working zones, which will mean savings in operating costs.

In the second quarter of year 2004, Pan American will start rehabilitation of the 500 level in order to change the ore haulage system, from commercial 12 cubic meter-capacity trucks to electric locomotives for the ore transport. This will mean savings in operating costs, as well as the possibility to access new zones with ore reserves.

#### Milling

During the year 2003, the concentrator plant processed 605,790 tonnes of ore. The plant has operated basically the same circuits of crushing, ball mill grinding, selective flotation and filtering since it started in 2001.

The daily mill treatment was improved to an average of 2,020 tonnes of ore per day, processing over 54,000 tonnes of ore in some months of the year. Likewise, some metallurgical indexes have been improved, as silver and lead recoveries (89.21% and 89.19%). Additionally, slightly better quality of concentrates has been obtained, such the copper concentrate with a higher silver content (12,580.96 grams per tonne) and lead and zinc concentrates (53.44% and 50.95%).

Energy consumption has been reduced from 30 Kw-hh per tonne to 28.05 Kw-hr per tonne. The treatment cost has reached an average of \$4.16 per tonne.

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For the year 2004 it is expected to increase the daily treatment over 2,040 tonnes per day, and to reduce operating costs, as well as to decrease the energy consumption to levels under 28 Kw-hr per tonne.

#### Environment, Health and Safety

Before Pan American acquired its interest in the Huaron Mine, in compliance with Peruvian regulations, Cia Minera Huaron had filed a program of environmental remediation and management (PAMA) with the government on July 26, 1996. The PAMA addressed, among other things, stability of tailings impoundments, water quality and the fact that liquid effluents from the mine exceeded certain permissible levels of metals, as well as revegetation of a historic tailings area near the adjacent town. The PAMA set forth an implementation time line of nine months for Minera Huaron to make certain expenditures to address the environmental issues raised. In January of 1997 and March of 1998, the Minister of Energy and Environment consented to the modification of certain expenditures under the PAMA and an extension of the implementation time line.

As a result of the 1998 flood of the adjacent Animon mine (held by others), waters inundated portions of the Huaron Mine, causing the closure of the mine. For this reason, Minera Huaron was not able to satisfy all of its obligations under the PAMA in accordance with the established implementation time line. Given the magnitude of the accident at the Huaron mine, in December 2001, the Minister of Energy and Environment granted further modification of the PAMA and an extension of the time for implementation. At the same time, the Minister of Energy and Environment approved a special program of environmental management ("PEMA") to continue until the end of 2005.

Minera Huaron completed requirements under the PAMA program, and compliance and expenditures have been audited by third party consultants. Under the PEMA program, work continues on two projects: remediation of water quality exiting the old workings; and closure of the historic Huayllay tailings impoundment. Expenditures required to complete the first project are to be reviewed at the end of 2004, when the company is to make a final remediation proposal based on results achieved with field tests.

In October 2003, the Peruvian government passed legislation requiring active mining operations to file closure plans within six months of the date of passage of the legislation. To date, accompanying administrative rules which lay out detailed closure requirements, including bonding and tax deductibility of reclamation and rehabilitation expenses are not yet promulgated. Huaron's Closure Plan was filed by mid-year 2004. Pan American has taken a charge against operations of approximately \$606,000 as a reclamation accrual for Huaron.

Pan American's operations at the Huaron mine currently comply in all material respects with applicable Peruvian laws. The most significant environmental issues currently associated with the mine are metal-laden neutral waters discharged from the mine, localized areas of acid rock drainage from the mine's tailings deposit areas and the containment and stability of the active tailings ponds. During 2003, water quality at the compliance point has met pH standards and a majority of metal compliance standards. The closure planning process, now underway with the support of an independent consultant, will define closure and mitigation options for improving water quality exiting the site.

Water quality will likely remain as the most important environmental issue at the Huaron mine due to both suspended solids and dissolved metals. More precise information on flows and water quality is required before effective and integrated solutions can be developed to define a site water balance model. Dissolved metals in mine waters and other drainages can be managed using various types of water treatment, such as addition of lime or other reagents to precipitate metals. A program of regular water sampling is ongoing to provide base line data. These data will be used to assist the decision-making process for the development of the appropriate mitigation measures to bring site water quality into compliance with maximum permissible levels.

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Following its purchase of the mine, Pan American implemented a modified version of the third party safety and training program for employees and contractors used successfully at its Quiruvilca Mine. All employees are required to undergo safety and environmental training and all new underground employees are required to undergo task specific training prior to being assigned to their first position.

### Capital Expenditures

In 2003, capital expenditures at the Huaron mine were approximately \$1,862,000 and consisted of:

- Ongoing rehabilitation of the mine's 250 level drainage tunnel of \$658,000;
- Exploration plan for Huaron's expansion of \$266,000;
- Tailings dam No. 5 works and preparation for expansion of \$218,000;
- Purchase of diesel scoop of \$150,000; and
- Other mine expenditures totalling \$570,000.

During 2002, capital expenditures at the Huaron mine were approximately \$887,000 and consisted of:

• Ongoing rehabilitation of the mine's 250 level drainage tunnel of \$390,000;

- Purchase of an exploration diamond drill machine and secondary cone crusher for \$286,000; and
- Infrastructure and site improvement work of \$114,000.

# Marketing

The products of value to be produced from the Huaron mine are silver rich zinc, lead and copper concentrates. In 2002, long-term contracts for the sale of Huaron's zinc and lead concentrate were signed with an arm's length metals trading company. These contracts extend through 2006 with an option to extend through 2007. In 2002, a contract for the sale of Huaron's 2003 and 2004 excess lead concentrate production was signed with an arm's length metals trading company. Copper concentrate was sold under a contract that expires at the end of 2005. All contracts are at arms length. Huaron will receive payment for an agreed percentage of the silver, lead, zinc or copper contained in the concentrate after deduction of smelting and refining costs. Also some tonnage under these contracts was cancelled and sold at market terms on a spot basis for 2003 and 2004.

During 2003, 100% of Huaron's zinc concentrate was sold to a metals trading company; 100% of Huaron's lead concentrate was sold to an integrated metals smelter or a metals trading company; and 100% of Huaron's copper concentrate was sold to a Peruvian integrated metals smelter.

In 2002 and 2003, the revenues per type of concentrate produced by the Huaron mine were as follows:

2003	<u>Revenue</u>	<b>Tonnes</b>	Average Price per Tonne	
Zinc Concentrate	\$5,361,873	31,662	\$169	
Lead Concentrate	\$11,122,849	25,239	\$441	
Copper Concentrate	\$9,817,419	5,064	\$1,939	

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<u>2002</u>	<u>Revenue</u>	Revenue To		<b>Average Price</b>	
				<u>per Tonne</u>	
Zinc Concentrate		\$8 803 506	43.827	\$201	

Lead Concentrate	\$9,285,097	26,088	\$356
Copper Concentrate	\$8,596,221	6,022	\$1,427

Under the terms of its concentrate sales agreements Huaron is entitled to receive partial payments for the value of concentrate that it has produced but not yet delivered ("Advance Payments"). Minera Huaron is obliged to make deliveries of concentrate in order to discharge these Advance Payments. The Company has guaranteed Minera Huaron's performance, up to \$2 million under Huaron's lead concentrate agreement with one purchaser, to discharge this obligation.

#### La Colorada Mine

# Ownership and Property Description

The Pan American Silver's wholly-owned subsidiary, Pan American Mexico, owns and operates the La Colorada property. Pan American acquired La Colorada in March 1998.

The La Colorada property consists of six non-contiguous blocks of exploration permits and exploitation claims totalling approximately 1,947 hectares. Approximately 1,405 hectares of exploration permits, 542 hectares of exploitation claims and 464 hectares of surface rights cover the main mine workings and the mine's ore zones. Additional exploration permits covering an area of approximately 110 hectares and 98 hectares of exploitation claims are located to the north of the main workings. There was a minor boundary dispute between Pan American Mexico and a local landowner regarding less than 1% of the surface rights in the area held by Pan American Mexico. The complaint against Pan American Mexico was dismissed by a Mexican court.

On June 17, 2002 Pan American entered into a \$10,000,000 project debt facility with IFC pursuant to which Pan American granted security over its shares of Pan American Mexico and all of the assets of Pan American Mexico of which \$9.5 million was drawn down to complete the project expansion by mid-2003. In April 2004, Pan American notified IFC of its intention to prepay the entire amount drawn under the facility.

To the best of Pan American's knowledge, there are no other royalties or encumbrances that affect the La Colorada property.

A technical report on the La Colorada Mine (the "La Colorada Report") dated August 29, 2003 has been prepared for Pan American in accordance with NI 43-101 by Norm Pitcher, P.Geo., John Wright, P.Eng. and Robert Barnes, P.Eng., all of whom were "qualified persons" then employed by the Company. The following summary of the La Colorada Mine is based on and, in some cases, is extracted directly from the La Colorada Report.

The projected capital expenditures, production estimates, cash flow projections and other projections in respect of the La Colorada mine included in this Annual Information Form have been extracted from the La Colorada Report. These projected capital expenditures, production estimates, cash flow projections and other projections have been included in this Annual Information Form based on the requirements of applicable Canadian securities regulations and were not prepared with a view towards compliance with the published guidelines of the United States Securities Exchange Commission, or the guidelines published by the Canadian Institute of Chartered Accountants or the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information. Pan American's current and former auditors have neither examined nor compiled the accompanying prospective financial information and, accordingly, do not express opinions or any other form of assurance with respect thereto.

#### Location, Access, Climate and Infrastructure

The La Colorada Mine is located in the Chalchihuites district in Zacatecas State, Mexico, approximately 156 kilometres northwest of the city of Zacatecas and 99 kilometres south of the city of Durango. The main municipality in the district is the city of Chalchihuites, 16 kilometres northwest of the La Colorada Mine, with a population of approximately 1,000. The district's general coordinates are 23°, 23' North Latitude and 103°, 46' West Longitude. The property is situated at elevations between 2,100 and 2,550 metres above sea level.

The La Colorada Mine is accessed primarily from the city of Durango by a continuously maintained 120 kilometre all-weather, paved, two lane highway (Highway 45) and a 23 kilometre public, all weather, gravel road.

The physiography of the region around the mine site resembles a basin and range area with wide flat valleys and narrow relatively low mountains and ranges.

The climate at the project site is arid to semi-arid. Vegetation typically includes mesquite and cactus. The rainy season is from July to September but precipitation in the area is quite low. Average winter temperatures are around 0 degrees Celsius during the night.

La Colorada receives its power through the Mexican national power grid which was upgraded in 2001.

The existing water system at the La Colorada Mine is currently supplied from an underground source. As permitted by Mexican law, underground water is pumped to surface head tanks for use in the mill process and for domestic services. Underground water is also pumped to a water treatment plant, which was constructed in 2002, to provide potable water. Pan American estimates that the current volume of water supply meets the existing and planned future requirements of the project.

There is a long history of silver mining in Zacatecas State and as a result there is adequate infrastructure and an experienced workforce in the area.

All permits and licences required for the conduct of mining operations at La Colorada are currently in good standing.

#### **Taxation**

The principal taxes of Mexico affecting Pan American include income tax, assets tax, employee profit sharing taxes, annual fees for holding mineral properties, various payroll and social security taxes and a refundable value added tax. The overall tax burden in Mexico is less than the Canadian tax burden.

#### History

The production history of the Chalchihuites district began during pre-colonial times when natives produced silver and malachite in primitive ways. During the sixteenth century, the Spaniards founded the village of Chalchihuites and began intermittent exploitation of the mineral deposits in the area. By the nineteenth century, the Spanish operations achieved continuous silver production, which was interrupted by the Mexican War of Independence.

In 1925 the Dorado family operated mines at two locations on the La Colorada property. From 1929 to 1955 Candelaria y Canoas S.A., a subsidiary of Fresnillo S.A., installed a 100 ton per day flotation plant and worked the old dumps of two previous mines on the La Colorada property. From 1933 to the end of World War II La Compania de Industrias Penoles also conducted mining operations on a single breccia pipe on the property. From 1949 to 1993 Compania de Minas Victoria Eugenia S.A. de C.V. operated a number of mines on the La Colorada property.

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In 1994 Minas La Colorada S.A. de C.V. ("MLC") acquired the exploration and exploitation claims and surface rights of Compania de Minas Victoria Eugenia S.A. de C.V. Until 1997 MLC conducted mining operations on three of the old mines on the La Colorada property, producing approximately 6,000 tons per month.

## Geology and Mineralization

The La Colorada property is located on the eastern flanks of the Sierra Madre Occidental at the contact between the lower volcanic complex and the upper volcanic supergroup.

The oldest rocks exposed in the mine area are Cretaceous carbonates and calcareous clastic rocks. Overlying the calcareous rocks is a conglomerate unit containing clasts derived mostly from the subadjacent sedimentary rocks. Most of the outcrop in the mine area is represented by intermediate to felsic volcanic rocks of the regional lower volcanic complex.

The stratigraphically highest rocks in the mine area are felsic tuffs correlated with the upper volcanic sequence. These tuffs unconformably overlie the trachyte along the southern property boundary, and are distinctly maroon coloured and show varying degrees of welding.

Thirteen breccia pipes have been mapped on the surface or in underground workings. All of the pipes are located along or to the south of the No Conocida (NCP/NC2) vein complex. The pipes are round to ovoid in shape, up to 100 meters in diameter, and can extend vertically more than 400 meters below the surface. The breccias contain clasts of limestone and trachyte (often mineralized) in an altered trachyte matrix. The ratio of limestone to trachyte clasts varies from pipe to pipe.

East to northeast striking faults form the dominant structures in the project area and play a strong role in localizing mineralization. Most of these faults dip moderately to steeply to the south and juxtapose younger hanging wall strata against older footwall rocks. Evidence suggests down-dip motion on these faults, however most of the faults have been reactivated at some point so the movement direction during the initial formation is uncertain. Stratigraphic contacts are displaced from tens to over a hundred meters lower on down dropped blocks.

The trachyte unit displays an eastward tilting that may reflect displacement on regional, orogenparallel structures outside the project area. This tilting probably reflects the final episode of deformation.

La Colorada represents a typical epithermal silver gold deposit, with a transition in the lower reaches of the deposit to a more base metal predominant system. There are indications of what might be skarn style mineralization in the deepest drill holes on the property.

There are four dominant styles of mineralization at La Colorada: (i) breccia pipes; (ii) vein-hosted mineralization; (iii) replacement mantos within limestone; and (iv) deeper seated transitional mineralization (transition zone).

Mineralization in the breccia pipes generally has lower silver values and elevated base metal values. Mineralization is associated with intense silicification and occurs as disseminated galena and sphalerite with minor chalcopyright and bornite. Sulphides are found in the clasts and the matrix.

Most mineralized veins on the property strike east to northeast and dip moderately to steeply to the south. Veins occur in the trachyte and limestone units and cut across the bedding and contacts with little change in the width or grades of the vein. Mineralized widths in the veins are generally less than two meters but may be wider if there is a halo of replacement or brecciated material. The No Conocida Poniente (NCP) Corridor strikes east west and dips moderately to the south, with average widths of approximately 12 meters.

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Vein fillings consist of quartz, calcite, and locally barite and rhodochorosite. Where the veins are unoxidized, galena, sphalerite, pyrite, native silver and silver sulfosalts are present. The major mineralised veins, including the Corridor, are strongly brecciated and locally oxidized, obscuring original textural features. Less deformed veins show mineralogical layering, crystal-lined open vugs, and hydrofracture vein breccias, indicating typical multi-stage growth.

The depth to the surface and the permeability of the mineralized zone control the level of oxidation in the veins. These factors result in an uneven but generally well-defined redox boundary.

Manto style mineralization is found near vein contacts where the primary host rock is limestone. At Recompensa, the mantos appear to be controlled by thrust faulting adjacent to the veins, and can form bodies up to six meters wide. Most commonly they occur in the footwall north of the steeply dipping vein, but depending on the orientation of the fault they can occur in the footwall, the hanging wall, or both. The mineralogy of the mantos is characterized by galena and sphalerite with minor pyrite and chalcopyrite. Gangue minerals are quartz, rhodochorosite, pyrolusite and other manganese oxides.

The deep seated transition mineralization consists of both vein type mineralization and more diffuse stockwork and breccia zones.

The ore zones at La Colorada as well as their orientation (strike/dip) and style of mineralization are as follows.

NCP and NCP Corridor - Average orientation 75/60S. The Corridor consists of the NCP structure west of the Candelaria Breccia. This zone is characterized by a broad mineralised shear within limestone containing one or more quartz veins parallel to the orientation of the shear. The majority of the silver mineralization is found in the quartz veins, however the limestone is mineralised through with grades up to 1,000 grams of silver per tonne. The Corridor is generally oxidised, although there is a poorly defined mixed zone and there are also unoxidized areas, particularly in the extreme western portion. The Corridor is exposed on the 295 level and is unmined below that level. Above 295 some sporadic mining has taken place. The NCP vein is east of the Candelaria Breccia, and is a typical narrow vein structure.

*NC2E* - Average orientation 45/70S. NC2E is a narrow (one-to-two meter) sulphide vein that contains the bulk of the current sulphide resources. It has a strike length of over 700 meters and is open to the east where there is a wedge of inferred material below the east mine fault. NC2E is exposed on the 295 level and has been drilled to below the 495 level.

*NC2W* - Average orientation 35/65S. NC2W is probably the faulted, western extension of NC2E. The western portion of NC2W is oxide and averages 2.1 meters wide. The eastern portion is sulphide and averages 1.1 meters wide. NC2W is unmined, and has been exposed on the recently developed 100 and 150 levels. It has a strike length of over 300 meters and extends from the surface to slightly above the 295 level. Below the 295 level the structure becomes more complicated and further work is needed in this area to define additional resources.

4235 - Average orientation 90/75N. 4235 is a narrow (approximately one meter) vein which occurs in the hanging wall of the NCP and NC2 vein systems. It has a strike length of approximately 140 meters, and has been exposed by recent development on the 295 level and by drilling above and below that level. The western half of 4235 is sulphide, the eastern half is oxide.

*Recompensa* - Average orientation is 90/80N. Recompensa is a combination of vein and manto mineralization located more than a kilometre north and west of the NC2 and NCP vein complex. The vein mineralization is narrow

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(less than one meter) but irregular shaped mantos can be up to ten meters thick. Recompensa contains both oxide and sulphide material.

*Amolillo* - Average orientation 45/70S. Amolillo is a small oxide vein located 500 meters north of the NC2 and NCP vein complex.

Footwall and Hanging Wall Veins - Orientation generally parallel to NC2E. These veins (all sulphide) occur in the footwall and hanging wall of the NC2E structure, and are generally narrow (less than one meter) with limited strike and dip extents.

*NC2E Deep* - Average orientation variable. This mineralization occurs as the down dip extension of the NC2E structure on the east end. This zone has received limited drilling due to restricted access. The current interpretation of

this area, based on work by Pan American geologists and a structural consultant, is that the mineralization represents a transition from typical epithermal veins to a deeper seated, intrusion related system. As a result, this zone shows characteristics of vein-style mineralization as well as thicker, more diffuse, stockwork, breccia, and replacement-type mineralization. The zone tends to have lower silver values and higher lead-zinc values.

## **Exploration and Drilling**

The bulk of Pan American's exploration of the La Colorada property has been surface and underground diamond drilling and underground drifting on the veins and mineralized zones.

From 1997 to 2002 Pan American drilled 49 surface holes and 127 underground holes, for 32,327 total meters of drilling. Surface drilling was done with NQ sized core and underground drilling used BQ, except for certain Corridor drilling in 2000, which was done with HQ core in an attempt to improve recovery.

Prior to Pan American's involvement in the La Colorada project, previous operators had drilled 131 holes for a total of 8,665 meters. These holes were not used in Pan American's reserve or resource calculation, with the exception of four holes where the original core was found and assayed by Pan American.

Drill holes generally ranged in length from 100 to 300 meters with dips of plus 45° to minus 90°. Standard logging and sampling processes were used to record information from the holes drilled by Pan American. Interval samples were cut with a diamond saw and all of the remaining core is stored on-site. Hole collars were surveyed by a total station survey equipment.

Recovery in the drill holes was generally high (plus 80%), with the exception of holes drilled into the Corridor ore zone. In the Corridor zone, the recovery averaged 67%. There was no bias in the poorer recovery drill holes.

The drilling programs were successful in projecting ore below the lowest level of the mine (the 295 level) in NC2E and the Corridor zone, and below the 150 level in NC2W. Drilling was also used as a recognizance tool outside of the main mine area.

Underground drifting along the mineralized structures was the other principal method of exploration. Approximately 4,400 meters of horizontal and ramp development was done in NC2W, NC2E, 5235 and the San Fermin areas. The drifting allowed detailed mapping and structural interpretation of the ore zones, as well as key grade information.

No exploration drilling was conducted during 2003.

The La Colorada database consists of two types of samples - underground channel samples and diamond drill core samples.

Underground development was channel sampled every four meters. Samples were broken out geologically, and vein and wall rock is sampled separately. Sample size is approximately three kilos. To provide an accurate representation of vein grades, samples are taken regardless of whether the vein appears to be above cut-off or not. Any waste lenses within the vein are included in the vein sample. In almost all cases the vein is usually distinguishable from the wall rock, due to the high quartz and sulphide content of the vein material.

In addition to the samples taken from development, the database now includes stope samples taken from mining during 2001 and 2002. Stope sampling methodology is the same as the development sampling.

Drill holes are sampled and logged accordingly to industry-accepted standards. Holes are logged for lithology, alternation, mineralogy and recovery. As with the underground sampling, the samples are broken out by geology, and vein and wall rock are sampled separately.

Pan American has used three commercial labs for the exploration assaying at La Colorada: Bondar Clegg (Vancouver, B.C.), Chemex (Vancouver, B.C.) and Luismin (Durango, Mexico). During 2001 and 2002, production samples were also assayed at the La Colorada lab under Pan American's direction. All assaying by the commercial labs for gold and silver has been done using fire assay with either an AA or gravimetric finish on a one-assay tonne charge. Base metals were assayed using acid solution and AA determination. The La Colorada lab uses fire assay for gold and silver on a ten gram charge with a gravimetric finish. Base metals are assayed using acid digestion and titration.

A quality assurance/quality control program consisting of check assays and blank samples at an independent laboratory were used throughout the drilling program. The results of the re-assaying shows variation between the La Colorada lab and the independent laboratory. However, the mean of the assays for both silver and gold are lower from the on-site lab, which would introduce an element of conservatism into the sulphide resource and reserve calculations.

All of the drilling, sampling and quality assurance/quality control programs were conducted under the direct supervision of Pan American's geology staff.

## Mineral Reserves

Pan American's management estimates that mineral reserves at La Colorada, as at December 31, 2003, are as follows:

## La Colorada Mineral Reserves 1,2

#### Oxide

Reserve <u>Category</u>	<b>Tonnes</b>	Grams of Silver per tonne	Grams of Gold <u>per tonne</u>
Proven Vein and Stockpile	560,000	462	0.5
Probable Tailings	436,000	113	-
Probable Vein	1,183,000	492	0.5

# **Sulfide**

Reserve <u>Category</u>	<b>Tonnes</b>	Grams of Silver per tonne	Grams of Gold per tonne	% Lead	% Zinc
Proven Vein	180,000	583	0.5	1.0	2.0
Probable Vein	106,000	571	0.5	1.0	2.0

# **Total**

Reserve <u>Category</u>	<b>Tonnes</b>	Grams of Silver per tonne	Grams of Gold per tonne
Proven	740,000	491	0.5
Probable	1,725,000	401	0.4
Total	2,465,000	428	0.4

Calculated using a price of \$5.00 per ounce of silver.

2

Mineral reserves have been prepared by the Company's wholly owned subsidiary, Pan American Mexico, and were reviewed by an independent "qualified person", Donald F. Earnest, P.Geo.

Management of the Company believes that reserves at the La Colorada Mine are sufficient for at least nine years at planned production rates.

#### Mineral Resources

Pan American's management estimates that mineral resources at La Colorada as at December 31, 2003 are as follows:

# **Vein and Mantos Mineral Resources** 1, 2, 3

Resource <u>Category</u>	<b>Tonnes</b>	Grams of Silver <u>per</u> <u>tonne</u>	Grams of Gold per tonne	<u>% Lead</u>	% Zinc
Measured	562,000	438	0.53	1.0	1.4
Indicated	2,189,000	418	0.53	1.0	2.0
Total	2,751,000	422	0.53	1.0	1.6
Inferred	452,000	597	0.53	-	2.5

1

Calculated using a price of \$5.00 per ounce of silver.

2

These resources are in addition to La Colorada mineral reserves.

3

Mineral resources were prepared by Pan American and were reviewed by an independent "qualified person", Donald F. Earnest, P.Geo.

# **Breccia Mineral Resources** 1, 2, 3

Resource <u>Category</u>	<b>Tonnes</b>	Grams of silver <u>per</u>	Grams of Gold per tonne	% Lead	% Zinc
		<u>tonne</u>			
Inferred	6,715,000	112	0.24	-	0.6

1

Calculated using a price of \$5.00 per ounce of silver.

2

These resources are in addition to La Colorada mineral reserves.

Mineral resources were prepared by Pan American and were reviewed by an independent "qualified person", Donald F. Earnest, P.Geo.

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3

#### **Development of Mining Operations**

#### Initial development work

During 2000, development work at La Colorada included diamond drilling and underground drilling for reserve definition, the preparation of a bankable feasibility study, negotiation with banks for project financing, independent engineering review, repairs to the existing shaft and rehabilitation of the existing mill to restart operation in 2001. During the fall of 2000 repairs involving shotcrete and steel were made to the existing shaft to ready the mine for full development.

Following successful drilling, which substantially increased the oxide reserves at the property, a bankable feasibility study was completed in June 2000 using H.A. Simons Ltd. for mill design, Agra Earth and Environmental Ltd. for tailing design, and Beacon Hill Consultants and R. Barnes Consultant for mine design. An Environmental Impact Study ("EIS") was prepared to World Bank standards by Dew Point International, LLC and reviewed by Clifton Associates Ltd.

Also in 2000, a credit facility mandate letter was signed with IFC. The feasibility study was reviewed by IFC's independent engineers and the EIS was posted on the World Bank's web site for review and comments. Pan American received conditional IFC board approval in February 2001 for a loan facility of up to \$28.6 million for the construction and development of the La Colorada project. It was a condition precedent to loan drawdown that Pan American hedge enough silver to cover several years of operating costs at a price greater than \$5.00 per ounce of silver. Due to declining silver prices in 2001 the definitive loan documentation was not signed and Pan American and the IFC allowed the financing arrangements to lapse.

## Rehabilitation of Existing Mill and Limited Production

Pan American decided to rehabilitate the existing mill at La Colorada to allow for limited production in 2001. Limited production commenced in January 2001 at approximately 90 tonnes per day, which increased to approximately 120 tonnes per day as of March 2001 and reached a consistent production rate of 150 tonnes per day in June 2001. In January, 2002 the mill's operating capacity was increased to 200 tonnes per day following the addition

of another small ball mill and additional lead floatation capacity. The feed for the mill is underground sulphide ore from the La Colorada property.

The mining method utilized is cut and fill, with backfill material largely coming from waste development. Third party contractors carry out mining and mine development with Pan American providing supervision.

Pan American expended approximately US\$250,000 to restart the mill in 2001 and payback of this capital expenditure was received within 12 months. Approximately US\$100,000 was spent to upgrade the mill's capacity to 200 tonnes of sulphide ore per day in late 2001.

## **Expanded Production**

In January of 2002 Pan American prepared an internal update to the June 2000 Feasibility Study (qualified persons: John H. Wright, P.Eng. and Norman Pitcher, P.Geo) (the "Updated Feasibility Study"). This Updated Feasibility Study recommended proceeding with a 210,000 tonnes per year underground mining operation for oxide ore in conjunction with and continued mining of 70,000 tonnes per year of sulphide ore.

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Construction of the new oxide mill commenced in July 2002 and produced the first dore bars in August 2003. The rest of the facilities, including the surface areas and sulphides plant rehabilitation, road upgrades and the first phase of the tailings dam construction were 95% complete by December 31, 2003. Total project construction work including the second phase of the tailings dam is expected to be complete by June 2004.

Pan American Mexico's 2003 capital expenditures, including the construction in progress at La Colorada, were \$12.3 million.

#### Mining

The mining method utilized for the oxide ore is mechanized cut and fill from the property's NCP, 4235 footwall, NC2W and San Fermin veins. Fill material is sourced from development muck, waste slashed from walls in the stopes and a surface open pit. No tailing backfill is planned. Based on the results that La Colorada operations had in the narrower sulphide stopes, no conventional slusher cut and fill stopes for narrow veins are planned. Mechanized cut and fill will be used for narrow veins with 1.5 yard scoop trams for mucking. In narrow stopes the ore will typically be blasted by taking down the back. If the ore outline is too narrow for the scoop tram, the access for mucking the next cut will be provided by slashing the walls after the ore is mucked. The slashing will also provide backfill. Rock bolts will be used for ground control, with 1.2 meter by 1.2 meter pattern bolting used about 50% of the time.

Mechanized equipment includes three yard, two yard and 1.5 yard scoop trams, low profile nine tonne trucks for haulage in NC2W and NC2E ramps, jack legs for drilling and battery locomotives/Granby cars for sill haulage.

In 2006, hoisting capacity from the 395 level and below will be upgraded by installing a larger 350 HP - 900 rpm motor gear reducer. Additional upgrades to clutches, braking system, Lilly controls and other electrical controls will also be performed.

The mine plan was developed for mining all areas concurrently. The NCP oxide area is expected to produce 400 tonnes per day; NC2E sulphide is expected to produce 150 tonnes per day and the San Fermin/NC2W is expected to produce 200 tonnes per day oxide and 50 tonnes per day sulphide. As the San Fermin and NC2W reserves are mined out, the rate of mining in NCP and NC2E will be increased to compensate.

#### Milling

Milling consist of a 600 tonne per day conventional cyanide recovery plant for oxide ore as well as the existing 200 tonne per day flotation circuit for sulphide ore processing. During the mine's life, it is estimated that 80% of the silver will be produced in dore form and 20% of the silver will be contained in base metal concentrates. Treatment of sulphide material will produce lead and zinc concentrates with the majority of silver reporting to the lead concentrate.

### Metallurgy

Predicted metal recoveries in oxide ore based on all available test work is as follows:

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<b>Structure</b>	Silver Recovery %	Gold Recovery %
NC2W	90.00	87.5
4235	90.00	87.5
NCP	84.45	75.0
Tailings	73.00	80.0

#### Economic Analysis and Payback

The current mine life extends to 2013, which mines out the proven and probable oxide and sulphide reserves.

The total cost of the mine, mill, plant site and services (including debt financing) is estimated at \$20 million and will be completed by mid 2004. Estimated mine operating costs are \$19.57 per tonne of NCP oxide ore, \$19.70 per tonne of NC2W/San Fermin ore and \$21.19 per tonne of sulphide ore. The process operating costs at La Colorada are estimated to be \$10.86 per tonne of NCP oxide ore, \$8.96 per tonne of NC2W/San Fermin ore and \$10.11 per tonne of sulphide ore. Assuming production of 800 tonnes per day and a silver price of \$4.50 per ounce, the La Colorada mine is estimated to produce cumulative net cash flow of approximately \$26 million through 2011. Based on this

production rate and these cash flows, the La Colorada mine is expected to return the capital investment in 3.4 years, including funding sustaining capital.

During 2004, Pan American will continue to ramp production up to originally estimated feasability levels of 800 tonnes per day, which is expected to be achieved by the third quarter.

The project economics are most sensitive to the price of silver, operating costs and capital costs. Project economics are barely affected by changes in the prices of gold, lead and zinc.

#### **Environment**

An environmental impact study and risk assessment by Clifton Associates Ltd. on the La Colorada property was submitted to Mexican environmental authorities in early March 1999. The EIS described the impacts of proposed development and mining activities and provides conceptual plans for closure and remediation. The EIS was approved by the Mexican authorities in November 1999.

The permits issued to Pan American Mexico allow for the commencement of construction and set out the conditions required for compliance prior to and during construction and operation. Approved design allows for an underground mine of up to 1,500 tonnes per day capacity and processing by cyanide leaching, flotation or a combination of both. These permits are valid until November 2004.

The three most significant environmental issues currently associated with the La Colorada property are the erosional stability of existing tailings facilities on the property, domestic waste water discharge from on-site buildings, and an uncovered solid waste landfill on the western portion of the La Colorada property.

Inactive tailings impoundments containing oxide and sulphide materials are located on the La Colorada property, neither of which has been regraded, covered or vegetated. The slopes of these impoundments have undergone extensive erosion and require remediation. Pan American estimates the costs of this remediation work to be less than \$400,000. Pan American expects to profitably re-treat oxide tailings.

Activities necessary to ensure long-term compliance with Mexican waste water discharge parameters will be completed during mine construction. As part of this construction an Imhoff tank was constructed to process domestic waste waters, with clarified waters discharged to the new tailings pond.

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A solid waste landfill is located on the western portion of the La Colorada property. The historic landfill wastes on the arroyo slope are not covered but new fill is deposited into open trenches atop the landfill and covered on a weekly basis. Reclamation of the landfill will require re-grading slopes to reduce the angle of repose, and covering. Culverts may be required to prevent blockage of the arroyo drainage.

## Marketing

All of La Colorada's concentrate production is sold under a one-year contract expiring in 2004 to an arm's length integrated smelter located in Torreon, Mexico. An agreement for dore production from the new oxide mill has been completed with Johnson Matthey in Salt Lake City, Utah, U.S.A.

During 2003 the revenue produced by the La Colorada mine was as follows:

2002	Revenue	<b>Tonnes</b>	Average Price per Tonne
Dore	\$1,055,552	1.1892	\$887,615
Zinc Concentrate	\$259,000	848	\$305
Lead Concentrate	\$3,240,000	1,250	\$2,592

# **Stockpiles**

Pan American transports and sells silver-rich pyrite Stockpiles at a small-scale operation in central Peru. These operations are not material to the Company.

The Stockpiles were accumulated over several years by Volcan, a Peruvian mining company which is one of the largest silver producers in the Cerro de Pasco mining district in central Peru. Until recently silver could not be extracted from the Stockpiles by standard metallurgical processes.

On November 8, 2002, Pan American entered into two agreements to acquire the Stockpiles. The first agreement grants Pan American the right to mine and sell 600,000 tonnes of the highest grade silver Stockpiles to a smelter, where ore is used as process flux and Pan American is paid for the silver contained. A ten-year contract to process the Stockpile material was negotiated with Doe Run's La Oroya smelter. Production from the Stockpiles in 2003 totalled 68,388 tonnes of ore containing 810,829 ounces of silver. For 2004 and beyond, Stockpile sales are expected to average approximately 72,000 tonnes per year resulting in annual silver production of approximately 850,000 ounces of silver.

The second agreement gives Pan American the option to acquire a 60% ownership in a number of other Stockpiles by spending \$2 million on exploration over 3 years, with a further option to increase its interest to 100% by paying \$3 million plus a production royalty within the following 12 months. Pan American has begun detailed definition drilling to confirm estimated resources and will perform metallurgical studies and an economic evaluation as to whether silver can be commercially extracted from these additional Stockpiles.

Pan American reached a further agreement with Volcan which, inter alia, extends the option above by 12 months. This Agreement is not yet finalized.

Pan American's management has estimated mineral reserves and resources at the Stockpiles, as at December 31, 2003, to be as follows:

# Stockpile Mineral Reserves and Resources<sup>1,2</sup>

Reserve or Resource <u>Category</u>	Tonnes	Grams of Silver per Tonne
Probable Reserve	522,000	313
Inferred Resource	21,337,000	162

1

Calculated using a price of \$5.00 per ounce of silver.

2

Mineral reserves and resources have been calculated by staff of Pan American Peru, under the supervision of an independent "qualified person", Donald F. Earnest, P.Geo. Mr. Earnest reviewed and tested the information prepared by the Company's subsidiary and, based upon those reviews and tests, Pan American is satisfied with the accuracy of the reserve calculations.

Management of the Company believes that reserves at the Stockpiles are sufficient for at least 10 years of production at planned rates.

#### Metals Trading

Pan American has, from time to time, engaged in hedging base metal prices for production from its mines.

In July, 2003 Pan American sold forward 15,500 tonnes of zinc at an average price of \$827 per tonne. These sales were a hedge of the future price for a portion of the July 2003 through July 2004 zinc production. In October, 2003 Pan American sold forward 2,800 tonnes of zinc at \$901 per tonne. These sales were a hedge of the future price for a portion of the zinc production from November 2003 to December 2004.

In December, 2003 Pan American sold forward 2,075 tonnes of lead at an average price of \$622 per tonne. These sales were a hedge of the future price for a portion of the production for the months of April, June and December of 2004.

At December 31, 2003 the Company had sold 8,300 tonnes of zinc forward at an average price of \$848 per tonne and 2,075 tonnes of lead at an average price of \$622 per tonne.

## **Acquisition of the Morococha Property**

#### General

On January 20, 2004, the Company entered into an agreement with 14 arm's-length individuals, estates and companies, all of whom are members of the Gubbins family or entities in which members of the Gubbins family hold beneficial interests (the "Morococha Vendors"), to purchase 92.014% of the voting shares of Argentum, a *sociedad anonima* organized under Peruvian company law, for \$35,425,390 in cash. Argentum will acquire, through a corporate restructuring undertaken under Peruvian company law, the Anticona and Manuelita mining units and related infrastructure and processing assets from Sociedad Minera Corona S.A. ("SMC"). Argentum will hold, in its treasury as cash, all profits earned by SMC's Anticona and Manuelita mining operations since November 1, 2003. The transaction is subject to regulatory approval and a number of conditions, including: (i) the completion of the corporate restructuring (which is subject to approval by the shareholders of SMC); (ii) the listing on the Lima Stock Exchange of 100% of the shares of Argentum, including those issued in connection with the corporate restructuring; and (iii) Pan American successfully undertaking a public bid (an "OPA") for not less than 92.014% of the voting shares of Argentum through the Lima Stock Exchange. If the Company's OPA is contested by a competitive third party offer, the Company may choose to outbid such competitive offer and the Morococha

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Vendors shall reimburse the Company the difference between \$35,425,390 and the higher price paid by the Company for the shares of Argentum under the OPA.

On February 24, 2004, the Company entered into a further agreement with the Morococha Vendors to purchase all of the issued and outstanding shares of a corporation organized under Peruvian company law, which holds mining concessions and operations that are complementary to the Anticona and Manuelita mining units (collectively these concessions and mining operations and the Anticona and Manuelita mining units are referred to as the "Morococha property") for \$1.5 million in cash. This acquisition is expected to close contemporaneously with the Company's acquisition of Argentum, which the Company expects to occur in June 2004.

A report entitled "Morococha Operations, Yauli Province, Peru - Technical Report", dated February 2004 (the "REI Report"), was been prepared for the Company in accordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") by an independent "qualified person", Donald F. Earnest, P. Geol., President of Resource Evaluation Inc. ("REI"). The following summary of the Morococha property is based on and, in some cases, is extracted directly from the REI Report.

The projected capital expenditures, production estimates, cash flow projections and other projections in respect of the Morochocha property included in this Annual Information Form have been extracted from the REI Report. Such projected capital expenditures, production estimates, cash flow projections and other projections were prepared by the

Company and reviewed by Mr. Earnest. These projected capital expenditures, production estimates, cash flow projections and other projections have been included in this Annual Information Form based on the requirements of applicable Canadian securities regulations and were not prepared with a view toward compliance with the published guidelines of the United States Securities Exchange Commission, or the guidelines established by the Canadian Institute of Chartered Accountants or the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information. Pan American's current and former auditors have neither examined nor compiled the accompanying prospective financial information and, accordingly do not express opinions or any other form of assurance with respect thereto.

#### Ownership and Property Description

The Morococha property is located in the Morococha District, Yauli Province, Junin Department, Peru, on the east side of the continental divide just below Ticlo summit, approximately 38 kilometres west of the city of La Oroya and 137 kilometres east of Lima. The Morococha property's general coordinates are latitude 11° 36' S and longitude 76° 10' W.

The Morococha property is comprised of three economic administrative units ("UEA") and various concessions held outside of these UEAs. The three UEAs contain 435 mining concessions owned outright by SMC or its subsidiaries, 15 mining concessions held jointly with Peru's national mining company, Centromin Peru ("Centromin"), nine concessions held jointly with other third parties, one leased concession (El Proletario), 11 concessions leased from Silver Lead Mining Company and 35 concessions leased from Corporacion Minera Sacracancha S.A., which together total 9,166.73 hectares. In addition, there are 19 mining concessions outside of the three UEAs that comprise part of the Morococha property, eight of which have been assigned to Compania Minera Volcan S.A.A. ("Volcan"), four of which are owned jointly with Volcan and five of which are leased from third parties, which together total 2,129.57 hectares. The majority of the mining concessions comprising the Morococha property are contiguous. All known mineralized zones in which mining operations are currently conducted and in which known mineral reserves exist are set out within these concessions.

SMC does not own any of the surface lands that overlie the mining concessions which comprise the Morococha property. These surface lands are owned by Centromin, the Peruvian national mining company. The Morococha property's process plants, shafts and access roads are all located on Centromin's surface lands. SMC's

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and its predecessors' use of these surface lands has been exercised for decades with Centromin's acknowledgement. Accordingly, the Company anticipates no action by Centromin to interfere with the future use of these surface lands.

Centromin has granted a subsidiary of SMC a right to use certain of Centromin's surface lands throughout the useful life of its mining operations, provided such use does not interfere with the development of a mine in respect of the Toromocha disseminated copper system, which overlies certain of SMC's mining concessions and underground mining operations. SMC is obligated to pay Centromin \$60,000 (which amount will be adjusted annually to account for inflation) quarterly commencing May 28, 2003 as consideration for this right. This right to use will be acquired by

the Company at the time of its acquisition of the Argentum shares.

The Morococha property is not subject to any royalties, overrides, back-in rights or other encumbrances. A recent report from the Energy and Mines Commission of the Peruvian Congress has recommended the approval of a bill to establish a 3% mining royalty applicable on invoiced "production value" based on international prices. See "Taxes".

All permits necessary for mining operation on the Morococha property are held by SMC or its subsidiaries. The Company's agreement to acquire shares of Argentum is conditional upon transfer of permits held by SMC to Argentum.

## Location, Access, Climate and Infrastructure

The Morococha property is accessible via Peru's paved central highway, by travelling approximately 137 kilometres east of Peru's capital city of Lima, then five kilometres south via a public, all-weather gravel road. Rail service from Lima is also available via a national rail line that passes adjacent to the Morococha operations.

The topography of the Morococha property is characterized by steep, rugged ridges and peaks ranging in elevation from 4,400 metres to 4,900 metres above sea level. Vegetation is sparse, and wildlife is limited to mostly birds and small mammals, amphibians and reptiles.

The climate of the Morococha district is typical of the Andean Cordillera in Peru, with two distinct seasons - wetter summer months (November through March) and dryer, colder winter months (April through October). Because all mining currently takes place underground, climate has minimal effect on ore production at the Morococha property.

Mining has taken place on the Morococha property and nearby areas (Casapalca, Cerro de Pasco) for more than 100 years, resulting in a well developed regional transportation and power infrastructure and a large local labour pool. Water for processing is plentiful, and tailings disposal areas are adequate. Several mine development waste disposal sites exist on the Morococha property and are sufficient to meet the needs of mining operations. Two existing processing plant sites are sufficient for all proposed operations.

## **History**

Mining began in the region around the Morococha property during the Inca Period before 1500, and production has been continuous in the district since the late 1800s.

Between 1915 and 1918, much of the district was reorganized and incorporated into the Cerro de Pasco Mining Company ("Cerro de Pasco"). By 1924, Cerro de Pasco was producing at a rate of 1,500 tonnes per day from primarily copper ores containing 6% copper. Between 1929 and 1934, Cerro de Pasco excavated the 11.5 kilometre Kingsmill Tunnel, successfully dewatering all of the Morococha district mine workings above the 4,020 metre tunnel elevation. The Kingsmill tunnel is still in use and is a vital feature of the Morococha mining district,

providing production access for deeper underground mining operations that otherwise would have been too challenging and expensive to develop.

In the 1940s, the Gubbins family began operating mines in the Morococha district through Minera Santa Rita S.A. and Minera Yauli S.A., which were subsequently consolidated in the late 1990s into SMC. Cerro de Pasco continued to operate in the Morococha district until 1974, when its mines were nationalized by the Peruvian government. Production from the Cerro de Pasco mines in the district continued under the Peruvian national mining company, Centromin, until 2003, when SMC acquired these operations from Centromin through privatization.

Historical production from the Morococha property over the past 15 years is set out in the following table.

# **Morococha Property Historical Production**

<u>Year</u>	<b>Tonnes</b>	Grams of Silver per Tonne	% Lead	% Copper	% Zinc	Tonnes per Month
1989	466,543	189	1.3	0.4	3.2	38,879
1990	461,342	166	1.3	0.5	3.6	38,445
1991	454,960	184	1.6	0.4	4.5	37,913
1992	458,257	202	2.0	0.4	5.8	38,188
1993	494,033	194	1.9	0.6	5.5	41,169
1994	503,160	227	1.5	0.5	4.9	41,930
1995	531,542	232	1.5	0.6	4.0	44,295
1996	534,148	237	1.5	0.5	3.8	44,512
1997	511,584	250	1.7	0.5	4.1	42,632
1998	539,008	251	2.1	0.4	4.9	44,834
1999	590,570	250	2.2	0.4	5.7	49,214
2000	656,318	215	2.1	0.4	5.2	54,693
2001	606,980	236	1.8	0.4	5.0	50,582
2002	550,075	274	1.7	0.5	4.4	45,840
2003	529,651	272	1.5	0.4	3.9	44,138

#### Geology and Mineralization

A 2000 metre thick Paleozoic-Mesozoic sequence of schists, volcanic rocks and predominantly carbonate sediments cut by a series of Upper Tertiary intrusions provide the host rocks for the mineralization in the Morococha district. The structures that account for the majority of the vein mineralization in the Morococha district trend predominantly northeast to east-northeast. Mineralization includes epi-mesothermal silver-lead-copper-zinc veins and bedded silver-base metal replacements or mantos (which together account for the majority of the past and present economic mineralization at the Morococha property), intrusive-sediment contact skarns, and the quartz porphyry-hosted Toromocha disseminated copper system. The size and geometry of individual ore shoots in the veins can range up to 400 metres in length and more than 800 metres down plunge. Undiluted district vein width averages are on the order of 1.2 metres. Replacement manto mineralization is generally restricted to receptive stratigraphic horizons where favorable lithologies are intersected by mineralized veins or are proximal to pre-mineral intrusives. Mantos can have a significant strike extent where the veins are closely spaced, and can range

from less that one metre in width up to seven metres. Intrusive contact related skarn bodies, while common locally, are generally small and irregular, with disseminated rather than massive sulfide mineralization.

Ore and gangue mineralogy is similar in veins and mantos but it varies considerably across the property. Sphalerite, galena, and chalcopyrite are the most important primary minerals for zinc, lead and copper and silver is generally present as freibergite (Ag-tetrahedrite) or argentiferous galena. Gangue generally consists of quartz, calcite, barite and rhodochrosite, the latter having a strong correlation with higher silver grades.

As with most of the large Peruvian polymetallic deposits, Morococha exhibits a distinct lateral and vertical metal zonation. A central copper zone centered on the Toromocha copper deposit grades outward through a lead-zinc-minor silver zone and then into an outermost zone that is richer in silver but still containing significant lead-zinc contents. There is also a distinct trend for higher silver grades at higher elevations on the west side of the Morococha property. Individual silver assays of greater than 2,200 grams per tonne ("g/mt") are not uncommon above 4,800 metres in certain areas, and greater than 300 g/mt silver ore grades also are common in the outer silver-lead-zinc zone above the 4,400 metre elevation in certain areas. In veins that have been mined over significant vertical extents (such as those in Manuelita), silver grades tend to decrease as lead-zinc grades increase with depth. However, several of the major veins currently being mined on the 4,020 metre Kingsmill Tunnel level still contain silver grades in the 200 g/mt to 250 g/mt range. The hydrothermal alteration present at Morococha is typical for central Peruvian zoned polymetallic deposits.

## **Exploration**

SMC has conducted only minimal exploration in the Morococha district since the late 1990s. However, exploration potential is considered to be excellent throughout the district due to the significant vertical extent (over 800 metres) of economic veins and the prevalence of multiple carbonate units favorable for replacement mineralization. Additionally, of the very few drill holes (less than ten) that tested depth extensions of known veins or mantos below developed ore, all intersected potentially economic material.

#### **Drilling**

SMC utilized surface and underground diamond drilling only to test for potential ore-grade mineralization in the various veins, replacement mantos, and skarn bodies. Once the results of drilling determined the presence of ore grade mineralization, the vein or manto was accessed by underground crosscutting and drifting for further exploration and delineation of ore reserves. Thus, assay data generated by drilling was seldom used in block grade estimations for mineral reserves.

## Sampling and Analysis

The data used for the estimation of mineral reserves and resources at the Morococha property consist almost entirely of underground chip channel samples from the backs of drifts, the ribs of crosscuts, the backs of stopes and the ribs of

raises. The samples are taken every 1.0 metre across the veins or mantos. Stopes are sampled at least once a month on 2.0-metre centers along strike. Before estimating ore reserves at the end of each quarter, each active stope back is sampled on 1.0-metre centers to provide the close spacing required for the definition and calculation of block grades.

The Company believes that sample security (chain of custody) is not an issue at the Morococha property. Sample preparation, assays, and analyses are done on site, and samples remain in the control of Morococha employees. Several inconsistent or inappropriate pre-laboratory sample preparation procedures have been observed, including some loss of sample during breaking of the large fragments, loss of sample during transfer of the sample to the sample tarp, sample homogenization, and transfer of the split retained for assay back into the sample sack, and

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inadequate reduction of sample particle size prior to homogenization and splitting. The Company believes that these issues, while deserving immediate correction, do not constitute a material concern relative to the integrity of the resulting assay data.

All samples from both the Morococha mine and mill are first run for silver, lead, copper, and zinc using an atomic absorption ("AA") unit. Samples with initial AA analyses for silver greater than 25 ounces per ton are rerun by fire assay, using assay charges that vary in size from 10 to 15 grams depending on the grade of the initial AA assay (the larger the AA assay value, the larger the fire assay charge). Wet chemical analysis for lead and zinc is reserved for concentrate samples.

No quality assurance/quality control ("QA/QC") program was ever established for the analysis of mine samples at either of SMC's laboratories. This lack of QA/QC data makes it difficult to assess the performance and reliability of either laboratory. An examination of the reconciliations between mine production and reported mill throughput over the past seven years from the Manuelita and Codiciada zones indicate consistently higher grades reported by the mine compared to the mill for all metals, except copper, which in 1998 was five percent higher for the mill. This consistent difference suggests a high global bias in the mine sample assay results (on which the mine production grades are based) generated by SMC's recently closed laboratory. However, a recent independent sampling of ore stockpiles by the Company (where the samples were prepared and assayed by the new SMC laboratory) showed a consistent low bias in the assays for all metals, except zinc, relative to the assay results from pulp duplicates.

#### Mineral Resources and Mineral Reserve Estimates

Mineral Reserve Estimate

The estimated proven and probable mineral reserves for the Morococha property as of June 30, 2003, are set out in the following table:

#### **Morococha Property**

#### **Proven and Probable Reserve Estimate**

Reserve Category	<b>Tonnes</b>	Grams of Silver per Tonne	% Copper	<u>% Lead</u>	% Zinc
Proven	1,161,000	270	1.8%	0.5%	4.9%
Probable	133,000	270	1.9%	0.6%	5.4%
TOTAL	1,294,000	270	1.9%	0.5%	4.9%

The foregoing mineral reserves were estimated by SMC's geology and engineering staff and were reviewed by an independent "qualified person", Donald F. Earnest, P.Geo. with Resource Evaluation Inc. ("REI"). Mr. Earnest has tested and verified the information developed by SMC and has concluded that the reserves were estimated in accordance with the guidelines set forth in NI 43-101 and accepted Canadian mining industry practices. In Mr. Earnest's opinion, the overall mineral reserve estimate can be considered conservative due to certain adjustment factors applied to individual mineral reserve blocks by the Morococha geology staff during reserve estimation, including: (i) local severe cutting of high grade outlier assays; (ii) extraction factors that varied by block and run as low as 50%; and (iii) grade discounting factors that were applied based on reconciliations between mine production estimates and mill through-put for previous years.

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The following mineral prices were used in connection with the above mineral reserve estimate: silver - \$4.75 per troy ounce; lead - \$480 per tonne; copper - \$1,760 per tonne; zinc - \$800 per tonne; and gold - \$350 per troy ounce. A cut-off value of US\$35.00 per tonne was used in the estimation of each of the reserve categories.

Reserve block boundaries above and below each level are determined either by assays from raise sampling or by projection distance limits established for each vein. The vertical projection distance limits vary from 15 to 25 metres for proven blocks. Probable blocks extend from each proven block upwards or downwards for a distance of 25 metres to 35 metres to a 50 metre projection limit, so that the maximum total projection distance (proven and probable blocks combined) from level sample data does not exceed 50 metres.

Once the block boundaries are established, block areas in the plane of the vein are computed by measuring block lengths and widths on the vertical longitudinal sections and applying a factor to account for the average dip of the vein. Block volumes are then calculated by taking the block areas and multiplying by the weighed average mining width for each block (derived from drift and raise sampling). The mining widths used for computing block volumes include extending internal dilution out to minimum mining widths, and in certain cases, the application of additional external dilution.

Block grades are estimated for silver, lead, copper, and zinc simply by obtaining weighted averages of the assays from the 1.0 metre drift and raise sampling that falls within the boundaries of a block. The average grade for each block is then adjusted downwards to allow for dilution. The amount of dilution applied varies by vein.

#### Mineral Resources Estimates

Historically, no mineral resource inventory has been carried at the Morococha property by SMC. In order to provide

the Company with a reasonable mineral resource inventory on which to base its investment decisions, an independent "qualified person", Mr. Donald F. Earnest, P.Geo. with REI, completed the following manual measured and indicated resource estimate based on data provided by SMC as of June 30, 2003. Mr. Earnest has tested and verified such data provided by SMC. Each of the resource categories were estimated based on the same mineral price assumptions and cut-off value used in connection with the calculation of the mineral reserve estimates.

# Morococha Property Measured and Indicated Resource Estimate

Resource Category	<b>Tonnes</b>	Grams of Silver <u>per Tonne</u>	% Lead	% Copper	% Zinc
Measured	119,000	340	1.1%	0.5%	2.7%
Indicated	707,000	270	1.6%	0.5%	4.6%
TOTAL	826,000	280	1.6	0.5%	4.3%

The maximum projection distance from sample data for proven and probable ore reserve blocks totalled 50 metres from sample data in the plane of veins or mantos. In general, maximum projection distances of 15 metres and 35 metres were used for proven and probable blocks, respectively. These same projection distances were held for the construction of measured (15 metres) and indicated (35 metres) blocks. The resource blocks constructed were either extensions beyond proven and probable blocks that did not span the full 50 metres from data, extensions of ore-grade mineralization immediately below mined areas on lower levels, or extensions above stopes or levels. The minimum mining width, dilution, and specific gravity criteria established by SMC were adhered to for ore reserve block volume and tonnage estimations. Where resource blocks are extensions of existing ore reserve blocks, measured and indicated block grades were taken from the adjacent proven and probable ore reserve blocks. Where resource blocks were extensions of mined stopes, the grade of the closest up-dip or down-dip reserve block was

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used. Because existing proven and probable block grades were used for adjacent resource blocks, the resource block grades include all grade adjustment factors (high grade outlier capping, sampling and assaying error corrections) applied by SMC. However, because the resource block tonnages were computed independently, no extraction factors were applied to resource block tonnes.

In addition to the measured and indicated resources listed above, the Company developed an estimate of the inferred resource on the Morococha property, which is set out in the following table:

Morococha Property	
<b>Inferred Resource Estimat</b>	e

Resource Category Tonnes <u>% Lead</u> <u>% Copper</u> <u>% Zinc</u>

# Grams of Silver per Tonne

Inferred 7,635,000 250 2.0% 0.4% 4.4%

The inferred resource tonnages for each vein were estimated by the Company as part of its assessment of the potential of the many veins and mantos at the Morococha property. The Company divided its assessment into two categories - "known" potential and "geologic" potential. Known potential was estimated by projecting known ore shoots in the veins or mantos down-dip from the lower working levels of each vein. The lateral (strike) limits to the known potential were established using mined stopes as guidelines, and the projection down-dip was allowed to extend to the 4,020 metre elevation of the Kingsmill drain tunnel in the stronger veins and mantos that have demonstrated past production over significant lateral and vertical extents. Factors were also applied to known potential tonnage estimates based on visual estimates made from the longitudinal sections of ore extracted by past mining, and also to allow for property boundary considerations. The down-dip trend of mined stopes was used to establish plunges to the projections of the known potential outlines, and wallrock geology was also considered where distinctions between more and less favorable wallrock units could be established. An independent "qualified person", Mr. Donald F. Earnest, P.Geo. with REI, has reviewed the foregoing inferred resource estimate and concluded that it was prepared using reasonable projections and in accordance with the guidelines set forth in NI 43-101 and accepted Canadian mining industry practices.

There are no known environmental, permitting, legal, title, social-economic, marketing or political issues that could materially affect the above mineral reserve or mineral resource estimates, other than depletion of mineral reserves by normal mining (which should be offset by ongoing new mineral reserve additions from exploration and delineation work) and there are no known mining or metallurgical factors that could have a similar material effect.

No mineral reserves are included in the estimates of measured, indicated or inferred mineral resources described above. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

#### Mining

Underground mining operations at the Morococha property consist primarily of typical overhand cut and fill, shrinkage, and mechanized room and pillar methods using waste rock for backfill where needed. Holes are drilled in the mining face using jacklegs which are loaded with explosives and blasted twice per day between shifts. Slushers are used in the cut and fill and shrink stopes to transport the broken rock to chutes that report to levels with track haulage. Locomotives transport the ore from the chutes to one of three shafts for hoisting. Highway dump trucks then haul the ore from shaft coarse ore bins to mill stockpiles. In addition to the three main shafts, some ore is also transported from certain sectors of the mine to stockpiles using scoop trams. The mine operates two eight hour shifts per day, six days a week.

The Yauli, Maria and Central production shafts provide access down to the Kingsmill drainage tunnel level at an elevation of 4,020 metres. The Central shaft is located approximately 1,500 metres west of the Maria Shaft and 2,500 metres west of the Yauli shaft. The Maria and Central shafts are equipped with above ground head frames, hoists and ore bins. The Maria Shaft has a single split drum hoist with two 2.0-tonne skips. The Central Shaft is larger with two split drum hoists. One hoist is fitted with two 3.5-tonne skips and the other is used for men and materials. The Yauli shaft is equipped with two 2.6-tonne skips and its collar is located beneath the surface. Ore from the Yauli shaft feeds into chutes from which it is then transported by a small locomotive to an adjacent subsurface truck loading facility. The three shafts have a combined capacity to support production schedules in excess of 600,000 tonnes per year.

The Morococha property includes the Sacracancha and Amistad process plant facilities that are separated by approximately five kilometres. Both process plants are conventional selective flotation facilities capable of producing individual copper, lead, and zinc concentrates. These flotation concentrates are shipped to third party smelters for final refining. In December 2003, the Amistad plant became the primary milling facility for all Morococha mine ores. Although much of the Amistad plant is at least 80 years old and many repairs and upgrades are needed, the SMC operators have been able to obtain satisfactory production and reasonable metallurgical performance with the plant in its current condition.

# Metallurgy

The metallurgy of the Morococha ore is highly variable according to the mineral assemblage. There are numerous vein and manto deposits that form the mineral reserves and resources of the Morococha property, each with unique mineral assemblages. The SMC staff has developed individual metallurgical projections according to the expected deposit mineral assemblages. These projections have been established with consideration and experience of the many years of operating results and testing of the various Morococha deposits. These metallurgical performance projections are summarized in the following table:

Morococha Property Metallurgical Projections (By Mine Area)

	<u>units</u>	<u>Manuelita</u>	<b>Codiciada</b>	<u>Sulfuruso</u>	San <u>Antonio</u>	<u>Alapampa</u>	Yacumina	San <u>Florencia</u>
Ag Head Grade	gpt	265	240	299	225	229	415	258
Pb Head Grade	%	1.92	1.92	1.34	2.73	1.16	1.38	3.28
Cu Head Grade	%	0.53	0.36	1.02	0.38	1.16	0.15	0.18
Zn Head Grade	%	4.72	5.81	3.11	5.76	7.07	2.48	5.96
Cu Conc Grade	%	24.2%	24.2%	28.5%	28.5%	28.5%	22.7%	21.4%
Pb Conc Grade	%	53.9%	53.9%	54.0%	54.0%	54.0%	52.6%	52.2%
Zn Conc Grade	%	50.2%	50.2%	50.4%	50.4%	50.4%	50.8%	53.9%
Ag in Cu Recovery	%	55.9%	55.9%	59.1%	59.1%	59.1%	58.1%	56.5%
Ag in Pb Recovery	%	22.7%	22.7%	18.1%	18.1%	18.1%	20.3%	28.2%
Ag in Zn Recovery	%	6.9%	6.9%	9.6%	9.6%	9.6%	11.9%	5.0%
Overall Ag Recovery	%	85.5%	85.5%	86.8%	86.8%	86.8%	90.3%	89.6%
Cu Recovery	%	65.7%	65.7%	67.0%	67.0%	67.0%	52.5%	50.3%
Pb Recovery	%	76.0%	76.0%	68.1%	68.1%	68.1%	82.7%	85.3%

Zn Recovery % 82.7% 84.1% 84.1% 84.1% 77.0% 81.1%

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Pan American carefully evaluated the metallurgical performance of the Sacracancha process plant during the month of October 2003. The SMC metallurgical projections from the table above were applied to the ore ton and grade distributions by mine area to determine a weighted average metallurgical performance projection for the ores treated at the Sacracancha plant during October 2003. This projection was compared to the actual performance as determined from the reported month-end metallurgical balance. Overall, using common metal sales prices and marketing terms, the unit net smelter return on an ore ton processed basis during October 2003 at the Sacracancha plant was 2.9% less than that predicted by the metallurgical projection targets used for the Morococha reserve estimation.

#### Mine Plan and Development Program

Pan American has developed a long range mine plan and development program for the Morococha property, based on an average production of 1,600 tonnes of ore per day through 2007 (40,000 tonnes per month, 480,000 tonnes annually) and an average of 1,840 tonnes of ore per day from 2008 to 2018 (46,000 tonnes per month, 552,000 tonnes annually), assuming an average of 25 production days per month. Production is scheduled to come from all areas of the Morococha operation at different levels through 2018.

The long range mine plan was completed based on the following prices: silver - \$5 per troy ounce; copper - \$1,900 per tonne; lead - \$600 per tonne; and zinc - \$900 per tonne. These prices are higher than the metal prices used by SMC for proven and probable reserve estimates, due to improvements in metal prices since June 30, 2003.

The mine plan was sequenced using, in order or preference, proven and probable reserves, measured and indicated resources, and finally, inferred resources. Thus, the earliest years of the mine plan can be considered as a short-term plan having a high degree of certainty. Total material processed in the 15 year mine plan is approximately eight million tonnes. Of the total material processed in the plan, 1.5 million tonnes (18%) are mineral reserves and measured and indicated resources. The remaining 82% of the material scheduled is inferred resources. A combination of diamond drilling in the first two years and underground drifting for the entire mine life is included in the plan to convert inferred resources to reserves prior to mining. SMC has not historically recorded a running success rate regarding the conversion of inferred resources to proven reserves, as SMC has not historically estimated inferred resource data for the Morococha mine. Instead, SMC has recorded the number of tonnes of new reserves estimated for every metre of development advance. Pan American's drifting program applies those historical conversion rates to the inferred resources Pan American has identified. Rather, in each production year the amount that has been mined has been replaced with new reserves. Pan American has assumed that both diamond drilling and drifting would be accelerated in the first years of the mine plan to extend the mine life beyond its present three year proven and probable

reserve life.

The mine plan and development program includes several capital improvements designed to increase productivity. These include:

- Extending the length of the stopes to 70 metres which will result in a 30% reduction of raise preparation.
- Implementation of development drilling to improve the development performance ratio (tonnes of ore converted per metre of development) to 55 tonnes per metre from the current 20 tonnes per metre;
- Better control of external dilution in the Codiciada Alta, Sulfurosa, and Alapampa areas (which averaged 8% in 2003), bringing it in line with the Codiciada Baja, Manuelita, and Yacumina areas, where the average excess external dilution in 2003 was minimal (0.06%).
- The development of additional ore passes and waste passes in 2004 and 2005 in Codiciada and Alapampa and in 2007 in areas of Yacumina in order to reduce ore handling;

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- Repairs to the Central shaft, including realignment of 150 metres of timber and guides, electrical improvements to the hoist, new cables, and installation of equipment that will provide for the simultaneous hoisting of ore and waste, avoiding the current necessity to campaign the separate materials;
- The development of main haulage levels in the lower areas of the mine that will allow the use of 10-tonne trolley locomotives and 100 cubic foot cars;
- The centralization of the ore flow to the Central shaft and the Manuelita shaft, which will reduce ore handling; and
- Improvements to compressed air and drilling water supply services, and ventilation.

#### Economic Analysis and Payback

Capital cost estimates for the mine, plant, infrastructure, environmental and sustaining capital over three years total approximately \$16 million. These capital expenditures are necessary in order to achieve the overall long term planned production rate of 48,000 metric tons per month, prepare the operation for sustained production beyond the three year proven and probable reserve life and to achieve forecast cash flow.

Operating costs of the Morococha property over the three year period during which the current proven and probable reserves would be mined are estimated to be approximately \$18.13 million, \$18.77 million and \$17.79 million in each of the three years of the mine plan, respectively. This represents unit operating costs per tonne of \$38.62, \$39.37 and \$36.51 in each of the three years of the mine plan, for an average unit operating cost per tonne of \$38.15. The operating cost assumptions were developed using source data provided by SMC. Historic production basis and accounting costs records for SMC were analysed and reconciled in order to obtain the most accurate present costs incurred in the operations. Adjustments were made where it is known the costs under Pan American's stewardship will differ from present costs. The primary data source for the operating cost estimate was taken from actual costs

incurred from January to October in 2003. An increase of five percent has been added to the contractor's worker salaries, which results in an increase of 3.3% to the unit costs. Cost estimates included provisions for administrative office expenses, annual mining concession payments and insurance. The power supply costs were based on a review of the expected power consumption using a commercially available rate of \$0.05326 per kilowatt hour. The operating costs estimate also included costs for exploration drilling.

A cash flow forecast for the Morococha property was generated from the June 30, 2003 proven and probable reserves estimate and a projection of the December 31, 2003 proven and probable reserve base. The cash flow forecast estimated net after tax cash flows of the future production profile incorporating estimates for production rates, metallurgical performance, mined ore grades, direct mine operating costs, development costs, exploration drilling costs, general and administration costs, marketing costs, capital expenditures, employee profit sharing and corporate income taxes. The three year cash flow forecast totals approximately \$9.3 million (\$444,000 in year one, \$4,604,000 in year two and \$4,258,000 in year three). This forecast cash flow does not provide payback for the Company's costs of acquiring Argentum based solely on the proven and probable reserves, as these only provide for a three year mine life. However, the Company believes that sustained mining will continue well beyond the life of the current proven and probable reserves and has included development and sustaining cost provisions based on this assumption.

The economics of the Company's long range, 15 year mine plan and development program for the Morococha property is based upon the assumption that future drilling and underground drifting will convert inferred resources to reserves prior to mining at a rate similar to SMC's historic rate of generating new reserves for every metre of development advance. This mine plan and development program is necessarily preliminary in nature, because it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty

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that inferred resources will be converted to mineable reserves in sufficient quantities to support Pan American's long range mine plan and development program.

# Mine Life

The estimated proven and probable reserves on the Morococha property provide for a three-year mine life at Pan American's short-term planned production rate of 40,000 tonnes per month. However, Pan American expects the mine will continue to produce for at least 15 years as reserve definition programs are carried out. Historically, most underground mines in mature mining districts, in countries such as Canada, the United States and Peru, have carried no more than three to five years of proven and probable reserves ahead of production. This is because of the very significant capital costs required to maintain sufficient mine development to provide access for the drilling and sampling required to support the conversion of indicated and inferred resources to proven and probable reserves. As a result, at any given point in a typical underground mine's life, a valuation of the mine based only on proven and probable reserves would not be likely to justify purchase of the mine by a third party. At Morococha, SMC has been successful at generating new reserves to replace those mined each year. In Pan American's opinion, given the demonstrated geologic potential of the district, this trend can reasonably be expected to continue for the 15-year

period in Pan American's long range plan.

#### **Environment**

The Morococha mine area is located between 4,500 and 4,900 metres above sea level. At this altitude, vegetation is sparse and wildlife is limited to birds, small mammals, reptiles, and amphibians. Human use of the area is almost exclusively for mining and exploration activities, except for the occasional grazing of sheep and llamas. Soil development is generally poor, and is limited to a thin (10-20 centimetre) layer of sandy loam with low organic content. The area has significant impacts from historic mining and related activities.

The landforms of the area have been created by glacial activity with U-shaped valleys, hanging valleys and tarns (hanging lakes). These landforms create locally isolated surface water basins and locally steep valley walls. Several drainages are tributary to Rio Yauli, which in turn is tributary to Rio Mantaro. The Kingsmill drainage tunnel discharges between 1.5 to 1.8 cubic metres per second of water into the Rio Yauli and has been determined to be a significant polluter according to studies performed in the late 1990s.

The assessment of the potential closure and post-closure liabilities at the Morococha site is based on an evaluation of the potential risks to the local environment. Some of the local environmental conditions preclude impacts to critical resources, given the harsh conditions, elevation, limited human activity apart from mining and exploration, and the conditions of the natural mineralized outcrops that exist in the area.

The single largest environmental liability identified is the Morococha mine's share of the cost of a proposed Kingsmill tunnel water treatment plant. Morococha's share was defined by a study completed in 1997 by Water Management Consultants ("WMC"), which apportioned responsibility for the costs of the treatment plant as follows:

• Centromin	72.2%
<ul> <li>Morococha operations</li> </ul>	12.3%
• Soc. Minera Puquiococha	8.5%
• Soc. Minera Austria Duvaz	4.9%
• Minera Centrominas	2.1%

The capital and operating costs for the water treatment facility are directly proportional to both constituent load and flow determined in the 1997 WMC study. The Company understands that Centromin is currently

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conducting an update to the 1997 WMC study, but the results of the update are not yet available. As part of its due diligence efforts, Pan American conducted its own sampling of the Kingsmill tunnel discharge. Based on the results of

this sampling, which indicated an improvement to water quality since 1997, it appears unlikely that the update will materially change the responsibility calculations determined in the 1997 WMC study.

The Huascacocha Lake, which is adjacent to the Morococha mining operations, has been used for tailings disposal since 1960. The facility has additional capacity for 15 years of tailings once a dike raise is completed. Initial deposition created a beach of tailings that eventually raised environmental concerns related to dust and acid generation. WMC completed a study in 2001 to determine what may be required to mitigate the historical tailings. The WMC plan includes raising the dike to submerge a larger portion of tailings and covering the remaining beach tailings with topsoil. The share of responsibility for this tailings mitigation has been allocated in the WMC plan as follows:

Centromin 67.15%
Morococha Operations 21.01%
Soc. Minera Austria Duvaz 11.84%

Although there are some uncertainties associated with certain recently enacted Peruvian environmental regulations, Pan American has estimated final site reclamation costs for the Morococha property to be approximately \$3.31 million. Assuming a minimum 15-year mine life, Pan American anticipates that the annual funding of final site reclamation will require payments of \$221,000 per year. In addition to final site reclamation costs, other non-environmental closure costs are estimated at \$1.85 million for employee severance and warehouse closures.

#### Markets

Sales of copper, lead, and zinc concentrates by large and medium size mining companies in Peru occur through tenders to international traders and smelters. Currently, part of SMC's production from the Morococha mine is sold locally to the Doe Run smelter in Peru and Cajamarquilla refineries and the balance is exported. Most mining companies in Peru sell directly to traders, mainly Glencore, Trafigura, BHL, Pechiney, and Transamine, but in lesser amounts to Hochschild Partners, Marc Rich, Euromin, Mintrade, LN Metals, Samsung, among others, with less participation. Foreign refineries that buy directly from producers include UMICORE (Belgium), Paraibuna (Brazil) and other, less significant, traders and refiners. Pan American, through its Huaron and Quiruvilca operations, already has developed business relationships with many of these traders and smelters.

No marketing contracts are being assumed by Argentum from SMC. Pan American has existing marketing contracts for its other operations in Peru, and under the terms of the Argentum share purchase agreement Pan American is free to pursue new marketing contracts for Morococha's production.

#### **Development Projects**

## Alamo Dorado Project

#### Ownership and Property Description

The Alamo Dorado Project is located 67 kilometres southeast of the town of Alamos, Sonora, near the border with the State of Sinaloa in northwest Mexico at 26°, 44′, 44.2″ North Latitude and 108°, 40′, 00.7″ West Longitude.

The Alamo Dorado Project consists of two concessions, the Alamo Ocho Concession and the Alamo Dorado Concession, covering a total area of 5,369 hectares. The Alamo Ocho Concession was purchased by Corner

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Bay from Alfredo Duran Viramontes and Roberto Duran Viramontes for \$425,000 in semi-annual payments from 1997 to 2002 and a balance payment of \$300,000, all of which have been paid. An exploration concession for the Alamo Ocho Concession was granted on December 13, 1993 and Pan American has made an application for an exploitation concession to be granted in respect of this property. An exploration concession for the Alamo Dorado Concession was granted on May 27, 1998 and expires on May 26, 2004.

A technical report dated July 21, 2003 (the "Mintec Report") has been prepared for Pan American in accordance with NI43-101 by an independent "qualified person", John C. Thornton, Vice President, Consulting Engineering of Mintec, Inc. ("Mintec") Except where otherwise indicated, the following summary on the Alamo Dorado Project is based on and, in some cases, is extracted directly from the Mintec Report.

The projected capital expenditures, production estimates, cash flow and other projections included in this Annual Information Form with respect to the Alamo Dorado Project have been extracted from the Mintec Report. Such projected capital expenditures, production estimates, cash flow projections and other projections were prepared by AMEC E&C Services, Inc. ("AMEC") in connection with a June 2002 feasibility study and reviewed by Mr. Thornton. These projected capital expenditures, production estimates, cash flow projections and other projections have been included in this Annual Information Form based on the requirements of applicable Canadian securities regulations and were not prepared with a view towards compliance with published guidelines of the United States Securities Exchange Commission, or the guidelines established by the Canadian Institute of Chartered Accountants or the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information. Pan American's current and former auditors have neither examined nor compiled the accompanying prospective financial information and do not express any opinions or any other form of assurance with respect thereto.

## Location, Access, Climate and Infrastructure

The Alamo Dorado Project can be accessed from the United States via toll highway 15 which is a well-maintained, four-lane, paved road that starts at the border town of Nogales, Sonora. The project is 67 kilometres southeast of Alamos on a well-maintained gravel road. Major airports in the state of Sonora are located in Hermosillo in the central sector of the state, and Ciudad Obregon to the south. The airport at Ciudad Obregon is approximately 75 kilometres north of Navojoa.

The climate of the Alamo Dorado Project area is transitional between the tropical climates further south and the subtropical desert lands typical of the Pacific Coast of Baja, California.

Annual mean temperature is approximately 22 degrees Celsius. The hottest months are June to September with mean monthly temperatures between 28 degrees Celsius and 32 degrees Celsius. Precipitation at the Alamo Dorado property is bi-seasonal, averaging approximately 826 millimeters. Most of the rainfall occurs in the form of summer tropical storms during the months of July, August and September with June and October marking the beginning and end of the rainy season. There is a secondary, minor rainy season in the winter, with precipitation occurring primarily in December and January. The spring months, from February through May typically have little or no rainfall.

The area is on the western flanks of the Sierra Madre Occidental geologic province and within Mexico's Sonoran Desert and Buried Ranges physiographic provinces. It is in an area of rolling hills where the climate is semi-dry and semi-warm to warm. The vegetation, in general, is sparse and can be classified as being of the low caducipholian forest type. The Alamo Dorado deposit itself lies on the top of a steep, north trending ridge, which is elevated some 250 meters above the valley floor.

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The site currently contains no existing infrastructure. The project will require a power line to be constructed, which will start near the Miguel Hidalgo hydroelectric station. A 14 kilometre water supply line and pumping system also will be required to provide water to the site from the Miguel Hidalgo reservoir.

The following major permits are required for development of the Alamo Dorado Project: (i) a permit from the Mexican National Water Commission (the "CNA") for erecting structures within the federal zone surrounding the Rio Fuerte, which is needed to construct a water diversion project at the river and to install pumps and motors; (ii) a permit from the CNA to appropriate 3,000,000 cubic metres of surface waters from the Miguel Hidalgo Reservoir; (iii) a change of land use permit for water line and power line right-of-ways from the Mexican Secretary of the Environment and Natural Resources; and (iv) a blasting permit.

#### History

Prior to 1997, there is no record of any modern exploration conducted on the Alamo Dorado Project nor are there any records of production, although there is evidence of a few old adits in the general area. All recorded drilling at the property has been undertaken since 1997.

# Geology and Mineralization

Alamo Dorado deposit lies within Jurassic metavolcanic rocks, the youngest member of a Precambrian thru to Mesozoic aged metamorphic and sedimentary sequence of gneisses, metasedimentary and metavolcanic rocks. This sequence is underlain by an extensive Late Cretaceous or Tertiary age granite - granodiorite, likely part of the Sonoran Batholith. The property geology consists of a complex of ductilely deformed and metamorphosed felsic metavolcanic and high-level intrusive rocks which have been intruded by, and essentially engulfed by, a younger, relatively undeformed granitic pluton (Sonoran Batholith unit). The felsic metavolcanic units comprise rhyolitic to rhyodacitic high level intrusive rocks to sill-like bodies, and lesser dacite, rhyolite, rhyodacite tuffs. Cross-cutting rhyolite and andesite dykes also occur.

The silver-gold mineralization at Alamo Dorado is predominantly fracture-controlled and associated with moderate to intense pervasive silification. About 50 percent of the silver mineralization is in strongly fractured rhyodacites and about 30 and 10 percent in the rhyolites and dacites, respectively. The main silver mineral at Alamo Dorado appears to be chlorargyrite which is a silver mineral derived from a silver chloride complex occurring along with the quartz-pyrite minerals filling the fractures. The gold mineralization occurs as free, micron-size particles and/or in the crystal lattices of micro-crystalline pyrite.

The principal zone of silver and gold mineralization is observed at surface occurring as a 30-50 metre wide zone of oxidized, rusty and fractured rocks. Progressive drill programs have now shown the mineralized zone extends up to several hundred metres in width. The average length of drill hole has been approximately 250 metres. The mineralized body is currently defined to be approximately 500 metres in length, with an average width of approximately 150 metres. The mineralization has been drilled to a depth of approximately 250 metres. Drilling has traced the zone of mineralization for 600 metres from drill section 400 South to 200 North along the north-south drill grid. Several drill sections in the latest 2000 drill campaign were oriented northeast-southwest at the mineralized zone's northern extent to better intersect the mineralization in this area where the zone trends to the northwest.

#### **Exploration**

Exploration on the Alamo Dorado Project has been comprised primarily of reverse circulation drill campaigns conducted annually from 1998 to 2001. A structural geology examination of the property was undertaken in 2000 through mapping of surface exposures along drill access roads. A more comprehensive 1:2500 scale geologic mapping program was conducted in 2001 over an area of about four square kilometres in the project

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area. Results established surface extents of the volcanic lithologic units, cross cutting dykes and alteration patterns and provided a linkage for the interpretation of the drilling geological data.

## Drilling

The Alamo Dorado Project has been evaluated in four separate drilling campaigns using reverse circulation (RC) drilling techniques and diamond drill coring methods. A total of 79 drill holes have been drilled on the property: 75 RC holes and four core holes. The 19 discovery drill holes were drilled in 1998 and 11 of the 19 holes were deepened in 1999. An additional 23 new RC drill holes were drilled in 1999, along with 4 large diameter core holes. The core drilling was specifically for metallurgical testing. In 2000, 14 previously drilled holes were deepened and 25 new RC holes were drilled. Eight more RC holes were drilled in 2001.

Drilling totals 20,674 metres in 79 drill holes. The holes generally range in length from 90 to 390 metres, averaging 262 metres. Drill holes were drilled at a declination of between 38° and 70°, with a single vertical hole. The major bearing was easterly (090) with a subordinate number of holes drilled from the west (270). Drill hole collars were located respective to a property grid.

Standard logging and sampling conventions were used to capture information from the cuttings and drill core. Inspection of the model and drill hole data in plans and sections, together with the spatial statistical work showed reasonable geologic and grade continuity in the main area of mineralization.

#### Sampling and Analysis

The database used to estimate the mineral resources and reserves at Alamo Dorado consists of samples from the 75 RC and four drill core holes drilled from 1998 to 2001. Sample recovery was computed for 9,008 intervals, and averages 70 percent. This is remarkably high for dry RC drilling. All samples were assayed for silver and gold; a lesser amount was analysed for copper, lead, zinc, molybdenum, arsenic, antimony, bismuth and mercury. Data transfer was verified through checks of the resource database to original assay certificates.

Corner Bay conducted a reasonable program to assure the quality of its sample preparation and assaying. The routine assaying was done at Bondar Clegg's independent laboratories in Vancouver, B.C. and Hermasillo, Mexico. This laboratory performed duplicate assays on coarse reject material, and the precision of these duplicate assays (approximate 15 percent relative standard deviation of pair differences) is typical of that achieved for similar deposits within the mining industry. Check assays were done on pulps at a number of laboratories. The vast majority of these checks confirm the original assays which will be used to perform resource estimation. A small percentage of potentially contaminated assay intervals were identified in RC holes, all within zones drilled under wet conditions. These data were set to zero for the purposed of resource estimation. Accordingly, the resulting resource estimates could be considered to be slightly conservative.

#### Mineable Reserves and Resources

The mineral resource and mineral reserve estimates for the Alamo Dorado Project were made from 3-dimensional block models utilizing commercial mine planning software. Modelling philosophy was based on rock types and intensity of silicification. Industry-accepted methods were used in creating interpolation domains based on the mineralised geology. Assays were composited into five metre bench composites. Outlier grades for silver and gold were identified by using observed breaks in trends defined in the cumulative distribution for the metals: the values were 350 gpt silver and 1.4 gpt gold. A restricted outlier approach was implemented to control the spread of grade values above these threshold grade values. The modelling procedure used grade estimation based on inverse distance to the third power. Reasonableness of grade interpolation was reviewed by visual inspection of sections and plans displaying block model grades, drill hole composite values and geology.

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Inspection of the model and drill hole data in plans and sections, together with the spatial statistical work showed reasonable geologic and grade continuity in the main area of mineralization. The existing drilling grid over the mineralized area is about a nominal 40 meters on and between sections. The area covered by this data spacing demonstrates sufficient confidence to be classified as indicated mineral resource. Within the nominal 40-meter drill grid, additional local areas demonstrate good geologic and grade continuity where the sample spacing was about 20 to 30 meters. Blocks in these regions can be considered to demonstrate confidence to allow classification to measured mineral resource. A model block was assigned as measured mineral resource if at least two composites were used to interpolate a grade item and at least one composite was within 25 meters of the block center. For indicated mineral resources, a two-pass approach was used. Blocks were assigned as indicated mineral resource if a block was interpolated with at least one composite within 25 meters of a block center, or if a block was interpolated with at least one composite within 25 to 60 meters of a block center.

The only blocks that may be classified as proven and probable mineral reserves are those blocks within the ultimate pit that have a recoverable silver equivalent metal content of minimum of 19.7 g/t, which when valued at \$0.15 per gram results in an expected net cash flow of \$2.96 per tonne. This is the project cutoff, and is the minimum value that a tonne may be estimated at to be placed on the heap at cost breakeven considering area recovery of silver and gold contained within the tonne being valued. The \$2.96 includes the fixed cost of \$2.62 per tonne, and the variable cyanide consumption. The cutoff is also dependent on the selected price for the feasibility study of \$4.60/oz of silver, and \$300/oz of gold.

Reserve and resource calculations are exclusive of each other and are as follows:

## Alamo Dorado Reserves and Resources 1,2

Class	<b>Tonnes</b>	Grams of Silver per tonne	Grams of Gold per tonne
Reserve Category			
Proven	23,360,000	72	0.27
Probable	12,144,000	60	0.24
Total	35,504,000	69	0.26
Resource Category Measured Indicated Total Measured & Indicated	3,034,000 4,262,000 7,296,000	38 44 42	0.20 0.19 0.19
Total for All Reserves and Resources Proven and Probable and Measured and Indicated	42,800,000	64	0.25

1

Assumes \$4.60 silver per ounce and \$300 gold per ounce.

2

John Thorton, Mintec Inc., "qualified person".

#### Metallurgy

The primary metallurgical testing program for the Alamo Dorado project was developed under the direction of Corner Bay in consultation with METCON Research Inc. AMEC independently reviewed the test data and results obtained.

Two metallurgically significant areas or zones have been defined based upon degree of oxidation and silicification in conjunction with the variability coarse bottle roll testing results and overall geologic interpretation. Zone 1 consisted of a more intensely oxidized and silicified supergene material in the epithermal core zone of the deposit and Zone 2 comprise the lesser oxidized/silicified supergene material, in the areas north and south of and below the epithermal core of the deposit.

The leaching criteria for the Alamo Dorado project envisions heap lifts of approximately six meters in height that will be leached in a primary wetting cycle of 90 days with subsequent leaching occurring as a result of secondary solution flow (i.e., leaching solutions that have passed through one or more layers of leach material). The leaching results from the most representative column tests were adjusted for the efficiency in testing versus operations and the extension in leach time related to building the heaps and solution inventory, to determine the metal production to be used on an annualized basis.

Metal leaching and recovery results for Zone 1 yield an ultimate recovery estimate of 70.8% silver and 77% gold, which corresponds to the demonstrated recoveries from column testing. Results for Zone 2 give an ultimate recovery estimate of 51% silver and 77% gold, which corresponds to the recoveries from column testing. In both Zones, it is understood that recovery has not stopped at the cessation of the column tests, but solution grades and incremental metal extractions are not reliable in the ranges beyond those used. Incremental recovery that may occur beyond that of the column test results is left as an opportunity.

The deposit contains zones of significant base metal (copper and some zinc) content across both metallurgical zones. Cyanide consumption is strongly related to the copper and silver content of the materials. The copper grades in the mine model have not been developed to the same level as the silver/gold values. Only limited data has been used, with geologic interpretation, to define the copper grade distributions for cyanide consumption. Cyanide soluble copper is not modelled, but estimated from results in the bottle roll and column testing programs where such data exists. In Zone 1 the average soluble copper content is estimated to be 72 ppm, resulting in average cyanide consumption for heap leaching of 0.53 kilograms per tonne. In Zone 2, the average soluble copper content is estimated to be 45 ppm, resulting in average cyanide consumption for heap leaching of 0.35 kilograms per tonne.

#### Mining

The mine development plan for the Alamo Dorado Project is based on open pit mining using conventional truck and shovel equipment. With annual production requirements ranging from 8 to 12 million total tonnes the choice of open pit mining equipment narrows to 12 cubic meter front-end loaders and 90-tonne haulage trucks. Support equipment required for mining will include a grader, tracked dozer, rubber-tired dozer, water truck for road watering, and a backhoe. Primary production equipment of this size and capability dictate haul road characteristics and mine bench design. Haul roads are designed at widths of 30 meters including berms for all ex-pit haulroads and at 23 meters including berms for all in-pit haulroads. These widths are narrowed to 15-meter minimum for mining the uppermost benches in a new development or the lowest few benches in a phase or ultimate pit development. Maximum ramp grades are normally maintained at ten percent for both uphill and downhill hauls although for pioneer development

and the last few benches this grade can be increased to 15 percent.

Nominal bench heights are five meters in all areas except the initial stripping at surface and final pit walls. For surface stripping as well as pit limits triple benching is planned for an overall bank height of 15 meters. The AMEC geotechnical study permits stacking four benches for a total of 20 meters height and should be considered for the final mine planning and pit designs.

Overall the mining or production schedule envisions a nine-year operation from a two-phase pit. The first phase is mined during the first five years (one year of pre-production and four years of operations), and the second phase starts in Year Four (Year Three of operations) and continues through Year Nine when the operation winds

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down. Overall the first phase mines between ten to 14 benches per year, and the second phase from 12 to 14 benches per year. Mintec believes that this is attainable if the ramping systems within the two phases are kept relatively simple. If the ramping becomes complex, then this forecast will be difficult to achieve.

The mining reserves are scheduled for an annual forecast of projected ore tonnes and grade available in each year. The mining schedule is based on moving approximately 13,000 ore tonnes per day over a planning period of 350 operating days per year. This equates to a target of 4.5 million tonnes per year of heap grade material being mined and crushed. In early periods lower grade ore is stockpiled for processing in the final period of the mine life. Mining of waste rock is scheduled to allow the annual ore production to be achieved and to provide minimal fluctuations in mining rates between periods.

Mining operations will be conducted through a mining contractor with oversight by Pan American. Pan American will be responsible for all technical aspects of the mining operation, including, pit surveying, ore control, short and long term planning, and other technical support required for mining operations.

#### Heap Leach Facility

AMEC carried out a geotechnical evaluation and basic level design for the heap leach facility. AMEC also carried out a site selection study, a preliminary geotechnical evaluation of the preferred leach pad site that included site reconnaissance, geotechnical investigation, laboratory testing and evaluation of the results for the purpose of design of the heap leach facilities for use in mine planning and project permitting.

The design consists of an integrated facility consisting of two phases with nine internal cells with a width of 85 metres spaced uniformly across the pad. The initial construction will consist of Phase 1 with a design storage capacity of 13.5 million tonnes. Phase 1 will achieve the required storage capacity stacked to approximately six lifts (36 metres in height). Phase 1 covers an area of approximately 374,150 square metres and Phase 2 covers an area of 227,900 square metres. The leach pad is designed to provide an ultimate storage capacity for approximately 40 million tonnes of crushed ore using a tonnage factor of 1.6 tonnes per cubic metre.

Three ponds will be constructed adjacent to the southwest corner of the Phase 1 facility that will serve both phases of the facility. The pond system consists of two process solution ponds (a pregnant solution pond and an intermediate solution pond), and an emergency storm pond. The two process solution ponds will be double lined with a geomembrane and will have leak detection, collection and monitoring systems. Pregnant solution will be pumped to the adjacent process facility while intermediate solution will be returned to the heap for enrichment (secondary leaching). The emergency storm pond will be single-lined with provision made to pump solution back to the process.

#### Crushing, Conveying and Stacking

The proposed crushing, conveying and stacking system for Alamo Dorado consists of all equipment required to receive ore from the mine and place it on the heap leach pad. The system is designed to produce a crushed product size of  $P_{80}$  minus 6.4 mm (1/4 inch) and convey and stack the material on the heap leach pad in six metre lifts. The feed for the crushing system was based on standard run-of-mine tables since no run-of-mine material was available for gradation analysis. This complete system is designed to process approximately 12,500 tonnes per day including regularly scheduled maintenance.

During the course of the Alamo Dorado feasibility study, two used equipment opportunities were identified which were evaluated by AMEC. The Briggs Mine Crushing Plant, located in California and owned by Canyon Resources Corporation, was found to provide significant synergy and opportunity for the Alamo Dorado project. The plant was inspected, the flow sheet modified for increased rates, and capital and operating costs were

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developed, all of which supported the incorporation of the Briggs Mine Crushing Plant. Based on this work and a recommendation by AMEC, on June 14, 2002, Corner Bay purchased the Briggs Mine Crushing Plant.

#### **Process Plant**

The proposed process plant will recover silver and gold from leach solution to produce dore. The precious metals will be recovered from the pregnant solution in a typical Merrill-Crowe zinc precipitation circuit. The precipitate will be mixed with fluxes and will be added to a 150 kilowatt, 500 kilogram steel-capacity electric furnace. At the end of the melt in the furnace, 1,000 ounce dore bars will be poured.

The major unit processes include:

- Solution application to the heap;
- Merrill-Crowe circuit to recover silver and gold;
- Acid treatment of zinc precipitated to remove leached metals including copper, zinc, selenium and cadmium;
- Neutralization of leach solution; and
- Refining of leach residue to produce silver-gold dore.

The process plant is designed based on a 4,500,000 tonnes per year heap leach facility and will process 908 cubic metres per hour of pregnant leach solution. At the planned throughput rate, the plant will produce 1,940 kilograms per day of zinc precipitate.

#### Economic Analysis and Payback

Average operating expenditures at Alamo Dorado are estimated to be \$24.4 million dollars per year. Direct cash costs are estimated to be \$3.25 per ounce silver equivalent. The total estimated site operating cost (operating and capital) is \$4.13 per ounce silver equivalent produced, or \$6.97 per tonne processed at a throughput rate of 12,500 tonnes per day (4.5 million tonnes per year). The operating cost estimates do not include a contingency allowance nor sustaining capital.

Excluding the cost of the Briggs Mine Crushing Plan, which is considered a sunk cost, the estimated cost to construct, install and commission the facilities described in the Alamo Dorado feasibility study is \$45.1 million. This amount covers the direct field costs of executing the project, plus owner's costs and indirect costs associated with design, construction and commissioning. The estimate is based on utilizing the Briggs Mine Crushing Plant, which was purchased on June 14, 2002 from Canyon Resources Corporation.

Working capital is calculated as a percentage of operating supplies in the financial model. The initial working capital required is \$3,800,000 in the pre-production period and the balance peaks in the third year at \$5,000,000.

The Alamo Dorado project was analyzed assuming 100 percent equity financing using a discounted cash-flow approach starting in the second quarter of 2002. The base case metal prices project evaluation were \$5 per ounce of silver and \$325 per ounce of gold. Projections for annual revenues and costs are based on data developed for the mine plan, leach and process plant production, capital expenditures and operating costs. Mine life, including mineral processing, will be nine years. The results of the base case analysis indicate that the project has a potential after-tax IRR of 17.3 percent and an after-tax NPV of \$19.1 million at a discount rate of five percent.

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The effects of changes to gold and silver prices, capital cost and operating costs were examined in a sensitivity analysis. This analysis indicated that the project would be most sensitive to changes in silver prices and operating costs and least sensitive to changes in gold prices and capital costs. The base case scenario has a projected payback period of approximately 2.8 years.

#### **Updated Feasibility Study**

During 2003, Pan American completed a confirmation diamond drill program on the Alamo Dorado project in Mexico. In addition, many of the original holes drilled by Corner Bay prior to its acquisition by Pan American were resurveyed. The drilling and resurveying data has been collected to confirm and update the resource model that was prepared by Corner Bay. Depending on the results, additional drilling may be required. Metallurgical testing to update AMEC's 2002 feasibility study has almost been completed. Additional work in 2004 will also include reserve

modeling and mine planning. An updated feasibility study will examine the economic merits of processing ore from the Alamo Dorado deposit in a conventional oxide leaching mill circuit versus heap leach processing. The updated study is expected to be completed in the third quarter of 2004. Total planned expenditures for Alamo Dorado development are expected to be \$4.7 million in 2004 and will be capitalized.

#### Environment

Pan American holds all necessary permits for its current activities, but must obtain, on a timely basis, permits for work planned for the future development of, and production from, the Alamo Dorado Project. There is no guarantee that such permits will be issued.

The original environmental permitting work considered options developed for the 2001 Feasibility Study, and was provided by Corner Bay in conjunction with Agauyo Consultoria Ambiental, Corner Bay's environmental consultant and coordinator. AMEC reviewed the environmental impact statement and risk assessment study, as well as ancillary documents submitted by Corner Bay to the Mexican Secretary for Environmental and Natural Resources (SEMARNAT) to identify potential major deficiencies and for appropriateness for permitting Alamo Dorado. Environmental impacts arising from the development of the mine are greatly outweighed by the overall benefits. SEMARNAT recommended a finding of no significant impact in the original impact statement/permitting document. Following completion of the updated feasibility study which will include consideration of a mill option, the original environmental impact statement and risk assessment study documents will need to be revised and re-submitted to SEMARNAT.

## **Investment, Exploration and Resource Properties and Expenditures**

Pan American owns interests in a variety of investment, exploration and resource properties in Mexico, Argentina, Peru, Russia, Bolivia and the United States, none of which are material to the Company. A brief description of the most advanced of these properties follows:

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<b>Property</b>	<b>Location</b>	Type	Reserve or Resource <u>Category</u> <sup>1</sup>	<b>Tonnes</b>	g/t Ag	By-Products
Manantial Espejo <sup>2, 3</sup>	Argentina	vein	Meas. resource	1,398,000	235	5.23 g/t Au

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		vein	Ind. Resource	2,993,000	277	4.17 g/t Au
		vein	Inf. resource	1,590,000	258	3.65 g/t Au
D 1 (2.4	ъ :	vein	P&P reserve	10,550,000	755	1.5 g/t Au
Dukat <sup>2, 4</sup>	Russia	vein	M&I resource	3,750,000	489	1.0 g/t Au
		vein	Inf. resource	17,060,000	295	0.66 g/t Au
		vein	Ind. resource	2,053,400	393	4.5% Zn
San Vincente <sup>5</sup>	Bolivia					
		vein	Inf. resource	1,764,200	398	4.4% Zn
Hog Heaven <sup>6</sup>	Montana	stockwork	M&I resource	2,741,000	170	0.69 g/t Au
			T. C	7 420 000	1.41	
		stockwork	Inf. resource	7,439,000	141	-
Waterloo <sup>6</sup>	California	stockwork	Ind. resource	33,758,000	93	-

1

P&P = proven and probable reserves

M&I = measured and indicated resources

Meas. resource = measured resources

Ind resource = indicated resources

Inf resource = inferred resources

2

Totals include only 50% of Manantial Espejo and 20% of Dukat.

3

Resource estimate by Pincock Allen & Holt, Stewart Wallis, P.Geo., "qualified person".

4

Reserve and resource calculations were prepared by Kilborn Engineering Pacific Ltd. in a supplemental feasibility study completed in January 1999 and were reviewed by an independent "qualified person", Donald F. Earnest, P.Geo., to reduce the reserve or resource, as the case may be, to the amount reported in 2003.

5

Mineral resources have been prepared by the Company's wholly owned subsidiary, Pan American Bolivia, and reviewed by an independent "qualified person", Donald F. Earnest, P.Geo.

Resources for Hog Heaven and Waterloo are based on historic estimates prepared by CoCa Mines and American Mine Services in 1988 as part of a feasibility study in the case of Hog Heaven and exploration records of ASARCO Incorporated in the case of Waterloo. Pan American believes these historical estimates to be relevant and reliable.

### Manantial Espejo Project

In late 2003, Pan American Silver and Silver Standard Resources Inc. made a decision to initiate a feasibility study for their 50/50 joint venture on the Manantial Espejo silver-gold property in Argentina. A 6,000 metre infill drilling program and related geotechnical and environmental work were ongoing as of December 31, 2003. Drilling results to date have confirmed the size of the deposit and increased Pan American's confidence in its geological model. Pan American has hired a project manager who will be leading the feasibility work which is now in progress. Work to be performed in connection with the feasibility study will include metallurgical scoping and optimization studies, reserve modeling and mine planning, determining optimum facilities layouts, power and water supply studies, advanced environmental analysis and permitting. Pan American plans to spend \$1.6 million in 2004 (its 50% share) on this feasibility study and related activities at the Manantial Espejo property.

#### **Dukat Mine**

From 1996 until 1999 Pan American was actively involved in financing and constructing a new mine on the Dukat property, in far eastern Russia. In 2000, this activity was frustrated and, after significant legal action, Pan American and OAO MNPO Polimetall ("Polimetall"), agreed to form a new company owned 80% by Polimetall and 20% by Pan American to own and operate the Dukat project. Pan American's restructured minority interest in Dukat required no further contribution to project expenditures. Due to the loss of control of the Dukat deposit, Pan American wrote off its \$37 million investment in Dukat in 2000. In November 2002, Polimetall announced that it had started production of the Dukat mine, but no silver sales were actually made in 2002. In 2003, Polimetall reported production from Dukat of 9.7 million ounces of silver and sales of silver amounting to 6.6 million ounces. At this time, Pan American is unable to determine when or if it will receive financial benefits from its minority

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ownership interest in Dukat. As a result, Pan American did not include its 20% share of Dukat's production (1.94 million ounces) in its production totals for 2003.

#### San Vincente Project

In late 2001, Pan American and COMIBOL, the Bolivian state mining company that optioned the San Vincente property to Pan American, entered into a two-year toll mining agreement with EMUSA, a well-established Bolivian mining company, to process up to 250 tonnes of San Vincente's ore per day at EMUSA's nearby mill. Pan American did not take credit for silver ounces produced by EMUSA's toll mining operation but booked proceeds derived from a gross revenue royalty. Pan American earned \$422,000 in cash from San Vincente toll mining in 2003, which more

than offset the project's holding costs.

On October 30, 2003, mining activities related to the two-year toll mining agreement were completed. During 2003, a total of 108,809 tonnes of ore was processed under the agreement at an average mill feed grade of 400 gpt silver and 3.45% zinc.

On November 1, 2003 Pan American entered into a share purchase agreement with EMUSA, whereby EMUSA could acquire up to 49% of the outstanding shares of Pan American Bolivia. This agreement requires EMUSA to fund feasibility and development related expenses to an aggregate of \$2,500,000 by May 1, 2005. It is anticipated that EMUSA will fund approximately \$1.27 million of feasibility and development related expenditures at San Vincente in 2004, including 7,000 metres of surface and underground drilling, 2,000 metres of underground development, mine planning and design, project metallurgy, infrastructure and water supply development and permitting.

# **Mineral Property Expenditures**

The following table sets out Pan American's acquisition, exploration and development expenditures for the periods indicated:

# **Years Ended December 31**

(in thousands of U.S. dollars)

	<u>2003</u>	<u>2002</u>
Acquisition:		
Corner Bay	80,076	-
Manantial Espejo	-	2,012
	81,575	2,012
Development:		
Huaron	4,907	957
Quiruvilca	2,283	349
La Colorada	12,263	8,300
Alamo Dorado	738	-
Other	-	-
	20,191	9,606

Exploration:		
San Vicente	906	180
La Colorada	172	11
Manantial Espejo	956	461
Ocotlan	-	139
Turkey	131	-
Morococha	240	-
Other	56	96
	2,461	887
Investment:		
Waterloo	58	55
Hog Heaven	24	23
	82	78
TOTAL	104,309	12,583

#### **Employees**

The Company employs 14 full-time employees and two part-time employees at its head office in Vancouver, including two geologists, one metallurgical engineer, two mining engineers and one health, safety and environmental specialist.

As at December 31, 2003, Mina Quiruvilca employed 736 persons (462 permanent and 274 temporary) in connection with the operation of the Quiruvilca mine. During 2003 the company decided to finish the private agreements with a number of Peruvian contractors so currently the mine is being operated by its own workers. Approximately 280 of the workers employed by Mina Quiruvilca are members of either the Sindicato de Trabajadores de Pan American Silver S.A.C. - Mina Quiruvilca (the "Quiruvilca Union") or the Sindicato de Trabajadores de Shorey y Anexos (the "Shorey Union"). Mina Quiruvilca considers its relations with its employees to be satisfactory. Negotiations for 2004 are proceeding at the present time.

Minera Huaron employs 125 full time employees and indirectly 850 persons through agreements with Peruvian mining contractors.

A decision has been taken to exploit the south zone of the mine ourselves and terminate current private agreement with the south zone mine contractor, therefore in April 2004 it is expected that 185 people will be added to the current full time company employees. The number of persons indirectly working through mining contractors is expected to decrease to 650 persons at that time.

Pan American Silver Peru employs 22 full-time employees and 5 contractors.

Pan American Mexico employs 32 employees, 127 mining contractors, including four geologists, one civil engineer and three mining engineers, and 355 construction contractors.

Pan American Bolivia has 16 employees and one part-time contractor, including one geologist.

## **Research and Development**

Pan American conducts research and development activities in order to develop improved production processes and exploration techniques. Costs associated with this work are expensed as incurred. Pan American did not incur any significant research and development costs during 2001, 2002 or 2003 and has not budgeted any significant amounts for any significant costs during 2004.

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# **Competitive Conditions**

The mining industry is intensely competitive particularly in the acquisition of additional reserves and resources in all of its phases and Pan American competes with many companies possessing greater financial and technical resources. Competition in the mining business for limited sources of capital could adversely affect Pan American's ability to acquire and develop suitable silver mines, silver developmental projects, silver producing companies or properties having significant silver reserves or resources or significant exploration potential. As a result, there can be no assurance that Pan American's acquisition and exploration programs will yield new mineral reserves to replace or expand current mineral reserves.

Pan American's competitive position is largely determined by its costs compared to other producers throughout the world and its ability to maintain its financial integrity through metal price cycles. Costs are governed to a large extent by the location, grade and nature of Pan American's mineral reserves as well as by operating and management skills. As one of few mining companies focusing on silver production, development and exploration, Pan American is subject to unique competitive advantages and disadvantages related to the price of silver. If silver prices substantially increase Pan American will be in a relatively stronger competitive position than diversified mining companies that produce, develop and explore for other minerals in addition to silver. Conversely, if silver prices substantially decrease, Pan American would be at a competitive disadvantage to diversified mining companies.

#### **Working Capital**

Management of Pan American believes that its working capital of \$81.9 million as at December 31, 2003 is sufficient to ensure liquidity throughout 2005, given current plans and metal market conditions.

#### **Environment**

All phases of Pan American's operations are subject to environmental regulation in the various jurisdictions in which it operates. To the best of management's knowledge, Pan American is currently in compliance in all material respects with such environmental regulations applicable to its mining operations, development and exploration activities. The costs associated with environmental compliance are considered to be normal operating costs necessary to maintain operations on an ongoing basis. Other than specific environmental concerns discussed in this Annual Information

Form under the headings "Quiruvilca Mine - Environment", "La Colorada - Environment" and "Huaron - Environment", the Company is not aware of any material environmental matters requiring significant capital outlays in the immediate future.

In the financial year-end dated December 31, 2003 Pan American's environmental operating costs were \$463,277 and environmental project costs were \$420,329. Operating costs were incurred principally for the acid water treatment plant at Quiruvilca and project costs were principally for tailings dam stabilization and rehabilitation of a drainage tunnel at Huaron.

Other than the Quiruvilca and Huaron mines and the La Colorada property, none of Pan American's properties has any outstanding material reclamation or environmental concerns. As at December 31, 2003, an accounting provision for reclamation in the amount of \$21,192,000 had been made in respect of the Quiruvilca, Huaron and La Colorada mines.

Environmental legislation in all of the jurisdictions in which Pan American operates is evolving in a manner which will require stricter standards and will be subject to increased enforcement, fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. Changes in environmental regulation, if

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any, may adversely affect Pan American's operations and profitability. In addition, environmental hazards may exist on Pan American's properties which are unknown to Pan American at present, which have been caused by previous or existing owners or operators of the property, or by the past or present owners of adjacent properties or by natural conditions. The occurrence of any of these hazards or conditions could have a material adverse effect on Pan American's operations or profitability.

#### **Trends and Uncertainties**

The following is a discussion of trends, commitments, events and uncertainties that are both presently known to management of Pan American and are expected reasonably to have a material effect on Pan American's business, financial condition or results of operations.

## Risks Relating to the Acquisition of Argentum and the Morococha Property

There are a number of specific risks associated with the Company's acquisition of Argentum and the Morococha property.

The current proven and probable reserves on the Morococha property only provide for a three year mine life. The estimated cash flow over this three year mine life does not provide a payback for the Company's costs to acquire Argentum. For Pan American to recover these costs, inferred resources on the Morococha property must be converted to mineable reserves. Although Pan American expects the Morococha mine to continue operations for at least 15

years as reserve definition programs are carried out, there is no certainty that inferred resources will be converted to mineable reserves or that the Company's investment costs for the Morococha property will ever be paid back.

The Morococha mine is currently dependent on the Manuelita zone for 50% of its monthly production. This zone will be exhausted in two to three years and in order to maintain the mine's operating cost profile, a replacement for the Manuelita's zone must be found. While Pan American expects to find a replacement for the Manuelita's zone over the course of upgrading the inferred mineral resources to proven and probable mineral reserves in accordance with its long range mine plan and development program, there can be no assurance that such a replacement zone will be found or that Pan American's production estimates will be met after the third year of the mine plan.

The equipment on site at the Morococha property, particularly the Amistad plant, is old and may require higher capital investment than Pan American has estimated.

Argentum does not own, and the Company will not acquire, any surface lands in the areas that overlie its mining concessions. These surface lands belong to Centromin. Although the use by SMC and its predecessors of Centromin's surface lands for mining and processing operations has been exercised for decades with Centromin's acknowledgement, there is no assurance that Centromin will continue to allow unimpeded use of these surface lands by the Morococha operations. In particular, the development of the adjacent Toromocha disseminated copper system into a mine may interfere with operations on Morococha property. In such an event, Pan American could be required to incur potentially significant costs and expense to acquire surface rights for its Morococha operations and could be required to cease certain Morococha operations altogether if such surface rights cannot be obtained for reasonable consideration.

There is a degree of uncertainty attributable to the calculation of mineral reserves and mineral resources and corresponding grades being mined or dedicated to future production. At the Morococha property, Pan American has observed several inconsistent or inappropriate pre-laboratory sample preparation procedures. In addition, no QA/QC program was ever established for the analysis of mine samples at either of SMC's laboratories on the Morococha property. These flaws in sample preparation procedures and lack of QA/QC data makes it difficult to

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assess the performance and reliability of either laboratory, the data from which is critical in calculating mineral reserves and mineral resources and corresponding grades. Accordingly, there may be a greater degree of uncertainty associated with the calculation of mineral reserves and mineral resources and the grades thereof at the Morococha property than would be the case if North American standards of pre-laboratory sample preparation and QA/QC were observed.

Responsibility for construction of a water treatment plant for the Kingsmill Tunnel and tailings mitigation program at Huascacocha Lake has been apportioned by WMC in environmental studies among the Morococha mine and mining companies operating neighbouring projects, including Centromin, Soc. Minera Austria Duvaz, Soc. Minera Buquiococha and Minera Centrominas. In the event that one or more of these companies defaults on its funding obligation for the Kingsmill water treatment plant or the Huascacocha Lake tailings mitigation program, Pan

American's proportionate share of the costs of such environmental projects could increase and reduce cash flow from Morococha operations.

The Company's acquisition of an interest in Argentum is subject to regulatory approval and a number of conditions, including: (i) completion of the corporate restructuring (which is subject to approval by the shareholders of SMC); (ii) the listing on the Lima Stock Exchange of 100% of the shares of Argentum, including those issued in connection with the corporate restructuring; and (iii) Pan American successfully undertaking an OPA for not less than 92.014% of the voting shares of Argentum through the Lima Stock Exchange. Although the Company anticipates that such approvals will be obtained and such conditions will be met to allow the acquisition to close in June 2004, many of these approvals and conditions are outside of the control of Pan American and there is no assurance that all necessary approvals will be obtained or conditions met to allow the acquisition to close by June 2004, or at all.

#### Risks Relating to the Company's Business

#### Metal Price Fluctuations

The majority of the Company's revenue is derived from the sale of silver, zinc, lead and copper and therefore fluctuations in the price of these commodities represent one of the most significant factors affecting its operations and profitability. The price of silver and other metals are affected by numerous factors beyond the Company's control, including:

- levels of supply and demand;
- global or regional consumptive patterns;
- sales by government holders;
- metal stock levels maintained by producers and others;
- increased production due to new mine developments and improved mining and production methods;
- speculative activities;
- inventory carrying costs;
- availability and costs of metal substitutes;
- international economic and political conditions.
- interest rates;
- currency values; and
- inflation.

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Declining market prices for these metals could materially adversely affect the Company's operations and profitability.

Foreign Operations

The majority of the Company's current operations are conducted by its subsidiaries outside of Canada in Peru, Mexico, Bolivia and Argentina, and all of the Company's current production and revenue is derived from its operations in Peru and Mexico. Pan American also holds a non-operating interest in a producing silver mine located in Russia. As Pan American's business is carried on in a number of foreign countries it is exposed to a number of risks and uncertainties, including:

- terrorism and hostage taking;
- military repression;
- expropriation or nationalization without adequate compensation;
- difficulties enforcing judgments obtained in Canadian or United States courts against assets located outside of those jurisdictions;
- labor unrest:
- high rates of inflation;
- extreme fluctuations in currency exchange rates; and
- volatile local political and economic developments.

Local opposition to mine development projects has arisen in Peru in the past, and such opposition has at times been violent. In particular, in February of 2001, the exploration premises of a Canadian mineral exploration company, Manhattan Minerals Inc., at Tambo Grande in Northern Peru, were stormed by approximately 5,000 people, who burned machinery and injured approximately 30 people. Although the Company's operations in Peru are located in communities that have been supportive of mining for decades and no discernable local opposition has arisen to the Company's projects, there can be no assurance that such local opposition will not arise in the future. If the Company were to experience resistance or unrest in connection with its foreign operations, an adverse effect on the Company's operations or profitability could result.

## Governmental Regulation

Pan American's operations and exploration and development activities are subject to extensive Canadian, United States, Peruvian, Mexican, Bolivian, Argentinian and other foreign federal, state, provincial, territorial and local laws and regulations governing various matters, including:

- environmental protection;
- royalties on mineral production; (the Government of Peru is currently considering imposing such a royalty)
- management and use of toxic substances and explosives;
- management of natural resources;
- exploration, development of mines, production, and post-closure reclamation;
- exports;
- price controls;
- taxation:
- labor standards and occupational health and safety, including mine safety; and

• historic and cultural preservation.

The costs associated with compliance with these laws and regulations are substantial and possible future laws and regulations, or more stringent enforcement of current laws and regulations by governmental authorities, could cause additional expense, capital expenditures, restrictions on or suspensions of Pan American's operations and delays in the development of its properties. Moreover, these laws and regulations may allow governmental authorities and private parties to bring lawsuits based upon damages to property and injury to persons resulting from the environmental, health and safety impacts of our past and current operations, and could lead to the imposition of substantial fines, penalties or other civil or criminal sanctions.

## Renewal of Government Permits

In the ordinary course of business, Pan American is required to obtain and renew governmental permits for the operation and expansion of existing operations or for the commencement of new operations. Obtaining or renewing the necessary governmental permits is a complex and time-consuming process involving numerous jurisdictions and often involving public hearings and costly undertakings on Pan American's part. The duration and success of Pan American's efforts to obtain and renew permits are contingent upon many variables not within its control including the interpretation of applicable requirements implemented by the permitting authority. Pan American may not be able to obtain or renew permits that are necessary to its operations, or the cost to obtain or renew permits may exceed what it expects. Any unexpected delays or costs associated with the permitting process could delay the development or impede the operation of a mine, which could adversely affect Pan American's operations and profitability.

# Compliance With Local Laws and Standards

In some of the countries in which Pan American operates, failure to comply strictly with applicable laws, regulations and local practices relating to mineral right applications and tenure could result in loss, reduction or expropriation of entitlements, or the imposition of additional local or foreign parties as joint venture partners with carried or other interests. Any such loss, reduction or imposition of partners could have a materially adverse effect on Pan American's operations or business.

#### Operating Hazards and Risks

The operation and development of a mine or mineral property involves many risks which even a combination of experience, knowledge and careful evaluation may not be able to overcome. These risks include:

- environmental hazards;
- industrial accidents and explosions;
- the encountering of unusual or unexpected geological formations;
- ground fall and cave-ins;
- flooding:
- earthquakes; and
- periodic interruptions due to inclement or hazardous weather conditions.

#### These occurrences could result in:

- environmental damage and liabilities;
- work stoppages and delayed production;

- increased production costs;
- damage to, or destruction of, mineral properties or production facilities;
- personal injury or death;
- asset write downs;
- monetary losses; and
- other liabilities.

Liabilities that Pan American incurs may exceed the policy limits of its insurance coverage or may not be insurable, in which event Pan American could incur significant costs that could adversely affect its business, operations or profitability.

## Exploration and Development Risks

The long-term operation of Pan American's business and its profitability is dependent, in part, on the cost and success of its exploration and development programs. Mineral exploration and development involve a high degree of risk and few properties that are explored are ultimately developed into producing mines. There is no assurance that Pan American's mineral exploration and development programs will result in any discoveries of bodies of commercial mineralization. There is also no assurance that even if commercial quantities of mineralization are discovered that a mineral property will be brought into commercial production. Development of Pan American's mineral properties will follow only upon obtaining satisfactory exploration results. Discovery of mineral deposits is dependent upon a number of factors, not the least of which is the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit once discovered is also dependent upon a number of factors, some of which are the particular attributes of the deposit (such as size, grade and proximity to infrastructure), metal prices and government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals and environmental protection. Most of the above factors are beyond the control of Pan American. As a result, there can be no assurance that Pan American's acquisition, exploration and development programs will yield new reserves to replace or expand current reserves. Unsuccessful exploration or development programs could have a material adverse impact on Pan American's operations and profitability.

## Uncertainty in the Calculation of Mineral Reserves, Resources and Silver and Base Metal Recovery

There is a degree of uncertainty attributable to the calculation of mineral reserves and mineral resources and corresponding grades being mined or dedicated to future production. Until mineral reserves or mineral resources are actually mined and processed the quantity of mineral and reserve grades must be considered as estimates only. In addition, the quantity of mineral reserves and mineral resources may vary depending on, among other things, metal prices. Any material change in quantity of mineral reserves, mineral resources, grade or stripping ratio may affect the economic viability of Pan American's properties. In addition, there can be no assurance that silver recoveries or other metal recoveries in small scale laboratory tests will be duplicated in larger scale tests under on-site conditions or

during production.

#### Infrastructure

Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants, which affect capital and operating costs. Unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect Pan American's operations and profitability.

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## Smelter Supply Arrangements

The zinc, lead and copper concentrates produced by Pan American are sold through long-term supply arrangements to metal traders or integrated mining and smelting companies. Should any of these counter parties not honour supply arrangements, or should any of them become insolvent, Pan American may be forced to sell its concentrates in the spot market or it may not have a market for its concentrates and therefore its future operating results may be materially adversely affected.

#### Environmental Hazards

All phases of Pan American's operations are subject to environmental regulation in the various jurisdictions in which it operates. Environmental legislation in all of the jurisdictions in which Pan American operates is evolving in a manner which will require stricter standards and will be subject to increased enforcement, fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. Changes in environmental regulation, if any, may adversely affect Pan American's operations and profitability. In addition, environmental hazards may exist on Pan American's properties which are currently unknown to Pan American. Pan American may be liable for losses associated with such hazards, or may be forced to undertake extensive remedial cleanup action or to pay for governmental remedial cleanup actions, even in cases where such hazards have been caused by previous or existing owners or operators of the property, or by the past or present owners of adjacent properties or natural conditions. The costs of such cleanup actions may have a material adverse effect on Pan American's operations and profitability.

## Reclamation Obligations

Reclamation requirements vary depending on the location of the property and the managing governmental agency, but they are similar in that they aim to minimize long-term effects of exploration and mining disturbance by requiring the operating company to control possible deleterious effluents and to re-establish to some degree pre-disturbance land forms and vegetation. Pan American is actively providing for or has carried out any requested reclamation activities on its properties. Any significant environmental issues that may arise, however, could lead to increased reclamation expenditures and have a materially adverse impact on Pan American's financial resources.

#### Peruvian Mine Closure Law

On October 14, 2003, the Peruvian government published Law 28090 "Mine Closure Law" which establishes provisions relating to mine closure plans. For existing mining operations the law provides that a mine closure plan must be submitted for certification to the Peruvian Ministry of Energy and Mines within six months of the law entering into force. No enabling regulations were published with the law. Therefore, the effect of the law on Pan American's Peruvian mining and exploration activities cannot yet be determined.

The law provides that a mine operator must grant an environmental warranty for the estimated costs associated with its mine closure plan. The law does not establish when such warranties must be in place and does not specify the form of the required warranty. However, the law indicates that a warranty may take the form of insurance, cash collateral, a trust agreement or other forms, as permitted by the Civil Code of Peru. Pan American's Huaron and Quiruvilca mines and, when acquired, the Morococha mine will submit closure plans as required by the law, but until these plans have been certified and the nature and form of whatever environmental warranty is required have been determined, the impact of this law on Pan American's Peruvian mining and exploration activities cannot be determined.

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## Hedging Activities

From time to time, the Company engages in hedging activities in connection with base metals, such as forward sales contracts, to minimize the effect of declines in metal prices on our operating results. While these hedging activities may protect the Company against low metal prices, they may also limit the price the Company can receive on hedged products. As a result, the Company may be prevented from realizing possible revenues in the event that the market price of a metal exceeds the price stated in forward sale or option contracts. As of March 1, 2004, the Company's zinc forward contract position had a negative value of approximately \$2.44 million and its lead forward contract position as at March 1, 2004 had a negative value of approximately \$1.21 million. In addition, the Company may experience losses if a counterparty fails to purchase under a contract when the contract price exceeds the spot price of a commodity. The Company's current policy is to not hedge the price of silver and therefore it is fully exposed to declines in the price of silver.

## Employee Relations

Certain of Pan American's employees and the employees of Peruvian mining contractors indirectly employed by Pan American are represented by unions. Pan American has experienced labour strikes and work stoppages in the past. The labour agreements with the Quiruvilca Union and the Shorey Union expired on January 1, 2004, and ordinary course negotiations to renew the contracts will be ongoing in 2004. There can be no assurance that these contracts will be renewed on terms favourable to Pan American, if at all, and Pan American may experience future work stoppages.

Title to Assets

The validity of mining or exploration titles or claims, which constitute most of Pan American's property holdings, can be uncertain and may be contested. Pan American has used its best efforts to investigate its title or claims to its various properties and, to the best of its knowledge, those titles or claims are in good standing. However no assurance can be given that applicable governments will not revoke or significantly alter the conditions of the applicable exploration and mining titles or claims and that such exploration and mining titles or claims will not be challenged or impugned by third parties. Pan American operates in countries with developing mining laws and changes in such laws could materially affect Pan American's rights to its various properties or interests therein.

Although Pan American has received title opinions for those properties in which it has a material interest there is no guarantee that title to such properties will not be challenged or impugned. Pan American has not conducted surveys of all the claims in which it holds direct or indirect interests and therefore, the precise area and location of such claims may be in doubt. Pan American's properties may be subject to prior unregistered liens, agreements or transfers, native land claims or undetected title defects.

#### Acquisitions

An element of the Company's business strategy is to make selected acquisitions. For example, the Company completed the acquisition of Corner Bay Silver Inc. in February 2003 and entered into an agreement to acquire Argentum in January 2004. The Company expects to continue to evaluate acquisition opportunities on a regular basis and intends to pursue those opportunities that it believes are in its long-term best interests. The success of the Company's acquisitions will depend upon its ability to effectively manage the operations of entities it acquires and to realize other anticipated benefits. The process of managing acquired businesses may involve unforeseen difficulties and may require a disproportionate amount of management resources. There can be no assurance that the Company will be able to successfully manage the operations of businesses it acquires or that the anticipated benefits of its acquisitions will be realized.

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## Competition for New Properties

Mines have limited lives and as a result, Pan American continually seeks to replace and expand its reserves through the acquisition of new properties. In addition, there is a limited supply of desirable mineral lands available in areas where Pan American would consider conducting exploration and/or production activities. Because Pan American faces strong competition for new properties from other mining companies, some of which have greater financial resources than it does, Pan American may be unable to acquire attractive new mining properties on terms that it considers acceptable.

### Doing Business in Russia

Pan American owns a 20% non-operating interest in the producing Dukat silver mine located in Russia. Due to its absence of control of the Dukat deposit, Pan American wrote off its entire \$37,000,000 investment in Dukat in 2000. Although Pan American does not actively engage in business in Russia and its minority interest in the Dukat project

requires no further contribution to project expenditures, Pan American's remaining interest in the Dukat property is subject to the significant risks of doing business in Russia.

## Russian Political and Economic Environment

Since the break-up of Soviet Union at the end of 1991, the Russian Federation has experienced significant, and not always peaceful, political, economic and social change. Accordingly, no assurance can be given that the Russian Federation's political system will remain stable or that any increased stability would have an adverse effect on Pan American's interest in the Dukat Project. As well, the Magadan Region government's current policy of encouraging foreign investment may change, or other government limitations, restrictions or requirements not at present foreseen, may be implemented.

The Russian Federation's transition towards a market-oriented economy has been difficult. The country has experienced severe economic problems since 1990, including shortages in supply of goods and services (including energy and heat), hyper-inflation, dramatic currency devaluations, high unemployment and non-payment of wages, pensions and indebtedness. Russia has also experienced shortages, failures and other problems with utilities, transportation, communication and other infrastructure. A high incidence of corruption and organized crime within the Russian Federation has been widely reported by the press. There can be no assurance that these circumstances and the general economic and political situation in the Russian Federation will not persist or deteriorate. Also, there can be no assurance that the economic measures being taken by the government will be effective in improving economic conditions and achieving greater economic liberalization and stability. Furthermore, there can be no assurance that the Russian Federation's current transition to a market-based economy will not be reversed and that the government will not re-nationalize industries deemed to be of national or strategic importance, such as mineral production, and/or re-introduce central planning.

Adverse political, economic and social changes may have a material adverse effect on Pan American's interest in the Dukat Project. Pan American's interest in the Dukat Project may be affected in varying degrees by government regulations with respect to restrictions on production, price controls, export controls, foreign exchange controls, taxes, environmental legislation, mining activities, use of infrastructure, mine safety, labour relations or any similar matters. Taxes and other fiscal measures and customs and other import regulations are particularly susceptible to revision in reaction to political or economic change and the pressure on the government of the Russian Federation to generate revenue or to conserve hard currency.

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#### <u>Uncertain Legal Environment in the Russian Federation</u>

The current legislative framework governing investment in Russia remains in a state of flux. The significant amount of business related legislation has only recently been enacted, while additional legislation remains to be enacted. The current legal environment is characterized by poorly drafted and inconsistent legislation, gaps where legislation is not yet available, and uncertainty in the application of legislation due to frequent policy shifts and lack of administrative experience. Particular uncertainty is caused by the piecemeal replacement of the laws of the former Soviet Union with

legislation being passed by the Russian Federation. In particular, as a significant portion of current legislation has been enacted quickly and concurrently with other legislation, thorough reviews of pre-existing legislation which remain in effect have not been completed. Amendments to laws have been implemented by different governing bodies, often resulting in many uncertainties and inconsistencies.

Reliable texts of laws and regulations at the sub-federal and administrative levels may not be available, and usually are not updated or catalogued. As a result, applicable law is often difficult to ascertain and apply. In addition, the laws and regulations may be subject to different and changing interpretations and administrative applications. There are uncertainties in conclusively determining all necessary information about required permits, approvals and licenses, and there is no comprehensive index or system for determining all relevant legislation. As well, the legal system of the Russian Federation is a civil law system, and legal precedents are not of the same determinative nature as in a common law system. Officials often interpret regulations in an arbitrary or unpredictable way. The possibility that the present laws might be arbitrarily interpreted and applied in a manner inconsistent with Pan American's present understanding and to the detriment of Pan American's interest in the Dukat Project cannot be ruled out. As a result of these factors, even the best efforts to comply with the laws of the Russian Federation may not always result in full compliance.

The Russian Federation's laws often provide general statements of principles rather than a specific guide to operations and government officials may be delegated or exercise broad authority to determine matters of significance to Pan American's interest in the Dukat Project. Such authority may be exercised in an arbitrary unpredictable way and effective appeal processes may not be available. In addition, breaches of the Russian Federation's laws, especially in the areas of taxation and currency control, may involve severe penalties and consequences that would be regarded in more established legal systems as being disproportionate to the offence.

Exploration for and extraction of minerals in the Russian Federation is governed by the Law of the Russian Federation on the Subsoil and subsidiary legislation. Under this law, the committee of the Russian Federation on Geology and Use of the Subsoil, its territorial subdivisions and local agencies of state power are entrusted with regulation of subsoil use. Given the fact that this legislative scheme and the regulatory bodies governing this scheme are of relatively recent origin, the law has been subject to varying interpretations and inconsistent application. Therefore it can be difficult to determine with certainty in any given circumstance the exact nature of legal rights possessed by persons using the subsoil.

There can be no assurance that Polimetall, the operator of the Dukat Project, has complied with all applicable laws or obtained all necessary approvals in the Russian Federation. Furthermore, political events and legislative changes could have the effect of reducing or eliminating Pan American's interest in the Dukat project or the project's economic benefits to Pan American. In addition, there is no established system of registration or certification on which Pan American can rely, as is typically done in countries with reliable legal and title systems.

There can be no assurance that laws, orders, rules, regulations and other Russian legislation currently relating to Pan American's investment in the Russian Federation will not be altered, in whole or in part, or that a Russian court or any other authority will not interpret existing Russian legislation, whether retroactively or otherwise, in such a way that would have an adverse impact on Pan American. Although, there are civil protections

available in the Russian Federation against the retroactive effects of legislation, there can be no certainty that these will be applied with the desired result in Pan American's favour.

In general, there remains great uncertainty as to the extent to which Russian parties and entities, particularly governmental agencies, are or will be prepared to respect the contractual and other rights of non-Russian parties with whom they deal and also the extent to which the "rule of law" and western concepts of "justice" have taken hold and will be upheld in the Russian Federation. Procedures for the protection of rights, such as the taking of security, the enforcement of claims and proceedings for injunctive relief or to obtain damages are still relatively undeveloped. Accordingly, it may be with great difficulty, expense and a high degree of uncertainty that Pan American is able to protect and enforce its rights (including contractual rights) within the Russian Federation. There can be no assurance that this will not have a material adverse affect upon Pan American's interest in the Dukat Project.

There can be no assurance that Pan American's interest in the Dukat Project will not be subject to nationalization, requisition or confiscation, whether legitimate or not, by any authority or body in the Russian Federation. While there may exist provisions for compensation and reimbursement of losses to foreign investors under such circumstances, there can be no assurance that such provisions would be effective to restore Pan American, the market value or value of the original investment. Under current legislation in the Russian Federation, there can be no assurance that any proceeds received from a sale of precious metals extracted in the Russian Federation can be freely exchanged or converted to hard currency or transferred from the Russian Federation. Although the current policy of the Russian government is to favour some level of repatriation of profits earned in the Russian Federation, there remain restrictions on such repatriation and further, there can be no assurance that such policy will be maintained in its present form.

#### Taxation Risks in the Russian Federation

The taxation system in the Russian Federation is at an early stage of development and the tax risks of investing in the Russian Federation are substantial. Tax legislation is evolving and is subject to varying interpretations, frequent changes and inconsistent enforcement at the federal, regional and local levels. In certain instances, new taxes have been given retroactive effect and generally increased enforcement of the tax requirements is anticipated. Taxes payable by Russian companies to federal, regional and local budgets are high and include corporate profits tax, VAT, subsoil use royalty payments, mineral replacement taxes, property taxes, turn-over base taxes and payroll taxes. It is difficult for western companies to comply with all of the myriad tax laws of the Russian Federation and penalties for failure to strictly comply with any tax laws are extremely high. Changes to Russian tax legislation and taxation rates may have an adverse impact on Pan American's interest in the Dukat Project.

## Restricted Rights to Sell Silver in Russia

Under Russian legislation, the sale of extracted silver is under the strict control of the Ministry of Finance and the Ministry of Internal Affairs. The Central Bank of Russia has a first right of refusal to buy and process silver from subsoil users and to sell that silver on local and foreign markets and has the authority to set annual quotas on the amount of silver to be purchased. Similarly, regional governments within the Russian Federation have a second right of refusal to buy and process silver from subsoil users and to sell that silver on local and foreign markets. Such rights may be exercised only in certain circumstances which include prepayment for a portion of the metal to be purchased pursuant to exercise of these rights. In this manner, the government exercises monopolistic control over the silver market in the Russian Federation. The level of compensation that Pan American can expect for its interest in the Dukat Project's silver and the amount of silver that may be mined at Dukat are therefore not easily predictable.

## Repatriation of Earnings

Russian Federation laws and regulations affecting foreign investment continue to evolve. Foreign investment in Russian companies is, in certain cases, both politically sensitive and legally restricted. In theory, existing legislation guarantees the right of foreign investors to transfer abroad income received on Russian investments, such as profits, dividends and interest (subject to settlement of all applicable taxes and duties). In practice, foreign currency transactions in Russia are generally subject to strict controls. There can be no certainty that such controls will not have an adverse impact on Pan American's interest in the Dukat Project.

# United States Mining Legislation

There is a movement in the United States Congress to reform the current mining laws. While it is not expected that any reform legislation will pass the United States Congress in the current session, it is not unlikely that some changes to U.S. mining laws will occur in the future. These changes may include the payment of royalties to the government, increased holding fees and restrictions or prohibitions on patenting mining claims. In addition, prospective legislation could be expected to include various environmental and land use requirements, which may restrict, or in some cases, prevent mining operations. Although none of the mineralization on the properties on which Pan American holds direct or indirect interests are within unpatented claims, Pan American's interest in unpatented claims on federal land could have an overall impact on the value of its properties in the United States.

## Foreign Exchange Rate Fluctuations

Fluctuations in currency exchange rates, particularly the weakening or strengthening of the U.S. dollar (being the currency in which Pan American's products are sold) against the Canadian dollar (used to pay corporate head office costs), the Peruvian sole and the Mexican peso (being the currencies in which a significant portion of Pan American's operating costs are incurred), could have a significant effect on Pan American's results of operations. Pan American does not engage in currency hedging transactions.

# Level of Indebtedness

As of December 31, 2003, the Company had approximately \$99.69 million of consolidated indebtedness, including the nominal face value of the Debentures of \$86.25 million. Canadian GAAP requires that the Debenture be treated as part debt and part equity on the Company's consolidated balance sheet. In addition, the terms of the Company's bank agreements and the Indenture governing the Debentures permit the Company and its subsidiaries to incur additional debt.

The Company's debt may have important consequences to shareholders. For instance, it could:

- make it more difficult for the Company to satisfy its financial obligations;
- require the Company to dedicate a substantial portion of any cash flow from operations to the payment of interest and principal due under its debt, which would reduce funds available for other business purposes;
- increase its vulnerability to general adverse economic and industry conditions, including a decrease in the price of silver, zinc or lead;
- limit its flexibility in planning for, or reacting to, changes in its business;
- place it at a competitive disadvantage compared with its competitors that have less debt or greater financial resources; and

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• limit its ability to obtain additional financing required to fund working capital or capital expenditures or for other general corporate purposes.

The Company's ability to make payments on its indebtedness and to fund its operations, working capital and capital expenditures, will depend on its ability to generate cash in the future. This is subject to general economic, industry, financial, competitive, legislative, regulatory, and other factors that are beyond the Company's control. In particular, global or regional economic conditions could cause the price of silver to fall and hamper the Company's ability to repay its indebtedness, including the Debentures. The Company's operations may not generate sufficient cash flow or borrowings may not be available in an amount sufficient to enable the Company to pay its indebtedness, or to fund its other cash needs. The Company may need to refinance all or a portion of its indebtedness on or before maturity, but such refinancing may be unavailable to it on commercially reasonable terms, or at all, to meet its obligations or to successfully execute its business strategy.

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#### SELECTED CONSOLIDATED FINANCIAL INFORMATION

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Selected consolidated financial information of the Company for each of the last five completed financial years is as follows:

	2	<u>2003</u>	,	<u>2002</u>	2	<u> 2001</u>	2	<u> 2000</u>	-	<u>1999</u>
		(thousa	ands	of U.S. d	ollar	rs, except	per s	share amo	unts	s)
Revenue	\$	45,122	\$	45,093	\$	37,296	\$	29,931	\$	26,851
Operating loss		(7,608)		(35,229)		(8,540)		(45,878)		(5,837)
Operating loss per share	\$	(0.21)	\$	(0.84)	\$	(0.24)	\$	(1.37)	\$	(0.20)
Net loss		(6,794)		(33,977)		(8,077)		(45,878)		(5,837)
Net loss per share	\$	(0.20)	\$	(0.81)	\$	(0.22)	\$	(1.35)	\$	(0.20)
Cash and short-term investments		89,129		10,198		3,844		7,590		15,873
Total assets		279,883		102,945		91,517		83,087		107,829
Total long-term financial liabilities		10,803		3,942		5,010		4,987		
Total shareholder's equity		184,098		55,492		58,877		57,544		94,884

Selected unaudited consolidated financial information of the Company for each of the last eight quarterly periods is as follows:

	2003					2002					
	m	Three onths nded	Three months ended	Three months ended	Three months ended	Three months ended	Three months ended	Three months ended	Three months ended		
	<u>N</u>	<u> </u>	<u>June 30</u>	<u>Sept. 30</u>	<u>Dec. 31</u>	<u>March</u> <u>31</u>	<u>June 30</u>	<u>Sept. 30</u>	Dec. 31 (Restated)		
		(in the	ousands of	U.S. Dollar	s, except pe	er share amo	ounts)				
Total Revenue Expenses:	\$	7,822	\$ 12,553	\$ 11,890	\$ 12,857	\$ 10,199	\$ 11,615	\$ 11,195	\$ 12,084		
Operating costs		7,429	11,333	10,200	10,816	9,202	10,807	11,447	11,705		
Depreciation		471	462	432	1,960	1,429	1,435	1,316	692		
General & Admin.		401	582	565	1,184	359	498	379	462		
Stock-based compensation		-	-	-	2,893	-	-	-	319		
Reclamation		79	77	75	72	198	221	226	215		
General exploration		496	492	600	955	83	260	234	629		
Investment income, net		50	49	408	(165)	231	(359)	(149)	13		

Write-off resource					-	-	15,129	12,089
Net income (loss) for the period	(1,104)	(442)	(390)	(4,853)	(1,303)	(1,247)	(17,387)	(14,040)
Earnings (loss) per share	\$ (0.02)	\$ (0.01)	\$ (0.01)	\$ (0.16)	\$ (0.03)	\$ (0.03)	\$ (0.40)	\$ (0.33)

Quarterly per share amounts have been adjusted to reflect the weighted average common shares of the Company outstanding for the full year.

Further discussion of the Company's financial results is contained in the MD&A incorporated by reference into this Annual Information Form.

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## **Dividends**

The Company has not, since the date of its incorporation, declared or paid any dividends on its common shares and does not currently intend to pay dividends. Earnings will be retained to finance further exploration and development. Currently there are no restrictions with respect to the Company's present or future ability to declare or pay dividends.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

Reference is made to "Management's Discussion and Analysis of Financial Condition and Results of Operations" ("MD&A") and the Consolidated Financial Statements of the Company for the years ended December 31, 2003 and 2002, set out on pages 6 through 19 and 20 through 44, respectively, of the Company's 2003 Annual Report, which are incorporated by reference herein.

#### MARKET FOR SECURITIES

The Company's common shares are listed and posted for trading on the Toronto Stock Exchange under the symbol "PAA". The common shares of the Company are also quoted on the Nasdaq National Market and trade under the symbol "PAAS". Warrants to purchase common shares of the Company are also listed and posted for trading on the Toronto Stock Exchange and trade under the symbol "PAA-wt". Debentures are also listed and posted for trading on the Toronto Stock Exchange under the symbol "PAA.db.u".

# **DIRECTORS AND OFFICERS**

The names and municipalities of residences of the directors and officers of the Company, the positions held by them with the Company and their principal occupations for the past five years are set forth below:

Name and Municipality of Residence	Position with the Company	Principal Occupation During the		
		Past Five Years		
ROSS J. BEATY <sup>4</sup>	Director, Chairman and Chie Executive Officer (director of	f Chairman and Chief Executive f Officer of the Company		
Vancouver, B.C.	the Company since September 30, 1988)	;		
GEOFF A. BURNS <sup>4</sup>	Director, President and Chief Operating Officer	President and Chief Operating Officer of the Company since July		
North Vancouver, B.C.		2003; and prior thereto Sr. Vice President and Chief Financial Officer of Coeur D'Alene Mines Corporation		
WILLIAM A. FLECKENSTEIN <sup>3, 4</sup>	Director of the Company since May 9, 1997	President of Fleckenstein Capital, Inc. (an investment counselling		
Seattle, Washington, U.S.A.		firm) from 1996 to present; prior thereto Partner of Olympic Capital Management Inc. (an investment counselling firm)		
MICHAEL LARSON <sup>4</sup>	Director of the Company since November 29, 1999	Investment Advisor and Manager of Cascade Investment LLC (a private		
Seattle, Washington, U.S.A.		investment company)		
MICHAEL J.J. MALONEY 1, 2, 3, 4	Director of the Company from Sept. 11, 1995 to Nov			
Seattle, Washington, U.S.A.	29, 1999 and then re-elected on May 15, 2000	1		
PAUL B. SWEENEY 1,4	Director of the Company since August 6, 1999	Vice President and Chief Financial Officer of Canico Resource Corp. (a		
Surrey, B.C.	-	mining company) since February 2002; prior thereto Chief Financial		
		Officer of Manhattan Minerals Inc.		
		(a mining company) from December		
		1999 to May 2001; Chief Financial Officer of Sutton Resources Inc. (a		
		mining company) from February		
		1998 to April 1999; and prior		
		thereto Senior Vice President and Chief Financial Officer at Princeton		

Mining Corp.

JOHN H. WRIGHT <sup>4</sup>

Director of the Company President and Chief Operating since September 30, 1988 Officer of the Company from 1998

Vancouver, B.C.

to 2003

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JOHN WILLSON <sup>1, 2, 4</sup> Director since April 4, 2002 Retired since April 2000; formerly

Director and Chief Financial Officer

Vancouver, B.C. of Placer Dome Inc.

A. ROBERT DOYLE Chief Financial Officer Chief Financial Officer of the

Company since January 2004; and prior thereto Senior Vice President-Mining Finance and Metals Marketing with Standard

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ROBERT P. PIROOZ Vice President, Legal Affairs Vice President, Legal Affairs of the

Company since January 2003; and prior thereto Group Vice President with the BCR Group of Companies

with the BCR Group of Companies

STEVEN BUSBY

Senior Vice President, Project Senior Vice President, Project

Descharate & Technical Senior

Development & Technical Development & Technical Services
Vancouver, B.C.

Development & Technical Services
of the Company since August 2003;

Principal of S.L. Busby Consulting from September 2001 to August 2003 and Vice President Engineering and Director of Technical Services Coeur D'Alene

Mines Corporation from August

1998 to September 2001

ANDREW POOLER Senior Vice President, Senior Vice President, Mining Operations Operations of the Company since

September 2003; Chief Operating Officer for Colville Tribal Enterprise Corp. from 2000 to 2003; Vice President Operations for Greenstone Resources Ltd. from 1998 to 2000; and prior thereto Vice

President Operation for Amex Gold

1992 to 1998.

BILL FAUST<sup>5</sup>

Vancouver, B.C.

Vancouver, B.C.

Vancouver, B.C.

Vice President, Alamo Vice President, Alamo Dorado since Albuquerque, New Mexico Dorado February 2003; and prior thereto Vice President of Corner Bay Silver Inc. STUART A. MOLLER Vice President, Vice President, Exploration of the Company since July 1997; and prior Exploration thereto Exploration Manager in La Paz, Bolivia Bolivia with Barrick Gold Corporation - 75 -

BRENDA RADIES Vice President, Vice President, Corporate Relations

Corporate Relations of the Company since May 2003; West Vancouver, B.C. and prior thereto Director, Corporate

Communications for Placer Dome Inc. from 2000 - 2003; and Manager, Corporate Relations for Placer Dome North America from 1993 - 2000.

GORDON JANG Controller and Secretary Controller of the Company

Vancouver, B.C.

1

Member of the Audit Committee

2

Member of the Compensation Committee

3

Member of the Nominating and Governance Committee

4

Member of the Health, Safety and Environmental Committee

5

Effective April 30, 2004, Mr. Faust resigned from the Company.

The directors of the Company are elected at each annual general meeting to hold office until the next annual general meeting or until their successors are elected or appointed. The board currently consists of eight directors five of whom, William A. Fleckenstein, Michael Larson, Michael J.J. Maloney, Paul B. Sweeney and John Willson qualify as unrelated directors who are independent of management. The board has established four committees: the Audit Committee, the Compensation Committee, the Health, Safety and Environmental Committee and the Nominating and Governance Committee. The board does not have an Executive Committee. The composition of the various committees as at December 31, 2003 is set forth in the preceding table.

As at April 29, 2004, the directors and officers of the Company as a group beneficially owned, directly or indirectly, 8,360,993 common shares of the Company representing 12.88% of the issued and outstanding common shares of the Company.

On March 15, 2004 Mr. Michael Steinmann joined Pan American as Vice President, Geology-Operations and Projects. Effective April 30, 2004, Mr. Bill Faust resigned from the Company.

Effective May 11, 2004, the Company's Board of Directors approved the separation of the roles of Chairman and Chief Executive Officer, previously held by Mr. Ross J. Beaty. Since that time, Mr. Beaty has remained actively engaged with the Company as Chairman and Mr. Geoff A. Burns, formerly President and Chief Operating Officer, has become President and Chief Executive Officer of the Company.

## Conflicts of Interest

Certain officers and directors of the Company are officers and/or directors of, or are associated with, other natural resource companies that acquire interests in mineral properties. Such associations may give rise to conflicts of interest from time to time. However, the directors are required by law to act honestly and in good faith with a view to the best interests of the Company and its shareholders and to disclose any personal interest which they may have in any material transaction which is proposed to be entered into with the Company and to abstain from voting as a director for the approval of any such transaction.

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#### ADDITIONAL INFORMATION

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, options to purchase securities and interests of insiders in material transactions, is contained in the Information Circular for the Annual General Meeting of the Company held on May 11, 2004. Additional financial information is also provided in the Company's Audited Consolidated Financial Statements for the years ended December 31, 2003 and 2002 that are contained in the Company's 2003 Annual Report.

The Company shall provide to any person, upon request to the Secretary of the Company:

(a)

when the securities of the Company are in the course of a distribution pursuant to a shelf or short form prospectus or a preliminary short form prospectus has been filed in respect of a distribution of its securities:

(i)

one copy of the Annual Information Form of the Company, together with a copy of any document or the pertinent pages of any document, incorporated by reference in the Annual Information Form;

(ii)

one copy of the comparative financial statements of the Company for its most recently completed financial year together with the accompanying report of the auditor and one copy of any interim financial statements of the Company subsequent to the financial statements for the Company's most recently completed financial year;

(iii)

one copy of the information circular of the Company in respect to its most recent annual meeting of shareholders that involved the election of directors; and

(iv)

one copy of any other documents that are incorporated by reference into a preliminary short form prospectus or shelf or short form prospectus and are not required to be provided under (i) to (iii) above; or

(b)

at any other time, one copy of any of the documents referred to in (a) (i), (ii) and (iii) above, provided that the Company may require the payment of a reasonable charge if the request is made by a person who is not a security holder of the Company.

Requests for copies pursuant to the foregoing should be made to the Secretary of the Company at 1500 - 625 Howe Street, Vancouver, British Columbia, Canada, V6C 2T6.

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#### **GLOSSARY OF TERMS**

"adit" - a horizontal or nearly horizontal passage driven from the surface for the working of a mine.

"adularia" - a very low-temperature monoclinic potassium feldspar.

"andesite" - a dark-coloured, fine-grained extrusive rock that, when porphyritic, contains phenocrysts composed primarily of zoned sodic plagioclase (esp. andesine) and one or more of the mafic minerals (e.g. biotite, horneblend, pyroxene), with a ground-mass composed generally of the same minerals as the phenocrysts; the extrusive equivalent of diorite.

"argillic" - pertaining to clay or clay minerals, e.g. in "argillic alternation" in which certain minerals are converted to minerals of the clay group.

"arroyo" - a term applied in the arid and semi-arid southwestern U.S. to a small deep flat-floored channel or gully of an ephemeral or intermittent stream. It is usually dry and has steep or vertical banks of unconsolidated material.

"basalt" - a dark-coloured igneous rock, commonly extrusive, composed primarily of calcic plagioclase and pyroxene.

"berm" - the space left between the upper edge of a cut and the toe of an embankment.

"breccia", "brecciation" - rock broken up by geological forces.

"calcareous" - containing calcium carbonate. When applied to a rock name, it implies that as much as 50% of the rock is calcium carbonate.

"chalcopyrite" - a bright brass-yellow tetragonal mineral; generally found massive and constitutes the most important ore of copper.

"chert" - a hard, dense, dull to semivitreous, microcrystalline or cryptocrystalline sedimentary rock, consisting dominantly of interlocking crystals of quartz less than about 30mu m in diameter; it may contain amorphous silica (opal). It sometimes contains impurities such as calcite, iron oxide, and the remains of siliceous and other organisms. Chert occurs principally as nodular or concretionary nodules in limestone and dolomites, and less commonly as layered deposits (bedded chert).

"conglomerate" - a coarse-grained clastic sedimentary rock, composed of rounded to sub-angular fragments larger than 2mm in diameter (granules, pebbles, cobbles, boulders) set in fine-grained matrix of sand or silt and commonly cemented by calcium carbonate, iron oxide, silica or hardened clay.

"cut-and-fill" - a method of stoping in which ore is removed in slices, or lifts, following which the excavation is filled with rock or other waste material known as back fill, before the subsequent slice is mined. The back fill supports the walls of the stope.

"dacite" - a fine-grained extrusive rock with the same general composition as andesite, but having less calcic plagioclase and more quartz.

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"diamond drill" - a type of rotary drill in which the cutting is done by abrasion rather than by percussion. The drill cuts a core of rock which is recovered in long cylindrical sections.

"dore" - unrefined gold and silver in bullion form.

"drift" - a horizontal passage underground that follows along the length of a vein or rock formation.

"enargite" - a grayish-black or iron-black orthorhombic mineral. It is an important ore of copper.

"epidote" - a basic silicate of aluminium, calcium and iron.

"epithermal" - formed by low-temperature (100 - 200° C.) hydrothermal processes.

"fault" - a fracture in a rock where there has been displacement of the two sides.

"feldspar" - a prominent group of rock-forming silicate minerals.

"fracture" - breaks in a rock, usually due to intensive folding or faulting.

"galena" - the most important ore of lead, found in hydro-thermal veins and as a replacement mineral.

"gangue" - that part of an ore deposit from which a metal or metals is not extracted.

"*gneiss*" - a foliated rock formed by regional metamorphism, in which bands or lenticles of granular minerals alternate with bands or lenticles in which minerals having flaky or elongate prismatic habits predominate.

"granodioritic" - similar to granitic, except that graphic texture does not seem to occur, and a lower percentage of silicon, and a higher calcium and magnesium content is present.

"indicated mineral resource" - mineral resources for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

"inferred mineral resource" - mineral resources for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological grade and continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

"lacustrine" - pertaining to, produced by, or inhabiting a lake or lakes.

"loop" - a pattern of field observations that begin and end at the same point with a number of intervening observations.

"manto" - a blanket-like replacement of rock (commonly limestone) by ore. In some districts, the term has been modified to designate a pipe-shaped deposit confined within a single stratigraphic horizon.

"marls" - a variety of materials, most of which occur as loose, earthy deposits consisting chiefly of an intimate mixture of clay and calcium carbonate.

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

"mineral reserve" - the economically mineable part of a measured or indicated mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A mineral reserve includes diluting materials and allowances for losses that may occur that when the material is mined.

"mineralization" or "resources" or "mineral resources" - is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge.

"monzonite" - a granular plutonic rock containing approximately equal amounts of orthoclase and plagioclase, and thus intermediate between syenite and diorite. Quartz is minor or absent.

"muck" - ore or rock that has been broken by blasting.

"open pit" - a surface working open to daylight, such as a quarry.

"ore shoot" - a pipelike, ribbonlike or chimneylike mass of ore within a deposit (usually a vein), representing the more valuable part of a deposit.

"orogeny" - a period of mountain building.

"pearceite" - a monoclinic mineral Ag<sub>16</sub>As<sub>2</sub>S<sub>11</sub>, having copper as an apparent necessary minor component which is metallic black, brittle and occurs in low-to moderate-temperature silver and base-metal ores.

"*pinch*" - a compression of the walls of a vein, or the roof and floor of a coal bed, which more or less completely displaces the ore or coal.

"polybasite" - a monoclinic mineral  $(Ag,Cu)_{16}Sb_2S_{11}$  that is soft, metallic and grey to black occurring in low-temperature veins. A source of silver.

"porphyry" - an igneous rock of any composition that contains conspicuous phenocrysts in a fine-grained ground mass.

"probable mineral reserve" - is the economically mineable part of an indicated, and in some circumstances, a measured mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

"proustite" - a triangle mineral, Ag<sub>3</sub>AsS<sub>3</sub>, with rhombohedral cleavage that is soft, ruby red and occurs in low temperature or secondary enrichment veins. A minor source of silver.

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"proven mineral reserve" - is the economically mineable part of a measured mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

"pyrite" - a mineral containing iron sulphide.

"pyroclastic" - rock formed by the mechanical combination of volcanic fragments.

"pyrrhotite" - a monoclinic and hexagonal mineral, FeS, invariably deficient in iron, variably ferrimaganetic, which is metallic, bronze yellow with iridescent tarnish and occurs in mafic igneous rocks, contact metamorphic deposits, high temperature veins and granite pegmatites.

"qualified person" - is an individual who is an engineer or geoscientist with at least five years experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; and has experience relevant to the subject matter of the mineral project; and who is a member in good standing of a recognized self-regulatory organization of engineers or geoscientists.

"raise" - a vertical or inclined underground working that has been excavated from the bottom upward.

"resuing" - a method of stoping wherein the wall rock on one side of the vein has been blasted after the ore itself is broken, with the waste rock used as fill. Resuing is employed on narrow veins and permits a recovery with a minimum of dilution.

"rhodochrosite" - a hexagonal carbonate mineral, found in lead and silver-lead ore veins and in metasomatic deposits.

"schist" - a strongly foliated crystalline rock formed by dynamic metamorphism, that can be readily split into thin flakes or slabs due to the well developed parallelism of more than 50% of the minerals present, particularly those of lamellar or elongate prismatic habit (e.g., mica and hornblende).

"shrinkage stoping" - a method of stoping which utilizes part of the broken ore as a working platform and as support for the walls.

"silicified" - a rock altered by a silica hydrothermal solution.

"skarn" - rocks composed nearly entirely of lime-bearing silicates and derived from nearly pure limestones and dolomites in which large amounts of silicon, aluminium, iron and magnesium has been introduced.

"sphalerite" - the main zinc ore, found in metasomatic deposits with galena, in hydro-thermal vein deposits, and in replacement deposits.

"split" - a coal seam that is separated from the main seam by a thick parting of other sedimentary rock.

"stope" - an excavation in a mine from which ore is being or has been extracted.

"strike" - the course or bearing of a layer of rock.

"stripping ratio" - the ratio of waste material to ore experienced in mining an ore body by open pit.

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"supergene" - said of a mineral deposit or enrichment formed near the surface, commonly by descending solutions; also, said of the solutions and of that environment.

"swell" - an enlarged place in an orebody, as opposed to a pinch.

"tailings" - material rejected from a mill after recoverable valuable minerals have been extracted.

"tennantite" - a blackish lead-gray isometric mineral. It is isomorphous with tetrahedrite, and sometimes contains zinc, silver, or cobalt replacing part of the copper. It is an important ore of copper.

"tetrahedrite" - a metallic isometric mineral. It is isomorphous with tennantite, and often contains silver or other metals replacing part of the copper. Tetrahedrite is an important ore of copper and sometimes an ore of silver.

"trachytes" - fine-grained, alkali, intermediate igneous rocks.

"tuff" - a general term for all consolidated pyroclastic rocks. Adj: tuffaceous.

"tuffs" - upon consolidation, the general name for the material derived from solid volcanic material which has been blown into the atmosphere by explosive activity.

"vein" - an epigenetic mineral filling of a fault or other fracture, in tabular or sheetlike form, often with associated replacement of the host rock; a mineral deposit of this form and origin.

# Document No. 2

# Pan American Silver Corp.

Consolidated Balance Sheets
As at December 31,
(in thousands of US dollars)

	2003	2002
		(Note 3)
Assets		
Current		
Cash and cash equivalents	\$ 14,191	\$ 10,185
Short-term investments	74,938	13
Accounts receivable, net of \$nil provision for doubtful accounts	7,545	4,598
Inventories (Note 5)	6,612	4,637
Prepaid expenses	1,289	3,197
Total Current Assets	104,575	22,630
Mineral property, plant and equipment (Note 6)	83,574	67,426
Investment and non-producing properties (Note 7)	83,873	4,193
Direct smelting ore (Note 5)	3,901	4,303
Other assets (Note 8)	3,960	4,393
Total Assets	\$ 279,883	\$ 102,945
<b>Liabilities</b> Current		
Operating line of credit	\$ -	\$ 125
Accounts payable and accrued liabilities (Note 9)	10,525	15,227
Advances for metal shipments	4,536	2,158
Current portion of bank loans and capital lease	2,639	1,638
(Note 10)	-	
Current portion of non-current liabilities (Note 9)	4,948	1,083
Total Current Liabilities	22,648	20,231
Deferred revenue (Note 8)	865	923
Bank loans and capital lease (Note 10)	10,803	3,942
Liability component of convertible debentures (Note 11)	19,116	-
Current portion of non-current liabilities (Note 9)  Total Current Liabilities  Deferred revenue (Note 8)  Bank loans and capital lease (Note 10)	4,948 22,648 865 10,803	20,23 92

Provision for asset retirement obligation and reclamation (Note 3)	21,192	20,950
Provision for future income tax (Notes 4 and 17)	19,035	-
Severance indemnities and commitments (Note 16)	2,126	1,407
Total Liabilities	95,785	47,453
Shareholders' Equity		
Share capital (Note 12)		
Authorized: 100,000,000 common shares of no par		
value		
Issued:		
December 31, 2002 - 43,883,454 shares		
December 31, 2003 - 53,009,851 shares	225,154	161,108
Equity component of convertible debentures (Note 11)	66,735	-
Additional paid in capital	12,752	1,327
Deficit	(120,543)	(106,943)
Total Shareholders' Equity	184,098	55,492
Total Liabilities and Shareholders' Equity	\$ 279,883	\$ 102,945

## APPROVED BY THE BOARD

Signed Ross J. Beaty Ross J. Beaty, Director

Signed Geoff A. Burns Geoff A. Burns, Director

See accompanying notes to consolidated financial statements

# Pan American Silver Corp.

**Consolidated Statements of Operations** 

For the years ended December 31, 2003, 2002 and 2001

(in thousands of US dollars, except for shares and per share amounts)

	2003	2002	2001
Revenue	\$ 45,122	\$ (Note 3) 45,093	\$ 37,296

Expenses			
Operating	39,778	43,161	40,591
General and administration	2,732	1,698	1,885
Stock-based compensation	2,893	319	253
Depreciation and amortization	3,325	4,872	4,312
Reclamation	303	860	620
Exploration	2,543	1,206	892
Interest expense (Notes 10 and 11)	1,156	988	783
Write-down of mineral properties (Note 6)	-	27,218	-
Gain on sale of land	-	-	(3,500)
	52,730	80,322	45,836
Loss from operations	(7,608)	(35,229)	(8,540)
Interest income	403	269	236
Other income (Note 15)	411	983	227
Net loss for the year	\$ (6,794)	\$ (33,977)	\$ (8,077)
Basic and fully diluted loss per share (Note 2(k))	(\$0.20)	(\$0.81)	(\$0.22)
Weighted average shares outstanding	51,058,212	41,849,413	36,162,815

See accompanying notes to consolidated financial statements

# Pan American Silver Corp.

Consolidated Statements of Shareholders' Equity

For the years ended December 31, 2003, 2002 and 2001

(in thousands of US dollars, except for shares)

		Additional			
		Paid In	Convertible	shares	Common
t <b>Total</b>	Deficit	Capital	Debentures	Amount	Shares
(Note 3)					

Balance, December 31, 2000 Exercise of stock options Shares issued for cash, net of share	34,381,234 247,000	\$ 121,302 789	\$ - -	\$ 1,131 -	\$ (64,889)	\$ 57,544 789
Issue costs	3,000,000	8,632	_	_	_	8,632
Fair value of warrants granted	-	-	_	27	_	27
Other	_	_	_	(38)	_	(38)
Net loss for the year	_	_	_	(33)	(8,077)	(8,077)
Balance, December 31, 2001	37,628,234	130,723		1,120	(72,966)	58,877
Stock-based compensation	57,020,254	130,723	_	319	(72,300)	319
Exercise of stock options	1,445,400	6,186	-	(84)	-	6,102
· · · · · · · · · · · · · · · · · · ·	1,445,400	0,100	-	(04)	-	0,102
Shares issued for cash, net of share						
Issue costs (Note 12c(i))	3,450,000	15,599	_	_	_	15,599
Issued on acquisition of	3,430,000	13,333	_	_	_	13,333
Manantial Espejo						
(Notes 7 and 12c(ii))	231,511	1,250	_	_	_	1,250
Issued on acquisition of royalty	390,117	3,000	_	_	_	3,000
Issued as compensation (Note			_	_	_	-
12c(v))	69,000	253	-	-	-	253
Issued on purchase of silver						
stockpiles (Note 5)	636,942	4,000	-	-	-	4,000
Exercise of share purchase	22.250	0.7				
warrants	32,250	97	-	-	-	97
Other	_	-	_	(28)	_	(28)
Net loss for the year	_	_	_	_	(33,977)	(33,977)
Balance, December 31, 2002	43,883,454	161,108	_	1,327	(106,943)	55,492
Stock-based compensation	-		_	2,871	(===,==,=,=,=,=,=,=,=,=,=,=,=,=,=,=,=,=	2,871
Exercise of stock options	1,385,502	9,312	_	(1,471)	_	7,841
Issued on acquisition of Corner	1,303,302	3,312		(=, . , = ,		7,0.1
Bay						
Silver Inc. (Note 4)	7,636,659	54,203	_	_	_	54,203
Fair value of stock options	, ,	,				
granted (Note 4)	-	-	-	1,136	-	1,136
Fair value of share purchase				0.000		0.000
warrants (Note 4)	-	-	-	8,889	-	8,889
Exercise of share purchase	100,943	509				509
warrants	100,943	309	-	-	-	309
Issue of convertible debentures	_	_	63,201	_	_	63,201
(Note 11)	_	_	05,201	_	_	03,201
Convertible debentures issue	_	_	_	_	(3,272)	(3,272)
costs (Note 11)					(-, ,	ζ-, ,
Issued as compensation (Note	3,293	22	-	-	-	22
12b(ii))						
Accretion to convertible debentures (Note 11)	-	-	3,534	-	(3,534)	-
Net loss for the year					(6,794)	(6,794)
					(3,734)	

53,009,851

\$ 225,154 \$ 66,735 \$ 12,752 \$ (120,543**) \$ 184,098** 

See accompanying notes to consolidated financial statements

# Pan American Silver Corp.

Consolidated Statements of Cash Flows For the years ended December 31, 2003, 2002, 2001 (in thousands of US dollars)

2002	2003	
_		Operating activities
		Sales proceeds
		Hedging activities
		Interest paid
		Other income and expenses
		Products and services purchased
		Exploration
(2,020)	(2,149)	General and administration
(742)	(3,826)	
		Financing activities
420	9,500	Proceeds of bank loans and capital lease
(3,745)	(1,764)	Repayments of bank loans and capital leases
-	86,250	Proceeds from convertible debentures
-	(3,272)	Convertible debentures issue costs
22,821	8,350	Shares issued for cash
(962)	-	Share issue costs
18,534	99,064	
		Investing activities
(9,780)	(17,513)	Mineral property, plant and equipment expenditures
(1,158)	(1,383)	Investment and non-producing property expenditures
-	2,393	Acquisition of cash of subsidiary (Note 4)
-	(74,607)	Sales (purchases) of short-term investments
-	(122)	Other
(10,938)	(91,232)	
6,854	4,006	Increase (decrease) in cash and cash equivalents for the year
3,331	10,185	Cash and cash equivalents at beginning of year
	\$ 44,015 960 (988) 926 (42,533) (1,102) (2,020) (742) 420 (3,745) - 22,821 (962) 18,534 (9,780) (1,158) - (10,938)	\$ 44,822 \$ 44,015 (92) 960 (561) (988) 497 926 (44,960) (42,533) (1,383) (1,102) (2,149) (2,020) (3,826) (742) 9,500 420 (1,764) (3,745) 86,250 - (3,272) - 8,350 22,821 - (962) 99,064 18,534 (17,513) (9,780) (1,383) (1,158) 2,393 - (74,607) - (122) - (91,232) (10,938)

Cash and cash equivalents at end of year **\$ 14,191** \$ 10,185 \$ 3,331

Supplemental Cash Flow Information (Note 14(b))

See accompanying notes to consolidated financial statements

## Pan American Silver Corp.

Notes to consolidated financial statements December 31, 2003, 2002 and 2001

(Tabular amounts are in thousands of US dollars, except for shares, price per share and per share amounts)

1.

#### NATURE OF OPERATIONS

Pan American Silver Corp., its subsidiaries and joint ventures (the "Company") are engaged in silver mining and related activities, including exploration, extraction, processing and reclamation. Silver, the primary product, is produced in Mexico and Peru with exploration and project development activities in Argentina, Peru, Mexico and Bolivia.

2.

#### SIGNIFICANT ACCOUNTING POLICIES

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in Canada. The preparation of financial statements in accordance with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant differences from United States generally accepted accounting principles are disclosed in Note

18.
a)
Basis of presentation
These consolidated financial statements are expressed in United States dollars and include the accounts of the Company and its subsidiaries. All intercompany transactions and balances have been eliminated.
Certain comparative figures have been reclassified to conform to the current year's presentation.
b)
Revenue recognition
Revenue is recognized when title and risk of ownership of metals or metal bearing concentrate have passed and collection is reasonably assured. Revenue from the sale of metals may be subject to adjustment upon final settlement of estimated metal prices, weights and assays. Adjustments to revenue are recorded in the period of final settlement of prices, weights and assays; such adjustments have not historically been material in relation to the initial invoice amounts.
c)
Inventories
Metals and concentrate inventories are stated at the lower of cost and net realizable value determined by using the first-in, first-out method. Metals, concentrate and direct smelting ore inventories are carried at the lower of average cost and replacement cost. Acquisition cost of direct smelting ore is charged to operations on a per tonne of ore sold basis (Note 5).
d)
Mineral property, plant and equipment

i)

Mineral properties

Acquisition costs of mineral development properties together with costs directly related to mine development expenditures and any interest thereon are deferred. Once in production such costs are amortized on a units-of-production basis over a property's ore reserves. Exploration costs are charged to operations.

The Company's policy is to commerce commercial production for accounting purposes at the earlier of the operation achieving 60% of design capacity or one year after substantial completion of construction activities.

#### Pan American Silver Corp.

Notes to consolidated financial statements

December 31, 2003, 2002 and 2001

(Tabular amounts are in thousands of US dollars, except for shares, price per share and per share amounts)

Page 2

ii)

Mineral property, plant and equipment, including costs associated with properties under development, are carried at cost less depreciation and depletion. Maintenance, repairs and renewals are charged to operations. Betterments are capitalized. Any gains or losses on disposition of property, plant and equipment are reflected in the statement of operations. Depreciation is calculated on a straight-line basis over the lesser of an asset's estimated useful life ranging from five to twenty years and the life of the mineral property to which it relates.

The carrying value of mineral properties and any related plant and equipment are reviewed periodically for impairment in value, utilizing undiscounted estimates of future cash flows. Any resulting write downs to net recoverable value are charged to operations. Deferred costs relating to abandoned properties are written off.

e)

Reclamation costs (Note 3(b))

All mining operations are subject to reclamation and closure requirements. Minimum standards for mine reclamation have been established by various governmental agencies as a result of past activities. In such circumstances, the liability and related asset retirement costs are recognized when the obligation is first imposed.

The Company has recorded the present value of estimated future asset retirement obligation and reclamation with a corresponding increase to the carrying amount of the related asset. The carrying value will be amortized over the life of the related assets on a unit-of production basis and the related liabilities are accreted to the original value estimate.

The present value of the reclamation liabilities may be subject to change based on management's current estimates, changes in remediation technology or changes to the applicable laws and regulations by regulatory authorities, which affects the ultimate cost of remediation and reclamation. Such charges will be reflected in the accounts of the Company as they arise.

f)

Foreign currency translation

The Company's functional currency is the US dollar. The accounts of subsidiaries, not reporting in U.S. dollars, which are integrated operations are translated into U.S. dollars using the temporal method. Under this method, monetary assets and liabilities are translated at the year-end exchange rate. Non-monetary assets and liabilities are translated using historical rates of exchange. Revenue and expenses are translated at the rates of exchange prevailing on the dates such items are recognized in earnings except for depletion and amortization of mineral property, plant and equipment which are translated at the same rates as the assets to which they relate. Exchange gains and losses are included in operating results.

g)

Derivative financial instruments

The Company, from time to time, uses forward sales agreements for the purpose of managing the price of anticipated metal sales. These instruments are accounted for as a hedge of anticipated transactions and are not recorded on the balance sheet of the Company. Gains and losses from these contracts are recorded as an adjustment of revenue in the period that related production is delivered.

If the Company enters into contracts that do not meet the requirement for hedge accounting, the contracts are mark-to-market and any gains or losses are included in the statement of operations.

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h)
Cash and cash equivalents
Cash and cash equivalents include cash or highly liquid, fixed income securities or term deposits with an average current yield of 1.10% (2002 - 1.25%) and an average term to maturity, at the date of purchase, of one month.
i)
Short-term investments
Management determines the appropriate classifications of its investment in debt and equity securities at the time of purchase. Equity securities are carried at the lower of cost and market value. Debt securities are classified as available for sale and are marked to market at each period end. Debt securities include corporate bonds with S&P rating of A- to AAA with an overall average of single A high.
j)
Stock option plan (Note 3(a))

The Company provides options to buy common shares of the Company to directors, officers, employees and service providers. The board of directors grants such options for periods of up to ten years, vesting period of up to five years and at prices equal to or greater than the weighted average market price of the five trading days prior to the date the options are granted.

k)

Loss per share

The diluted net loss per share is calculated based on the weighted average number of common shares outstanding during the year, plus the effects of dilutive common share equivalents. This method requires that the dilutive effect of outstanding options and warrants issued should be calculated using the treasury stock method. This method assumes that all common share equivalents have been exercised at the beginning of the period (or at time of issuance, if later), and that the funds obtained thereby were used to purchase common shares of the Company at the average trading price of common shares during the period.

For securities that may be settled in cash or shares at the holder's option the more dilutive of cash settlement and share settlement is used in computing diluted earnings per share. For settlements in common shares the if-converted method should be used, which requires that returns on convertible senior equity instruments and income charges applicable to convertible financial liabilities be added back to net loss, net loss be adjusted for any non-discretionary changes that would arise from the assumed conversion, and that the convertible securities are assumed to be converted at the beginning of the period (or at time of issuance, if later).

Potentially dilutive securities totaling 15,346,740 shares (2002 - 1,802,470; 2001 - 3,714,660) have been excluded from the calculation, as their effect would be anti-dilutive.

The following table presents the adjustments to net loss to arrive at net loss available to common shareholders in computing basic loss per share.

	2003	2002	2001
Net loss for the year Add:	\$ (6,794)	\$ (33,977)	\$ (8,077)
Accretion of convertible, unsecured senior subordinated debentures	(3,534)	_	
Adjusted net loss for purposes of determining basic			
loss per share	\$ (10,328)	\$ (33,977)	\$ (8,077)
Loss per share	( \$0.20)	 ( \$0.81)	( \$0.22)

## Pan American Silver Corp.

Notes to consolidated financial statements

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Page 4

1)

Convertible debt instruments

The equity and liability components of convertible debt instruments are presented separately in accordance with their substance. The liability component is accreted by way of charge to earnings with a corresponding credit to the liability and interest payments are applied against the accrued liability. Accretion of the equity component is recorded as a direct charge to deficit. Financing costs related to the placement of the convertible debt are charged to deficit.

3.

#### CHANGE IN ACCOUNTING POLICIES

a)

During 2003 the Company changed its accounting policy, retroactive to January 1, 2002, in accordance with recommendation of CICA 3870, "Stock-based Compensation and Other Stock-based Payments". As permitted by CICA 3870, the Company has applied this change retroactively for new awards granted on or after January 1, 2002. Stock-based compensation awards are calculated using the Black-Scholes option pricing model. Previously, the Company used the intrinsic value method for valuing stock-based compensation awards granted to employees and directors where compensation expense was recognized for the excess, if any, of the quoted market price of the Company's common shares over the common share exercise price on the day that options were granted.

The following pro forma information presents the net loss and the basic loss per common share had CICA 3870 been applied retroactively to 2001.

Net loss for the year Stock-based compensation	\$ (8,077) (1,369)
Pro forma net loss for the year	\$ (9,446)
Pro forma basic loss per share	\$ (0.26)

Using the fair value method for stock-based compensation, the Company recorded an additional charge to earnings of \$2,871,000 and \$319,000 for the years ended December 31, 2003 and 2002, respectively, for stock options granted to employees and directors. These amounts were determined using an option pricing model assuming no dividends were paid, a weighted average volatility of the Company's share price of 58% (2002 - 67.5%), weighted average expected life of 3.5 years, weighted average annual risk free rate of 4.03% (2002 - 4.16%). The option valuation produced by the model is \$2.74 (2002 - \$4.75).

b)

During the fourth quarter of 2003, the Company changed its accounting policy on a retroactive basis with respect to accounting and reporting for obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and the normal operation of long-lived assets. The Company adopted CICA 3110 "Asset Retirement Obligations" whereby the fair value of the liability is initially recorded and the carrying value of the related asset is increased by the corresponding amount. The liability is accreted to its present value and the capitalized cost is amortized over the useful life of the related asset.

#### Pan American Silver Corp.

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The following table summarizes the effect to our asset retirement obligations:

Balance, December 31, 2001 (as previously reported) Effect of change in accounting policy Provision for Quiruvilca closure	\$ 2,112 7,978 10,000
Balance, December 31, 2001 (as restated) Additions during the year	20,090 860
Balance, December 31, 2002 Additions during the year Expenditures during the year	20,950 303 (61)
Balance, December 31, 2003	\$ 21,192

The Company has estimated that the total obligations associated with the retirement of the Quiruvilca, Huaron and La Colorada mines at December 31, 2003 were \$26,531,000. The \$21,192,000 fair value of these obligations was determined using a 5% discount rate and expected payment of obligations over ten years.

This change was applied retroactively with restatement to 2001. The impact of the change was to increase the provision for assets retirement obligation and reclamation by \$7,978,000 and increase the carrying value of the Huaron mine by \$7,031,000 and the La Colorada mine by \$947,000. The change in accounting policy did not have a significant impact on reported results of operations in any year presented.

#### 4.

#### **BUSINESS ACQUISITION**

On February 20, 2003, the Company acquired a 100% interest in Corner Bay Silver Inc. ("Corner Bay"). The consideration paid to the shareholders of Corner Bay was 7,636,659 common shares of the Company ( "Pan American shares"), representing 0.3846 of a share of the Company for each share of Corner Bay and 3,818,329 warrants (the "Pan American warrants") to purchase common shares of the Company, representing 0.1923 of a warrant for each share of Corner Bay. The Pan American shares issued were valued at \$54,203,000, which was derived from an issue price of Cdn\$11.30. The Pan American warrants were valued at \$8,889,000, which was equal to \$2.328 per warrant. The Pan American warrants were valued using an option pricing model assuming a weighted average volatility of the Company's share price of 35% and a weighted average annual risk free rate of 4.16%.

Each whole Pan American warrant allows the holder to purchase a Pan American share for a price of Cdn\$12.00 for a five-year period ending February 20, 2008.

In addition, the Company agreed to grant 553,847 stock options to purchase common shares of the Company. These options replaced 960,000 fully vested stock options held by employees and shareholders of Corner Bay. The value of the stock options granted was determined to be \$1,136,000.

The acquisition has been accounted for using the purchase method, which results in the allocation of the consideration paid to the fair value of the assets acquired and the liabilities assumed, as follows:

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		As at February 20, 2003
Fair value of net assets acquired		_
Current assets (including cash of \$2,393)	\$	2,512
Equipment		2,500
Mineral properties		79,008
Other assets		29
		84,049
Less:		
Current liabilities		(104)
Provision for future income tax liability		(19,035)
	\$	64,910
Consideration paid	\$	64,228
Add: Costs of acquisition	Ψ	682

\$ 64,910

The purchase consideration of \$64,228,000 for 100% of Corner Bay exceeds the carrying value of the net assets acquired by \$54,108,000, which has been applied to increase the carrying value of the mineral properties. The excess amount did not increase the carrying value of the underlying assets for tax purposes resulting in a temporary difference between accounting and tax values. The resulting estimated future income tax liability associated with this temporary difference of \$19,035,000 was also applied to increase the carrying value of the mineral properties.

The following table presents the unaudited pro forma results of operations for information purposes assuming that the Company had acquired Corner Bay at the beginning of 2003:

Revenue	\$ 45,122
Net loss	(7,079)
Basic and diluted loss per share	\$ (0.20)

#### 5. INVENTORIES

Inventories consist of:

	2003	 2002
Concentrate inventory	\$ 4,474	\$ 3,128
Direct smelting ore	4,350	4,753
Dore inventory	217	-
Materials and supplies	1,472	1,059
	10,513	8,940
Long-term portion of direct smelting ore	(3,901)	 (4,303)
	\$ 6,612	\$ 4,637

#### Pan American Silver Corp.

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Under an agreement entered into on November 8, 2002 with Volcan, the Company acquired the right to mine and sell 600,000 tonnes of silver-bearing ore stockpile to a nearby smelter. The consideration paid was 636,942 common shares with a value of \$4,000,000, the return to Volcan of 1,800,000 Volcan "B" shares, carried in the Company's accounts at \$500,000 and a one-third production bonus after the Company recovers \$4,500,000, operating costs, deemed taxes and interest on the acquisition cost. In addition, the Company guaranteed that Volcan would receive a minimum \$4,000,000 from the sale of the Company's common shares.

Pursuant to this guarantee the Company made a \$317,000 cash payment to Volcan.

Under a second agreement with Volcan, the Company has the option to acquire a 60% interest in certain silver-bearing stockpiles by spending \$2,000,000 over a three-year period ending November 8, 2005. In the twelve-months following this three-year period, the Company may increase its interest to 100% by paying Volcan \$3,000,000 and granting Volcan a 7% royalty on commercial production from the stockpiles. As at December 31, 2003, the Company has not made any payments pursuant to this agreement.

# 6. MINERAL PROPERTY, PLANT AND EQUIPMENT

Mineral property, plant and equipment consist of:

	La Colorada	_ C	uiruvilca)	Huaron	Other		2003		2002
Mineral Property	\$ 4,153	\$	- \$			\$	4,154	\$	4,154
Plant and equipment	10,332		15,410	14,417	2,567		42,726		36,412
Mine development	25,009		8,097	9,907	-		43,013		59,053
Other	6,883		1,949	22,913	594		32,339		527
		_				_		_	
	46,378		25,456	47,238	3,161		122,232		100,146
Accumulated amortization and write-downs	(1,473)		(25,456)	(11,226)	(503)		(38,658)	(	(32,720)
_	\$ 44,904	\$	- \$	36,012	\$2,658	\$	83,574	\$	67,426

Mineral property, plant and equipment is amortized using the straight-line method over the lesser of estimated useful life ranging from five to twenty years or estimated ore reserves. Mine development is amortized over estimated ore reserves.

On October 23, 2003, the Company purchased an existing 3% net smelter royalty on its Huaron silver mine for cash consideration of \$2,500,000.

On May 23, 2002, the Company purchased an existing 5% net smelter return royalty over the La Colorada mine. The purchase price was 390,117 common shares of the Company valued at \$3,000,000.

In 2002, the Company wrote-down its investment in the Quiruvilca mine by \$25,129,000. This decision was reached after an evaluation of the likelihood of recovering the carrying value of Quiruvilca in light of the mine's recent and expected operating and financial performance. The amount of the write down for the year ended December 31, 2002 was \$27,218,000, including a \$1,807,000 write-down of the mine's materials and supplies inventory and \$282,000 of current capital asset expenditures. As at December 31, 2003, the balance of Quiruvilca's future reclamation costs account was \$12,227,000. The Company continues to operate the mine.

During the fourth quarter 2003, the Company completed its expansion program at the La Colorada mine in Mexico at a total cost of \$20,693,000. During 2003 the Company spent \$11,365,000 (2002 - \$7,143,000) on project expansion and \$924,000 (2002 - \$1,261,000) on capitalized pre-operating costs. Commercial production for accounting purposes commenced on January 1, 2004.

#### Pan American Silver Corp.

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(Tabular amounts are in thousands of US dollars, except for shares, price per share and per share amounts)

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7.

#### INVESTMENT AND NON-PRODUCING PROPERTIES

Investment and non-producing properties consist of:

2003	2002
Investment properties	
Waterloo, USA. <b>\$ 1,000</b>	\$ 1,000
Tres Cruces, San Vicente and others 785	785
1,785	1,785
Non-producing properties	
Manantial Espejo, Argentina 2,012	2,012
Alamo Dorado, Mexico 80,076	396
82,088	2,408
\$ 83,873	\$ 4,193

Waterloo, USA

In 1994, the Company acquired a 100% interest in the Waterloo silver-barite property located in the Calico Mining District of San Bernardino County, California.

Tres Cruces, Peru

On May 22, 2002, the Company entered into an agreement granting New Oroperu Resources Inc. ("Oroperu") an option to acquire a 100% interest in the Tres Cruces gold property in northern Peru, which is currently held 50% by the Company and 50% by Oroperu. In consideration for this option, Oroperu issued 500,000 of its common shares to the Company, which was valued at \$1,000. These shares were sold in 2003 for a realized gain of \$322,000.

On October 29, 2003, the Company entered into an agreement with Oroperu to sell its 50% interest in the Tres Cruces property. This sale, which is subject to Oroperu shareholders' approval, is expected to be completed in early 2004. Oroperu will issue 3.5 million of its common shares to the Company and grant a 1.5% net smelter return royalty on the property.

Alamo Dorado, Mexico (Note 4)

On February 20, 2003, the Company acquired a 100% interest in the Alamo Dorado silver-gold deposit located in the State of Sonora, Mexico.

Manantial Espejo, Argentina

On March 4, 2002, the Company acquired a 50% interest in the Manantial Espejo property, located in Argentina, from Silver Standard Resources Ltd., which holds the other 50%. The purchase price was 231,511 common shares of the Company valued at \$1,250,000, cash of \$662,433 and a further cash payment of \$100,000 to eliminate a 1.2% NSR royalty on the property. All acquisition costs have been capitalized while exploration costs have been charged to operations.

On November 8, 2002, the Company acquired from Barrick Exploraciones Argentine S.A. a 3% NSR royalty over the Manantial Espejo property in exchange for certain of Quiruvilca's mineral concessions. In December 2002, the Company sold 50% of this royalty to Silver Standard Resources Ltd. and recorded a gain of \$300,000.

## Pan American Silver Corp.

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At December 31, 2003 the Company's share of the net liabilities of the joint venture was \$260,000. During the year the joint venture expended approximately \$1,900,000 on exploration activities which was funded by the joint venture partners (approximately \$700,000 each) and by an increase in accounts payable.

San Vicente, Bolivia

On December 1, 2001, the Company and Comibol entered into a two-year contract to allow EMUSA, a Bolivian company, to extract from the mine, at its cost, up to 200,000 tonnes during the life of the contract. The Company will receive the greater of \$13,000 per month, a 4% net smelter return royalty or depending on metal prices, 20% - 30% of net cash flow. During 2003 EMUSA continued with small scale operations until expiry of the contract and contributed a total of \$422,000 (2002 - \$170,000) in cash to the Company.

On November 10, 2003, the Company entered into a separate agreement with EMUSA giving EMUSA the right to earn a 49% interest in the Company's Bolivian subsidiary, Pan American Silver (Bolivia) S.A.. EMUSA can earn its share by financing the next \$2,500,000 in project expenses, including a feasibility study. For the year ended December 31, 2003 the Company received from EMUSA \$154,000 in cash, as part of its earn-in interest.

December 31, 2003 the Company received from EMUSA \$154,000 in cash, as part of its earn-in interest.
8.
OTHER ASSETS
Other assets consist of:
<u>2003</u>
<u>2002</u>
Prepaid taxes
\$
2,441
\$
3,000
Long-term receivable
1,414
1,319
Reclamation bond

<u>105</u>

<u>74</u>

\$

3,960

<u>\$</u>

4,393

The Company has \$2,441,000 of prepaid IGV taxes which is collectible as a portion of future metal sales.

Long-term receivable consists of \$1,133,000 remaining on future power credits receivable as partial consideration from the sale of Huaron land in 2001 and \$458,000 in various tax and interest payments collectible over a ten-year period. The current portion of these long-term receivables of \$176,000 (2002 - \$580,000) is reflected in current assets.

At December 31, 2003 the Company had recorded deferred revenue of \$959,000 (2002 - \$1,053,000) arising from the transactions relating to the long term receivable. The Company will receive the benefits as future power credits over a five-year period at the Huaron mine of which \$94,000 (2002 - \$130,000) is current and is reflected in current liabilities.

#### 9.

#### **CURRENT LIABILTIES**

Accounts payable and accrued liabilities consist of:

	2003	2002
Trade accounts payable	\$ 8,781	\$ 13,528
Payroll and related benefits	1,203	1,242
Sales taxes	451	237
Other	90	220
	\$ 10,525	\$ 15,227

# Pan American Silver Corp.

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Current portion of non-current liabilities consists of:	2003	2002
Convertible debentures liability (Note 11) Severance indemnities and commitments (Note 16)	\$ 4,528 420	\$ - 1,083
	\$ 4,948	\$ 1,083

#### 10. BANK LOANS AND CAPITAL LEASE

Bank	loans	consist	of:

Bank loans consist of:		
	2003	 2002
Huaron pre-production loan facility La Colorada IFC project loan	3,521 9,500	\$ 5,416
Current portion	13,021 (2,625)	5,146 (1,625)
	10,396	 3,521
Capital lease consists of:		
Capital lease Current portion	421 (14)	 434 (13)
	407	 421
\$	10,803	\$ 3,942

The Huaron loan bears interest at 6 month LIBOR plus 3.00% and is repayable in monthly installments of \$135,000 until February 2006. Certain of Huaron's assets have been pledged as security for this loan.

The IFC project loan bears interest at 6-month LIBOR plus 3.50% until certain technical and financial tests are achieved and 6-month LIBOR plus 3.25% thereafter and is repayable in semi-annual installments of \$1,000,000, commencing November 15, 2004 until May 15, 2009. In addition, the loan is subject to an additional fee (the "Fee") equal to 20% multiplied by the average silver price for the previous calendar year less \$4.75, multiplied by the annual production from the La Colorada mine and multiplied by the scheduled loan balance at the end of the year divided by \$9,500,000. The Fee is capped such that the internal rate of return to the IFC does not exceed 13.5%. As at December 31, 2003, the Company has accrued \$29,000 for the Fee. The Company's interest in its wholly-owned subsidiary, Plata Panamericana S.A. de C.V. ("Plata") and substantially all of the assets of Plata have been pledged as security for the Loan. The Company has guaranteed the Loan repayments on behalf of Plata until the expanded La Colorada mine achieves certain production and financial performance targets.

During 2003 the Company paid or had accrued \$334,500 to the IFC for interest and financing costs of which \$89,500 was reflected in accounts payable and accrued liabilities as at December 31, 2003. These costs have been capitalized as part of pre-operating costs.

The Company entered into a capital lease for the purchase of mining equipment for the La Colorada project. The capital lease bears interest at 6% per annum, payable in semi-annual payments over 5 years.

Details of principal repayments of the bank loans and capital lease are due as follows:

#### Pan American Silver Corp.

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<u>Year</u>

**Amount Due** 

2004
\$
2,639,300
2005
3,752,500
2006
2,406,200
2007
2,143,500
2008
2,000,000
2009
500,000
11.
CONVERTIBLE DEBENTURES

On July 30, 2003, the Company completed an offering of \$86,250,000 convertible, unsecured senior subordinated debentures (the "Debentures"), which mature on July 31, 2009. The Debentures bear interest at a rate of 5.25% per annum, payable semi-annually on January 31 and July 31 of each year, beginning on January 31, 2004. The Company has the option to discharge interest payments from the proceeds of the sale of common shares issued to a trustee for the purpose of converting such shares into cash.

The Debentures are convertible, at the option of the holder, at any time prior to maturity or redemption into common shares of the Company at a price of \$9.57 per common share (the "Conversion Price"). The Company may not redeem the Debentures prior to July 31, 2006. After July 31, 2006, the Company may redeem the Debentures provided that the Company's common shares trade at 125% or more of the Conversion Price. Since redemption can be made either by cash or by common shares at the option of the Company, the Debentures are classified as a compound financial instrument for accounting purposes.

The value of the Debentures is comprised of a \$35,357,000 fair value of the Debentures, \$23,049,000 fair value of the future interest payments and \$27,844,000 fair value ascribed to the holder's option to convert the principal balance into common shares. These components have been measured at their respective fair values on the date the Debentures were issued. The \$23,049,000 fair value of the future interest payments is classified as a liability and the \$63,201,000 fair value of the Debentures and the conversion option have been classified in shareholders' equity. Over the six-year term of the Debentures, the fair value of the Debentures and the fair value of the future interest payments are accreted to their future value. The periodic accretion of the Debentures is charged to deficit and the periodic accretion of the future interest payments is charged to operations. For the year ended December 31, 2003, the Company recorded accretion of \$3,534,000 related to the Debentures and \$595,000 accretion expense was charged to operations with a credit to the liability component of the Debentures.

The Company incurred \$3,273,000 of debt issue expenses, which were charged to deficit.

#### Pan American Silver Corp.

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12.

#### SHARE CAPITAL

a)

Transactions concerning stock options and share purchase warrants are summarized as follows:

Incentive

Share Purchase

Stock Option Plan

Warrants

Total

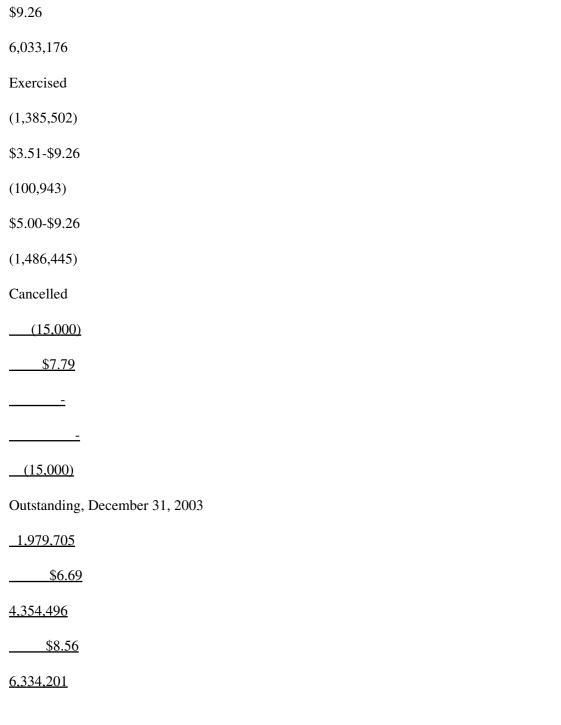
	20901 1 111191 1 7 11 7 11 12 11 0 7 11 0 12 1 2 1 1 0 0 1 11	
<u>Shares</u>		
<u>Price</u>		
Shares		
Price_		
Shares		
Outstanding, December 3	31, 2000	
2,632,300		
\$4.72		
2,587,110		
\$5.37		
5,219,410		
Year ended December 31	, 2001	
Granted		
790,000		
\$3.14		
32,250		
\$3.00		
822,250		
Exercised		
(247,000)		
\$3.14		
-		
-		
(247,000)		
Expired		
_		

Edgal Filling. FAIN AMENICAN SILVEN CONF - FOITH 40-F	
-	
(1,950,000)	
\$5.65	
(1,950,000)	
Cancelled	
_(130.000)	
<u>\$3.14-\$5.81</u>	
<del></del>	
<del></del>	
_(130,000)	
Outstanding, December 31, 2001	
3,045,300	
\$4.27	
669,360	
\$3.26	
3,714,660	
Year ended December 31, 2002	
Granted	
103,360	
\$5.39-\$6.12	
-	
-	
103,360	
Exercised	
(1,445,400)	
¢2.17.¢7.70	

\$3.17-\$7.70

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(32,250)
\$3.00
(1,477,650)
Expired
(522,900)
\$5.86
-
-
(522,900)
Cancelled
<u>(15,000)</u>
<u>\$3.17</u>
<del></del>
<del></del>
_(15,000)
Outstanding, December 31, 2002
1,165,360
\$3.89
637,110
\$3.26
1,802,470
Year ended December 31, 2003
Granted
2,214,847
\$3.51-\$9.26

3,818,329



The Company has reserved 1,482,031 common shares available for the future grant of stock options.

The following table summarizes information concerning stock options outstanding as at December 31, 2003:

				Options Outstanding Weighted	Options Exercisable				
			Number	Average			Number		
			Outstanding	Remaining	Wei	ghted	Exercisable	W	eighted
		Year	as at	Contractual	Ave	erage	as at	А	verage
Range of		of	December	Life	Exercise		December	Exercise	
Exercise Prices		Expiry	31, 2003	(months)	Price		31, 2003		Price
\$	3.51-\$7.13	2004	118,498	6	\$	5.96	118,498	\$	5.96
\$	9.26	2005	159,616	14		9.26	159,616		9.26
\$	3.86-\$7.52	2006	245,000	56		4.68	245,000		4.68
\$	7.45-\$7.79	2007	592,360	44		7.72	419,360		7.74
\$	6.86-\$9.26	2008	574,231	53		7.35	34,231		7.44
\$	3.86	2010	290,000	70		3.86	290,000		3.86
			1,979,705	22	\$	6.69	1,267,245	\$	6.53

During the year ended December 31, 2003 the Company granted 1,661,000 (2002 - 103,360; 2001 - 790,000) options to purchase the Company's common shares at exercise prices equal to the quoted market value of the common shares on the dates that the options were granted. In addition, the Company granted 553,847 options as part of the purchase of Corner Bay as discussed in Note 4.

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b)

During the year ended December 31, 2003, the Company:

i)
issued 7,636,659 common shares to acquire a $100\%$ interest in Corner Bay Silver Inc. The common shares issued were valued at $$54,203,000$ ; and
ii)
issued 3,293 common shares at a value of \$22,000 for compensation expense.
c)
During the year ended December 31, 2002, the Company:
i)
issued 3,450,000 common shares at \$4.80 per share in a public offering, for net proceeds of \$15,599,000 after fees;
ii)
issued 231,511 common shares at a value of \$1,250,000 and made a cash payment of \$762,443 to purchase a 50% interest in and to eliminate a 1.2% NSR royalty on the Manantial Espejo project, in Argentina;
iii)
issued 390,117 common shares at a value of $\$3,000,000$ to purchase the existing $5\%$ net smelter return royalty on the La Colorada silver mine in Mexico;
iv)
issued 636,942 common shares at a value of \$4,000,000 for the purchase of the right to mine and sell 600,000 tonnes of silver-bearing ore stockpile from Volcan Minera S.A. de C.V.; and
v)
issued 69,000 common shares at a value of \$253,000 for compensation expense.
13.
FINANCIAL INSTRUMENTS
Fair value

The Company's financial instruments include cash and cash equivalents, short-term investments, accounts receivable, an operating line of credit, accounts payable and accrued liabilities, a capital lease and advances for metal shipments. The carrying value of these instruments approximates their fair value due to their immediate or short-term maturity. Short-term investments have been written down to market value resulting in a loss of \$80,000.

Financial instruments also include two bank loans with a remaining maturity of 25 months and 65 months and an interest rate of 6-month LIBOR plus 3% and 3.5%, respectively. Management considers that no events have occurred subsequent to the arrangement of these loans that would indicate that fair value differs substantially from carrying value.

Concentration of Credit Risk

In 2003, the Company's six customers (2002 and 2001 - five customers) accounted for 100% of concentrate and dore sales revenue. The loss of any of these customers or curtailment of purchases by such customers could have a material adverse affect on the Company's results of operations and financial condition.

#### **Derivatives**

The Company sells metal under long-term contracts. Generally, the price received for such sales is the average metal price for a month that is one month before shipment or two months after the month in which the metal arrives at its destination. In order to establish the price received for portions of its production, the Company occasionally sells metal forward at a fixed price.

During 2003, the Company settled on 14,850 tonnes of zinc sold at an average price of \$842 per tonne and 3,500 tonnes of copper sold at an average price of \$1,748 per tonne. The Company realized a net loss of \$92,000 from settlement of these forward sales.

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As at December 31, 2003 the Company had sold forward 8,300 tonnes of zinc at an average price of \$848 per tonne and 2,075 tonnes of lead at an average price of \$622 per tonne. These forward sales represent approximately 34% and 13% of anticipated 2004 production and will be realized between January 2004 and December 2004. At December 31, 2003 these contracts had an imbedded unrealized loss of \$1,515,000.

14.
CASH FLOW INFORMATION

a)

#### CHANGES IN OPERATING CASH FLOWS USING THE INDIRECT METHOD

The consolidated statements of cash flows reports the flow of cash provided by or consumed by the Company's operating, financing and investing activities. The following presents a reconciliation between cash provided by or consumed by operating activities and net loss for the year.

	2003	2002	2001
Net loss for the year	\$ (6,794)	\$ (33,977)	\$ (8,077)
Items not involving cash:			
Depreciation and amortization	3,325	4,872	4,312
Write-down of mineral properties (Note 6)	-	27,218	-
Stock-based compensation	2,893	319	253
Gain on sale of marketable securities	(318)	_	_
Interest accretion	595	-	_
Gain on sale of land	-	-	(3,500)
Operating cost provisions	1,191	(366)	559
Reclamation	303	860	620
	1,195	(1,074)	(5,833)
Changes in non-cash operating working capital			
Accounts receivable	(2,479)	2,041	(2,601)
Inventories	(1,975)	(1,590)	(242)
Prepaid expenses	1,908	1,038	(3,359)
Accounts payable and accrued liabilities	(4,191)	1,352	5,665
Advance payment for metals shipments	2,378	(1,913)	4,071
Current portion of deferred revenue	290	(513)	-
	(952)	(83)	(213)

Current portion on non-current liabilities

	(5,021)	332	3,747
Cash used by operations	\$ (3,826)	\$ (742)	\$ (2,086)

#### b) SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES

	2003	2002	2001
Shares issued for purchase of direct smelting ore stockpile (Note 5)	<b>\$ -</b> \$	4,000 \$	
Shares issued for purchase of royalty (Note 12c (iii))	-	3,000	-
Shares issued for acquisition of subsidiary (Note 4)	54,203	-	-
Shares issued for resource property (Notes 7 and 12b (ii))	-	1,250	-
Exchange of marketable securities for ore stockpiles (Note 5)	-	500	-
Shares received in exchange for Tres Cruces option agreement (Note 7)	-	1	-
Share purchase warrants issued on acquisition of subsidiary (Note 4)	8,889	-	-
Stock options granted on acquisition of subsidiary (Note 4)	1,136	-	-
Warrants granted pursuant to equity financing	-	-	27
Equity interest in subsidiary acquired through sale of land	-	-	2,800
Shares acquired through sale of land	-	-	500

#### Pan American Silver Corp.

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#### 15.

#### **SEGMENTED INFORMATION**

Substantially all of the Company's operations are within the mining sector, conducted through operations in six countries. Due to differences between mining and exploration activities, the Company has a separate budgeting

process and measures the results of operations and activities independently. The Corporate office provides support to the mining and exploration activities with respect to financial, human resource and technical support.

Segmented disclosures and enterprise-wide information are as follows:

	De	Mining & evelopment	Corporate	E	Exploration		2003 Total
Revenue from external customers Interest income Interest expense Other income and expenses Exploration Depreciation and amortization Net income (loss)	\$	45,122 10 (562) (412) (374) (3,306) 466	\$ 388 (595) 248 (106) (19) (5,777)	\$	- 576 (2,063) - (1,483)	\$	45,122 403 (1,157) 412 (2,543) (3,325) (6,794)
Capital asset expenditures Segment assets	\$	17,719 104,756	\$ 42 88,472	\$	1,135 86,655	\$	18,896 279,883
	D	Mining & evelopment	Corporate	E	Exploration		2002 Total
Revenue from external customers Write-down of mineral properties Interest income Interest expense Other income and expenses Exploration Depreciation and amortization Net income (loss)	\$	44,132 (27,218) 25 (988) 789 (163) (4,852) (30,331)	\$ 961 - 240 - 24 - (20) (2,888)	\$	- 4 - 170 (1,043) - (758)	\$	45,093 (27,218) 269 (988) 983 (1,206) (4,872) (33,977)
Capital asset expenditures Segment assets	\$	9,759 86,640	\$ 21 11,757	\$	1,158 4,548	<b>\$</b>	10,938 102,945
	D	Mining & evelopment	Corporate	E	Exploration		2001 Total
Revenue from external customers Gain on sale of land Interest income Interest expense	\$	37,256 3,500 104 (783)	\$ 40 - 126	\$	- - 6	\$	37,296 3,500 236 (783)

Other income and expenses	204	23	-	227
Exploration	(15)	-	(877)	(892)
Depreciation and amortization	(4,257)	(47)	(8)	(4,312)
Net income (loss)	(5,952)	(1,796)	(329)	(8,077)
Capital asset expenditures	6,704	3	_	6,707
Segment assets	\$ 86,424	\$ 3,784	\$ 1,309	\$ 91,517

# Pan American Silver Corp.

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			Revenue		Net Capit	al Assets
		2003	2002 2001		2003	2002
Peru	\$	45,122	\$ 42,588 <b>3</b> 5,108	\$	36,436	\$ 31,907
Canada	·	-	961 40	·	62	20
Mexico		-	1,545 2,148		127,734	36,471
United States		-			1,194	1,194
Argentina		-			2,012	2,012
Bolivia		-			9	15
	\$	45,122	\$ 45,093 <b>3</b> 7,296	\$	167,447	\$ 71,619
Other income consists of:						
			2	003	2002	2001
Sale of royalty (Note 7)			 \$	_	\$ 300	\$ -
Revenue from third party				564	170	-

Power credits (Note 8)	36	326	505
Gain on sale of marketable securities	318	-	-
Other revenue and expenses	(506)	187	(278)
	\$ 412	\$ 983	\$ 227

# 16. SEVERANCE INDEMNITIES AND COMMITMENTS

Severance indemnities and commitments consist of:

	2003	2002
Severance indemnities Employee benefits liability	\$ 803 562	\$ 1,435 578
Other provisions and non-current liabilities	1,181	347
	2,546	2,360
Less: current portion (Notes 8 and 9)	(420)	(953)
	\$ 2,126	\$ 1,407

The Company has an obligation to its Peruvian employees for severance indemnities. At December 31, 2003 the obligation amounted to \$293,000 and the current portion of this obligation amounted to \$72,000 (2002 - \$753,000).

On March 6, 2000 the Company acquired a 71.83% interest in Compania Minera Huaron S.A. and assumed a \$1,000,000 severance indemnity relating to former employees of Huaron; such liability will be discharged over an estimated ten-year period. At December 31, 2003 the unpaid obligation amounted to \$510,000 (2002 - \$682,000) and a portion of this liability amounting to \$170,000 (2002 - \$157,000) is reflected in current liabilities.

As at December 31, 2003, the Company had accrued a \$910,000 (2002 - \$578,000) liability for unpaid 1997 to 2000 hospital taxes. The

amount outstanding accrues interest at 6% per annum and is to be repaid over a ten-year period ending in 2012. A portion of this liability amounting to \$84,000 is reflected in current liabilities.

As at December 31, 2003 the Company has provisions and other non-current liabilities totaling \$176,000 (2002 - \$347,000) of which \$Nil (2002 - \$347,000) is current.

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**17.** 

### **INCOME TAXES**

The recovery of income taxes reported differs from the amounts computed by applying the aggregate Canadian federal and provincial income tax rates to the loss before tax provision due to the following:

### (2,602)

)

The tax effect of each type of temporary difference that gives rise to the Company's future tax assets and liabilities have been determined and are set out in the following table. Until the Company can predict the timing of the realization of certain potential tax assets they are not reflected in the accounts.

### Net Future Income Tax Assets and Liabilities

	2003	2002
Excess of tax value of capital assets over book value	\$ 4,867	\$ 7,460
Canadian resource pools	2,689	2,830
Excess tax value of mineral property over book value	1,614	1,614
Operating loss carry-forwards	23,336	 20,174
Total future income tax asset	32,506	 32,078
Less: valuation allowance	(17,996)	(23,327)
Net future income tax asset	14,510	 8,751
Excess of book value of capital assets over tax value	(33,545)	(8,751)
Net future income tax liability	\$ (19,035)	\$ -

At December 31, 2003 the Company had the following loss carry forwards available for tax purposes:

### **Amount**

### **Expiry**

Canada

\$15,299,000

2005-2010

Peru

\$24,609,000

2004-2006

g
Mexico
\$27,340,000
2004-2013
Argentina
\$1,869,000
2004-2008
Bolivia
\$1,857,000
Indefinite
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18.
DIFFEDENCES RETWEEN CANADIAN AND UNITED STATES CENEDALLY ACCEPTE

# DIFFERENCES BETWEEN CANADIAN AND UNITED STATES GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

These financial statements are prepared in accordance with accounting principles generally accepted in Canada ("Canadian GAAP") which differ in certain material respects from accounting principles generally accepted in the United States ("US GAAP"). Material differences between Canadian and US GAAP and their effect on the Company's consolidated financial statements are summarized in the tables below.

2003

Shareholders'

**Consolidated Balance Sheets** 

**Total Assets** 

**Total Liabilities** 

Equity

Reported under Canadian GAAP		\$		79,883	\$	95,785	\$	184,098
Deferred exploration (a)			(	1,993)		-		(1,993)
Amortization of mineral property (a)			(	1,700)		(595)		(1,105)
SFAS 150 adjustments (b)								
Reclassify convertible						62.201		(62.201)
debentures				-		63,201		(63,201)
Deferred debt issue costs				3,273		-		3,273
Interest accretion				-		(595)		595
Interest expense				-		1,887		(1,887)
Amortization of debt issue				(454)		_		(454)
costs				(454)				(454)
Reported under US GAAP		\$	2	79,009	\$	159,683	\$	119,326
					20	02		
		_					Sha	reholders'
			otal	Assets	I 01	al Liabilities		Equity
Reported under Canadian GAAP		\$	10	02,945	\$	47,453	\$	55,492
Deferred exploration (a)		Ψ		1,993)	7	-	Ψ.	(1,993)
Asset retirement obligation (i)				7,979)		(7,979)		-
Reported under US GAAP		\$ 	9	92,973	\$	39,474	\$	53,499
Consolidated Statements of Shareholders' Equity	,							
consolidated Statements of Shareholders Equity	,				2003			
				Addit	ional			
Comm	non	Conve	ertib		id in			
Sha	res	Debe	nture		pital	Deficit		Total
Reported under Canadian GAAP \$ 225,1	L55	\$6,73	36 \$	12	,753\$	(120,546)	\$	184,098
Amortization of mineral	_		_		_	(1,105)		(1,105)
property Deferred exploration (a)						(1,993)		(1,993)
SFAS 150 Adjustments (b)	-		-		-	(1,993)		(1,993)
Reclassify convertible								
debentures	- (	(63,20	1)		-	-		(63,201)
Reverse accretion of convertible debentures -		(3,53	5)		-	3,535		-
Amortization of debt issue	_		_		_	(454)		(454)
costs	-		_		_			
Reverse interest accretion	-		-		-	595		595
Interest expense	-		-		-	(1,887)		(1,887)
Reverse debt issue costs			-		_	3,273		3,273
\$ 225,1	L55	\$	- \$	12	,753\$	(118,582)	\$	119,326

# Pan American Silver Corp.

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		Common Conve Shares Deber			<b>2002</b> ditional Paid in Capital	Deficit	Total
Reported under Canadian GAAP Deferred exploration (a)	\$	161,108 \$	-	\$	1,327\$	(106,943) (1,993)	\$ 55,492 (1,993)
Reported under US GAAP	\$	161,108 \$	-	\$	1,327\$	(108,936)	\$ 53,499
			vertible entures		<b>200</b> ditional Paid in Capital	<b>1</b> Deficit	Total
Reported under Canadian GAAP Deferred exploration (a)	\$	130,723 \$	-	\$	1,120\$	(72,966) (1,993)	\$ 58,877 (1,993)
Reported under US GAAP	\$	130,723 \$	-	\$	1,120\$	(74,959)	\$ 56,884
			2	2003		2002	2001
Consolidated Statements	of Operations	5					
Loss for the year under Canac Unrealized loss on short-term Amortization of mineral		<b>\$</b>		794) 80	\$	(33,977) -	\$ (8,077) -
property (a) Deferred exploration (a) SFAS 150 adjustments (b)			(1,	700) -		-	(24)
Interest expense Interest accretion			(1,	887) 595		-	-

Amortization of debt issue costs	(454)	-	-
Future income tax provision	(10,160) 595	(33,977)	(8,101)
Net loss under US GAAP	(9,565)	\$ (33,977) \$	(8,101)
Basic loss per share under US GAAP	\$(0 .19)	(\$0.81) \$	(0.22)

### a) Mineral Property Expenditures

Canadian GAAP allows exploration costs and costs of acquiring mineral rights to be capitalized during the search for a commercially mineable body of ore. Prior to 2002 the Company had incurred exploration expenses that were added to the carrying value of mineral properties as it was anticipated that there was a continuing benefit of such expenditures. Subsequent to 2001 the Company has expensed all exploration costs unless such activities expand the reserve base at one of the Company's operations. Under US GAAP, exploration expenditures can only be deferred subsequent to the establishment of reserves. For US GAAP purposes the Company therefore expensed its pre-2002 exploration expenditures.

### Pan American Silver Corp.

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Furthermore, under US GAAP, the cost of acquisition of mineral property rights are generally classified as intangible assets and should be amortized over their useful life which, in the case of mineral rights, is the period to expiry of the rights. Under Canadian GAAP, costs of acquiring mineral rights may be considered as tangible property and would be amortized over the productive life of the asset. As a result, for US GAAP purposes, the Company is amortizing the cost of the mining rights acquired in the Corner Bay transaction on a straight line basis over the life of the mining rights.

b)

### Convertible debentures

In May 2003, FASB Statement No. 150 ("SFAS 150"), "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity" was issued. This Statement requires that three types of financial instruments be reported as liabilities by their issuers. Those types of instruments include: mandatorily redeemable instruments; forward purchase contracts, written put options and other financial instruments not in the form of shares that either obligate the issuer to repurchase its equity shares and settle its obligation for cash or by transferring other assets; and certain financial instruments that include an obligation that may be settled in a variable number of equity shares, has a fixed or benchmark tied value at inception that varies inversely with the fair value of the equity shares. SFAS 150 is effective for instruments entered into or modified after May 31, 2003. Under Canadian GAAP the convertible debentures have been accounted for in accordance with CICA Handbook Section 3870. Application of this section results in the accounting as described in Note 9, with the principle component of the debenture being treated as equity. In accordance with SFAS 150 the resulting change to the financial statements would be to increase liabilities by \$63,201,000 and decrease shareholders' equity by a corresponding amount. Debt issue expenses of \$3,273,000 would be reclassified from shareholders' equity to assets and would be amortized over three years at an annual rate of \$1,091,000. Interest expense would be higher by \$1,292,000.

c)

### **Comprehensive income**

The Financial Accounting Standards Board ("FASB") issued SFAS No. 130, *Reporting Comprehensive Income*, which was required to be adopted beginning on January 1, 1998. SFAS 130 establishes standards for the reporting and display of comprehensive income and its components. The impact of adopting SFAS 130 on the Company's financial statements is a charge of \$Nil (2002 - \$28,000; 2001 - \$38,000) to earnings relating to foreign exchange loss. Additionally, under SFAS 115, portfolio investments classified as available for sale securities are recorded at market value. The resulting gain and loss are included in determination of comprehensive income.

# 2003 2002 2001 Net loss under US GAAP (9,565) (33,977) (9,470) Unrealized loss on available for sale securities (80)

Foreign exchange adjustment
=
(28)
(38
)
Comprehensive net loss under US GAAP
<u>\$</u>
(9.645)
<u>\$</u>
<u>(34,005)</u>
<u>\$</u>
(9,508)
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4)

### Derivative instruments and hedging activities

In April 2003, FASB Statement No. 149 ("SFAS 149") "Amendment of SFAS No. 133 on Derivative Instruments and Hedging Activities" was issued. SFAS 149 is effective for contracts entered into or modified after June 30, 2003, except for certain provisions that relate to SFAS No. 133 "Implementation Issues" that had been effective prior to June 15, 2003. This Statement amends and clarifies accounting for derivative financial instruments and for hedging activities. In particular it clarifies the circumstances under which a contract with an initial net investment meets the characteristics of a derivative as contemplated in SFAS No. 133 and it clarifies when a derivative contains a financing

component. In addition, this Statement amends the definition of an underlying to make it conform to FASB Interpretation No. 45, "Guaranter Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" and also amends certain other existing accounting pronouncements. The application of SFAS 149 did not have a material effect on the Company's results of operations or its financial position.

e)

### **Income taxes**

Under Canadian GAAP, future income taxes are calculated based on enacted or substantially enacted tax rates applicable to future years. Under US GAAP, only enacted rates are used in the calculation of future income taxes. This GAAP difference did not result in a difference in the financial position, results of operations or cash flows of the Company for the years ended December 31, 2003, 2002 and 2001.

f)

### **Share purchase warrants**

The Company, from time to time, issues special warrants which are normally comprised of a common share and either a whole or portion of a share purchase warrant. The special warrant is issued at the current market value of the common share and the share purchase warrant is normally exercised at or higher than market value. Under Canadian GAAP, the proceeds of the special warrant are allocated to the common share with no value being assigned to the share purchase warrant. Under US GAAP, the gross proceeds would be allocated between the shares and warrants based on the relative fair value of the special warrant components at the date the Company has a contractual liability to issue the special warrants.

g)

### **Financial statement presentation**

For US GAAP purposes, certain items such as other income and expenses and interest income would be excluded from the calculation of "Loss from Operations".

h)

### **Controlled entities**

The Company owns a 50% interest in two Argentinean corporations (Note 7). Under US GAAP such ventures are accounted for under the equity method as it is considered that the Company cannot exercise sufficient control to warrant consolidation. Under Canadian GAAP, it is considered that the rights of the minority do not significantly impair the Company's right to control and direct the operations and therefore the Company has consolidated, on a proportionate basis, the results of operations and financial position. The Company has determined that the effect of this difference on all periods disclosed is immaterial.

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i)

### **Asset Retirement Obligations**

In 2003 the Company adopted Canadian GAAP standards of "Asset Retirement Obligations" which are consistent with SFAS No. 143, "Accounting for Asset Retirement Obligations." These Standards address financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. These Standards require that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying value of the long-lived asset. For Canadian purposes the Company adopted this standard during 2003 with retroactive restatement to 2002. Under US GAAP retroactive restatement is not permitted.

j)

### **Stock Based Compensation**

As described in Note 3a the Company has adopted the fair value based approach to Stock Based Compensation under the provisions of CICA 3870 and SFAS No. 148. The method of adoption applied by the Company is permissible under both Canadian and US standards.

k)

### **Recent accounting pronouncements**

In August 2001, the FASB issued SFAS 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS 144 replaces SFAS 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of." The FASB issued SFAS 144 to establish a single accounting model, based on the framework established in SFAS 121, as SFAS 121 did not address the accounting for a segment of a business accounted for as a discontinued operation under APB 30, "Reporting The Results of Operations-Reporting The Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions." SFAS 144 also resolves significant implementation issues related to SFAS 121. Companies are required to adopt SFAS 144 for fiscal years beginning after December 15, 2001, but early adoption is permitted. The Company has adopted SFAS 144 as of January 1, 2002. The Company has determined that the application of SFAS 144 did not have a material affect on its consolidated financial position or results of operations.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statement No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections". Among other things, SFAS No. 145 rescinds both SFAS No. 4, "Reporting Gains and Losses from Extinguishment of Debt", and the amendment to SFAS No. 4, SFAS No. 64, "Extinguishment of Debt Made to Satisfy Sinking Fund Requirements". Through this rescission, SFAS No. 145 eliminates the requirement (in both SFAS No. 4 and SFAS No. 64) that gains and losses from the extinguishment of debt be aggregated and, if material, classified as an extraordinary item, net of the related income tax effect. Generally, SFAS No. 145 is effective for transactions occurring after May 15, 2002. The application of SFAS No. 145 did not have a material effect on the Company's results of operations or its financial position.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal of Activities". SFAS No. 146 requires that the liability for a cost associated with an exit or disposal activity be recognized at its fair value when the liability is incurred. Under previous guidance, a liability for certain exit costs was recognized at the date that management committed to an exit plan, which was generally before the actual liability had been occurred. As SFAS No. 146 is effective only for exit or disposal activities initiated after December 31, 2003, the Company does not expect the adoption of this statement to have a material impact on the Company's financial statements.

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December 31, 2003, 2002 and 2001

(Tabular amounts are in thousands of US dollars, except for shares, price per share and per share amounts) Page 23

In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantee, Including Indirect Guarantees of Indebtedness of Others, ("FIN 45"). FIN 45 requires that upon issuance of a guarantee, a guarantor must recognize a liability for the fair value of an obligation assumed under a guarantee. FIN 45 also requires additional disclosures by a guarantor in its interim and annual financial statements about the obligations associated with guarantees issued. The recognition provisions of FIN 45 will be effective for any guarantees that are issued or modified after December 31, 2003. The Company is currently evaluating the effects of FIN 45; however, it does not expect that the adoption will have a material impact on the Company's results of operations or financial position.

In January 2003, the FASB issued Interpretation No. 46 (FIN 46), "Consolidation of Variable Interest Entities", an Interpretation of ARB No. 51. FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period beginning after March 15, 2004; however, earlier adoption is permitted. Adoption of this standard is not expected to have a material effect on the Company's results of operations, financial condition or disclosures.

### 19.

### SUBSEQUENT EVENTS

Subsequent to December 31, 2003, the Company:

a)

sold forward 10,960 tonnes of zinc at an average price of \$1,042 per tonne and 7,215 tonnes of lead at an average price of \$730 per tonnes. These forward sales contracts will settle between January 2004 and June 2005;

b)

signed a binding agreement with a number of individuals, subject to regulatory approval and other conditions, to purchase a 80.72% equity interest in Compania Minera Argentum S.A. ("Argentum") and a 100% equity interest in an affiliated Peruvian company for approximately \$37 million. Argentum received the Anticona and Manuelita mining units and related infrastructure and processing assets, ("Morococha") from Sociedad Minera Corona S.A.. Morococha is located in central Peru 150 km northeast of Lima. This proposed purchase is expected to close in the second quarter of 2004; and

c)

issued 188,001 common shares for proceeds of \$1,408,000 on exercise of employee stock options.

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Document No. 3

### Management's Discussion and Analysis of Financial Condition and Results of Operations

February 24, 2004

### Introduction

Management's discussion and analysis ("MD&A") focuses on significant factors that affected Pan American Silver Corp.'s and its subsidiaries ("Pan American" or the "Company") performance and such factors that may affect its future performance. In order to better understand the MD&A, it should be read in conjunction with the audited consolidated financial statements and the related notes contained herein. Pan American's reporting currency is the United States dollar and all amounts in this discussion and in the consolidated financial statements are expressed in United States dollars, unless identified otherwise. The Company reports its financial position, results of operations and cash flows in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"). Pan American's significant accounting policies are set out in Note 2 of the audited consolidated financial statements. Differences between Canadian and United States generally accepted accounting principles that would affect the Company's reported financial results are set out in Note 18.

This MD&A is comprised of the following sections: The "Overview of 2003" provides an analysis of Pan American's financial results and operating performance, after discussing the critical accounting policies and significant events and transactions that had a material bearing on the results and performance in 2003. A detailed analysis of each

mine's operating performance in 2003 and our forecasts for 2004 are provided. Also provided under this section is a reconciliation of our *consolidated cash cost per ounce of silver produced*. The "Liquidity and Capital Resources" section describes our current financial condition and discusses our expected capital and liquidity requirements for 2004 and beyond. The "Risks and Uncertainty" section discusses the risks associated with Pan American's business and our risk management programs to mitigate such risks. Finally, in the "Outlook" section we provide Pan American's expectations regarding the Company's exploration and development projects and the metal markets.

Except for historical information contained in this MD&A, the following disclosures are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 or are future oriented financial information and as such are based on an assumed set of economic conditions and courses of action. These include estimates of future production levels, expectations regarding mine production and development programs and capital costs, expected trends in mineral prices and statements that describe Pan American's future plans, objectives or goals. There is significant risk that actual results will vary, perhaps materially, from results projected depending on such factors as discussed under Risks and Uncertainties in this MD&A and other risk factors listed from time-to-time in the Company's Annual Information Form or Form 40-F.

Additional information about Pan American and its business activities is available on SEDAR at www.sedar.com	1.
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### Overview of 2003

In order to better understand Pan American's financial results and operating performance in 2003, it is important to gain an appreciation for the *critical accounting policies* that have been adopted by Pan American and the *significant events and transactions* that occurred during the year.

### **Critical accounting policies**

Pan American has chosen to early adopt CICA Handbook Section 3870 - Stock-Based Compensation and Other Stock-Based Payments, which requires the fair value method of accounting for stock options. Under this method, Pan American is required to recognize a charge to the income statement based on an option-pricing model for all stock options that were granted and vested in the 2003 financial year, with a corresponding credit to Additional Paid in Capital under the Shareholders' Equity section of the balance sheet. The fair value of the stock options granted was calculated using an option-pricing model based on the following assumptions - no dividends were paid, a weighted average volatility of the Company's share price of 58%, weighted average annual risk free rate of 4.03% and an expected life of 3.5 years. The resulting weighted average option valuation is \$2.74 per share for a total expense related to stock options in 2003 of \$2.9 million (2002 - \$0.3 million).

The Company has also chosen to early adopt CICA Handbook Section 3110, which is the equivalent of FASB Statement No. 143, "Accounting for Asset Retirement Obligations", which addresses financial accounting and reporting for obligations associated with the retirement of long-lived assets. Accordingly, the Company's provision for reclamation of \$13 million was removed from the accounts with a credit to earnings. The expected fair value of future site restoration costs for the La Colorada, Huaron and Quiruvilca mines is estimated using a discount rate of 5% at \$21.2 million, which has been recorded as part of the carrying value of the mines and as a corresponding liability. We estimate the amount of this future liability that has been incurred up until December 31, 2003 was \$13 million, which we have charged to income with a corresponding write down of the carrying value of the assets. Thus, the net effect on income is \$nil in 2003; however the Company's assets and liabilities as stated on the balance sheet have been increased to reflect the fair value of the anticipated future liability. The Company will review these estimates on an annual basis. In future periods, assuming no change in estimates, operations will be charged with annual amortization of future site restoration costs of about \$0.8 million and the annual accretion of the liability for future site restoration costs of about \$0.5 million.

The CICA Handbook requires that both Section 3870 and Section 3110 be applied for fiscal year beginning on or after January 1, 2004.

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Canadian GAAP requires that certain financial instruments with characteristics of both liabilities and equity be recorded as part debt and part equity. On July 30, 2003 the Company issued 5.25% convertible unsecured senior subordinated debentures (the "Debentures"), which fall into this category of financial instruments and are thus

accounted for as explained in Note 11 to the audited consolidated financial statements. A reader might expect the interest cost associated with the Debentures to be reflected in the statement of operations as interest expense. However, Canadian GAAP requires the interest payment be accounted for in a manner parallel to the initial recognition of the Debentures as part debt, recognizing the accretion of the liability component of the Debentures as a charge to earnings, and part equity with the accretion of the Debenture equity component charged directly to the Deficit. Similarly, a reader might expect that the Debentures issue costs would be amortized over the minimum life of the Debentures and be reflected as a charge in the statement of operations. Since all of the issue costs were charged to Shareholders' Equity when the Debentures were issued, no amortization of those costs is recorded.

During the third quarter of 2002, the Company commenced an expansion program at the La Colorada mine in Mexico. From that point through to December 31, 2003, operating results at La Colorada were capitalized as "Mineral Property, Plant and Equipment". In 2003, the Company spent \$12.3 million on the project expansion, including \$0.9 million in deferred pre-operating costs. From January 1, 2004, La Colorada is in commercial production for accounting purposes and accordingly, all revenues generated and related operating expenses will be accounted for in the Statement of Operations. In addition, the mine's book value will be amortized to earnings on a unit of production basis.

### **Significant Events and Transactions**

### **Corner Bay Silver Inc. Acquisition**

The acquisition of Corner Bay Silver Inc. ("Corner Bay") was completed on February 20, 2003. Corner Bay was a silver exploration company with one significant mineral property (the Alamo Dorado property). The consideration paid to acquire 100 % of Corner Bay was 7,636,659 common shares of the Company, 3,818,329 warrants to purchase common shares of the Company (the "Pan American warrants") and 553,847 options to purchase common shares of the Company. The common shares of the Company were valued at \$54.2 million, the Pan American warrants were valued at \$8.9 million and the options granted had value of \$1.1 million resulting in a purchase price of \$64.2 million (exclusive of acquisition costs of \$0.7 million).

The Alamo Dorado property is located in the State of Sonora, Mexico near the border of Sinaloa, Mexico. It consists of two concessions covering an area of 5,369 hectares (13,266 acres) that, under Mexican law, are renewable for a fifty-year term. In 2002, prior to the Company's acquisition of Corner Bay, AMEC E&C Services, Inc., an independent engineering consulting firm prepared a feasibility study, which the Company believes confirmed that the development of a mine at the Alamo Dorado property would provide an acceptable rate of return. However, Pan American believes that it is prudent to determine the optimum mining and processing method for the Alamo Dorado ore body by conducting additional geological, engineering and metallurgical studies through the first half of 2004. During 2003, \$1.3 million was spent at Alamo Dorado in connection with those studies, property and related payments, permitting, environmental work and exploration. For the first half of calendar 2004 the Company has budgeted \$1.4 million for completion,

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culminating in a new feasibility study. All direct spending related to Alamo Dorado is capitalized. At December 31, 2003 the carrying value of Alamo Dorado consists of:
The purchase price for 100 % of Corner Bay
\$64.2 million
Less: Working capital acquired
(\$2.4 million)
Less: Equipment acquired
(\$2.5 million)
Provision for future income taxes
\$19.0 million
Costs of acquiring Corner Bay
\$ 0.7 million
Direct costs incurred in 2003
\$ 1.3 million
Total carrying value
\$80.1 million
<del>=======</del>

The provision for future income taxes incorporated in the carrying value above arises due to the expected difference between future years' income subject to tax and income for accounting purposes. The expected difference is due to the fact that the carrying value of Alamo Dorado for income tax purposes is lower than the amount paid for Corner Bay. As a consequence, future years' income subject to income tax will be greater than income for accounting purposes which would, in the absence of other possible tax benefits, result in greater tax payments than accounting tax provisions.

### **Convertible Debentures**

On July 30, 2003 the Company issued \$75 million of 5.25% Debentures due July 31, 2009 to a syndicate of Underwriters. As part of the underwriting agreement the Company granted the Underwriters an option exercisable for up to 30 days after July 30, 2003 to purchase up to an additional \$11.25 million principal amount of Debentures on the same terms and conditions. On August 8, 2003 this option was exercised and the Company issued an additional \$11.25 million of Debentures. After commissions and expenses the net proceeds received from issuing the Debentures was \$83.0 million.

Interest on the debentures is payable semi-annually beginning on January 31, 2004. The Company has the option to fund interest payments from the proceeds of the sale of Common Shares issued by the Company to a trustee for the purpose of making such sales on the open market.

The Company also has the option to elect to satisfy its obligation to repay the principal amount of the outstanding Debentures by issuing, to the holders of the Debentures, Common Shares of the Company in an amount equal to the principal amount of the outstanding Debentures divided by 95% of the weighted average trading price of the Common Shares for the 20 consecutive trading days ending 5 days before the date fixed for repayment.

### La Colorada expansion

Pan American substantially completed a major expansion at its La Colorada silver mine in Mexico in the second half of 2003. The total cost of the expansion, which commenced in 2002, was approximately \$19 million.

The expansion included the construction of a 600 tonne per day oxide mill, which will add to the mine's production from the existing 200 tonne per day sulphide mill. The feasibility study for the expanded La Colorada mine predicted production of 2.3 million ounces of silver in 2003 increasing, in subsequent years, to about 4 million ounces per year. Production at La Colorada, however, has not reached design capacity as quickly as anticipated in the study for the expansion. Actual silver production in 2003 was approximately 1 million ounces and silver production for 2004 is expected to be approximately 3 million ounces. Production at La Colorada is expected to reach design capacity during the third quarter of 2004, following additional capital expenditures of approximately \$1.5 million to be incurred during 2004.

To finance part of the expansion, the Company's wholly-owned subsidiary Plata Panamericana S.A. de C.V. ("Plata") drew down \$9,500,000 of the La Colorada project loan facility with International Finance Corporation ("IFC"). Pan American has provided a guarantee of Plata's obligations under the project loan facility, which is secured by a pledge of the Company's ownership in Plata until the passing of predetermined technical and financial completion tests ("financial completion"), after which the guarantee is released. The IFC loan bears interest at six-month LIBOR plus 3.50% until financial completion and six-month LIBOR plus 3.25% thereafter and is repayable in semi-annual installments of \$1,000,000 commencing November 15, 2004 until November 15, 2008, with a final repayment of \$500,000 due on May 15, 2009. Financial completion was expected to be achieved before the first scheduled loan repayment. Management now believes that financial completion will not occur until after November 2004, but before the second scheduled loan payment. Most of the assets of Plata are pledged as security for the loan.

In addition to the interest payments on the outstanding balance of the IFC loan, Pan American will be required to make additional payments to IFC by May 15th of each year if the average price of silver for the preceding calendar year exceeded \$4.75 per ounce. Such payment would be equal to 20% of the positive difference between the average price per ounce of silver for a year and \$4.75 multiplied by the number of ounces of silver produced by the La Colorada mine divided by \$9,500,000 and multiplied by the greater of the loan balance at the end of the year or the originally scheduled loan balance at the end of a year.

### **Huaron Expansion**

In July 2003, Pan American initiated technical and economic evaluations of a possible expansion of the Huaron mine in Peru, which would increase the mine's production. The first phase of the engineering portion of this study was completed in January 2004 and the other components of the study are expected to be completed later in 2004. As part of the feasibility study, a \$1 million drill program was initiated to upgrade the mine's resources and to increase the proven and probable reserve base. Expenditures related to the expansion were capitalized as "Mineral Property, Plant and Equipment". In 2003, the Company spent \$0.6 million on the project expansion.

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In October 2003, Pan American bought back the existing 3% net smelter royalty on the Huaron mine from a group of Peruvian companies for a total of \$2.5 million in cash. At current production levels and a silver price of \$5 per ounce, the buyout of the royalty will reduce the mine's cash costs by approximately \$850,000 per year, starting in 2006. The cost of buying back the royalty was added to the carrying value of the mine and will be depreciated on a unit of production basis.
Financial Results
The table below sets out the quarterly results, expressed in thousands of US dollars, for the past 12 quarters, together with select balance sheet information for the prior three years.
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The net loss for 2003 was \$6.8 million, compared to the net loss for 2002 of \$34.0 million, which included the write down at Quiruvilca of \$27.2 million. Included in the net loss for 2003 was \$2.9 million related to recognition of Stock option compensation expenses, of which \$2.1 related to stock options granted in 2003. The operating results improved greatly in 2003 as compared to 2002 as a result of the improving price environment for the metals that the Company produces and continued cost reductions, particularly at the Quiruvilca mine. In addition, the Company's Pyrite Stockpiles, acquired in November 2002, generated approximately \$1.7 million in operating profit in 2003.

In 2003, revenue was almost identical to that in 2002. Lower production of zinc and lead in 2003 due to the closure of the high-cost North Zone at the Quiruvilca mine was offset by higher realized metal prices in 2003. Relative to 2002, higher base metal prices had a positive impact on revenue of about \$3.0 million while the decrease in production had a negative impact of \$5.6 million. Included in these numbers is the effect of the Company's base metals hedge program, which provided a realized gain of \$1.0 million in 2002 and a small loss of \$0.1 million in 2003. The net decrease in base metal revenue was countered by higher silver prices. Silver production was 8.64 million ounces, up from 7.8 million in 2002, however revenues associated with 1.0 million ounces produced at La Colorada were deferred as the mine was in pre-production for accounting purposes. Another factor impacting 2003 revenues was the net increase of \$1.3 million concentrate inventories at the end of 2003, compared to a year earlier, as a result of the timing of shipments. These concentrate inventories were shipped and sold in early 2004, when they were recognized in revenue.

Timing of concentrate shipments also reduced revenues in Q1 of 2003 compared to Q1 in 2002 and the other quarters in 2003. Shipping delays resulting in uneven quarterly revenues are likely to continue as the purchasers of Pan American's Peruvian-produced concentrates accumulate product into larger volumes in an attempt to lower unit shipping costs, which increased sharply during 2003. Other variations in quarterly revenue occurred in Q2 of 2002, when the Huaron mine starting commercial production and the small-scale La Colorada mine that started shortly thereafter.

General and administrative costs were \$ 1.0 million higher than last year due to the costs associated with recruitment of several new senior staff, increases in insurance premiums and the strengthening of the Canadian dollar against the US dollar. Depreciation and amortization expense was \$1.5 million less in 2003 than 2002 due to the write off in 2002 of the carrying value of Quiruvilca, and all of La Colorada's 2003 expenses being capitalized. Exploration expense increased by \$1.3 million because of increased pre-feasibility activities at the Company's Manantial Espejo project and the due diligence expense related to the Company's proposed acquisition of the Morococha silver mine, announced on February 9, 2004.

Total interest expense during 2003 amounted to \$1.2 million, of which \$0.6 million was attributable to the accretion charge from the Company's Debentures. Interest incurred on the Huaron start-up loan and concentrate advances made up the balance of \$0.6 million. During 2002 interest expense of \$1.0 million consisted of \$0.4 million on the Huaron start-up loan and charges related to concentrate and supplier advances of \$0.6 million.

In 2002, the net loss of \$34.0 million compared to a net loss of \$8.1 million in 2001. A \$3.5 million gain on the sale of land occurred in 2001 while a loss on write down of Quiruvilca of \$27.2 million was recognized in 2002. After excluding these unusual items the loss in 2002 of \$6.7 million compared to a loss of \$11.6 million in 2001. The operating results for 2002 improved relative to 2001 due to better operating results at the Huaron mine and marginally better silver prices. Revenue in 2002 was \$7.8 million more than in 2001, principally because 2002 was the first full year of production from the Huaron mine after its start up in Q2 of 2001. General and administrative costs in 2002 were lower than 2001 due to the effect of staff reductions and ongoing cost savings in response to record low silver and zinc prices.

### **Operating Performance**

The following table sets out select historic and 2004 forecast consolidated operating information. For purposes of budgeting for 2004 and the forecast numbers contained in this MD&A, the Company has used the following price assumptions: silver: \$5.00 per oz, zinc: \$900 per tonne (\$0.41 per lb), lead: \$600 per tonne (\$0.27 per lb), copper: \$1,900 per tonne (\$0.86 per lb). The numbers below are based on the assumptions that the Company will take ownership of the Morococha mine on June 30, 2004 and that mining activities at Quiruvilca will terminate in the third quarter of 2004.

	2004 Forecast	2003	2002	2001
Production				
Silver ounces	10,703,801	8,641,914	7,765,154	6,940,171
Zinc tonnes	35,860	31,797	39,081	30,894
Lead tonnes	18,759	18,990	20,790	17,187
Copper tones	3,248	3,143	2,847	2,163
Costs				
Cash cost per ounce	\$3.34	\$4.09	\$4.03	\$4.35
Non-cash cost per ounce	<u>\$1.00</u>	<u>\$0.53</u>	<u>\$0.76</u>	<u>\$0.68</u>
Total cost per ounce	\$4.34	\$4.62	\$4.79	\$5.03

The silver production figures for 2003 above include 992,142 ounces of silver (2002 - 252,262 ounces) produced at La Colorada while the mine was in pre-production for accounting purposes.

No decision has yet been made with respect to a possible closure of the Quiruvilca Mine, which had previously been contemplated for the later part of 2004. If management pursues a longer-term operating plan for Quiruvilca, additional silver production in 2003 of approximately 1,250,000 ounces will be produced. The proposed acquisition of Morococha is structured such that Pan American will receive the after tax net cash flow generated by the mine from November 2003 until the closing. Therefore, Pan American will benefit directly from Morococha silver production for the full 2004 year. Management estimates that 1,400,000 ounces of silver will be produced at Morococha in the first half of 2004, which has not been included in the 2004 estimates above.

An analysis of each mine's operating performance in 2003 measured against historical performance follows, together with Management's forecasts for each operation's performance in 2004.

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### **Huaron** mine

	2004 Forecast	2003	2002	2001
Tonnes milled	628,500	605,790	606,300	367,274
Cost per tonne	\$42.67	\$41.87	\$38.71	\$39.73
Silver ounces	4,375,408	4,365,061	4,527,971	2,897,946
Zinc tonnes	20,892	18,855	20,896	9,574
Lead tonnes	12,968	14,246	14,006	8,445
Copper tonnes	2,198	1,332	1,740	959
Tonnes Shipped				

Zinc concentrate	40,962	34,819	43,988	14,237
Lead concentrate	24,915	27,602	26,219	14,723
Copper concentrate	7,636	5,687	6,249	3,915

For 2003, the mine's NSR per tonne was close to expectations at \$45.77, but its cost per tonne was higher than expected at \$41.87 compared to a forecast of \$37.96. Tonnage and grade shortfalls related to poor ground conditions resulted in below expected production, which accounted for the higher than planned cost per tonne.

Huaron's average NSR per tonne for 2004 is expected to be about \$51.60 and its budgeted average cost per tonne is \$42.67, which should generate approximately \$3.1 million in operating cash flow. The expansion program at Huaron, together with sustaining capital is expected to require about \$5.9 million of spending in 2004.

### **Pyrite Stockpiles**

Pan American acquired the right to mine and sell certain stockpiled ore from Volcan Minera S.A. de C.V. in November 2002. Following is a table showing production from November 2002 to December 31, 2002, 2003 production and the expected 2004 production.

	2004 Forecast	2003	2002
Tonnes sold	57,600	65,255	9,018
Cost per tonne	\$8.30	\$8.49	\$8.50
Silver ounces	706,030	790,803	101,459

For 2003, Pan American expected to sell 45,000 tonnes of this ore containing 535,000 ounces of silver to generate a net cash flow of about \$1.4 million, but actual performance exceeded budget and generated cash flow of approximately \$2.3 million during the year.

For 2004, Management expects that 57,600 tonnes of ore will generate a net cash flow of approximately \$2.0 million.

### Quiruvilca mine

2003 saw a significant transformation at Quiruvilca. Production levels at the mine were reduced in August of 2003 from approximately 45,000 tonnes per month to approximately 30,000 tonnes per month with the closure of the high-cost North Zone. At this reduced rate, the mine has been able to decrease its operating costs to the point where it became profitable in the last quarter. In the light of this return to profitability, a long-term operating plan is currently being developed. As such, no decision has yet been made with respect to a possible closure of the Quiruvilca Mine. The projections for 2004 below assume that mining activities will conclude sometime between July and September in 2004.

	2004 Forecast	2003	2002	2001	2000
Tonnes milled	205,262	442,093	508,352	568,451	615,382
Cost per tonne	\$36.41	\$39.20	\$40.01	\$43.23	\$44.14
Silver ounces	1,159,943	2,493,908	2,509,689	3,259,372	3,611,589
Zinc tonnes	7,230	12,509	17,852	21,009	24,462
Lead tonnes	2687	4,361	6,468	8,358	8,740
Copper tonnes	426	1,811	1,107	1,204	1,215
Tonnes Shipped					
Zinc concentrate	12,450	27,481	27,511	39,475	42,039
Lead concentrate	4,479	6,425	9,901	12,975	14,899
Copper concentrate	2,364	7,938	4,706	5,602	5,970

Last year, Management expected that Quiruvilca would realize an average NSR per tonne of \$35.88 and that its operating costs would be about \$40.66 per tonne milled, generating a loss of approximately \$2.5 million. The average NSR per tonne realized for the year was actually \$37.24 due to higher prices and better grade than anticipated in the last quarter. With operating costs at \$39.20 per tonne, the mine generated a loss for the year of approximately \$1.6 million. However, during the fourth quarter of 2003, Quiruvilca was profitable. For 2004, Management expects Quiruvilca's average NSR per tonne to be \$45.07 and its budgeted average cost per tonne to be \$36.41, which should result in an operating profit of approximately \$4.5 million.

Pan American has budgeted \$2.9 million for concurrent reclamation and closure related costs at Quiruvilca in calendar 2004 (including closing of adits, rehabilitation of tailings ponds and waste dumps and water treatment). This forecast could change significantly in the event that the Company decides to continue to operate the mine to the end of 2004 and beyond. Pan American's current expectation for future reclamation expenditures at Quiruvilca after 2004 is approximately \$12 million, which has been fully provided for on the Company's balance sheet.

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### La Colorada mine

During 2002 the Company started a \$20 million expansion of the La Colorada mine. The expansion was completed in late 2003, and the mine will commence commercial production for accounting purposes on January 1, 2004. As such, all revenue and expense items were capitalized and added to the carrying value, which will be amortized on a unit of production basis. At full production, 600 tonnes per day of mill throughput will consist of oxide ore that will produce silver dore and 200 tonnes per day will be sulphide material that will produce lead-silver and zinc concentrates.

During the 2003 pre-production period, the mine produced 1.0 million ounces of silver. Revenues from silver and concentrate sales were netted against pre-production operating costs with the balance of \$0.9 million capitalized to carrying value.

For 2004, Management expects the following production and cost from the mine:

	2004 Forecast
Production	
Silver ounces	3,067,209
Zinc tonnes	417
Lead tonnes	658

Gold ounces	2,271
Costs	
Cash cost per ounce	\$3.66
Non-cash cost per ounce	<u>\$1.54</u>
Total cost per ounce	\$5.20

La Colorada's average cash cost per ounce in 2004 is expected to be about \$3.66 and at forecast silver prices of \$5, the mine should generate operating cash flow of \$4 million. Initial development capital and sustaining capital is expected to require about \$2.8 million of spending in 2004.

### Morococha

The Company announced the proposed acquisition of the Morococha silver mine in central Peru on February 9, 2004, which is subject to regulatory approval and other conditions. The Company has subsequently entered into an agreement to purchase all of the issued and outstanding shares of a corporation organized under Peruvian company law, which holds mining concessions and operations that are complementary to the Morococha mine for US\$1.5 million in cash. This acquisition is also subject to regulatory approval and a number of conditions. The Company expects these transactions to conclude in June 2004. Morococha is immediately accretive to production, cash flow and earnings. The following table sets out Management's expectations for the second half of 2004:

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	2H 2004 Forecast
Production	
Silver ounces	1,395,211
Zinc tonnes	7,320
Lead tonnes	2,446
Copper tonnes	625
Costs	

Cash cost per ounce	\$2.88
Non-cash cost per ounce	<u>\$0.74</u>
Total cost per ounce	\$3.62

Morococha's average cash cost per ounce in 2004 is expected to be about \$2.88 and at forecast silver prices of \$5, should generate operating cash flow of \$3 million. The Company plans to invest about \$4.3 million into development and upgrading the plant and other facilities at the mine in 2004.

### **Cost per Ounce of Silver Calculations**

Pan American reports two performance measures - cash cost per ounce and total production cost per ounce of silver produced. These non-GAAP measures are widely reported in the silver mining industry as benchmarks for performance measurement but do not have any standardized meaning. To facilitate a better understanding of these measures as calculated by Pan American, we have provided a detailed reconciliation of these measures to our operating, depreciation and amortization and reclamation expenses as shown in our audited Consolidated Statement of Operations for 2003 and 2002.

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cash and cash equivalents plus short-term investments, a reduction in accounts payable of \$4.2 million and increased concentrate inventories of \$1.3 million.

Capital resources at December 31, 2003 amounted to shareholders' equity of \$184.1 million, long-term bank loans and capital leases of \$10.8 million and deferred revenue of \$0.9 million. At the date of this MD&A, the Company had issued 53,223,852 shares.

Cash at December 31, 2002 amounted to \$10.2 million, which was an increase of \$6.9 million from December 31, 2001. This increase, together with operating activities of \$0.7 million, investing activities of \$10.9 million and loan repayments of \$3.3 million were financed by the issuance of shares for net cash receipts of \$21.9 million. La Colorada's construction activities required expenditures of \$8.3 million, while \$0.6 million was spent at Quiruvilca and \$0.7 million at Huaron.

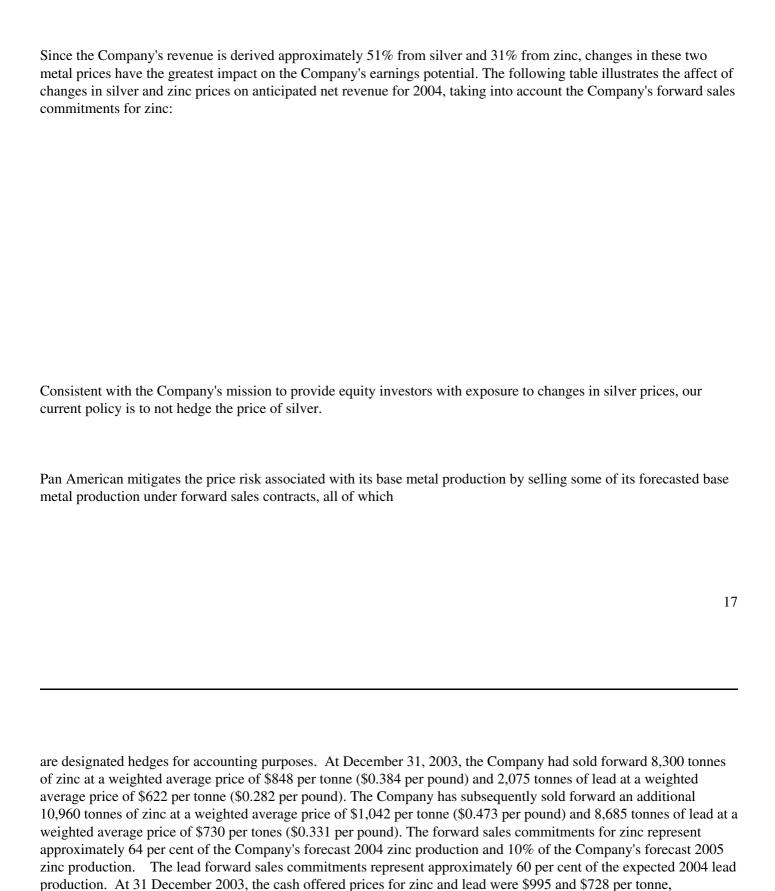
Working capital was \$2.4 million at December 31, 2002, compared to a working capital deficiency at December 31, 2001 of \$0.1 million. The \$2.5 million increase was due to the \$6.9 million increase in cash partially offset by the reclassification of \$3.0 million of prepaid taxes to long-term assets, \$1.8 million write down of Quiruvilca's spare parts and supplies and net changes in other non-cash working capital items.

Planned capital expenditures in 2004 amount to approximately \$55.6 million, including the acquisition of the Morococha mine for \$36.5 million. In addition to the acquisition cost, the Company plans to spend a further \$4.3 million on development and upgrades to infrastructure at the mine. The expansion program at Huaron, together with sustaining capital amounts to \$5.9 million. Capital requirements at La Colorada are anticipated to be approximately \$2.8 million. Ongoing feasibility work at Alamo Dorado is forecasted at approximately \$4.6 million. In addition to these capital expenditures, the Company anticipates debt repayments of \$3.9 million and reducing reclamation liabilities through concurrent reclamation spending at Quiruvilca of \$2.9 million.

The Company does not expect the impact of inflation to have a material bearing on the Company's financial position, operational performance or cash flows for the foreseeable future.
Based on the Company's financial position at December 31, 2003 and the operating cash flows that are expected in 2004, management believes that the Company's liquid assets are more than sufficient to fund planned operating and project development and sustaining capital expenditures and discharge liabilities as they come due. The following table sets out the Company's contractual obligations together with the timing of payments of these obligations.
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The Company expects annual interest payments related to these contractual obligations of between \$5.0 million and \$4.5 million over the next 5 years. Under the terms of the Debenture, the Company has the option to fund annual interest payments of \$4.5 million from the proceeds of the sale of Common Shares.
Risks and Uncertainties
Metal Price Risk

Pan American derives its revenue from the sale of silver, zinc, lead, copper and gold. The Company's revenues are extremely dependent on metal prices that fluctuate widely and are beyond the Company's control. The following table sets out the daily high, low and average London Metal Exchange Cash Settlement prices for base metals and the London Bullion Dealers price for silver and the annualized historic volatility of those metal prices for the periods indicated.

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respectively. The mark to market value at 31 December, 2003 was a negative \$1.5 million and at the date of this

MD&A was a negative \$2.8.million.

The Company maintains trading facilities with several banks for the purposes of transacting the Company's hedging activities. Some of these facilities are subject to margin arrangements, which require the Company to place collateral with the banks to the extent that the negative valuation of the Company's hedge positions exceeds a prescribed threshold. Such arrangements may place additional liquidity risk on the Company. At the date of this MD&A, none of the Company's trading lines had reached the prescribed margin thresholds and the Company does not foresee any difficulty in meeting such requirements, should they arise.

The Company has long term contracts to sell the zinc, lead copper concentrates produced by the Quiruvilca and Huaron mines. These contracts include pricing the contained metals, including silver, based on average spot prices over defined 30-day periods. Silver dore production from La Colorada is refined under a long term agreement with fixed refining terms. The refined silver is sold in the spot market to various bullion trading banks. The Company has never had any delivery or payment disputes with its customers and management believes that there are no appreciable delivery or credit risks resulting from its sales contracts.

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### **Political and Country Risk**

Pan American conducts operations in Peru, Mexico, Argentina and Bolivia, which are potentially subject to a number of political and economic risks. The Company is not able to determine the impact of these risks on its future financial position or results of operations and the Company's exploration, development and production activities may be substantially affected by factors outside of Pan American's control. These potential factors include, but are not limited to: royalty and tax increases or claims by governmental bodies, expropriation or nationalization, foreign exchange controls, import and export regulations, cancellation or renegotiation of contracts and environmental and permitting regulations. The Company currently has no political risk insurance coverage against these risks.

### **Environmental Risks**

Pan American's activities are subject to extensive laws and regulations governing environmental protection and employee health and safety. Environmental laws and regulations are complex and have tended to become more stringent over time. Pan American is required to obtain governmental permits and in some instances provide bonding requirements under federal, state or provincial air, water quality and mine reclamation rules and permits. Although Pan American makes provisions for reclamation costs, it cannot be assured that these provisions will be adequate to discharge its obligations for these costs.

Failure to comply with applicable environmental health and safety laws can result in injunctions, damages, suspension or revocation of permits and imposition of penalties. There can be no assurance that Pan American has been or will be at all times in complete compliance with such laws, regulations and permits, or that the costs of complying with current and future environmental and health and safety laws and permits will not materially adversely affect Pan American's business, results of operations or financial condition.

Specifically related to environmental risks, in mid-October 2003 a new mine closure law was enacted in Peru. No enabling regulations have been published, and therefore, determining how this law will affect the Company's Peruvian operations is difficult; however, the law provides that within six months, each operating mine in Peru must complete and submit for certification a mine closure plan setting out the technical, economical, financial and social aspects of its closure plan. Furthermore, the law provides that each operating mine must provide a guarantee for payment of the eventual closure and post-closure phases of its operation. The form of guarantee has not been specified, but it seems that a guarantee may take the form of cash, a third-party guarantee or a company guarantee. Until the enabling regulations are passed and the closure certification process is complete the possible effects of this law on the Company's financial condition and results of operation are unknown.

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#### **Employee relations**

Pan American's business depends on good relations with its employees. Certain of the Company's employees and the employees of Peruvian mining contractors indirectly employed by the Company are represented by unions. At December 31, 2003, there were 270 employees represented by the Sindicato de Trebajadores de Pan American Silver

S.A.C. - Mina Quiruvilca (the "Quiruvilca Union") and 71 employees represented by the Sindicato de Trebajadores de Shorey y Anexos (the "Shorey Union"). There are also 17 employees at the Huaron mine who are members of a union committee who have rights pursuant to an agreement dated January 1, 2003. The Company has experienced labour strikes and work stoppages in the past. The labour agreements with the Quiruvilca Union and the Shorey Union expired on January 1, 2004, and ordinary course negotiations to renew the contracts will be ongoing in 2004. There can be no assurance that these contracts will be renewed on terms favourable to the Company, if at all, and the Company may experience future work stoppages.

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## **Operations**

Consolidated production in 2004 is forecast at 10.6 million ounces of silver, a 23% increase as compared to 2003. Depending on the closing date of the proposed purchase of the Morococha mine and a decision on the future at Quiruvilca, the Company could directly benefit from 13.0 million ounces of silver in 2004, 50% above 2003's production. Consolidated cash costs per ounce of silver produced, net of by-product credits are forecast to decline 18% to \$3.34. The potential acquisition of the lower-cost Morococha mine and cost reductions at Huaron, coupled with higher by-product credits should contribute to this significant decline, as compared to 2003.

#### **Project Development**

Work has progressed steadily on the feasibility study for the Alamo Dorado silver project. Permitting is underway and metallurgical testing is substantially complete. Preliminary indications suggest that a conventional mill circuit will yield a superior return on the project. Some additional testwork and drilling may be required to complete the feasibility, due in mid-2004.

Feasibility work is also progressing on the 50% owned Manantial Espejo silver-gold project in Argentina where geotechnical and environmental testing are underway to facilitate permitting. The Company plans to spend \$1.6 million in 2004 (its 50% share) on the feasibility study and needed activities. In addition to the work already in progress, the Company plans to carry out additional metallurgical testing and optimization program, power utilization and sourcing studies, site layout analysis culminating in a detailed construction cost estimate and schedule.

In Bolivia, Pan American entered into an agreement with EMUSA, a Bolivian mining company that had been toll mining ore from the San Vicente project, giving EMUSA the right to earn a 49% interest in the project by financing the next \$2.5 million in project expenses, including a feasibility study. Current drilling to convert resources into reserves is generating positive results, which will be incorporated into the feasibility.

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Prices for the metals that the Company produces began to recover in 2003, after several years of prolonged weakness. Factors contributing to the recovery in metal prices during 2003 include stronger demand resulting from the improving economic sentiment in the Western World countries, strong industrial growth in China, and supply concerns due to under-investment in new production capacity. The Company anticipates that the economic recovery will continue during 2004 and that fundamentals for metal prices are very positive.

During 2003, the Company established a strong pipeline of development properties, with feasibility work underway at Alamo, Manantial and San Vicente. In addition to these properties, management sees significant exploration potential at our existing Peruvian operations and the recently acquired Morococha mines. In 2003, the Company improved its financial position through financing activities, which to a large extent has provided the funds required to achieve our growth plans. Significant additions were made to the senior management team at Pan American and we feel confident in our ability to execute our plans.

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#### Α.

#### **Disclosure Controls and Procedures**

Disclosure controls and procedures are defined by the Securities and Exchange Commission as those controls and other procedures that are designed to ensure that information required to be disclosed by Pan American Silver Corp.

(the "Registrant") in reports filed or submitted by it under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. The Registrant's Chief Executive Officer and Chief Financial Officer have evaluated the Registrant's disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 40-F and have determined that such disclosure controls and procedures are effective

B.

### **Changes in Internal Control Over Financial Reporting**

Since the most recent evaluation of the Registrant's internal controls, there has not been any significant change in the Registrant's internal control over financial reporting that has materially affected or is reasonably likely to materially affect, the Registrant's internal control over financial reporting

C.

### **Notice of Pension Fund Blackout Period**

The Registrant was not required by Rule 104 of Regulation BTR to send any notice to any of its directors or executive officers during the fiscal year ended December 31, 2003.

D.

## **Audit Committee Financial Expert**

The Registrant's board of directors has determined that Paul B. Sweeney, an individual serving on the audit committee of the Registrant's board of directors, is an audit committee financial expert, as that term is defined in General Instruction B(8)(a) of Form 40-F. The Registrant's board of directors has also determined that Paul D. Sweeney, Michael J.J. Maloney and John M. Willson, the individuals serving on the audit committee of the Registrant's board of directors, are independent, as that term is defined under the rules and regulations of the Nasdaq National Market.

E.

#### **Code of Ethics**

The Registrant has adopted a code of ethics that applies to all directors, officers and employees. The Registrant will provide a copy of the code of ethics without charge to any person that requests a copy by contacting the Corporate Secretary, Gordon Jang, at the address on the cover of this Form 40-F.

F.

#### **Principal Accountant Fees and Services**

#### Audit Fees

The aggregate fees billed by Deloitte & Touche LLP, the Registrant's principal accountant (the "Outside Auditors"), for the fiscal years ended December 31, 2002 and 2003 for professional services rendered by the Outside Auditors for the audit of the Registrant's annual financial statements or services that are normally provided by the Outside Auditors in connection with statutory and regulatory filings or engagements for such years were \$107,730 and \$147,117, respectively.

#### Audit-Related Fees

The aggregate fees billed by the Outside Auditors for the fiscal years ended December 31, 2002 and 2003 for assurance and related services rendered by it that are reasonably related to the performance of the audit or review of the Registrant's financial statements and are not reported above as audit fees were nil and nil, respectively.

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#### Tax Fees

The aggregate fees billed by the Outside Auditors for the fiscal years ended December 31, 2002 and 2003 for professional services rendered by it for tax compliance, tax advice, tax planning and other services were Cdn\$7,360 and Cdn\$8,300, respectively.

#### All Other Fees

The aggregate fees billed by the Outside Auditors for the fiscal years ended December 31, 2002 and 2003 for products and services provided by the Outsider Auditors, other than the services reported in the preceding three paragraphs, were Cdn\$77,810 and Cdn\$59,963, respectively. Other products and services during the year ended December 31, 2002 relate to services performed in connection with: (i) quarterly reviews of consolidated financial statements; (ii) the review and preparation of documents and financial statements in connection with a public offering of the Registrant's common shares; (iii) the review and preparation of documents and financial statements in connection with the Registrant's acquisition of Corner Bay Silver Inc.; (iv) certifications required by the lenders to the Registrant's expansion of the La Colorada mine; and (v) a payroll audit. Other products and services during the year ended December 31, 2003 relate to services performed in connection with: (i) quarterly reviews of consolidated financial statements; and (ii) the review and preparation of documents and financial statements in connection with a public offering of 5.25% convertible unsecured senior subordinated debentures.

#### Audit Committee Pre-Approval Policies

Since the enactment of the Sarbanes-Oxley Act of 2002 on July 30, 2002, all audit and non-audit services performed by the Registrant's auditor are pre-approved by the audit committee of the Registrant.

G.

## **Off-Balance Sheet Arrangements**

The Registrant is not a party to any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on its financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

H.

#### **Tabular Disclosure of Contractual Obligations**

The following table sets out the Registrant's known contractual obligations for its long-term liabilities and lease commitments as of the fiscal year ended December 31, 2003.

(US dollars in thousands)

## Payments due by period

		Less than		
	Total	1 year	1 to 3 years	4 to 5 years Thereafter
Long Term debt:				
Convertible Debentures	86,250,000	-	-	- 86,250,000
Huaron Loan	3,521,000	1,625,000	1,896,000	
IFC Loan	9,500,000	1,000,000	6,000,000	2,500,000 -
Total Long Term Debt	99,271,000	2,625,000	7,896,000	2,500,000 86,250,000
Capital Lease	420,500	14,300	406,200	
Total Contractual Obligations	99,691,500	2,639,300	8,302,200	2,500,000 86,250,000

Under the terms of 5.25% convertible unsecured senior subordinated debentures (the "Debentures"), the Registrant has the option to fund annual interest payments of \$4.5 million from the proceeds of the sale of common shares.

On March 30, 2004 the Registrant made a formal offer to encourage conversion by holders of the Registrant's \$86.25 million outstanding principal amount of Debentures. Pursuant to this offer, which is open from April 7, 2004 to May 21, 2004, each holder who converts all or a portion of his or her Debentures during this period will receive \$131.25 in cash plus 106.9290 common shares of the Registrant per \$1,000 principal amount of Debentures converted. To date, holders of approximately \$70.8 million principal amount of Debentures have converted their Debentures pursuant to the terms of this offer.

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On April 28, 2004 the Registrant repaid the \$3.5 million remaining balance on its loan relating to the initial development of the Huaron mine and notified IFC of its intention to prepay the \$9.5 million outstanding balance under its project debt facility used to expand the La Colorada mine.

I.

### **Critical Accounting Policies**

Pan American has chosen to early adopt CICA Handbook Section 3870 - Stock-Based Compensation and Other Stock-Based Payments, which requires the fair value method of accounting for stock options. Under this method, Pan American is required to recognize a charge to the income statement based on an option-pricing model for all stock options that were granted and vested in the 2003 financial year, with a corresponding credit to Additional Paid-in

Capital under the Shareholders' Equity section of the balance sheet. The fair value of the stock options granted was calculated using an option-pricing model based on the following assumptions - no dividends were paid, a weighted average volatility of the Registrant's share price of 58%, weighted average annual risk free rate of 4.03% and an expected life of 3.5 years. The resulting weighted average option valuation is \$2.74 per share for a total expense related to stock options in 2003 of \$2.9 million (2002 - \$0.3 million).

The Registrant has also chosen to early adopt CICA Handbook Section 3110 - Accounting for Asset Retirement Obligations, which is the equivalent of FASB Statement No. 143, which addresses financial accounting and reporting for obligations associated with the retirement of long-lived assets. Accordingly, the Registrant's provision for reclamation of \$13 million was removed from the accounts with a credit to earnings. The expected fair value of future site restoration costs for the La Colorada, Huaron and Quiruvilca mines is estimated using a discount rate of 5% at \$21.2 million, which has been recorded as part of the carrying value of the mines and as a corresponding liability. We estimate the amount of this future liability that has been incurred up until December 31, 2003 was \$13 million, which we have charged to income with a corresponding write down of the carrying value of the assets. Thus, the net effect on income is nil in 2003; however the Registrant's assets and liabilities as stated on the balance sheet have been increased to reflect the fair value of the anticipated future liability. The Registrant will review these estimates on an annual basis. In future periods, assuming no change in estimates, operations will be charged with annual amortization of future site restoration costs of about \$0.8 million and the annual accretion of the liability for future site restoration costs of about \$0.5 million.

The CICA Handbook requires that both Section 3870 and Section 3110 be applied for fiscal year beginning on or after January 1, 2004.

Canadian generally accepted accounting principles ("Canadian GAAP") requires that certain financial instruments with characteristics of both liabilities and equity be recorded as part debt and part equity. On July 30, 2003 the Registrant issued Debentures, which fall into this category of financial instruments and are thus accounted for as explained in Note 11 to the audited consolidated financial statements. A reader might expect the interest cost associated with the Debentures to be reflected in the statement of operations as interest expense. However, Canadian GAAP requires the interest payment be accounted for in a manner parallel to the initial recognition of the Debentures as part debt, recognizing the accretion of the liability component of the Debentures as a charge to earnings, and part equity with the accretion of the Debenture equity component charged directly to the deficit. Similarly, a reader might expect that the Debentures issue costs would be amortized over the minimum life of the Debentures and be reflected as a charge in the statement of operations. Since all of the issue costs were charged to Shareholders' Equity when the Debentures were issued, no amortization of those costs is recorded.

During the third quarter of 2002, the Registrant commenced an expansion program at the La Colorada mine in Mexico. From that point through to December 31, 2003, operating results at La Colorada were capitalized as a "Mineral Property, Plant and Equipment". In 2003, the Registrant spent \$12.3 million on the project expansion, including \$0.9 million in deferred pre-operating costs. From January 1, 2004, La Colorada is in commercial production for accounting purposes and accordingly, all revenues generated and related operating expenses will be accounted for in the Statement of Operations. In addition, the mine's book value will be amortized to earnings on a unit of production basis.

#### A.

## **Undertaking**

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to: the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

В.

## **Consent to Service of Process**

The Registrant has previously filed with the Commission a Form F-X in connection with its Common Shares.

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#### **SIGNATURE**

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereto duly authorized.

#### PAN AMERICAN SILVER CORP.

Dated: May 19, 2004

By: <u>//s Robert Pirooz</u>

By: Robert Pirooz

Title: Vice President, Legal Affairs

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# EXHIBIT INDEX

Number
<u>Document</u>
1.
Consent of Deloitte & Touche LLP
2.
Notice of Meeting and Information Circular for the 2004 Annual Meeting
31.
Certification of CEO and CFO pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.
Certification of CEO and CFO pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

# Exhibit 31

# Certification

## Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Geoffrey Burns, certify that:

1.

I have reviewed this annual report on Form 40-F of Pan American Silver Corp.;

2.

Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3.

Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4.

The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) for the registrant and have:

a.

Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

b.

Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c.

Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5.

The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a.

All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

b.

Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: May 19, 2004

**Ils Geoffrey Burns** 

By: Geoffrey Burns

Title: Chief Executive Officer

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## I, A. Robert Doyle, certify that:

1.

I have reviewed this annual report on Form 40-F of Pan American Silver Corp.;

2.

Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3.

Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4.

The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) for the registrant and have:

a.

Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated

subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

b.

Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c.

Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5.

The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a.

All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

b.

Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: May 19, 2004

s// A. Robert Doyle

By: A. Robert Doyle

Title: Chief Financial Officer

#### **Certification of CEO and CFO**

### Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Pan American Silver Corp. (the "Registrant") on Form 40-F for the year ended December 31, 2003, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Ross J. Beaty, as Chief Executive Officer of the Registrant, and A. Robert Doyle, as Chief Financial Officer of the Registrant, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, that:

(1)

The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2)

The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Registrant.

### **Ils Geoffrey Burns**

By: Geoffrey Burns

Title: Chief Executive Officer

May 19, 2004

#### //s A. Robert Doyle

By: A. Robert Doyle

Title: Chief Financial Officer

May 19, 2004

This certification accompanies the Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Registrant for purposes of §18 of the Securities Exchange Act of 1934, as amended.